FCC RADIO TEST REPORT
FCC ID: 2AJLQ-S1

Product：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)
Trade Name：	Tovsto
Model Name：	S1
Serial Model：	S1 Pro, S2, S3, S4, S5, S6
Report No.：	NTEK-2016DC0622035F2

Prepared for

Shenzhen Tovsto Technology Co.,Ltd.

A6 Bldg., NO.3, Xixiang Main Road, 74 Zone, Bao'an District, Shenzhen, China

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch
Room 101, Building 10, Innovation Technology Park,
Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China
Tel: +86 769 33817100
Website: www.ul.com

TEST RESULT CERTIFICATION

Applicant's name	:	Shenzhen Tovsto Technology Co.,Ltd.
Address	:	A6 Bldg., NO.3, Xixiang Main Road, 74 Zone, Bao'an District, Shenzhen, China
Manufacture's Name	:	Shenzhen Tovsto Technology Co.,Ltd.
Address	:	A6 Bldg., NO.3, Xixiang Main Road, 74 Zone, Bao'an District, Shenzhen, China
Product description		
Product name	:	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)
Model and/or type reference	:	S1
Serial Model：		S1 Pro, S2, S3, S4, S5, S6
Rating(s)	:	DC 11.1V
Standards	:	FCC Part15.249 April 29. 2016
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.

This report shall not be reproduced except in full, without the written approval of NTEK, this document may be altered or revised by NTEK, personnel only, and shall be noted in the revision of the document.

Date of Test	:	
Date (s) of performance of tests	:	22 Jun. 2016 ~ 11 Aug, 2016
Date of Issue	:	11 Aug, 2016
Test Result	:	**Pass**

Testing Engineer **:** Eileen Liu.

(Eileen Liu)

Technical Manager **:** Lambert Tang

(Lambert Tang)

Authorized Signatory **:** Shawn Wen

(Shawn Wen)

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

Table of Contents

Page

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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	

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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 ± U**，where expended 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	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)
Trade Name	Tovsto
Model Name	S1
Serial Model	S1 Pro, S2, S3, S4, S5, S6
Model Difference	All the model are the same circuit and RF module, except the model No..
Product Description	The EUT is a Touchpad mini wireless Keyboard Operation Frequency: 5733-5866MHz Modulation Type: FM Antenna Designation: Coaxial 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 11.1V
HW Version	S1-MB-V1.0
SW Version	S1-V1.0

Note:

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

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

2.

Channel	Frequency (MHz)
00	5733
01	5752
02	5771
03	5790
04	5809
05	5828
06	5847
07	5866

3.

Table for Filed Antenna

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

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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 00
Mode 2	CH 04
Mode 3	CH 07
Mode 4	Normal link

For Radiated Spurious Emission	
Pretest Mode	Description
Mode 1	CH 00
Mode 2	CH 04
Mode 3	CH 07
Mode 4	Normal link

Note:

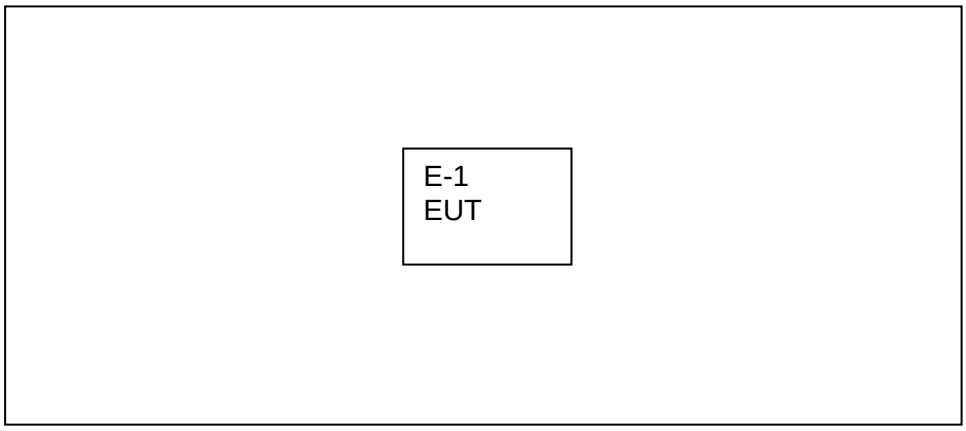
(1) The measurements are performed at the highest, middle, lowest available channels.

(2) The EUT use new battery.

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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	Touchpad mini wireless Keyboard	Tovsto	S1	N/A	EUT

Item	Cable Type	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.

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4440A	MY46186938	2015.11.19	2016.11.18	1 year
2	Test Receiver	R&S	ESPI	101318	2016.06.07	2017.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2016.07.06	2017.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2016.06.07	2017.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2016.06.07	2017.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2016.07.06	2017.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2016.07.06	2017.07.05	1 year
8	Amplifier	EMC	EMC051835 SE	980246	2016.06.22	2017.06.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2016.06.07	2017.06.06	1 year
10	Power Meter	R&S	NRVS	100696	2016.07.06	2017.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2016.07.06	2017.07.05	1 year
12	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2016.07.06	2017.07.05	1 year
13	High Test Cable(1G-40 GHz)	N/A	R-03	N/A	2016.06.06	2017.06.05	1 year
14	High Test Cable(1G-40 GHz)	N/A	R-04	N/A	2016.06.06	2017.06.05	1 year

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2016.06.07	2017.06.06	1 year
2	LISN	R&S	ENV216	101313	2015.08.24	2016.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2015.08.24	2016.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2016.06.07	2017.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2016.06.07	2017.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2016.06.07	2017.06.06	1 year
7	Test Cable	N/A	C01	N/A	2016.06.07	2017.06.06	1 year
8	Test Cable	N/A	C02	N/A	2016.06.07	2017.06.06	1 year
9	Test Cable	N/A	C03	N/A	2016.06.07	2017.06.06	1 year

1	Attenuation	MCE	24-10-34	BN9258	2016.06.07	2017.06.06	1 year

Note: Each piece of equipment is scheduled for calibration once a year.

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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(Antenna type: Coaxial Antenna,Gain:1dBi). It comply with the standard requirement.

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

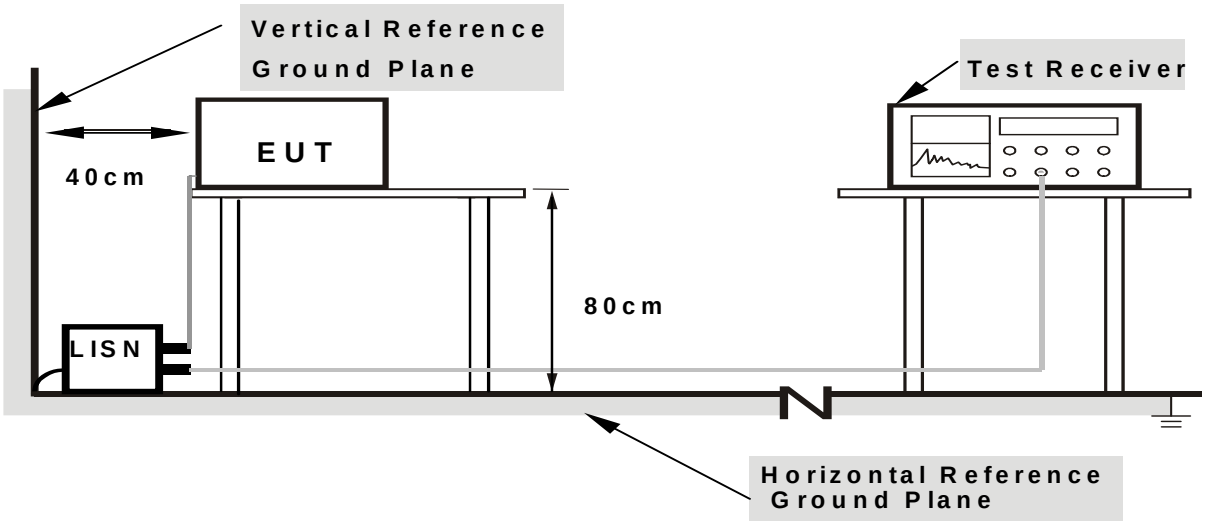
3.3.2 TEST PROCEDURE

a. 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.
b. 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.
c. 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.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. 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

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

3.2.5 TEST RESULT

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name. ：	S1
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase :	N/A
Test Voltage ：	N/A	Test Mode：	N/A

Note:

N/A : means not applicable, Since the EUT's Power supplied from battery.

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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
*5725-5875	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)
5725-5875	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

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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. 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:

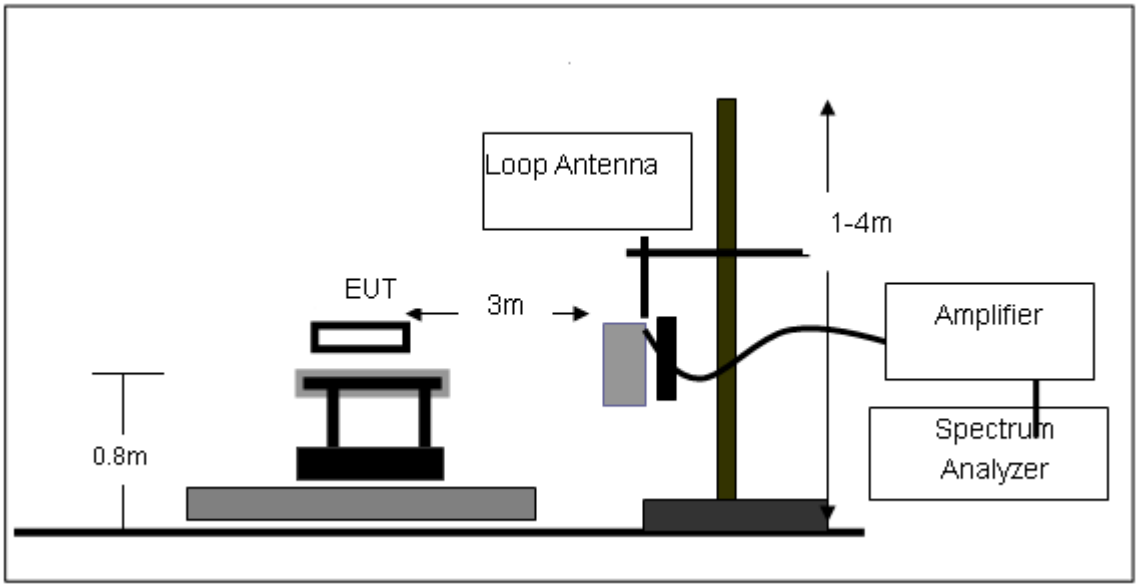
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.4.3 DEVIATION FROM TEST STANDARD

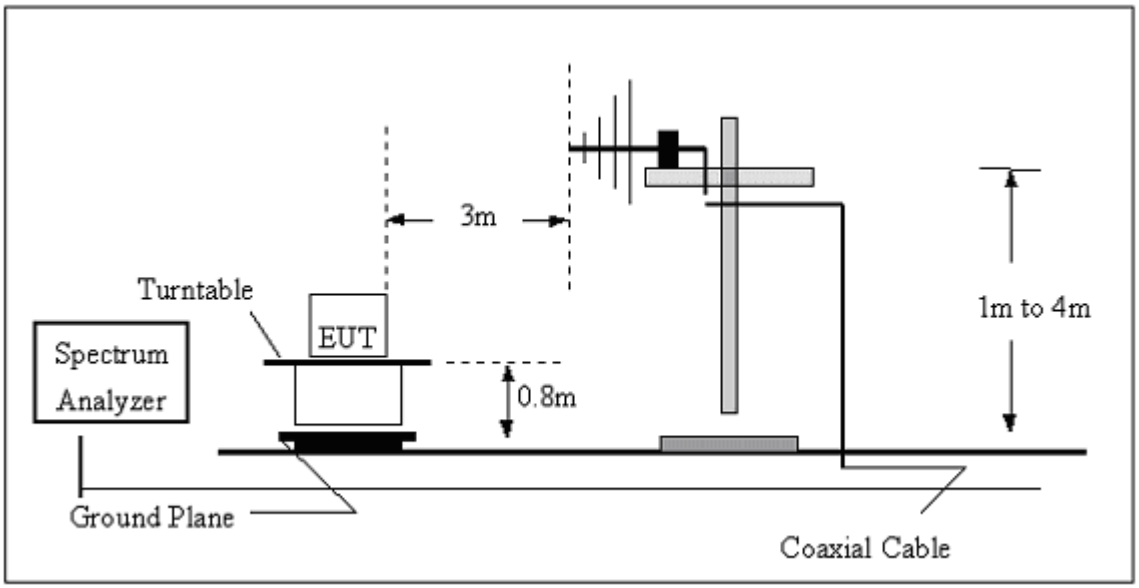
No deviation

This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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

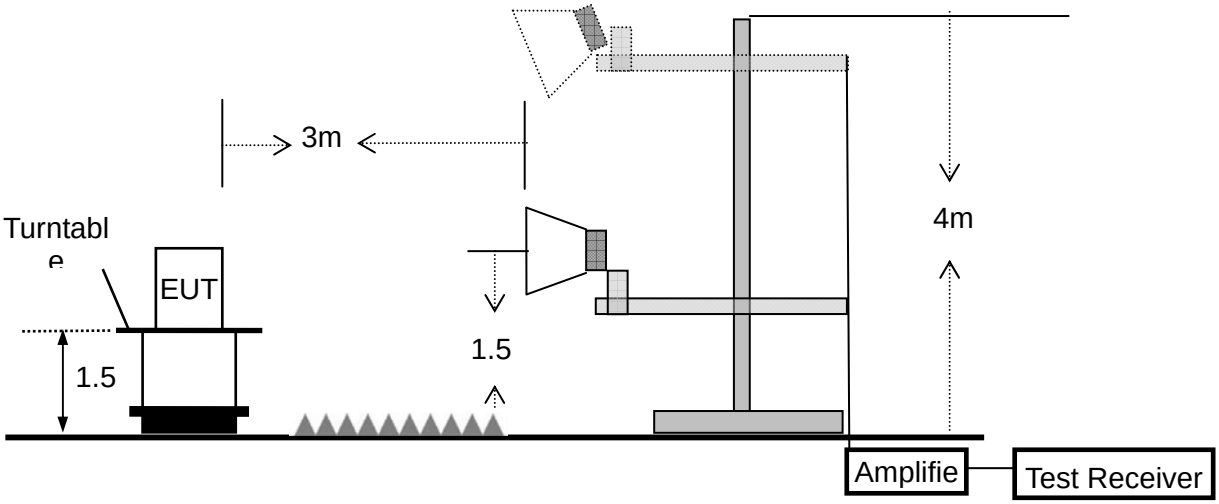


（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

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



UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

3.4.4 TEST RESULTS (BLOW 30MHz)

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name. ：	S1
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX	Polarization :	--

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

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 (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

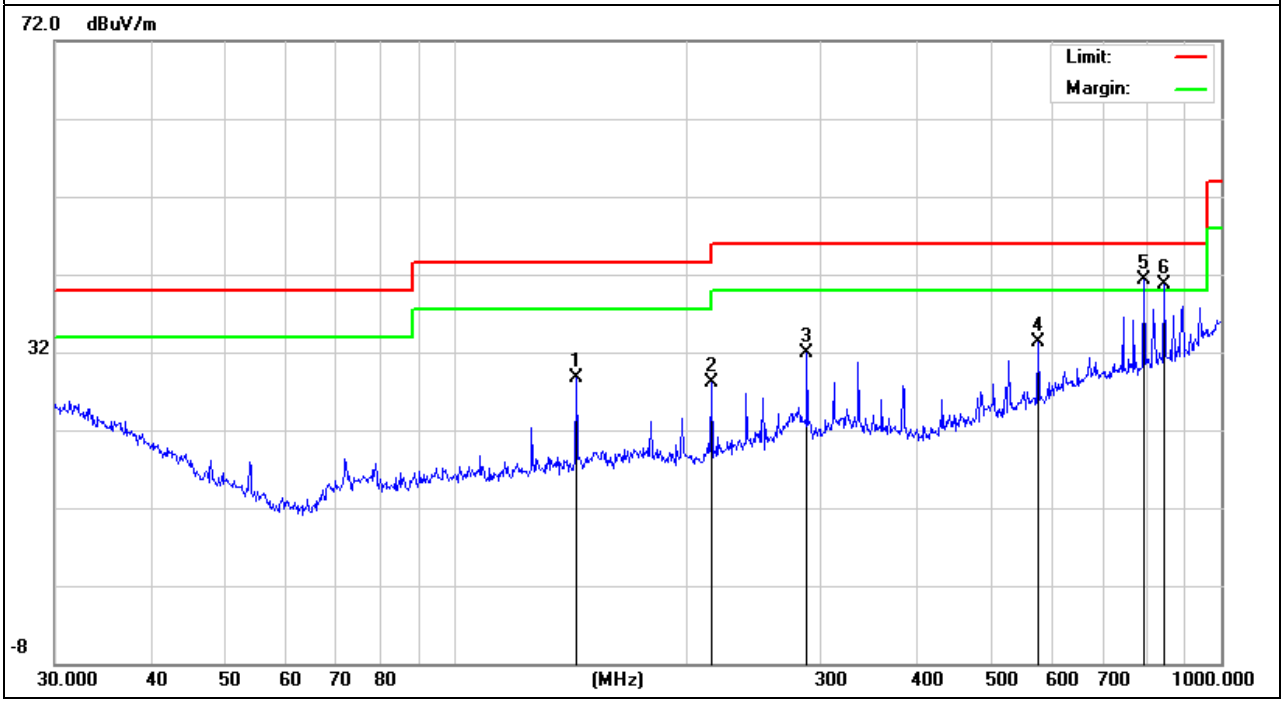
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

3.4.5 TEST RESULTS (BETWEEN 30 – 1000 MHZ)

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
143.8295	16.40	12.32	28.72	43.50	-14.78	QP
216.024	15.84	12.27	28.11	46.00	-17.89	QP
287.9904	18.50	13.35	31.85	46.00	-14.15	QP
576.6443	13.48	19.91	33.39	46.00	-12.61	QP
793.396	17.43	23.97	41.40	46.00	-4.60	QP
842.1295	16.09	24.65	40.74	46.00	-5.26	QP

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

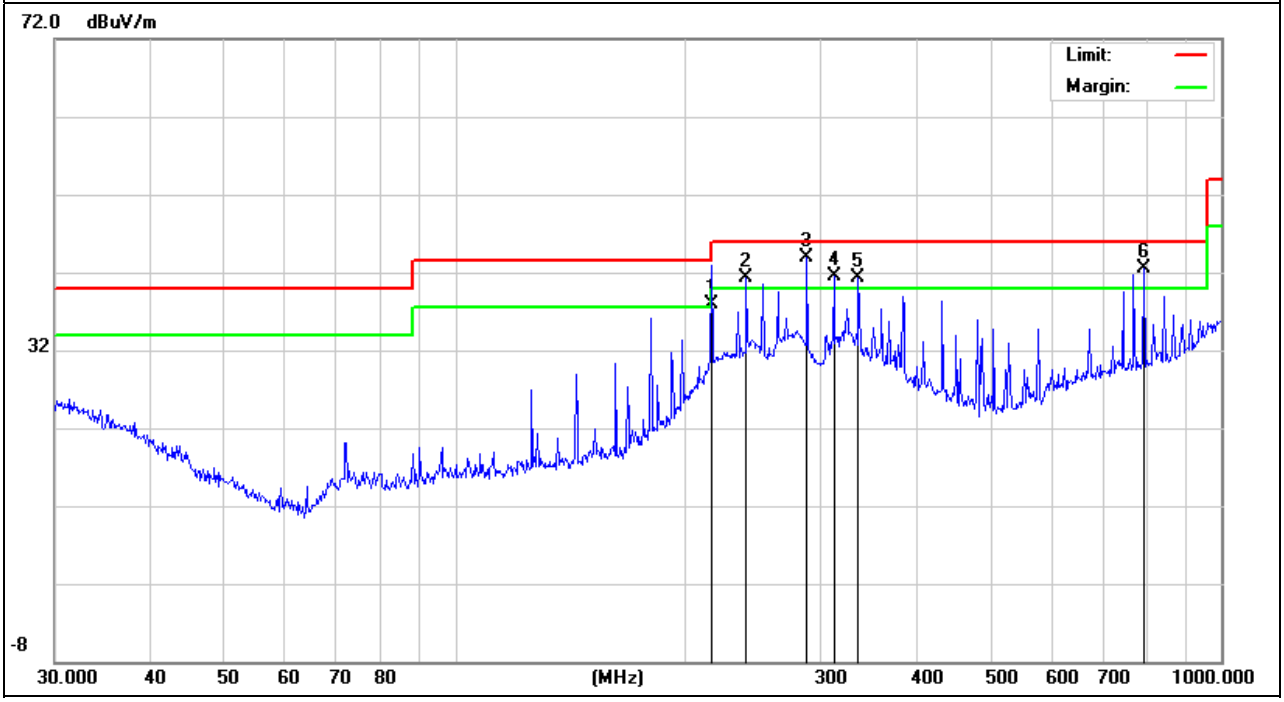


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX	Polarization：	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
216.024	25.63	12.27	37.90	46.00	-8.10	QP
239.9874	29.36	11.96	41.32	46.00	-4.68	QP
287.9904	30.63	13.35	43.98	46.00	-2.02	QP
312.1792	27.26	14.31	41.57	46.00	-4.43	QP
336.035	26.18	15.11	41.29	46.00	-4.71	QP
793.396	18.52	23.97	42.49	46.00	-3.51	QP

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



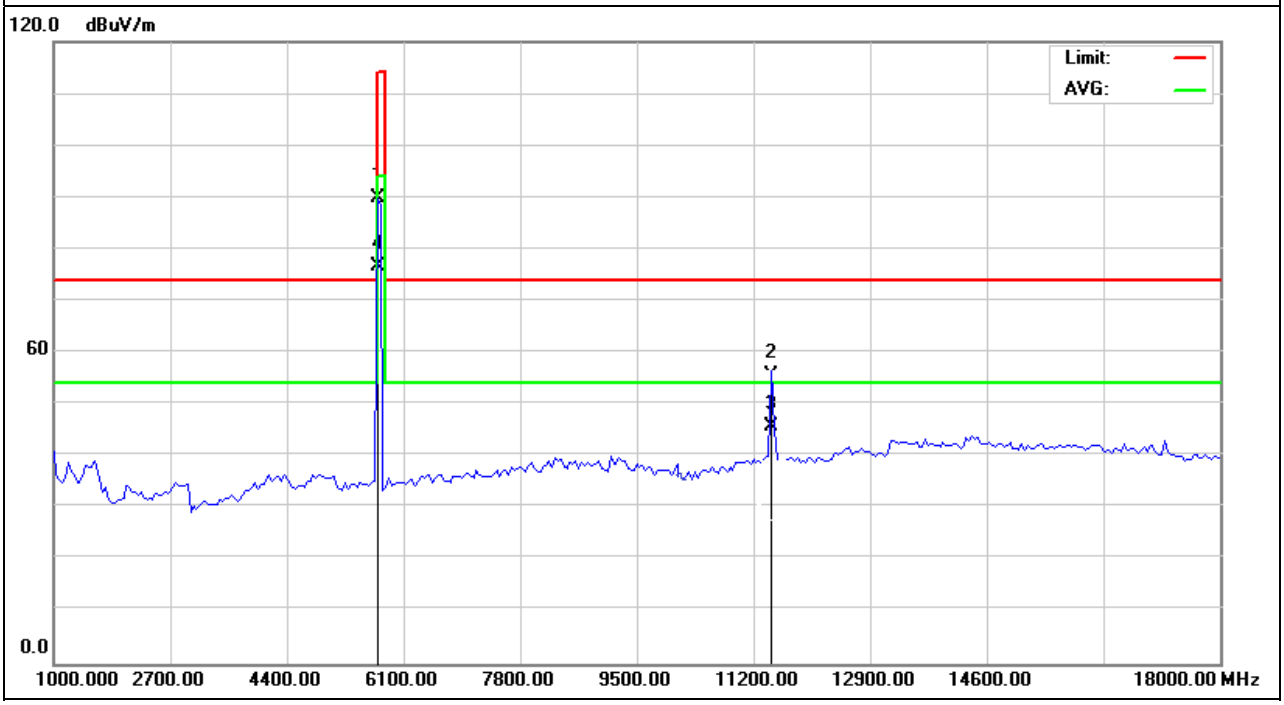
UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

3.4.6 TEST RESULTS (BETWEEN 1000MHZ~ 18000 MHZ)

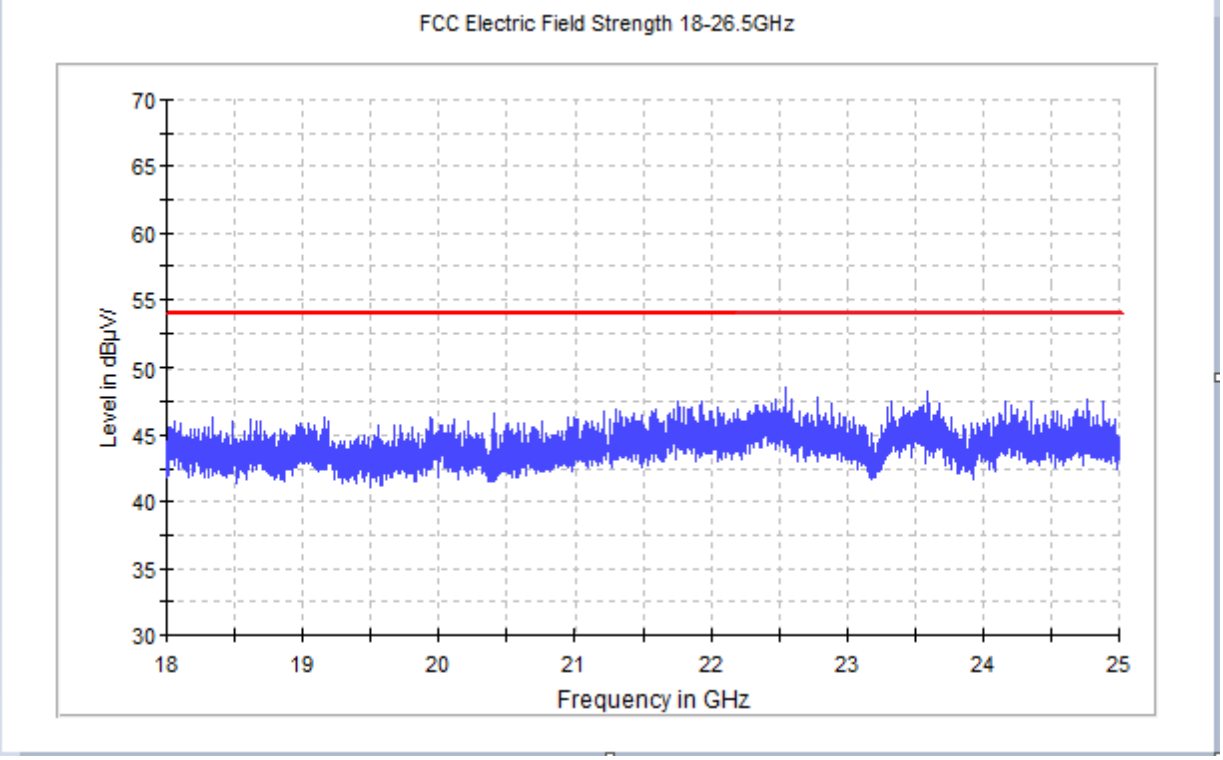
EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5733MHz	Polarization :	Horizontal

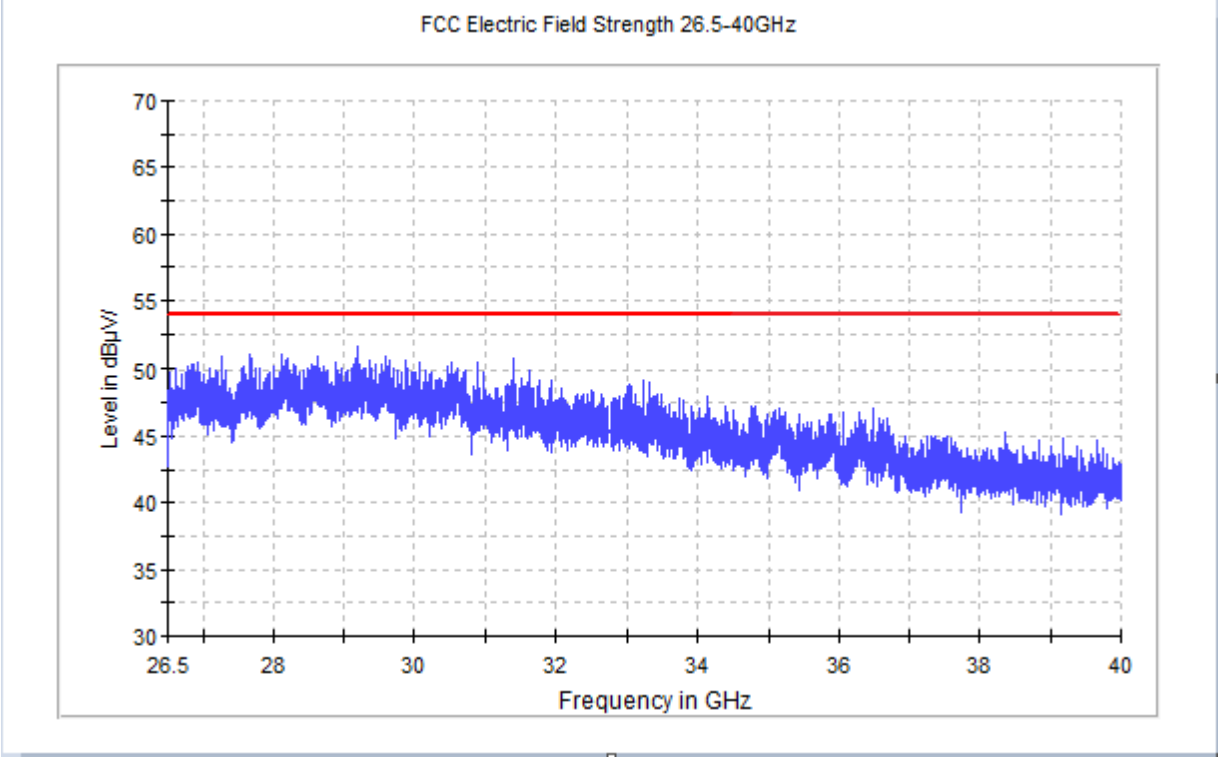
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5733.000	92.26	-2.27	89.99	114.00	-24.01	peak
11455.000	10.63	45.95	56.58	74.00	-17.42	peak
11455.000	0.89	45.95	46.84	54.00	-7.16	AVG
5733.000	79.07	-2.27	76.80	94.00	-17.20	AVG

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



This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`



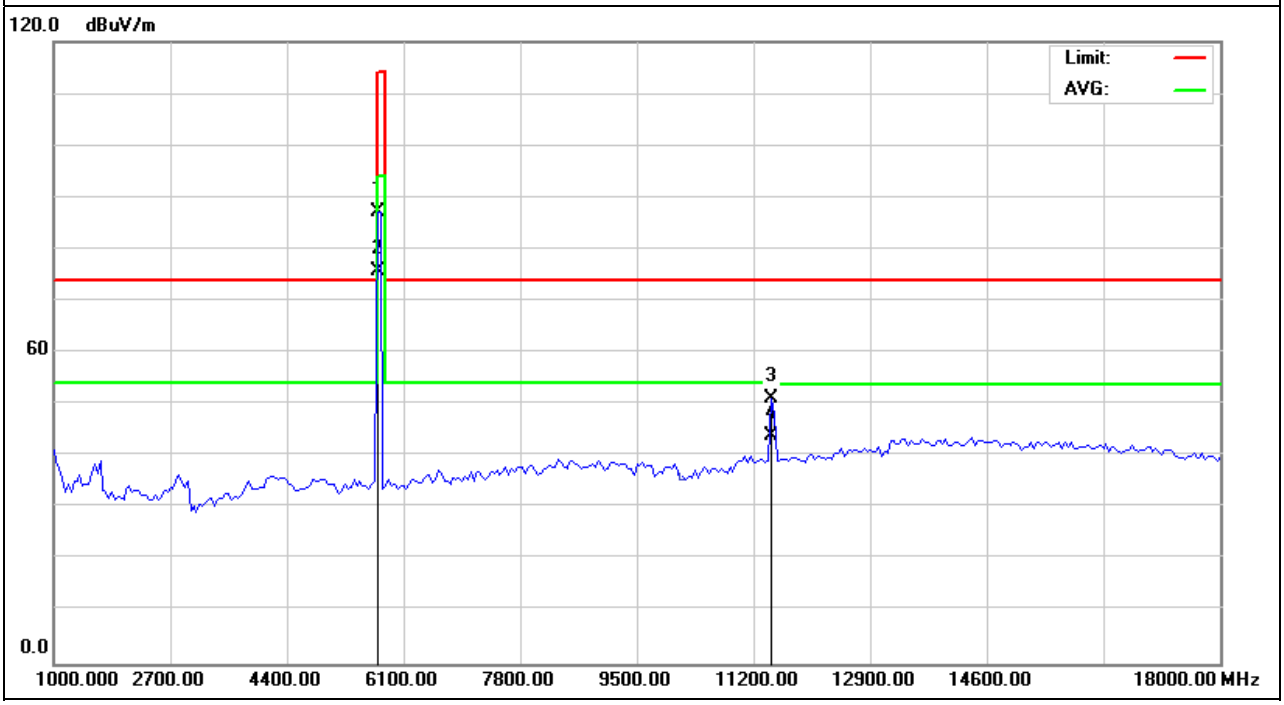


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

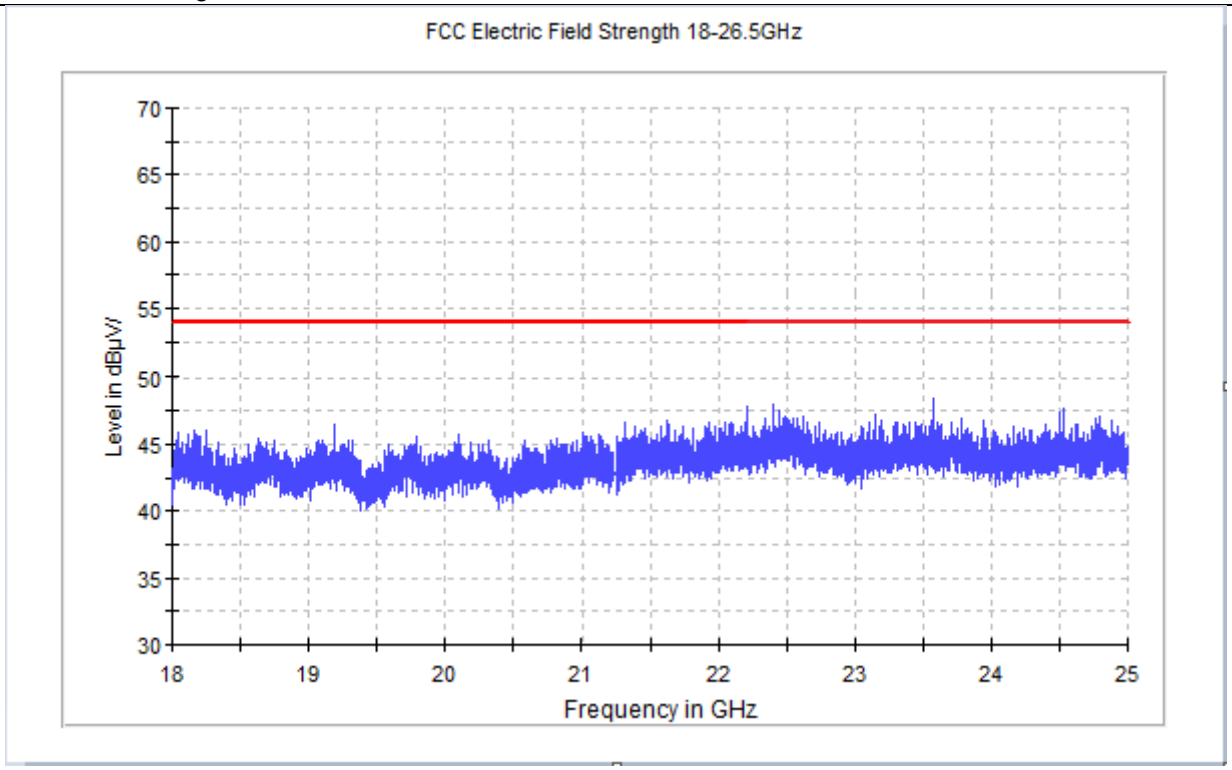
EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5733MHz	Polarization :	Vertical

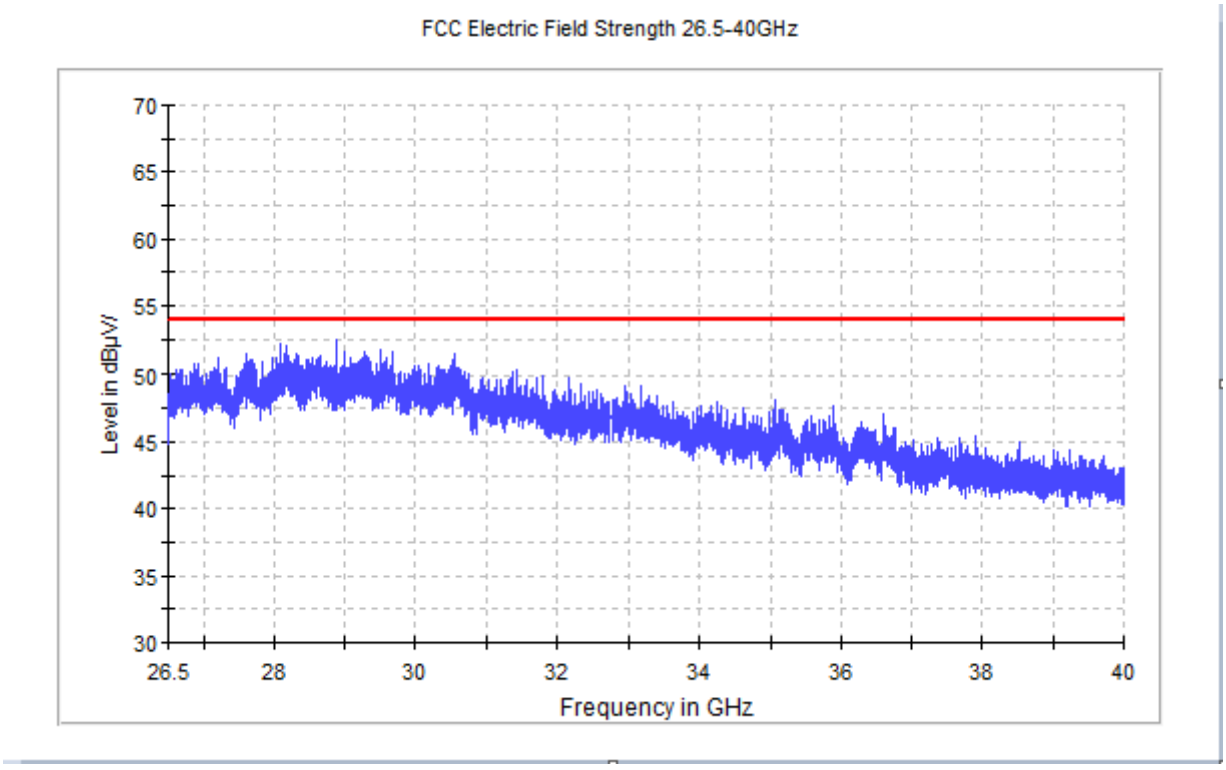
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5733.000	89.48	-2.27	87.21	114.00	-26.79	peak
5733.000	77.90	-2.27	75.63	94.00	-18.37	AVG
11455.000	5.97	45.95	51.92	74.00	-22.08	peak
11455.000	-1.25	45.95	44.70	54.00	-9.30	AVG

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



UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



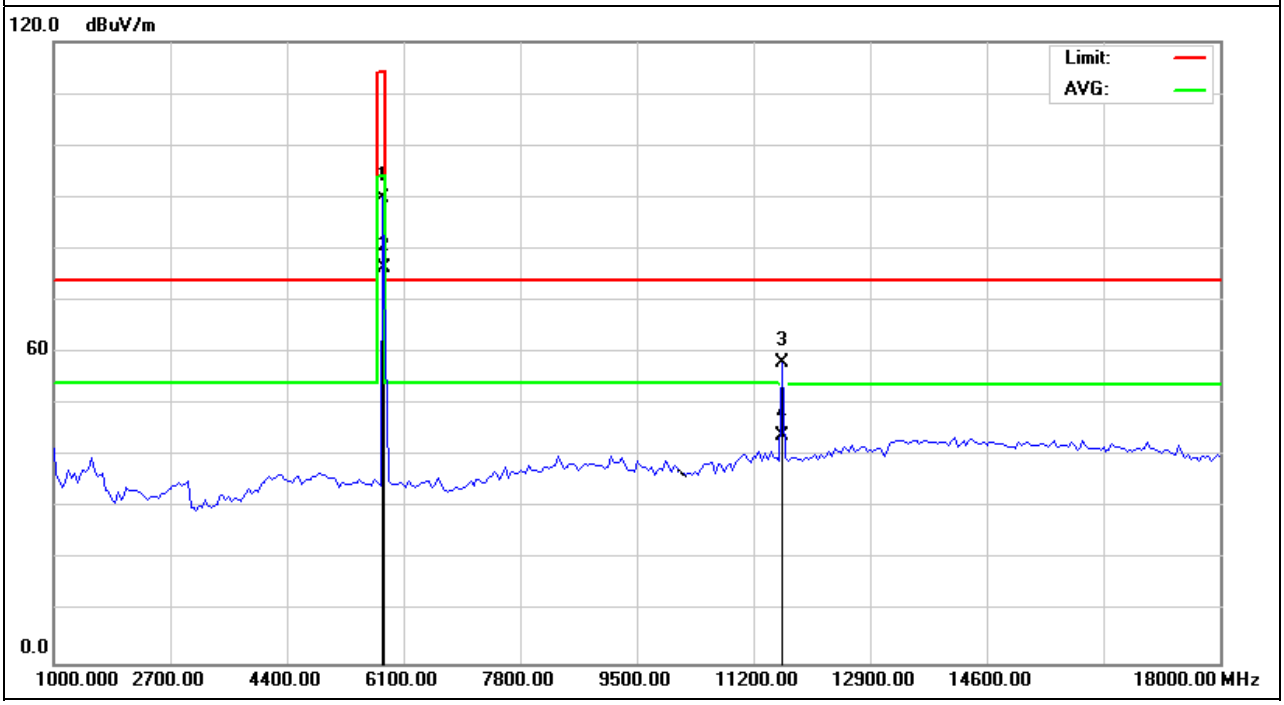


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

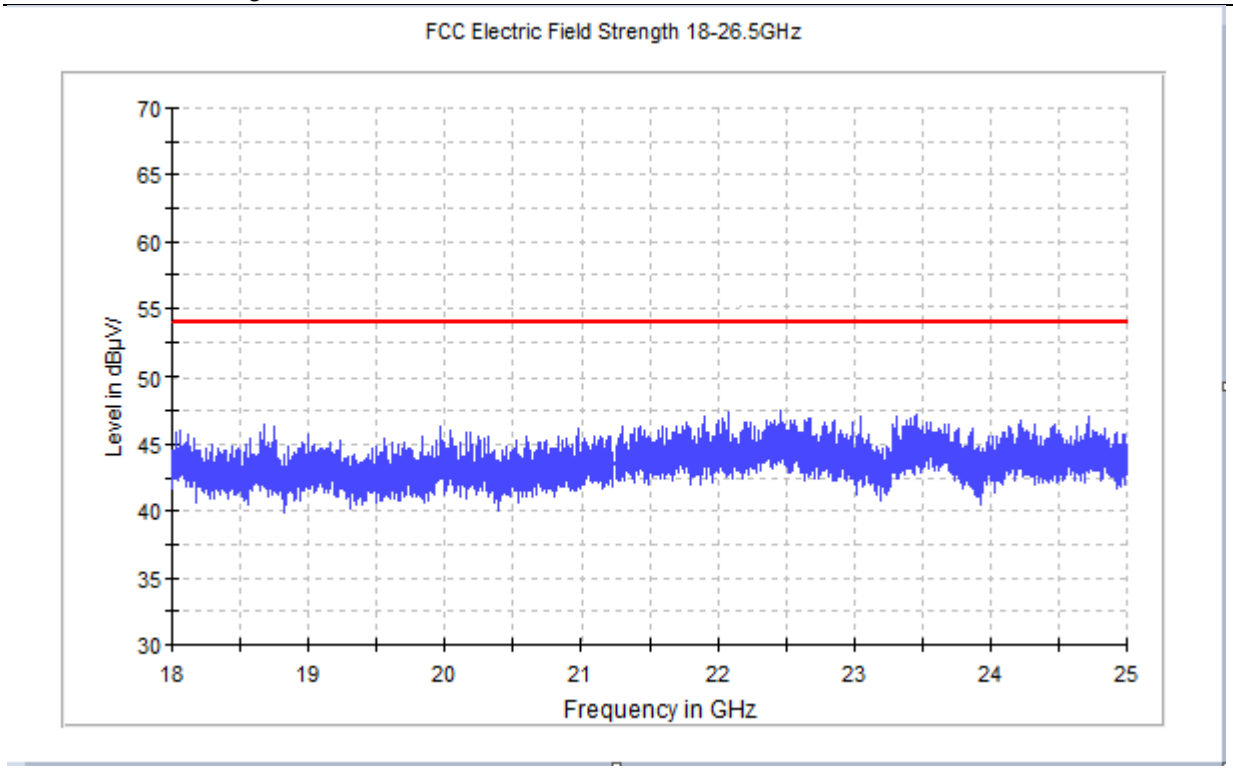
EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5809MHz	Polarization :	Horizontal

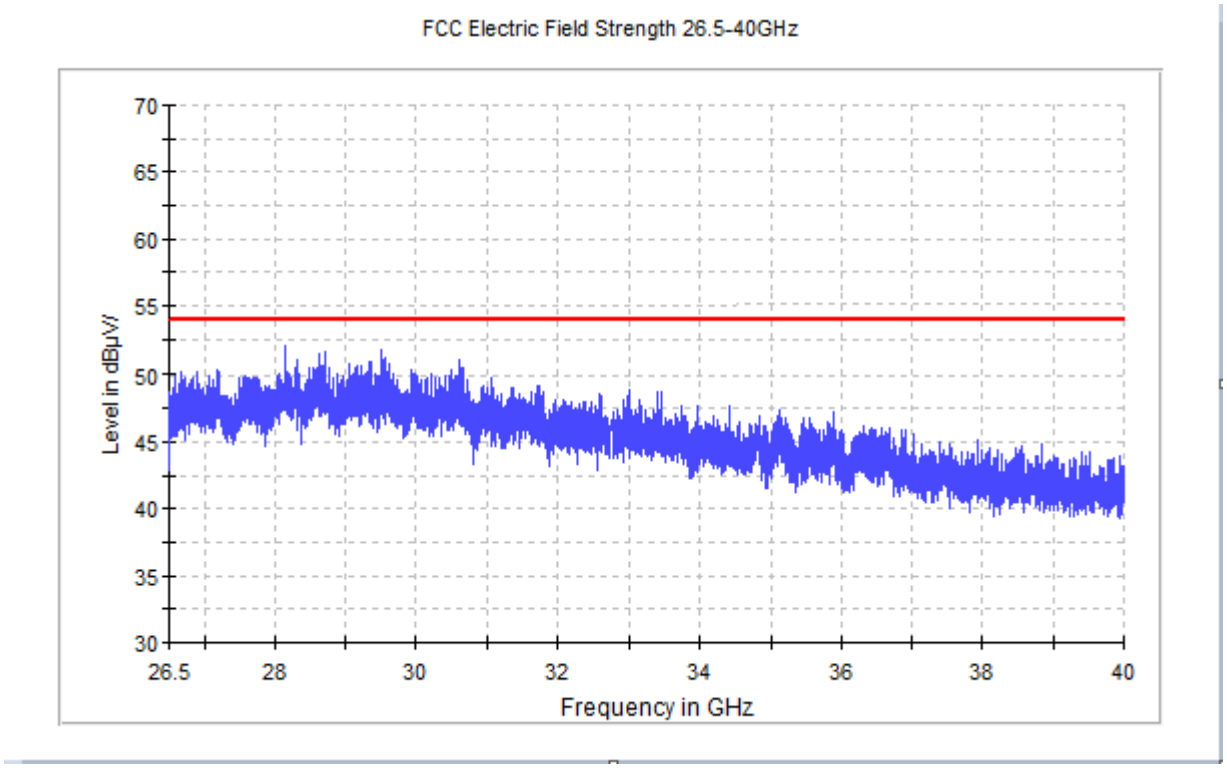
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5809.000	92.09	-2.09	90.00	114.00	-24.00	peak
5809.000	78.49	-2.09	76.40	94.00	-17.60	AVG
11625.000	11.85	46.89	58.74	74.00	-15.26	peak
11625.000	-2.26	46.89	44.63	54.00	-9.37	AVG

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



This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`



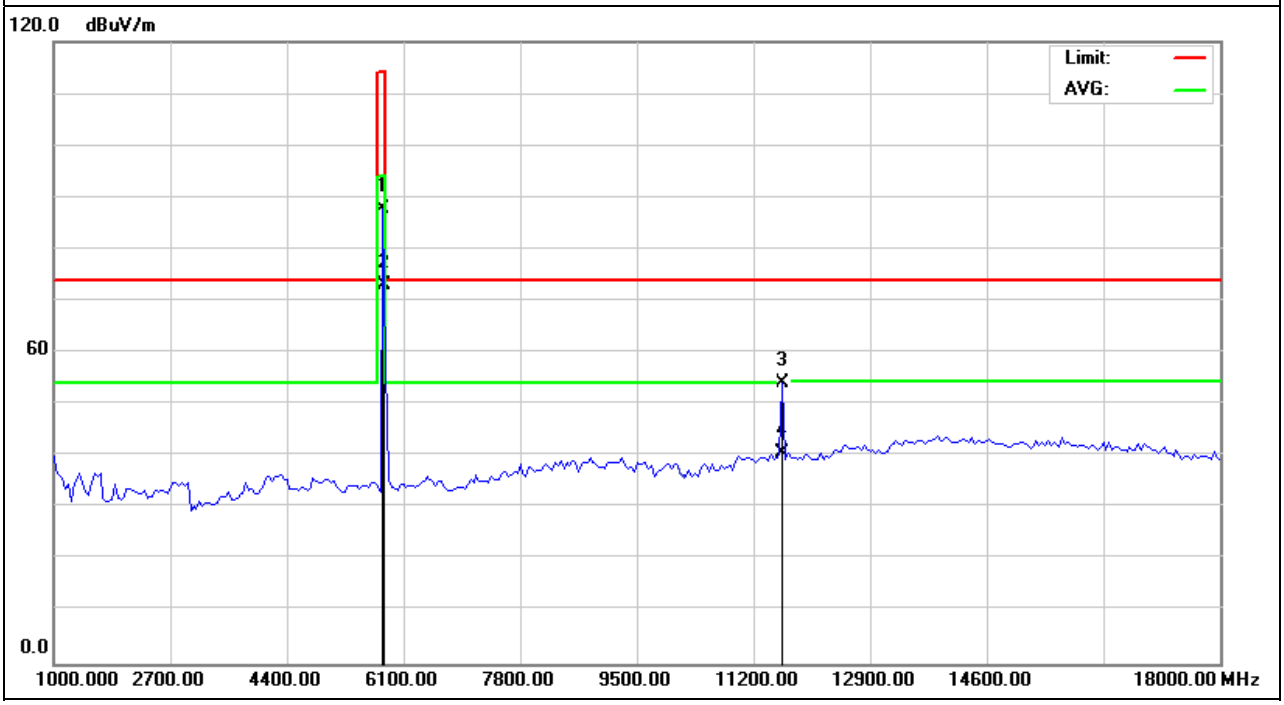


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5809MHz	Polarization :	Vertical

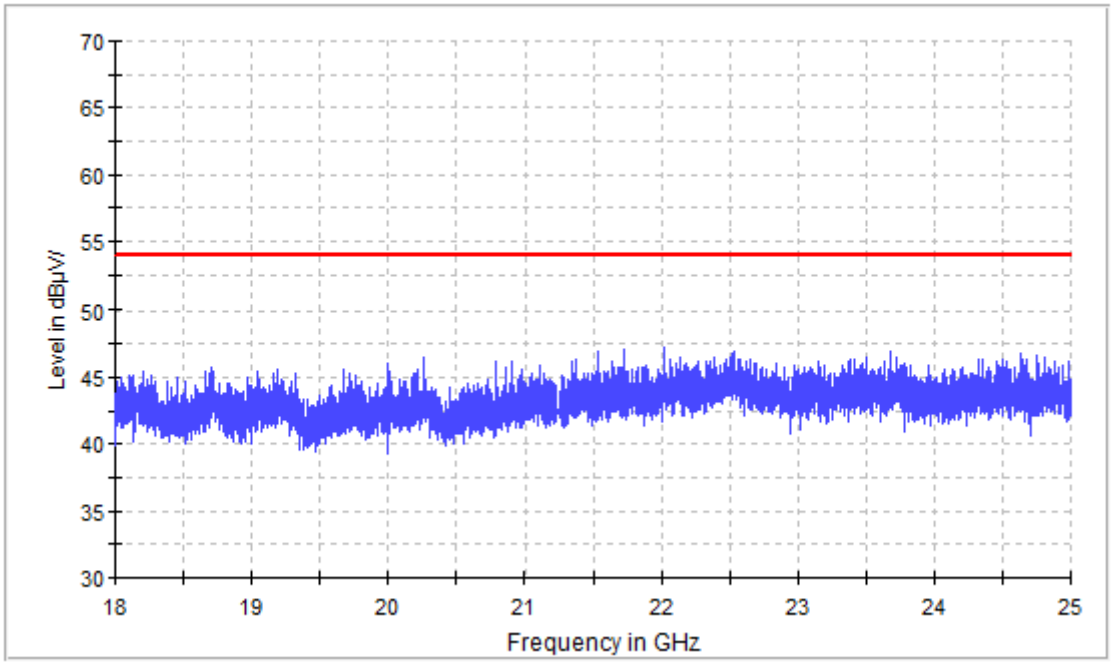
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5809.000	89.70	-2.09	87.61	114.00	-26.39	peak
5809.000	75.14	-2.09	73.05	94.00	-20.95	AVG
11625.000	7.94	46.89	54.83	74.00	-19.17	peak
11625.000	-5.50	46.89	41.39	54.00	-12.61	AVG

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

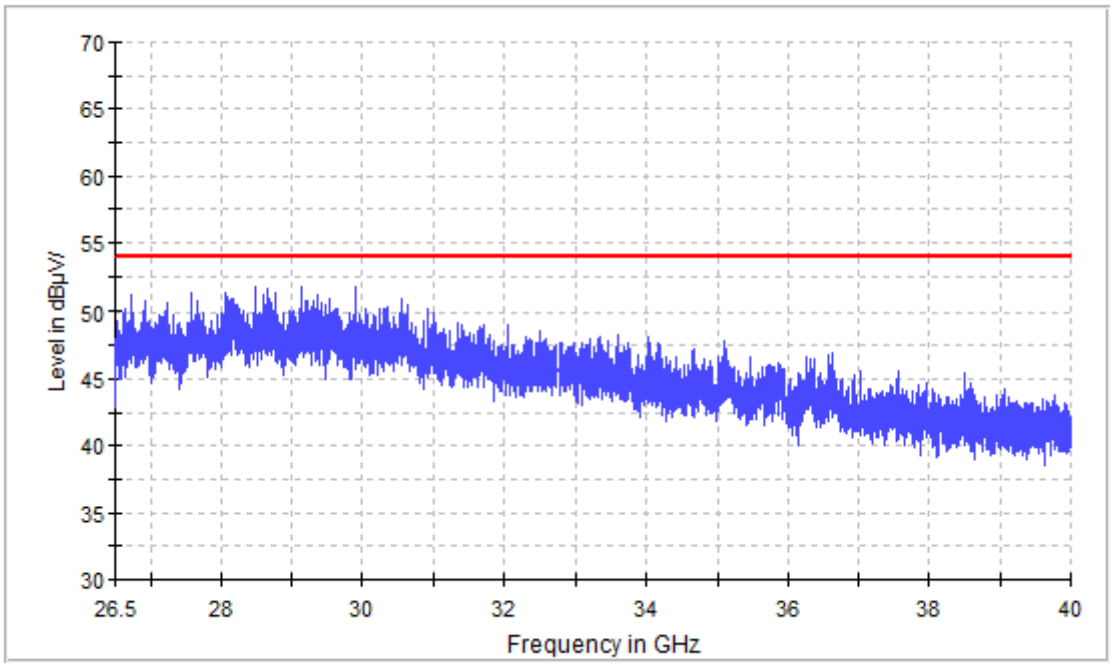


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

FCC Electric Field Strength 18-26.5GHz



FCC Electric Field Strength 26.5-40GHz

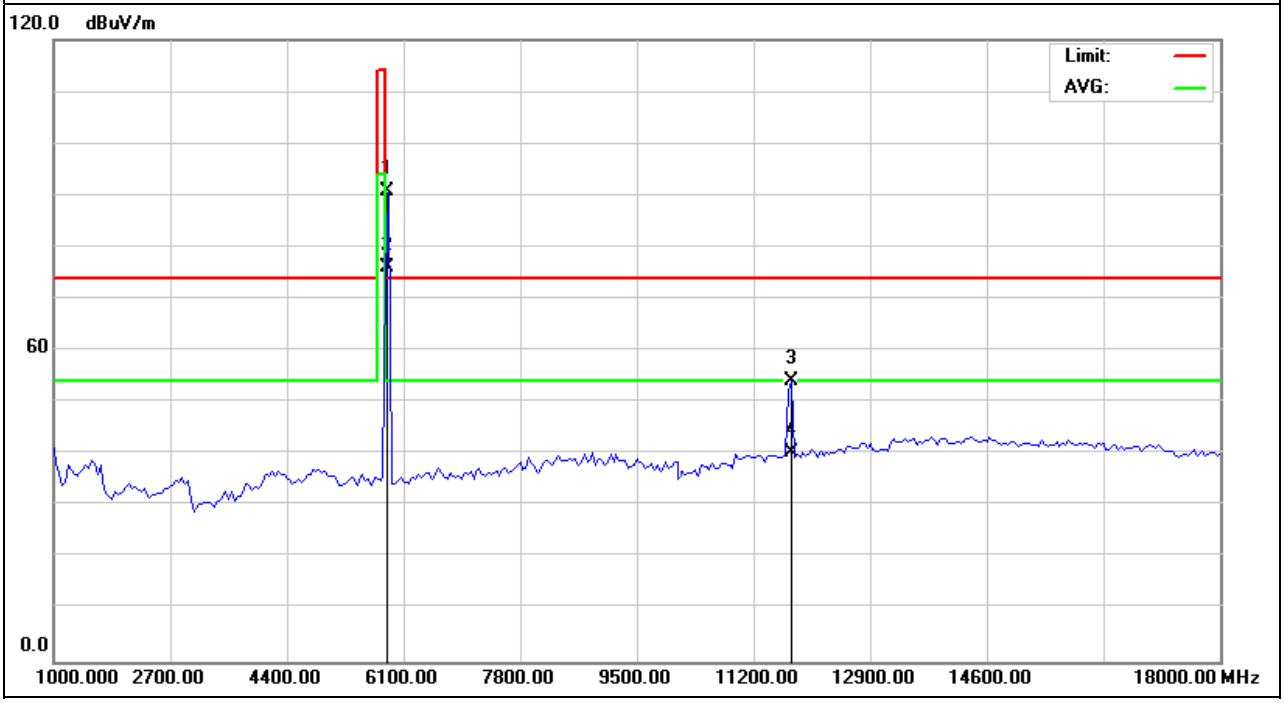


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5866MHz	Polarization :	Horizontal

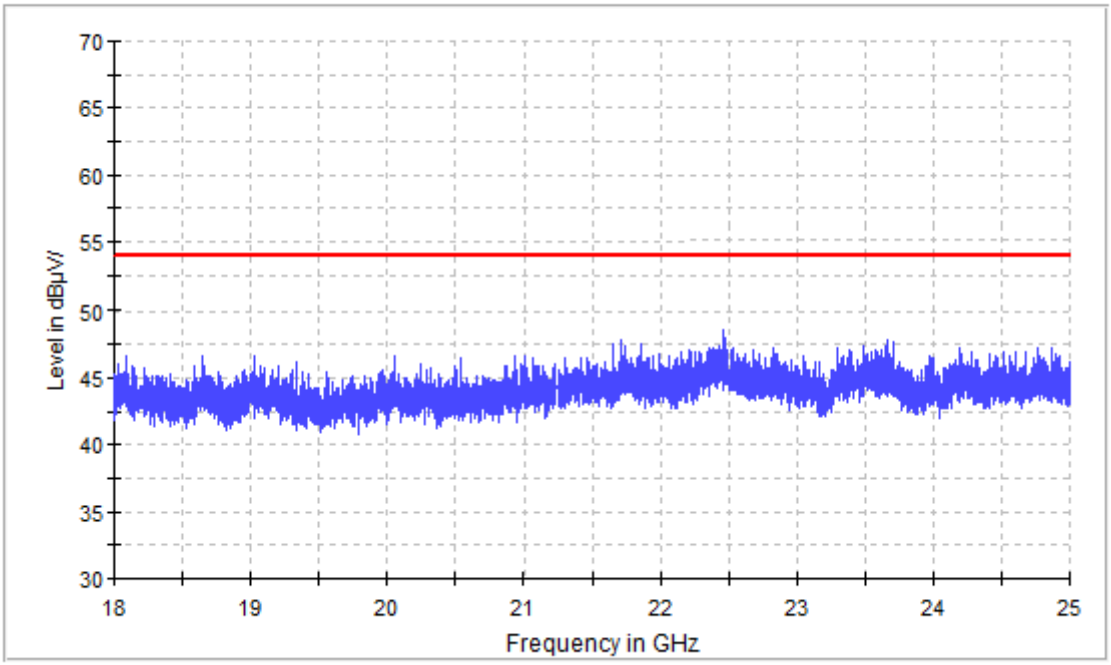
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5866.000	92.73	-2.12	90.61	114.00	-23.39	peak
5866.000	78.02	-2.12	75.90	94.00	-18.10	AVG
11752.500	7.75	46.85	54.60	74.00	-19.40	peak
11752.500	-5.93	46.85	40.92	54.00	-13.08	AVG

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

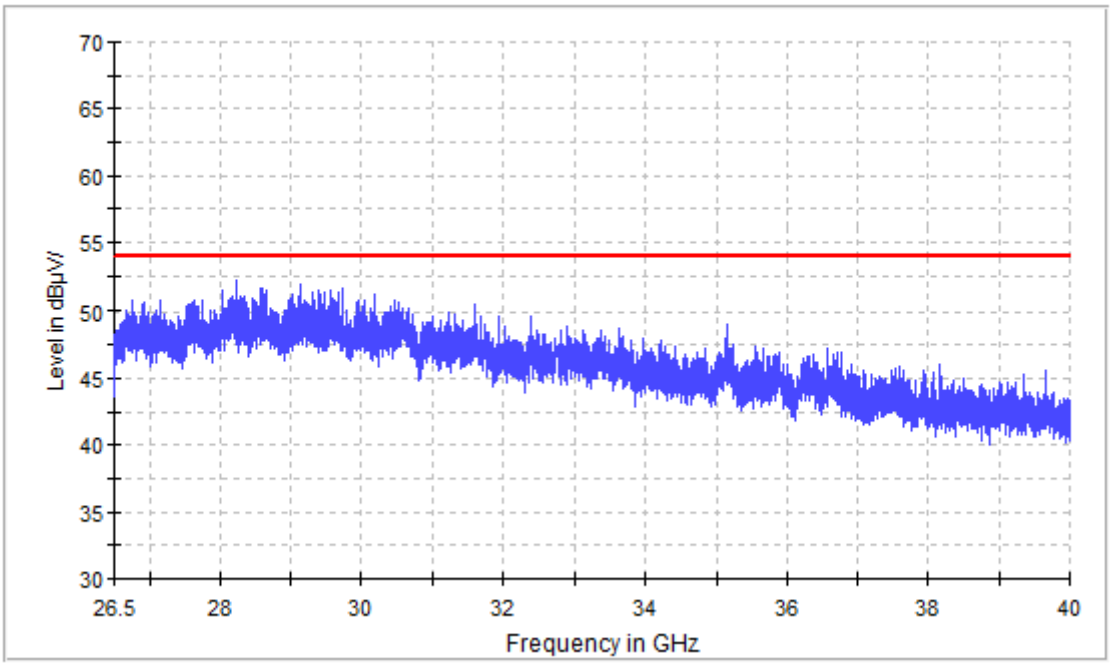


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

FCC Electric Field Strength 18-26.5GHz



FCC Electric Field Strength 26.5-40GHz

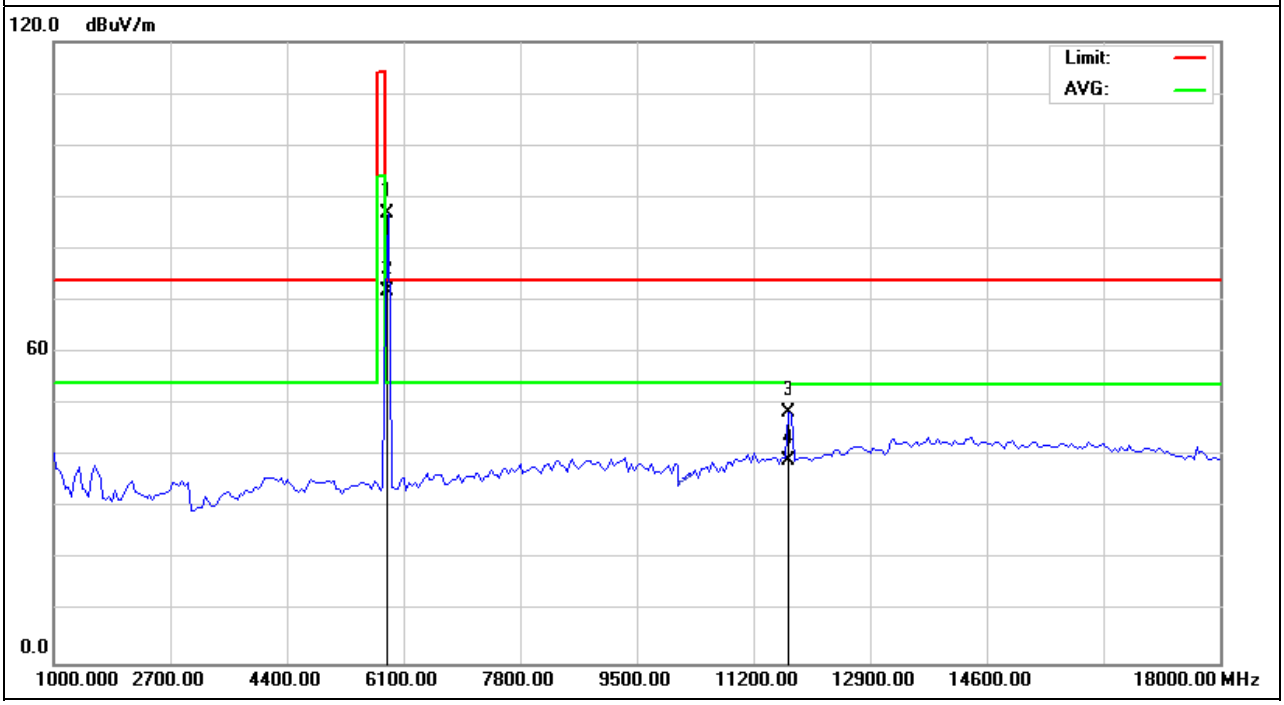


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5866MHz	Polarization :	Vertical

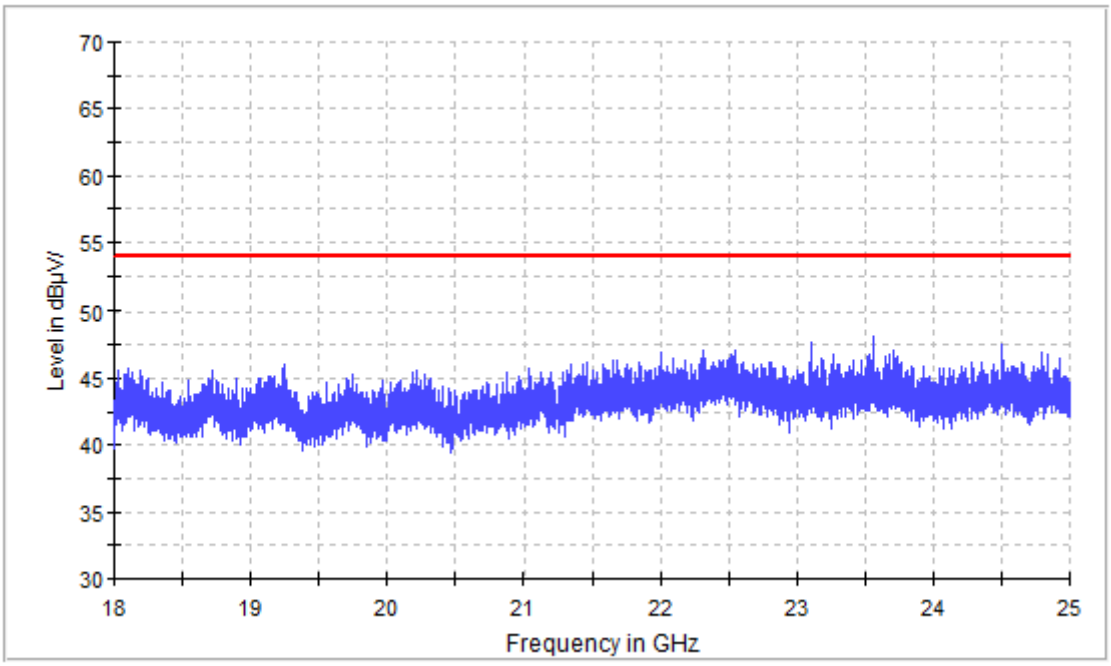
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5866.000	88.83	-2.12	86.71	114.00	-27.29	peak
5866.000	73.92	-2.12	71.80	94.00	-22.20	AVG
11710.000	2.35	46.61	48.96	74.00	-25.04	peak
11710.000	2.35	46.61	39.80	54.00	-14.20	AVG

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

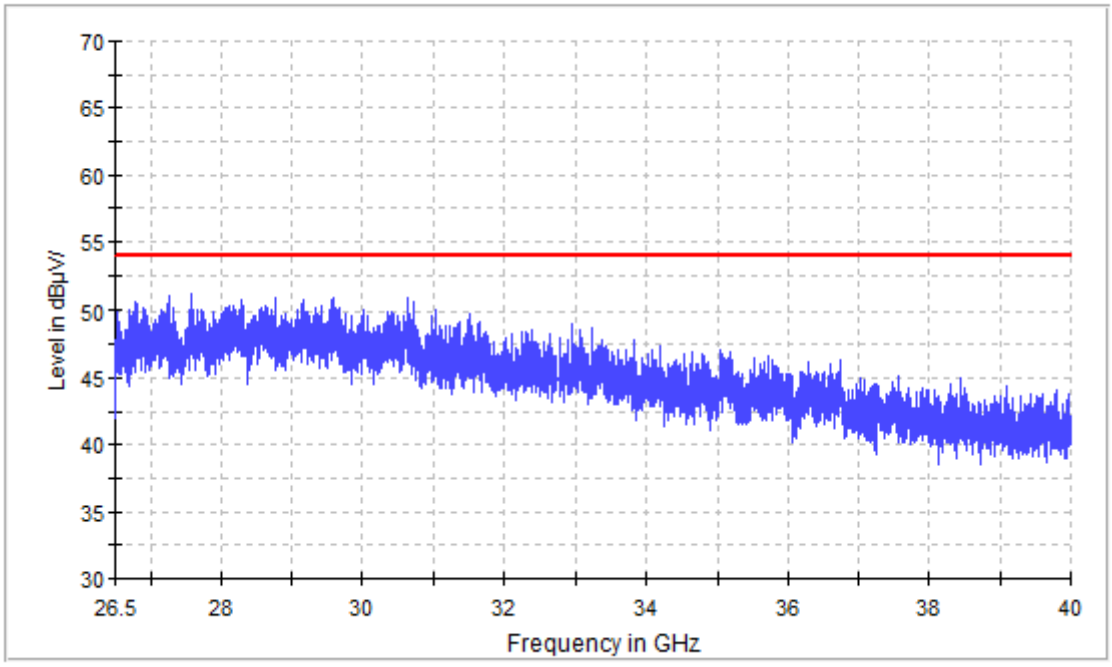


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

FCC Electric Field Strength 18-26.5GHz



FCC Electric Field Strength 26.5-40GHz



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

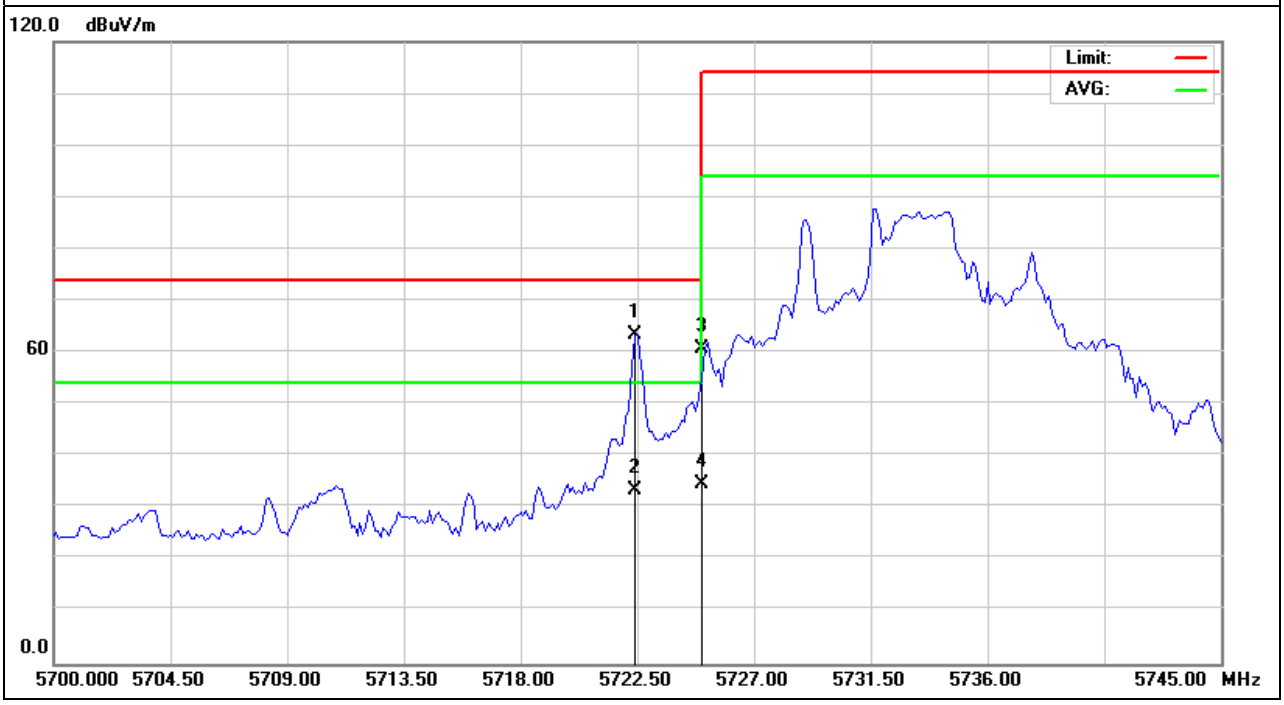
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

3.4.7 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5733MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5722.387	65.74	-2.22	63.52	74.00	-10.48	peak
5722.387	35.68	-2.22	33.46	54.00	-20.54	AVG
5725.000	62.93	-2.23	60.70	74.00	-13.30	peak
5725.000	37.03	-2.23	34.80	74.00	-39.20	AVG

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

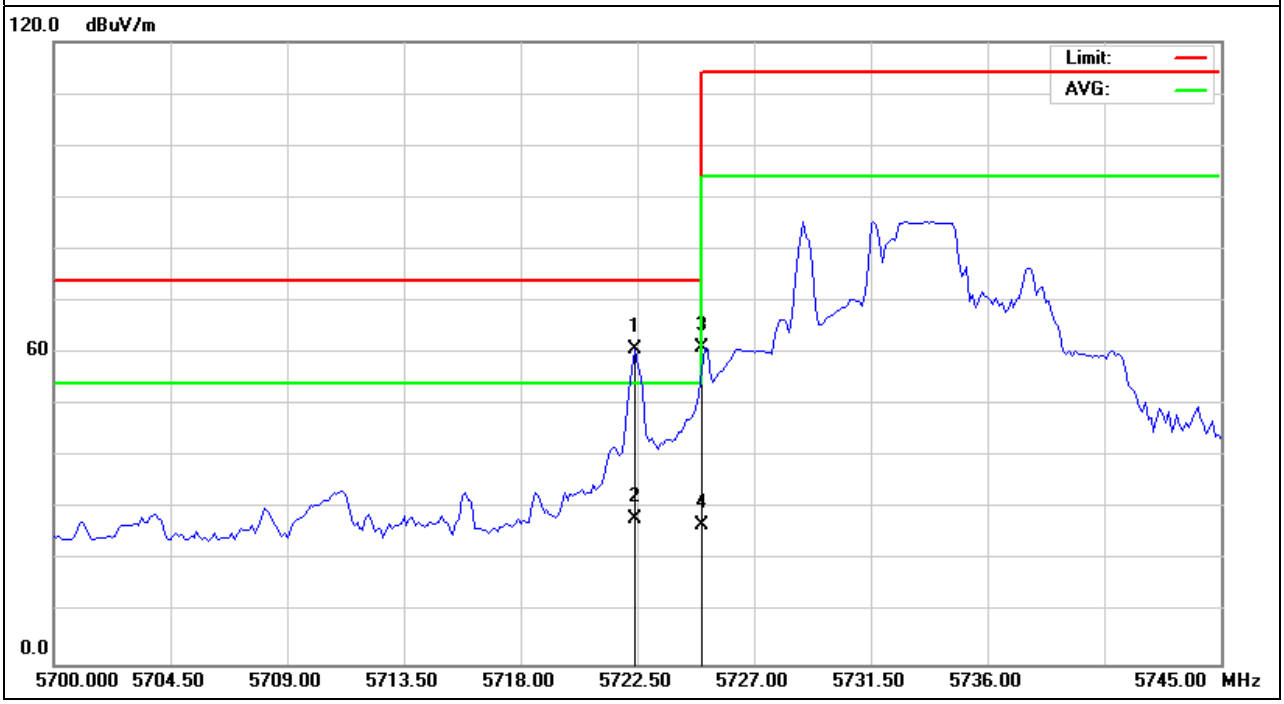


This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5733MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5722.387	62.99	-2.22	60.77	74.00	-13.23	peak
5722.387	30.26	-2.22	28.04	54.00	-25.96	AVG
5725.000	63.15	-2.23	60.92	74.00	-13.08	peak
5725.000	29.13	-2.23	26.90	54.00	-27.10	AVG

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

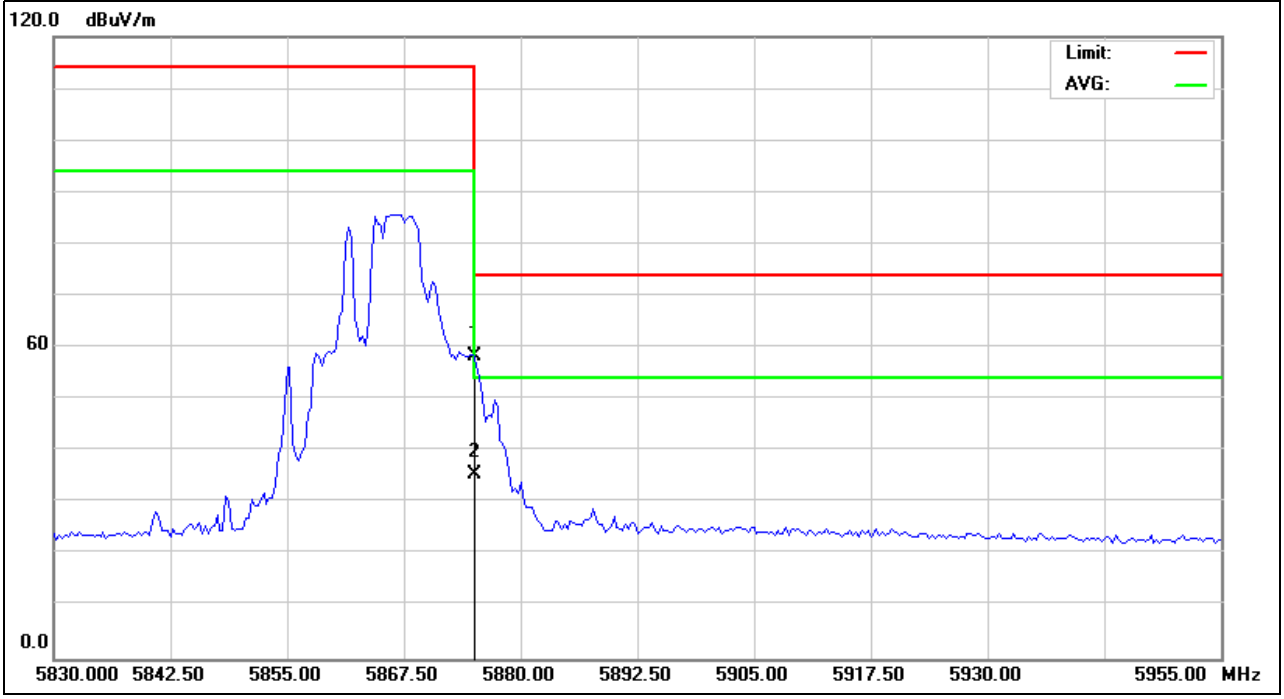


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5866MHz	Polarization :	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5875.000	60.29	-1.94	58.35	74	-15.65	peak
5875.000	37.60	-1.94	35.66	54	-18.34	AVG

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

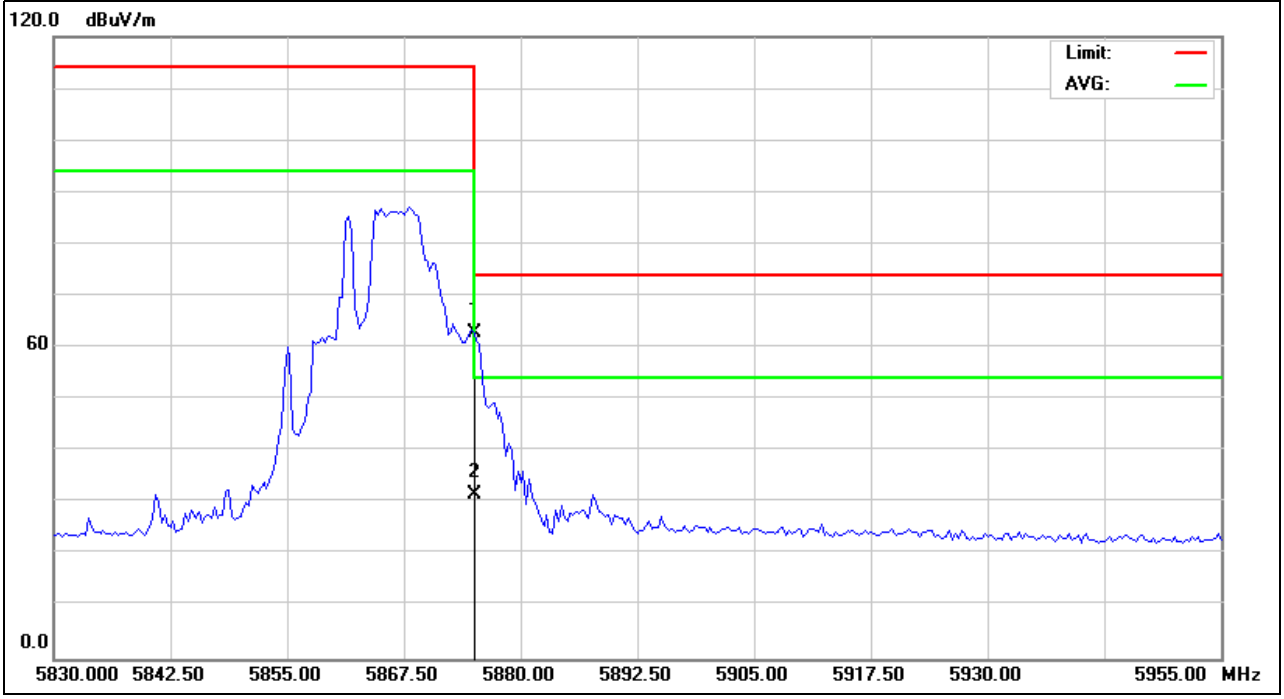


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 11.1V
Test Mode ：	TX-5866MHz	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5875.000	64.85	-1.94	62.91	74	-11.09	peak
5875.000	33.52	-1.94	31.58	54	-22.42	AVG

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



UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

4. BANDWIDTH TEST

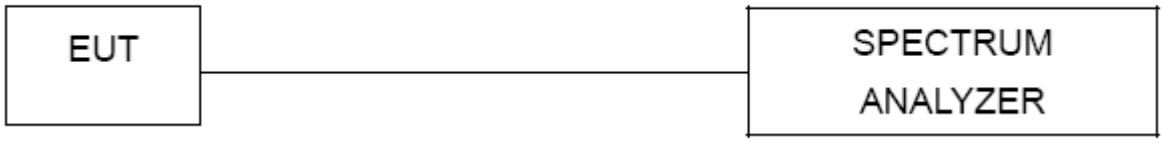
4.1 TEST PROCEDURE

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≧RBW, Sweep time = Auto.

4.2 DEVIATION FROM STANDARD

No deviation.

4.3 TEST SETUP



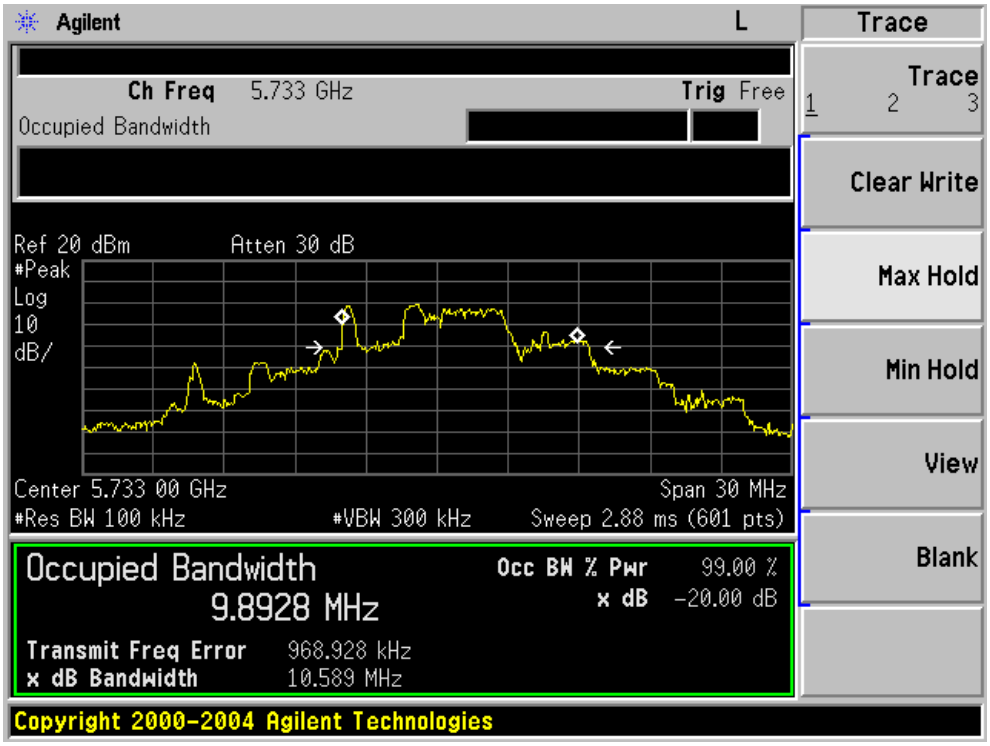
UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

4.4 TEST RESULTS

EUT：	Tovsto Falcon Racing Drone(2.4G Remote Control, 5.8G Transmitter)	Model Name ：	S1
Temperature：	26 ℃	Relative Humidity：	53%
Pressure：	1020 hPa	Test Power ：	DC 11.1V
Test Mode ：	TX		

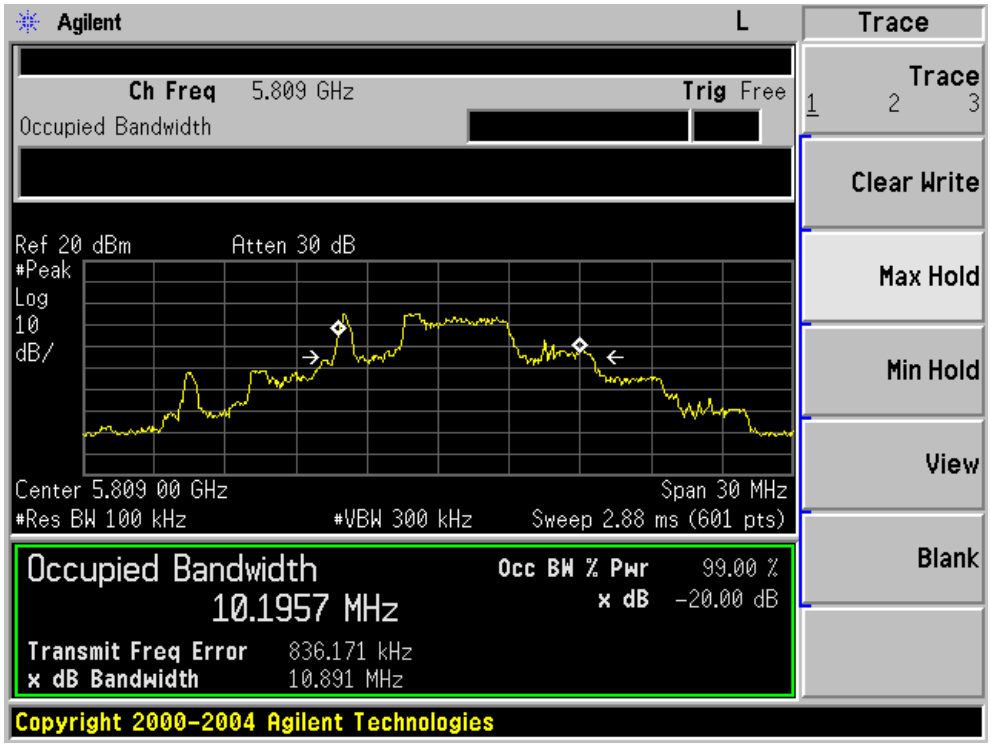
Test Channel	Frequency (MHz)	20 dBc Bandwidth (MHz)
CH00	5733	10.589
CH04	5809	10.891
CH07	5866	10.740

5733 MHz

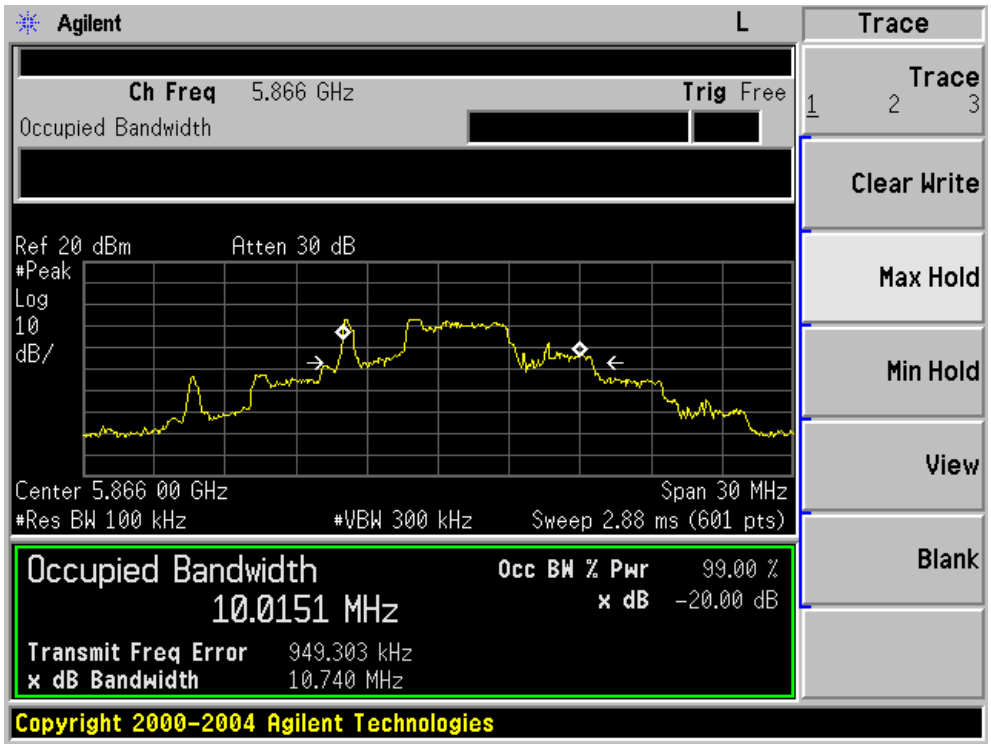


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

5809 MHz



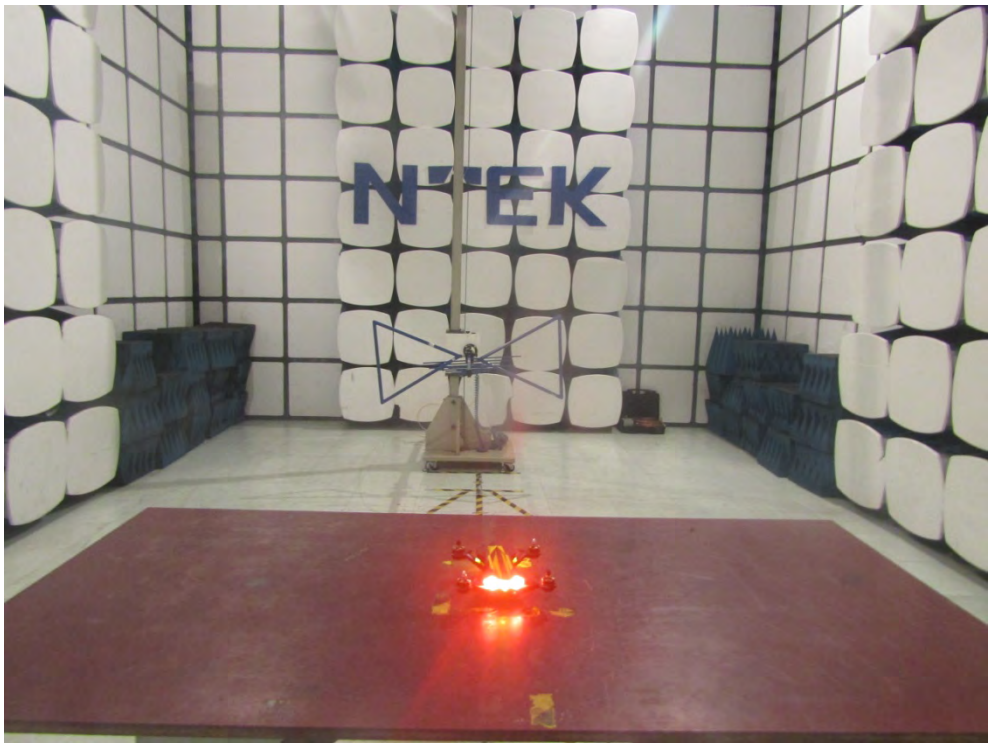
5866 MHz

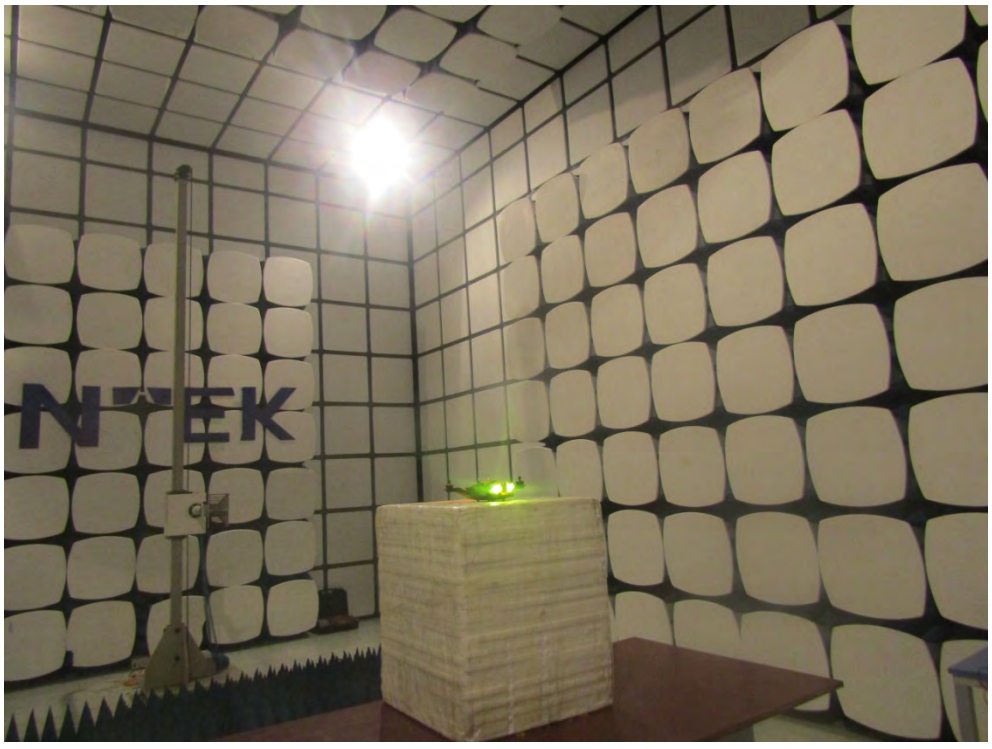


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Form No: **10-SL-F0035**
This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`

5. EUT TEST PHOTO

Radiated Measurement Photos





This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.`