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RADIO TEST REPORT

Report No: STS2106071H02

Issued for

Shenzhen Coban Electronics Co.,Ltd

5/F, Block 22, Wisdomland Business Park, Guankou 2nd
Road, Nantou, Nanshan District ,Shenzhen, Guangdong,
China.518052

Product Name:	Pet GPS Tracker
Brand Name:	BAANOOL, DI QIU TU XING 
Model Name:	GPS-201
Series Model:	BN-201
FCC ID:	2ATUK-BN-201
Test Standard:	FCC 47CFR §2.1091

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Test Report Certification

Applicant's Name : Shenzhen Coban Electronics Co.,Ltd
Address : 5/F, Block 22, Wisdomland Business Park, Guankou 2nd Road,
Nantou, Nanshan District, Shenzhen, Guangdong, China.518052
Manufacturer's Name : Shenzhen Coban Electronics Co.,Ltd
Address : 602 &702, Bldg. C2, Xinqiao Industrial Park, Tongfuyu Industrial
Area, Xinhe Avenue, Gonghe Community, Shajing Sub-District,
Bao'an District, Shenzhen, Guangdong, China

Product Description

Product Name : Pet GPS Tracker
BAANOOL, DI QIU TU XING

Brand Name :



Model Name : GPS-201

Series Model : BN-201

Standards : FCC 47CFR §2.1091

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Date of Test :

Date of receipt of test item : 09 June. 2021

Date (s) of performance of tests : 09 June. 2021 ~ 24 Jan. 2022

Date of Issue : 24 Jan. 2022

Test Result : **Pass**

Testing Engineer :

(Chris Chen)

Technical Manager :

(Sean she)

Authorized Signatory :

(Vita Li)





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**Revision History**


Rev.	Issue Date	Report No.	Effect Page	Contents
00	24 Jan. 2022	STS2106071H02	ALL	Initial Issue





1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Pet GPS Tracker	
Brand Name	BAANOOL, DI QIU TU XING 	
Model Name	GPS-201	
Series Model	BN-201	
Model Difference	Only different in appearance and color.	
Product Description	The EUT is Pet GPS Tracker	
	Operation Frequency:	Band 5: 824~849MHz
	Modulation Type:	BPSK, QPSK
	Antenna gain:	0dBi
	Antenna Designation:	PIFA Antenna
Rating	Input: DC 5V 300mA	
Battery	Rated Voltage:3.7V Charge Limit Voltage:4.2V Capacity: 450mAh	
Hardware Version	201-V1.03	
Software Version	201_V1.03_220120	

1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01



2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the 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)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1500 – 100000	--	--	1.0

F= Frequency in MHz

Friss Formula

Friss 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 the center of radiator in cm

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.

2.3 EUT OPERATION CONDITION

EUT was enabled to transmit and receive at lowest, middle and highest channels.

2.4 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. Warning statement to the user for keeping at least 20cm or more separation distance from the antenna should be included in the User manual. So, this device is classified as Mobile device.



2.5 TEST RESULT

Turn up

Mode	Detector	Turn up Power
Band 5	AV	27±1dBm

ANT Gain (G)

824-849MHz: 0dBi (gain of antenna in linear scale=1)

Protocol	Max Turn up Power (dBm)	Max Turn up Power (mW)	ANT Gain(gain of antenna in linear scale)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
Band 5	28	630.96	1	0.126	0.549	Pass

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