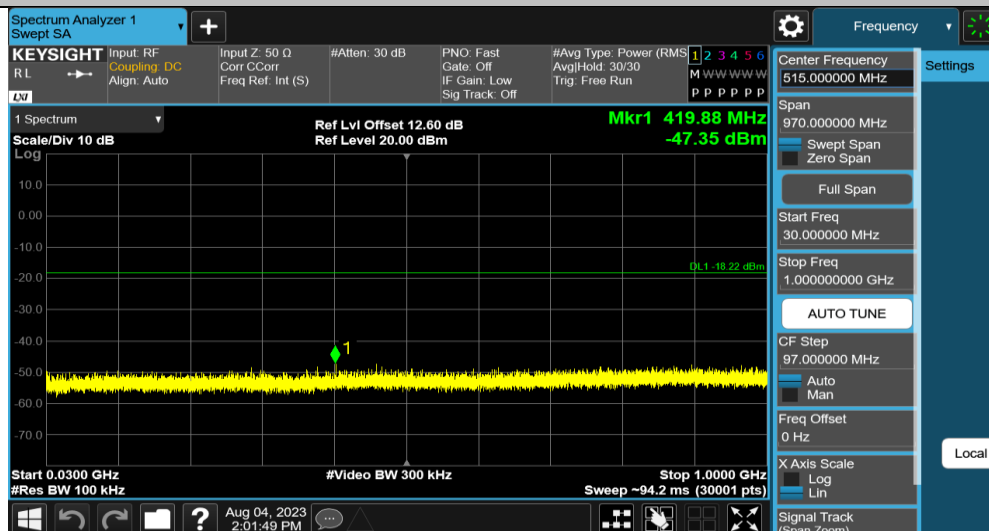


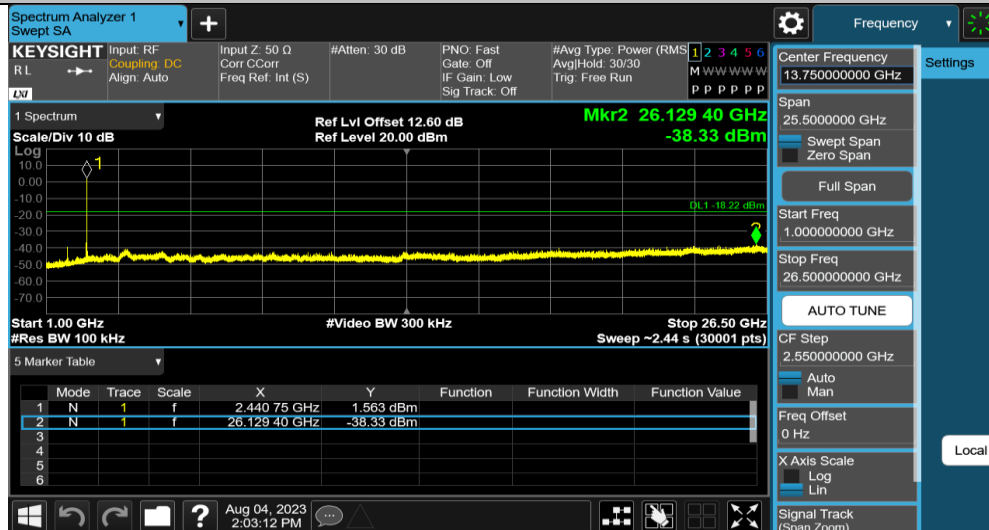
## 3DH5\_Ant1\_2441\_0~Reference



## 3DH5\_Ant1\_2441\_30~1000



## 3DH5\_Ant1\_2441\_1000~26500





## Appendix A.7: Test Results of Radiated Spurious Emissions

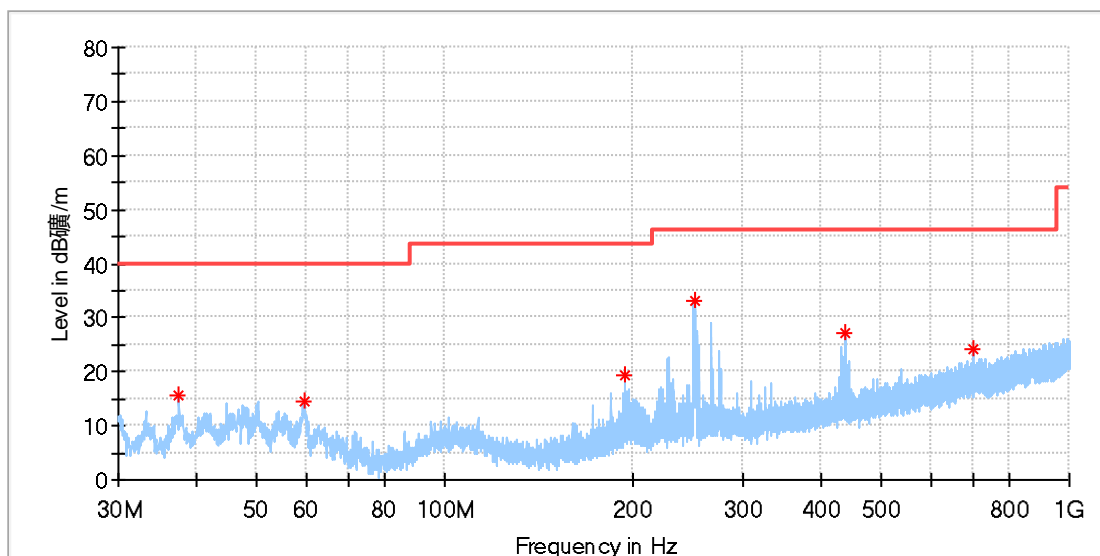
Note:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

### 30 MHz - 1GHz

## EUT Information

EUT Name:	2.1Channel Soundbar with Wireless Subwoofer
Model:	NS-HTSB2123
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168431566/A003498686-006
Test Voltage:	120V/60Hz
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical Freqs

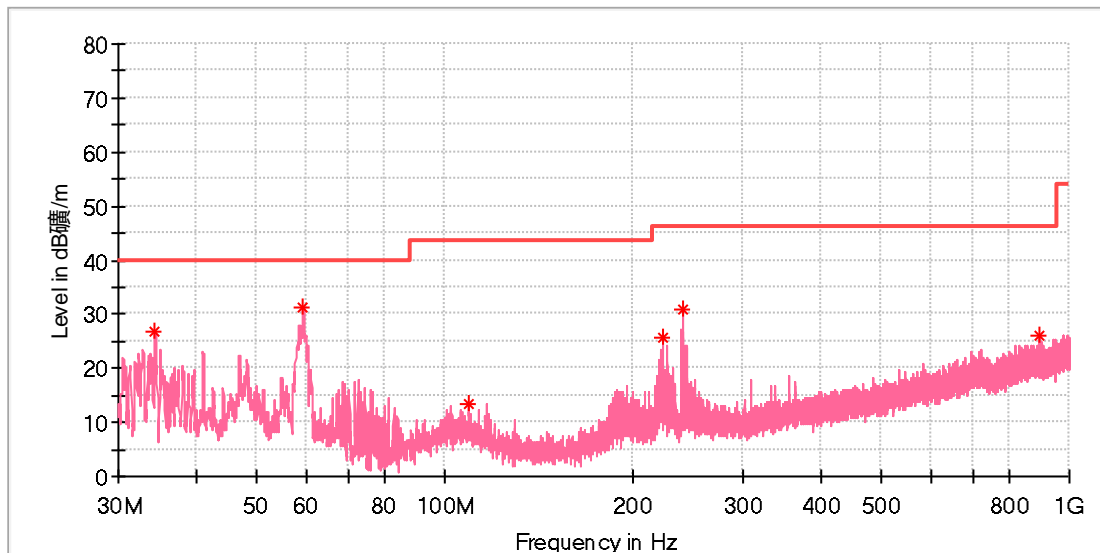
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
37.536154	15.59	40.00	24.41	100.0	H	141.0	-21.2
59.585000	14.54	40.00	25.46	100.0	H	215.0	-19.2
194.303077	19.50	43.50	24.00	100.0	H	4.0	-19.6
250.936154	33.03	46.00	12.97	100.0	H	93.0	-17.7
437.400000	27.11	46.00	18.89	100.0	H	19.0	-13.5
699.635769	24.02	46.00	21.98	100.0	H	279.0	-8.4

## Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_Mid channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.365000	26.76	40.00	13.24	100.0	V	249.0	-22.5
59.361154	31.30	40.00	8.70	100.0	V	121.0	-19.2
109.316154	13.30	43.50	30.20	100.0	V	15.0	-19.4
223.216539	25.55	46.00	20.45	100.0	V	114.0	-18.7
240.340769	31.01	46.00	14.99	100.0	V	88.0	-18.0
892.292692	26.10	46.00	19.90	100.0	V	224.0	-5.5

## Final\_Result

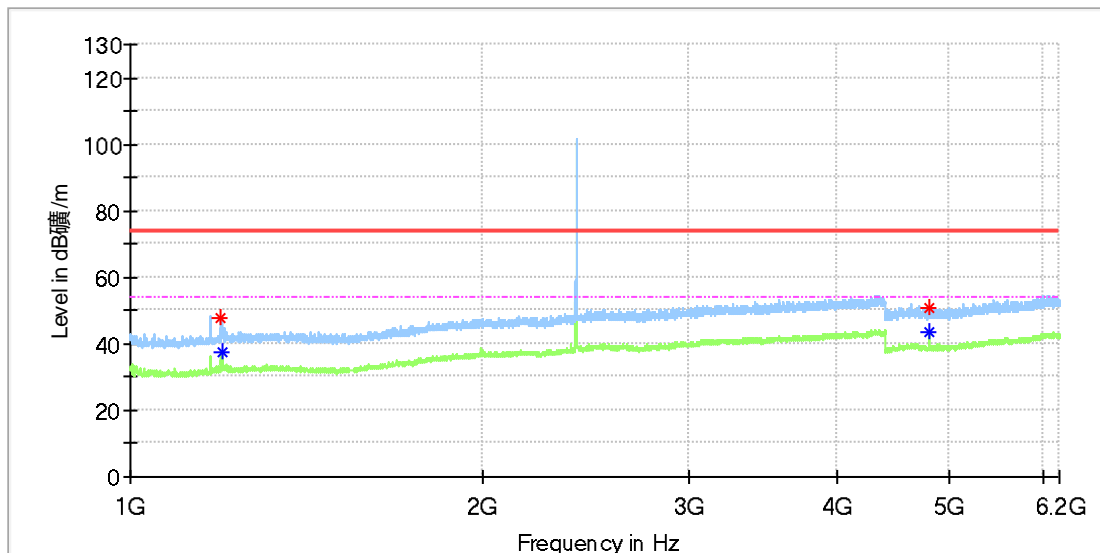
Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## 1GHz - 18GHz

Note: The highest waveform in the figure is Bluetooth Fundamental.

## EUT Information

EUT Name:	2.1Channel Soundbar with Wireless Subwoofer
Model:	NS-HTSB2123
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168431566/A003498686-006
Test Voltage:	120V/60Hz
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical\_Freqs

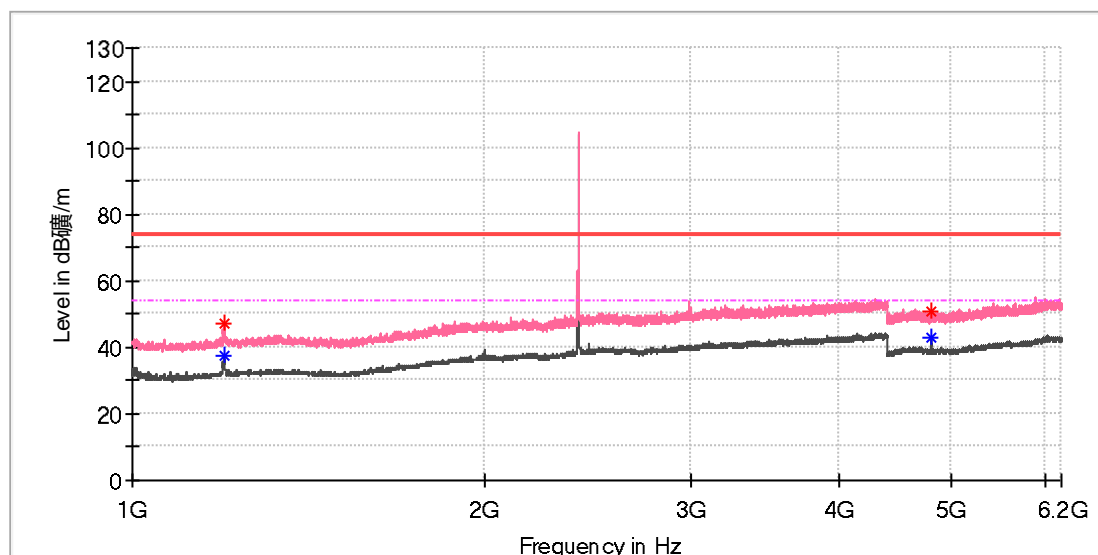
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1195.000000	47.89	---	74.00	26.11	150.0	H	171.0	1.1
1196.000000	---	37.70	54.00	16.30	150.0	H	171.0	1.1
4802.500000	50.55	---	74.00	23.45	150.0	H	305.0	11.8
4802.500000	---	43.64	54.00	10.36	150.0	H	305.0	11.8

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_Low channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

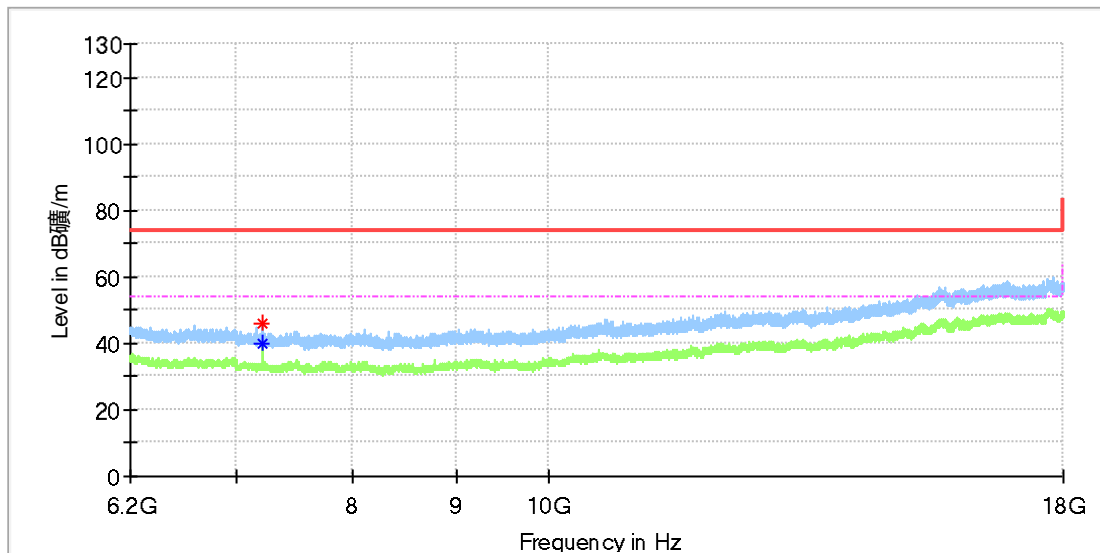
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1196.000000	---	37.41	54.00	16.59	150.0	V	317.0	1.1
1198.000000	47.26	---	74.00	26.74	150.0	V	348.0	1.1
4802.500000	50.78	---	74.00	23.22	150.0	V	261.0	11.8
4802.500000	---	43.23	54.00	10.77	150.0	V	261.0	11.8

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_Low channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

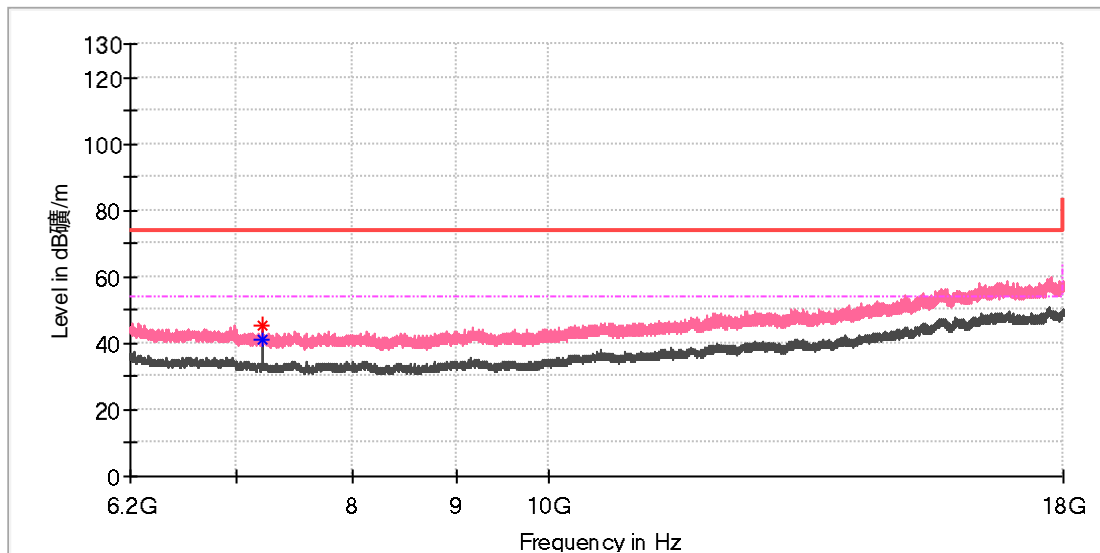
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.950000	---	40.19	54.00	13.81	150.0	H	7.0	8.8
7206.441667	45.71	---	74.00	28.29	150.0	H	314.0	8.8

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_Low channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

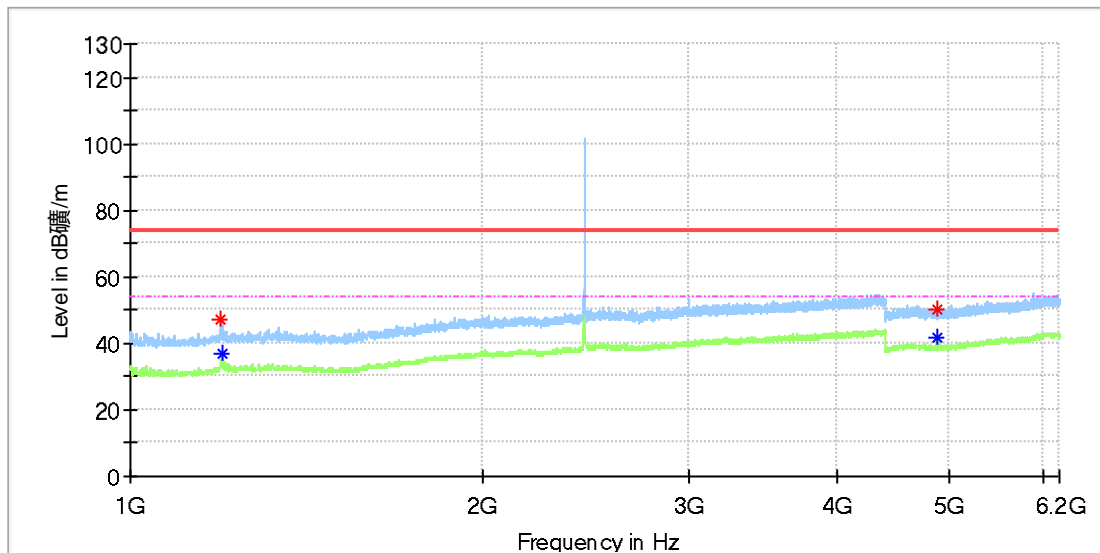
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.966667	45.55	---	74.00	28.45	150.0	V	329.0	8.8
7205.950000	---	40.82	54.00	13.18	150.0	V	329.0	8.8

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_Mid channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

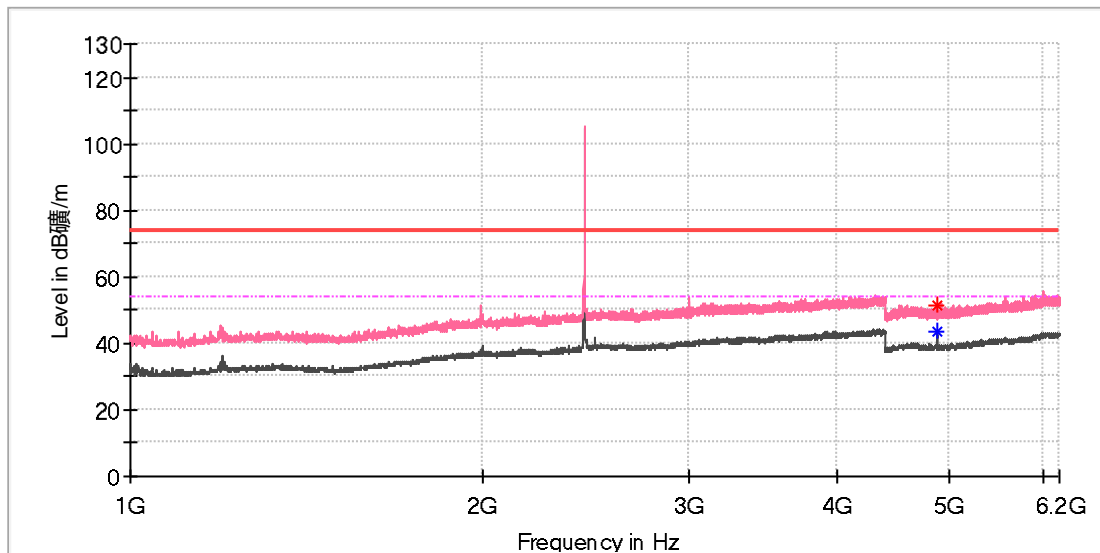
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1195.500000	47.31	---	74.00	26.69	150.0	H	340.0	1.1
1196.500000	---	36.83	54.00	17.17	150.0	H	0.0	1.1
4880.500000	---	41.89	54.00	12.11	150.0	H	308.0	11.8
4882.500000	50.44	---	74.00	23.56	150.0	H	244.0	11.8

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_Mid channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

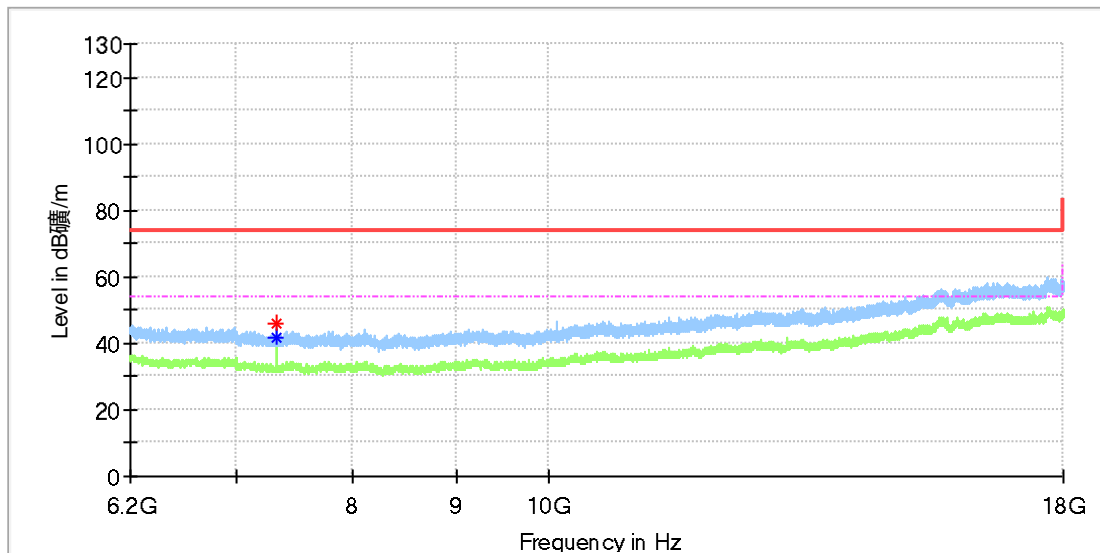
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4882.000000	51.31	---	74.00	22.69	150.0	V	268.0	11.8
4882.000000	---	43.65	54.00	10.35	150.0	V	268.0	11.8

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_Mid channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

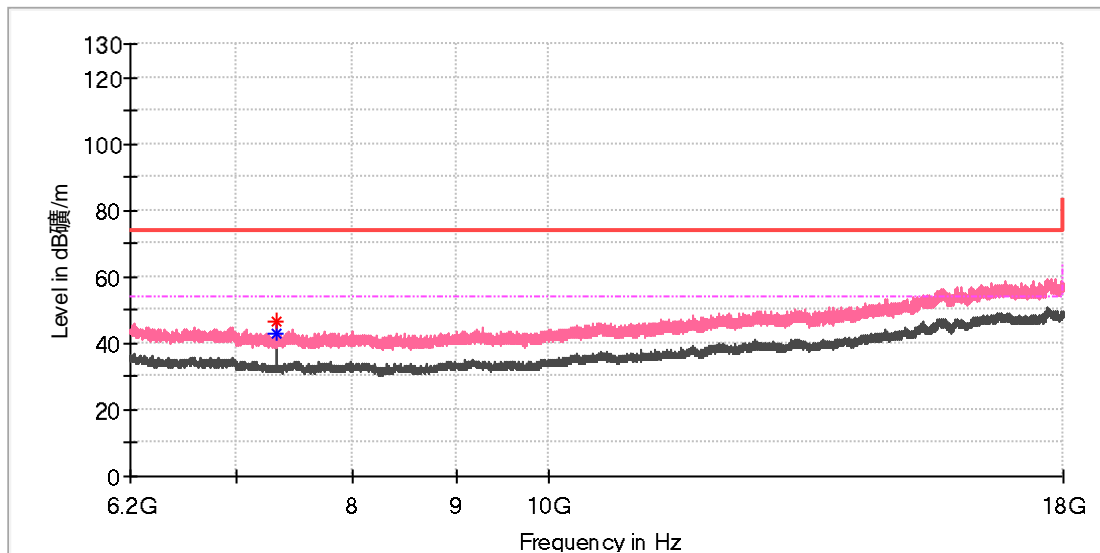
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.966667	46.12	---	74.00	27.88	150.0	H	290.0	8.2
7322.966667	---	41.89	54.00	12.11	150.0	H	290.0	8.2

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_Mid channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

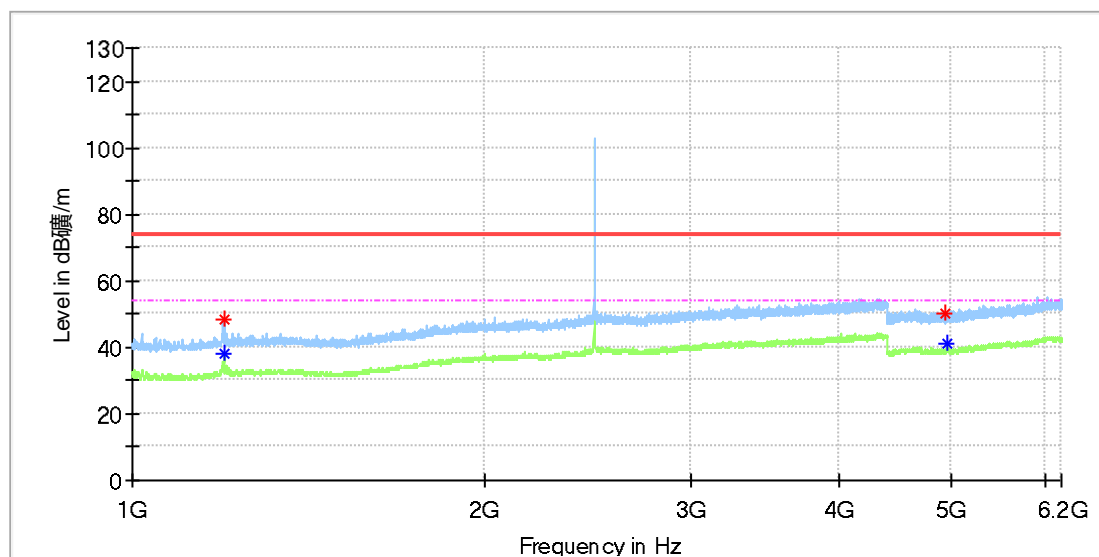
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.475000	46.77	---	74.00	27.23	150.0	V	329.0	8.2
7322.966667	---	42.70	54.00	11.30	150.0	V	329.0	8.2

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_High channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

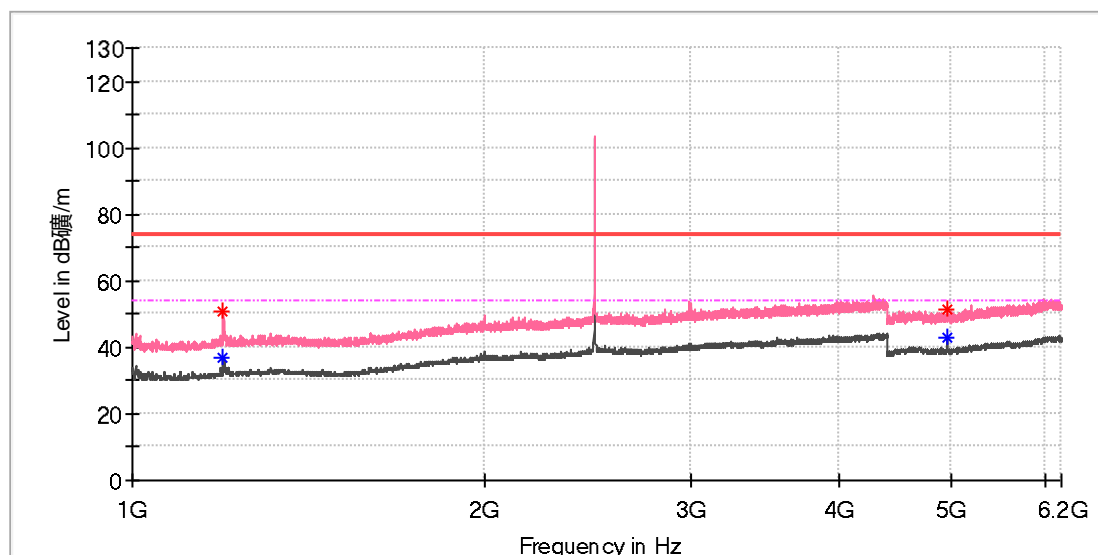
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1197.000000	---	37.89	54.00	16.11	150.0	H	1.0	1.1
1197.000000	48.57	---	74.00	25.43	150.0	H	1.0	1.1
4945.000000	50.32	---	74.00	23.68	150.0	H	208.0	11.8
4958.500000	---	41.03	54.00	12.97	150.0	H	288.0	11.8

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_High channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

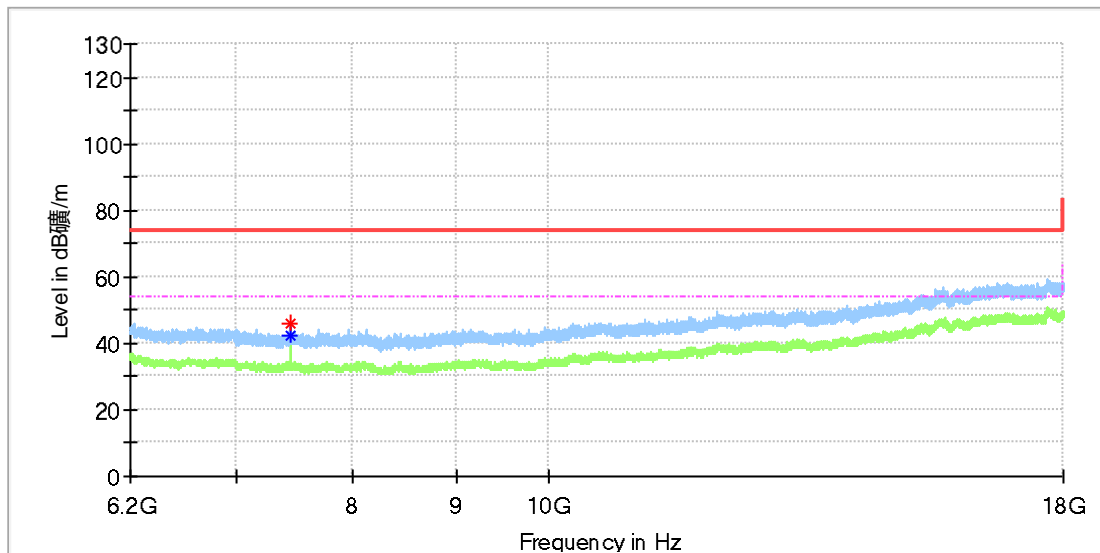
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1195.500000	50.80	---	74.00	23.20	150.0	V	277.0	1.1
1195.500000	---	37.09	54.00	16.91	150.0	V	277.0	1.1
4959.500000	51.16	---	74.00	22.84	150.0	V	258.0	11.8
4960.000000	---	42.91	54.00	11.09	150.0	V	278.0	11.8

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_High channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

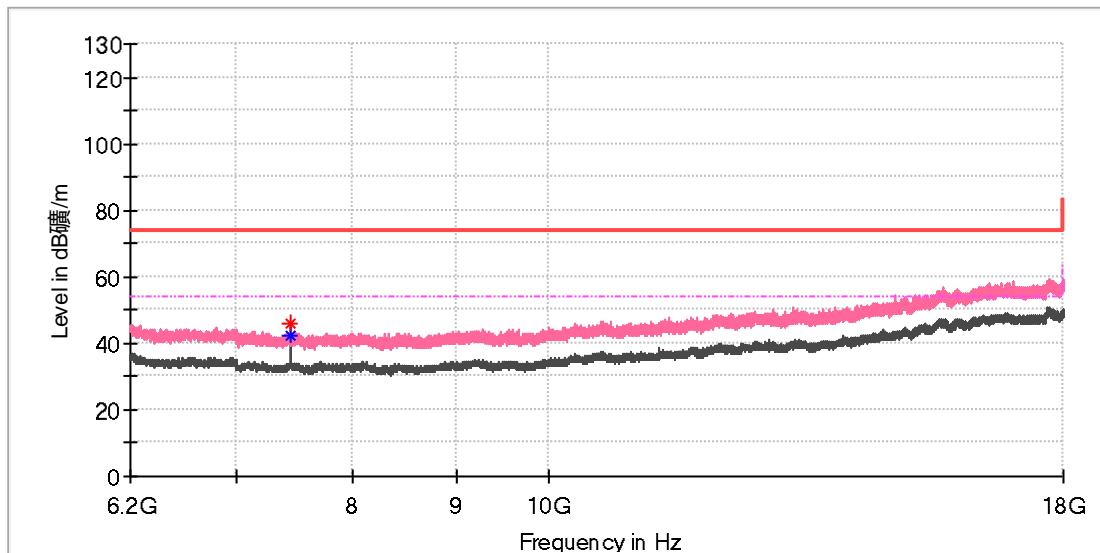
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.983333	46.02	---	74.00	27.98	150.0	H	251.0	8.4
7439.983333	---	42.17	54.00	11.83	150.0	H	251.0	8.4

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_High channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.491667	46.03	---	74.00	27.97	150.0	V	335.0	8.4
7439.983333	---	42.13	54.00	11.87	150.0	V	335.0	8.4

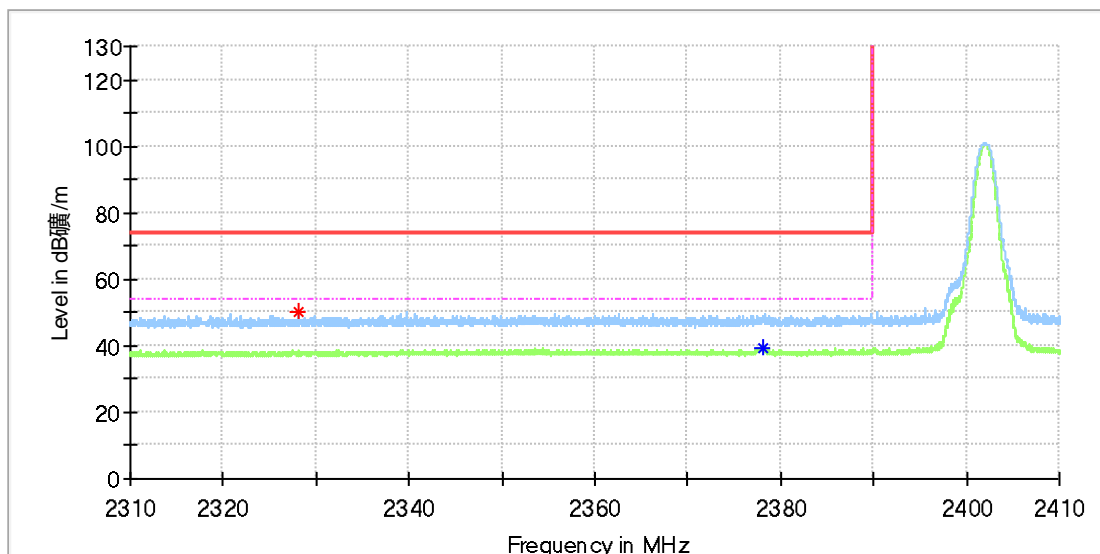
## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## Appendix A.8: Test Results of Radiated Emissions in Restricted Bands

### EUT Information

EUT Name:	2.1Channel Soundbar with Wireless Subwoofer
Model:	NS-HTSB2123
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168431566/A003498686-006
Test Voltage:	120V/60Hz
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



### Critical\_Freqs

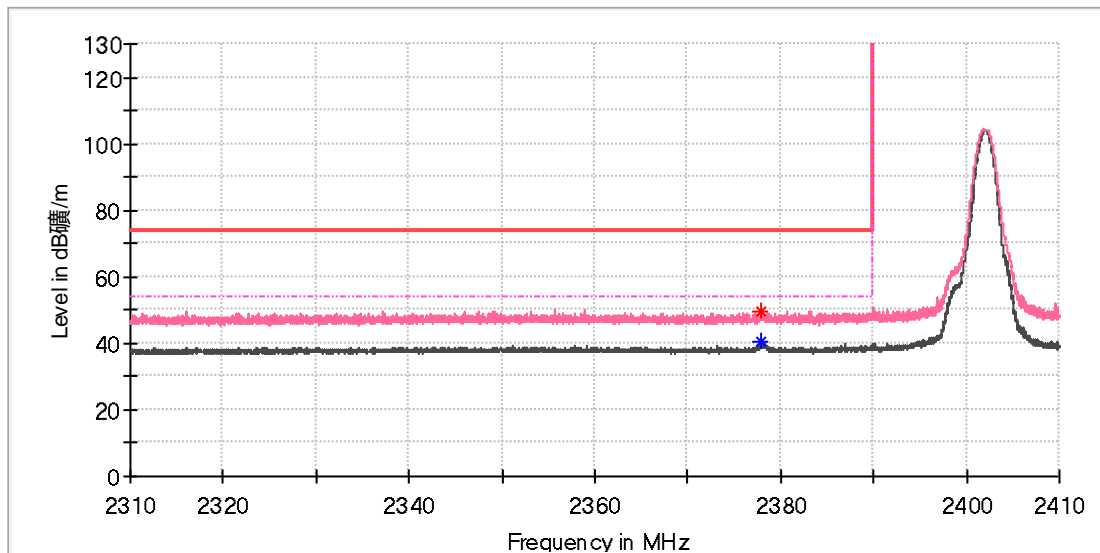
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2328.117647	49.98	---	74.00	24.02	150.0	H	124.0	6.7
2378.073529	---	39.59	54.00	14.41	150.0	H	46.0	6.9

### Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_Low channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

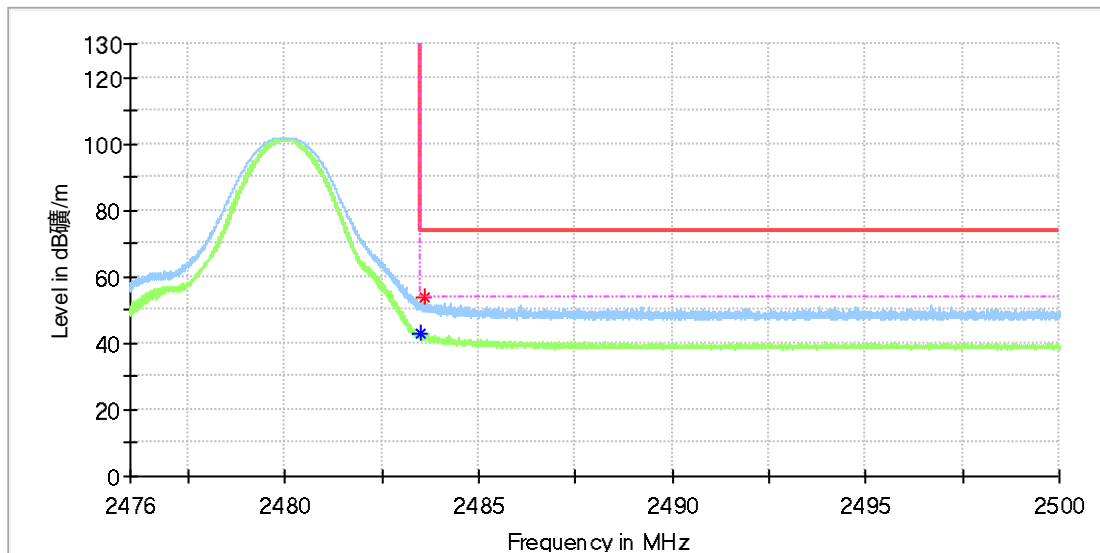
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2377.838235	---	40.34	54.00	13.66	150.0	V	282.0	6.9
2377.970588	49.80	---	74.00	24.20	150.0	V	253.0	6.9

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_High channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

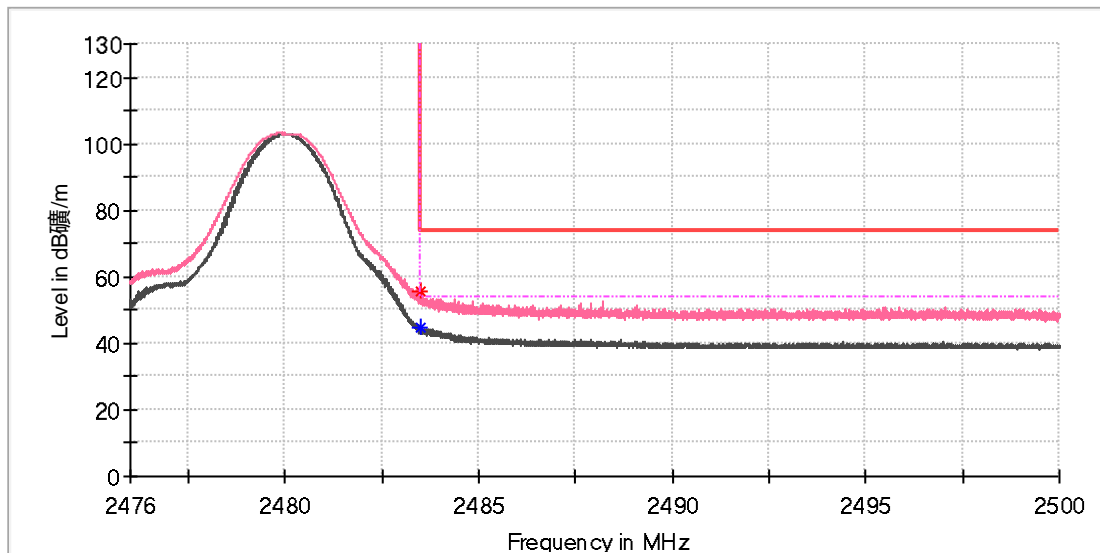
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.503530	---	42.99	54.00	11.01	150.0	H	348.0	7.4
2483.605882	53.82	---	74.00	20.18	150.0	H	348.0	7.4

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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## EUT Information

EUT Name: 2.1Channel Soundbar with Wireless Subwoofer  
Model: NS-HTSB2123  
Test Mode: BR\_DH5\_High channel  
Order No/Sample No: 168431566/A003498686-006  
Test Voltage: 120V/60Hz  
Remark: Temp 24 Humi:50%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.503530	55.39	---	74.00	18.61	150.0	V	297.0	7.4
2483.517647	---	44.49	54.00	9.51	150.0	V	46.0	7.4

## Final\_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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