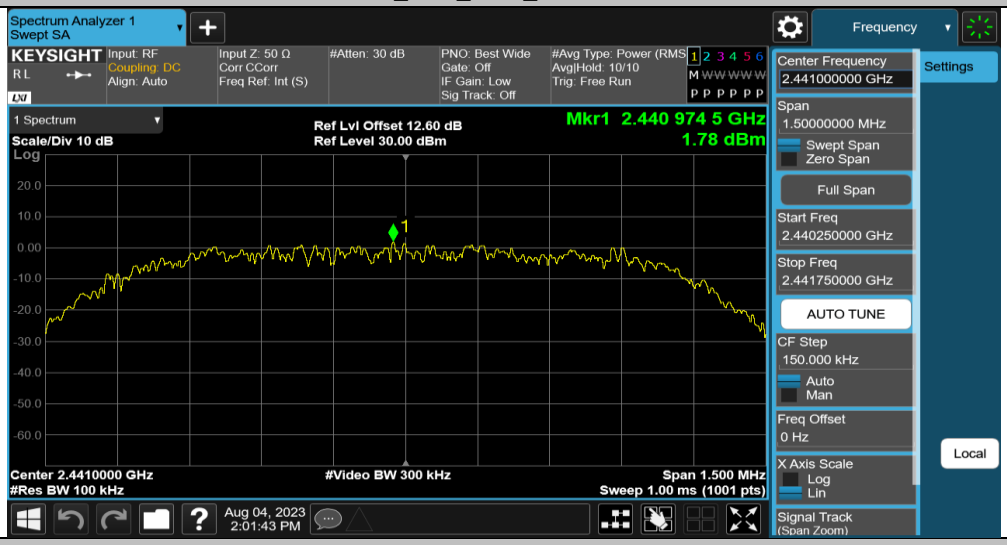
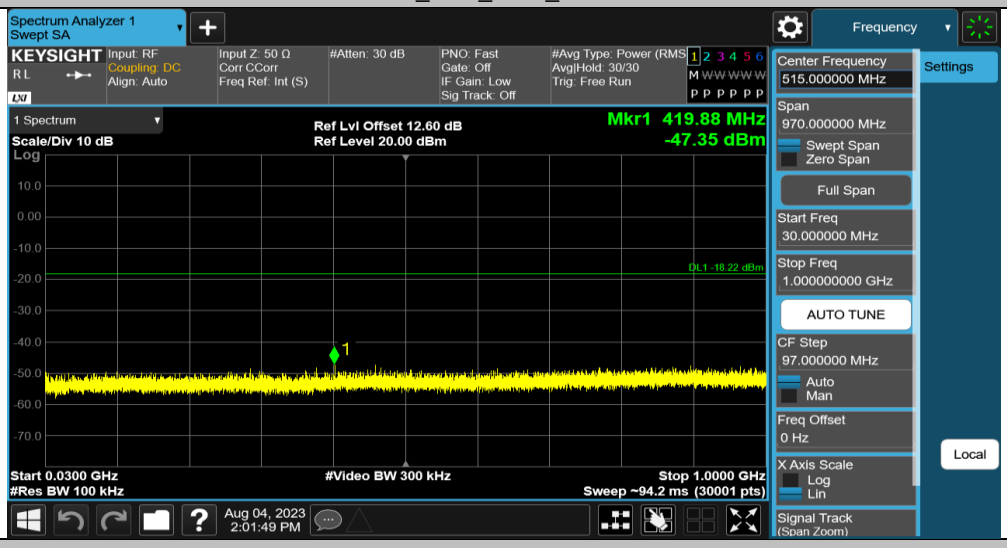
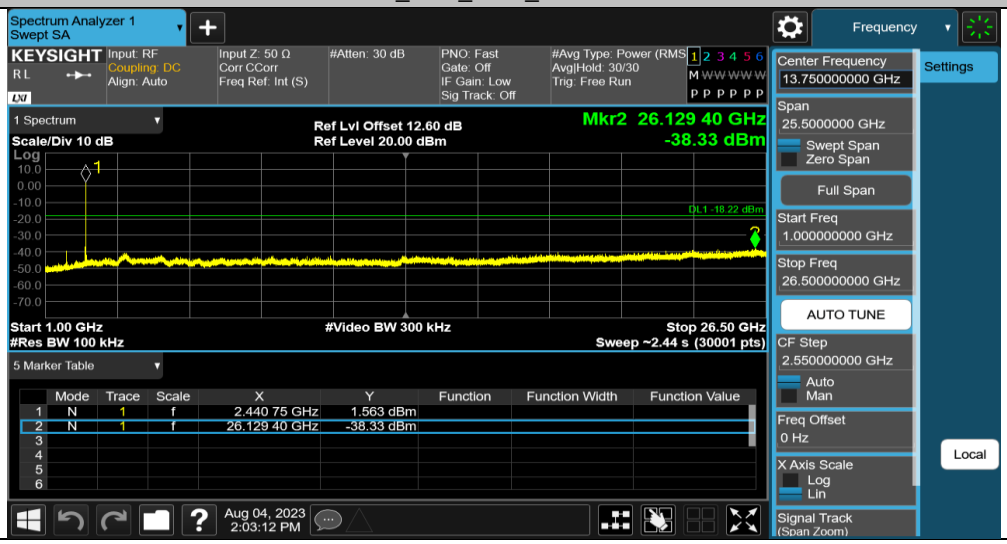
3DH5_Ant1_2441_0~Reference



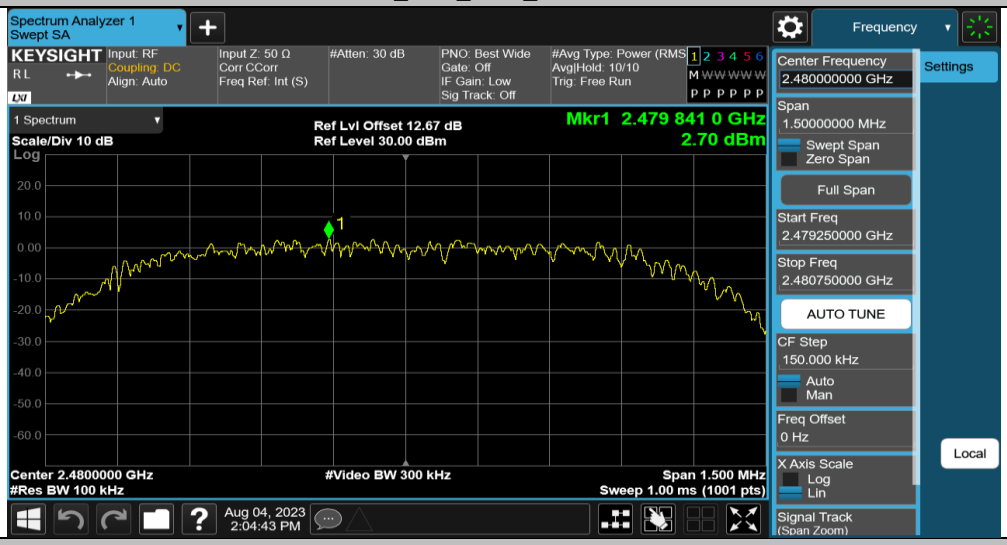
3DH5_Ant1_2441_30~1000



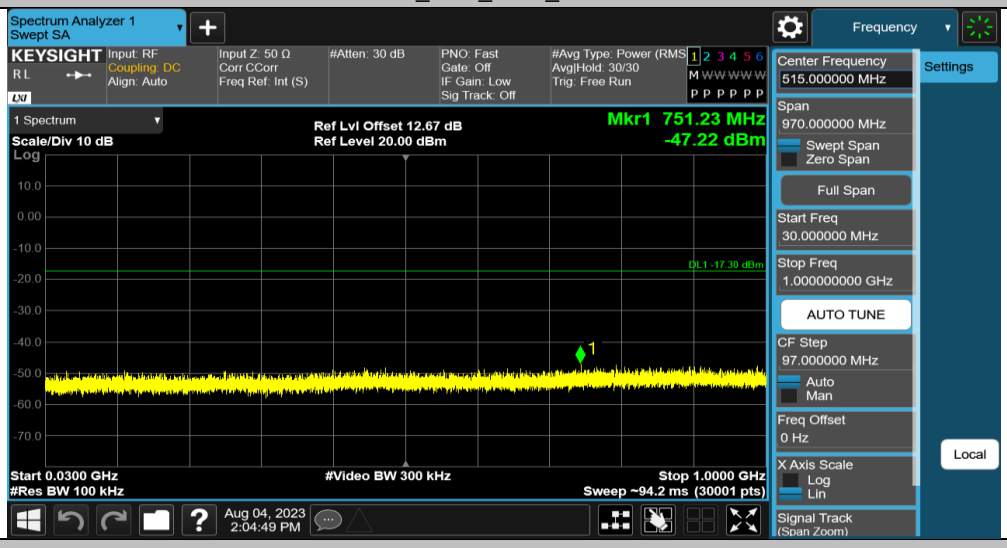
3DH5_Ant1_2441_1000~26500



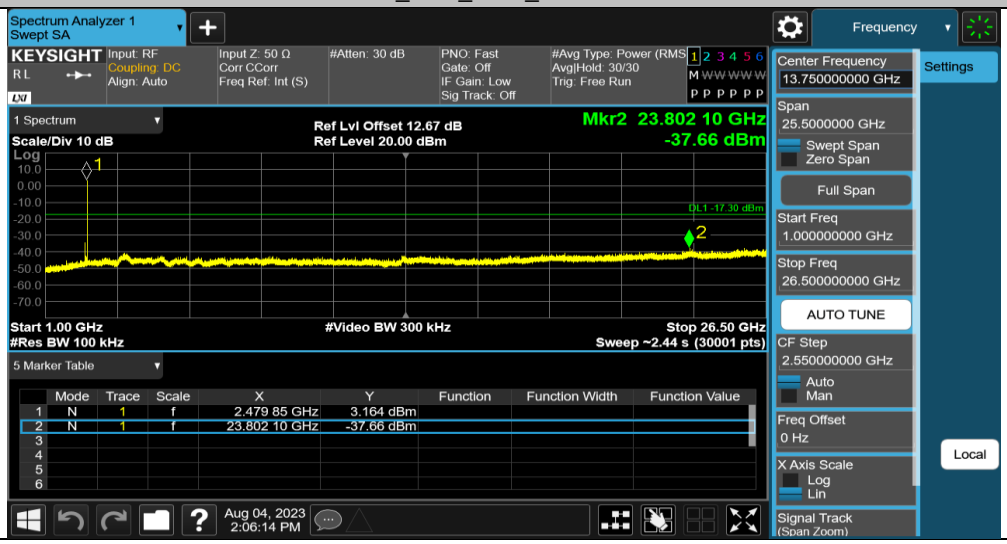
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



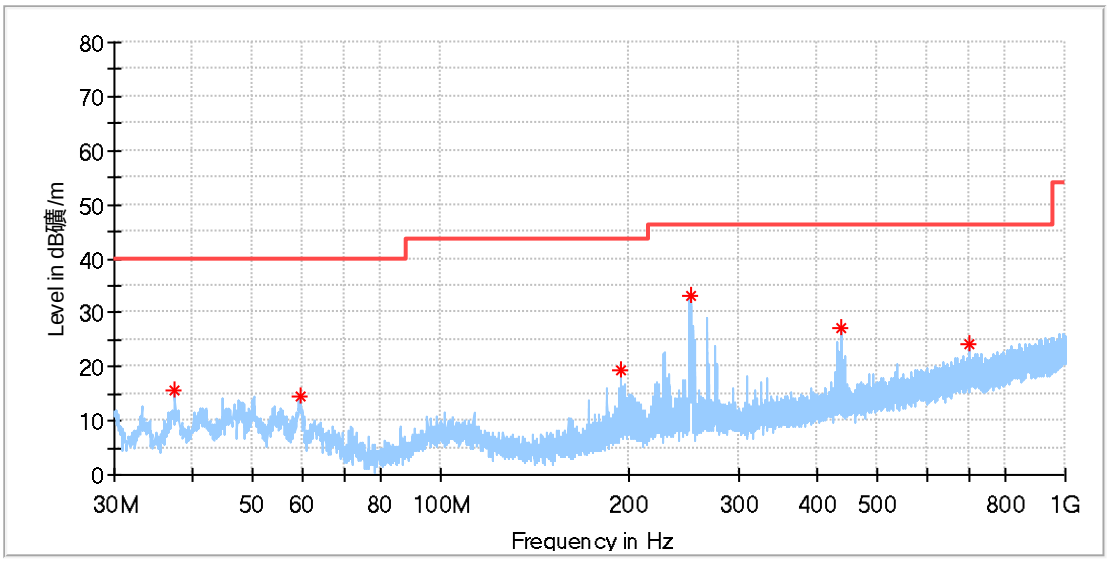
Appendix A.7: Test Results of Radiated Spurious Emissions

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

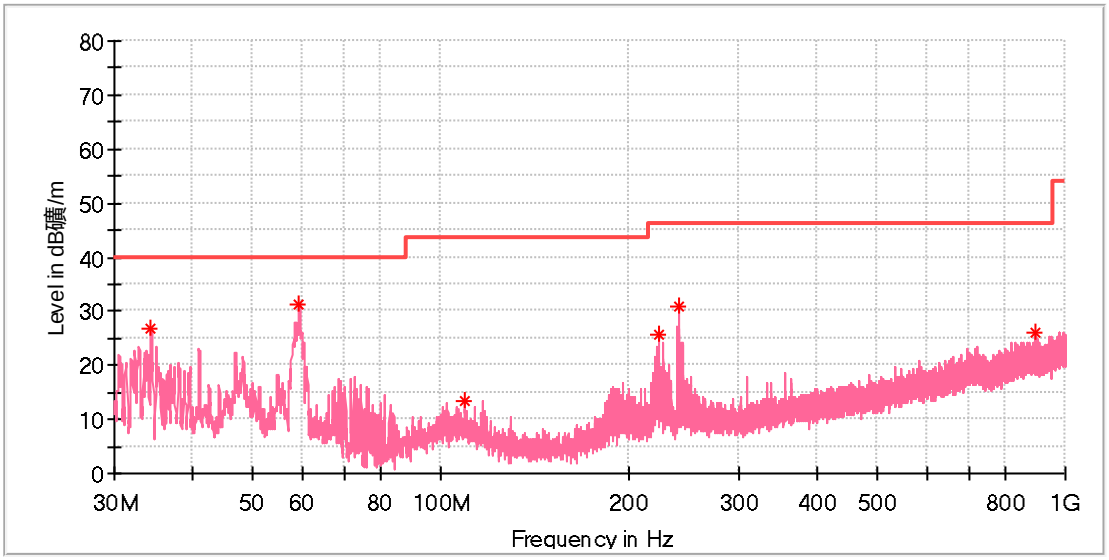
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
37.536154	15.59	40.00	24.41	100.0	H	141.0	-21.2
59.585000	14.54	40.00	25.46	100.0	H	215.0	-19.2
194.303077	19.50	43.50	24.00	100.0	H	4.0	-19.6
250.936154	33.03	46.00	12.97	100.0	H	93.0	-17.7
437.400000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

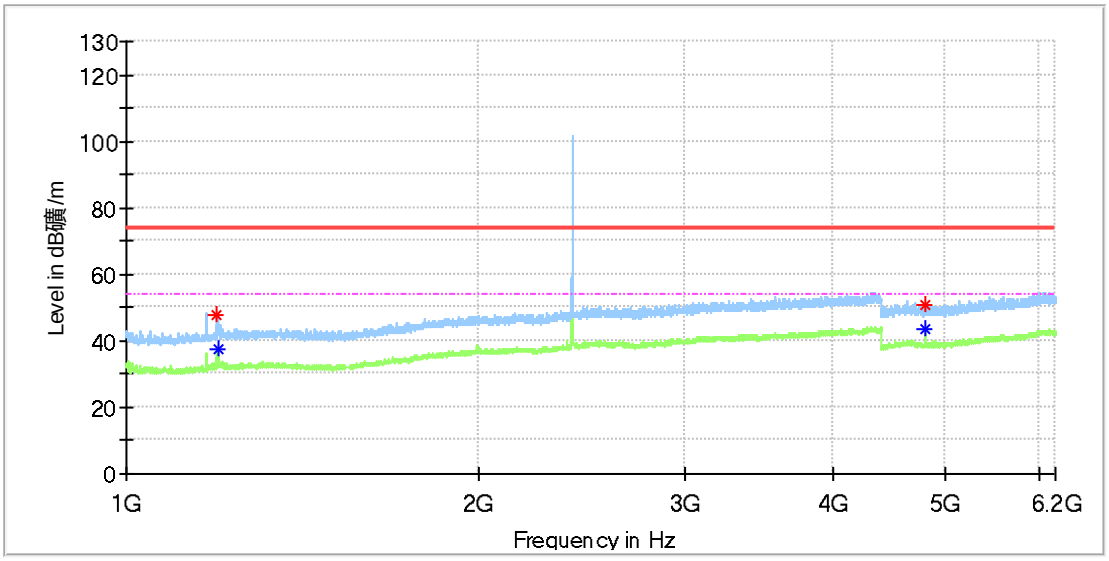
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

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

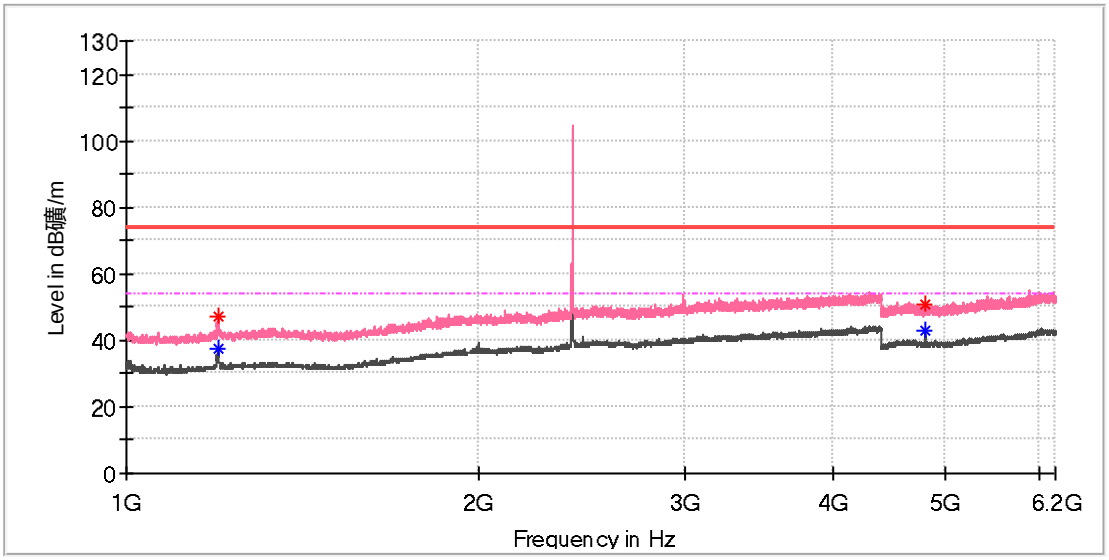
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1195.000000	47.89	---	74.00	26.11	150.0	H	171.0	1.1
1196.000000	---	37.70	54.00	16.30	150.0	H	171.0	1.1
4802.500000	50.55	---	74.00	23.45	150.0	H	305.0	11.8
4802.500000	---	43.64	54.00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

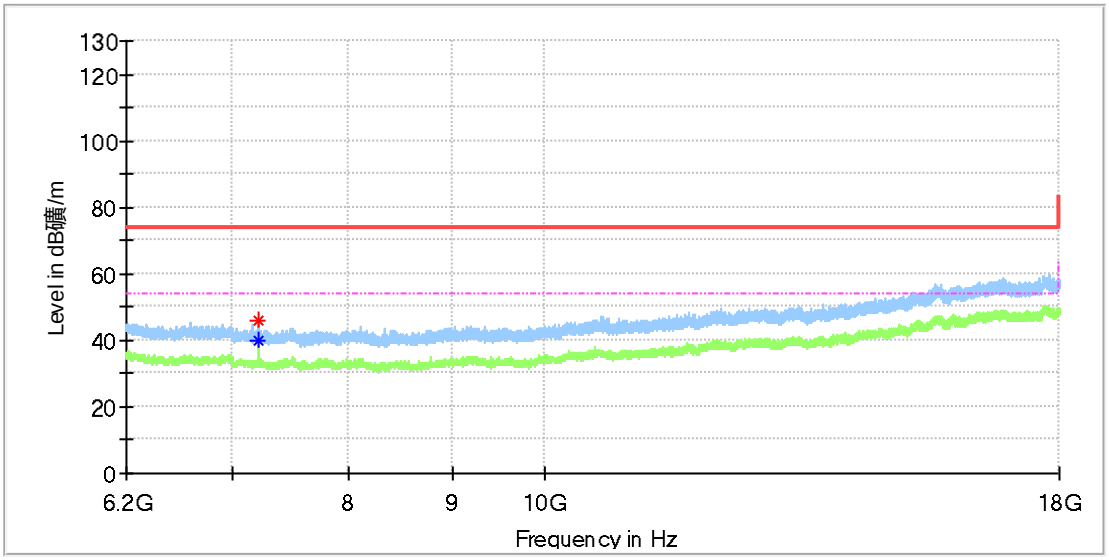
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1196.000000	---	37.41	54.00	16.59	150.0	V	317.0	1.1
1198.000000	47.26	---	74.00	26.74	150.0	V	348.0	1.1
4802.500000	50.78	---	74.00	23.22	150.0	V	261.0	11.8
4802.500000	---	43.23	54.00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

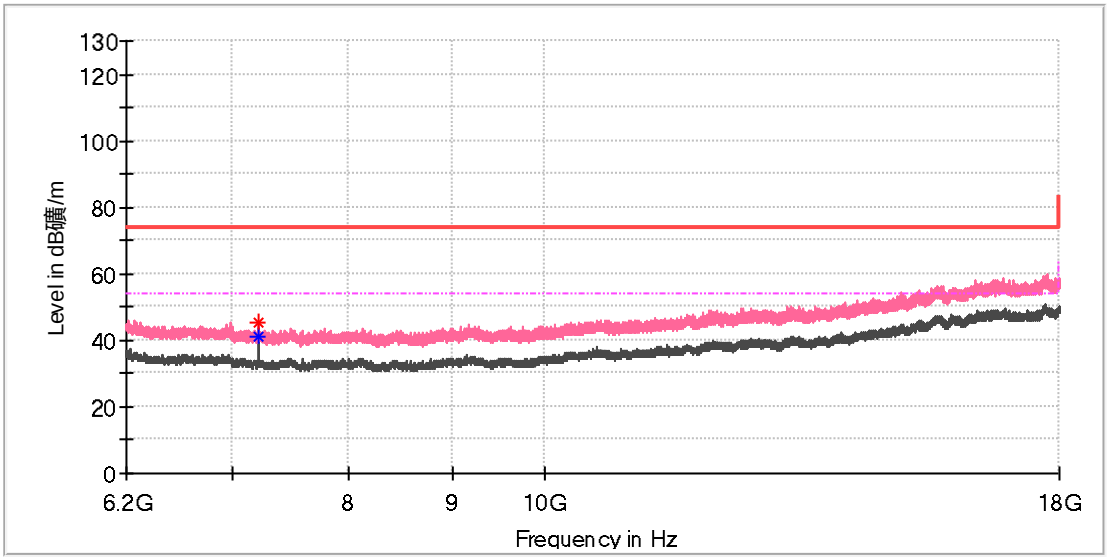
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.950000	---	40.19	54.00	13.81	150.0	H	7.0	8.8
7206.441667	45.71	---	74.00	28.29	150.0	H	314.0	8.8

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

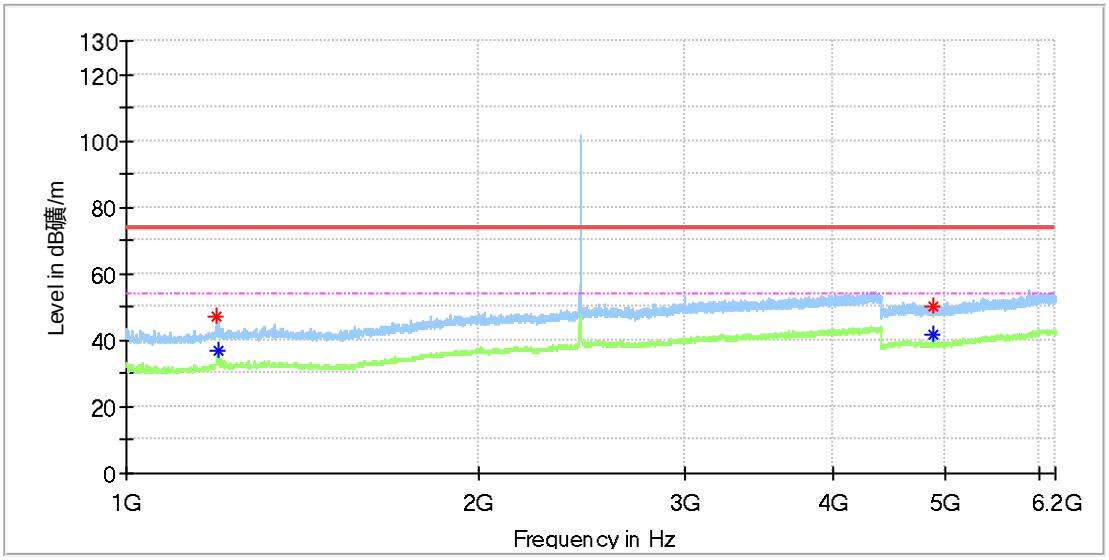
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.966667	45.55	---	74.00	28.45	150.0	V	329.0	8.8
7205.950000	---	40.82	54.00	13.18	150.0	V	329.0	8.8

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

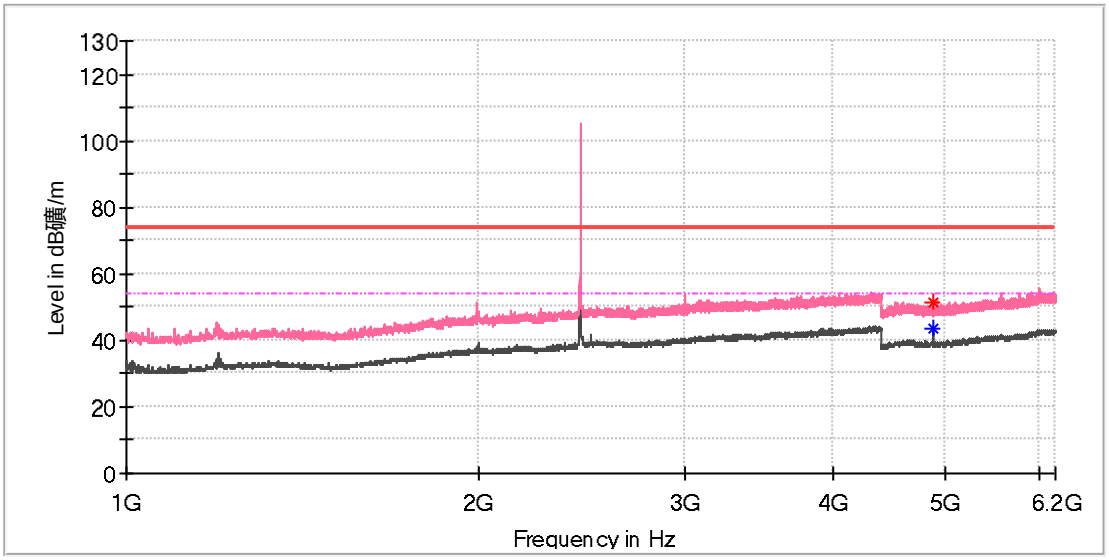
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1195.500000	47.31	---	74.00	26.69	150.0	H	340.0	1.1
1196.500000	---	36.83	54.00	17.17	150.0	H	0.0	1.1
4880.500000	---	41.89	54.00	12.11	150.0	H	308.0	11.8
4882.500000	50.44	---	74.00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

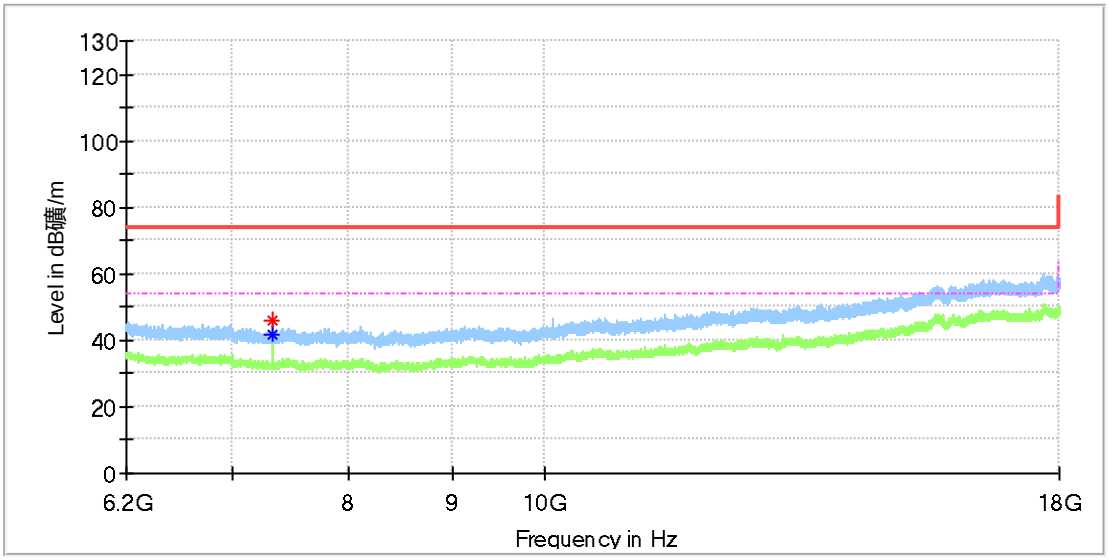
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4882.000000	51.31	---	74.00	22.69	150.0	V	268.0	11.8
4882.000000	---	43.65	54.00	10.35	150.0	V	268.0	11.8

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

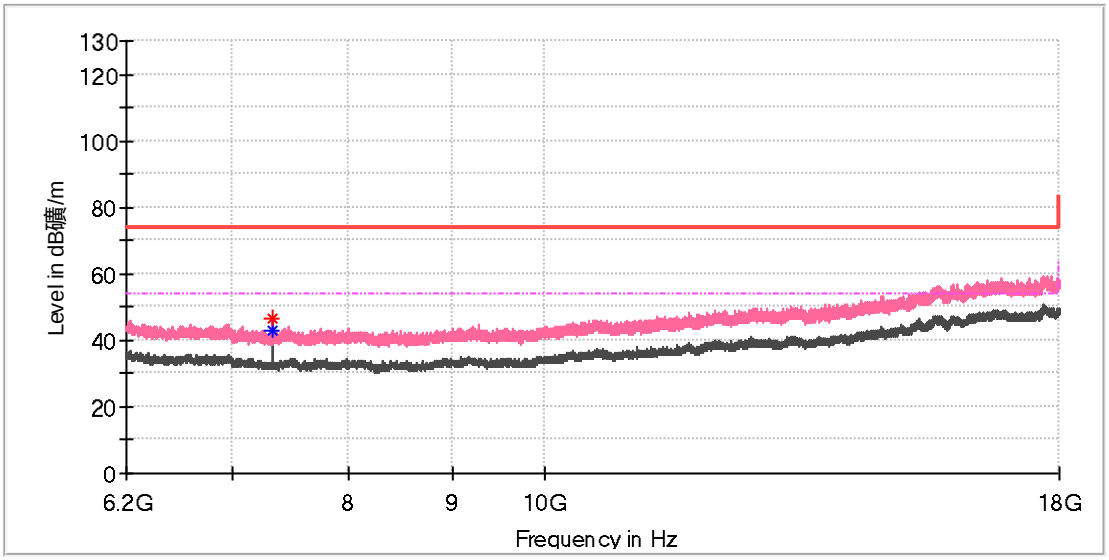
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.966667	46.12	---	74.00	27.88	150.0	H	290.0	8.2
7322.966667	---	41.89	54.00	12.11	150.0	H	290.0	8.2

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

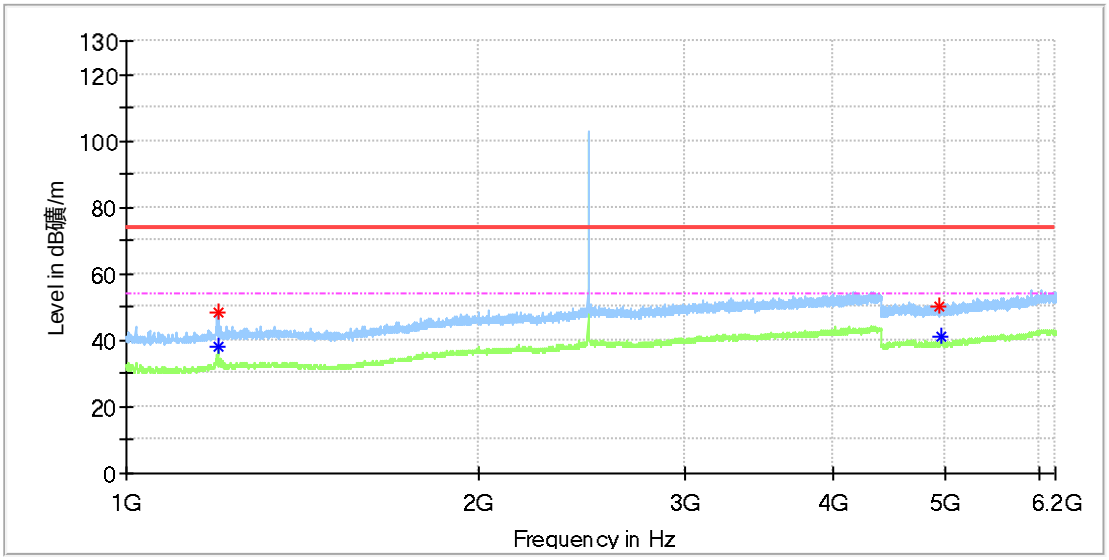
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.475000	46.77	---	74.00	27.23	150.0	V	329.0	8.2
7322.966667	---	42.70	54.00	11.30	150.0	V	329.0	8.2

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

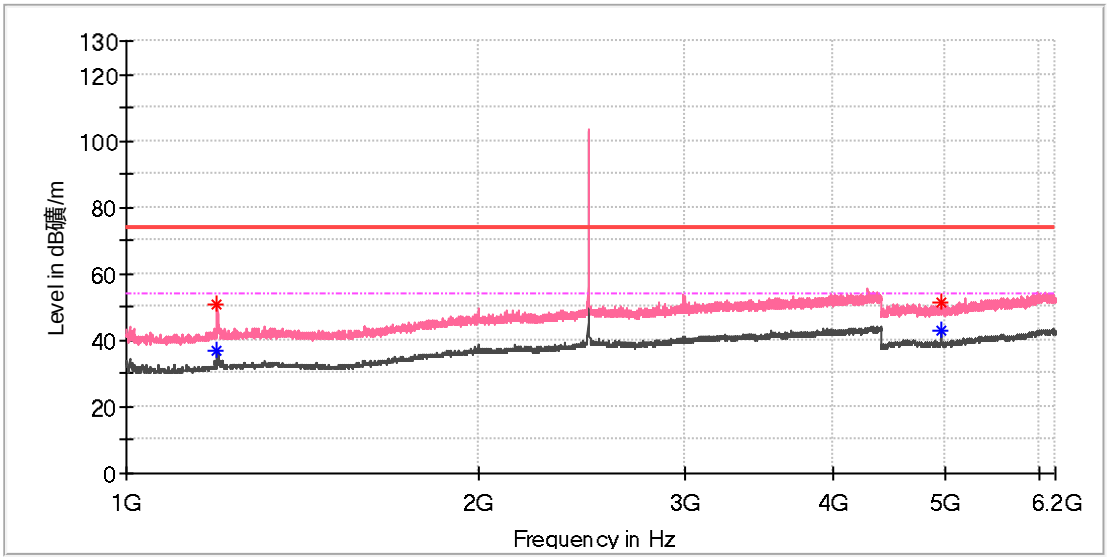
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1197.000000	---	37.89	54.00	16.11	150.0	H	1.0	1.1
1197.000000	48.57	---	74.00	25.43	150.0	H	1.0	1.1
4945.000000	50.32	---	74.00	23.68	150.0	H	208.0	11.8
4958.500000	---	41.03	54.00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

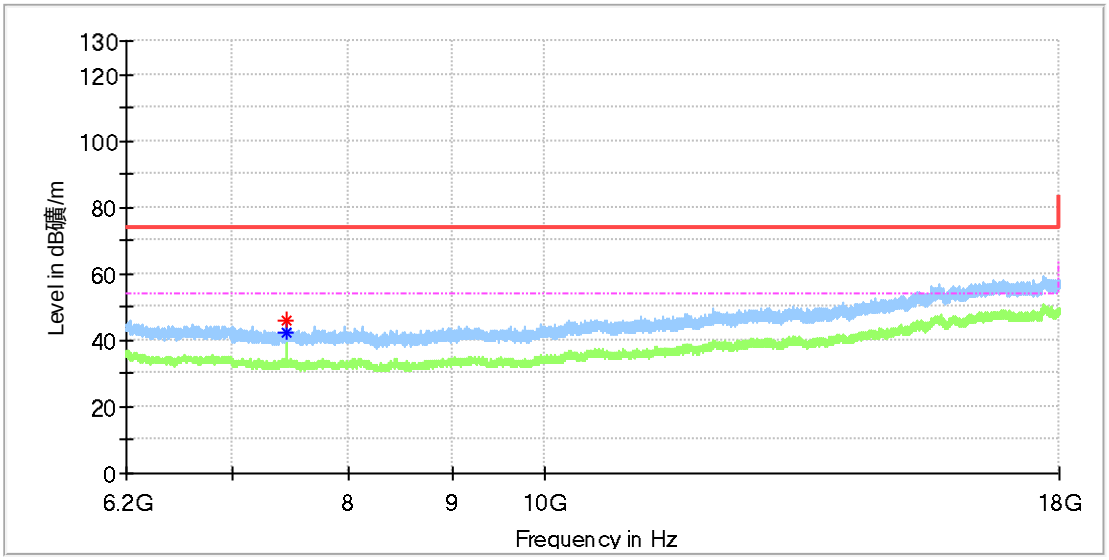
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1195.500000	50.80	---	74.00	23.20	150.0	V	277.0	1.1
1195.500000	---	37.09	54.00	16.91	150.0	V	277.0	1.1
4959.500000	51.16	---	74.00	22.84	150.0	V	258.0	11.8
4960.000000	---	42.91	54.00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

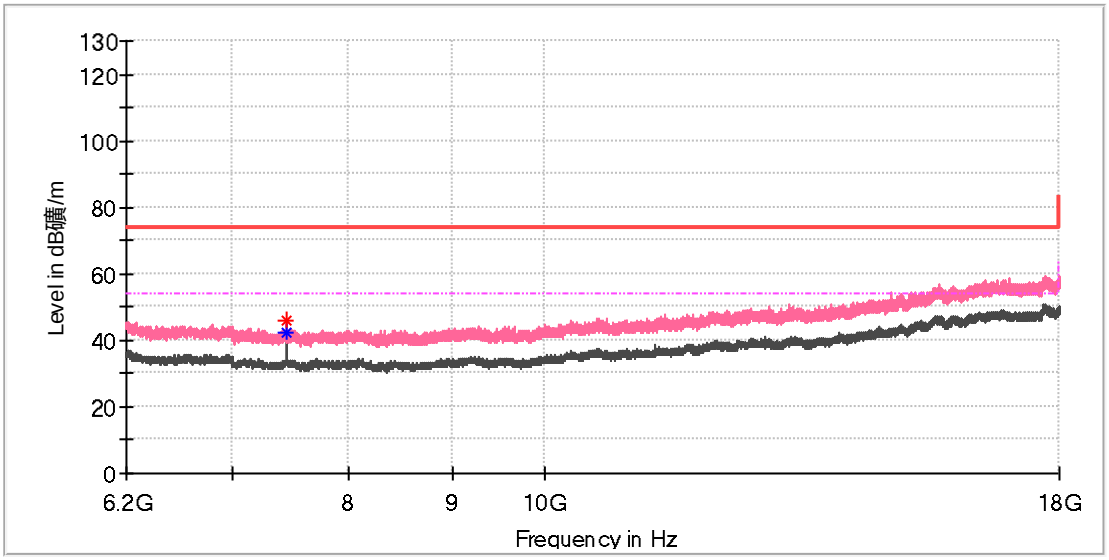
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.983333	46.02	---	74.00	27.98	150.0	H	251.0	8.4
7439.983333	---	42.17	54.00	11.83	150.0	H	251.0	8.4

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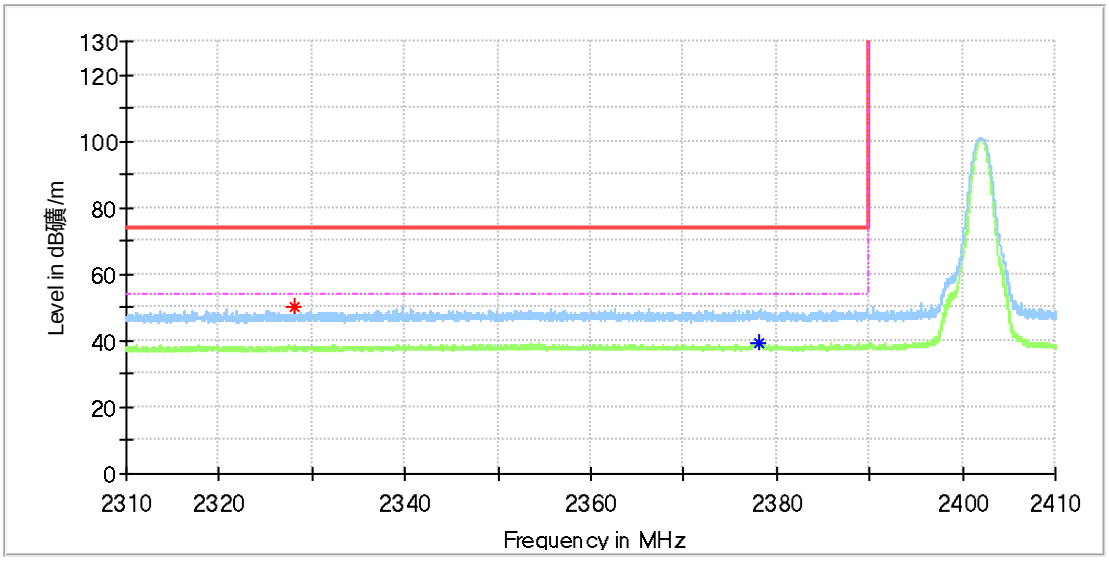
Appendix A.8: Test Results of Radiated Emissions in Restricted Bands

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)
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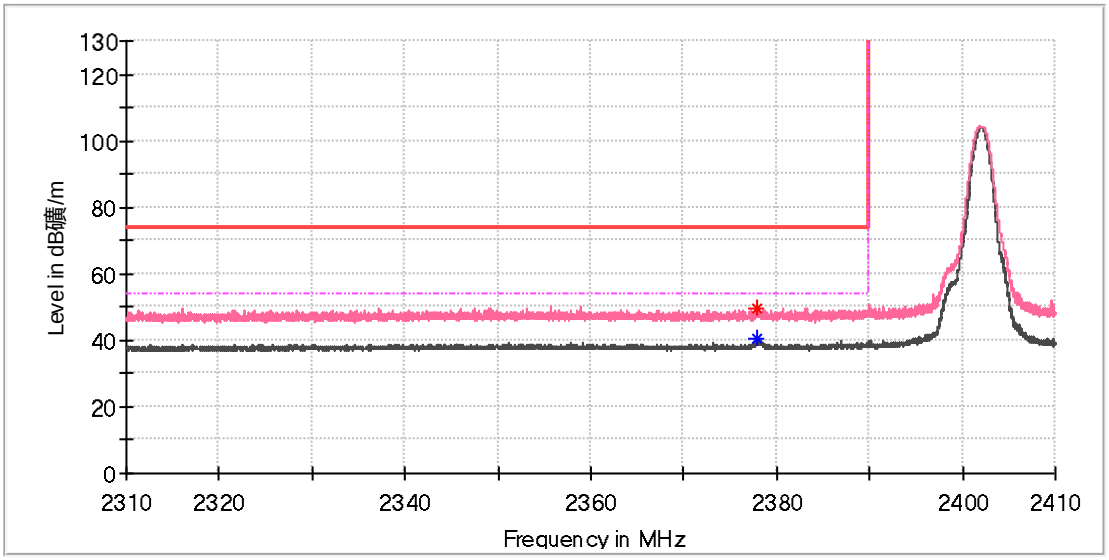
EUT Information

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)
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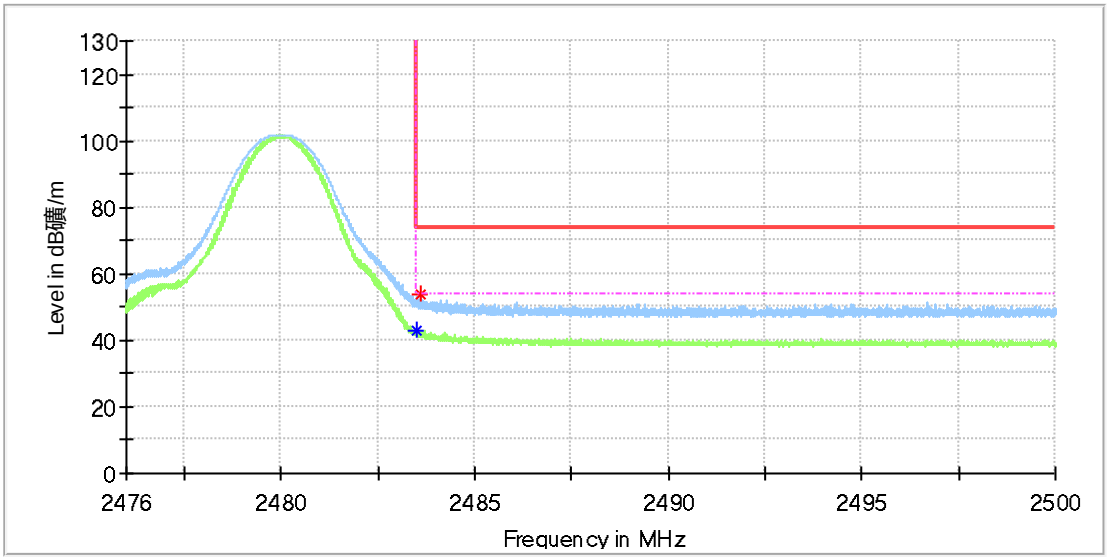
EUT Information

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	---	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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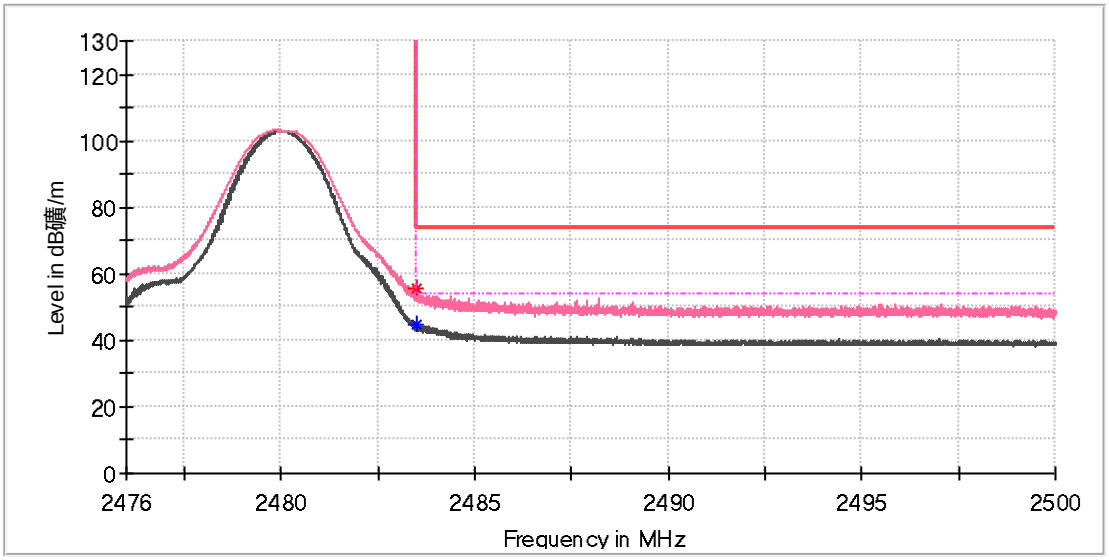
EUT Information

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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