



# **FCC RADIO TEST REPORT**

## **FCC ID: 2AH8Y-F807**

**Product :** Quad-rotor Helicopter

**Trade Name :** HT

**Model Name :** F807

**Serial Model :** F801, F802, F803, F805, F806, F808, F809,  
F810, F811, F812, F813, F815, F816, F817,  
F818, F819, F820, F821, F822

**Report No. :** NTEK-2015NT1031022F1

### **Prepared for**

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### **Prepared by**

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**TEST RESULT CERTIFICATION****Applicant's name** ..... : Shantou Hontai Technology Co., Ltd.

Address ..... : Songshan Road and Shanfen Road Jiaojie South Side, Lake District, Shantou City, Guangdong Province, P.R.C.

**Manufacturer's Name** ..... : Shantou Hontai Technology Co., Ltd.

Address ..... : Songshan Road and Shanfen Road Jiaojie South Side, Lake District, Shantou City, Guangdong Province, P.R.C.

**Product description**

Product name ..... : Quad-rotor Helicopter

Model and/or type reference : F807

Serial Model : F801, F802, F803, F805, F806, F808, F809, F810, F811,  
F812, F813, F815, F816, F817, F818, F819, F820, F821,  
F822

Rating(s) ..... : DC 3.7V

**Standards** ..... : FCC Part15.249 01 Oct. 2015

Test procedure ..... ANSI C63.10-2013

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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**Date of Test** ..... :

Date (s) of performance of tests ..... : 31 Oct. 2015 ~28 Mar. 2016

Date of Issue ..... : 28 Mar. 2016

Test Result ..... : **Pass**

Testing Engineer : Susan  
(Susan Su)

Technical Manager : Jason Chen  
(Jason Chen)

Authorized Signatory : Sam. Chen  
(Sam Chen)

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## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C (15.249)			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	N/A	
15.203	Antenna Requirement	Pass	
15.249	Radiated Spurious Emission	Pass	
15.249	Fundamental Measurement	Pass	
15.205	Band Edge Emission	Pass	
15.249	Occupied Bandwidth	Pass	

## 1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd

Add. : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.

FCC FRN Registration No.:238937; IC Registration No.:9270A-1

CNAS Registration No.:L5516

## 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 1.38\text{dB}$
2	RF power,conducted	$\pm 0.16\text{dB}$
3	Spurious emissions,conducted	$\pm 0.21\text{dB}$
4	All emissions,radiated(<1G)	$\pm 4.68\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Quad-rotor Helicopter	
Trade Name	HT	
Model Name	F807	
Serial Model	F801, F802, F803, F805, F806, F808, F809, F810, F811, F812, F813, F815, F816, F817, F818, F819, F820, F821, F822	
Model Difference	All the model are the same circuit and RF module, except the model name and colour.	
Product Description	The EUT is a Quad-rotor Helicopter	
	Operation Frequency:	2405-2475MHz
	Modulation Type:	GFSK
	Antenna Designation:	Linear Antenna
	Antenna Gain(Peak)	1.0 dBi
	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.	
Channel List	Please refer to the Note 2.	
Adapter	N/A	
Battery	DC 3.7V,500mAh	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

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

3.

Table for Filed Antenna

Ant .	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	Linear Antenna	N/A	1.0	Antenna

## 2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	CH 1
Mode 2	CH 41
Mode 3	CH 71

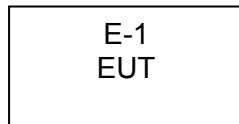
Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The EUT use new battery.



## 2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



## 2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Quad-rotor Helicopter	HT	F807	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

**2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS****Radiation Test equipment**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	E4407B	160400005	Jul. 06. 2016
2	Test Receiver	R&S	ESPI	101318	Jul. 06. 2016
3	Bilog Antenna	TESEQ	CBL6111D	31216	Jul. 06. 2016
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	Jul. 06. 2016
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	Jul. 06. 2016
6	Horn Antenna	EM	EM-AH-10180	2011071402	Jul. 06. 2016
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	Jul. 06. 2016
8	Amplifier	EM	EM-30180	060538	Jul. 06. 2016
9	Loop Antenna	ARA	PLA-1030/B	1029	Jul. 06. 2016
10	Power Meter	R&S	NRVS	100696	Jul. 06. 2016

**Conduction Test equipment**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Test Receiver	R&S	ESCI	101160	Jul. 06. 2016
2	LISN	R&S	ENV216	101313	Jul. 06. 2016
3	LISN	EMCO	3816/2	00042990	Jul. 06. 2016
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	Jul. 06. 2016
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	Jul. 06. 2016
6	Absorbing clamp	R&S	MOS-21	100423	Jul. 06. 2016

### **3. ANTENNA REQUIREMENT**

#### **3.1 STANDARD REQUIREMENT**

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### **3.2 EUT ANTENNA**

The EUT antenna is permanent attached antenna. It comply with the standard requirement.

### 3.3 CONDUCTED EMISSION MEASUREMENT

#### 3.3.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5			66 - 56 *	56 - 46 *	CISPR
0.50 -5.0			56.00	46.00	CISPR
5.0 -30.0			60.00	50.00	CISPR

0.15 -0.5			66 - 56 *	56 - 46 *	LP002.
0.50 -5.0			56.00	46.00	LP002.
5.0 -30.0			60.00	50.00	LP002.

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

### 3.3.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.3.3 DEVIATION FROM TEST STANDARD

No deviation

### 3.3.4 TEST SETUP



**Note: 1.**Support units were connected to second LISN.

**2.**Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

### 3.2.5 TEST RESULT

N/A

### 3.4 RADIATED EMISSION MEASUREMENT

#### 3.4.1 Radiated Emission Limits ( FCC 15.209 )

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
Frequency (MHz)	Limit (dBuV)	
30~88	40	3
88~216	43.5	3
216~960	46	3
960 -10000	54.00	3
*902 - 928	94.00	3

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).
- (3) \*Note: This is the limit for the fundamental frequency.

#### LIMITS OF RADIATED EMISSION MEASUREMENT ( FCC 15.249)

Frequency of Emission (MHz)	Field Strength of fundamental ((millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
902-928	50	500

Notes:

- (1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP



**3.4.2 TEST PROCEDURE**

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

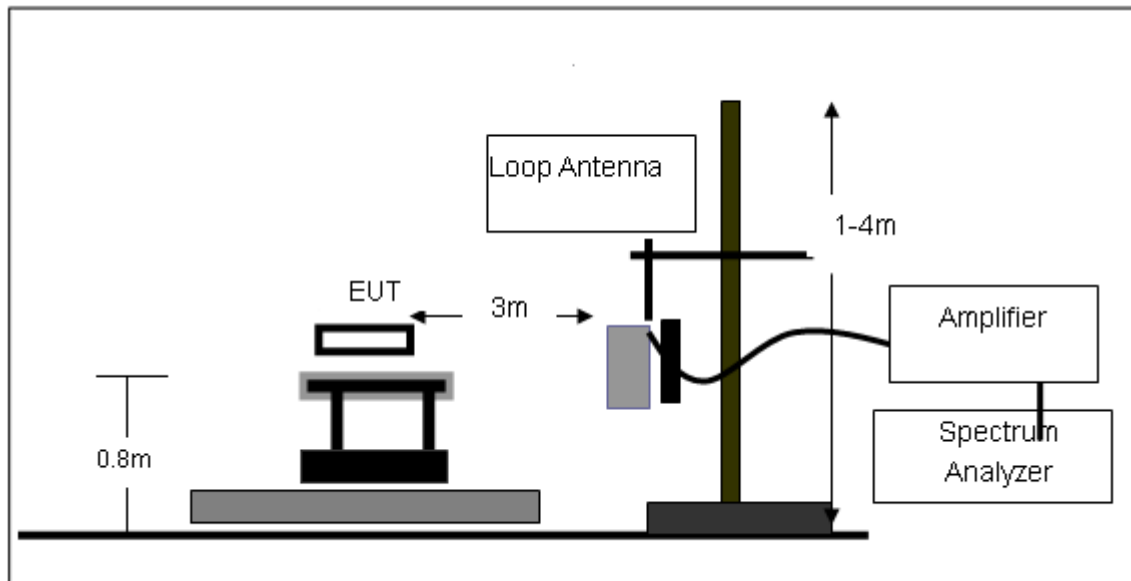
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

**3.4.3 DEVIATION FROM TEST STANDARD**

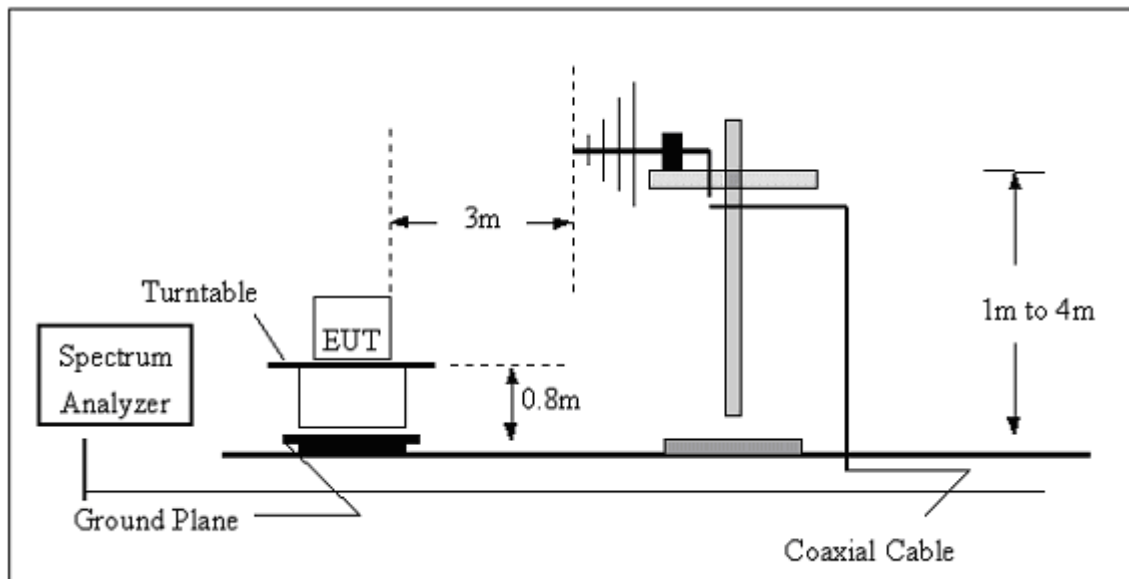
No deviation

### 3.4.4 TEST SETUP

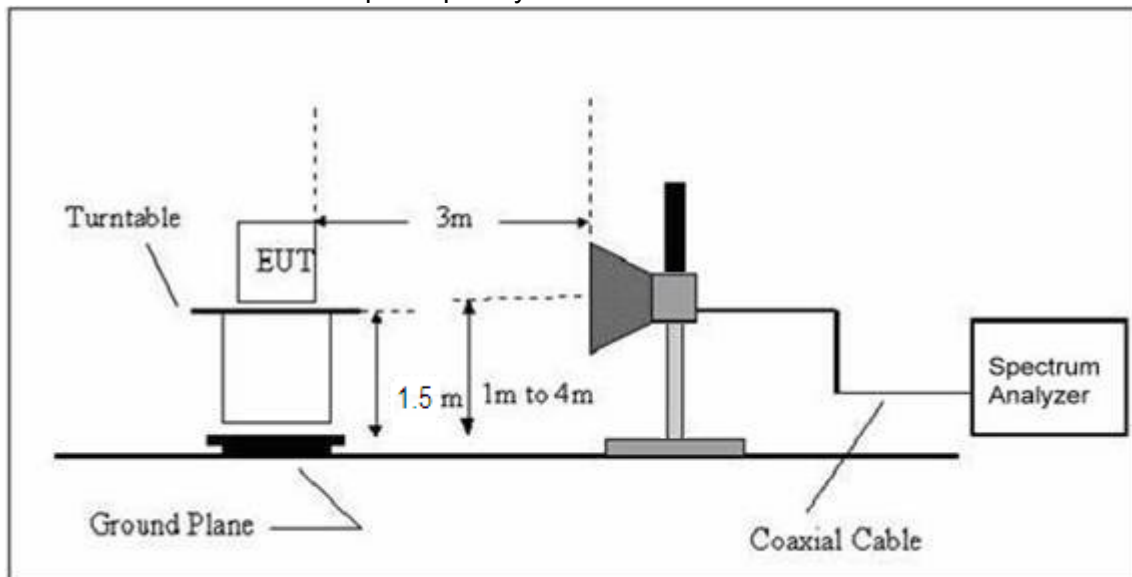
#### (A) Radiated Emission Test-Up Frequency Below 30MHz



#### (B) Radiated Emission Test-Up Frequency 30MHz~1GHz



## (C) Radiated Emission Test-Up Frequency Above 1GHz



**3.4.5 TEST RESULTS (BLOW 30MHz)**

EUT :	Quad-rotor Helicopter	Model Name. :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	N/A
--	--	--	--	N/A

**NOTE:**

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =  $20 \log (\text{specific distance}/\text{test distance})(\text{dB})$ ;

Limit line = specific limits(dBuv) + distance extrapolation factor.

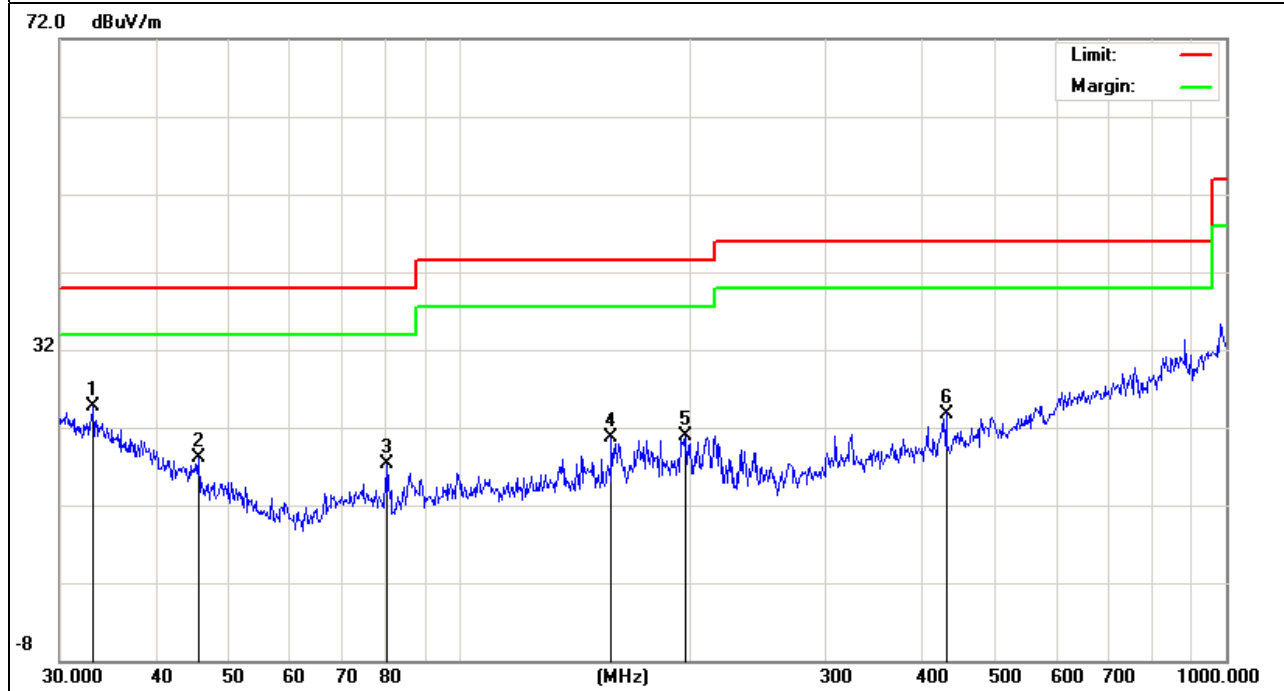
### 3.4.6 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
33.2111	6.65	18.05	24.70	40.00	-15.30	QP
45.5347	7.01	11.09	18.10	40.00	-21.90	QP
80.3619	8.45	8.95	17.40	40.00	-22.60	QP
157.5586	9.06	11.64	20.70	43.50	-22.80	QP
197.1999	9.55	11.45	21.00	43.50	-22.50	QP
431.0316	8.85	14.95	23.80	46.00	-22.20	QP

Remark:

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

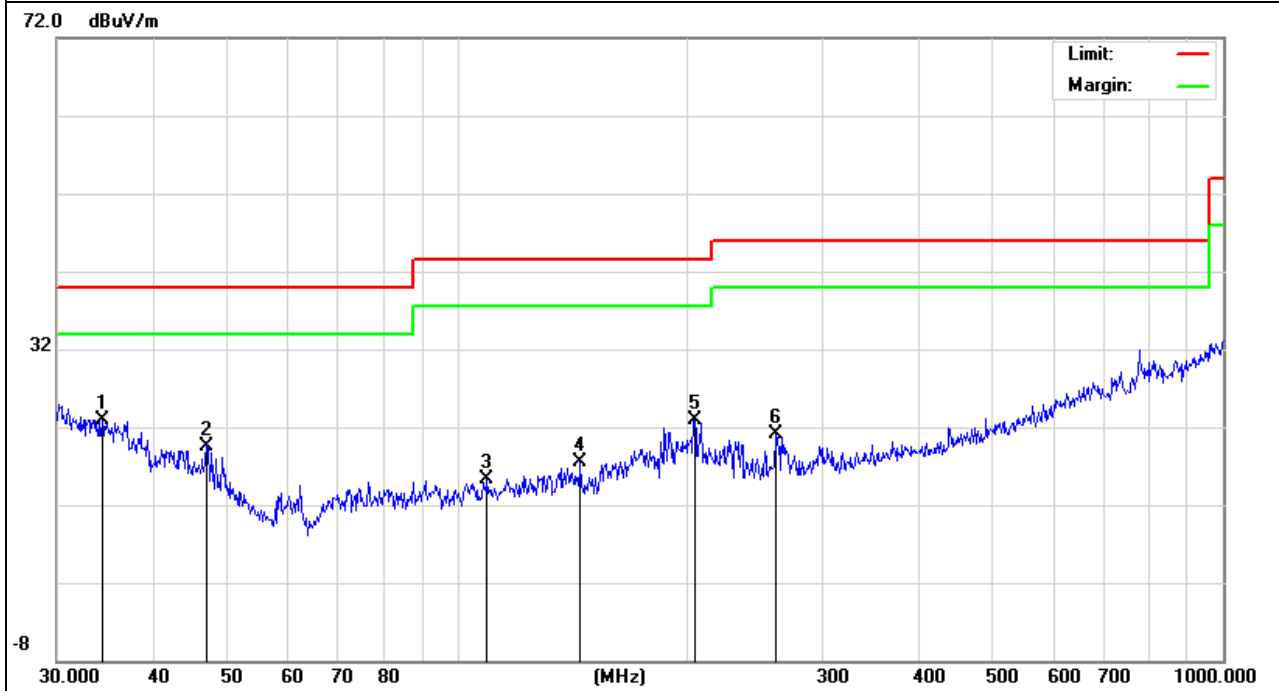


EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
34.3962	5.58	17.42	23.00	40.00	-17.00	QP
46.9947	9.35	10.25	19.60	40.00	-20.40	QP
109.4116	5.12	10.24	15.36	43.50	-28.14	QP
144.8418	6.23	11.27	17.50	43.50	-26.00	QP
204.2375	11.34	11.56	22.90	43.50	-20.60	QP
260.1444	10.22	10.88	21.10	46.00	-24.90	QP

Remark:

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



### 3.4.7 TEST RESULTS (1000MHZ ~25000MHZ)

EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2405MHz	Polarization :	Horizontal

All the modulation modes have been tested, and the worst result was report as below:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4812.420	54.90	1.12	56.02	74.00	-17.98	peak
4825.000	42.52	1.11	43.63	54.00	-10.37	AVG
9627.500	45.16	8.46	53.62	74.00	-20.38	peak
9627.500	39.85	8.46	48.31	54.00	-5.69	AVG
24271.00	49.57	8.04	57.61	74.00	-16.39	peak
24271.00	42.51	8.04	50.55	54.00	-3.45	AVG

EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2405MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4812.200	51.28	1.12	52.40	74.00	-21.60	peak
4825.000	41.58	1.11	42.69	54.00	-11.31	AVG
9670.000	47.15	8.35	55.50	74.00	-18.50	peak
9670.000	40.35	8.35	48.70	54.00	-5.30	AVG
24274.00	49.30	8.04	57.34	74.00	-16.66	peak
24274.00	42.24	8.04	50.28	54.00	-3.72	AVG

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3)All other emissions more than 20dB below the limit.

(4)EUT Pre-scan X/Y/Z orientation, only worst case is presented in the report(X orientation).

EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2445MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4904.400	44.07	0.73	44.80	74.00	-29.20	peak
4904.400	34.96	0.73	35.69	54.00	-18.31	AVG
9202.500	42.00	7.66	49.66	74.00	-24.34	peak
9202.500	33.52	7.66	41.18	54.00	-12.82	AVG
24519.00	49.26	8.04	57.30	74.00	-16.70	peak
24519.00	41.94	8.04	49.98	54.00	-4.02	AVG

EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2445MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4908.000	52.45	0.75	53.20	74.00	-20.80	peak
4908.000	41.86	0.75	42.61	54.00	-11.39	AVG
9372.500	42.44	7.23	49.67	74.00	-24.33	peak
9372.500	34.63	7.23	41.86	54.00	-12.14	AVG
24522.00	48.99	8.04	57.03	74.00	-16.97	peak
24522.00	41.67	8.04	49.71	54.00	-4.29	AVG

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3)All other emissions more than 20dB below the limit.

(4)EUT Pre-scan X/Y/Z orientation, only worst case is presented in the report(X orientation).



EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2475MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4952.500	52.62	0.83	53.45	74.00	-20.55	peak
4952.500	42.88	0.83	43.71	54.00	-10.29	AVG
9415.000	43.07	7.62	50.69	74.00	-23.31	peak
9415.000	38.96	7.62	46.58	54.00	-7.42	AVG
24553.00	49.95	8.04	57.99	74.00	-16.01	peak
24553.00	42.07	8.04	50.11	54.00	-3.89	AVG

EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2475MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4952.500	50.65	0.83	51.48	74.00	-22.52	peak
4952.500	41.57	0.83	42.40	54.00	-11.60	AVG
9755.000	42.51	8.00	50.51	74.00	-23.49	peak
9755.000	36.95	8.00	44.95	54.00	-9.05	AVG
24556.00	49.68	8.04	57.72	74.00	-16.28	peak
24556.00	41.80	8.04	49.84	54.00	-4.16	AVG

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).  
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.  
(3)All other emissions more than 20dB below the limit.  
(4)EUT Pre-scan X/Y/Z orientation, only worst case is presented in the report(X orientation).

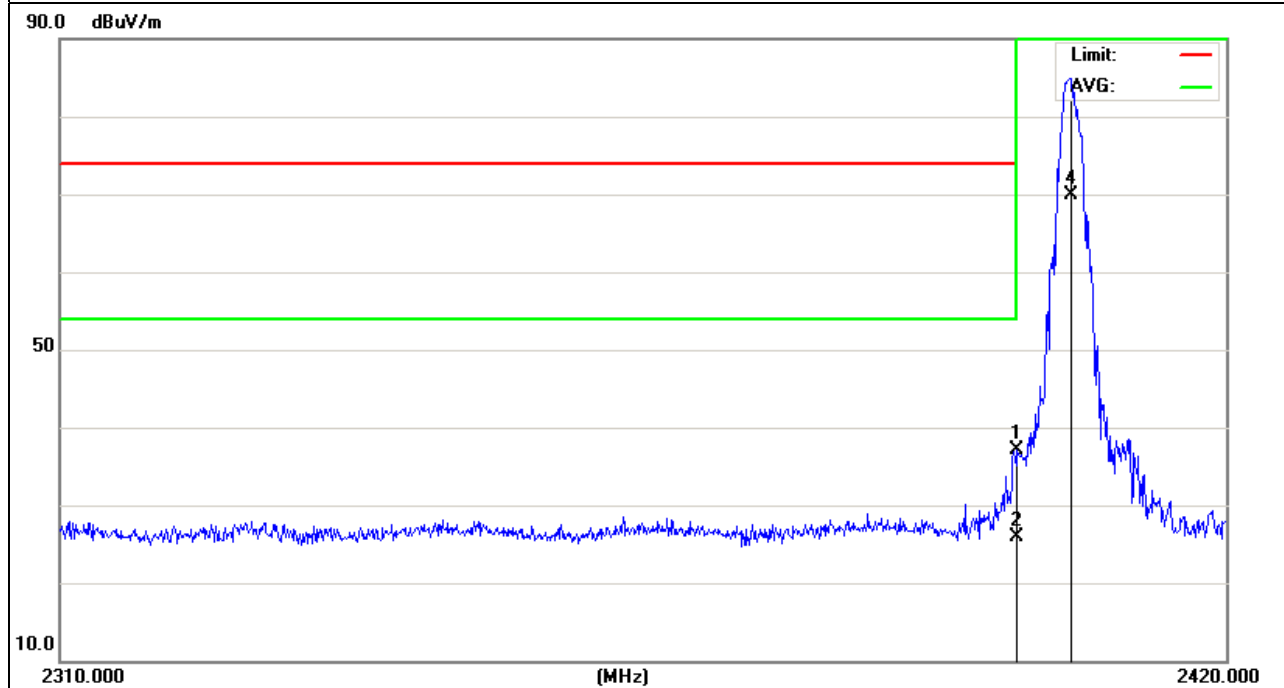
### 3.4.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2405MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2400.000	47.79	-10.69	37.10	74.00	-36.90	peak
2400.000	36.63	-10.69	25.94	54.00	-28.06	AVG
2405.150	95.79	-10.79	85.00	114.00	-29.00	peak
2405.150	80.63	-10.79	69.84	94.00	-24.16	AVG

Remark:

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

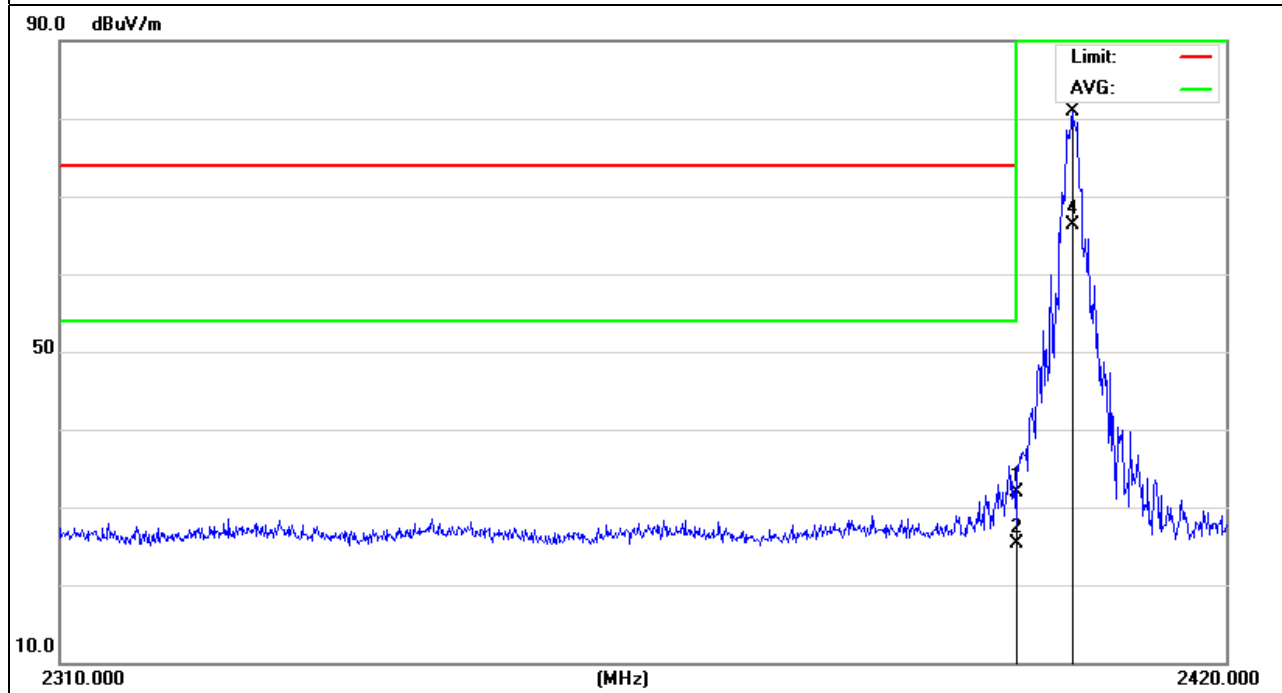


EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2405MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2400.000	42.69	-10.69	32.00	74.00	-42.00	peak
2400.000	35.94	-10.69	25.25	54.00	-28.75	AVG
2405.260	91.80	-10.80	81.00	114.00	-33.00	peak
2405.260	77.12	-10.80	66.32	94.00	-27.68	AVG

Remark:

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

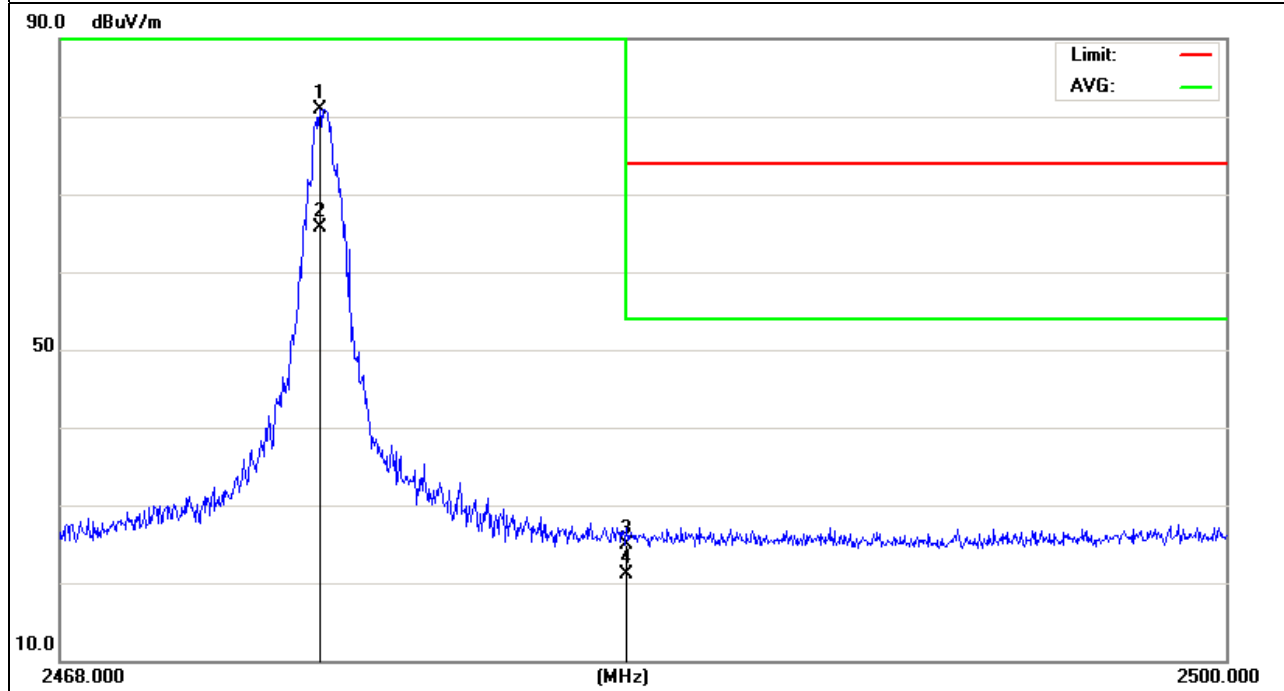


EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2475MHz	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2475.104	92.60	-11.60	81.00	114.00	-33.00	peak
2475.104	77.27	-11.60	65.67	94.00	-28.33	AVG
2483.500	36.40	-11.58	24.82	74.00	-49.18	peak
2483.500	32.72	-11.58	21.14	54.00	-32.86	AVG

Remark:

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

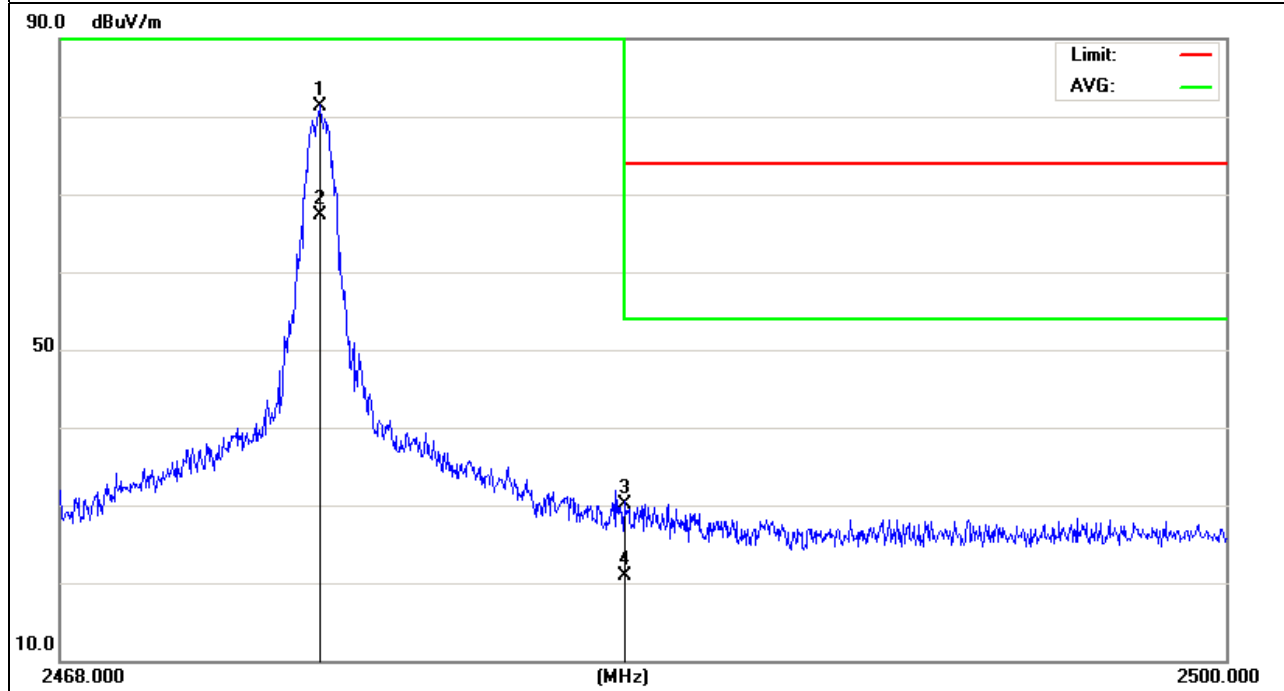


EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX-2475MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2475.104	93.00	-11.60	81.40	114.00	-32.60	peak
2475.104	78.86	-11.60	67.26	94.00	-26.74	AVG
2483.500	41.78	-11.58	30.20	74.00	-43.80	peak
2483.500	32.56	-11.58	20.98	54.00	-33.02	AVG

Remark:

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



## 4. BANDWIDTH TEST

### 4.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting : RBW= 100KHz, VBW $\geq$ RBW, Sweep time = Auto.

### 4.2 DEVIATION FROM STANDARD

No deviation.

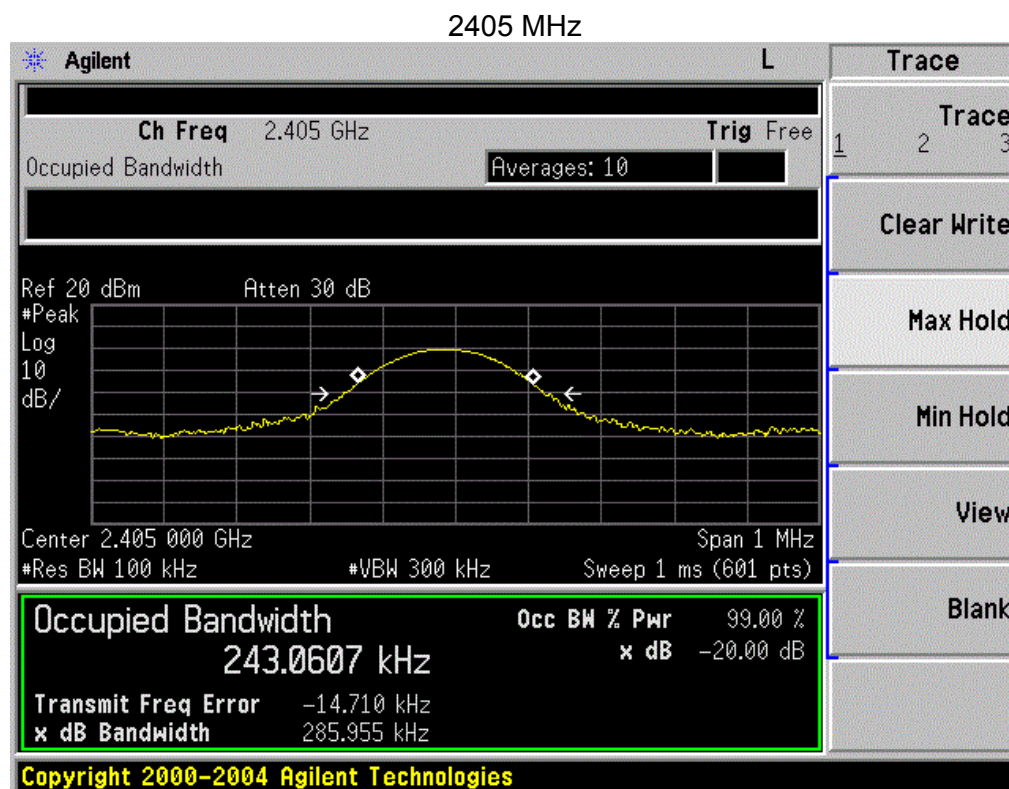
### 4.3 TEST SETUP



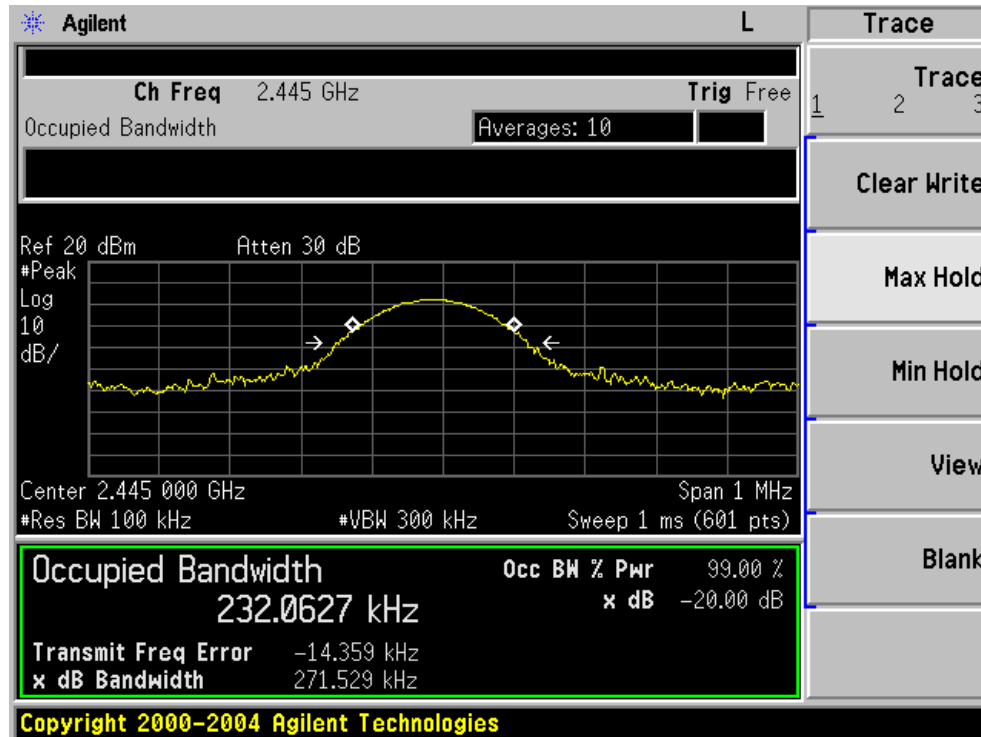
#### 4.4 TEST RESULTS

EUT :	Quad-rotor Helicopter	Model Name :	F807
Temperature :	26 °C	Relative Humidity :	53%
Pressure :	1020 hPa	Test Power :	DC 3.7V
Test Mode :	TX		

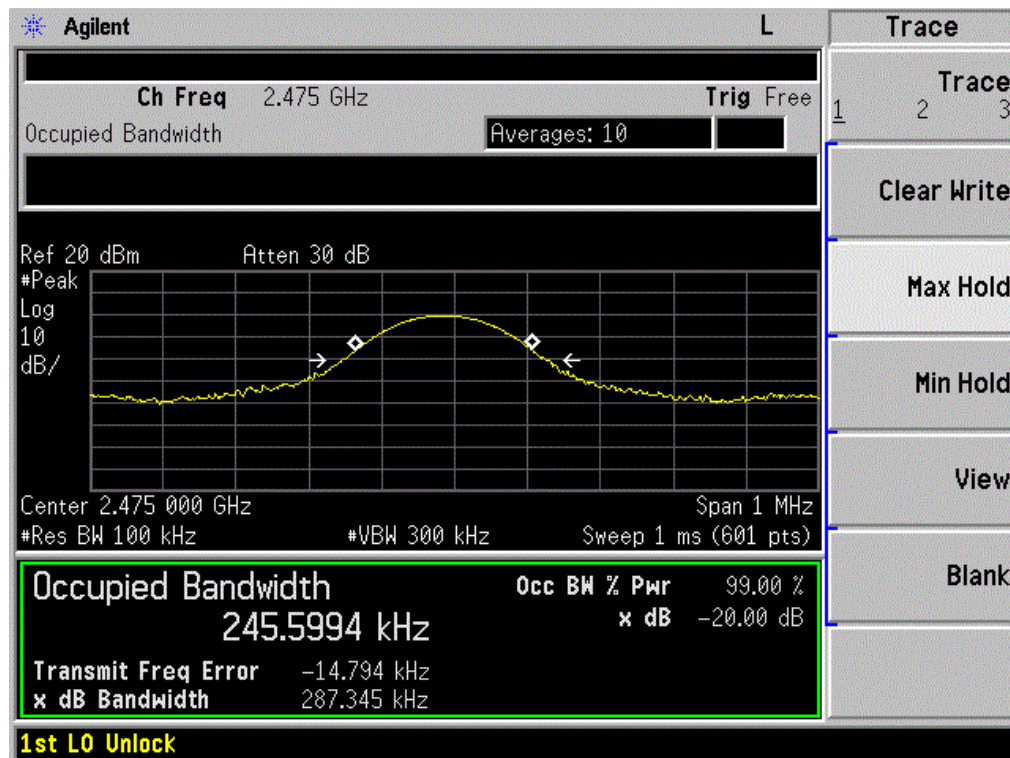
Test Channel	Frequency (MHz)	20 dBc Bandwidth (MHz)
CH 1	2405	0.286
CH 41	2445	0.272
CH 71	2475	0.287



2445 MHz



2475 MHz





## 5. EUT TEST PHOTO

### Radiated Measurement Photos

