



FCC TEST REPORT

FCC PART 15 SUBPART C 15.249

Test report
On Behalf of
Shantou Chenghai Langman Technology Co., Ltd
For
2.4G Quadcopter
Model No.: LM06

FCC ID: 2AROE-LM06

Prepared for : **Shantou Chenghai Langman Technology Co., Ltd.**
Huayuan Factory building, Dengfeng Road, Chenghai District, Shantou City,
Guangdong Province

Prepared By : **Shenzhen HUAKE Testing Technology Co., Ltd.**
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Date of Test: **Nov. 20, 2018 ~ Nov. 27, 2018**
Date of Report: **Nov. 27, 2018**
Report Number: **HK1811281734E**



TEST RESULT CERTIFICATION

Applicant's name Shantou Chenghai Langman Technology Co., Ltd
Address Huayuan Factory building, Dengfeng Road, Chenghai District, Shantou City,
Guangdong Province

Manufacture's Name Shantou Chenghai Langman Technology Co., Ltd
Address Huayuan Factory building, Dengfeng Road, Chenghai District, Shantou City,
Guangdong Province

Product description

Trade Mark: N/A
Product name 2.4G Quadcopter
Model and/or type reference . LM06
Series Models LM06 W, LM06 HD, LM06 WH, LM06 HDH
Declaration of Difference All the same except for the model name and front appearance
Standards FCC Rules and Regulations Part 15 Subpart C Section 15.249
ANSI C63.10: 2013

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Date of Test :
Date (s) of performance of tests : Nov. 20, 2018 to Nov. 27, 2018
Date of Issue : Nov. 27, 2018
Test Result : **Pass**

Testing Engineer : 

(Gary Qian)

Technical Manager : 

(Eden Hu)

Authorized Signatory : 

(Jason Zhou)



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1. TEST SUMMARY

1.1 TEST PROCEDURES AND RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.249&15.209	Radiated Emission	Compliant
§15.249&15.209	Band Edges Emission	Compliant
§15.215	20dB bandwidth	Compliant
§15.207	Conducted Emission	N/A

1.2 TEST FACILITY

Test Firm : Shenzhen HUAKE Testing Technology Co., Ltd.

Address : 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping
Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Designation Number: : CN1229

Test Firm Registration Number : 616276

1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty(9kHz-30MHz) = 3.08dB, k=2

Radiated emission expanded uncertainty(30MHz-1000MHz) = 4.42dB, k=2

Radiated emission expanded uncertainty(Above 1GHz) = 4.06dB, k=2



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Operation Frequency	2405-2475MHz
Field Strength(3m)	84.25dBuV/m(Peak)@3m
Modulation	GFSK
Number of channels	71
Test Channels	2405MHz, 2445MHz, 2475MHz
Hardware Version	YY-LMY6-8009TX
Software Version	V1.0
Antenna Designation	Wired Antenna
Antenna Gain	0dBi
Power Supply	DC 4.5V by battery(3*AA)



Channel List

Channel Number	Frequency	Channel Number	Frequency	Channel Number	Frequency
1	2405MHz	25	2429MHz	49	2453MHz
2	2406MHz	26	2430MHz	50	2454MHz
3	2407MHz	27	2431MHz	51	2455MHz
4	2408MHz	28	2432MHz	52	2456MHz
5	2409MHz	29	2433MHz	53	2457MHz
6	2410MHz	30	2434MHz	54	2458MHz
7	2411MHz	31	2435MHz	55	2459MHz
8	2412MHz	32	2436MHz	56	2460MHz
9	2413MHz	33	2437MHz	57	2461MHz
10	2414MHz	34	2438MHz	58	2462MHz
11	2415MHz	35	2439MHz	59	2463MHz
12	2416MHz	36	2440MHz	60	2464MHz
13	2417MHz	37	2441MHz	61	2465MHz
14	2418MHz	38	2442MHz	62	2466MHz
15	2419MHz	39	2443MHz	63	2467MHz
16	2420MHz	40	2444MHz	64	2468MHz
17	2421MHz	41	2445MHz	65	2469MHz
18	2422MHz	42	2446MHz	66	2470MHz
19	2423MHz	43	2447MHz	67	2471MHz
20	2424MHz	44	2448MHz	68	2472MHz
21	2425MHz	45	2449MHz	69	2473MHz
22	2426MHz	46	2450MHz	70	2474MHz
23	2427MHz	47	2451MHz	71	2475MHz
24	2428MHz	48	2452MHz		



2.2 OPERATION OF EUT DURING TESTING

NO.	TEST MODE DESCRIPTION
1	Low channel TX
2	Middle channel TX
3	High channel TX
Note: 1. Only the data of the worst case recorded in the test report. 2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.	

2.3 DESCRIPTION OF TEST SETUP

Operation of EUT during Radiation and Above1GHz Radiation testing:

EUT



2.4 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 28, 2017	1 Year
2.	Receiver	R&S	ESCI 7	HKE-010	Dec. 28, 2017	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 28, 2017	1 Year
4.	Spectrum analyzer	R&S	FSP40	HKE-025	Dec. 28, 2017	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 28, 2017	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 28, 2017	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Dec. 28, 2017	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 28, 2017	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 28, 2017	1 Year
10.	Horn Antenna	Schwarzbeck	9120D	HKE-013	Dec. 28, 2017	1 Year
11.	Pre-amplifier	EMCI	EMC051845 SE	HKE-015	Dec. 28, 2017	1 Year
12.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 28, 2017	1 Year
13.	EMI Test Software EZ-EMC	Tonscend	JS1120-B Version	HKE-083	Dec. 28, 2017	N/A
14.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 28, 2017	3 Year



3. RADIATED EMISSION

3.1. MEASUREMENT PROCEDURE

1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.



The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RBW 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RBW 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RBW 120KHz for QP
Start ~Stop Frequency	1GHz~26.5GHz 3MHz/10MHz for Peak, 3MHz/10Hz for Average

Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RBW 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RBW 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RBW 120KHz for QP

Test limit for Standard FCC15.249

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
900-928MHz	50	500
2400-2483.5MHz	50	500
5725-5875MHz	50	500
24.0-24.25GHz	250	2500

Test limit for Standard FCC 15.209

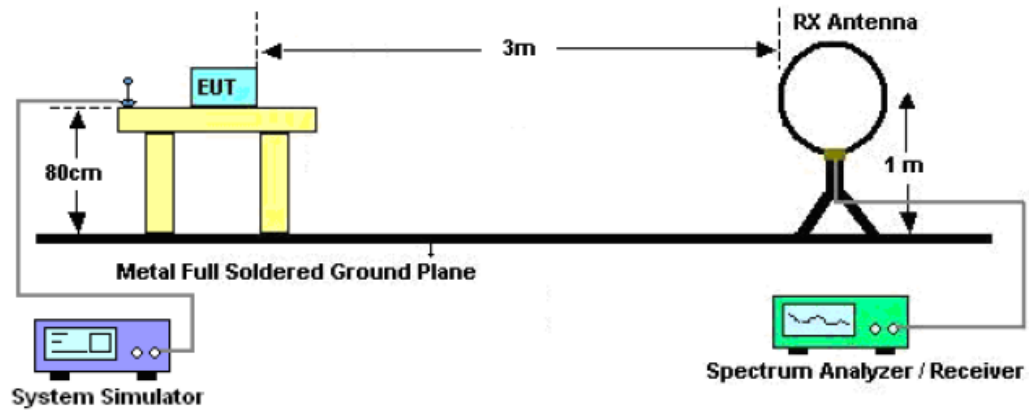
Frequency (MHz)	Distance Meters	Field Strengths Limit	
		μ V/m	dB(μ V)/m
0.009 ~ 0.490	300	2400/F(kHz)	---
0.490 ~ 1.705	30	24000/F(kHz)	---
1.705 ~ 30	30	30	---
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	Other: 74.0 dB(μ V)/m (Peak) 54.0 dB(μ V)/m (Average)	

Remark:

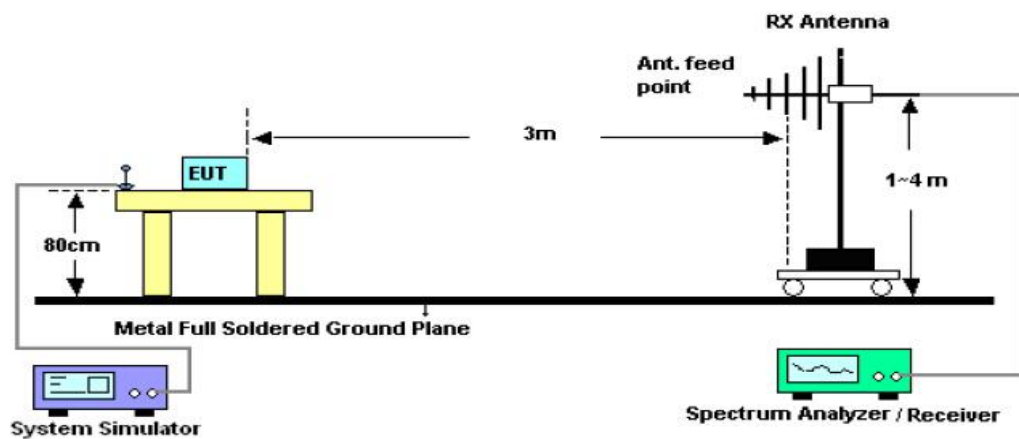
- (1) Emission level $\text{dB}\mu\text{V} = 20 \log \text{Emission level } \mu\text{V/m}$
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

3.2. TEST SETUP

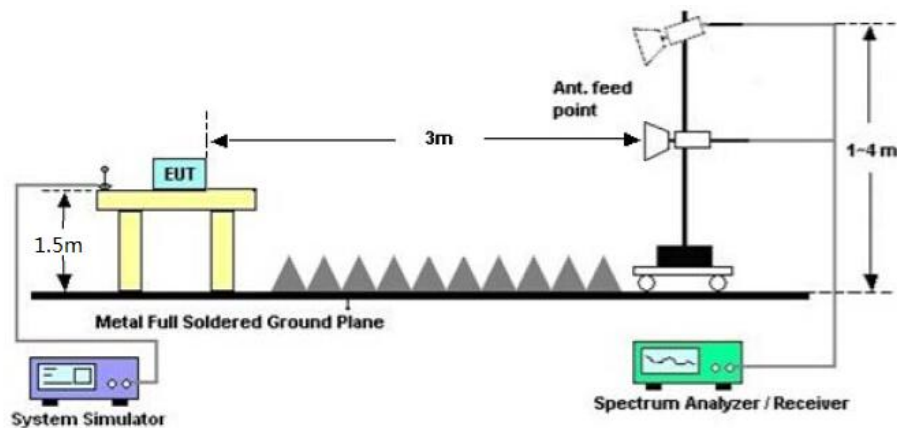
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



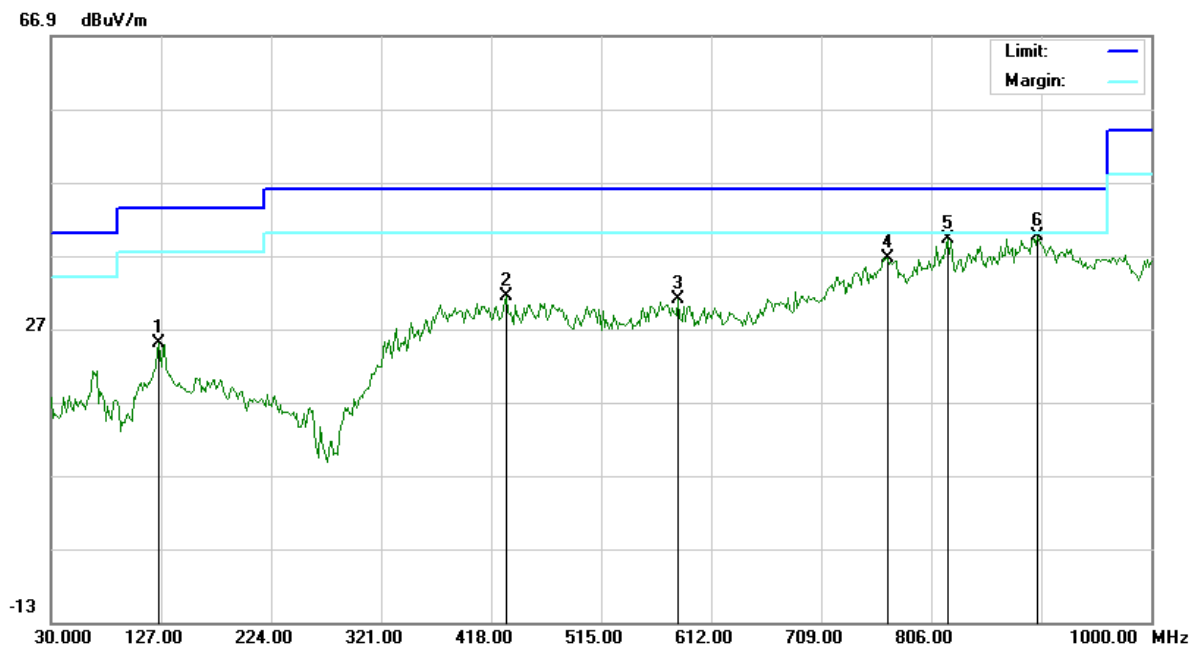


3.3. TEST RESULT

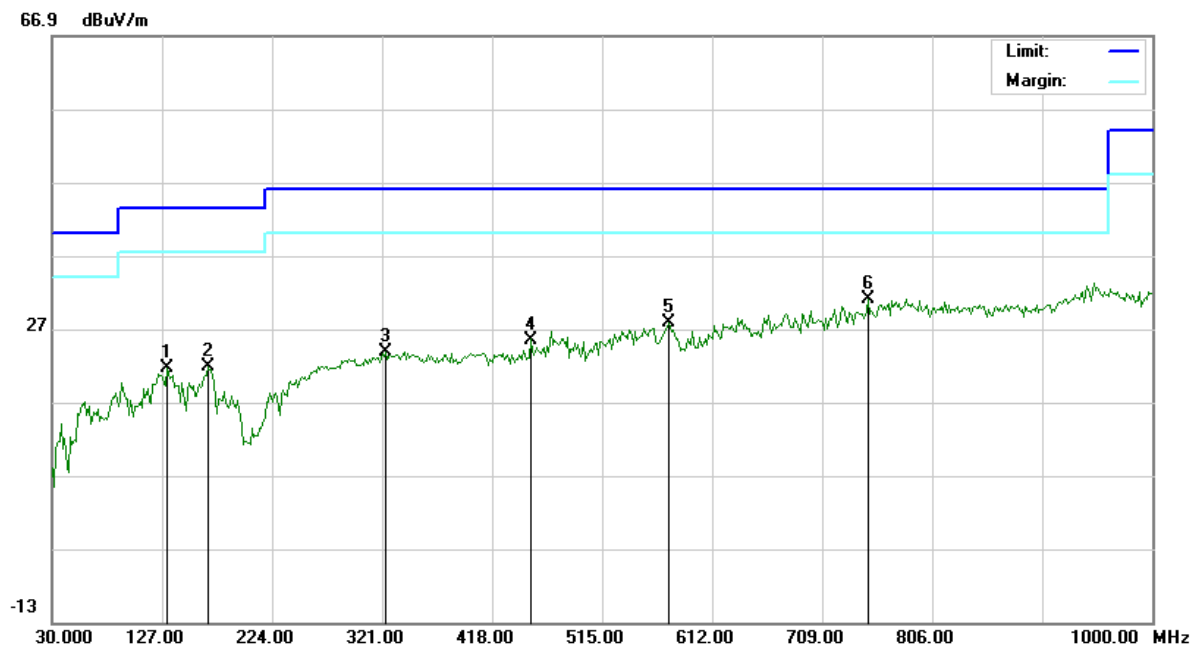
RADIATED EMISSION BELOW 30MHz

No emission found between lowest internal used/generated frequencies to 30MHz.

RADIATED EMISSION BELOW 1GHZ-Horizontal



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dBuV/m	dBuV/m	dBuV/m	dB		cm	degree	
1		125.3833	16.67	8.37	25.04	43.50	-18.46	peak			
2		430.9331	11.35	20.01	31.36	46.00	-14.64	peak			
3		582.8999	7.68	23.30	30.98	46.00	-15.02	peak			
4		767.2000	9.76	26.87	36.63	46.00	-9.37	peak			
5		820.5498	11.80	27.32	39.12	46.00	-6.88	peak			
6	*	899.7667	10.98	28.60	39.58	46.00	-6.42	peak			

**RADIATED EMISSION BELOW 1GHZ-Vertical**

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dBuV/m	dBuV/m	dBuV/m	dB		cm	degree	
1		131.8497	9.72	11.80	21.52	43.50	-21.98	peak			
2		167.4165	6.90	14.86	21.76	43.50	-21.74	peak			
3		324.2330	6.72	17.02	23.74	46.00	-22.26	peak			
4		451.9497	4.89	20.61	25.50	46.00	-20.50	peak			
5		573.2000	5.15	22.60	27.75	46.00	-18.25	peak			
6	*	749.4166	4.44	26.61	31.05	46.00	-14.95	peak			

RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss - Amplifier gain, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

3. The mode 1 is the worst case, and only the data of the worst case recorded in this test report.

RADIATED EMISSION ABOVE 1GHZ

Field strength of fundamental emission

EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 ℃	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 1/2/3	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2405.021	93.86	-9.61	84.25	114.00	-29.75	peak
2405.021	90.02	-9.61	80.41	94.00	-13.59	AVG
2445.021	93.39	-9.61	83.78	114.00	-30.22	peak
2445.021	89.46	-9.61	79.85	94.00	-14.15	AVG
2475.021	93.65	-9.61	84.04	114.00	-29.96	peak
2475.021	89.57	-9.61	79.96	94.00	-14.04	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 ℃	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 1/2/3	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2405.021	93.02	-9.61	83.41	114.00	-30.59	peak
2405.021	89.13	-9.61	79.52	94.00	-14.48	AVG
2445.021	92.86	-9.61	83.25	114.00	-30.75	peak
2445.021	88.73	-9.61	79.12	94.00	-14.88	AVG
2475.021	92.75	-9.61	83.14	114.00	-30.86	peak
2475.021	88.43	-9.61	78.82	94.00	-15.18	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

**Field strength of spurious emission**

EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 1	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4810.042	47.49	3.76	51.25	74.00	-22.75	peak
4810.042	44.36	3.76	48.12	54.00	-5.88	AVG
7215.063	39.30	8.17	47.47	74.00	-26.53	peak
7215.063	35.18	8.17	43.35	54.00	-10.65	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 1	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4810.042	46.66	3.76	50.42	74.00	-23.58	peak
4810.042	44.09	3.76	47.85	54.00	-6.15	AVG
7215.063	38.95	8.17	47.12	74.00	-26.88	peak
7215.063	34.98	8.17	43.15	54.00	-10.85	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humiditytity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 2	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4890.042	47.66	3.78	51.44	74.00	-22.56	peak
4890.042	43.34	3.78	47.12	54.00	-6.88	AVG
7335.063	42.24	8.23	50.47	74.00	-23.53	peak
7335.063	38.02	8.23	46.25	54.00	-7.75	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 2	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4890.042	46.76	3.78	50.54	74.00	-23.46	peak
4890.042	42.74	3.78	46.52	54.00	-7.48	AVG
7335.063	39.30	8.23	47.53	74.00	-26.47	peak
7335.063	35.89	8.23	44.12	54.00	-9.88	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						



EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 3	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4950.042	47.73	3.81	51.54	74.00	-22.46	peak
4950.042	43.35	3.81	47.16	54.00	-6.84	AVG
7425.063	41.44	8.27	49.71	74.00	-24.29	peak
7425.063	38.28	8.27	46.55	54.00	-7.45	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 3	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4950.042	45.71	3.81	49.52	74.00	-24.48	peak
4950.042	40.97	3.81	44.78	54.00	-9.22	AVG
7425.063	38.94	8.27	47.21	74.00	-26.79	peak
7425.063	35.42	8.27	43.69	54.00	-10.31	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Note: Other emissions from 8G to 25 GHz are considered as ambient noise. No recording in the test report.
Factor=Antenna Factor + Cable loss - Amplifier gain, Margin=Measurement-Limit.
The “Factor” value can be calculated automatically by software of measurement system.

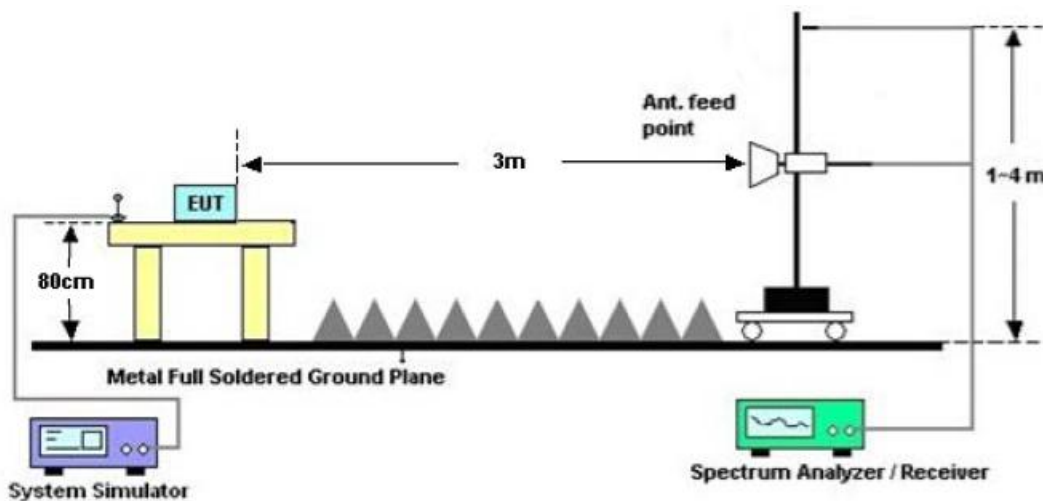
4. BAND EDGE EMISSION

4.1. MEASUREMENT PROCEDURE

1. The EUT operates at transmitting mode. The operate channel is tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.
2. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission: (a) PEAK: RBW=1MHz, VBW=3MHz , Sweep=AUTO
(b) AVERAGE: RBW=1MHz ; VBW=1/on time(1kHz), Sweep=AUTO
3. Other procedures refer to clause 3.1.

4.2 TEST SETUP

RADIATED EMISSION TEST SETUP



4.3 RADIATED TEST RESULT

Note:

1. Factor=Antenna Factor + Cable loss - Amplifier gain. Field Strength=Factor + Reading level
2. The factor had been edited in the "Input Correction" of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the A dB(μ V) to represent the Amplitude. Use the F dB(μ V/m) to represent the Field Strength. So $A=F$.

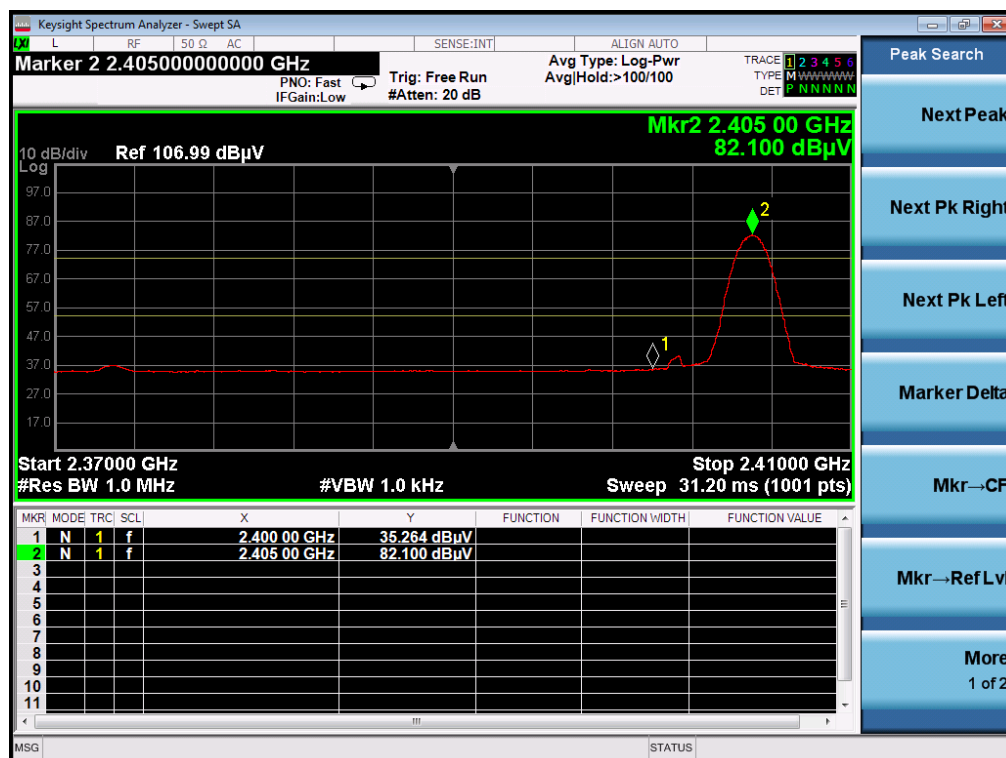


EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 1	Polarization :	Horizontal

PK Value



AV Value



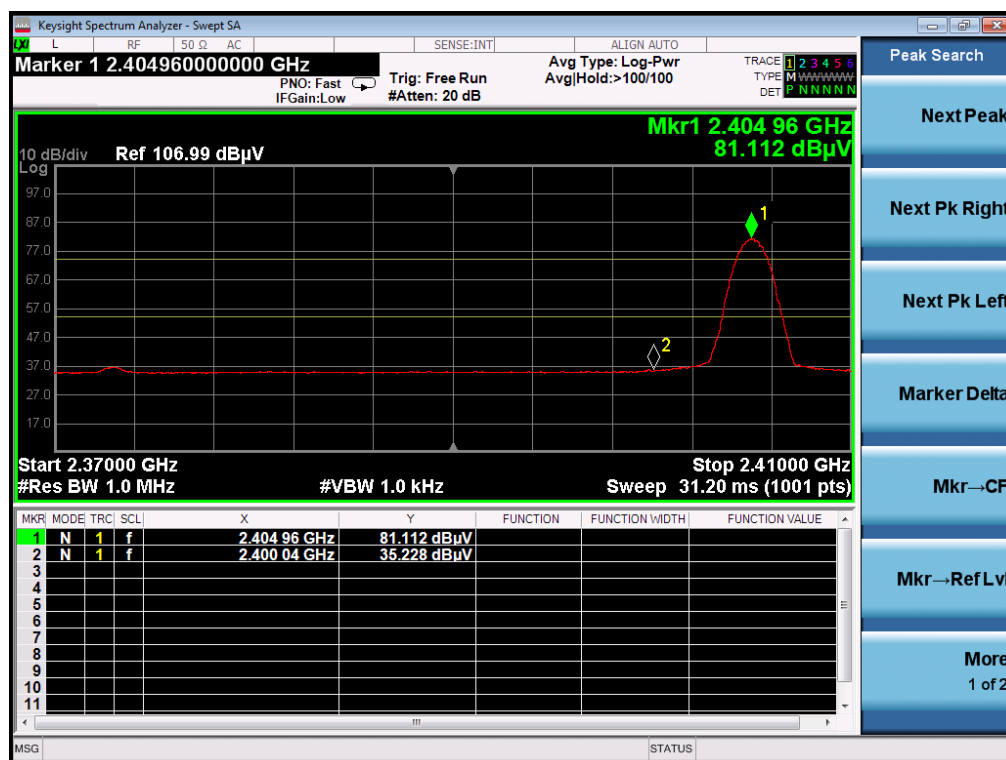


EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 1	Polarization :	Vertical

PK Value



AV Value



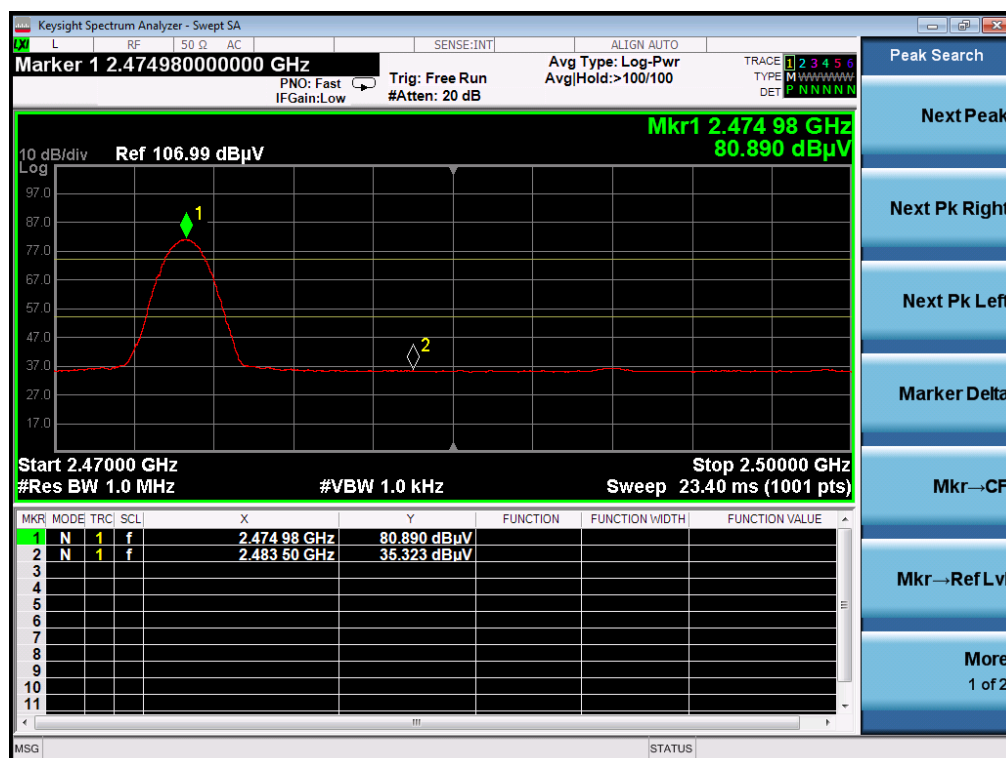


EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 3	Polarization :	Horizontal

PK Value



AV Value



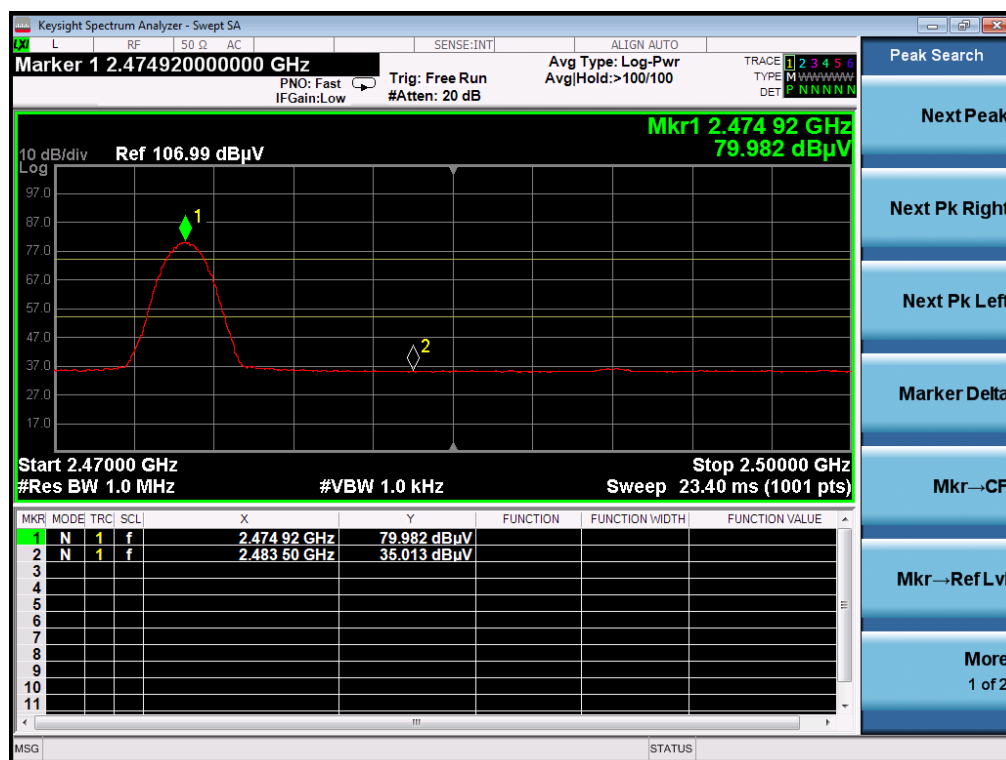


EUT :	2.4G Quadcopter	Model Name. :	LM06
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 5V
Test Mode :	Mode 3	Polarization :	Vertical

PK Value



AV Value



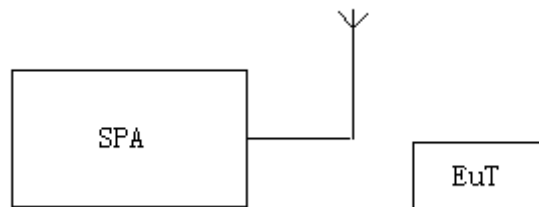


5. BANDWIDTH

5.1. MEASUREMENT PROCEDURE

1. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Set the EUT Work on the operation frequency individually.
3. Set Span = approximately 2 to 5 times the OBW, centered on a hopping channel
The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately 3* RBW; Sweep = auto; Detector function = peak
4. Set SPA Trace 1 Max hold, then View.

5.2. TEST SETUP





5.3. TEST RESULT

TEST ITEM	-20dB BANDWIDTH
TEST MODE	Mode1, Mode 2, Mode 3

Channel	MHz	Criteria
Low Channel	1.560	PASS
Middle Channel	1.346	PASS
High Channel	1.274	PASS

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL





TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

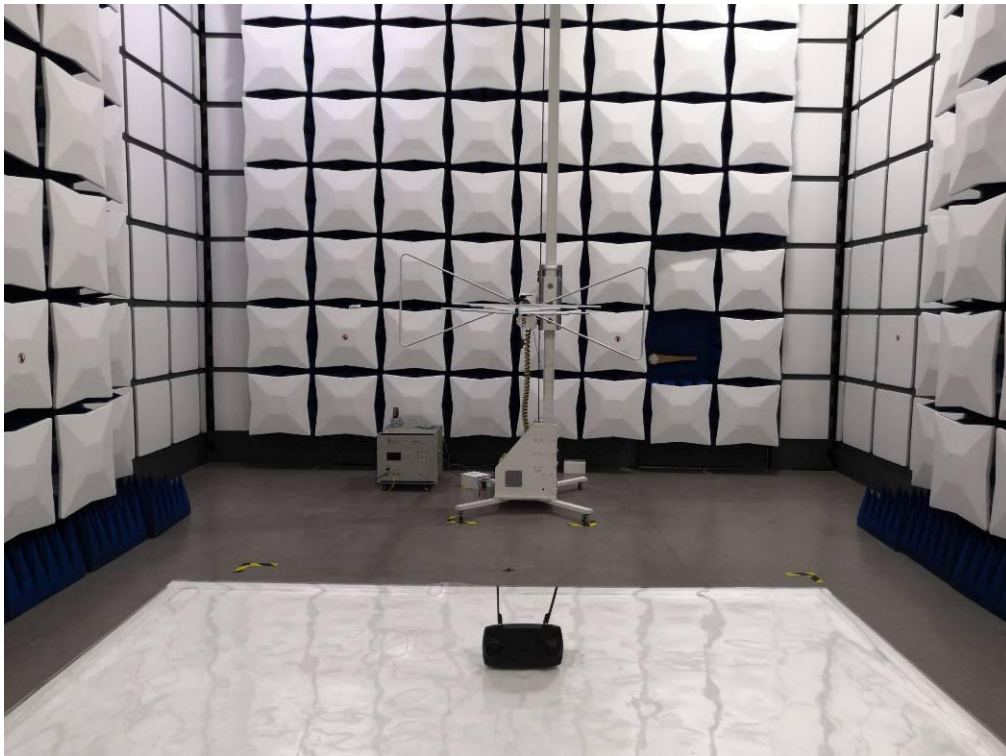


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



6. PHOTOGRAPH OF TEST

Radiated Emission





7. PHOTOGRAPH OF EUT

ALL VIEW OF EUT





TOP VIEW OF EUT



BOTTOM VIEW OF EUT





FRONT VIEW OF EUT



BACK VIEW OF EUT





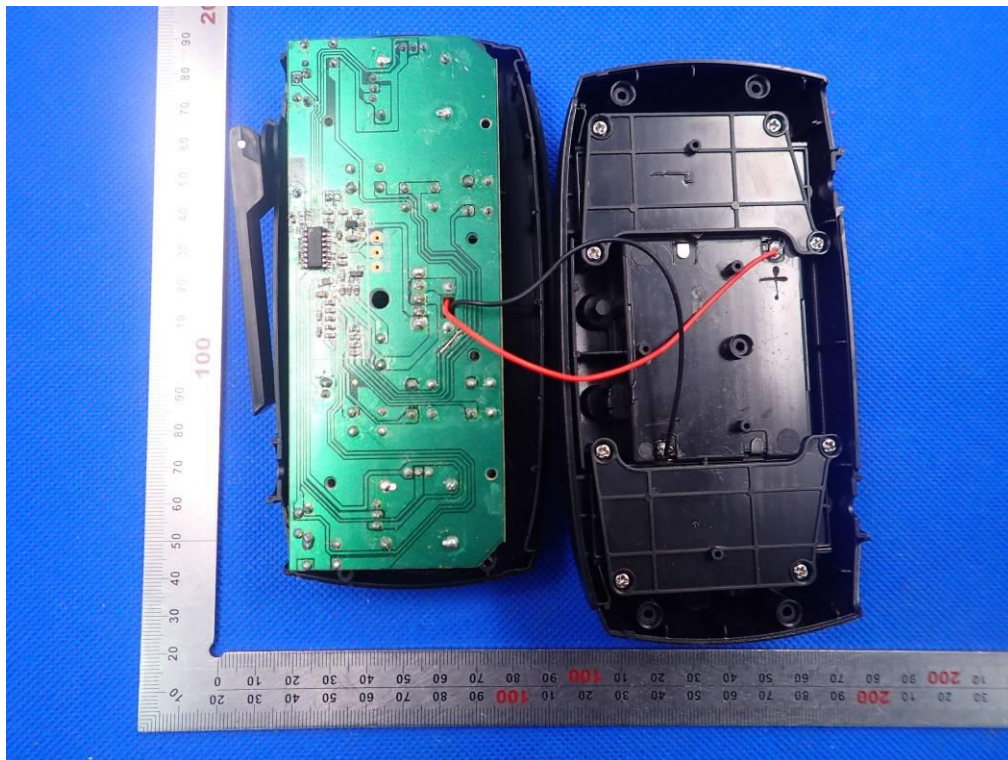
LEFT VIEW OF EUT



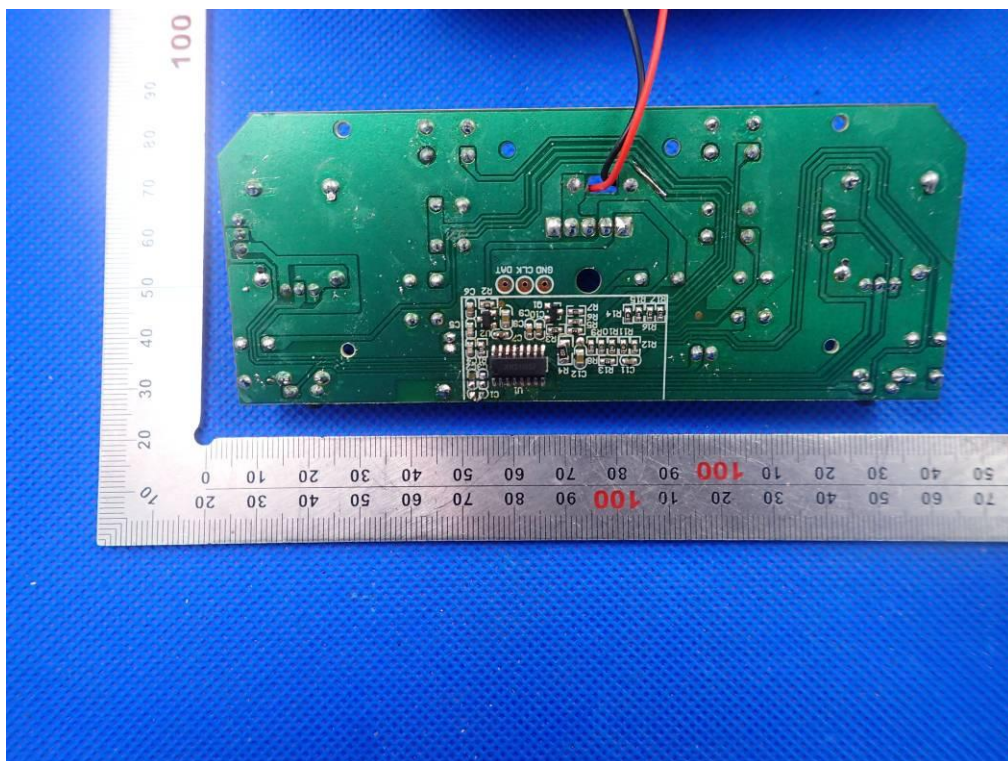
RIGHT VIEW OF EUT



OPEN VIEW OF EUT

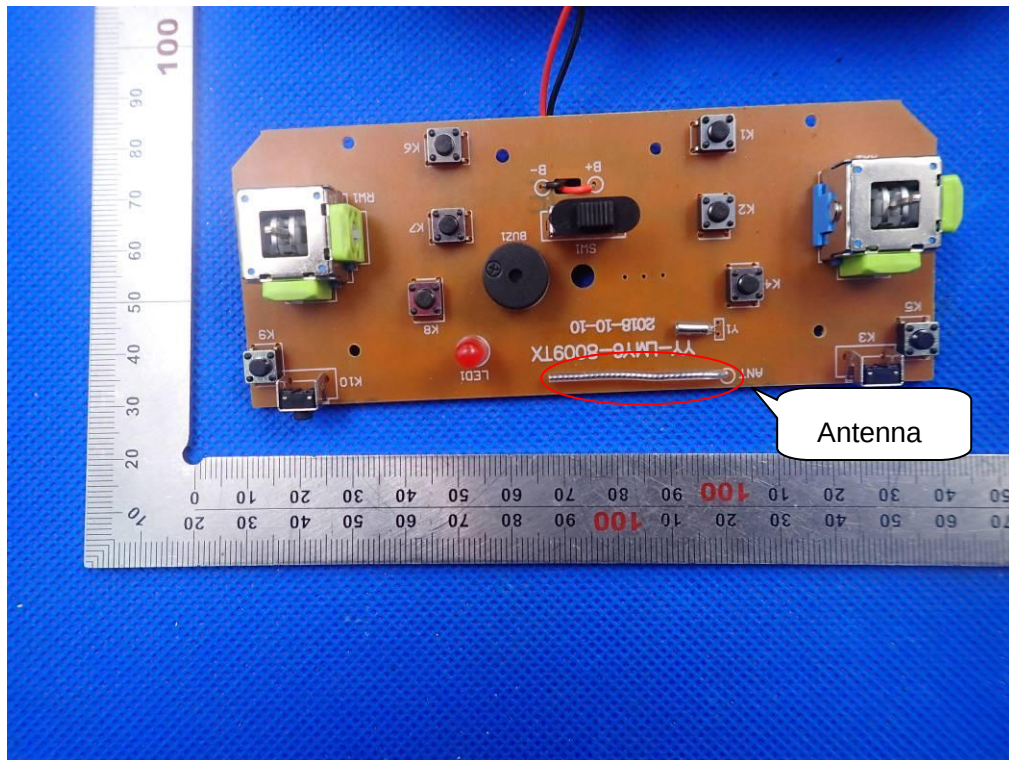


INTERNAL VIEW OF EUT-1

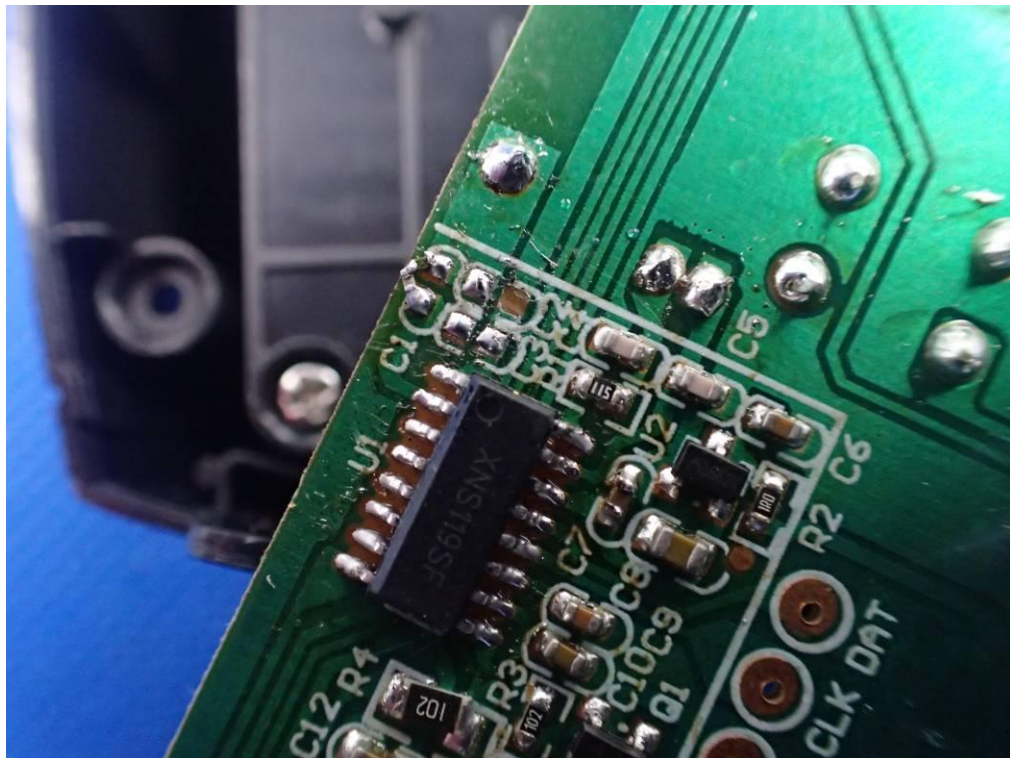




INTERNAL VIEW OF EUT-2



INTERNAL VIEW OF EUT-3



----END OF REPORT----