



RF Exposure Evaluation Declaration

Report No.: S20250724049403

Issue Date: 2025-12-03

Applicant: Queclink Wireless Solutions Co., Ltd.

Address: No.30, Lane 500, Xinlong Road, Minhang District, Shanghai,
China, 201101

FCC ID: YQD-GL601CAU

Application Type: Certification

Product: GPS Tracker

Model No.: GL601CAU

Trade Mark: Queclink

FCC Rule Part(s): CFR 47, FCC Part 2.1091 Radio frequency radiation exposure
evaluation: mobile devices.

Item Receipt date: Aug. 22, 2025

Test Date: Aug. 25 ~ Dec. 01, 2025



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Compiled By

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(Stone Zhang)

Senior Test Engineer

Approved By

Line Chen

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Engineer Manager



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 558074 D01. Test results reported herein relate only to the item(s) tested.

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The test report must not be used by the client to claim product certifications, approval, or endorsement by NVLAP, NIST or any agency of U.S. Government.

Revision History

Report No.	Version	Description	Issue Date
S20250724049403	Rev. 01	/	2025-12-03

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§2.1033 General Information

Applicant:	Queclink Wireless Solutions Co., Ltd.
Applicant Address:	No.30, Lane 500, Xinlong Road, Minhang District, Shanghai, China, 201101
Manufacturer:	Queclink Wireless Solutions Co., Ltd.
Manufacturer Address:	No.30, Lane 500, Xinlong Road, Minhang District, Shanghai, China, 201101
Factory:	Queclink Wireless Solutions Co., Ltd.
Factory Address:	No.30, Lane 500, Xinlong Road, Minhang District, Shanghai, China, 201101
Test Site:	Fanguang Inspection & Testing Co., Ltd.
LAB ID:	CN5037
LAB registration number:	600222-0
Test Site Address:	No.8 Ningyun Rd., Xinwu District Wuxi, Jiangsu 214000 China
FCC Rule Part(s):	FCC Part 2.1091
FCC ID:	YQD-GL601CAU
Test Device Serial No.:	S/N.: / ☐ Production ☒ Pre-Production ☐ Engineering

1. Product Information

1.1. Equipment Description

Product Name:	GPS Tracker
Test Model:	GL601CAU
Trade Mark:	Queclink
Input Voltage Range:	DC 3.7V
Software Version:	+VER,2,GL601CAU_FCTR20A01V01
Hardware Version:	+VER,4,HWR104
EUT sample number:	S202507240494-1-1 (Conducted) S202507240494-1-2 (Radiated)

Note: This information is provided by the Customer and its authenticity is the responsibility of the Customer.

1.2. Product Specification Subjective to this Report

Operating Frequency	BLE: 2402~2480MHz 802.11b/g/n-HT20: 2412 ~ 2462MHz 802.11n-HT40: 2422 ~ 2452MHz GSM 850: 824~849MHz (TX);869~894MHz (RX) PCS 1900: 1850~1910MHz (TX);1930~1990MHz (RX) LTE Band2: 1850~1910MHz (TX);1930~1990MHz (RX) LTE Band4: 1710~1755MHz (TX);2110~2155MHz (RX) LTE Band5: 824~849MHz (TX);869~894MHz (RX) LTE Band7: 2500~2570MHz (TX);2620~2690MHz (RX) LTE Band66: 1710~1780MHz (TX);2110~2200MHz (RX)
Number of Channels	BLE: 40 802.11b/g/n-HT20: 11 802.11n-HT40: 7
Channel Spacing	BLE: 2MHz 802.11b/g/n-HT20/n-HT40: 5MHz GSM 850/ PCS 1900: 200kHz LTE Band2/4/5/7/66: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
Type of modulation	BLE: GFSK 802.11g/n-HT20/n-HT40: OFDM GSM 850/ PCS 1900: GMSK LTE Band2/4/5/7/66: QPSK, 16QAM
Antenna Type:	BLE: PIFA antenna 802.11b/g/n-HT20/n-HT40: Chip antenna

	GSM 850/ PCS 1900/LTE Band2/4/5/7/66: PIFA antenna
Antenna Gain:	BLE: 2.72dBi 2.4G-WiFi: 3.0dBi GSM 850/ PCS 1900/LTE Band2/4/5/7/66: 700 ~ 960MHz: -0.55dBi 1700 ~ 2700MHz: 1.39dBi

Note:The maximum Antenna Gain was declared by the manufacturer.

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 Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	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

Calculation Formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

r = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1mW/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.

For simultaneous transmission exposure cases, calculation formula is:

$$\sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

2.2. Calculation Method

Temperature:	23.5 °C
Relative Humidity:	46 %
ATM Pressure:	100.4 kPa
Test Data:	2025-11-28
Test Engineer:	Stone Zhang

Product	GPS Tracker
Test Item	RF Exposure Evaluation

Mode	Frequency (MHz)	Maximum Conducted Output Power (dBm)	Antenna Gain (dBi)	PG		MPE (mW/cm ²)	MPE Limits (mW/cm ²)
				(dBm)	(mW)		
BLE	2402 ~ 2480	-7.80	2.72	-5.08	0.31	0.0001	1.00
802.11b	2412 ~ 2462	16.81	3.00	19.81	95.72	0.0190	1.00
GSM 850	824 ~ 849	27.00	-0.55	26.45	441.57	0.0878	0.55
PCS 1900	1850 ~ 1910	23.00	1.39	24.39	274.79	0.0547	1.00
LTE Band 2	1850 ~ 1910	25.70	1.39	27.09	511.68	0.1018	1.00
LTE Band 4	1710 ~ 1755	25.70	1.39	27.09	511.68	0.1018	1.00
LTE Band 5	824 ~ 849	25.70	-0.55	25.15	327.34	0.0651	0.55
LTE Band 7	2500 ~ 2570	25.70	1.39	27.09	511.68	0.1018	1.00
LTE Band 66	1710 ~ 1780	25.70	1.39	27.09	511.68	0.1018	1.00

Remark: 1. MPE use distance is 20cm from manufacturer declaration of user manual.

Remark: 2. Use the maximum gain of all bands when evaluating.

Remark: 3. For simultaneous transmission is WLAN and GSM 850 (worst case).

$$\sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} = 0.0190 + 0.1596 = 0.2786 < 1.$$

CONCLUSION:

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

Statement

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No.8 Ningyun Rd., Xinwu District Wuxi, Jiangsu 214000 China

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