Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

FCC PART 15 SUBPART C TEST REPORT

FCC PART 15.239

Report Reference No.	**CTA24073001202**
FCC ID.	**2A3ZO-FM041**
Compiled by (position+printed name+signature)..	File administrators Jinghua Xiao
Supervised by (position+printed name+signature)..	Project Engineer Xudong Zhang
Approved by (position+printed name+signature)..	RF Manager Eric Wang
Date of issue	Aug. 07, 2024

Testing Laboratory Name	**Shenzhen CTA Testing Technology Co., Ltd.**
Address	Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao' an District, Shenzhen, China

Applicant's name	**Hong Kong Etech Groups Ltd.**
Address	16/F, Block C, 2nd Phase of Central Avenue, Haihong Industrial Area, Xixiang, Baoan, Shenzhen China

Test specification	**:**
Standard	**FCC Part 15.239**

Equipment description	**TECH Digtal FM transmitter-BK**
Trade Mark	techcellent
Manufacturer	Hong Kong Etech Groups Ltd.
Model/Type reference	E-LC-201201 (TC-TM-FM-041-BK)
Listed Models	E-LC-201201
Modulation	GFSK
Frequency	88.1MHz~107.9MHz
Ratings	DC 12-24V From external circuit
Result	**PASS**

TEST REPORT

Equipment under Test	:	TECH Digtal FM transmitter-BK
Model /Type	:	E-LC-201201 (TC-TM-FM-041-BK)
Listed Models	:	E-LC-201201
Applicant	:	**Hong Kong Etech Groups Ltd.**
Address	:	16/F, Block C, 2nd Phase of Central Avenue, Haihong Industrial Area, Xixiang, Baoan, Shenzhen China
Manufacturer	:	**Hong Kong Etech Groups Ltd.**
Address	:	16/F, Block C, 2nd Phase of Central Avenue, Haihong Industrial Area, Xixiang, Baoan, Shenzhen China

Test Result:	**PASS**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

1 TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.
ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices
KDB558074 D01 V05r02: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	Aug. 03, 2024
Testing commenced on	:	Aug. 03, 2024
Testing concluded on	:	Aug. 07, 2024

2.2 Product Description

Product Description:	TECH Digtal FM transmitter-BK
Model/Type reference:	E-LC-201201 (TC-TM-FM-041-BK)
Power supply:	DC 12-24V From external circuit
Hardware version:	PIPA TF_5602_1V0
Software version:	V0.1.1
Testing sample ID：	CTA240730012-1# (Engineer sample), CTA240730012-2# (Normal sample)
FM	
Modulation:	FM
Operation frequency:	88.1MHz~107.9MHz
Channel number:	199
Channel separation:	100KHz
Channel frequency	88.1MHz~107.9MHz(Channel Number: 199, Channel Frequency=88.1+0.1(K-1), K=1, 2, 3 ……199)
Antenna type:	Internal antenna
Antenna gain:	0.00 dBi

2.3 Equipment Under Test

Power supply system utilised

Power supply voltage	:	○	230V / 50 Hz	○	120V / 60Hz
		○	12 V DC	○	24 V DC
		●	Other (specified in blank below)		

DC 12-24V From external circuit

2.4 Short description of the Equipment under Test (EUT)

This is a TECH Digtal FM transmitter-BK.
For more details, refer to the user's manual of the EUT.

2.5 EUT operation mode

The Applicant provides communication tools software(Engineer mode) to control the EUT for staying in continuous transmitting and receiving mode for testing .There are 199 channels provided to the EUT and Channel Low/Mid/High were selected to test.

Operation Frequency：

Channel	Frequency (MHz)
00	**88.1**
19	**98.1**
39	**107.9**

2.6 Block Diagram of Test Setup

2.7 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for the device filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

2.8 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao’an District, Shenzhen, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:
FCC-Registration No.: 517856 Designation Number: CN1318

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6534.01

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

3.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:
Radiated Emission:

Temperature:	23 ° C
Humidity:	44 %
Atmospheric pressure:	950-1050mbar

Conducted testing：

Temperature:	24 ° C
Humidity:	46 %
Atmospheric pressure:	950-1050mbar

3.4 Summary of measurement results

Applied Standard: FCC CFR 47 PART 15.239		
FCC Rules	Description of Test	Result
§15.239 (a)	Occupied Bandwidth	Compliant
§15.239 (b)	Field Strength of Fundamental frequency	Compliant
§15.205 (a) §15.209 (a)	Radiated Spurious Emissions	Compliant
§15.207 (a)	AC Conducted Emissions	N/A
§15.203	Antenna Requirements	Compliant

Remark:
1. The measurement uncertainty is not included in the test result.
2. We tested all test mode and recorded worst case in report

3.5 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. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen CTA Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device. Hereafter the best measurement capability for Shenzhen CTA Testing Technology Co., Ltd. :

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.02 dB	(1)
Radiated Emission	30~1000MHz	4.06 dB	(1)
Radiated Emission	1~18GHz	5.14 dB	(1)
Radiated Emission	18-40GHz	5.38 dB	(1)
Conducted Disturbance	0.15~30MHz	2.14 dB	(1)
Output Peak power	30MHz~18GHz	0.55 dB	(1)
Power spectral density	/	0.57 dB	(1)
Spectrum bandwidth	/	1.1%	(1)
Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB	(1)
Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB	(1)
Radiated spurious emission (18GHz-40GHz)	18-40GHz	5.54 dB	(1)

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

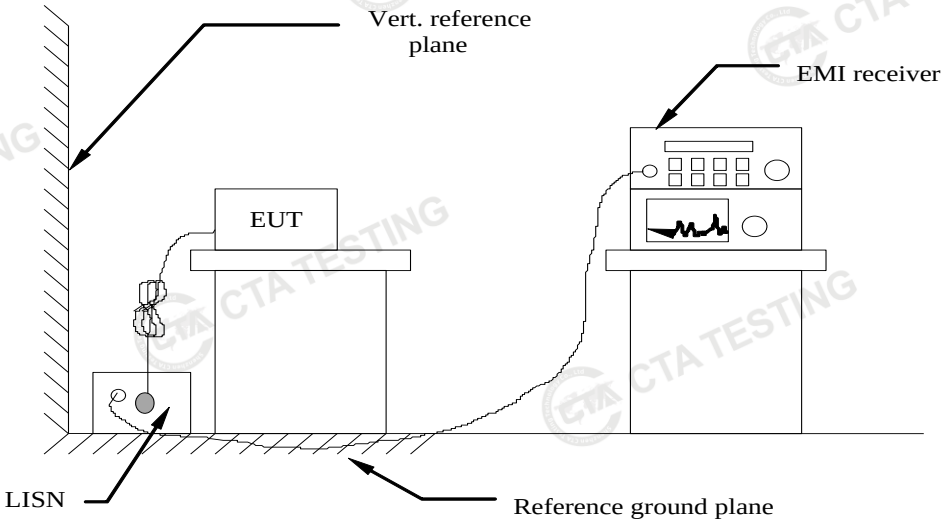
3.6 Equipments Used during the Test

Test Equipment	Manufacturer	Model No.	Equipment No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	CTA-308	2024/08/03	2025/08/02
LISN	R&S	ENV216	CTA-314	2024/08/03	2025/08/02
EMI Test Receiver	R&S	ESPI	CTA-307	2024/08/03	2025/08/02
EMI Test Receiver	R&S	ESCI	CTA-306	2024/08/03	2025/08/02
Spectrum Analyzer	Agilent	N9020A	CTA-301	2024/08/03	2025/08/02
Spectrum Analyzer	R&S	FSP	CTA-337	2024/08/03	2025/08/02
Vector Signal generator	Agilent	N5182A	CTA-305	2024/08/03	2025/08/02
Analog Signal Generator	R&S	SML03	CTA-304	2024/08/03	2025/08/02
Universal Radio Communication	CMW500	R&S	CTA-302	2024/08/03	2025/08/02
Temperature and humidity meter	Chigo	ZG-7020	CTA-326	2024/08/03	2025/08/02
Ultra-Broadband Antenna	Schwarzbeck	VULB9163	CTA-310	2023/10/17	2024/10/16
Horn Antenna	Schwarzbeck	BBHA 9120D	CTA-309	2023/10/13	2024/10/12
Loop Antenna	Zhinan	ZN30900C	CTA-311	2023/10/17	2024/10/16
Horn Antenna	Beijing Hangwei Dayang	OBH100400	CTA-336	2023/10/17	2024/10/16
Amplifier	Schwarzbeck	BBV 9745	CTA-312	2024/08/03	2025/08/02
Amplifier	Taiwan chengyi	EMC051845B	CTA-313	2024/08/03	2025/08/02
Directional coupler	NARDA	4226-10	CTA-303	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA18	CTA-402	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA27	CTA-403	2024/08/03	2025/08/02
Automated filter bank	Tonscend	JS0806-F	CTA-404	2024/08/03	2025/08/02
Power Sensor	Agilent	U2021XA	CTA-405	2024/08/03	2025/08/02
Amplifier	Schwarzbeck	BBV9719	CTA-406	2024/08/03	2025/08/02

4 TEST CONDITIONS AND RESULTS

4.1 AC Power Conducted Emission

TEST CONFIGURATION



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 C63.10-2013.
2 Support equipment, if needed, was placed as per ANSI C63.10-2013
3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2013
4 The EUT received power from adapter, the adapter received AC120V/60Hz and AC 240V/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.
8 During the above scans, the emissions were maximized by cable manipulation.

AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following：

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
* Decreases with the logarithm of the frequency.		

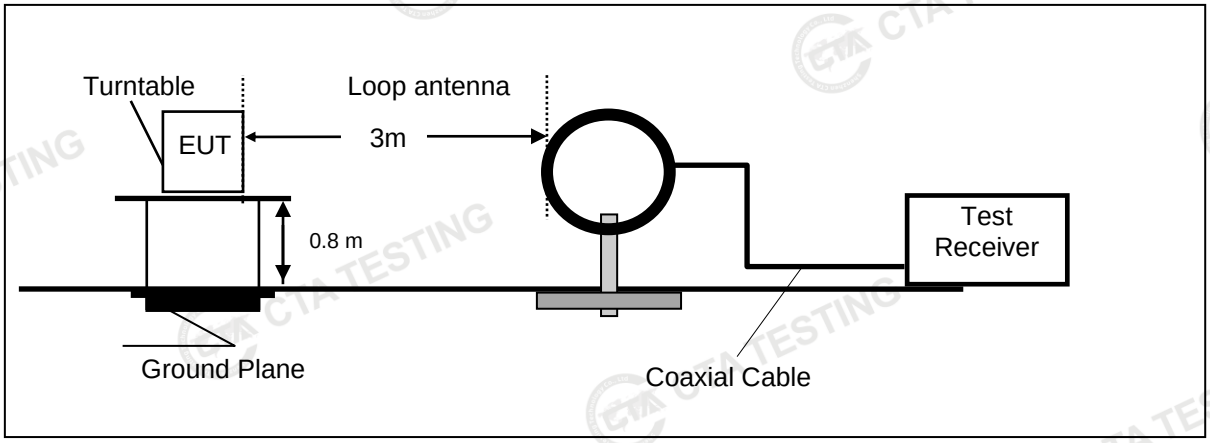
TEST RESULTS

The EUT is a Car Equipment,So this test item is not applicable for the EUT.

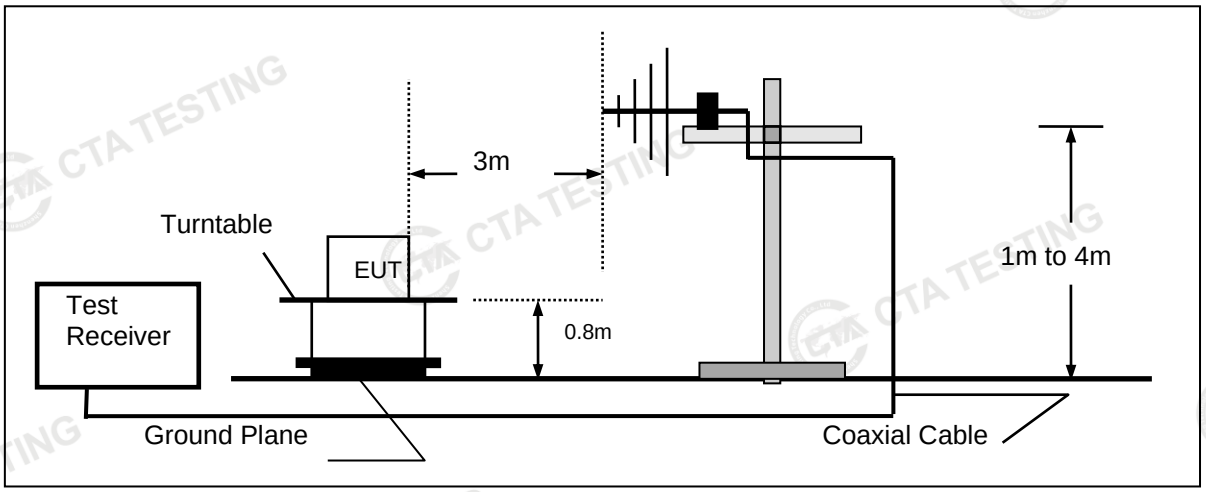
4.2 RADIATED MEASUREMENT

TEST CONFIGURATION

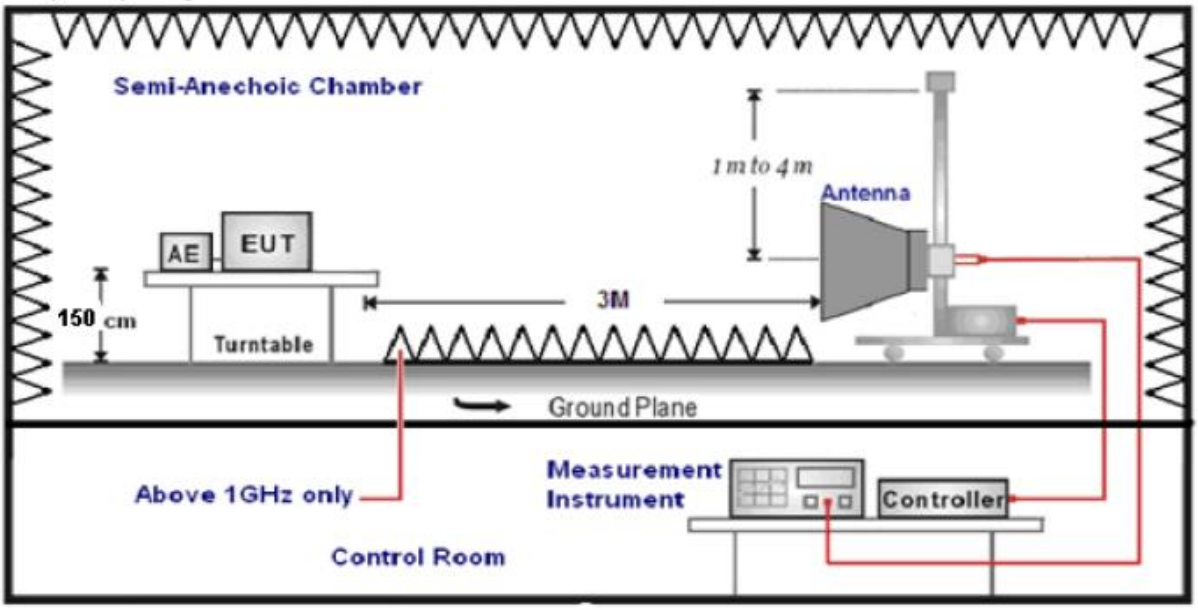
Frequency range 9 KHz – 30MHz



Frequency range 30MHz – 1000MHz



Frequency range above 1GHz-25GHz



TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane when testing frequency range 9 KHz –1GHz;the EUT was placed on a turn table which is 1.5m above ground plane when testing frequency range 1GHz – 25GHz.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0℃ to 360℃ to acquire the highest emissions from EUT.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. The EUT minimum operation frequency was 32.768KHz and maximum operation frequency was 2480MHz.so radiated emission test frequency band from 9KHz to 25GHz.
6. The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Ultra-Broadband Antenna	3
1GHz-18GHz	Double Ridged Horn Antenna	3
18GHz-25GHz	Horn Anternna	1

7. Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

Transd=AF +CL-AG

RADIATION LIMIT

According to §15.239 (b): The field strength of any emissions within the permitted 200 kHz band shall not exceed 250 microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

TEST RESULTS

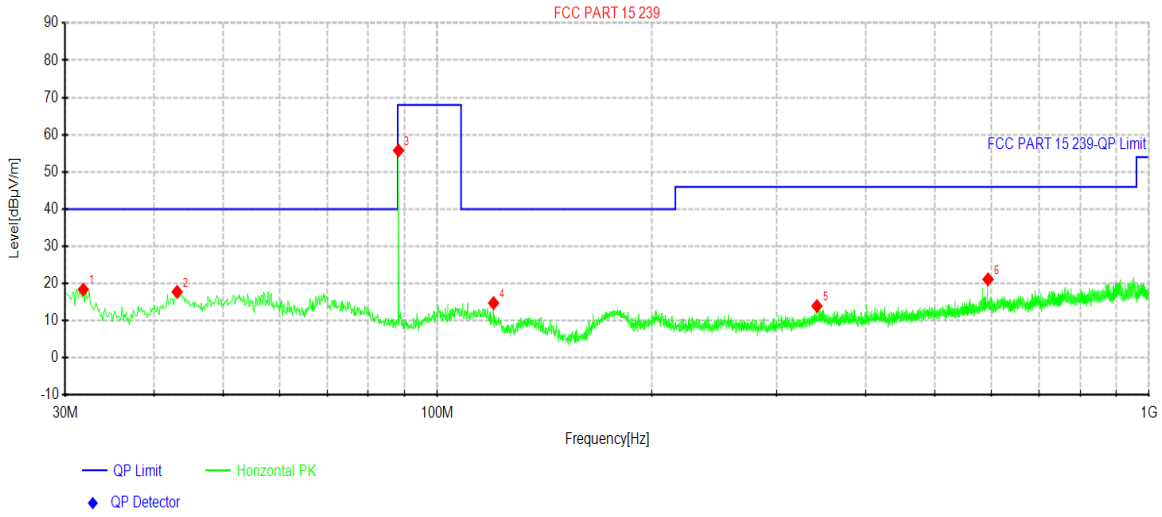
Remark:

1. This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.
2. fm were tested at Low, Middle, and High channel and recorded worst mode at BLE 1Mpbs.
3. Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.

For 30MHz-1GHz

TX Low Channel:

Horizontal



Suspected Data List

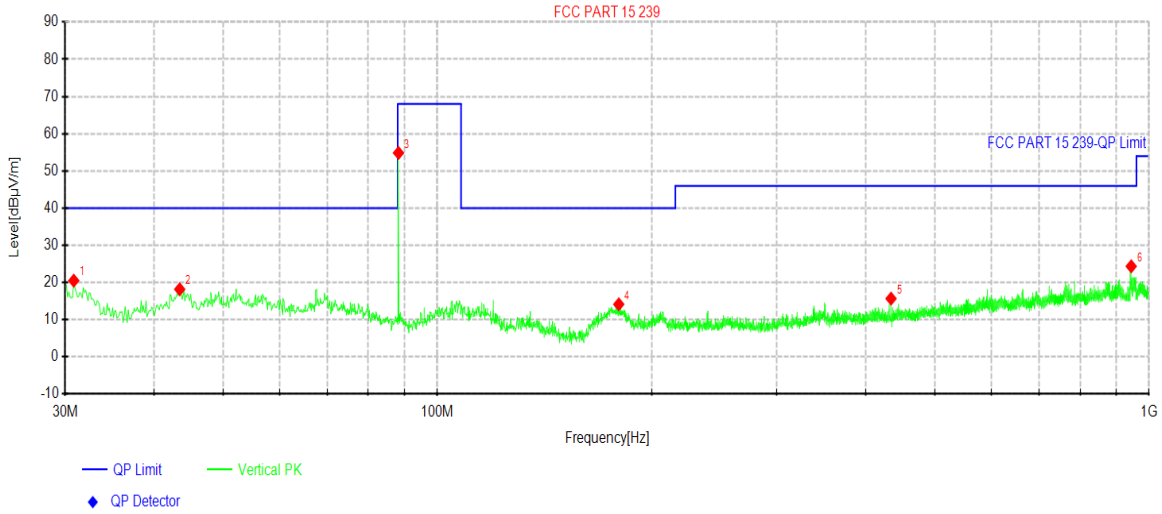
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Det	Polarity
1	50.855	32.67	21.14	-11.53	40.00	18.86	100	Peak	Horizontal
2	88.1	72.17	56.52	-15.65	68.00	11.48	100	Peak	Horizontal
/	88.1	52.59	36.94	-15.65	48.00	11.06	100	AVG	Horizontal
3	196.2337	44.39	30.81	-13.58	43.50	12.69	100	Peak	Horizontal
4	395.9325	42.19	31.69	-10.50	46.00	14.31	100	Peak	Horizontal
5	617.4562	34.75	29.47	-5.28	46.00	16.53	100	Peak	Horizontal
6	893.5425	36.56	34.02	-2.54	46.00	11.98	100	Peak	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Det	Polarity
1	54.25	40.97	29.11	-11.86	40.00	10.89	100	Peak	Vertical
2	80.1	40.68	23.61	-17.07	40.00	16.39	100	Peak	Vertical
3	88.2	70.79	55.14	-15.65	68.00	12.86	100	Peak	Vertical
/	88.1	50.55	34.90	-15.65	48.00	13.10	100	AVG	Vertical
4	201.69	42.50	29.24	-13.26	43.50	14.26	100	Peak	Vertical
5	395.9325	35.55	25.05	-10.50	46.00	20.95	100	Peak	Vertical
6	629.3388	32.03	26.82	-5.21	46.00	19.18	100	Peak	Vertical

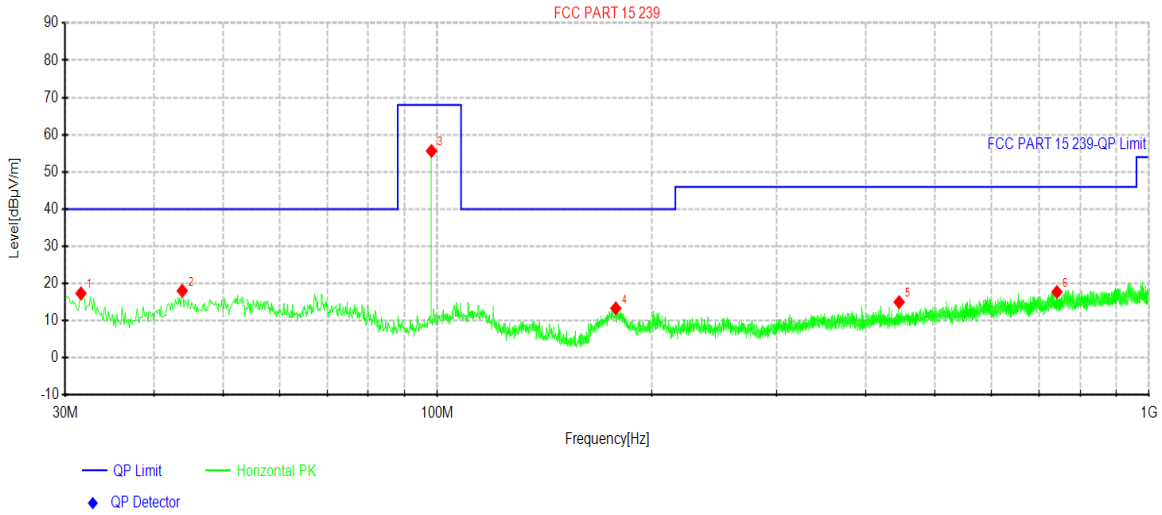
Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

TX Mid Channel:

Horizontal



Suspected Data List

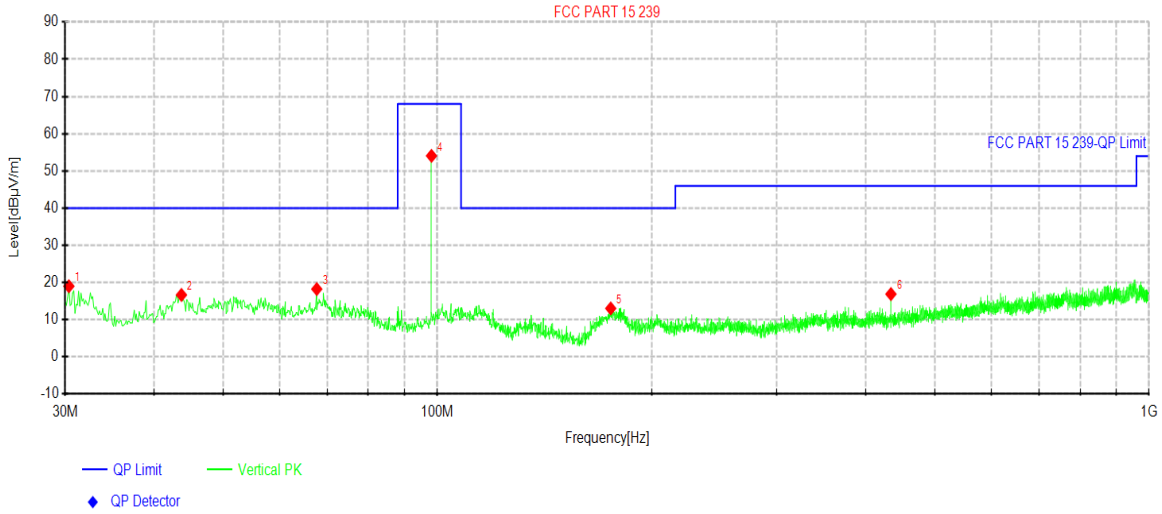
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Det	Polarity
1	51.7038	31.76	20.15	-11.61	40.00	19.85	100	Peak	Horizontal
2	72.8012	36.60	20.91	-15.69	40.00	19.09	100	Peak	Horizontal
3	98.1	68.57	54.85	-13.72	68.00	13.15	100	Peak	Horizontal
/	98.1	48.80	35.08	-13.72	48.00	12.92	100	AVG	Horizontal
4	175.8638	46.95	31.67	-15.28	43.50	11.83	100	Peak	Horizontal
5	395.9325	41.69	31.19	-10.50	46.00	14.81	100	Peak	Horizontal
6	605.21	35.68	30.40	-5.28	46.00	15.60	100	Peak	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Det	Polarity
1	52.4312	42.71	31.04	-11.67	40.00	8.96	100	Peak	Vertical
2	80.1975	43.18	26.11	-17.07	40.00	13.89	100	Peak	Vertical
3	98.1	68.92	55.20	-13.72	68.00	12.80	100	Peak	Vertical
/	98.1	49.28	35.56	-13.72	48.00	12.44	100	AVG	Vertical
4	201.69	45.50	32.24	-13.26	43.50	11.26	100	Peak	Vertical
5	395.9325	36.05	25.55	-10.50	46.00	20.45	100	Peak	Vertical
6	737.13	32.67	27.67	-5.00	46.00	18.33	100	Peak	Vertical

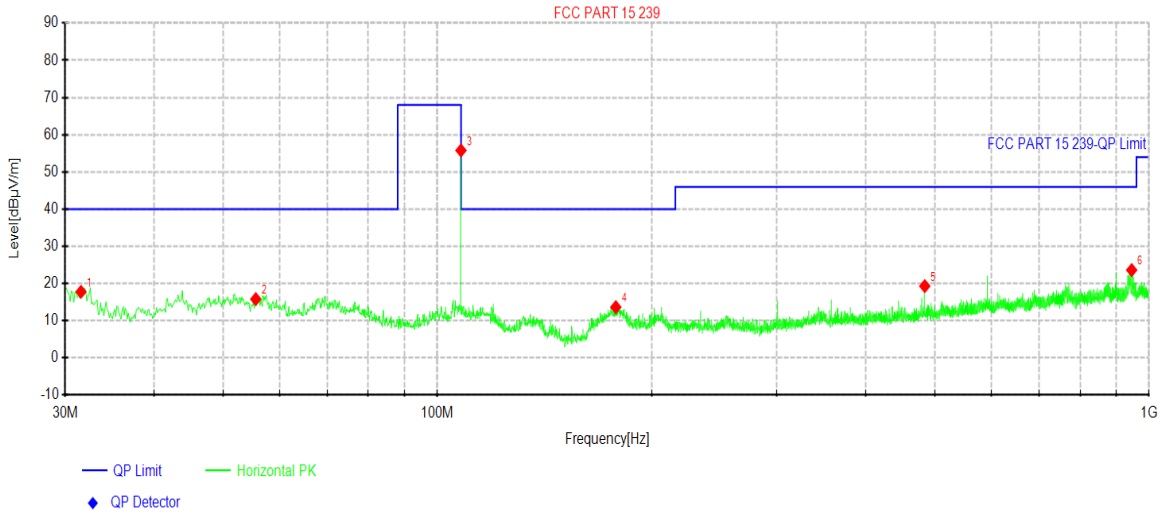
Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

TX High Channel:

Horizontal



Suspected Data List

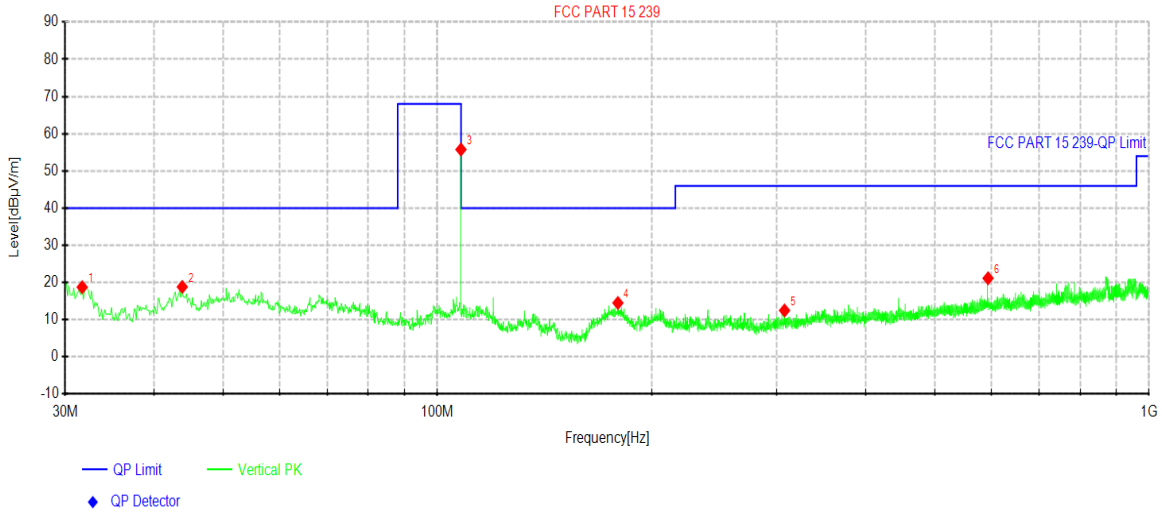
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Det	Polarity
1	51.7038	33.26	21.65	-11.61	40.00	18.35	100	Peak	Horizontal
2	72.8012	37.60	21.91	-15.69	40.00	18.09	100	Peak	Horizontal
3	107.9	69.52	55.94	-13.58	68.00	13.06	100	Peak	Horizontal
/	107.9	49.64	36.06	-13.58	48.00	11.94	100	AVG	Horizontal
4	196.2337	44.39	30.81	-13.58	43.50	12.69	100	Peak	Horizontal
5	395.9325	41.69	31.19	-10.50	46.00	14.81	100	Peak	Horizontal
6	605.21	35.68	30.40	-5.28	46.00	15.60	100	Peak	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Det	Polarity
1	51.5825	42.26	30.66	-11.60	40.00	9.34	100	Peak	Vertical
2	80.1975	43.18	26.11	-17.07	40.00	13.89	100	Peak	Vertical
3	107.9	69.42	55.85	-13.57	68.00	12.15	100	Peak	Vertical
4	107.9	49.55	35.98	-13.57	48.00	12.02	100	AVG	Vertical
4	201.69	45.00	31.74	-13.26	43.50	11.76	100	Peak	Vertical
5	395.9325	36.05	25.55	-10.50	46.00	20.45	100	Peak	Vertical
6	779.4462	32.24	27.75	-4.49	46.00	18.25	100	Peak	Vertical

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

4.3 99% AND 20DB BANDWIDTH

Limit

According to §15.239 (a) Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88-108MHz.

Test Procedure

1:The transmitter shall be operated at its maximum carrier power measured under normal test conditions

2:The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.

3:The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

4:Detector function = peak.

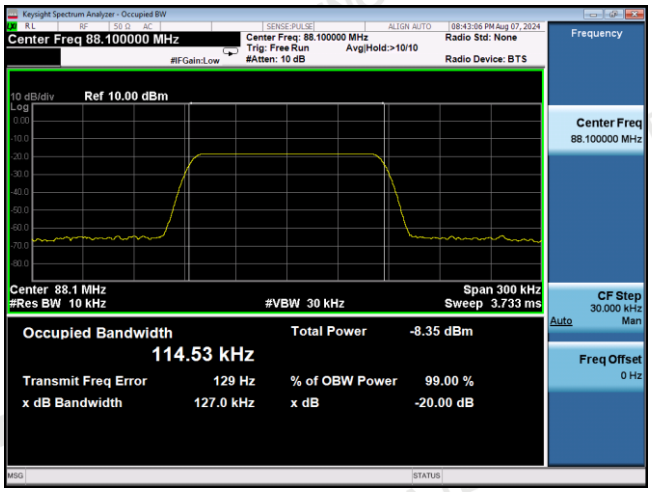
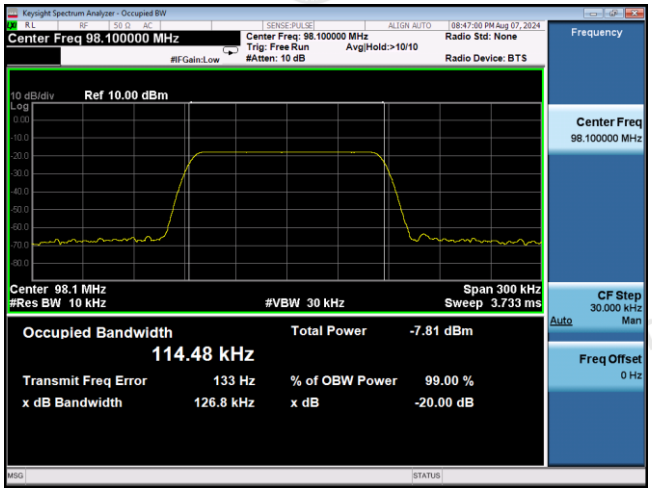
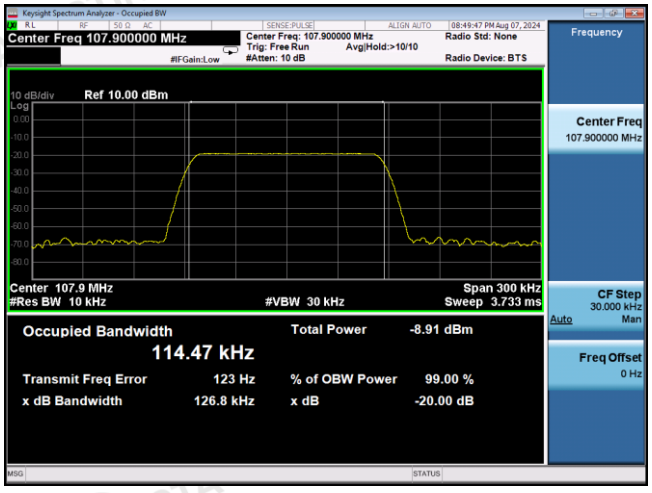
5:Trace = max hold.

Test Configuration

Test Results

Type	Channel	20dB Bandwidth (KHz)	99% Bandwidth (KHz)	Limit (KHz)	Result
FM	Low	127.0	114.53	200.00	Pass
	Mid	126.8	114.48		
	High	126.8	114.47		

Test plot as follows:

FM

Low

MId

High

4.4 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. 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

FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1) (I):

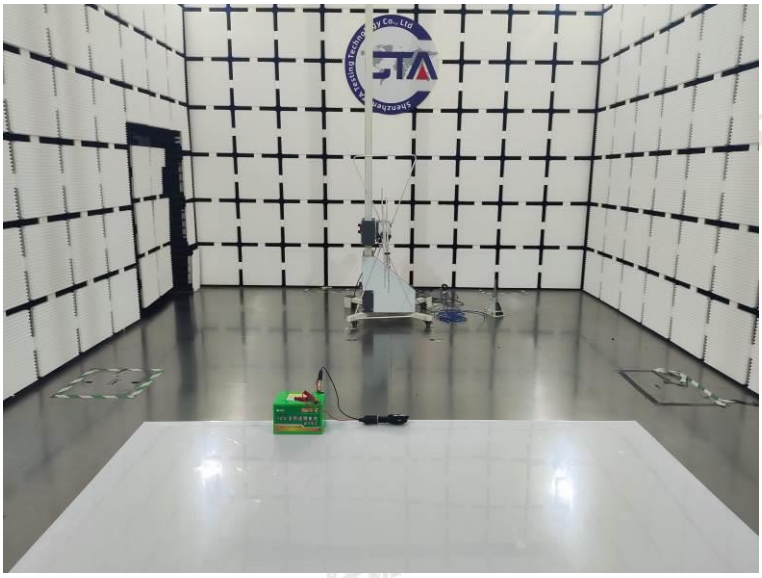
(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Antenna Connected Construction

The maximum gain of antenna was 0.00 dBi.

Remark:The antenna gain is provided by the customer , if the data provided by the customer is not accurate, Shenzhen CTA Testing Technology Co., Ltd. does not assume any responsibility.

5 Test Setup Photos of the EUT



6 Photos of the EUT

Reference to the test report No. **CTA24073001201**

********** End of Report **********