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# **FCC TEST REPORT**

Test report
On Behalf of
GuangZhou Chicken Run Network Technology Co,Ltd.
For
gamesir game controllers

Model No.: Gamesir-G5

FCC ID: 2AF9S-G5

Prepared for: GuangZhou Chicken Run Network Technology Co,Ltd.

301A-1,NO.68-1,Huacui Street,Jianye Road,Tianhe District,GuangZhou

Prepared By: Shenzhen HUAK Testing Technology Co., Ltd.

1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street,

Bao'an District, Shenzhen City, China

Date of Test: May. 07, 2018 ~ Jun. 14, 2018

Date of Report: Jun. 14, 2018

Report Number: HUAK180614432-E

# **TEST RESULT CERTIFICATION**

Applicant's name:	GuangZhou Chicken Run Network Technology Co,Ltd.
Address:	301A-1,NO.68-1,Huacui Street,Jianye Road,Tianhe District,GuangZhou
Manufacture's Name:	Dashine Electronics Co,Ltd.
Address:	NO.53,Guangtian Road,Yanchuan Community,Yanluo Street,Bao`an,Shenzhen,China
Product description	
Trade Mark:	N/A
Product name:	gamesir game controllers
Model and/or type reference :	Gamesir-G5
Standards:	FCC Rules and Regulations Part 15 Subpart C Section 15.249 ANSI C63.10: 2013
the Shenzhen HUAK Testing source of the material. Shenzhe	
Date (s) of performance of tests	: Jun. 07, 2018 ~ Jun. 14, 2018
Date of Issue	: Jun. 14, 2018
Test Result	: Pass
Testing Engine	eer: Good Dian

(Eden Hu)

(Gary Qian)

Authorized Signatory:

**Technical Manager** 

(Jason Zhou)

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### 1. TEST SUMMARY

### 1.1 TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST RESULT
CONDUCTED EMISSIONS TEST COMPLIANT
RADIATED EMISSION TEST COMPLIANT
BAND EDGE COMPLIANT
OCCUPIED BANDWIDTH MEASUREMENT COMPLIANT
ANTENNA REQUIREMENT COMPLIANT

### 1.2 TEST FACILITY

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

Address 1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai

Street, Bao'an District, Shenzhen City, China

### 1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2 Radiated emission expanded uncertainty(9kHz-30MHz) = 3.08dB, k=2 Radiated emission expanded uncertainty(30MHz-1000MHz) = 4.42dB, k=2 Radiated emission expanded uncertainty(Above 1GHz) = 4.06dB, k=2

# 2. GENERAL INFORMATION

# 2.1 GENERAL DESCRIPTION OF EUT

Equipment	gamesir game controllers
Model Name	Gamesir-G5
Serial No	N/A
Model Difference	N/A
FCC ID	2AF9S-G5
Antenna Type	Pcb onboard antenna
Antenna Gain	0 dBi
BT Operation frequency	2402-2480MHz
Number of Channels	79CH
Modulation Type	GFSK
Power Source	3.7V From Battery or DC5V 1A From Micro USB
Power Rating	3.7V From Battery or DC5V 1A From Micro USB

# 2.1.1 Carrier Frequency of Channels

		Chann	el List		_
Channel	Frequency	Channel	Frequency	Channel	Frequency
	(MHz)		(MHz)		(MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		

# 2.2 Operation of EUT during testing

**Operating Mode** 

The mode is used: Transmitting mode

Low Channel: 2402MHz Middle Channel: 2441MHz High Channel: 2480MHz Page 7 of 37 Report No.: HUAK180614432-E

# 2.3 DESCRIPTION OF TEST SETUP

Operation of EUT during Conducted testing:



Operation of EUT during Radiation and Above1GHz Radiation testing:



Adapter information

Model: HW-059100CHQ

Input: 100-240V~, 50/60Hz, 0.5A

Output: 5VDC, 1A

# 2.4 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
1.	L.I.S.N. Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 28, 2017	1 Year
2.	Receiver	R&S	ESCI 7	HKE-010	Dec. 28, 2017	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 28, 2017	1 Year
4.	Spectrum analyzer	R&S	FSP40	HKE-025	Dec. 28, 2017	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 28, 2017	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 28, 2017	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Dec. 28, 2017	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 28, 2017	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 28, 2017	1 Year
10.	Horn Antenna	Schewarzbeck	9120D	HKE-013	Dec. 28, 2017	1 Year
11.	Pre-amplifier	EMCI	EMC051845 SE	HKE-015	Dec. 28, 2017	1 Year
12.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 28, 2017	1 Year
13.	EMI Test Software EZ-EMC	Tonscend	JS1120-B Version	HKE-083	Dec. 28, 2017	N/A
14.	Power Sensor	Agilent	E9300A	HKE-086	Dec. 28, 2017	1 Year
15.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 28, 2017	1 Year
16.	Signal generator	Agilent	N5182A	HKE-029	Dec. 28, 2017	1 Year
17.	Signal Generator	Agilent	83630A	HKE-028	Dec. 28, 2017	1 Year
18.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 28, 2017	3 Year

### 3. CONDUCTED EMISSIONS TEST

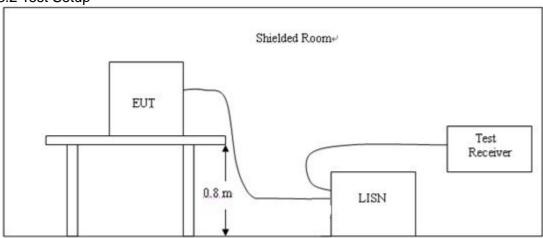
## 3.1 Conducted Power Line Emission Limit

For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

Fraguenav	M	Maximum RF Line Voltage (dBμV)								
Frequency (MHz)	CLAS	SS A	CLASS B							
(11112)	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						

<sup>\*</sup> 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



### 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 a tabletop system, a wooden table with a height of 0.1 meters is used and is placed on the ground plane as per ANSI C63.10.
- 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.
- 7, Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

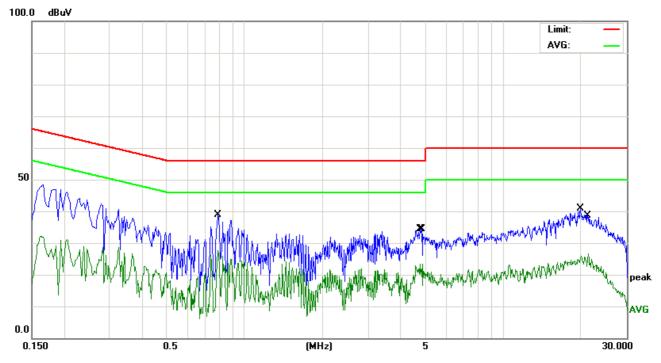
## 3.4 Test Result

### **PASS**

All the test modes completed for test.

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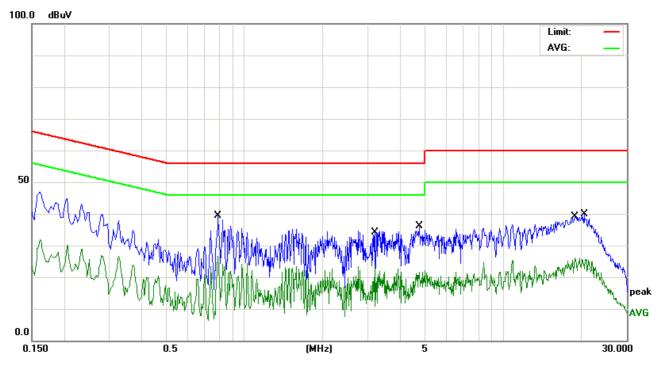
Test Specification: Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.7860	28.83	9.96	38.79	56.00	-17.21	QP	
2		0.7860	17.64	9.96	27.60	46.00	-18.40	AVG	
3		4.7500	13.23	10.10	23.33	46.00	-22.67	AVG	
4		4.8460	24.37	10.10	34.47	56.00	-21.53	QP	
5		19.8660	29.69	11.07	40.76	60.00	-19.24	QP	
6		21.3660	15.40	11.12	26.52	50.00	-23.48	AVG	

Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level

# Test Specification: Neutral



No. M	k. Fre	Readir q. Level	•		Limit	Over		
	MH	z dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.790	00 29.32	9.96	39.28	56.00	-16.72	QP	
2	0.790	00 16.67	9.96	26.63	46.00	-19.37	AVG	
3	3.202	20 13.84	10.04	23.88	46.00	-22.12	AVG	
4	4.738	30 26.00	10.10	36.10	56.00	-19.90	QP	
5	18.946	30 15.21	10.95	26.16	50.00	-23.84	AVG	
6	20.56	30 28.67	11.11	39.78	60.00	-20.22	QP	

Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level

### **4 RADIATED EMISSION TEST**

### 4.1 Radiation Limit

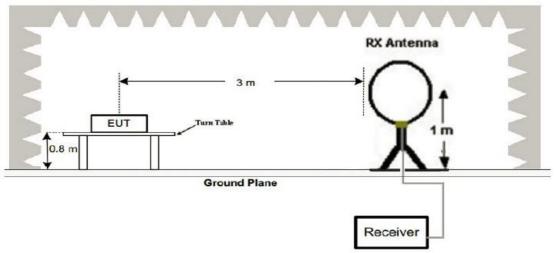
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

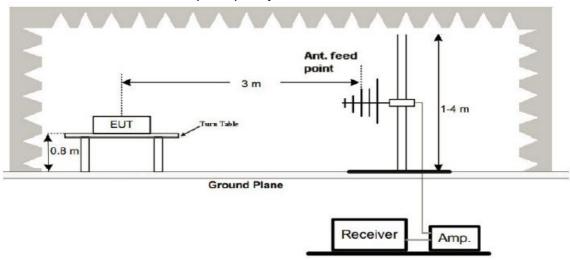
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

## 4.2 Test Setup

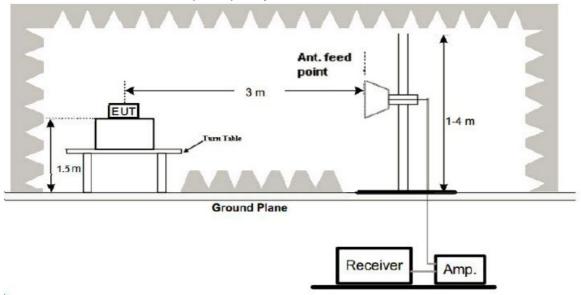
# (1) Radiated Emission Test-Up Frequency Below 30MHz



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



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



### 4.3 Test Procedure

- 1. 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.
- 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).

#### Note

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

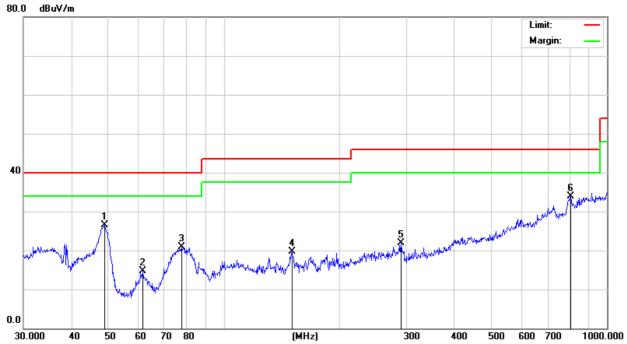
### 4.4 Test Result

### **PASS**

All the test modes completed for test. The worst case of Radiated Emission is CH 2402; the test data of this mode was reported.

Below 1GHz Test Results: Antenna polarity: H

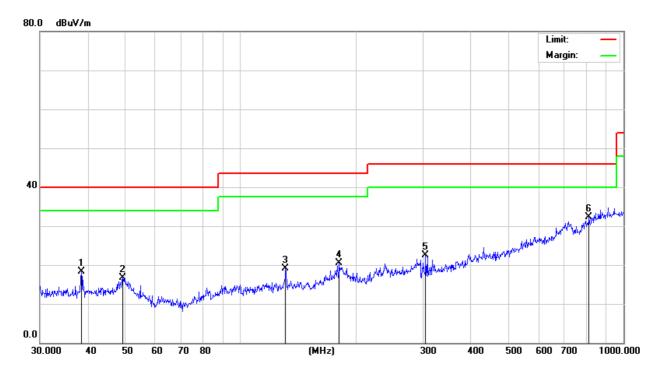
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		48.8429	55.16	-28.68	26.48	40.00	-13.52	QP			
2		61.5618	44.47	-29.69	14.78	40.00	-25.22	QP			
3		77.5928	49.98	-29.11	20.87	40.00	-19.13	QP			
4		150.5378	44.91	-25.29	19.62	43.50	-23.88	QP			
5		290.0172	41.80	-19.90	21.90	46.00	-24.10	QP			
6	*	804.6028	40.11	-6.21	33.90	46.00	-12.10	QP			



Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit - Level

## Antenna polarity: V

No.	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		38.4809	42.83	-24.47	18.36	40.00	-21.64	QP			
2		49.3594	41.22	-24.42	16.80	40.00	-23.20	QP			
3		131.2965	44.15	-25.05	19.10	43.50	-24.40	QP			
4		181.2834	42.16	-21.64	20.52	43.50	-22.98	QP			
5		304.6099	42.06	-19.62	22.44	46.00	-23.56	QP			
6	*	813.1115	40.43	-8.06	32.37	46.00	-13.63	QP			



Remark: Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level

## Remark:

- (1) Measuring frequencies from 9 KHz to the 1 GHz, Radiated emission test from 9KHz to 30MHz was 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.

## Above 1 GHz Test Results:

CH Low (2402MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2402	107.95	-5.81	102.14	114.00	-11.86	peak
2402	89.16	-5.81	83.35	94.00	-10.65	AVG
4804	51.28	-3.65	47.63	74.00	-26.37	peak
4804	42.97	-3.65	39.32	54.00	-14.68	AVG
7206	53.17	-0.95	52.22	74.00	-21.78	peak
7206	39.48	-0.95	38.53	54.00	-15.47	AVG
Remark: Facto	or = Antenna Fac	ctor + Cable Lo	ss – Pre-amplifier			

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotootor
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2402	103.25	-5.81	97.44	114.00	-16.56	peak
2402	85.15	-5.81	79.34	94.00	-14.66	AVG
4804	58.49	-3.65	54.84	74.00	-19.16	peak
4804	42.62	-3.65	38.97	54.00	-15.03	AVG
7206	59.46	-0.95	58.51	74.00	-15.49	peak
7206	36.79	-0.95	35.84	54.00	-18.16	AVG

# CH Middle (2441MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type	
2441.00	102.62	-5.73	96.89	114.00	-17.11	peak	
2441.00	87.64	-5.73	81.91	94.00	-12.09	AVG	
4882.00	62.13	-3.54	58.59	74.00	-15.41	peak	
4882.00	39.72	-3.54	36.18	54.00	-17.82	AVG	
7323.00	49.87	-0.81	49.06	74.00	-24.94	peak	
7323.00	39.61	-0.81	38.80	54.00	-15.20	AVG	
Remark: Facto	Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datasta
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2441.00	105.23	-5.73	99.50	114.00	-14.50	peak
2441.00	92.24	-5.73	86.51	94.00	-7.49	AVG
4882.00	61.39	-3.54	57.85	74.00	-16.15	peak
4882.00	41.75	-3.54	38.21	54.00	-15.79	AVG
7323.00	57.81	-0.81	57.00	74.00	-17.00	peak
7323.00	35.73	-0.81	34.92	54.00	-19.08	AVG
Remark: Facto	emark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.					

# CH High (2480MHz)

## Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2480	106.54	-5.63	100.91	114.00	-13.09	peak
2480	88.95	-5.63	83.32	94.00	-10.68	AVG
4960	59.47	-3.43	56.04	74.00	-17.96	peak
4960	45.97	-3.44	42.53	54.00	-11.47	AVG
7440	58.34	-0.77	57.57	74.00	-16.43	peak
7440	32.97	-0.77	32.20	54.00	-21.80	AVG
Remark: Facto	Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.					

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2480	105.65	-5.63	100.02	114.00	-13.98	peak
2480	84.96	-5.63	79.33	94.00	-14.67	AVG
4960	57.69	-3.43	54.26	74.00	-19.74	peak
4960	41.90	-3.44	38.46	54.00	-15.54	AVG
7440	56.18	-0.77	55.41	74.00	-18.59	peak
7440	40.97	-0.77	40.20	54.00	-13.80	AVG
Remark: Facto	emark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.					

### 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 be measured.
- (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 are reported.

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### **5 BAND EDGE**

#### 5.1 Limits

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.

### 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 100KHz and VBM to 300KHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength. The conducted RF band edge was measured by using a spectrum analyzer. Set span wide enough to capture the highest in-band emission and the emission at the band edge. Set RBW to 100 KHz and VBW to 300 KHz, to measure the conducted peak band edge.

### 5.3 Test Result

### **PASS**

Radiated Band Edge Test:

Operation Mode: TX CH Low (2402MHz)

Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре	
2390	55.34	-5.81	49.53	74	-24.47	peak	
2390	/	-5.81	/	54	/	AVG	
2400	52.7	-5.84	46.86	74	-27.14	peak	
2400	/	-5.84	/	54	/	AVG	
	Remark: Factor = Antenna Factor + Cable Loss - Pre-amplifier.						

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре	
2390	56.42	-5.81	50.61	74	-23.39	peak	
2390	/	-5.81	/	54	/	AVG	
2400	53.94	-5.84	48.1	74	-25.9	peak	
2400	/	-5.84	/	54	/	AVG	
Remark: Facto	Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Operation Mode: TX CH High (2480MHz)

Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2483.5	55.91	-5.65	50.26	74	-23.74	peak
2483.5 / -5.65 / 54 / AVG						
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

## Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2483.5	52.48	-5.65	46.83	74	-27.17	peak
2483.5	/	-5.65	/	54	/	AVG

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

Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.

## 6 OCCUPIED BANDWIDTH MEASUREMENT

## 6.1 Test Setup

Same as Radiated Emission Measurement

## 6.2 Test Procedure

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Set EUT as normal operation.
- 3. Based on ANSI C63.10 section 6.9.2: RBW= 20KHz. VBW= 62 KHz, Span=3MHz.
- 4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

## 6.3 Measurement Equipment Used

Same as Radiated Emission Measurement

## 6.4 Test Result

## **PASS**

Frequency	20dB Bandwidth (MHz)	Result
2402 MHz	1.104	PASS
2441 MHz	1.095	PASS
2480 MHz	1.105	PASS

CH: 2402MHz



### CH: 2441MHz



### CH: 2480MHz



### 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. And according to FCC 47 CFR Section 15.249, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

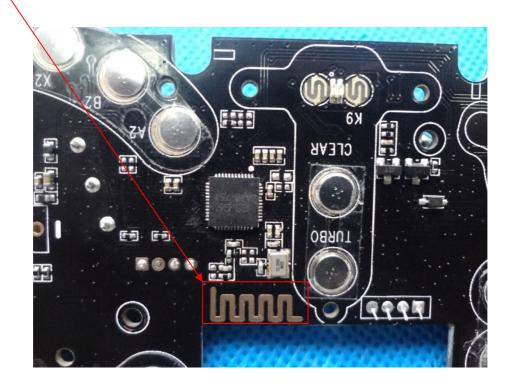
### Refer to statement below for compliance.

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

### Antenna Connected Construction

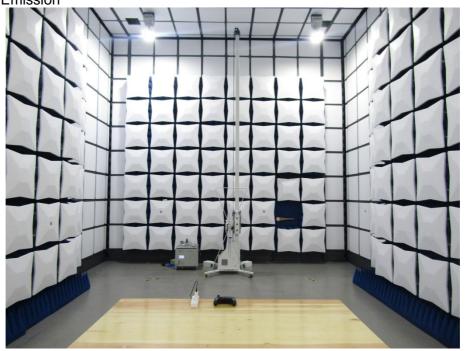
The antenna used in this product is a PCB Antenna, The directional gains of antenna used for transmitting is 2dBi.

### **ANTENNA**



# 8 PHOTOGRAPH OF TEST

# 8.1 Radiated Emission





# 8.2 Conducted Emission



EUT

Photo 1



Photo 2





Photo 4



Photo 5



Photo 6



Photo 7



Photo 8

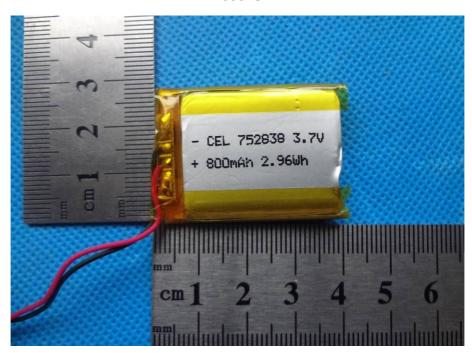


Photo 9



Photo 10



Photo 11



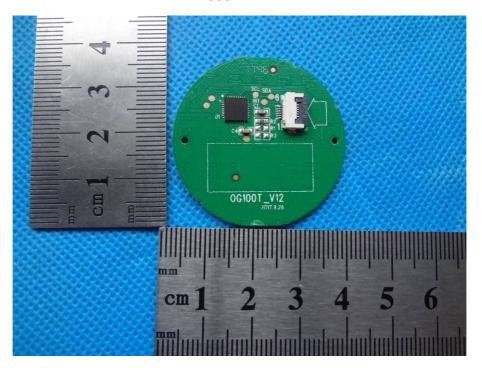
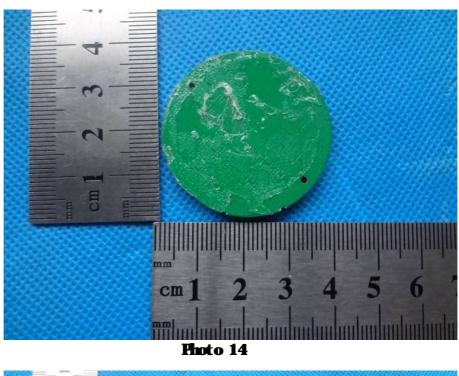


Photo 13



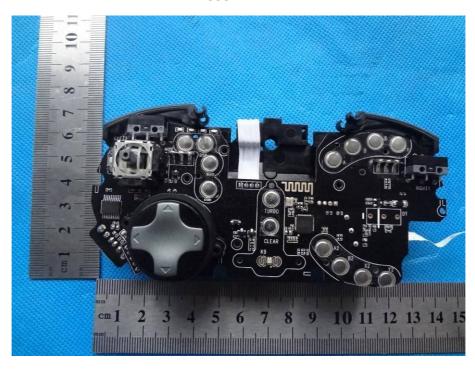


Photo 15

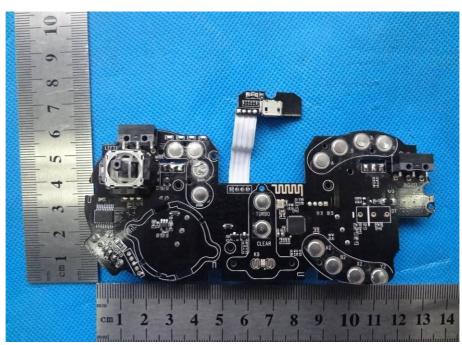


Photo 16

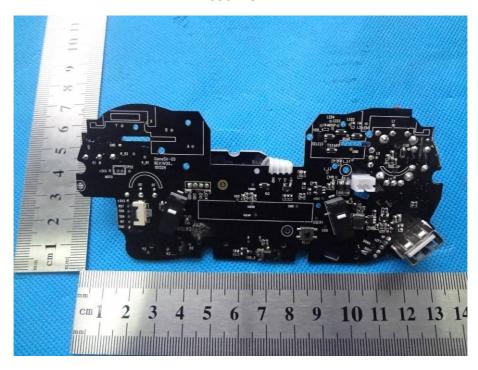


Photo 17

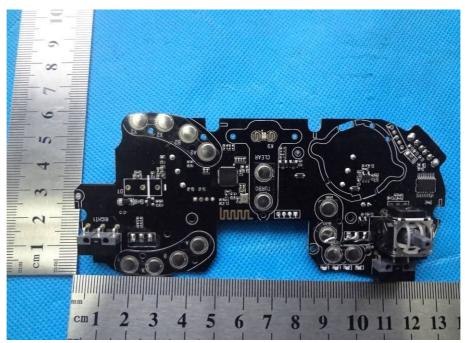


Photo 18

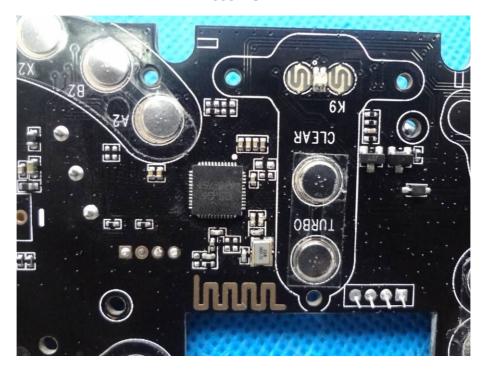


Photo 19

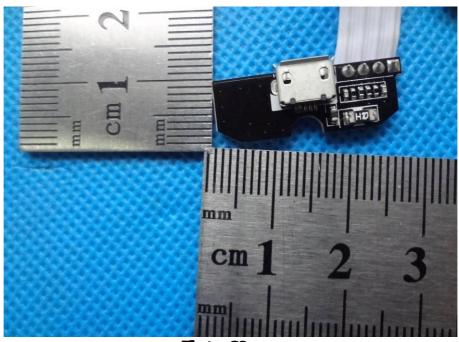


Photo 20

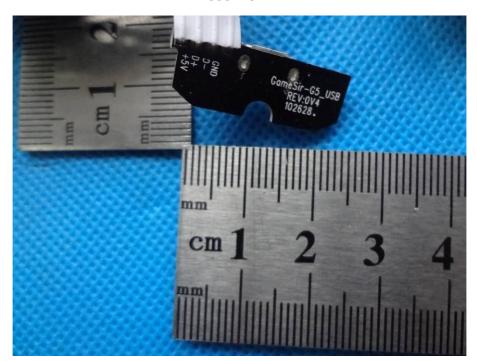


Photo 21

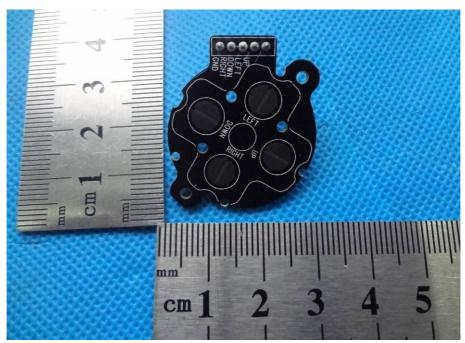
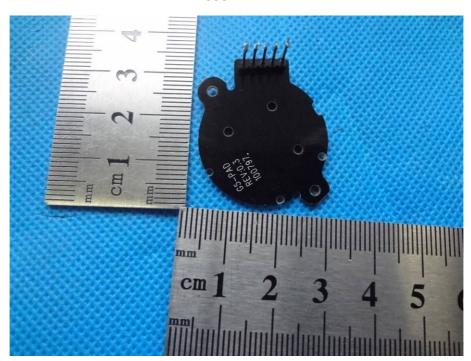


Photo 22



-- The end of report--