RF Exposure Evaluation Declaration

Report No.: S20250307068801E02
Issue Date: 04-10-2025

Applicant:	Queclink Wireless Solutions Co., Ltd.
Address:	No.30, Lane 500, Xinlong Road, Minhang District, Shanghai, China, 201101
FCC ID:	YQD-WID330
Application Type:	Certification
Product:	BLE Beacon
Model No.:	WID330
Trade Mark:	Queclink
FCC Rule Part(s):	CFR 47, FCC Part 2.1091 Radio frequency radiation exposure evaluation: mobile devices.
Item Receipt date:	Mar. 10, 2025
Test Date:	Mar. 11 ~ Mar. 21, 2025

Compiled By: Stone Zhang. (Stone Zhang) Senior Test Engineer

Approved By: Line Chen (Line Chen) 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.

The test report shall not be reproduced except in full without the written approval of Fangguang Inspection & Testing Co., Ltd. Wuxi Branch
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
S20250307068801E02	Rev. 01	/	04-10-2025

CONTENTS

§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:	Fangguang Inspection & Testing Co., Ltd.
LAB ID:	CN5037
Test Site Address:	No.8 Ningyun Rd., Xinwu District Wuxi, Jiangsu 214000 China
FCC Rule Part(s):	FCC Part 2.1091
FCC ID:	YQD-WID330
Test Device Serial No.:	S/N.: / ☐ Production ☒ Pre-Production ☐ Engineering

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name:	BLE Beacon
Test Model:	WID330
Trade Mark:	Queclink
Input Voltage Range:	DC 3V
Software Version:	WID330_BT_R00A01V06.hex
Hardware Version:	V1.01
EUT sample number:	S20250307068801-1-1

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

Bluetooth Frequency	BLE: 2402~2480MHz
Number of Channels	BLE: 40
Channel Spacing	2MHz
Type of modulation	GFSK
Data Rate	1Mbps
Antenna Type:	PCB Antenna
Antenna Gain:	1.37dBi

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: $Pd = (Pout*G)/(4*pi*r^2)$

Where

Pd = power density in mW/cm^2

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 is the limit of MPE, $1mW/cm^2$. 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. Calculation Method

Temperature:	19.8 °C
Relative Humidity:	32 %
ATM Pressure:	100.8 kPa
Test Data:	2025-03-19
Test Engineer:	Stone Zhang

Product	BLE Beacon
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	0.22	1.37	1.59	1.44	0.0003	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

CONCULISON:

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

1. This report is invalid for the following states: without the special inspection and testing stamp or the official stamp of our institution; without the signature of the report authorized officer; if the report is altered.

2. It is forbidden to copy partial contents of the report except in full without the approval of our institution.

3. The client shall provide the test sample(s) and commission information and be responsible for their authenticity.

4. The report content is only applicable to the tested sample(s) this time.

5. If there are any objections to the report content, please submit them to our company in writing within 15 days from the date of receiving the report.

6. If the reports include both Chinese and English versions, when there are any inconsistencies caused by language, the Chinese version shall prevail.

7. Information about laboratory sites involved in our company:

   No.2, Fangda Road, Yunpu Industrial Zone, Huangpu District, Guangzhou, Guangdong, China (Huangpu Laboratory)

   Building 2 and Building 3, GRGTest Science and Technology Industrial Park, No.8, Chuangyun Road, Panyu District, Guangzhou, Guangdong, China (Panyu Laboratory)

   Building G9, China Sensor Network International Innovation Park, No.200, Linghu Avenue, Wuxi, Jiangsu, China (Wuxi Innovation Park Laboratory)

   Building 3, Maoxuan Industrial Park, No.81, Jinma Road, Hongshan Subdistrict, Xinwu District, Wuxi, Jiangsu, China (Maoxuan Industrial Park Laboratory)

   3/F., Comprehensive Laboratory Building, No.8, Ningyun Road, Xinwu District, Wuxi, Jiangsu, China (Ningyun Road Laboratory)

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