RF EXPOSURE REPORT

Applicant	:	HANSHOW PTE. LTD.
Address	:	138 ROBINSON ROAD #02-33 OXLEY TOWER SINGAPORE(068906)
Manufacturer	:	HANSHOW PTE. LTD.
Address	:	138 ROBINSON ROAD #02-33 OXLEY TOWER SINGAPORE(068906)
Equipment under Test	:	Electronic shelf label
Model No.	:	Nebular Ultra 350Q-N
Trade Mark	:	N/A
FCC ID	:	2BPF3-NU1-350Q
Report No.	:	LS-R26042303-7F04
Issue Date	:	Jun. 02, 2026

LabSure Testing Services (Suzhou) Co., Ltd.

www.lab-sure.com
E-mail: labsure @lab-sure.com
Tianjin, China Tel: +86-022-58038033
Suzhou, China Tel: +86-0512-62531270

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Test Report Declare

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Standard Used: KDB447498 D04 General RF Exposure Guidance v01

We Declare:
The equipment described above is assessed by LabSure Testing Services (Suzhou) Co., Ltd. and in the configuration assessed the equipment complied with the standards specified above. The assessed results are contained in this report and LabSure Testing Services (Suzhou) Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these assess.

After evaluation, our opinion is that the equipment In Accordance with above standard.

Report No:	LS-R26042303-7F04		
Date of Receipt:	Apr. 24, 2026	**Date of Test:**	May. 18, 2026 ~ Jun. 02, 2026

Prepared By:	Reviewed By:	Authorized By:
Bacon Dong	leon wu	Chris Zhong
Bacon Dong/Engineer	Leon Wu/Director	Chris Zhong/Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of LabSure Testing Services (Suzhou) Co., Ltd. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.
The results reported herein have been performed in accordance with the laboratory's terms of accreditation.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Jun. 02, 2026	

1. General information

1.1. Description of Equipment

EUT Name	:	Electronic shelf label
Model Number	:	Nebular Ultra 350Q-N
EUT Function Description	:	Please reference user manual of this device
Power supply	:	DC 3V by Polymer Li-ion built-in battery
Radio Technology	:	One 2.4GHz SRD, One Bluetooth (LE), One 13.56MHz NFC
Operation frequency	:	SRD: 2402MHz-2480MHz BLE: 2402MHz-2480MHz NFC: 13.56MHz
Modulation	:	2.4GHz SRD: GFSK Bluetooth (LE): GFSK NFC: ASK
Antenna Type	:	-1.5 dBi (Declare by customer and the lab isn't responsible for the value)
Exposure category	:	General population/uncontrolled environment
Device Type	:	Mobile Device
Target power and tolerance EIRP	:	2.4GHz SRD Max output Power Tune up: 4dbm ± 1dB BLE Max output Power Tune up: 0 bm ± 1dB NFC Maximum PK Field Strength (3m): 46.17dBuv/m

1.2. Assess laboratory

Lab Information	Company Name: LabSure Testing Services (Suzhou) Co., Ltd. Address: Phase II, No.16 Runsheng Road, Suzhou Industrial Park, Suzhou, People's Republic of China. Tel: +86-0512-62531270, E-mail: labsure@lab-sure.com, www.lab-sure.com
Accreditation Certificate	A2LA (Certificate No.: 7346.01) LabSure Testing Services (Suzhou) Co., Ltd. has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1397) LabSure Testing Services (Suzhou) Co., Ltd. has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules. IC (IC Designation No.: 32952; CAB No.:CN0182) LabSure Testing Services (Suzhou) Co., Ltd. has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.
Note 1: All tests measurement facilities use to collect the measurement data are located at Phase II, No.16 Runsheng Road, Suzhou Industrial Park, Suzhou, People's Republic of China Note 2: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. These measurements below 30MHz had been correlated to measurements performed on an OFS. Note 3: The test anechoic chamber in LabSure Testing Services (Suzhou) Co., Ltd. had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.	

2. RF Exposure Evaluation

2.1. Requirement

Systems operating under the provisions of FCC 47 CFR 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.

For purposes of this section, the definitions in § 1.1307(b)(2) of this chapter shall apply. A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the RF source's radiating structure(s) and the body of the user or nearby persons. In this context, the term "fixed location" means that the device is physically secured at one location and is not able to be easily moved to another location while transmitting. Transmitting devices designed to be used by consumers or workers that can be easily re-located, such as wireless devices associated with a personal desktop computer, are considered to be mobile devices if they meet the 20-centimeter separation requirement.

Evaluation of compliance with the exposure limits in § 1.1310 of this chapter, and preparation of an EA if the limits are exceeded, is necessary for mobile devices with single RF sources having either more than an available maximum time-averaged power of 1 mW or more than the ERP listed in Table 1 to § 1.1307(b)(3)(i)(C), whichever is greater. For mobile devices not exempt by § 1.1307(b)(3)(i)(C) at distances from 20 centimeters to 40 centimeters and frequencies from 0.3 GHz to 6 GHz, evaluation of compliance with the exposure limits in § 1.1310 of this chapter is necessary if the ERP of the device is greater than ERP20cm in the formula below. If the ERP of a single RF source at distances from 20 centimeters to 40 centimeters and frequencies from 0.3 GHz to 6 GHz is not easily obtained, then the available maximum time-averaged power may be used (i.e., without consideration of ERP) in comparison with the following formula only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

General frequency and separation-distance dependent MPE-based effective radiated power (ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

TABLE B.1—THRESHOLDS FOR SINGLE RF SOURCES SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

RF Source Frequency			Minimum Distance			Threshold ERP
f_L MHz		f_H MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W
0.3	–	1.34	159 m	–	35.6 m	1,920 R^2
1.34	–	30	35.6 m	–	1.6 m	3,450 R^2/f^2
30	–	300	1.6 m	–	159 mm	3.83 R^2
300	–	1,500	159 mm	–	31.8 mm	0.0128 $R^2 f$
1,500	–	100,000	31.8 mm	–	0.5 mm	19.2R^2
Subscripts L and H are low and high; λ is wavelength. From § 1.1307(b)(3)(i)(C), modified by adding Minimum Distance columns.						

The table applies to any RF source (i.e., single fixed, mobile, and portable transmitters) and specifies power and distance criteria for each of the five frequency ranges used for the MPE limits. These criteria apply at separation distances from any part of the radiating structure of at least λ/2π. The thresholds are based on the general population MPE limits with a single perfect reflection, outside of the reactive near-field, and in the main beam of the radiator.

For mobile devices that are not exempt per Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] at distances from 20 cm to 40 cm and in 0.3 GHz to 6 GHz, evaluation of compliance with the exposure limits in § 1.1310 is necessary if the ERP of the device is greater than ERP20cm in Formula (B.1) [repeated from § 2.1091(c)(1) and § 1.1307(b)(1)(i)(B)].

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm^2)	Averaging Time $\|E\|^2$,$\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	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

Note: f = frequency in MHz ; *Plane-wave equivalent power density

2.2. Calculation method

$$P_{th}(\text{mW}) = ERP_{20\,cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

2.3. Estimation result

The closest distance from all wireless RF components to the touchable handle is 20cm. So we used the 20cm distance to evaluate the MPE

2.4GHz

Mode	Output power Tune up (dBm)	Output power Tune up (mW)	Antenna Gain (dBi)	Antenna Gain (numerical)	Power Density at R=20cm (mW/cm^2)	Limit (mW/cm^2)	Verdict
2.4GHz SRD	5	3.16	-1.5	0.71	0.0004	1	Pass
BLE	1	1.26	-1.5	0.71	0.0002	1	Pass

Pd= (Pout*G)/(4* Pi*R^2)

NFC

Mode	Frequency（MHz）	Maximum PK Field Strength (dB μ V/m)	ERP (dBm)	ERP (mW)	Limit (mW)
Tx mode	13.56MHz	46.17	-44.97	0.00003	1

ERP (dBm)=EIRP (dBm)-2.15=E (dB μ V/m)-95.2+6-2.15

Result: Pass

Conclusion: The measurement results comply with the FCC Limit: 47 CFR FCC Part 1.1307(b)(3)(i)(C) and the requirements of 47 CFR Part 2.1091 for the uncontrolled RF Exposure of Mobile Device

END OF REPORT