# FCC PART 15C TEST REPORT FOR CERTIFICATION On Behalf of

DEI Sales, Inc., dba Polk Audio

Home Theater Sound Bar System

Model Number: MAGNIFI MINI SOUND BAR

FCC ID: WLQAM9116TX

Prepared for: DEI Sales, Inc., dba Polk Audio

1 Viper Way Vista, California 92801, USA

Prepared By: EST Technology Co., Ltd.

San Tun Management Zone, Houjie Town, Dongguan,

Guangdong, China

Tel: 86-769-83081888-808

Report Number: ESTE-R1608054

Date of Test : July 07 ~ August 10, 2016

Date of Report : August 17, 2016



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**Test Report Verification** 

	Test Report Ve	rification			
Applicant:	DEI Sales, Inc., dba Polk Aud	0			
Address:	1 Viper Way Vista, California 92801, USA				
Manufacturer	Polk Audio LLC				
Address:	1 Viper Way Vista, California	92801, USA			
E.U.T:	Home Theater Sound Bar Syst	em			
<b>Model Number:</b>	MAGNIFI MINI SOUND BA	R			
<b>Power Supply:</b>	DC 15V From Adapter Input A	C 100-240V~	250/60Hz		
Test Voltage:	DC 15V From Adapter Input A DC 15V From Adapter Input A				
<b>Trade Name:</b>	Polk Se	rial No.:			
<b>Date of Receipt:</b>	July 07, 2016 D	ate of Test:	July 07 ~ August 10, 2016		
<b>Test Specification:</b>	FCC Rules and Regulations Pa ANSI C63.10:2013	<u>-</u>			
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 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: August 17, 2016				
Prepared by:	Tested by:		Approved by: ho		
Ada / Assistant Tony. Tang/ Engineer IcemanHu / Manage			IcemanHu / Manager		
Other Aspects: None.					
Abbreviations: OK/P=pas	sed fail/F=failed n.a/N=not a	pplicable E.	U.T=equipment under tested		
	a a single evaluation of one sample of a out written approval of EST Technolog		products ,It is not permitted to be		

EST,

# 1. GENERAL INFORMATION

# 1.1. Description of Device (EUT)

Product Name	:	Home Theater Sound Bar System
FCC ID	:	WLQAM9116TX
Model Number	:	MAGNIFI MINI SOUND BAR
Operation frequency		5743-5840 MHz
operation frequency		37+3 30+0 WIIIZ
Number of channel	:	35
Antenna	:	PCB antenna
		Antenna A: 2.85 dBi gain
		Antenna B: 2.85 dBi gain
		Single input single output
26.11.1		OPRIL
Modulation	:	GFSK
Sample Type	:	Prototype production

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# 2. SUMMARY OF TEST

# 2.1. Summary of test result

Description of Test Item	Standard	Results		
	FCC Part 15C: 15.207	DACC		
Power Line Conducted Emissions	ANSI C63.10-2013	PASS		
	FCC Part 15C: 15.209			
Radiated Emission Test	FCC Part 15C: 15.249	PASS		
	ANSI C63.10-2013			
20 JD D l Mt T	FCC Part 15: 15.249	PASS		
20 dB Bandwidth Test	ANSI C63.10-2013	PASS		
D IEL C I T	FCC Part 15: 15.215	DACC		
Band Edge Compliance Test	ANSI C63.10-2013	PASS		
Antenna requirement	FCC Part 15: 15.203	PASS		
N/A is an abbreviation for Not Applicable.				

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#### 2.2. Test Facilities

EMC Lab : Certificated by CNAL, CHINA

Registration No.: L5288

Date of registration: December 07, 2015

Certificated by FCC, USA Registration No.: 989591

Date of registration: November 20, 2013

Certificated by Industry Canada Registration No.: 9405A-1

Date of registration: December 30, 2015

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 District, Dongguan,

Guangdong, China



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#### 2.3. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.54dB
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.62
Uncertainty for Radiation Emission test (1GHz to 18GHz)	4.86
Uncertainty for radio frequency	7×10-8
Uncertainty for conducted RF Power	0.20dB
Uncertainty for Power density test	0.26dB

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

#### 2.4. Assistant equipment used for test

#### 2.4.1. Adapter

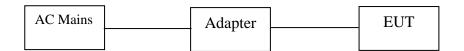
M/N NU040A150250

Input AC 100-240V~50/60Hz 1.5A MAX

Output DC 15V/2.5A

# 2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 or 1.5 meter high above ground. EUT was be set into TX test mode by software before test.



(EUT: Home Theater Sound Bar System)





#### 2.6. Test mode

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

Mode	Channel	Frequency
	Low	5743MHz
TX	Middle	5792MHz
	High	5840MHz

# 2.7. Channel List for GFSK

Channel	Frequency	Channel	Frequency
No.	(MHz)	No.	(MHz)
1	5743	2	5747
3	5751	4	5752
5	5755	6	5758
7	5759	8	5763
9	5767	10	5771
11	5772	12	5775
13	5778	14	5779
15	5783	16	5787
17	5791	18	5792
19	5795	20	5798
21	5799	22	5803
23	5807	24	5811
25	5812	26	5815
27	5818	28	5819
29	5823	30	5827
31	5831	32	5832
33	5835	34	5837
35	5840		

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# 2.8. Test Equipment

# 2.8.1. For conducted emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	June 25,16	1 Year
Artificial Mains Networ	Rohde & Schwarz	ENV216	101260	June 25,16	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101100	June 25,16	1 Year

# 2.8.2. For radiated emission test(30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESVS10		June 25,16	
Spectrum Analyzer	Agilent	E4411B	MY5014069 7	June 25,16	1 Year
Bilog Antenna	Teseq	CBL 6111D	27090	June 28,16	3 Year
Signal Amplifier	Agilent	310N	187037	June 25,16	1 Year

### 2.8.3. For radiated emission test(above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Horn Antenna	SCHWARZB ECK	BBHA 9120 D	BBHA9120D1 002	June 28,16	3 Year
Signal Amplifier	SCHWARZB ECK	BBV9718	9718-212	June 25,16	1 Year
Spectrum Analyzer	Agilent	E4408B	MY44211139	June 25,16	1 Year
RF Cable	Hubersuhner	RG 214/U	513423	June 25,16	1 Year

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#### 3. CONDUCTED EMISSION TEST

#### 3.1. Limit

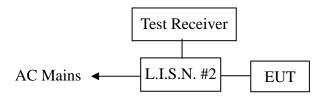
	Maximum RF Line Voltage		
Frequency	Quasi-Peak Level	Average Level	
	$dB(\mu V)$	$dB(\mu V)$	
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*	
500kHz ~ 5MHz	56	46	
5MHz ~ 30MHz	60	50	

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

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

#### 3.2. Block Diagram of Test Setup

Block diagram of connection between the EUT and simulators



#### 3.3. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N.#2). Please refer the block diagram of the test setup and photographs. Power on the PC and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. 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 C63.10 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.

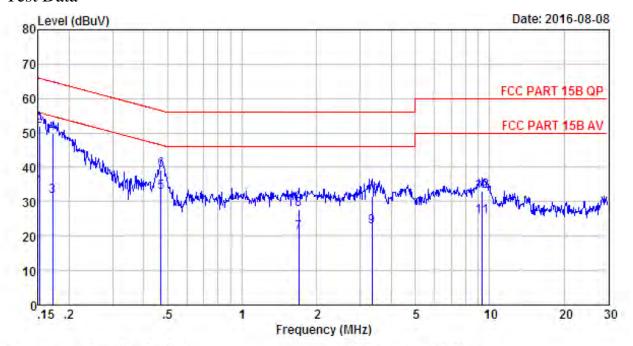
The test result are reported on Section 3.4.

#### 3.4. Test Result

0.15MHz—30MHz Conducted emissison Test result				
EUT: Home Theater Sound Bar System M	M/N: MAGNIFI MINI SOUND BAR			
Power: AC 120V/60Hz; AC 240V/60Hz				
Test date: 2016-08-08 Test site: 844 Chamber Tested by: Tony.Tang				
Test mode: Tx				
Pass				

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#### 3.5. Test Data



Site no : 844 Shield Room Data no. : 105 Env. / Ins. : Temp:25.3'C Humi:58% Press:101.50kPa LINE Phase : LINE

Limit : FCC PART 15B QP

Engineer : Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

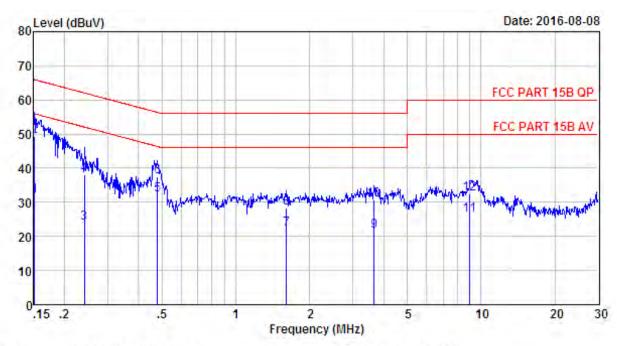
M/N : MAGNIFI MINI SOUND BAR

Test Mode : TX Mode

		LISN	Cable		Emission			
	Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuv)	Limits (dBuy)	Margin (dB)	Remark
1	0.15	9.61	9.81	14.73	34,15	55.91	21.76	Average
2	0.15	9.61	9.81	32.58	52.00	65.91	13.91	QP
3	0.17	9.61	9.81	12.17	31.59	54.90	23.31	Average
4	0.17	9.61	9.81	30.51	49.93	64.90	14.97	QP
5	0.47	9.61	9.81	13.29	32.71	46.49	13.78	Average
6	0.47	9.61	9.81	19.83	39.25	56.49	17.24	QP
7	1.70	9.62	9.83	1.38	20.83	46.00	25.17	Average
8	1.70	9.62	9.83	8.42	27.87	56.00	28.13	QP
9	3.35	9.63	9.84	3.35	22.82	46.00	23.18	Average
10	3.35	9.63	9.84	12.08	31,55	56.00	24.45	QP
11	9.35	9.66	9.87	6.01	25.54	50.00	24.46	Average
12	9.35	9.66	9.87	13.41	32.94	60.00	27.06	QP



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Site no : 844 Shield Room Data no. : 107 Env. / Ins. : Temp:25.3'C Humi:58% Press:101.50kPa LINE Phase : NEUTRAL

Limit : FCC PART 15B QP

Engineer : Tony

: Home Theater Sound Bar System EUT

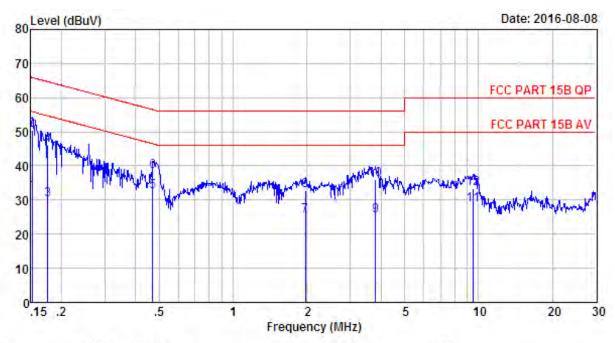
Power : DC 15V From Adapter Input AC 120V/60Hz

: MAGNIFI MINI SOUND BAR M/N

Test Mode : TX Mode

		LISN	Cable		Emission			
	Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.15	9.46	9.81	12.69	31.96	55.96	24.00	Average
2	0.15	9.46	9.81	30.15	49.42	65.96	16.54	QP
3	0.24	9.60	9.82	4.46	23,88	52.04	28.16	Average
4	0.24	9.60	9.82	18.66	38.08	62.04	23,96	QP
5	0.48	9.59	9.81	12.73	32.13	46.36	14.23	Average
6	0.48	9.59	9.81	17.95	37.35	56.36	19.01	QP
7	1.61	9.62	9.83	2.67	22.12	46.00	23.88	Average
8	1.61	9.62	9.83	8.81	28.26	56.00	27.74	QP
9	3.66	9.64	9.85	2.09	21.58	46.00	24.42	Average
10	3.66	9.64	9.85	11.23	30.72	56.00	25.28	QP
11	9.01	9.69	9.88	6.83	26.40	50.00	23.60	Average
12	9.01	9.69	9.88	12.88	32.45	60.00	27.55	QP





: 844 Shield Room Site no Data no. : 109 Env. / Ins. : Temp:25.3'C Humi:58% Press:101.50kPa LINE Phase : LINE

: FCC PART 15B QP

: Tony

EUT : Home Theater Sound Bar System

: DC 15V From Adapter Input AC 240V/60Hz Power

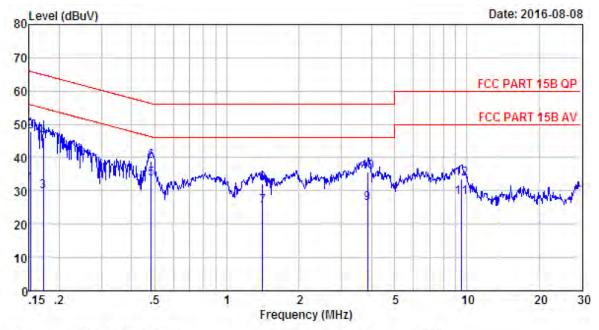
: MAGNIFI MINI SOUND BAR M/N

Test Mode : TX Mode

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.15	9.61	9.81	12.79	32.21	55.91	23.70	Average
2	0.15	9.61	9.81	30.92	50.34	65.91	15.57	QP
3	0.18	9.61	9.80	10.67	30.08	54.68	24.60	Average
4	0.18	9.61	9.80	26.56	45.97	64.68	18.71	QP
5	0.47	9.61	9.81	12.94	32.36	46.49	14.13	Average
6	0.47	9.61	9.81	19.01	38,43	56.49	18.06	QP
.7	1.97	9.61	9.83	5.96	25.40	46.00	20.60	Average
8	1.97	9.61	9.83	13.30	32.74	56.00	23.26	QP
9	3.80	9.64	9.84	6.03	25.51	46.00	20.49	Average
10	3.80	9.64	9.84	16.43	35.91	56.00	20.09	QP
11	9.50	9.66	9.87	9.01	28.54	50.00	21.46	Average
12	9.50	9.66	9.87	13.97	33.50	60.00	26,50	QP



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Site no : 844 Shield Room Data no. ; 111 Env. / Ins. : Temp:25.3'C Humi:58% Press:101.50kPa LINE Phase : NEUTRAL

Limit : FCC PART 15B QP Engineer : Tony

: Home Theater Sound Bar System EUI

Power : DC 15V From Adapter Input AC 240V/60Hz M/N : MAGNIFI MINI SOUND BAR

Test Mode : TX Mode

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.15	9.46	9.81	12.74	32.01	55.91	23.90	Average
2	0.15	9.46	9.81	28.67	47.94	65.91	17.97	QP
3	0.17	9.52	9.81	10.52	29.85	54.90	25.05	Average
4	0.17	9.52	9.81	26.78	46.11	64.90	18.79	QP
5	0.48	9.59	9.81	14.32	33.72	46.27	12.55	Average
6	0.48	9.59	9.81	19.69	39.09	56.27	17.18	QF
7	1.41	9.61	9.82	6.07	25.50	46.00	20.50	Average
8	1.41	9.61	9.82	12.68	32.11	56.00	23.89	QP
9	3.86	9.64	9.84	6.75	26.23	46.00	19.77	Average
10	3,86	9.64	9.84	16.34	35.82	56.00	20.18	QP
11	9,50	9.69	9.87	8.38	27.94	50.00	22.06	Average
12	9.50	9.69	9.87	14.20	33.76	60.00	26.24	QP



# 4. RADIATED EMISSIONS

#### 4.1. Limit

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMIT			
MHz	Meters	$\mu V/m$	$dB(\mu V)/m$		
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	V)/m (Average)		

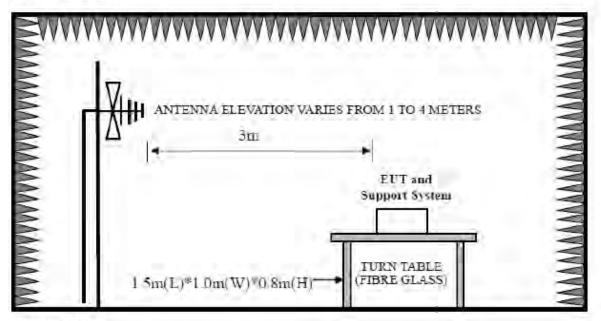
Remark : (1) Emission level  $dB\mu V = 20 log Emission level \mu V/m$ 

- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system

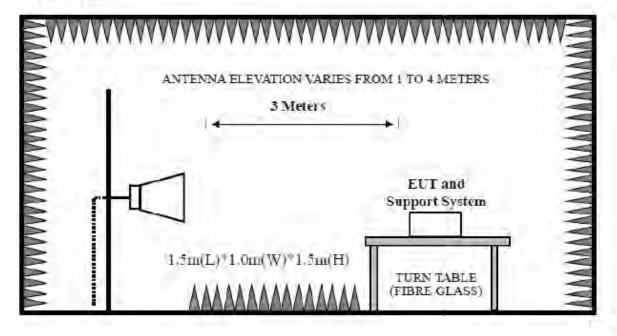


# 4.2. Block Diagram of Test setup

30~1000MHz



Above 1GHz



EST

#### 4.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 30~1000MHz test, and wiich is 1.5 meter high above ground for above 1GHz test. 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

PEAK detector, 1MHz/1MHz for PAEK measurement,

PEAK detector, 1MHz/10Hz for Average measurement

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

#### 4.4. Test Result

30MHz—25GHz Radiated emissison Test result										
EUT: Home Theater Sound Bar System M/N: MAGNIFI MINI SOUND BAR										
Power: AC 120V/60Hz										
Test date: 2016-08-08 Te	est site: 3m Chamber	Tested by: Tony Tang								
Test mode: Tx										
	Pass									

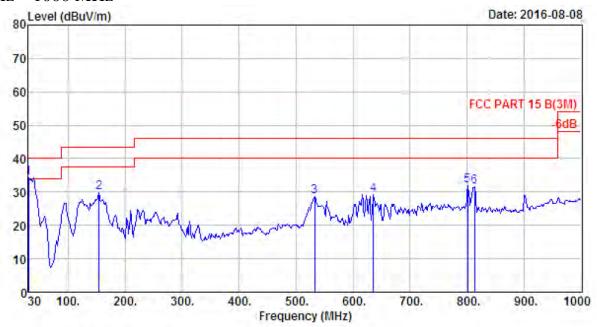
- Note: 1. For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
  - 2. The frequency 5743MHz . 5792MHz and 5840MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

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#### 4.5. Test Data

#### 30 MHz - 1000 MHz



Site no. : 966 1# chamber Data no. : 459
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System
Power : DC 15V From Adapter AC 120V/60Hz

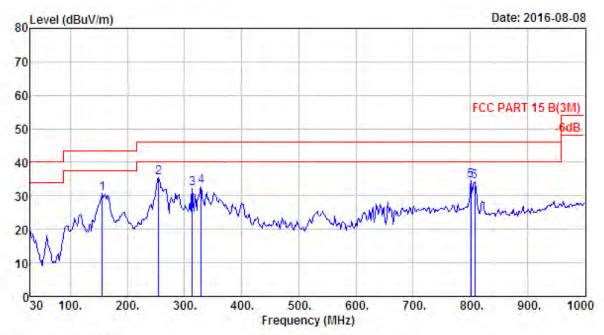
M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5743MHz
Antenna A

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	18.51	0.65	15.13	34.29	40.00	5.71	QP
2	154.16	10.71	1.66	17.36	29.73	43.50	13.77	QP
3	532.46	18.57	3.25	6.83	28.65	46.00	17.35	QP
4	636.25	20.07	3.50	5.80	29.37	46.00	16.63	QP
5	801.15	22.07	3.83	6.09	31.99	46.00	14.01	QP
6	813.76	22.36	3.85	5.25	31.46	46.00	14.54	OF



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Site no. : site Data no. : 460 Ant. pol. : HORIZONTAL

Dis. / Ant. : 3m 27137 Limit

: FCC PART 15 B(3M) : Temp:23.6';Humi:56%;Press:101.52kPa Env. / Ins.

Engineer : Tony

EUT : Home Theater Sound Bar System : DC 15V From Adapter AC 120V/60Hz Power

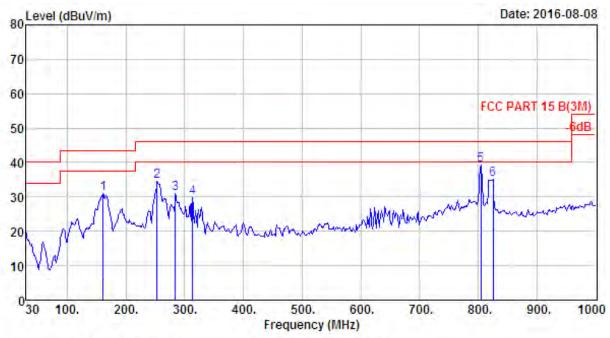
: MAGNIFI MINI SOUND BAR M/N

: GFSK TX 5743MHz Test Mode

Antenna A

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	156.10	10.61	1.67	18.29	30.57	43.50	12.93	QP
2	255.04	12.41	2.13	20.95	35.49	46.00	10.51	QP
3	313.24	13.31	2.44	16.44	32.19	46.00	13,81	QP
4	328.76	13.82	2.44	16.57	32.83	46.00	13.17	QP
5	801.15	22.07	3.83	8.51	34.41	46.00	11.59	QP
6	807.94	22.31	3.80	8.03	34.14	46.00	11.86	QP





Site no. : 966 1# chamber Data no. : 461

Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter AC 120V/60Hz

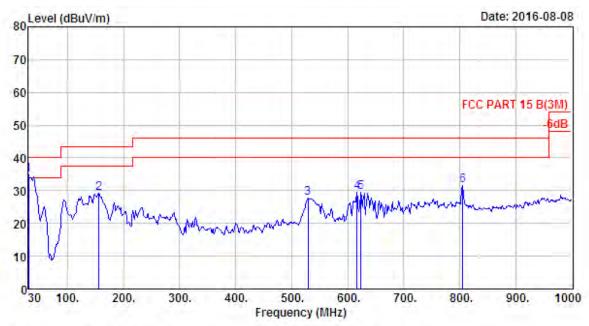
M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5792MHz

Antenna A

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	160.95	10.24	1.70	19.16	31.10	43.50	12.40	QP
2	253.10	12.17	2.17	20.06	34.40	46.00	11.60	QF
3	284.14	12.52	2.36	16.18	31.06	46.00	14.94	QP
4	313.24	13.31	2.44	14,11	29,86	46.00	16.14	QP
5	805.03	22.20	3.86	13.06	39.12	46.00	6.88	QP
6	825.40	22.43	3.81	8.82	35.06	46.00	10.94	QP





Site no. : 966 1# chamber Data no. : 462 Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

: FCC PART 15 B (3M) Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

: Tony Engineer

EUT : Home Theater Sound Bar System : DC 15V From Adapter AC 120V/60Hz Power

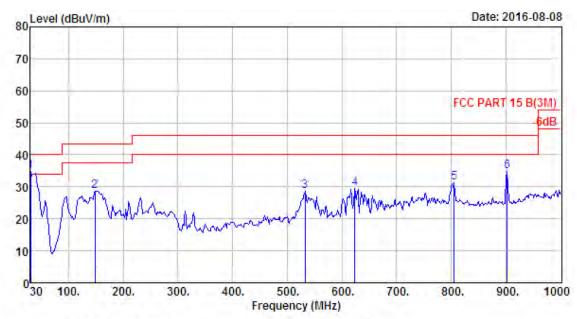
: MAGNIFI MINI SOUND BAR M/N

Test Mode : GFSK TX 5792MHz

Antenna A

	Freq,	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	18.51	0.65	15.68	34.84	40.00	5.16	QP
2	156.10	10.61	1.67	17.09	29.37	43.50	14.13	QP
3	529.55	18.23	3,21	6,41	27.85	46.00	18.15	QP
4	616.85	19.99	3.46	6.10	29.55	46.00	16.45	QP
5	623.64	20.08	3.37	6.08	29.53	46.00	16.47	QP
6	806.00	22.24	3.84	5.60	31.68	46.00	14.32	QP
3 4 5	529.55 616.85 623.64	18.23 19.99 20.08	3.21 3.46 3.37	6.41 6.10 6.08	27.85 29.55 29.53	46.00 46.00 46.00	18.15 16.45 16.47	0





Site no. : 966 1# chamber Data no. : 463
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System
Power : DC 15V From Adapter AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK IX 5840MHz Antenna A

ANT Cable Emission Limit Margin Remark Factor Loss Reading Level Freq. (dB) (dBuV) (dBuV/m) (dBuV/m) (dB) (MHz) (dB/m) 
 1
 30.00
 18.51
 0.65
 15.69
 34.85
 40.00

 2
 148.34
 11.00
 1.69
 16.08
 28.77
 43.50

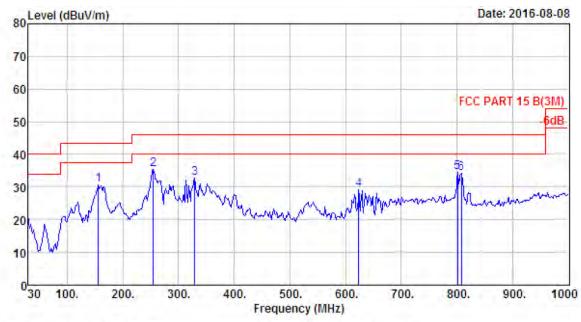
 3
 532.46
 18.57
 3.25
 6.85
 28.67
 46.00

 4
 623.64
 20.08
 3.37
 6.19
 29.64
 46.00

 5
 806.00
 22.24
 3.84
 5.22
 31.30
 46.00

 6
 903.00
 23.34
 4,17
 7,30
 34.81
 46.00
 40.00 5.15 QP 14.73 43.50 14.73 46.00 17.33 QP 46.00 16.36 QP 14.70 QP 46.00 11.19 QP





Site no. : 966 1# chamber Data no. : 464

Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUI : Home Theater Sound Bar System
Power : DC 15V From Adapter AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

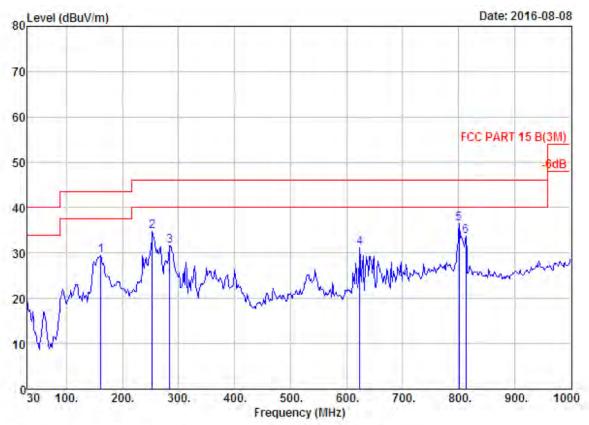
Test Mode : GFSK IX 5840MHz

Antenna A

Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
156.10	10.61	1.67	18.29	30.57	43.50	12.93	QP
255.04	12.41	2.13	20.95	35.49	46.00	10.51	QP
328.76	13.82	2.44	16.57	32.83	46.00	13.17	QP
623.64	20.08	3.37	5.79	29.24	46.00	16.76	QP
801.15	22.07	3.83	8.51	34,41	46.00	11.59	QP
807.94	22.31	3.80	8.03	34,14	46.00	11.86	QP
	(MHz) 156.10 255.04 328.76 623.64 801.15	Freq. Factor (MHz) (dB/m) 156.10 10.61 255.04 12.41 328.76 13.82 623.64 20.08 801.15 22.07	Freq. Factor Loss (MHz) (dB/m) (dB) 156.10 10.61 1.67 255.04 12.41 2.13 328.76 13.82 2.44 623.64 20.08 3.37 801.15 22.07 3.83	Freq. Factor Loss Reading (MHz) (dB/m) (dB) (dBuV)  156.10 10.61 1.67 18.29 255.04 12.41 2.13 20.95 328.76 13.82 2.44 16.57 623.64 20.08 3.37 5.79 801.15 22.07 3.83 8.51	Freq. Factor Loss Reading Level (MHz) (dB/m) (dB) (dBuV) (dBuV/m)  156.10 10.61 1.67 18.29 30.57 255.04 12.41 2.13 20.95 35.49 328.76 13.82 2.44 16.57 32.83 623.64 20.08 3.37 5.79 29.24 801.15 22.07 3.83 8.51 34.41	Freq. Factor Loss Reading Level Limit (MHz) (dB/m) (dB) (dBuV) (dBuV/m) (dBuV/m)  156.10 10.61 1.67 18.29 30.57 43.50 255.04 12.41 2.13 20.95 35.49 46.00 328.76 13.82 2.44 16.57 32.83 46.00 623.64 20.08 3.37 5.79 29.24 46.00 801.15 22.07 3.83 8.51 34.41 46.00	Freq. Factor Loss Reading Level Limit Margin (MHz) (dB/m) (dB) (dBuV) (dBuV/m) (dBuV/m) (dB)  156.10 10.61 1.67 18.29 30.57 43.50 12.93 255.04 12.41 2.13 20.95 35.49 46.00 10.51 328.76 13.82 2.44 16.57 32.83 46.00 13.17 623.64 20.08 3.37 5.79 29.24 46.00 16.76 801.15 22.07 3.83 8.51 34.41 46.00 11.59



EST Technology Co., Ltd Report No.



Site no. : 1# 966 chamber Data no. : 581

Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

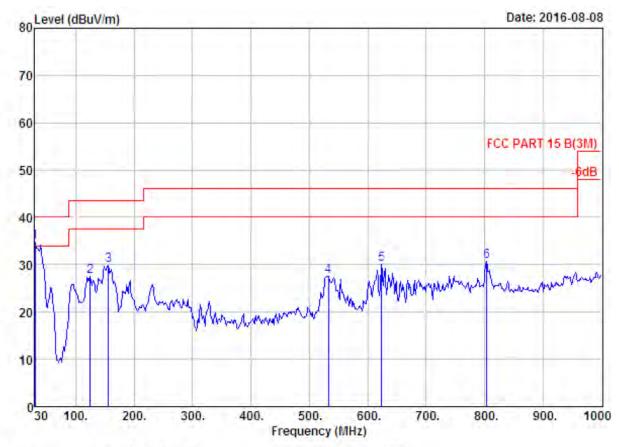
M/N : MAGNIFI MINI SOUND BAR

Test Mode ; GFSK TX 5743MHz

Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	160.95	10.24	1.70	17.59	29.53	43.50	13.97	QP
2	253.10	12.17	2.17	20.48	34.82	46.00	11.18	QP
3	284.14	12.52	2.36	16.71	31.59	46.00	14.41	QP
4	623.64	20.08	3.37	7.66	31.11	46.00	14.89	QP.
5	801.15	22.07	3.83	10.53	36.43	46.00	9.57	QP
6	813.76	22,36	3.85	7.51	33.72	46.00	12.28	QP





Site no. : 1# 966 chamber Data no. : 582 Dis, / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer ; Tony

EUT : Home Theater Sound Bar System

Fower : DC 15V From Adapter Input AC 120V/60Hz

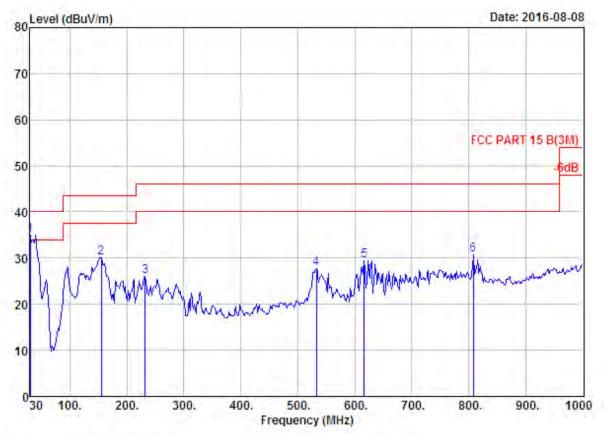
M/N : MAGNIFI MINI SOUND BAR

: GFSK TX 5743MHz Test Mode Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.00	18.51	0.65	15.69	34.85	40.00	5.15	QP
2	125.06	11.35	1.52	14.75	27.62	43.50	15.88	QP
3	156,10	10.61	1.67	17.67	29.95	43.50	13.55	QE
4	532.46	18.57	3.25	5.74	27.56	46.00	18.44	QF
5	623.64	20.08	3.37	6.73	30.18	46.00	15.82	QP
6	804.06	22.17	3.87	4.75	30.79	46.00	15.21	QF







Site no. : 1# 966 chamber Data no. ; 583 : 3m 27137 Dis. / Ant. Ant. pol. : VERTICAL

: FCC PART 15 B (3M)

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

: Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

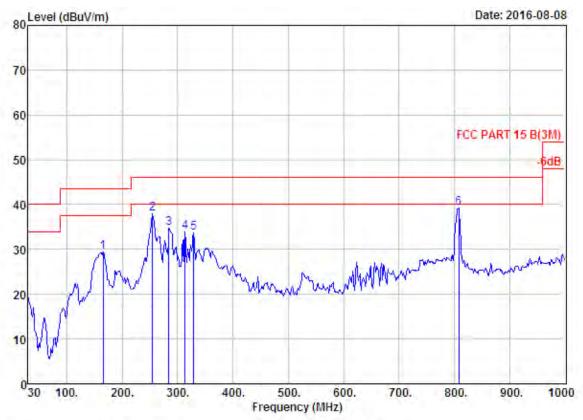
M/N : MAGNIFI MINI SOUND BAR

: GFSK TX 5792MHz Test Mode Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
 1	30.00	18.51	0.65	15.80	34.96	40.00	5.04	QP
2	155.13	10.67	1.69	17.67	30.03	43.50	13.47	QP
3	231.76	9,54	2.07	14.33	25.94	46.00	20.06	QP
4	532.46	18.57	3.25	6.00	27.82	46.00	18.18	QP
5	616.85	19.99	3,46	6.08	29.53	46.00	16.47	QP
6	807.94	22,31	3,80	4.65	30.76	46.00	15.24	QP

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Site no. : 1# 966 chamber Dis. / Ant. : 3m 27137 Data no. : 584

Ant. pol. : HORIZONTAL

: FCC PART 15 B (3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

: Home Theater Sound Bar System EUT

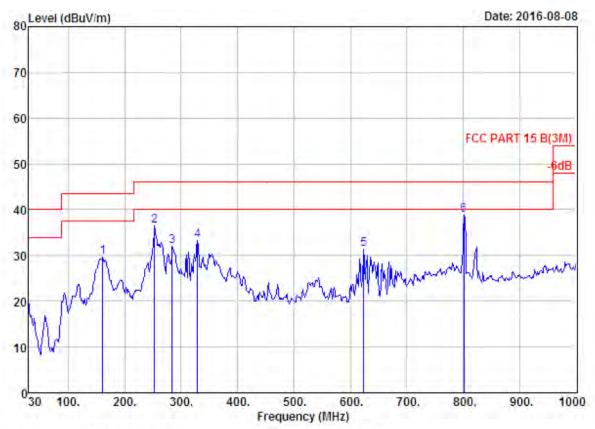
Power : DC 15V From Adapter Input AC 120V/60Hz

M/N

: MAGNIFI MINI SOUND BAR : GFSK IX 5792MHz Test Mode Antenna B

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
 1	165.80	9,66	1.68	18.10	29.44	43,50	14.06	QF
2	255.04	12.41	2.13	23.36	37.90	46.00	8.10	QP
3	284.14	12.52	2.36	19.80	34.68	46,00	11.32	QP
4	313.24	13.31	2.44	18,16	33.91	46.00	12.09	QP
5	328.76	13.82	2.44	17.53	33.79	46.00	12.21	QP
6	807.94	22.31	3.80	13.19	39.30	46,00	6.70	QP





Site no. : 1# 966 chamber Data no. : 585

Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

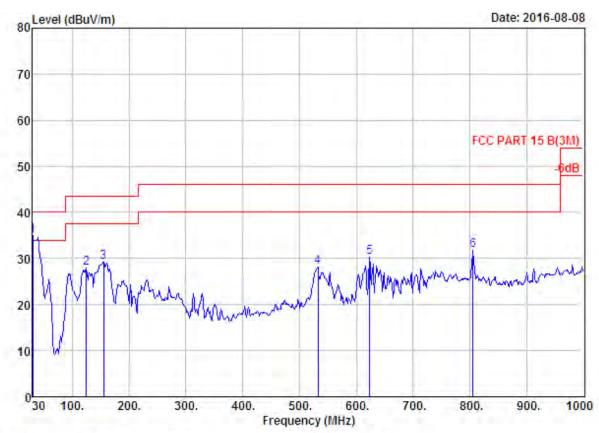
Power : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5840MHz Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	160.95	10.24	1.70	17.66	29.60	43.50	13.90	QP
2	253.10	12.17	2,17	22.12	36.46	46.00	9.54	QP
3	284.14	12.52	2.36	17.11	31.99	46.00	14.01	QP
4	328.76	13.82	2.44	17.04	33.30	46.00	12.70	QP
. 5	623.64	20.08	3.37	7.90	31.35	46.00	14.65	QF
6	801.15	22.07	3,83	12.85	38.75	46.00	7.25	QF





Dis. / Ant. : 3m 2710-Data no. : 586 Ant. pol. : VERTICAL

: FCC PART 15 B (3M) Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

: Tony Engineer

EUT : Home Theater Sound Bar System

: DC 15V From Adapter Input AC 120V/60Hz Power

: MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5840MHz Antenna B

Ant. Cable Emission Freq. Factor Loss Reading Level Limits Margin Remark (MHz) (dB/m) (dB) (dBuV) (dBuV/m) (dBuV/m) (dB) 15.83 34.99 40.00 30.00 18.51 0.65 5.01 QP 2 125.06 11.35 1.52 15.16 28.03 43.50 15.47 QP 4 532,46 18,57 3,25 5 623.64 20 00 29.25 43.50 14.25 16.89 QP 6.30 6.30 28.12 46.00 17.88 6.94 30.39 46.00 15.61 QP 46.00 15.61 5 623.64 20.08 3.37 QP 5.61 31.69 46.00 14.31 QP 6 806.00 22.24 3.84



#### Above 1GHz

Site no. : 966 1# chamber Data no. : 475
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL

: FCC PART 15 PEAK 5.8
: Temp:23.6';Humi:56%;Press:101.52kPa
: Tony
: Home Theater Sound Bar System Env. / Ins.

Engineer

EUT

: DC 15V From Adapter Input AC 120V/60Hz Power

: MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5743MHz

Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5114.00	31.62	12.45	32.17	33,16	45.06	74.00	28.94	Peak
2	5743.00	32.27	12.05	32.54	73.03	84.81	94.00	9,19	Average
3	5743.00	32.27	12.05	32.54	86.35	98.13	114.00	15.87	Peak
4	7834.00	36.68	11.47	31.40	30.56	47.31	74.00	26.69	Peak
5	11486.00	39.21	10.93	34.55	27.86	43.45	74.00	30.55	Peak
6	17229.00	40.58	10.90	33.55	30.08	48.01	74.00	25.99	Peak
7	17983.00	46.28	11.36	28.32	22.15	51.47	74.00	22.53	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 476
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

: FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

: Tony Engineer

: Home Theater Sound Bar System EUT

: DC 15V From Adapter Input AC 120V/60Hz

Power M/N M/N : MAGNIFI MINI SOUND BAR Test Mode : GFSK TX 5743MHz

Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4876.00	31.37	12.07	31.90	36.15	47.69	74.00	26.31	Peak
2	5743.00	32.27	12.05	32.54	73.67	85.45	94.00	8.55	Average
3	5743.00	32.27	12.05	32.54	88.54	100.32	114.00	13.68	Peak
4	7970.00	36.94	11.41	31.25	32.06	49.16	74.00	24.84	Peak
- 5	11486.00	39.21	10.93	34.55	29.05	44.64	74.00	29.36	Peak
6	17229.00	40.58	10.90	33.55	29.96	47.89	74.00	26.11	Peak
7	17983.00	46.28	11.36	28.32	20.60	49.92	74.00	24.08	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 477 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Fower : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5792MHz

Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4995.00	31.54	12.59	32.00	33.10	45.23	74.00	28.77	Peak
2	5792.00	32.36	12.07	32.47	72.95	84.91	94.00	9.09	Average
3	5792.00	32.36	12.07	32.47	88.48	100.44	114.00	13.56	Peak
4	11584.00	39.10	11.01	34.74	29.77	45.14	74.00	28.86	Peak
5	14345.00	41.76	10.92	32.93	29.86	49.61	74.00	24.39	Peak
6	17376.00	41.17	10.85	34.50	30.31	47.83	74.00	26.17	Peak
7	18000.00	46.45	11.38	27.85	22.38	52.36	74.00	21.64	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 478
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : Hopy Ant. pol. : HORIZONTAL

: FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

: Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5792MHz

Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4927.00	31.45	12.29	31.95	33.70	45.49	74.00	28.51	Peak
2	5792.00	32.36	12.07	32.47	72.47	84.43	94.00	9.57	Average
3	5792.00	32.36	12.07	32.47	84.85	96.81	114.00	17.19	Peak
4	11584.00	39.10	11.01	34.74	24.28	39.65	74.00	34.35	Peak
5	14906.00	40.53	10.87	34.51	28.70	45.59	74.00	28.41	Peak
6	17376.00	41.17	10,85	34.50	26.36	43.88	74.00	30.12	Peak
7	18000.00	46.45	11.38	27.85	20.11	50.09	74.00	23.91	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 479
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORI Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

: Tony Engineer

: Home Theater Sound Bar System EUI

: DC 15V From Adapter Input AC 120V/60Hz

Power M/N M/N : MAGNIFI MINI SOUND BAR Test Mode : GFSK TX 5840MHz

Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5114.00	31.62	12.45	32.17	33.73	45.63	74.00	28.37	Peak
2	5840.00	32.46	12.08	32.40	70.07	82.21	94.00	11.79	Average
3	5840.00	32.46	12.08	32.40	84.74	96.88	114.00	17.12	Peak
4	8004.00	37.01	11.40	31.22	29.02	46.21	74.00	27.79	Peak
5	11680.00	38.98	11.09	34.93	26.44	41.58	74.00	32.42	Peak
6	17520.00	41.79	10.82	35.34	28.33	45.60	74.00	28.40	Peak
7	18000.00	46.45	11.38	27.85	20.65	50.63	74.00	23.37	Peak

Remarks: 1, Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 480 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERT Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUI : Home Theater Sound Bar System
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5840MHz

Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5250.00	31.69	12.29	32.19	33.61	45.40	74.00	28.60	Peak
2	5840.00	32.46	12.08	32.40	73.61	85.75	94.00	8.25	Average
3	5840.00	32.46	12.08	32.40	90.97	103.11	114.00	10.89	Peak
4	7426.00	36.56	11.60	31.95	29.11	45.32	74.00	28.68	Peak
5	11680.00	38.98	11.09	34.93	30.45	45.59	74.00	28.41	Peak
6	17520.00	41.79	10.82	35.34	26.77	44.04	74.00	29.96	Peak
7	17983.00	46.28	11.36	28.32	20.16	49.48	74.00	24.52	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : site Data no.

Dis. / Ant. : 3m ANT 1-18G Ant. pol

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa Data no. : 481 Ant. pol. : VERTICAL

Engineer : Tony

: Home Theater Sound Bar System EUT

FOWER : Home Ineater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5743MHz

Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4842.00	31.31	11.92	31.85	38.75	50.13	74.00	23.87	Peak
2	5743.00	32.27	12.05	32.54	72.03	83.81	94.00	10.19	Average
3	5743.00	32.27	12.05	32.54	86.96	98.74	114.00	15.26	Peak
4	7494.00	36.48	11.62	31.87	28.87	45.10	74.00	28.90	Peak
.5	11486.00	39.21	10.93	34.55	24.82	40.41	74.00	33.59	Peak
6	17229.00	40.58	10.90	33.55	27.13	45.06	74.00	28.94	Peak
7	18000.00	46.45	11.38	27.85	19.84	49.82	74.00	24.18	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 482
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL

: FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

: Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : MAGNIFI MINI SOUND BAR

: MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5743MHz

Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4842.00	31.31	11.92	31.85	37.80	49.18	74.00	24.82	Peak
2	5743.00	32.27	12,05	32.54	71.23	83.01	94.00	10.99	Average
3	5743.00	32.27	12.05	32.54	83.62	95.40	114.00	18.60	Peak
4	9636.00	37.96	11.68	31.91	26.60	44.33	74.00	29.67	Peak
5	11486.00	39.21	10.93	34.55	22.60	38.19	74.00	35.81	Peak
6	17229.00	40.58	10.90	33.55	28.19	46.12	74.00	27.88	Peak
7	18000.00	46.45	11.38	27.85	20.99	50.97	74.00	23.03	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 483
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTIC Ant. pol. : VERTICAL

: FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5792MHz

Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5080.00	31.59	12.49	32.14	33.31	45.25	74.00	28.75	Peak
2	5792.00	32.36	12.07	32.47	73.77	85.73	94.00	8.27	Average
3	5792.00	32.36	12.07	32.47	87.50	99.46	114.00	14.54	Peak
4	11584.00	39.10	11.01	34.74	24.51	39.88	74.00	34.12	Peak
5	15093.00	39.78	10.90	35.32	32.13	47.49	74.00	26.51	Peak
6	17376.00	41.17	10.85	34.50	30.01	47.53	74.00	26.47	Peak
7	18000.00	46,45	11.38	27.85	22.71	52.69	74.00	21.31	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 484 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORI Ant. pol. : HORIZONTAL

: FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

: Tony Engineer

: Home Theater Sound Bar System

Power M/N : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR Test Mode : GFSK TX 5792MHz Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4910.00	31.42	12.22	31.93	34.45	46.16	74.00	27.84	Peak
2	5792.00	32.36	12.07	32.47	73.71	85.67	94.00	8.33	Average
3	5792.00	32.36	12.07	32.47	87.08	99.04	114.00	14.96	Peak
4	11584.00	39.10	11.01	34.74	25.29	40.66	74.00	33.34	Peak
5	14940.00	40.42	10.87	34.63	29.97	46.63	74.00	27.37	Peak
6	17376.00	41.17	10.85	34.50	28.06	45.58	74.00	28.42	Peak
7	18000.00	46.45	11.38	27.85	21.75	51.73	74.00	22.27	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 485 Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORD Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz M/N : MAGNIFI MINI SOUND BAR Test Mode : GFSK TX 5840MHz

Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4825.00	31.28	11.84	31.83	36.26	47.55	74.00	26.45	Peak
2	5840.00	32.46	12.08	32.40	72.57	84.71	94.00	9.29	Average
3	5840.00	32.46	12.08	32.40	85.61	97.75	114.00	16.25	Peak
4	11680.00	38.98	11.09	34.93	22.69	37.83	74.00	36.17	Peak
5	15110.00	39.70	10.91	35.41	31.87	47.07	74.00	26.93	Peak
6	17520.00	41.79	10.82	35.34	30.03	47.30	74.00	26.70	Peak
7	18000.00	46.45	11.38	27.85	21.09	51.07	74.00	22.93	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



Site no. : 966 1# chamber Data no. : 486
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICA Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

: Tony Engineer

EUT : Home Theater Sound Bar System

Fower : DC 15V From Adapter Input AC 120V/60Hz M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5840MHz Antenna B

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4978.00	31.52	12.52	31.99	35.01	47.06	74.00	26.94	Peak
2	5840.00	32.46	12.08	32.40	73.70	85.84	94.00	8.16	Average
3	5840.00	32.46	12.08	32.40	87.25	99.39	114.00	14.61	Peak
4	11680.00	38.98	11.09	34.93	28.12	43.26	74.00	30.74	Peak
5	15926.00	37.19	10.73	33.11	33.74	48.55	74.00	25.45	Peak
6	17520.00	41.79	10.82	35.34	25.10	42.37	74.00	31.63	Peak
7	17983.00	46.28	11.36	28.32	19.99	49.31	74.00	24.69	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



<sup>2.</sup> The emission levels that are 20dB below the official limit are not reported.

# 5. 20 DB BANDWIDTH

# 5.1. Test Procedure

The transmitter output was coupled to a spectrum analyzer via a antenna. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

# 5.2. Test Result

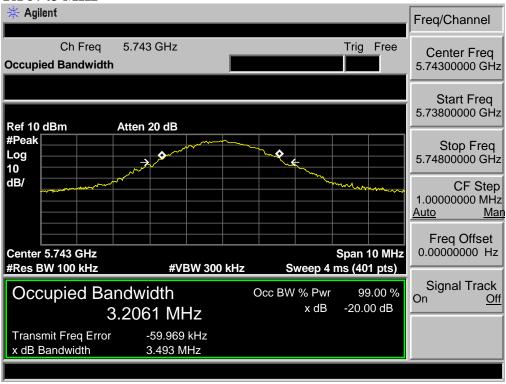
EUT: Home Theater Sound Bar System M/N: MAGNIFI MINI SOUND BAR											
Test date: 20	16-08-03	Test site: RF site	Tested by	: Tony Tang							
Mode	Freq (MHz)	20dB Bandwidth (MHz)	Limit (kHz)	Conclusion							
	Antenna A										
	5743	3.493	PASS								
TX	5792	3.503	/	PASS							
	5840	3.514	/	PASS							
		Antenna B									
	5743	3.460	/	PASS							
TX	5792	3.508	/	PASS							
	5840	3.745		PASS							



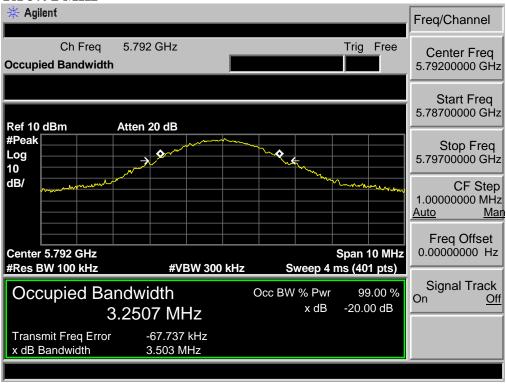
# 5.3. Test Data

#### Antenna A

#### **TX 5743 MHz**

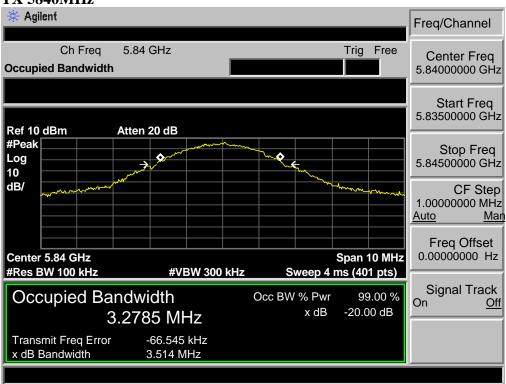


# **TX 5792 MHz**



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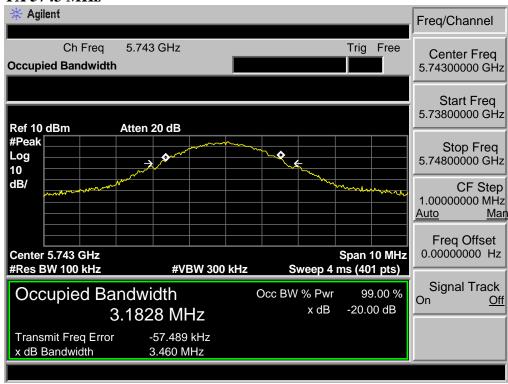
# **TX 5840MHz**



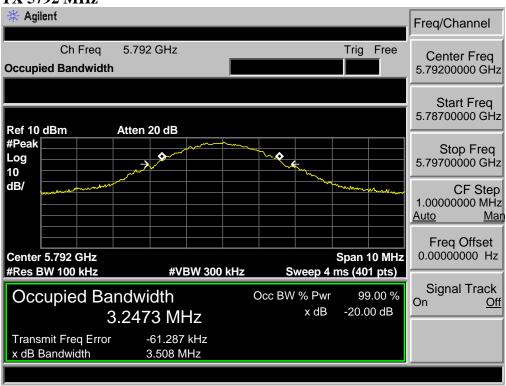


#### Antenna B

#### **TX 5743 MHz**



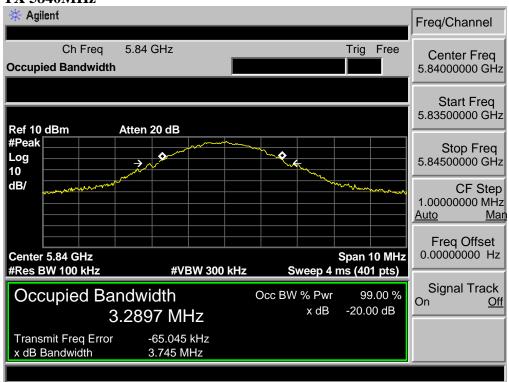
#### **TX 5792 MHz**





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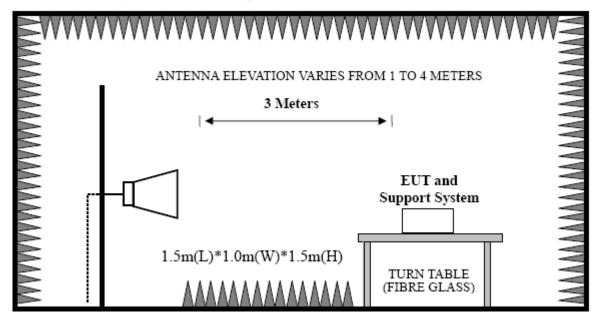
# **TX 5840MHz**





# 6. BAND EDGE COMPLIANCE

# 6.1. Block Diagram of Test setup



# 6.2. Test Procedure

EUT was placed on a turn table, which is 1.5 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

Peak: RBW = 1MHz, VBW = 1MHz, Detector=PEAK detector, Sweep time = auto. AV: RBW = 1MHz, VBW = 10Hz, Detector=PEAK detector, Sweep time = auto.

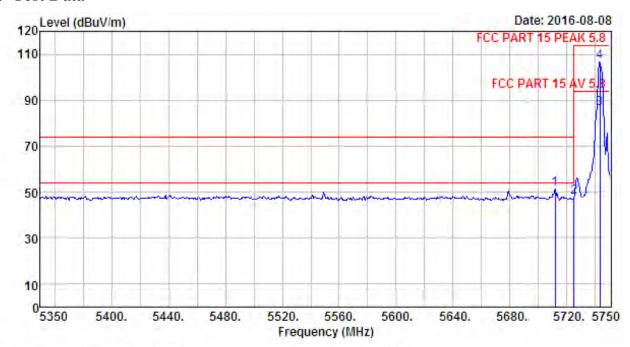
# 6.3. Test Result

EUT: Home Theater Sound Bar System	M/N: MAGNIFI MINI SOUND BAR
Power: AC 120V/60Hz	
Test date: 2016-08-08 Test site: 3m Cha	amber Tested by: Tony Tang
Test mode: Tx Mode	
	Pass

Note: If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.

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# 6.4. Test Data



Site no. : 966 1# chamber Data no. : 487
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUI : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5743MHz

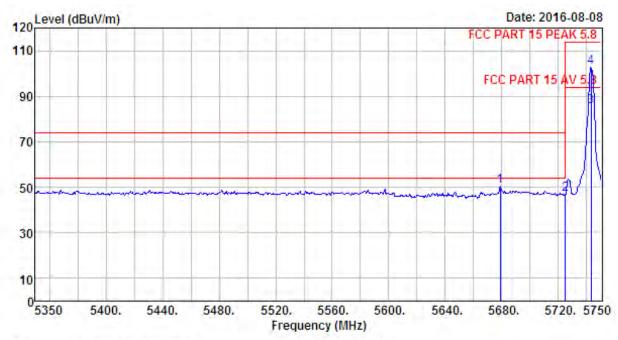
Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5711.60	32.24	12.04	32.56	39.60	51.32	74.00	22.68	Peak
2	5725.00	32.24	12.05	32.56	36.09	47.82	74.00	26.18	Peak
3	5743.00	32.27	12.05	32.54	74.78	86.56	94.00	7,44	Average
4	5743.00	32.27	12.05	32.54	95.00	106.78	114,00	7.22	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

The emission levels that are 20dB below the official limit are not reported.

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Site no. : 966 1# chamber Data no. : 488

: 3m ANT 1-18G Ant. pol. : HORIZONTAL Dis. / Ant.

: FCC PART 15 PEAK 5.8 Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kFa

: Tony Engineer

EUT : Home Theater Sound Bar System

: DC 15V From Adapter Input AC 120V/60Hz Power

M/N : MAGNIFI MINI SOUND BAR

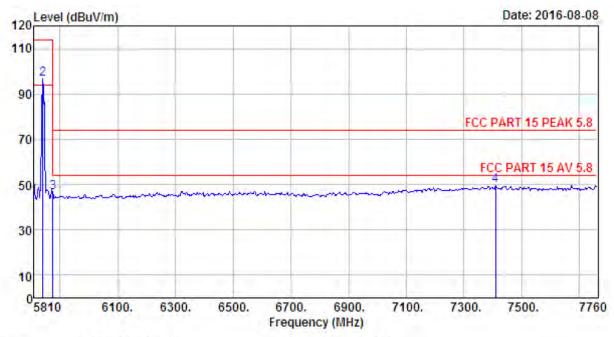
Test Mode : GFSK TX 5743MHz

Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5678.80	32.17	12.03	32.60	39.07	50.67	74.00	23.33	Peak
2	5725.00	32.24	12.05	32.56	35.20	46.93	74.00	27.07	Peak
3	5743.00	32.27	12.05	32.54	73.79	85.57	94.00	8.43	Average
4	5743.00	32.27	12.05	32.54	90.87	102.65	114.00	11.35	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 966 1# chamber Data no. : 489

Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Fress:101.52kFa

Engineer : Tony

EUI : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

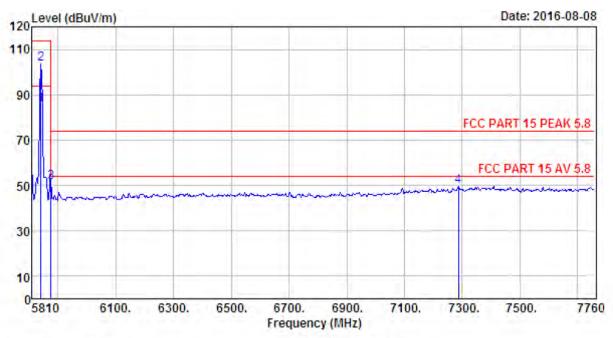
Test Mode : GFSK TX 5840MHz

Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5840.00	32.46	12.08	32.40	71.43	83.57	94.00	10.43	Average
2	5840.00	32.46	12.08	32.40	84.19	96.33	114.00	17.67	Peak
3	5875.00	32.53	12.09	32.36	34.39	46.65	74.00	27.35	Peak
4	7409.00	36.58	11.60	31.97	33.49	49.70	74.00	24.30	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : site Data no. : 490
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

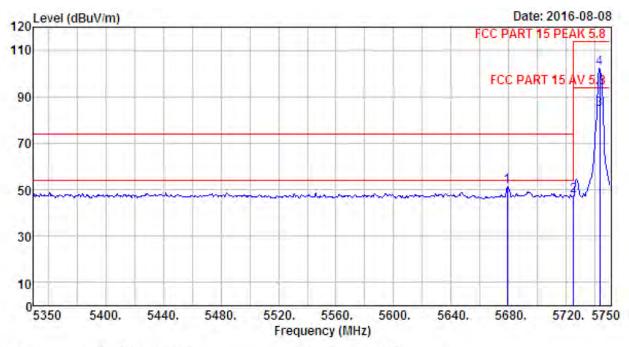
Test Mode : GFSK TX 5840MHz

Antenna A

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5840.00	32.46	12.08	32,40	73,46	85.60	94.00	8.40	Average
2	5840.00	32.46	12.08	32.40	91.55	103.69	114.00	10.31	Peak
3	5875.00	32.53	12.09	32.36	39.10	51.36	74.00	22.64	Peak
4	7289.10	36.54	11.56	32.02	33.64	49.72	74.00	24.28	Feak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 966 1# chamber Data no. : 491

Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

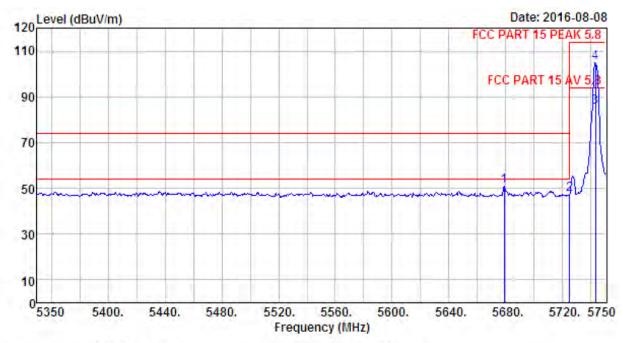
Test Mode : GFSK TX 5743MHz

Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5678.80	32.17	12.03	32.60	39.59	51.19	74.00	22.81	Peak
2	5725.00	32.24	12.05	32.56	35.51	47.24	74.00	26.76	Peak
3	5743.00	32.27	12.05	32.54	72.78	84.56	94.00	9.44	Average
4	5743.00	32.27	12.05	32,54	90,60	102.38	114.00	11,62	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 966 1# chamber Data no. : 492
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK IX 5743MHz

Antenna B

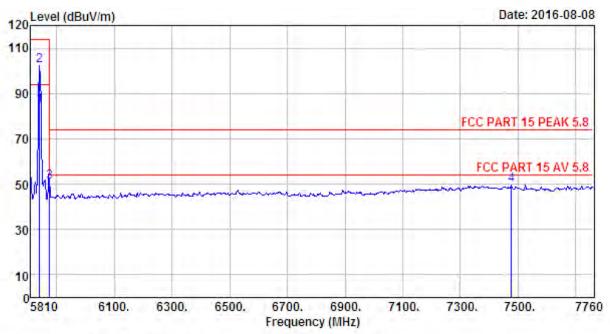
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)		Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5678.80	32.17	12.03	32.60	39.25	50.85	74.00	23.15	Peak
2	5725.00	32.24	12.05	32.56	35.70	47.43	74.00	26.57	Peak
3	5743.00	32.27	12.05	32.54	73.78	85.56	94.00	8.44	Average
4	5743.00	32.27	12.05	32.54	93.34	105.12	114.00	8.88	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

The emission levels that are 20dB below the official limit are not reported.



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Site no. : 966 1# chamber Data no. : 493
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Fower : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

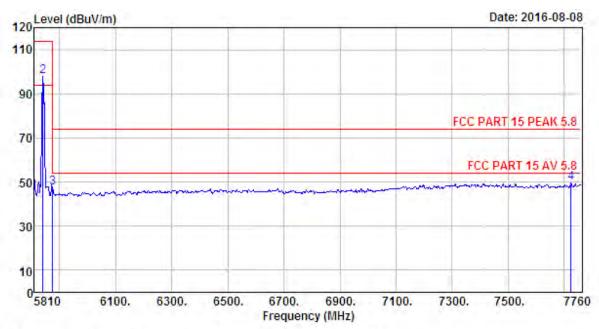
Test Mode : GFSK TX 5840MHz

Antenna B

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5840.00	32.46	12.08	32.40	72.46	84.60	94.00	9.40	Average
2	5840.00	32.46	12.08	32.40	90.00	102.14	114.00	11.86	Peak
3	5875.00	32.53	12.09	32.36	38.73	50.99	74.00	23.01	Peak
4	7477.25	35.50	11.62	31.39	33.17	49.40	74.00	24.60	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 966 1# chamber Data no. : 494

Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15 PEAK 5.8

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Home Theater Sound Bar System

Power : DC 15V From Adapter Input AC 120V/60Hz

M/N : MAGNIFI MINI SOUND BAR

Test Mode : GFSK TX 5840MHz

Antenna B

4000	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5840.00	32.46	12.08	32.40	71.44	83.58	94.00	10.42	Average
2	5840.00	32.46	12.08	32.40	85.79	97.93	114.00	16.07	Peak
3	5875.00	32.53	12.09	32.36	35.12	47.38	74.00	26.62	Peak
4	7724.90	36.53	11.52	31.50	33.11	49.66	74.00	24.34	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

The emission levels that are 20dB below the official limit are not reported.

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# 7. ANTENNA REQUIREMENTS

# 7.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.249 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

# 7.2. Result

The antennas used for this product are PCB Antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 2.85dBi.

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# 8. TESTSETUP PHOTO

Conducted Test



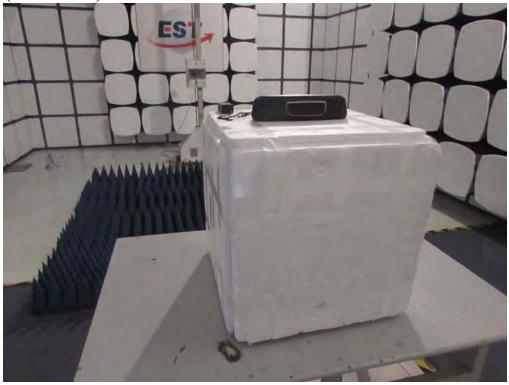


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Radiated Test (30-1000 MHz)



# Radiated Test (Above 1GHz)



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# 9. PHOTO OF EUT

**External Photos**M/N: MAGNIFI MINI SOUND BAR







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**External Photos** M/N:MAGNIFI MINI SOUND BAR

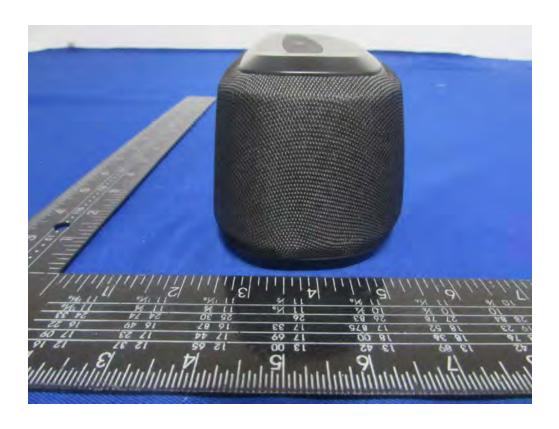




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**External Photos** M/N: MAGNIFI MINI SOUND BAR

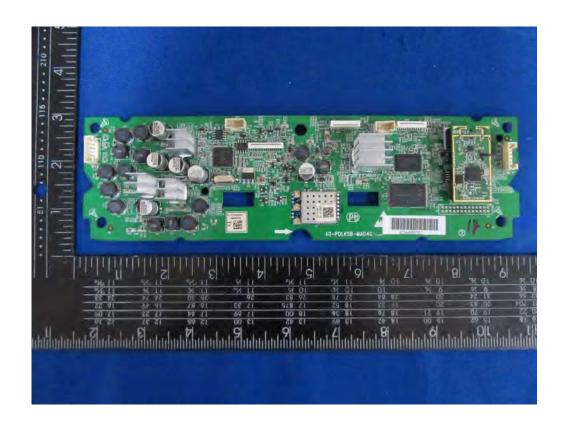




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**Internal Photos** M/N: MAGNIFI MINI SOUND BAR







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# **Internal Photos**

M/N: MAGNIFI MINI SOUND BAR

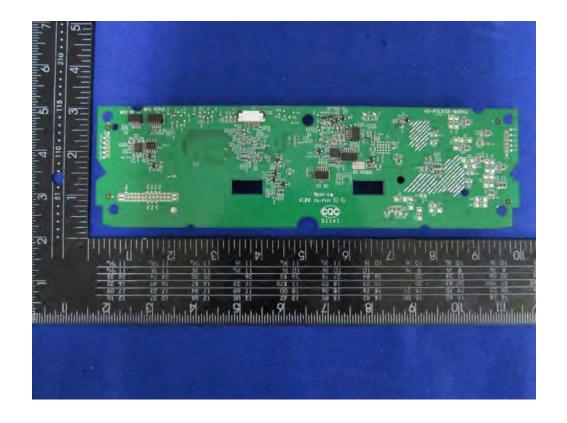
Wi-Fi Antenna 1

Bluetooth

Antenna



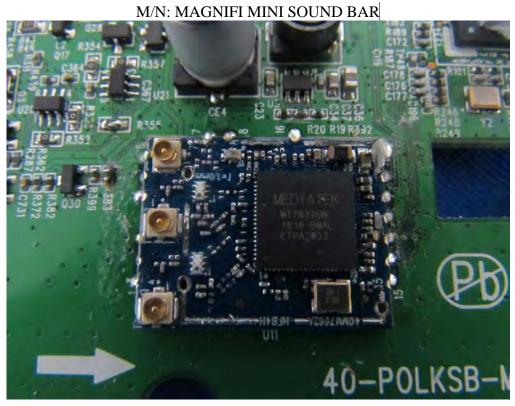
Wi-Fi Antenna 0

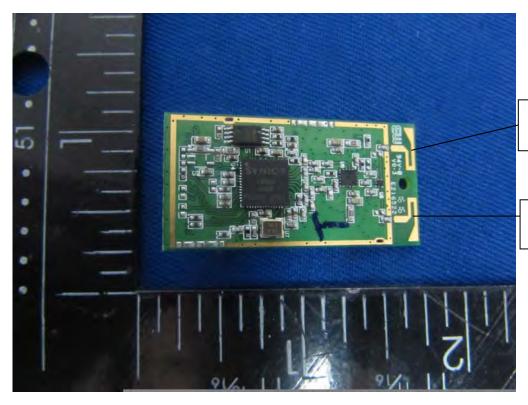




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Internal Photos





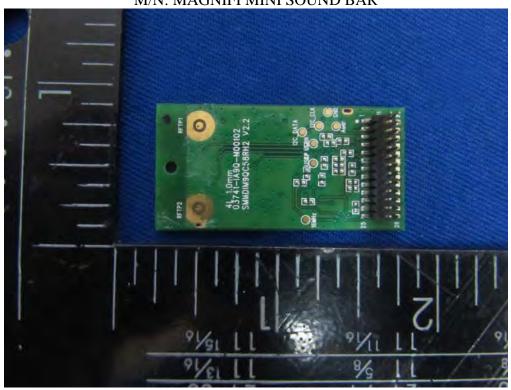
5.8G Antenna A

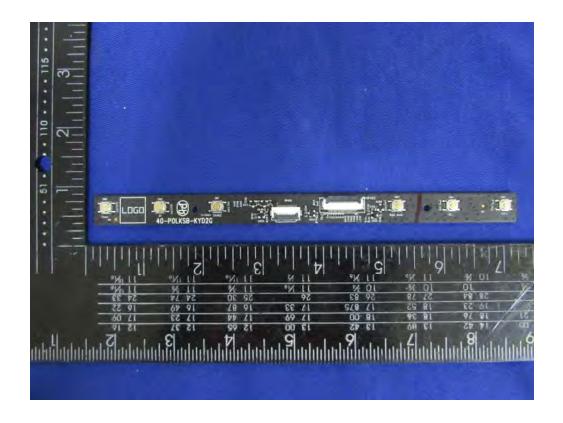
5.8G Antenna B

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**Internal Photos** M/N: MAGNIFI MINI SOUND BAR

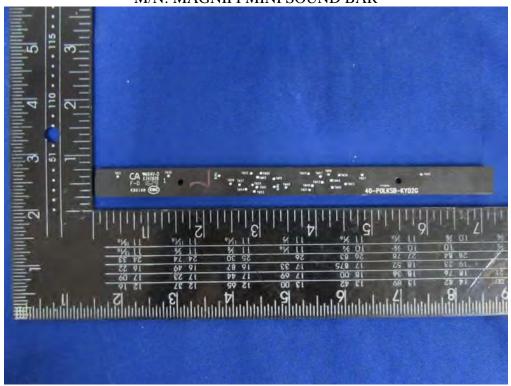


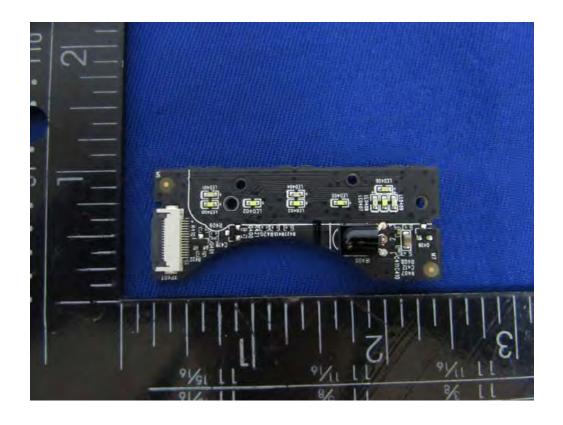




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**Internal Photos** M/N: MAGNIFI MINI SOUND BAR

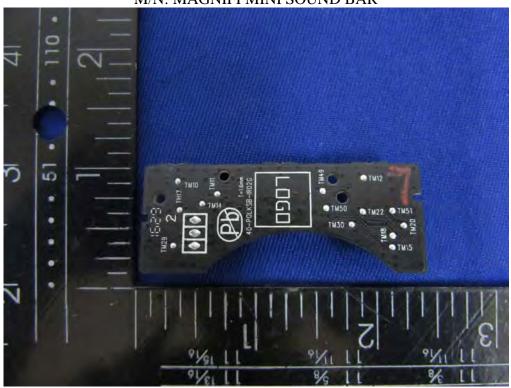






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**Internal Photos** M/N: MAGNIFI MINI SOUND BAR

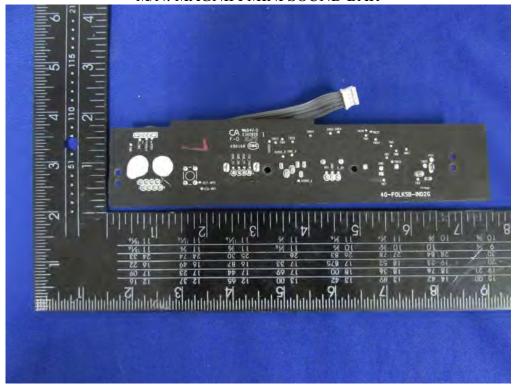






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# **Internal Photos** M/N: MAGNIFI MINI SOUND BAR



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# **Remote control Photos** M/N: MAGNIFI MINI SOUND BAR







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# **Adapter Photos**







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