

FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of
Polk Audio

SURROUNDBAR 6500BT

Model Number: SB6500BT SPEAKER

FCC ID: WLQSB5000CDTX

Prepared for : Polk Audio
5601 Metro Drive, Baltimore, Maryland, United States, 21215

Prepared By : EST Technology Co., Ltd.
Santun(guantai Road), Houjie Town, DongGuan City,
GuangDong, China.

Tel: 86-769-83081888-808

Report Number: ESTE-R1309006
Date of Test : August 20~31, 2013
Date of Report : September 07, 2013

TABLE OF CONTENTS

<u>Description</u>	<u>Page</u>
TEST REPORT VERIFICATION.....	3
1. GENERAL INFORMATION.....	4
1.1. Description of Device (EUT)	4
2. SUMMARY OF TEST	5
2.1. Summary of test result.....	5
2.2. Test Facilities	6
2.3. Assistant equipment used for test	7
2.4. Block Diagram	7
2.5. Test mode	8
2.6. Channel List for FHSS	8
2.7. Test Equipment.....	9
3. RADIATED EMISSIONS.....	10
3.1. Limit.....	10
3.2. Block Diagram of Test setup.....	11
3.3. Test Procedure.....	11
3.4. Test Result.....	11
3.5. Test Data	12
4. BAND EDGE COMPLIANCE	30
4.1. Limit	30
4.2. Block Diagram of Test setup.....	30
4.3. Test Procedure.....	30
4.4. Test Result.....	30
4.5. Test Data	31
5. POWER LINE CONDUCTED EMISSIONS	39
5.1. Limit	39
5.2. Test Procedure.....	39
6. TEST SETUP PHOTO	42
7. PHOTOS OF EUT	44

Test Report Verification

Applicant:	Polk Audio	
Address:	5601 Metro Drive, Baltimore, Maryland, United States, 21215	
Manufacturer	Polk Audio	
Address:	5601 Metro Drive, Baltimore, Maryland, United States, 21215	
E.U.T:	SURROUNDBAR 6500BT	
Model Number:	SB6500BT SPEAKER	
Power Supply:	DC 24V From Adapter Input AC 100-240V~50/60Hz	
Test Voltage:	DC 24V From Adapter Input AC 120V/60Hz	
Trade Name:	Polk	Serial No.: -----
Date of Receipt:	August 20, 2013	Date of Test: August 20~31, 2013
Test Specification:	FCC Rules and Regulations Part 15 Subpart C:2012 ANSI C63.4:2009	
Test Result:	The device described above is tested by EST Technology Co., Ltd.. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the ETSI EN FCC Rules and Regulations Part 15 Subpart C requirements.	
This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd.		
Date: September 07, 2013		
Prepared by:	Tested by:	Approved by:
		
Ada / Assistant	Tony.Tang/ Engineer	IcemanHu / Manager
Other Aspects: None.		
Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested		
<i>This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.</i>		

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name : SURROUNDBAR 6500BT

Model Number : SB6500BT SPEAKER

FCC ID : WLQSB5000CDTX

Operation frequency : 2403.5MHz~2477.3MHz

Number of channel : 49

Antenna : Internal antenna, 3.3 dBi gain

Modulation : FHSS (GFSK)

Power Supply : DC 24V From Adapter Input AC 120V/60Hz

Sample Type : Prototype production

Note : The EUT Have a NFC module, it's only have receiver function

2. SUMMARY OF TEST

2.1. Summary of test result

Description of Test Item	Standard	Results
Maximum Peak Output Power	FCC Part 15: 15.247(b)(1) DA 00-705	N/A
20dB Bandwidth	FCC Part 15: 15.215 DA 00-705	N/A
Carrier Frequency Separation	FCC Part 15: 15.247(a)(1) DA 00-705	N/A
Number Of Hopping Channel	FCC Part 15: 15.247(a)(1)(iii) DA 00-705	N/A
Dwell Time	FCC Part 15: 15.247(a)(1)(iii) DA 00-705	N/A
Radiated Emission	FCC Part 15: 15.209 FCC Part 15: 15.247(d) ANSI C63.4: 2003 DA 00-705	PASS
Band Edge Compliance	FCC Part 15: 15.247(d) DA 00-705	PASS
Power Line Conducted Emissions	FCC Part 15: 15.207 ANSI C63.4: 2003 DA 00-705	PASS
Antenna requirement	FCC Part 15: 15.203	N/A
Note: Because the transmitter module it self has not changed. So relevant test needn't re-tested, Test data refer to test report "ESTE-R1307006".		

2.2. Test Facilities

EMC Lab : Certificated by CNAL, CHINA
Registration No.: L5288
Date of registration: October 28, 2011

Certificated by FCC, USA
Registration No.: 989591
Date of registration: December 07, 2010

Certificated by Industry Canada
Registration No.: 46405-9405
Date of registration: December 16, 2010

Certificated by VCCI, Japan
Registration No.: R-3663 & C-4103
Date of registration: July 25, 2011

Certificated by TUV Rheinland, Germany
Registration No.: UA 50195514 0001
Date of registration: January 07, 2011

Certificated by TUV/PS, Shenzhen
Registration No.: SCN1017
Date of registration: January 27, 2011

Certificated by Intertek ETL SEMKO
Registration No.: 2011-RTL-L1-18
Date of registration: April 28, 2011

Certificated by Siemic, Inc.
Registration No.: SLCN021
Date of registration: November 8, 2011

Certificated by Nemko, Hong Kong
Registration No.: 175193
Date of registration: May 4, 2011

Name of Firm : EST Technology Co., Ltd.

Site Location : San Tun Management Zone, Houjie Town, Dongguan, Guangdong, China

2.3. Assistant equipment used for test

2.3.1. Adapter

M/N : S065BP2400250
Input : AC 100-240V~50/60Hz 1800mA Max
Output : DC 24V/2500mA

2.4. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 meter high above ground. EUT was be set into BT test mode by software before test.



(EUT: SURROUNDBAR 6500BT)

2.5. Test mode

The test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode

Mode	Channel	Frequency
GFSK	Low	2403.5MHz
	Middle	2440.4MHz
	High	2477.3MHz

2.6. Channel List for FHSS

1	2.4035	26	2.4420
2	2.4051	27	2.4435
3	2.4066	28	2.4450
4	2.4081	29	2.4466
5	2.4097	30	2.4481
6	2.4112	31	2.4496
7	2.4128	32	2.4512
8	2.4143	33	2.4527
9	2.4158	34	2.4543
10	2.4174	35	2.4558
11	2.4189	36	2.4573
12	2.4204	37	2.4589
13	2.4220	38	2.4604
14	2.4235	39	2.4619
15	2.4251	40	2.4635
16	2.4266	41	2.4650
17	2.4281	42	2.4666
18	2.4297	43	2.4681
19	2.4312	44	2.4696
20	2.4327	45	2.4712
21	2.4343	46	2.4727
22	2.4358	47	2.4742
23	2.4374	48	2.4758
24	2.4389	49	2.4773
25	2.4404		

2.7. Test Equipment

2.7.1. For conducted emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	May,30,13	1 Year
Artificial Mains Network	Rohde & Schwarz	ENV216	101260	May,30,13	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101100	July.24,13	1 Year

2.7.2. For radiated emission test(30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESVS10	100004	May,30,13	1 Year
Spectrum Analyzer	Agilent	E4411B	MY50140697	May,30,13	1 Year
Bilog Antenna	Teseq	CBL 6111D	25872	Nov,08,12	1.5 Year
Signal Amplifier	Agilent	310N	187037	July.24,13	1 Year

2.7.3. For radiated emission test(above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Temperature controller	Terchy	MHQ	120	May.08,13	1 Year
Spectrum Analyzer	Agilent	E4408B	MY44211139	May.08,13	1 Year
Vector Signal Generator	R&S	SMBV100A	1407.6004K02	May.08,13	1 Year
Double Ridged Horn Antenna	R&S	HF907	100276	Jan.16.13	2 Year
Double Ridged Horn Antenna	R&S	HF907	100268	Jan.16.13	2 Year
Log-periodic Dipole Antenna	R&S	HL223	100435	Jan.16.13	2 Year
Biconical Antenna	R&S	HK116	100431	Jan.16.13	2 Year
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	9163-462	Jan.16.13	2 Year
Pre-amplifier	AH	PAM-0118	10008	May.08,13	1 Year
Pre-amplifier	R&S	SCU-01	10049	May.08,13	1 Year
High Pass filter	Micro	HPM50111	324455	May.08,13	1 Year
RF Cable	Hubersuhner	W10.02	534096	May.08,13	1 Year
RF Cable	Hubersuhner	W10.02	534123	May.08,13	1 Year
RF Cable	Hubersuhner	RG 214/U	513423	May.08,13	1 Year
RF Cable	Hubersuhner	RG 214/U	523455	May.08,13	1 Year

3. RADIATED EMISSIONS

3.1. Limit

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

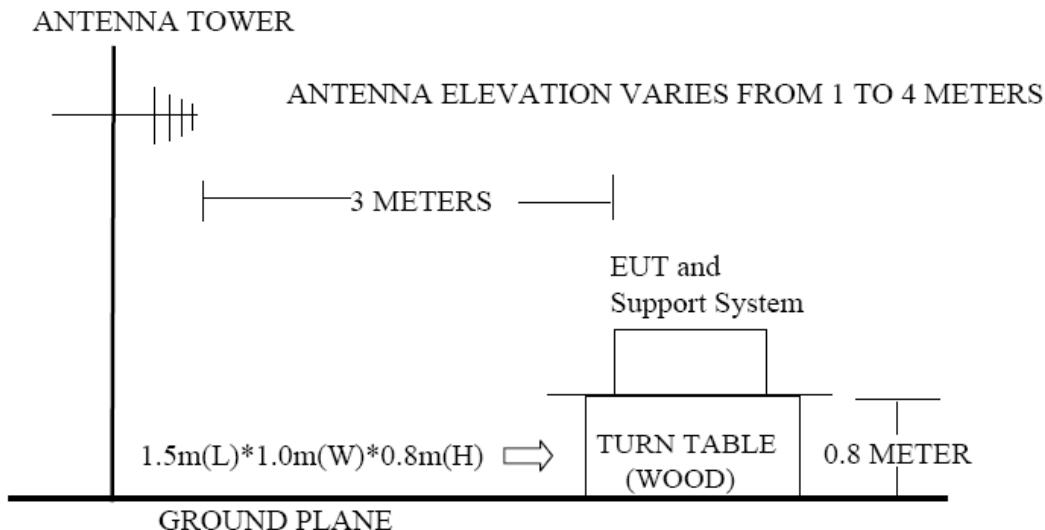
15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 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	(²)

15.209 Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		µV/m	dB(µV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(µV)/m (Peak) 54.0 dB(µV)/m (Average)	

3.2. Block Diagram of Test setup



3.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10th harmonic (25GHz) are checked.

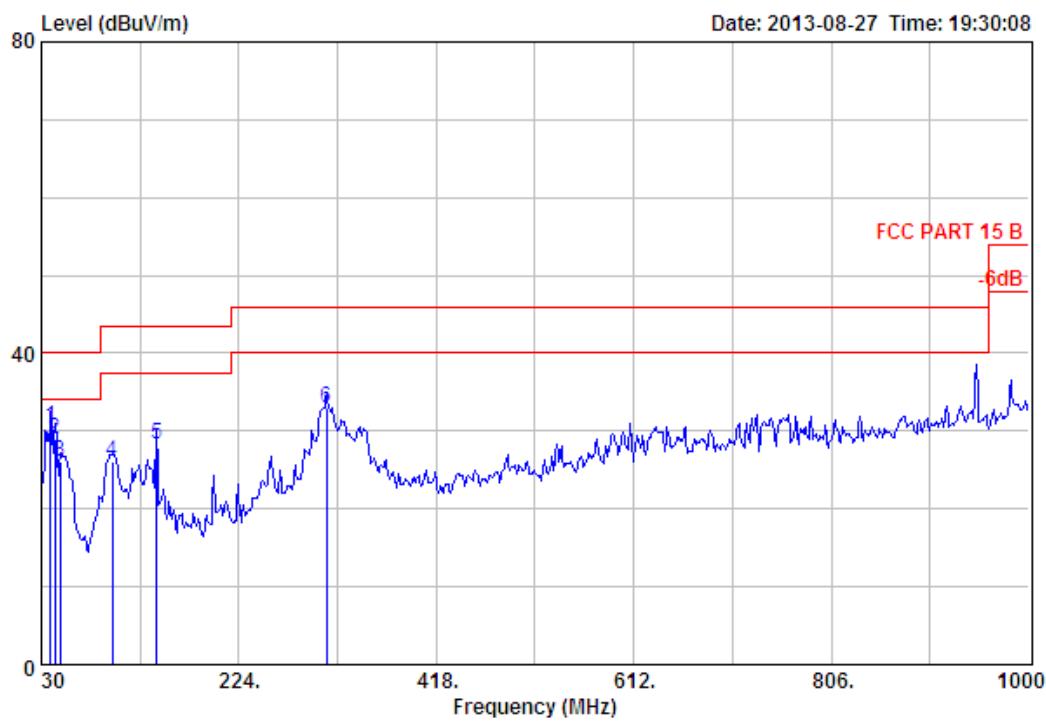
3.4. Test Result

30MHz—25GHz Radiated emissison Test result
EUT: SURROUNDBAR 6500BT
M/N: SB6500BT SPEAKER
Power: DC 24V From Adapter Input AC 120V/60Hz
Test date: 2013-08-23~27 Test site: 3m Chamber Tested by: Tony Tang
Test mode: Tx Mode
Pass

Note: 1、For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
 2、The frequency 2403.5MHz 、 2440.4MHz and 2477.3MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

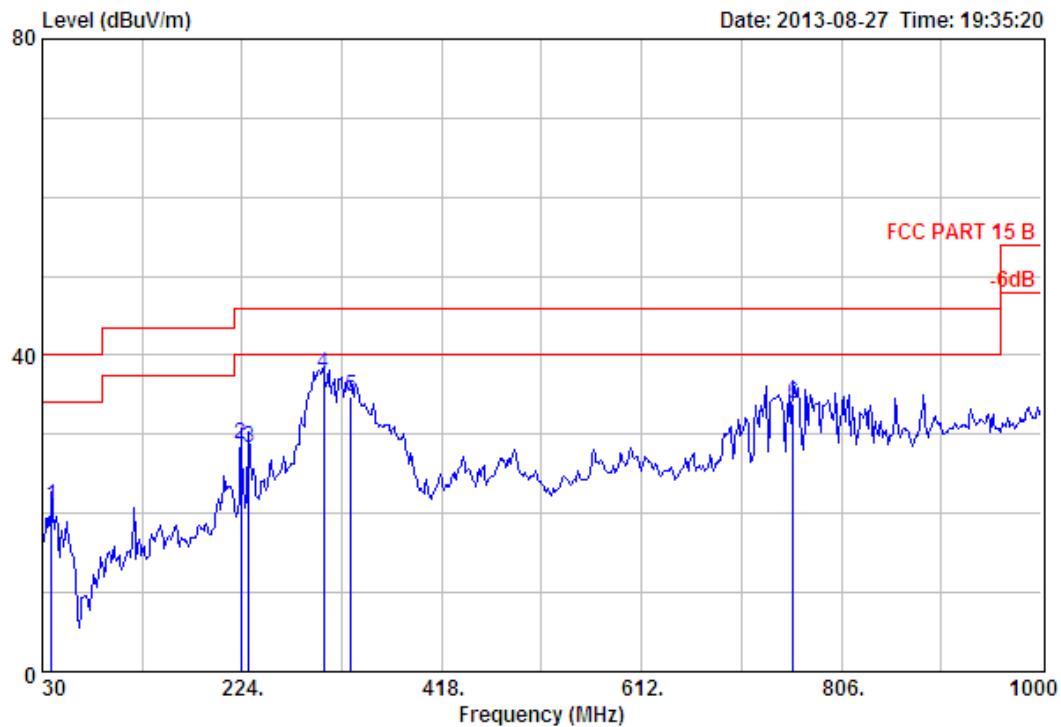
3.5. Test Data

30 MHz – 1000 MHz



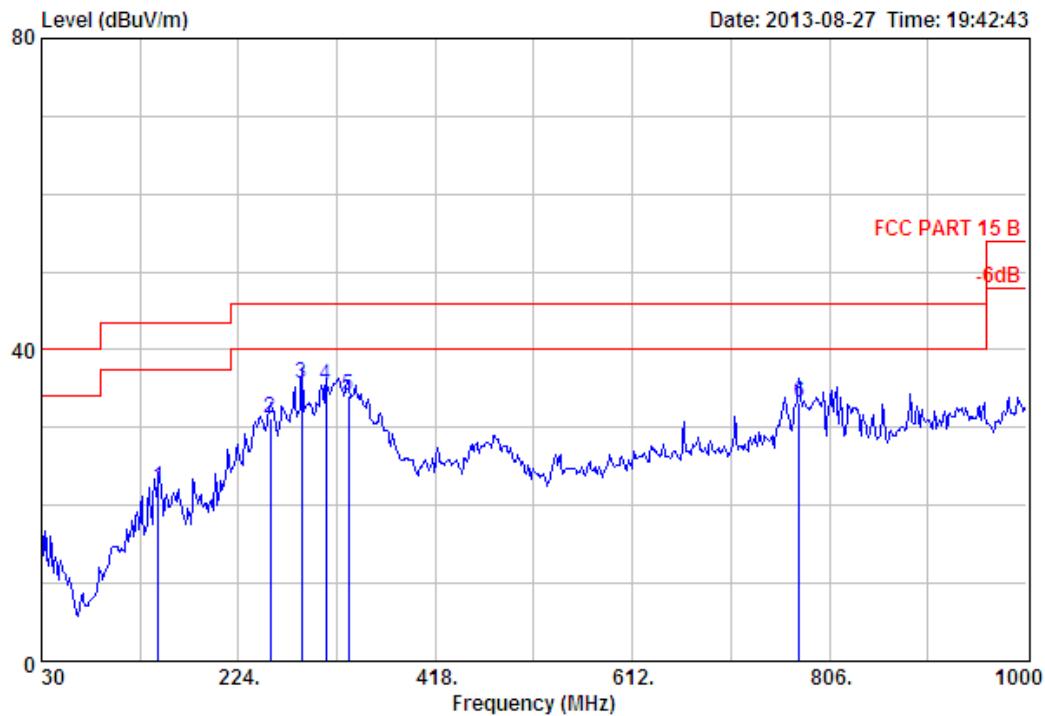
Site no. : 3m Chamber Data no. : 113
 Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
 Limit : FCC PART 15 B
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	38.73	13.48	2.10	14.95	30.53	40.00	9.47
2	43.58	10.52	2.21	16.32	29.05	40.00	10.95
3	48.43	8.37	2.30	15.48	26.15	40.00	13.85
4	99.84	9.45	3.04	13.65	26.14	43.50	17.36
5	143.49	11.29	3.71	13.27	28.27	43.50	15.23
6	310.33	13.20	5.32	14.47	32.99	46.00	13.01



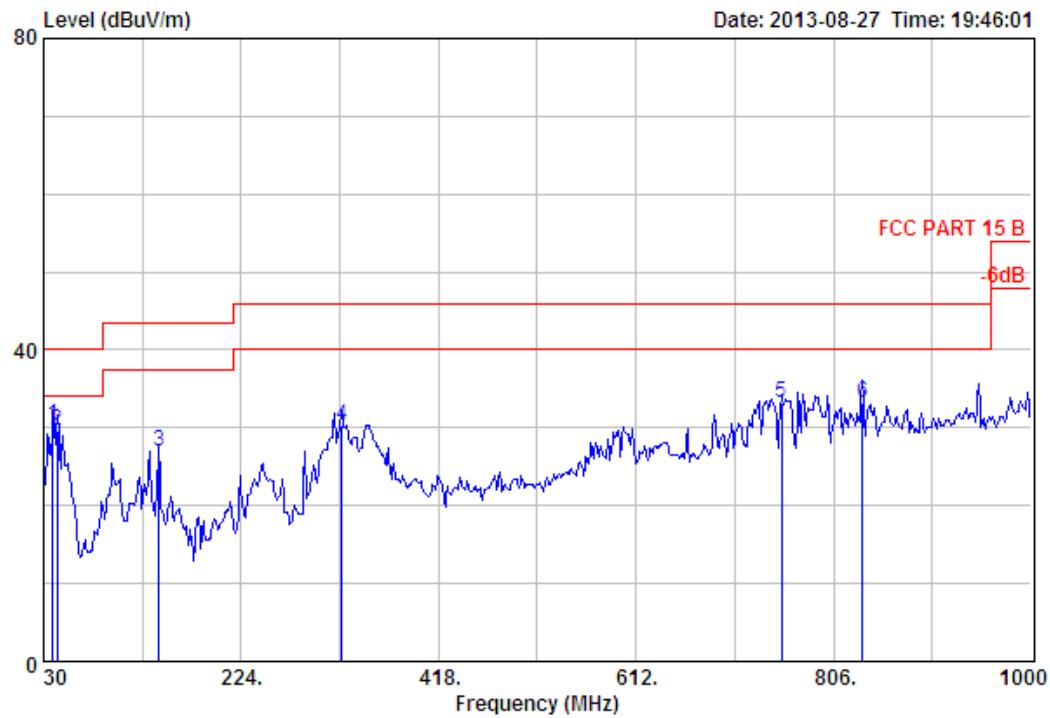
Site no. : 3m Chamber Data no. : 114
 Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 B
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 38.73	13.48	2.10	5.26	20.84	40.00	19.16	QP
2 223.03	9.37	4.47	14.80	28.64	46.00	17.36	QP
3 230.79	9.49	4.58	14.31	28.38	46.00	17.62	QP
4 303.54	13.08	5.27	19.24	37.59	46.00	8.41	QP
5 329.73	13.85	5.47	15.41	34.73	46.00	11.27	QP
6 759.44	22.04	8.42	3.31	33.77	46.00	12.23	QP



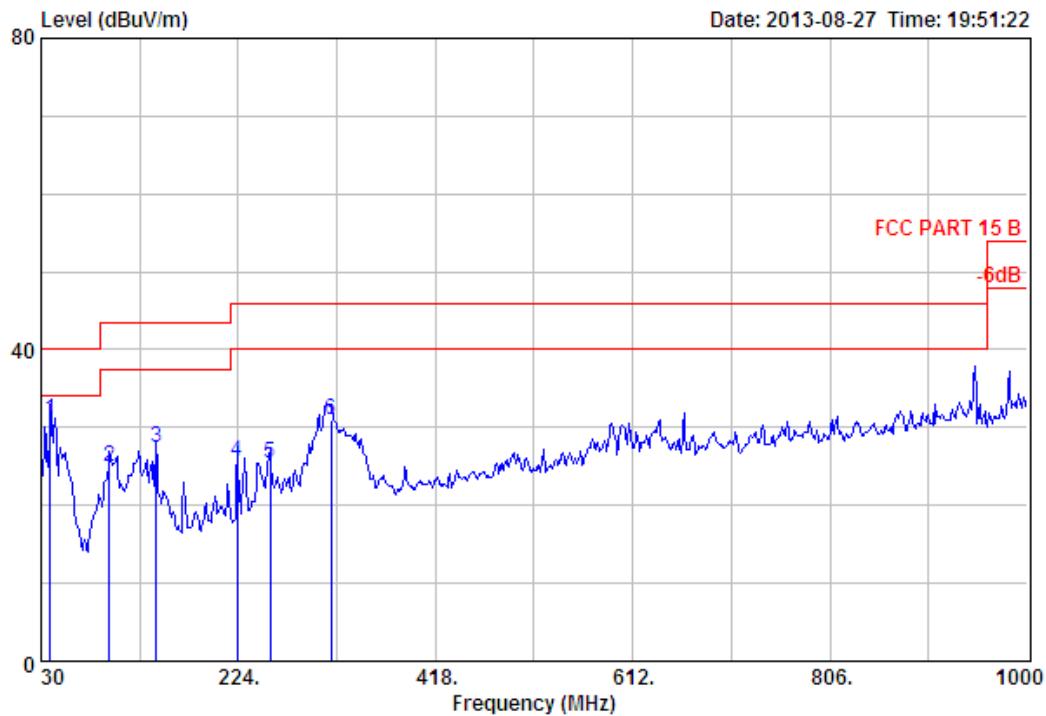
Site no. : 3m Chamber Data no. : 115
 Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 B
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2440.4MHz

Freq. (MHz)	Ant. Factor	Cable Loss	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 145.43	11.22	3.73	7.25	22.20	43.50	21.30	QP
2 255.04	12.41	4.87	13.89	31.17	46.00	14.83	QP
3 286.08	12.59	5.14	18.00	35.73	46.00	10.27	QP
4 310.33	13.20	5.32	16.86	35.38	46.00	10.62	QP
5 332.64	13.93	5.52	14.57	34.02	46.00	11.98	QP
6 775.93	22.02	8.52	2.76	33.30	46.00	12.70	QP



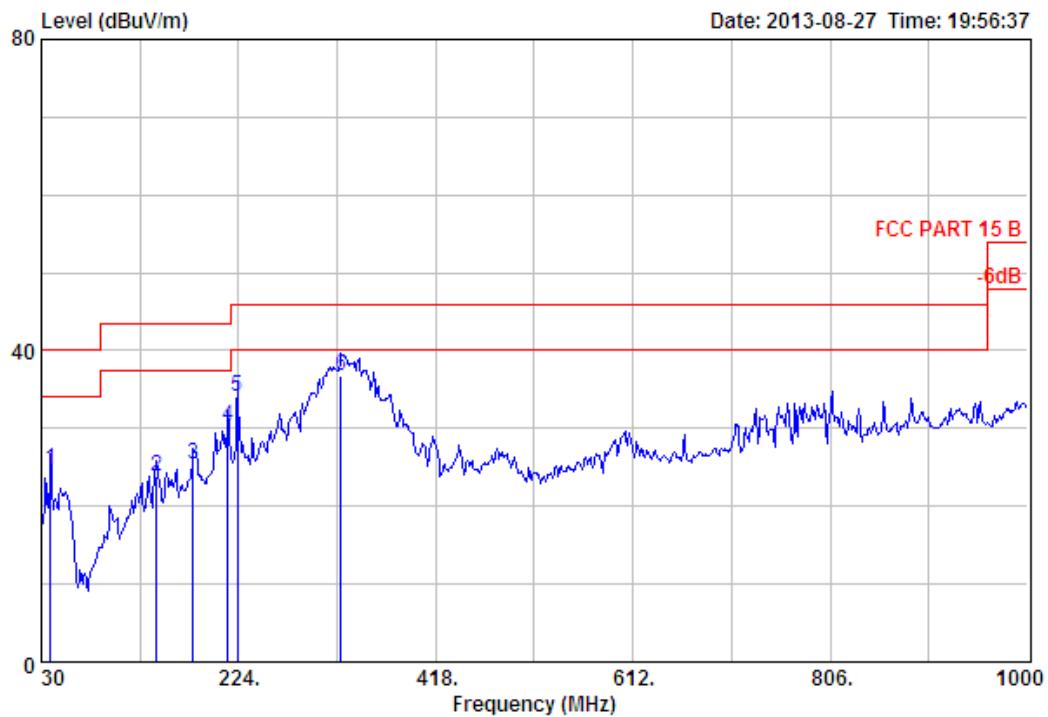
Site no. : 3m Chamber Data no. : 116
 Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
 Limit : FCC PART 15 B
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2440.4MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 38.73	13.48	2.10	14.65	30.23	40.00	9.77	QP
2 43.58	10.52	2.21	16.85	29.58	40.00	10.42	QP
3 143.49	11.29	3.71	11.96	26.96	43.50	16.54	QP
4 322.94	13.65	5.41	11.28	30.34	46.00	15.66	QP
5 754.59	22.12	8.32	2.80	33.24	46.00	12.76	QP
6 834.13	22.54	8.56	2.03	33.13	46.00	12.87	QP



Site no. : 3m Chamber Data no. : 117
 Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
 Limit : FCC PART 15 B
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2477.3MHz

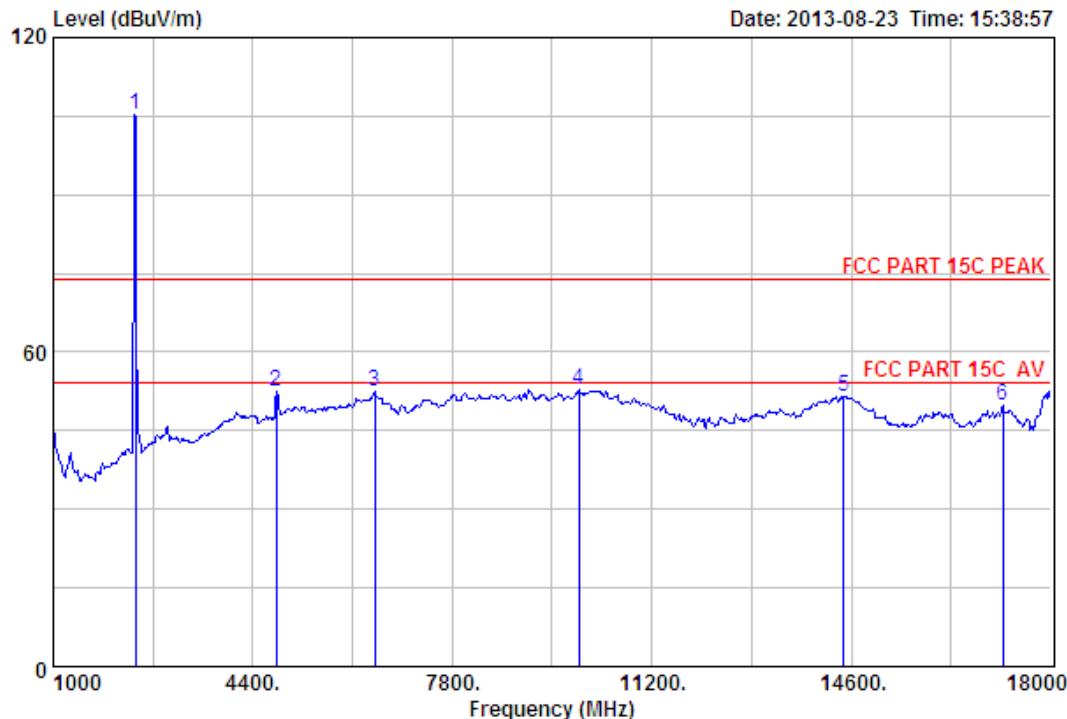
Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 38.73	13.48	2.10	15.30	30.88	40.00	9.12	QP
2 96.93	8.92	3.03	13.06	25.01	43.50	18.49	QP
3 143.49	11.29	3.71	12.34	27.34	43.50	16.16	QP
4 223.03	9.37	4.47	11.80	25.64	46.00	20.36	QP
5 255.04	12.41	4.87	8.08	25.36	46.00	20.64	QP
6 315.18	13.39	5.33	12.33	31.05	46.00	14.95	QP



Site no. : 3m Chamber Data no. : 118
 Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 B
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2477.3MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 38.73	13.48	2.10	9.15	24.73	40.00	15.27	QP
2 143.49	11.29	3.71	8.90	23.90	43.50	19.60	QP
3 179.38	8.96	4.11	12.25	25.32	43.50	18.18	QP
4 213.33	8.60	4.35	17.32	30.27	43.50	13.23	QP
5 223.03	9.37	4.47	20.32	34.16	46.00	11.84	QP
6 324.88	13.71	5.43	17.53	36.67	46.00	9.33	QP

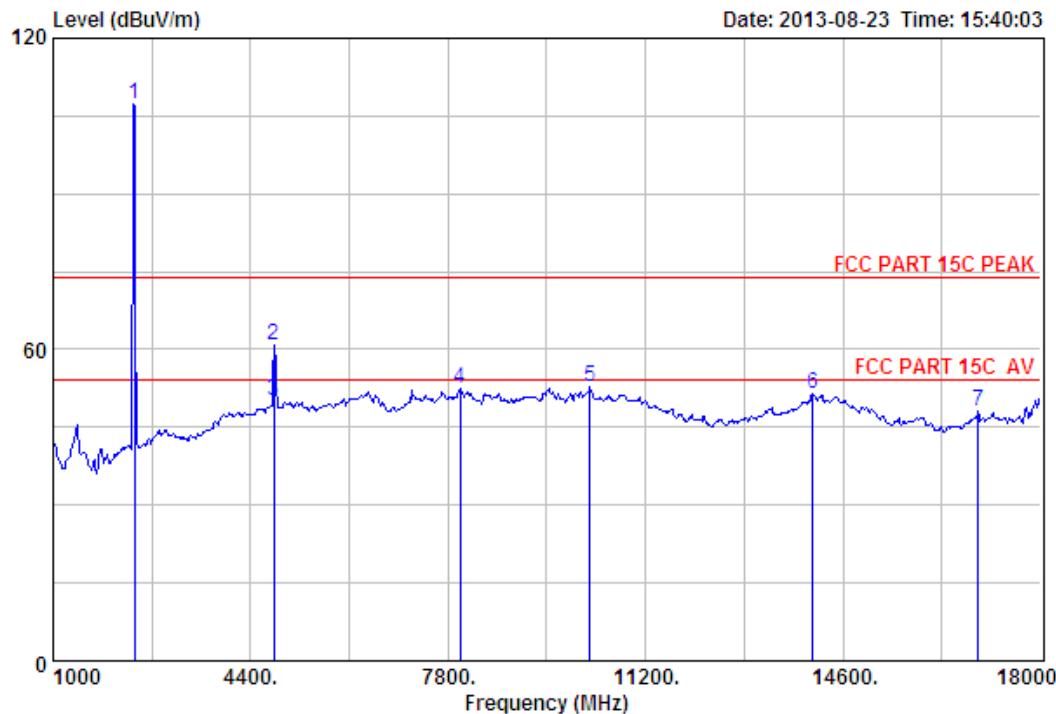
1000 MHz – 18000MHz



Site no. : 3m Chamber Data no. : 57
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission					Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 2403.50	27.61	6.64	34.18	105.14	105.21	74.00	-31.21	Peak	
2 4807.00	31.25	11.77	31.81	41.25	52.46	74.00	21.54	Peak	
3 6474.00	34.16	12.22	31.98	37.93	52.33	74.00	21.67	Peak	
4 9959.00	38.13	11.60	31.77	34.72	52.68	74.00	21.32	Peak	
5 14464.00	41.85	10.93	32.96	31.67	51.49	74.00	22.51	Peak	
6 17184.00	40.45	10.92	33.34	31.68	49.71	74.00	24.29	Peak	

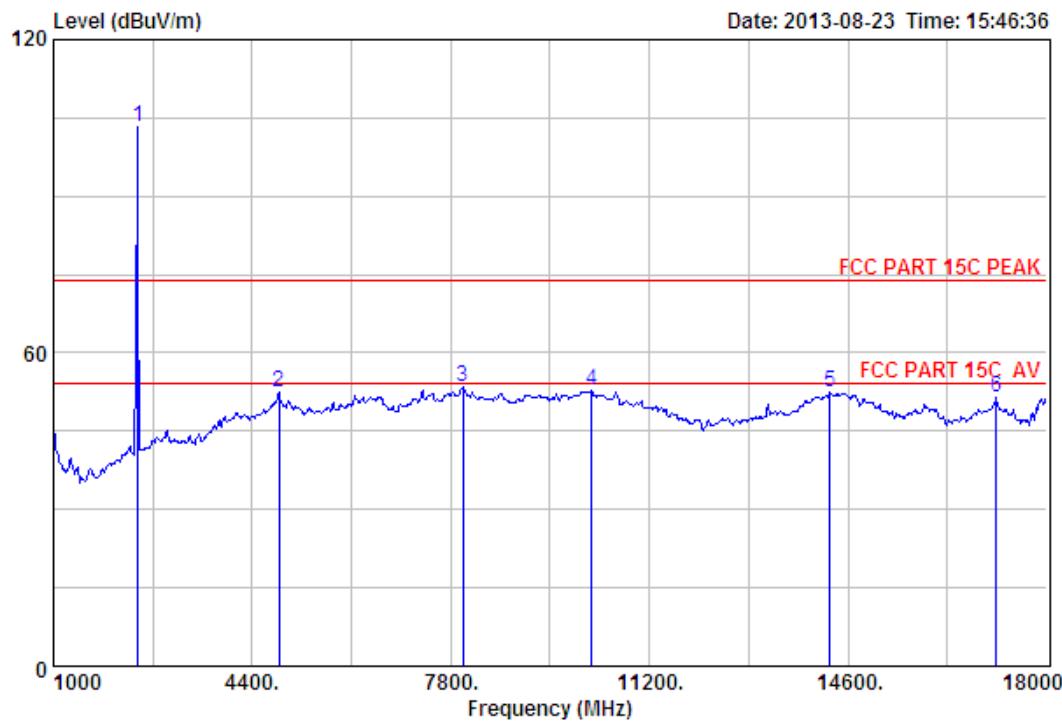
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 58
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				
				Reading	Level	Limits	Margin	Remark
(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1 2403.50	27.61	6.64	34.18	107.32	107.39	74.00	-33.39	Peak
2 4807.00	31.25	11.77	31.81	49.78	60.99	74.00	13.01	Peak
3 4807.00	31.25	11.77	31.81	38.80	50.01	54.00	3.99	Average
4 8004.00	37.01	11.40	31.22	35.19	52.38	74.00	21.62	Peak
5 10248.00	38.53	11.45	32.24	34.91	52.65	74.00	21.35	Peak
6 14073.00	41.52	10.90	33.75	32.65	51.32	74.00	22.68	Peak
7 16929.00	39.54	10.93	33.64	31.14	47.97	74.00	26.03	Peak

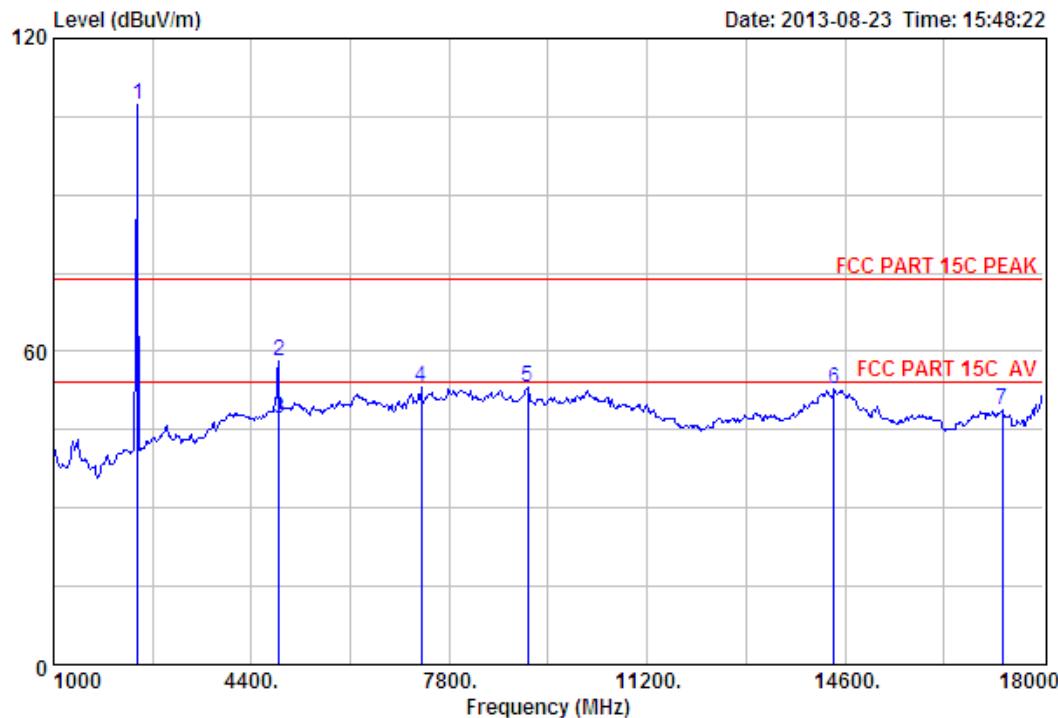
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 61
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2440.4MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2440.40	27.60	6.67	34.12	102.97	103.12	74.00	-29.12	Peak
2 4859.00	31.34	11.99	31.88	41.06	52.51	74.00	21.49	Peak
3 8004.00	37.01	11.40	31.22	36.24	53.43	74.00	20.57	Peak
4 10214.00	38.48	11.47	32.17	35.09	52.87	74.00	21.13	Peak
5 14294.00	41.71	10.92	33.08	33.08	52.63	74.00	21.37	Peak
6 17133.00	40.26	10.94	33.03	33.36	51.53	74.00	22.47	Peak

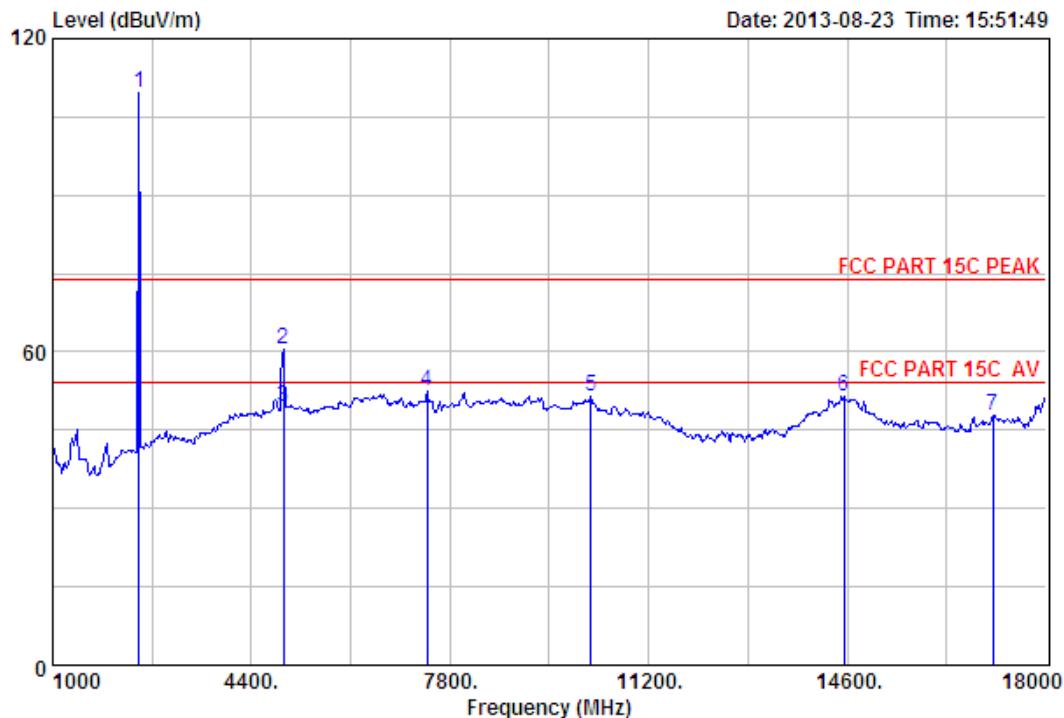
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 62
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2440.4MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2440.40	27.60	6.67	34.12	107.17	107.32	74.00	-33.32	Peak
2	4880.80	31.37	12.07	31.90	46.57	58.11	74.00	15.89	Peak
3	4880.80	31.37	12.07	31.90	35.67	47.21	54.00	6.79	Average
4	7324.00	36.55	11.57	31.99	36.87	53.00	74.00	21.00	Peak
5	9143.00	37.65	11.53	32.39	36.28	53.07	74.00	20.93	Peak
6	14413.00	41.80	10.92	32.78	32.78	52.72	74.00	21.28	Peak
7	17303.00	40.84	10.88	33.97	31.12	48.87	74.00	25.13	Peak

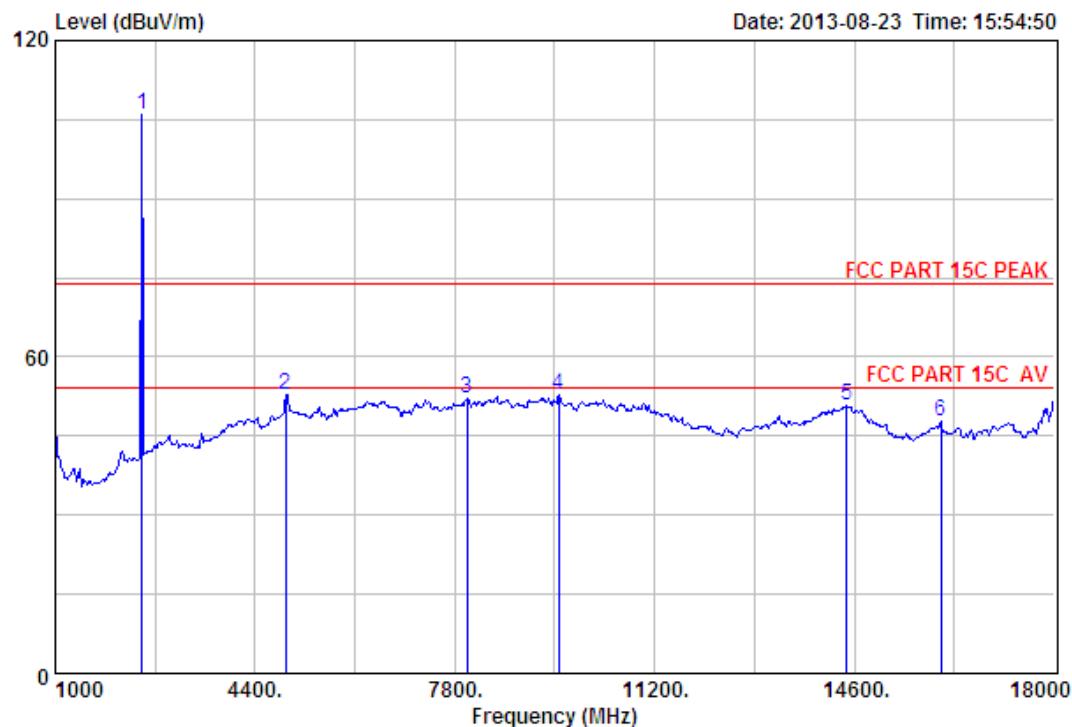
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 63
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2477.3MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
<hr/>									
1	2477.30	27.58	6.71	34.03	109.31	109.57	74.00	-35.57	Peak
2	4954.60	31.49	12.44	31.97	48.62	60.58	74.00	13.42	Peak
3	4954.60	31.49	12.44	31.97	37.67	49.63	54.00	4.37	Average
4	7409.00	36.58	11.60	31.97	36.43	52.64	74.00	21.36	Peak
5	10214.00	38.48	11.47	32.17	33.65	51.43	74.00	22.57	Peak
6	14549.00	41.77	10.92	33.26	32.05	51.48	74.00	22.52	Peak
7	17099.00	40.13	10.95	32.96	29.84	47.96	74.00	26.04	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

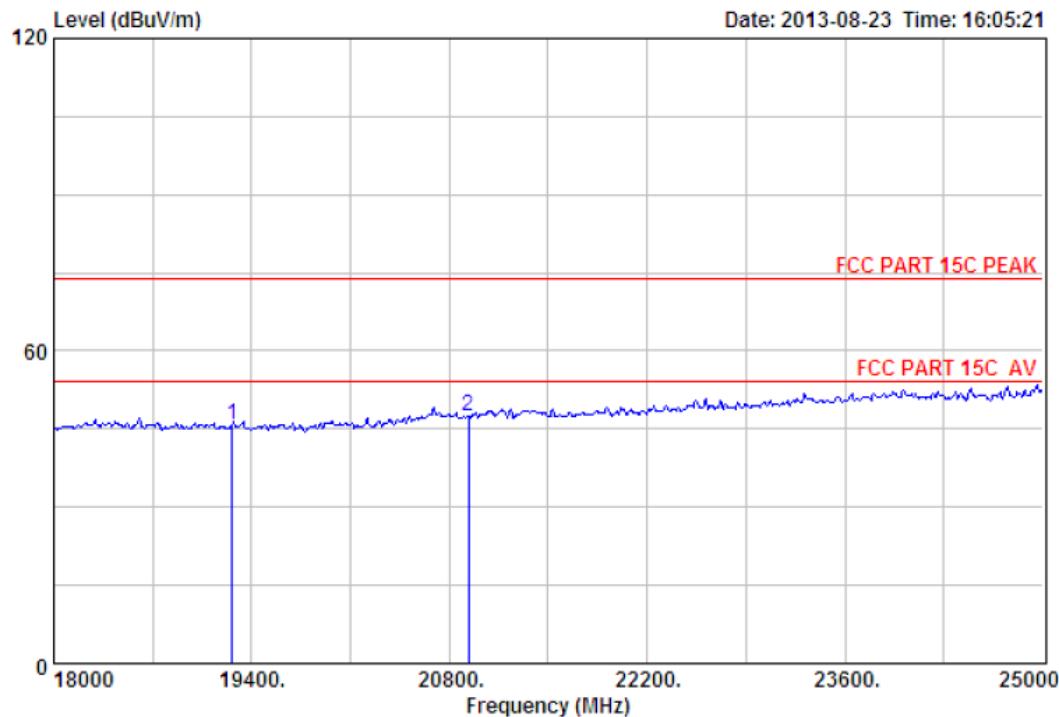


Site no. : 3m Chamber Data no. : 64
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2477.3MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission					Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 2477.30	27.58	6.71	34.03	105.81	106.07	74.00	-32.07	Peak	
2 4927.00	31.45	12.29	31.95	41.16	52.95	74.00	21.05	Peak	
3 8004.00	37.01	11.40	31.22	35.09	52.28	74.00	21.72	Peak	
4 9568.00	37.94	11.69	31.93	35.15	52.85	74.00	21.15	Peak	
5 14464.00	41.85	10.93	32.96	30.84	50.66	74.00	23.34	Peak	
6 16079.00	37.22	10.65	32.93	32.80	47.74	74.00	26.26	Peak	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

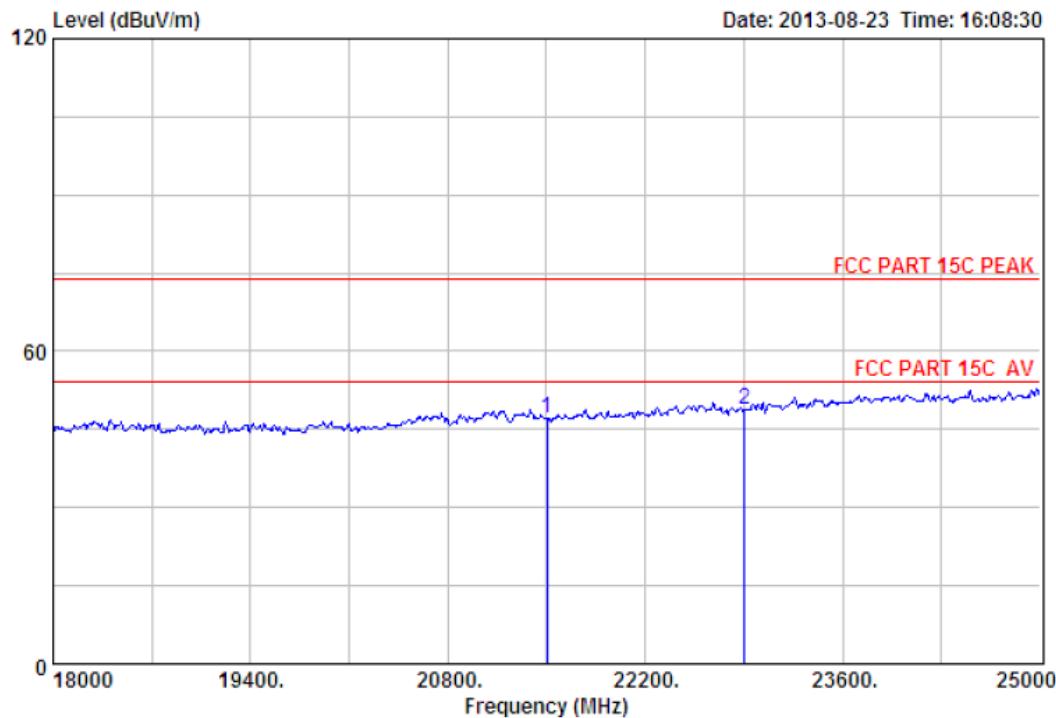
18000MHz – 25000MHz



Site no. : 3m Chamber Data no. : 67
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 19260.00	45.66	18.84	36.06	17.23	45.67	74.00	28.33	Peak
2 20933.00	46.26	20.10	35.87	17.07	47.56	74.00	26.44	Peak

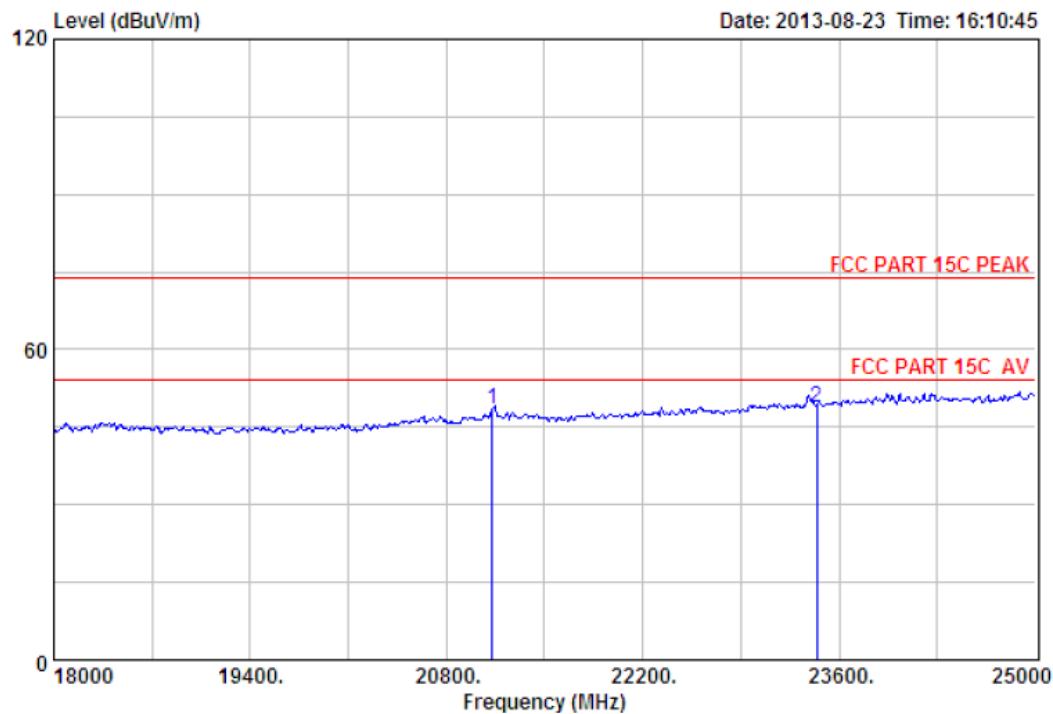
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 68
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				
				Reading	Level	Limits	Margin	Remark
(dB)	(dBuV)	(dBuV/m)	(dB)	(dB)	(dB)	(dB)	(dB)	
1 21500.00	46.00	20.35	35.35	16.09	47.09	74.00	26.91	Peak
2 22907.00	45.64	21.09	33.96	15.99	48.76	74.00	25.24	Peak

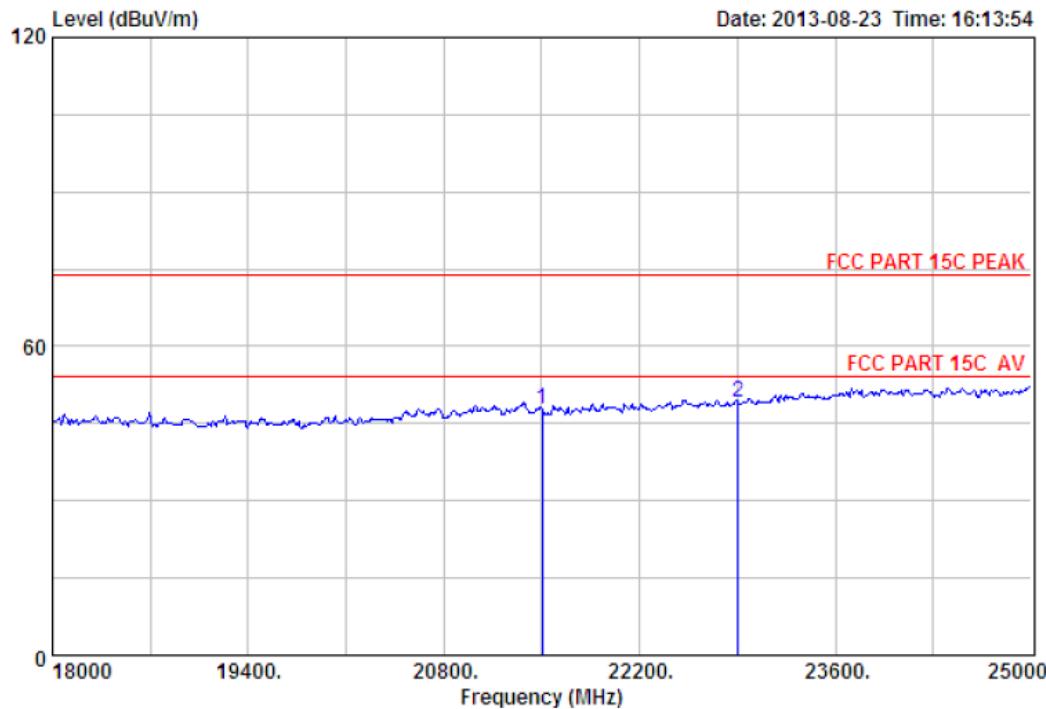
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 69
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2440.4MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission					Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		
1 21129.00	46.22	20.19	35.69	17.62	48.34	74.00	25.66	Peak	
2 23439.00	45.69	21.54	33.38	15.10	48.95	74.00	25.05	Peak	

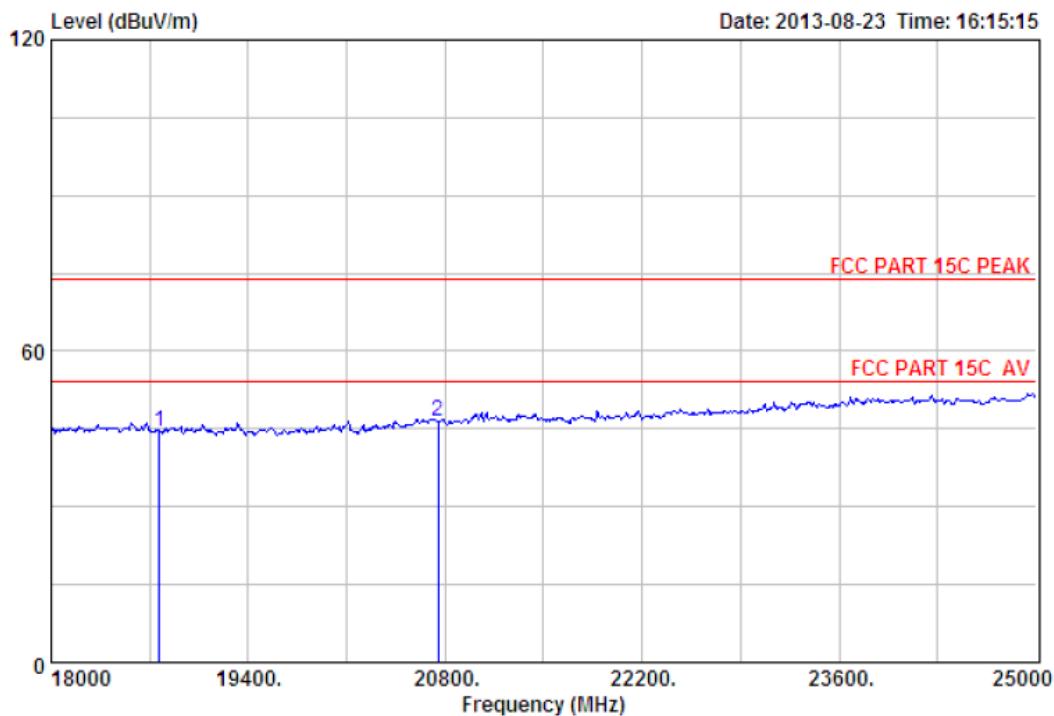
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 70
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2440.4MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 21500.00	46.00	20.35	35.35	16.89	47.89	74.00	26.11	Peak
2 22907.00	45.64	21.09	33.96	16.34	49.11	74.00	24.89	Peak

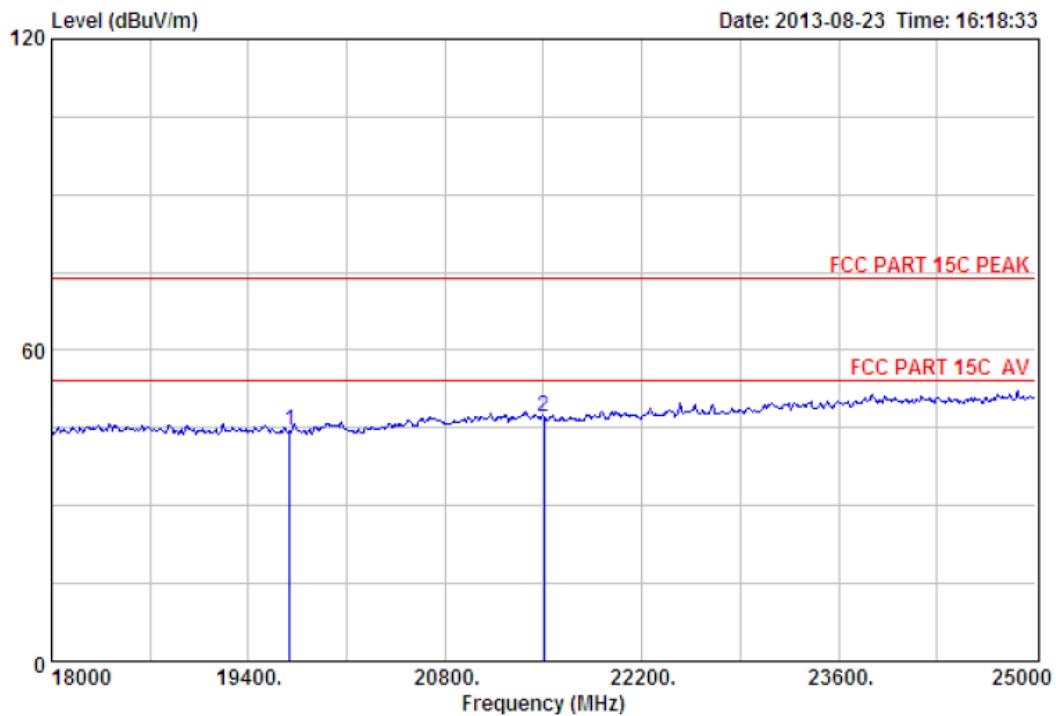
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 71
 Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2477.3MHz

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				
				Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1 18770.00	45.17	18.27	35.66	16.83	44.61	74.00	29.39	Peak
2 20751.00	46.15	20.02	36.03	16.29	46.43	74.00	27.57	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 72
 Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2477.3MHz

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				
				Reading	Level	Limits	Margin	Remark
				(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1 19694.00	45.98	19.33	36.44	15.45	44.32	74.00	29.68	Peak
2 21500.00	46.00	20.35	35.35	16.13	47.13	74.00	26.87	Peak

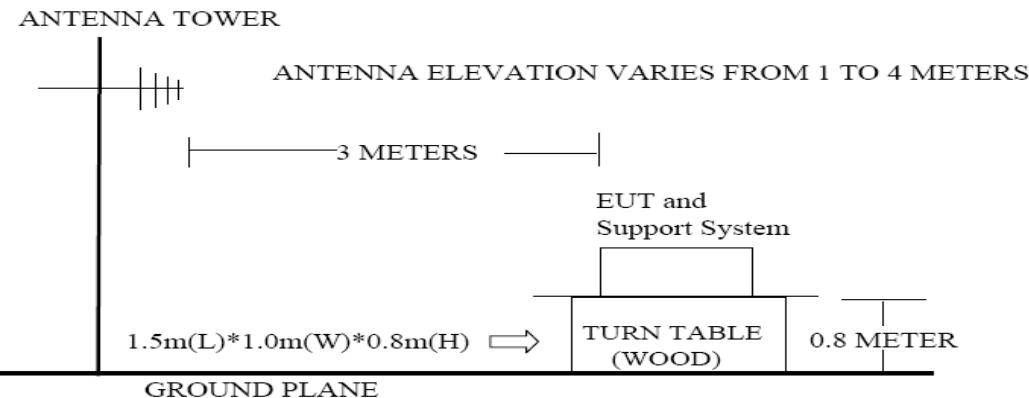
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

4. BAND EDGE COMPLIANCE

4.1. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.2. Block Diagram of Test setup



4.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of emissions

- (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
- (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

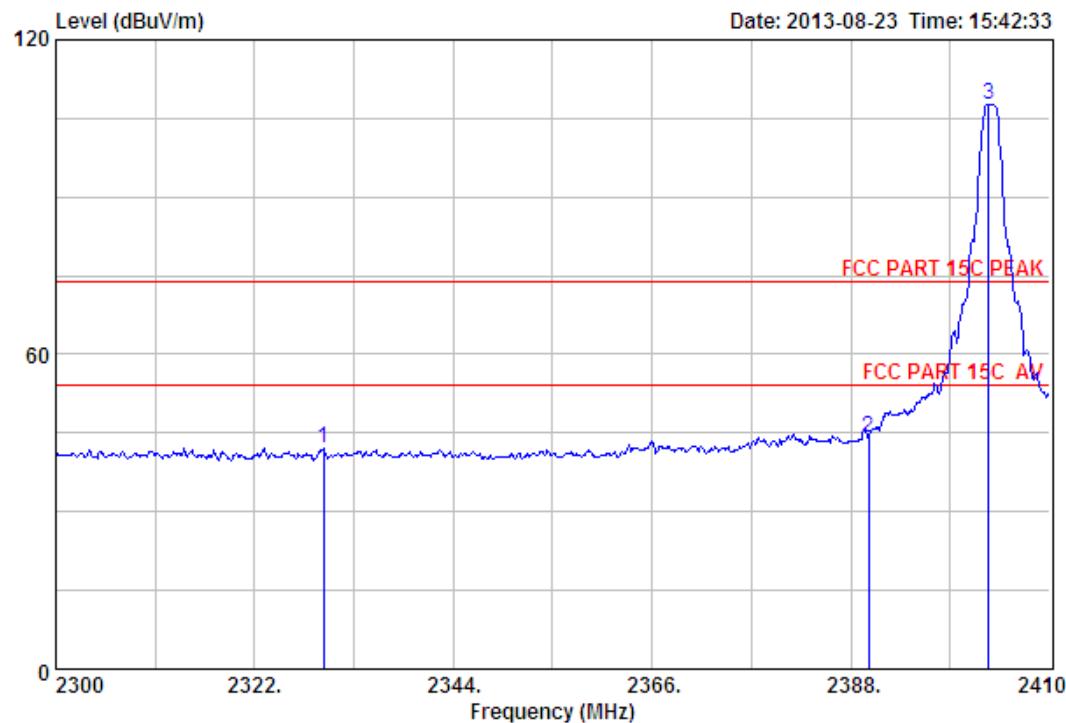
4.4. Test Result

EUT: SURROUNDBAR 6500BT
M/N: SB6500BT SPEAKER
Power: DC 24V From Adapter Input AC 120V/60Hz
Test date: 2013-08-23 Test site: 3m Chamber Tested by: Tony Tang
Test mode: Tx Mode (Hopping On & No Hopping)
Pass

Note: 1、For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

2、The frequency 2403.5MHz 、 2440.4MHz and 2477.3MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

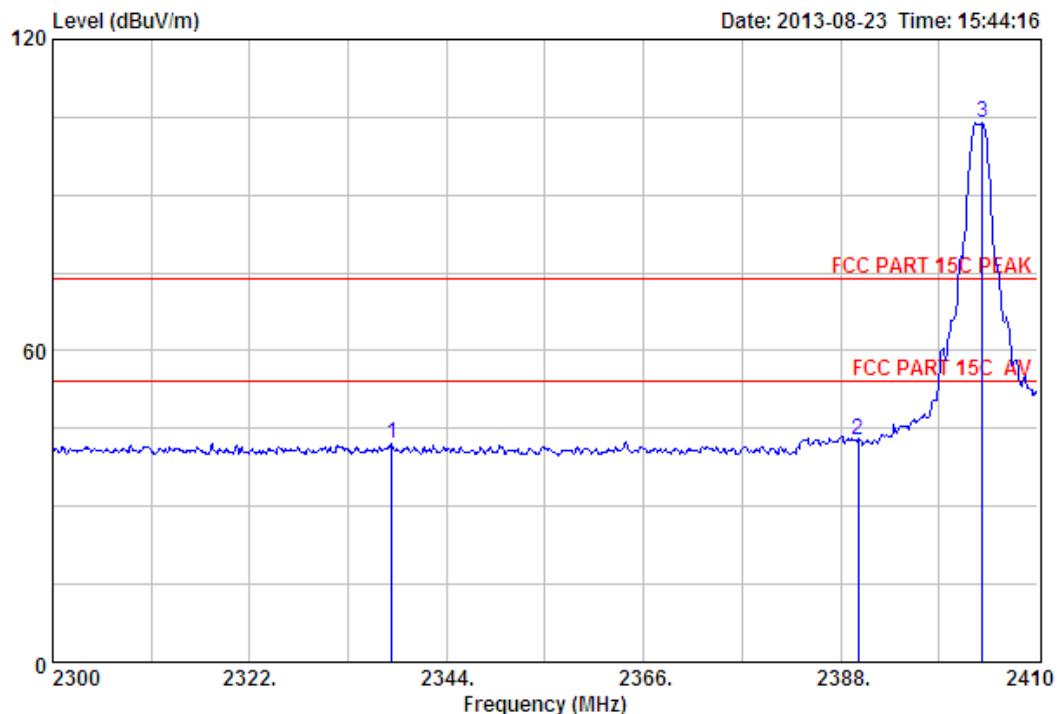
4.5. Test Data



Site no. : 3m Chamber Data no. : 59
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz (No Hopping)

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission					Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 2329.59	27.73	6.54	34.23	42.09	42.13	74.00	31.87	Peak	
2 2390.00	27.64	6.62	34.19	44.12	44.19	74.00	29.81	Peak	
3 2403.29	27.61	6.64	34.18	107.73	107.80	74.00	-33.80	Peak	

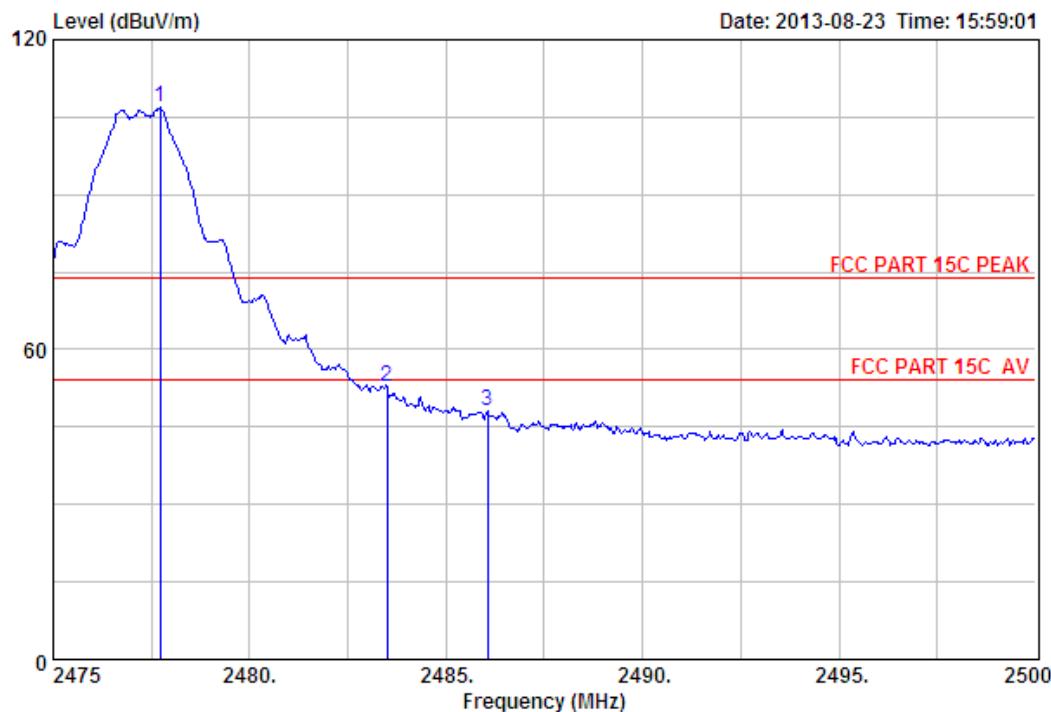
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 60
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz (No Hopping)

		Ant.	Cable	Amp	Emission			
Freq.	Factor	Loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2337.84	27.73	6.56	34.23	42.01	42.07	74.00	31.93 Peak
2	2390.00	27.64	6.62	34.19	42.72	42.79	74.00	31.21 Peak
3	2403.84	27.61	6.64	34.18	103.96	104.03	74.00	-30.03 Peak

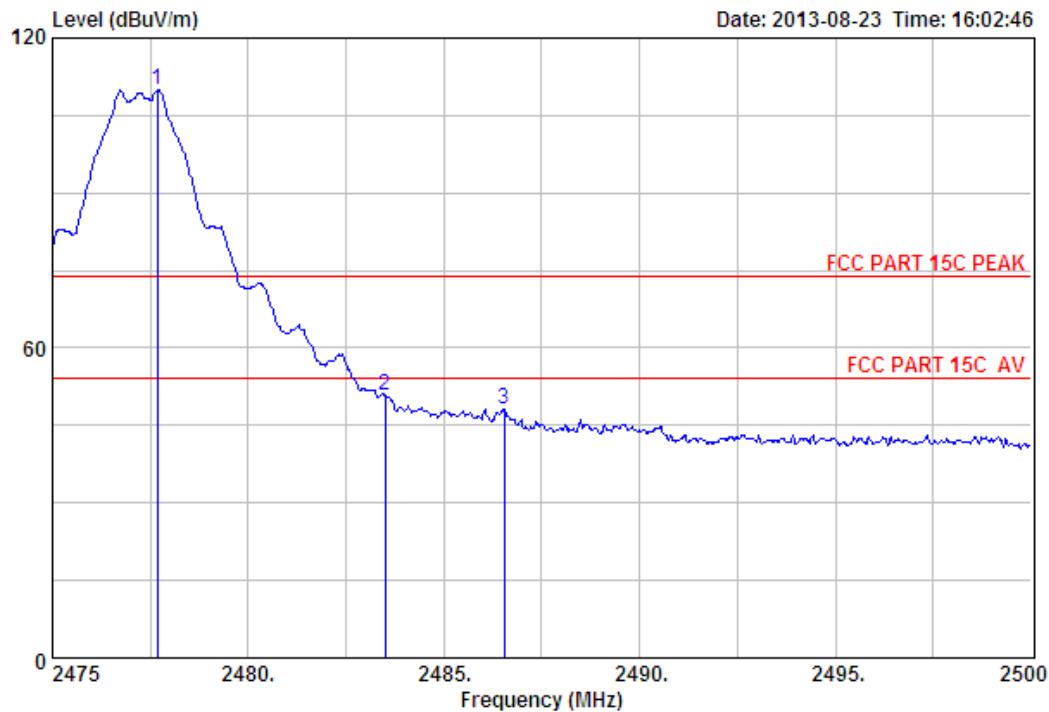
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 65
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2477.3MHz (No Hopping)

	Ant.	Cable	Amp	Emission				
Freq.	Factor	Loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2477.73	27.58	6.71	34.03	106.62	106.88	74.00	-32.88 Peak
2	2483.50	27.58	6.71	34.03	52.49	52.75	74.00	21.25 Peak
3	2486.05	27.58	6.71	34.03	47.90	48.16	74.00	25.84 Peak

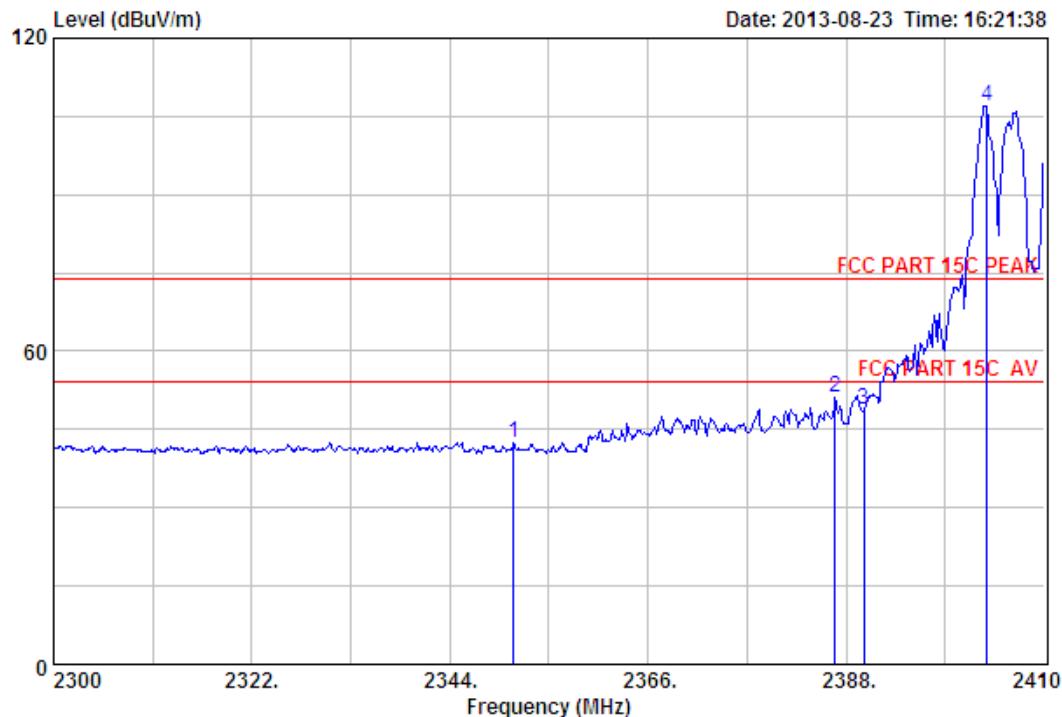
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 66
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2477.3MHz (No Hopping)

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2477.68	27.58	6.71	34.03	109.66	109.92	74.00	-35.92	Peak
2 2483.50	27.58	6.71	34.03	50.41	50.67	74.00	23.33	Peak
3 2486.55	27.58	6.71	34.03	47.90	48.16	74.00	25.84	Peak

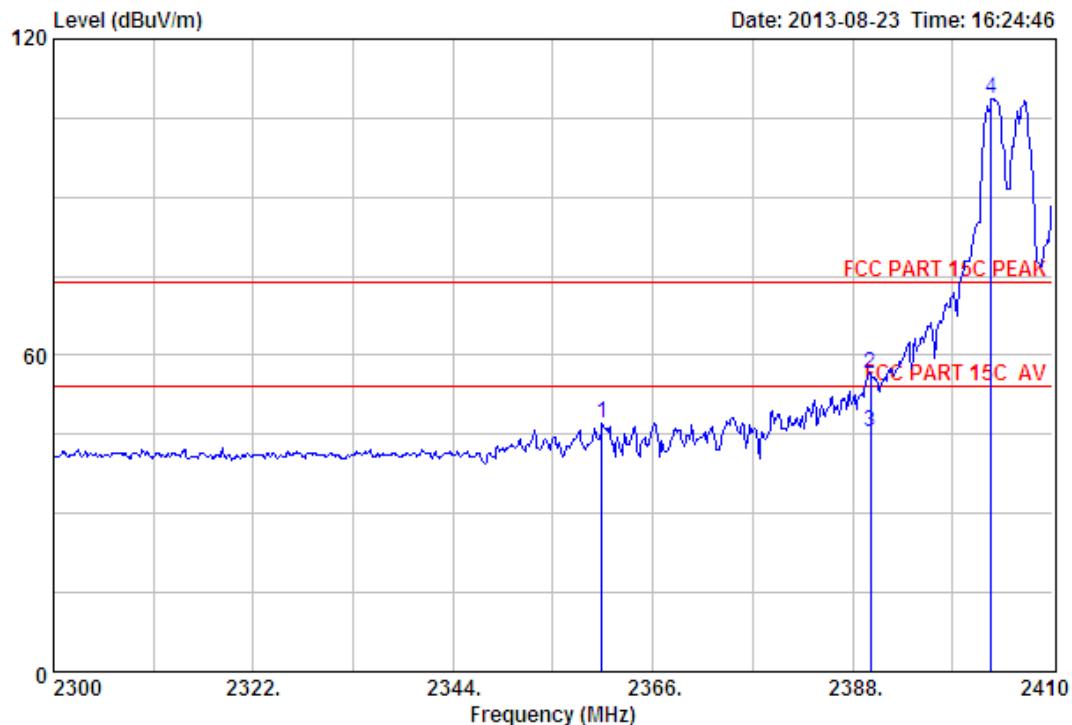
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 73
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz (Hopping On)

		Ant.	Cable	Amp	Emission				
	Freq.	Factor	Loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2351.04	27.70	6.56	34.22	42.50	42.54	74.00	31.46	Peak
2	2386.79	27.64	6.62	34.19	51.16	51.23	74.00	22.77	Peak
3	2390.00	27.64	6.62	34.19	48.65	48.72	74.00	25.28	Peak
4	2403.62	27.61	6.64	34.18	106.86	106.93	74.00	-32.93	Peak

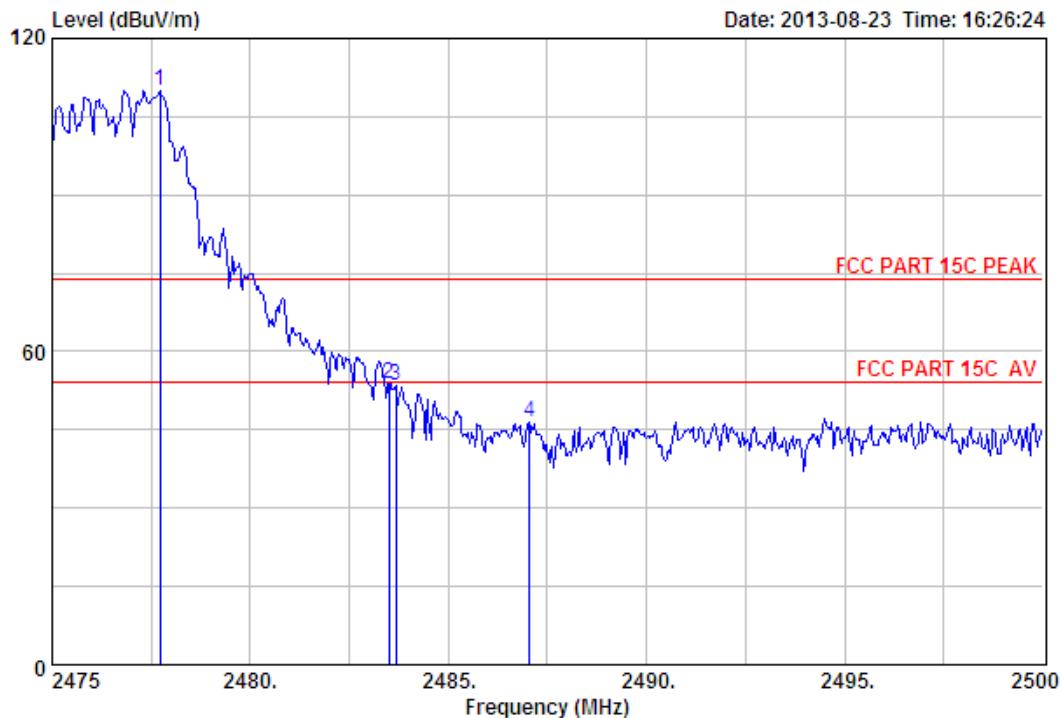
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 74
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz(Hopping On)

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2360.39	27.67	6.58	34.20	47.09	47.14	74.00	26.86	Peak
2 2390.00	27.64	6.62	34.19	56.39	56.46	74.00	17.54	Peak
3 2390.00	27.64	6.62	34.19	45.29	45.36	54.00	8.64	Average
4 2403.29	27.61	6.64	34.18	108.50	108.57	74.00	-34.57	Peak

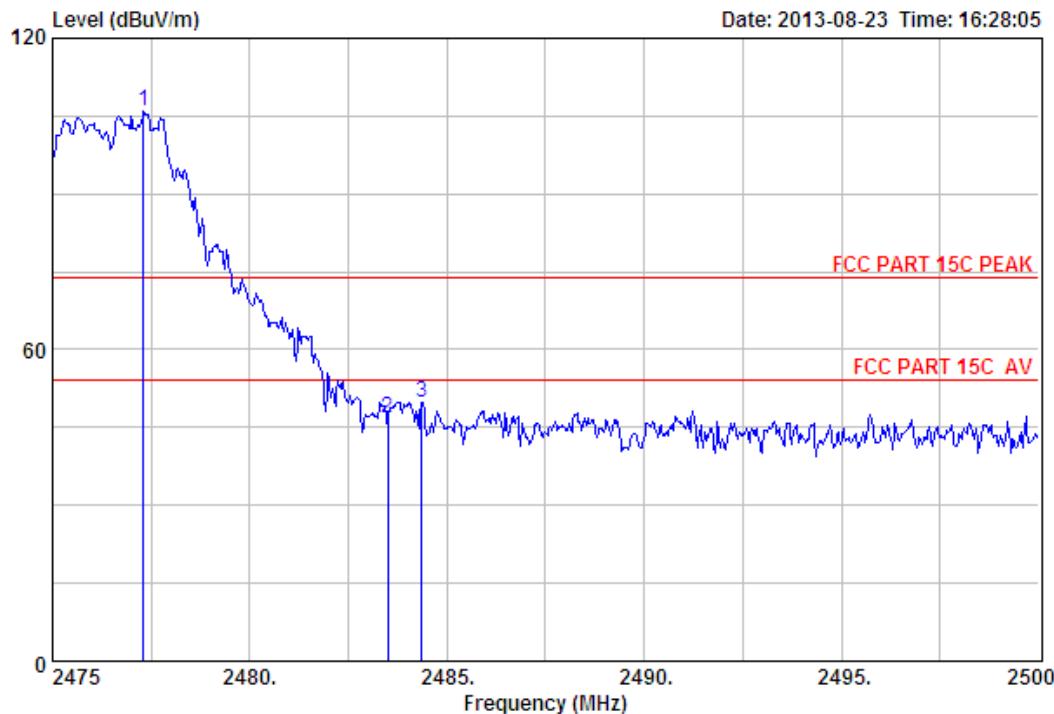
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 75
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz (Hopping On)

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2477.73	27.58	6.71	34.03	109.86	110.12	74.00	-36.12	Peak
2 2483.50	27.58	6.71	34.03	53.46	53.72	74.00	20.28	Peak
3 2483.68	27.58	6.71	34.03	53.12	53.38	74.00	20.62	Peak
4 2487.05	27.58	6.71	34.03	46.11	46.37	74.00	27.63	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 76
 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX 2403.5MHz(Hopping On)

Freq. (MHz)	Ant. Factor	Cable Loss	Amp Factor	Emission				Margin (dB)	Remark
				Reading	Level	Limits			
1 2477.30	27.58	6.71	34.03	105.73	105.99	74.00	-31.99		Peak
2 2483.50	27.58	6.71	34.03	46.50	46.76	74.00	27.24		Peak
3 2484.35	27.58	6.71	34.03	49.60	49.86	74.00	24.14		Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

5. POWER LINE CONDUCTED EMISSIONS

5.1. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

5.2. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT was charged from PC's USB port which connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2003 on Conducted Emission Test.

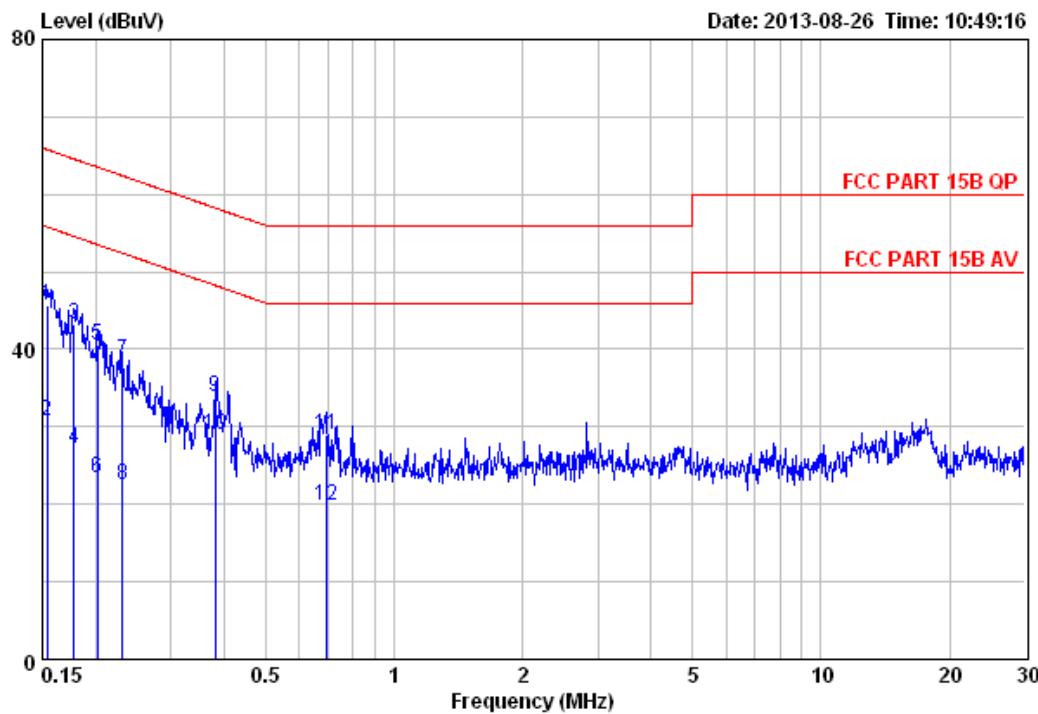
The bandwidth of test receiver (R & S ESHS30) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

5.3. Test Result

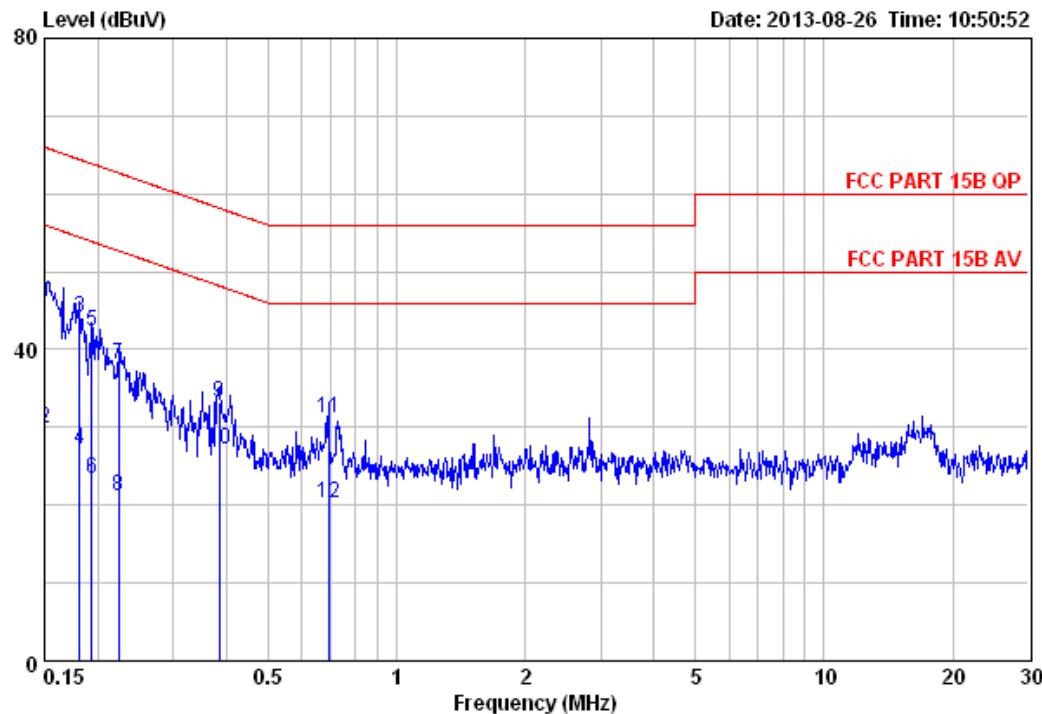
0.15MHz—30MHz Conducted emission Test result
EUT: SURROUNDBAR 6500BT
M/N: SB6500BT SPEAKER
Power: DC 24V From Adapter Input AC 120V/60Hz
Test date: 2013-08-26 Test site: 3m Chamber Tested by: Tony.Tang
Test mode: Tx Mode
Pass

5.4. Test data



Site no : EST Conduction Shielded Room
 Limit : FCC PART 15B QP LINE Phase:LINE
 Env. / Ins. : Temp:25.3'C Humi:58% Press:101.50kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX Mode

Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Emission				Remark
			Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	
1	0.15	9.61	9.81	26.37	45.79	65.78	19.99 QP
2	0.15	9.61	9.81	11.37	30.79	55.78	24.99 Average
3	0.18	9.61	9.80	23.76	43.17	64.59	21.42 QP
4	0.18	9.61	9.80	7.76	27.17	54.59	27.42 Average
5	0.20	9.61	9.80	21.04	40.45	63.54	23.09 QP
6	0.20	9.61	9.80	4.04	23.45	53.54	30.09 Average
7	0.23	9.61	9.80	19.17	38.58	62.39	23.81 QP
8	0.23	9.61	9.80	3.17	22.58	52.39	29.81 Average
9	0.38	9.61	9.82	14.45	33.88	58.25	24.37 QP
10	0.38	9.61	9.82	9.45	28.88	48.25	19.37 Average
11	0.70	9.59	9.81	9.49	28.89	56.00	27.11 QP
12	0.70	9.59	9.81	0.49	19.89	46.00	26.11 Average



Site no : EST Conduction Shielded Room
 Limit : FCC PART 15B QP LINE Phase:NEUTRAL
 Env. / Ins. : Temp:25.3'C Humi:58% Press:101.50kPa
 Engineer : Tony
 EUT : SURROUNDBAR 6500BT
 Power : DC 24V From Adapter Input AC 120V/60Hz
 M/N : SB6500BT SPEAKER
 Test Mode : TX Mode

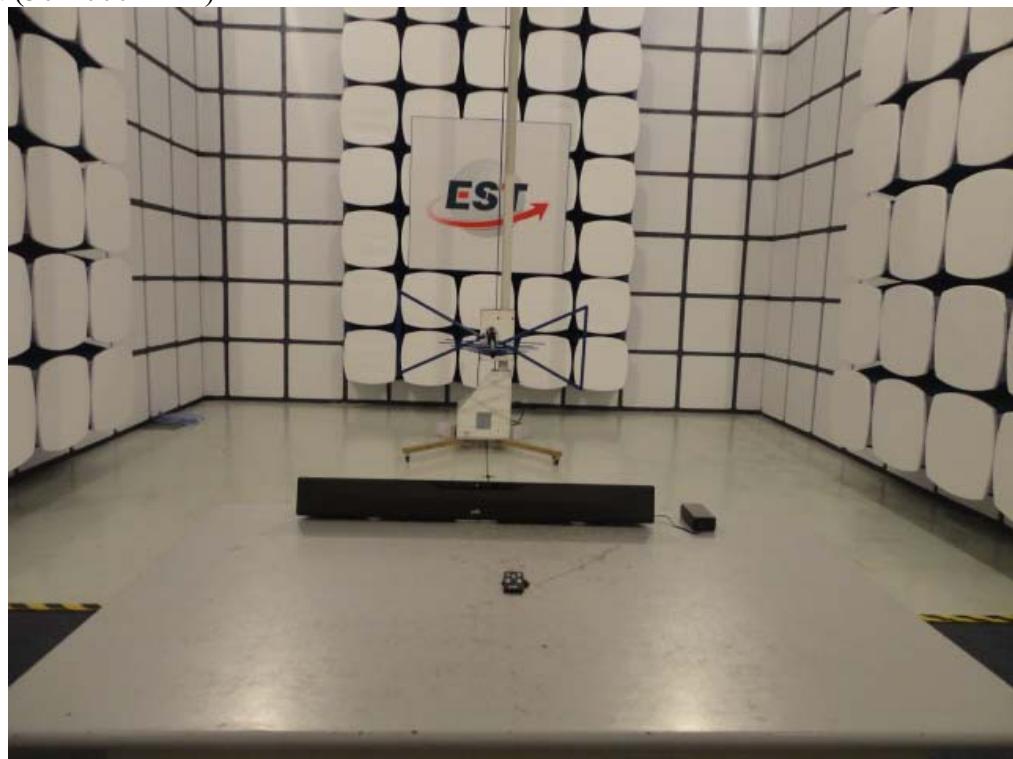
Freq. (MHz)	LISM Factor (dB)	Cable Loss (dB)	Emission				Remark
			Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	
1	0.15	9.46	9.81	27.51	46.78	66.00	QP
2	0.15	9.46	9.81	10.51	29.78	56.00	Average
3	0.18	9.55	9.80	24.77	44.12	64.42	QP
4	0.18	9.55	9.80	7.77	27.12	54.42	Average
5	0.19	9.58	9.80	23.02	42.40	63.89	QP
6	0.19	9.58	9.80	4.02	23.40	53.89	Average
7	0.22	9.60	9.80	18.80	38.20	62.70	QP
8	0.22	9.60	9.80	1.80	21.20	52.70	Average
9	0.39	9.59	9.82	13.84	33.25	58.17	QP
10	0.39	9.59	9.82	7.84	27.25	48.17	Average
11	0.69	9.63	9.81	11.81	31.25	56.00	QP
12	0.69	9.63	9.81	0.81	20.25	46.00	Average

6. TEST SETUP PHOTO

Conducted Test



Radiated Test (30-1000 MHz)



Radiated Test (1000-25000 MHz)



7. PHOTOS OF EUT

External Photos

M/N: SB6500BT SPEAKER



External Photos
M/N: SB6500BT SPEAKER



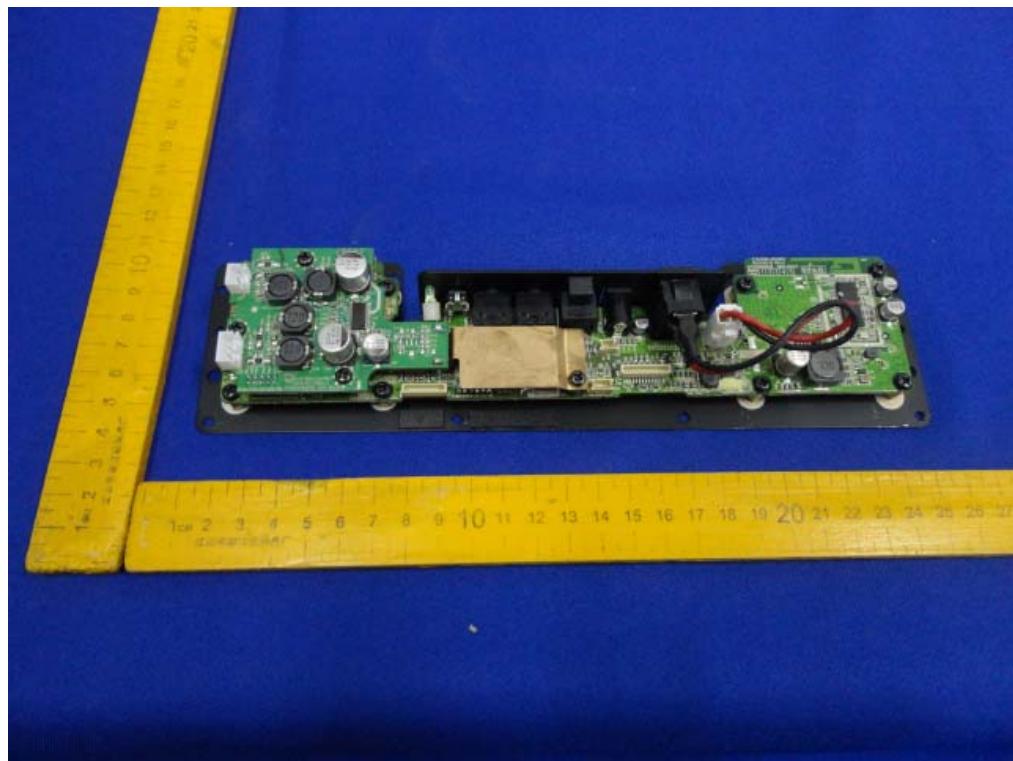
External Photos

M/N: SB6500BT SPEAKER



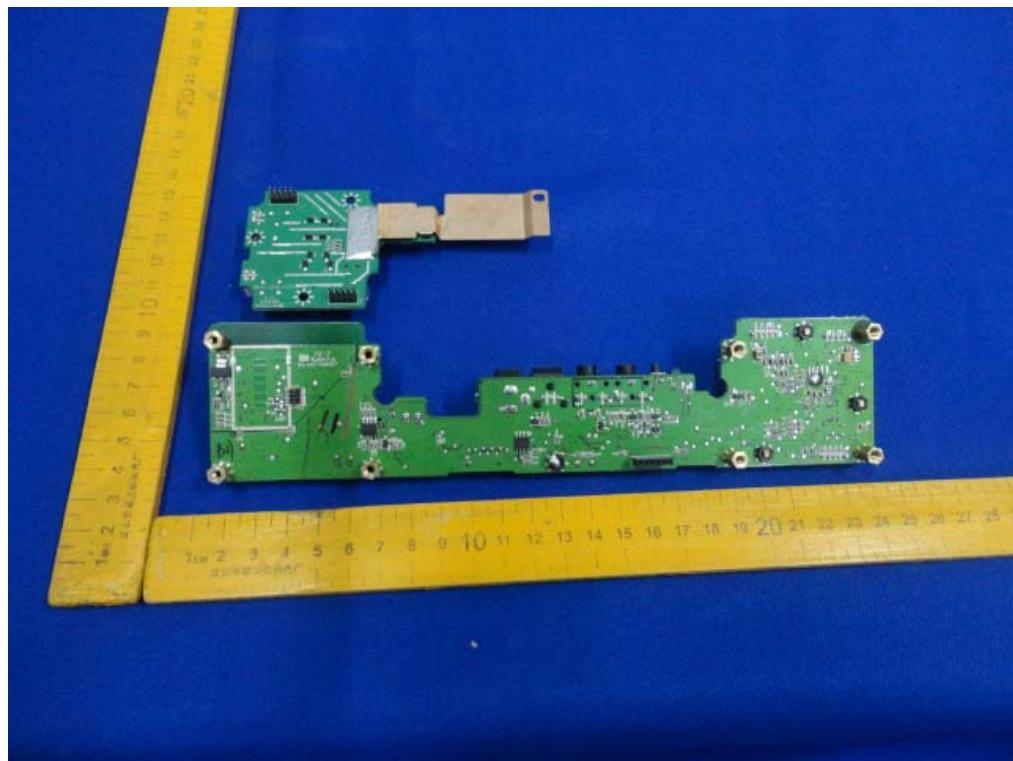
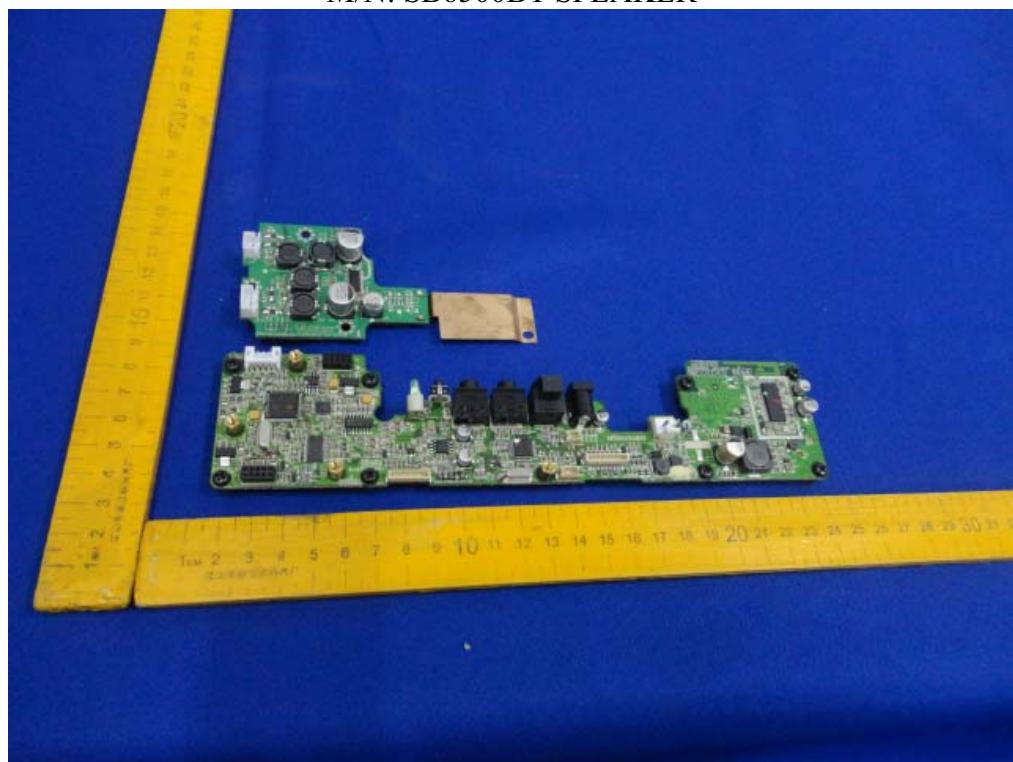
Internal Photos

M/N: SB6500BT SPEAKER



Internal Photos

M/N: SB6500BT SPEAKER



Internal Photos

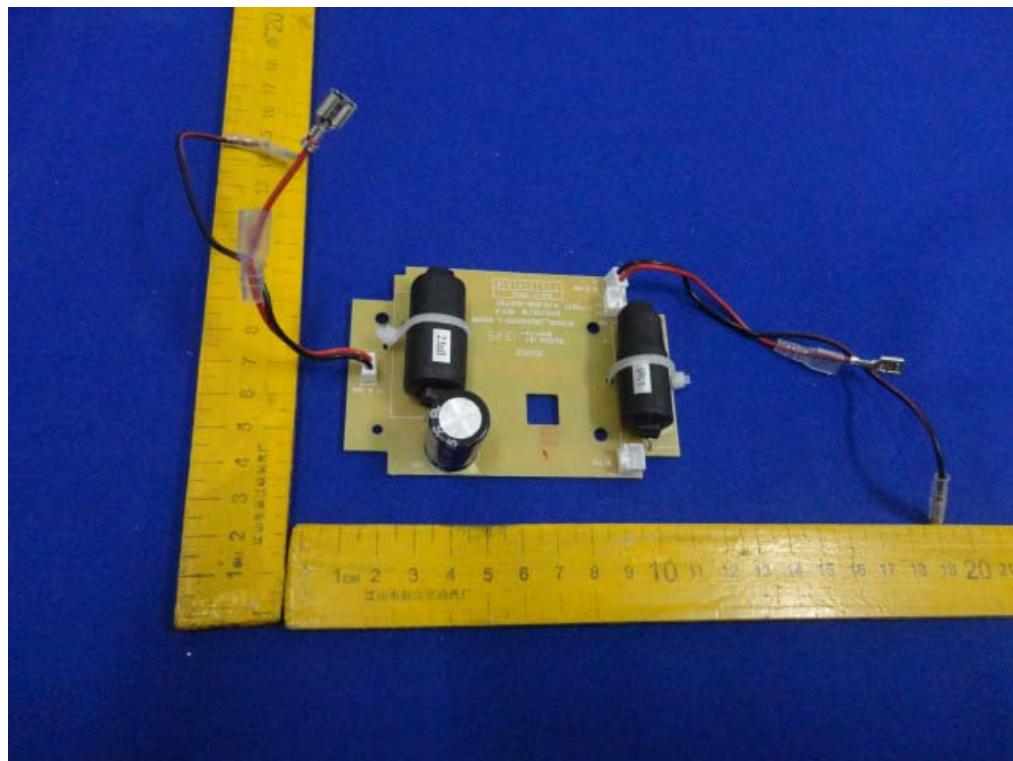
M/N: SB6500BT SPEAKER



FHSS
Antenna

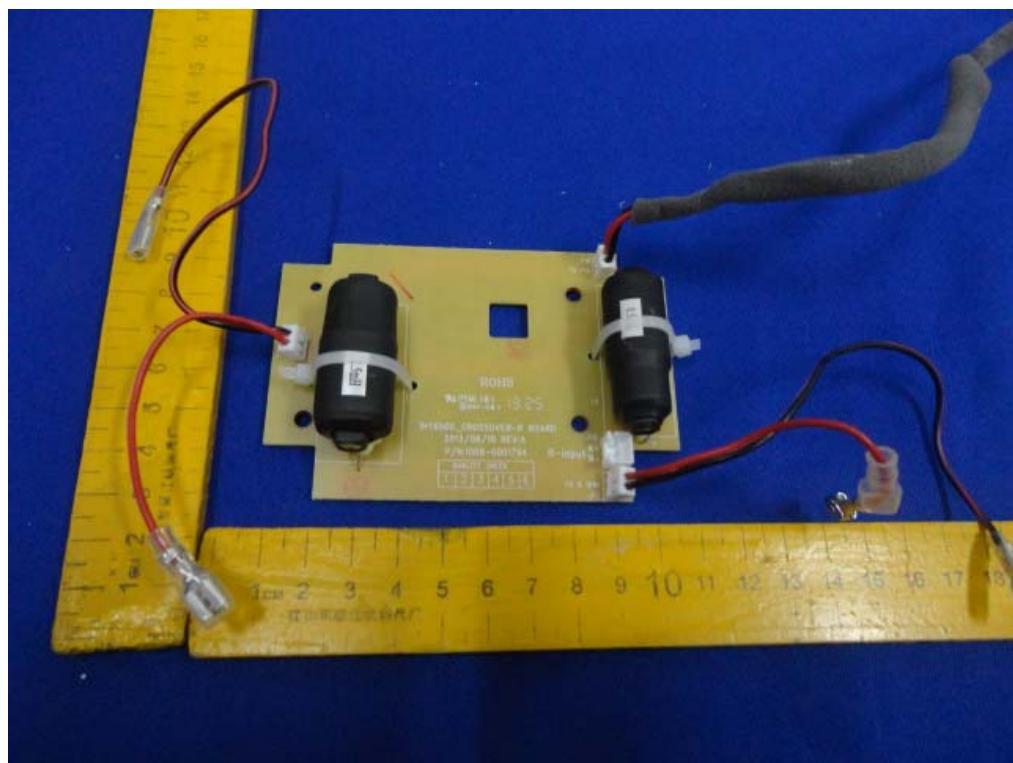
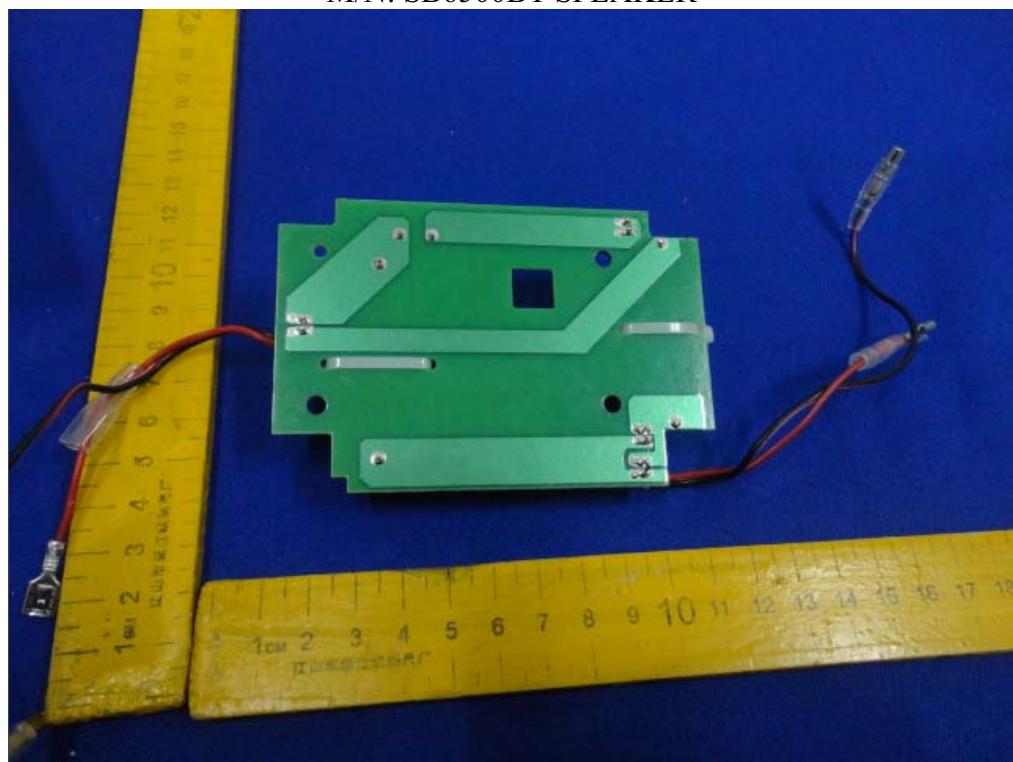
Internal Photos

M/N: SB6500BT SPEAKER



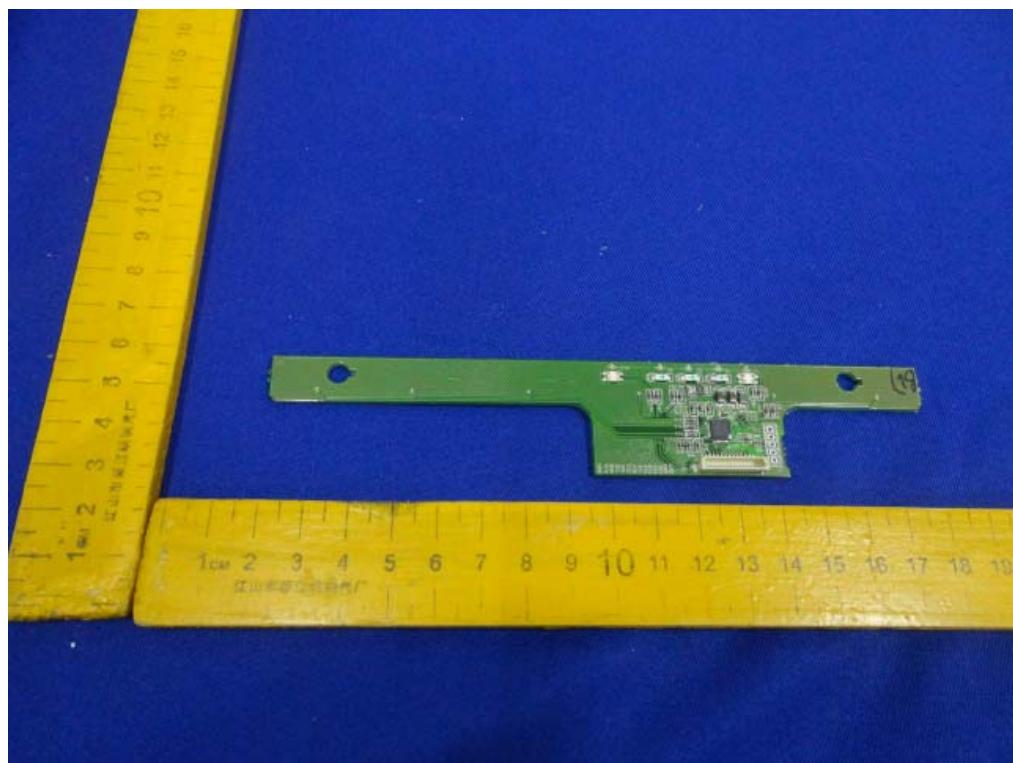
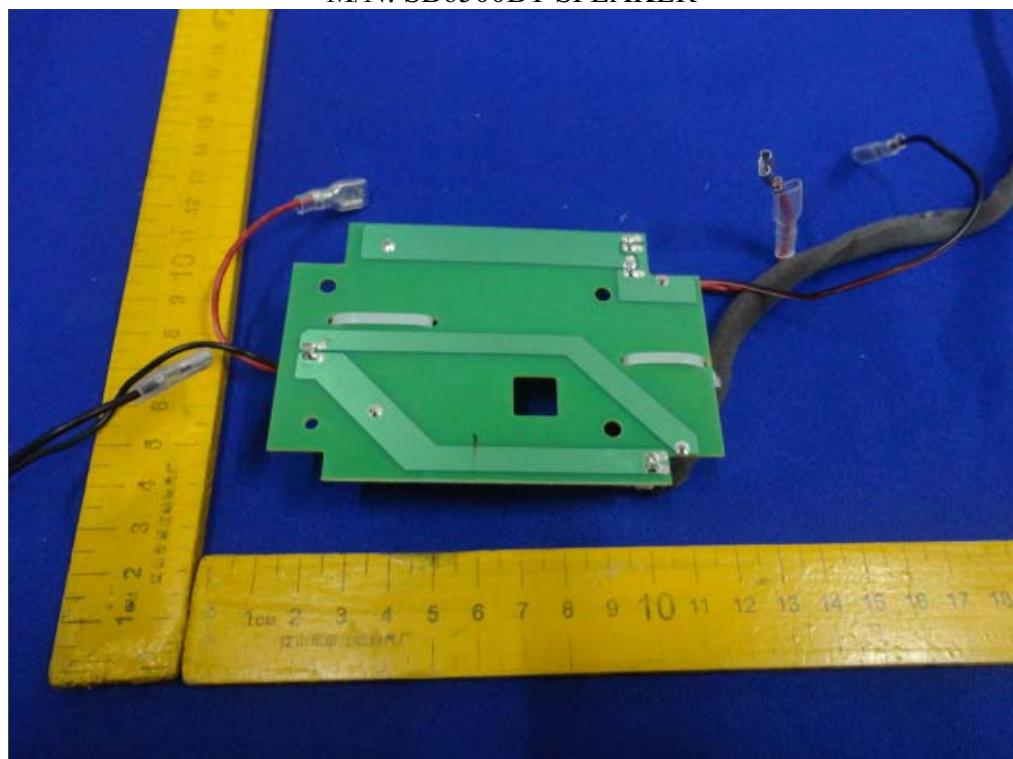
Internal Photos

M/N: SB6500BT SPEAKER



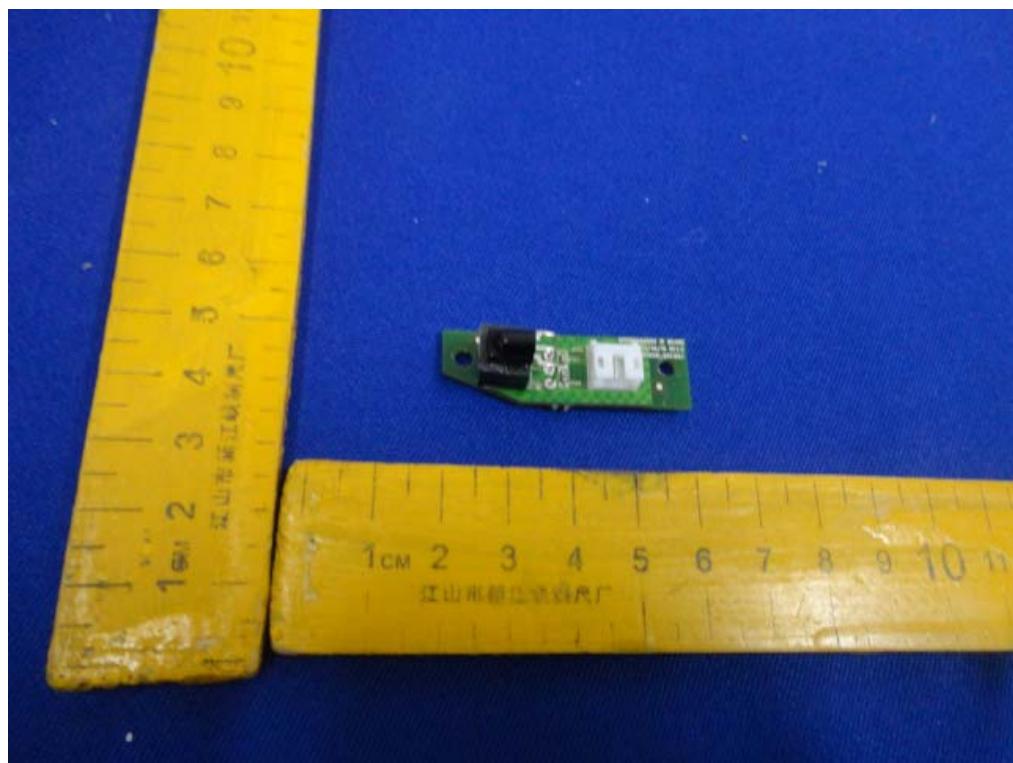
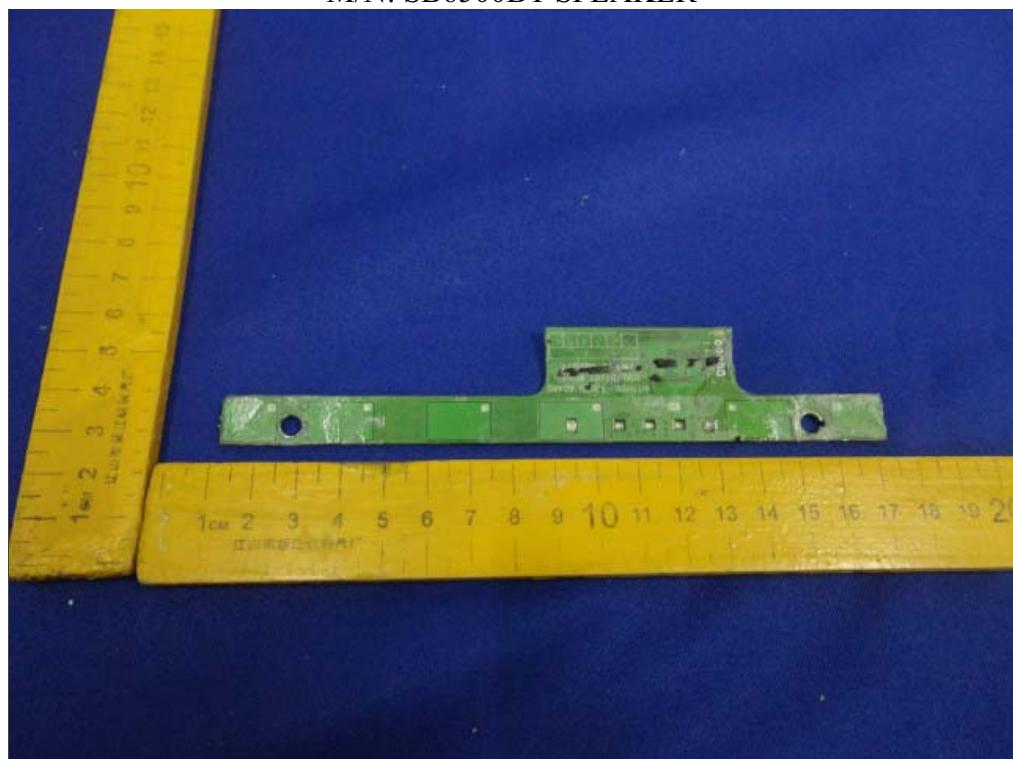
Internal Photos

M/N: SB6500BT SPEAKER



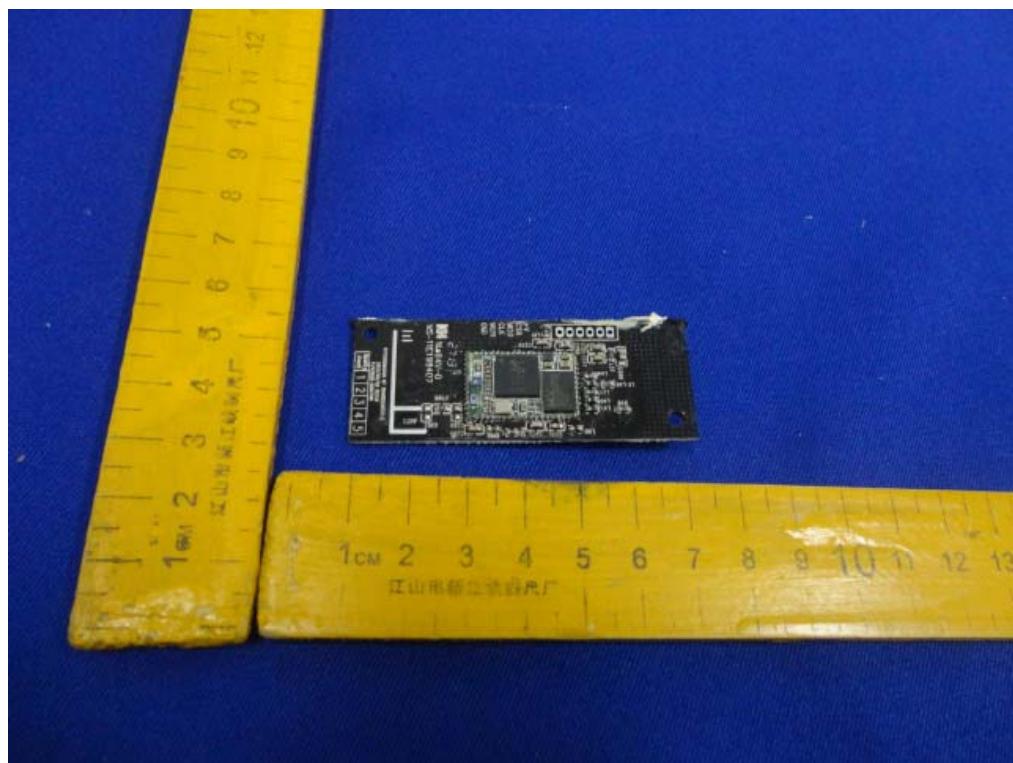
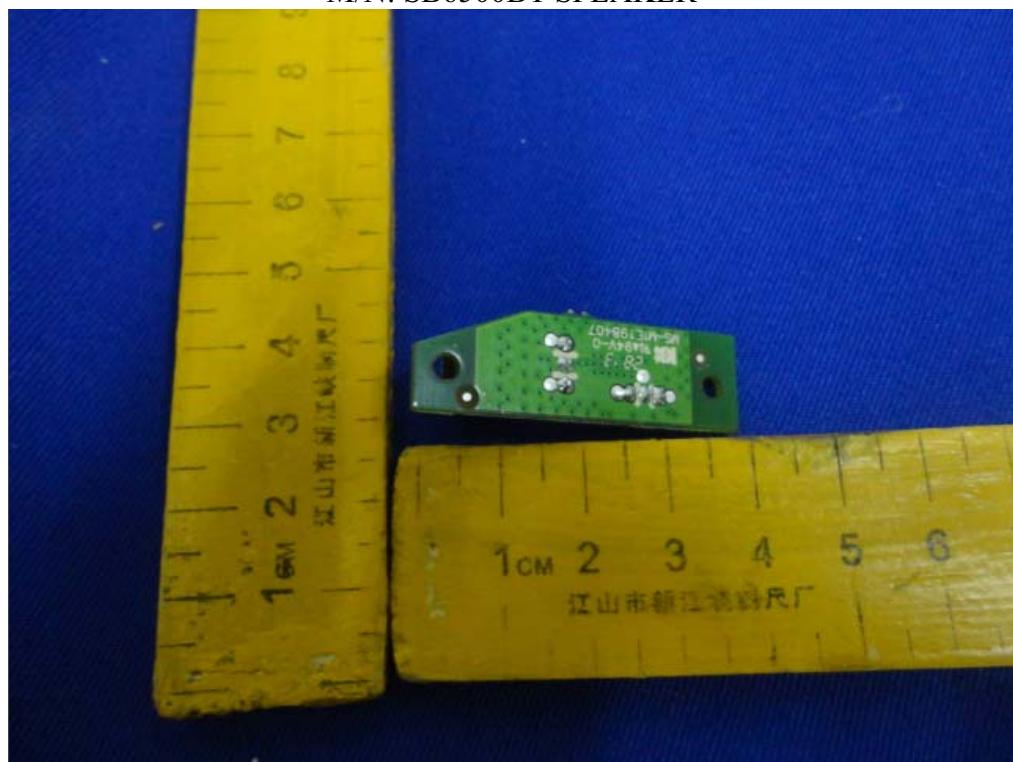
Internal Photos

M/N: SB6500BT SPEAKER



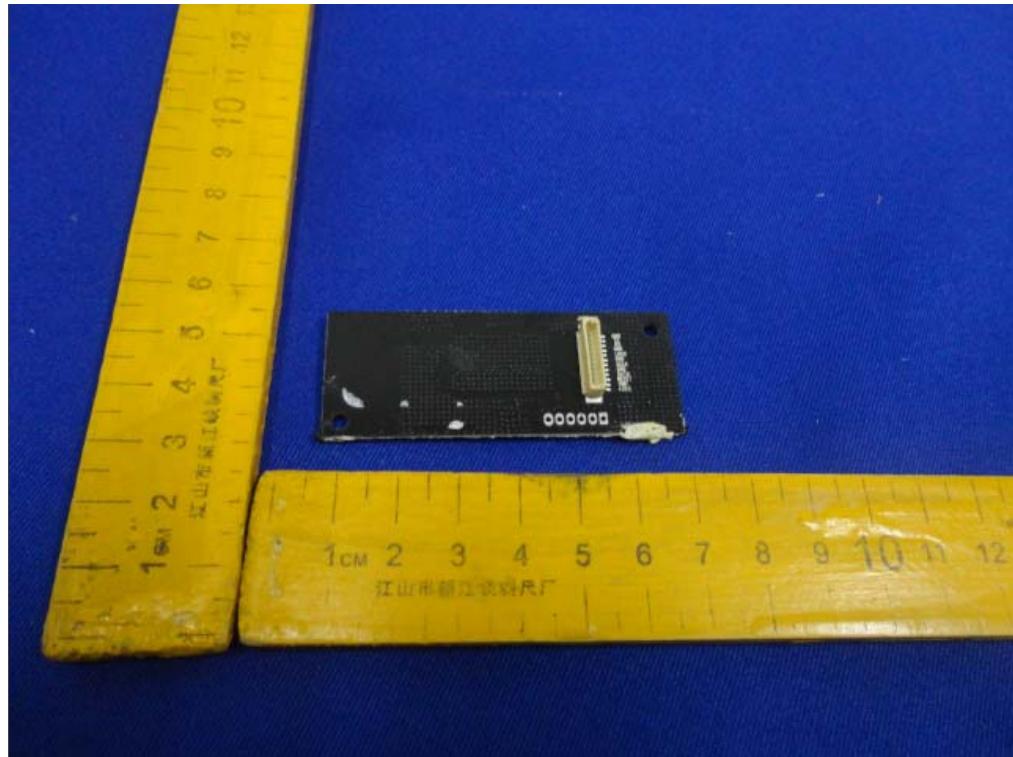
Internal Photos

M/N: SB6500BT SPEAKER



Internal Photos

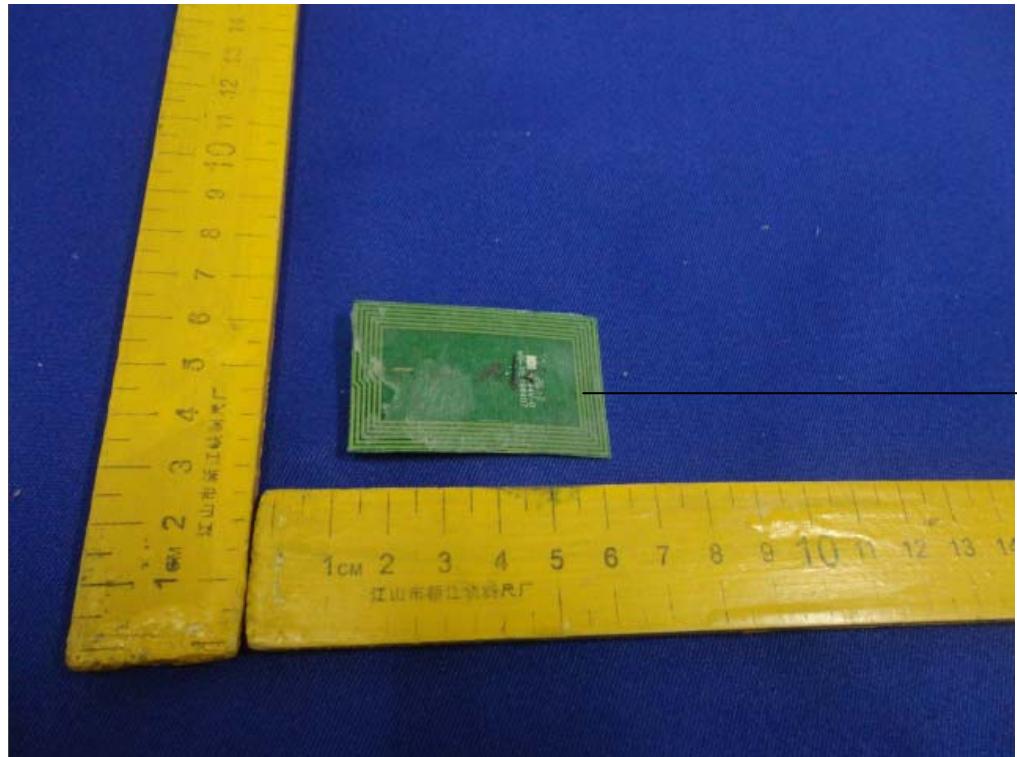
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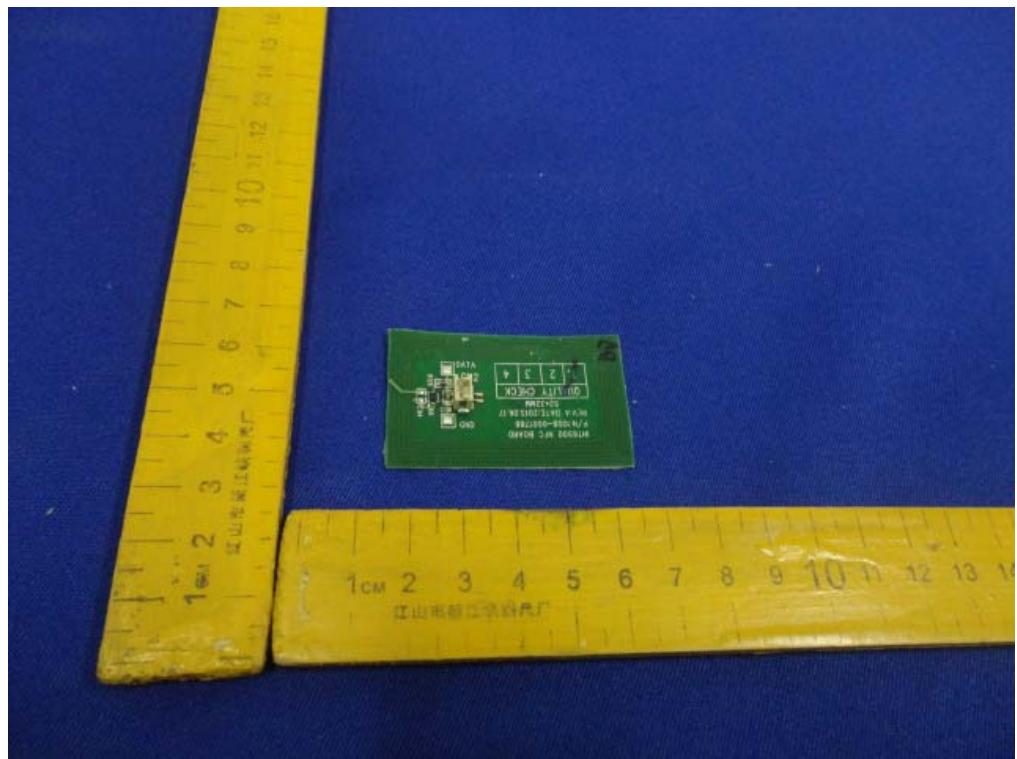
Bluetooth
Antenna

Internal Photos

M/N: SB6500BT SPEAKER



NFC
Antenna



Adapter Photos

M/N: SB6500BT SPEAKER



Remote Control Photos
M/N: SB6500BT SPEAKER

