CCIS **Shenzhen Zhongjian Nanfang Testing Co., Ltd.**

Report No: CCIS13070022505

TEST REPORT

Applicant:	Shenzhen Concox Information Technology Co., Ltd
Address of Applicant:	Floor 4th, Building B, Gaoxinqi Industrial Park, Liuxian 1st Road, District 67, Bao'an, Shenzhen, Guangdong

Equipment Under Test (EUT)

Product Name:	GPS Vehicle tracker
Model No.:	TR02,TR02N,TR02A,GT02A,GT02B,GT02D
Applicable standards:	EN 50385 :2002
Date of sample receipt:	18 Jul., 2013
Date of Test:	19 Jul., to 22 Jul., 2013
Date of report issue:	23 Jul., 2013
Test Result :	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives. The protection requirements with respect to electromagnetic compatibility contained in Directive 1999/5/EC are considered.

Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

2 Version

Version No.	Date	Description
00	*23 Jul., 2013*	*Original*

Prepared By:  ***Date:*** *23 Jul., 2013*

Report Clerk

Check By:  ***Date:*** *23 Jul., 2013*

Project Engineer

3 Contents

4 General Information

4.1 Client Information

Applicant:	Shenzhen Concox Information Technology Co., Ltd
Address of Applicant:	Floor 4th, Building B, Gaoxinqi Industrial Park, Liuxian 1st Road, District 67, Bao'an, Shenzhen,Guangdong
Manufacturer:	Shenzhen Concox Information Technology Co., Ltd
Address of Manufacturer:	Floor 4th, Building B, Gaoxinqi Industrial Park, Liuxian 1st Road, District 67, Bao'an, Shenzhen,Guangdong

4.2 General Description of E.U.T.

Product Name:	GPS Vehicle tracke	
Model No.:	TR02,TR02N,TR02A,GT02A,GT02B,GT02D	
Power supply:	DC 12V	
Operating Temperature:	-25℃ to +55℃	
Operating Humidity:	up to 95%	
Operating frequency:	E-GSM900	TX: 880---915MHz
		Rx: 925---960 MHz
	DCS1800	TX: 1710--1785 MHz
		RX: 1805----1880 MHz
GPRS class:	12	
Modulation:	GMSK	
Antenna Type	Integral	
Antenna gain:	-1 dBi	
Hardware Version:	GT02B_MB_V2.2	
Software Version:	MT6252_S01.TR02B_21_8MM_CTA	
Remark:	The Model: TR02,TR02N,TR02A,GT02A,GT02B,GT02D were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being different model number.	

4.3 Operating Modes

Operating mode	Detail description
Transmitting mode	Keep the EUT in maximum output power.

4.4 Description of Support Units

The EUT has been tested as an independent unit.

4.5 Deviation from Standards

None

4.6 Abnormalities from Standard Conditions

None

4.7 Other Information Requested by the Customer

None

4.8 Laboratory Facility

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

● **FCC - Registration No.: 817957**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in out files. Registration 817957, February 27, 2012.

● **IC - Registration No.: 10106A-1**

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L6048**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

4.9 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

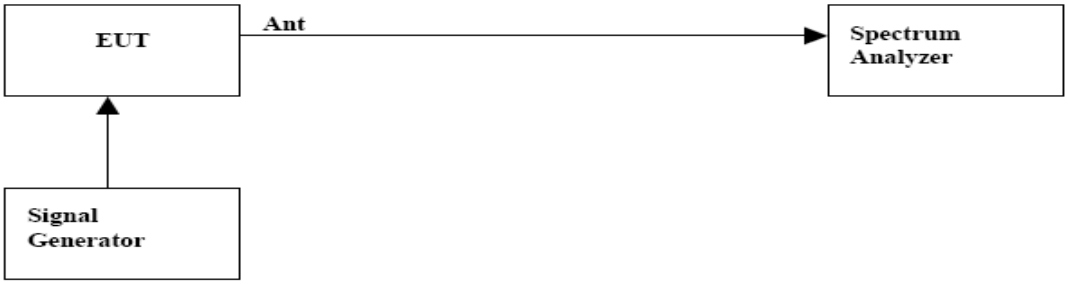
Address: No.B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China

Tel: 0755-23118282

Fax: 0755-23116366

5 Technical Requirements Specification in EN 50385

Test standard:	EN 50385:2002
Output Power test setup:	
Limit:	According to section 5 of EN 50385: 2002. the base station shall comply with the relevant limits for general public exposure specified as basic restrictions or reference levels in the Council Recommendation 1999/519/EC.

Frequency Range	E-field Strength (V/m)	H-Field Strength (A/m)	B-field (uT)	Equivalent plane wave power density S (W/m^2)
0-1 Hz	--	3.2×10^4	4×10^4	--
1-8 Hz	10000	$3.2 \times 10^4 / f^2$	$4 \times 10^4 / f^2$	--
8-25 Hz	10000	4000/f	5000/f	--
0.025-0.8kHz	250/f	4/f	5/f	--
0.8-3kHz	250/f	5	6.25	--
3-150kHz	87	5	6.25	--
0.15-1MHz	87	0.73/f	0.92/f	--
1-10MHz	$87/f^{1/2}$	0.073/f	0.92/f	--
10-400MHz	28	0.073	0.092	2
400-2000MHz	$1.375\ f^{1/2}$	$0.0037\ f^{1/2}$	$0.0046\ f^{1/2}$	f/200
2-300GHz	61	0.16	0.20	1.0
Notes:1. f as indicated in the frequency range column.				

Classification of the assessment method:	The antenna of the 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 20 cm separation distance and the prohibition of operating to a person has been printed on the user's manual. So, this product under normal use is located on electromagnetic far field between the human body.

Far Field Calculation Formula

$$E = \frac{\sqrt{30PG(\theta,\phi)}}{r}$$

G = antenna gain relative to an isotropic antenna

θ, ϕ = elevation and azimuth angles to point of investigation

r = distance from observation point to the antenna

Evaluation Data

Direction	Maximum Output power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	E-Field Strength (V/m)	E-Field Strength Limit (V/m)	Result
GSM 900							
Low	31.36	1367.73	-1	0.79	28.55	40.79	Pass
Middle	31.20	1318.26	-1	0.79	28.02	41.30	Pass
High	31.08	1282.33	-1	0.79	27.64	41.59	Pass
DCS 1800							
Low	29.54	899.50	-1	0.79	23.15	56.86	Pass
Middle	29.83	961.61	-1	0.79	23.93	57.48	Pass
High	30.08	1018.59	-1	0.79	24.63	58.09	Pass
GPRS 900							
Low	31.43	1389.95	-1	0.79	28.78	40.79	Pass
Middle	31.24	1330.45	-1	0.79	28.15	41.30	Pass
High	31.10	1288.25	-1	0.79	27.70	41.59	Pass
GPRS 1800							
Low	29.68	928.97	-1	0.79	23.53	56.86	Pass
Middle	29.83	961.61	-1	0.79	23.93	57.48	Pass
High	30.04	1009.25	-1	0.79	24.52	58.09	Pass

------End of report------