



FCC RADIO TEST REPORT

FCC ID: 2AGZ8DRW514VP

Sample: RC DRONE

Trade Mark: N/A

Main Model: DRW514VP

Additional Model: N/A

Report No.: UNIA24060317ER-61

Prepared for

DOWELLIN TOYS FACTORY

1 Road FengXin ChengHai District, ShanTou City, GuangDong, China

Prepared by

Shenzhen United Testing Technology Co., Ltd.

D101&D401, No. 107, Kaicheng High-Tech Park, Taoyuan Community, Dalang Sub-District, Longhua District, Shenzhen, Guangdong, China

D101& D401, No.107, Kaicheng High-Tech Park, Taoyuan Community, Dalang Sub-District, Longhua District, Shenzhen, Guangdong, China







TEST RESULT CERTIFICATION

Report No.: UNIA24060317ER-61

Applicant:	DOWELLIN TOYS FACTORY
Address:	1 Road FengXin ChengHai District, ShanTou City,GuangDong, China
Manufacturer:	DOWELLIN TOYS FACTORY
Address:	1 Road FengXin ChengHai District, ShanTou City,GuangDong, China
Product description	
Product:	RC DRONE
Trade Mark:	N/A
Model Name:	DRW514VP
Test Methods:	FCC Rules and Regulations Part 15 Subpart C Section 15.249, ANSI C63.10: 2013
and the test results show that the requirements. And it is applicable. This report shall not be reproduct.	as been tested by Shenzhen United Testing Technology Co., Ltd., ne equipment under test (EUT) is in compliance with the FCC ble only to the tested sample identified in the report. Indeed except in full, without the written approval, this document may men United Testing Technology Co., Ltd., personnel only, and shall document.
Date of Test	
Date (s) of performance of tests	: Jul. 05, 2024 ~ Jul. 16, 2024
Date of Issue	: Jul. 17, 2024
Test Result	: Pass
Prepared by:	Jason Ye
Troparca by.	Jason Ye/Editor
	kerny chong
Reviewer:	Remy Man
	Kelly Cheng/Supervisor
Approved & Authorized Sign	er:
The same	Liuze/Manager







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1.1 TEST PROCEDURES AND RESULTS

ITEM	STANGARD	RESULT
CONDUCTED EMISSION	FCC Part 15.207	N/A
RADIATED EMISSION	FCC Part 15.209/15.249	COMPLIANT
BAND EDGE	FCC Part 15.249/15.205	COMPLIANT
20dB BANDWIDTH	FCC Part 15.215	COMPLIANT
ANTENNA REQUIREMENT	FCC Part 15.203	COMPLIANT

.2 TEST FACILITY

Shenzhen United Testing Technology Co., Ltd. Test Firm

Address D101&D401, No. 107, Kaicheng High-Tech Park, Taoyuan Community,

Dalang Sub-District, Longhua District, Shenzhen, Guangdong, China

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19. The testing quality system of our laboratory meets with ISO/IEC-17025 requirements. This approval result is accepted by MRA of APLAC.

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

A2LA Certificate Number: 4747.01

The EMC Laboratory has been accredited by A2LA, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

FCC Registration Number: 674885

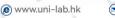
The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission.

IC Registration Number: 31584

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada.

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1.3 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 %.

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A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
	NI ANSI	9kHz ~ 150kHz	2.96	
UNI	ANOI	150kHz ~ 30MHz	2.44	12.

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range U, (dB) 9kHz ~ 30MHz 2.50		NOTE
	17	9kHz ~ 30MHz	2.50	-
UNI	ANSI	30MHz ~ 1000MHz	4.80	17.
17.	. Lo	Above 1000MHz	4.13	in, ri



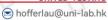




2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

i i	
Product:	RC DRONE
Trade Mark:	N/A
Main Model:	DRW514VP
Additional Model:	N/A
Model Difference:	N/A
FCC ID:	2AGZ8DRW514VP
Frequency Range:	2455MHz-2475MHz
Number of Channels:	21CH
Field Strength of Fundamental:	85.78dBuV/m(Peak)@3m
Modulation Type:	GFSK
Antenna Type:	Internal Antenna
Antenna Gain:	0.17dBi
Battery:	DC 4.5V
Adapter:	N/A
Power Source:	DC 4.5V from battery







2.2 CARRIER FREQUENCY OF CHANNELS

Channel List							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2455	07	2461	13	2467	19	2473
02	2456	08	2462	14	2468	20	2474
03	2457	09	2463	15	2469	21	2475
04	2458	10	2464	16	2470		, 0
05	2459	11	2465	17	2471	124	121
06	2460	12	2466	18	2472	· 64	-

2.3 TEST MODE

The EUT was programmed to be in continuously transmitting mode.

Channel List							
Test Channel	EUT Channel	Test Frequency (MHz)					
Low channel	CH01	2455					
Middle channel	CH11	2465					
High channel	CH21	2475					





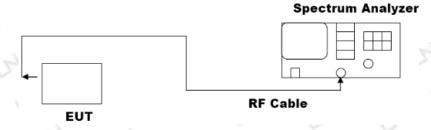


2.4 TEST SETUP

Operation of EUT during Radiation testing:



Operation of EUT during RF Conducted testing:



2.5 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

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.	Note
E-1	RC DRONE	N/A	DRW514VP	EUT

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.
- 3. "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".





2.6 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
C)	17,	Radiated Emiss	sions Measurement	0	The same
1	Radiated Emission Test Software	EZ-EMC	Ver.CCS-03A1	N/A	N/A
2	Horn Antenna	Sunol	DRH-118	A101415	2025.07.14
3	Broadband Hybrid Antenna	Sunol	JB1	A090215	2025.07.28
4	PREAMP	HP	8449B	3008A00160	2025.06.11
5	PREAMP	HP	8447D	2944A07999	2025.06.11
6	EMI TEST RECEIVER	Rohde&Schwarz	ESR3	101891	2025.06.11
\ 7	VECTOR Signal Generator	Rohde&Schwarz	SMU200A	101521	2025.06.11
8	Signal Generator	Agilent	E4421B	MY4335105	2025.06.11
9	MXA Signal Analyzer	Agilent	N9020A	MY50510140	2025.06.11
10	MXA Signal Analyzer	Keysight	N9020A	MY51110104	2025.06.11
11	RF Power sensor	DARE	RPR3006W	15I00041SNO88	2025.06.11
12	RF Power sensor	DARE	RPR3006W	15I00041SNO89	2025.06.11
13	RF power divider	Anritsu	K241B	992289	2025.06.11
14	Wideband radio communication tester	Rohde&Schwarz	CMW500	154987	2025.06.11
15	Active Loop Antenna	Com-Power	AL-130R	10160009	2025.06.11
16	Broadband Hybrid Antennas	Schwarzbeck	VULB9163	VULB9163#958	2024.09.22
17	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1680	2025.07.14
18	Horn Antenna	A-INFOMW	LB-180400-KF	J211060660	2025.07.14
19	Microwave Broadband Preamplifier	Schwarzbeck	BBV 9721	100472	2024.09.22
20	Signal Generator	Agilent	N5183A	MY47420153	2024.09.22
21	Spctrum Analyzer	Rohde&Schwarz	FSP 40	100501	2024.09.22
22	Power Meter	KEYSIGHT	N1911A	MY50520168	2024.09.22
23	Frequency Meter	VICTOR	VC2000	997406086	2024.09.22
24	DC Power Source	HYELEC	HY5020E	055161818	2024.09.22





3 CONDUCTED EMISSION

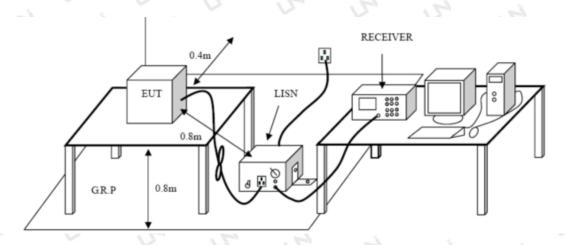
3.1 TEST LIMIT

For unintentional device, according to § 15.207(a) Line Conducted Emission Limits is as following

Ī		Maximum RF Line Voltage (dBμV)			
	Frequency (MHz)	CLASS A		CLASS B	
	(1411 12)	Q.P.	Ave.	Q.P.	Ave.
	0.15~0.50	79	66	66~56*	56~46*
	0.50~5.00	73	60	56	46
	5.00~30.0	73	60	60	50

^{*} Decreasing linearly with the logarithm of the frequency. For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

3.2 TEST SETUP





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广东省深圳市龙华区大浪街道陶元社区凯诚高新园107(D101/D401) (P.C.518109)

Tel: +86-755-8618 0996





3.3 TEST PROCEDURE

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is placed on a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.

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- 2. Support equipment, if needed, was placed as per ANSI C63.10.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4. If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5. All support equipments received AC power from a second LISN, if any.
- 6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

3.4 TEST RESULT

N/A

Remark:

The EUT is powered by battery.

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4 RADIATED EMISSION

4.1 TEST LIMIT

For unintentional device, according to § 15.209(a), except for Class B digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

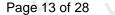
Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F (kHz)	-	Quasi-peak	300
0.490MHz-1.705MHz	24000/F (kHz)	-	Quasi-peak	30
1.705MHz-30MHz	30	-	Quasi-peak	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3
Above IGHZ	500	74.0	Peak	3

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

Limit: (Field strength of the fundamental signal)

Frequency	Limit (dBuV/m @3m)	Remark
2400MHz-2483.5MHz	94.0	Average Value
	114.0	Peak Value

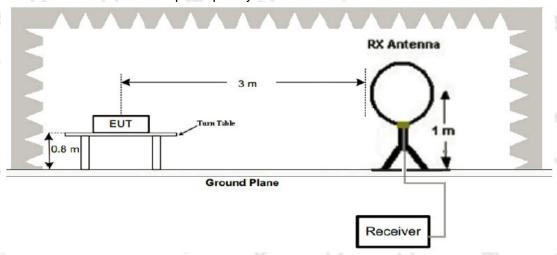




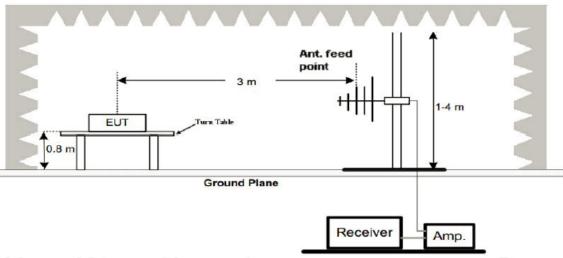


4.2 TEST SETUP

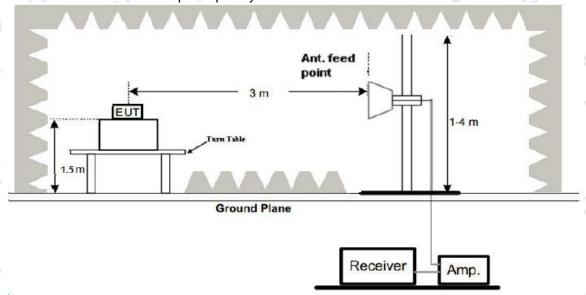
1. Radiated Emission Test-Up Frequency Below 30MHz



2. Radiated Emission Test-Up Frequency 30MHz~1GHz



3. Radiated Emission Test-Up Frequency Above 1GHz











4.3 TEST PROCEDURE

 Below 1GHz measurement the EUT is placed on turntable which is 0.8m above ground plane.
 And above 1GHz measurement EUT was placed on low permittivity and low tangent turn table which is 1.5m above ground plane.

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- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Repeat above procedures until the measurements for all frequencies are complete.
- 7. The test frequency range from 9kHz to 25GHz per FCC PART 15.33(a).

For battery operated equipment, the equipment tests shall be performed using a new battery.

4.4 TEST RESULT

PASS

Remark:

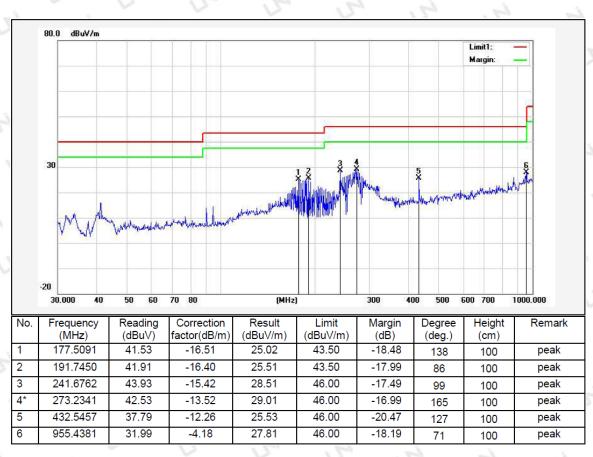
- 1. All modes were test at Low, Middle, and High channel, only the worst result of GFSK Low Channel was reported for below 1GHz test.
- 2. By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "X axis" position was the worst, and test data recorded in this report.
- 3. Radiated emission test from 9kHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9kHz to 30MHz and not recorded in this report.





Below 1GHz Test Results:

Temperature:	24°C	Relative Humidity:	48%			
Test Date:	Jul. 09, 2023	Pressure:	1010hPa			
Test Voltage:	DC 4.5V	Phase:	Horizontal			
Test Mode: Transmitting mode of GFSK 2455.0MHz						

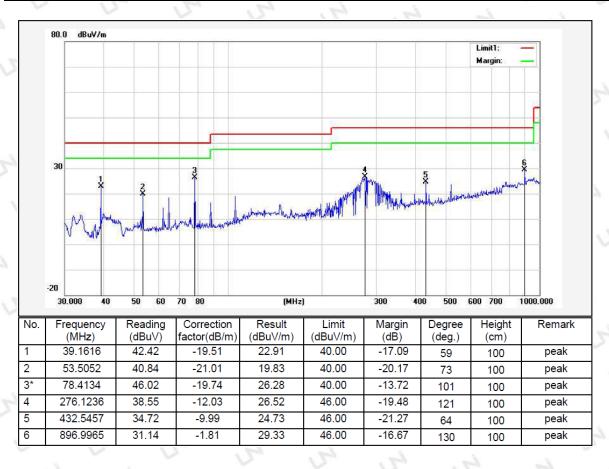


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Temperature:	24°C	Relative Humidity:	48%				
Test Date:	Jul. 09, 2023	Pressure:	1010hPa				
Test Voltage:	DC 4.5V	Phase:	Vertical				
Test Mode:	Transmitting mode of GFSK 2455.0MHz						



Remark: Result = Reading Level + Factor, Margin = Result - Limit Factor = Ant. Factor + Cable Loss - Pre-amplifier

Remark:

- 1. Measuring frequencies from 9 kHz to the 1 GHz, Radiated emission test from 9kHz to 30MHzwas verified, and no any emission was found except system noise floor.
- 2. * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- 3. The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120kHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10kHz.

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Above 1 GHz Test Results:

CH01 (2455.0MHz) Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2455	91.62	-5.84	85.78	114	-28.22	PK
2455	71.25	-5.84	65.41	94	-28.59	AV
4910	48.48	-3.64	44.84	74	-29.16	PK
4910	28.38	-3.64	24.74	54	-29.26	AV
7365	45.4	-0.95	44.45	74	-29.55	PK
7365	25.06	-0.95	24.11	54	-29.89	AV

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2455	91.45	-5.84	85.61	114	-28.39	PK
2455	71.15	-5.84	65.31	94	-28.69	AV
4910	48.51	-3.64	44.87	74	-29.13	PK
4910	28.29	-3.64	24.65	54	-29.35	AV
7365	45.17	-0.95	44.22	74	-29.78	PK
7365	24.65	-0.95	23.7	54	-30.3	AV
Remark: Fa	actor = Antenna	a Factor + Cab	le Loss – Pre-ampl	ifier. Margin = /	Absolute Lev	el – Limit

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CH11 (2465.0MHz) Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2465	91.29	-5.71	85.58	114	-28.42	PK
2465	71.06	-5.71	65.35	94	-28.65	AV
4930	48.29	-3.51	44.78	74	-29.22	PK
4930	28.15	-3.51	24.64	54	-29.36	AV
7395	45.17	-0.82	44.35	74	-29.65	PK
7395	24.88	-0.82	24.06	54	-29.94	AV
Remark: Fac	ctor = Antenna	Factor + Cal	ole Loss – Pre-amp	olifier. Margin	= Absolute L	evel – Lim

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detecto
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2465	90.95	-5.71	85.24	114	-28.76	PK
2465	70.77	-5.71	65.06	94	-28.94	AV
4930	47.98	-3.51	44.47	74	-29.53	PK
4930	27.8	-3.51	24.29	54	-29.71	AV
7395	44.65	-0.82	43.83	74	-30.17	PK
7395	24.18	-0.82	23.36	54	-30.64	AV





CH21 (2475.0MHz) Horizontal:

Reading Result	Factor	Emission Level	Limits	Margin	Detector
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
91.02	-5.65	85.37	114	-28.63	PK
70.8	-5.65	65.15	94	-28.85	AV
48.15	-3.43	44.72	74	-29.28	PK
28.05	-3.43	24.62	54	-29.38	AV
45.03	-0.75	44.28	74	-29.72	PK
24.62	-0.75	23.87	54	-30.13	AV
	Result (dBµV) 91.02 70.8 48.15 28.05 45.03	Result Factor (dBμV) (dB) 91.02 -5.65 70.8 -5.65 48.15 -3.43 28.05 -3.43 45.03 -0.75	Result Factor Emission Level (dBμV) (dB) (dBμV/m) 91.02 -5.65 85.37 70.8 -5.65 65.15 48.15 -3.43 44.72 28.05 -3.43 24.62 45.03 -0.75 44.28	Result Factor Emission Level Limits (dBμV) (dB) (dBμV/m) (dBμV/m) 91.02 -5.65 85.37 114 70.8 -5.65 65.15 94 48.15 -3.43 44.72 74 28.05 -3.43 24.62 54 45.03 -0.75 44.28 74	Result Factor Emission Level Limits Margin (dBμV) (dB) (dBμV/m) (dBμV/m) (dB) 91.02 -5.65 85.37 114 -28.63 70.8 -5.65 65.15 94 -28.85 48.15 -3.43 44.72 74 -29.28 28.05 -3.43 24.62 54 -29.38 45.03 -0.75 44.28 74 -29.72

/ertical:

Reading	_				
Result	Factor	Emission Level	Limits	Margin	Detector
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
90.74	-5.63	85.11	114	-28.89	PK
70.46	-5.65	64.81	94	-29.19	AV
47.74	-3.43	44.31	74	-29.69	PK
27.59	-3.43	24.16	54	-29.84	AV
44.48	-0.75	43.73	74	-30.27	PK
23.97	-0.75	23.22	54	-30.78	AV
	90.74 70.46 47.74 27.59 44.48 23.97	90.74 -5.63 70.46 -5.65 47.74 -3.43 27.59 -3.43 44.48 -0.75 23.97 -0.75	90.74 -5.63 85.11 70.46 -5.65 64.81 47.74 -3.43 44.31 27.59 -3.43 24.16 44.48 -0.75 43.73 23.97 -0.75 23.22	90.74 -5.63 85.11 114 70.46 -5.65 64.81 94 47.74 -3.43 44.31 74 27.59 -3.43 24.16 54 44.48 -0.75 43.73 74 23.97 -0.75 23.22 54	90.74 -5.63 85.11 114 -28.89 70.46 -5.65 64.81 94 -29.19 47.74 -3.43 44.31 74 -29.69 27.59 -3.43 24.16 54 -29.84 44.48 -0.75 43.73 74 -30.27

Remark:

- 1. Measuring frequencies from 1 GHz to the 25 GHz.
- 2. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- 3. * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- 4. Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to
- 5. The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120kHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10kHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
- 6. When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.
- 7. All modes of operation were investigated and the worst-case emissions of $\pi/4$ DQPSK are reported.
- 8. For fundamental frequency, RBW >20dB BW, VBW>=3XRBW, PK detector for PK value, AV detector for AV value.





5 BAND EDGE

5.1 TEST LIMIT

FCC PART 15.249(d) 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 §15.209, whichever is the lesser attenuation.

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5.2 TEST PROCEDURE

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW to 1MHz and VBM to 3MHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength. Peak detector is for

5.3 TEST RESULT

PASS





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Operation Mode: TX CH01 (2455.0MHz)

Horizontal:

Reading Result	Factor	Emission Level	Limits	Margin	Detector
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
57.04	-5.81	51.23	74	-22.77	PK
/	-5.81	1 12	54	A	AV
57.22	-5.84	51.38	74	-22.62	PK
J 1 1	-5.84	/	54	1	AV
56.98	-5.84	51.14	74	-22.86	PK
V /	-5.84	1 1 1	54	1	AV
	(dBµV) 57.04 / 57.22	(dBµV) (dB) 57.04 -5.81 / -5.81 57.22 -5.84 / -5.84 56.98 -5.84	(dBμV) (dB) (dBμV/m) 57.04 -5.81 51.23 / -5.81 / 57.22 -5.84 51.38 / -5.84 / 56.98 -5.84 51.14	(dBμV) (dB) (dBμV/m) (dBμV/m) 57.04 -5.81 51.23 74 / -5.81 / 54 57.22 -5.84 51.38 74 / -5.84 / 54 56.98 -5.84 51.14 74	(dBμV) (dB) (dBμV/m) (dBμV/m) (dBμV/m) 57.04 -5.81 51.23 74 -22.77 / -5.81 / 54 / 57.22 -5.84 51.38 74 -22.62 / -5.84 / 54 / 56.98 -5.84 51.14 74 -22.86

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2310	56.82	-5.81	51.01	74	-22.99	PK
2310	/	-5.81	12/	54	1	AV
2390	56.91	-5.84	51.07	74	-22.93	PK
2390	1	-5.84	1	54	21	AV
2400	57.11	-5.84	51.27	74	-22.73	PK
2400	15	-5.84	/	54	1	AV

深圳市优耐检测技术有限公司 Shenzhen United Testing Technology Co.,Ltd.





Operation Mode: TX CH21 (2475.0MHz)

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2483.5	55.72	-5.65	50.07	74	-23.93	PK
2483.5	/	-5.65	1 12	54	1	AV
2500	56.94	-5.72	51.22	74	-22.78	PK
2500	12/1	-5.72	/	54	1	AV
Remark: Fact	tor = Antenna Facto	or + Cable Lo	oss – Pre-amplifier	The I	71 (7, 12

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2483.5	57.34	-5.65	51.69	74	-22.31	PK
2483.5	1	-5.65	51 / 12	54	1	AV
2500	56.85	-5.72	51.13	74	-22.87	PK
2500	1	-5.72	W/ V	54	1.0	AV

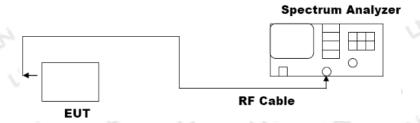
Note:

1. Since the peak value is less than the average limit, the average value does not reflected in the report.



6 20dB BANDWIDTH

6.1 TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION)



6.2 MEASUREMENT EQUIPMENT USED

Refer to Section 3.3.

6.3 TEST PROCEDURE

- 1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously.
- 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 30 kHz. Set the Video bandwidth (VBW) = 100 kHz. In order to make an accurate measurement.
- 4. For 20dB Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 * RBW.
- 5. Measure and record the results in the test report.

6.4 TEST RESULT

PASS





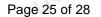


GFSK Modulation:

Channel	Frequency (MHz)	20dB Bandwidth (MHz)	Result
Low Channel	2455.00	1.267	PASS
Middle Channel	2465.00	1.217	PASS
High Channel	2475.00	1.164	PASS

CH01: 2455.00MHz







CH11: 2465.00MHz



CH21: 2475.00MHz





7 ANTENNA REQUIREMENT

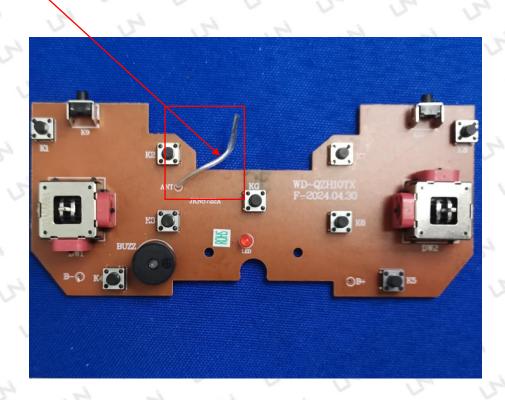
Standard Applicable:

For intentional device, according to FCC 47 CFR Section 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.

Antenna Connected Construction

The antenna used in this product is an Internal Antenna, The directional gains of antenna used for transmitting is 0.17dBi.

ANTENNA:



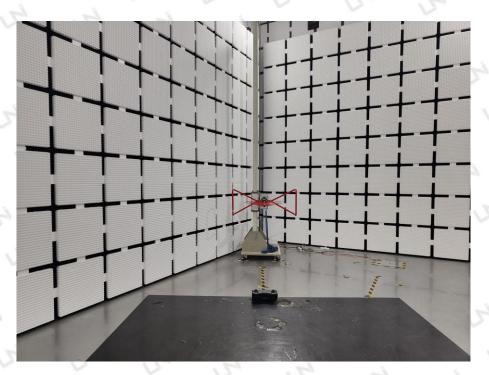




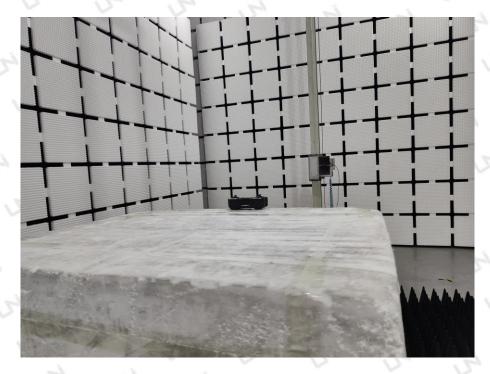


8 PHOTO OF TEST

8.1 RADIATED EMISSION



30MHz-1000MHz



Above 1GHz

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8.2 RF CONDUCTED



End of Report*

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