



# RF TEST REPORT

Product Name: Personal CD/MP3 Player with FM PLL Radio

Model Name: SB3706, SB3706MW, SB3706BP, SB3706BW, SB3706RW, SB3706XXXXXX (Where XXXXX denote any printable characters in the ASCII Standard Character Table to represent variances in cosmetics or buyers)

FCC ID: 2A38HSB3706

Issued For : Jenmart Industrial (HK) Co., Limited

Units A&B, 15/F, Neich Tower, 128 Gloucester Road, Wanchai,  
Hong Kong

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park,  
No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan  
District, Shenzhen, Guangdong, China

Report Number: LGT24G134RF02

Sample Received Date: Jul. 18, 2024

Date of Test: Jul. 18, 2024 – Aug. 20, 2024

Date of Issue: Aug. 20, 2024

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## TEST REPORT CERTIFICATION

**Applicant:** Jenmart Industrial (HK) Co., Limited  
**Address:** Units A&B, 15/F, Neich Tower, 128 Gloucester Road, Wanchai, Hong Kong

**Manufacturer:** Dongguan City Wangniudun Yinghui Electronics Factory  
**Address:** Chijiaoluduan Zhenzhong Road, Wangniudun Town, Dongguan City, China

**Product Name:** Personal CD/MP3 Player with FM PLL Radio

**Trademark:** Studebaker BRAND

**Model Name:** SB3706, SB3706MW, SB3706BP, SB3706BW, SB3706RW, SB3706XXXXX (Where XXXXX denote any printable characters in the ASCII Standard Character Table to represent variances in cosmetics or buyers)

**Sample Status:** Normal

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC Part 15.239, Subpart C ANSI C63.10-2013	PASS

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Technical Director





<b>Table of Contents</b>	<b>Page</b>
<b>1. SUMMARY OF TEST RESULTS</b>	<b>5</b>
1.1 TEST FACTORY	6
1.2 MEASUREMENT UNCERTAINTY	6
<b>2. GENERAL INFORMATION</b>	<b>7</b>
2.1 GENERAL DESCRIPTION OF THE EUT	7
2.2 DESCRIPTION OF THE TEST MODES	8
2.3 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	9
2.6 EQUIPMENTS LIST	10
<b>3. EMC EMISSION TEST</b>	<b>11</b>
3.1 CONDUCTED EMISSION MEASUREMENT	11
3.2 RADIATED EMISSION MEASUREMENT	15
<b>3.3 FIELD STRENGTH EMISSION</b>	<b>24</b>
3.3.1 REQUIREMENT	24
3.3.2 TEST SETUP	24
3.3.3 EUT OPERATION CONDITIONS	24
3.3.4 TEST RESULTS	25
<b>4. BANDWIDTH TEST</b>	<b>26</b>
4.4 EUT OPERATION CONDITIONS	27
4.5 TEST RESULTS	28
<b>5. ANTENNA REQUIREMENT</b>	<b>30</b>
5.1 STANDARD REQUIREMENT	30
5.2 EUT ANTENNA	30
<b>APPENDIX II - MEASUREMENT PHOTOS</b>	<b>31</b>
<b>APPENDIX III - PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS</b>	<b>32</b>



**Revision History**

Rev.	Issue Date	Revisions
00	Aug. 20, 2024	Initial Issue



## 1. SUMMARY OF TEST RESULTS

FCC Part 15.239, Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	--
15.209 15.239(b) (c)	Radiated Emission	PASS	--
15.239(b)	field strength emission	PASS	--
15.203	Antenna Requirement	PASS	--
15.239(a)	20dB Bandwidth	PASS	--

### NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report.
- (2) All tests are according to ANSI C63.10-2013.



## 1.1 TEST FACTORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate	A2LA Certificate No.: 6727.01
	FCC Registration No.: 746540
	CAB ID: CN0136

## 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded 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	Uncertainty
1	RF output power, conducted	$\pm 0.68\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.988\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 2.84\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.39\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 5.10\text{dB}$
6	All emissions, radiated >6G	$\pm 5.48\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.79\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.80\text{dB}$

Note: The measurement uncertainty is not included in the test result.



## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	Personal CD/MP3 Player with FM PLL Radio
Trademark:	Studebaker BRAND
Model Name:	SB3706
Series Model:	SB3706MW, SB3706BP, SB3706BW, SB3706RW, SB3706XXXXX (Where XXXXX denote any printable characters in the ASCII Standard Character Table to represent variances in cosmetics or buyers)
Model Difference:	Different customers have different requirements for the name of the corresponding product model.
Operation Frequency:	Frequency: 88 – 108 MHz Modulation: FM
Antenna Type:	Integral Antenna
Antenna Gain:	0dBi
Adapter:	Input: DC 5V 1A
Battery:	Capacity: 1500mAh Rated Voltage: 3.7V
Hardware Version:	N/A
Software Version:	N/A
Connecting I/O Port(s):	Please refer to the Note 1.

**Note:**

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2. The antenna information refers to the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.



## 2.2 DESCRIPTION OF THE TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Worst Mode	Description	Remark
Mode 1	TX 88.5MHz Mode	Low
Mode 2	TX 93.7MHz Mode	Middle
Mode 3	TX 102.9MHz Mode	High

Note:

- (1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.
- (2) We tested for all available U.S. voltage and frequencies (For 120V, 50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V/ 60Hz is shown in the report.
- (3) The battery is fully charged during the radiated and RF conducted test.

For AC Conducted Emission

Test Case	
AC Conducted Emission	Mode 4: Keeping TX





## 2.3 DESCRIPTION OF NECESSARY ACCESSORIES AND 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.

### Accessories Equipment

Description	Manufacturer	Model	S/N	Rating
Earphone	N/A	N/A	N/A	N/A
USB-A to USB-C Cable	N/A	N/A	N/A	1m

### Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Laptop	Lenovo	HKF-16	N/A	N/A
Adapter	Tenpao	S005CAU0500100	N/A	Input: 100-240V ~ 50/60Hz 0.2A Output: 5V, 1A

### Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.



## 2.6 EQUIPMENTS LIST

Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESU8	100372	2024.03.09	2025.03.08
LISN	COM-POWER	LI-115	02032	2024.03.09	2025.03.08
LISN	SCHWARZBECK	NNLK 8122	00160	2024.03.09	2025.03.08
Transient Limiter	CYBERTEK	EM5010A	E2250100049	2024.03.09	2025.03.08
Temperature & Humidity	KTJ	TA218B	N.A	2024.03.09	2025.03.08
Testing Software	EMC-I_V1.4.0.3_SKET				

Radiated Test equipment					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESU8	100372	2024.03.09	2025.03.08
Active loop Antenna	ETS	6502	00049544	2023.10.13	2025.10.12
Spectrum Analyzer	Keysight	N9010B	MY60242508	2024.08.05	2025.08.04
Bilog Antenna(30M-1G)	SCHWARZBECK	VULB 9168	2705	2022.12.12	2025.12.11
Horn Antenna(1-18G)	SCHWARZBECK	3115	10SL0060	2022.06.02	2025.06.01
Horn Antenna(18-40G)	A-INFO	LB-180400-KF	J211060273	2022.06.08	2025.06.07
Pre-amplifier(30M-1G)	EMtrace	RP01A	02019	2024.03.09	2025.03.08
Pre-amplifier(1-26.5G)	Agilent	8449B	3008A4722	2024.03.09	2025.03.08
Pre-amplifier(18-40G)	com-mw	LNPA_18-40-01	18050003	2024.03.09	2025.03.08
Wireless Communications Test Set	R&S	CMW 500	137737	2024.03.09	2025.03.08
Antenna Tower	SAEMC	BK-4AT-BS-D	SK2021093008	N.A	N.A
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10
Testing Software	EMC-I_V1.4.0.3_SKET				

RF Conducted Test equipment					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
Signal Analyzer	Keysight	N9010B	MY60242508	2024.08.05	2025.08.04
Signal Analyzer	Keysight	N9020A	MY50530994	2024.03.09	2025.03.08
RF Automatic Test system	MW	MW100-RFCB	MW220322LG-033	2024.03.09	2025.03.08
MXG Vector Signal Generator	Keysight	N5182B	MY59100717	2024.03.09	2025.03.08
Temperature& Humidity test chamber	AISRY	LX-1000L	171200018	2024.03.09	2025.03.08
Attenuator	eastsheep	90db	N.A	2024.03.09	2025.03.08
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10
Digital multimeter	MASTECH	MS8261	MBGBC83053	2024.03.09	2025.03.08
Testing Software	MTS8310_V2.0.0.0_MW				



### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

FREQUENCY (MHz)	Conducted Emission limit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of “ \* ” marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

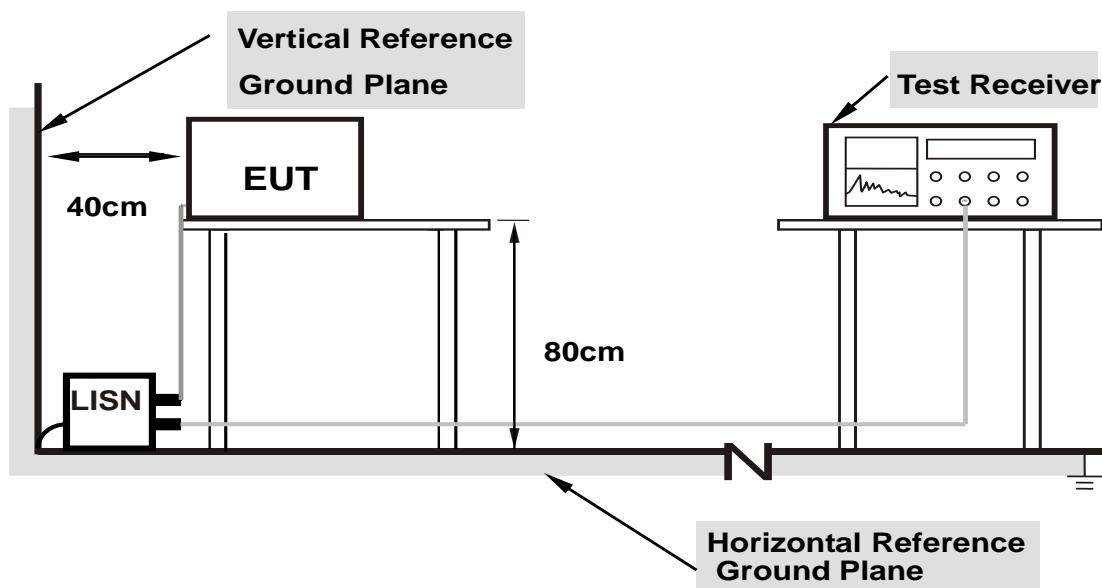
Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz



### 3.1.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.1.3 TEST SETUP



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

**2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.**

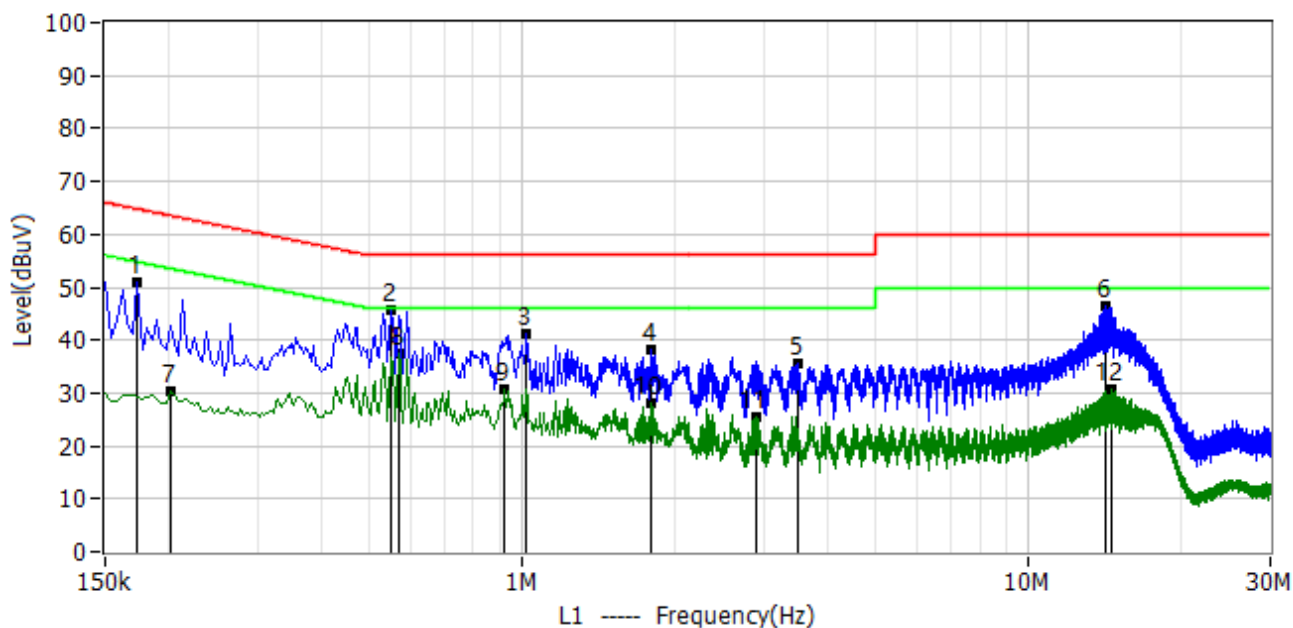
### 3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



### 3.1.5 TEST RESULT

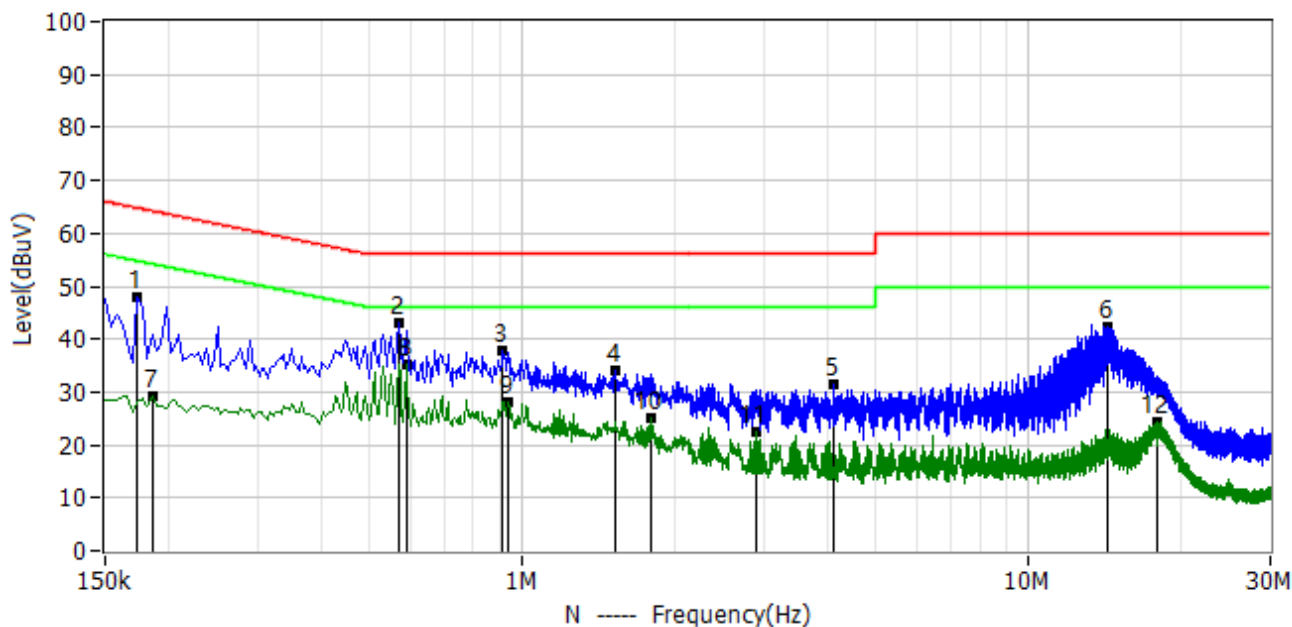
Project: LGT24G134	Test Engineer: LiuH
EUT: Personal CD/MP3 Player with FM PLL Radio	Temperature: 27.3°C
M/N: SB3706	Humidity: 55%RH
Test Voltage: AC 120V/60Hz	Test Data: 2024-08-08
Test Mode: TX	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.174	40.33	10.60	50.93	64.77	-13.83	QP	L1
2*	0.550	35.06	10.57	45.63	56.00	-10.37	QP	L1
3*	1.018	30.49	10.70	41.19	56.00	-14.81	QP	L1
4*	1.794	27.28	10.93	38.21	56.00	-17.79	QP	L1
5*	3.494	24.54	11.17	35.71	56.00	-20.29	QP	L1
6*	14.246	35.06	11.33	46.39	60.00	-13.61	QP	L1
7*	0.202	19.64	10.62	30.26	53.53	-23.26	AV	L1
8*	0.570	27.03	10.57	37.60	46.00	-8.40	AV	L1
9*	0.922	20.06	10.66	30.72	46.00	-15.28	AV	L1
10*	1.798	17.01	10.93	27.94	46.00	-18.06	AV	L1
11*	2.902	14.31	11.17	25.48	46.00	-20.52	AV	L1
12*	14.602	19.52	11.36	30.88	50.00	-19.12	AV	L1



Project: LGT24G134	Test Engineer: LiuH
EUT: Personal CD/MP3 Player with FM PLL Radio	Temperature: 27.3°C
M/N: SB3706	Humidity: 55%RH
Test Voltage: AC 120V/60Hz	Test Data: 2024-08-08
Test Mode: TX	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.174	37.49	10.56	48.05	64.77	-16.72	QP	N
2*	0.570	32.42	10.55	42.97	56.00	-13.03	QP	N
3*	0.914	27.13	10.55	37.68	56.00	-18.32	QP	N
4*	1.530	23.54	10.66	34.20	56.00	-21.80	QP	N
5*	4.118	20.53	10.82	31.35	56.00	-24.65	QP	N
6*	14.362	31.07	11.33	42.40	60.00	-17.60	QP	N
7*	0.186	18.53	10.56	29.09	54.21	-25.12	AV	N
8*	0.590	24.73	10.55	35.28	46.00	-10.72	AV	N
9*	0.938	17.50	10.55	28.05	46.00	-17.95	AV	N
10*	1.790	14.57	10.71	25.28	46.00	-20.72	AV	N
11*	2.890	11.74	10.78	22.52	46.00	-23.48	AV	N
12*	17.922	12.74	11.53	24.27	50.00	-25.73	AV	N



### 3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205 (a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed.

#### LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

#### LIMITS OF RADIATED EMISSION MEASUREMENT (1GHz-25 GHz)

FREQUENCY (MHz)	(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).

#### LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			



#### For Radiated Emission

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP/AV
Start Frequency	9 KHz/150KHz (Peak/QP/AV)
Stop Frequency	150KHz/30MHz (Peak/QP/AV)
RB / VB (emission in restricted band)	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz); 200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP
Start Frequency	30 MHz (Peak/QP)
Stop Frequency	1000 MHz (Peak/QP)
RB / VB (emission in restricted band)	120 KHz / 300 KHz

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak
Start Frequency	1000 MHz (Peak/AV)
Stop Frequency	10th carrier hamonic (Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

#### For Restricted band

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	Lower Band Edge: 2310 to 2410 MHz Upper Band Edge: 2476 to 2500 MHz
RB / VB	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP





### 3.2.2 TEST PROCEDURE

- a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

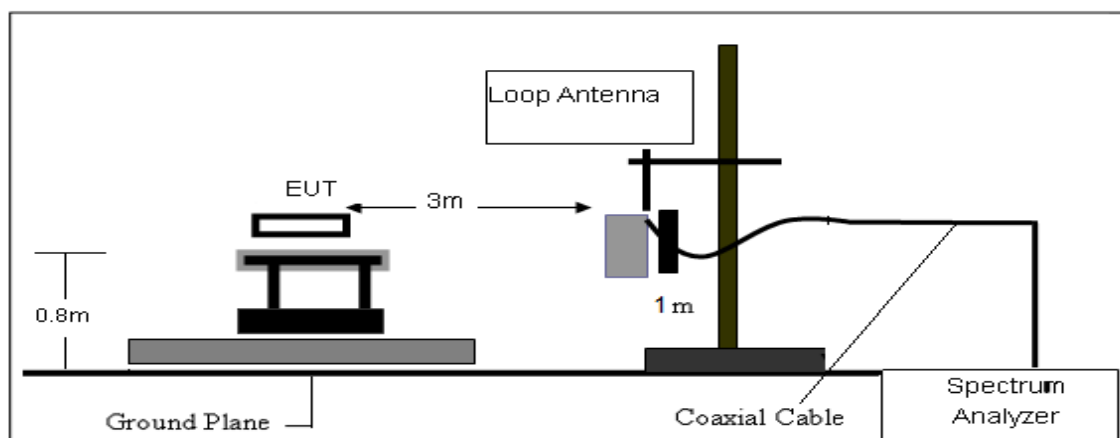
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

### 3.2.3 DEVIATION FROM TEST STANDARD

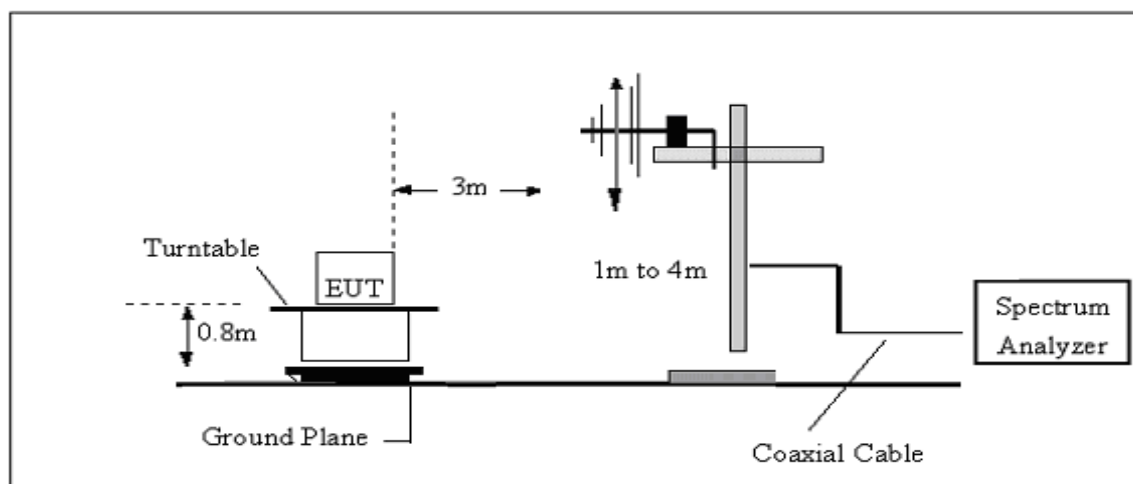
No deviation.

### 3.2.4 TESTSETUP

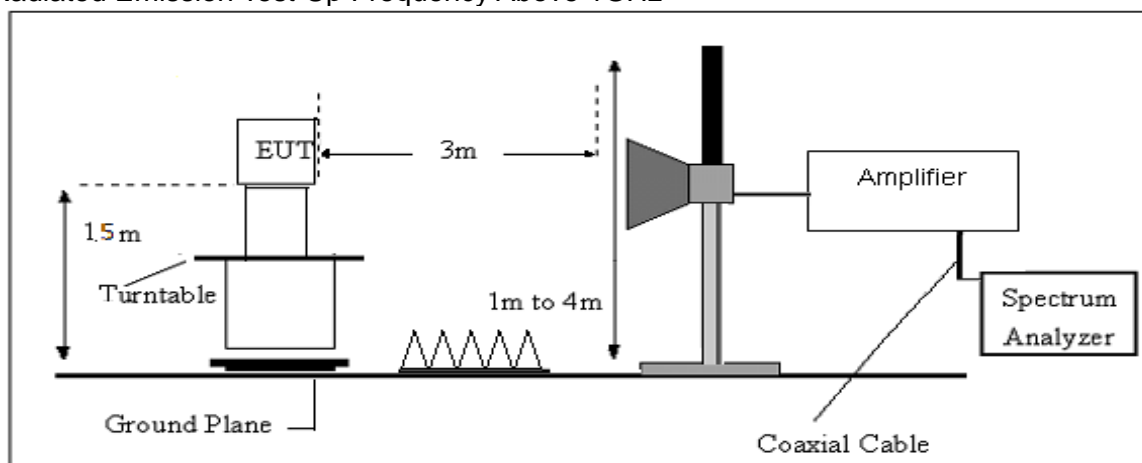
#### (A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



### 3.2.5 EUT OPERATING CONDITIONS

Please refer to section 3.1.4 of this report.



### 3.2.6 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

For example

Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

$$\text{Factor} = \text{AF} + \text{CL} - \text{AG}$$



### 3.2.7 TEST RESULTS

#### Results of Radiated Emissions (9 KHz~30MHz)

No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Remark
1*	-	-	-	-	-	-	-	See Note

Note:

The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and the permissible value has no need to be reported.

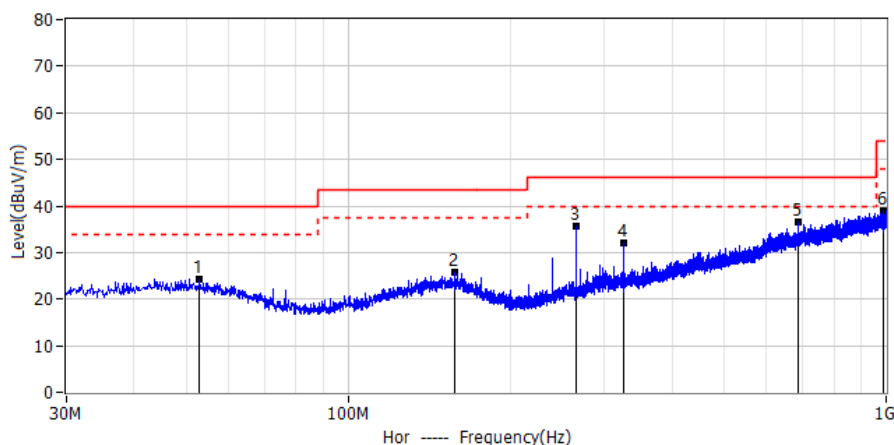
Distance extrapolation factor =  $40 \log (\text{specific distance} / \text{test distance})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

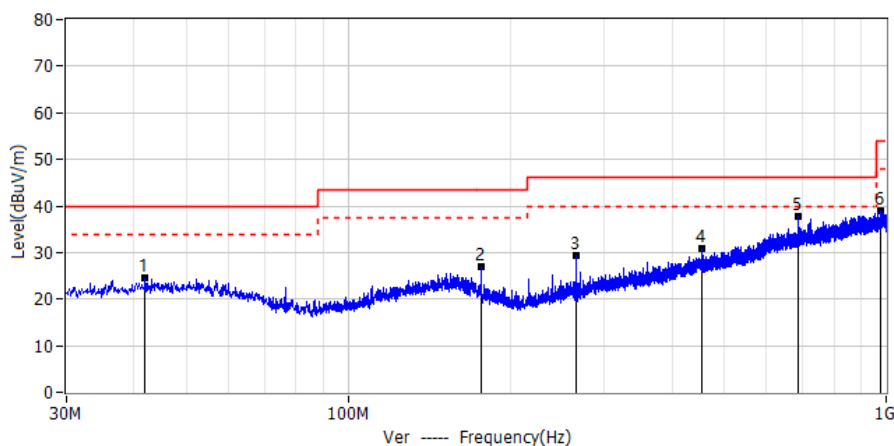


## Results of Radiated Emissions (30MHz~1000MHz)

Project: LGT24G134	Test Engineer: LiuH
EUT: Personal CD/MP3 Player with FM PLL Radio	Temperature: 24°C
M/N: SB3706	Humidity: 50%RH
Test Voltage: Battery DC 3.7V	Test Data: 2024-08-20
Test Mode: TX Low Chennal	
Note:	



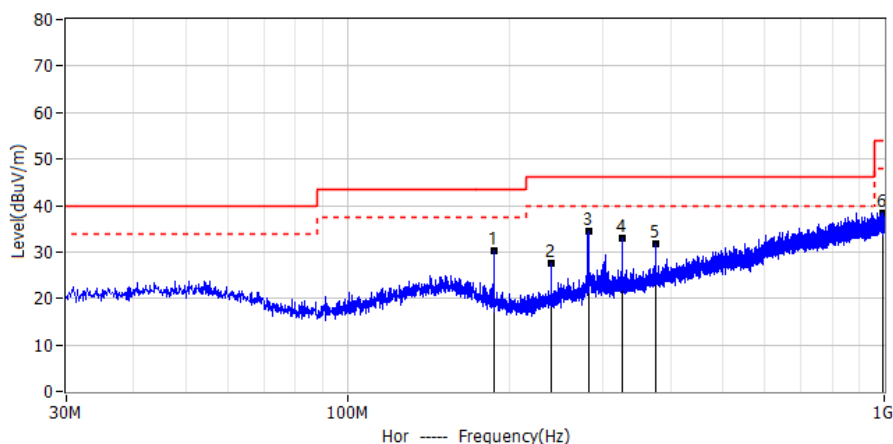
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	52.916	3.56	20.66	24.22	40.00	-15.78	PK	Hor
2*	157.919	4.23	21.65	25.88	43.50	-17.62	PK	Hor
3*	265.468	15.61	19.90	35.51	46.00	-10.49	PK	Hor
4*	325.123	10.00	22.11	32.11	46.00	-13.89	PK	Hor
5*	687.539	6.52	30.09	36.61	46.00	-9.39	PK	Hor
6*	986.056	4.74	34.16	38.90	54.00	-15.10	PK	Hor



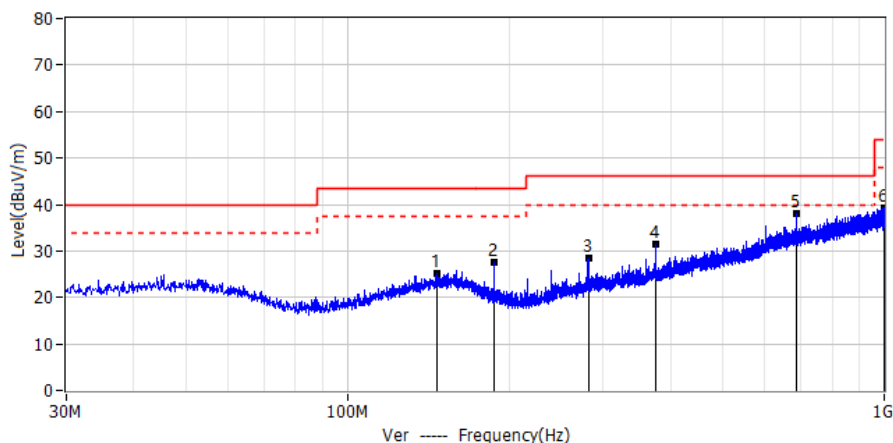
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	42.004	4.03	20.50	24.53	40.00	-15.47	PK	Ver
2*	176.955	7.56	19.42	26.98	43.50	-16.52	PK	Ver
3*	265.468	9.41	19.90	29.31	46.00	-16.69	PK	Ver
4*	454.496	5.01	25.75	30.76	46.00	-15.24	PK	Ver
5*	687.539	7.63	30.09	37.72	46.00	-8.28	PK	Ver
6*	977.690	5.11	33.81	38.92	54.00	-15.08	PK	Ver



Project: LGT24G134	Test Engineer: LiuH
EUT: Personal CD/MP3 Player with FM PLL Radio	Temperature: 24°C
M/N: SB3706	Humidity: 50%RH
Test Voltage: Battery DC 3.7V	Test Data: 2024-08-20
Test Mode: TX Middle Chennal	
Note:	



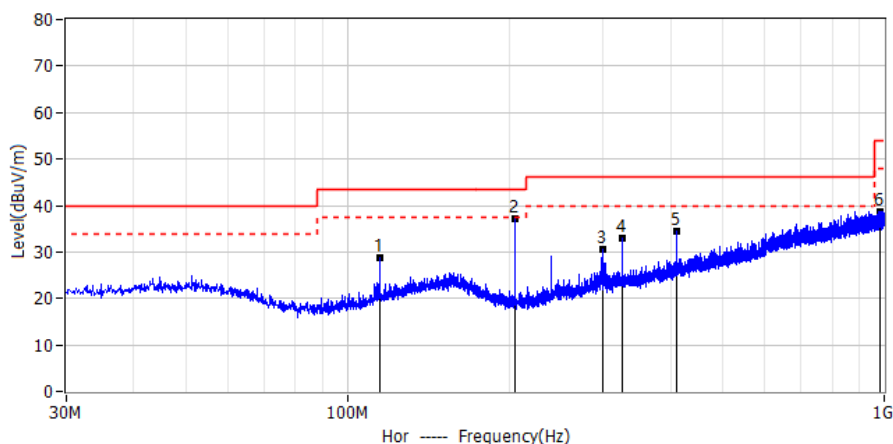
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	187.383	11.77	18.47	30.24	43.50	-13.26	PK	Hor
2*	239.884	8.74	18.79	27.53	46.00	-18.47	PK	Hor
3*	281.109	13.45	20.92	34.37	46.00	-11.63	PK	Hor
4*	325.123	10.90	22.11	33.01	46.00	-12.99	PK	Hor
5*	374.835	7.87	23.76	31.63	46.00	-14.37	PK	Hor
6*	994.301	4.68	33.77	38.45	54.00	-15.55	PK	Hor



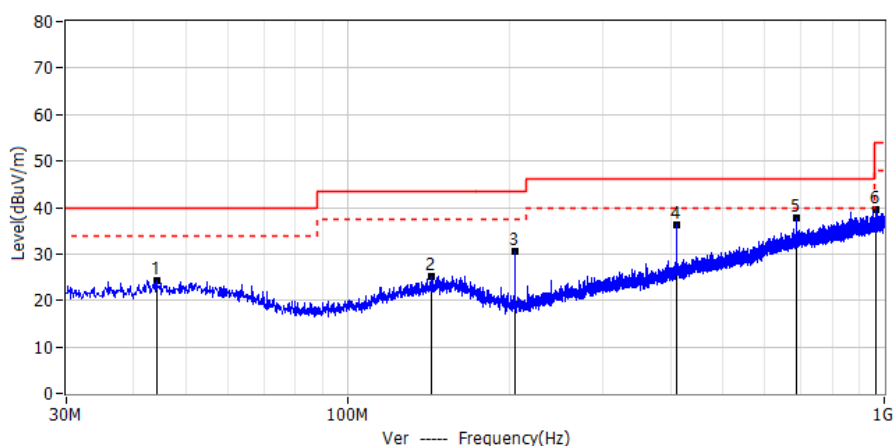
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	146.885	3.56	21.61	25.17	43.50	-18.33	PK	Ver
2*	187.383	9.23	18.47	27.70	43.50	-15.80	PK	Ver
3*	281.109	7.54	20.92	28.46	46.00	-17.54	PK	Ver
4*	374.835	7.65	23.76	31.41	46.00	-14.59	PK	Ver
5*	687.539	7.91	30.09	38.00	46.00	-8.00	PK	Ver
6*	998.060	5.39	33.89	39.28	54.00	-14.72	PK	Ver



Project: LGT24G134	Test Engineer: LiuH
EUT: Personal CD/MP3 Player with FM PLL Radio	Temperature: 24°C
M/N: SB3706	Humidity: 50%RH
Test Voltage: Battery DC 3.7V	Test Data: 2024-08-20
Test Mode: TX High Chennal	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	114.875	9.92	18.82	28.74	43.50	-14.76	PK	Hor
2*	205.813	19.55	17.52	37.07	43.50	-6.43	PK	Hor
3*	299.175	9.27	21.38	30.65	46.00	-15.35	PK	Hor
4*	325.123	10.88	22.11	32.99	46.00	-13.01	PK	Hor
5*	411.695	9.60	24.94	34.54	46.00	-11.46	PK	Hor
6*	982.419	4.60	34.05	38.65	54.00	-15.35	PK	Hor



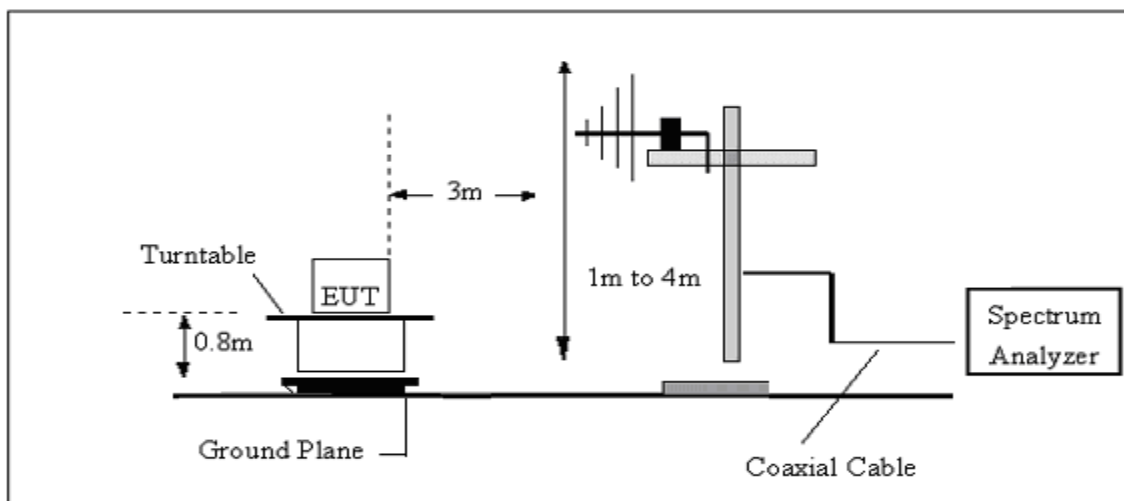
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	44.186	3.74	20.66	24.40	40.00	-15.60	PK	Ver
2*	143.369	3.95	21.32	25.27	43.50	-18.23	PK	Ver
3*	205.813	12.95	17.52	30.47	43.50	-13.03	PK	Ver
4*	411.574	11.43	24.95	36.38	46.00	-9.62	PK	Ver
5*	687.539	7.69	30.09	37.78	46.00	-8.22	PK	Ver
6*	965.201	6.06	33.61	39.67	54.00	-14.33	PK	Ver

### 3.3 FIELD STRENGTH EMISSION

#### 3.3.1 REQUIREMENT

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.

#### 3.3.2 TEST SETUP



#### 3.3.3 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.



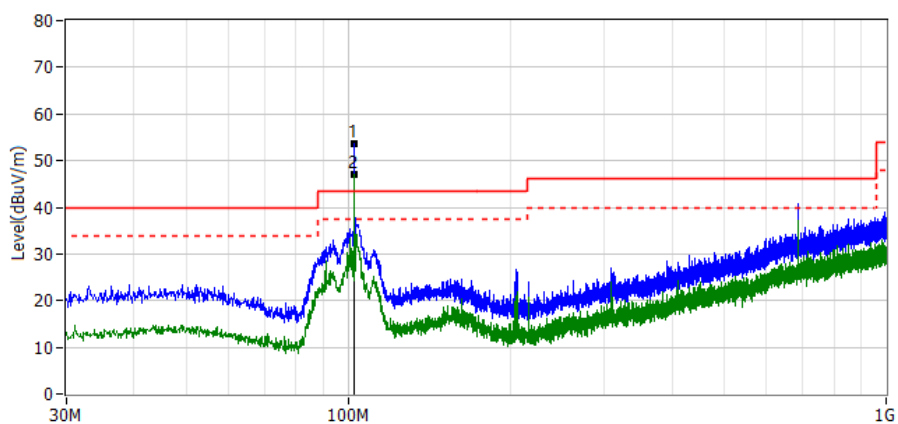
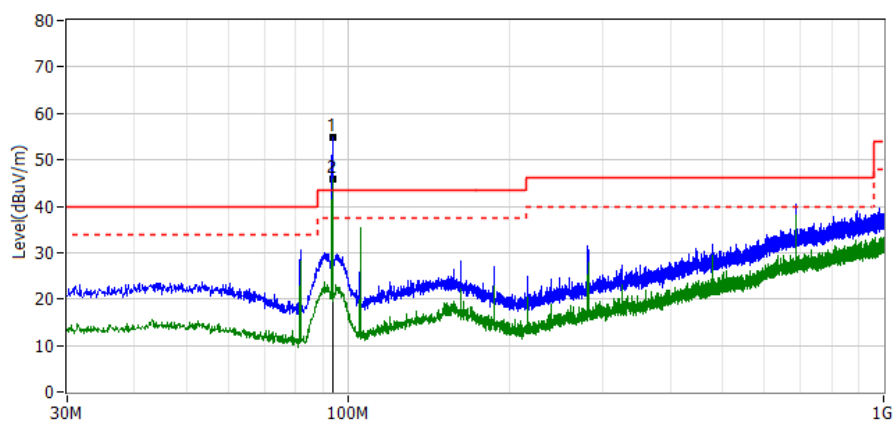
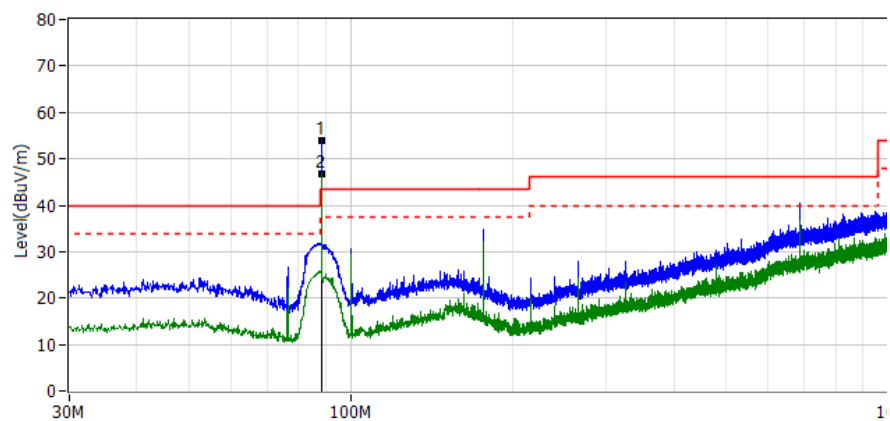


### 3.3.4 TEST RESULTS

Temperature:	25 °C	Relative Humidity:	50%
Test Voltage:	Battery DC 3.7V	Test Mode:	TX Mode

3m distance measured

Test frequency	detector	Reading	factor	Corrected level	Limit	Margin
(MHz)		(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)
88.5	Peak	39.06	16.25	55.31	68	-12.69
	Avg	28.84	16.25	45.09	48	-2.91
93.7	Peak	40.65	16.45	57.1	68	-10.9
	Avg	28.68	16.45	45.13	48	-2.87
102.9	Peak	36.39	17.16	53.55	68	-14.45
	Avg	29.94	17.16	47.1	48	-0.9





#### 4. BANDWIDTH TEST

##### 4.1 Applied procedures / 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.

##### 4.2 TEST PROCEDURE

1. Set RBW = 10kHz.
2. Set the video Mobile Phonewidth (VBW)  $\geq 3$  RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

##### 4.3 EUT OPERATION CONDITIONS



##### 4.4 EUT OPERATION CONDITIONS

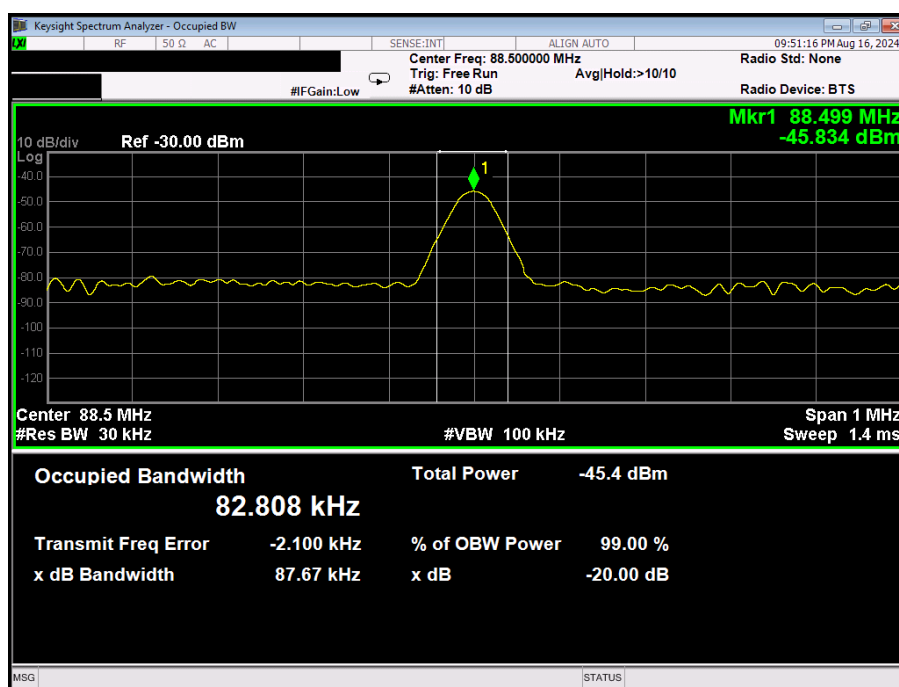
Please refer to section 3.1.4 of this report.

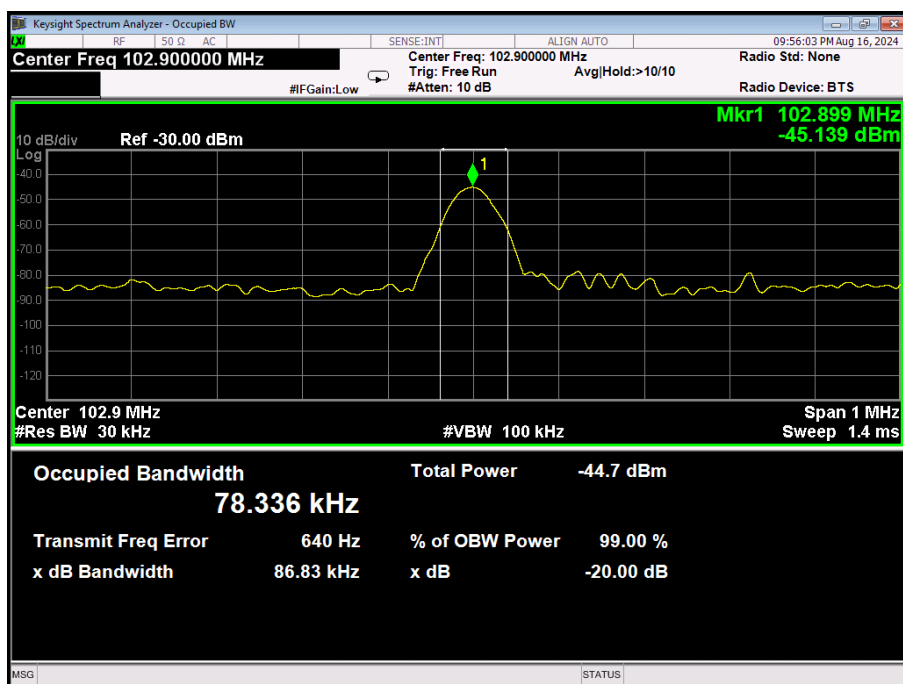
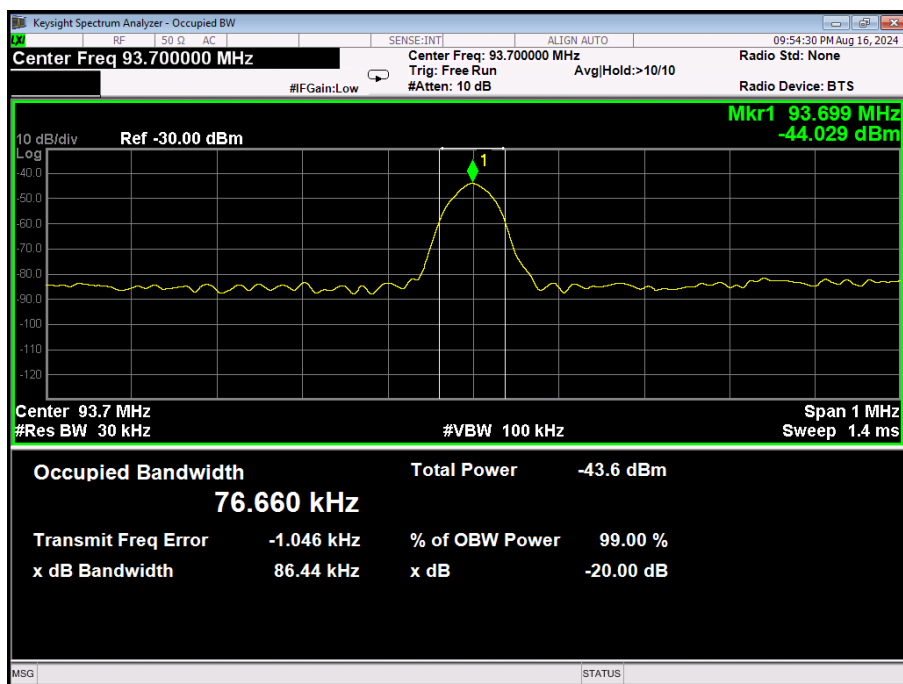


#### 4.5 TEST RESULTS

Temperature:	25 °C	Relative Humidity:	60%
Test Voltage:	DC 3.7V	Test Mode:	TX Mode

Centre Frequency	Measurement		
	Frequency Range (MHz)	Frequency (MHz)	20dB Bandwidth(kHz)
TX LCH	88-108	88.5	87.67
TX MCH	88-108	93.7	86.44
TX HCH	88-108	102.9	86.83







## 5. ANTENNA REQUIREMENT

### 5.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 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.

### 5.2 EUT ANTENNA

The EUT antenna is Integral Antenna. It comply with the standard requirement.



## **APPENDIX II - MEASUREMENT PHOTOS**

Note: Please see the attached RF\_Test Setup photos for FCC ID & IC.



## **APPENDIX III - PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS**

Note: Please see the attached SB3706\_External Photos and SB3706\_Internal Photos.

※※※※※END OF THE REPORT※※※※※