



BUREAU
VERITAS

Test Report No.: FS161117N050-3

RF EXPOSURE REPORT

Applicant	Asian Express Holdings Limited
Address	RM1702, Sino Centre, 582-592 Nathan Road, Mongkok, Kowloon, Hong Kong.

Manufacturer or Supplier	Asian Express Holdings Limited
Address	RM1702, Sino Centre, 582-592 Nathan Road, Mongkok, Kowloon, Hong Kong.
Product:	X-Wing (controller)
Additional Product:	Speed Bike(controller), Tie Fighter(controller)
Brand Name	PROPEL
Model	SW-1977
Additional Model & Model Difference	SW-1983, SW-0327, see item 1
Date of tests	Nov. 17, 2016 ~ Nov. 21, 2016

FCC Part 2 (Section 2.1091)

KDB 447498 D01

IEEE C95.1

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Breeze Jiang Project Engineer / EMC Department	Approved by Glyn He Supervisor / EMC Department

Date: Nov. 28, 2016

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS161117N050-3	Original release	Nov. 28, 2016



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1. CERTIFICATION

FCC ID:	VLESW-1977T
PRODUCT:	X-Wing (controller)
ADDITIONAL PRODUCT:	Speed Bike(controller), Tie Fighter(controller)
BRAND NAME:	PROPEL
MODEL NO.:	SW-1977
ADDITIONAL NO.:	SW-1983, SW-0327
TEST SAMPLE:	Engineering Sample
APPLICANT:	Asian Express Holdings Limited
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

Note: Additional models SW-1983, SW-0327 are identical with the test model SW-1977 except the model number for marketing purpose.



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2. RF EXPOSURE DEFINE

The corresponding SAR Exclusion Threshold condition, listed below:

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,¹⁶ where

- $f(\text{GHz})$ 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

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 is applied to determine SAR test exclusion.

2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:

- a) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · (f(MHz)/150)] mW, at 100MHz to 1500 MHz
- b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and ≤ 6 GHz

3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.

- a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by $[1 + \log(100/f(\text{MHz}))]$ for test separation distances > 50 mm and < 200 mm.
- b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$ for test separation distances ≤ 50 mm.
- c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

3. CLASSIFICATION

The antenna of this product, under normal use condition, is at less than 20cm away from the body of the user. So, this device is classified as **Portable Device**.



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4. SAR TEST EXCLUSION THRESHOLDS

According to the KDB 447498:

The maximum average output power specified is -11.67dBm = 0.068mW

The SAR Exclusion Threshold Level:

$$= 3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$$

$$= 3.0 * 5 / \sqrt{2.480} \text{ mW}$$

$$= 9.53 \text{ mW}$$

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to **comply** with SAR requirement without testing.