



RF Exposure Evaluation Declaration

Report No.: S202211098207E03

Issue Date: 01-06-2023

Applicant: Taicang Zhigengniao Information Technology Co.,Ltd.

Address: No.20 JianxiongRoad TaicangCity China

FCC ID: 2AT6R-AP2D

Application Type: Certification

Product: ANNE PRO 2D Mechanical Keyboard

Model No.: ANNE PRO 2D

Trade Mark: **HEXCORE**

FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part 15 Subpart C (15.247)

Test Procedure(s): ANSI C63.10-2013, KDB 558074 D01v05r02

Test Date: Nov 23~ Dec 19, 2022

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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 Fanguang 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
S202211098207E03	Rev. 01	/	01-06-2023

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name:	ANNE PRO 2D Mechanical Keyboard
Model Name:	ANNE PRO 2D
Additional Model:	/
Trade Mark:	HEXCORE
Ratings :	Input: 5V---500mA
Bluetooth Version:	4.0

1.2. Product Specification Subjective to this Report

Bluetooth Frequency	2402~2480MHz
Bluetooth Version	4.0
Type of modulation	GFSK
Data Rate	1Mbps
Antenna Type:	PCB Antenna
Antenna Gain:	-2.76dBi

2. RF Exposure Evaluation

2.1. Limits

According to KDB447498 D01 General RF Exposure Guidance v06 Section 4.3.1 Standalone SAR test exclusion considerations: “Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition, listed below, is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander (see 5) of section 4.1). To qualify for SAR test exclusion, the test separation distances applied must be fully explained and justified by the operating configurations and exposure conditions of the transmitter and applicable host platform requirements, typically in the SAR measurement or SAR analysis report, according to the required published RF exposure KDB procedures. When no other RF exposure testing or reporting is required, a statement of justification and compliance must be included in the equipment approval, in lieu of the SAR report, to qualify for the SAR test exclusion. When required, the device specific conditions described in the other published RF exposure KDB procedures must be satisfied before applying these SAR test exclusion provisions;

for example, handheld PTT two-way radios, handsets, laptops & tablets etc. “

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot [VF \text{ (GHz)}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where:}$$

- f (GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to f) in section 4.1 is applied to determine SAR test exclusion.

2.2. Calculation Method

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$

Conducted Power + tune up tolerance = -4.06dBm = 0.39mW

Distance = 5 mm

f = 2.48

$[0.39/5] \cdot \text{SQRT}(2.48) = 0.12$

$0.12 \leq 3.0$

Therefore, excluded from SAR testing.

CONCLUSION:

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

————— The End —————