FCC TEST REPORT

Test report
On Behalf of
Zhongshan Langyu Model Co., Ltd.
For
RC AirPlane Remote control
Model No.: T6

FCC ID: 2ATXM -T6

Prepared for : **Zhongshan Langyu Model Co., Ltd.**

3F, No. 82, Shentang First Road, Third Industrial Zone, Tanzhou, Zhongshan, Guangdong, 528467 China

Prepared By : **Shenzhen HUAK Testing Technology Co., Ltd.**
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Date of Test: **Oct. 26, 2020 ~ Nov. 17, 2020**
Date of Report: **Nov. 17, 2020**
Report Number: **HK2010233433-E**

TEST RESULT CERTIFICATION

Applicant's name ..... :	Zhongshan Langyu Model Co., Ltd.
Address ..... :	3F, No. 82, Shentang First Road, Third Industrial Zone, Tanzhou, Zhongshan, Guangdong, 528467 China
Manufacture's Name..... :	Zhongshan Langyu Model Co., Ltd.
Address ..... :	3F, No. 82, Shentang First Road, Third Industrial Zone, Tanzhou, Zhongshan, Guangdong, 528467 China

Product description

Trade Mark:	OMPHOBBY
Product name ..... :	RC AirPlane Remote control
Model and/or type reference :	T6
Standards ..... :	FCC Rules and Regulations Part 15 Subpart C Section 15.249 ANSI C63.10: 2013

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Date of Test ..... :	
Date (s) of performance of tests ..... :	**Oct. 26, 2020 ~ Nov. 17, 2020**
Date of Issue..... :	**Nov. 17, 2020**
Test Result..... :	**Pass**

Testing Engineer : Gary Qian

(Gary Qian)

Technical Manager : Eden Hu

(Eden Hu)

Authorized Signatory : Jason Zhou

(Jason Zhou)

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** Modifited History **

Revison	Description	Issued Data	Remark
Revsion 1.0	Initial Test Report Release	Nov. 17, 2020	Jason Zhou

1. TEST SUMMARY

1.1 TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST		RESULT
CONDUCTED EMISSIONS TEST	§15.207	COMPLIANT
RADIATED EMISSION TEST	§15.249 (a) / §15.209	COMPLIANT
BAND EDGE	§15.249 (d) / §15.209	COMPLIANT
OCCUPIED BANDWIDTH MEASUREMENT	§15.215 (c)	COMPLIANT
ANTENNA REQUIREMENT	§15.203	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

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	MU
1	Conducted Emission	±2.71dB
2	All emissions, radiated(<1G)	±3.90dB
3	All emissions, radiated(>1G)	±4.28dB

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	RC AirPlane Remote control
Trade Mark	OMPHOBBY
Model Name	T6
Serial Model	N/A
Model Difference	N/A
FCC ID	**2ATXM-T6**
Antenna Type	Internal Antenna
Antenna Gain	0dBi
BT Operation frequency	2413MHZ to 2458MHz
Number of Channels	46CH
Modulation Type	GFSK
Power Source	DC 3.7V from battery or DC 5V from USB
Power Rating	DC 3.7V from battery or DC 5V from USB

2.2 Carrier Frequency of Channels

Channel List							
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
01	2413	11	2423	21	2433	31	2443
02	2414	12	2424	22	2434	32	2444
03	2415	13	2425	23	2435	33	2445
04	2416	14	2426	24	2436	34	2446
05	2417	15	2427	25	2437	35	2447
06	2418	16	2428	26	2438	36	2448
07	2419	17	2429	27	2439	37	2449
08	2420	18	2430	28	2440	38	2450
09	2421	19	2431	29	2441	39	2451
10	2422	20	2432	30	2442	40	2452

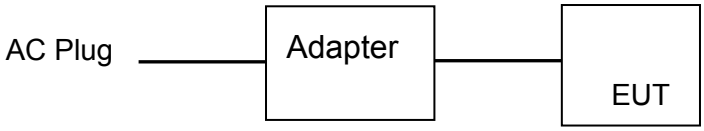
Channel List							
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
41	2453	/	/	/	/	/	/
42	2454	/	/	/	/	/	/
43	2455	/	/	/	/	/	/
44	2456	/	/	/	/	/	/
45	2457	/	/	/	/	/	/
46	2458	/	/	/	/	/	/

2.3 Operation of EUT during testing

Operating Mode
The mode is used: **Transmitting mode**
Low Channel: 2413MHz
Middle Channel: 2435MHz
High Channel: 2458MHz

2.4 DESCRIPTION OF TEST SETUP

Operation of EUT during conducted testing and radiation below 1GHz testing:



Operation of EUT during radiation above 1GHz testing:

Adapter information
Model: HW-059200CHQ
Input: 100-240V, 50-60Hz, 0.5A
Output: 5VDC, 2A

2.5 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 26, 2019	1 Year
2.	Receiver	R&S	ESCI 7	HKE-010	Dec. 26, 2019	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 26, 2019	1 Year
4.	Spectrum analyzer	R&S	FSP40	HKE-025	Dec. 26, 2019	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 26, 2019	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 26, 2019	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Dec. 26, 2019	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 26, 2019	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 26, 2019	1 Year
10.	Horn Antenna	Schewarzbeck	9120D	HKE-013	Dec. 26, 2019	1 Year
11.	Pre-amplifier	EMCI	EMC051845 SE	HKE-015	Dec. 26, 2019	1 Year
12.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 26, 2019	1 Year
13.	EMI Test Software EZ-EMC	Tonscend	JY3120-B Version	HKE-083	Dec. 26, 2019	N/A
14.	Power Sensor	Agilent	E9300A	HKE-086	Dec. 26, 2019	1 Year
15.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 26, 2019	1 Year
16.	Signal generator	Agilent	N5182A	HKE-029	Dec. 26, 2019	1 Year
17.	Signal Generator	Agilent	83630A	HKE-028	Dec. 26, 2019	1 Year
18.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 27, 2017	3 Year
19	Horn Antenna	Schewarzbeck	BBHA 9170	HKE-017	Dec. 26, 2019	1 Year

3. CONDUCTED EMISSIONS TEST

3.1 Conducted Power Line Emission Limit

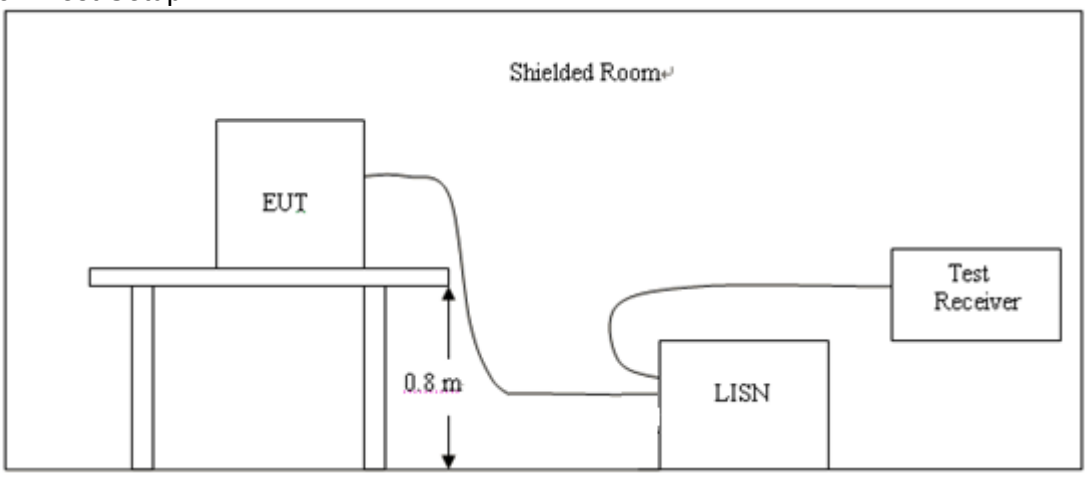
For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

Frequency (MHz)	Maximum RF Line Voltage (dBμV)			
	CLASS A		CLASS B	
	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



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 0.8 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.

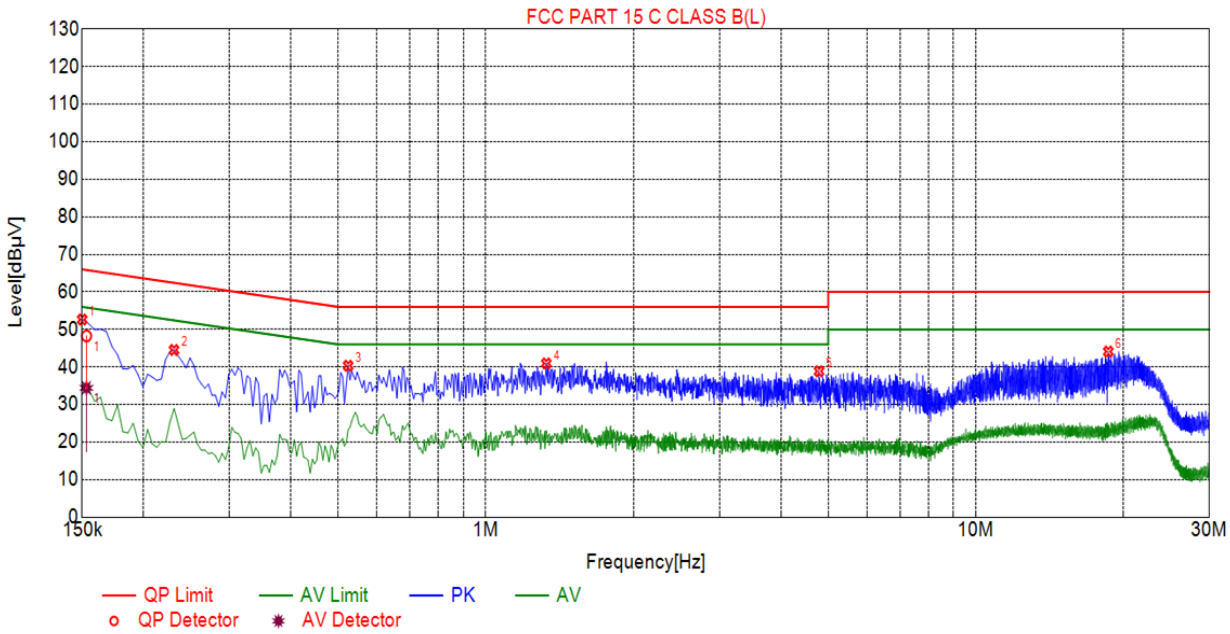
6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected 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

Remark: All the test modes completed for test. only the worst result of AC240V/60Hz (GFSK High Channel) was reported as below:

Test Specification: Line



Suspected List								
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1500	52.64	20.03	66.00	13.36	32.61	PK	L
2	0.2310	44.53	20.03	62.41	17.88	24.50	PK	L
3	0.5235	40.33	20.04	56.00	15.67	20.29	PK	L
4	1.3290	40.94	20.10	56.00	15.06	20.84	PK	L
5	4.7895	38.86	20.26	56.00	17.14	18.60	PK	L
6	18.6540	44.11	20.05	60.00	15.89	24.06	PK	L

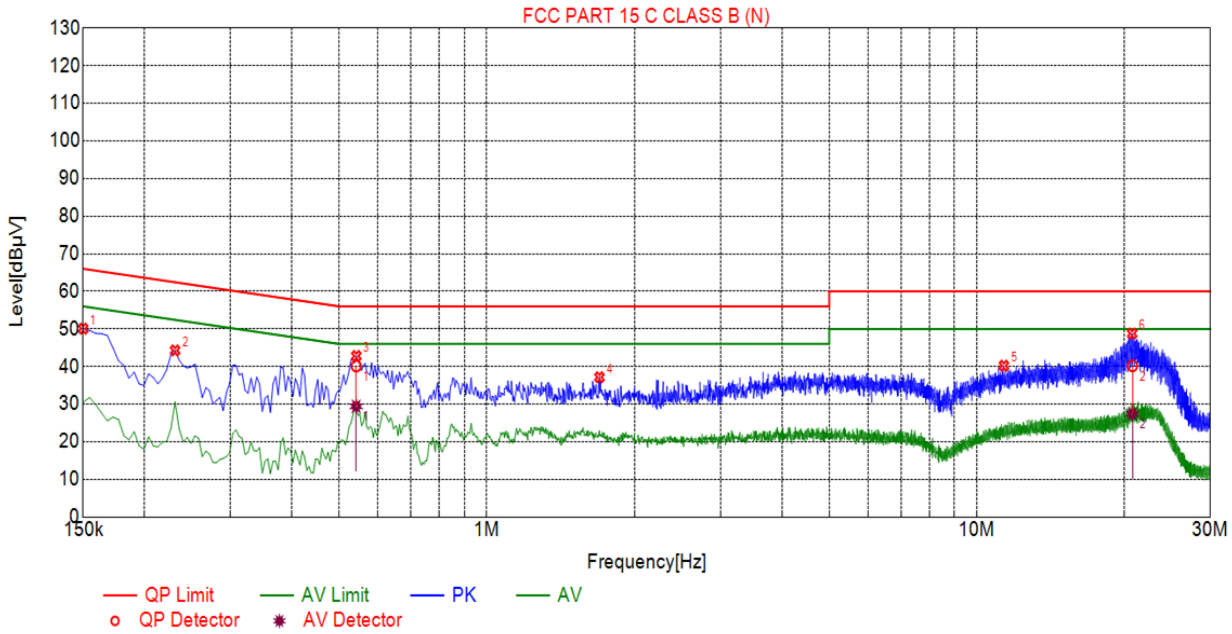
Final Data List											
NO.	Freq. [MHz]	Correction factor[dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	QP Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	AV Reading [dBµV]	Type
1	0.1530	20.03	48.28	65.84	17.56	28.25	34.43	55.84	21.41	14.40	L

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor

Test Specification: Neutral



Suspected List								
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1500	50.08	20.03	66.00	15.92	30.05	PK	N
2	0.2310	44.29	20.03	62.41	18.12	24.26	PK	N
3	0.5415	42.81	20.05	56.00	13.19	22.76	PK	N
4	1.6980	37.16	20.13	56.00	18.84	17.03	PK	N
5	11.3640	40.23	20.00	60.00	19.77	20.23	PK	N
6	20.7735	48.78	20.13	60.00	11.22	28.65	PK	N

Final Data List											
NO.	Freq. [MHz]	Correction factor[dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	QP Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	AV Reading [dBµV]	Type
1	0.5411	20.05	40.14	56.00	15.86	20.09	29.43	46.00	16.57	9.38	N
2	20.7877	20.13	40.20	60.00	19.80	20.07	27.42	50.00	22.58	7.29	N

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss

Level=Test receiver reading + correction factor

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：

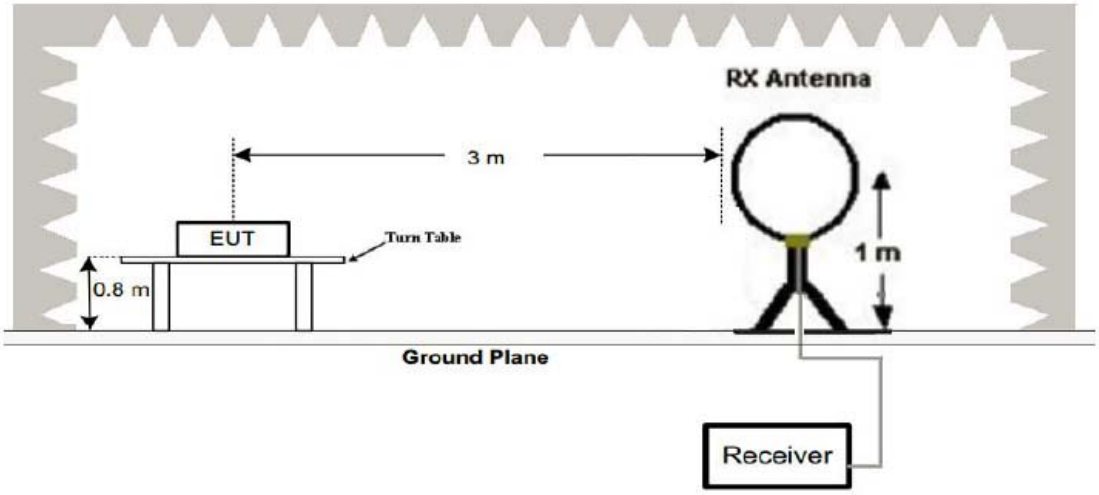
Radiated emission limits

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

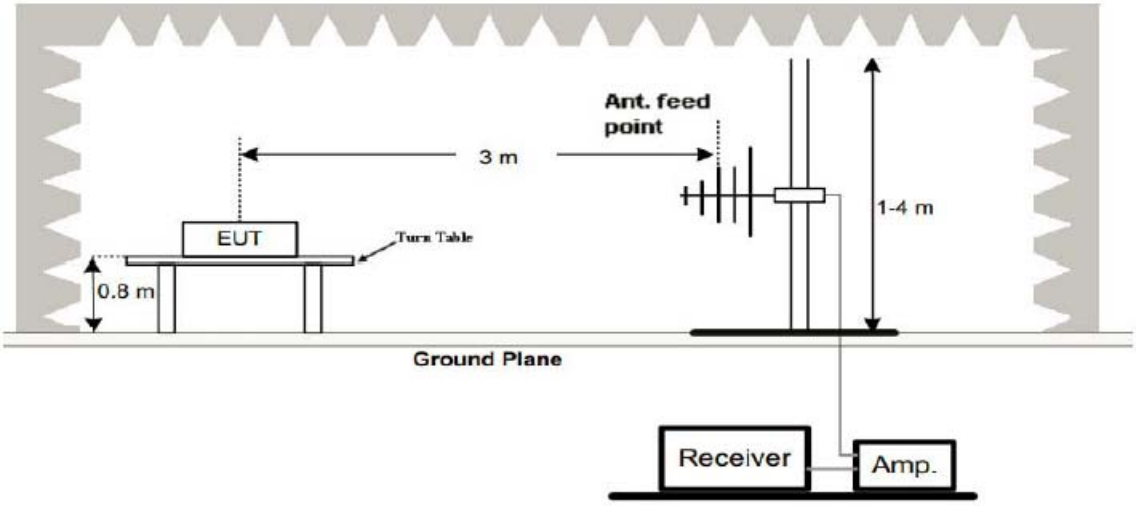
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2 Test Setup

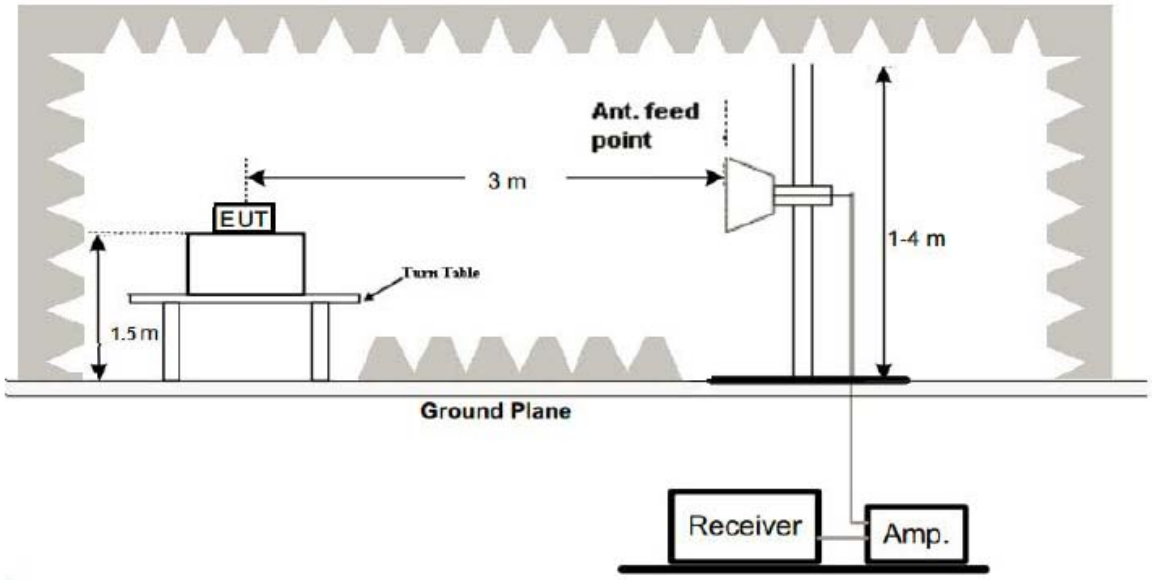
（1）Radiated Emission Test-Up Frequency Below 30MHz



（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).

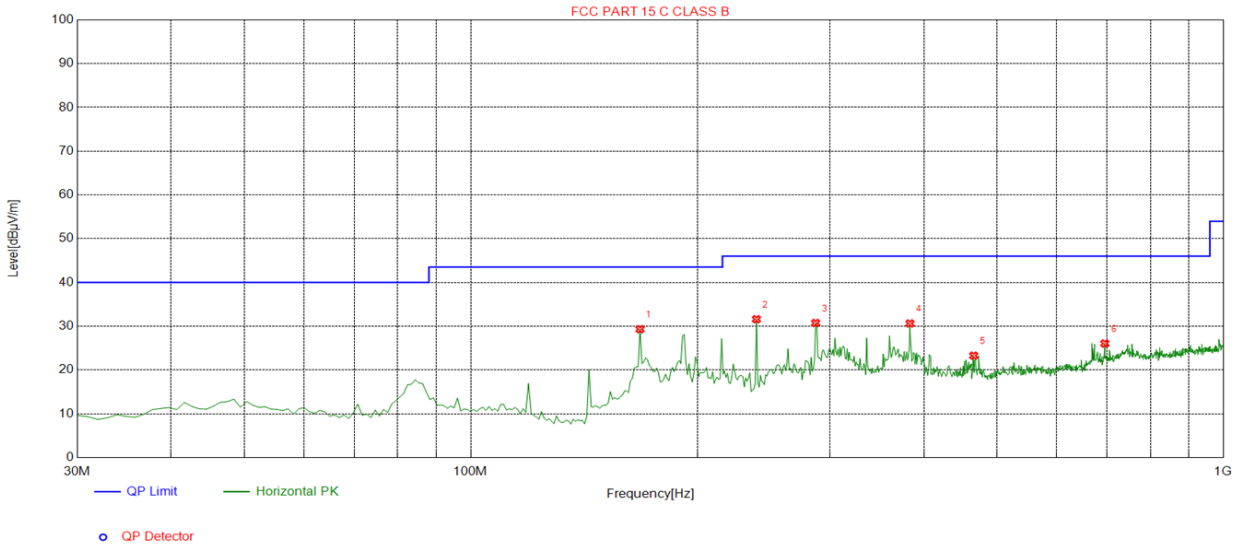
Note:
For battery operated equipment, the equipment tests shall be performed using a new battery.

4.4 Test Result

PASS
All the test modes completed for test. The worst case of Radiated Emission is CH 2413; the test data of this mode was reported.

Below 1GHz Test Results:

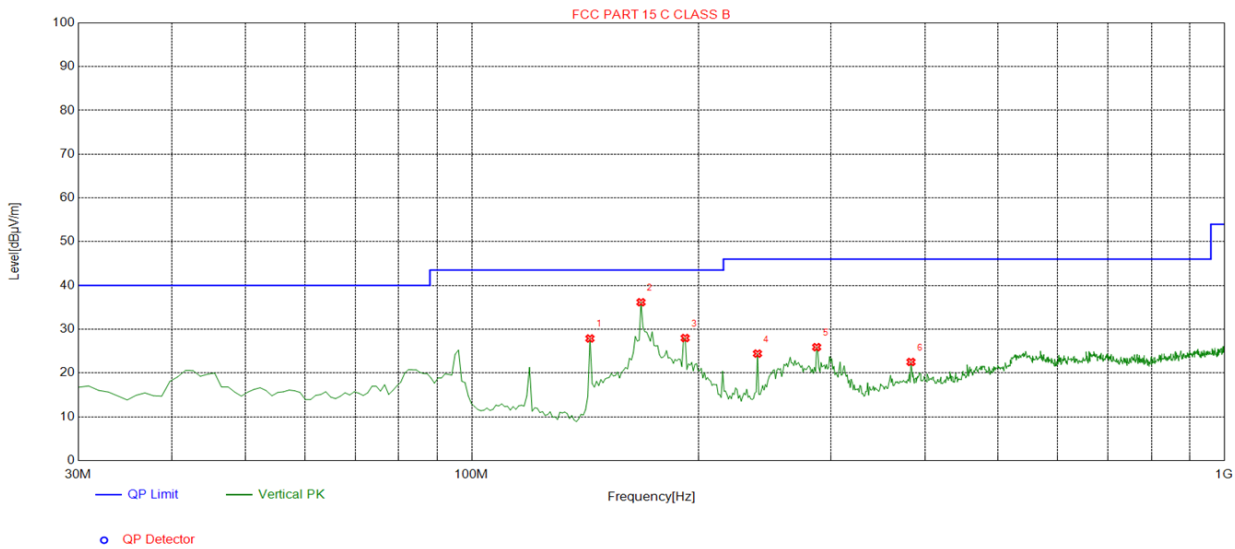
Antenna polarity: H



Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	167.8779	-17.50	46.83	29.33	43.50	14.17	100	268	Horizontal
2	239.7297	-13.87	45.47	31.60	46.00	14.40	100	281	Horizontal
3	287.3073	-12.95	43.69	30.74	46.00	15.26	100	246	Horizontal
4	383.4334	-10.76	41.39	30.63	46.00	15.37	100	103	Horizontal
5	465.9660	-8.47	31.75	23.28	46.00	22.72	100	138	Horizontal
6	696.0861	-5.12	31.17	26.05	46.00	19.95	100	300	Horizontal

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin = Limit – Level;

Antenna polarity: V



Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	143.6036	-19.09	46.97	27.88	43.50	15.62	100	310	Vertical
2	167.8779	-17.50	53.66	36.16	43.50	7.34	100	213	Vertical
3	192.1522	-15.81	43.79	27.98	43.50	15.52	100	187	Vertical
4	239.7297	-13.87	38.29	24.42	46.00	21.58	100	12	Vertical
5	287.3073	-12.95	38.85	25.90	46.00	20.10	100	12	Vertical
6	383.4334	-10.76	33.28	22.52	46.00	23.48	100	136	Vertical

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin = Limit – Level;

Harmonics and Spurious Emissions

Frequency Range (9 kHz-30MHz)

Frequency (MHz)	Level@3m (dBμV/m)	Limit@3m (dBμV/m)
--	--	--
--	--	--
--	--	--
--	--	--

Note: *1. Emission Level=Reading+ Cable loss-Antenna factor-Amp factor*

2. The emission levels are 20 dB below the limit value, which are not reported. It is deemed to comply with the requirement

Above 1 GHz Test Results:

CH Low (2413MHz)

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2413	110.98	-5.84	105.14	114	-8.86	peak
2413	87.25	-5.84	81.41	94	-12.59	AVG
4826	55.61	-3.64	51.97	74	-22.03	peak
4826	45.84	-3.64	42.2	54	-11.8	AVG
7239	51.33	-0.95	50.38	74	-23.62	peak
7239	40.44	-0.95	39.49	54	-14.51	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2413	109.09	-5.84	103.25	114	-10.75	peak
2413	85.02	-5.84	79.18	94	-14.82	AVG
4826	55.43	-3.64	51.79	74	-22.21	peak
4826	46.68	-3.64	43.04	54	-10.96	AVG
7239	54.69	-0.95	53.74	74	-20.26	peak
7239	38.51	-0.95	37.56	54	-16.44	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH Middle (2435MHz)

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2435	110.5	-5.71	104.79	114	-9.21	peak
2435	84.13	-5.71	78.42	94	-15.58	AVG
4870	53.07	-3.51	49.56	74	-24.44	peak
4870	44.15	-3.51	40.64	54	-13.36	AVG
7305	51.49	-0.82	50.67	74	-23.33	peak
7305	37.82	-0.82	37	54	-17	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2435	107.01	-5.71	101.3	114	-12.7	peak
2435	83.44	-5.71	77.73	94	-16.27	AVG
4870	53.93	-3.51	50.42	74	-23.58	peak
4870	43.96	-3.51	40.45	54	-13.55	AVG
7305	54.62	-0.82	53.8	74	-20.2	peak
7305	41.83	-0.82	41.01	54	-12.99	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

CH High (2458MHz)

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2458	105.59	-5.65	99.94	114	-14.06	peak
2458	83.51	-5.65	77.86	94	-16.14	AVG
4916	53.15	-3.43	49.72	74	-24.28	peak
4916	42.87	-3.43	39.44	54	-14.56	AVG
7374	52.68	-0.75	51.93	74	-22.07	peak
7374	36.86	-0.75	36.11	54	-17.89	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2458	103.73	-5.65	98.08	114	-15.92	peak
2458	84.07	-5.65	78.42	94	-15.58	AVG
4916	54.35	-3.43	50.92	74	-23.08	peak
4916	43.69	-3.43	40.26	54	-13.74	AVG
7374	52.3	-0.75	51.55	74	-22.45	peak
7374	38.13	-0.75	37.38	54	-16.62	AVG
Remark: 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.

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 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.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 1MHz and VBW to 3MHz, to measure the conducted peak band edge.

5.3 Test Result

PASS

Radiated Band Edge Test:

Operation Mode: TX CH Low (2413MHz)

Horizontal (Worst case)

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310	57.38	-5.81	51.57	74	-22.43	peak
2310	/	-5.81	/	54	/	AVG
2390	54.37	-5.84	48.53	74	-25.47	peak
2390	/	-5.84	/	54	/	AVG
2400	52.68	-5.84	46.84	74	-27.16	peak
2400	/	-5.84	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310	54.33	-5.81	48.52	74	-25.48	peak
2310	/	-5.81	/	54	/	AVG
2390	52.68	-5.84	46.84	74	-27.16	peak
2390	/	-5.84	/	54	/	AVG
2400	53.47	-5.84	47.63	74	-26.37	peak
2400	/	-5.84	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Operation Mode: TX CH High (2458MHz)

Horizontal (Worst case)

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.50	55.56	-5.65	49.91	74	-24.09	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	53.24	-5.65	47.59	74	-26.41	peak
2500.00	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.50	54.16	-5.65	48.51	74	-25.49	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	53.29	-5.65	47.64	74	-26.36	peak
2500.00	/	-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= 30KHz. VBW= 100 KHz, Span=4MHz.
4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

6.3 Measurement Equipment Used

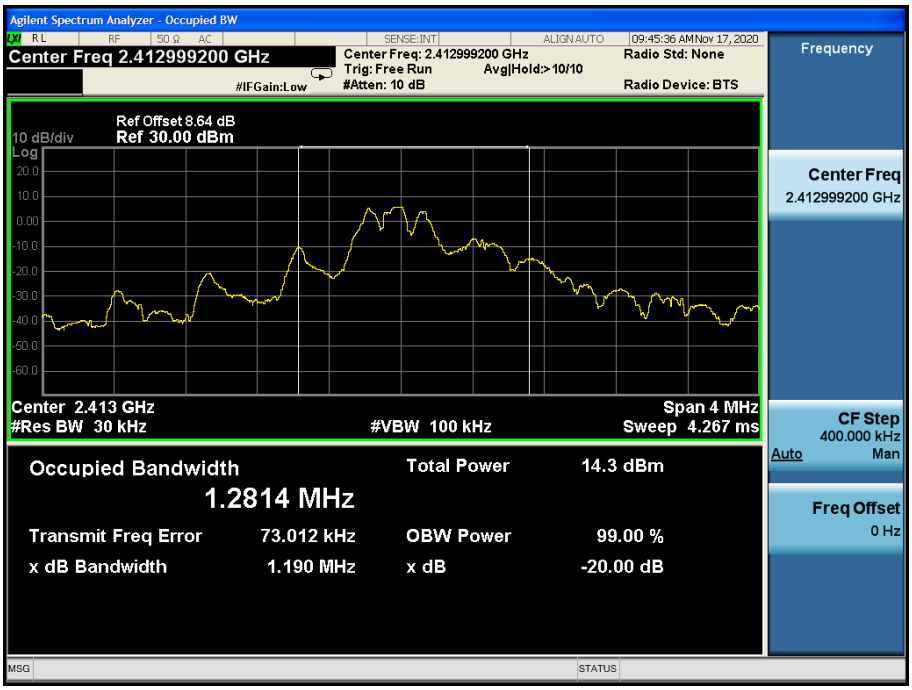
Same as Radiated Emission Measurement

6.4 Test Result

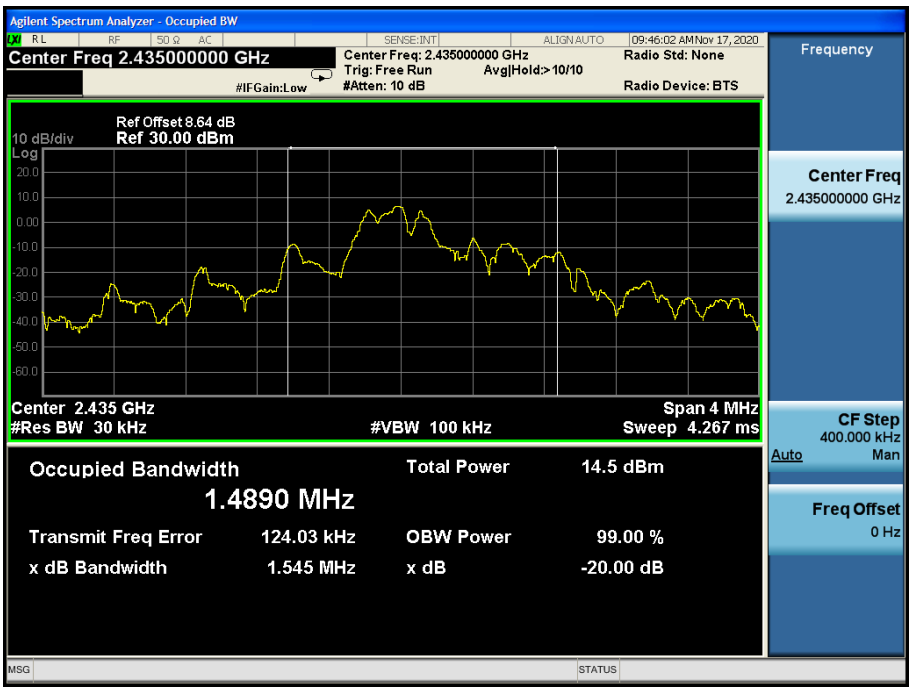
PASS

Frequency	20dB Bandwidth (MHz)	Result
2413 MHz	1.190	**PASS**
2435MHz	1.545	**PASS**
2458 MHz	1.642	**PASS**

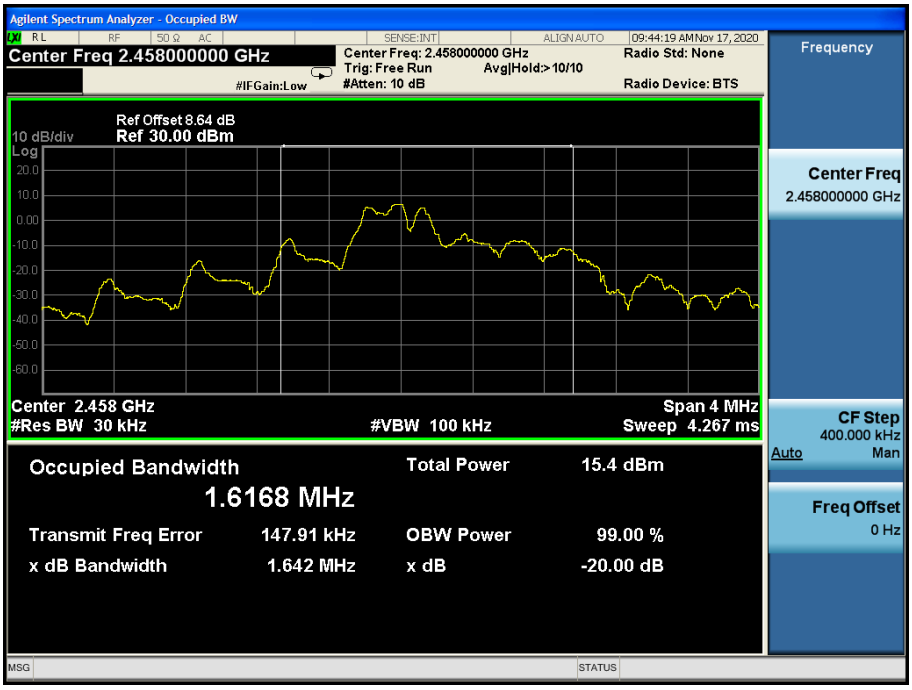
CH: 2413MHz



CH: 2435MHz



CH: 2458MHz



7 ANTENNA REQUIREMENT

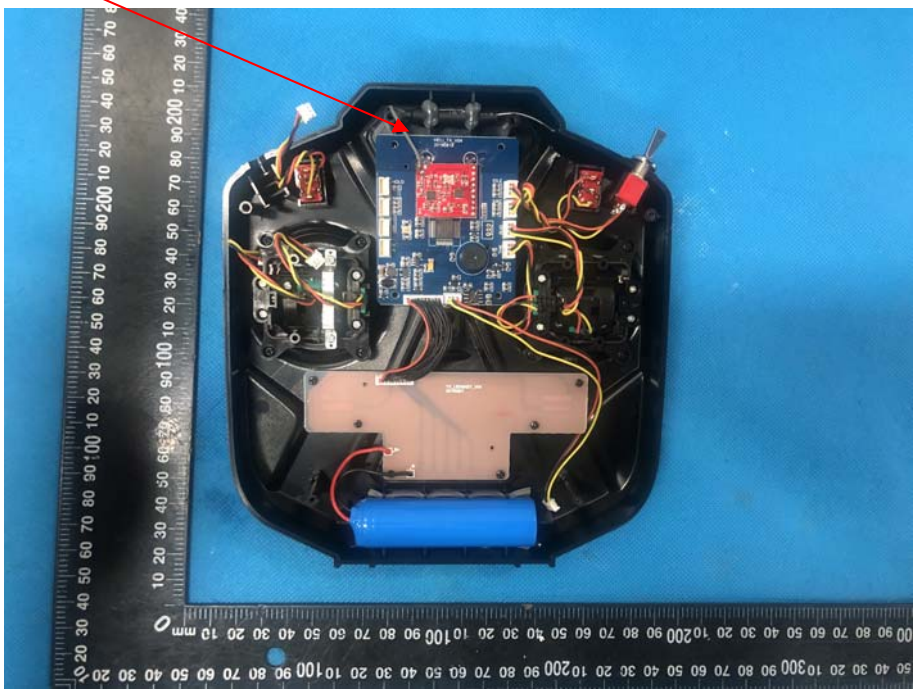
Standard Applicable

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.

Antenna Connected Construction

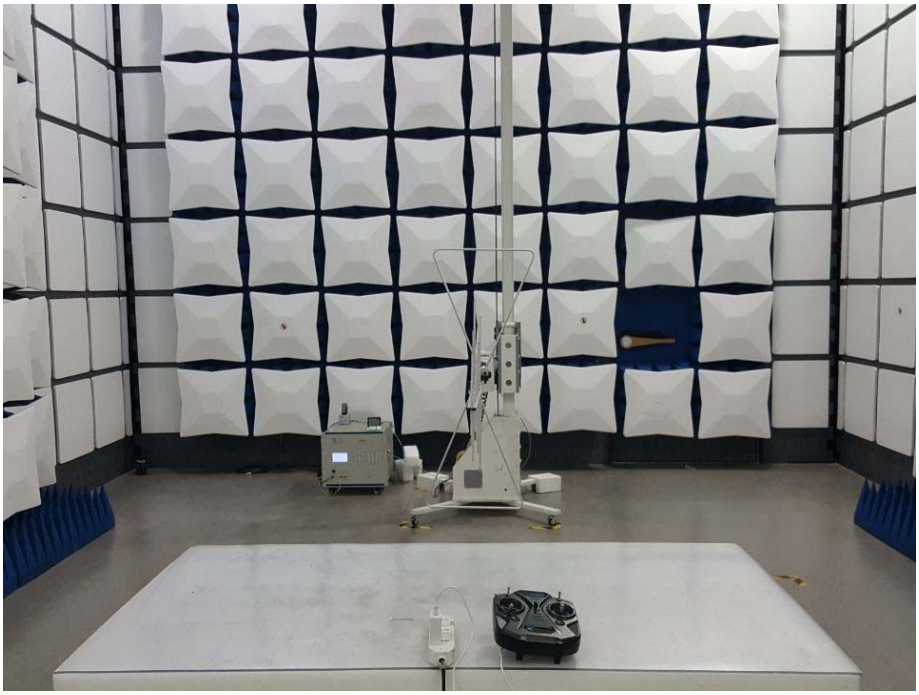
The antenna used in this product is a Internal Antenna which permanently attached. It conforms to the standard requirements. The directional gains of antenna used for transmitting is 0dB.

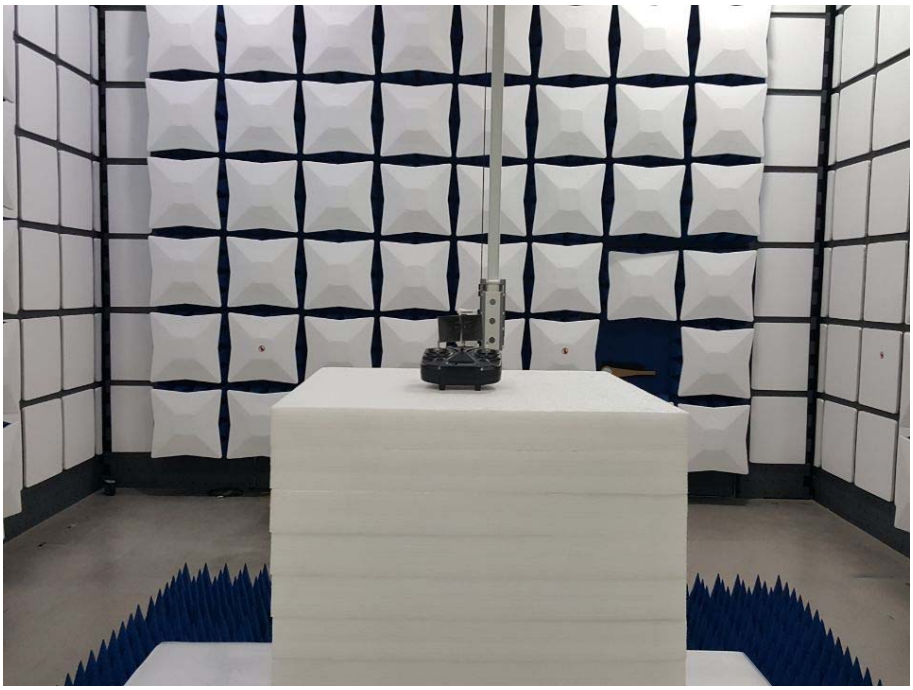
BT ANTENNA



8 PHOTOGRAPH OF TEST

8.1 Radiated Emission





Conduction Emission

9 PHOTOS OF THE EUT

Reference to the report: ANNEX A of external photos and ANNEX B of internal photos

---------End of test report---------