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FCC TEST REPORT

Report No.....: AB25060014FW03
FCC ID.....: **2A2SN-SKYCELL830**
Applicant.....: SkyCell AG
Address.....: Hardturmstrasse 11 Zurich, Switzerland
Manufacturer.....: IoT X Connect
Address.....: Hardturmstrasse 11 Zurich, Switzerland
Product Name.....: SkyCell
Trade Mark.....: CL 830-SC
Test Model.....: CL 830-DF, CL 830-SC2
Additional Model(s).....: See section 1.1(page 6)
Standard.....: FCC Part 2 (Section 2.1091)
KDB 447498 D01
IEEE C95.1
Date of Receipt.....: 2025.06.05
Date of Issue.....: 2025.07.17
Test Result.....: Pass

Compiled by:
(Printed Name + Signature)

Huaijie Li

Huaijie Li

Supervised by:
(Printed Name + Signature)

Jay Liu

Jay Liu

Approved by:
(Printed Name + Signature)

Mic Cheng

Mic Cheng

Testing Laboratory Name.....: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address.....: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

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FCC TEST REPORT

Test Report No.: AB25060016FW032025.07.17

Date of issue

EUT..... : IoT X Connect

Test Model..... : CL 830-SC

Applicant..... : SkyCell AG

Address..... : Hardturmstrasse 11 Zurich, Switzerland

Telephone..... : 41445376732

Fax..... : /

Manufacturer..... : SkyCell AG

Address..... : Hardturmstrasse 11 Zurich, Switzerland

Telephone..... : 41445376732

Fax..... : /

Test Result**Positive**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

REPORT VERSION

Version No.	Issue Date	Description
01	2025.07.17	Initial Issue

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1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Product Name:	IoT X Connect	
Trade Mark:	SkyCell	
Test Model:	CL 830-SC	
Additional Model(s):	CL 830-DF, CL 830-SC2	
Model Difference:	All models are the same circuit and RF module, except the model name	
Hardware Version:	N/A	
Software Version:	N/A	
Power Supply:	DC 3.7V by battery(2400mAh) or DC 5V 1A from AC/DC adapter	
EUT Supports Function: (Provided by the customer)	E-UTRA Bands:	LTE Band 2/4/5/7/38/40/41
Test Sample(s) Number:	AB25060014-01 (Engineer Sample) AB25020014-02 (Normal Sample)	
Radio Specification Subject to this Report		
2G Band		
Support Networks:	GPRS, EDGE	
Frequency Range:	GSM 850:	824.2MHz~848.8MHz
	GSM 1900:	1850.2MHz~1909.8MHz
Modulation Type:	GPRS:	GMSK
	EDGE:	GMSK, 8PSK
GPRS/EDGE Class:	Class 12	
Antenna Type:	Integral Antenna	
Antenna Gain:	GSM 850:	0.3dBi (Max.)
	PCS 1900:	0.12dBi (Max.)
4G Band		
Support Networks:	Band 2 / 4 / 5 / 7 / 38 / 40 / 41	
Frequency Range:	Band 2	1850MHz~1910MHz
	Band 4	1710MHz~1755MHz
	Band 5	824MHz~849MHz
	Band 7	2500MHz~2570MHz
	Band 38	2570MHz~2620MHz
	Band 40-1	2305MHz~2315MHz
	Band 40-2	2350MHz~2360MHz
	Band 41	2496MHz~2690MHz
Modulation Type:	QPSK, 16QAM	
Antenna Type:	PIFA Antenna	
Antenna Gain:	Band 2	-1.01dBi
	Band 4	-0.9dBi
	Band 5	-0.89dBi
	Band 7	0.28dBi
	Band 38	0.23 dBi
	Band 40-1	0.17dBi
	Band 40-2	0.17dBi
	Band 41	0.18dBi

1.2. DESCRIPTION OF TEST FACILITY

Test Lab: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +(86) 0755 85250797

E-mail: Aibonorm@aibonorm.com

Website: www.Aibonorm.com

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Certificate No.: 7514.01

Aibo Standard Technology (Shenzhen) Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC Accredited Lab.

Designation Number: CN1411

Test Firm Registration Number: 567066

ISED Wireless Device Testing Laboratories

CAB identifier: CN0185

2. RF EXPOSURE EVALUATION

2.1 Limit

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)

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 (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 ²)	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 ²)	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: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm², P_{out} = output power to antenna in mW;

G = gain of antenna in linear scale, π = 3.1416;

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

P_d is the limit of MPE, 1 mW/cm². 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.

2.2 Evaluation Result

GSM 850

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
GMSK	33	1995.262315	0.396944832	0.56	PASS

GSM 1900

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
8PSK	30	1000	0.198943682	1.0	PASS

LTE Band2

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	23.5	223.8721139	0.044537943	1.0	PASS

LTE Band4

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	23.5	223.8721139	0.044537943	1.0	PASS

LTE Band5

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	23.5	223.8721139	0.044537943	0.56	PASS

LTE Band7

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.1886432	0.049972394	1.0	PASS

LTE Band38

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.1886432	0.049972394	1.0	PASS

LTE Band40

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.1886432	0.049972394	1.0	PASS

LTE Band41

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.1886432	0.049972394	1.0	PASS

So a SAR test is not required

*****THE END*****