RF Exposure Evaluation Declaration

FCC ID:	XCO-CONNECT1
Applicant:	Hansong(Nanjing) Technology Ltd.
Application Type:	Certification
Product:	Wireless Transmitter
Model No.:	Easy Connect Pro
Brand Name:	Platin
FCC Classification:	Digital Transmission System (DTS)
Test Procedure(s):	KDB 447498 D01v06

Reviewed By: Kevin Guo

Approved By: Robin Wu

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

Revision History

Report No.	Version	Description	Issue Date	Note
2105RSU034-U2	Rev. 01	Initial Report	12-14-2021	Valid

CONTENTS

1. General Information

1.1. Applicant

Hansong (Nanjing) Technology Ltd.

8th Kangping Road, Jiangning Economy and Technology Development Zone, Nanjing, 211100, China

1.2. Manufacturer

Hansong (Nanjing) Technology Ltd.

8th Kangping Road, Jiangning Economy and Technology Development Zone, Nanjing, 211100, China

1.3. Testing Facility

☒	**Test Site – MRT Suzhou Laboratory**				
	Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China **Laboratory Location (Suzhou - SIP)** 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China				
	Laboratory Accreditations				
	A2LA: 3628.01		CNAS: L10551		
	FCC: CN1166		ISED: CN0001		
	VCCI:	☐R-20025	☐G-20034	☐C-20020	☐T-20020
		☐R-20141	☐G-20134	☐C-20103	☐T-20104
☐	**Test Site – MRT Shenzhen Laboratory**				
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China				
	Laboratory Accreditations				
	A2LA: 3628.02		CNAS: L10551		
	FCC: CN1284		ISED: CN0105		
☐	**Test Site – MRT Taiwan Laboratory**				
	Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)				
	Laboratory Accreditations				
	TAF: L3261-190725				
	FCC: 291082, TW3261		ISED: TW3261		

1.4. Product Information

Product Name	Wireless Transmitter
Model No.	Easy Connect Pro
Brand Name	Platin
Bluetooth Version	Bluetooth v4.1 (Single Mode, BLE)
Wi-Fi Specification	802.11a
Antenna Information	Refer to section 1.5
Power Type	AC/DC Adapter
Accessory	
AC/DC Adapter	Model No.: GPE006E-050100-Z Input: 100-240V~50/60Hz, 0.2A Output: 5.0V⎓1.0A, 5.0W Max

Remark:

1. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.
2. EUT installs an authorized module (FCC ID: UA9800), it can transmit simultaneously with BLE, so we perform co-location RSE test in this report.

1.5. Radio Specification

Frequency Range	2402 ~ 2480MHz
Channel Number	40
Type of Modulation	GFSK
Data Rate	1Mbps
Antenna Type	PCB Antenna
Antenna Gain	2dBi

Note: For other features of this EUT, test report will be issued separately.

2. RF Exposure Evaluation

2.1. Test Limit

According to FCC 1.1310: 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)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $Pd = (Pout*G)/(4*pi*r^2)$

Where

Pd = power density in mW/cm^2

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, $1mW/cm^2$. 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.

2.2. Test Result

Product	Wireless Transmitter
Test Item	RF Exposure Evaluation

Antenna Gain: Refer to clause 1.5.

Test Mode	Frequency Band (MHz)	Maximum conducted power (dBm)	Antenna Gain (dBi)	Maximum EIRP (dBm)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
Bluetooth	2402 ~ 2480	4.34	2.0	6.34	0.0009	1.0
Wi-Fi	5180 ~ 5825	18.80	1.0	19.8	0.0190	1.0

Note: Conducted power of Wi-Fi is from module reports.

CONCLUSION:

The max Power Density at R (20 cm) = 0.0009mW/cm^2 + 0.0190 mW/cm^2 = 0.0199 mW/cm2 < 1 mW/cm2.

Therefore, the compliance distance is 20cm.

Appendix A - EUT Photograph

Refer to “2105RSU034-UE” file.

The End