RF Exposure Evaluation Declaration

Product Name : GPS Locator

Model No. : GV50VC

FCC ID: YQD-GV50VC

Applicant : Queclink Wireless Solutions Co.,Ltd
Address : Room 501, Building 9, No 99, TianZhou Road, Shanghai, China

Date of Receipt : 26-02-2016

Issued Date : 10-03-2016

Report No. : UL126 20160226 FCC002-5

Report Version : V1.0

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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. :	GV50VC
EUT Voltage	Extreme Low:6V,Normal:12V, Extreme High:16V
Brand Name :	Queclink
Applicable Standard :	FCC Rules(47 C.F.R.1.1310 and 2.1093)
Test Result :	Complied
Performed Location :	Unilab (Shanghai) Co.,Ltd.
	FCC 2.948 register number is 714465
	No.1350, Lianxi Road, Pudong New District, Shangha, China
	TEL:+86-21-5027-5125/FAX:+86-21-5027-5126-876

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(Technical Engineer: Lam zhang)

Reviewed By : Forest cao

(Senior Engineer: Forest Cao)

Approved By : Eva wang

(Supervisor: Eva Wang)

1. EUT Description

Product Name:	GPS Locator
Model Name:	GPS Locator
Hardware Version:	1.02
Software Version:	A01V01
RF Exposure Environment:	Uncontrolled
CDMA2000	
Support Band:	CDMA2000 BC0/BC1
Tx Frequency Range:	CDMA2000 BC0: 824.70 MHz to 848.31MHz CDMA2000 BC1: 1851.25MHz to 1908.75MHz
Rx Frequency Range:	CDMA2000 BC0: 869.70 MHz to 893.31MHz CDMA2000 BC1: 1931.25MHz to 1988.75MHz
Type of modulation:	QPSK
Antenna Type:	soldered on PCB
Antenna Peak Gain:	CDMA2000 BC0: 0.5dBi CDMA2000 BC1: 1.5dBi

2. RF Exposure Evaluation

2.1 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)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range(MHz)	Electric Filed Strength (V/m)	Magnetic Filed Strength (A/m)	Power Density (mW/cm2)	Average Time (Minutes)
(A)Limits for Occupation/Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B)Limits for General Occupation/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*R^2)

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.

2.2.Test Result of RF Exposure Evaluation

This device is evaluated by mobile device with general population/uncontrolled exposure condition For this device, the calculation is using the most conservative values, and the results are as follows:

EIRP=ERP+2.15

Test Mode	ERP (dBm)	EIRP (dBm)	Peak EIRP (mW)	Calculated RF Exposure at d = 20cm (mW/cm2)	MPE Limit (mW/cm2)
CDMA2000 BC0	22.34	24.49	281.19	0.056	0.56
CDMA2000 BC1	/	23.20	208.93	0.042	1.00

Test Mode	Antenna Gain (dBi)	Maximum Output Power (dBm)	Maximum Output Power From Antenna (mW)	Calculated RF Exposure at d = 20cm (mW/cm2)	MPE Limit (mW/cm2)
CDMA2000 BC0	0.5	25	354.81	0.071	0.56
CDMA2000 BC1	1.5	25	446.68	0.089	1.00

This device can pass RF exposure limit.