



**FCC OET BULLETIN 65 SUPPLEMENT c
(EDITION 01-01)
RF exposure evaluation report**

For

Ventus X Plus

Model : MO-VXP-WDLOBK-01
Trade Name: Tt eSPORTS by Thermaltake

Issued to
Thermaltake Technology Co., Ltd.
5F., No.185, Sec.2, Tiding Blvd Neihu Dist., Taipei City 114, Taiwan

Issued by
Global Certification Corp.
**No.146, Sec. 2, Xiangzhang Rd., Xizhi Dist., New Taipei City 221,
Taiwan (R.O.C.)**

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Table of Contents

1. GENERAL INFORMATION..... 3

2. DESCRIPTION OF THE TESTED SAMPLES..... 4

3. RF EXPOSURE INTRODUCTION 5

4. ADMINISTRATION DATA.....7

 4.1 Testing Laboratory7

 4.2 Applicant.....7

 4.3 Manufacturer.....7

5. GENERAL INFORMATION.....8

 5.1 Description of Device Under Test (DUT)8

 5.2 Maximum RF output power among production units8

5.3 Applied Standard.....8

6. RF EXPOSURE EVALUATION9



1. General Information

Applicant : THERMALTAKE TECHNOLOGY CO., LTD.
Address : 5F., No.185, Sec.2, Tiding Blvd Neihu Dist., Taipei City 114, Taiwan
Manufacturer : DEXIN Corporation
Address : ShiTan Pu Industrial , Tangxia Town, Dongguan , Guangdong ,
China
EUT : Ventus X Plus
Model No. : MO-VXP-WDLOBK-01
Trade Name : Tt eSPORTS by Thermaltake

Test Standards:

OET Bulletin 65 Supplement C (Edition 01-01)

The above equipment was tested by Global Certification Corp. For compliance with the requirements set forth in the OET Bulletin 65 Supplement C (Edition 01-01) and the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested.

The test was carried out on Dec. 15, 2016 and this test report shall not be reproducing in part without written approval of Global Certification Corp.

Reviewed by:

Dec. 24, 2016

Date

Adam Chou, Manager



2. Description of the tested samples

EUT Type : Engineer Type

Condition when received : Good

EUT Name : Ventus X Plus

Applicant : THERMALTAKE TECHNOLOGY CO., LTD.

Manufacturer : DEXIN Corporation

Model Number : MO-VXP-WDLOBK-01

Power Cord (Input) : 5Vdc

Power From : N/A Inside Outside
Adapter Battery Power Supply DCV from PC



3. RF Exposure Introduction

Requirements

Three different categories of transmitters are defined by the FCC in OET Bulletin 65. These categories are fixed installation, mobile and portable and are defined as follows:

▪ **Fixed installation:**

Fixed location means that the device, including its antenna, is physically secured at a permanent location and is not able to be easily moved to another location. Additionally, distance to humans from the antenna is maintained to at least 2 meters.

▪ **Mobile Devices:**

A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to be generally used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structures and the body of the user or nearby persons. Transmitters designed to be used by consumers or workers that can be easily re-located, such as a wireless modem operating in a laptop computer, are considered mobile devices if they meet the 20 centimeter separation requirement. The FCC rules for evaluating mobile devices for RF compliance are found in 47 CFR 2.1091.

▪ **Portable Devices:**

A portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user. Portable device requirements are found in Section 2.1093 of the FCC's Rules (47 CFR 2.1093)



The FCC also categorizes the use of the device as based upon the user's awareness and ability to exercise control over his or her exposure. The two categories defined are Occupational/Controlled Exposure and General Population/Uncontrolled Exposure. These two categories are defined as follows:

▪ **Occupational/controlled Exposure:**

In general, occupational/controlled exposure limits are applicable to situation in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure. Awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of a RF safety program. If appropriate, warning signs and labels can also be used to establish such awareness by providing prominent information on the risk of potential exposure and instructions on methods to minimize such exposure risks.

▪ **General Population/Uncontrolled Exposure:**

The general population / uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity. Warning labels placed on low-power consumer devices such as cellular telephones are not considered sufficient to allow the device to be considered under the occupational/controlled category, and the general population/uncontrolled exposure limits apply to these devices.



4. Administration Data

4.1 Testing Laboratory

Test Site	Global Certification Corp.
Test Site Location	No.146, Sec. 2, Xiangzhang Rd., Xizhi Dist., New Taipei City 221, Taiwan (R.O.C.) TEL: +886-2-2642-6992 FAX: +886-2-2648-7450

4.2 Applicant

Company Name	THERMALTAKE TECHNOLOGY CO., LTD.
Address	5F., No.185, Sec.2, Tiding Blvd Neihu Dist., Taipei City 114, Taiwan

4.3 Manufacturer

Company Name	DEXIN Corporation
Address	ShiTan Pu Industrial , Tangxia Town, Dongguan , Guangdong , China



5. General Information

5.1 Description of Device Under Test (DUT)

Product Feature & Specification	
DUT Type	Ventus X Plus
Brand Name	Tt eSPORTS by Thermaltake
Model Name	MO-VXP-WDLOBK-01
FCC ID	2AAUCMOVXPWDLOBK01
Tx Frequency	2402 MHz ~ 2480 MHz
Antenna Type	PCB Antenna
Type of Modulation	Bluetooth : GFSK

Remark: The above DUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

5.2 Maximum RF output power among production units

Mode / Band	Bluetooth
	2Mbps
	(GFSK)
2.4GHz Bluetooth	5.78dBm

5.3 Applied Standard

- FCC OET Bulletin 65 Supplement C (Edition 01-01)
- FCC KDB 447498 D01 v05



6. RF Exposure Evaluation

Function	Freq. (MHz)	Antenna Gain (dBi)	Maximum Output Power (dBm)	Maximum Output Power (mW)	Calculated RF Exposure (mW/cm ²)	Limit (mW/cm ²)
Bluetooth 2.4G	2480.00	3.3	5.78	0.0038	0.01	1.00

Note:

1. Per KDB 447498 D01v05, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 5 mm are determined by:

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

1-g AR and ≤ 7.5 for 10-g extremity SAR

- ⌚ 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

Conclusion: According to KDB 447498 D01v05 exclusion thresholds is $0.50 < 3$, RF exposure evaluation is not required.