FCC TEST REPORT

Test report
On Behalf of

Chengdu YiLe Electronic Technology Company Ltd.

For
FM transmitter

Model No.: CD01, 15S

FCC ID: 2AX3Y-RFSOUND01

Prepared for :	**Chengdu YiLe Electronic Technology Company Ltd.** **Room 11 1F Unit 1, Block 4， No. 1, Beidong Street, Qing Yang District, Chengdu, China**
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:	**Oct. 14, 2020 -- Oct. 27, 2020**
Date of Report:	**Oct. 27, 2020**
Report Number:	**HK2010213016-E**

TEST RESULT CERTIFICATION

Applicant's name .....:	Chengdu YiLe Electronic Technology Company Ltd.
Address .....:	Room 11 1F Unit 1, Block 4，No. 1, Beidong Street, Qing Yang District, Chengdu, China
Manufacture's Name.....:	Chengdu YiLe Electronic Technology Company Ltd.
Address .....:	Room 11 1F Unit 1, Block 4，No. 1, Beidong Street, Qing Yang District, Chengdu, China
Product description	
Trade Mark .....:	rfsound / 雨林声 / joysound / 欣宜乐
Product name.....:	FM transmitter
Model and/or type reference .:	CD01, 15S
Standards.....:	FCC Part 15 Subpart C Section 15.239

Date of Test.....:	
Date (s) of performance of tests.....:	Oct. 14, 2020 -- Oct. 27, 2020
Date of Issue .....:	Oct. 27, 2020
Test Result.....:	**Pass**

Testing Engineer : Gary Qian

(Gary Qian)

Technical Manager : Eden Hu

(Eden Hu)

Authorized Signatory : Jason Zhou

(Jason Zhou)

TABLE OF CONTENTS

1 TEST SUMMARY

1.1 TEST PROCEDURES AND RESULTS

Requirement	CFR 47 Section	Result
Conducted Emission	part 15.207	PASS
Field Strength of Fundamental	part 15.239(b)	PASS
Occupied Bandwidth Emission	part 15.239(a)	PASS
Spurious Emission	part 15.209/15.239(c)	PASS
Antenna Requirement	Part 15.203	PASS

Note:

1. PASS: Test item meets the requirement.

2. Fail: Test item does not meet the requirement.

3. N/A: Test case does not apply to the test object.

4. The test result judgment is decided by the limit of test standard.

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	±2.56dB
2	RF power, conducted	±0.12dB
3	Spurious emissions, conducted	±0.11dB
4	All emissions, radiated(<1G)	±3.92dB
5	All emissions, radiated(>1G)	±4.28dB
6	Temperature	±0.1°C
7	Humidity	±1.0%

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	FM transmitter
Model Name	CD01
Serial No.	15S
Trade Mark	rfsound / 雨林声 / joysound / 欣宜乐
FCC ID	2AX3Y-RFSOUND01
Hardware Version:	V1.5
Software Version:	V1.1
Operation frequency:	88.1-107.9MHz
Channel number:	199
Channel separation:	100KHz
Antenna Type	Glue stick antenna
Antenna Gain	2.5dBi
Modulation Type	FM
Power Source	DC 12V from adapter

2.2 Carrier Frequency of Channels

Operation Frequency List:

Channel	Frequency (MHz)
01	88.1
02	88.2
⋮	⋮
100	98.0
101	98.1
102	98.2
⋮	⋮
198	107.8
199	107.9

Note: The line display in grey is the channel selected to perform test.

2.3 Operation of EUT during testing

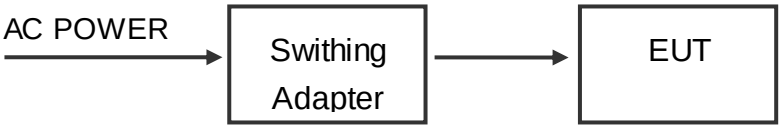
Operating Mode:

Transmitting mode

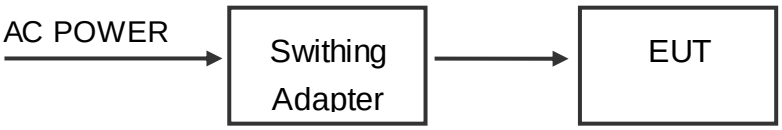
Low Channel:	CH001: 88.1MHz
Middle Channel:	CH101: 98.1MHz
High Channel:	CH199:107.9MHz

2.4 DESCRIPTION OF TEST SETUP

Operation of EUT during conducted testing and Radiation testing:



Operation of EUT Above1GHz Radiation testing:



2.5 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.

Description	Model No.	Manufacturer	Remark	Certificate
Adapter	Model: YH-AE-120A300-CH Input:100-240V,50/60Hz, 1A Max Output: 12V 3A	PHICOMM	Provided by applicant	SDOC

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

3. For conducted measurements (Output Power, 6dB Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

2.6 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	R&S	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	EMC051845SE	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	JS1120-B Version	HKE-083	/	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. 26, 2019	3 Year
19.	Power Meter	R&S	NRVD	SEL0069	Dec. 26, 2019	1 Year
20	High Gain Antenna	Schewarzbeck	LB-180400KF	HKE-054	Dec. 26, 2019	1 Year
21	RF COMMUNICATION TEST SET	HP	8920A	HKE-129	Dec. 26, 2019	1 Year

3 TEST RESULTS AND MEASUREMENT DATA

3.1 CONDUCTED EMISSIONS TEST

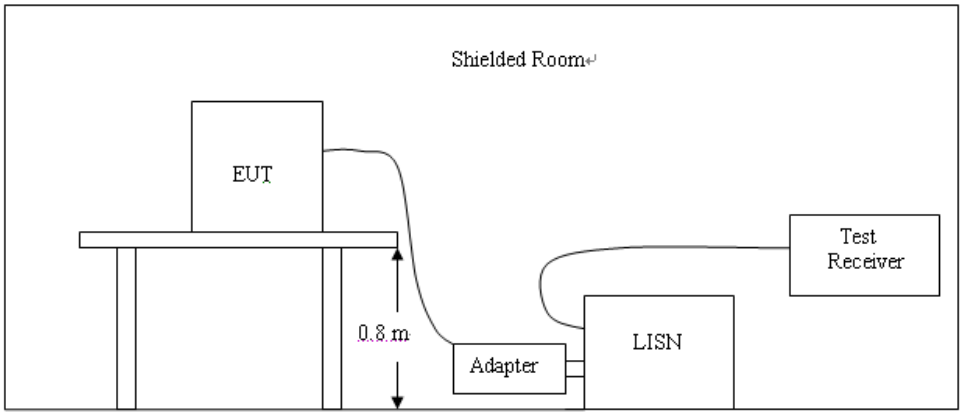
LIMIT

According to FCC CFR Title 47 Part 15 Subpart C Section 15.207 and RSS Gen 8.8, AC Power Line Conducted Emissions Limits for Licence-Exempt Radio Apparatus as below:

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 CONFIGURATION



TEST PROCEDURE

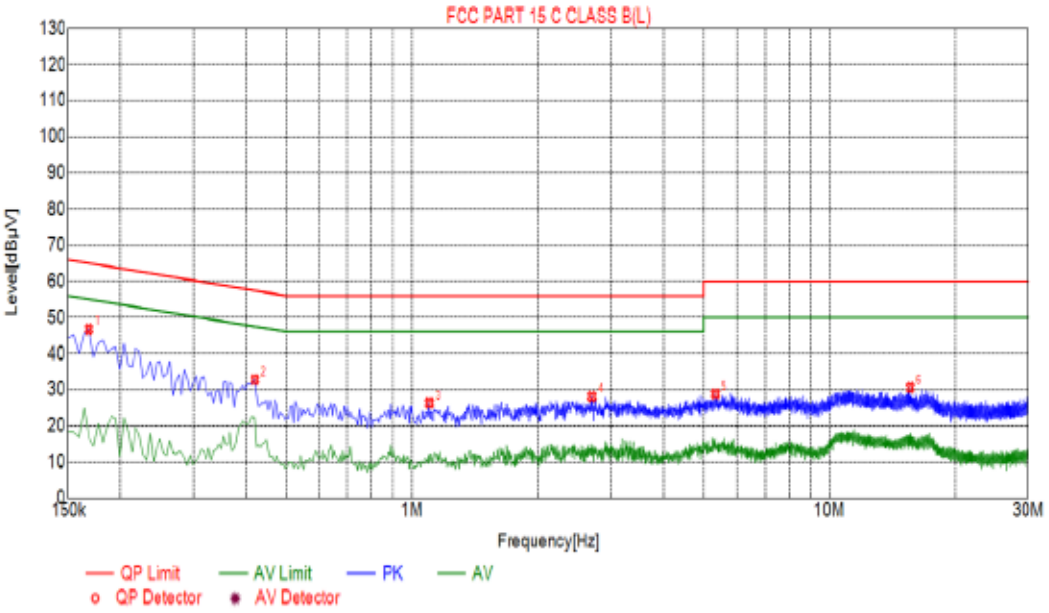
1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10:2013.
2. Support equipment, if needed, was placed as 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 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.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST RESULTS

Test Specification: Line

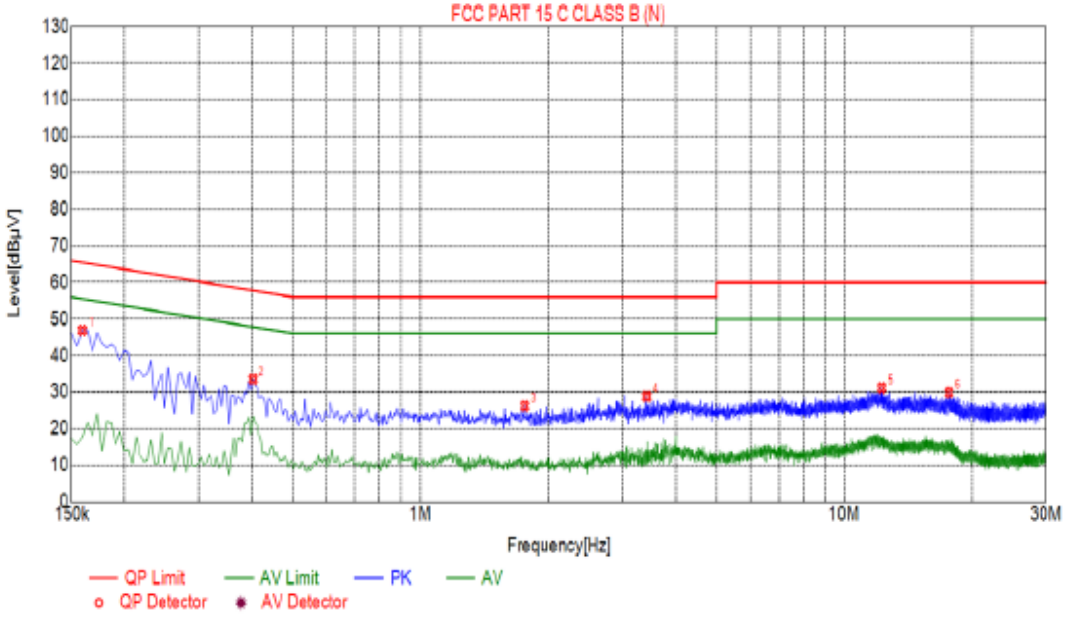


Suspected List

NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1680	46.75	20.01	65.06	18.31	26.74	PK	L
2	0.4200	32.83	20.04	57.45	24.62	12.79	PK	L
3	1.0995	26.32	20.07	56.00	29.68	6.25	PK	L
4	2.6970	28.15	20.21	56.00	27.85	7.94	PK	L
5	5.3250	28.87	20.26	60.00	31.13	8.61	PK	L
6	15.6165	30.65	19.97	60.00	29.35	10.68	PK	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	0.1590	46.87	20.01	65.52	18.65	26.86	PK	N
2	0.4020	33.52	20.04	57.81	24.29	13.48	PK	N
3	1.7610	26.21	20.14	56.00	29.79	6.07	PK	N
4	3.4215	28.81	20.24	56.00	27.19	8.57	PK	N
5	12.2640	31.15	19.98	60.00	28.85	11.17	PK	N
6	17.6685	29.88	20.02	60.00	30.12	9.86	PK	N

Remark: Margin = Limit – Level
Correction factor = Cable lose + LISN insertion loss
Level=Test receiver reading + correction factor

Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Cable Loss.*

If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

3.2 RADIATED EMISSION TEST

Limit

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. The provisions in §15.35 for limiting peak emissions apply.
Unless otherwise specified, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.

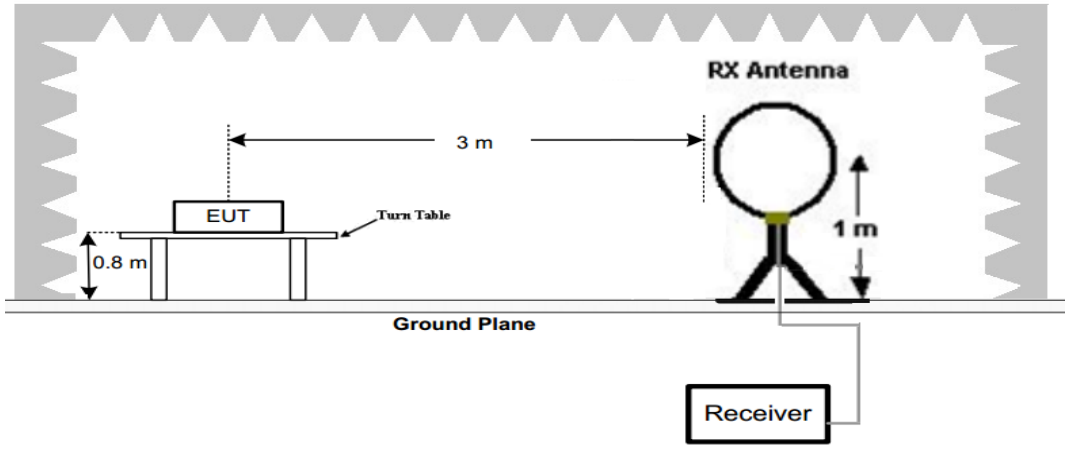
The field strength of any emissions radiated on any frequency outside of the specified 200 kHz band shall not exceed the general radiated emission limits in § 15.209 as table below:

Radiated emission limits

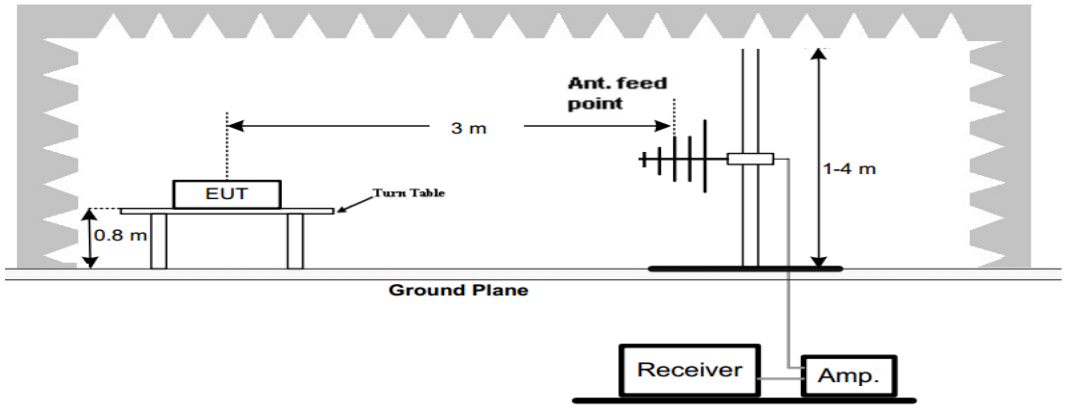
Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST CONFIGURATION

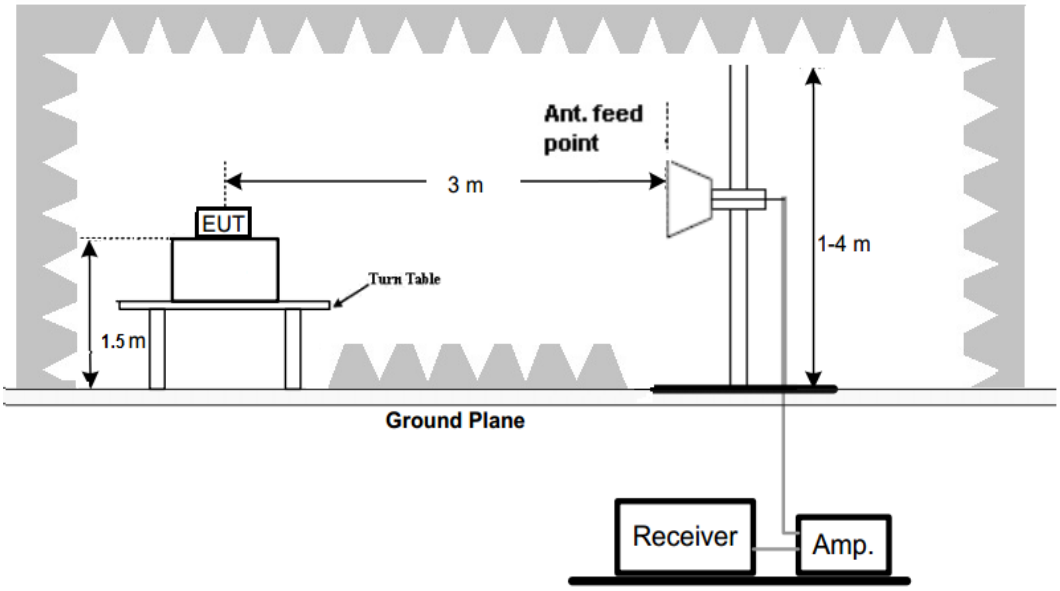
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



Frequency :9kHz-30MHz	Frequency :30MHz-1GHz	Frequency :Above 1GHz
RBW=10KHz,	RBW=120KHz,	RBW=1MHz,
VBW =30KHz	VBW=300KHz	VBW=3MHz(Peak), 10Hz(AV)
Sweep time= Auto	Sweep time= Auto	Sweep time= Auto
Trace = max hold	Trace = max hold	Trace = max hold
Detector function = peak	Detector function = peak	QP Detector function = peak, AV

Test Procedure

1) For tabletop measurements of radiated emissions from a device that directly injects an FM signal into a vehicle's wiring system through the CLA socket, the EUT arrangement shall be as depicted in below figure.
2) A representative sample of the transmitting CLA (EUT) shall be placed on an approved test tabletop 80 cm above the OATS or semi-anechoic chamber ground plane floor, along with a

vehicle battery, the FM source device, and all associated peripherals and interconnecting cables.
3) The EUT shall be connected to the vehicle battery with a 12 AWG or 14 AWG diameter twisted pair cable of 1 m in length. The twisted pair cable shall have a minimum of 12 turns, and care shall be taken to confirm that the twists go all the way to both ends of the cable.
4) A socket may be attached to the CLA side of the twisted pair for easier connection to the EUT, or the wires may be connected directly to the CLA positive and negative terminals.
5) All peripherals and devices shall be spaced 10 cm apart along the back edge of the table surface. The EUT shall be placed next to the vehicle battery, and the twisted pair cable shall be draped off the back of the test tabletop, i.e., not placed on the tabletop. All other cables used to connect the EUT to the peripherals and to the FM source device shall be placed on the test tabletop in a random fashion.
6) For measurements of FM transmitters, it is important that the prescan and final measurement procedures are followed to find maximum emissions.
7) For all measurements, the EUT settings that can be controlled by the end user, and that can affect the FM modulated signal, shall be adjusted to maximum settings.
8) The tabletop setup radiated emissions measurement shall be repeated with the device transmitting at the center of the transmitting band and at both band edges.
The following table is the setting of spectrum analyzer and receiver.

TEST RESULTS

Below 30MHz Test Results:

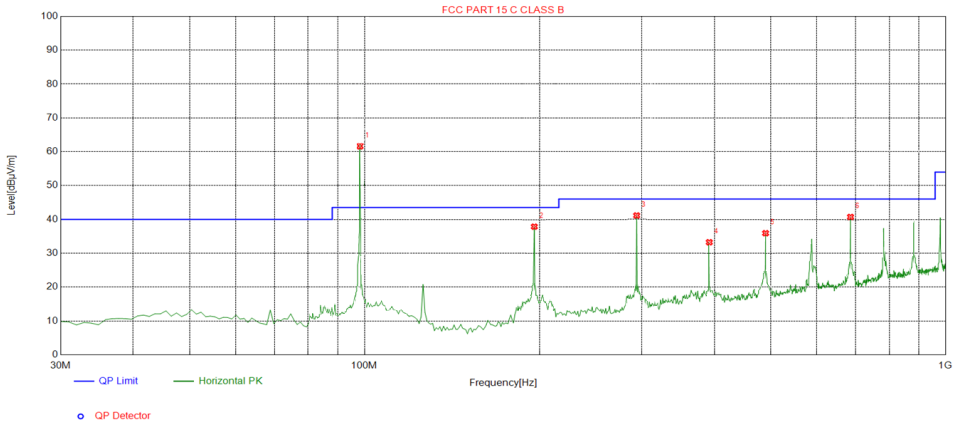
NO.	Frequency (MHz)	Reading (dBuV/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	Factor (dB)	Polarity
1	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--

NOTE:

Radiated emission test from 9KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor (more than 20dB below the limit) in 9KHz to 30MHz and not recorded in this report.

Radiated emissions: 30-1000MHz

Antenna polarity: H

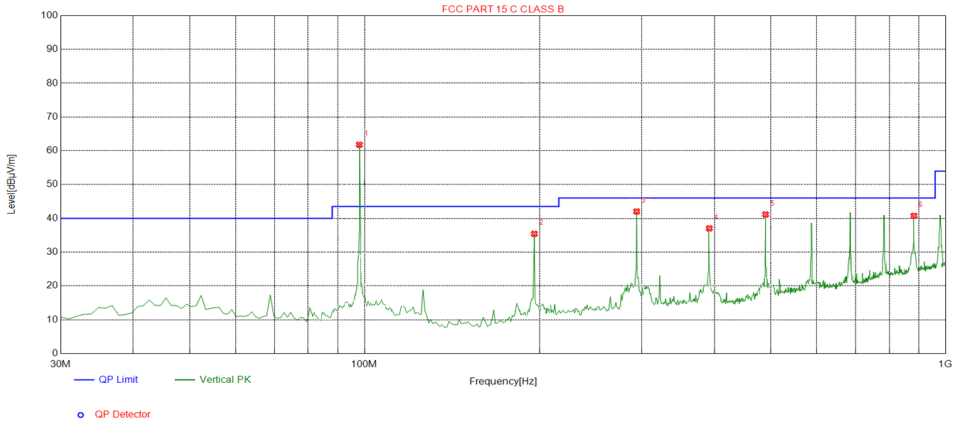


Suspected List

Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	97.9680	-15.74	76.47	60.73	43.50	-17.23	100	313	Horizontal
2	196.0360	-15.44	53.59	38.15	43.50	5.35	100	307	Horizontal
3	294.1041	-12.80	54.06	41.26	46.00	4.74	100	303	Horizontal
4	392.1722	-10.60	43.98	33.68	46.00	12.32	100	291	Horizontal
5	490.2402	-8.54	43.21	34.67	46.00	11.33	100	272	Horizontal
6	686.3764	-5.09	45.88	40.79	46.00	5.21	100	294	Horizontal

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

Antenna polarity: V



Suspected List

Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	97.9680	-15.74	76.25	60.51	43.50	-17.01	100	12	Vertical
2	196.0360	-15.44	52.68	37.24	43.50	6.26	100	168	Vertical
3	294.1041	-12.80	54.31	41.51	46.00	4.49	100	40	Vertical
4	392.1722	-10.60	46.07	35.47	46.00	10.53	100	12	Vertical
5	490.2402	-8.54	45.42	26.88	46.00	9.12	100	28	Vertical
6	882.5125	-2.02	42.99	40.97	46.00	5.03	100	152	Vertical

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

30MHz- 10th Harmonic of Fundamental

Frequency(MHz):				88.1		Polarity:			HORIZONTAL	
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
1	88.10	58.46	PK	68	9.54	77.99	8.72	0.56	28.81	-19.53
1	88.10	39.46	AV	48	8.54	58.99	8.72	0.56	28.81	-19.53
2	88.00	38.65	QP	40	1.35	58.21	8.7	0.55	28.81	-19.56
3	176.20	38.80	QP	43.5	4.70	54.46	11.95	1.05	28.66	-15.66
4	264.30	38.29	QP	46	7.71	52.69	12.86	1.48	28.74	-14.4
5	352.40	38.44	QP	46	7.56	50.49	14.32	1.95	28.32	-12.05
6	440.50	38.37	QP	46	7.63	48.58	16.57	2.18	28.96	-10.21
7	616.70	36.93	QP	46	9.07	45.24	18.32	2.24	28.87	-8.31
8	704.80	39.18	QP	46	6.82	44.59	20.19	3.09	28.69	-5.41

Frequency(MHz):				88.1		Polarity:			Vertical	
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
1	88.10	59.65	PK	68	8.35	79.18	8.72	0.56	28.81	-19.53
1	88.10	39.30	AV	48	8.70	58.83	8.72	0.56	28.81	-19.53
2	88.00	39.52	QP	40	0.48	59.08	8.7	0.55	28.81	-19.56
3	176.20	40.53	QP	43.5	2.97	56.19	11.95	1.05	28.66	-15.66
4	264.30	39.62	QP	46	6.38	54.02	12.86	1.48	28.74	-14.4
5	352.40	40.21	QP	46	5.79	52.26	14.32	1.95	28.32	-12.05
6	440.50	39.80	QP	46	6.20	50.01	16.57	2.18	28.96	-10.21
7	616.70	37.01	QP	46	8.99	45.32	18.32	2.24	28.87	-8.31
8	704.80	39.73	QP	46	6.27	45.14	20.19	3.09	28.69	-5.41

Frequency(MHz):		98.1				Polarity:			HORIZONTAL	
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
1	98.10	60.73	PK	68	7.27	80.23	8.78	0.57	28.85	-19.5
1	98.10	40.46	AV	48	7.54	59.96	8.78	0.57	28.85	-19.5
2	196.2	43.33	QP	40	-3.33	59.12	11.98	1.11	28.88	-15.79
3	294.3	43.07	QP	43.5	0.43	57.33	13.11	1.54	28.91	-14.26
4	392.4	39.10	QP	46	6.90	51.37	14.58	2.2	29.05	-12.27
5	490.5	39.28	QP	46	6.72	50.51	15.64	2.23	29.1	-11.23
6	588.6	42.64	QP	46	3.36	50.82	18.69	2.28	29.15	-8.18
7	686.7	42.47	QP	46	3.53	47.24	21.59	3.26	29.62	-4.77

Frequency(MHz):		98.1				Polarity:			Vertical	
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
1	98.10	60.51	PK	68	7.49	80.01	8.78	0.57	28.85	-19.5
1	98.10	38.67	AV	48	9.33	58.17	8.78	0.57	28.85	-19.5
2	196.2	43.56	QP	40	-3.56	59.35	11.98	1.11	28.88	-15.79
3	294.3	41.47	QP	43.5	2.03	55.73	13.11	1.54	28.91	-14.26
4	392.4	41.92	QP	46	4.08	54.19	14.58	2.2	29.05	-12.27
5	490.5	39.66	QP	46	6.34	50.89	15.64	2.23	29.1	-11.23
6	588.6	41.40	QP	46	4.60	49.58	18.69	2.28	29.15	-8.18
7	686.7	40.53	QP	46	5.47	45.30	21.59	3.26	29.62	-4.77

Frequency(MHz):		107.9		Polarity:				HORIZONTAL	
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
1	107.90	51.88	PK	68.00	16.12	71.17	9.04	0.65	28.98	-19.29
1	107.90	42.25	AV	48.00	5.75	61.54	9.04	0.65	28.98	-19.29
2	108.00	38.04	QP	43.50	5.46	57.32	9.05	0.65	28.98	-19.28
3	215.8	44.36	QP	40	-4.36	59.77	12.14	1.35	28.9	-15.41
4	323.7	41.50	QP	43.5	2.00	55.19	13.58	1.68	28.95	-13.69
5	431.6	41.29	QP	46	4.71	54.02	14.25	2.04	29.02	-12.73
6	539.5	40.24	QP	46	5.76	51.72	15.47	2.13	29.08	-11.48
7	647.4	40.93	QP	46	5.07	48.65	19.11	2.39	29.22	-7.72
8	755.3	41.13	QP	46	4.87	46.13	21.34	3.17	29.51	-5

Frequency(MHz):		107.9		Polarity:				Vertical	
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
1	107.90	52.45	PK	68.00	15.55	71.74	9.04	0.65	28.98	-19.29
1	107.90	42.52	AV	48.00	5.48	61.81	9.04	0.65	28.98	-19.29
2	108.00	38.74	QP	43.50	4.76	58.02	9.05	0.65	28.98	-19.28
3	215.8	42.61	QP	40	-2.61	58.02	12.14	1.35	28.9	-15.41
4	323.7	42.69	QP	43.5	0.81	56.38	13.58	1.68	28.95	-13.69
5	431.6	40.89	QP	46	5.11	53.62	14.25	2.04	29.02	-12.73
6	539.5	41.88	QP	46	4.12	53.36	15.47	2.13	29.08	-11.48
7	647.4	42.88	QP	46	3.12	50.60	19.11	2.39	29.22	-7.72
8	755.3	40.30	QP	46	5.70	45.30	21.34	3.17	29.51	-5

REMARKS:

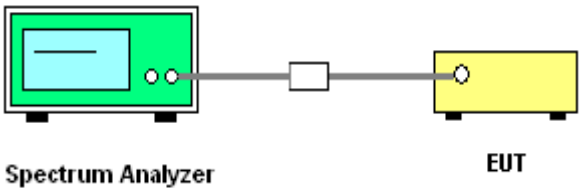
1. Emission level (dBuV/m) = Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) =Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. Margin value = Limit value- Emission level
4. -- Mean the PK detector measured value is below QP limit
5. The other emission levels were very low against the limit
6. For fundamental frequency, RBW 100KHz VBW 300 Hz Peak detectors is for PK Value; RMS detector is for AV value

3.5 OCCUPIED BANDWIDTH MEASUREMENT

Limit

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 88–108 MHz.

TEST CONFIGURATION



Test Procedure:

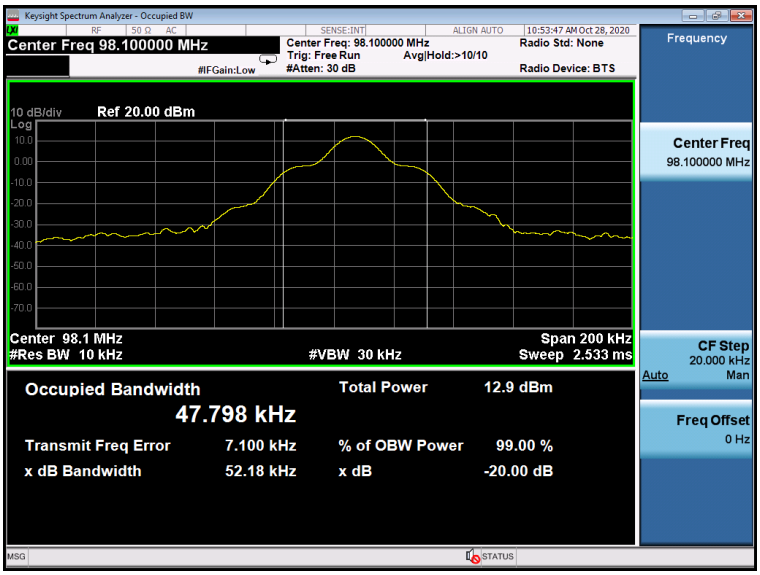
The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30 KHz RBW and 100 KHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

Test Results:

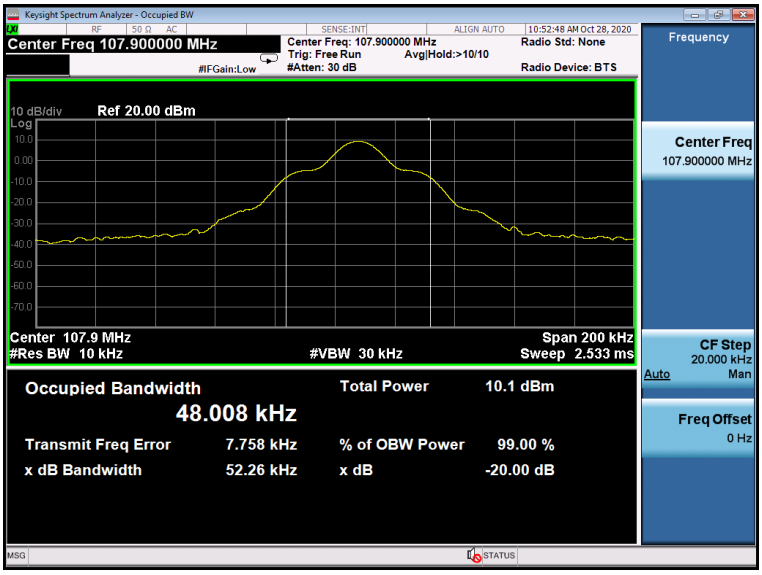
Modulation	Channel	99% OBW (KHz)	20dB bandwidth (KHz)	Result
FM	CH01	47.771	52.22	Pass
	CH101	47.798	52.18	
	CH199	48.008	52.26	

FM Modulation

CH01



CH101



CH199

3.5 Antenna Requirement

Standard Applicable

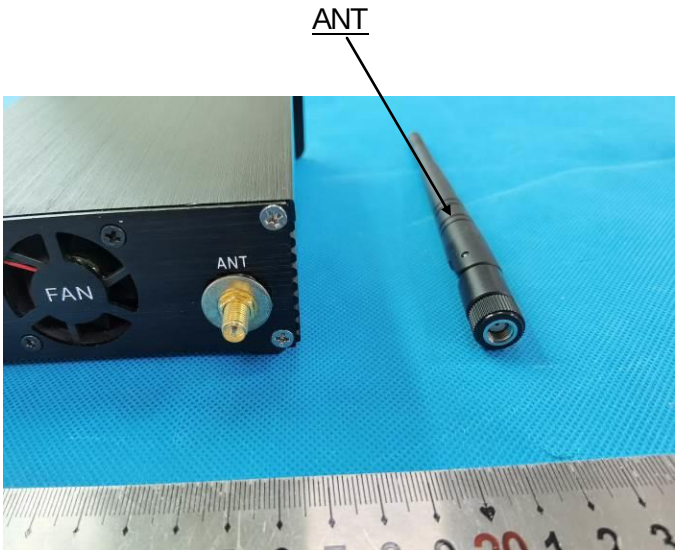
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

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.

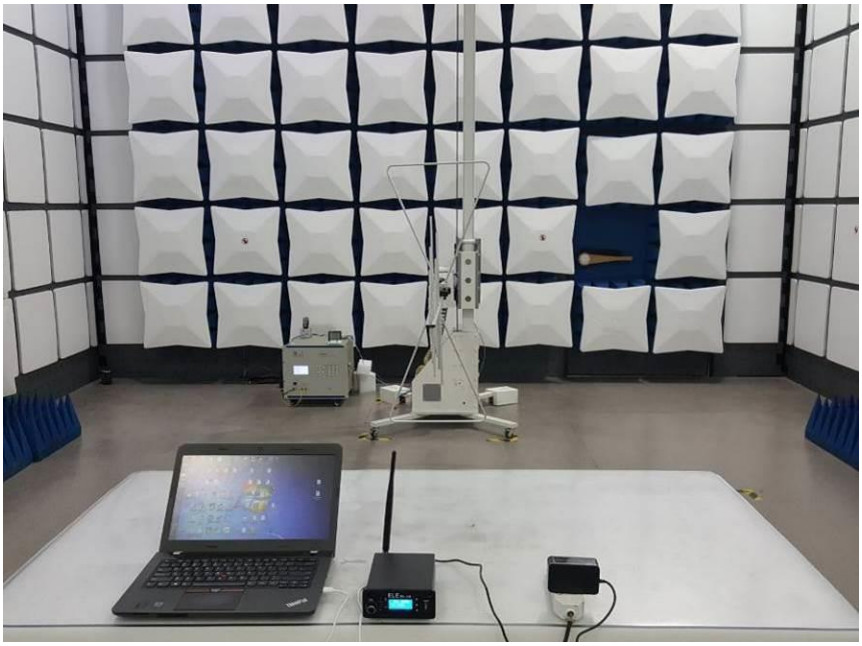
Antenna Connected Construction

The EUT has a unique antenna connector, compliance with the Part 15.203 antenna requirement.

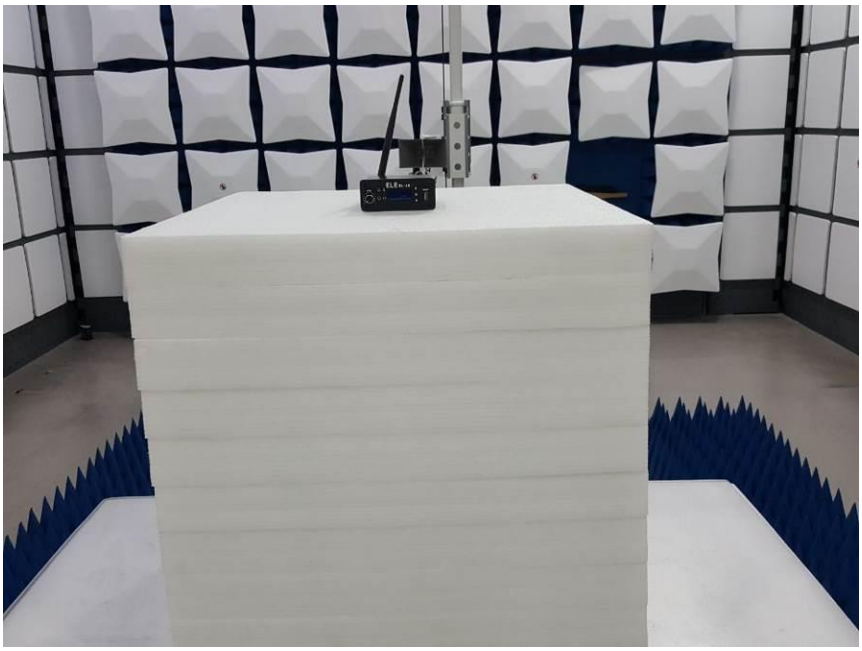


4 PHOTOGRAPH OF TEST

30MHz-1000MHz



Above 1000MHz



Conducted Emission

5 PHOTOGRAPH OF EUT

Please refer to the external photos and internal photos file

END