

TEST REPORT

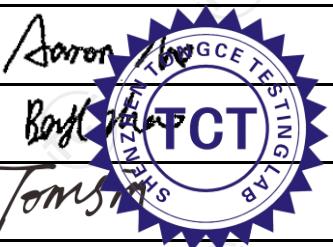
FCC ID.	2BGEF-ACN1-T1C	
Test Report No.	TCT240508E025	
Date of issue	Jun. 04, 2024	
Testing laboratory	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name	ITT Cannon Electronics SZ Ltd.	
Address	Tuopandun Industrial Area, Jinda Cheng, Xiner Village, Shajing Town, Baoan District, Shenzhen City, Guangdong, China	
Manufacturer's name ...	ITT Cannon Electronics SZ Ltd.	
Address	Tuopandun Industrial Area, Jinda Cheng, Xiner Village, Shajing Town, Baoan District, Shenzhen City, Guangdong, China	
Standard(s)	FCC CFR Title 47 Part 1.1307	
Product Name	NACS EV charger coupler	
Trade Mark	ITT	
Model/Type reference	ACN1-T1C-080-2BK-076A-1AP1, ACN1-T1C-048-2BK-076A-1AP1-XXX, ACN1-T1C-050-2BK-076A-1AP1-XXX, ACN1-T1C-XXX-2XX-XXA-1AXX-XXX (Model "X" base on ITT talk dog optional item)	
Rating(s)	DC 5V	
Date of receipt of test item	May 08, 2024	
Date (s) of performance of test	May 08, 2024 ~ Jun. 04, 2024	
Tested by (+signature) ...	Aaron MO	
Check by (+signature)	Beryl ZHAO	
Approved by (+signature):	Tomsin	
General disclaimer:		
This report shall not be reproduced except in full, without the written approval of SHENZHEN TONGCE TESTING LAB. This document may be altered or revised by SHENZHEN TONGCE TESTING LAB personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample.		

Table of Contents

1. General Product Information	3
1.1. EUT description	3
1.2. Model(s) list.....	3
2. General Information.....	4
2.1. Test environment and mode.....	4
2.2. Description of Support Units.....	4
3. Facilities and Accreditations	5
3.1. Facilities	5
3.2. Location	5
4. Test Results and Measurement Data	6

1. General Product Information

1.1. EUT description

Product Name	NACS EV charger coupler
Model/Type reference	ACN1-T1C-080-2BK-076A-1AP1
Sample Number	TCT240508E024-0101
Operation Frequency	433.92MHz
Modulation Technology	FSK
Antenna Type	PCB Antenna
Antenna Gain	-1.75dBi
Rating(s)	DC 5V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

No.	Model No.	Tested with
1	ACN1-T1C-080-2BK-076A-1AP1	<input checked="" type="checkbox"/>
Other models	ACN1-T1C-048-2BK-076A-1AP1-XXX, ACN1-T1C-050-2BK-076A-1AP1-XXX, ACN1-T1C-XXX-2XX-XXXA-1AXX-XXX (Model "X" base on ITT talk dog optional item)	<input type="checkbox"/>

Note: ACN1-T1C-080-2BK-076A-1AP1 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of ACN1-T1C-080-2BK-076A-1AP1 can represent the remaining models.

2. General Information

2.1. Test environment and mode

Item	Normal condition
Temperature	+25°C
Voltage	DC 3.7V
Humidity	56%
Atmospheric Pressure:	1008 mbar
Test Mode:	
Transmitting Mode:	Keep the EUT in continuous transmitting by select channel

2.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
3. For conducted measurements (Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

3. Facilities and Accreditations

3.1. Facilities

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

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

3.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

4. Test Results and Measurement Data

According to §1.1307(b), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Remark: 1) The maximum output power for antenna is -29.49dBm (0.001mW) at 433.92MHz, -1.75dBi antenna gain (with 0.67numeric antenna gain.)

Note: $E[\text{dB}\mu\text{V}/\text{m}] = 70.44$

computational formula

$$\text{EIRP}[\text{dBm}] = E[\text{dB}\mu\text{V}/\text{m}] + 20 \log (d[\text{m}]) - 104.77;$$

Conducted Power = EIRP-4.7;

Where E is the electric field strength in V/m; d is the measurement distance in meters (m)

2) For mobile or fixed location transmitters, no SAR consideration applied. The minimum separation generally be used is at least 20cm, even if the calculation indicate that the MPE distance would be lesser.

Calculation

$$\text{Given } E = \sqrt{\frac{30 \times P \times G}{d}} \quad \& \quad S = \frac{E^2}{3770}$$

Where E = Field Strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power Density in milliwatts / square centimeter

Substituting the MPE safe distance using $d=20\text{cm}$ into above equation.

Yields: $S=0.000199*P*G$

Mode	Power (dBm)	Power (mW)	numeric antenna gain	Power density (mW/cm ²)	Limit (mW/cm ²)	Result
SRD	-29.49	0.001	0.67	0.0000001	0.29	PASS

*******END OF REPORT*******