



TEST REPORT

Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-4904-0113 FAX: 82-505-299-8311 www.kctl.co.kr	Report No.: KR26-SRF0030-C Page (1) of (8)	eurofins KCTL
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1. Client

- Name : Ceres Tag LTD
- Address : 58-62 Gilbert Road, Lutwyche, Queensland 4030, Australia
- Date of Receipt : 2026-02-03

2. Use of Report : Certification

3. Name of Product / Model : Animal Traceability Device / LX800W

4. Manufacturer / Country of Origin : Ceres Tag LTD / Australia

5. FCC ID : 2A2O3-LX800W

6. Date of Test : 2026-03-13 to 2026-04-01

7. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing
 (Address: 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)

8. Test method used : 47 CRF Part 1.1310

9. Test Result : Refer to the test result in the test report

Affirmation	Tested by Name : Kyeol Kang (Signature) 	Technical Manager Name : Kwonse Kim (Signature)
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2026-05-08

Eurofins KCTL Co.,Ltd.

As a test result of the sample which was submitted from the client, this report does not guarantee the whole product quality. This test report should not be used and copied without a written agreement by Eurofins KCTL Co.,Ltd.

REPORT REVISION HISTORY

Date	Revision	Page No
2026-04-16	Originally issued	-
2026-05-04	Added the note	8
2026-05-07	Added the note	8
2026-05-08	Updated MPE result and notes	8

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Note. The report No. KR26-SRF0030-B is superseded by the report No. KR26-SRF0030-C.

General remarks for test reports

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

☒ Statement not required by the standard or client used for type testing

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1. General information

Client : Ceres Tag LTD
 Address : 58-62 Gilbert Road, Lutwyche, Queensland 4030, Australia
 Manufacturer : Ceres Tag LTD
 Address : 58-62 Gilbert Road, Lutwyche, Queensland 4030, Australia
 Factory : ESCATEC Electronics Sdn. Bhd.
 Address : Industrial Zone 4, 11900 Bayan Lepas, Penang, Malaysia
 Laboratory : Eurofins KCTL Co.,Ltd.
 Address : 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea
 Accreditations : FCC Site Designation No: KR0040, FCC Site Registration No: 687132
 VCCI Registration No. : R-20080, G-20078, C-20059, T-20056
 CAB Identifier: KR0040
 ISED Number: 8035A
 KOLAS No.: KT231

2. Device information

Equipment under test : Animal Traceability Device
 Model : LX800W
 Frequency range : Satellite 1 611.25 MHz ~ 1 618.75 MHz
 BLE 2 402 MHz ~ 2 480 MHz (1M/125k/500k)
 2 404 MHz ~ 2 478 MHz (2M)
 Modulation technique : Satellite : BPSK
 BLE : GFSK
 Number of channels : Satellite : 4 ch
 BLE : 40 ch
 Power source : DC 5 V
 Antenna type : Satellite : PCB Inverted-F Antenna
 BLE : Chip Antenna
 Antenna Gain : Satellite : 1.06 dBi
 BLE : 2.0 dBi
 Software version : 2.2.0
 Hardware version : R2
 Test device serial No. : N/A
 Operation temperature : -10 °C ~ 55 °C

2.1. Frequency/channel operations

This device contains the following capabilities:

Satellite, Bluetooth Low Energy(1M/2M/125k/500k)

Ch.	Frequency (MHz)
A	1 611.25
B	1 613.75
C	1 616.25
D	1 618.75

Table 2.1.1. Satellite

Ch.	Frequency (MHz)
37	2 402
.	.
19	2 440
.	.
39	2 480

Table 2.1.2. Bluetooth Low Energy (1M/125k/500k)

Ch.	Frequency (MHz)
00	2 404
.	.
17	2 440
.	.
36	2 478

Table 2.1.3. Bluetooth Low Energy (2M)

3. Measurement uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014+C63.4a-2017.

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicated a 95 % level of confidence. The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded uncertainty ($\pm$)
Conducted RF power	0.9 dB

4. RF Exposure

Regulation

This document is prepared to show compliance with the RF Exposure requirements as required in §1.1310 of the FCC rules and Regulations.

The limit for Maximum Permissible Exposure (MPE), specified in FCC §1.1310, is listed in Table 1-1. According to FCC §1.1310: the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in §1.1307(b).

Table 1 – Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength [V/m]	Magnetic Field Strength [A/m]	Power Density [mW/cm ²]	Averaging Time [minute]
(A) Limits for Occupational / Controlled Exposure				
0.3 ~ 3.0	614	1.63	*100	6
3.0 ~ 30	1842/f	4.89/f	*900/f ²	6
30 ~ 300	61.4	0.163	1.0	6
300 ~ 1 500	/	/	f/300	6
1 500 ~ 15 000	/	/	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 ²	30
30 ~ 300	27.5	0.073	0.2	30
300 ~ 1 500	/	/	f/1 500	30
1 500 ~ 15 000	/	/	1.0	30

f=frequency in MHz, * = plane-wave equivalent power density

Per the guidance of KDB 680106, the E-field and H-field limits shown in the table above are extended down to 100 kHz

Field reference level exposure exemption limits

Field reference level (FRL) exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm (i.e. mobile devices), except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 1 W (adjusted for tune-up tolerance)
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $4.49/f_{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance)
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz
- at or above 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 5 W (adjusted for tune-up tolerance)

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the EIRP was derived.

4.1. Test results

MPE (Maximum Permissible Exposure) Prediction

Predication of MPE limit at a given distance: Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG / 4\pi R^2 \quad (\Rightarrow R = \sqrt{PG / 4\pi S})$$

S = power density [mW/cm²]

P = Power input to antenna [mW]

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 [cm]

Calculation Result of RF exposure

Maximum tune-up tolerance

Channel	Frequency [MHz]	Max Tune-up Power [dBm]	Max Tune-up Power [mW]	Ant Gain [dBi]	Power density at 20 cm [mW/cm ²]	Limit [mW/cm ²]
Satellite Channel A	1 611.25	27.00	501.19	1.06	0.127 27	1.00
Satellite Channel B	1 613.75	27.00	501.19	1.06	0.127 27	1.00
Satellite Channel C	1 616.25	27.00	501.19	1.06	0.127 27	1.00
Satellite Channel D	1 618.75	27.00	501.19	1.06	0.127 27	1.00
Bluetooth Low Energy (1Mbps)	2 440.00	8.00 ^{Note2)}	6.31	2.00	0.001 99	1.00

Notes:

- The satellite output power for MPE assessment is based on the manufacturer's declared Max. output power 27 dBm in the product specification.
- The BLE tune-up power (Max. tune-up 8 dBm) levels are based on the module's original test report.
- The exposure evaluation was performed on BLE 1 Mbps, as it has the highest output power among the 1 Mbps, 2 Mbps, 125 kbps, and 500 kbps modes.

Simultaneous Transmission Analysis

Operation Mode	Frequency [MHz]	Power Density [mW/cm ²]	Ratio	Ratio Limit
Satellite	1 618.75	0.127 27	0.127 27	≤1.00
Bluetooth Low Energy (1Mbps)	2 440.00	0.001 99	0.001 99	
Summation (Satellite Ratio + Bluetooth Ratio)			0.129 26	

Notes:

- The Ratio for simultaneous transmission is calculated by summing the individual exposure ratios (Power density / Limit) of each operating frequency (Satellite and BLE).
- The calculated ratio is 0.129 26, which is well below the limit of ≤ 1.0, demonstrating full compliance.

End of test report