



**TEST REPORT NUMBER: (8520)070-0052**

## TEST REPORT

TO:	GOODLY TOYS LIMITED	FAX:	00852-23683660
ATTN:	KENT LEE	E-MAIL:	kent@goodlytoys.com
ADDRESS	ROOM 502A, HARBOUR CRYSTAL CENTRE, 100 GRANVILLE ROAD, TST		
TEST DATE	07 APR. 2020 ---- 13 APR, 2020		

MANUFACTURER OR SUPPLIER NAME	GOODLY TOYS LIMITED
MANUFACTURER OR SUPPLIER ADDRESS:	ROOM 502A, HARBOUR CRYSTAL CENTRE, 100 GRANVILLE ROAD, TST
SAMPLE DESCRIPTION:	2.4G TWISTING PHANTOM
MODEL OR STYLE NUMBER:	5588-624
RATED VOLTAGE:	TX: DC 3.0V(AA*2) RX :DC 6.0V(AA*4)
ADDITIONAL MODELS:	5588-631,5588-632
FCC ID :	2APSK-5588007
IC :	24953-5588007

**The submitted sample of the above equipment has been tested according to following standard(s)**

FCC Part 15, Subpart C, Section 15.249: Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz

RSS-210 Issue 9 August 2016: Spectrum Management and Telecommunications Radio Standards Specification  
Licence-Exempt Radio Apparatus: Category I Equipment

ANSI C63,10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

RSS-Gen Issue 5 March 2019: Spectrum Management and Telecommunications Radio Standards Specification  
General Requirements for Compliance of Radio Apparatus

Assistant Manager

Name: Nick Lung  
Date: 24 APR ,2020



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### 1 Test Standards

The tests were performed according to following standards:
FCC Part 15, Subpart C, Section 15.249: Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz
RSS-210 Issue 9 August 2016: Spectrum Management and Telecommunications Radio Standards Specification Licence-Exempt Radio Apparatus: Category I Equipment
ANSI C63,10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
RSS-Gen Issue 5 March 2019: Spectrum Management and Telecommunications Radio Standards Specification General Requirements for Compliance of Radio Apparatus

### 2 Summary

#### 2.1 General remarks

Date of receipt of test sample	07 APR. 2020
Testing commenced on	07 APR. 2020 ---- 13 APR. 2020
Testing concluded on	13 APR. 2020

#### 2.2 Final assessment

Test content:	Assessment
The RF requirements pertaining to the technical standards and tested operation modes are	Fulfilled
The equipment under test	Fulfilled the RF requirements

### 3 Equipment Under Test

#### 3.1 Short description of the Equipment Under Test (EUT)

EUT Name:	2.4G TWISTING PHANTOM
FCC ID:	2APSK-5588007
ISED ID	24953-5588007
Model No.:	5588-624
Number of tested samples:	1
Serial number:	--
Power supply voltage	TX: DC 3.0 V RX: DC 6.0 V
Operating Mode	TX Mode
Operation frequency	2405-2480MHz
Number of Channel	76
Modulation	GFSK
Antenna Type	Integral Antenna
Antenna Gain	0dBi



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### 3.2 EUT configuration

(The CDF filled by the applicant can be viewed at the test laboratory.)

The following peripheral devices and interface cables were connected during the measurement:

Not Applicable



### 3.3 Description of test modes

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and packet type. The worst case was found when the EUT was positioned on Y axis for radiated emission. The EUT was tested under the following mode.

EUT configure mode	Applicable to				Description
	RE < 1G	RE ≥ 1G	PLC	BW	DC 3.0V from battery
A	√	√	-	√	

Where RE < 1G: Radiated Emission below 1GHz RE ≥ 1G: Radiated Emission above 1GHz

PLC: Power Line Conducted Emission BW: 20dB bandwidth

Following channel(s) was (were) selected for the test as listed below.

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2405	18	2422	35	2439	52	2456	69	2473
2	2406	19	2423	36	2440	53	2457	70	2474
3	2407	20	2424	37	2441	54	2458	71	2475
4	2408	21	2425	38	2442	55	2459	72	2476
5	2409	22	2426	39	2443	56	2460	73	2477
6	2410	23	2427	40	2444	57	2461	74	2478
7	2411	24	2428	41	2445	58	2462	75	2479
8	2412	25	2429	42	2446	59	2463	76	2480
9	2413	26	2430	43	2447	60	2464		
10	2414	27	2431	44	2448	61	2465		
11	2415	28	2432	45	2449	62	2466		
12	2416	29	2433	46	2450	63	2467		
13	2417	30	2434	47	2451	64	2468		
14	2418	31	2435	48	2452	65	2469		
15	2419	32	2436	49	2453	66	2470		
16	2420	33	2437	50	2454	67	2471		
17	2421	34	2438	51	2455	68	2472		



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### Channel list

Channel	Frequency (MHz)
The lowest channel	2405
The middle channel	2448
The highest channel	2480

Note: The more detailed channel, please refer to the product specifications

## 4 Test Environment

### 4.1 Address of the test laboratory

Test site:	1F&2F YIFENG BUILDING, CHENGHUA INDUSTRIAL ZONE, CHENGHAI DISTRICT, SHANTOU CITY
Tel:	86-754-85860999
Fax:	86-754-86984098

**Result reviewed by** Centre of Testing Service (Ningbo) Co, Ltd Guangzhou Branch -a Bureau Veritas Company

**Address:** Building A, No.65 Zhuji Highway, Jishancun, Tianhe District, Guangzhou, China

### 4.2 Test facility

The test facility is recognized, certified, or accredited by the following organizations:	
CNAS Accreditation NO.:	L4735
A2LA Accreditation NO.:	5443.01
Designation Number :	CN1263
Test Firm Registration Number :	127385
Industry Canada site registration number :	25345
FCC Registration NO.:	0028094555

### 4.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:	
Temperature	15~30°C
Humidity	20~75%



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### 4.4 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. Furthermore, component and process variability of devices are similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Measurement Uncertainty (Standard: ETSI TR 100 028)	
Conducted emissions	$\pm 2.14\text{dB}$
Radiated Emission below 1GHz	$\pm 4.88\text{dB}$
Radiated Emission above 1GHz	$\pm 4.65\text{dB}$

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

### 4.5 Test types and results

Standard: FCC PART 15, SUBPART C (SECTION 15.249) & RSS-210 Issue 9		
Standard section	Test Type	Result
FCC Part 15 §15.209 & §15.249(a)	Radiated Emission	PASS
RSS-210 Issue 9 §B(a) & §B(b)		
FCC Part 15§15.215(c)	20dB Bandwidth	PASS
FCC Part 15 §15.205 RSS-210 Issue 9 §B(a) & §B(b) RSS-Gen 8.10	Restricted Band Around Fundamental Frequency	PASS
FCC Part 15 §15.203	Antenna Requirement	PASS

## 5 Test Conditions and Results

### 5.1 Radiated emission

For test instruments and accessories used see section 6

#### 5.1.1 Test procedures

- (1) The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters (below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- (2) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- (3) The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- (4) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

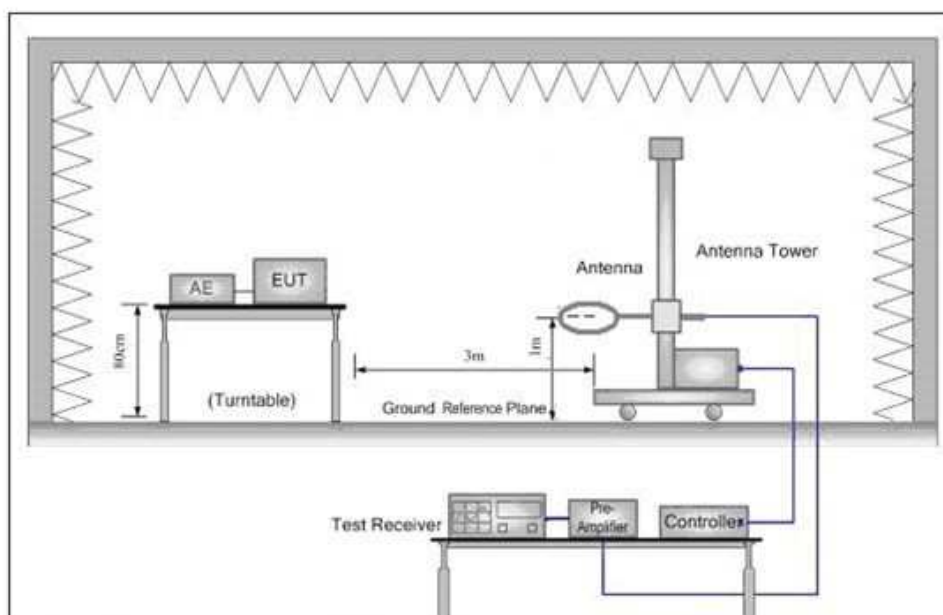
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- (5) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- (6) For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
- (7) If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

### Note:

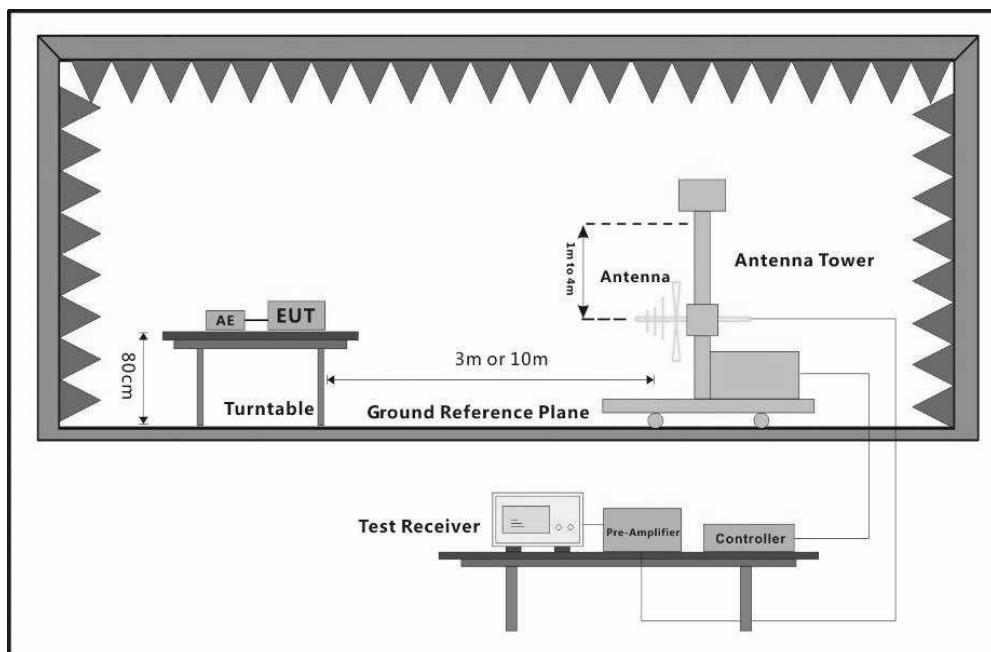
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. All modes of operation were investigated and the worst-case emissions are reported
4. The testing of the EUT was performed on all 3 orthogonal axes; the worst-case test configuration was reported on the file test setup photo.

### 5.1.2 Test setup

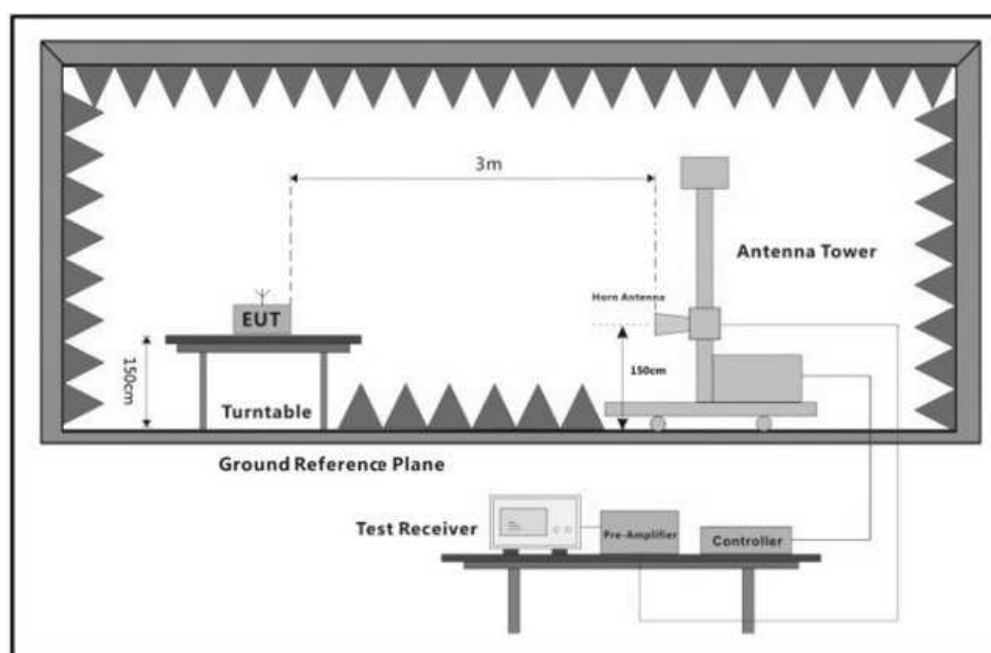


Below 30MHz

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**30MHz-1000MHz**



**Above 1GHz**



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### 5.1.3 Test limits

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies ( MHz )	Field strength ( microvolts/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
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

According to §15.249(a), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Filed strength of fundamental(milli-volts/meter)	Field strength of harmonics (micro- volts/meter)
902 ~ 928 MHz	50	500
2400 ~ 2483.5 MHz	50	500
5725 ~5875 MHz	50	500
24.0 ~24.25 GHz	250	2500

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply.

#### Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBμV/m) = 20 log Emission level (μV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
4. Emission from 9kHz to 30MHz is more than 20dB below the limit.





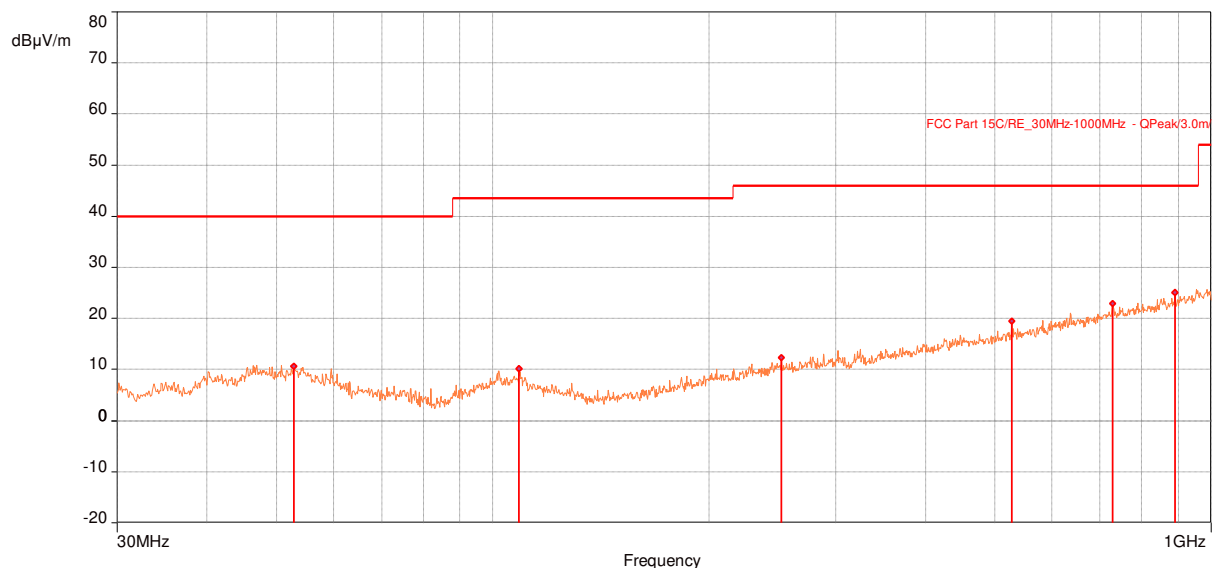
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### 5.1.4 Test results

#### 5.1.4.1 Radiated emissions test (below 1GHz)

Test point	Operation mode	Result
Horizontal	TX mode (The worst channel: 2405MHz)	PASS

EUT	2.4G TWISTING PHANTOM
Operating Condition	TX: DC 3.0 V
Test Condition	Ambient Temperature: 21°C Humidity:59%RH



Frequency (MHz)	Peak (dBV/m)	QP (dBμV/m)	QP Lim. (dBμV/m)	Margin (dB)	Angle (°)	Height (m)	Polarization
52.795	10.67	--	40.00	-29.33	9.00	1.00	Horizontal
108.861	10.19	--	43.50	-33.31	200.00	1.00	Horizontal
252.13	12.40	--	46.00	-33.60	130.00	1.00	Horizontal
528.095	19.51	--	46.00	-26.49	7.00	1.99	Horizontal
729.661	22.88	--	46.00	-23.12	58.00	1.00	Horizontal
890.39	25.06	--	46.00	-20.94	74.00	1.00	Horizontal

#### Note:

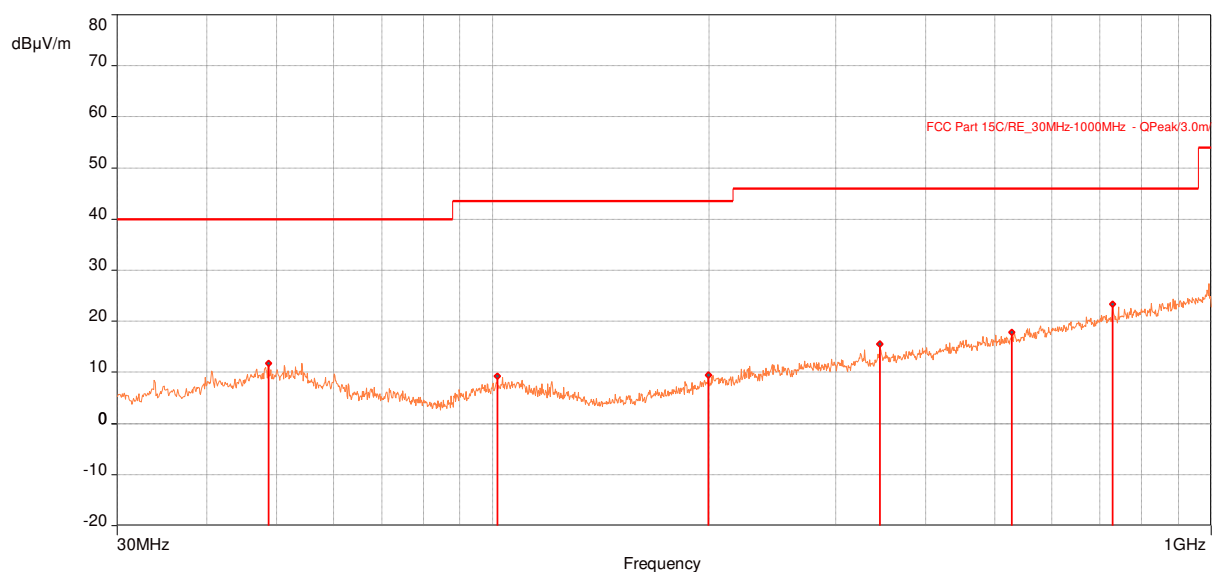
- 1.QP and Avg. are abbreviations of Quasi-Peak and Average
- 2.Emission Level = Read Level + Correction Factor
- 3.Margin = Emission Level - Limit Value
- 4.The emission levels of other frequencies were more than 20dB margin against the limit



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Test point	Operation mode	Result
Vertical	TX mode (The worst channel: 2405MHz)	PASS

EUT	2.4G TWISTING PHANTOM
Operating Condition	TX: DC 3.0 V
Test Condition	Ambient Temperature: 21°C Humidity: 59%RH



Frequency (MHz)	Peak (dBV/m)	QP (dBμV/m)	QP Lim. (dBμV/m)	Margin (dB)	Angle (°)	Height (m)	Polarization
48.721	11.72	--	40.00	-28.28	1.00	2.00	Vertical
101.392	9.28	--	43.50	-34.22	327.00	1.01	Vertical
199.75	9.48	--	43.50	-34.02	102.00	2.00	Vertical
345.541	15.55	--	46.00	-30.45	92.00	2.00	Vertical
528.095	17.90	--	46.00	-28.10	292.00	1.01	Vertical
728.885	23.41	--	46.00	-22.59	218.00	1.01	Vertical

### Note:

- 1.QP and Avg. are abbreviations of Quasi-Peak and Average
- 2.Emission Level = Read Level + Correction Factor
- 3.Margin = Emission Level - Limit Value
- 4.The emission levels of other frequencies were more than 20dB margin against the limit



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### 5.1.4.2 Radiated emissions test (above 1GHz)

EUT	2.4G TWISTING PHANTOM		
Channel	The lowest channel (2405MHz)	Detector function	Peak (PK) Average (AV)
Frequency range	above 1GHz	Result	PASS

Antenna Polarity & Test Distance: Horizontal At 3m							
Frequency (MHz)	Emission Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Detector
2390.04	33.69	54.00	-20.31	1.52	342.00	Horizontal	Average
2400	43.34	54.00	-10.66	1.52	167.00	Horizontal	Average
*2405.04	75.7	94.00	-18.30	1.52	167.00	Horizontal	Average
4809.7	39.25	54.00	-14.75	1.99	359.00	Horizontal	Average
7216.9	38.94	54.00	-15.06	1.99	36.00	Horizontal	Average
2390.04	44.19	74.00	-29.81	1.52	342.00	Horizontal	Peak
2400	53.84	74.00	-20.16	1.52	167.00	Horizontal	Peak
*2405.04	86.20	114.00	-27.80	1.52	167.00	Horizontal	Peak
4809.7	49.75	74.00	-24.25	1.99	359.00	Horizontal	Peak
7216.9	49.44	74.00	-24.56	1.99	36.00	Horizontal	Peak

Antenna Polarity & Test Distance: Vertical At 3m							
Frequency (MHz)	Emission Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Detector
2390.04	32.99	54.00	-21.01	1.50	330.00	Vertical	Average
2400	40.28	54.00	-13.72	1.50	77.00	Vertical	Average
*2405.04	72.7	94.00	-21.30	1.50	118.00	Vertical	Average
4809.7	32.74	54.00	-21.26	1.00	135.00	Vertical	Average
7216.9	41.74	54.00	-12.26	1.99	221.00	Vertical	Average
2390.04	43.49	74.00	-30.51	1.50	330.00	Vertical	Peak
2400	50.78	74.00	-23.22	1.50	77.00	Vertical	Peak
*2405.04	83.20	114.00	-30.80	1.50	118.00	Vertical	Peak
4809.7	43.24	74.00	-30.76	1.00	135.00	Vertical	Peak
7216.9	52.24	74.00	-21.76	1.99	221.00	Vertical	Peak

#### Remarks:

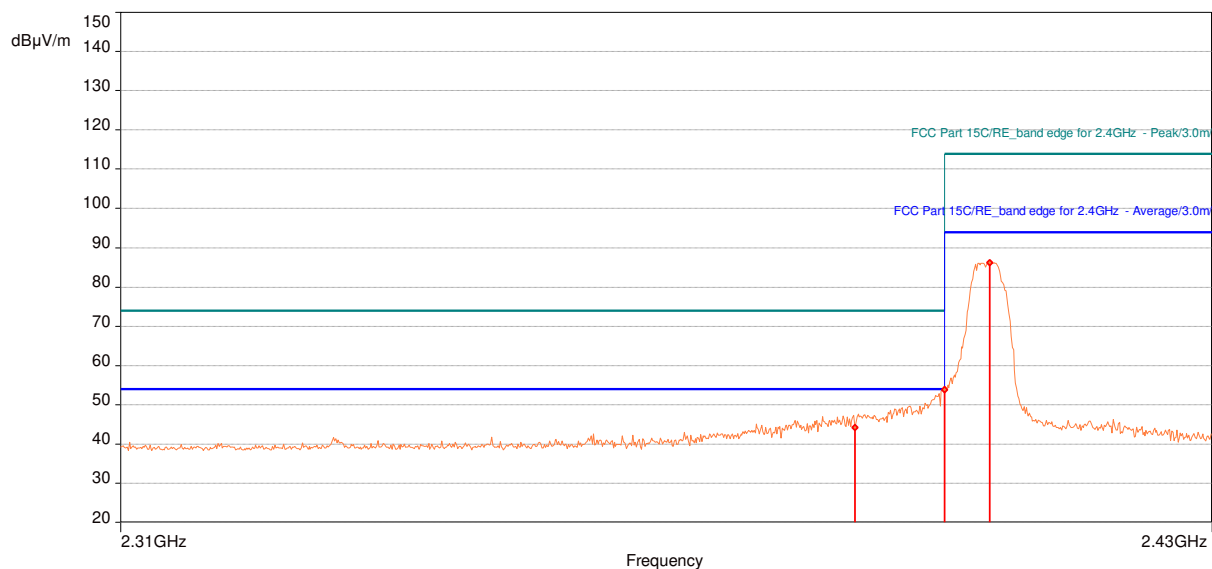
1. Emission level (dB $\mu$ V/m) = Raw Value (dB $\mu$ V) + Correction Factor (dB/m)
2. The emission levels of other frequencies were more than 20dB margin against the limit.
3. Margin value = Emission Level - Limit Value.
4. " \* ": Fundamental frequency.



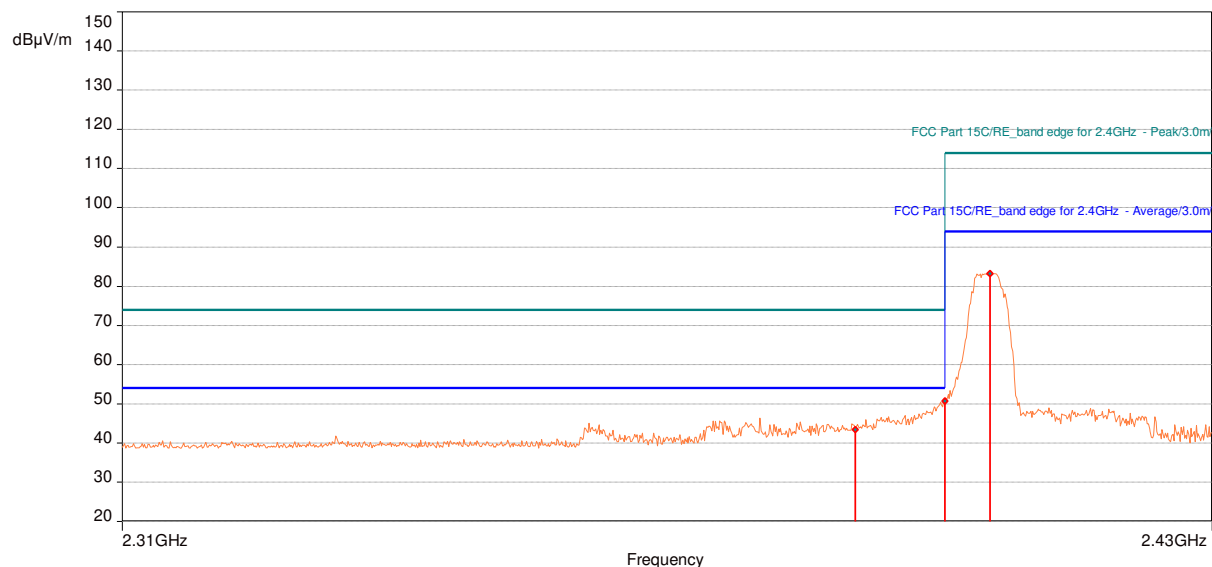
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## Band Edge Plot

### 2405MHz Horizontal



### 2405MHz Vertical





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EUT	2.4G TWISTING PHANTOM		
Channel	The middle channel (2448MHz)	Detector function	Peak (PK) Average (AV)
Frequency range	above 1GHz	Result	PASS

Antenna Polarity & Test Distance: Horizontal At 3m							
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Detector
*2447.9989	74.87	94.00	-19.13	2.00	167.00	Horizontal	Average
4896.4	36.45	54.00	-17.55	2.00	359.00	Horizontal	Average
7346.1	39.9	54.00	-14.10	1.01	321.00	Horizontal	Average
*2447.9989	85.37	114.00	-28.63	2.00	167.00	Horizontal	Peak
4896.4	46.95	74.00	-27.05	2.00	359.00	Horizontal	Peak
7346.1	50.40	74.00	-23.60	1.01	321.00	Horizontal	Peak
Antenna Polarity & Test Distance: Vertical At 3m							
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Detector
*2447.9989	72.23	94.00	-21.77	1.99	244.00	Vertical	Average
4896.4	30.78	54.00	-23.22	1.00	143.00	Vertical	Average
7346.1	41.65	54.00	-12.35	1.99	218.00	Vertical	Average
*2447.9989	82.73	114.00	-31.27	1.99	244.00	Vertical	Peak
4896.4	41.28	74.00	-32.72	1.00	143.00	Vertical	Peak
7346.1	52.15	74.00	-21.85	1.99	218.00	Vertical	Peak
Remarks: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m) 2. The emission levels of other frequencies were more than 20dB margin against the limit. 3. Margin value = Emission Level - Limit Value. 4. " * ": Fundamental frequency.							



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EUT	2.4G TWISTING PHANTOM		
Channel	The highest channel (2480MHz)	Detector function	Peak (PK) Average (AV)
Frequency range	above 1GHz	Result	PASS

Antenna Polarity & Test Distance: Horizontal At 3m							
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Detector
*2480	73.57	94.00	-20.43	1.51	343.00	Horizontal	Average
2483.5	45.75	54.00	-8.25	1.51	174.00	Horizontal	Average
4959.3	37.91	54.00	-16.09	2.00	1.00	Horizontal	Average
7439.6	39.49	54.00	-14.51	2.00	199.00	Horizontal	Average
*2480	84.07	114.00	-29.93	1.51	343.00	Horizontal	Peak
2483.5	56.25	74.00	-17.75	1.51	174.00	Horizontal	Peak
4959.3	48.41	74.00	-25.59	2.00	1.00	Horizontal	Peak
7439.6	49.99	74.00	-24.01	2.00	199.00	Horizontal	Peak

Antenna Polarity & Test Distance: Vertical At 3m							
Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (m)	Angle (°)	Polarization	Detector
*2480	72.38	94.00	-21.62	1.50	125.00	Vertical	Average
2483.5	44.07	54.00	-9.93	1.50	120.00	Vertical	Average
4959.3	31.50	54.00	-22.50	1.99	144.00	Vertical	Average
7439.6	42.65	54.00	-11.35	1.99	226.00	Vertical	Average
*2480	82.88	114.00	-31.12	1.50	125.00	Vertical	Peak
2483.5	54.57	74.00	-19.43	1.50	120.00	Vertical	Peak
4959.3	42.00	74.00	-32.00	1.99	144.00	Vertical	Peak
7439.6	53.15	74.00	-20.85	1.99	226.00	Vertical	Peak

### Remarks:

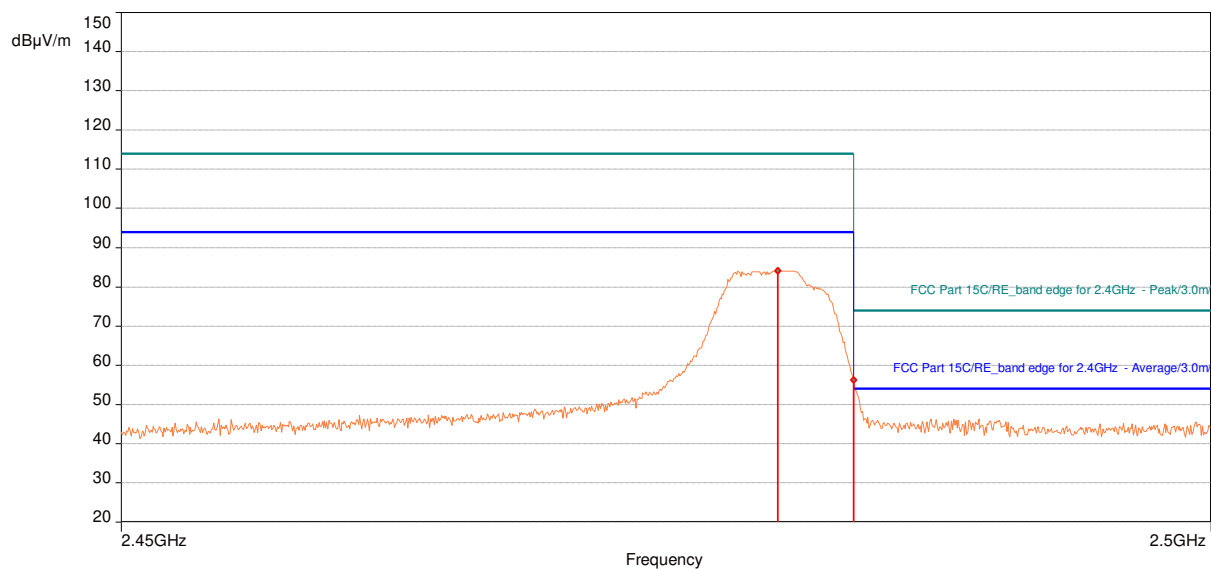
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
2. The emission levels of other frequencies were more than 20dB margin against the limit.
3. Margin value = Emission Level - Limit Value.
4. " \* " : Fundamental frequency.



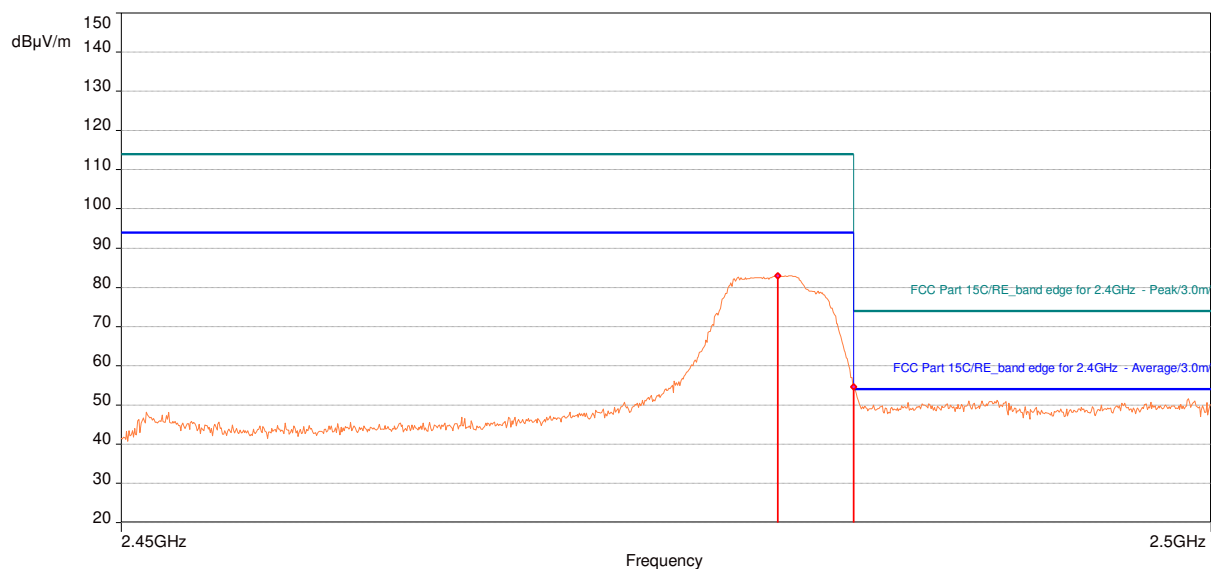
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## Band Edge Plot

### 2480MHz Horizontal



### 2480MHz Vertical





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### 5.1.4.3 Calculation of Average Factor

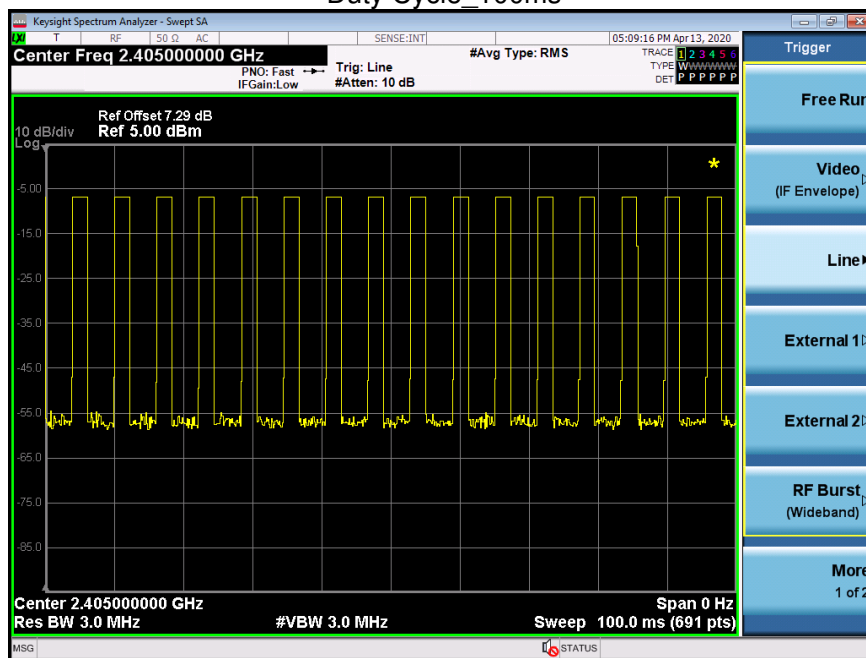
Effective period of the cycle = 1.826ms

The duration of one cycle = 6.088ms

Duty Cycle = 1.826ms / 6.088ms = 29.99%

Averaging factor in dB =  $20 \log (\text{duty cycle}) = 20 \log (29.99\%) = -10.5$

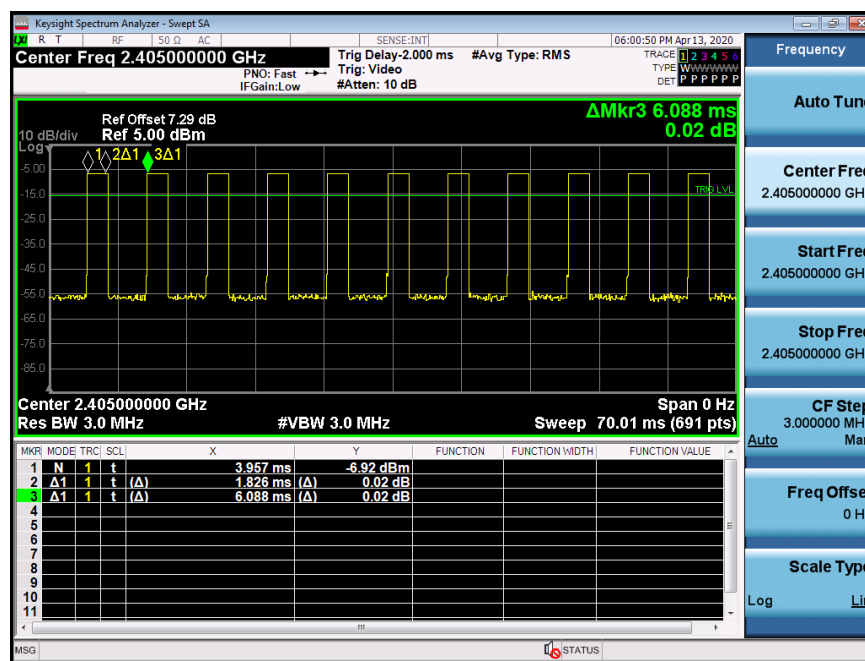
Duty Cycle\_100ms





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Effective period of the cycle



## 5.2 20dB bandwidth

For test instruments and accessories used see section 6

### 5.2.1 Test procedures

- (1) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- (2) Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- (3) Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.
- (4) Repeat above procedures until all frequencies measured were complete.

### 5.2.2 Test setup



### 5.2.3 Test limits

According to FCC 15.215(c), must be designed to ensure that the 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.



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### 5.2.4 Test results

Channel	frequency (MHz)	F <sub>L</sub> (MHz)	F <sub>H</sub> (MHz)	20dB Bandwidth (MHz)
The lowest channel	2405	2403.747	2405.889	2.142
The middle channel	2448	2446.166	2448.903	2.737
The highest channel	2480	2478.838	2481.225	2.387



2405MHz



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2448MHz



2480MHz



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### 5.3 Antenna requirements

Test Standard:  
FCC Part 15, Subpart C 15.203

Standard Requirement:

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user. but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 0dBi. Antenna location: Refer to Appendix (Internal photos) (8520)070-0052(B)



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### 6 Test Equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1	Spectrum Analyzer	Keysight	N9010A	MY51120099	2019/07/17	2020/07/17
2	JS0806-2 RF Control Unit	Tonscend	JS0806-2	188060124	2019/12/12	2020/12/12
3	Broadband Preamplifier	SCHWARZBECK	BBV 9743B	00067	2020/03/28	2021/03/28
4	Broadband Preamplifier	SCHWARZBECK	BBV 9718B	00062	2020/03/28	2021/03/28
5	EMI Test Receiver	ROHDE & SCHWARZ	ESR3	102452	2019/07/15	2020/07/15
6	Trilog Broadband Antenna	SCHWARZBECK	VULB 9163	9163-1127	2019/06/04	2020/06/04
7	Horn Antenna	SCHWARZBECK	BBHA 9120D	01829	2019/06/04	2020/06/04
8	DC power supply	MAISHENG	MP5030D	2018121557	2019/08/26	2020/08/26
9	Constant temperature humidity chamber	REALE	RHP-225L	R2017032031 1	2019/07/05	2020/07/05
10	Temperature And Humidity Indicator	JianDaRenKe	Cos-03	0612058	2019/07/31	2020/07/31
11	BAT-EMC Testing (Test Software)	NEXIO	BAT-EMC	Version: 3.16.0.74	N/A	N/A
12	JS1120-3 Test System (Test Software)	Tonscend	JS1120-3	Version: 2.5.77.0418	N/A	N/A
13	Double Ridge Guide Horn Antennas	A.H.Systems	SAS-574	588	2019/06/06	2020/06/06
14	Active loop antenna	BeiJing DaZe technology co. LTD	ZN30900C	15015	2020/03/30	2021/03/30



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## 7 Manufacturer/ Approval holder Declaration

The following identical model(s):

5588-631, 5588-632

Belong to the tested device:

Product description: 2.4G TWISTING PHANTOM  
Model No.: 5588-624

**END OF TEST REPORT**