Appendix A
RF Test Data for BT(BDR/EDR) (Conducted Measurement)
Product Name: Wireless Outdoor Subwoofer
Trade Mark: OSD AUDIO
Test Model: BOM 4.1.2
FCC ID: 2A4UH-BOM412

Environmental Conditions

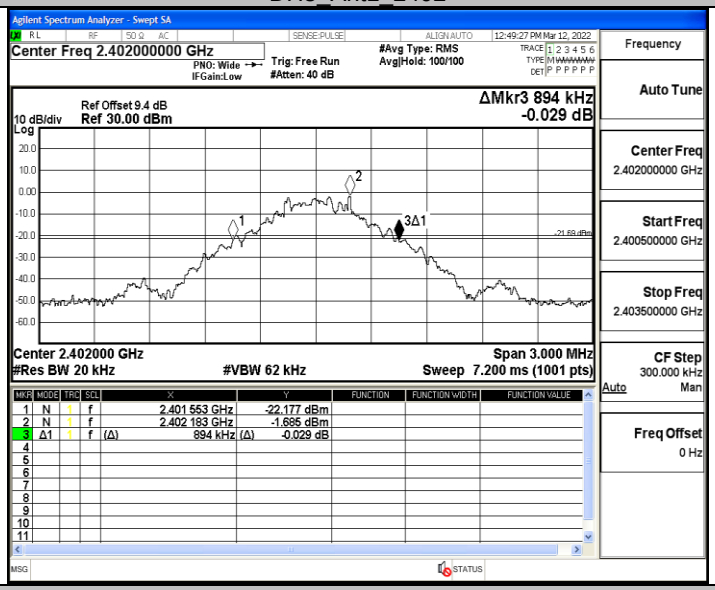
Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen

A.1 20 dB Bandwidth

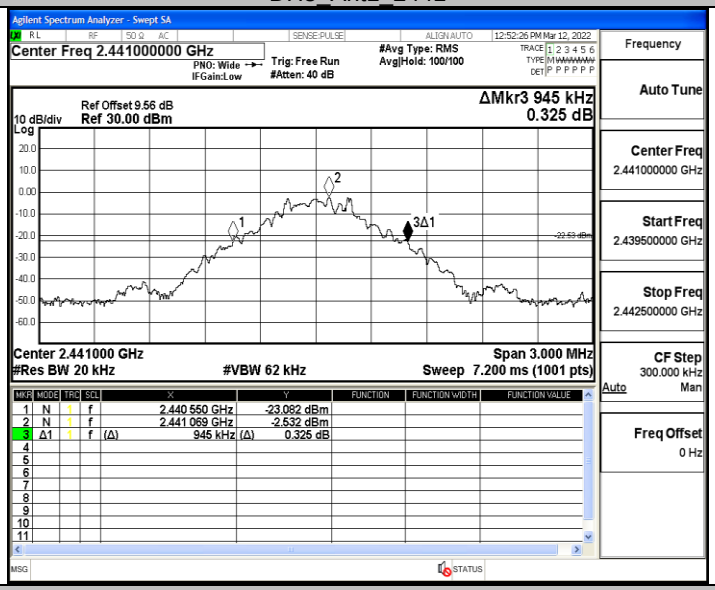
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.894	2401.553	2402.447	---	---
		2441	0.945	2440.550	2441.495	---	---
		2480	0.921	2479.553	2480.474	---	---
2DH5	Ant1	2402	1.311	2401.355	2402.666	---	---
		2441	1.320	2440.349	2441.669	---	---
		2480	1.311	2479.355	2480.666	---	---
3DH5	Ant1	2402	1.272	2401.361	2402.633	---	---
		2441	1.296	2440.361	2441.657	---	---
		2480	1.272	2479.367	2480.639	---	---

Test Graph

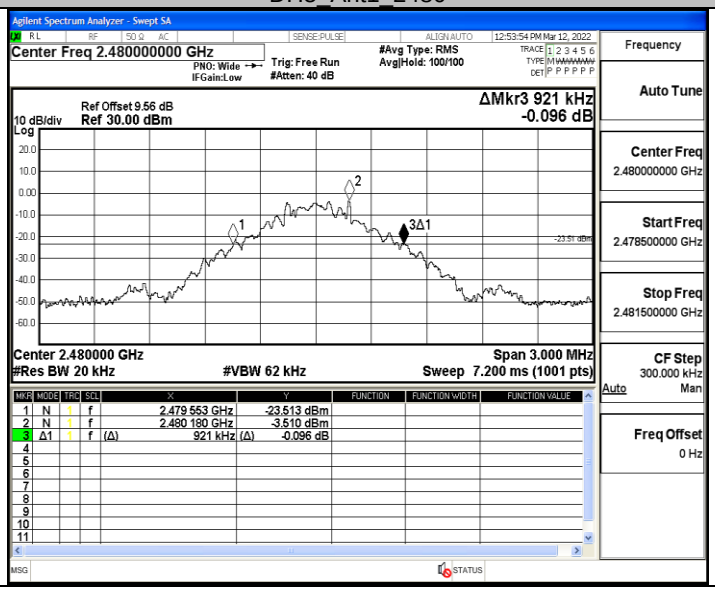
DH5_Ant1_2402



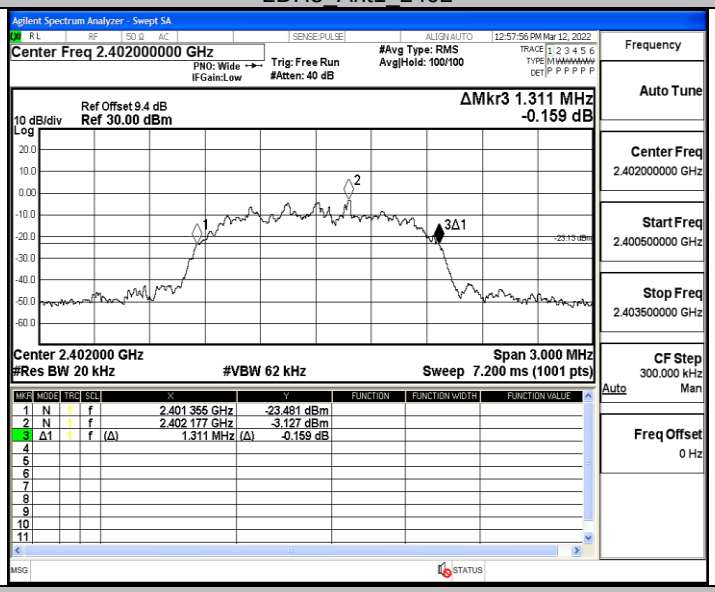
DH5_Ant1_2441



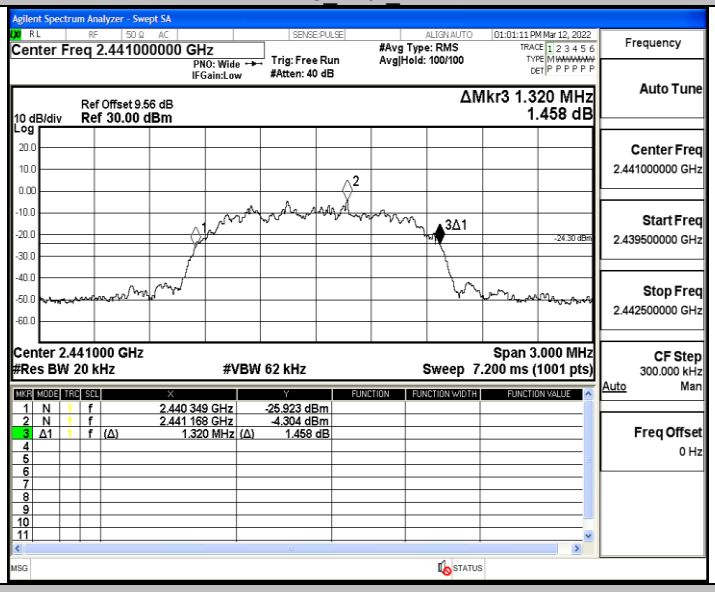
DH5_Ant1_2480



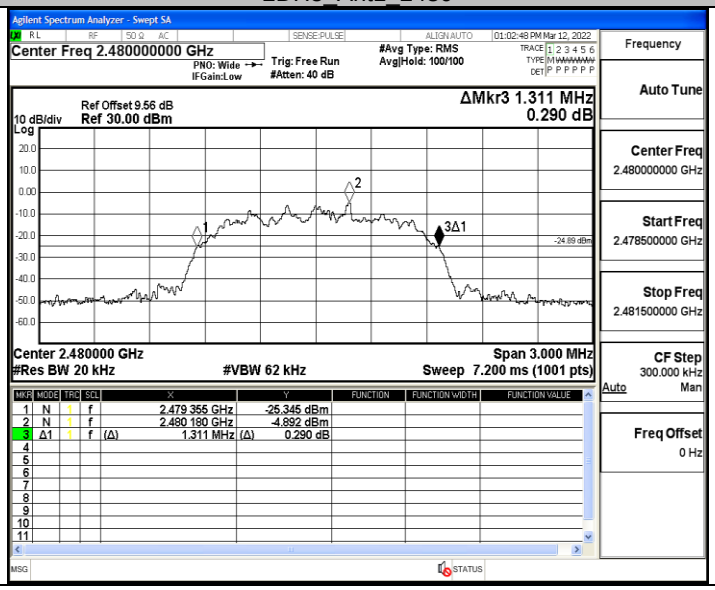
2DH5_Ant1_2402



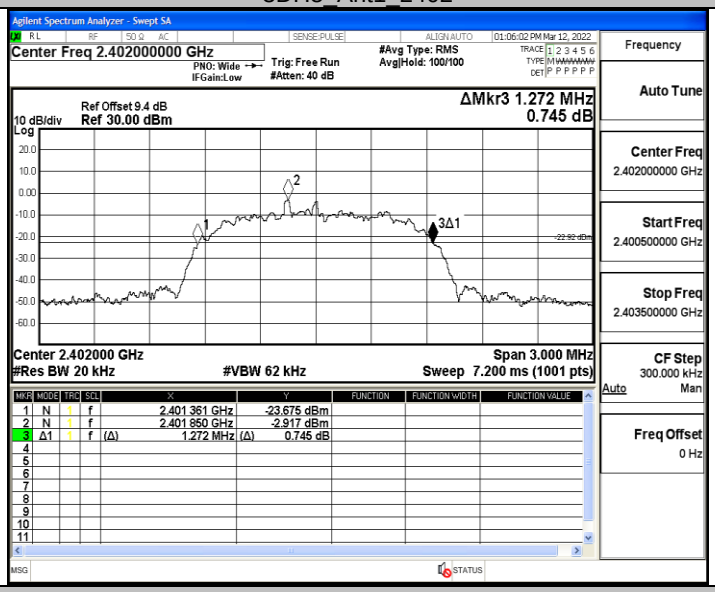
2DH5_Ant1_2441



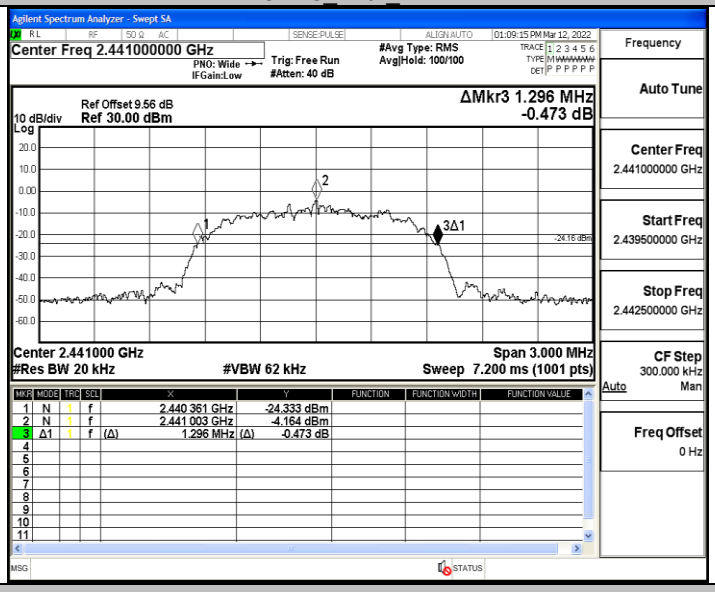
2DH5_Ant1_2480



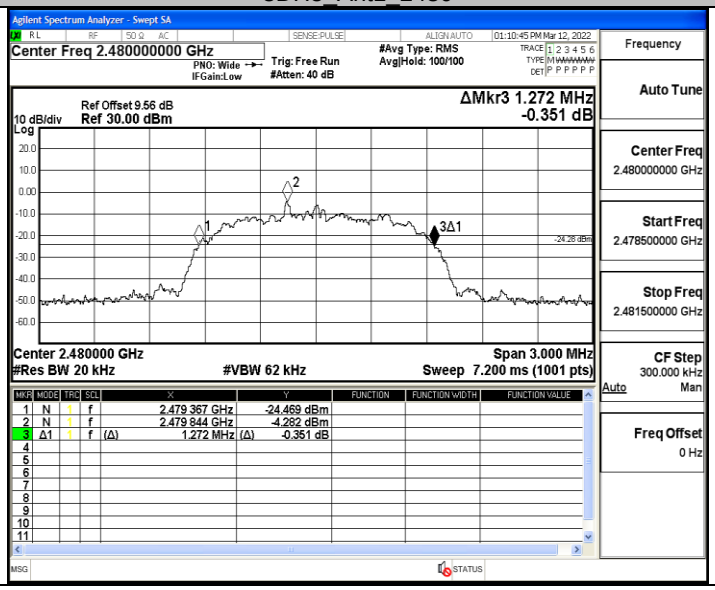
3DH5_Ant1_2402



3DH5_Ant1_2441



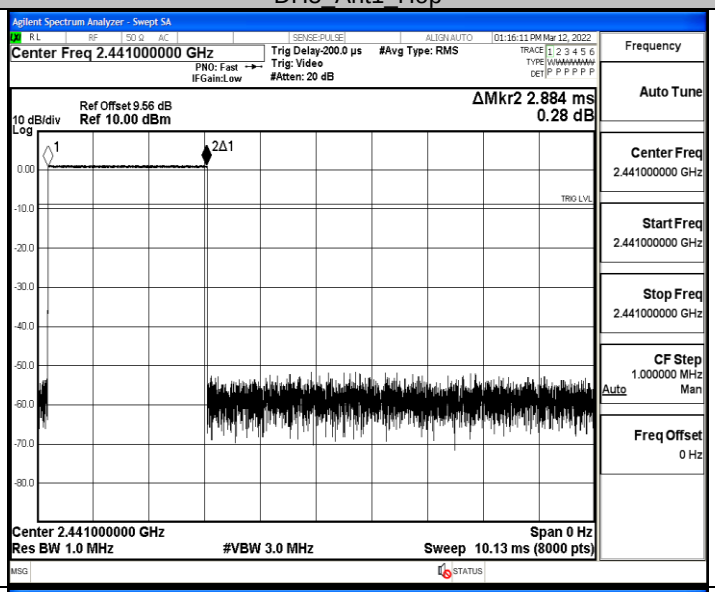
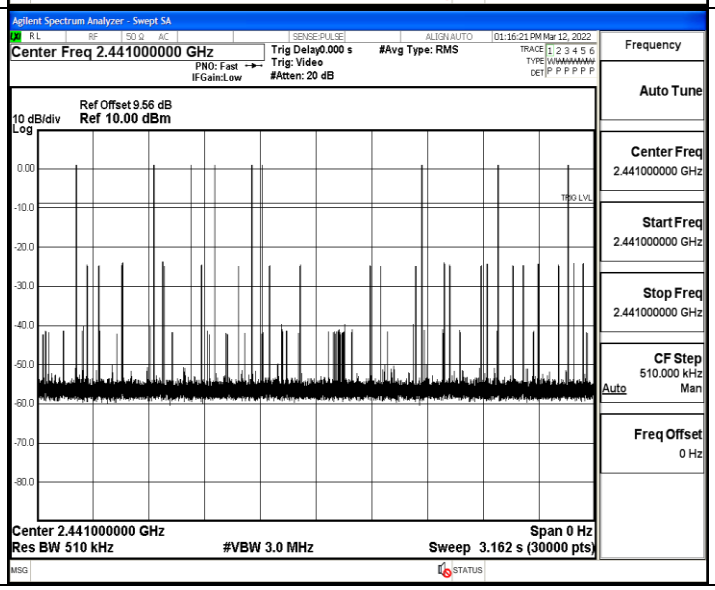
3DH5_Ant1_2480

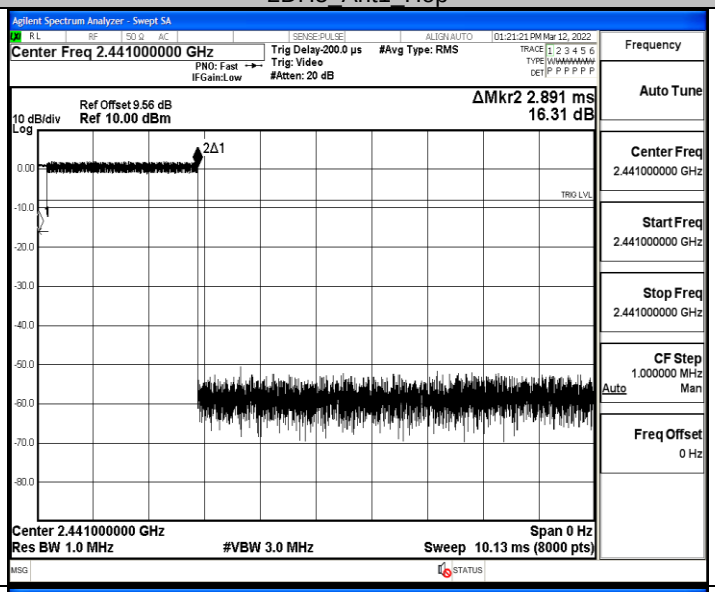
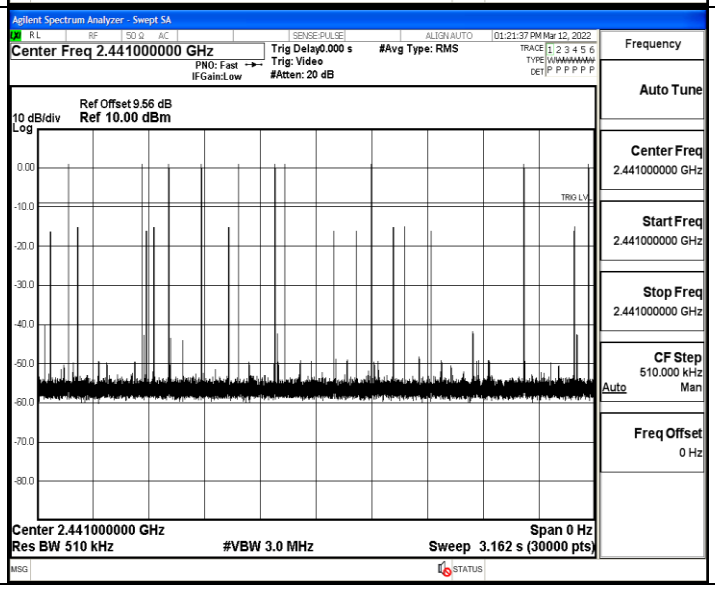


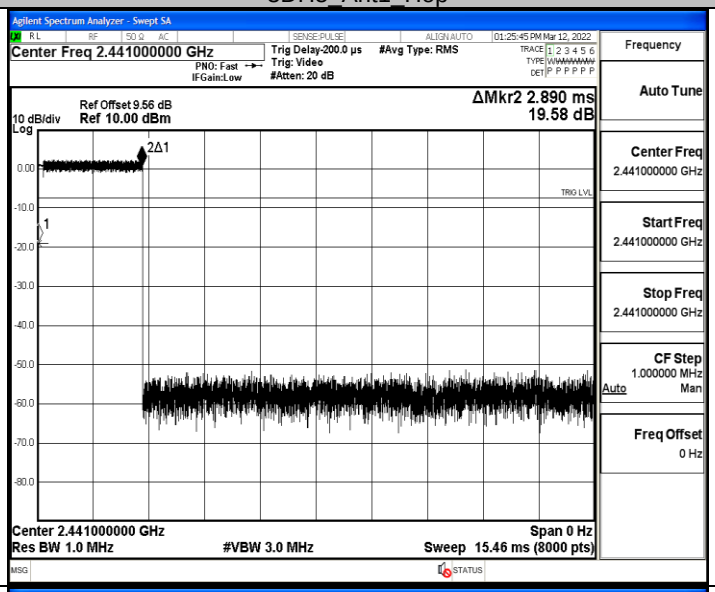
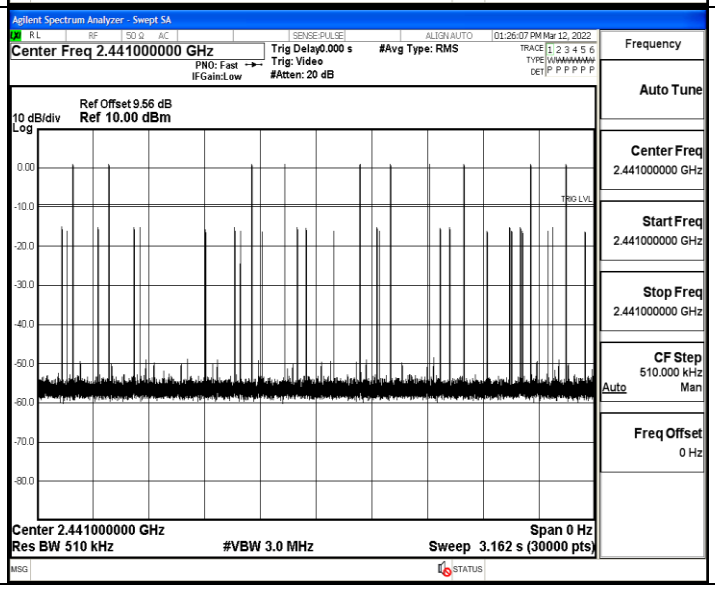
A.2 Dwell Time

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	100	0.288	≤0.4	PASS
2DH5	Ant1	Hop	2.89	110	0.318	≤0.4	PASS
3DH5	Ant1	Hop	2.89	120	0.347	≤0.4	PASS

Test Graph

DH5_Ant1_Hop



2DH5_Ant1_Hop



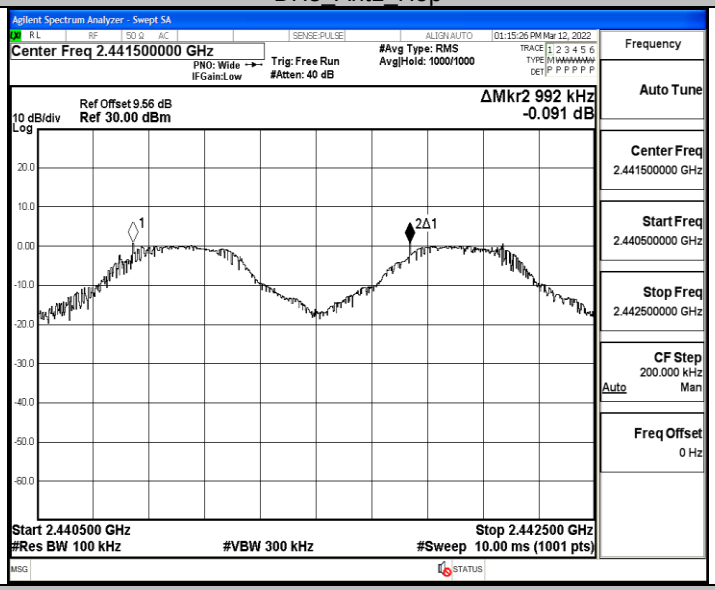
3DH5_Ant1_Hop		
		
		

A.3 Carrier Frequency Separation

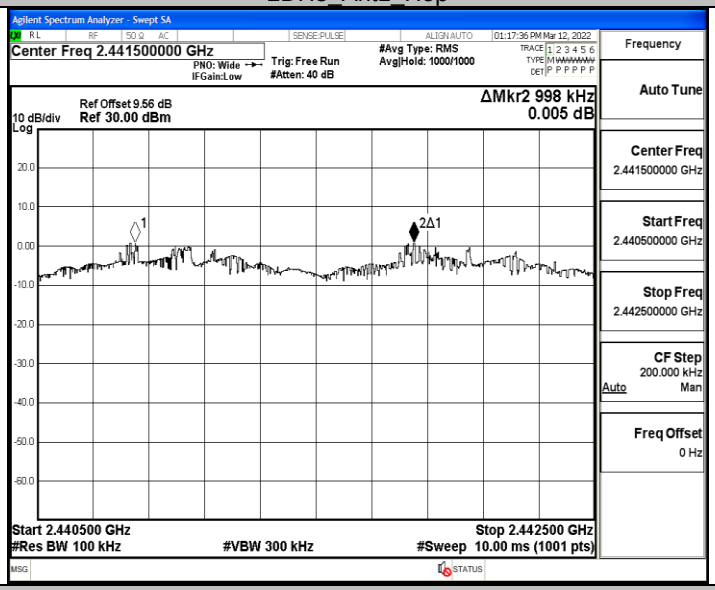
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.992	≥0.945	PASS
2DH5	Ant1	Hop	0.998	≥0.880	PASS
3DH5	Ant1	Hop	1.014	≥0.864	PASS

Test Graph

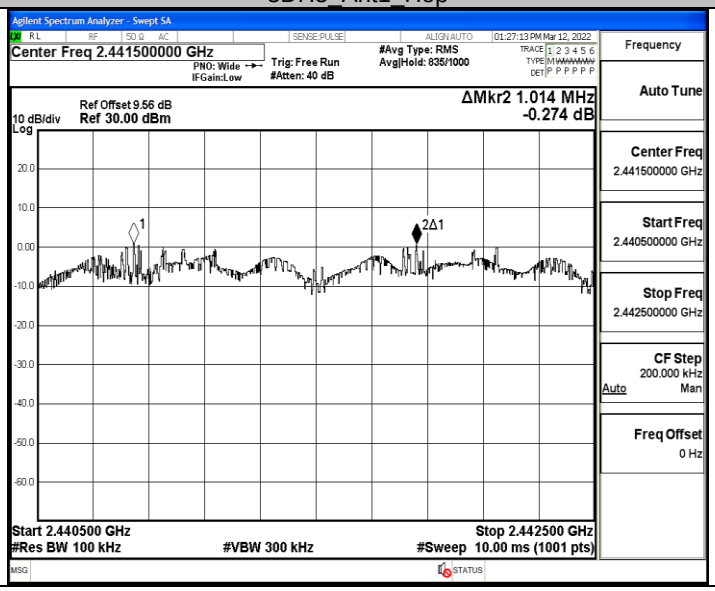
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

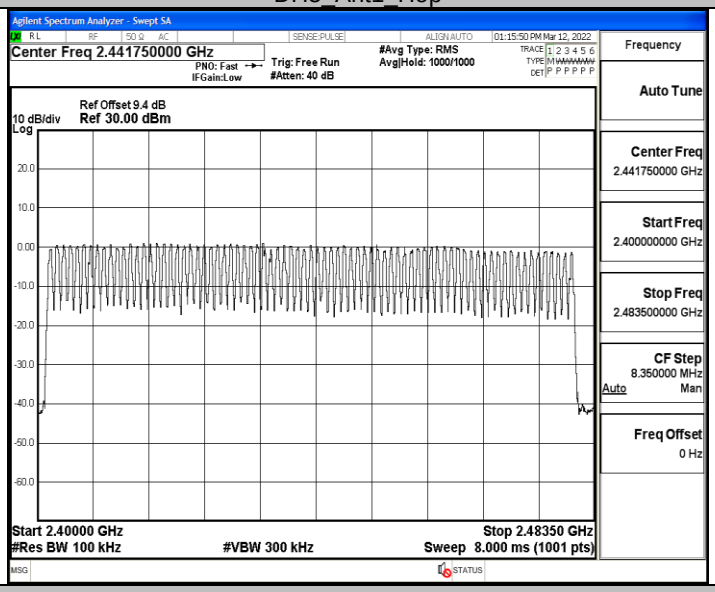


A.4 Hopping Channel Number

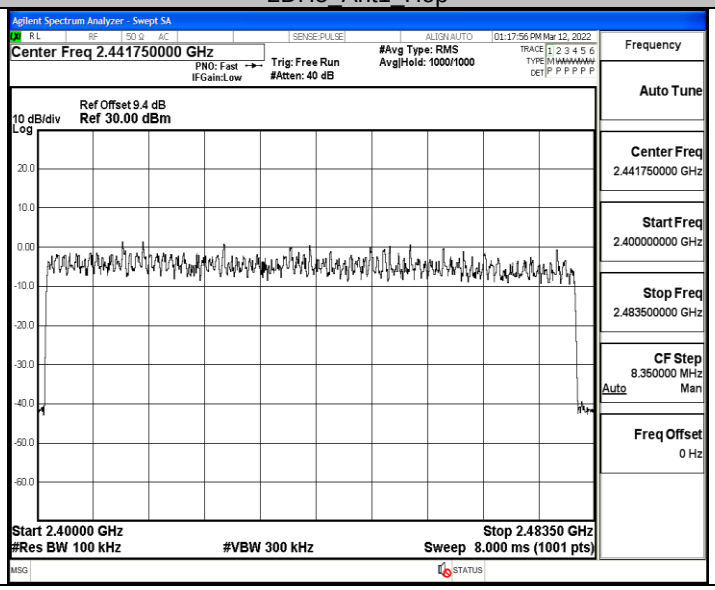
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS
3DH5	Ant1	Hop	79	>=15	PASS

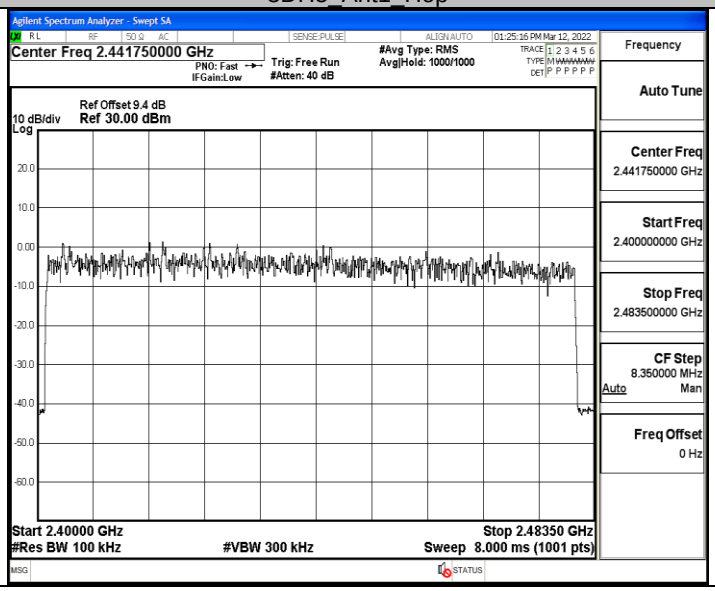
Test Graph

DH5_Ant1_Hop



2DH5_Ant1_Hop



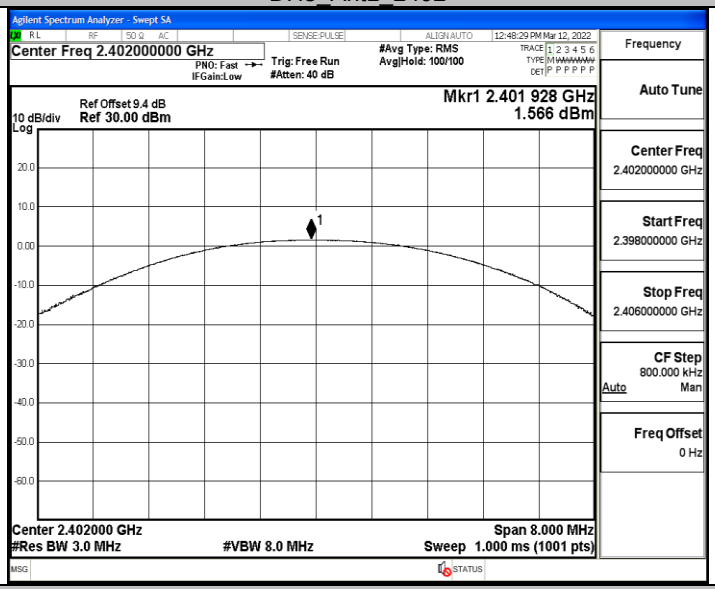
3DH5_Ant1_Hop


A.5 Conducted Peak Output Power

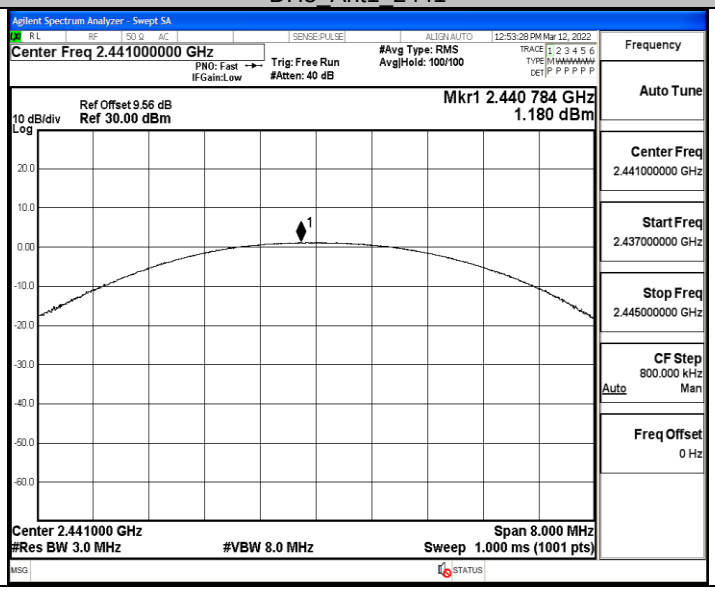
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.57	≤30	PASS
		2441	1.18	≤30	PASS
		2480	-0.25	≤30	PASS
2DH5	Ant1	2402	2.6	≤20.97	PASS
		2441	2.25	≤20.97	PASS
		2480	0.84	≤20.97	PASS
3DH5	Ant1	2402	2.94	≤20.97	PASS
		2441	2.68	≤20.97	PASS
		2480	1.4	≤20.97	PASS

Test Graph

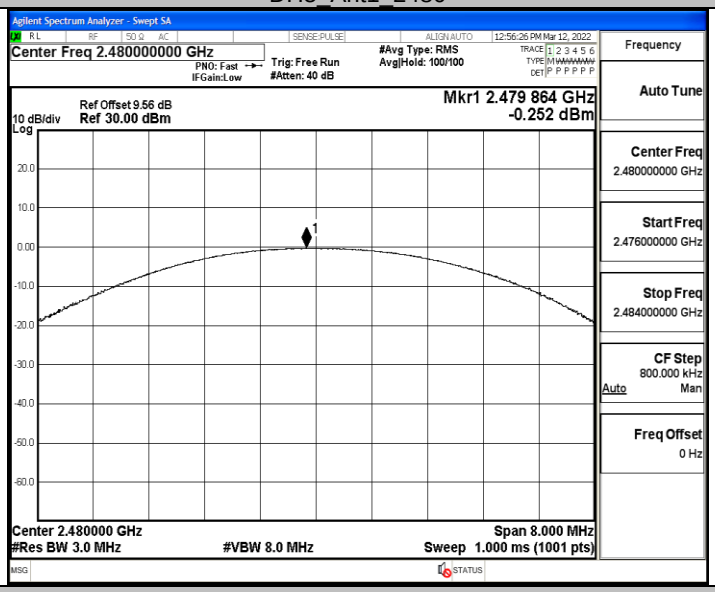
DH5_Ant1_2402



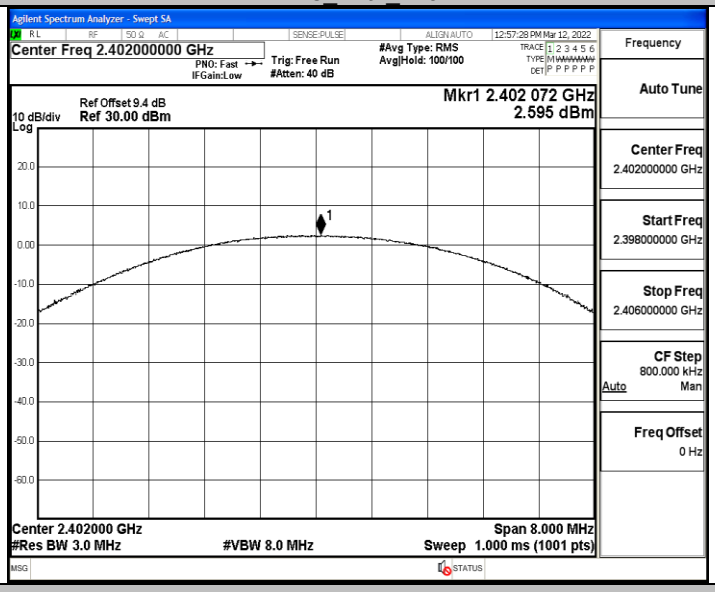
DH5_Ant1_2441



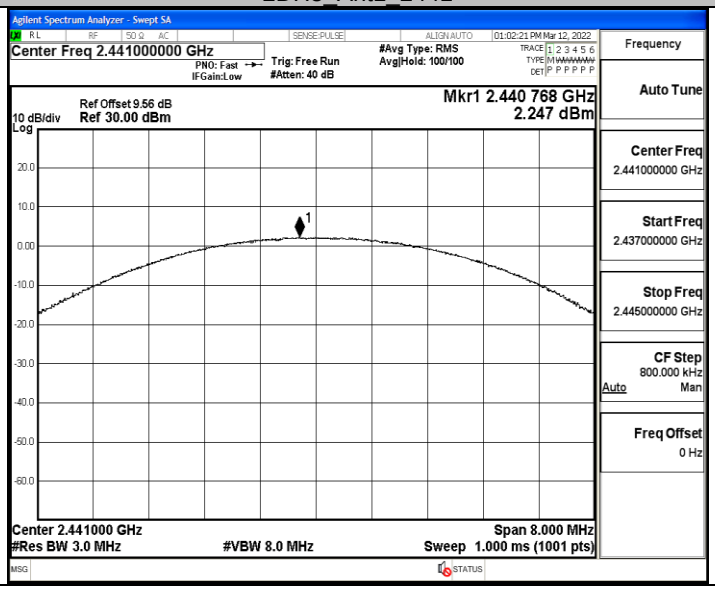
DH5_Ant1_2480



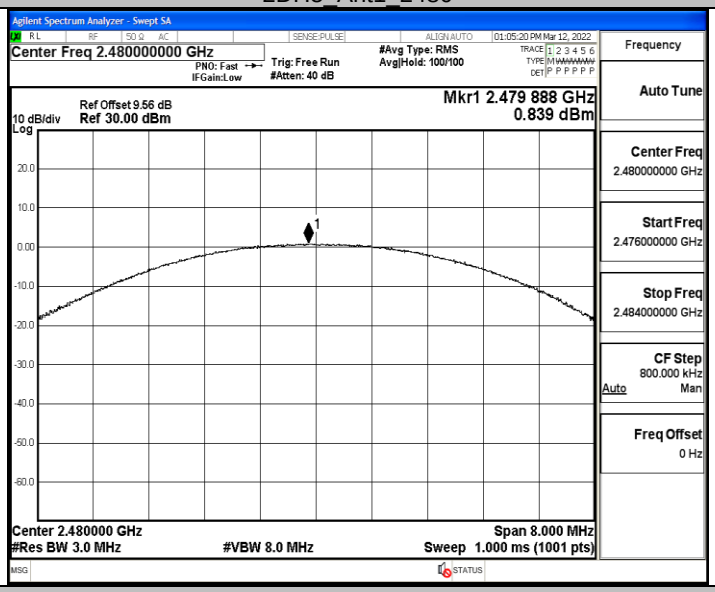
2DH5_Ant1_2402



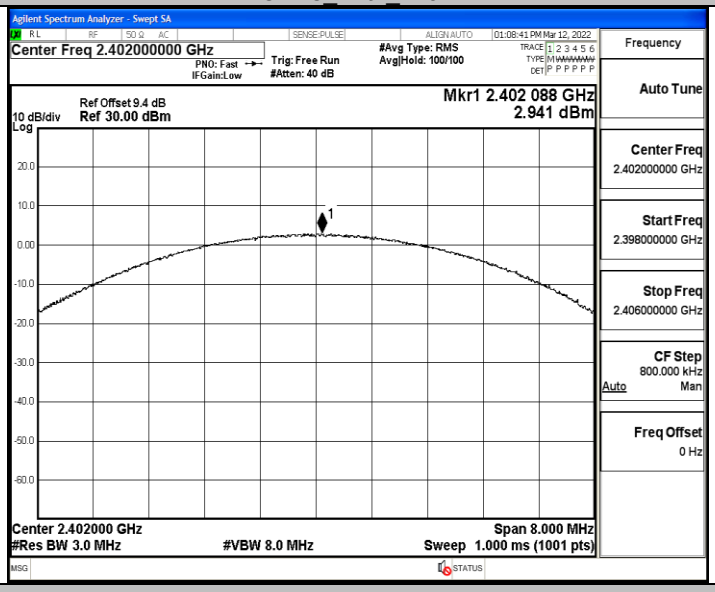
2DH5_Ant1_2441



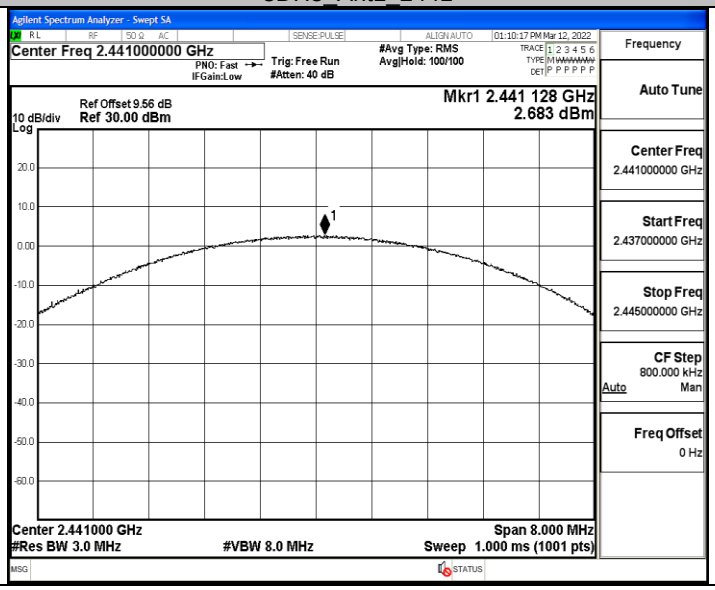
2DH5_Ant1_2480



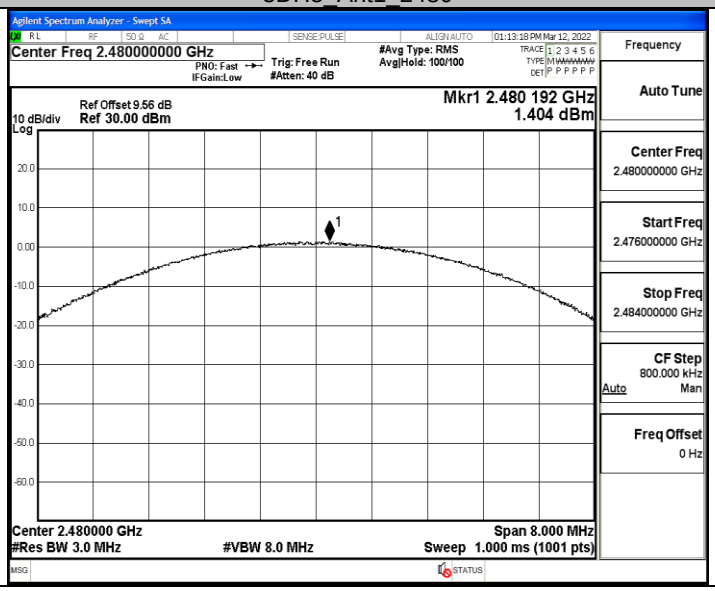
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

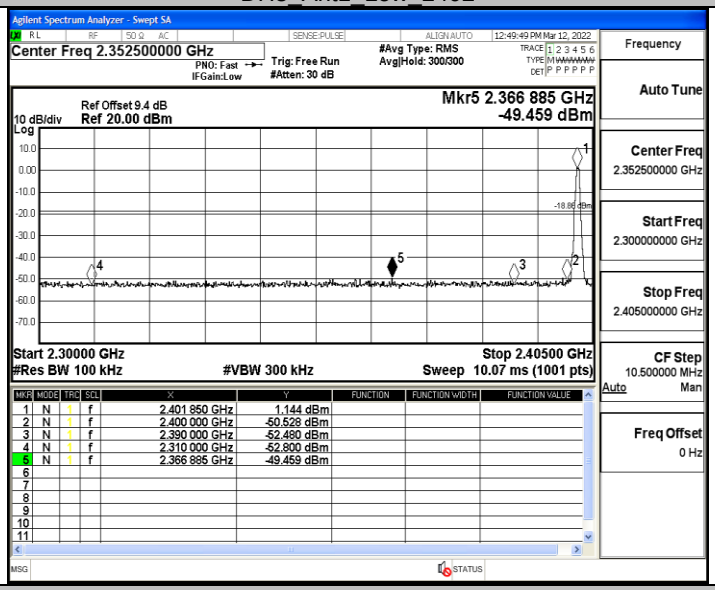


A.6 Band-edge for RF Conducted Emissions

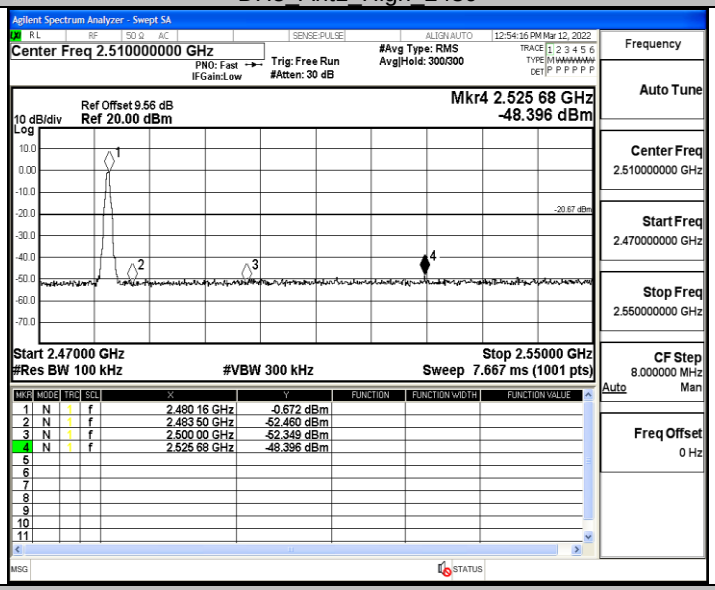
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	1.14	-49.46	≤-18.86	PASS
		High	2480	-0.67	-48.4	≤-20.67	PASS
		Low	Hop_2402	0.59	-50.56	≤-19.41	PASS
		High	Hop_2480	-0.49	-48.5	≤-20.49	PASS
2DH5	Ant1	Low	2402	0.96	-49.26	≤-19.04	PASS
		High	2480	-0.78	-48.66	≤-20.78	PASS
		Low	Hop_2402	-1.86	-50.18	≤-21.86	PASS
		High	Hop_2480	-3.29	-48.84	≤-23.29	PASS
3DH5	Ant1	Low	2402	0.01	-50.01	≤-19.99	PASS
		High	2480	-0.73	-48.95	≤-20.73	PASS
		Low	Hop_2402	-3.17	-50.18	≤-23.17	PASS
		High	Hop_2480	-2.91	-48.91	≤-22.91	PASS

Test Graph

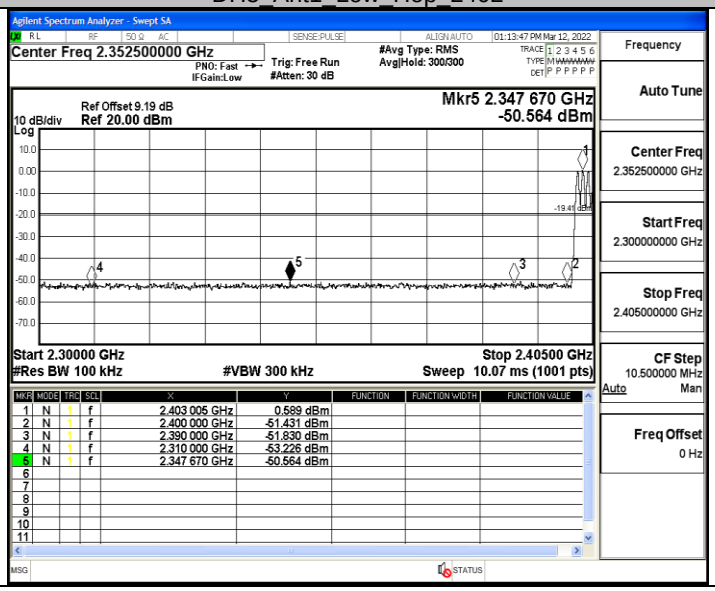
DH5_Ant1_Low_2402



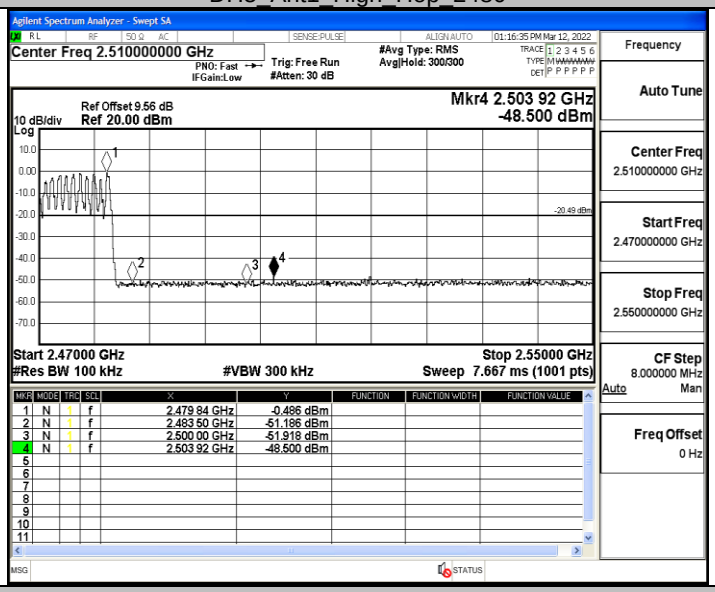
DH5_Ant1_High_2480



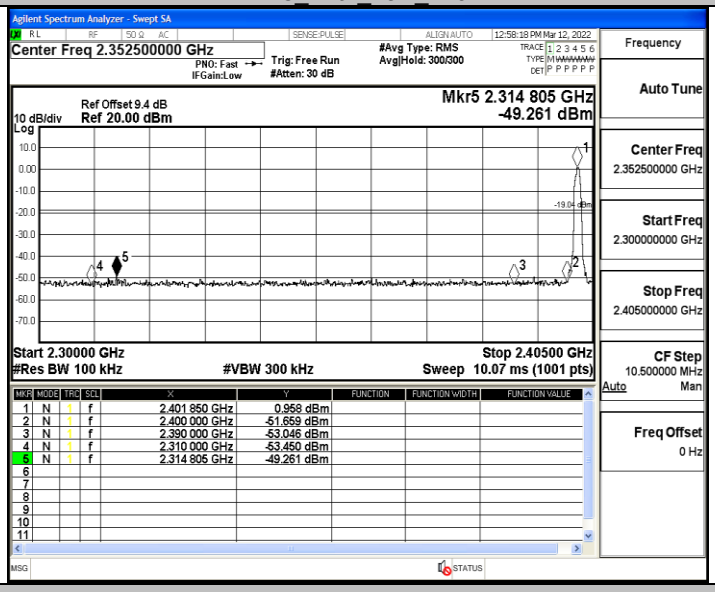
DH5_Ant1_Low_Hop_2402



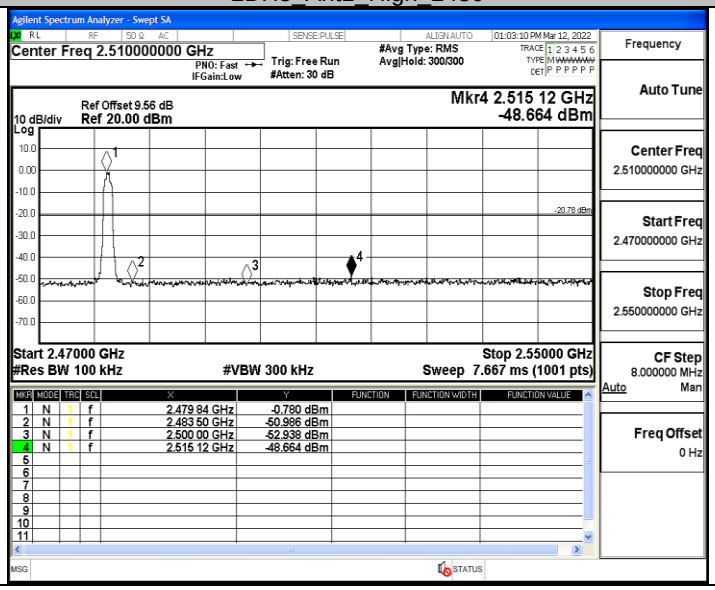
DH5_Ant1_High_Hop_2480



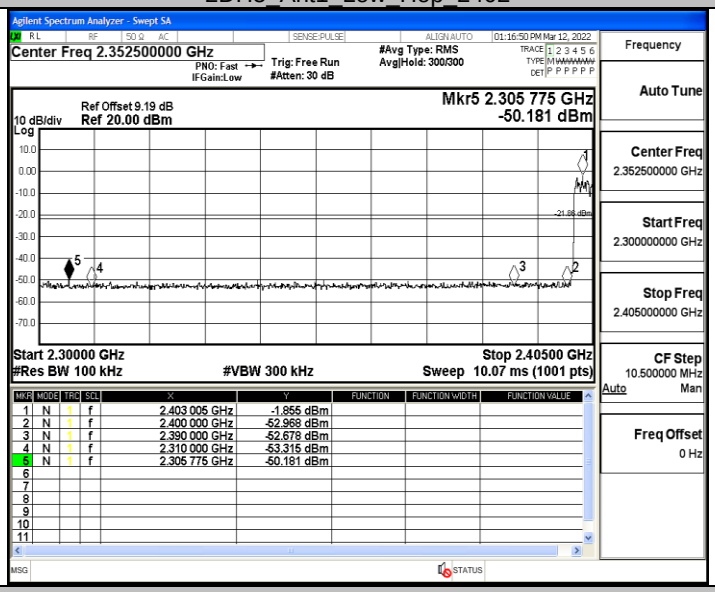
2DH5_Ant1_Low_2402



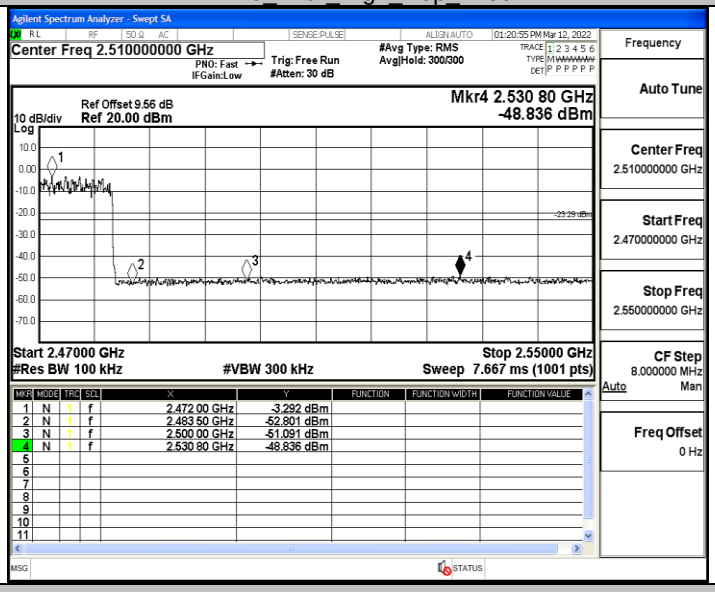
2DH5_Ant1_High_2480



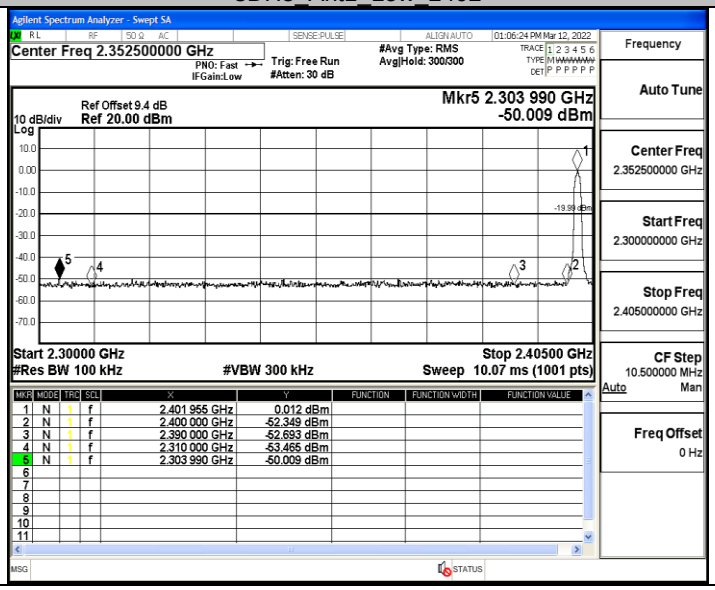
2DH5_Ant1_Low_Hop_2402



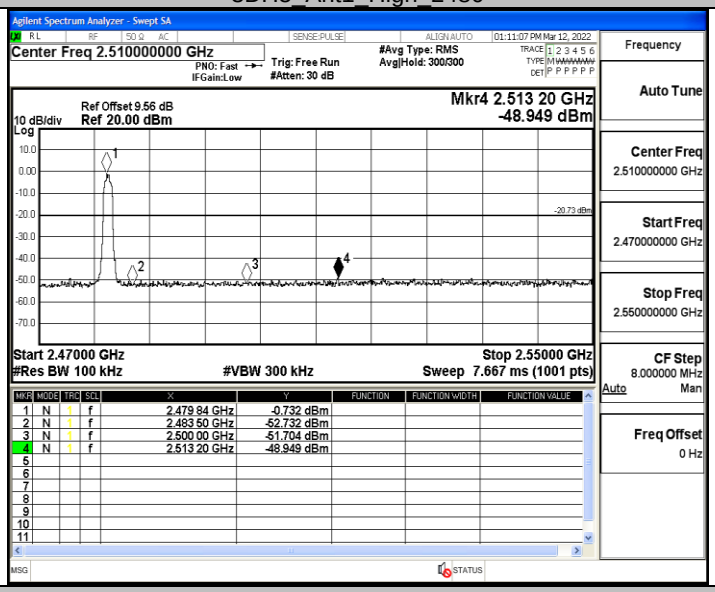
2DH5_Ant1_High_Hop_2480



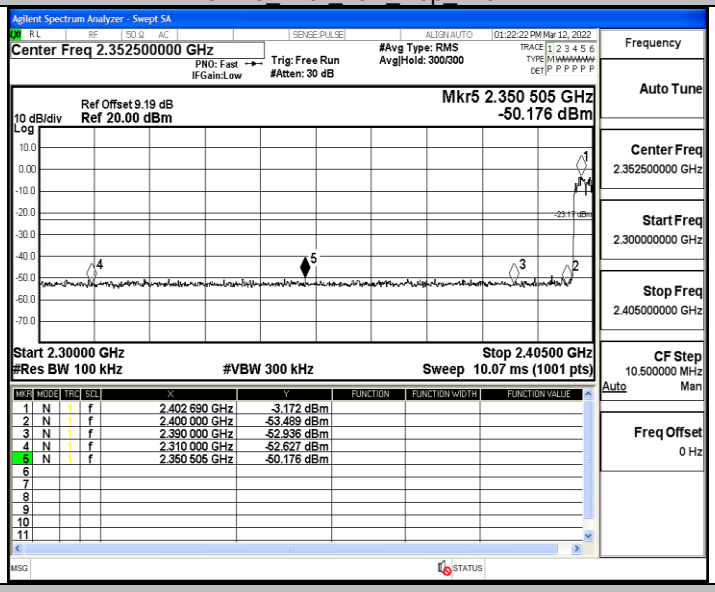
3DH5_Ant1_Low_2402



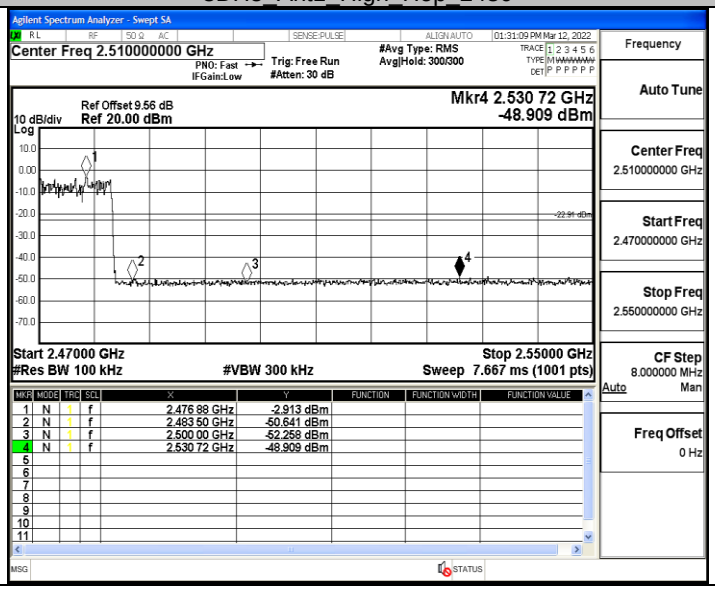
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



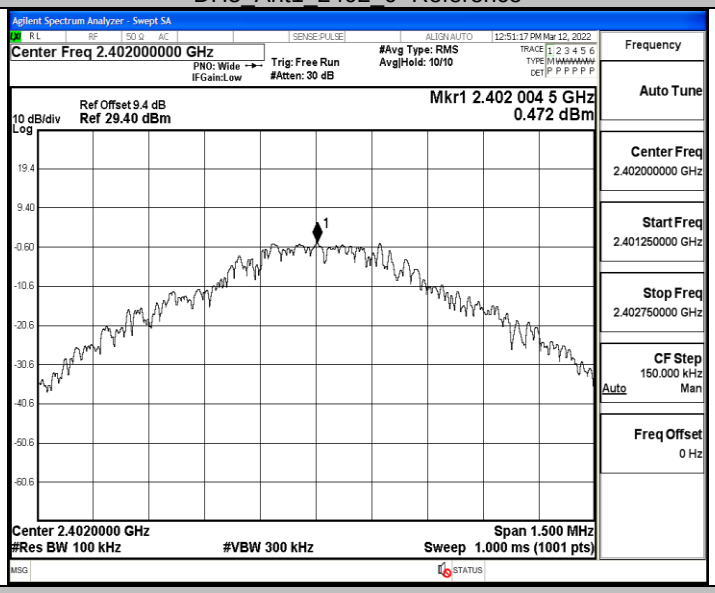
3DH5_Ant1_High_Hop_2480



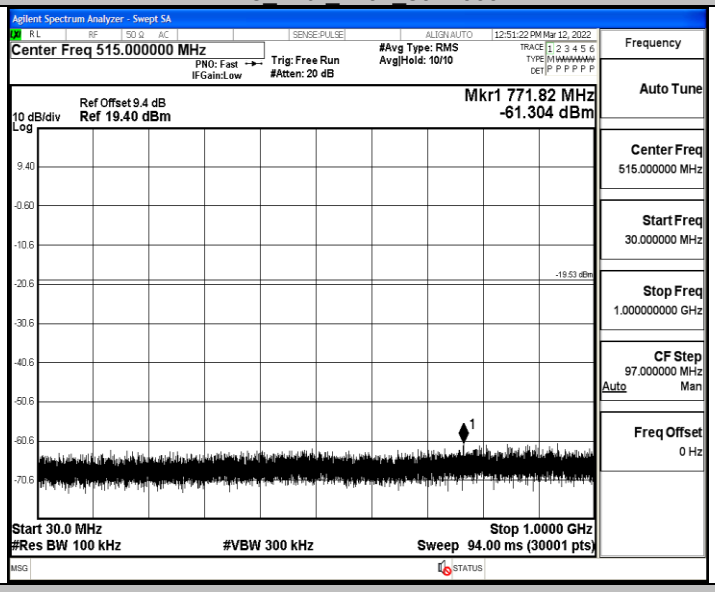
A.7 RF Conducted Spurious Emissions

Test Graph

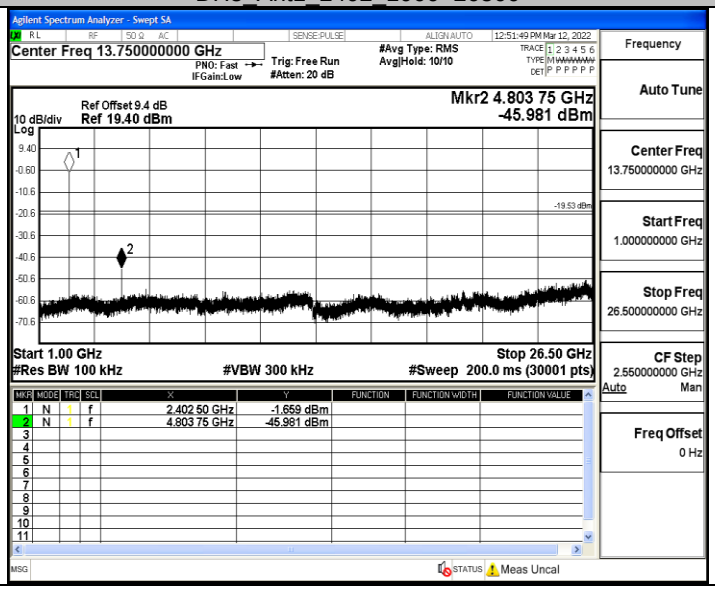
DH5_Ant1_2402_0~Reference



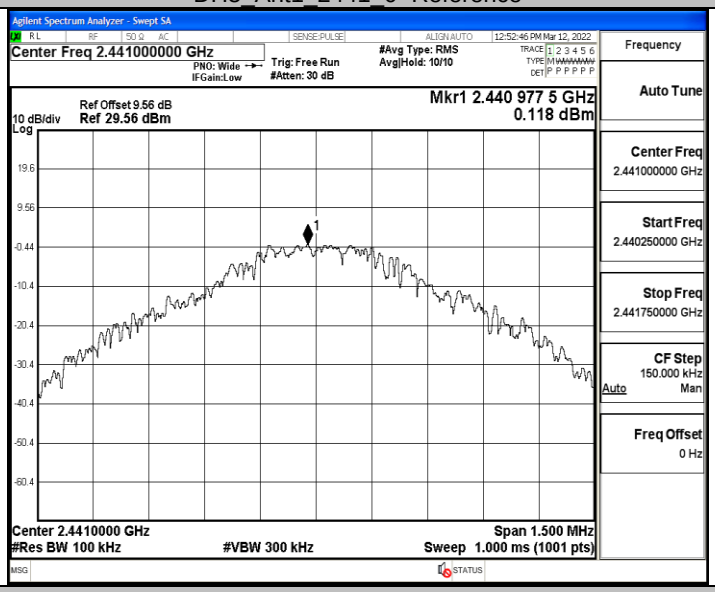
DH5_Ant1_2402_30~1000



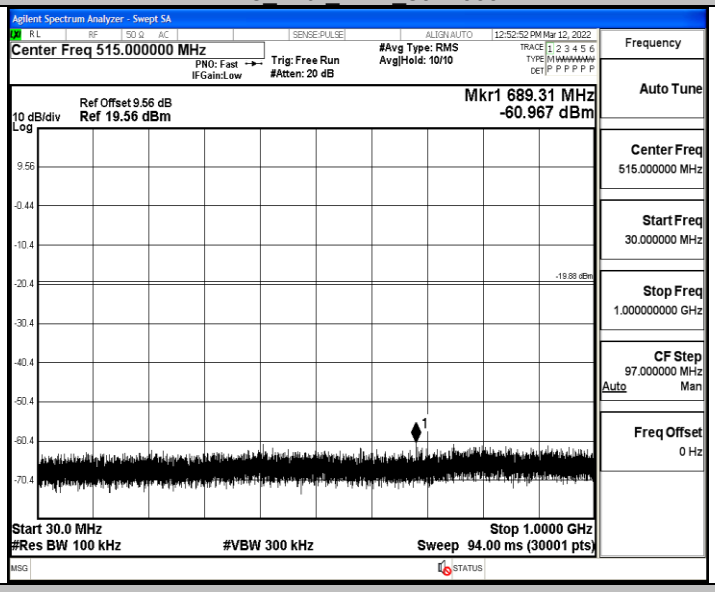
DH5_Ant1_2402_1000~26500



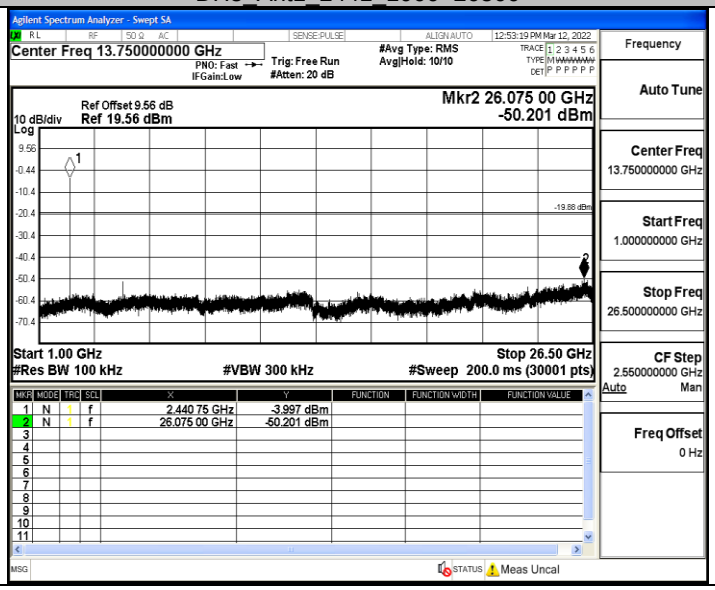
DH5_Ant1_2441_0~Reference



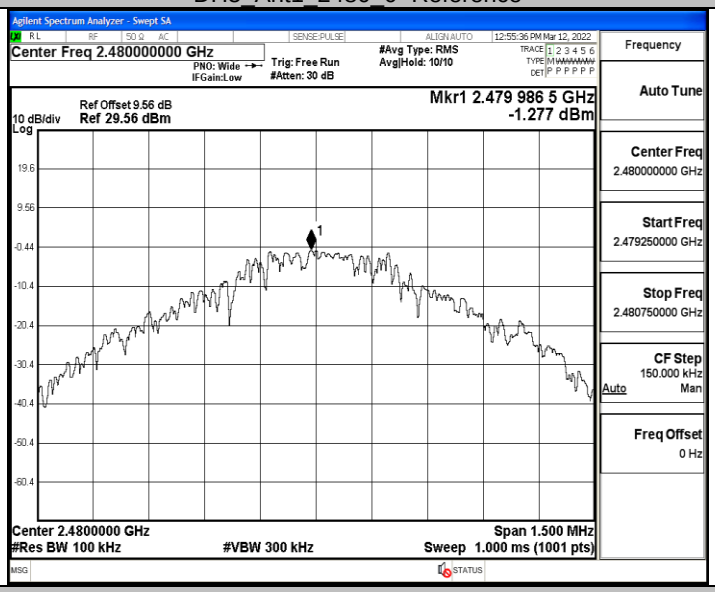
DH5_Ant1_2441_30~1000



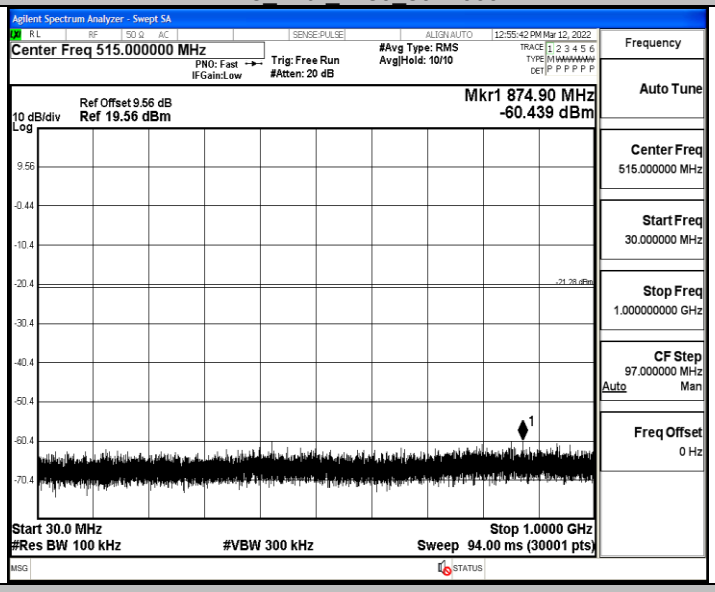
DH5_Ant1_2441_1000~26500



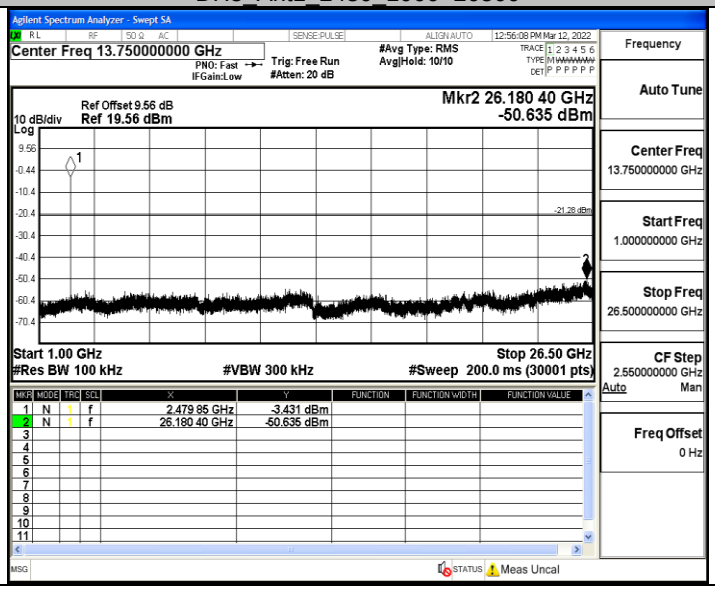
DH5_Ant1_2480_0~Reference



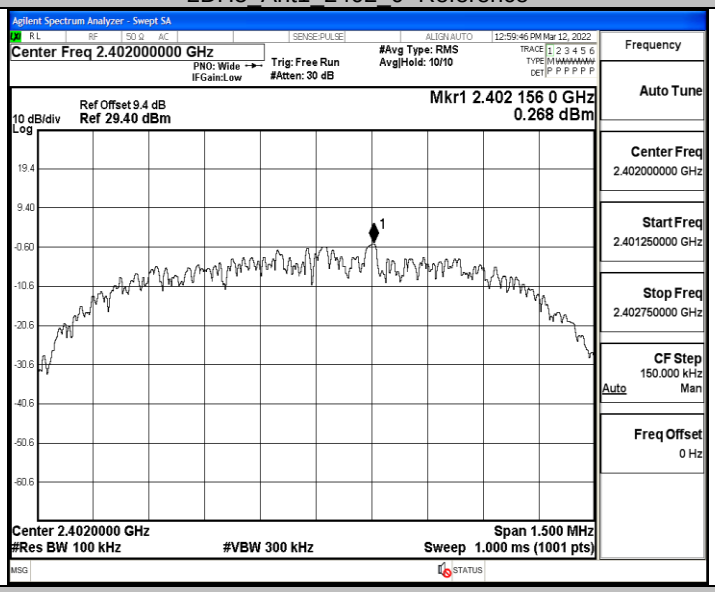
DH5_Ant1_2480_30~1000



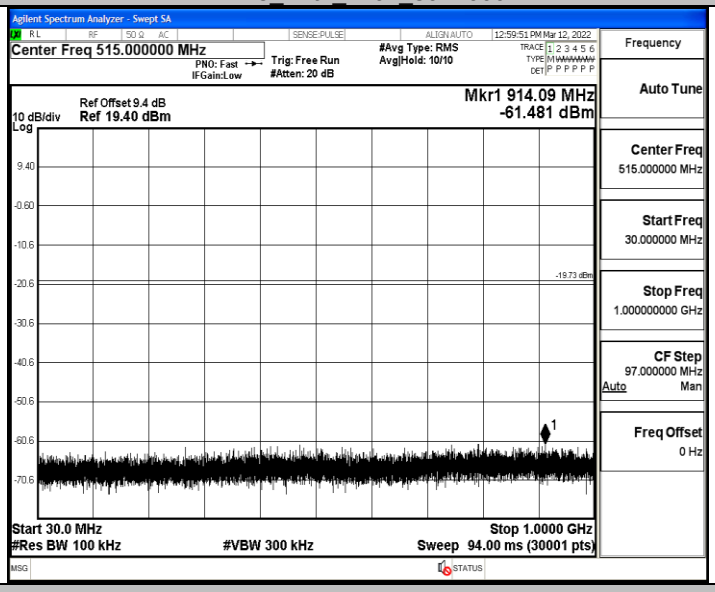
DH5_Ant1_2480_1000~26500



2DH5_Ant1_2402_0~Reference



2DH5_Ant1_2402_30~1000



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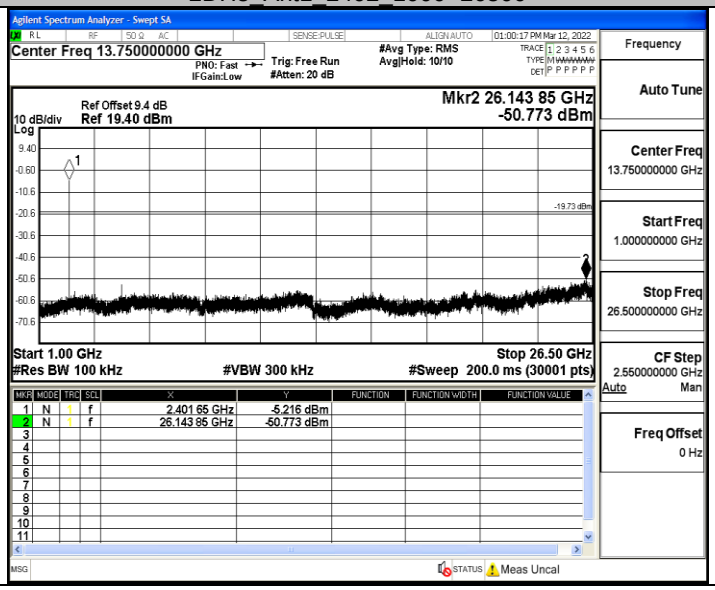

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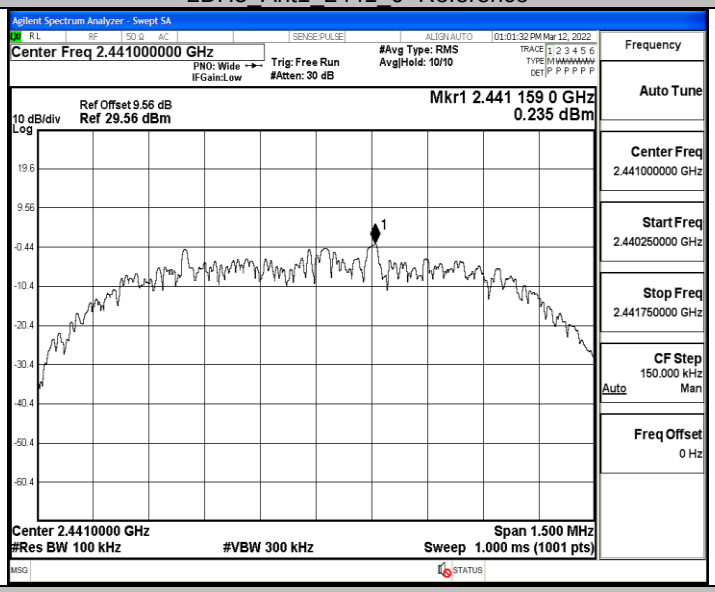

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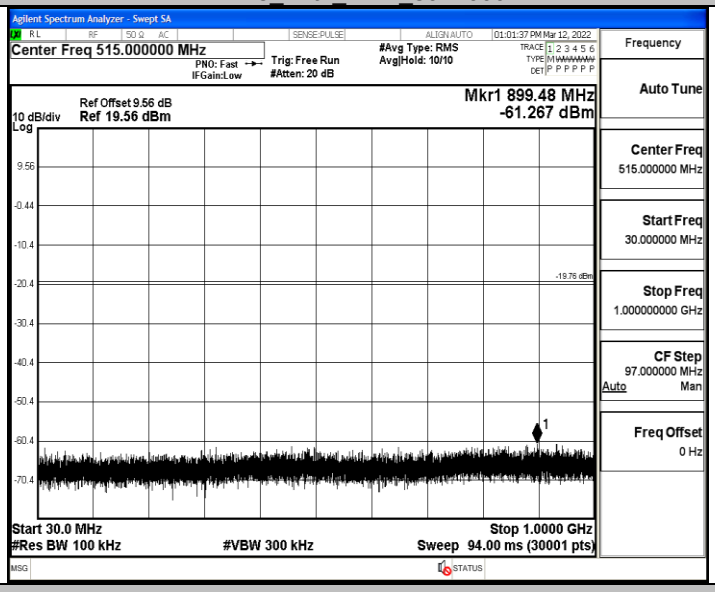
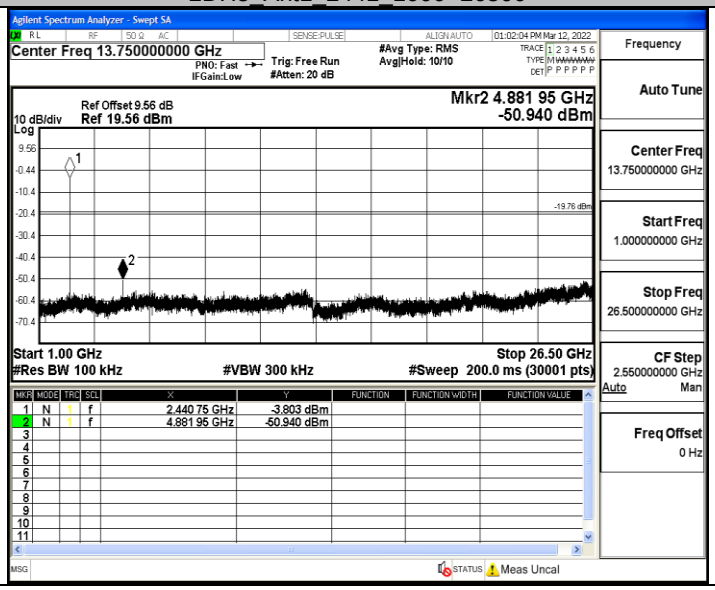


2DH5_Ant1_2441_1000~26500



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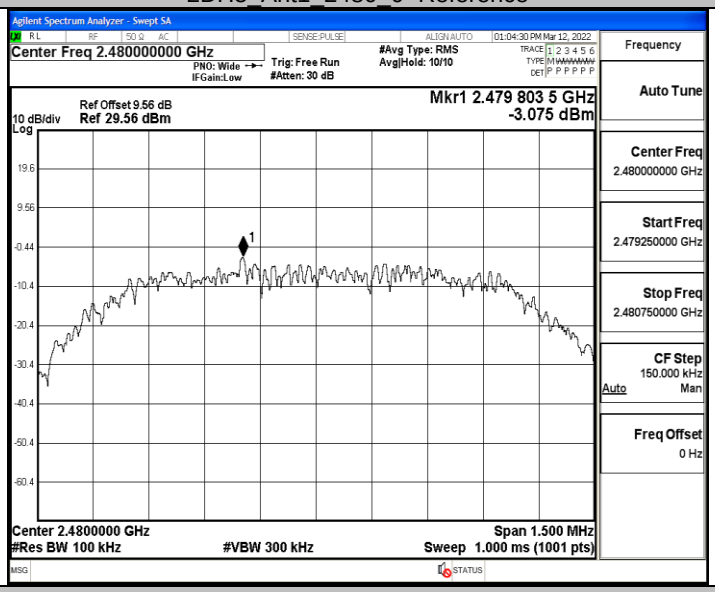

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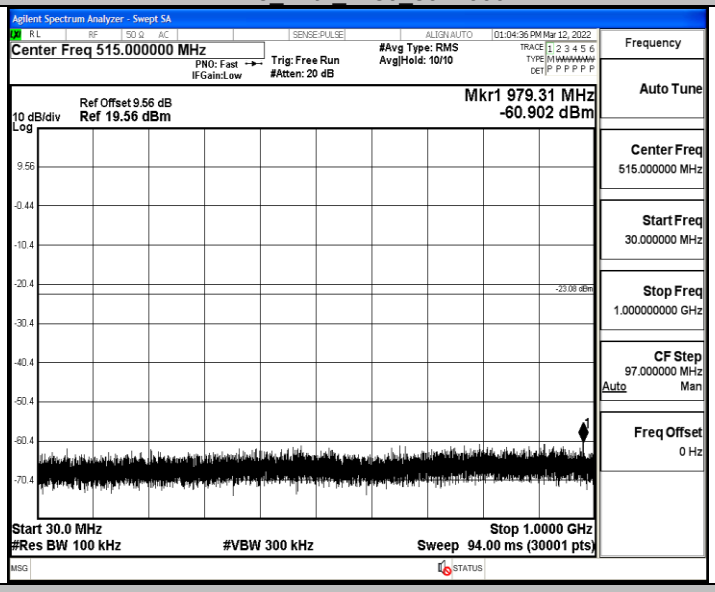
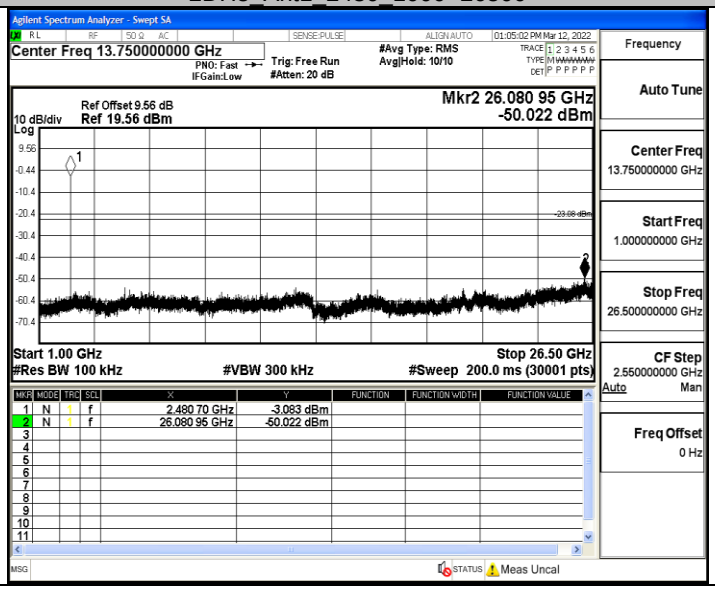
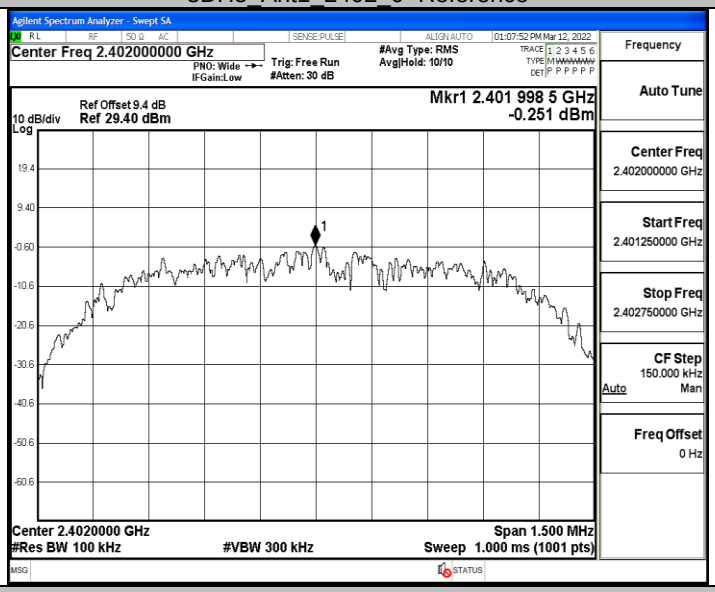


2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference



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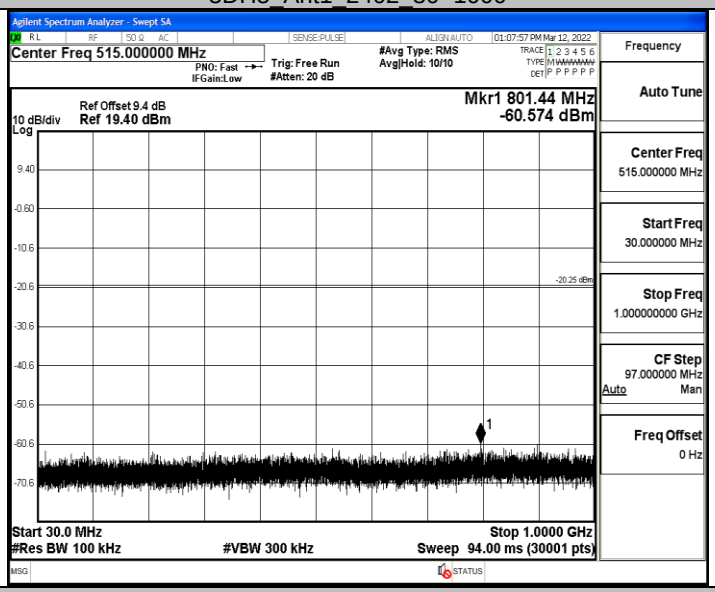

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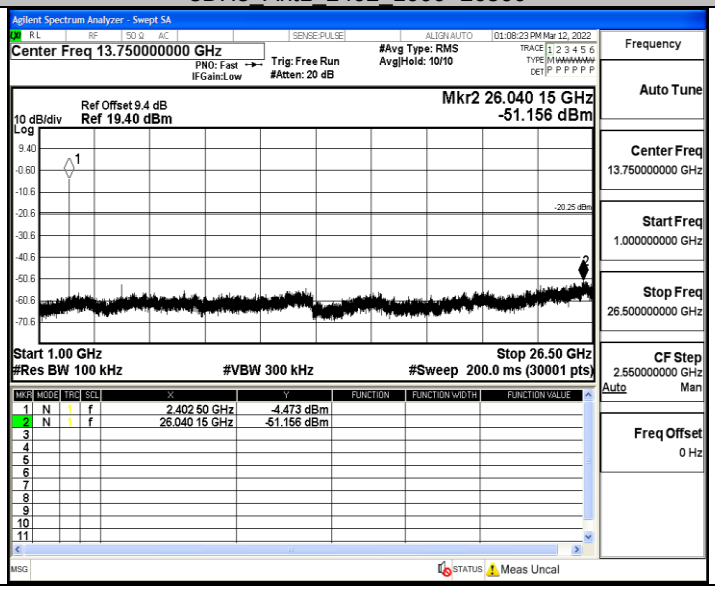
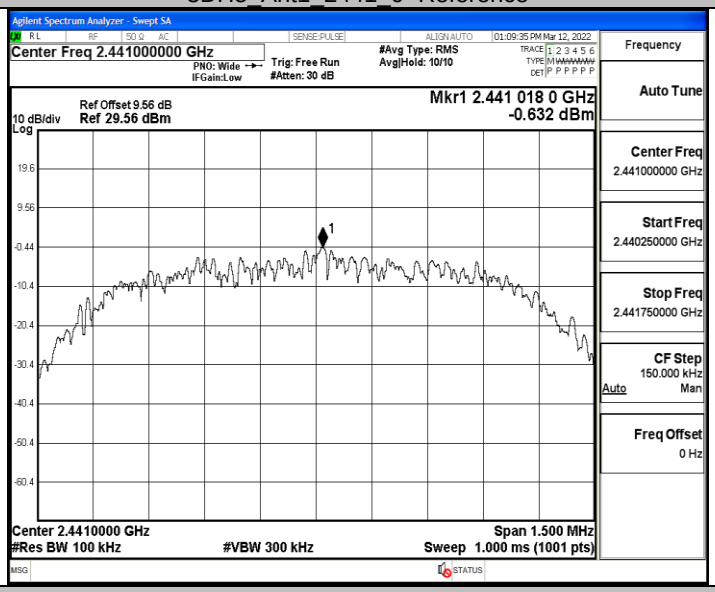
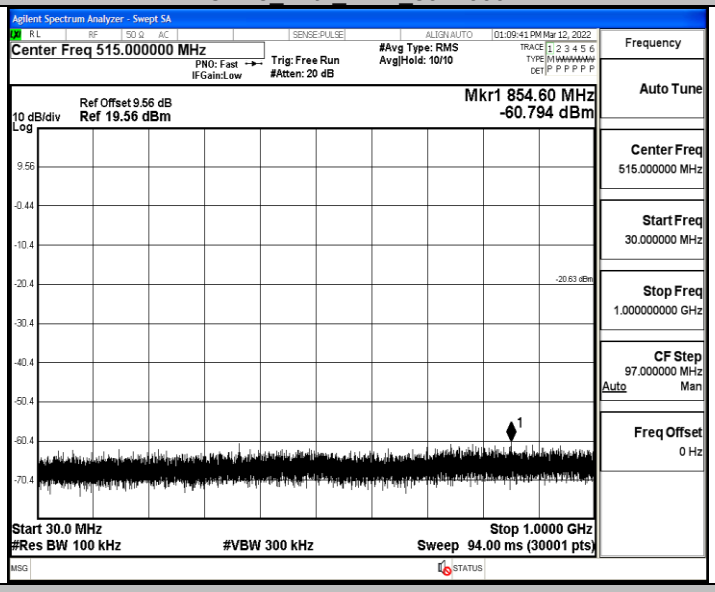


3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



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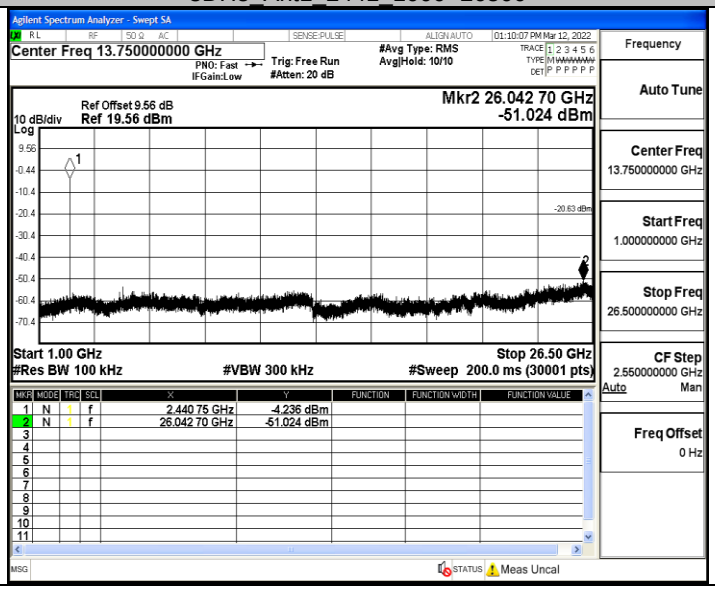

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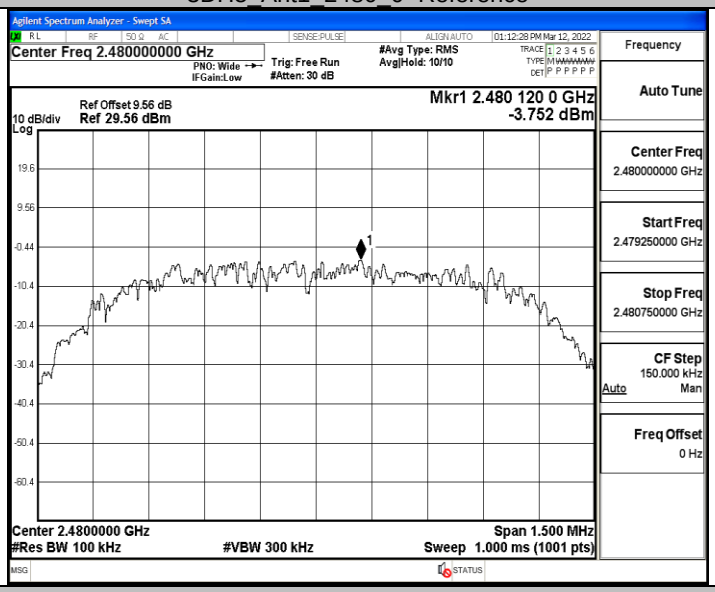
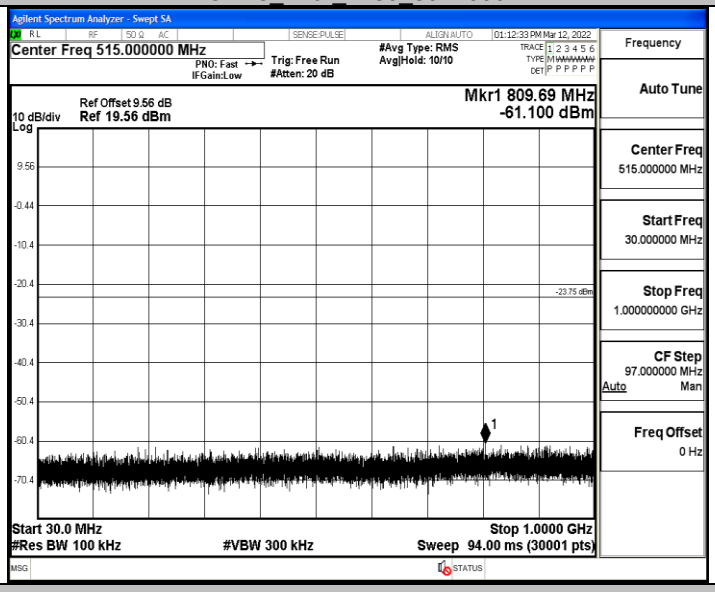


3DH5_Ant1_2480_30~1000



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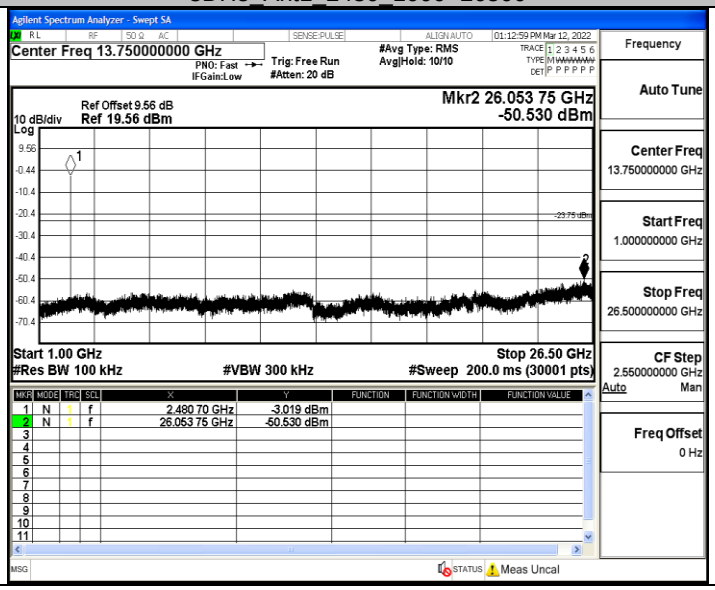


A.8 Restrict-band band-edge measurements

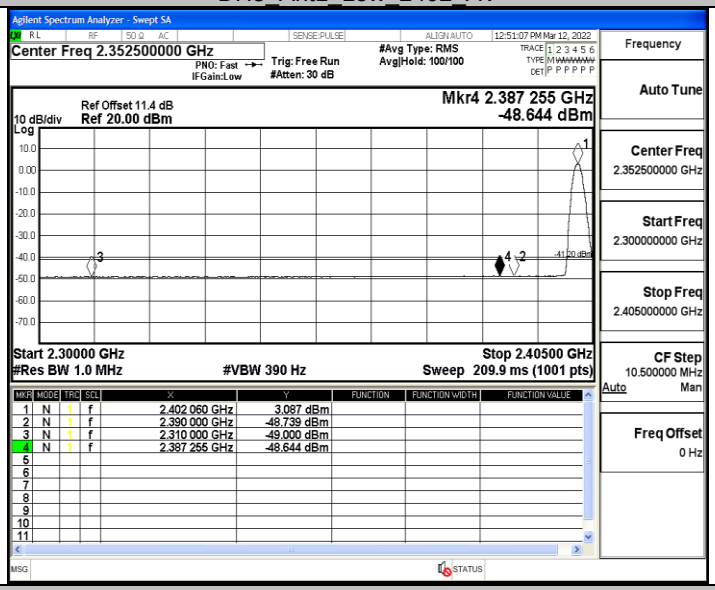
TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49	≤-41.20	PASS
				AV	2387.255	-48.64	≤-41.20	PASS
				AV	2390.000	-48.74	≤-41.20	PASS
				Peak	2310.000	-42.95	≤-21.20	PASS
				Peak	2364.260	-38.54	≤-21.20	PASS
				Peak	2390.000	-41.34	≤-21.20	PASS
		High	2480	AV	2483.500	-48.13	≤-41.20	PASS
				AV	2499.680	-47.97	≤-41.20	PASS
				AV	2500.000	-48.11	≤-41.20	PASS
				Peak	2483.500	-40.71	≤-21.20	PASS
				Peak	2486.960	-37.52	≤-21.20	PASS
				Peak	2500.000	-40.71	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.09	≤-41.20	PASS
				AV	2389.250	-48.61	≤-41.20	PASS
				AV	2390.000	-48.74	≤-41.20	PASS
				Peak	2310.000	-42.46	≤-21.20	PASS
				Peak	2329.820	-38.81	≤-21.20	PASS
				Peak	2390.000	-42.11	≤-21.20	PASS
		High	2480	AV	2483.500	-47.89	≤-41.20	PASS
				AV	2483.520	-47.89	≤-41.20	PASS
				AV	2500.000	-48.08	≤-41.20	PASS
				Peak	2483.500	-38.79	≤-21.20	PASS
				Peak	2499.520	-38.63	≤-21.20	PASS
				Peak	2500.000	-41.02	≤-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-49.01	≤-41.20	PASS
				AV	2387.675	-48.62	≤-41.20	PASS
				AV	2390.000	-48.73	≤-41.20	PASS
				Peak	2310.000	-42.62	≤-21.20	PASS
				Peak	2389.565	-38.45	≤-21.20	PASS
				Peak	2390.000	-41.44	≤-21.20	PASS
		High	2480	AV	2483.500	-47.98	≤-41.20	PASS
				AV	2496.960	-47.94	≤-41.20	PASS
				AV	2500.000	-48.03	≤-41.20	PASS
				Peak	2483.500	-40.96	≤-21.20	PASS
				Peak	2486.320	-38.29	≤-21.20	PASS
				Peak	2500.000	-41.33	≤-21.20	PASS

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.

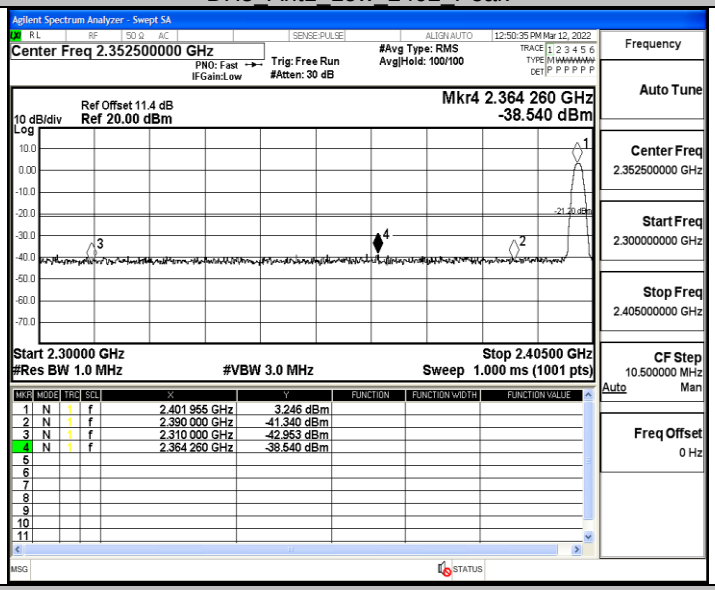
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

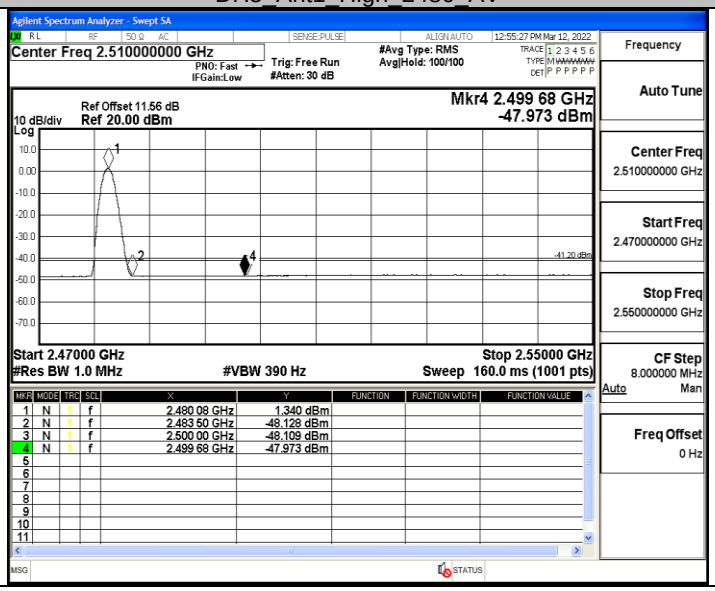
DH5_Ant1_Low_2402_AV



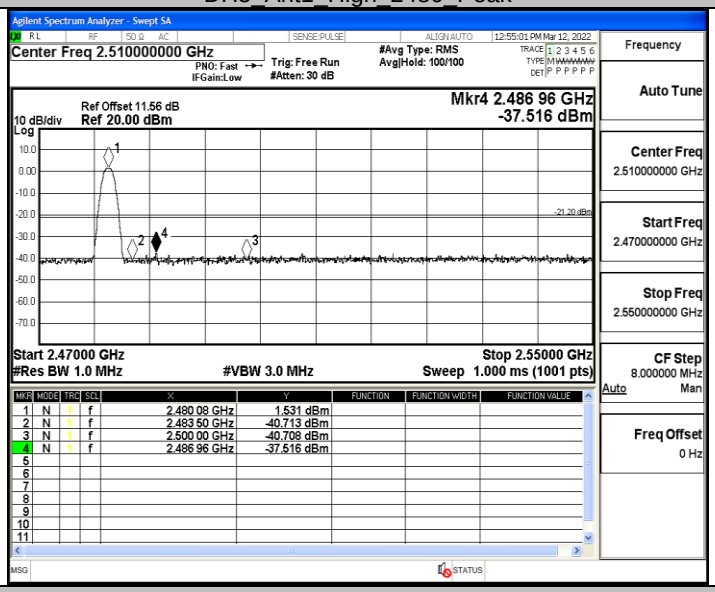
DH5_Ant1_Low_2402_Peak



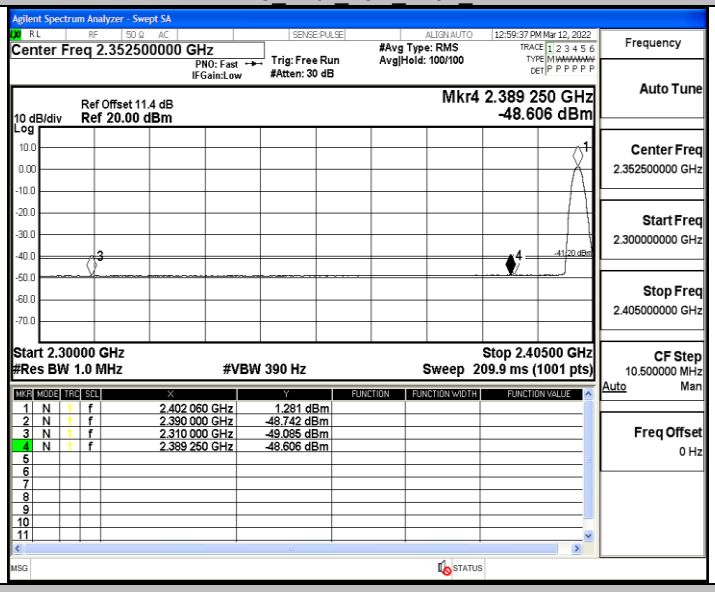
DH5_Ant1_High_2480_AV



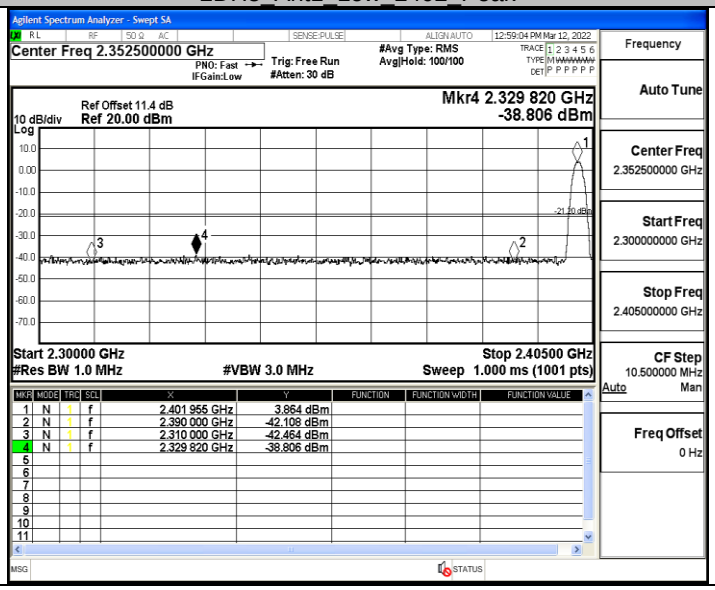
DH5_Ant1_High_2480_Peak



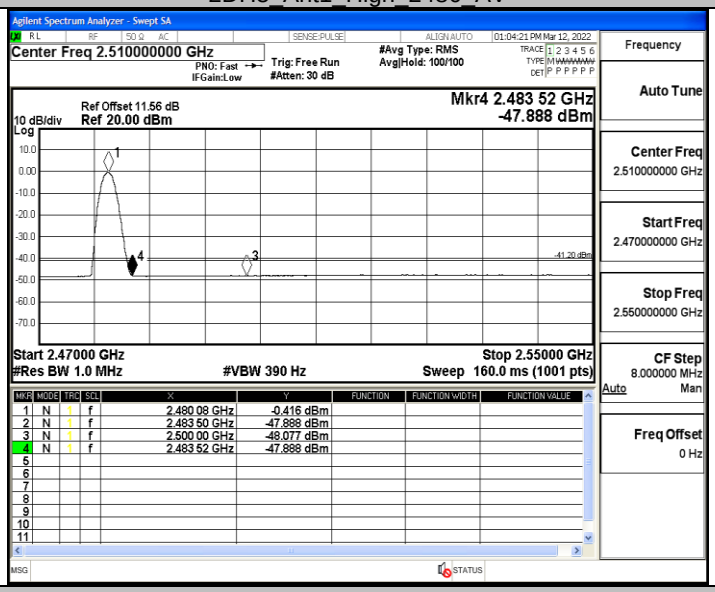
2DH5_Ant1_Low_2402_AV



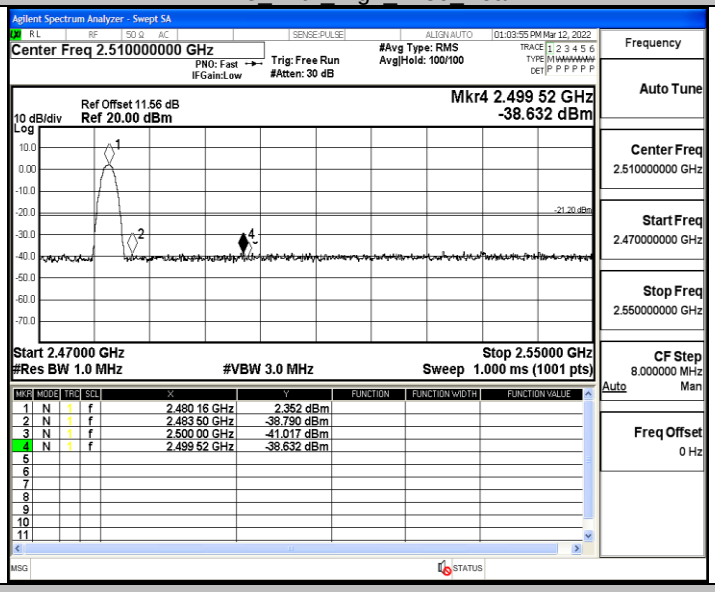
2DH5_Ant1_Low_2402_Peak



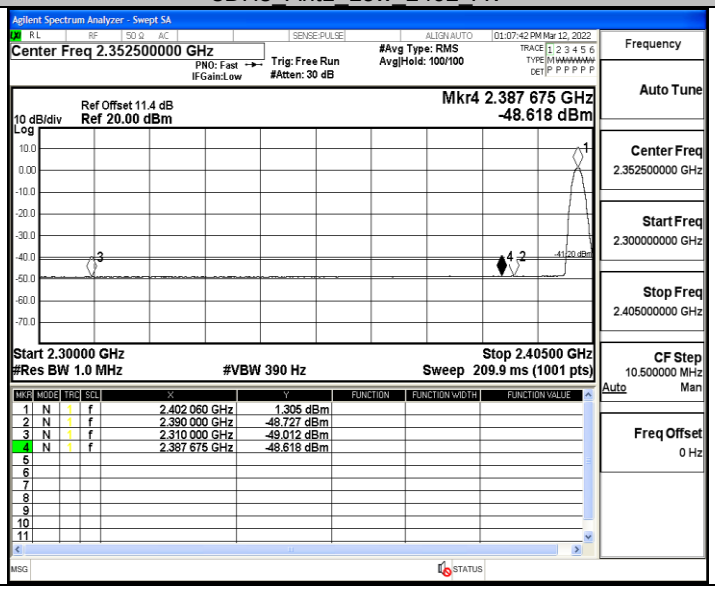
2DH5_Ant1_High_2480_AV



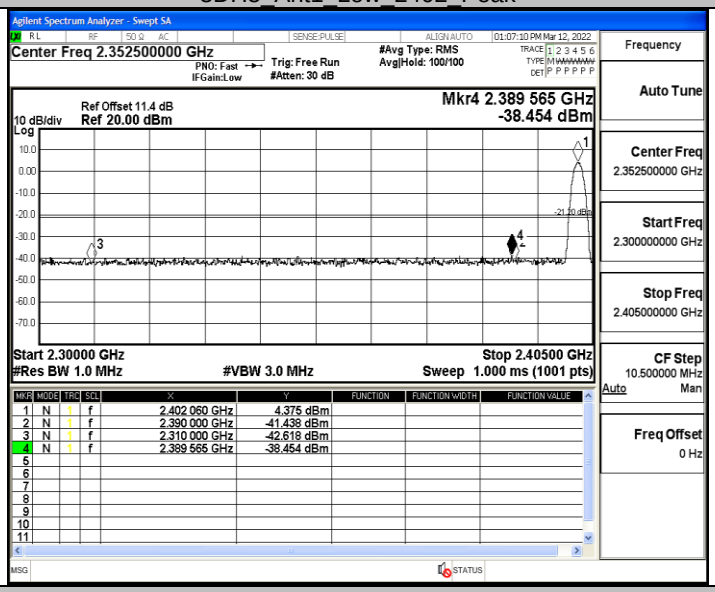
2DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak



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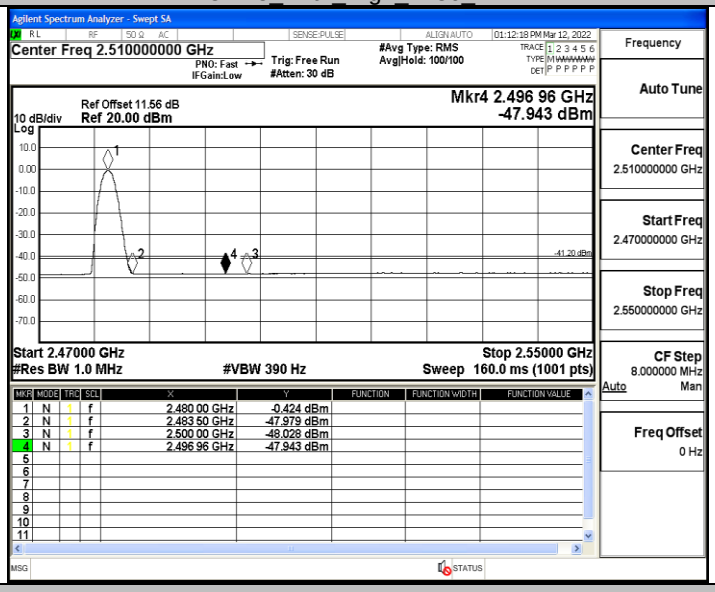

3DH5_Ant1_High_2480_Peak