RF Exposure Evaluation Declaration

Product Name : GPS Locator

Model No. : GMT100

FCC ID : YQD-GMT100

Applicant : Queclink Wireless Solutions Co.,Ltd.

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

Date of Receipt : 25/03/2014

Issued Date : 08/04/2014

Report No. : UL12620140325FCC010-3

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. :	GMT100
EUT Voltage	Extreme Low:8V,Nominal:12V/24V,Extreme High:32V
Brand Name :	Queclink
Applicable Standard :	FCC OET Bulletin 65 Supplement C (Edition 01-01)
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:+86-21-5027-7862

Documented By : Andy Wei
(Technical Engineer: Andy Wei)

Reviewed By : Forest Cao
(Senior Engineer: Forest Cao)

Approved By : Eva Wang
(Supervisor: Eva Wang)

1. EUT Description

Product Name:	GPS Locator
Model Name:	GMT100
Hardware Version:	V1.06
Software Version:	GMT100R00A07V08M128_NMX
RF Exposure Environment:	Uncontrolled
GSM/GPRS	
Support Band:	GSM850/PCS1900
GPRS Class:	10
Tx Frequency Range:	GSM850: 824.2MHz to 848.8MHz PCS1900: 1850.2MHz to 1909.8MHz
Rx Frequency Range:	GSM850: 869.2MHz to 893.8MHz PCS1900: 1930.2MHz to 1989.8MHz
Type of modulation:	GSM/GPRS: GMSK
Antenna Type:	Internal
Antenna Peak Gain:	GSM 850: -3dBi PCS 1900: -1dBi

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*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.

2.2.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: 22℃and 45 RH.

2.3.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:

Test Mode	ERP (dBm)	EIRP (dBm)	Peak EIRP (mW)	Average EIRP (mW)	Calculated RF Exposure at d = 20cm (mW/cm2)	MPE Limit (mW/cm2)
GSM850	27.64	29.79	952.80	119.95	0.02	0.55
PCS1900	/	27.19	511.68	65.92	0.01	1.00
GPRS850	27.38	29.53	897.43	112.98	0.02	0.55
GPRS1900	/	26.45	441.57	55.59	0.01	1.00

This device complied with the RF exposure limit.