



Appendix A

RF Test Data for BT V5.0 (DSS) (Conducted Measurement)

Product Name: Flex S1

Trade Mark: PISEN/Litossa/XMOBILE/AVA+/HYDRUS/Tottrro

Test Model: MF-BHD01

Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan



A.1 20dB Emission Bandwidth

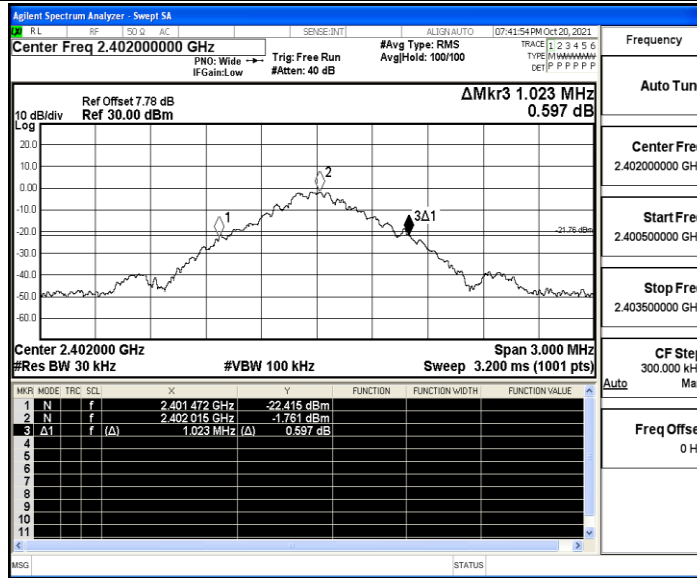
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.023	2401.472	2402.495	---	PASS
		2441	1.029	2440.475	2441.504	---	PASS
		2480	0.963	2479.532	2480.495	---	PASS
2DH5	Ant1	2402	1.290	2401.364	2402.654	---	PASS
		2441	1.329	2440.337	2441.666	---	PASS
		2480	1.338	2479.328	2480.666	---	PASS
3DH5	Ant1	2402	1.311	2401.346	2402.657	---	PASS
		2441	1.296	2440.352	2441.648	---	PASS
		2480	1.284	2479.352	2480.636	---	PASS

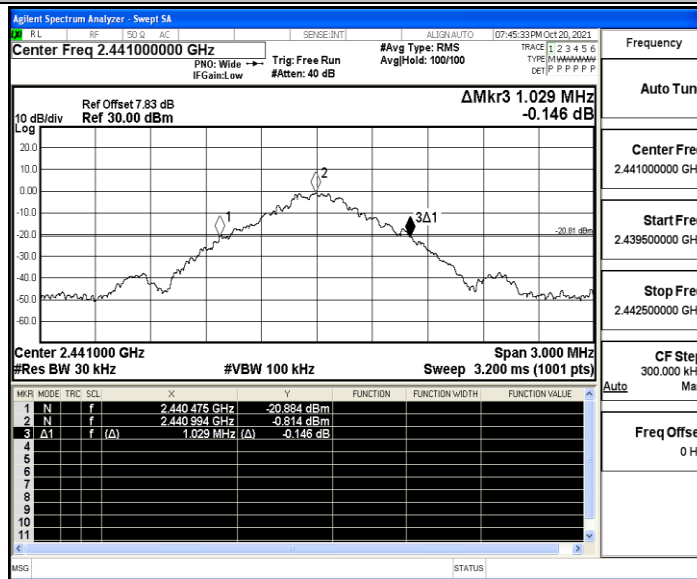


Test Graphs

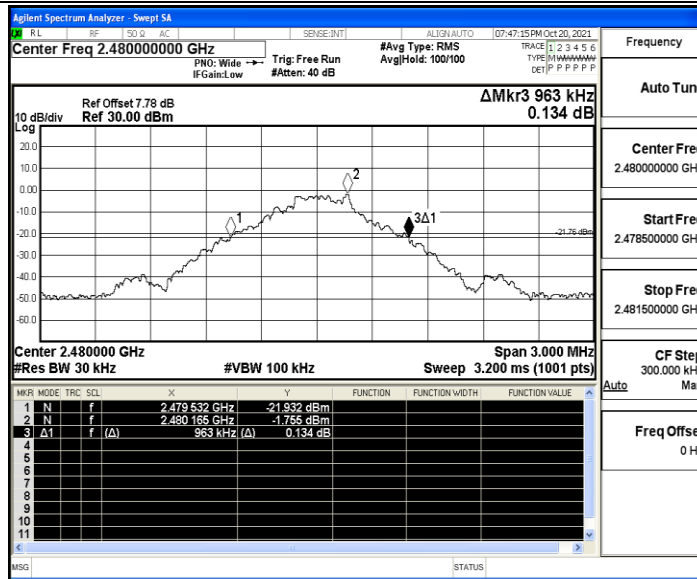
DH5_Ant1_2402



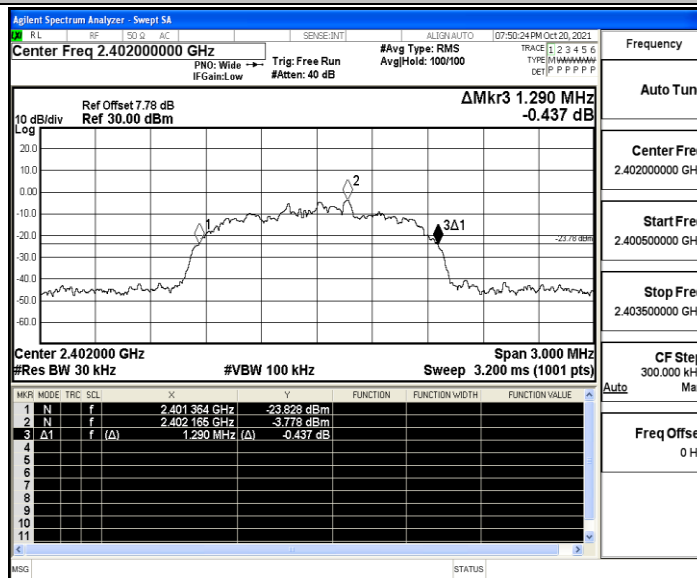
DH5_Ant1_2441



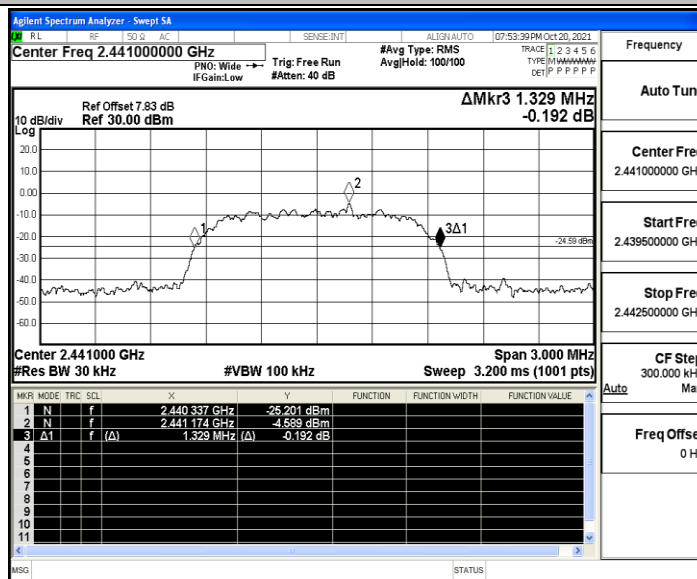
DH5_Ant1_2480



2DH5_Ant1_2402

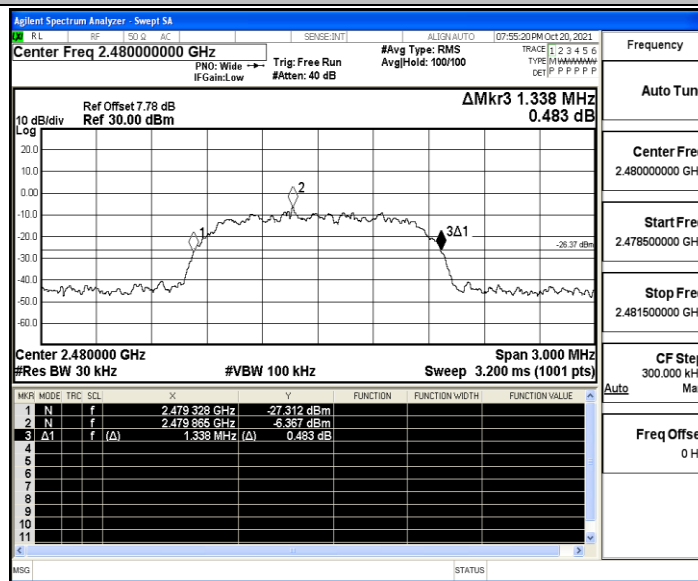


2DH5_Ant1_2441

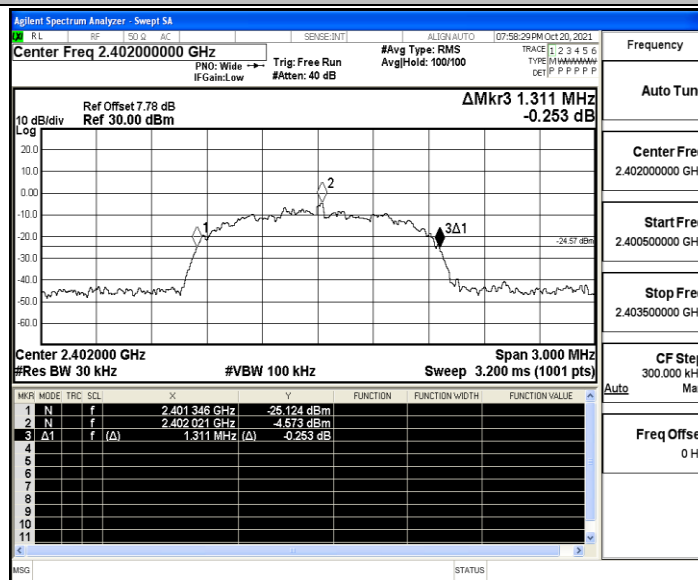




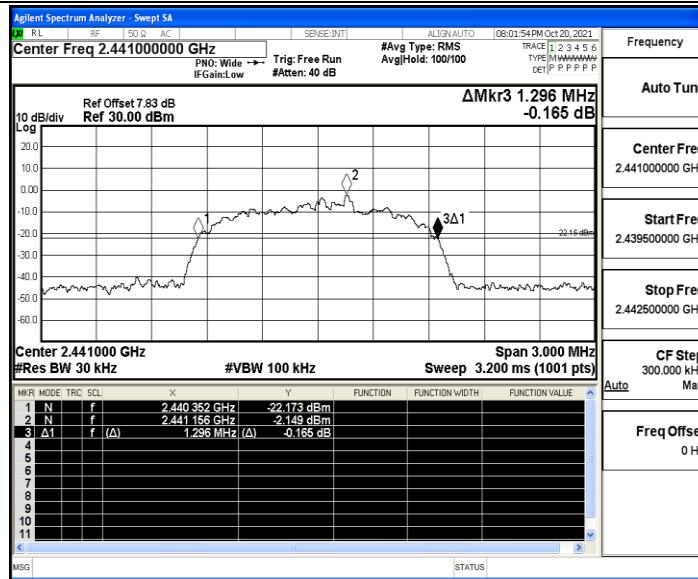
2DH5_Ant1_2480



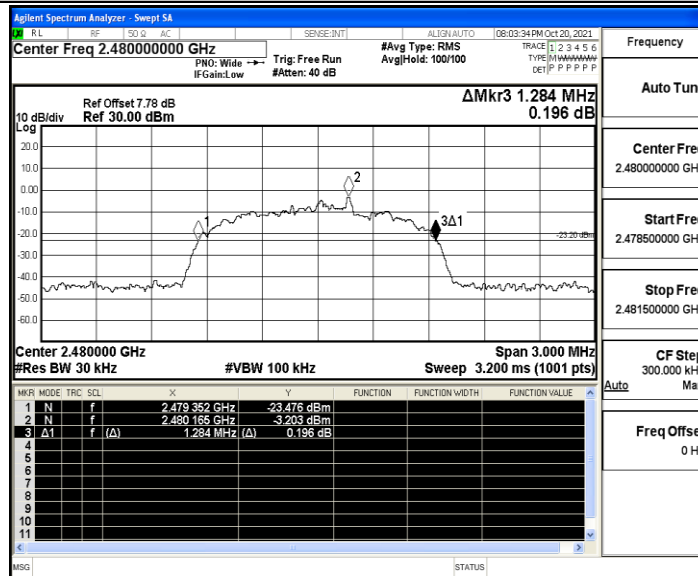
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.2 Maximum peak conducted output power

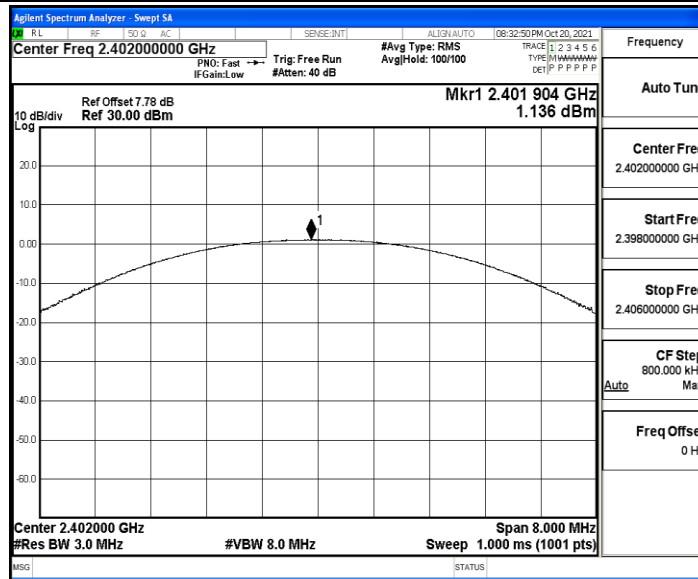
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.14	≤ 20.97	PASS
		2441	2.30	≤ 20.97	PASS
		2480	0.89	≤ 20.97	PASS
2DH5	Ant1	2402	0.25	≤ 20.97	PASS
		2441	1.35	≤ 20.97	PASS
		2480	-0.03	≤ 20.97	PASS
3DH5	Ant1	2402	0.38	≤ 20.97	PASS
		2441	1.55	≤ 20.97	PASS
		2480	0.23	≤ 20.97	PASS

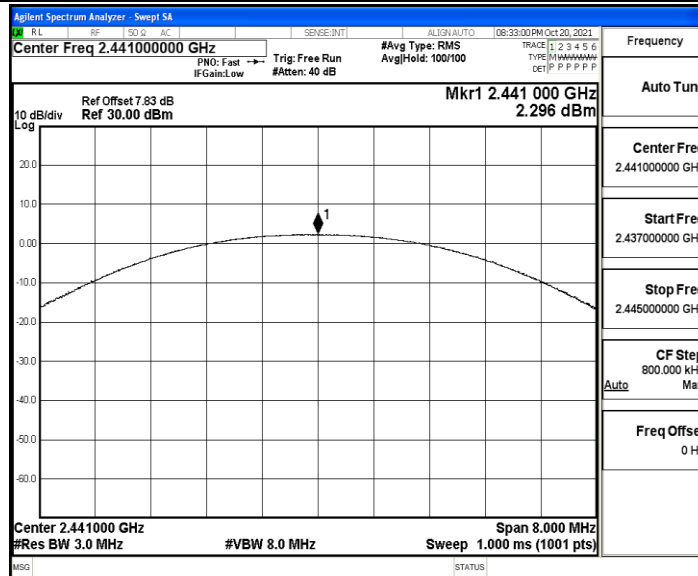


Test Graphs

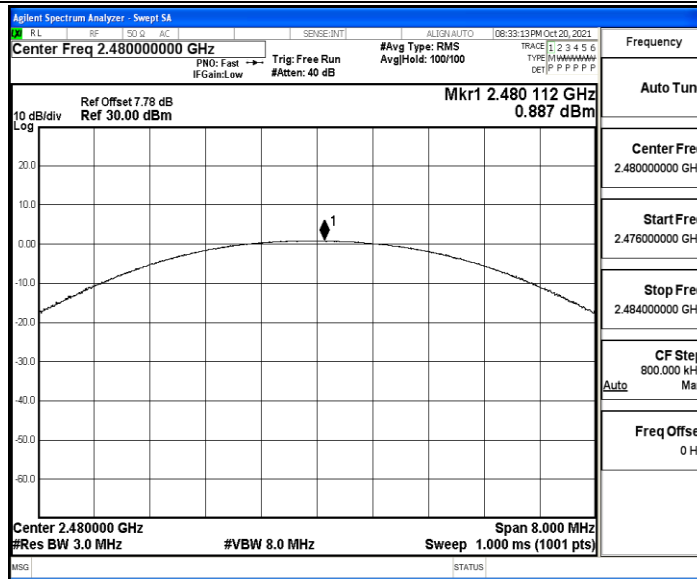
DH5_Ant1_2402



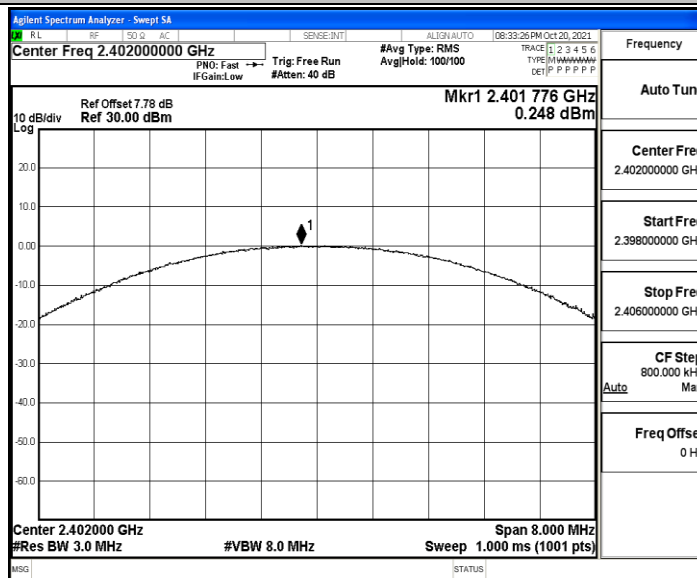
DH5_Ant1_2441



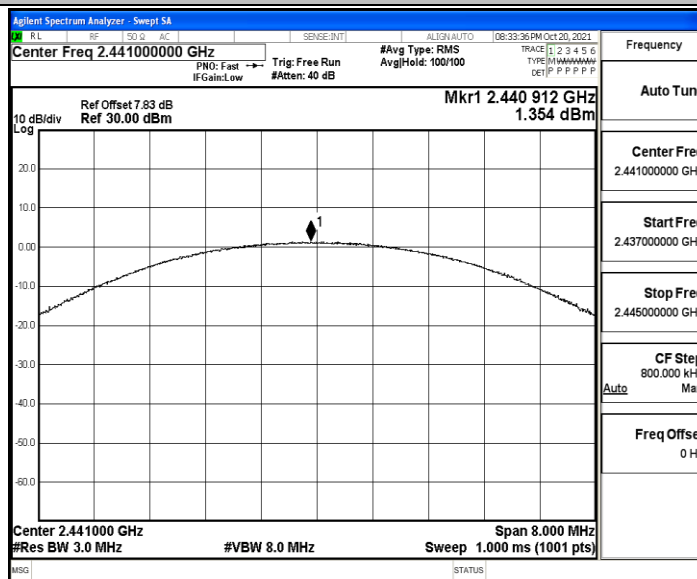
DH5_Ant1_2480



2DH5_Ant1_2402

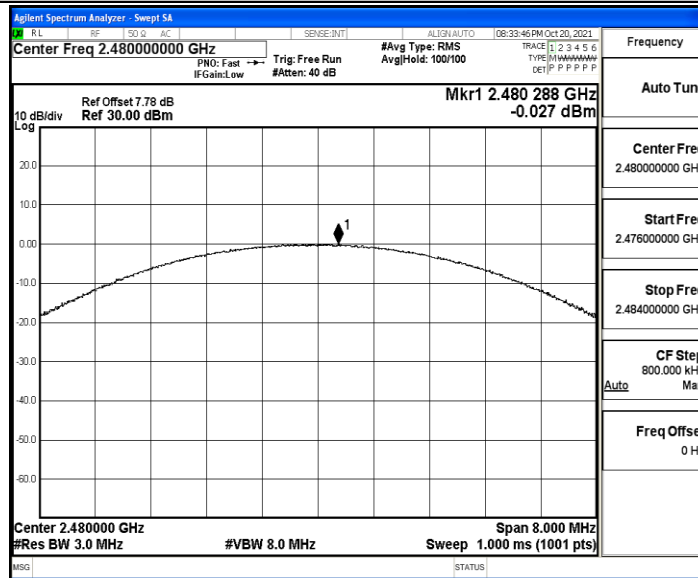


2DH5_Ant1_2441

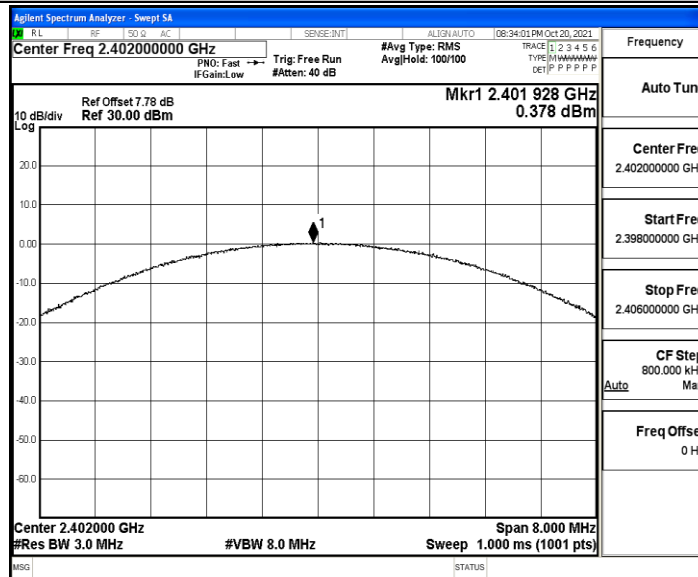




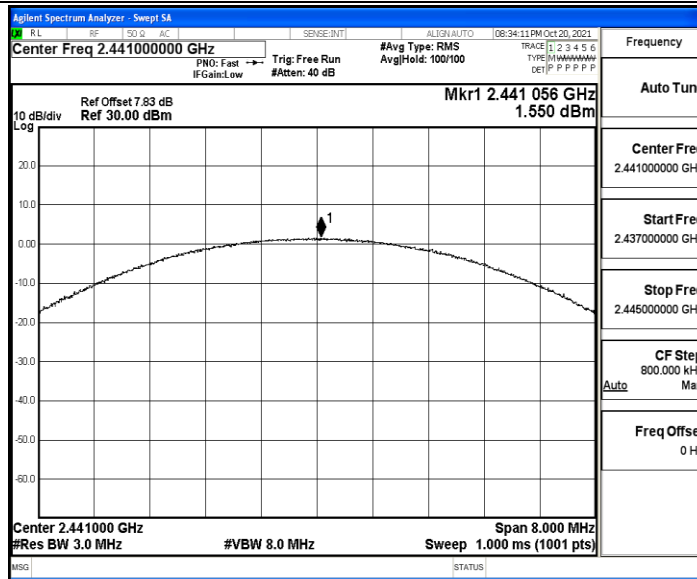
2DH5_Ant1_2480



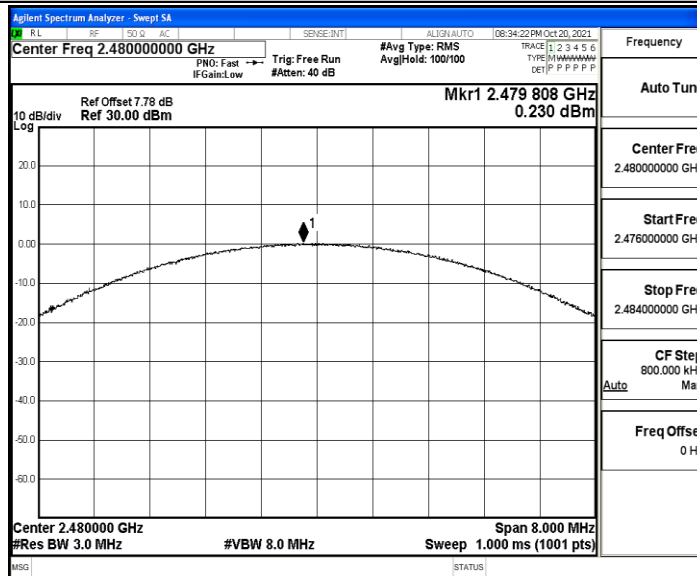
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.3 Carrier frequency separation

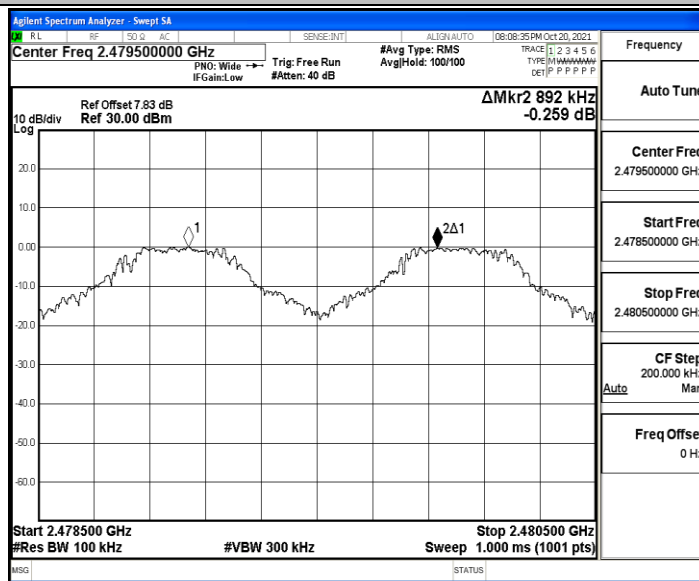
Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.892	≥ 0.642	PASS
2DH5	Ant1	Hop	1.298	≥ 0.860	PASS
3DH5	Ant1	Hop	0.962	≥ 0.856	PASS

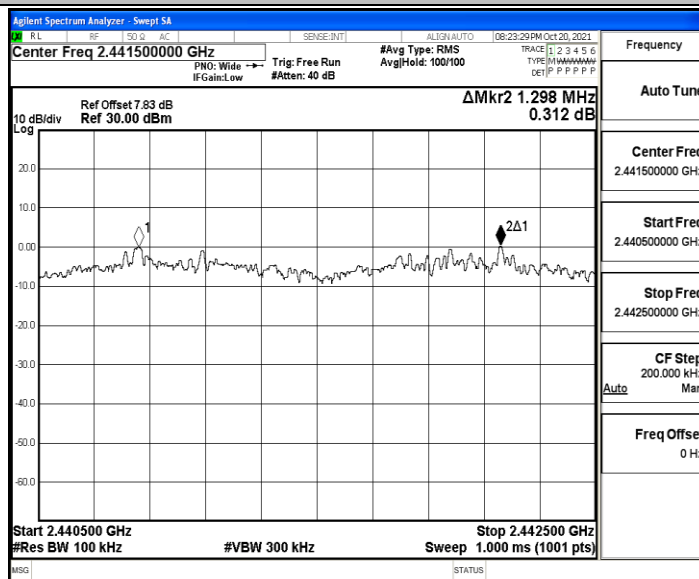


Test Graphs

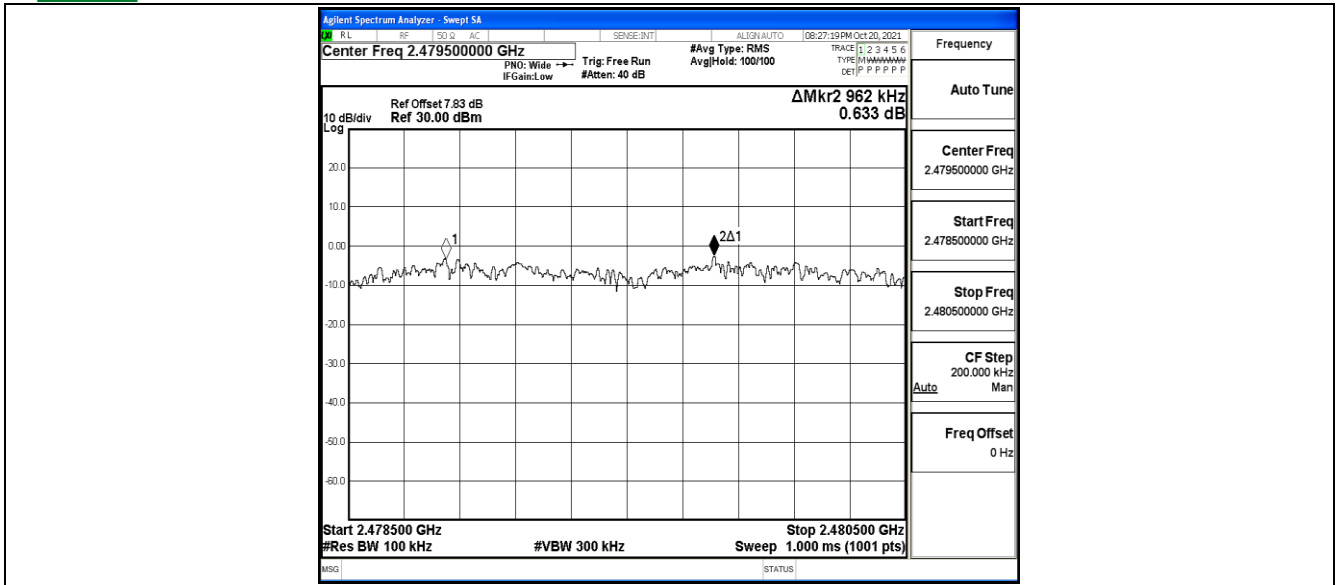
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





A.4 Time of occupancy

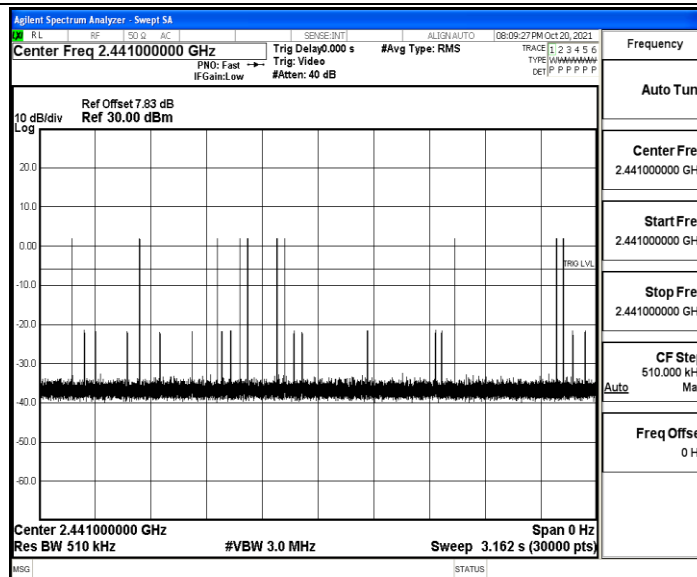
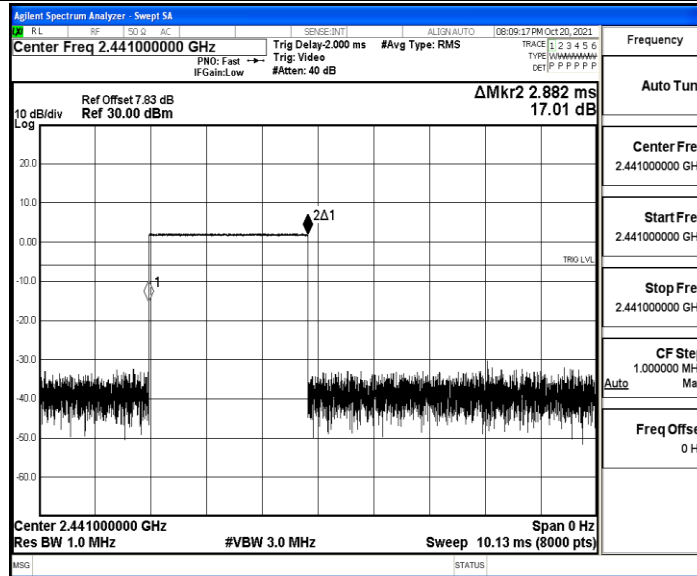
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS
2DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS
3DH5	Ant1	Hop	2.89	120	0.347	≤0.4	PASS

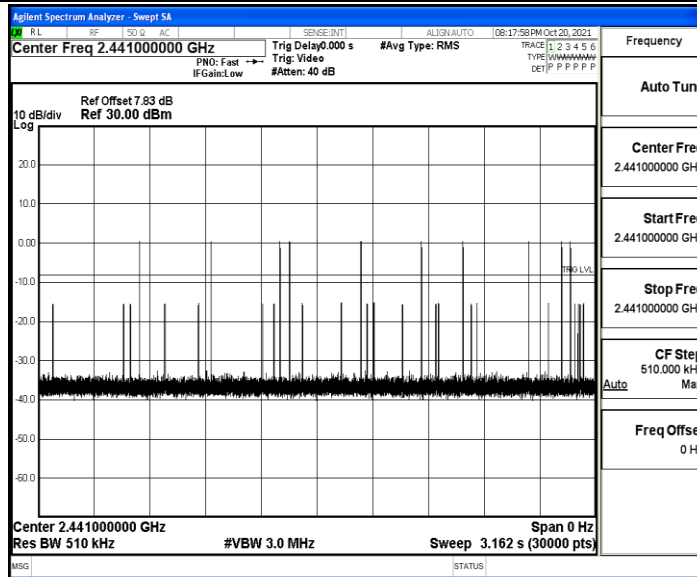
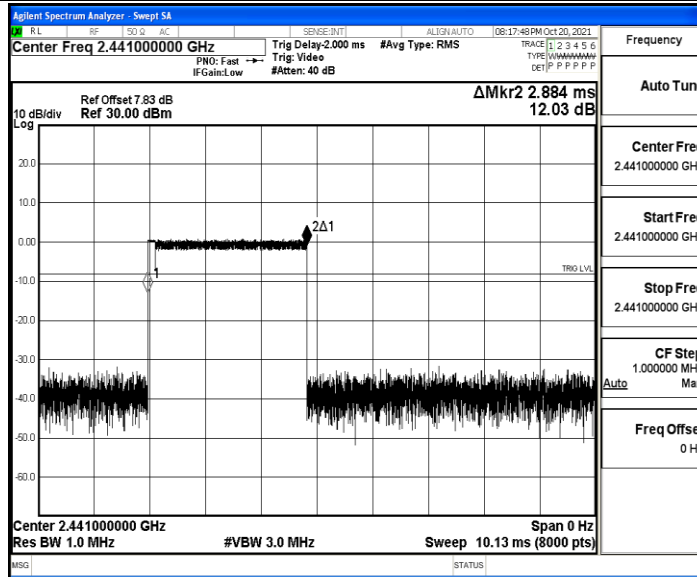


Test Graphs

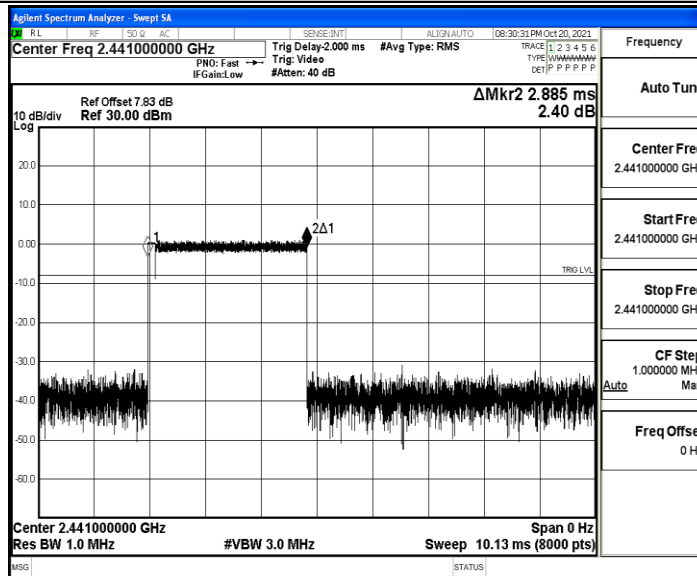
DH5_Ant1_Hop

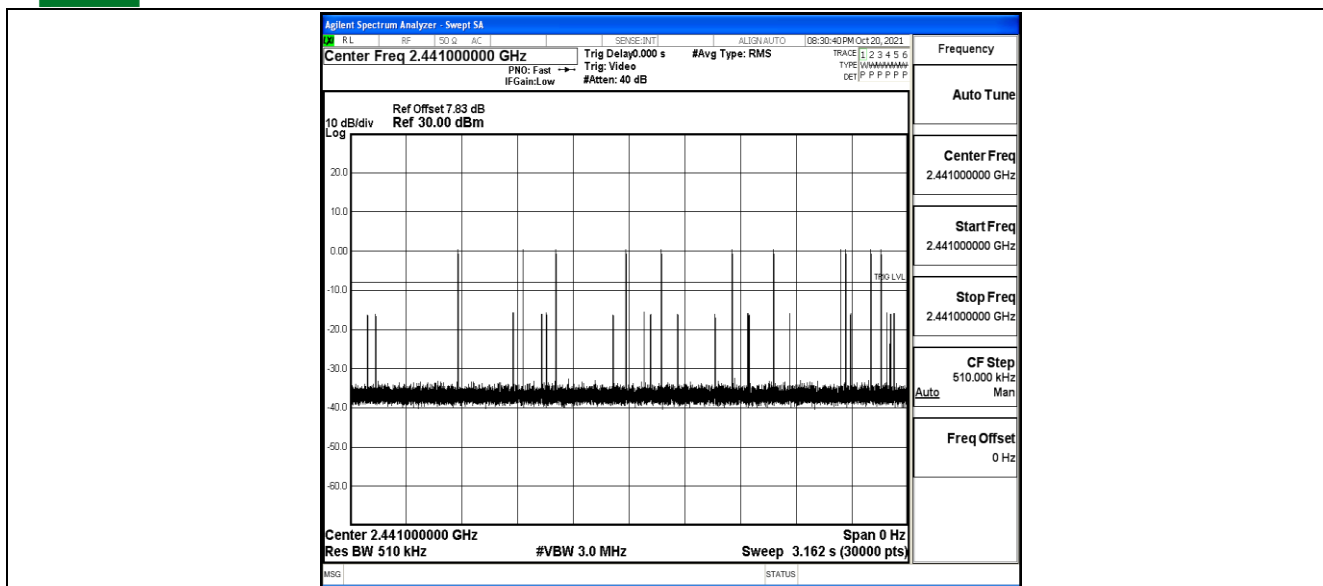


2DH5_Ant1_Hop



3DH5_Ant1_Hop







A.5 Number of hopping channels

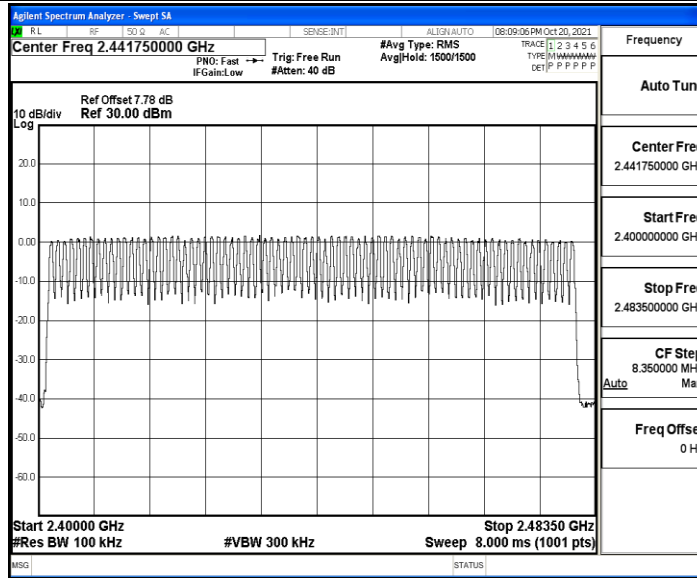
Test Result

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

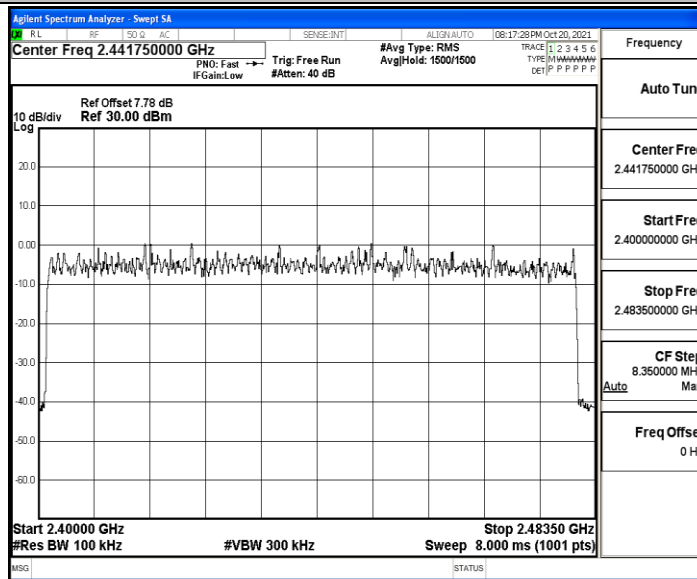


Test Graphs

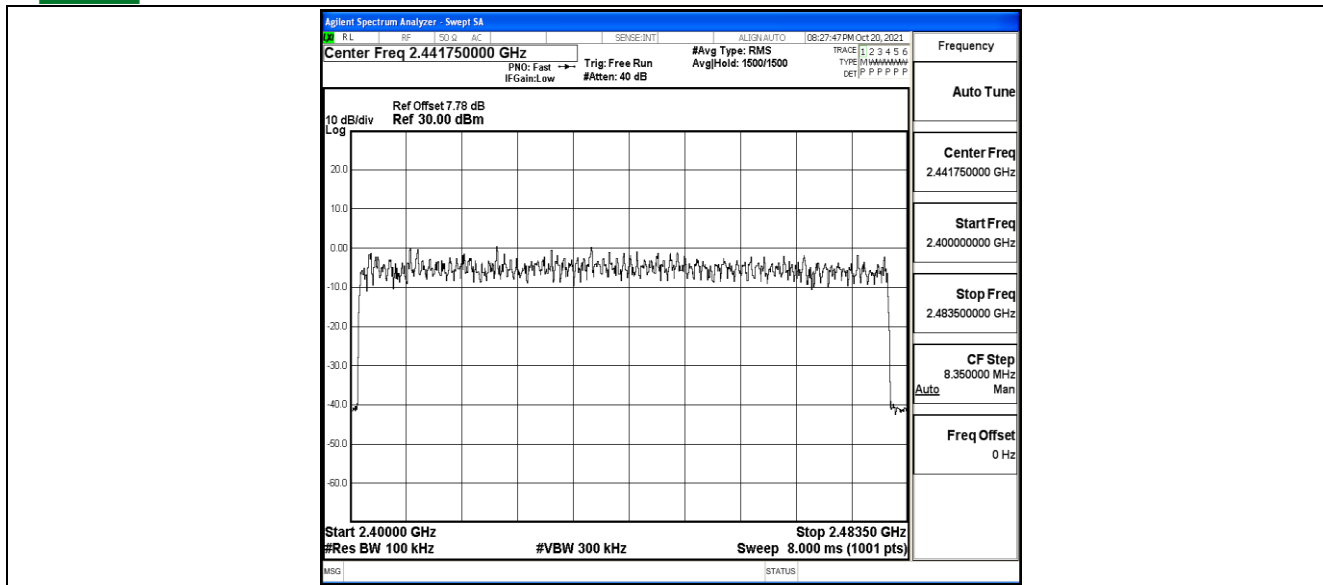
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





A.6 Band edge measurements

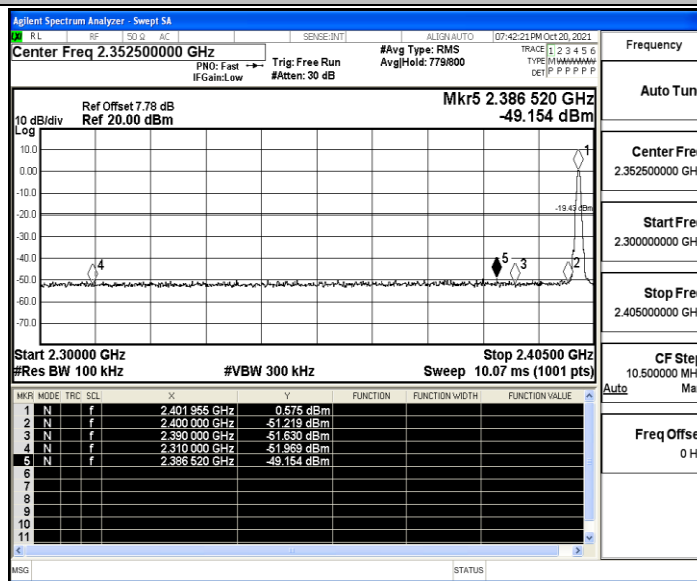
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.58	-49.15	≤ -19.43	PASS
		High	2480	0.44	-48.88	≤ -19.57	PASS
		Low	Hop_2402	0.57	-49.66	≤ -19.43	PASS
		High	Hop_2480	0.92	-47.74	≤ -19.09	PASS
2DH5	Ant1	Low	2402	-1.36	-49.09	≤ -21.36	PASS
		High	2480	-1.14	-48.66	≤ -21.14	PASS
		Low	Hop_2402	-0.92	-50.02	≤ -20.92	PASS
		High	Hop_2480	-2.19	-48.39	≤ -22.19	PASS
3DH5	Ant1	Low	2402	-1.18	-49.53	≤ -21.18	PASS
		High	2480	-1.16	-48.45	≤ -21.16	PASS
		Low	Hop_2402	-0.13	-49.69	≤ -20.13	PASS
		High	Hop_2480	-0.58	-48.86	≤ -20.58	PASS

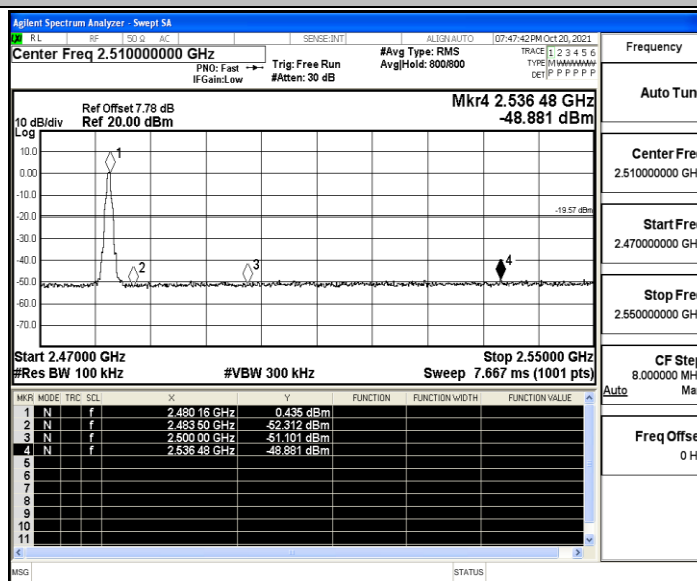


Test Graphs

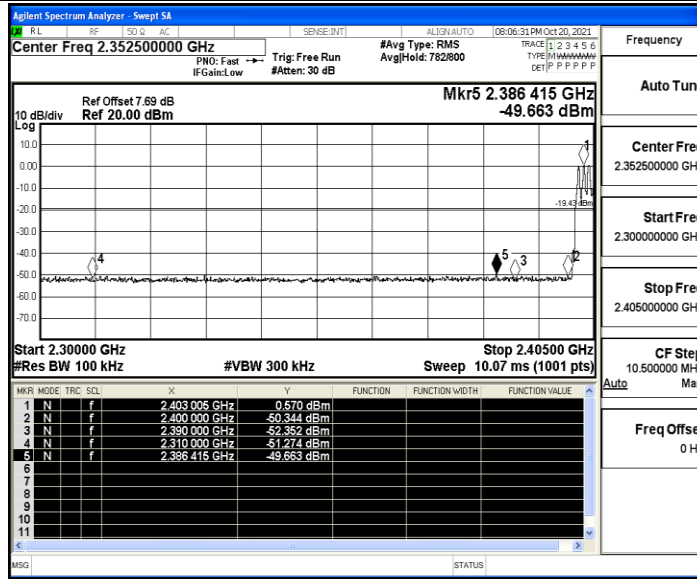
DH5_Ant1_Low_2402



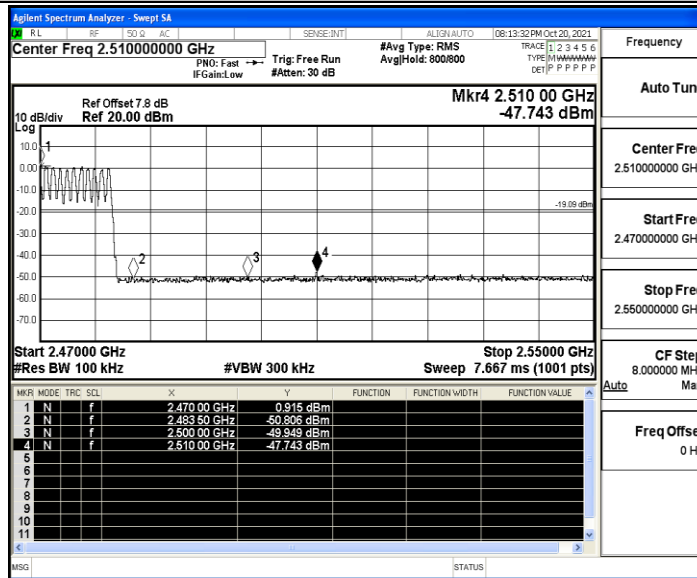
DH5_Ant1_High_2480



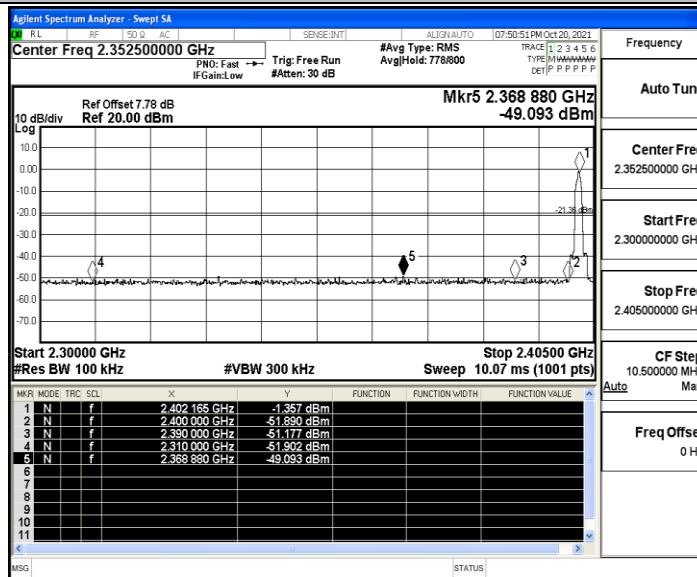
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

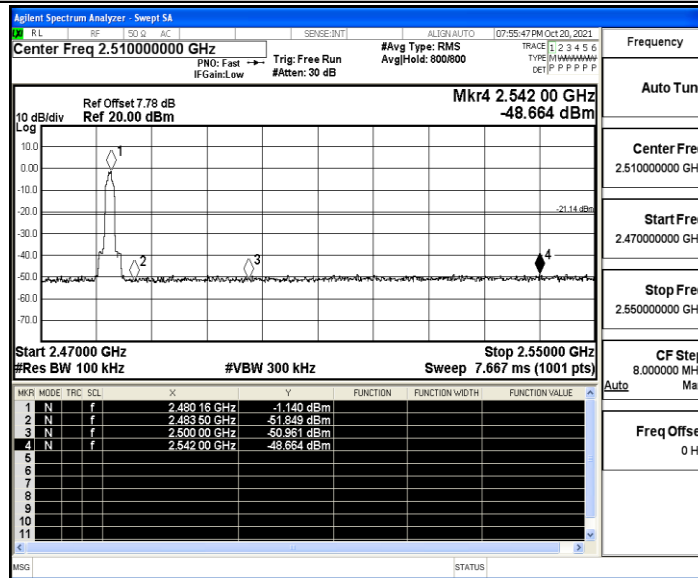


2DH5_Ant1_Low_2402

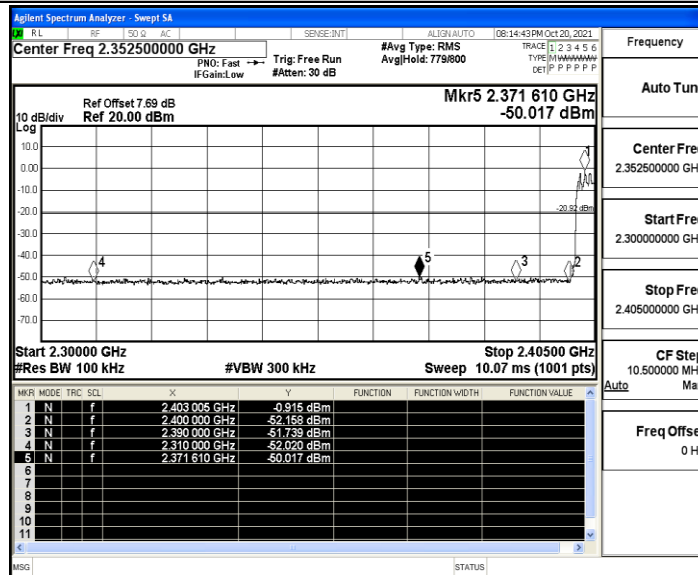




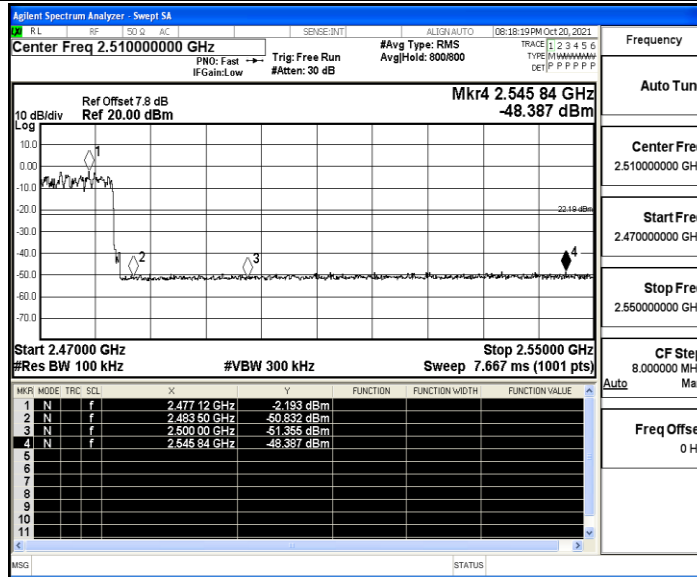
2DH5_Ant1_High_2480



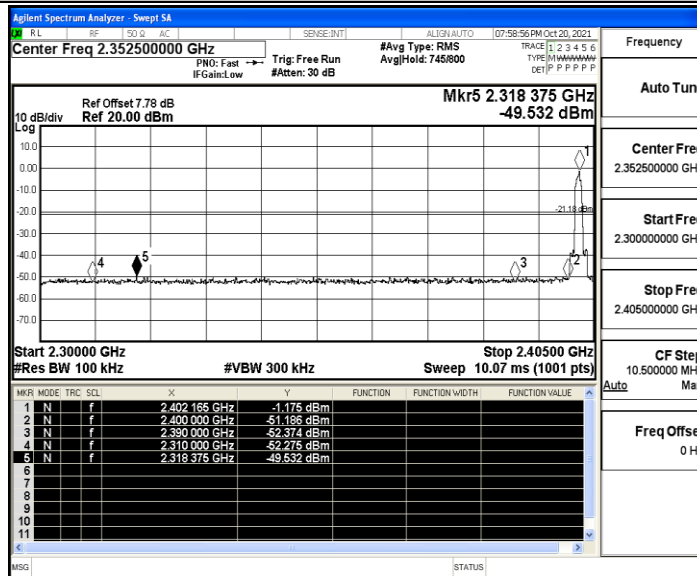
2DH5_Ant1_Low_Hop_2402



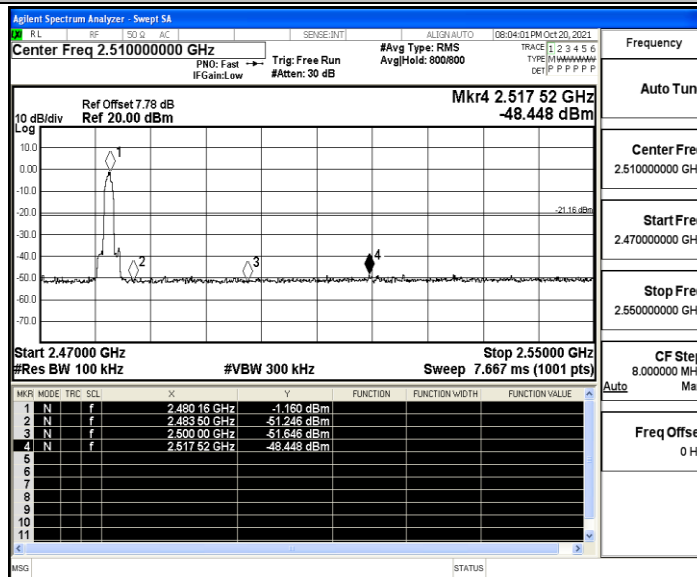
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

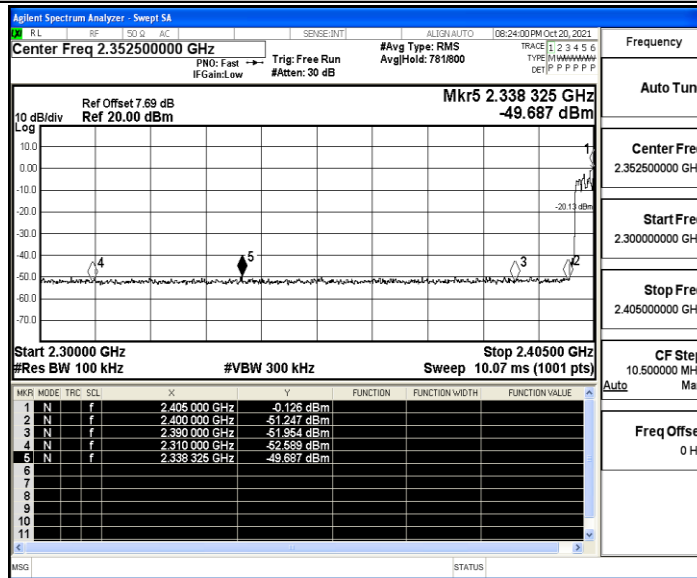


3DH5_Ant1_High_2480

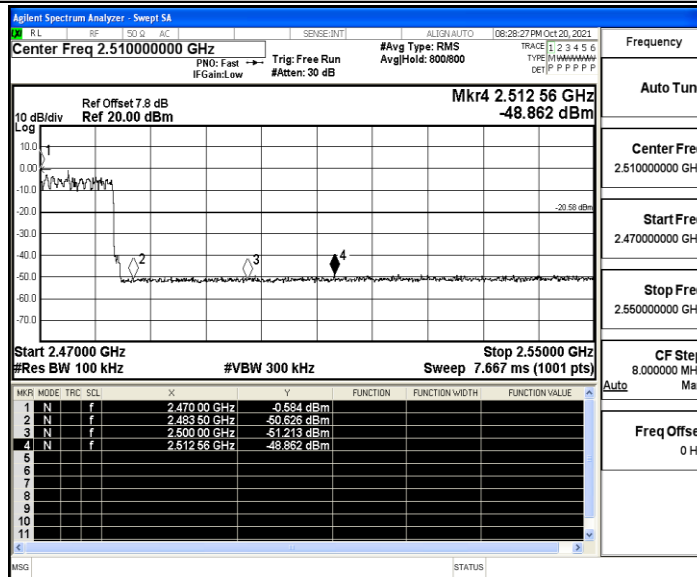




3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

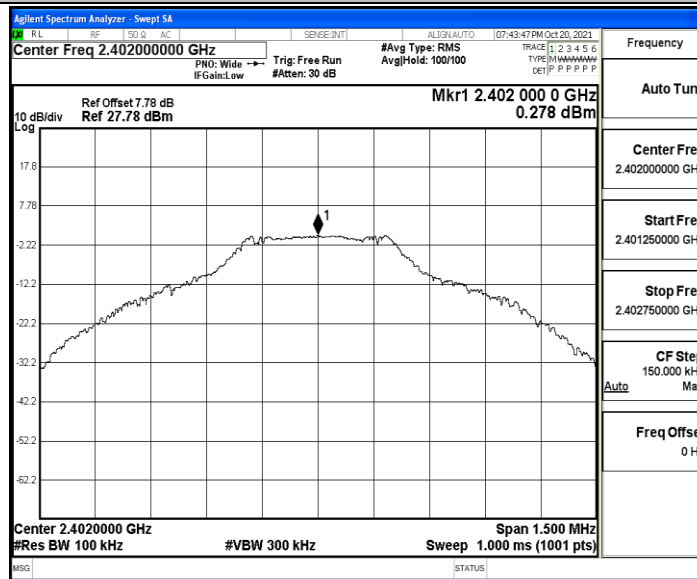
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.28	0.28	---	PASS
			30~1000	0.28	-61.21	≤-19.72	PASS
			1000~26500	0.28	-47.44	≤-19.72	PASS
		2441	Reference	1.25	1.25	---	PASS
			30~1000	1.25	-61.9	≤-18.75	PASS
			1000~26500	1.25	-47.66	≤-18.75	PASS
		2480	Reference	0.30	0.30	---	PASS
			30~1000	0.30	-53.1	≤-19.7	PASS
			1000~26500	0.30	-46.76	≤-19.7	PASS
2DH5	Ant1	2402	Reference	-1.72	-1.72	---	PASS
			30~1000	-1.72	-61.82	≤-21.72	PASS
			1000~26500	-1.72	-47.45	≤-21.72	PASS
		2441	Reference	-0.08	-0.08	---	PASS
			30~1000	-0.08	-59.61	≤-20.08	PASS
			1000~26500	-0.08	-46.64	≤-20.08	PASS
		2480	Reference	-1.74	-1.74	---	PASS
			30~1000	-1.74	-60.69	≤-21.74	PASS
			1000~26500	-1.74	-46.93	≤-21.74	PASS
3DH5	Ant1	2402	Reference	-0.97	-0.97	---	PASS
			30~1000	-0.97	-61.1	≤-20.97	PASS
			1000~26500	-0.97	-46.91	≤-20.97	PASS
		2441	Reference	-2.05	-2.05	---	PASS
			30~1000	-2.05	-61.69	≤-22.05	PASS
			1000~26500	-2.05	-47.58	≤-22.05	PASS
		2480	Reference	-1.91	-1.91	---	PASS
			30~1000	-1.91	-61.73	≤-21.91	PASS
			1000~26500	-1.91	-47.01	≤-21.91	PASS

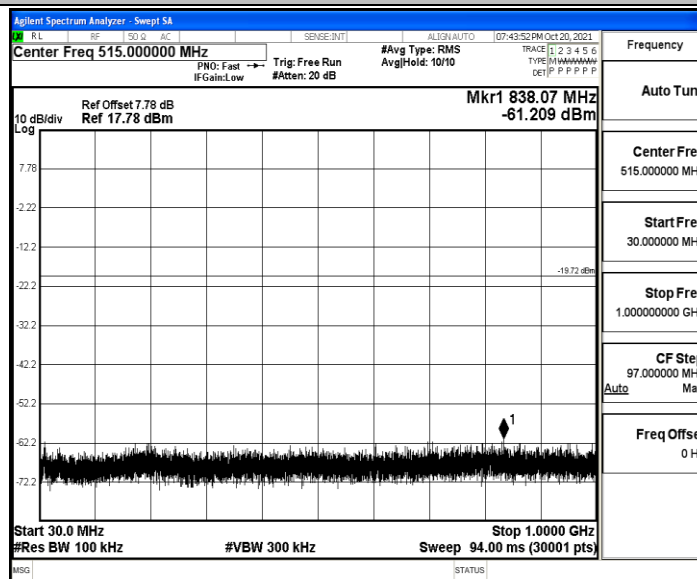


Test Graphs

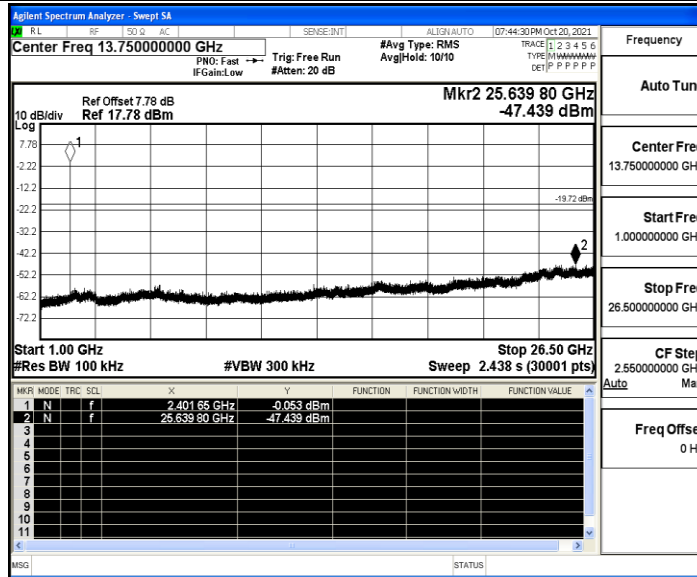
DH5_Ant1_2402_0~Reference



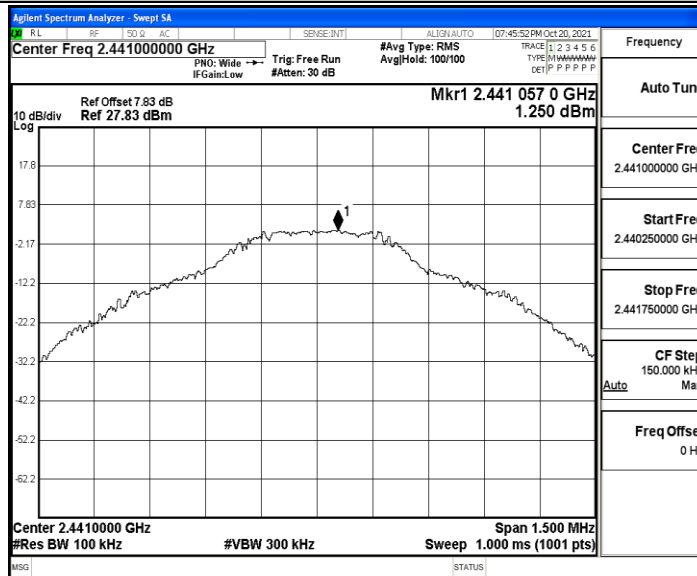
DH5_Ant1_2402_30~1000



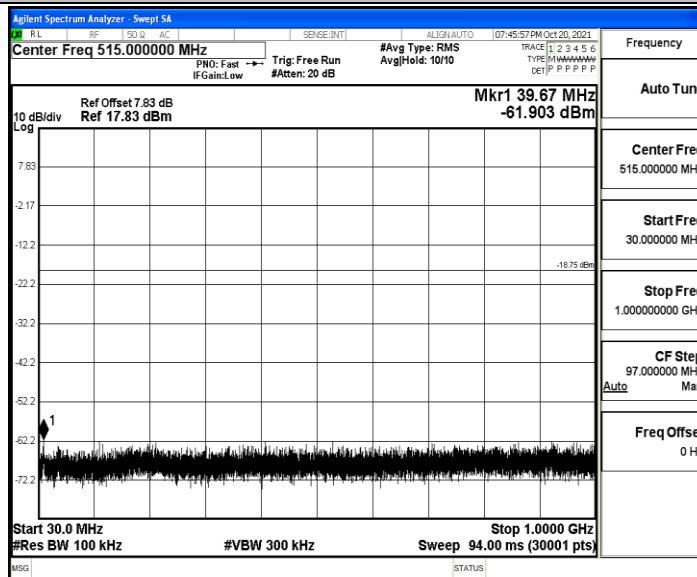
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

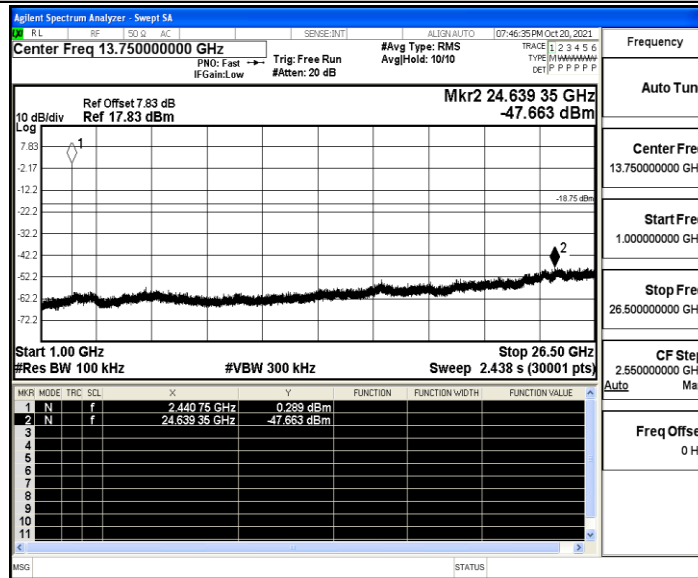


DH5_Ant1_2441_30~1000

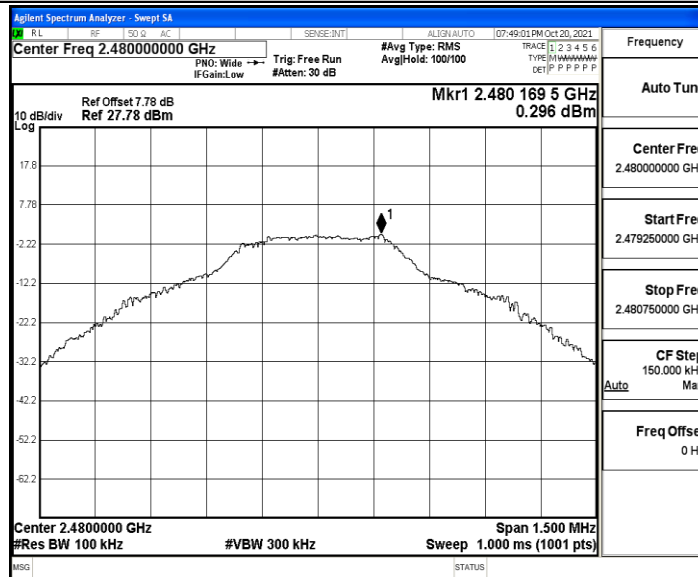




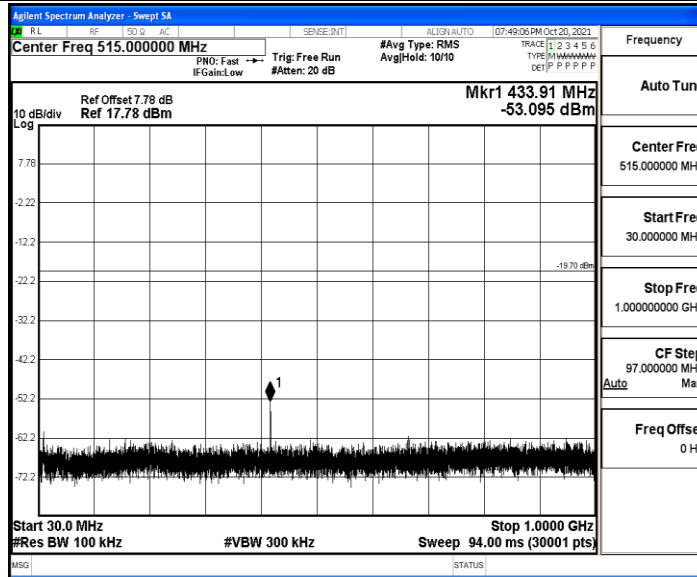
DH5_Ant1_2441_1000~26500



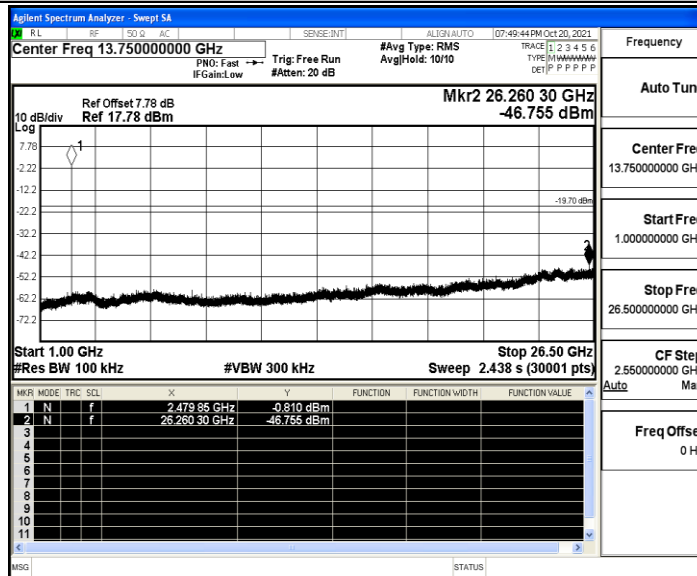
DH5_Ant1_2480_0~Reference



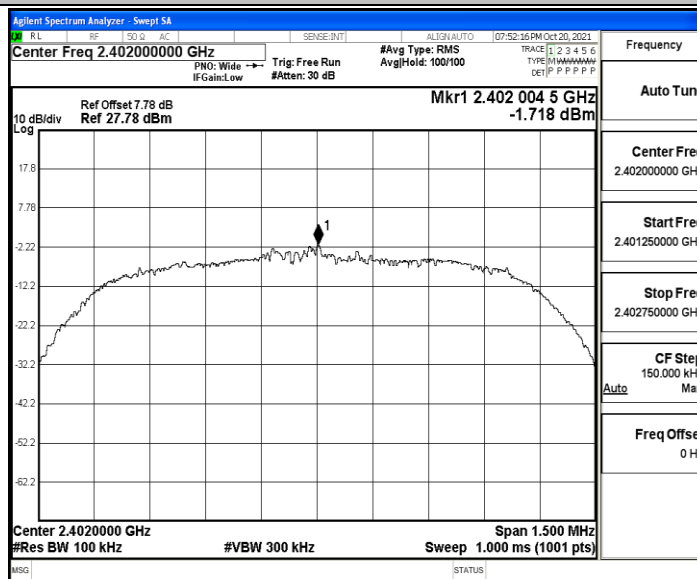
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

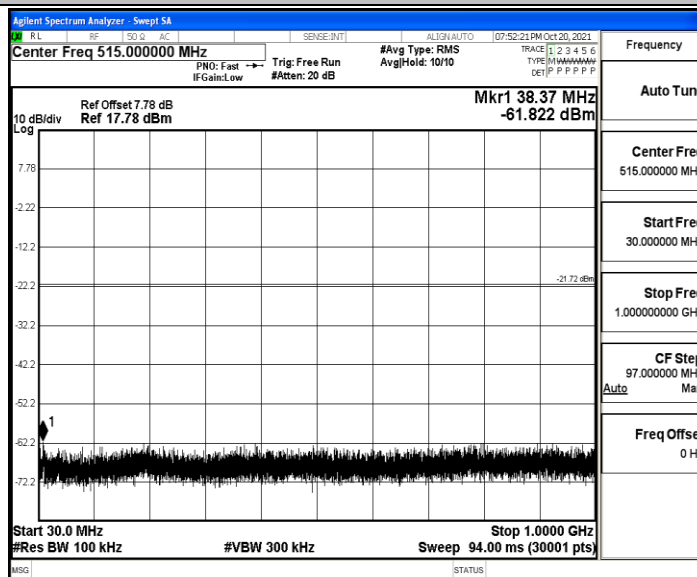


2DH5_Ant1_2402_0~Reference

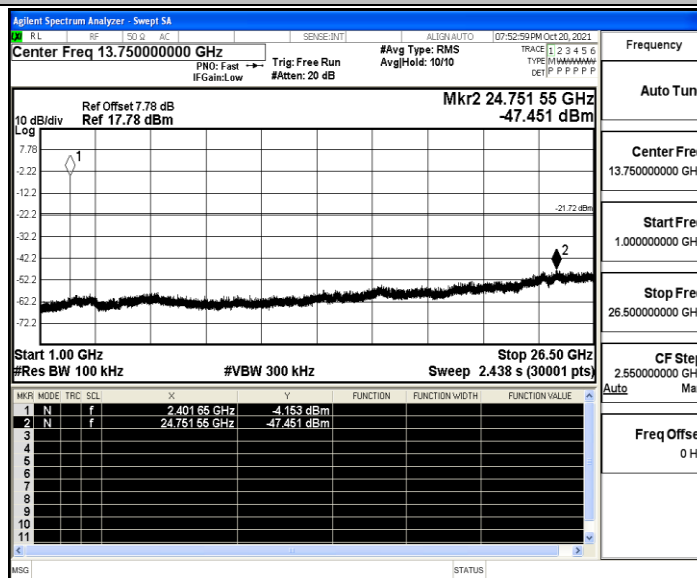




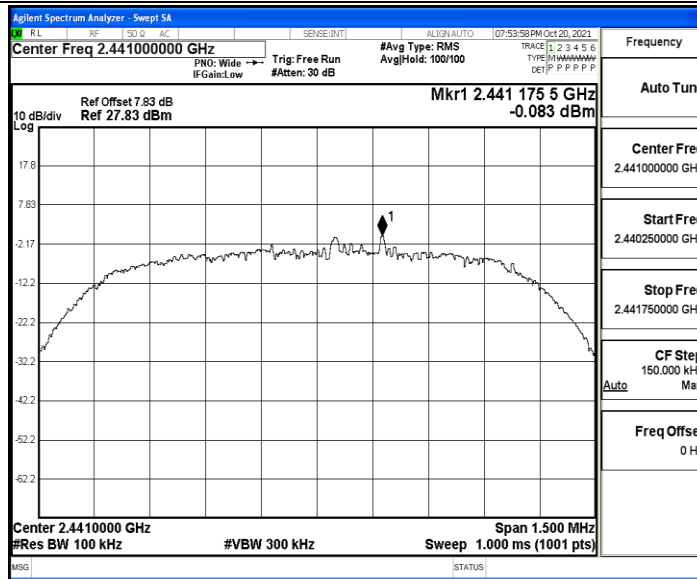
2DH5_Ant1_2402_30~1000



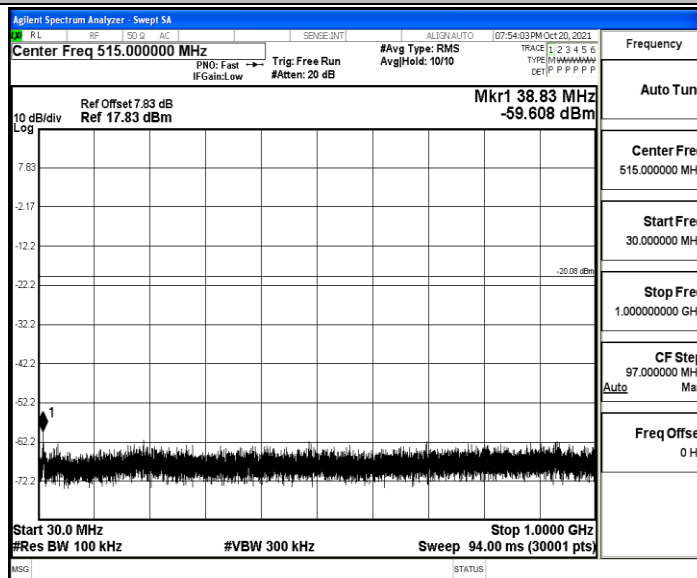
2DH5_Ant1_2402_1000~26500



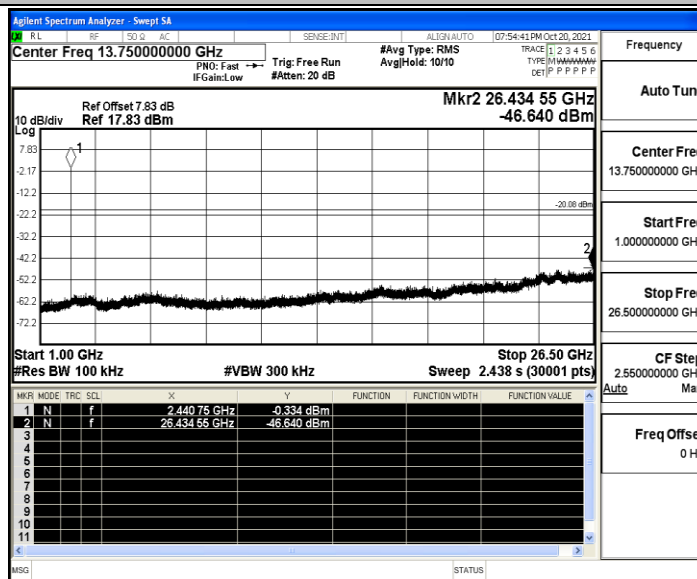
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

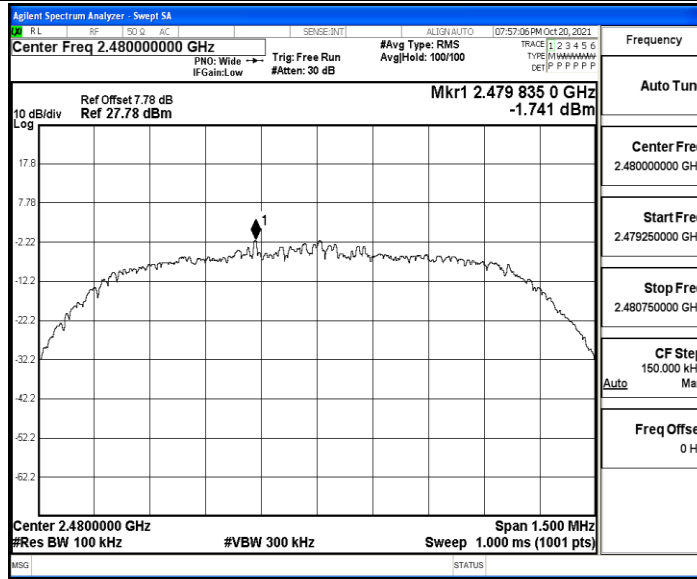


2DH5_Ant1_2441_1000~26500

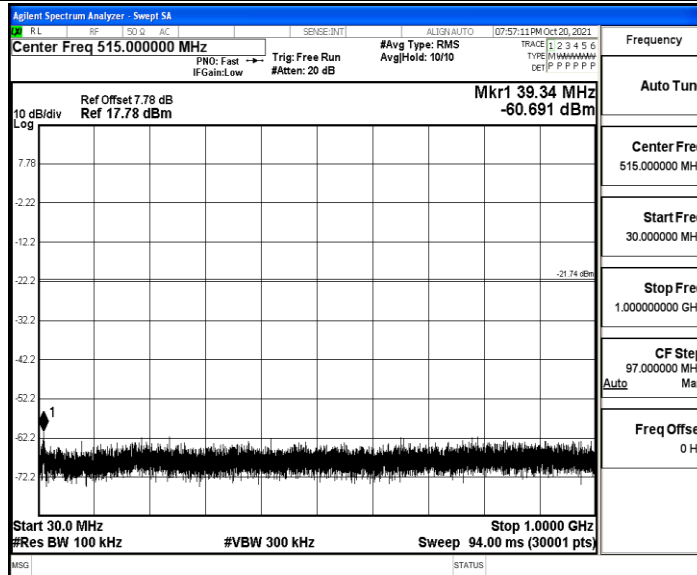




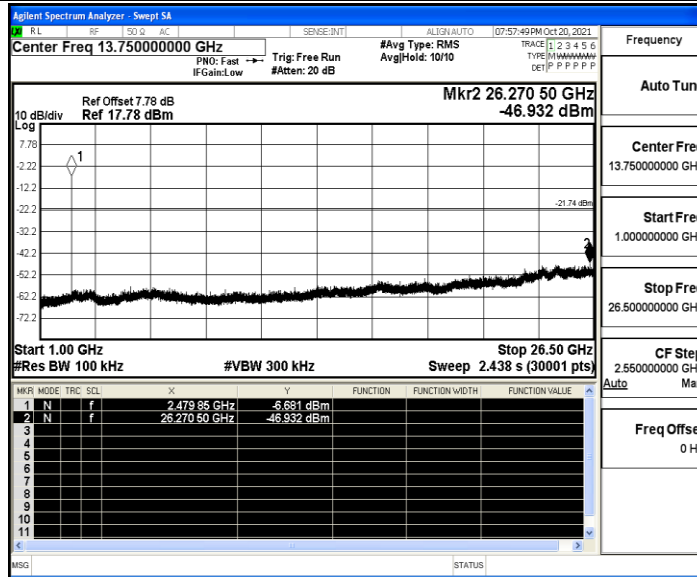
2DH5_Ant1_2480_0~Reference



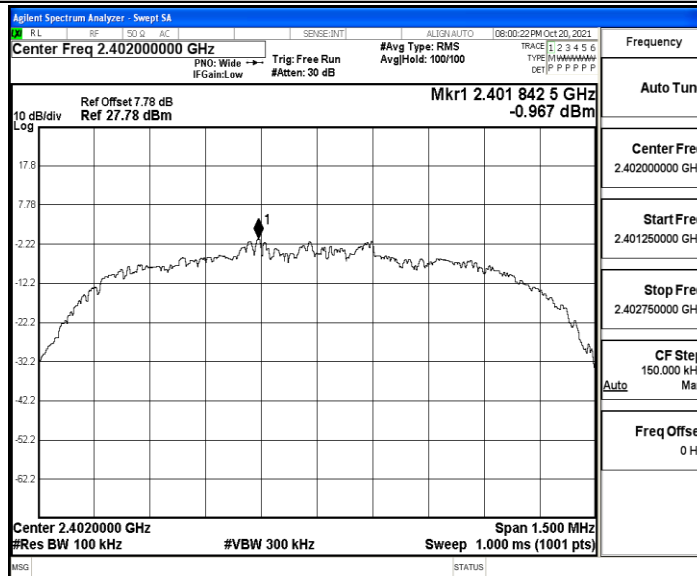
2DH5_Ant1_2480_30~1000



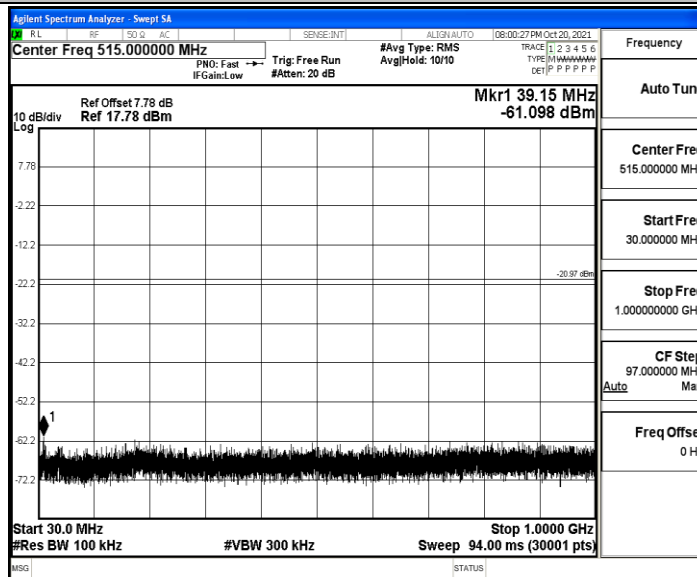
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

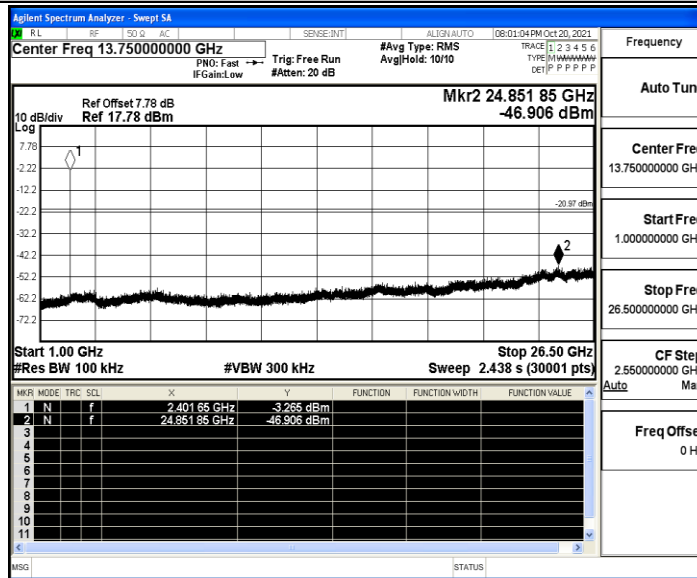


3DH5_Ant1_2402_30~1000

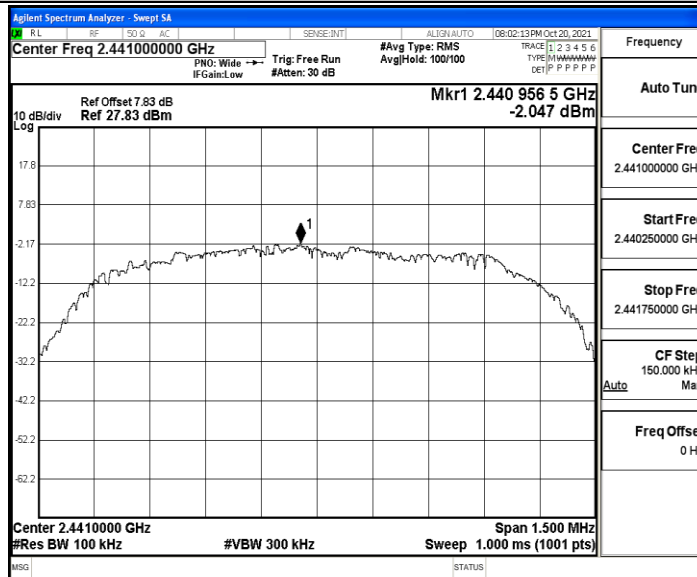




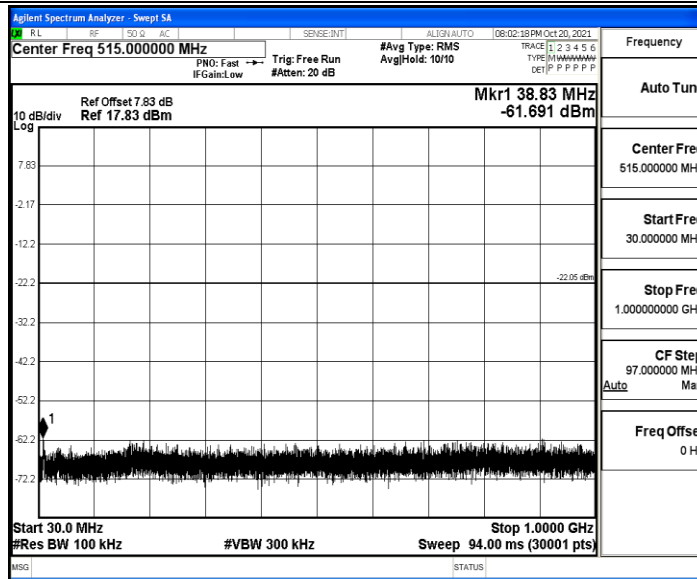
3DH5_Ant1_2402_1000~26500



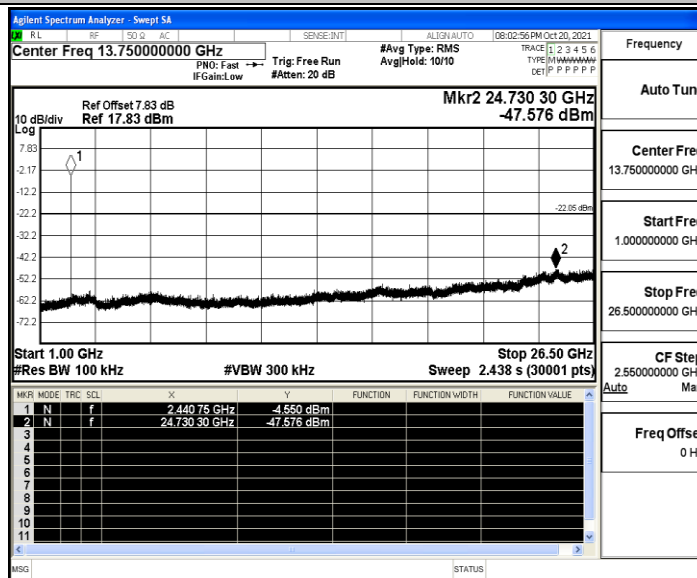
3DH5_Ant1_2441_0~Reference



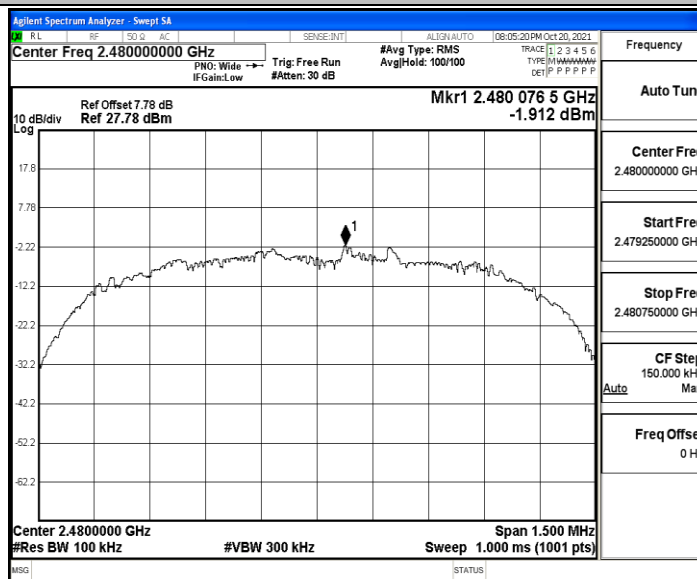
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

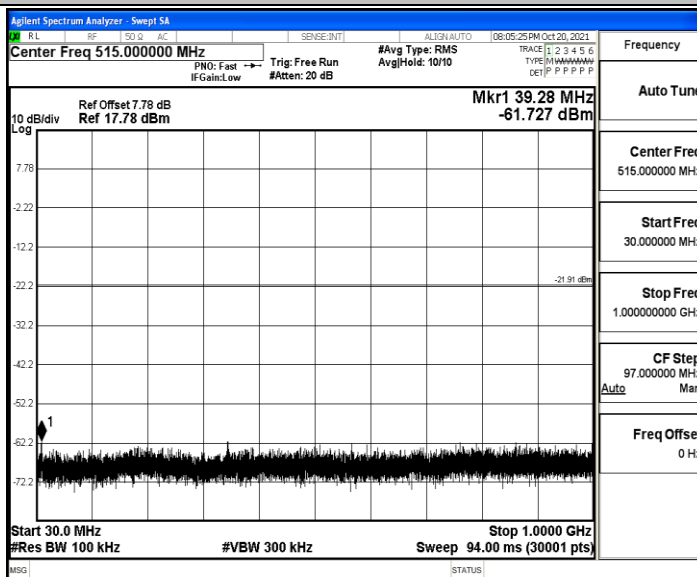


3DH5_Ant1_2480_0~Reference

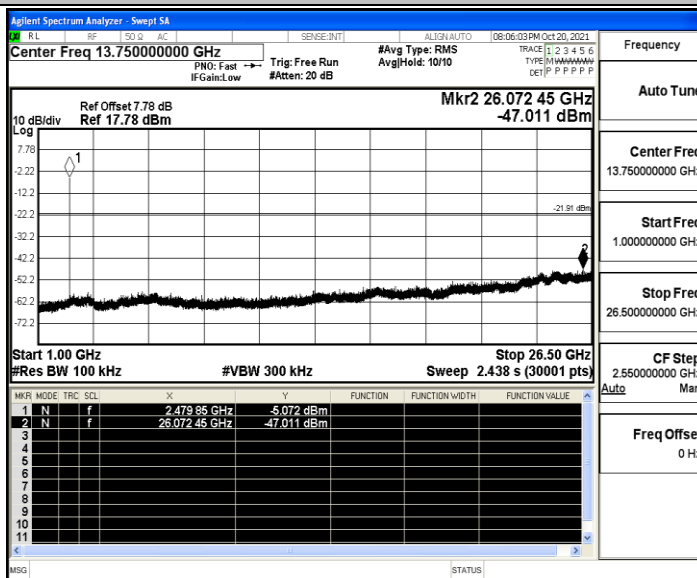




3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500





A.8 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-48.99	≤-41.20	46.21	≤54	PASS
				AV	2386.415	-48.53	≤-41.20	46.67	≤54	PASS
				AV	2390.000	-48.7	≤-41.20	46.50	≤54	PASS
				Peak	2310.000	-42.03	≤-21.20	53.17	≤74	PASS
				Peak	2361.950	-38.88	≤-21.20	56.32	≤74	PASS
				Peak	2390.000	-41.19	≤-21.20	54.01	≤74	PASS
		High	2480	AV	2483.500	-48	≤-41.20	47.20	≤54	PASS
				AV	2491.280	-47.87	≤-41.20	47.33	≤54	PASS
				AV	2500.000	-48.08	≤-41.20	47.12	≤54	PASS
				Peak	2483.500	-41.01	≤-21.20	54.19	≤74	PASS
				Peak	2494.960	-38.69	≤-21.20	56.51	≤74	PASS
				Peak	2500.000	-41.41	≤-21.20	53.79	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.05	≤-41.20	46.15	≤54	PASS
				AV	2389.670	-48.43	≤-41.20	46.77	≤54	PASS
				AV	2390.000	-48.54	≤-41.20	46.66	≤54	PASS
				Peak	2310.000	-41.34	≤-21.20	53.86	≤74	PASS
				Peak	2361.320	-38.33	≤-21.20	56.87	≤74	PASS
				Peak	2390.000	-41.83	≤-21.20	53.37	≤74	PASS
		High	2480	AV	2483.500	-47.87	≤-41.20	47.33	≤54	PASS
				AV	2498.160	-47.84	≤-41.20	47.36	≤54	PASS
				AV	2500.000	-48.1	≤-41.20	47.10	≤54	PASS
				Peak	2483.500	-41.67	≤-21.20	53.53	≤74	PASS
				Peak	2490.480	-38.65	≤-21.20	56.55	≤74	PASS
				Peak	2500.000	-41.32	≤-21.20	53.88	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-49.09	≤-41.20	46.11	≤54	PASS
				AV	2388.935	-48.59	≤-41.20	46.61	≤54	PASS
				AV	2390.000	-48.78	≤-41.20	46.42	≤54	PASS
				Peak	2310.000	-41.85	≤-21.20	53.35	≤74	PASS
				Peak	2371.715	-38.72	≤-21.20	56.48	≤74	PASS
				Peak	2390.000	-41.93	≤-21.20	53.27	≤74	PASS
		High	2480	AV	2483.500	-47.99	≤-41.20	47.21	≤54	PASS
				AV	2483.600	-47.98	≤-41.20	47.22	≤54	PASS
				AV	2500.000	-48.04	≤-41.20	47.16	≤54	PASS
				Peak	2483.500	-40.51	≤-21.20	54.69	≤74	PASS
				Peak	2489.520	-37.93	≤-21.20	57.27	≤74	PASS
				Peak	2500.000	-41.92	≤-21.20	53.28	≤74	PASS



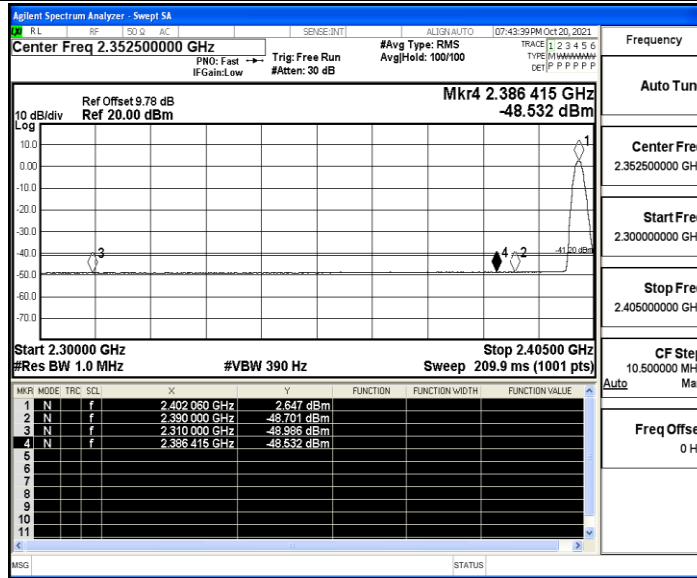
Note:

1. The Antenna Gain is compensated in the graph.
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.

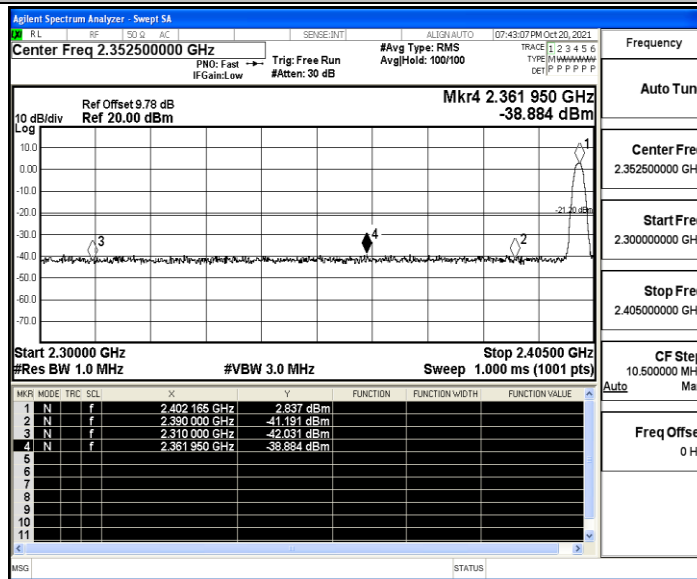


Test Graphs

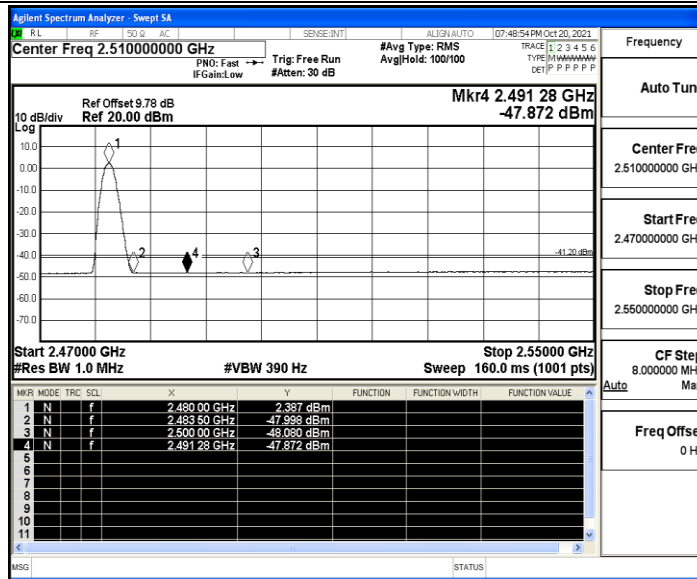
DH5_Ant1_Low_2402_AV



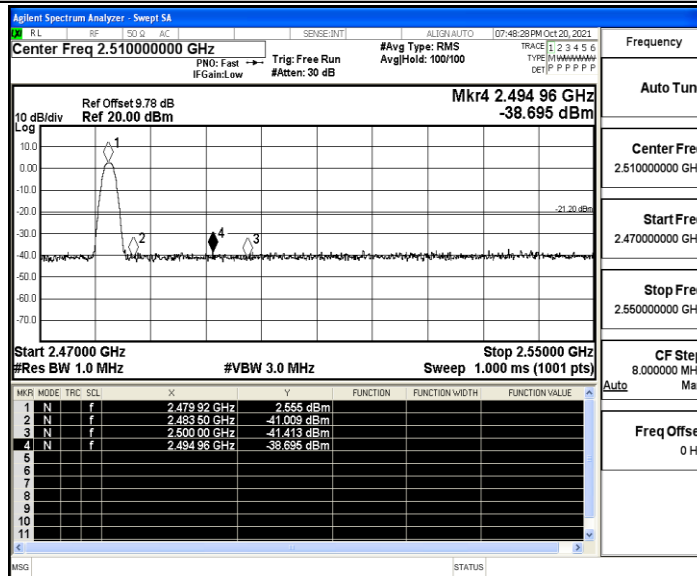
DH5_Ant1_Low_2402_Peak



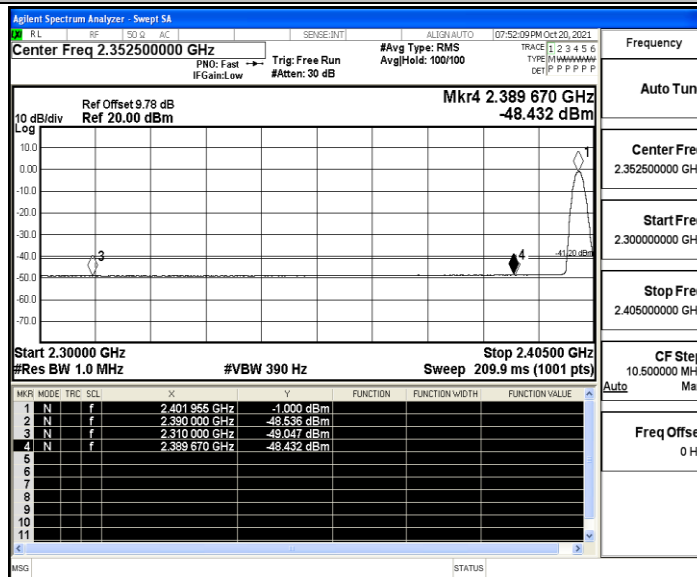
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

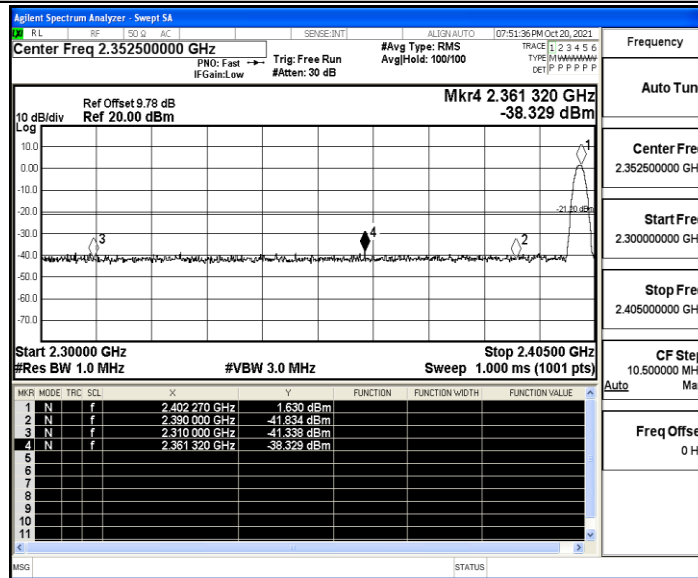


2DH5_Ant1_Low_2402_AV

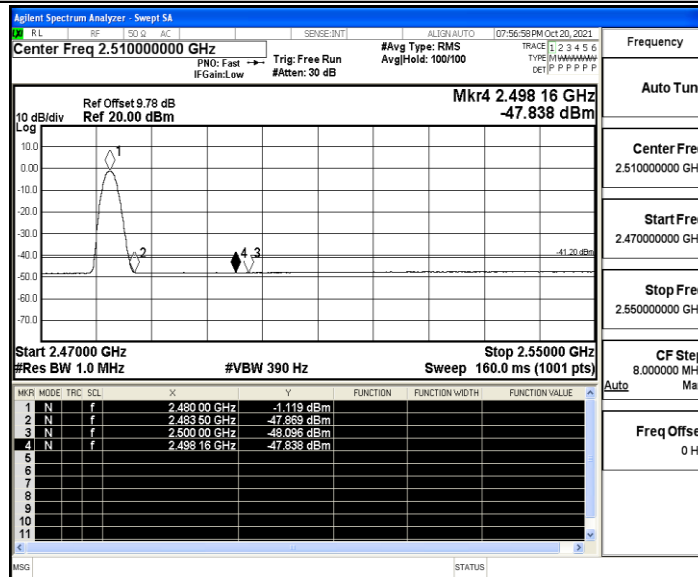




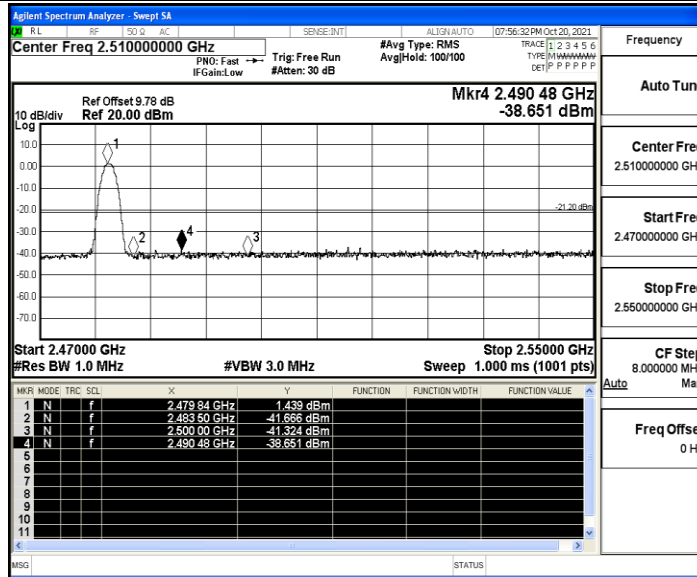
2DH5_Ant1_Low_2402_Peak



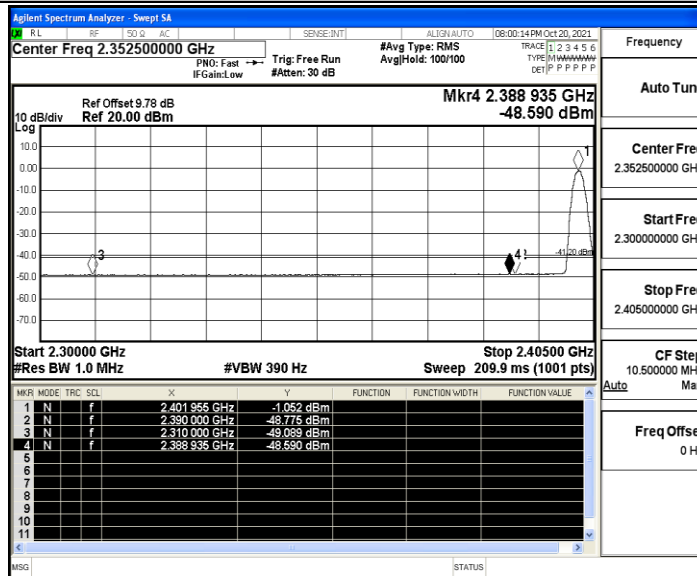
2DH5_Ant1_High_2480_AV



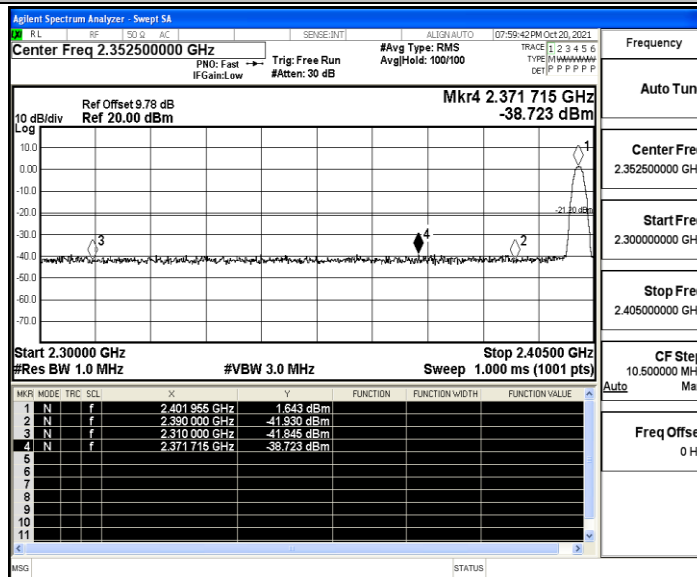
2DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_2402_AV

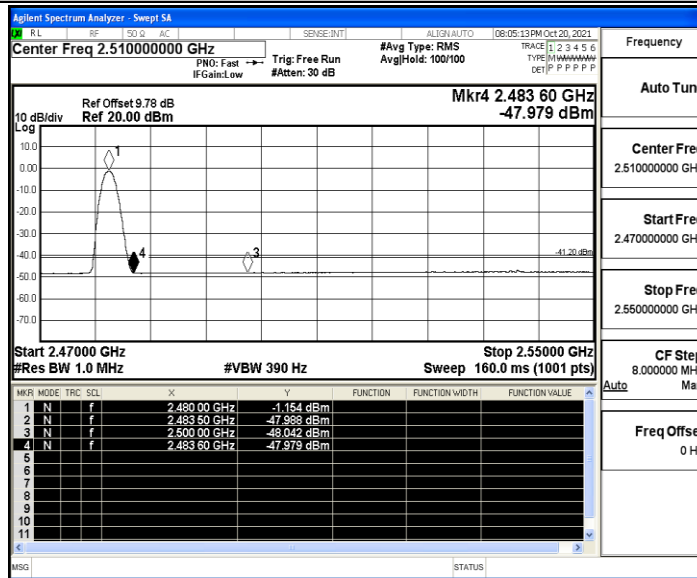


3DH5_Ant1_Low_2402_Peak





3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak

