FCC TEST REPORT

FCC ID:2AZ3Z-ZSF6302

Product	**:**	**Electric scooter**
Model Name	**:**	**6302/A11PRO**
Brand	**:**	**N/A**
Report No.	**:**	**NCT25015195E1-3**

Prepared for

Shenzhen Z.S.F Technology Co.,Ltd

Room 101-301, Building HC, Room 101-301, Building HD, beibu Industrial Park, Yanchuan Community,Yanluo Street, Bao'an District, Shenzhen

Prepared by

Shenzhen NCT Testing Technology Co., Ltd.

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TEL: 400-8868-419

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1 TEST RESULT CERTIFICATION

Applicant's name	:	Shenzhen Z.S.F Technology Co.,Ltd
Address	:	Room 101-301, Building HC, Room 101-301, Building HD, beibu Industrial Park, Yanchuan Community,Yanluo Street, Bao'an District, Shenzhen
Manufacture's name	:	Shenzhen Z.S.F Technology Co.,Ltd
Address	:	Room 101-301, Building HC, Room 101-301, Building HD, beibu Industrial Park, Yanchuan Community,Yanluo Street, Bao'an District, Shenzhen
Product name	:	Electric scooter
Model name	:	6302/A11PRO
Standards	:	FCC CFR47 Part 15 Section 15.239
Test procedure	:	ANSI C63.10:2020
Date of test	:	Apr. 09, 2025 to May 29, 2025
Date of Issue	:	May 29, 2025

This device described above has been tested by NCT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

Keven Wu / Engineer

Technical Manager:

Henry Wang / Manager

Hotline: 400-8868-419 Fax: 86-755-27790922 http://www.ncttesting.cn

Contents

2 Test Summary

Test Items	Test Requirement	Result
Conduct Emission	FCC Part 15.207	PASS
Fundamental & Radiated / Conducted Spurious Emission Measurement	FCC Part 15.209 & 15.239 c	PASS
Band edge	FCC Part 15.239 c	PASS
Bandwidth	FCC Part 15.239 a	PASS
Antenna Requirement	FCC Part 15.203	PASS

Remark:

1. "N/A" denotes test is not applicable in this Test Report.

2.1 Test Site

Site Description

EMC Lab.	:	Accredited by CNAS, 2022-09-27 The certificate is valid until 2028.01.07 The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2006 (identical to ISO/IEC 17025:2017) The Certificate Registration Number is L8251 Designation Number: CN1347 Test Firm Registration Number: 894804 Accredited by A2LA, June 14, 2023 The Certificate Registration Number is 6837.01 Accredited by Industry Canada, November 09, 2018 The Conformity Assessment Body Identifier is CN0150 Company Number: 30806
Name of Firm	:	Shenzhen NCT Testing Technology Co., Ltd.
Site Location	:	A101&2F B2, Fuqiao 6th Area, Xintian Community, Fuhai Street, Baoan District, Shenzhen, People’s Republic of China

3 General Information

3.1 General Description of E.U.T.

Product Name	:	Electric scooter
Model Name	:	6302/A11PRO
Sample ID	:	25015190-001#
Sample(s) Status:	:	Engineer sample
Series Model	:	N/A
Model Different.:	:	N/A
Operating frequency	:	88.1-107.9MHz
Number of Channels	:	199 channels
Type of Modulation	:	FM
Antenna installation	:	PCB Antenna
Antenna Gain	:	-0.58dBi
Power supply	:	DC 57.6V from Battery or AC 120V/60Hz
Hardware Version	:	N/A
Software Version	:	N/A
Remark：the Antenna gain is provided by customer from Antenna spec. and the laboratory will not be responsible for the accumulated calculation results which covers the information provided by the applicant.		

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3.2 Channel List

The EUT has been tested under its typical operating condition. Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting. Only the worst case data were reported.

The EUT has been associated with peripherals pursuant to ANSI C63.10-2020 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation (9 KHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

The details of test channels and bandwidth were for RF conductive measurement.

Channel List:

Channel	Frequency (MHz)
01	88.1
02	88.2
~	~
100	98.0
~	~
198	107.8
199	107.9

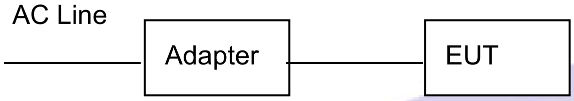
Note:

1. Test of channel was included the lowest, middle and highest frequency in highest data rate and to perform the test, then record on this report.

3.3 Test Setup Configuration

Conducted Emission

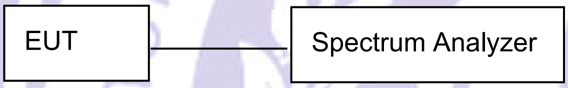
AC Line



Radiated Emission(30MHz-1GHz)

Radiated Emission(above 1GHz)

Conducted Spurious



3.4 Test Mode

Transmitting mode	Keep the EUT in continuously transmitting mode.
Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition’s data.	

Channel	Frequency(MHz)
01	88.1
100	98.0
199	107.9

4 Equipment During Test

4.1 Equipments List

Conducted emission Test Equipment

Name	Model No.	Serial No.	Manufacturer	Date of Cal.	Due Date
944 Shielded Room	944 Room	/	EMToni	2022/5/31	2025/5/30
EMI Test Receiver	ESPI	101604	Rohde & Schwarz	2024/6/17	2025/6/16
LISN	ENV 216	102796	Rohde & Schwarz	2024/6/17	2025/6/16
LISN	VN1-13S	004023	CRANAGE	2024/6/17	2025/6/16
Cable	RG223-1500MM	NA	RG	2024/6/17	2025/6/16

Radiated emission & Radio Frequency Test Equipment

Name	Model No.	Serial No.	Manufacturer	Date of Cal.	Due Date
966 Shielded Room	966 Room	/	EMToni	2022/5/31	2025/5/30
EMI Test Receiver	ESCI	101178	Rohde & Schwarz	2024/6/17	2025/6/16
Spectrum Analyze（10Hz-26.5GHz）	N9020A	MY50510202	Agilent	2024/6/17	2025/6/16
Amplifi（30MHz-1GHz）	BBV 9743 B	00374	SCHNARZBECK	2024/6/17	2025/6/16
Bilog Antenna（30MHz-1GHz）	VULB9162	00473	SCHNARZBECK	2025/3/08	2026/3/07
Horn antenna（1GHz-18GHz）	BBHA 9120 D	02622	SCHNARZBECK	2025/3/10	2026/3/09
Pream plifier（1GHz-18GHz）	BBV 9718D	0024	SCHNARZBECK	2024/6/17	2025/6/16
Spectrum Analyze（1GHz-40GHz）	FSV 40	100952	Rohde & Schwarz	2024/6/17	2025/6/16
Pream plifier（15GHz-40GHz）	BBV 9718D	0024	SCHNARZBECK	2024/6/17	2025/6/16
Broadband Antenna（15GHz-40GHz）	SAS-574	588	A.H.System	2025/3/10	2026/3/09
Loop Antenna (9KHz-30MHz)	FMZB1519B	014	SCHNARZBECK	2024/6/17	2025/6/16
Amplifier (9KHz-30MHz)	CVP 9222 C	00109	SCHNARZBECK	2024/6/17	2025/6/16

MXG Signal Analyzer	N9020A	101178	RS	2024/6/17	2025/6/16
MXG Vector Signal Generator	N5182A	MY50510202	Agilent	2024/6/17	2025/6/16
MXG Analog Signal Generator	N5181A	00374	SCHWARZBECK	2024/6/17	2025/6/16
Power Sensor	TR1029-2	00473	SCHNARZBECK	2024/6/17	2025/6/16
RF Swith	TR1029-1	02622	SCHNARZBECK	2024/6/17	2025/6/16
Cable	DA800-4000MM	NA	DA	2024/6/17	2025/6/16
Cable	DA800-11000MM	NA	DA	2024/6/17	2025/6/16

Other

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ-EMC	Ver.EMC-CON 3A1.1+
2	EMC radiation test system	FALA	EZ-EMC	Ver.FA-03A2 RE+
3	RF test system	TACHOY	RFTest	V1.0.0
4	RF communication test system	TACHOY	RFTest	V1.0.0

4.2 Measurement Uncertainty

Parameter	Uncertainty
RF output power, conducted	±1.0dB
Power Spectral Density, conducted	±2.2dB
Radio Frequency	± 1 x 10^{-6}
Bandwidth	± 1.5 x 10^{-6}
Time	±2%
Duty Cycle	±2%
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±3%
Conducted Emissions (150kHz~30MHz)	±3.64dB
Radiated Emission(9KHz~30MHz)	±4.51dB
Radiated Emission(30MHz~1GHz)	±5.03dB
Radiated Emission(1GHz~25GHz)	±4.74dB
Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95%	

4.3 Description of Support Units

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.	Series No.	Note
E-1	Electric scooter	N/A	A11PRO	N/A	EUT
E-2	LITHIUM Battery Charger	N/A	SPC-290WW-672040	N/A	Auxiliary

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.

5 Conducted Emission

Test Requirement	:	FCC CFR 47 Part 15 Section 15.207
Test Method	:	ANSI C63.10: 2020
Test Result	:	PASS
Frequency Range	:	150kHz to 30MHz
Class/Severity	:	Class B

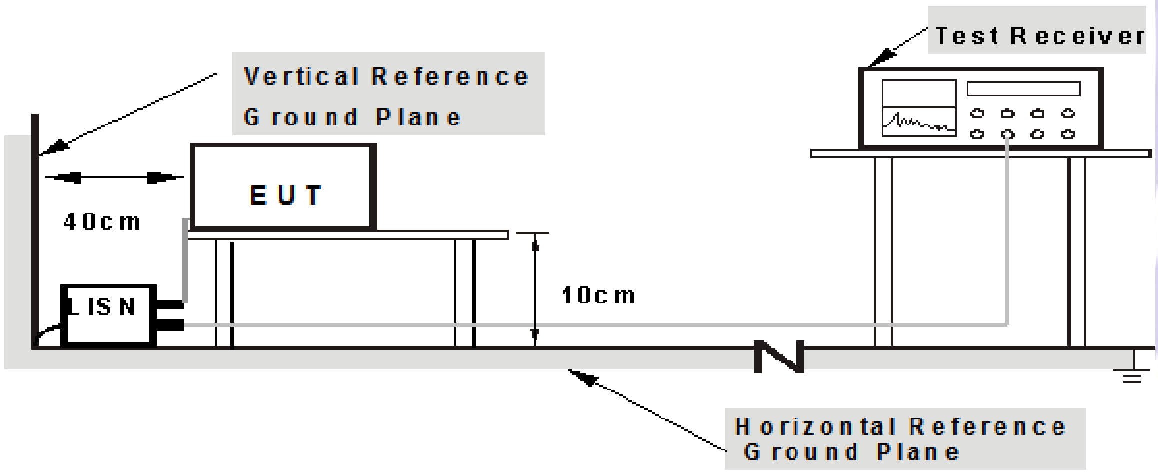
5.1 E.U.T. Operation

Operating Environment :

Temperature	:	25°C
Humidity	:	54 % RH
Atmospheric Pressure	:	101kPa

5.2 EUT Setup

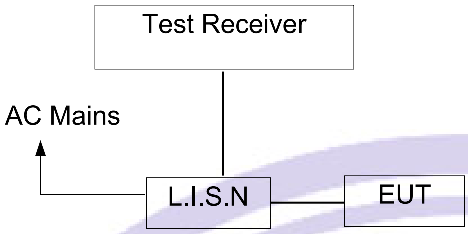
The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2020.



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 10 cm from EUT and at least 10 from other units and other metal planes

5.3 Test SET-UP (Block Diagram of Configuration)



5.4 Measurement Procedure

1. The EUT was placed on a table, which is 0.1m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured was complete.

5.5 Conducted Emission Limit

Conducted Emission

Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note:

1. The lower limit shall apply at the transition frequencies

2.The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

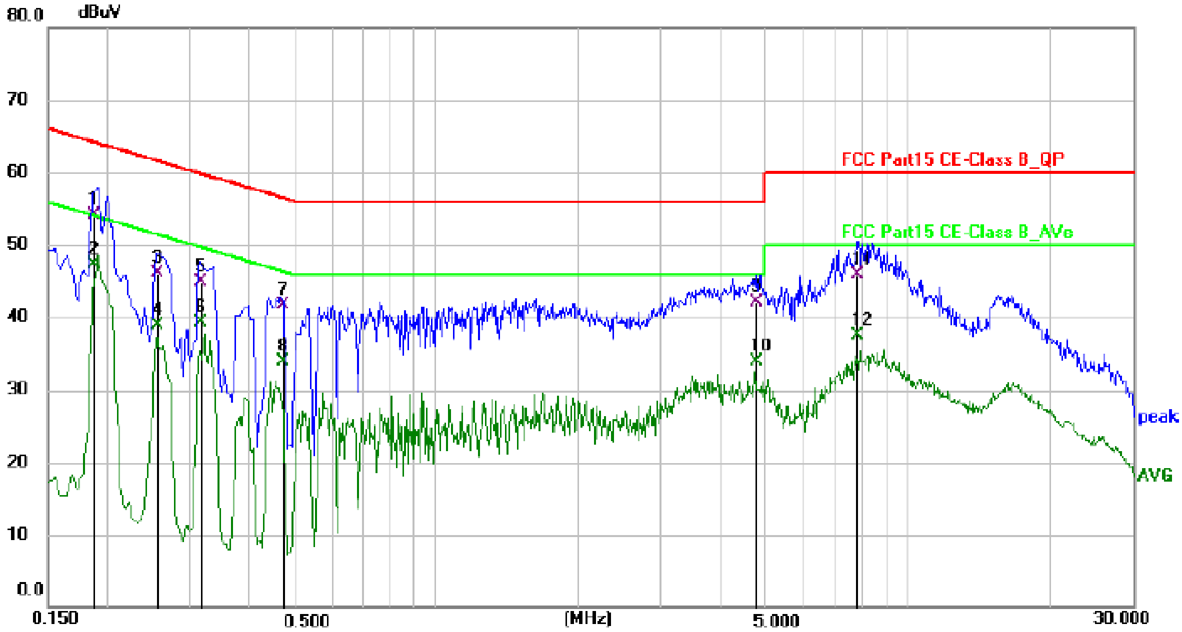
5.6 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

5.7 Conducted Emission Test Result

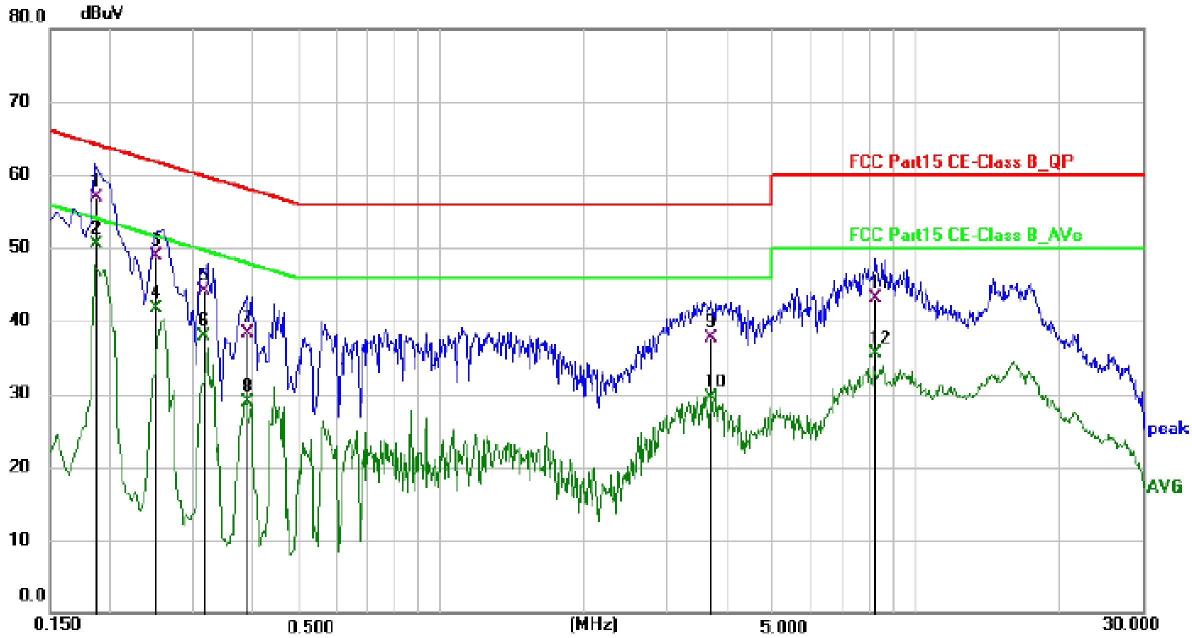
Pass

Temperature:	25 ℃	Relative Humidity:	54%
Pressure:	101kPa	Phase :	L
Test Voltage :	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1875	44.43	9.68	54.11	64.15	-10.04	QP
2 *	0.1875	37.56	9.68	47.24	54.15	-6.91	AVG
3	0.2552	36.46	9.67	46.13	61.59	-15.46	QP
4	0.2552	29.26	9.67	38.93	51.59	-12.66	AVG
5	0.3171	35.20	9.67	44.87	59.78	-14.91	QP
6	0.3171	29.68	9.67	39.35	49.78	-10.43	AVG
7	0.4715	31.97	9.66	41.63	56.49	-14.86	QP
8	0.4715	24.32	9.66	33.98	46.49	-12.51	AVG
9	4.7683	32.32	9.72	42.04	56.00	-13.96	QP
10	4.7683	24.18	9.72	33.90	46.00	-12.10	AVG
11	7.8265	36.16	9.76	45.92	60.00	-14.08	QP
12	7.8265	27.79	9.76	37.55	50.00	-12.45	AVG

Temperature:	25 ℃	Relative Humidity:	54%
Pressure:	101kPa	Phase :	N
Test Voltage :	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1874	47.25	9.68	56.93	64.15	-7.22	QP
2 *	0.1874	40.79	9.68	50.47	54.15	-3.68	AVG
3	0.2513	39.25	9.66	48.91	61.71	-12.80	QP
4	0.2513	32.03	9.66	41.69	51.71	-10.02	AVG
5	0.3181	34.52	9.66	44.18	59.76	-15.58	QP
6	0.3181	28.18	9.66	37.84	49.76	-11.92	AVG
7	0.3928	28.55	9.67	38.22	58.00	-19.78	QP
8	0.3928	19.33	9.67	29.00	48.00	-19.00	AVG
9	3.6991	28.01	9.72	37.73	56.00	-18.27	QP
10	3.6991	19.77	9.72	29.49	46.00	-16.51	AVG
11	8.2276	33.37	9.77	43.14	60.00	-16.86	QP
12	8.2276	25.74	9.77	35.51	50.00	-14.49	AVG

Remark:

Margin = Limit – Level, Correct Factor = Cable lose + LISN insertion loss, Level= Reading + Correct factor

6 Radiated Spurious Emissions

Test Requirement	:	FCC CFR47 Part 15 Section 15.209 & 15.239
Test Method	:	ANSI C63.10:2020
Test Result	:	PASS
Measurement Distance	:	3m
Limit	:	See the follow table

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.209&15.239 limit in the table below has to be followed.

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))}$ + 80
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))}$ + 40
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)}$ + 40
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

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FUNDAMENTAL AND HARMONICS EMISSION LIMITS

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. The provisions in § 15.35 for limiting peak emissions apply.

FREQUENCY RANGE OF RADIATED MEASUREMENT (For intentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

6.1 EUT Operation

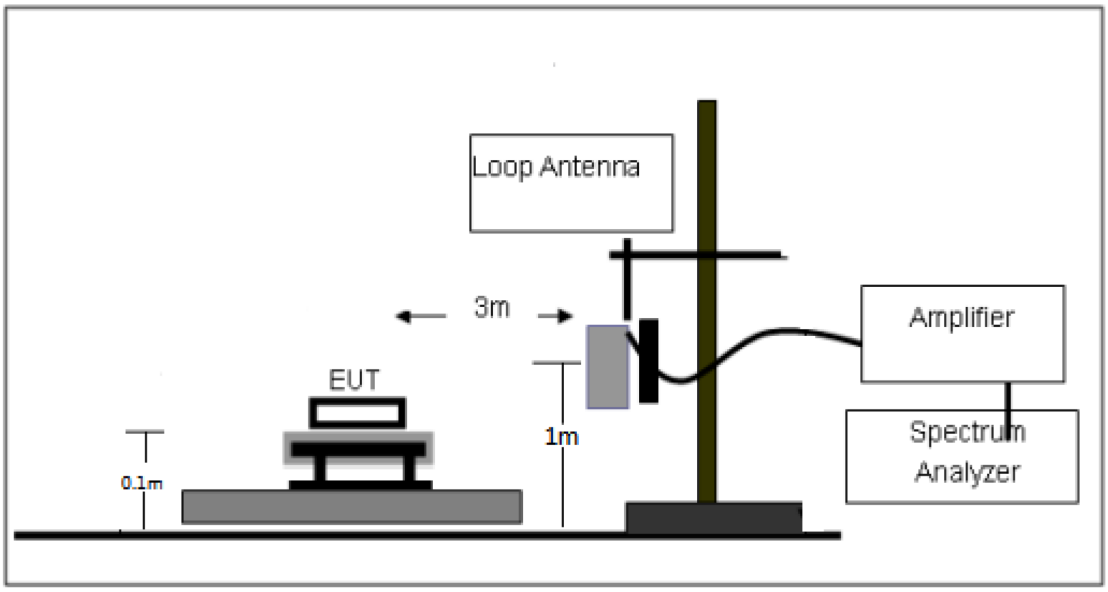
Operating Environment :

Temperature	:	25 °C
Humidity	:	54 % RH
Atmospheric Pressure	:	101kPa

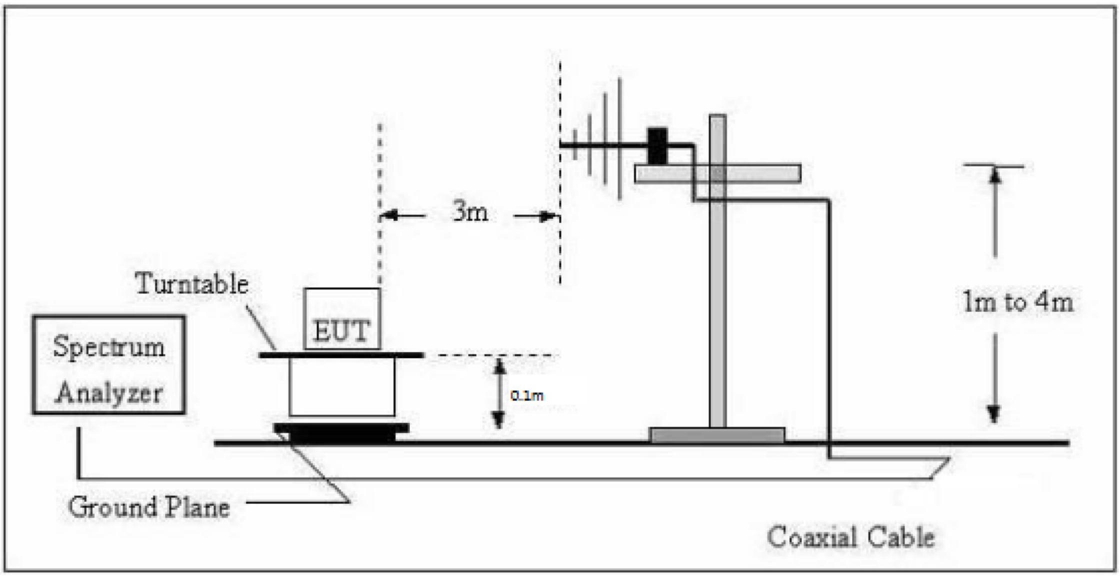
6.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site

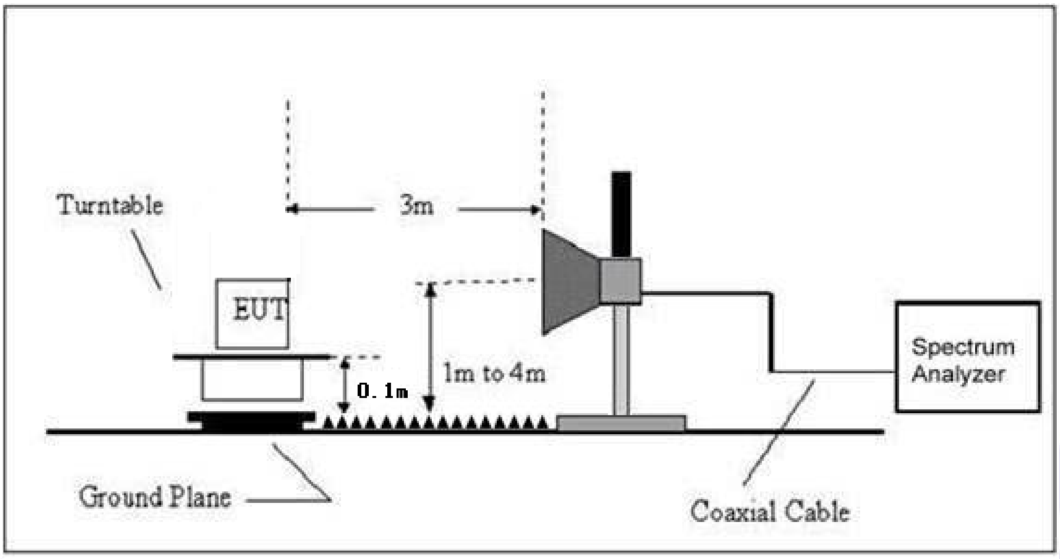
The test setup for emission measurement below 30MHz



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz



6.3 Spectrum Analyzer Setup

	Frequency	Detector	RBW	VBW	Remark
Receiver Setup	Below 30MHz	--	10kHz	10kHz	--
	30MHz ~ 1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		RMS	1MHz	3MHz	Average Value

6.4 Test Procedure

1. The testing follows the guidelines in Spurious Radiated Emissions of ANSI C63.10-2020.

2. Below 1000MHz, The EUT was placed on a turn table which is 0.1m above ground plane. And above 1000MHz, The EUT was placed on a styrofoam table which is 0.1m above ground plane.

3. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (From 1m to 4m) and turntable (from 0 degree to 360 degree) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.

5. Set to the maximum power setting and enable the EUT transmit continuously.

6. Final measurement (Above 1GHz): The frequency range will be divided into different sub ranges depending of the frequency range of the used horn antenna. The EMI Receiver set to peak and average mode and a resolution bandwidth of 1MHz. The measurement will be performed in horizontal and vertical polarization of the measuring antenna and while rotating the EUT in its vertical axis in the range of 0 degree to 360 degree in order to have the antenna inside the cone of radiation.

7. Test Procedure of measurement (For Above 1GHz):

1) Monitor the frequency range at horizontal polarization and move the antenna over all sides of the EUT(if necessary move the EUT to another orthogonal axis).

2) Change the antenna polarization and repeat 1) with vertical polarization.

3) Make a hardcopy of the spectrum.

4) Measure the frequency of the detected emissions with a lower span and resolution bandwidth to increase the accuracy and note the frequency value.

5) Change the analyser mode to Clear/ Write and found the cone of emission.

6) Rotate and move the EUT, so that the measuring distance can be enlarged to 3m and the antenna will be still inside the cone of emission.

7) Measure the level of the detected frequency with the correct resolution bandwidth, with the antenna polarization and azimuth and the peak and average detector, which causes the maximum emission.

8) Repeat steps 1) to 7) for the next antenna spot if the EUT is larger than the antenna beamwidth.

8. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.

6.5 Summary of Test Results

Test Frequency: 9KHz-30MHz

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV/m)	Limit 3m (dBuV/m)	Over (dB)
--	--	--	--	>20

Note:

The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

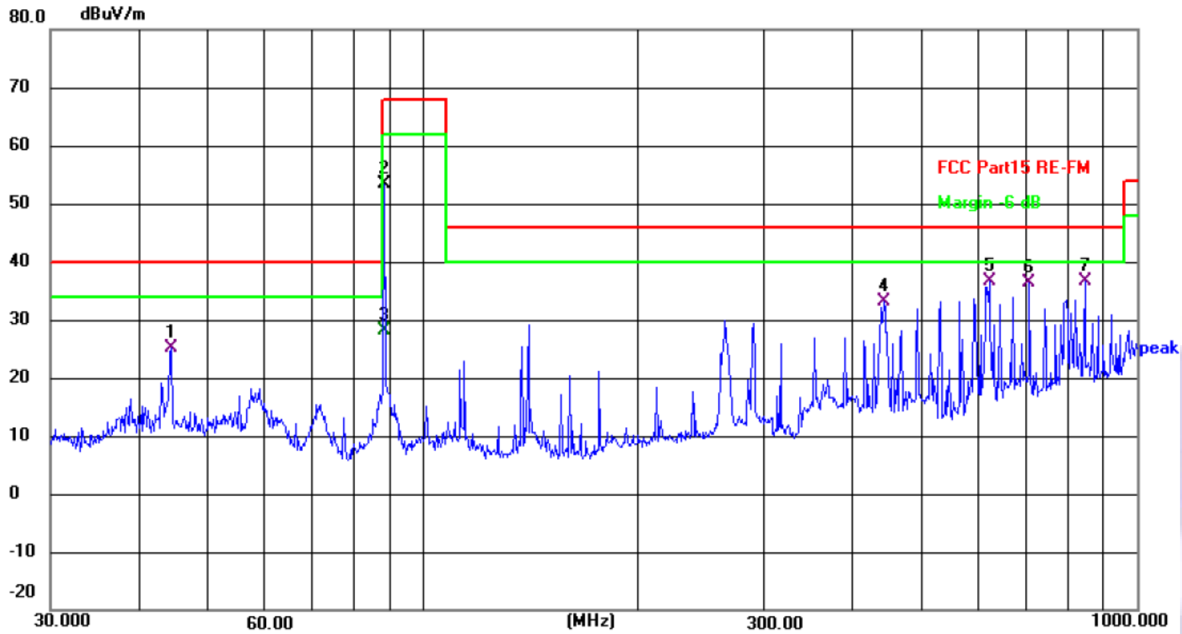
Distance extrapolation factor =40log(Specific distance/ test distance)(dB);
Limit line=Specific limits(dBuV) + distance extrapolation factor.

Test Frequency: 30MHz ~ 1GHz

Pass.

Please refer to the following test plots for the worst test mode (CH01: 88.1MHz).

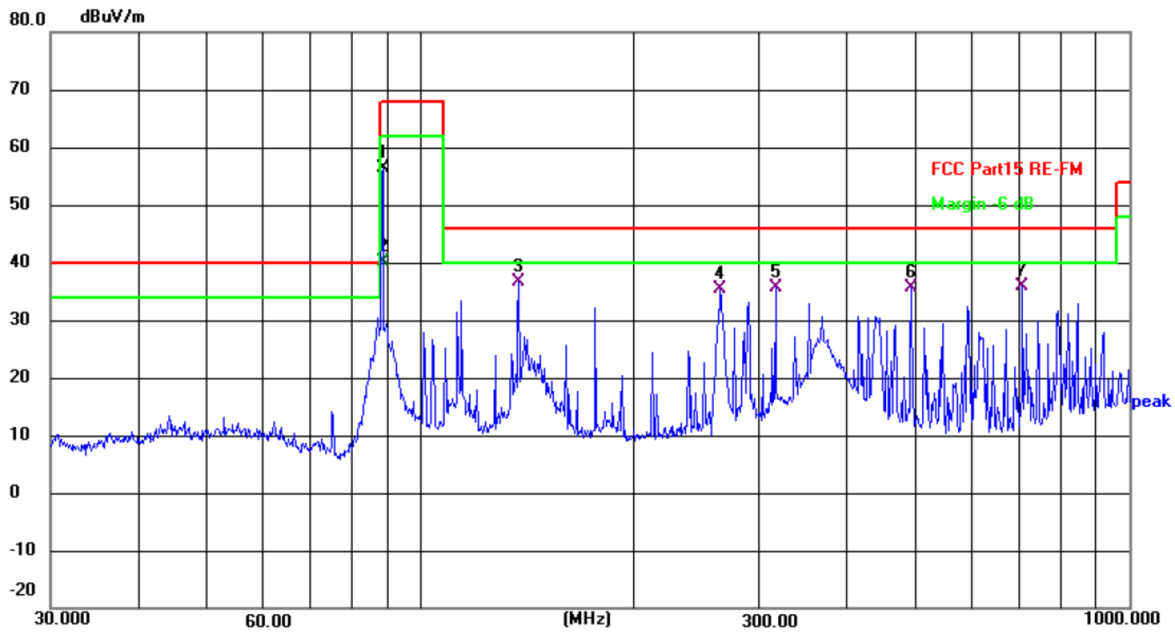
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Vertical
Test Voltage:	DC 57.6V		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	44.2751	39.67	-14.42	25.25	40.00	-14.75	QP
2	88.0330	71.97	-18.62	53.35	68.00	-14.65	peak
3	88.0330	56.71	-18.62	38.09	48.00	-9.91	AVG
4	441.7425	43.75	-10.66	33.09	46.00	-12.91	QP
5	620.7096	44.77	-8.23	36.54	46.00	-9.46	QP
6	706.6997	42.70	-6.20	36.50	46.00	-9.50	QP
7	845.0877	40.85	-4.20	36.65	46.00	-9.35	QP

Remark:Emission Level=Reading+Cable Loss+ANT Factor-AMP Factor

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	DC 57.6V		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	88.3421	75.06	-18.56	56.50	68.00	-11.50	peak
2	88.3421	58.59	-18.56	40.03	48.00	-7.97	AVG
3	137.4200	55.98	-19.31	36.67	46.00	-9.33	QP
4	264.7456	50.08	-14.64	35.44	46.00	-10.56	QP
5	316.5890	48.93	-13.37	35.56	46.00	-10.44	QP
6	492.4685	45.33	-9.74	35.59	46.00	-10.41	QP
7	706.6997	42.20	-6.20	36.00	46.00	-10.00	QP

Remark:Emission Level=Reading+Cable Loss+ANT Factor-AMP Factor

FIELD STRENGTH CALCULATION

Frequency	Emission Level	Limits	Margin	Horizontal / Vertical	Detector Type
MHz	dBμV/m	dBμV/m	dBμV/m		
88.10	56.50	68.00	-11.5	H	PK
88.10	40.03	48.00	-7.97	H	AV
88.10	53.35	68.00	-14.65	V	PK
88.10	38.09	48.00	-9.91	V	AV
98.00	52.62	68.00	-15.38	H	PK
98.00	35.08	48.00	-12.92	H	AV
98.00	51.47	68.00	-16.53	V	PK
98.00	30.92	48.00	-17.08	V	AV
107.99	51.68	68.00	-16.32	H	PK
107.99	36.11	48.00	-11.89	H	AV
107.99	50.62	68.00	-17.38	V	PK
107.99	31.97	48.00	-16.03	V	AV

Test Frequency 1GHz-6GHz:

Polar (H/V)	Frequency	Meter Reading	Pre-amplifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	1054.1	38.74	39.55	7.77	25.66	32.62	74.00	-41.38	Pk
V	1054.1	31.20	39.55	7.77	25.66	25.08	54.00	-28.92	AV
V	1183.6	39.47	38.33	7.30	24.55	32.99	74.00	-41.01	Pk
V	1183.6	32.84	38.33	7.30	24.55	26.36	54.00	-27.64	AV
V	1249.8	40.77	35.23	7.60	26.38	39.52	74.00	-34.48	Pk
V	1249.8	31.62	35.23	7.60	26.38	30.37	54.00	-23.63	AV
H	1133.5	43.54	38.34	7.32	24.46	36.98	74.00	-37.02	Pk
H	1133.5	26.50	38.34	7.32	24.46	19.94	54.00	-34.06	AV
H	1270.6	39.53	35.12	7.51	26.31	38.23	74.00	-35.77	Pk
H	1270.6	31.19	35.12	7.51	26.31	29.89	54.00	-24.11	AV
H	1395.8	38.56	35.45	7.68	23.81	34.60	74.00	-39.40	Pk
H	1395.8	29.76	35.45	7.68	23.81	25.80	54.00	-28.20	AV

Note: 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,

Margin= Emission Level - Limit

2. If peak below the average limit, the average emission was no test.

3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Spurious Emission in Restricted Band

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
88.1MHz							
V	75.05	34.62	-19.55	15.07	40	-24.93	Pk
V	88.00	38.84	-19.58	19.26	40	-20.74	AV
V	75.05	34.94	-19.55	15.39	40	-24.61	Pk
V	88.00	34.90	-19.58	15.32	40	-24.68	AV
107.90MHz							
H	108.00	43.75	-19.55	24.20	40.00	-15.80	Pk
H	109.24	41.85	-19.58	22.27	40.00	-17.73	AV
H	108.00	37.71	-19.55	18.16	40.00	-21.84	Pk
H	109.24	37.28	-19.58	17.70	40.00	-22.30	AV

Note: 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,

Factor= Antenna Factor + Cable Loss – Pre-amplifier

Margin= Emission Level - Limit

2. If peak below the average limit, the average emission was no test.

3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Hotline: 400-8868-419 Fax: 86-755-27790922 http://www.ncttesting.cn

7 Bandwidth Measurement

Test Requirement	:	FCC CFR47 Part 15 Section 15.239
Test Method	:	ANSI C63.10:2020
Test Limit	:	Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency.

7.1 Test Procedure

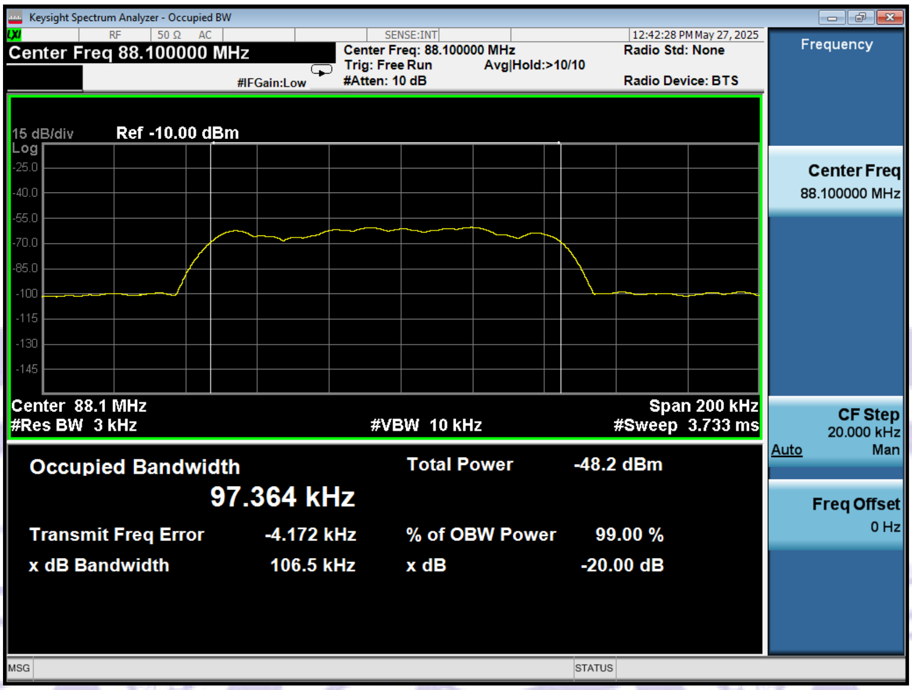
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 3kHz, VBW ≥ 3*RBW

7.2 Test Result

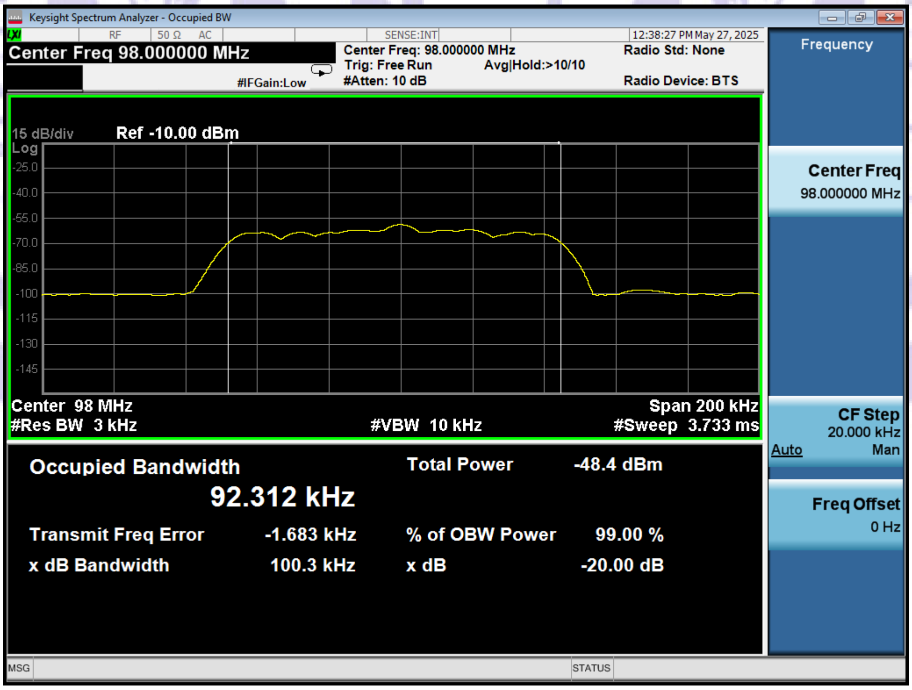
Channel number	Channel frequency (MHz)	20dB bandwidth (kHz)	99%dB bandwidth (kHz)	Required Limit (KHz)
01	88.10	106.5	97.364	200
100	98.00	100.3	92.312	200
199	107.90	105.0	96.249	200

Hotline: 400-8868-419 Fax: 86-755-27790922 http://www.ncttesting.cn

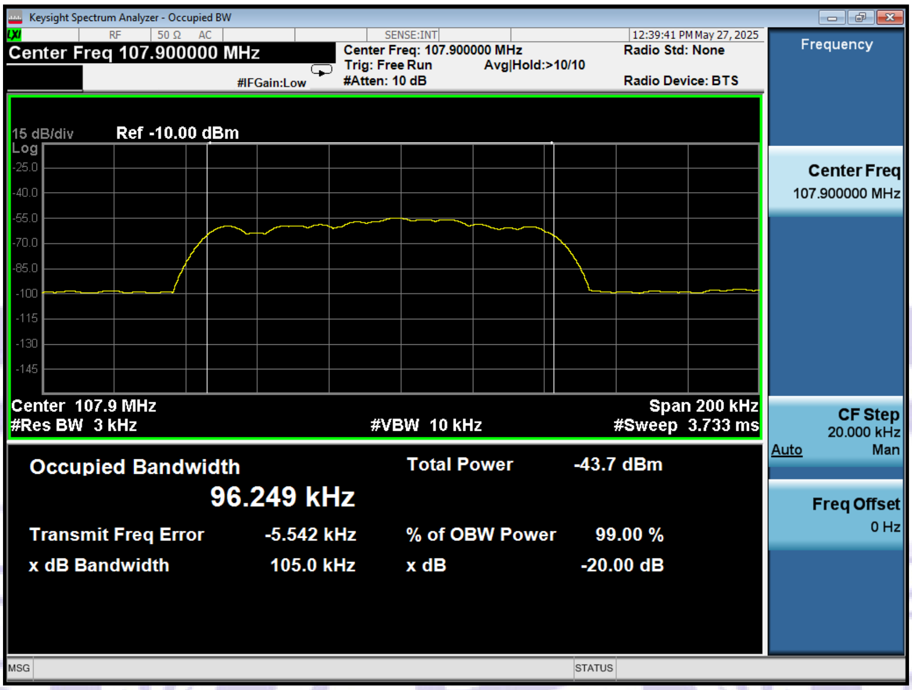
CH01


Keysight Spectrum Analyzer - Occupied BW
Center Freq 88.100000 MHz
Center Freq: 88.100000 MHz
Trig: Free Run Avg|Hold:>10/10
#Atten: 10 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
12:42:28 PM May 27, 2025
Frequency
15 dB/div Ref -10.00 dBm
Log
Center 88.1 MHz
#Res BW 3 kHz
#VBW 10 kHz
Span 200 kHz
#Sweep 3.733 ms
Center Freq
88.100000 MHz
CF Step
20.000 kHz
Auto Man
Freq Offset
0 Hz
Occupied Bandwidth
97.364 kHz
Total Power -48.2 dBm
Transmit Freq Error -4.172 kHz
% of OBW Power 99.00 %
x dB Bandwidth 106.5 kHz
x dB -20.00 dB
MSG
STATUS

CH100


Keysight Spectrum Analyzer - Occupied BW
Center Freq 98.000000 MHz
Center Freq: 98.000000 MHz
Trig: Free Run Avg|Hold:>10/10
#Atten: 10 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
12:38:27 PM May 27, 2025
Frequency
15 dB/div Ref -10.00 dBm
Log
Center 98 MHz
#Res BW 3 kHz
#VBW 10 kHz
Span 200 kHz
#Sweep 3.733 ms
Center Freq
98.000000 MHz
CF Step
20.000 kHz
Auto Man
Freq Offset
0 Hz
Occupied Bandwidth
92.312 kHz
Total Power -48.4 dBm
Transmit Freq Error -1.683 kHz
% of OBW Power 99.00 %
x dB Bandwidth 100.3 kHz
x dB -20.00 dB
MSG
STATUS

CH199


Keysight Spectrum Analyzer - Occupied BW
Center Freq 107.900000 MHz
Center Freq: 107.900000 MHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 10 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
12:39:41 PM May 27, 2025
Frequency
15 dB/div
Log
Ref -10.00 dBm
Center 107.9 MHz
#Res BW 3 kHz
#VBW 10 kHz
Span 200 kHz
#Sweep 3.733 ms
Occupied Bandwidth
96.249 kHz
Total Power -43.7 dBm
Transmit Freq Error -5.542 kHz
% of OBW Power 99.00 %
x dB Bandwidth 105.0 kHz
x dB -20.00 dB
Center Freq
107.900000 MHz
CF Step
20.000 kHz
Auto Man
Freq Offset
0 Hz

8 Antenna Application

8.1 Antenna Requirement

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 15.247 (b), 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.

8.2 Result

The antenna is PCB antenna, the best case gain of the antennas is -0.58 dBi, reference to the appendix for details.

9 EUT Photo and Test Setup Photo

Please see the attachment for details.

******THE END REPORT******