

# TEST REPORT

**Product Name** : VIVITAR 3 Channel RC Helicopter with Gyro  
DRC252-NOC, DRC252-RED, DRC252-BLU,  
**Model Number** : DRC252-NOC-STK-4, DRC252-RED-STK-4,  
DRC252-BLU-T22-4  
**FCC ID** : 2AWZK-H65

**Prepared for** : Guangdong Hengdi Technology Corp., Ltd  
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**Report Number** : EDG2303290108E00302R  
**Date(s) of Tests** : March 29, 2023 to April 17, 2023  
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## 1. TEST RESULT CERTIFICATION

Applicant : Guangdong Hengdi Technology Corp., Ltd  
 Address : Building C, Jinhui Industrial Building, South of Yuting Road, East of Taian Road  
 Manufacturer : Guangdong Hengdi Technology Corp., Ltd  
 Address : Building C, Jinhui Industrial Building, South of Yuting Road, East of Taian Road  
 EUT : VIVITAR 3 Channel RC Helicopter with Gyro  
 Model Name : DRC252-NOC, DRC252-RED, DRC252-BLU, DRC252-NOC-STK-4,  
 DRC252-RED-STK-4, DRC252-BLU-T22-4  
 Trademark : VIVITAR

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : March 29, 2023 to April 17, 2023

Prepared by :   
 Xia Yang /Editor

Reviewer :   
 Tim Dong/ Supervisor

Approve & Authorized Signer :    
 Sam Lv / Manager

## Modified History

Version	Report No.	Revision Date	Summary
	EDG2303290108E00302R	/	Original Report



## 2. EUT Specification

Characteristics	Description
<b>Product:</b>	VIVITAR 3 Channel RC Helicopter with Gyro
<b>Model Number:</b>	DRC252-NOC, DRC252-RED, DRC252-BLU, DRC252-NOC-STK-4, DRC252-RED-STK-4, DRC252-BLU-T22-4 All products are the same, only the model number are different Here we selected DRC252-NOC for all the test
<b>Sample:</b>	2#
<b>Modulation:</b>	GFSK
<b>Operating Frequency Range(s) :</b>	2418MHz-2465MHz
<b>Number of Channels:</b>	48 Channels
<b>Transmit Power Max:</b>	93.95 dBuV@3m
<b>Antenna Gain:</b>	0 dBi
<b>Power supply:</b>	DC 9.0V from battery
<b>Evaluation applied:</b>	<input type="checkbox"/> MPE Evaluation <input checked="" type="checkbox"/> SAR Evaluation

### 3. Test Requirement

#### RF EXPOSURE EVALUATION

According to §15.247(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances*  $\leq 50$  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  $\leq 7.5$  for 10-g extremity SAR,<sup>24</sup> 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<sup>25</sup>
- 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  $\leq 50$  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 5) in section 4.1 is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval. One antenna is available for the EUT. The minimum separation distance is 5mm.

According to ANSI C63.10-2013

9.5 Equations to calculate EIRP

Calculate the EIRP from the radiated field strength in the far field using Equation (22):

$$\text{EIRP} = E + 20 \log(d) - 104.7 \quad (22)$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E is the field strength of the emission at the measurement distance, in dB $\mu$ V/m

d is the measurement distance, in m

## 4. Measurement Result

Antenna gain:0 dBi

When a single module works, the measurement results are as follows:

2.4G

Channel Freq. (MHz)	Max Field Strength (dBuV/m)	peak output power (dBm)	Tune upPower (dBm)	Max tune up power(dBm)	Calculation Result	1-g SAR
2418	93.73	-1.4276	-2±1	-1	0.24703480	3
2444	93.95	-1.2076	-2±1	-1	0.24835940	3
2465	91.79	-3.3676	-4±1	-3	0.15737598	3

According to KDB 447498, no stand-alone required for Integrated antenna, and no simultaneous SAR measurement is required.

\*\*\* End of Report \*\*\*