RF EXPOSURE
EXEMPT REPORT

APPLICANT	:	Shanghai Flydigi Electronics Technology Co.,Ltd.
PRODUCT NAME	:	Flydigi Wasp One-handed Gamepad
MODEL NAME	:	FeiZhi Wasp-BT
BRAND NAME	:	Flydigi
FCC ID	:	2AORE-WASP-BT
STANDARD(S)	:	47CFR 2.1093 KDB 447498
RECEIPT DATE	:	2018-09-16
TEST DATE	:	2018-09-27
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Edited by: Su Jinhai
SuJinhai (Rapporteur)

Approved by: Peng Huarui
Peng Huarui (Supervisor)

MORLAB
SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China
Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn

DIRECTORY

Change History		
Issue	**Date**	**Reason for change**
1.0	2018-09-27	First edition

1. Technical Information

Note: Provide by manufacturer.

1.1 Applicant and Manufacturer Information

Applicant:	Shanghai Flydigi Electronics Technology Co.,Ltd.
Applicant Address:	Rm1108, No.258 Guoxia Rd, Yangpu District,Shanghai
Manufacturer:	Shanghai Flydigi Electronics Technology Co.,Ltd.
Manufacturer Address:	Rm1108, No.258 Guoxia Rd, Yangpu District,Shanghai

1.2 Equipment Under Test (EUT) Description

EUT Type:	Flydigi Wasp One-handed Gamepad
Hardware Version:	FeiZhi Wasp-V1.1
Software Version:	FeiZhi Wasp-V1.0.1
Frequency Bands:	Bluetooth: 2402MHz-2480MHz
Modulation Mode:	BLE: GFSK
Antenna Gain:	-4.41dBi

1.3 Photographs of the EUT

1. EUT front view

2. EUT rear view

1.4 Identification of all used EUT

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following two numerical characters indicate the software version of the test sample.

EUT Identity	Hardware Version	Software Version
1#	FeiZhi Wasp-V1.1	FeiZhi Wasp-V1.0.1

1.5 Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	47 CFR§2.1093	Radio frequency Radiation Exposure Evaluation: portable devices
2	KDB 447498 D01v06	General RF Exposure Guidance

2. Device Category and RF Exposure Limit

Per user manual, this device is a Flydigi Wasp One-handed Gamepad. Based on 47CFR 2.1093, this device belongs to portable device category with General Population/Uncontrolled exposure.

Portable Devices:

47CFR 2.1093(b)

For purposes of this section, 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.

GENERAL POPULATION / UNCONTROLLED EXPOSURE

47CFR 2.1093(d) (2)

Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section.

3. Measurement of RF Output Power

Bluetooth

Band	Channel	Frequency (MHz)	Peak Power(dBm)
			GFSK
BLE	CH 00	2402	3.48
	CH 39	2441	4.19
	CH 78	2480	4.51
Tune-up Limit			5.0

Note:

According to KDB 447498, time-averaged maximum conducted output power applies to SAR and, as required by § 2.1091(c), time-averaged effective radiated power applies to MPE.

4. RF Exposure Evaluation

The device only incorporates a Bluetooth transmitter, so standalone SAR evaluation is required for Bluetooth and simultaneous SAR is not required.

Standalone transmission SAR evaluation:

According to KDB 447498 section 4.3.1, the 1-g SAR test exclusion thresholds at test separation Distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f(GHz)] ≤ 3.0
The maximum tune-up limit power is **3.16mW @ 2.48GHz**
When the Flydigi Wasp One-handed Gamepad is used on the hand/head, so use **5mm** as the most conservative minimum test separation distance,
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f(GHz)] **=1.0**<3.0

Therefore the standalone SAR evaluation are not required for this device.

Annex A General Information

1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

END OF REPORT