

## 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

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## 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
<b>FCC Part 15 Subpart B</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(VT94 20)	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

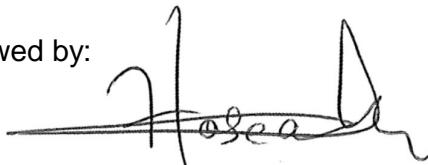
- **Fulfills** the general approval requirements.
- **Does not** fulfill the general approval requirements.

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

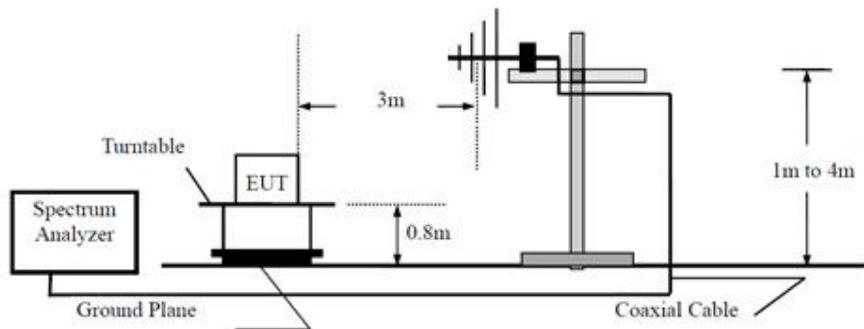
Prepared by:



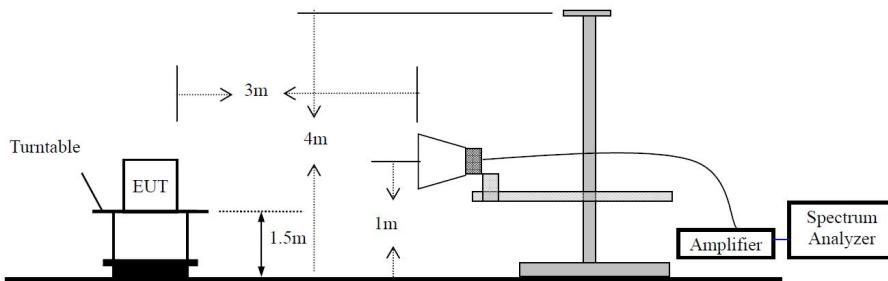
Eric LI  
EMC Senior Project Engineer

## Test Setups

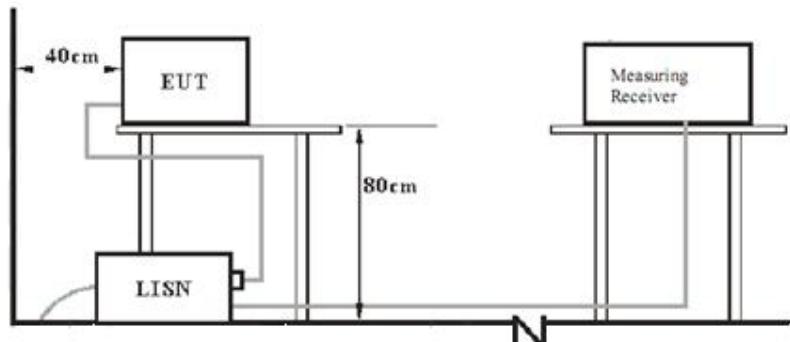
### 7.1. Below 1GHz



### 7.2. Above 1GHz



### 7.3. AC Power Line Conducted Emission test setups



## Systems test configuration

Auxiliary Equipment Used during Test:

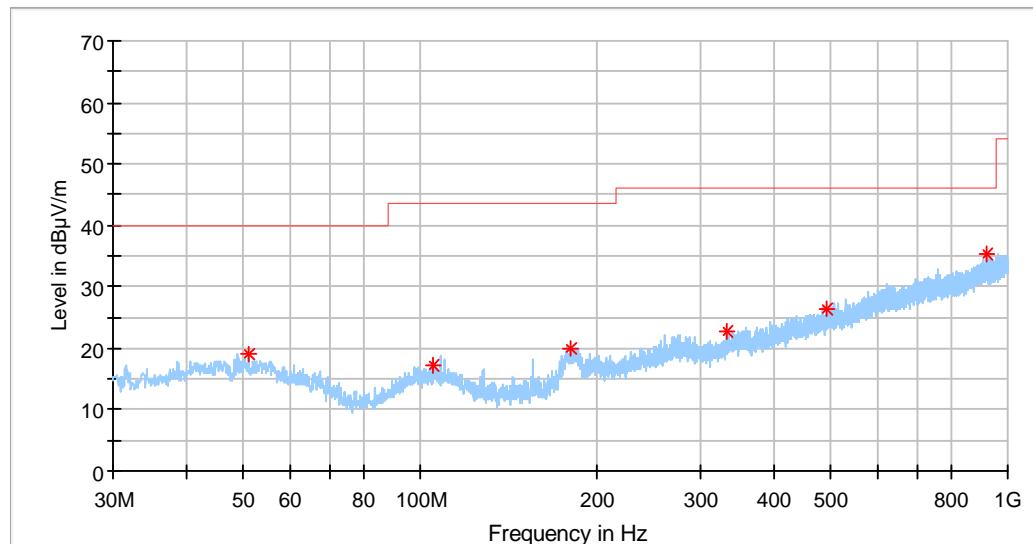
DESCRIPTION	MANUFAC-TURER	MODEL NO. (SHIELD)	S/N (LENGTH)	PARAMETERS
Adapter	Apple	A1357	-	Input :100-240V~0.45A (50-60Hz) Output: 5.1V, 2.1A
NA	---	---	-	---

## 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

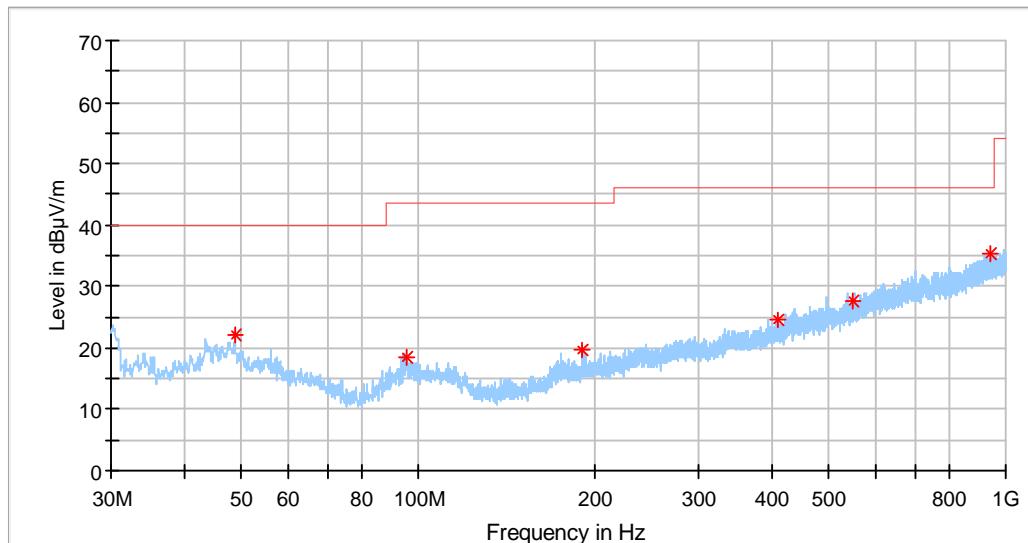


Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Corr. (dB)
51.097500	18.91	40.00	-21.09	17.7
105.599375	17.13	43.50	-26.37	16.0
180.531875	19.99	43.50	-23.51	14.1
332.640000	22.65	46.00	-23.35	19.9
492.265625	26.48	46.00	-19.52	23.6
920.702500	35.39	46.00	-10.61	31.2

## Radiated Emission

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

Test Result  
 Passed  
 Not Passed

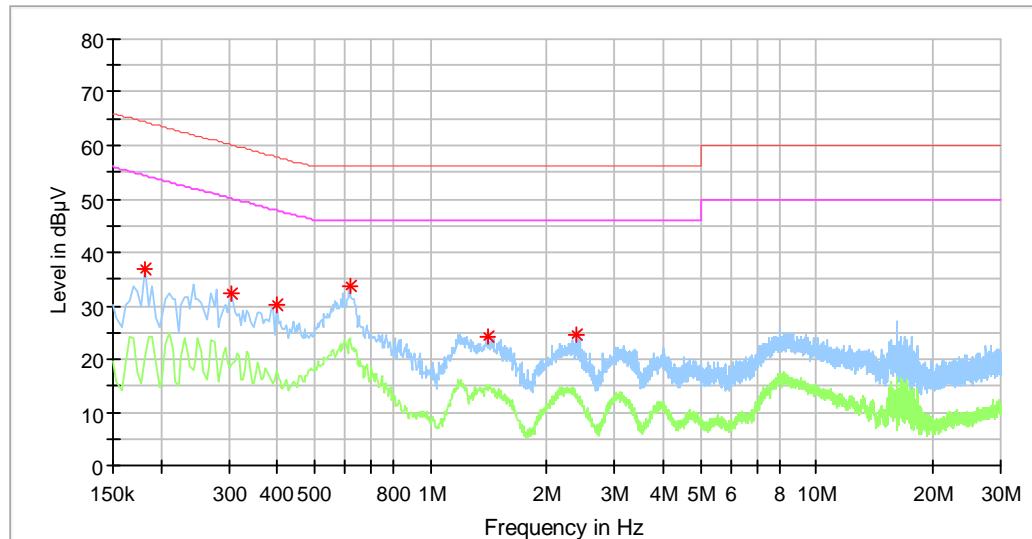


Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Corr. (dB)
48.854375	21.98	40.00	-18.02	18.0
95.535625	18.51	43.50	-24.99	15.5
190.231875	19.59	43.50	-23.91	15.3
410.725000	24.70	46.00	-21.30	22.1
549.616875	27.77	46.00	-18.23	24.7
943.679375	35.17	46.00	-10.83	31.6

## 7.2 Conducted Emission

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

Test Result  
 Passed  
 Not Passed

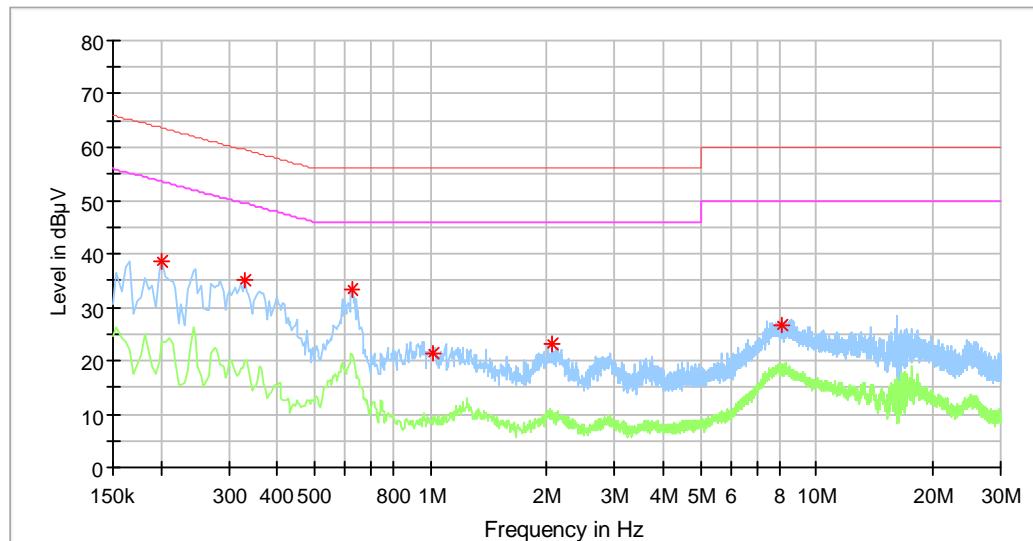


Frequency (MHz)	MaxPeak (dB $\mu$ V)	Average (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Corr. (dB)
0.182000	36.70	---	64.39	-27.69	10.2
0.306000	32.25	---	60.08	-27.83	10.2
0.398000	30.31	---	57.90	-27.59	11.6
0.618000	33.68	---	56.00	-22.32	10.2
1.406000	24.10	---	56.00	-31.90	10.2
2.394000	24.56	---	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  
 Passed  
 Not Passed



Frequency (MHz)	MaxPeak (dB $\mu$ V)	Average (dB $\mu$ V)	Limit (dB $\mu$ V)	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