RF Exposure Evaluation Declaration

Product Name	:	GPS Locator
Model No.	:	GV300
FCC ID	:	YQD-GV300

Applicant : Queclink Wireless Solutions Co.,Ltd

Address : Room 501, Building 9, No 99, TianZhou Road, Shanghai, China

Date of Receipt	:	25/10/2011
Issued Date	:	04/11/2011
Report No.	:	11AS044R-RF-US
Report Version	:	V1.1

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF, NVLAP, NIST or any agency of the Government.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

QuieTek

Test Report Certification

Issued Date : 04/11/2011 Report No. : 11AS044R-RF-US



Product Name	:	GPS Locator	
Applicant	:	Queclink Wireless Solutions Co.,Ltd	
Address	:	Room 501, Building 9, No 99, TianZhou Road, Shanghai,	
		China	
Manufacturer	:	Queclink Wireless Solutions Co.,Ltd	
Address	:	Room 501, Building 9, No 99, TianZhou Road, Shanghai,	
		China	
Model No.	:	GV300	
FCC ID	:	YQD-GV300	
EUT Voltage	:	DC 3.4~4.2V	
Trade Name	:	Queclink	
Applicable Standard	:	FCC OET 65	
Test Result	:	Complied	
Performed Location	:	Suzhou EMC Laboratory	
		No.99 Hongye Rd., Suzhou Industrial Park Loufeng	
		Hi-Tech Development Zone., Suzhou, China	
		TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098	
		FCC Registration Number: 800392	
Documented By	:	Alice Ni	
		(Engineering ADM: Alice Ni)	
Reviewed By	:	Bobin Wu.	
		(Senior Engineer: Robin Wu)	
Approved By	:	Marlinchen	
		(Engineering Supervisor: Marlin Chen)	

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Laboratory Information

We, **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

:	BSMI, NCC, TAF
:	TUV Rheinland
:	Nemko, DNV
:	FCC, NVLAP
:	VCCI
	::

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : <u>http://www.quietek.com/tw/ctg/cts/accreditations.htm</u> The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : <u>http://www.quietek.com/</u>

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory :

No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.TEL:+886-3-592-8858 / FAX:+886-3-592-8859E-Mail : service@quietek.com







LinKou Testing Laboratory :

No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen, Lin-Kou Shiang, Taipei, Taiwan, R.O.C. TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : <u>service@quietek.com</u>



Suzhou (China) Testing Laboratory :

No. 99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., Suzhou, China. TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 E-Mail: <u>service@quietek.com</u>







Testing Laborator 0914

1. **RF Exposure Evaluation**

1.1. Limits

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)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm2)	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

Friis Formula

Friis transmission formula: Pd = (Pout*G)/(4*pi*r2)

Where

Pd = power density in mW/cm2

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 id the limit of MPE, 1 mW/cm2. 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.

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1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18° C and 78°_{\circ} RH.

1.3. Test Result of RF Exposure Evaluation

Product	•	GPS Locator	
Test Item	:	RF Exposure Evaluation	
Test Site	:	AC-6	

Antenna Gain:

Antenna Gain: The maximum Gain measured in fully anechoic chamber is -3dBi for 824~894MHz band; -1dBi for 1850~1990MHz band.

Output Power into Antenna & RF Exposure Evaluation Distance:

Operation Mode	Frequency Range (MHz)	Output Power to Antenna (dBm)	Limit of Power Density S(mW/cm2)	Safety Distance r(cm)
GSM850	824~849	32.20	0.55	34.69
PCS1900	1850~1910	28.73	1	21.72

So the safety distance is 34.69cm for GPS Locator installed without any other radio equipment.