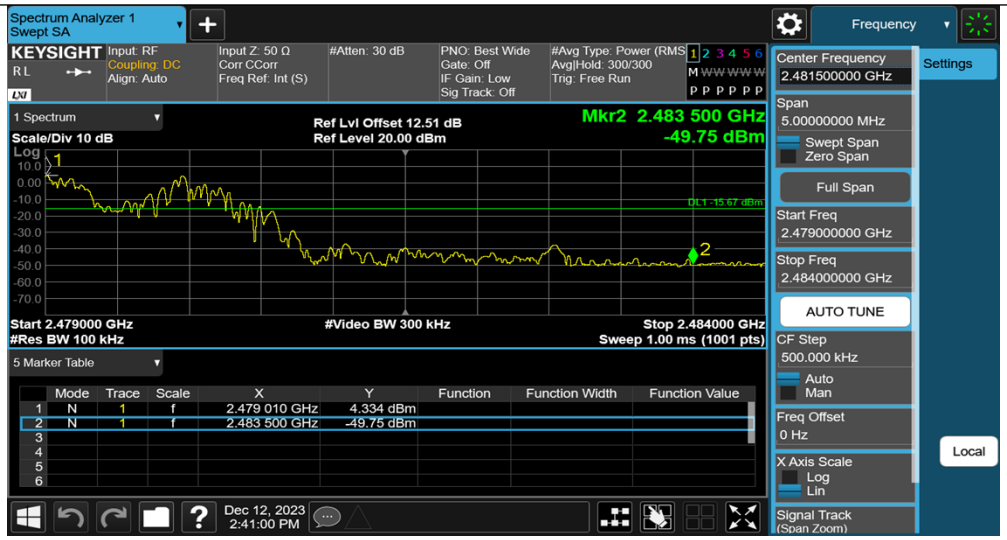
3DH5_Ant1_High_2480

DH5_Ant1_Hopping_2402

DH5_Ant1_Hopping_2480



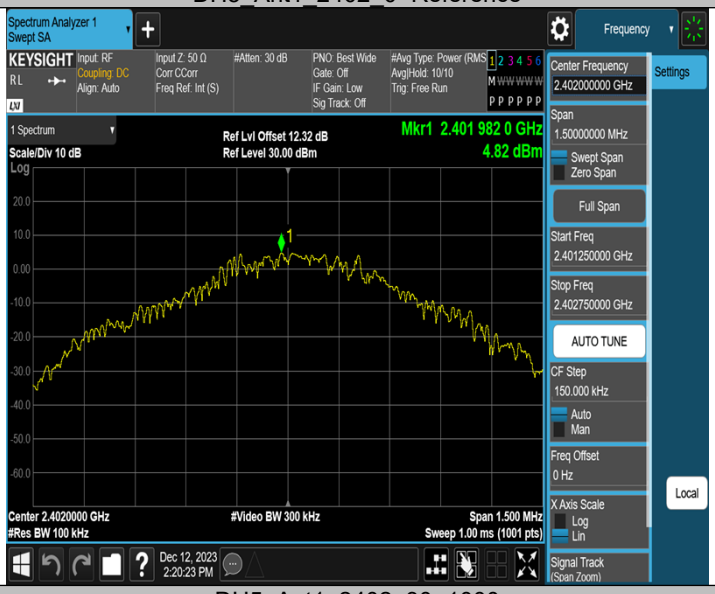
3DH5_Ant1_Hopping_2402

3DH5_Ant1_Hopping_2480

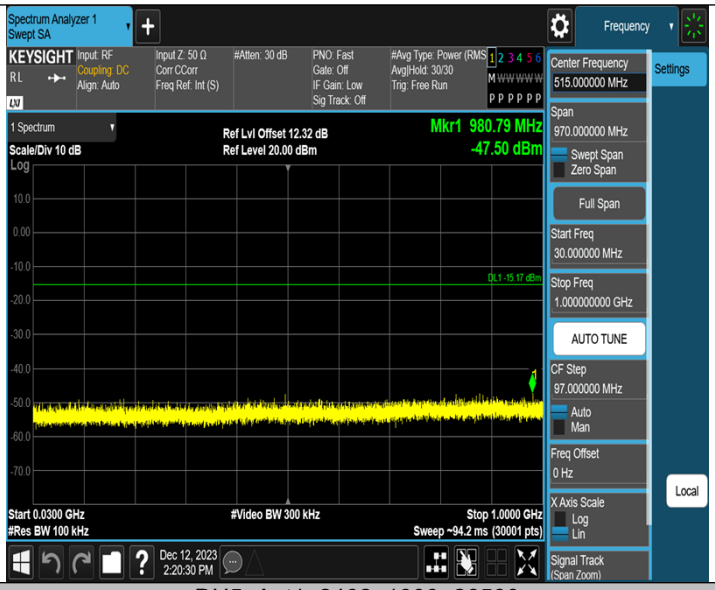
Conducted Spurious Emission

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	4.83	4.83	---	PASS
			30~1000	4.83	-47.5	≤-15.17	PASS
			1000~26500	4.83	-38.77	≤-15.17	PASS
		2441	Reference	5.20	5.20	---	PASS
			30~1000	5.20	-47.53	≤-14.8	PASS
			1000~26500	5.20	-37.72	≤-14.8	PASS
		2480	Reference	5.20	5.20	---	PASS
			30~1000	5.20	-47.47	≤-14.8	PASS
			1000~26500	5.20	-37.68	≤-14.8	PASS
3DH5	Ant1	2402	Reference	3.88	3.88	---	PASS
			30~1000	3.88	-47.7	≤-16.12	PASS
			1000~26500	3.88	-38.61	≤-16.12	PASS
		2441	Reference	2.71	2.71	---	PASS
			30~1000	2.71	-47.39	≤-17.29	PASS
			1000~26500	2.71	-37.96	≤-17.29	PASS
		2480	Reference	4.28	4.28	---	PASS
			30~1000	4.28	-47.2	≤-15.72	PASS
			1000~26500	4.28	-37.9	≤-15.72	PASS

DH5_Ant1_2402_0~Reference

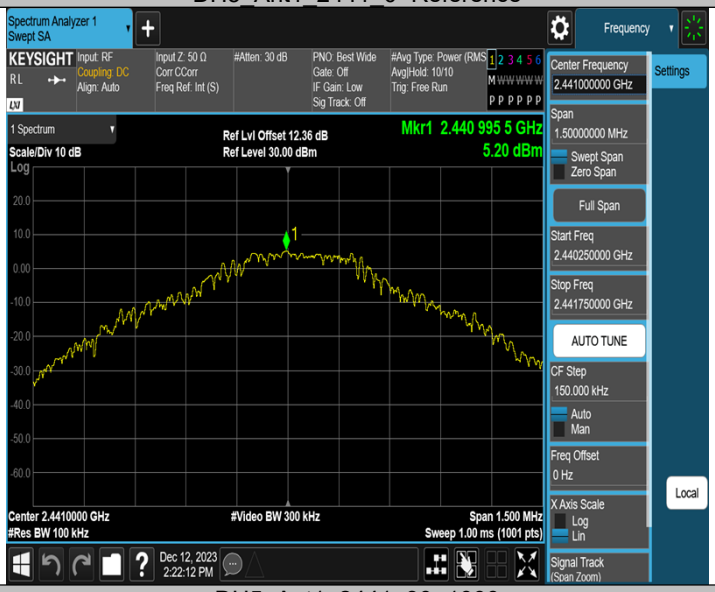


DH5_Ant1_2402_30~1000

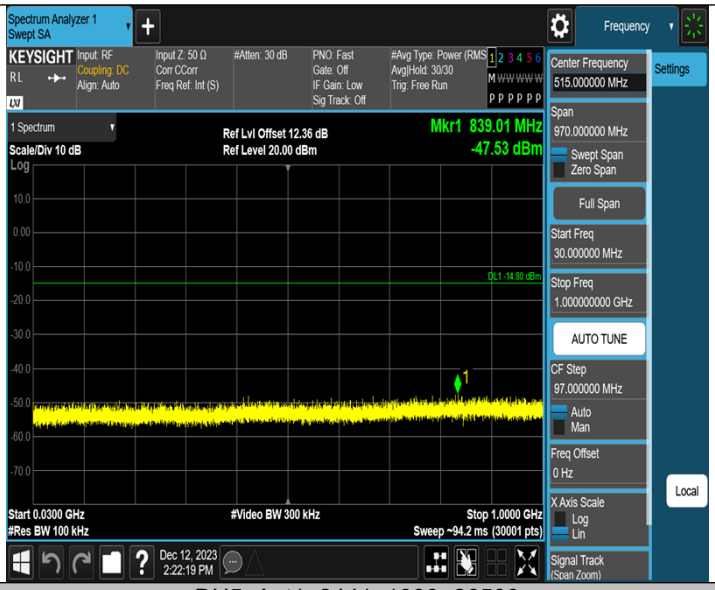


DH5_Ant1_2402_1000~26500

DH5_Ant1_2441_0~Reference

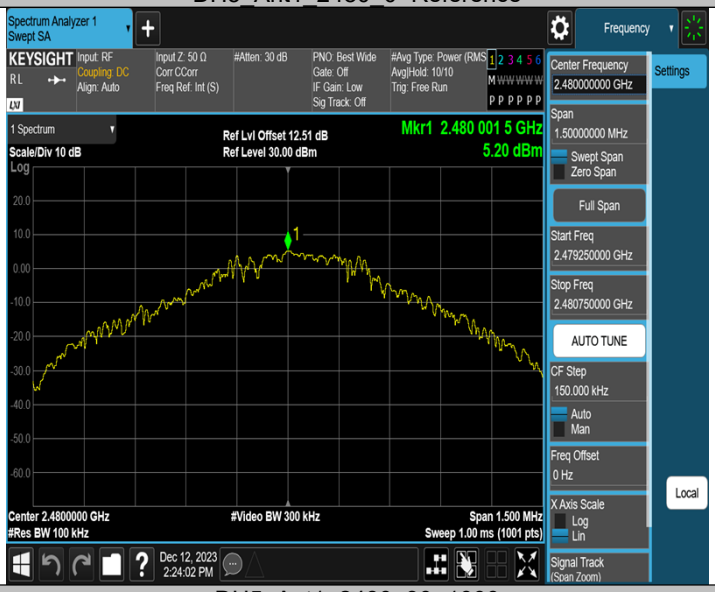


DH5_Ant1_2441_30~1000

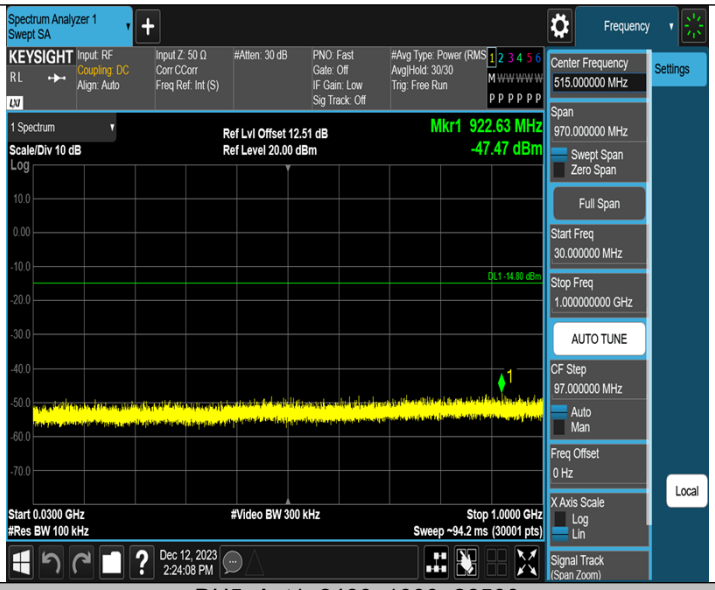


DH5_Ant1_2441_1000~26500

DH5_Ant1_2480_0~Reference

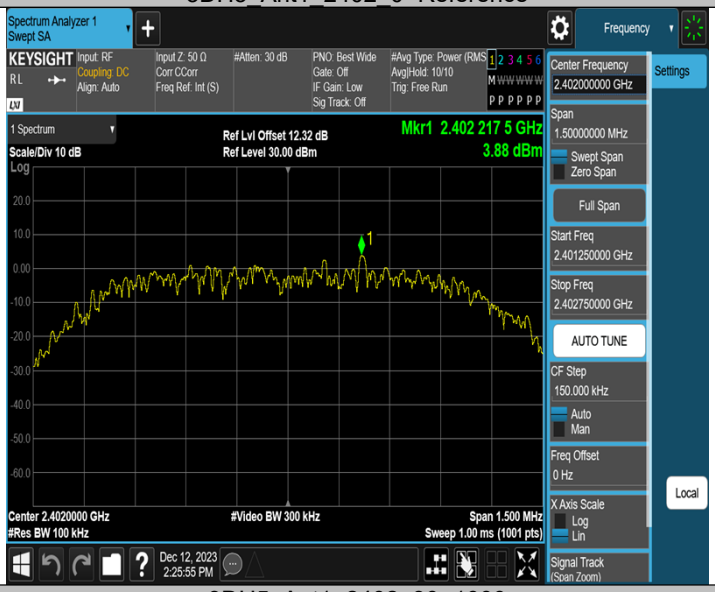


DH5_Ant1_2480_30~1000

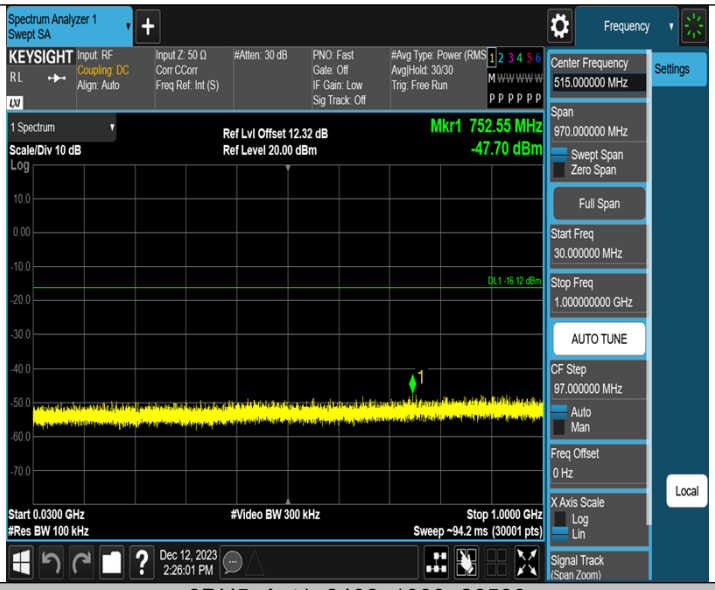


DH5_Ant1_2480_1000~26500

3DH5_Ant1_2402_0~Reference

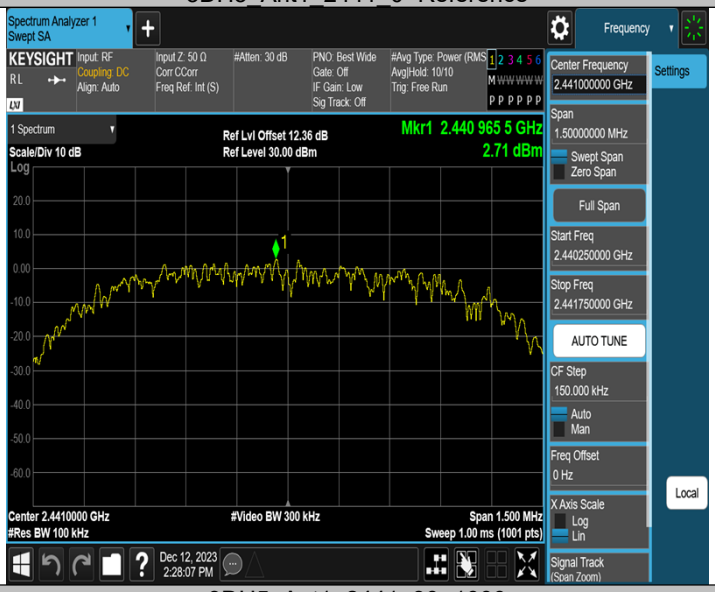


3DH5_Ant1_2402_30~1000

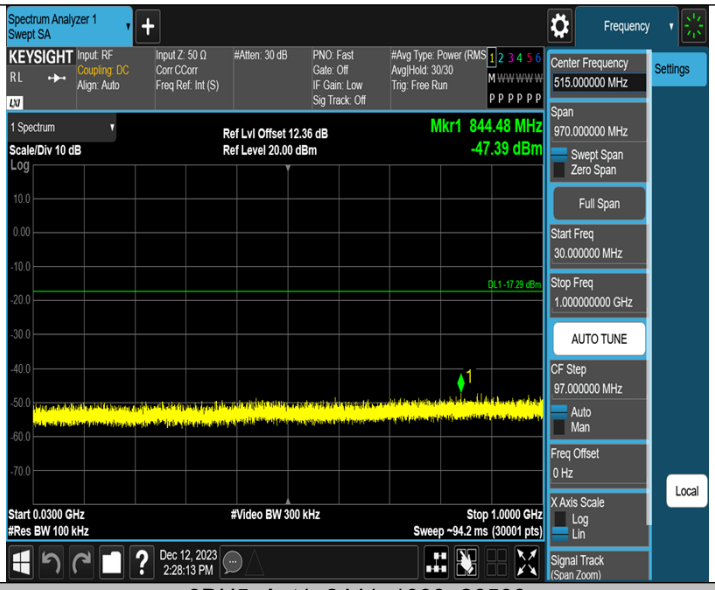


3DH5_Ant1_2402_1000~26500

3DH5_Ant1_2441_0~Reference

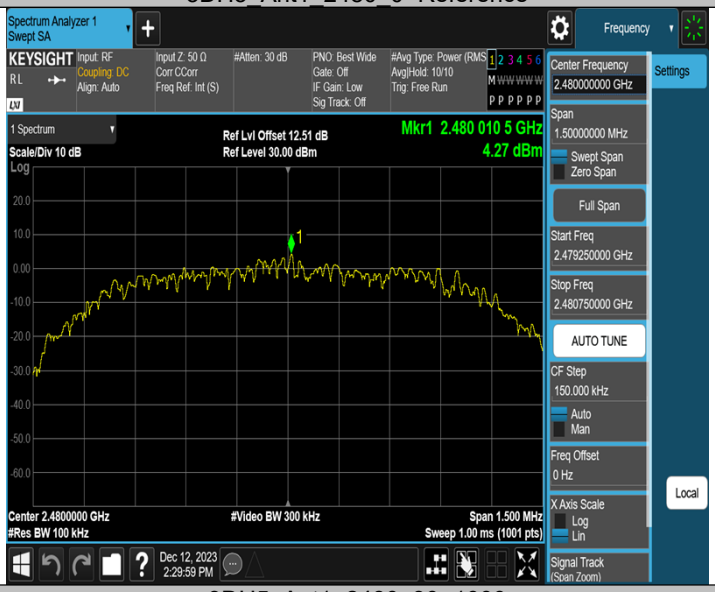


3DH5_Ant1_2441_30~1000

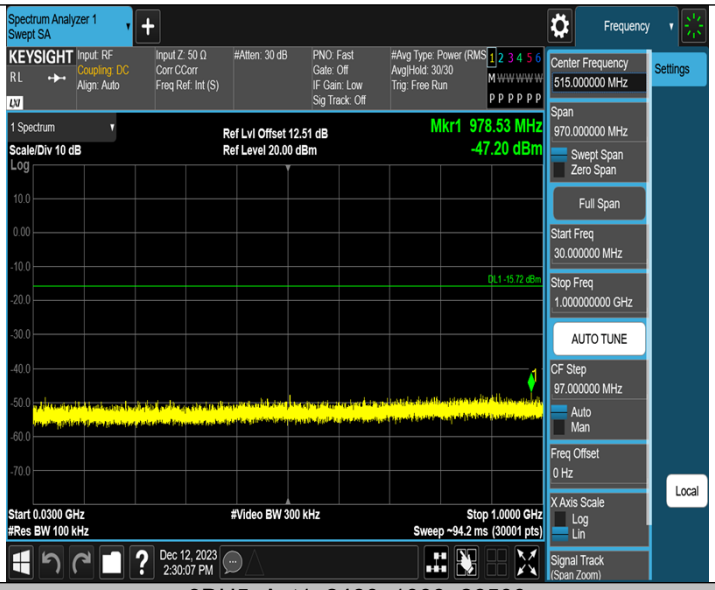


3DH5_Ant1_2441_1000~26500

3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500

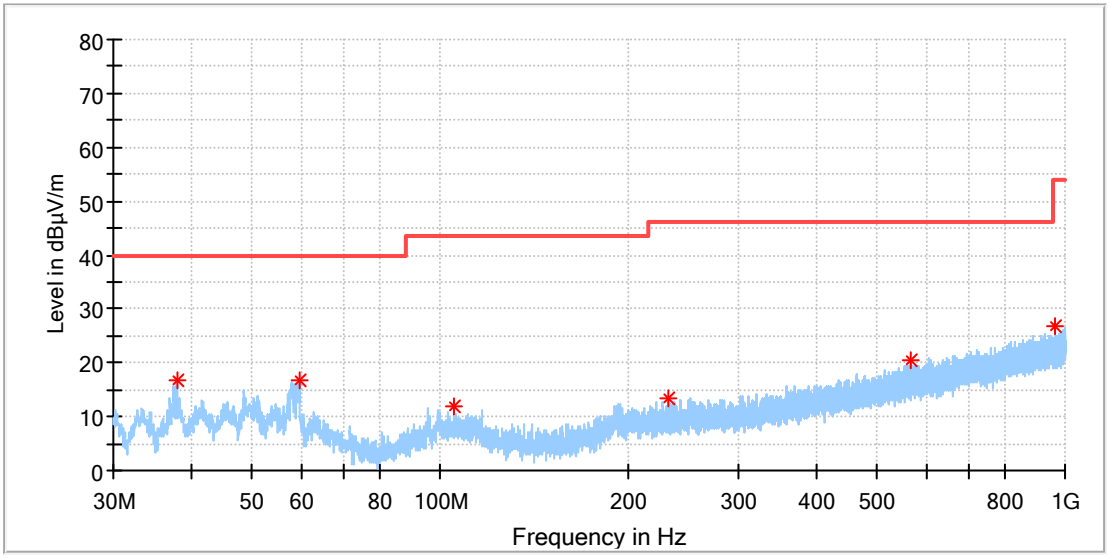
Appendix A.7: Test Results of Radiated Spurious Emissions

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:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

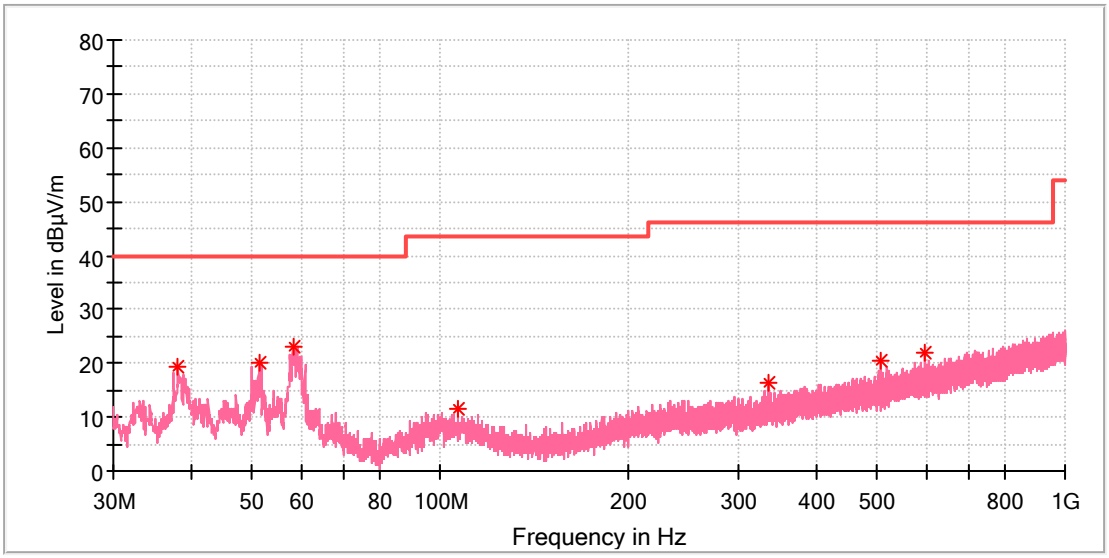
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
37.871923	16.61	40.00	23.39	100.0	H	31.0	-21.1
59.585000	16.89	40.00	23.11	100.0	H	99.0	-19.2
105.436154	11.91	43.50	31.59	100.0	H	197.0	-19.1
231.275000	13.56	46.00	32.44	100.0	H	239.0	-18.4
567.305385	20.35	46.00	25.65	100.0	H	141.0	-10.8
960.826923	26.72	54.00	27.28	100.0	H	68.0	-4.7

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
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)
38.058462	19.22	40.00	20.78	100.0	V	267.0	-21.0
51.340000	20.27	40.00	19.73	100.0	V	75.0	-18.6
58.130000	23.21	40.00	16.79	100.0	V	52.0	-19.1
106.853846	11.60	43.50	31.90	100.0	V	174.0	-19.2
334.430769	16.27	46.00	29.73	100.0	V	216.0	-15.6
505.523846	20.41	46.00	25.59	100.0	V	309.0	-12.2
598.457308	21.82	46.00	24.18	100.0	V	216.0	-10.2

Final_Result

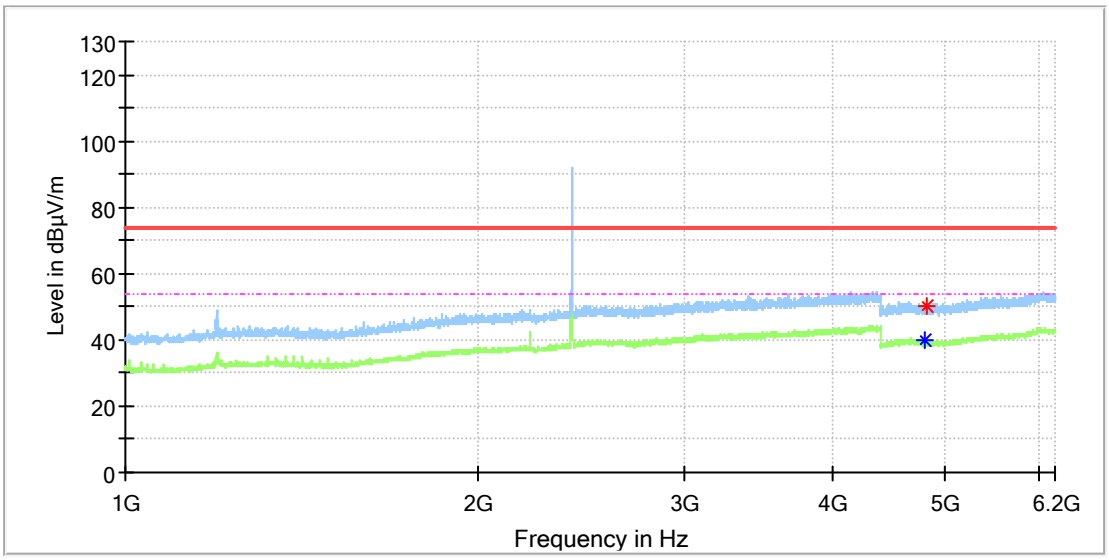
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

1GHz - 18GHz

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

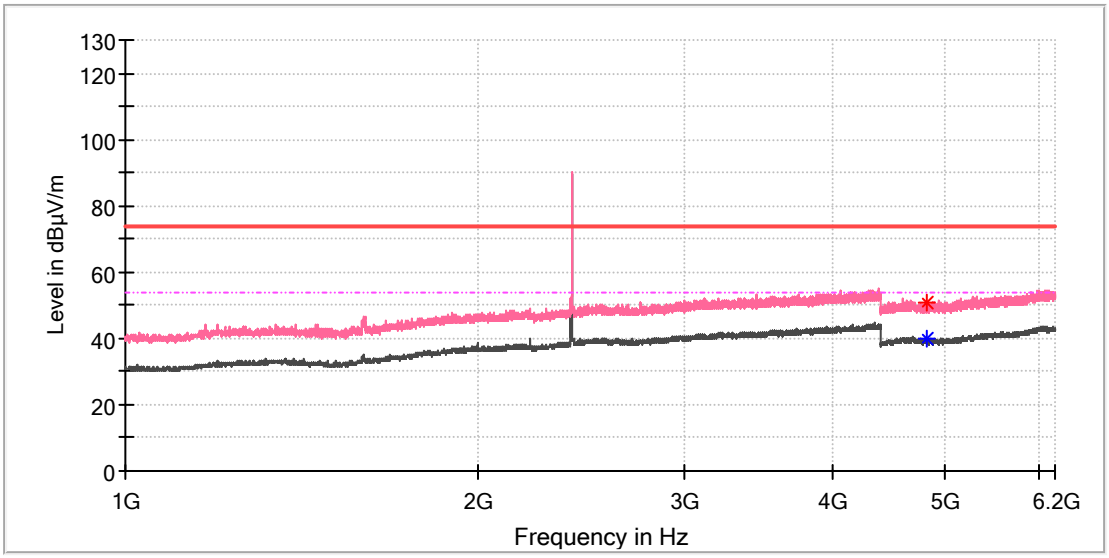
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4805.500000	---	39.75	54.00	14.25	150.0	H	186.0	11.8
4820.500000	50.28	---	74.00	23.72	150.0	H	221.0	11.8

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

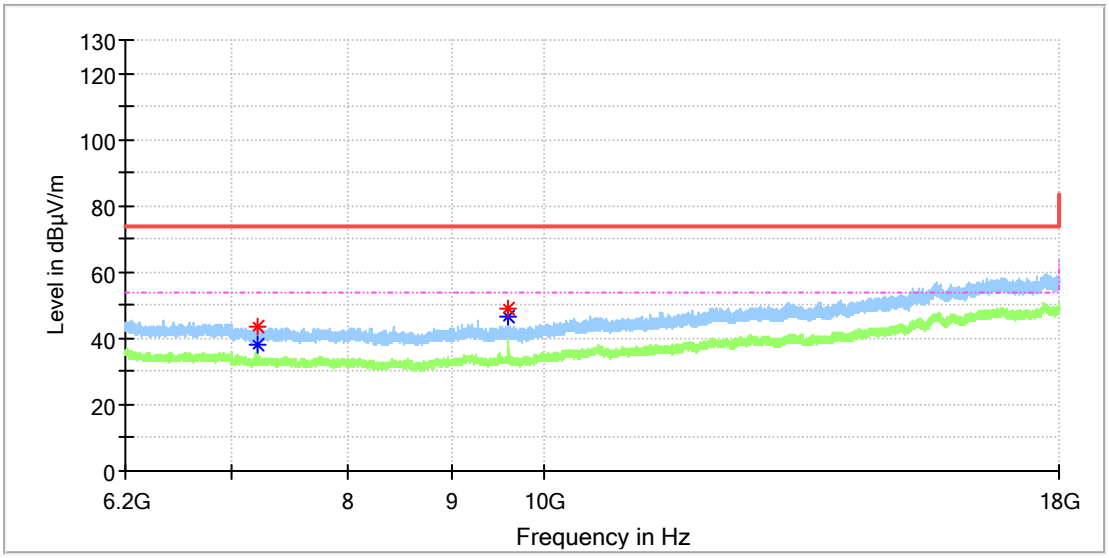
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4819.000000	50.96	---	74.00	23.04	150.0	V	321.0	11.8
4820.500000	---	39.87	54.00	14.13	150.0	V	327.0	11.8

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

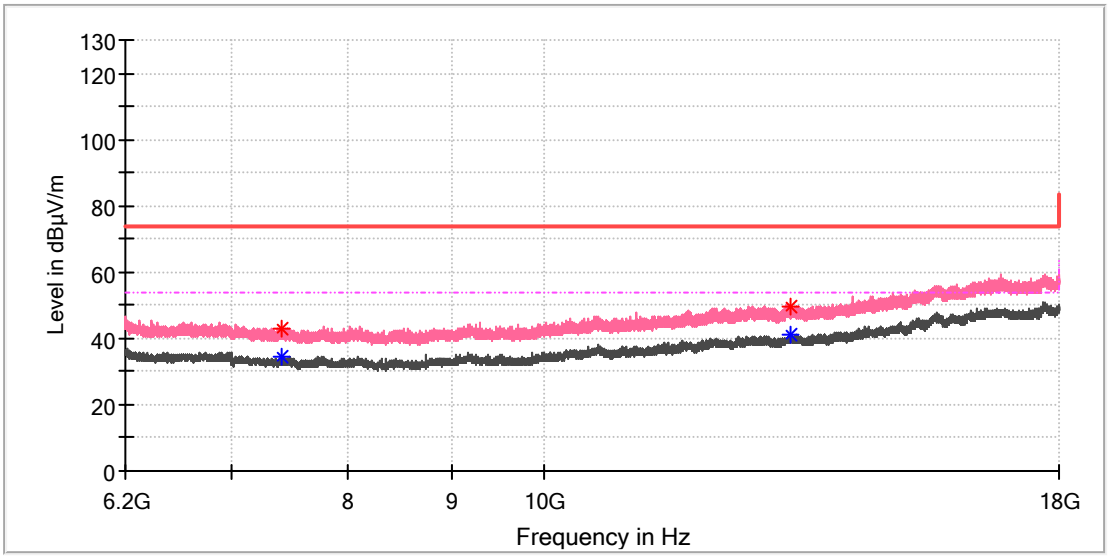
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.950000	43.36	---	74.00	30.64	150.0	H	202.0	8.8
7205.950000	---	38.01	54.00	15.99	150.0	H	202.0	8.8
9601.841667	---	46.73	54.00	7.27	150.0	H	82.0	10.4
9602.333333	48.97	---	74.00	25.03	150.0	H	82.0	10.4

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

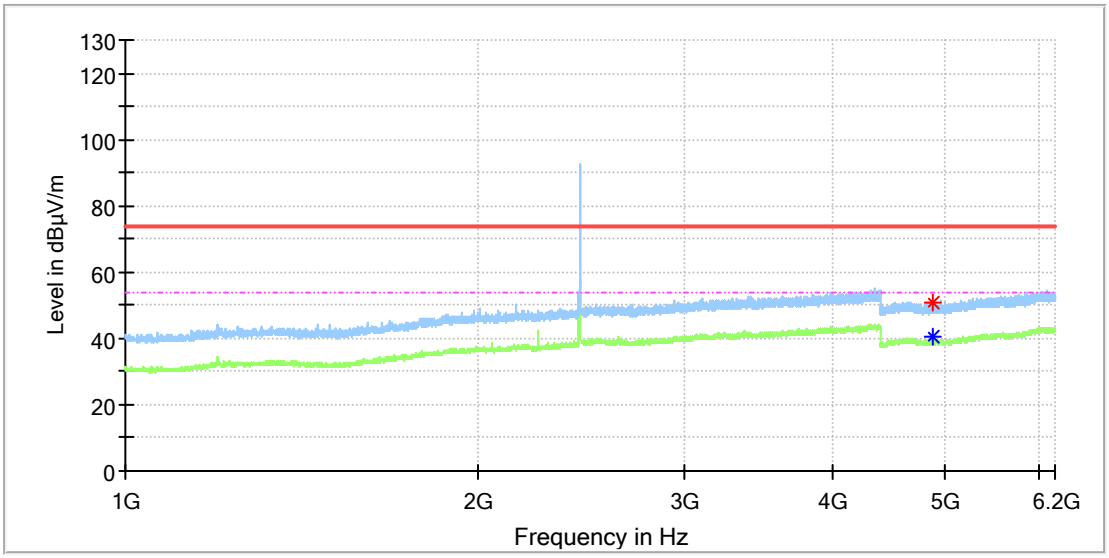
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7408.025000	43.06	---	74.00	30.94	150.0	V	0.0	8.3
7408.025000	---	34.40	54.00	19.60	150.0	V	0.0	8.3
13245.091667	---	40.99	54.00	13.01	150.0	V	71.0	15.5
13258.858333	49.71	---	74.00	24.29	150.0	V	143.0	15.5

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

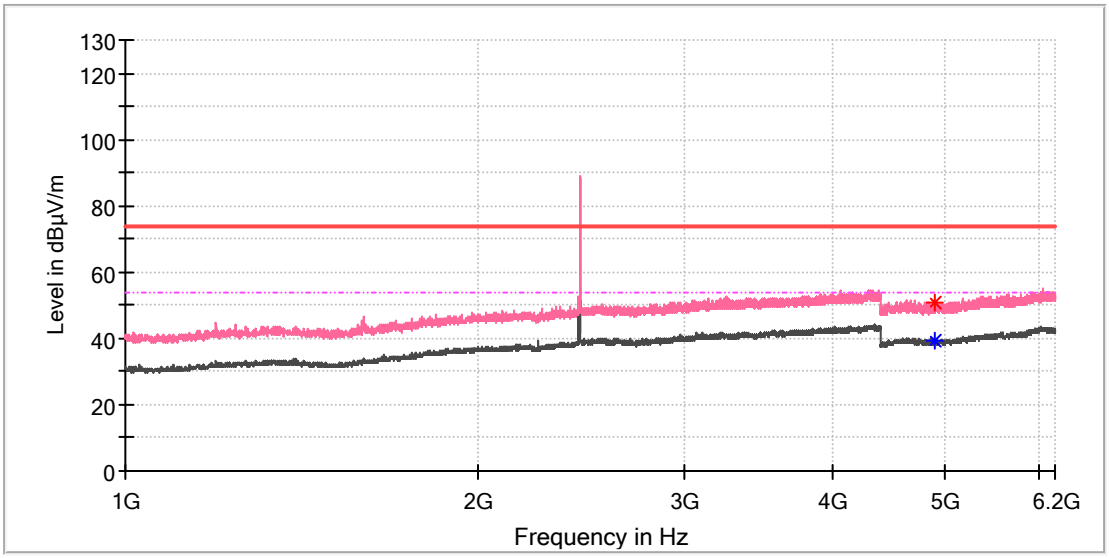
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4881.500000	---	40.72	54.00	13.28	150.0	H	254.0	11.8
4882.000000	50.65	---	74.00	23.35	150.0	H	35.0	11.8

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

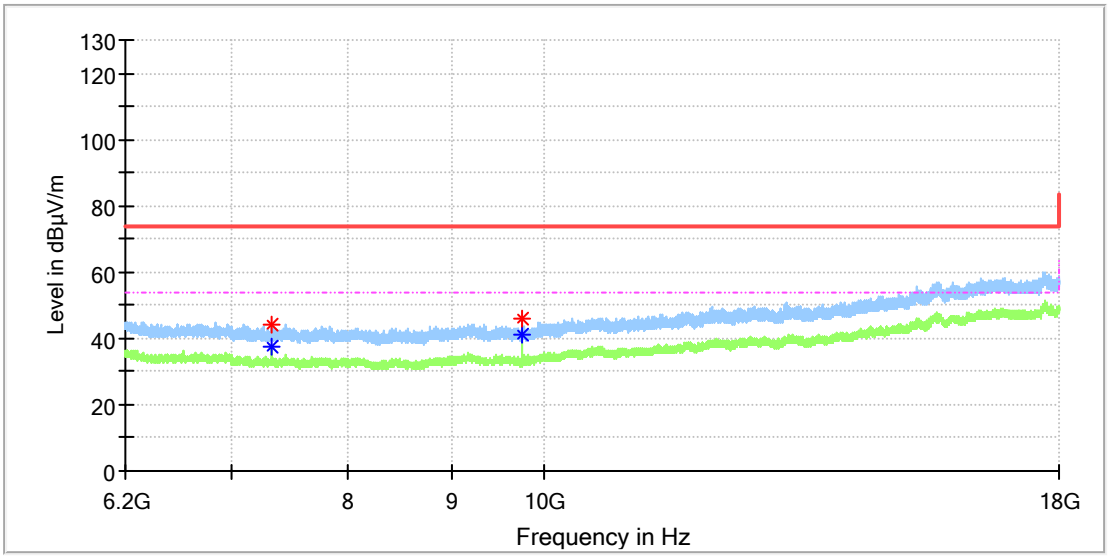
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4894.500000	---	39.41	54.00	14.59	150.0	V	152.0	11.8
4896.000000	50.57	---	74.00	23.43	150.0	V	36.0	11.8

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

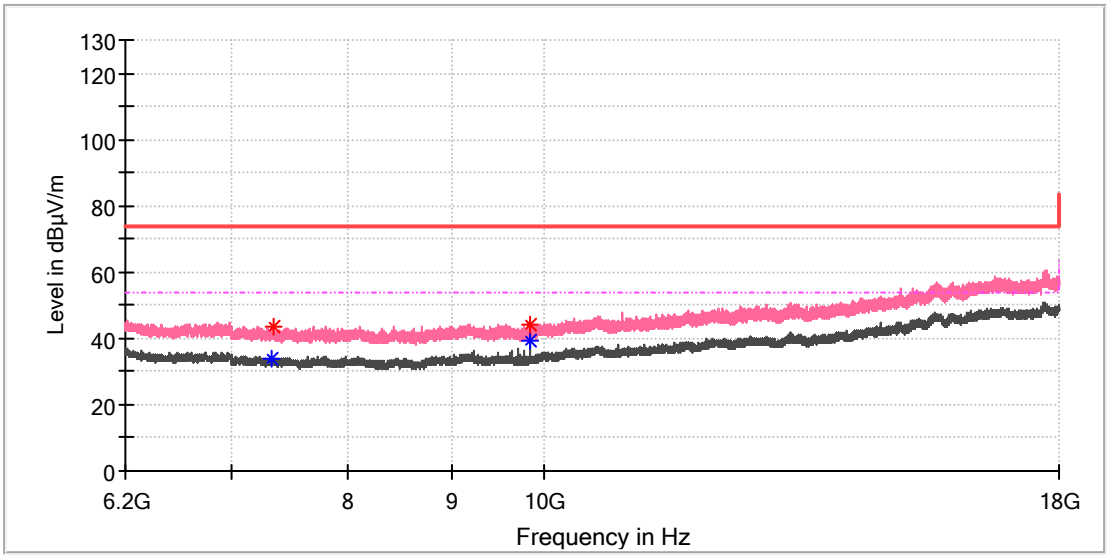
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.475000	44.05	---	74.00	29.95	150.0	H	18.0	8.2
7322.966667	---	37.47	54.00	16.53	150.0	H	311.0	8.2
9757.700000	45.75	---	74.00	28.25	150.0	H	242.0	10.4
9758.191667	---	41.21	54.00	12.79	150.0	H	288.0	10.4

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

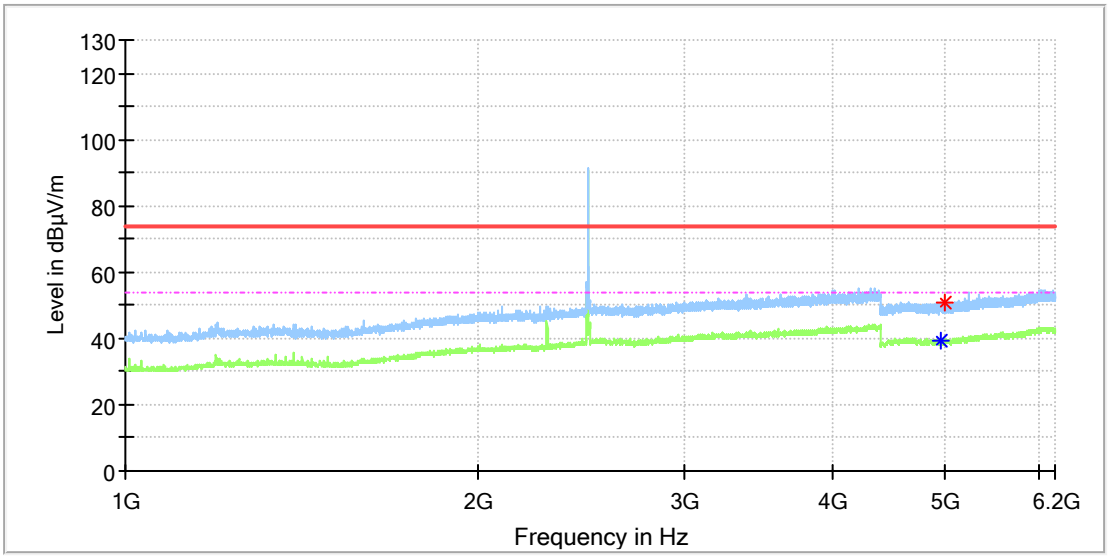
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7333.783333	---	34.12	54.00	19.88	150.0	V	241.0	8.1
7349.025000	43.78	---	74.00	30.22	150.0	V	313.0	8.1
9831.941667	43.89	---	74.00	30.11	150.0	V	145.0	10.5
9831.941667	---	39.57	54.00	14.43	150.0	V	145.0	10.5

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

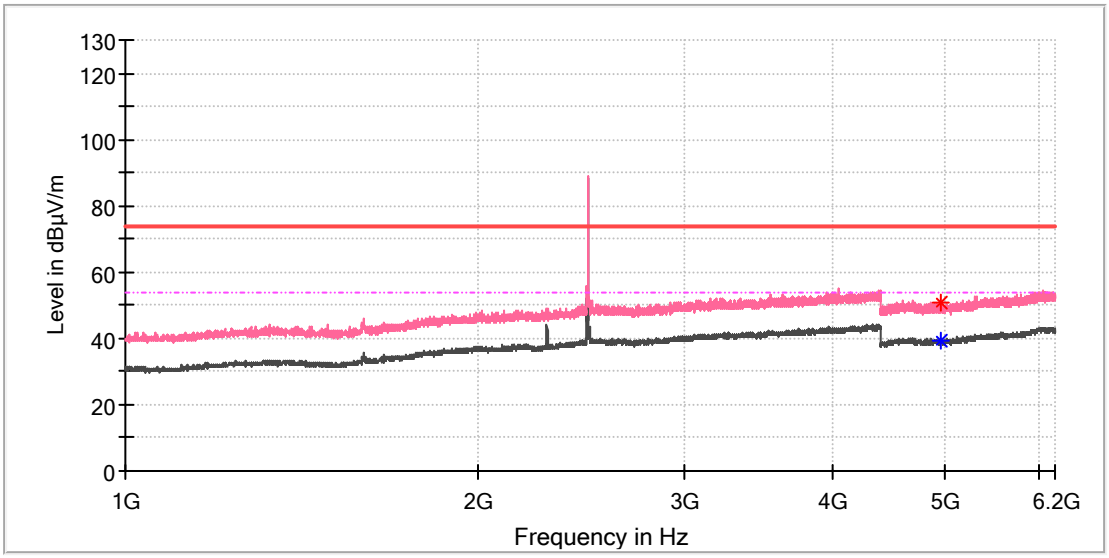
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4959.500000	---	39.49	54.00	14.51	150.0	H	175.0	11.8
4987.000000	50.75	---	74.00	23.25	150.0	H	11.0	11.8

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

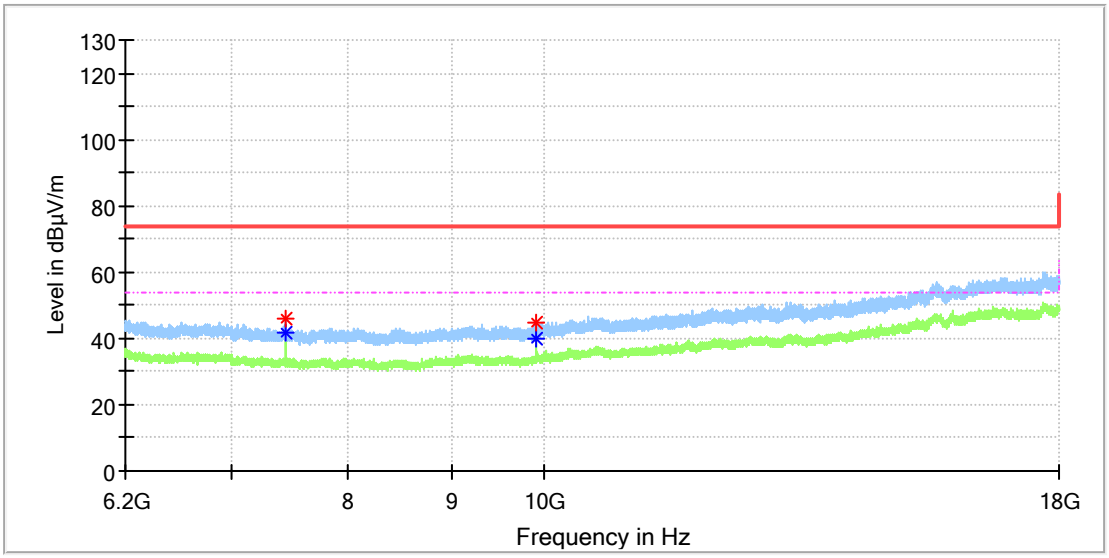
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4956.000000	---	39.51	54.00	14.49	150.0	V	326.0	11.8
4963.500000	50.54	---	74.00	23.46	150.0	V	268.0	11.8

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

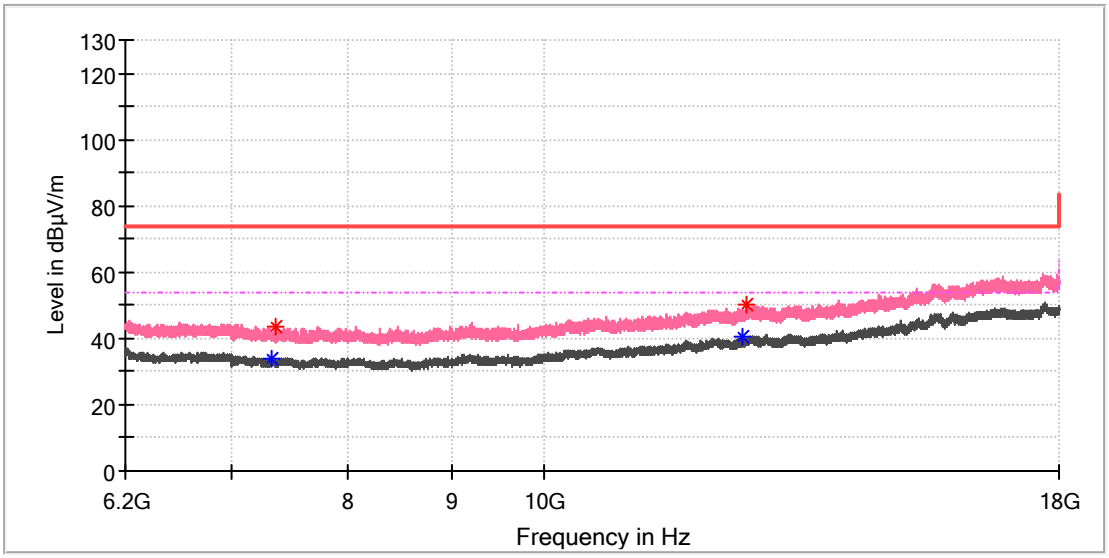
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.491667	46.12	---	74.00	27.88	150.0	H	0.0	8.4
7439.491667	---	41.50	54.00	12.50	150.0	H	0.0	8.4
9914.050000	44.70	---	74.00	29.30	150.0	H	27.0	10.8
9914.050000	---	39.70	54.00	14.30	150.0	H	27.0	10.8

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
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)
7330.833333	---	34.10	54.00	19.90	150.0	V	276.0	8.1
7354.925000	43.31	---	74.00	30.69	150.0	V	276.0	8.1
12546.433333	---	40.75	54.00	13.25	150.0	V	149.0	14.7
12608.383333	50.47	---	74.00	23.53	150.0	V	315.0	14.9

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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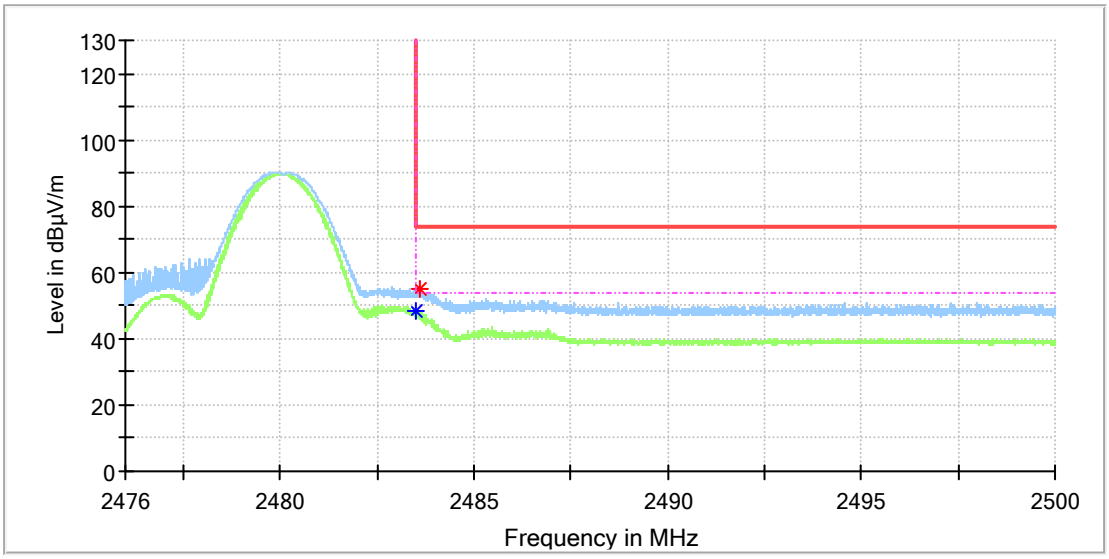
Appendix A.8: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

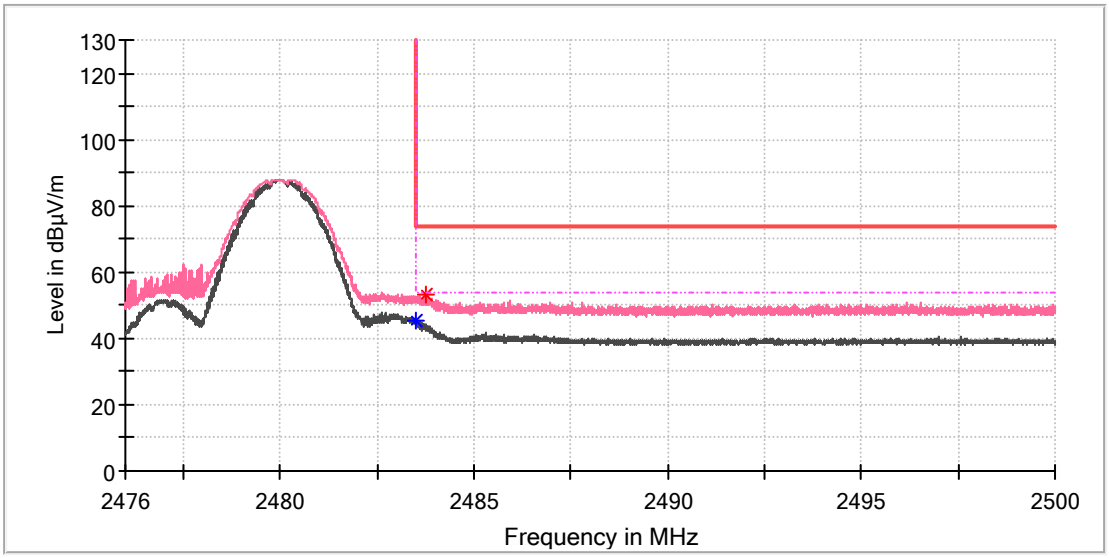
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.503530	---	48.39	54.00	5.61	150.0	H	96.0	7.4
2483.627059	55.27	---	74.00	18.73	150.0	H	90.0	7.4

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
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)
2483.521177	---	45.50	54.00	8.50	150.0	V	180.0	7.4
2483.757647	53.00	---	74.00	21.00	150.0	V	180.0	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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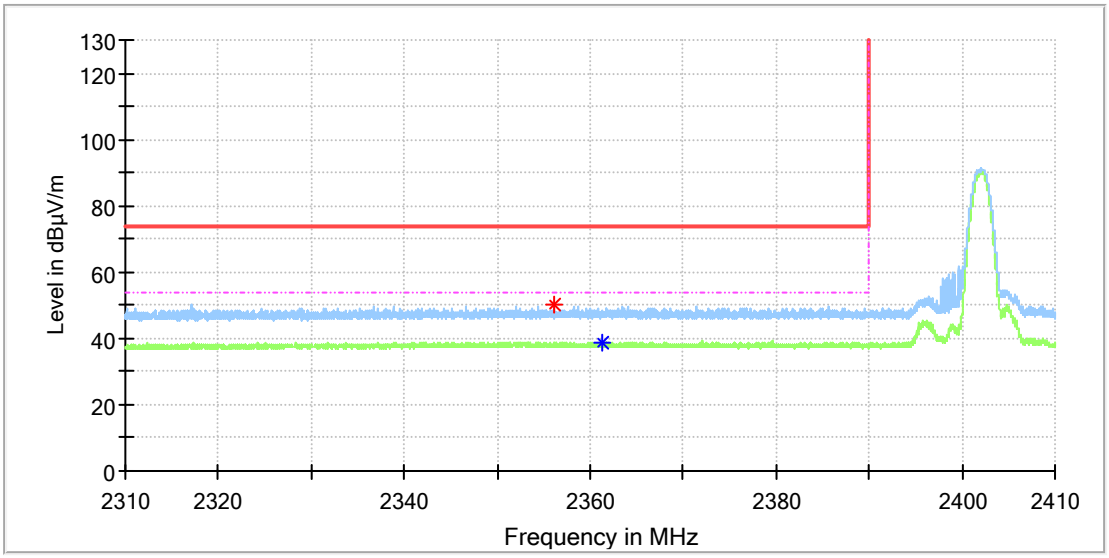
EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

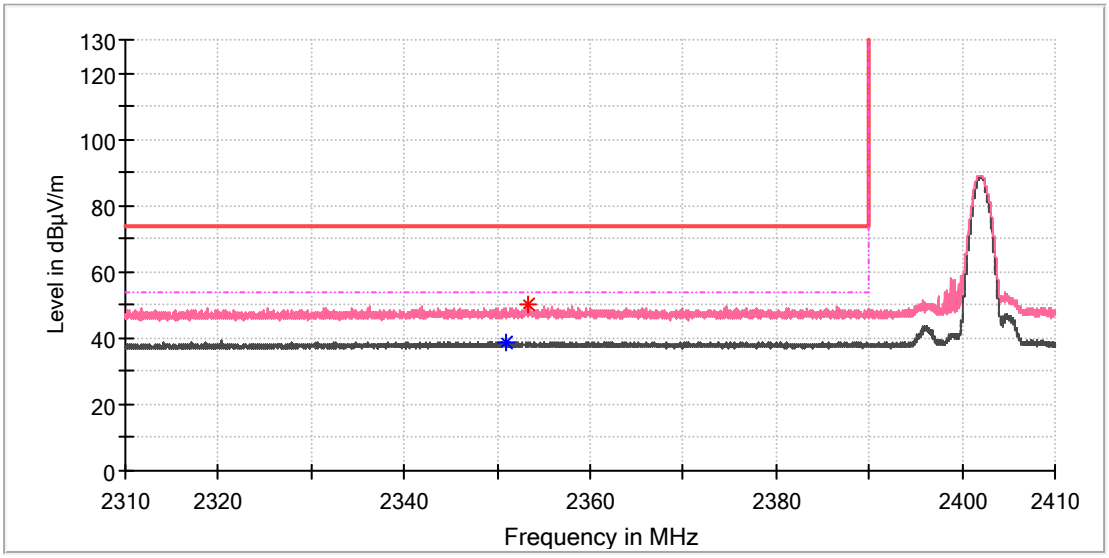
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2356.161765	50.28	---	74.00	23.72	150.0	H	195.0	6.9
2361.338235	---	38.81	54.00	15.19	150.0	H	317.0	6.9

Final_Result

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

EUT Information

EUT Name:	Bluetooth headset (OpenSwim Pro)
Model:	SHOKZ S710
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168449059A003585242-002
Test Voltage::	Battery
Remark:	Temp 22 Humi:55%
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)
2350.882353	---	38.80	54.00	15.20	150.0	V	68.0	6.9
2353.338235	50.34	---	74.00	23.66	150.0	V	110.0	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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