

Agilent Spectrum Analyzer - Sweep SA

AL RF TID OC SOURCE OFF AUTO/LOCK ON 05:24:29 AM Sep 24, 2024

Center Freq 2.441000000 GHz Trig Delay 2.000 ms #Avg Type: RMS

PWD: Fast IF Gain: Low #Atten: 20 dB

10 dB/div Ref Offset 12.15 dB ΔMkr2 391.0 μs

Log Ref 22.15 dBm 21.14 dB

12.2

2.15 2d1

1

7.86

17.9

37.9

37.9

47.9

67.9

67.9

Center 2.441000000 GHz

Res BW 1.0 MHz #VBW 3.0 MHz Sweep 10.13 ms (8000 pts) Span 0 Hz

Frequency

Auto Tun

Center Freq 2.441000000 GHz

Start Freq 2.441000000 GHz

Stop Freq 2.441000000 GHz

CF Step 1.000000 MHz

Auto

Freq Offset 0 Hz

MSO STATUS

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 12.16 dB
Ref 22.15 dBm

Trig Delay 2.000 ms
Trig Type: RMS
IF Gain: Low
#Atten: 20 dB

Frequency

Auto Tun

Center Freq 2.441000000 GHz

Start Freq 2.441000000 GHz

Stop Freq 2.441000000 GHz

CF Stop 1.000000 MHz

Auto

Freq Offset 0 Hz

Center Freq 2.441000000 GHz
Res BW 1.0 MHz
#VBW 3.0 MHz
Sweep 10.13 ms (8000 pts)
Span 0 Hz

The screenshot displays a spectrum analyzer interface. The main plot shows a signal at 2.441 GHz with a level of 1 dBm. The plot is titled 'Center Freq 2.441000000 GHz'. The y-axis is labeled 'dBm' and ranges from -67.9 to 10. The x-axis is labeled 'Frequency' and ranges from 2.441000000 GHz to 2.441000000 GHz. The plot shows a signal with a level of 1 dBm and a bandwidth of 1.0 MHz. The sweep is 10.13 ms (8000 pts) and the span is 0 Hz. The resolution bandwidth (VBW) is 3.0 MHz. The center frequency is 2.441 GHz. The reference level is 22.15 dBm. The reference offset is 12.16 dB. The trigger delay is 2.000 ms and the trigger type is RMS. The IF gain is low and the attenuation is 20 dB. The status bar at the bottom shows 'Auto' and 'Freq Offset 0 Hz'.

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 12.16 dB

Ref 22.15 dBm

Delta Mk2 2.892 ms

16.27 dB

10 dB/div

100 MHz

Center Freq 2.441000000 GHz

Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep 10.13 ms (8000 pts)

Span 0 Hz

Auto

Auto Tun

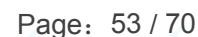
Center Freq 2.441000000 GHz

Start Freq 2.441000000 GHz

Stop Freq 2.441000000 GHz

CF Stop 1.000000 MHz

Freq Offset 0 Hz



Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 12.16 dB

Ref 22.15 dBm

Trig Delay 2.000 ms

Trig Video

Auto

CF Step 1.000000 MHz

Auto

Freq Offset 0 Hz

Center Freq 2.441000000 GHz

Start Freq 2.441000000 GHz

Stop Freq 2.441000000 GHz

CF Step 1.000000 MHz

Auto

Freq Offset 0 Hz

Center Freq 2.441000000 GHz

Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep 10.13 ms (8000 pts)

Span 0 Hz

10 dBdiv

1.09

12.2

2.15

7.06

-17.9

-27.9

-37.9

-47.9

-57.9

-67.9

2.41

2.893 MHz

8.21 dB

10.13 ms

8000 pts



Appendix E: Number of hopping channels

Test Result

TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

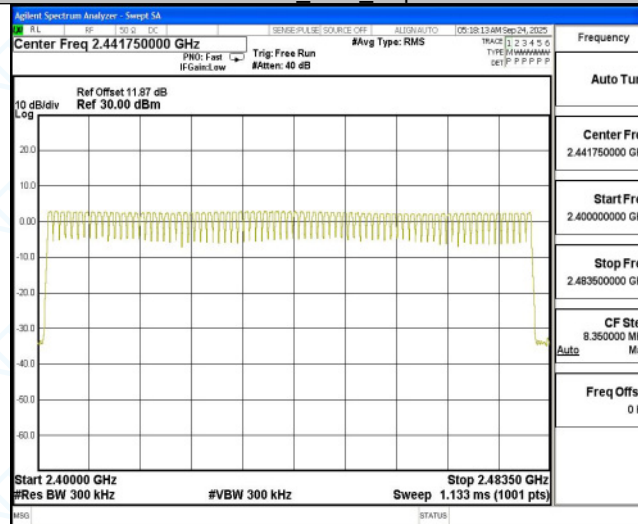
Note :

Both left and right earphone have tested, The Left earphone is the worst, only the worse case was reported.

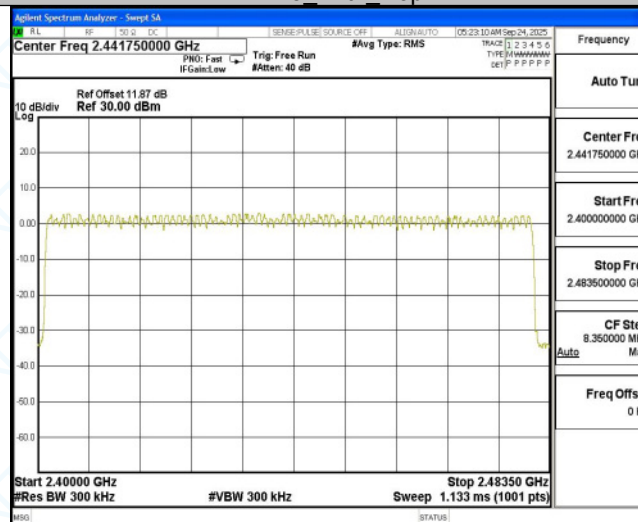


Test Graphs

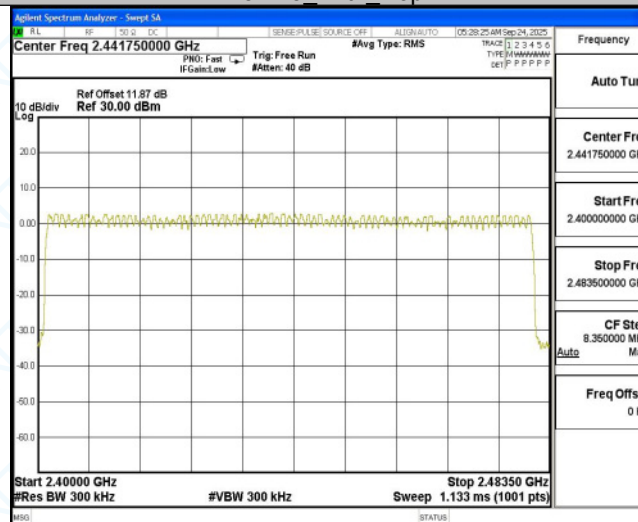
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





Appendix F: Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	5.14	-45.31	≤ -14.86	PASS
		High	2480	2.34	-45.91	≤ -17.66	PASS
		Low	Hop_2402	2.03	-46.11	≤ -17.97	PASS
		High	Hop_2480	2.16	-45.57	≤ -17.84	PASS
2DH5	Ant1	Low	2402	2.61	-44.83	≤ -17.39	PASS
		High	2480	2.29	-46.36	≤ -17.71	PASS
		Low	Hop_2402	1.58	-46.63	≤ -18.42	PASS
		High	Hop_2480	2.05	-46.03	≤ -17.95	PASS
3DH5	Ant1	Low	2402	2.70	-43.65	≤ -17.3	PASS
		High	2480	1.87	-45.81	≤ -18.13	PASS
		Low	Hop_2402	2.61	-46.51	≤ -17.39	PASS
		High	Hop_2480	1.93	-46.22	≤ -18.07	PASS

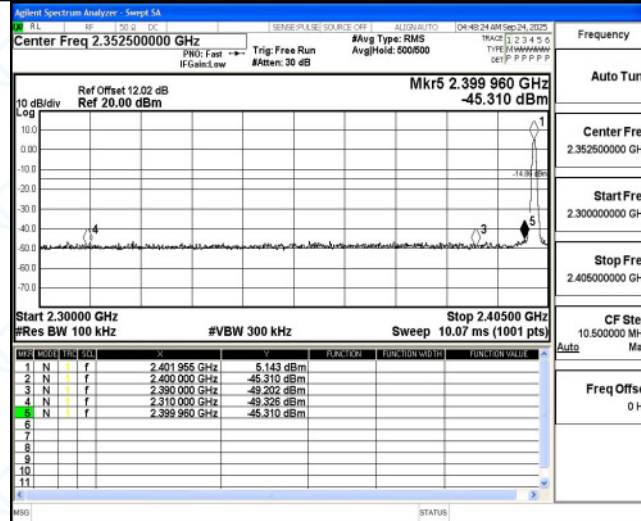
Note :

Both left and right earphone have tested, The Left earphone is the worst, only the worse case was reported.

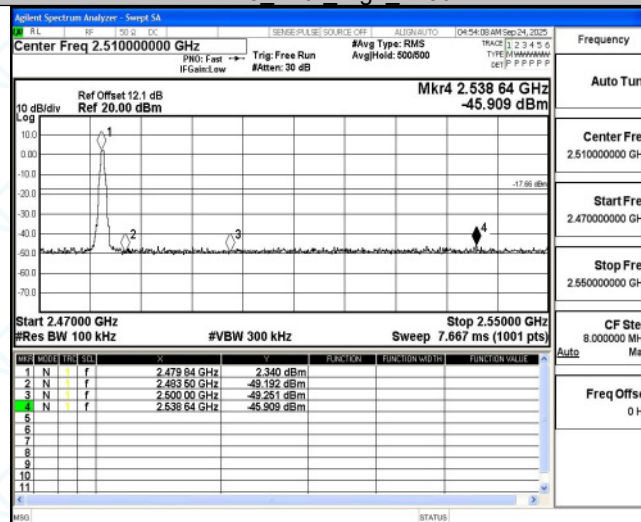


Test Graphs

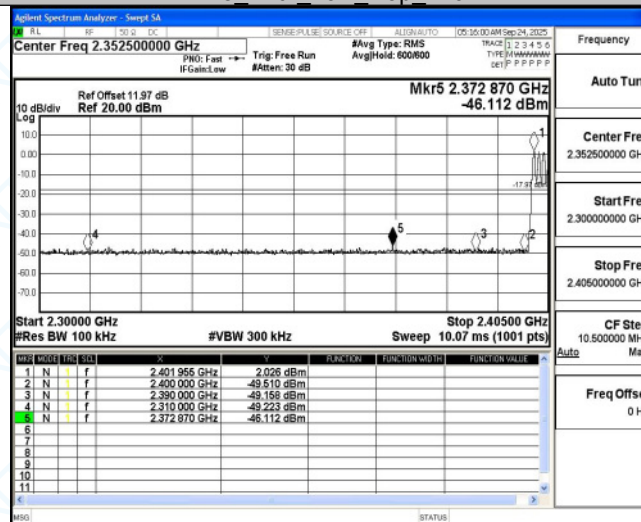
DH5_Ant1_Low_2402



DH5_Ant1_High_2480

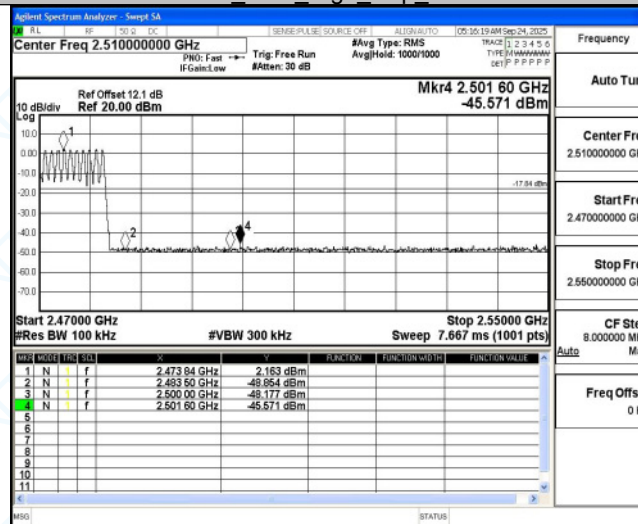


DH5_Ant1_Low_Hop_2402

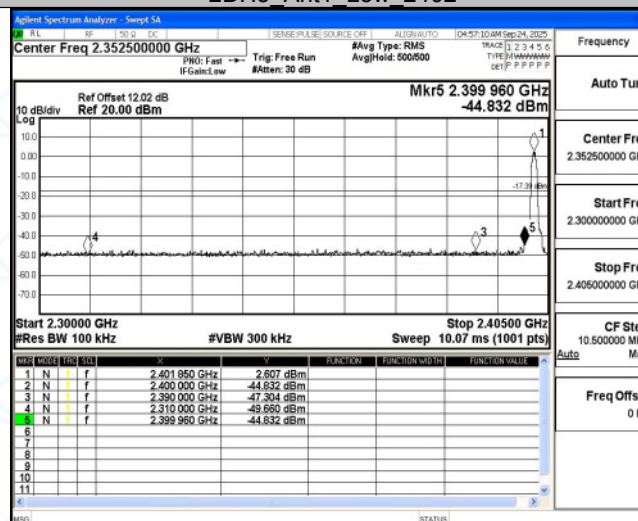




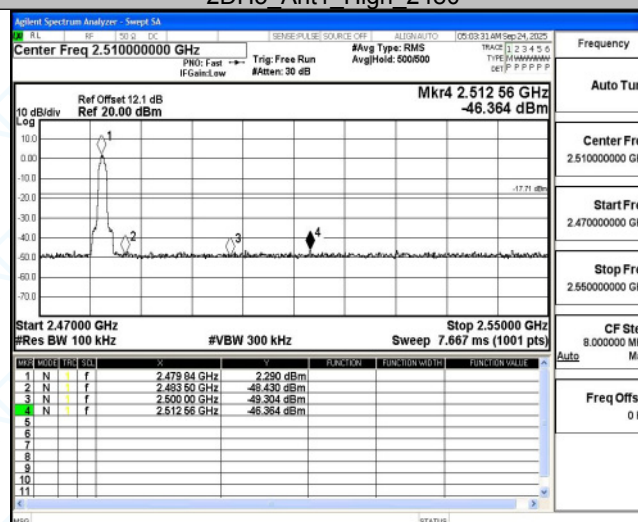
DH5_Ant1_High_Hop 2480



2DH5_Ant1_Low 2402

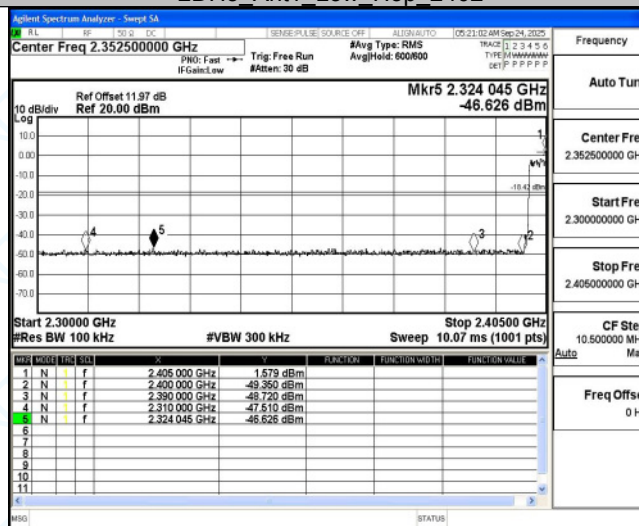


2DH5_Ant1_High 2480

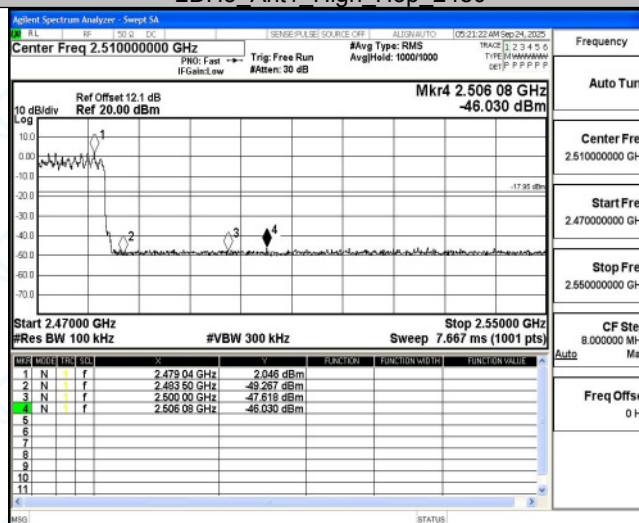




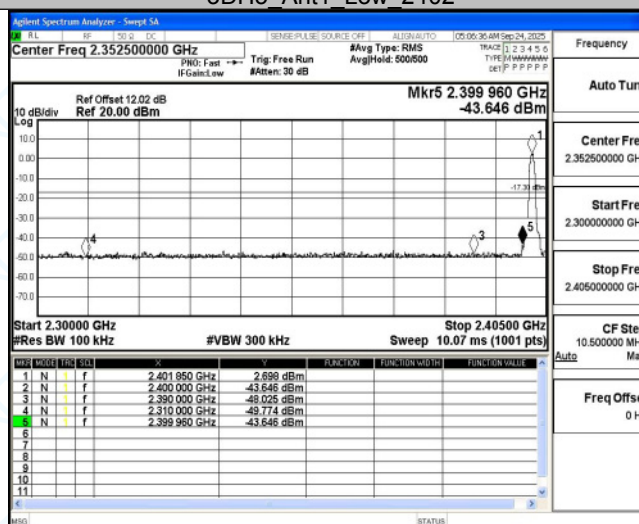
2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

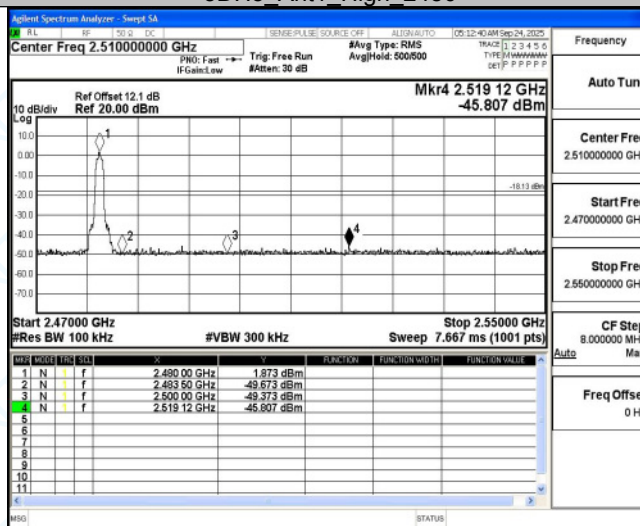


3DH5_Ant1_Low_2402

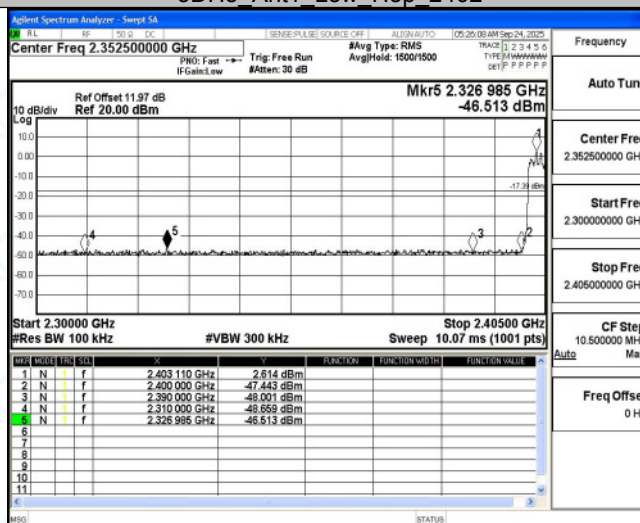




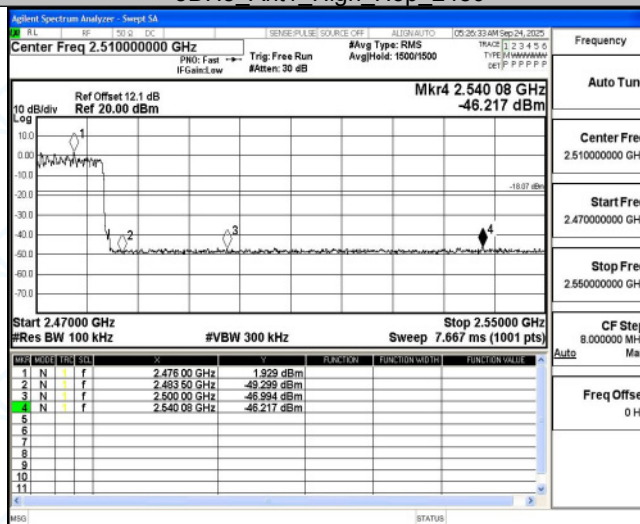
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





Appendix G: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	5.15	5.15	---	PASS
			30~1000	5.15	-58.28	≤ -14.85	PASS
			1000~26500	5.15	-40.87	≤ -14.85	PASS
		2441	Reference	2.71	2.71	---	PASS
			30~1000	2.71	-58.05	≤ -17.29	PASS
			1000~26500	2.71	-42.52	≤ -17.29	PASS
		2480	Reference	2.23	2.23	---	PASS
			30~1000	2.23	-58.24	≤ -17.77	PASS
			1000~26500	2.23	-42.7	≤ -17.77	PASS
2DH5	Ant1	2402	Reference	2.67	2.67	---	PASS
			30~1000	2.67	-57.64	≤ -17.33	PASS
			1000~26500	2.67	-42.49	≤ -17.33	PASS
		2441	Reference	2.80	2.80	---	PASS
			30~1000	2.80	-58.18	≤ -17.2	PASS
			1000~26500	2.80	-42.06	≤ -17.2	PASS
		2480	Reference	1.21	1.21	---	PASS
			30~1000	1.21	-59.33	≤ -18.79	PASS
			1000~26500	1.21	-42.36	≤ -18.79	PASS
3DH5	Ant1	2402	Reference	2.67	2.67	---	PASS
			30~1000	2.67	-58.92	≤ -17.33	PASS
			1000~26500	2.67	-41.95	≤ -17.33	PASS
		2441	Reference	2.42	2.42	---	PASS
			30~1000	2.42	-58.99	≤ -17.58	PASS
			1000~26500	2.42	-42.03	≤ -17.58	PASS
		2480	Reference	1.91	1.91	---	PASS
			30~1000	1.91	-58.24	≤ -18.09	PASS
			1000~26500	1.91	-42.42	≤ -18.09	PASS

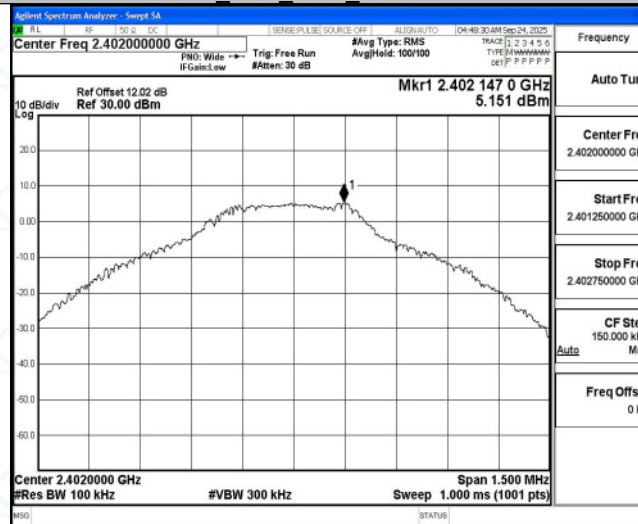
Note :

Both left and right earphone have tested, The Left earphone is the worst, only the worse case was reported.

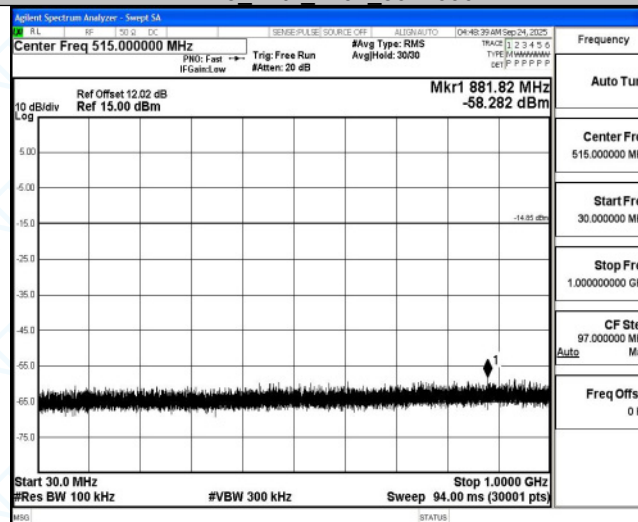


Test Graphs

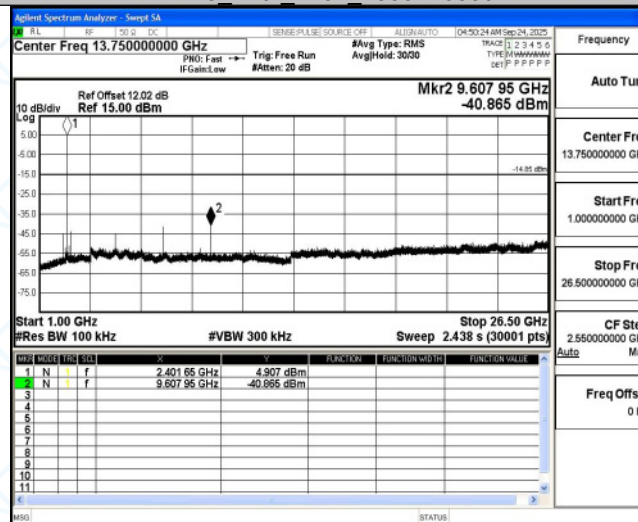
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000

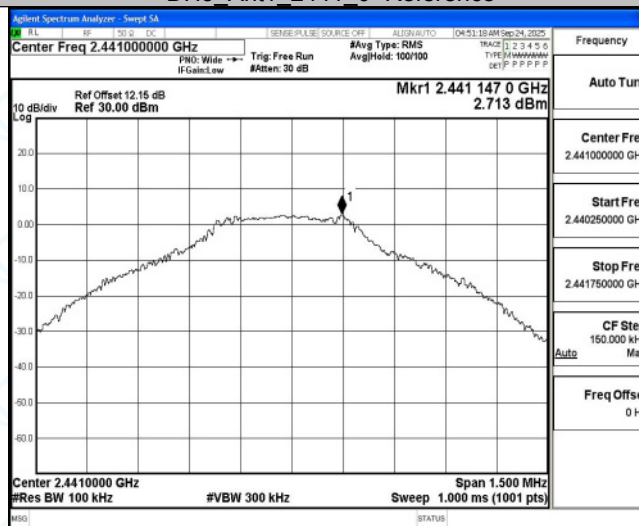


DH5_Ant1_2402_1000~26500

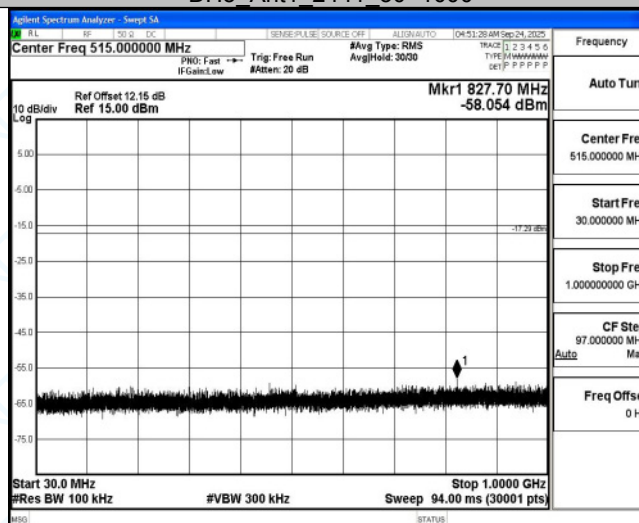




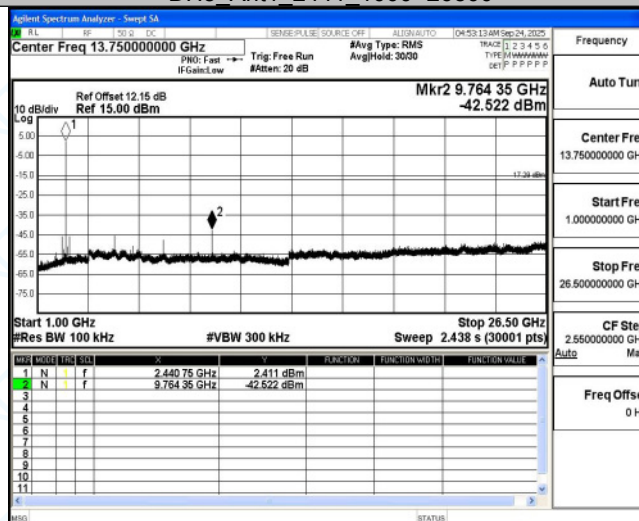
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000

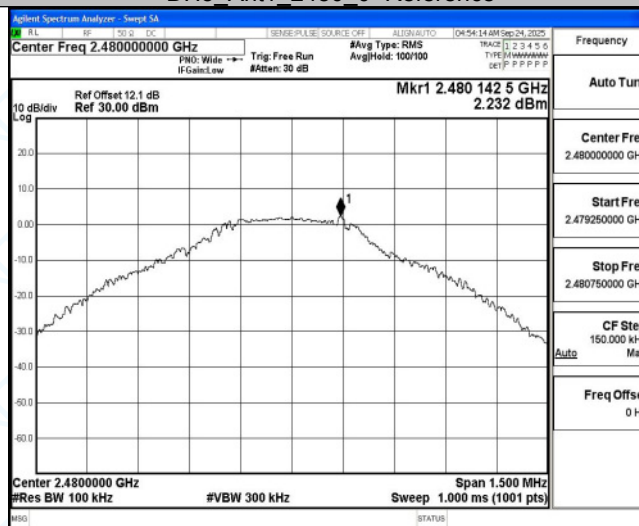


DH5_Ant1_2441_1000~26500

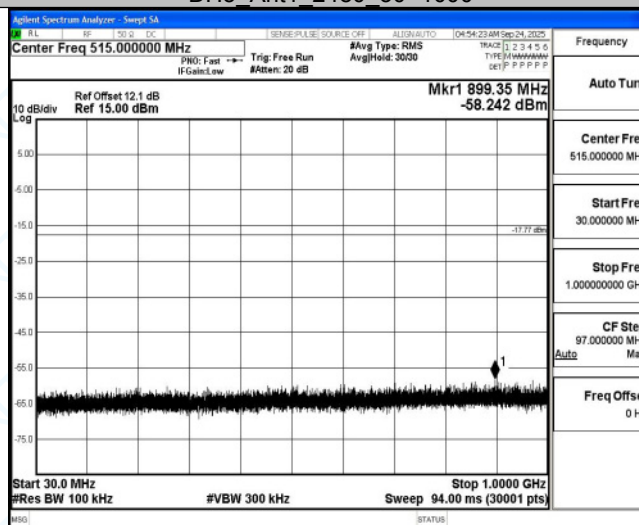




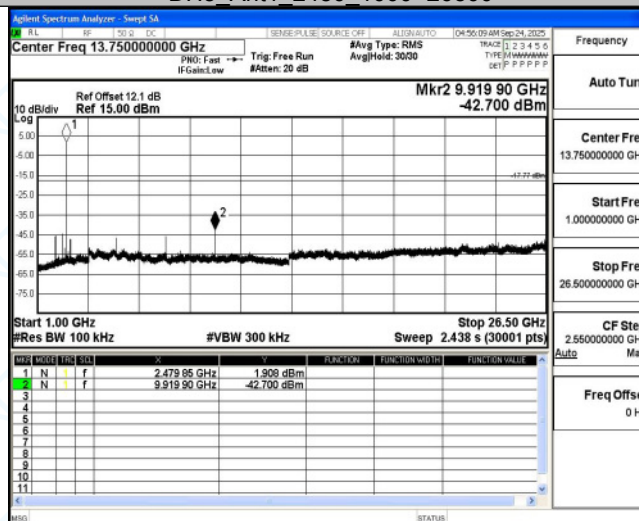
DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000

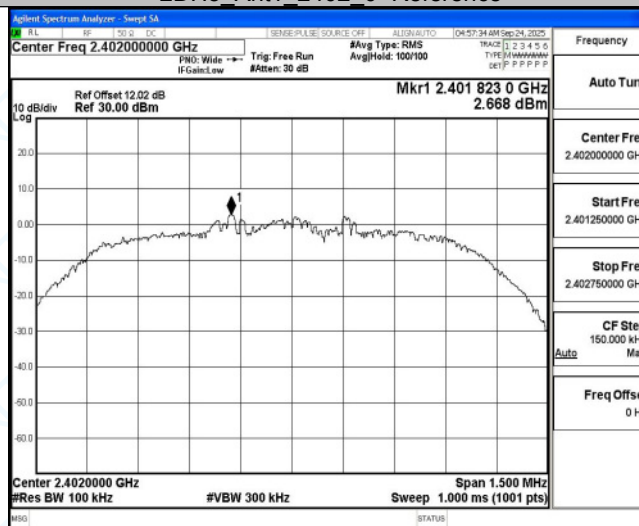


DH5_Ant1_2480_1000~26500

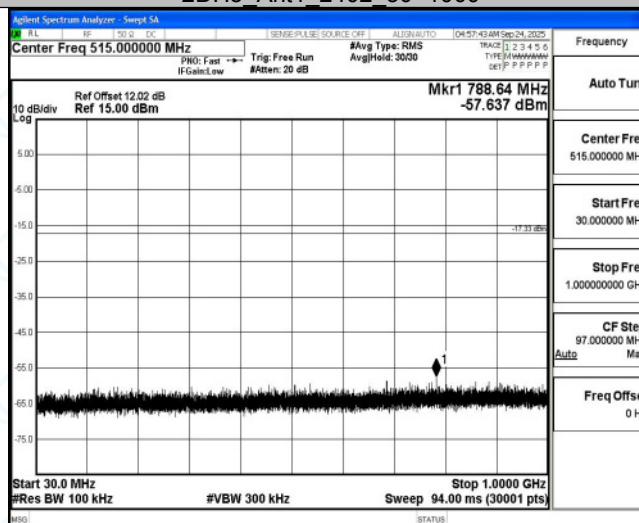




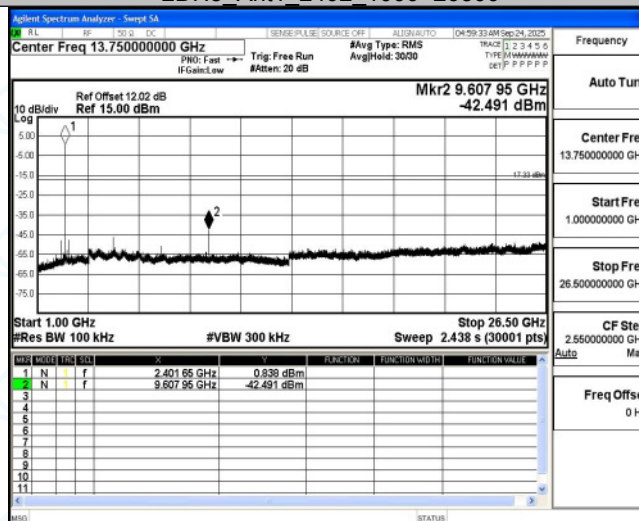
2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000

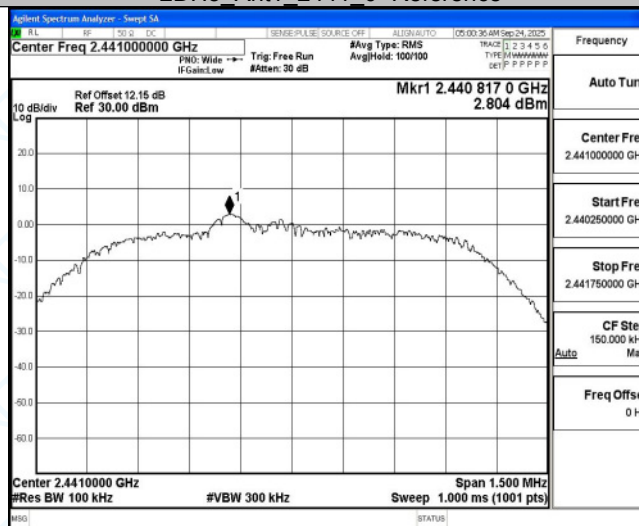


2DH5_Ant1_2402_1000~26500

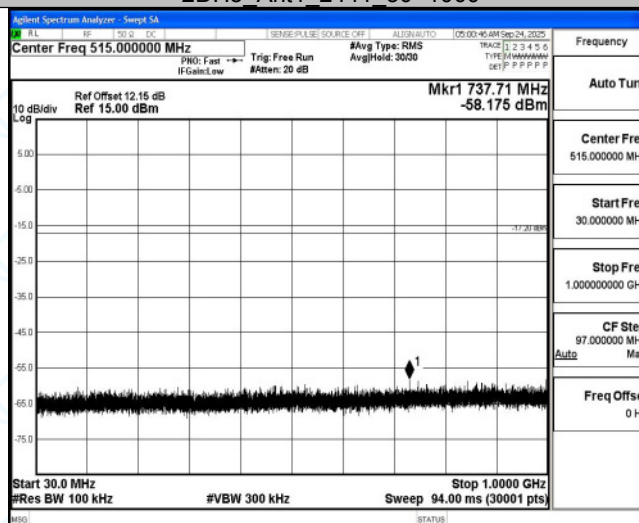




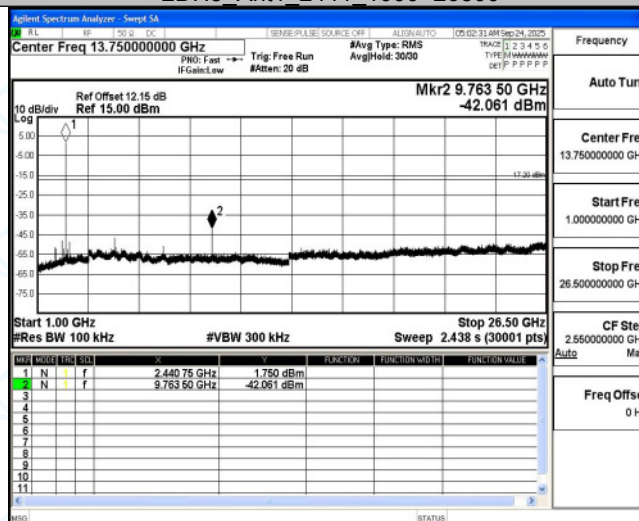
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

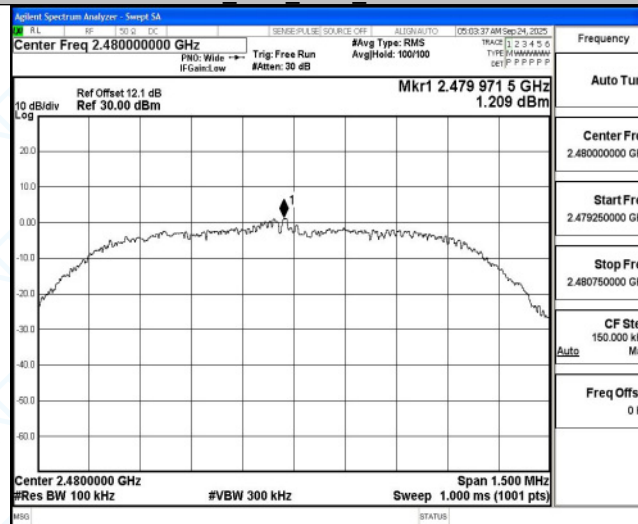


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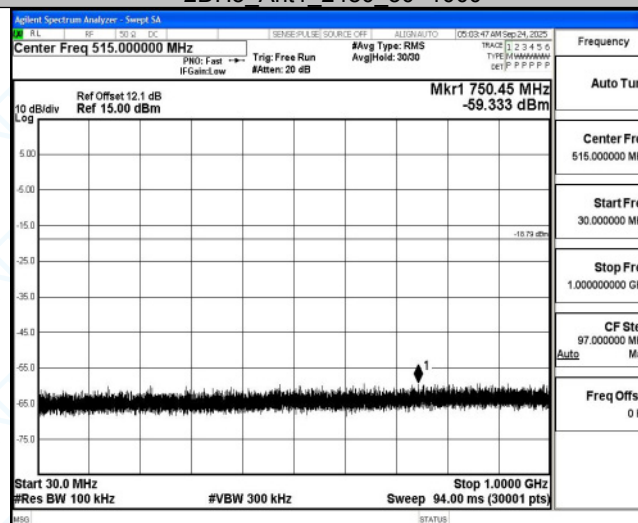




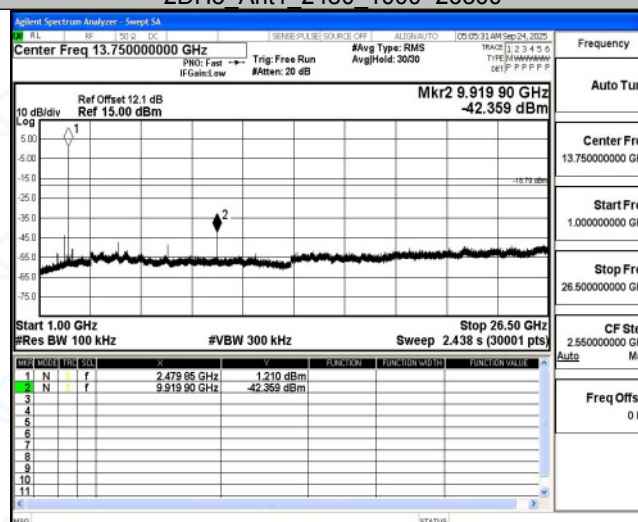
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000

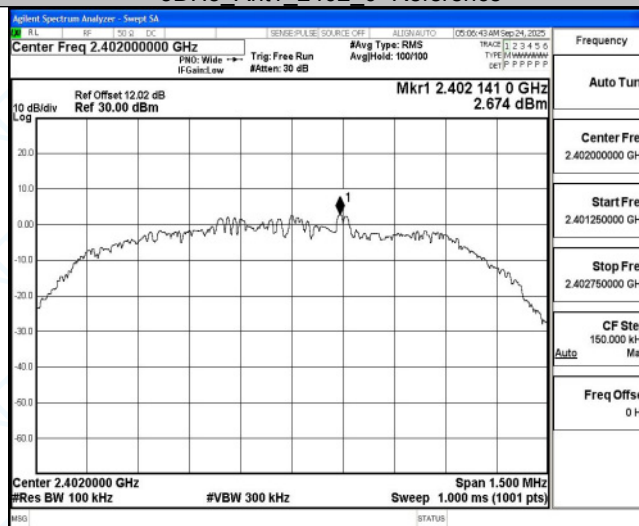


2DH5_Ant1_2480_1000~26500

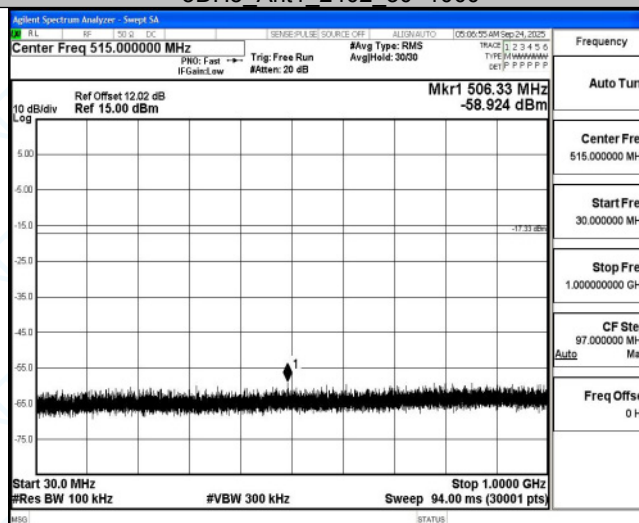




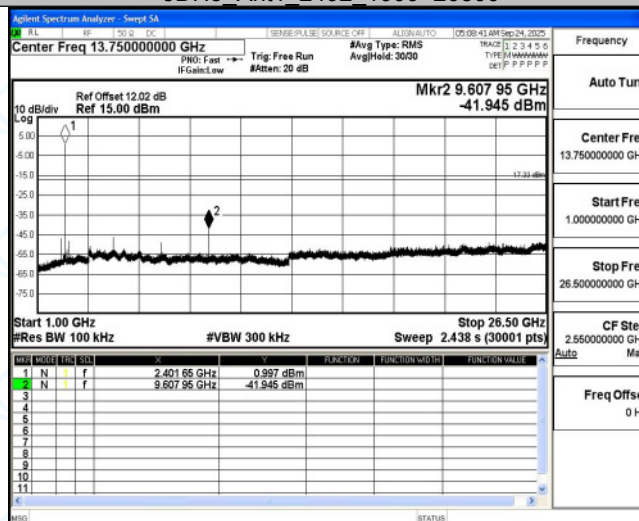
3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000

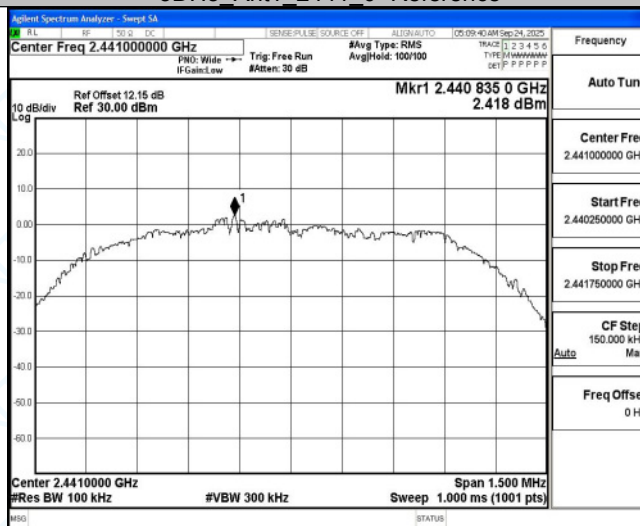


3DH5_Ant1_2402_1000~26500

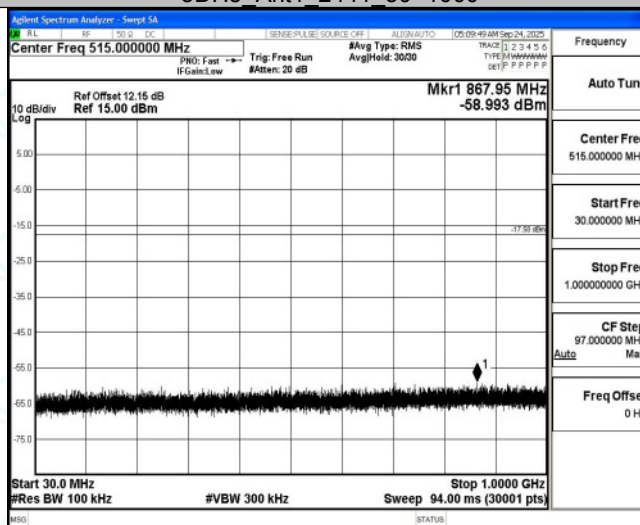




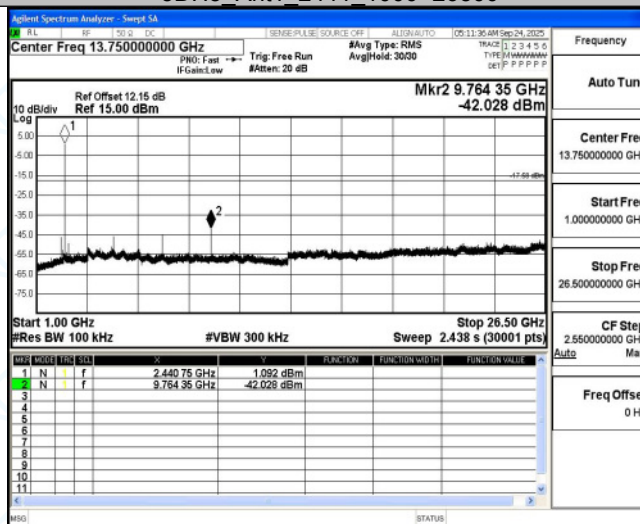
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000

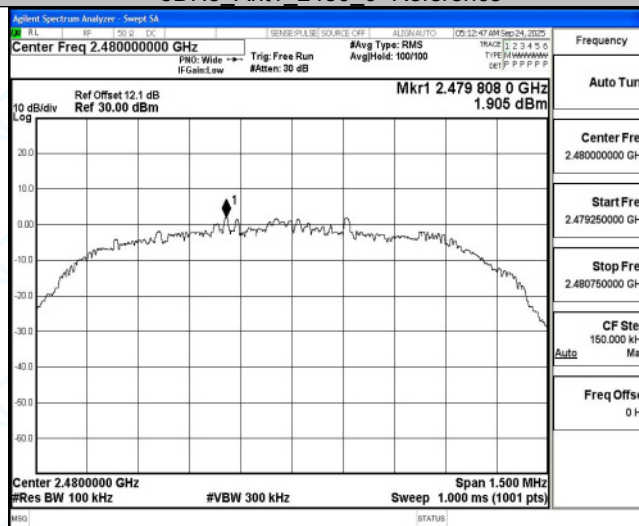


3DH5_Ant1_2441_1000~26500

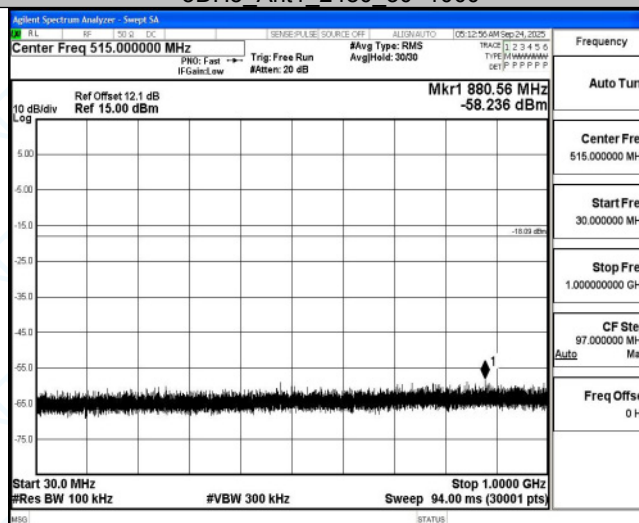




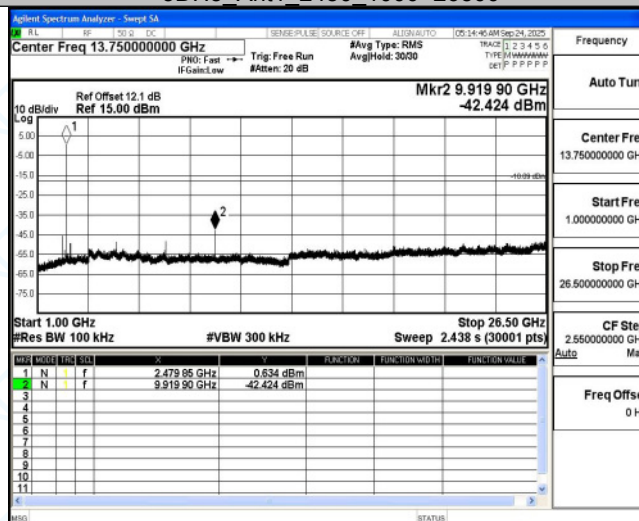
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



The End Report

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