



TEST REPORT NUMBER: (8524)138-0378(B)

TEST REPORT

Applicant:	GUANGDONG SYMA MODEL AIRCRAFT INDUSTRIAL CO.,LTD	Fax:	---
		E-mail:	---
Address :	NO.2 WEST XINGYE ROAD LAIMEI INDUSTRIAL AREA CHENG HAI,Shantou, China		
Test Date :	2024-5-22 to 2024-6-7		

Manufacturer or Supplier :	GUANGDONG SYMA MODEL AIRCRAFT INDUSTRIAL CO.,LTD
Address :	NO.2 WEST XINGYE ROAD LAIMEI INDUSTRIAL AREA CHENG HAI,Shantou, China
Sample Description:	DRONE
Model number:	Z3PRO
Additional Model :	Z3
Rated Voltage:	DC6.0V (AA*4)
FCC ID :	QV7-GC88752-100

The submitted sample of the above equipment has been tested according to following standard(s)

47 CFR Part 1.1307

47 CFR Part 2.1093

KDB447498D01 General RF Exposure Guidance v06

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

Assistant Manager

Name: Nick Lung

Date: JUN 24,2024



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2 General Information

2.1 Client Information

Applicant:	GUANGDONG SYMA MODEL AIRCRAFT INDUSTRIAL CO.,LTD
Address of Applicant:	NO.2 WEST XINGYE ROAD LAIMEI INDUSTRIAL AREA CHENG HAI,Shantou, China
Manufacturer:	GUANGDONG SYMA MODEL AIRCRAFT INDUSTRIAL CO.,LTD
Address of Manufacturer:	NO.2 WEST XINGYE ROAD LAIMEI INDUSTRIAL AREA CHENG HAI,Shantou, China

2.2 General Description of EUT

Name:	DRONE
Test Model No.:	Z3PRO
Trade Mark :	N/A
Serial No:	---
Software Version:	V1.0
Hardware Version:	1.0
Frequency Range:	2410-2472MHz
Modulation Type:	GFSK
Number of Channels:	63
Sample Type:	Portable product
Antenna Type:	wire antenna
Antenna Gain:	1dBi
Power Supply:	DC6.0V (AA*4)



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3 SAR Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 Standard Requirement

IC: According to RSS-102 Issue 5 March 2015

2.5.1 Exemption Limits for Routine Evaluation – SAR Evaluation

SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1.

FCC:

According to KDB447498D01 General RF Exposure Guidance v06

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 Exclusion Threshold condition, listed below, is satisfied.

3.1.2 Limits

FCC:

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:

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

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

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

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3.1.3 EUT RF Exposure

FCC:

The worst case refer to report (8524)138-0378 is below:

Antenna polarization: Horizontal		
Frequency (MHz)	Level (dBμV/m)	Value
2.410	91.96	Peak

Field strength =91.96dB μ V/m @3m

Ant. gain 1dBi; so Ant numeric gain=1.259

So $P_t = \{ [10^{(91.96/20)} / 10^6 \times 3]^2 / 30 / 1.259 \} \times 1000 \text{mW} = 0.374 \text{mW}$

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

Calculated value = $0.374 / 5 \cdot \sqrt{2.410} = 0.116 < 3$

So the SAR test is not required.