

FCC - TEST REPORT

Report Number : **60.790.18.007.01E02** Date of Issue : March 29, 2018

Model : **SF543/BTS**

Product Type : **BT speaker**

Applicant : Homsquare International Limited

Address : 1308 Tower 2, Ever Gain Plaza, 88 Container Port Road, Kwai Chung, Hong Kong

Production Facility : SHENZHEN MUSOS ELECTRONIC CO., LTD

Address : Floor 5, No. 6, Puyuwei Road, Shangliao, Shajing Town, Baoan District, Shenzhen, China 518125

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including Appendices : 15

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch is a subcontractor to TÜV SÜD Product Service GmbH according to the principles outlined in ISO 17025.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch reports apply only to the specific samples tested under stated test conditions. Construction of the actual test samples has been documented. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. The manufacturer/importer is responsible to the Competent Authorities in Europe for any modifications made to the production units which result in non-compliance to the relevant regulations. TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval



1 Table of Contents

1 Table of Contents..... 2

2 Description of Equipment Under Test 3

3 Summary of Test Standards 4

4 Details about the Test Laboratory 5

 4.1 Test Equipment Site List 6

 4.2 Measurement System Uncertainty 7

5 Summary of Test Results..... 8

6 General Remarks 9

7 Emission Test Results 12

 7.1 Radiated Emission..... 12

 7.2 Conducted Emission 14

2 Description of Equipment Under Test

Description of the Equipment Under Test

Product: BT speaker

Model no.: SF543/BTS

Rating: 1) 3.7VDC (1 x 3.7VDC Rechargeable battery)
2) 5.0VDC (USB port)

3 Summary of Test Standards

Test Standards
FCC Part 15 Subpart B 10-1-17 Edition Federal Communications Commission, PART 15 — Radio Frequency Devices, Subpart B — Unintentional Radiators

4 Details about the Test Laboratory

Site 1

Company name: TÜV SÜD Hong Kong Ltd.
3/F, West Wing, Lakeside 2,
10 Science Park West Avenue,
Science Park, Shatin, Hong Kong

Site 2

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13 Zhiheng Wisdomland Business Park,
Nantou Checkpoint Road 2,
Shenzhen 518052, P.R.China
FCC Registration Number: 502708

Emission Tests	
Test Item	Test Site
FCC Part 15 Subpart B	
FCC Title 47 Part 15.109 Radiated Emission 30MHz-1000MHz	Site 2
FCC Title 47 Part 15.107 Conduct Emission 150kHz-30MHz	Site 2

4.1 Test Equipment Site List

Radiated emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	07-July-18
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	07-July-18
Horn Antenna	Rohde & Schwarz	HF907	102294	07-July-18
Pre-amplifier	Rohde & Schwarz	SCU 18	102230	07-July-18
3m Semi-anechoic chamber	TDK	9X6X6	----	14-July-20

Conducted emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	101782	14-July-18
LISN	Rohde & Schwarz	ENV4200	100249	14-July-18
LISN	Rohde & Schwarz	ENV216	100326	14-July-18
ISN	Rohde & Schwarz	ENY81	100177	14-July-18
ISN	Rohde & Schwarz	ENY81-CAT6	101664	14-July-18
High Voltage Probe	Rohde & Schwarz	TK9420(VT9420)	9420-58	14-July-18
RF Current probe	Rohde & Schwarz	EZ-17	100816	14-July-18

4.2 Measurement System Uncertainty

Measurement System Uncertainty Emissions

System Measurement Uncertainty	
Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.83dB; Vertical: 4.91dB;
Uncertainty for Conducted Emission 150kHz-30MHz	3.50dB

5 Summary of Test Results

Emission Tests				
FCC Part 15 Subpart B				
Test Condition	Pages	Test Result		
		Pass	Fail	N/A
FCC Title 47 Part 15.109 Radiated Emission 30MHz-1000MHz	10-11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.107 Conduct Emission 150kHz-30MHz	12-13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 General Remarks

Remarks

NIL

SUMMARY:

- All tests according to the regulations cited on page 5 were

☒ - Performed

☐ - **Not** Performed

- The Equipment Under Test

☒ - **Fulfills** the general approval requirements.

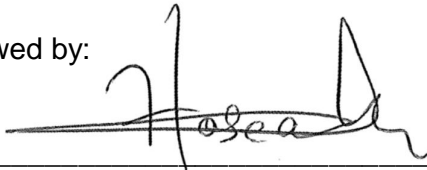
☐ - **Does not** fulfill the general approval requirements.

Sample Received Date: December 15, 2017

Testing Start Date: March 5, 2018

Testing End Date: March 12, 2018

Reviewed by:



Hosea CHAN
EMC Project Engineer

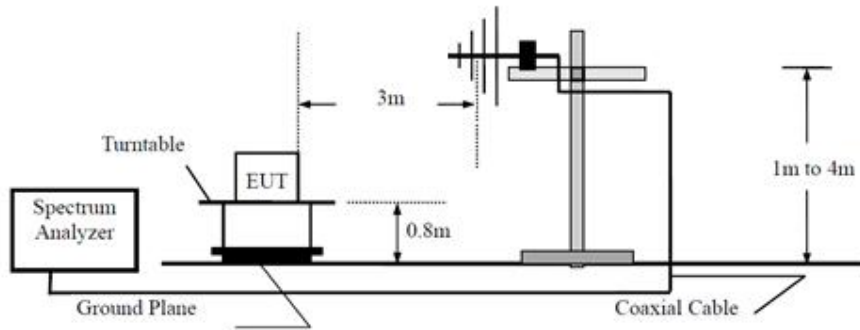
Prepared by:



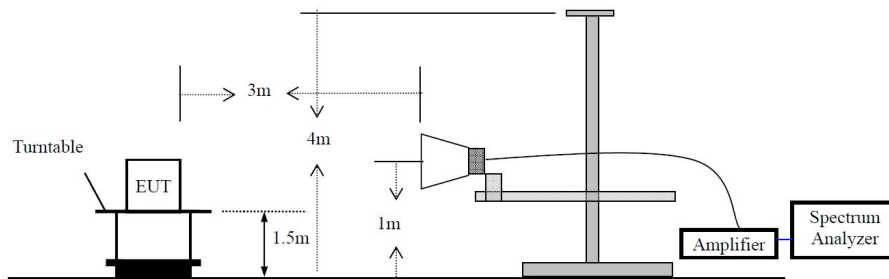
Eric LI
EMC Senior Project Engineer

Test Setups

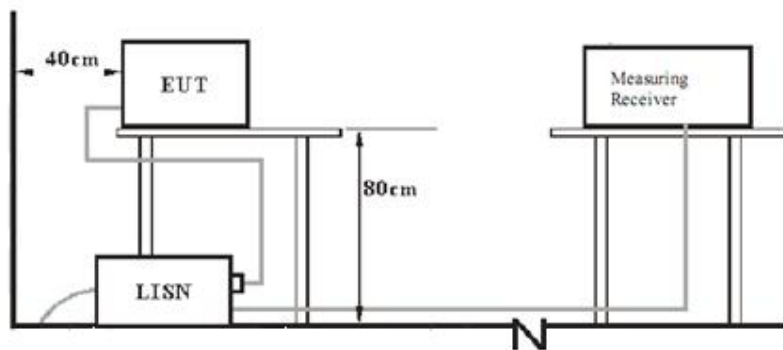
7.1. Below 1GHz



7.2. Above 1GHz



7.3. AC Power Line Conducted Emission test setups



Systems test configuration

Auxiliary Equipment Used during Test:

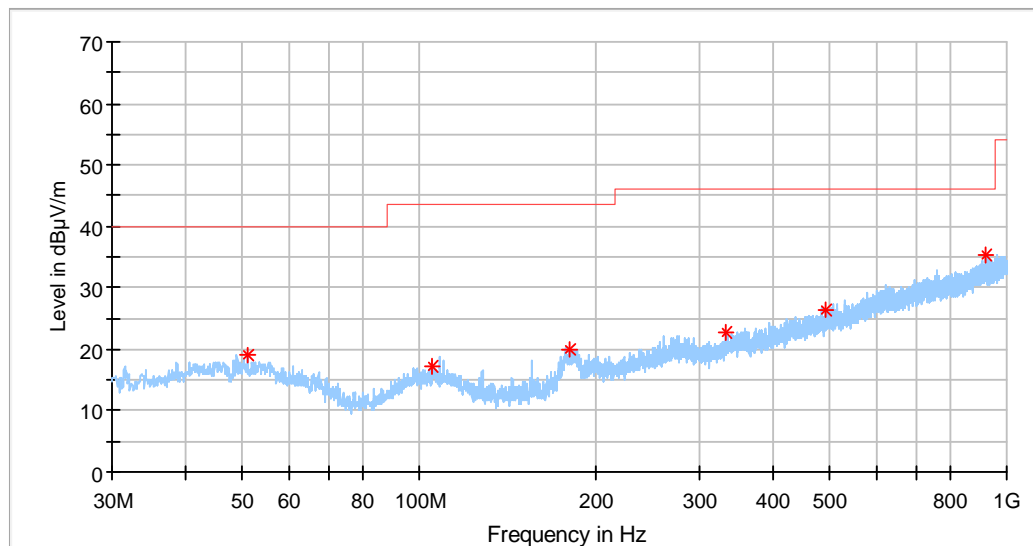
DESCRIPTION	MANUFAC-TURER	MODEL NO. (SHIELD)	S/N (LENGTH)	PARAMETERS
Adapter	Apple	A1357	-	Input :100-240V~0.45A (50-60Hz) Output: 5.1V, 2.1A
NA	---	---	-	---

7 Emission Test Results

7.1 Radiated Emission

EUT: SF543/BTS
 Op Condition: Charging (AC)
 Test Specification: Antenna: Horizontal
 Comment: 120VAC, 60Hz (From external adaptor)

Test Result
☒ Passed
☐ Not Passed

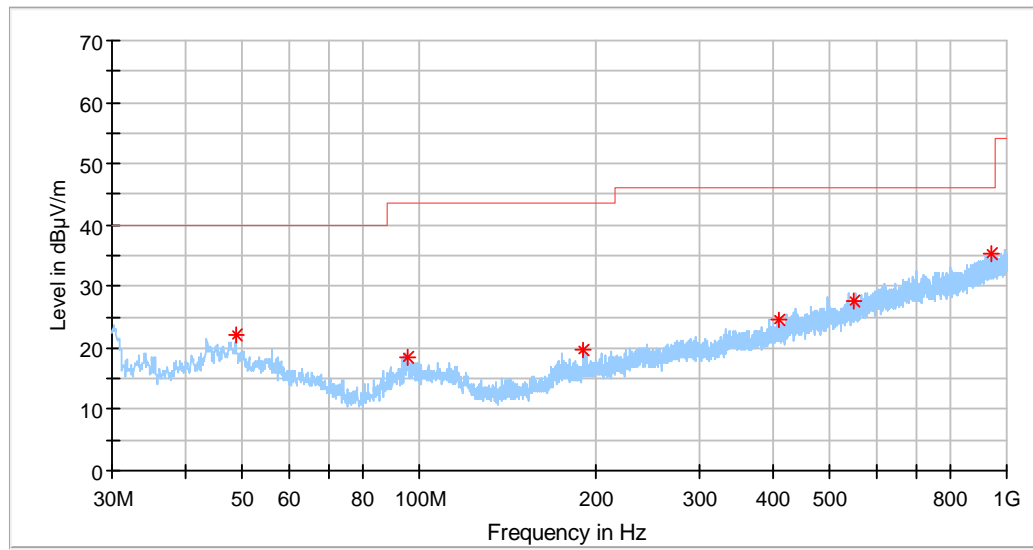


Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Corr. (dB)
51.097500	18.91	40.00	-21.09	17.7
105.599375	17.13	43.50	-26.37	16.0
180.531875	19.99	43.50	-23.51	14.1
332.640000	22.65	46.00	-23.35	19.9
492.265625	26.48	46.00	-19.52	23.6
920.702500	35.39	46.00	-10.61	31.2

Radiated Emission

EUT: SF543/BTS
 Op Condition: Charging (AC)
 Test Specification: Antenna: Vertical
 Comment: 120VAC, 60Hz (From external adaptor)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

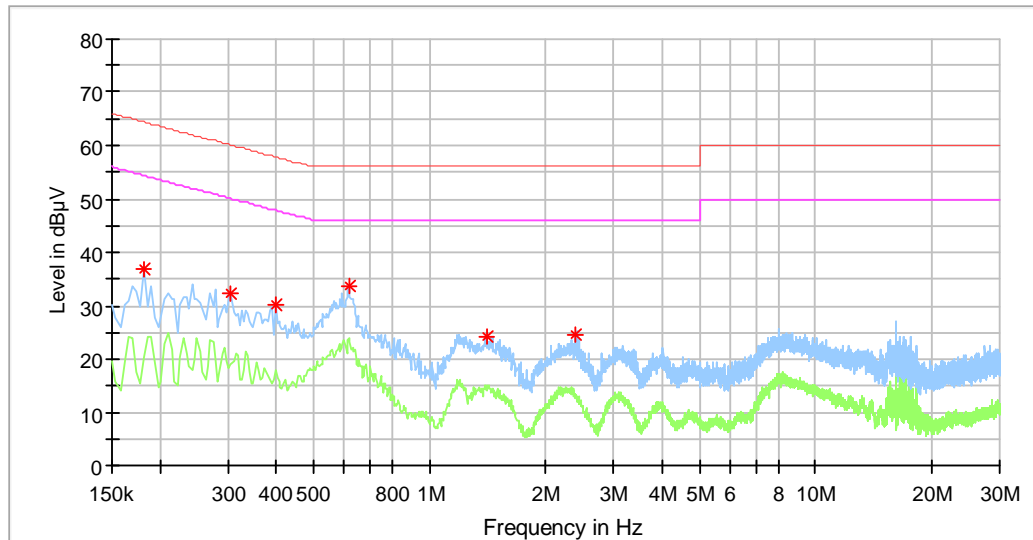


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Corr. (dB)
48.854375	21.98	40.00	-18.02	18.0
95.535625	18.51	43.50	-24.99	15.5
190.231875	19.59	43.50	-23.91	15.3
410.725000	24.70	46.00	-21.30	22.1
549.616875	27.77	46.00	-18.23	24.7
943.679375	35.17	46.00	-10.83	31.6

7.2 Conducted Emission

EUT: SF543/BTS
 Op Condition: Charging
 Test Specification: AC Mains, L Line
 Comment: 120VAC, 60Hz (From external adaptor)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

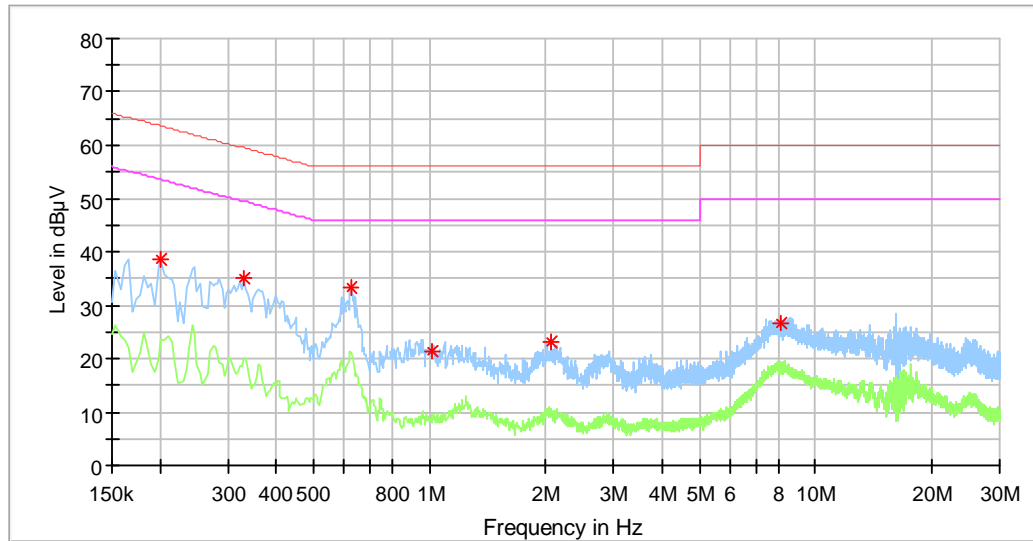


Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Corr. (dB)
0.182000	36.70	---	64.39	-27.69	10.2
0.306000	32.25	---	60.08	-27.83	10.2
0.398000	30.31	---	57.90	-27.59	11.6
0.618000	33.68	---	56.00	-22.32	10.2
1.406000	24.10	---	56.00	-31.90	10.2
2.394000	24.56	---	56.00	-31.44	10.3

Conducted Emission

EUT: SF543/BTS
 Op Condition: Charging
 Test Specification: AC Mains, N Line
 Comment: 120VAC, 60Hz (From external adaptor)

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Corr. (dB)
0.202000	38.56	---	63.53	-24.97	10.3
0.330000	35.15	---	59.45	-24.30	10.3
0.626000	33.45	---	56.00	-22.55	10.4
1.018000	21.40	---	56.00	-34.60	10.4
2.066000	23.25	---	56.00	-32.75	10.4
8.150000	26.73	---	60.00	-33.27	10.8