

TEST REPORT

Product : Pet GPS Tracker
BAANOOL, DI QIU TU XING

Trade mark : 

Model/Type reference : GPS-201, BN-201

Serial Number : N/A

Report Number : EED32N80430701

FCC ID : 2ATUK-BN-201

Date of Issue : Jan. 28, 2022

Test Standards : 47 CFR Part 2
47 CFR Part 22 subpart H
47 CFR Part 24 subpart E

Test result : PASS

Prepared for:

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

Prepared by:

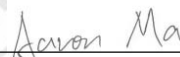
Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China
TEL: +86-755-3368 3668
FAX: +86-755-3368 3385

Compiled by:



Martin Lee

Reviewed by:



Aaron Ma

Approved by:



David Wang

Date:

Jan. 28, 2022

Check No.: 1439010621



1 Version

Version No.	Date	Description
00	Jan. 28, 2022	Original

2 Test Summary

GSM 850			
Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a)/Part 22.913(a)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(ERP)	Part 2.1046(a)/Part 22.913(a)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
99%&26dB Occupied Bandwidth	Part 2.1049(h)	Part 22.917(b) &KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/Part 22.917	Part 22.917(b) &KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 2.1057/ Part 22.917(a)(b)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053/ Part 2.1057/ Part 22.917(a)(b)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/ Part 22.355	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
GSM 1900			
Test Item	Test Requirement	Test method	Result
Conducted output power	Part 2.1046(a) /Part 24.232(c)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Effective Radiated Power of Transmitter(EIRP)	Part 2.1046(a) / Part 24.232(c)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
peak-to-average ratio	Part 2.1046 /Part 24.232(d)	KDB 971168 D01v03r01	PASS
99% &26dB Occupied Bandwidth	Part 2.1049(h)	Part 24.238(b) &KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	Part 2.1051/ Part 24.238(a)	Part 24.238(b) &KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	Part 2.1051/ Part 2.1057/ Part 24.238(a)(b)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	Part 2.1053 /Part 2.1057 / Part 24.238(a)(b)	TIA-603-E-2016&KDB 971168 D01v03r01	PASS
Frequency stability	Part 2.1055/Part 24.235	TIA-603-E-2016&KDB 971168 D01v03r01	PASS

Remark:

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radiated Frequency.

CH: In this whole report CH means channel.

Volt: In this whole report Volt means Voltage.

Temp: In this whole report Temp means Temperature.

Humid: In this whole report Humid means humidity.

Press: In this whole report Press means Pressure.

3 Content

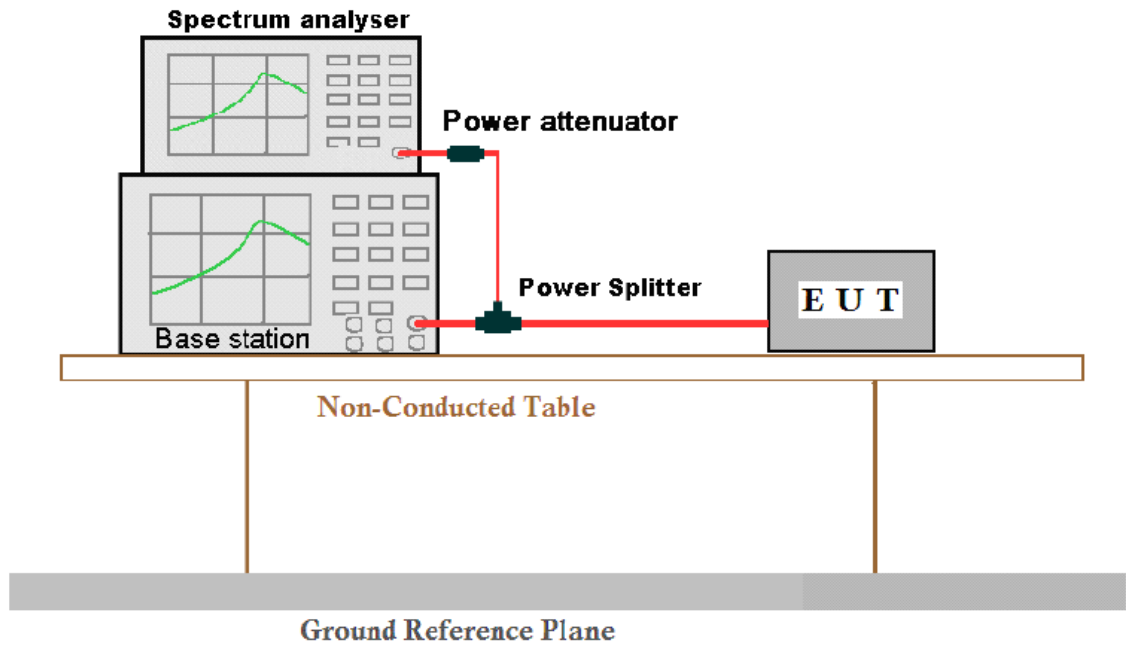
1 VERSION	2
2 TEST SUMMARY	3
3 CONTENT	4
4 TEST REQUIREMENT	5
4.1 TEST SETUP	5
4.1.1 For Radiated Emissions test setup	5
4.2 TEST ENVIRONMENT	6
4.3 TEST CONDITION	7
5 GENERAL INFORMATION	8
5.1 CLIENT INFORMATION	8
5.2 GENERAL DESCRIPTION OF EUT	8
5.3 DESCRIPTION OF SUPPORT UNITS	9
5.4 TEST LOCATION	9
5.5 DEVIATION FROM STANDARDS	9
5.6 ABNORMALITIES FROM STANDARD CONDITIONS	9
5.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER	9
5.8 MEASUREMENT UNCERTAINTY (95% CONFIDENCE LEVELS, K=2)	9
6 EQUIPMENT LIST	10
7 RADIO TECHNICAL REQUIREMENTS SPECIFICATION	12
7.1 CONDUCTED OUTPUT POWER	13
7.2 PEAK-TO-AVERAGE RATIO	14
7.3 99%&26dB OCCUPIED BANDWIDTH	15
7.4 BAND EDGES COMPLIANCE	16
7.5 SPURIOUS EMISSION AT ANTENNA TERMINAL	17
7.6 FREQUENCY STABILITY	18
7.7 EFFECTIVE RADIATED POWER OF TRANSMITTER (ERP/EIRP)	19
7.8 FIELD STRENGTH OF SPURIOUS RADIATION	20
8 APPENDIX A	27
PHOTOGRAPHS OF TEST SETUP	28
PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS	30

4 Test Requirement

4.1 Test setup

4.1.1 For Radiated Emissions test setup

Test setup 1:



Radiated Emissions setup:

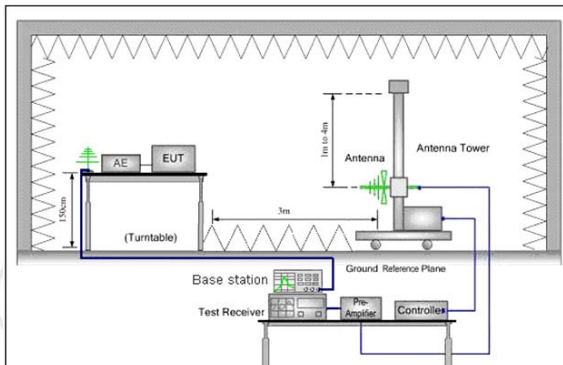


Figure 1. 30MHz to 1GHz

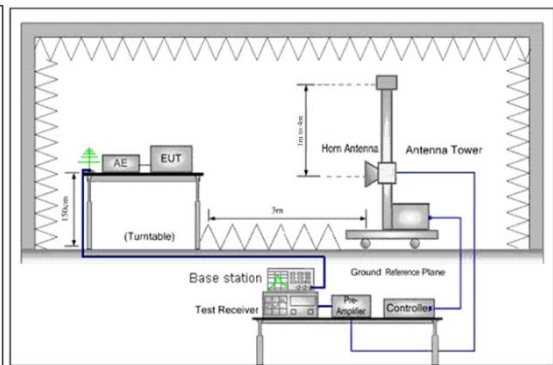


Figure 2. above 1GHz

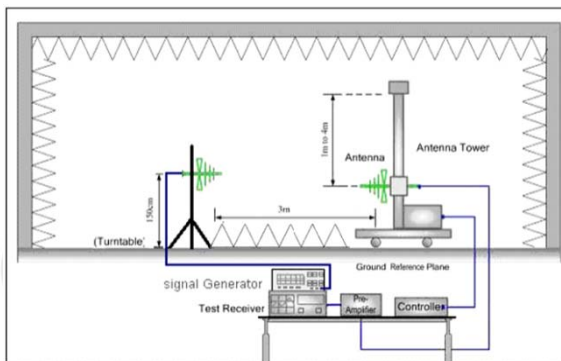


Figure 1. 30MHz to 1GHz

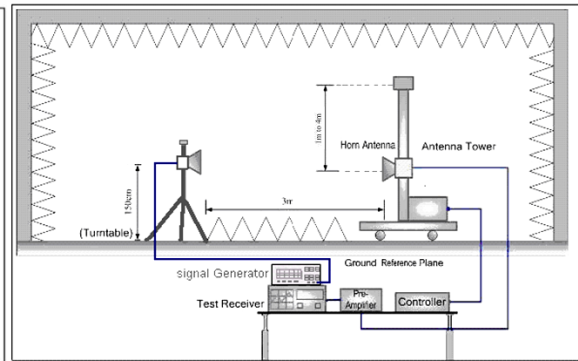


Figure 2. above 1GHz

4.2 Test Environment

Operating Environment:		
Radiated Spurious Emissions:		
Temperature:	22~25.0 °C	
Humidity:	50~56 % RH	
Atmospheric Pressure:	1010mbar	
RF Conducted:		
Humidity:	50~55 % RH	
Atmospheric Pressure:	1010mbar	
Temperature:	NT (Normal Temperature)	22~25 °C
	LT (Low Temperature)	0 °C
	HT (High Temperature)	40.0 °C
Working Voltage of the EUT:	NV (Normal Voltage)	DC 3.7V
	LV (Low Voltage)	DC 4.07V
	HV (High Voltage)	DC 3.33V

4.3 Test Condition

Test channel:

Test Mode	Tx/Rx	RF Channel		
		Low(L)	Middle(M)	High(H)
GSM/GPRS 850	Tx (824 MHz ~849 MHz)	Channel 128	Channel 190	Channel 251
		824.2MHz	836.6 MHz	848.8 MHz
	Rx (869 MHz ~894 MHz)	Channel 128	Channel 190	Channel 251
		869.2 MHz	881.6 MHz	893.8 MHz
GSM/GPRS 1900	Tx (1850 MHz ~1910 MHz)	Channel 512	Channel 661	Channel 810
		1850.2MHz	1880.0 MHz	1909.8 MHz
	Rx (1930 MHz ~1990 MHz)	Channel 512	Channel 661	Channel 810
		1930.2 MHz	1960.0 MHz	1989.8 MHz

Test mode:

band	Radiated	Conducted
GSM/GPRS 850	1)GSM Link 2)GPRS 8 Lin	1)GSM Link 2)GPRS 8 Link
GSM/GPRS 1900	1)GSM Link 2)GPRS 8 Link	1)GSM Link 2)GPRS 8 Link

Test mode:

Test Mode	Test Modes description
GSM/TM1	GSM system, GSM, GMSK modulation
GSM/TM2	GSM system, GPRS, GMSK modulation

5 General Information

5.1 Client Information

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

5.2 General Description of EUT

Product Name:	Pet GPS Tracker
Model No.:	GPS-201, BN-201
Test Model No.:	GPS-201
Trade Mark:	BAANOOL, DI QIU TU XING 
Frequency Band:	GSM/GPRS 850: Tx: 824-849MHz, Rx: 869-894MHz GSM/GPRS 1900: Tx: 1850-1910MHz, Rx: 1930-1990MHz
Modulation Type:	GMSK (GSM/GPRS)
Sample Type:	☐ Mobile ☐ Portable ☒ Fix Location
Antenna Type:	PIFA Antenna
Antenna Gain:	0dB
Power Supply:	Lithium battery: DC 3.7V, Charge by DC 5V
Test Voltage:	DC 3.7V
Sample Received Date:	Oct. 12, 2021
Sample tested Date:	Oct. 12, 2021 to Dec. 10, 2021

Note:

Model No.: GPS-201, BN-201

Only the model GPS-201 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being color of appearance and model name.