

CENTRE OF TESTING SERVICE INTERNATIONAL

OPERATE ACCORDING TO ISO/IEC 17025

FCC ID/IC TEST REPORT

TEST REPORT NUMBER : CGZ3160421-00356-EFI



CENTRE OF TESTING SERVICE CO., LTD. A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China





TEST REPORT For FCC ID/IC			
47 CFR PART 15 OCT, 2015; RSS-210 Issue 8			
Report Reference No.	CGZ3160421-00356-EFI		
Date of issue	05 May 2016		
Testing Laboratory Name	CENTRE OF TESTING SERVICE CO., LTD.		
Address	A101,No.65,Zhuji Highway,Tianhe District,Guangzhou, China		
Testing location/ procedure	Full application of Harmonised standards		
	Partial application of Harmonised standards \Box		
	Other standard testing method \Box		
Applicant's name	- GUANGDONG HENGDI TECHNOLOGY CORP., LTD.		
Address	Xiongye Industrial Park, Dengfeng Road, Guangyi Residential District, Chenghai Area, Shantou City, Guangdong Province, China		
Test specification			
Standard	47 CFR PART 15 OCT, 2015; RSS-210 Issue 8; RSS-Gen Issue 4		
	ANSI C63.10:2013		
Test Report Form No	CTSEMC-1.0		
TRF Originator	CENTRE OF TESTING SERVICE CO., LTD.		
Master TRF	Dated 2009-01		
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Test item description	.: FLX Crawling Copter		
Trade Mark	. /		
Manufacturer	. GUANGDONG HENGDI TECHNOLOGY CORP., LTD.		
Model/Type reference	. 5F63FD6		
Ratings	. Battery 1.5V*4		
Operating Frequency	2405.0MHz ~2475.0MHz		
Result	Positive		

Compiled by:

Kate zhang / Fileadministrators

Supervised by:

Duke yang / Technique principal

Approved by:

Vincent yao / Manager

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FCC ID/IC -- TEST REPORT

Test Report No. :	CGZ3160421-00356-EFI	<u>05 May 2016</u> Date of issue
Type / Model	5F63FD6	
EUT	FLX Crawling Copter	
Applicant	GUANGDONG HENGDI TECHNOLOGY CC	DRP., LTD.
Address	Xiongye Industrial Park, Dengfeng Road, Chenghai Area, Shantou City, Guangdong P	
Telephone	+0754-85867153	
Fax	/	
Contact	Leo Yang	
Manufacturer	GUANGDONG HENGDI TECHNOLOGY CC	DRP., LTD.
Address	Xiongye Industrial Park, Dengfeng Road, Chenghai Area, Shantou City, Guangdong P	
Telephone	+0754-85867153	
Fax	/	
Contact	Leo Yang	
Factory	1	
Address	/	
Telephone	/	
Fax	/	
Contact	/	

Test Result according to the standards on page 1: PASSED

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1.TEST STANDARDS

The tests were performed according to following standards:

- 47 CFR PART 15 OCT, 2015
 RSS-210 Issue 8
- RSS-Gen Issue 4
- ANSI C63.10:2013

2.SUMMARY

2.1 GENERAL REMARKS

Date of receipt of test sample	21 April 2016
Testing commenced on	21 April ~ 04 May 2016
Testing concluded on	05 May 2016

2.2 FINAL ASSESSMENT

The FCC/IC requirements pertaining to the technical standards and tested operation modes are

fulfilled.

□ - **not** fulfilled.

The equipment under test

- fulfils the FCC/IC requirements cited on page 1.
- **does not** fulfil the FCC/IC requirements cited on page 1.

3.EQUIPMENT UNDER TEST

3.1 Power supply system utilised

Power supply voltage : ■ Battery 1.5V*4

3.2 Short description of the Equipment under Test (EUT)

Number of tested samples: **1** Serial number: Prototype

3.3 EUT operation mode

The equipment under test was operated during the measurement under the following conditions:

- □ TX- Y position
- □ TX- Zposition
- TX- X position

Operation mode 1:TX-X Position Low (2405MHz) , TX-X Position Middle (2445MHz),

TX-X Position High (2475MHz)

Note:Operation mode 1 TX -X position of EUT is the radiated test worst case; so only these test results be recorded in the test report.

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3.4 EUT configuration

3.4.1. Description of configuration (EUT)

Description	:	FLX Crawling Copter
Model Number	:	5F63FD6
Operation frequency	:	2405~ 2475 MHz ISM Band
Modulation Technology	:	GFSK Modulation
Antenna	:	Internal antenna, met requirement of FCC 15.203

3.4.2. Tested Supporting System Details

N/A

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4.TEST ENVIRONMENT

4.1 Address of the test laboratory

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines) Fax: +86-20-38780406

4.2 Test facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L3394

CENTRE OF TESTING SERVICE CO., LTD has been assessed and proved to be in compliance with CNAS-CL01: 2006 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

IC-Registration No.: 8374A

The 3m Alternate Test Site of CENTRE OF TESTING SERVICE CO., LTD has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 8374A on June 6, 2011.

FCC-Registration No.: 971995

CENTRE OF TESTING SERVICE CO., LTD, EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration No.791995, July 13,2012.

4.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35 ° C
Humidity:	25~75 %
Atmospheric pressure:	86~106 kPa

4.4 Definitions of symbols used in this test report

- - The black square indicates that the listed condition, standard or equipment is applicable for this report.
- The empty square indicates that the listed condition, standard or equipment is **not** applicable for this report.

4.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the CTS quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

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4.6 Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Conduction disturbance	150kHz~30MHz	±1.22dB	(1)
Power disturbance	30MHz~300MHz	±1.38dB	(1)
	30MHz~300MHz	±3.14dB	(1)
Radiation emission (3m)	300MHz~1000MHz	±3.18dB	(1)
	1GHz~26.5GHz	±3.54dB	(1)

(1).This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

5. Summary of standards and results

5.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION				
Description of Test Item	Standard	Results		
Conducted Emission Test	FCC Part 15 § 15.207 RSS-Gen Issue 4§ 7.2.4 ANSI C63.10:2013	N/A		
Radiated Emission Test	RSS-Gen Issue 4§ 7.2 RSS-210 Issue 8 § A2.9 FCC Part 15 C § 15.249 FCC Part 15 § 209 ANSI C63.10:2013	PASSED		
Receiver Spurious Emissions	RSS-Gen Issue 4§ 4.10 ANSI C63.10:2013	N/A		
Band Edge Compliance Test	RSS-210 Issue 8 § 1.1 RSS-Gen Issue 4 § 8.10 FCC Part 15 C § 15.249 ANSI C63.10:2013	PASSED		
99% Bandwidth	RSS-Gen Issue 4 § 6.6 ANSI C63.10:2013	PASSED		
N/A is an abbreviation for Not Applicable.				

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6. Power Line Conducted Emission Test

6.1.Test Equipment

Conduct	Conducted Disturbance					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	
1	EMI Test Receiver	ROHDE & SCHWARZ	ESHS10	842884/012	2015/10	
2	Artificial Mains	ROHDE & SCHWARZ	ESH3-Z5	832479/025	2015/10	
3	Artificial Mains	ROHDE & SCHWARZ	ESH3-Z5	832479/026	2015/10	
4	Pulse Limiter	ROHDE & SCHWARZ	ESHSZ2	100301	2015/10	
5	EMI Test Software	ROHDE & SCHWARZ	ESK1	N/A	2015/10	

6.2. Block Diagram of Test Setup



(EUT: FLX Crawling Copter)

6.3. Power Line Conducted Emission Test Limits

Standard:RSS-Gen:7.2.4,FCC Part 15 : 15.207,ANSI C63.10:2013

		Maximum RF Line Voltage	
Frequency		Quasi-Peak Level	Average Level
	,	dB(µV)	dB(μV)
150kHz	~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz	~ 5MHz	56	46
5MHz	~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

6.4.Test Procedure

The Notebook Power connected to the power mains through a line impedance stabilization network (L.I.S.N.#2). This provides a 50 ohm coupling impedance for the EUT. Please refer the block diagram of the test setup and photographs. The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.#1). Power on the PC and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC Part 15C on Conducted Emission Test.

6.5. Power Line Conducted Emission Test Results

N/A

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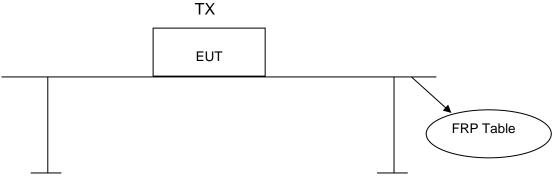
7. Radiated disturbance (electric field)

7.1.Test Equipment

Radia	Radiated disturbance (electric field)							
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.			
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	100868	2015/10			
2	Biconical Antenna	ROHDE & SCHWARZ	HK116	100221	2016/03			
3	Log per Antenna	ROHDE & SCHWARZ	HL223	100226	2016/03			
4	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2016/03			
5	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2016/03			
6	Loop Antenna	A.R.A	PLA-1030/B	1030	2015/10			

7.2.Block Diagram of Test Setup

7.2.1 Block Diagram of connection between EUT and simulators



(EUT: FLX Crawling Copter)

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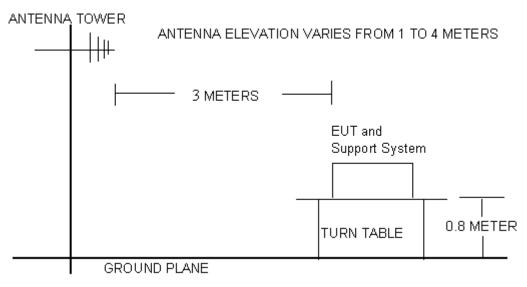
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7.2.2 Anechoic Chamber Setup Diagram



7.3.Radiated Emission Limit :

Standard: FCC 15.249 , FCC 15.209; RSS-Gen:7.2; RSS-210 A2.9.

Except as provided in paragraph (a) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental (mV/m)	Field Strength of Harmonics (µV/m)
902-928	50	500
2400-2483.5	50	500
5725-5875	50	500
24000-24250	250	2500

FRE	EQUEN	CY	DISTANCE	FIELD STREN	GTHS LIMIT
	MHz		Meters	μV/m	dB(µV)/m
0.009	~	0.490	300	2400/F(kHz)	
0.490	~	1.705	30	24000/F(kHz)	
1.705	~	30	30	30	
30	~	88	3	100	40.0
88	~	216	3	150	43.5
216	~	960	3	200	46.0
960	~	1000	3	500	54.0
AI	bove 1	000	3	Other:74.0 dB(μ 54.0 dB(μV)/n	

(1) Emission level dB μ V = 20 log Emission level μ V/m Remark:

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

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7.4.Test Procedure

The EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.10:2013 on radiated emission Test.

The frequency range from 30MHz to 1000MHz and above 1GHz. is investigated. Please see the following pages.

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 120kHz RBW below 1GHz and a Peak and Average detector with 2MHz RBW above 1GHz,

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 300kHz VBW below 1GHz and a Peak detector with1MHz VBW above 1GHz, A average detector with 10Hz VBW above 1GHz

Pretest x, y, z position of EUT, final, select the worst case x position test and record the test results in the report.

The test modes (TX Mode) is tested in Anechoic Chamber and all the scanning waveforms are reported on section 7.5

7.5.Radiated Emission Test Results

PASSED.

The frequency range from 9KHz~30MHz,30MHz to 230MHz, 230MHz to 1000MHz and above 1GHz. is investigated. Please see the following pages.

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Test Mode:	TX – X Position Mode	Result:	- passed
Frequency range:	9KHz~30MHz		- not passed

No.	Frequency (MHz)	Factor (dB)	U U	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
Rem	ark: The test re	sult readi	ng value is to l	ow, margin a	ll > 10dB of t	he limit.	

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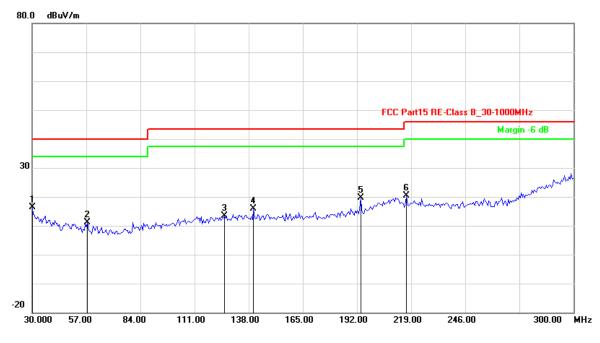
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Channel:	TX –X Position	Result:	- passed
Test point:	Horizontal		- not passed
Frequency range:	30MHz-1GHz		

EUT	FLX Crawling Copter
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test distance	3 Meter
Test Date:	21 April~04 May 2016
Operator	Duke
MODEL NO	5F63FD6



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	30.0000	-16.04	32.43	16.39	40.00	-23.61	QP
2	57.5952	-19.43	30.55	11.12	40.00	-28.88	QP
3	125.7715	-16.39	29.76	13.37	43.50	-30.13	QP
4	140.3808	-16.05	31.83	15.78	43.50	-27.72	QP
5	193.9479	-13.55	33.10	19.55	43.50	-23.95	QP
6	216.6733	-10.68	30.97	20.29	46.00	-25.71	QP
Remark:	Other frequen	icy mini ma	rgin all >6 dB o	of Limit			

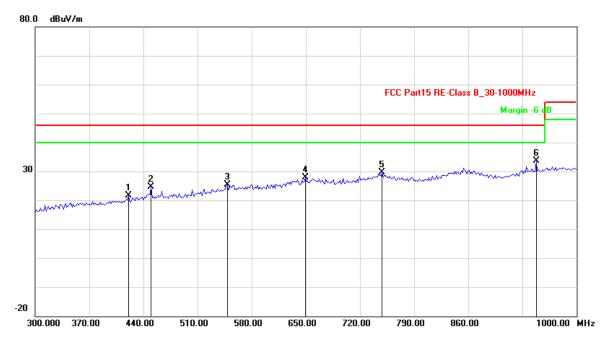
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No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	420.6413	-9.66	31.30	21.64	46.00	-24.36	QP
2	450.1002	-8.46	32.98	24.52	46.00	-21.48	QP
3	548.2966	-5.76	31.07	25.31	46.00	-20.69	QP
4	649.2986	-3.26	31.03	27.77	46.00	-18.23	QP
5	748.8978	-1.65	31.37	29.72	46.00	-16.28	QP
6	948.0962	0.34	33.28	33.62	46.00	-12.38	QP
Remark:	Other frequen	icy mini ma	rgin all >6 dB o	of Limit			

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Channel					Result:	- passed	
est poi		Horizontal				- not passe	ed
requen	cy range:	1GHz-26.	5GHz			•	
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2405.00	-6.82	84.66	77.84	114.00	-36.16	Peak
2	2405.00	-6.82	82.03	75.21	94.00	-18.79	AVG
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1859.719	-10.16	39.32	29.16	74.00	-44.84	peak
2	1859.719	-10.16	26.51	16.35	54.00	-37.65	AVG
3	5651.303	5.31	38.37	43.68	74.00	-30.32	peak
0				00.07	54.00	05.00	AVG
4	5651.303	5.31	23.36	28.67	54.00	-25.33	AVG
4	5651.303 : Other frequer				54.00	-25.33	AVG
4					54.00	-25.33	AVG
4	: Other frequer	ncy mini ma		of Limit	1		AVG
4 Remark	: Other frequer	ncy mini ma	argin all >6 dB sition Middle C	of Limit	Result:	- passed	
4 Remark Channel Test poi	: Other frequer	TX –X Po	argin all >6 dB sition Middle C I	of Limit	Result:		
4 Remark Channel Test poi	: Other frequer : nt:	TX –X Po Horizonta	argin all >6 dB sition Middle C I	of Limit	Result:	- passed	
4 Remark Channel Test poi	: Other frequer : nt: .cy range:	TX –X Po Horizonta	argin all >6 dB o sition Middle C I 5GHz	of Limit	Result:	- passed - not passe	
4 Remark Channel est poi	: Other frequer : nt:	TX –X Po Horizonta 1GHz-26.	argin all >6 dB sition Middle C I	of Limit	Result: ∎ □ Limit	- passed - not passe Margin	ed
4 Remark Channel est poi	: Other frequer : nt: .cy range: Frequency	TX –X Po Horizonta 1GHz-26.9	sition Middle C I 5GHz Reading	H Level	Result: ∎	- passed - not passe	ed Det.
4 Remark Channel Test poi Trequen	: Other frequer : nt: icy range: Frequency (MHz)	TX –X Po Horizonta 1GHz-26. Factor (dB)	sition Middle C I 5GHz Reading (dBuV)	H Level (dBuV/m)	Result: ∎ □ Limit (dBuV/m)	- passed - not passe Margin (dB)	ed Det. Peak
4 Remark Channel Test poi Trequen No. 1	: Other frequer : nt: icy range: Frequency (MHz) 2445.00	TX –X Po Horizonta 1GHz-26. Factor (dB) -6.59	sition Middle C I 5GHz Reading (dBuV) 84.18	H Level (dBuV/m) 77.59	Result: ∎ Limit (dBuV/m) 114.00	- passed - not passe Margin (dB) -36.41	ed Det. Peak
4 Remark Channel Test poi Tequen No. 1 2	: Other frequer : nt: cy range: Frequency (MHz) 2445.00 2445.00	TX –X Po Horizonta 1GHz-26.4 Factor (dB) -6.59 -6.59	sition Middle C I 5GHz Reading (dBuV) 84.18 81.93	H Level (dBuV/m) 77.59	Result: ■ Limit	- passed - not passe Margin (dB) -36.41 -18.66	ed Det. Peak
4 Remark Channel Test poi Trequen No. 1	: Other frequer : nt: cy range: Frequency (MHz) 2445.00 2445.00 Frequency Frequency	TX –X Po Horizonta 1GHz-26. Factor (dB) -6.59	sition Middle C I 5GHz Reading (dBuV) 84.18	Level (dBuV/m) 77.59 75.34	Result: ∎ Limit (dBuV/m) 114.00	- passed - not passe Margin (dB) -36.41 -18.66 Margin	ed Det. Peak AVG
4 Remark Channel Test poi Tequen No. 1 2	: Other frequer : nt: cy range: Frequency (MHz) 2445.00 2445.00	TX –X Po Horizonta 1GHz-26.4 Factor (dB) -6.59 -6.59 Factor	sition Middle C I 5GHz Reading (dBuV) 84.18 81.93 Reading	Level (dBuV/m) 77.59 75.34	Result: ■ Limit □ (dBuV/m) 114.00 94.00 □ Limit □	- passed - not passe Margin (dB) -36.41 -18.66	ed Det. Peak AVG Det.
4 Remark Channel Test poi Trequen No. 1 2 No.	: Other frequer : nt: icy range: Frequency (MHz) 2445.00 2445.00 Frequency (MHz)	TX –X Po Horizonta 1GHz-26.4 Factor (dB) -6.59 -6.59 Factor (dB)	sition Middle C I 5GHz Reading (dBuV) 84.18 81.93 Reading (dBuV)	Level (dBuV/m) 77.59 75.34 Level (dBuV/m)	Result: ■ Limit □ (dBuV/m) 114.00 94.00 □ Limit □ (dBuV/m) □	- passed - not passe Margin (dB) -36.41 -18.66 Margin (dB)	ed Det. Peak AVG Det. peak
4 Remark Channel Test poi Trequen No. 1 2 No. 1 2	: Other frequer : nt: icy range: Frequency (MHz) 2445.00 2445.00 2445.00 Frequency (MHz) 1991.984 1991.984	TX –X Po Horizonta 1GHz-26.4 Factor (dB) -6.59 -6.59 Factor (dB) -9.28 -9.28	argin all >6 dB sition Middle C 1 5GHz Reading (dBuV) 84.18 81.93 Reading (dBuV) 38.09 24.03	Level (dBuV/m) 77.59 75.34 Level (dBuV/m) 28.81 14.75	Result: ■ Limit (dBuV/m) 114.00 94.00 Limit (dBuV/m) 74.00 54.00	- passed - not passe Margin (dB) -36.41 -18.66 Margin (dB) -45.19 -39.25	ed Det. Peak AVG Det. peak AVG
4 Remark Channel Test poi Trequen No. 1 2 No. 1	: Other frequer : nt: icy range: Frequency (MHz) 2445.00 2445.00 Frequency (MHz) 1991.984	TX –X Po Horizonta 1GHz-26. Factor (dB) -6.59 -6.59 Factor (dB) -9.28	sition Middle C I 5GHz Reading (dBuV) 84.18 81.93 Reading (dBuV) 38.09	Level (dBuV/m) 77.59 75.34 Level (dBuV/m) 28.81	Result: ■ Limit (dBuV/m) 114.00 94.00 Limit (dBuV/m) 74.00 74.00	- passed - not passe Margin (dB) -36.41 -18.66 Margin (dB) -45.19	ed Det. Peak AVG

Channel:	TX –X Position High CH	Result:	- passed
Test point:	Horizontal		- not passed
Frequency range:	1GHz-26.5GHz		

No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2475.00	-6.41	84.06	77.65	114.00	-36.35	Peak
2	2475.00	-6.41	81.79	75.38	94.00	-18.62	AVG

No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.		
1	2058.116	-8.88	39.30	30.42	74.00	-43.58	peak		
2	2058.116	-8.88	25.20	16.32	54.00	-37.68	AVG		
3	6004.008	6.62	38.72	45.34	74.00	-28.66	peak		
4	6004.008	6.62	23.52	30.14	54.00	-23.86	AVG		
Remark	Remark: Other frequency mini margin all >6 dB of Limit								

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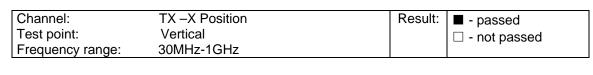
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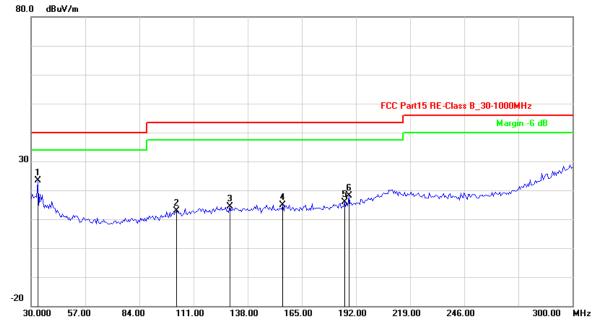
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No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	
1	33.2465	-16.46	39.80	23.34	40.00	-16.66	QP	
2	102.5050	-17.99	30.98	12.99	43.50	-30.51	QP	
3	129.0180	-16.20	30.59	14.39	43.50	-29.11	QP	
4	155.5311	-15.97	30.90	14.93	43.50	-28.57	QP	
5	186.3727	-14.67	30.49	15.82	43.50	-27.68	QP	
6	188.5371	-14.50	32.70	18.20	43.50	-25.30	QP	
Remark	Remark: Other frequency mini margin all >6 dB of Limit							

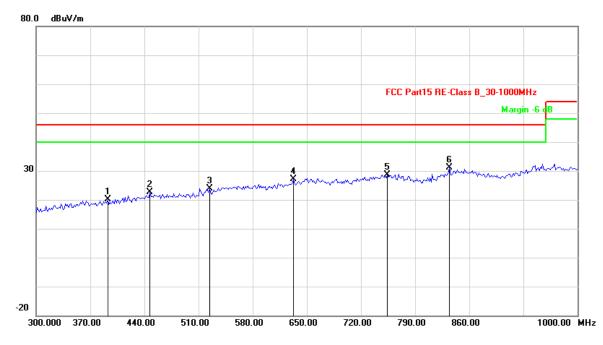
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No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.		
1	392.5852	-10.63	30.65	20.02	46.00	-25.98	QP		
2	447.2946	-8.57	31.12	22.55	46.00	-23.45	QP		
3	524.4489	-6.93	30.90	23.97	46.00	-22.03	QP		
4	632.4649	-4.04	31.17	27.13	46.00	-18.87	QP		
5	754.5090	-1.75	30.42	28.67	46.00	-17.33	QP		
6	834.4689	-1.22	32.32	31.10	46.00	-14.90	QP		
Remark	Remark: Other frequency mini margin all >6 dB of Limit								

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Channel:

Test point:



TX – X Position Low CH

Vertical



Result: ■ - passed

□ - not passed

reguen	ncy range:	1GHz-26.5	5GHz			- not passe	u
					1 1		
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2405.00	-6.82	83.10	76.28	114.00	-37.72	Peak
2	2405.00	-6.82	81.33	74.51	94.00	-19.49	AVG
	_						
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2036.072	-9.02	40.63	31.61	74.00	-42.39	peak
2	2036.072	-9.02	25.50	16.48	54.00	-37.52	AVG
3	5893.788	6.21	41.61	47.82	74.00	-26.18	peak
4	5893.788	6.21	26.36	32.57	54.00	-21.43	AVG
Remark	: Other frequer	icy mini ma	rgin all >6 dB o	of Limit			
Channe	l:	TX –X Pos	sition Middle C	H	Result:	- passed	
Test poi		Vertical				- not passe	he
	ncy range:	1GHz-26.5	GHz			not public	
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2445.00	-6.59	82.94	76.35	114.00	-37.65	Peak
2	2445.00	-6.59	80.81	74.22	94.00	-19.78	AVG
						•	
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	1947.896	-9.57	39.03	29.46	74.00	-44.54	peak
2	1947.896	-9.57	25.25	15.68	54.00	-38.32	AVG
3	5232.465	3.96	38.55	42.51	74.00	-31.49	peak
4	5232.465	3.96	23.63	27.59	54.00	-26.41	AVG
_						-	
Remark	: Other frequer			of Limit		_	
	: Other frequer	ncy mini ma	rgin all >6 dB o	of Limit		1	
Channe	: Other frequer	ncy mini ma TX –X Pos		of Limit	Result:	- passed	
Channe Test poi	: Other frequer I: nt:	TX –X Pos Vertical	rgin all >6 dB o	of Limit	Result:	1	ed
Channe Test poi	: Other frequer	ncy mini ma TX –X Pos	rgin all >6 dB o	of Limit	Result:	- passed	ed
Channe Test poi	: Other frequer I: nt: ncy range: Frequency (MHz)	TX –X Pos Vertical	rgin all >6 dB o sition High CH 5GHz Reading (dBuV)	bf Limit Level (dBuV/m)	Result:	- passed - not passe Margin (dB)	Det.
Channe Test poi Frequen No. 1	: Other frequer l: nt: ncy range: Frequency (MHz) 2475.00	TX –X Pos Vertical 1GHz-26.5 Factor (dB) -6.41	rgin all >6 dB o sition High CH 5GHz Reading (dBuV) 83.05	Level (dBuV/m) 76.64	Result: □ Limit (dBuV/m) 114.00	- passed - not passe Margin (dB) -37.36	Det. Peak
Channe Test poi Frequen No.	: Other frequer I: nt: ncy range: Frequency (MHz)	TX –X Pos Vertical 1GHz-26.5 Factor (dB)	rgin all >6 dB o sition High CH 5GHz Reading (dBuV)	Level (dBuV/m)	Result: □ Limit (dBuV/m)	- passed - not passe Margin (dB)	Det.
Channe Test poi Frequen No. 1 2	: Other frequer I: nt: ncy range: Frequency (MHz) 2475.00 2475.00	TX –X Pos Vertical 1GHz-26.5 Factor (dB) -6.41 -6.41	rgin all >6 dB o sition High CH 5GHz Reading (dBuV) 83.05 81.03	Level (dBuV/m) 76.64 74.62	Result: □ Limit (dBuV/m) 114.00 94.00	- passed - not passe Margin (dB) -37.36 -19.38	Det. Peak AVG
Channe Test poi Frequen No. 1 2 No.	: Other frequer I: nt: ncy range: Frequency (MHz) 2475.00 2475.00 Frequency (MHz)	TX –X Pos Vertical 1GHz-26.5 Factor (dB) -6.41 -6.41 Factor (dB)	rgin all >6 dB o sition High CH 5GHz Reading (dBuV) 83.05 81.03 Reading (dBuV)	Level (dBuV/m) 76.64 74.62 Level (dBuV/m)	Result: □ Limit (dBuV/m) 114.00 94.00 Limit (dBuV/m)	- passed - not passe Margin (dB) -37.36 -19.38 Margin (dB)	Det. Peak AVG Det.
Channe Test poi Frequen No. 1 2 No. 1	:: Other frequer I: nt: ncy range: Frequency (MHz) 2475.00 2475.00 2475.00 Frequency (MHz) 1837.675	TX –X Pos Vertical 1GHz-26.5 Factor (dB) -6.41 -6.41 Factor (dB) -10.30	rgin all >6 dB o sition High CH 5GHz Reading (dBuV) 83.05 81.03 Reading (dBuV) 39.12	Level (dBuV/m) 76.64 74.62 Level (dBuV/m) 28.82	Result: □ Limit □ (dBuV/m) 114.00 94.00 □ Limit □ (dBuV/m) □ 74.00 □	- passed - not passe (dB) -37.36 -19.38 (dB) (dB) -45.18	Det. Peak AVG Det.
Channe Test poi Frequen No. 1 2 No. 1 2	: Other frequer I: nt: ncy range: Frequency (MHz) 2475.00 2475.00 Frequency (MHz) 1837.675 1837.675	TX –X Pos Vertical 1GHz-26.5 Factor (dB) -6.41 -6.41 Factor (dB) -10.30 -10.30	rgin all >6 dB o sition High CH 5GHz (dBuV) 83.05 81.03 Reading (dBuV) 39.12 25.99	Level (dBuV/m) 76.64 74.62 Level (dBuV/m) 28.82 15.69	Result: □ Limit □ (dBuV/m) 114.00 94.00 94.00 Limit □ (dBuV/m) 74.00 54.00 54.00	- passed - not passe (dB) -37.36 -19.38 Margin (dB) -45.18 -38.31	Det. Peak AVG Det. peak
Channe Test poi Trequen No. 1 2 No. 1	:: Other frequer I: nt: ncy range: Frequency (MHz) 2475.00 2475.00 2475.00 Frequency (MHz) 1837.675	TX –X Pos Vertical 1GHz-26.5 Factor (dB) -6.41 -6.41 Factor (dB) -10.30	rgin all >6 dB o sition High CH 5GHz Reading (dBuV) 83.05 81.03 Reading (dBuV) 39.12	Level (dBuV/m) 76.64 74.62 Level (dBuV/m) 28.82	Result: □ Limit □ (dBuV/m) 114.00 94.00 □ Limit □ (dBuV/m) □ 74.00 □	- passed - not passe (dB) -37.36 -19.38 (dB) (dB) -45.18	Det. Peak AVG Det.

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8.Band Edge Compliance test

8.1. Test Equipment

Band Edge Compliance test							
ltem	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.		
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	10868	2015/10		
2	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2016/03		
3	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2016/03		

8.2. Test Information

EUT	FLX Crawling Copter
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test distance	3 Meter
Test Date:	21 April ~04 May 2016
Operator	Duke
MODEL NO	5F63FD6

8.3. Test procedure

- 1. The EUT operates at hopping-off test mode. The lowest or highest channels are tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.
- 2. Max hold the trace of the setp 1,and the EUT operates at hopping-on test mode to verify the largest spurious emissions power.
- 3. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz ; VBW=1KHz (1/On Time)/ Sweep=AUTO

8.4. Test Results

PASSED.

The EUT operates at hopping-off test mode. The lowest and highest channels are tested to verify the band edge emissions.

Toot Made	Channel	Test Result Highest Emission (dBuv/m)				
Test Mode	Marked Frequency	Horizontal		Vertical		
		Peak	Average	Peak	Average	
Low Channel	2390MHz	30.02	20.49	29.49	20.20	
Low Channel	2400MHz	45.31	29.42	44.07	28.93	
	2483.5MHz	34.02	20.09	33.92	19.90	
High Channel	2500MHz	30.77	19.19	30.88	19.23	

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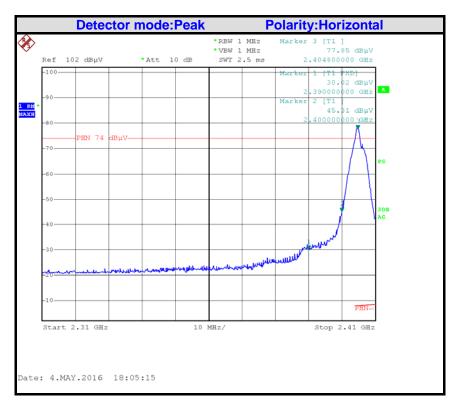
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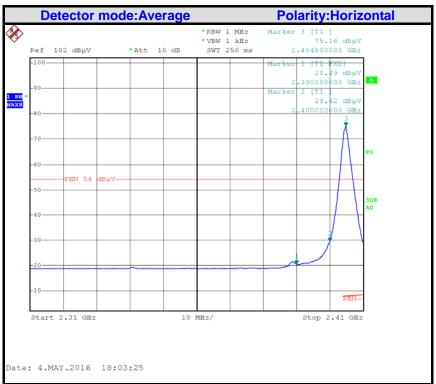
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Band Edges (Low)





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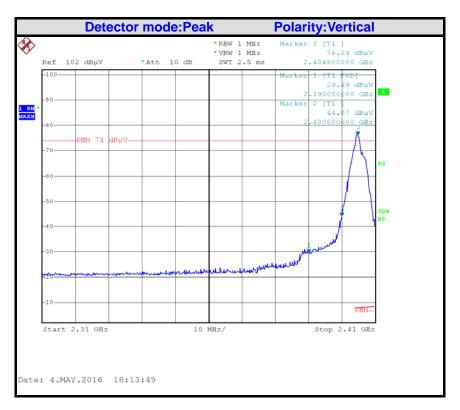
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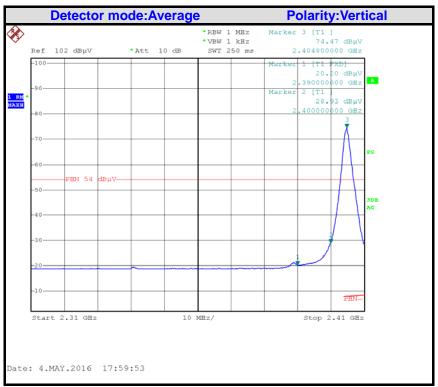
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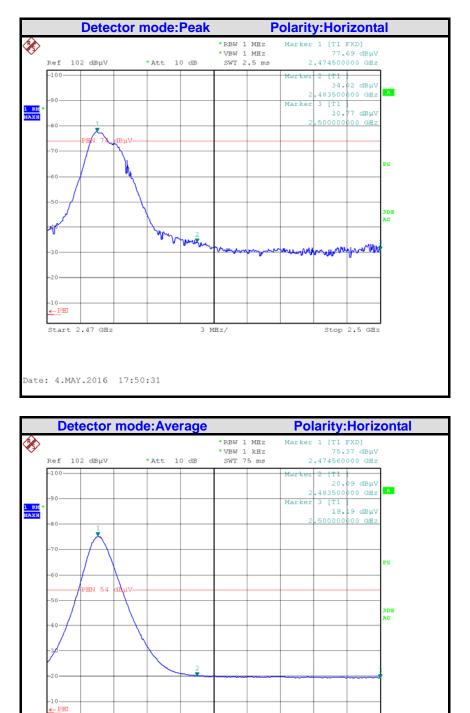
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Band Edges (High)



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3 MHz/

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Start 2.47 GHz

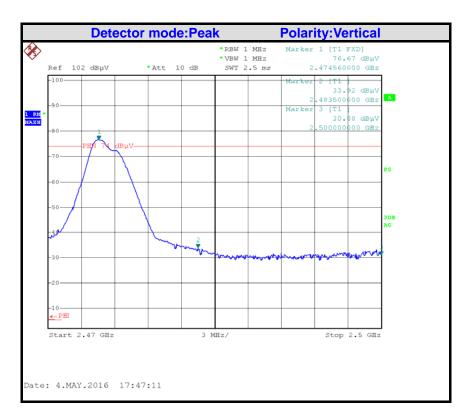
Date: 4.MAY.2016 17:56:53

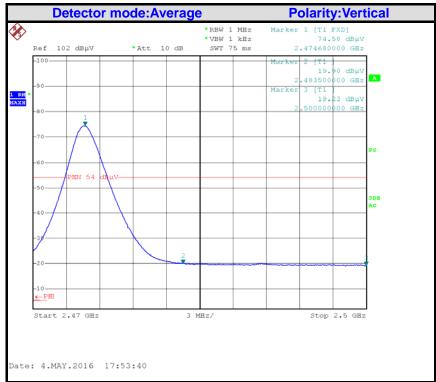
See Reverse For Terms And Conditions of Service

Stop 2.5 GHz



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9.99% bandwidth

9.1 Test procedure

According to RSS-210 A1.1.3 and RSS-Gen 4.6.1 The FLX Crawling Copter output is connected to the spectrum analyzer. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used given that a peak or peak hold may produce a wider bandwidth than actual. The sweep time is coupled.

9.2. Test Equipment

Band Edge Compliance test								
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.			
1	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2016/03/26			
2	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2016/03/24			

9.3. Test Results

PASSED.

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	2405	6.44
Middle	2445	3.12
High	2475	3.18

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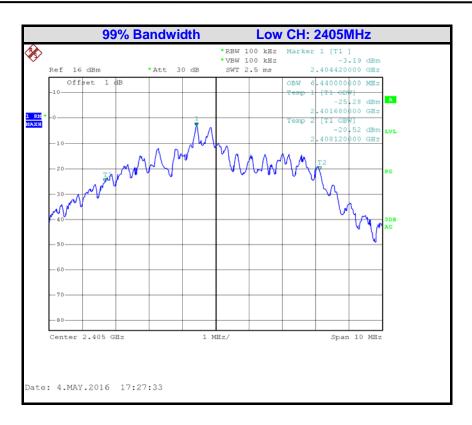
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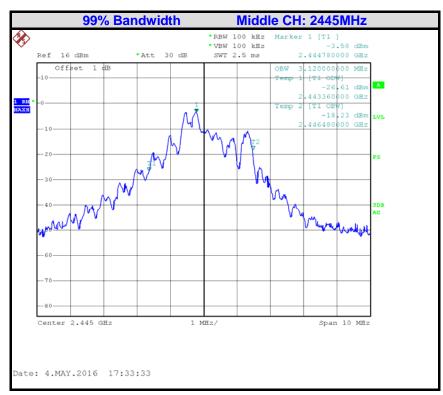
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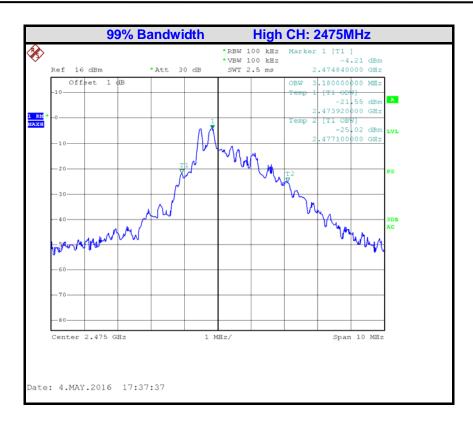
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10. Deviation to test specifications

The following identical model(s):

N/A

Belong to the tested device:

Product description: FLX Crawling Copter Model name: 5F63FD6

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