



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: LAVA ME3

Test Model: LAVA ME3

Environmental Conditions

Temperature:	21.1° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan



A.1 20dB Emission Bandwidth

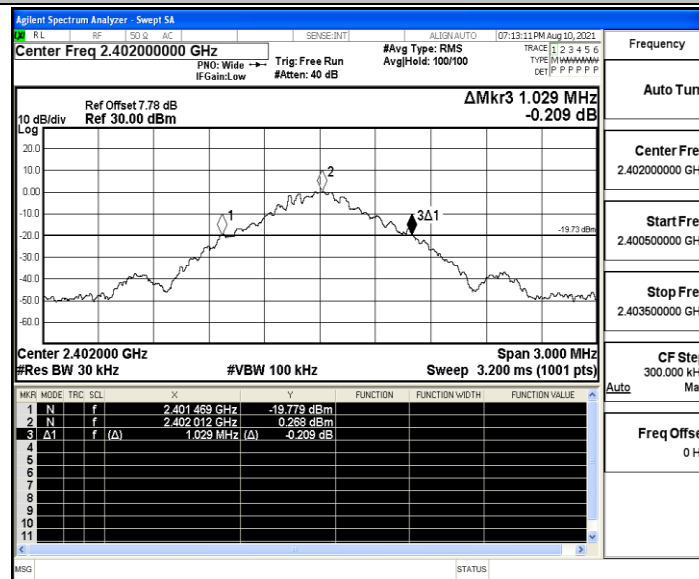
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.029	2401.469	2402.498	---	PASS
		2441	1.041	2440.466	2441.507	---	PASS
		2480	0.975	2479.529	2480.504	---	PASS
2DH5	Ant1	2402	1.329	2401.334	2402.663	---	PASS
		2441	1.359	2440.325	2441.684	---	PASS
		2480	1.287	2479.367	2480.654	---	PASS
3DH5	Ant1	2402	1.302	2401.343	2402.645	---	PASS
		2441	1.287	2440.361	2441.648	---	PASS
		2480	1.290	2479.358	2480.648	---	PASS

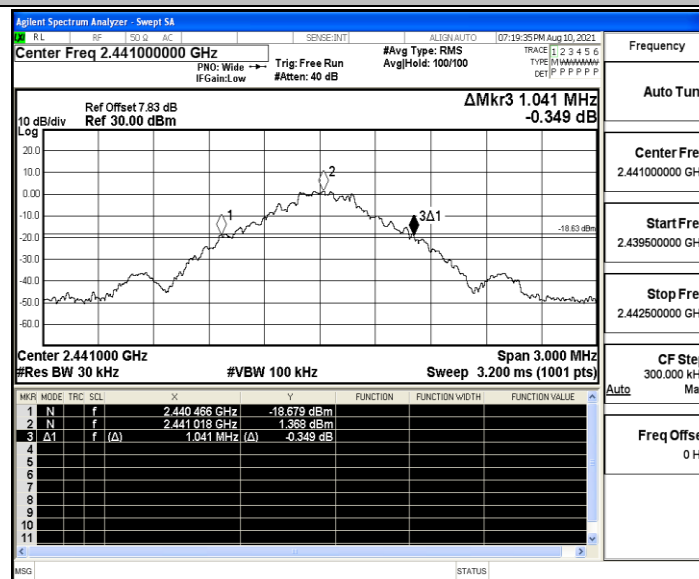


Test Graphs

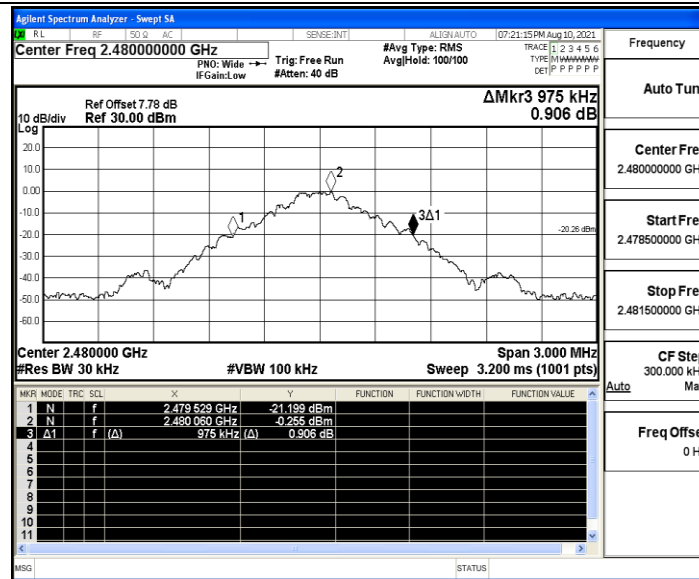
DH5_Ant1_2402



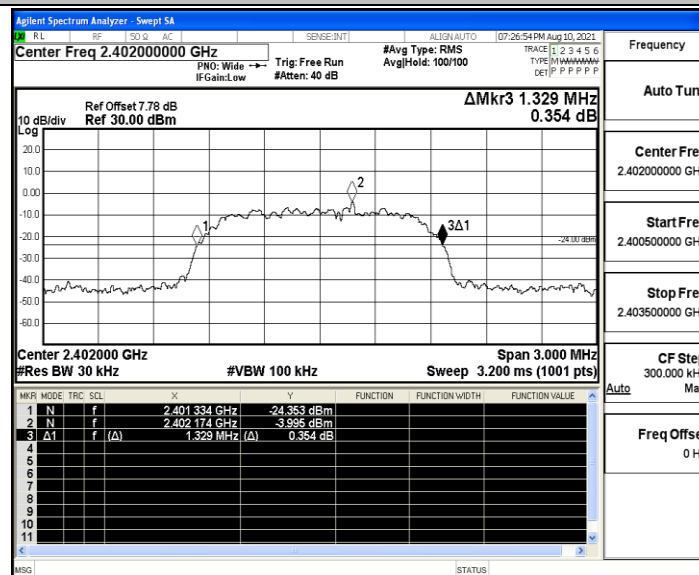
DH5_Ant1_2441



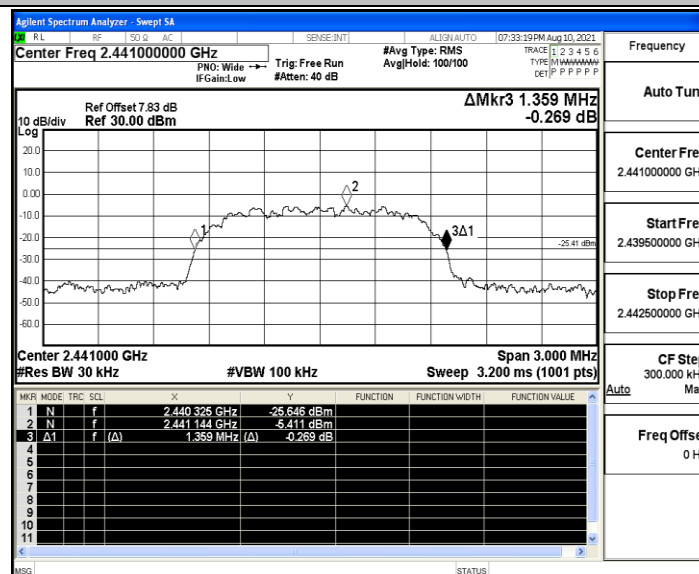
DH5_Ant1_2480



2DH5_Ant1_2402

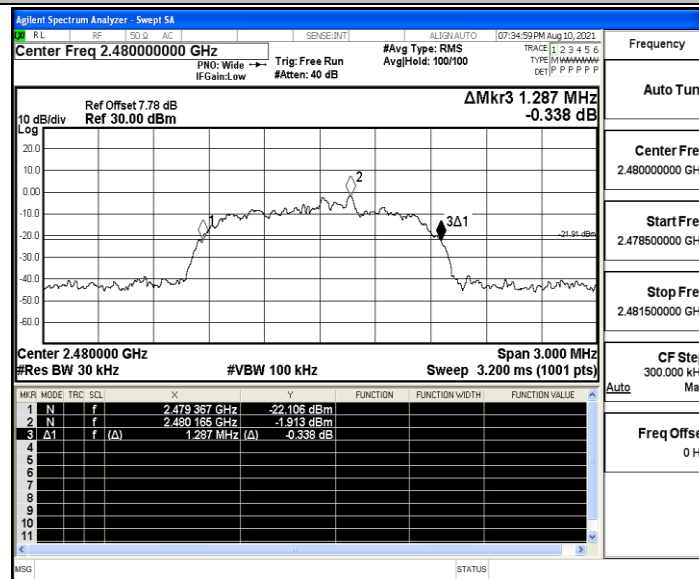


2DH5_Ant1_2441

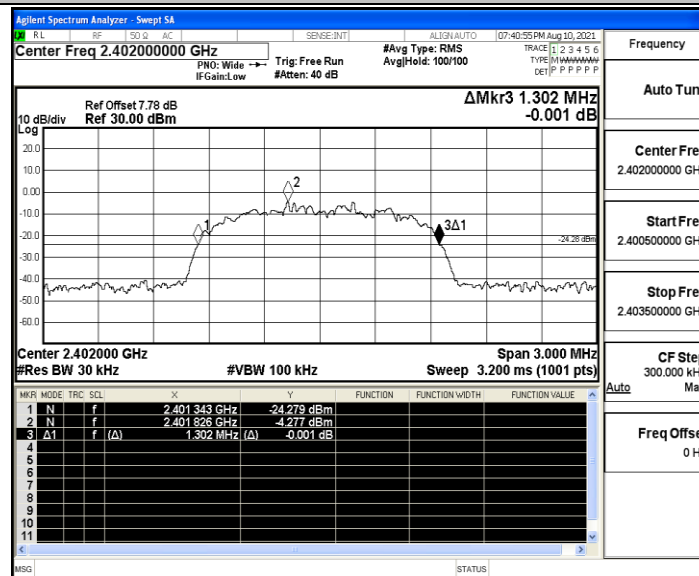




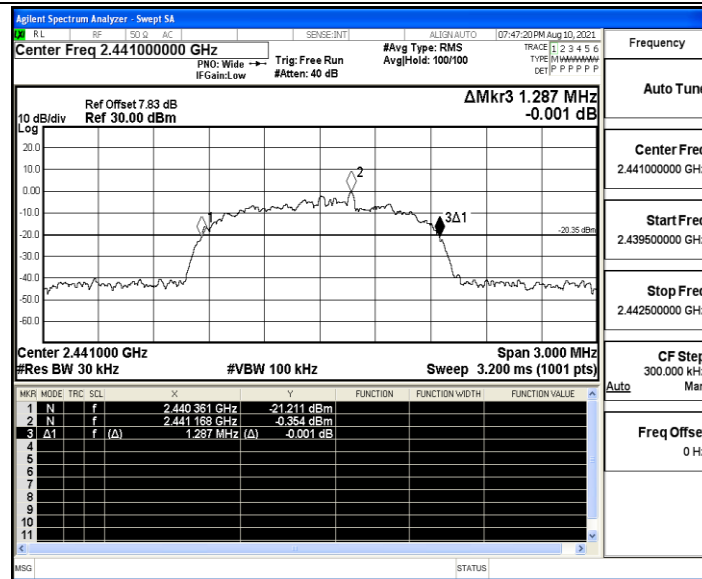
2DH5_Ant1_2480



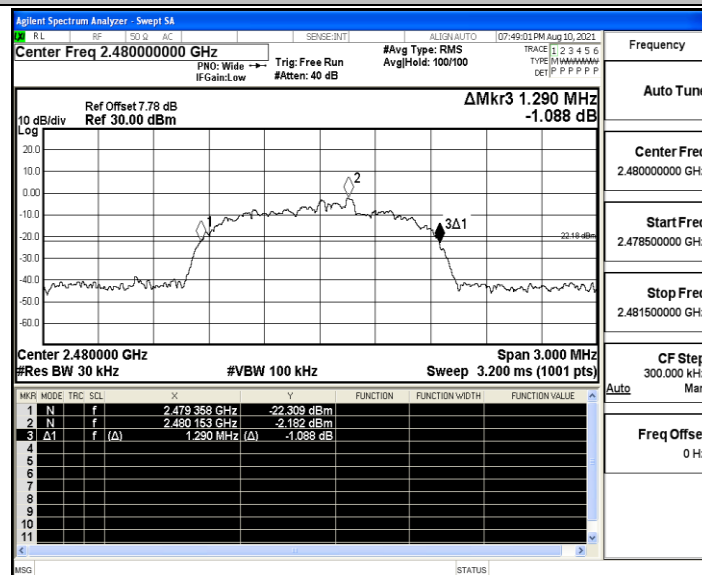
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.2 Maximum conducted output power

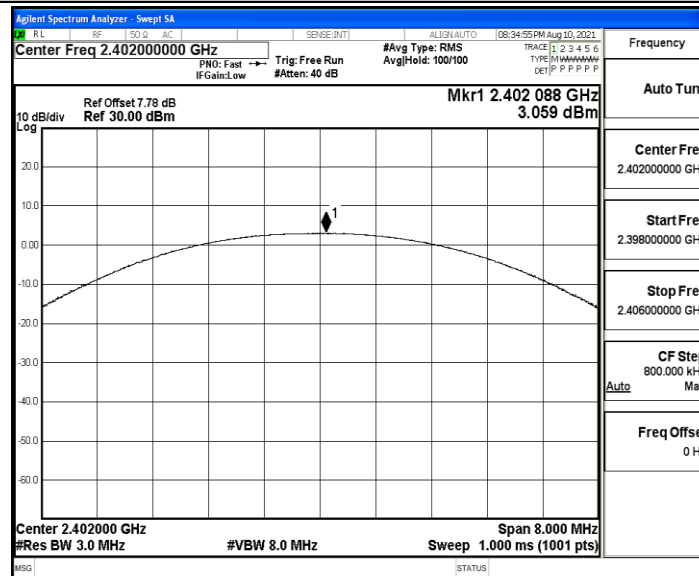
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	3.06	≤ 20.97	PASS
		2441	4.30	≤ 20.97	PASS
		2480	2.82	≤ 20.97	PASS
2DH5	Ant1	2402	1.99	≤ 20.97	PASS
		2441	3.40	≤ 20.97	PASS
		2480	1.93	≤ 20.97	PASS
3DH5	Ant1	2402	2.33	≤ 20.97	PASS
		2441	3.58	≤ 20.97	PASS
		2480	2.18	≤ 20.97	PASS

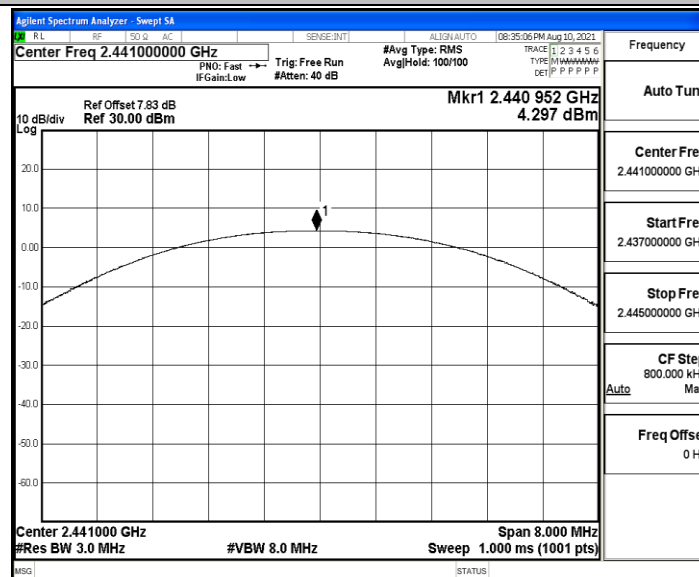


Test Graphs

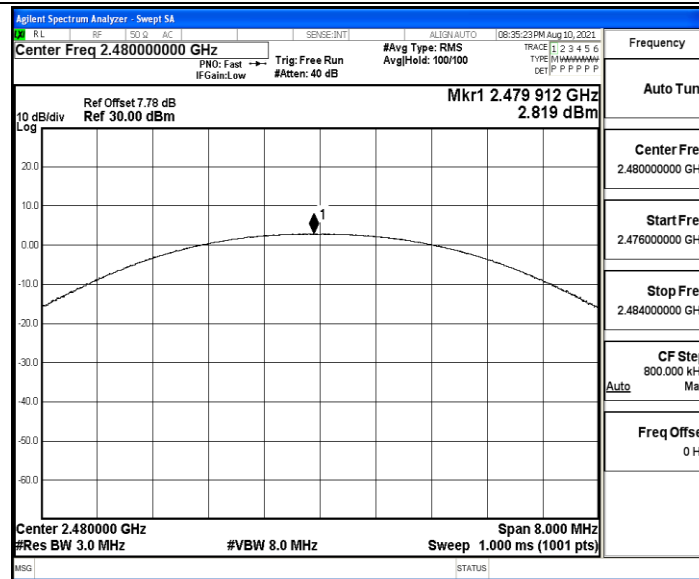
DH5_Ant1_2402



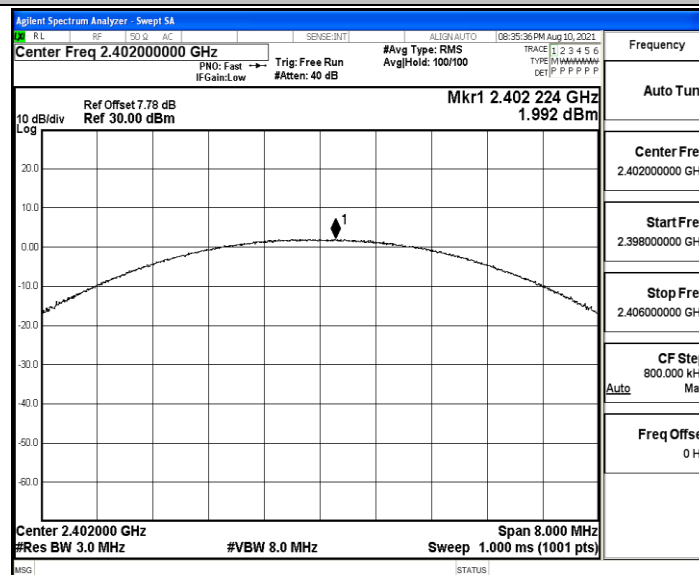
DH5_Ant1_2441



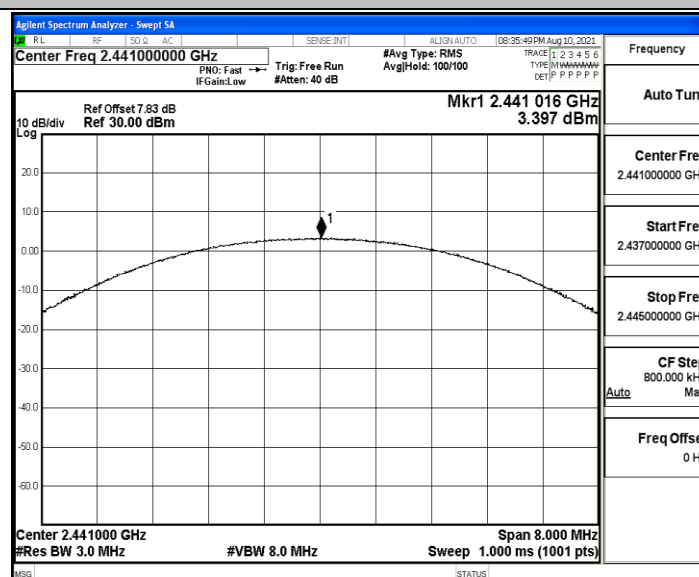
DH5_Ant1_2480



2DH5_Ant1_2402

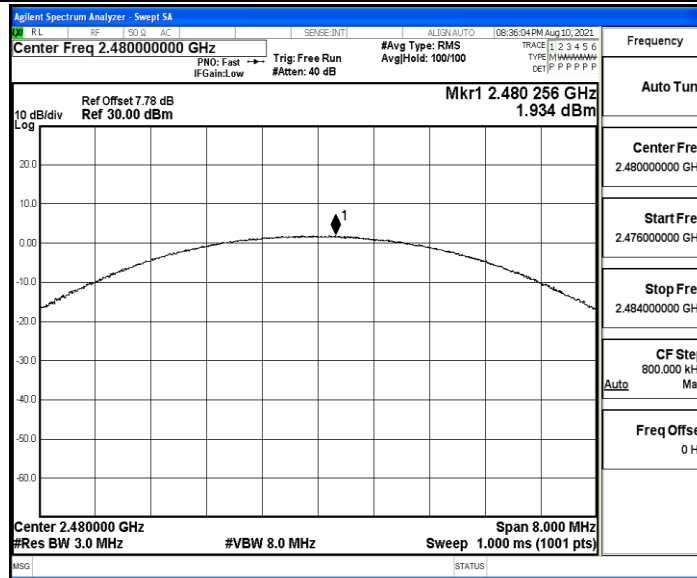


2DH5_Ant1_2441

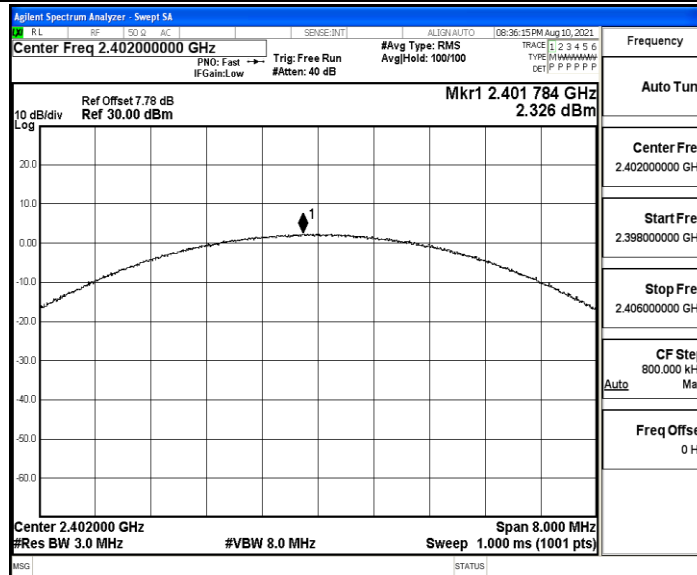




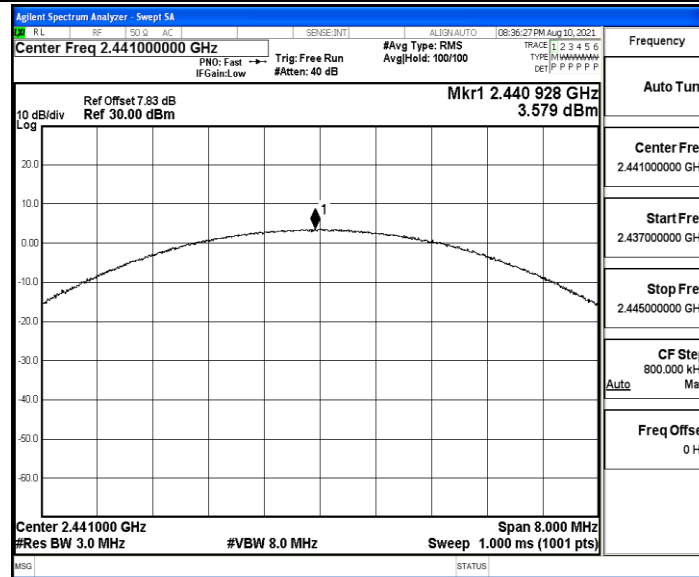
2DH5_Ant1_2480



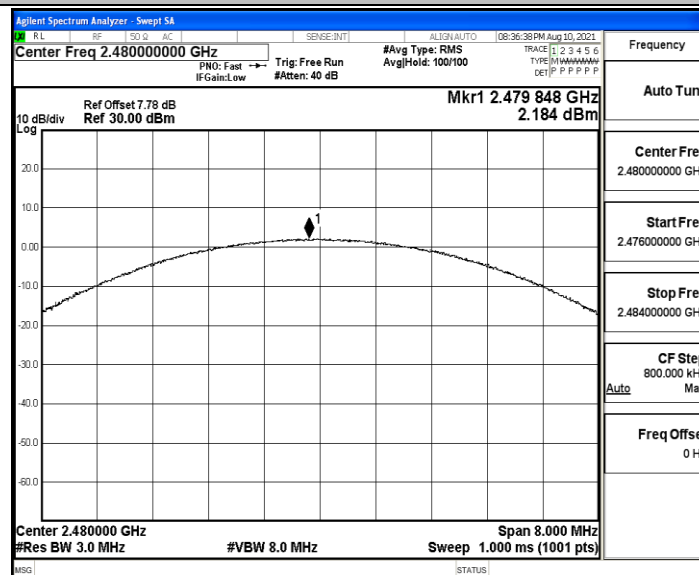
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.3 Carrier frequency separation

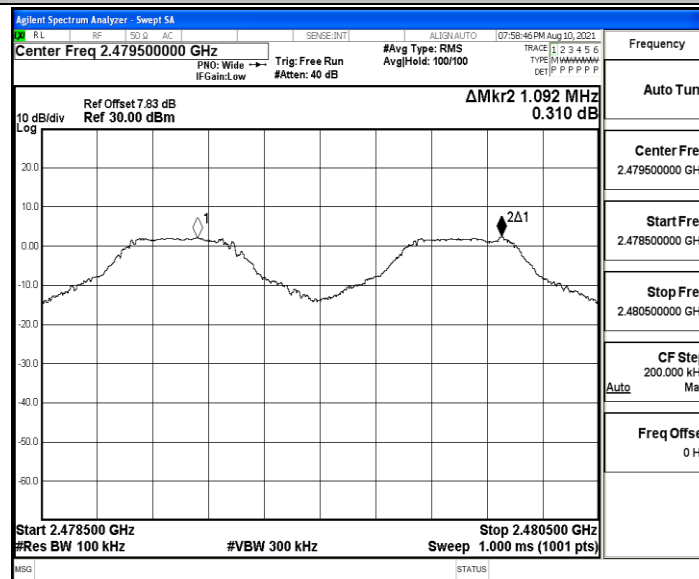
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	1.092	≥ 1.041	PASS
2DH5	Ant1	Hop	1.170	≥ 0.906	PASS
3DH5	Ant1	Hop	1.196	≥ 0.858	PASS

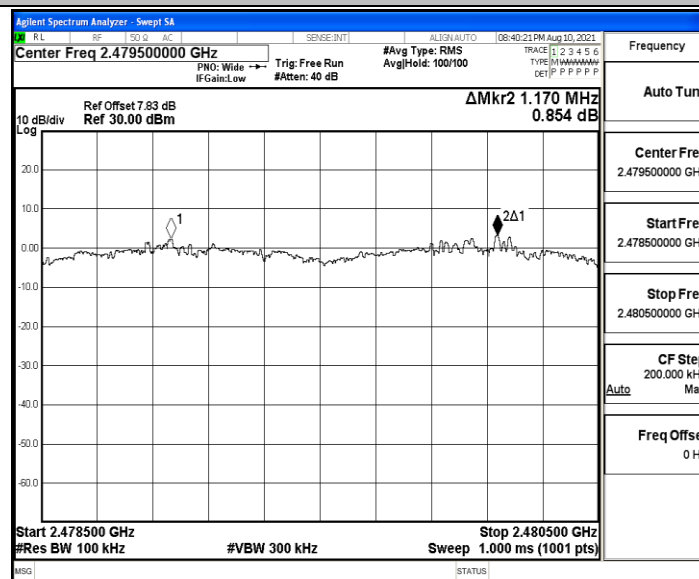


Test Graphs

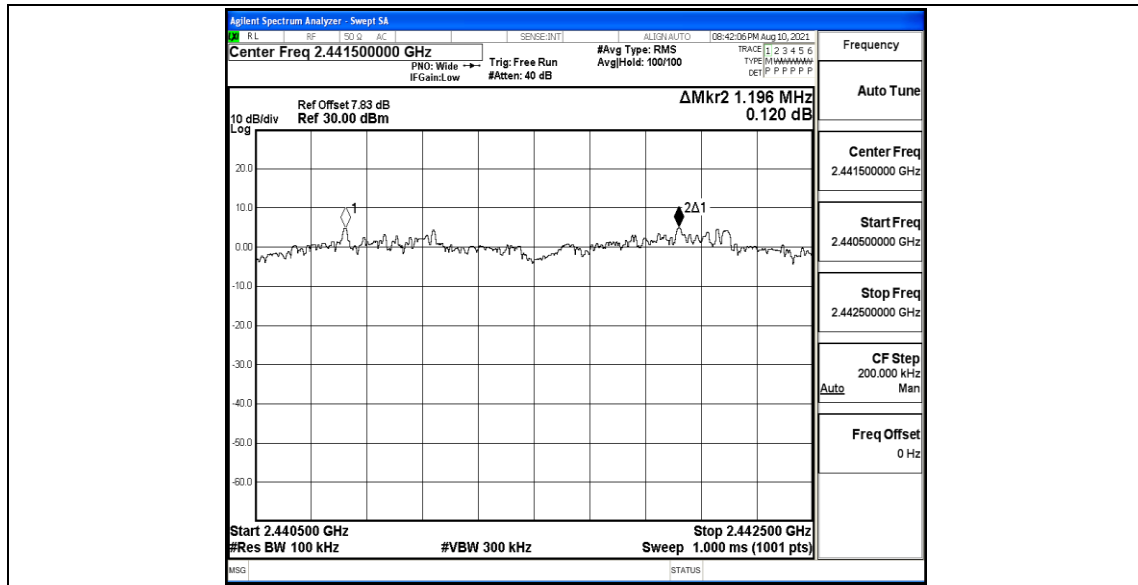
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





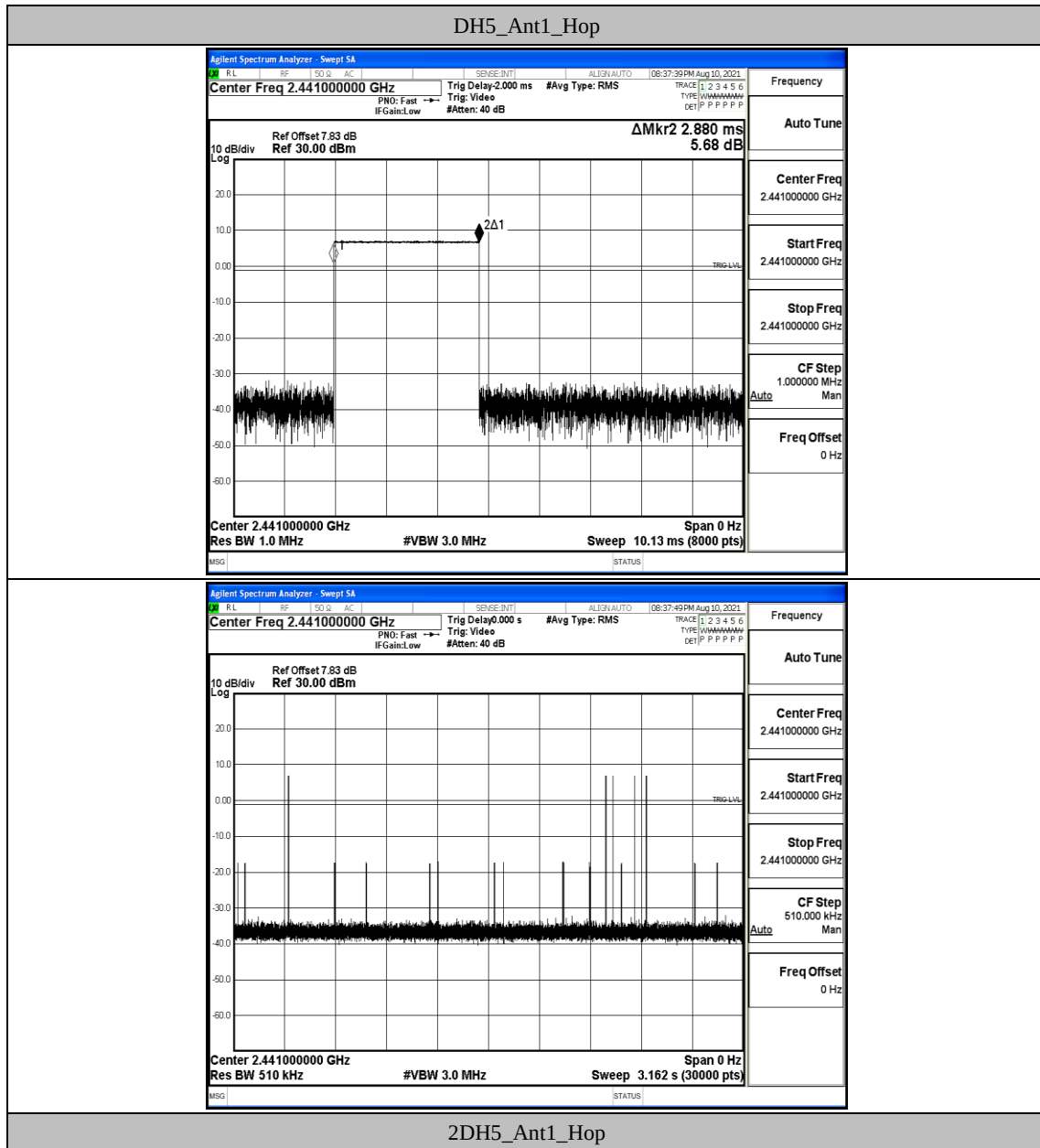
A.4 Time of occupancy

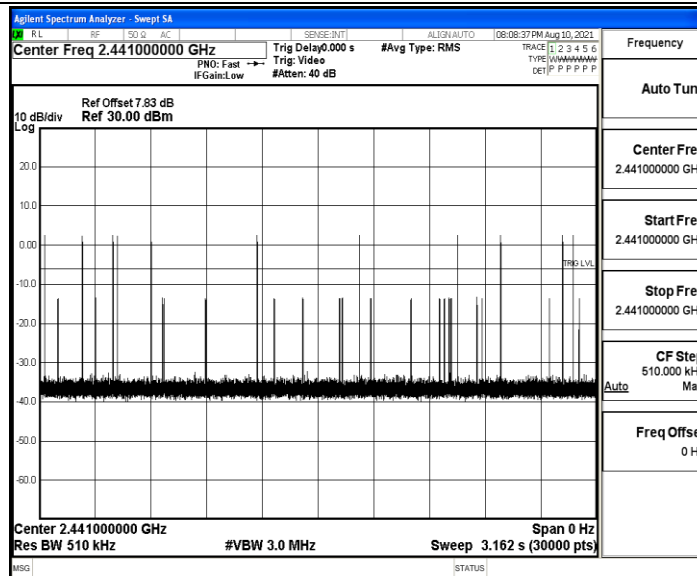
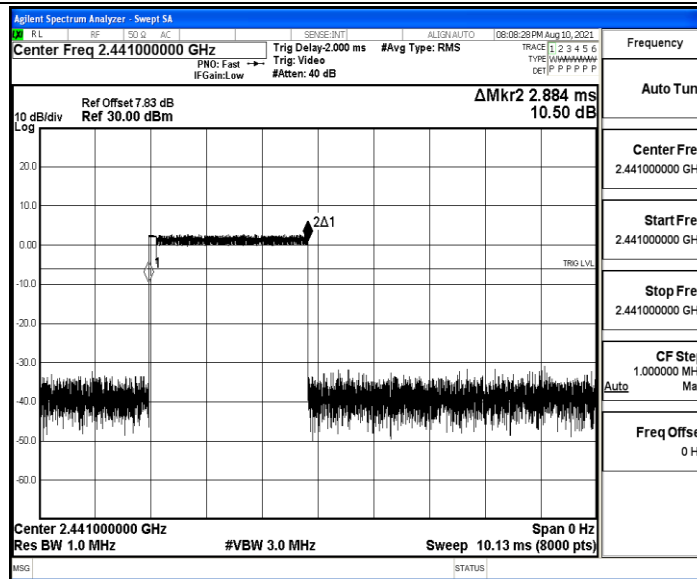
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	60	0.173	≤0.4	PASS
2DH5	Ant1	Hop	2.88	120	0.346	≤0.4	PASS
3DH5	Ant1	Hop	2.89	130	0.375	≤0.4	PASS

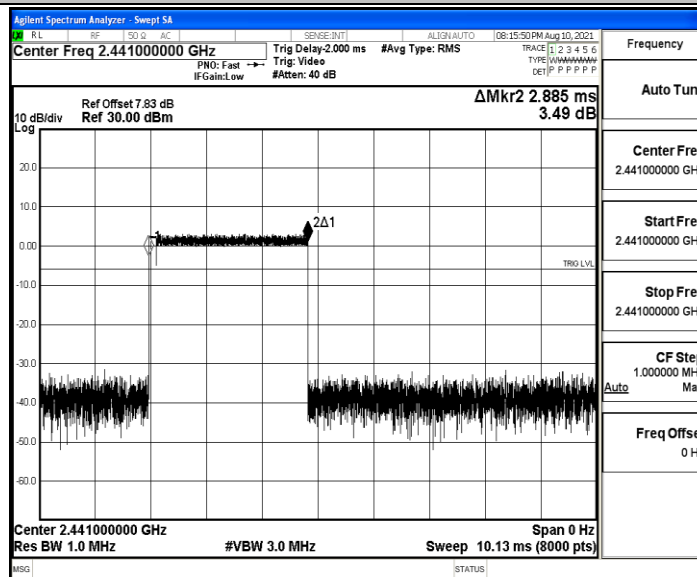


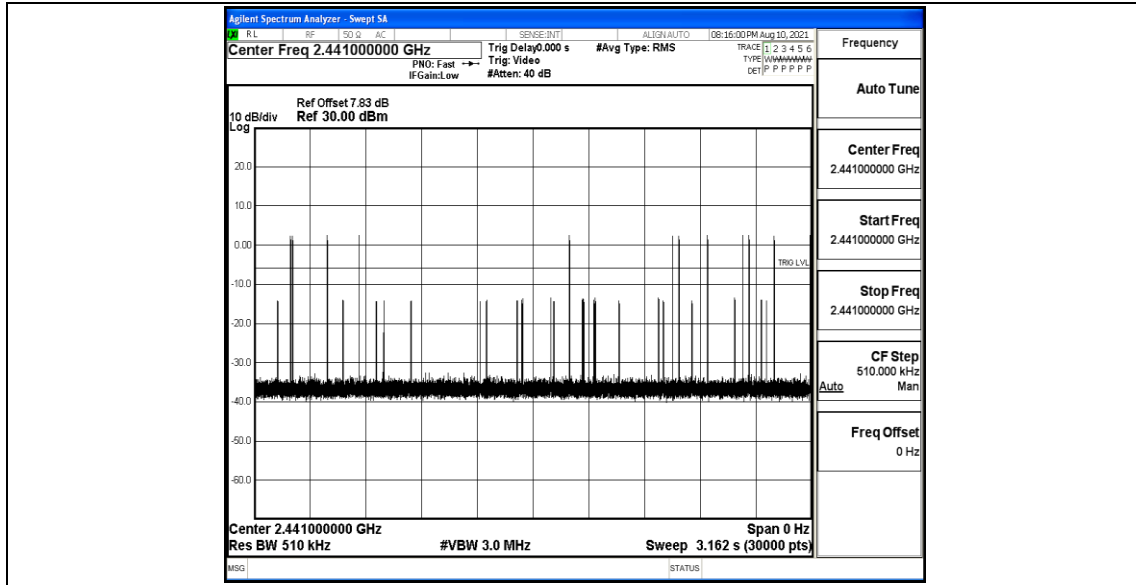
Test Graphs





3DH5_Ant1_Hop







A.5 Number of hopping channels

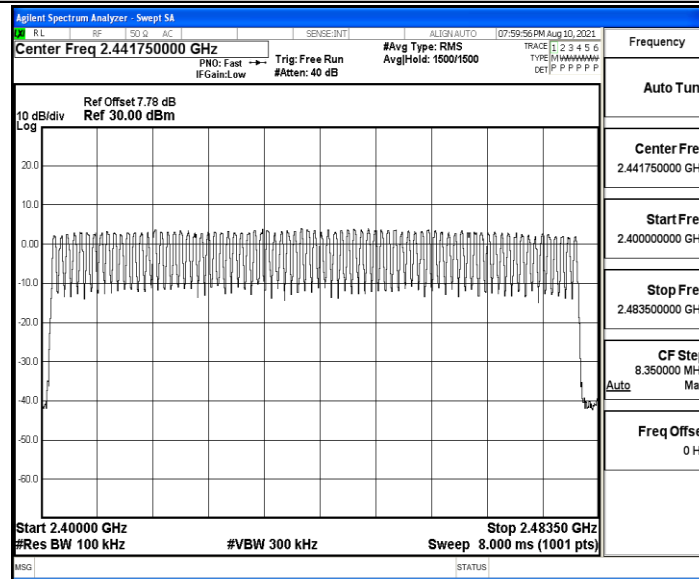
Test Result

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

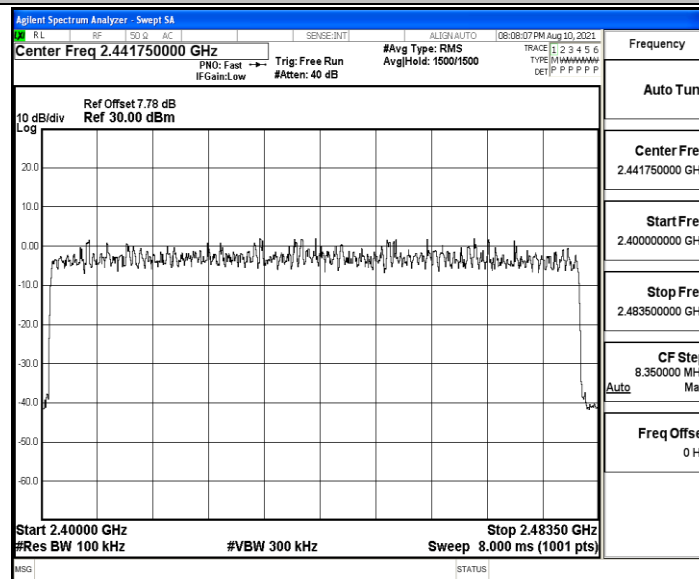


Test Graphs

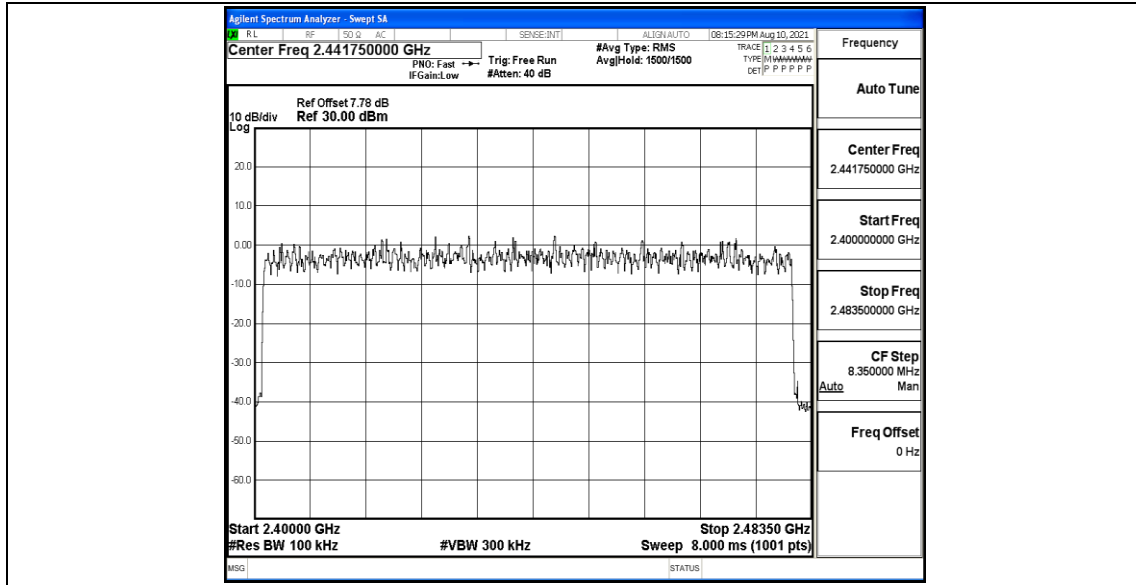
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





A.6 Band edge measurements

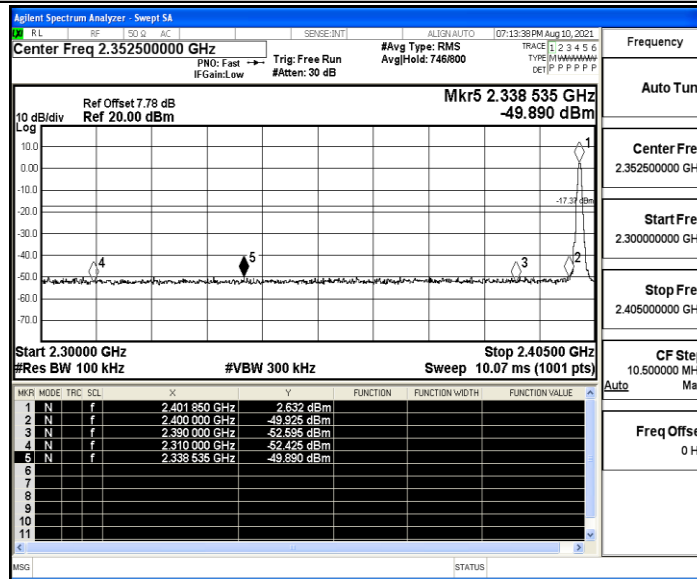
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.63	-49.89	≤ -17.37	PASS
		High	2480	2.33	-47.91	≤ -17.67	PASS
		Low	Hop_2402	2.09	-49.55	≤ -17.91	PASS
		High	Hop_2480	2.83	-47.52	≤ -17.17	PASS
2DH5	Ant1	Low	2402	0.86	-49.85	≤ -19.14	PASS
		High	2480	1.23	-48.1	≤ -18.77	PASS
		Low	Hop_2402	0.91	-49.45	≤ -19.09	PASS
		High	Hop_2480	0.53	-48.9	≤ -19.47	PASS
3DH5	Ant1	Low	2402	1.09	-50.03	≤ -18.91	PASS
		High	2480	1.17	-48.82	≤ -18.83	PASS
		Low	Hop_2402	-0.53	-49.72	≤ -20.53	PASS
		High	Hop_2480	-0.11	-48.29	≤ -20.11	PASS

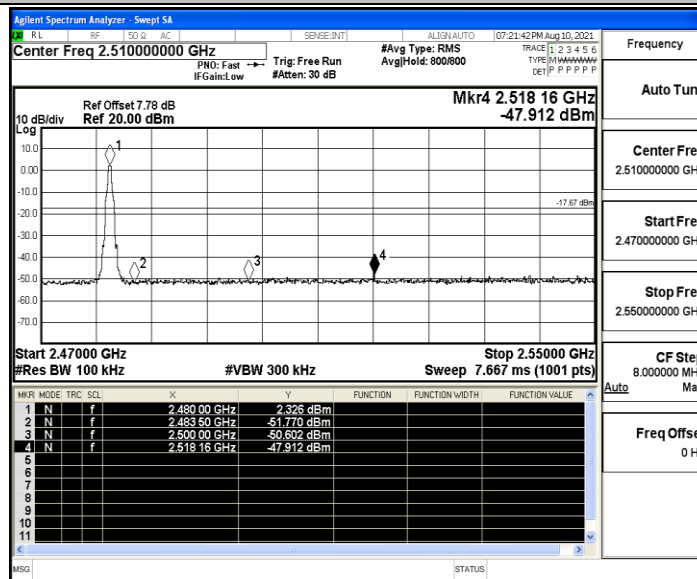


Test Graphs

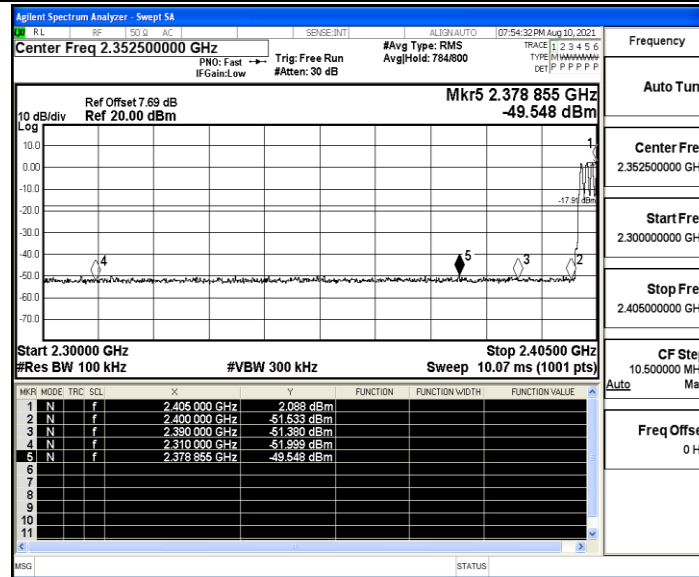
DH5_Ant1_Low_2402



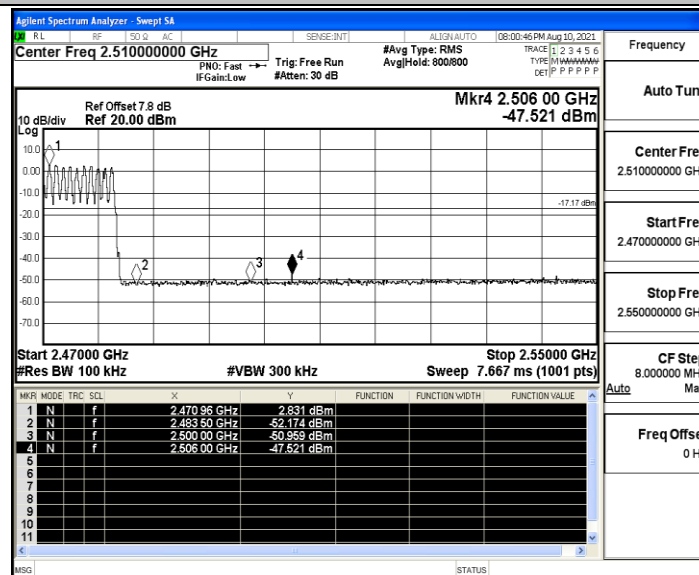
DH5_Ant1_High_2480



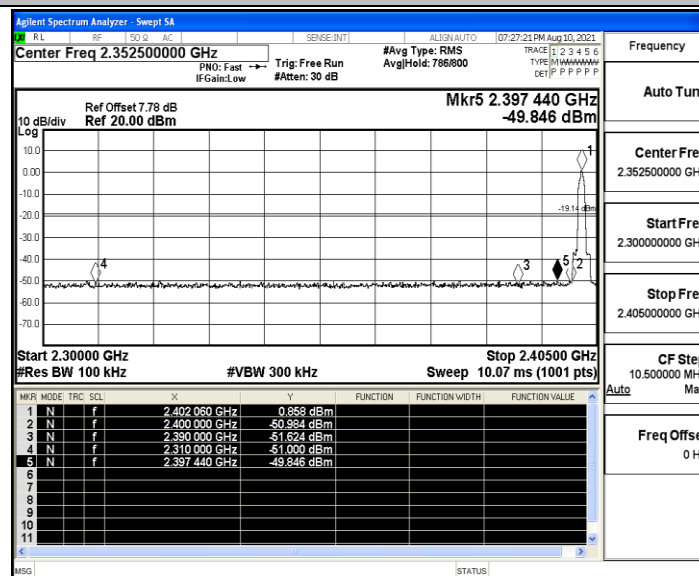
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

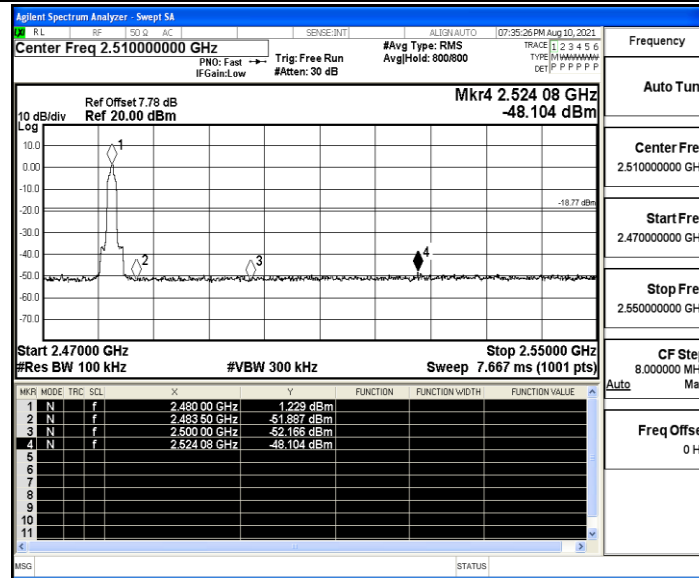


2DH5_Ant1_Low_2402

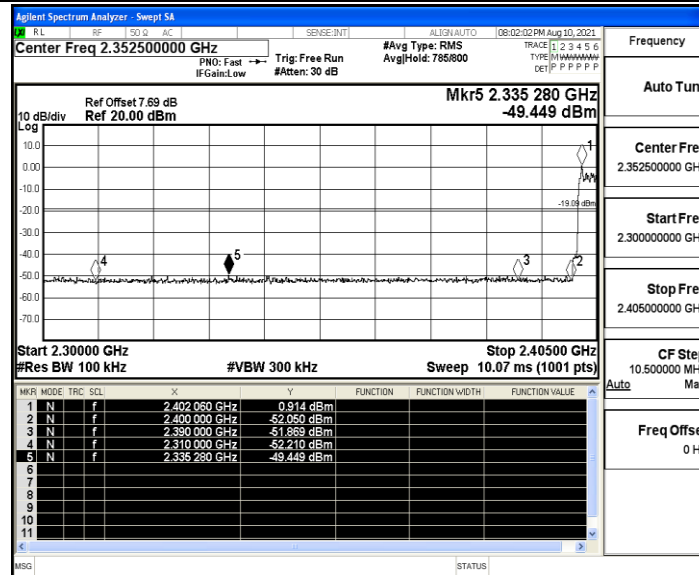




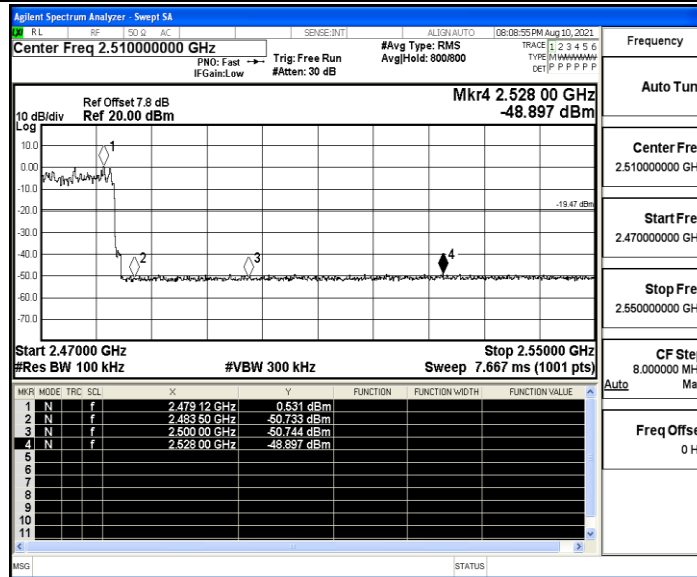
2DH5_Ant1_High_2480



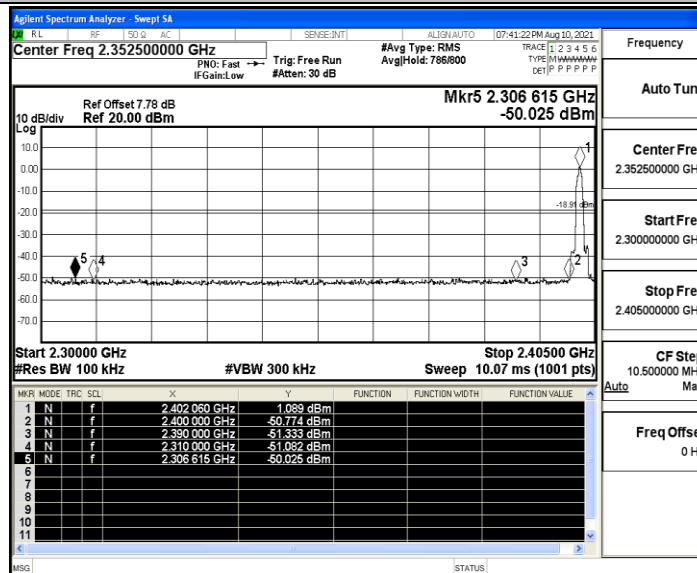
2DH5_Ant1_Low_Hop_2402



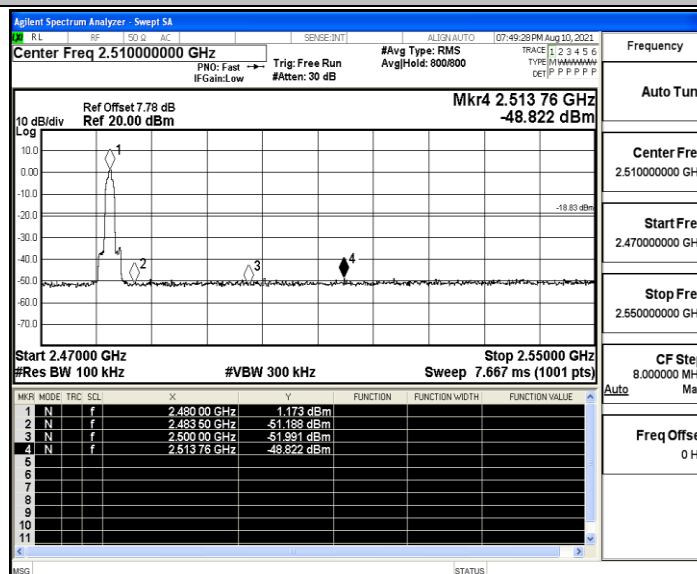
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

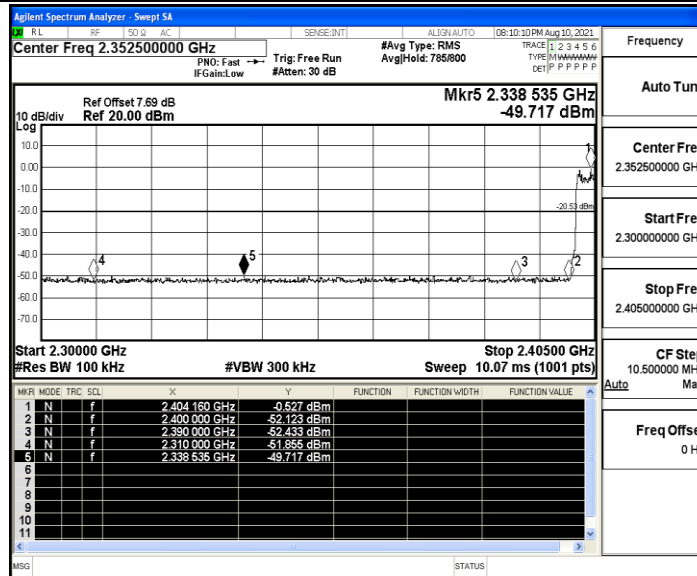


3DH5_Ant1_High_2480

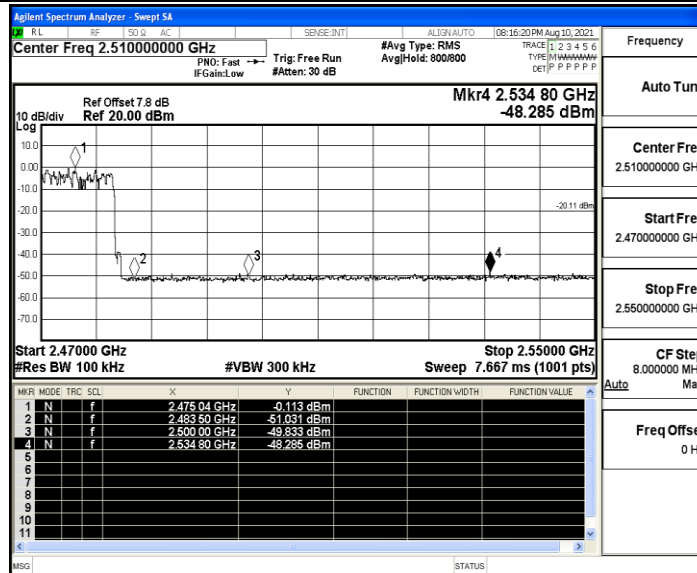




3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





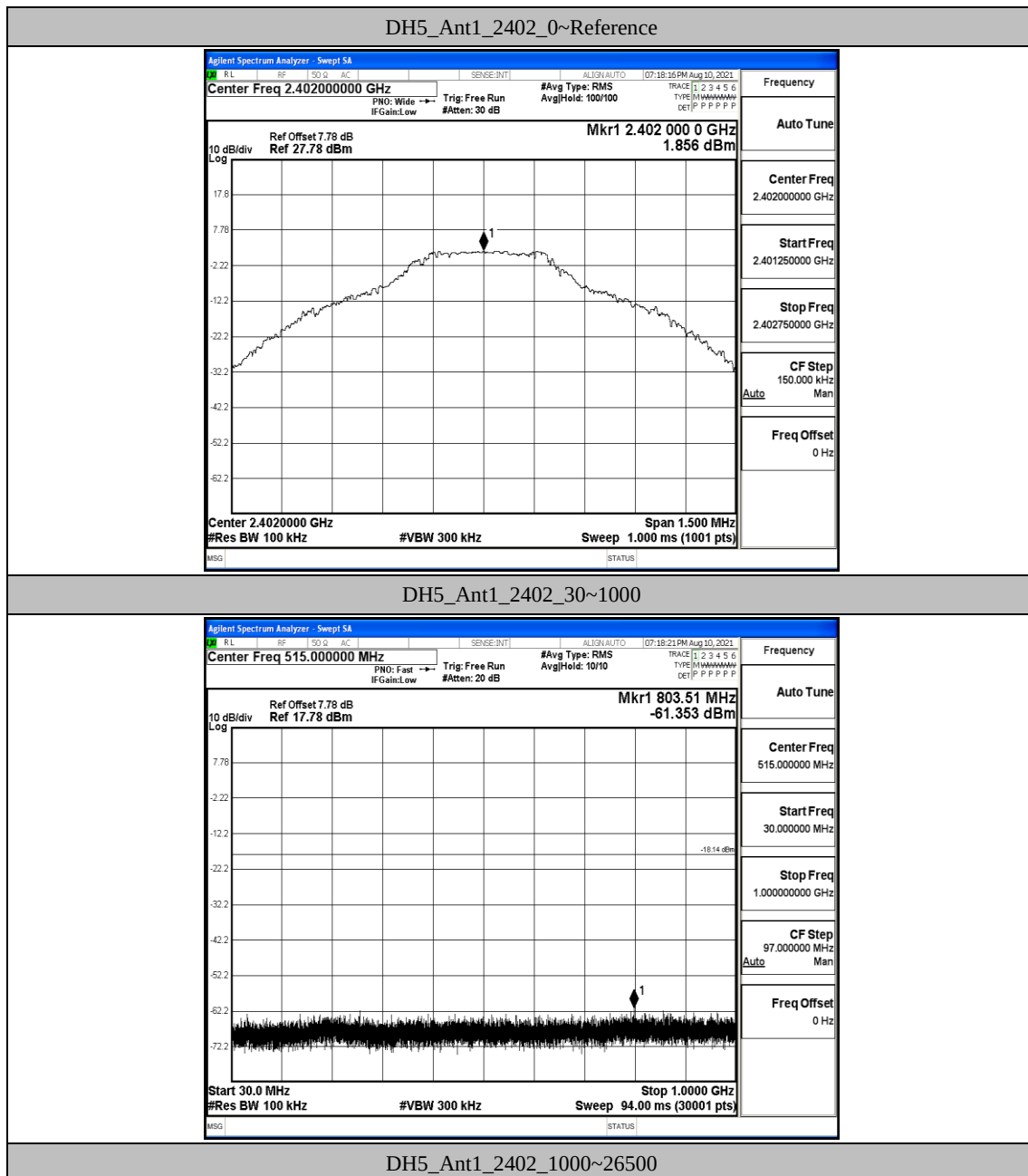
A.7 Conducted Spurious Emission

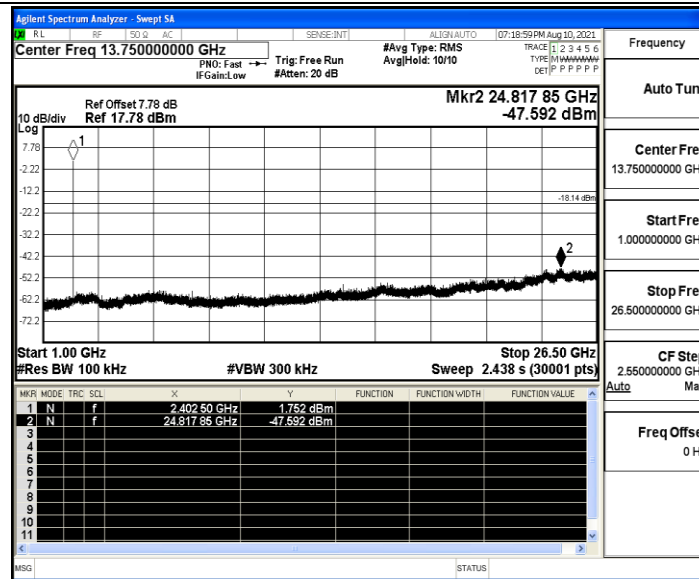
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	1.86	1.86	---	PASS
			30~1000	1.86	-61.35	≤-18.14	PASS
			1000~26500	1.86	-47.59	≤-18.14	PASS
		2441	Reference	3.21	3.21	---	PASS
			30~1000	3.21	-61.63	≤-16.79	PASS
			1000~26500	3.21	-47.66	≤-16.79	PASS
		2480	Reference	2.26	2.26	---	PASS
			30~1000	2.26	-61.13	≤-17.74	PASS
			1000~26500	2.26	-47.48	≤-17.74	PASS
2DH5	Ant1	2402	Reference	0.74	0.74	---	PASS
			30~1000	0.74	-61.56	≤-19.26	PASS
			1000~26500	0.74	-47.26	≤-19.26	PASS
		2441	Reference	2.35	2.35	---	PASS
			30~1000	2.35	-61.41	≤-17.66	PASS
			1000~26500	2.35	-46.63	≤-17.66	PASS
		2480	Reference	0.84	0.84	---	PASS
			30~1000	0.84	-60.73	≤-19.16	PASS
			1000~26500	0.84	-47.42	≤-19.16	PASS
3DH5	Ant1	2402	Reference	-2.19	-2.19	---	PASS
			30~1000	-2.19	-60.73	≤-22.19	PASS
			1000~26500	-2.19	-46.83	≤-22.19	PASS
		2441	Reference	-0.92	-0.92	---	PASS
			30~1000	-0.92	-61.22	≤-20.92	PASS
			1000~26500	-0.92	-47.32	≤-20.92	PASS
		2480	Reference	-2.16	-2.16	---	PASS
			30~1000	-2.16	-61.5	≤-22.16	PASS
			1000~26500	-2.16	-47.57	≤-22.16	PASS

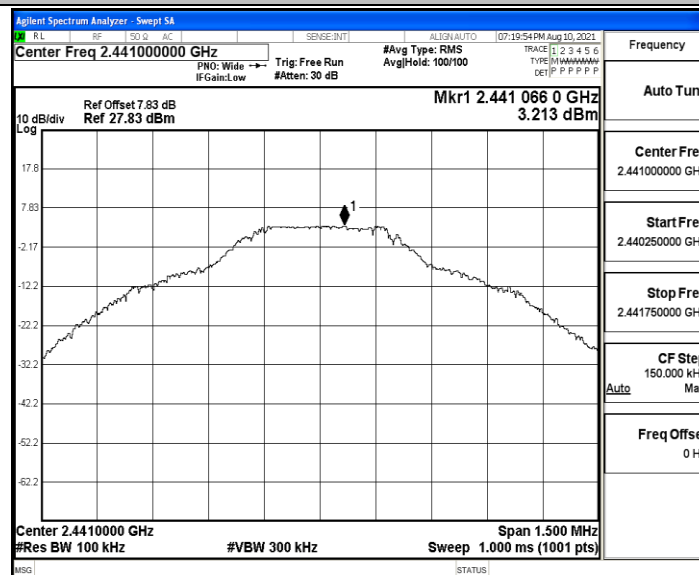


Test Graphs

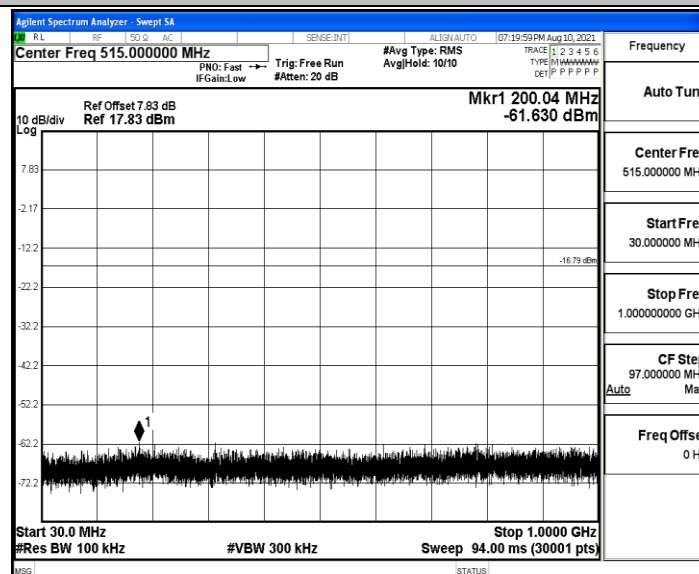




DH5_Ant1_2441_0~Reference

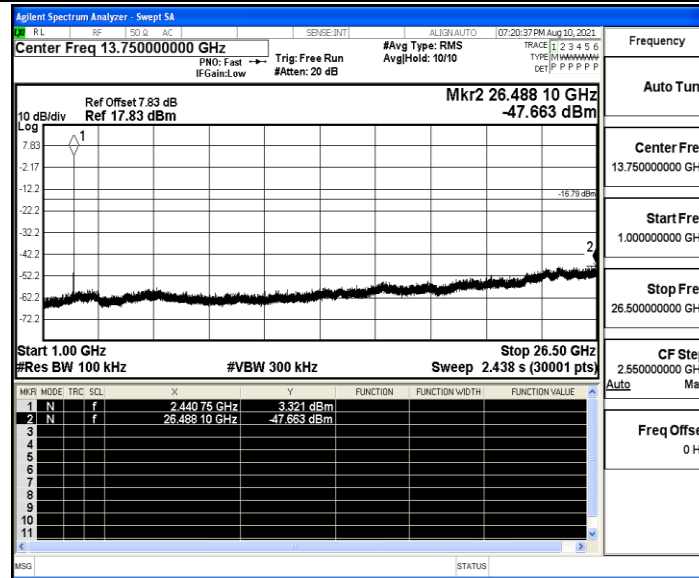


DH5_Ant1_2441_30~1000

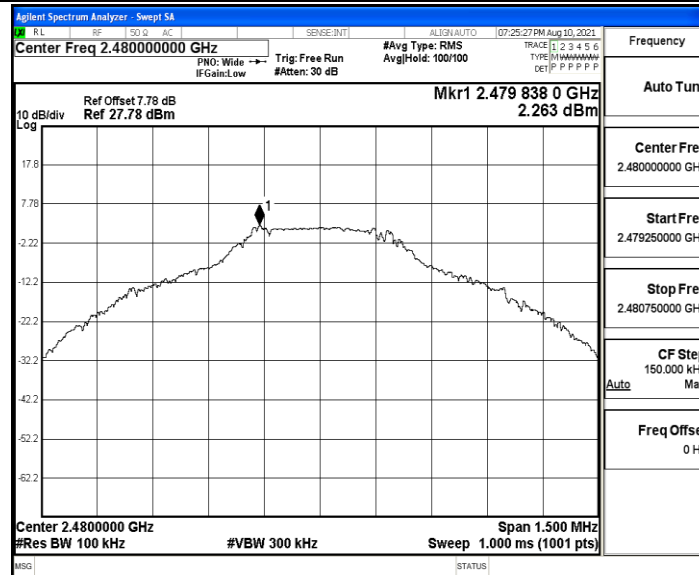




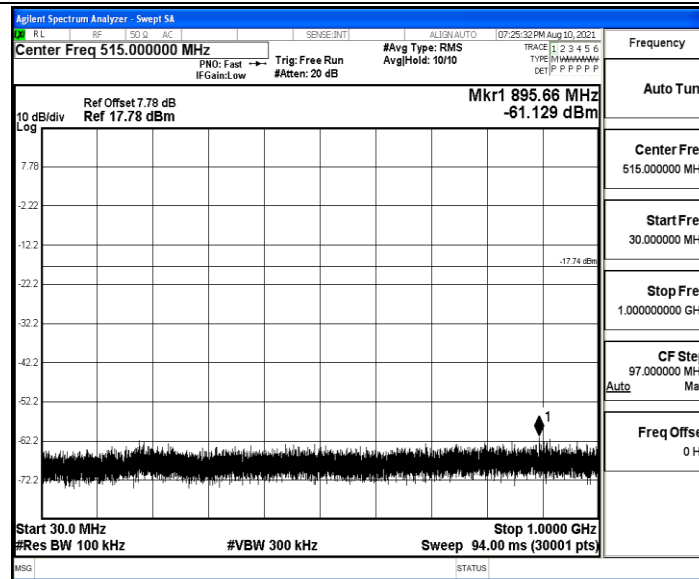
DH5_Ant1_2441_1000~26500



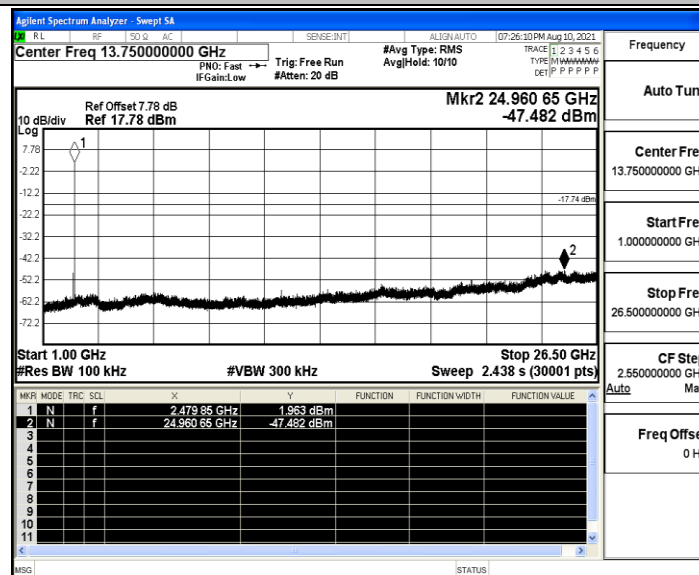
DH5_Ant1_2480_0~Reference



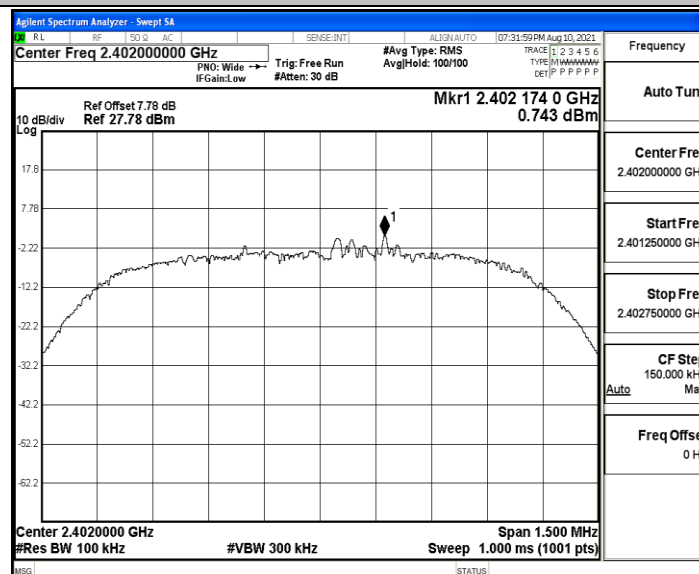
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

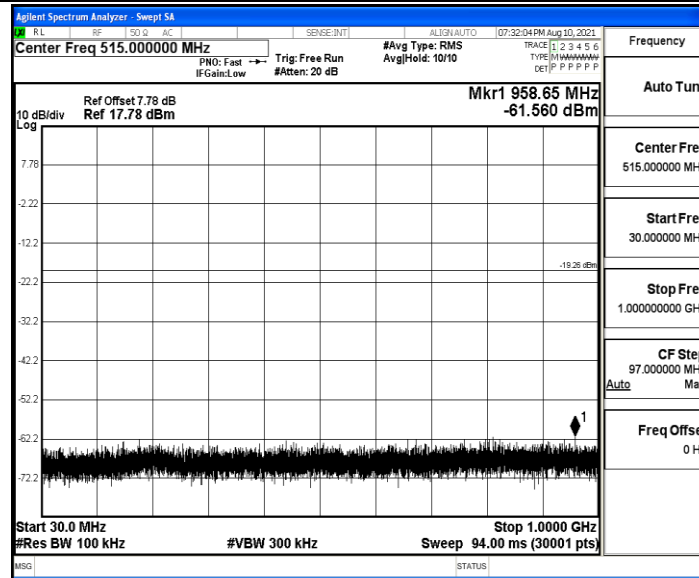


2DH5_Ant1_2402_0~Reference

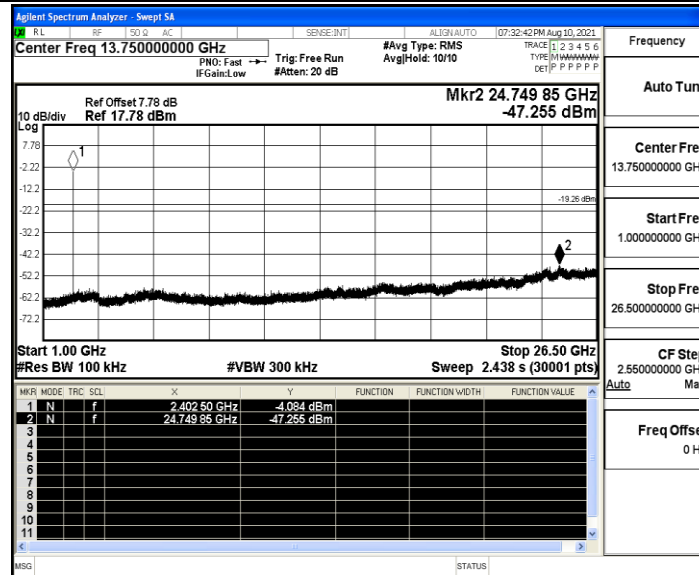




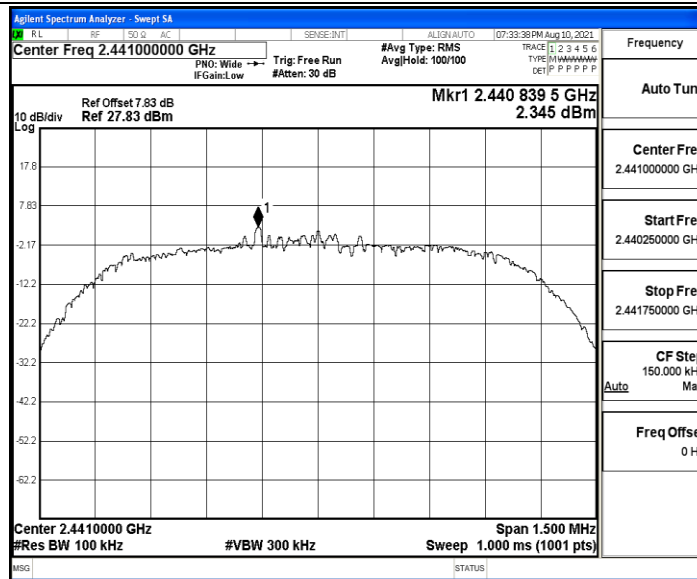
2DH5_Ant1_2402_30~1000



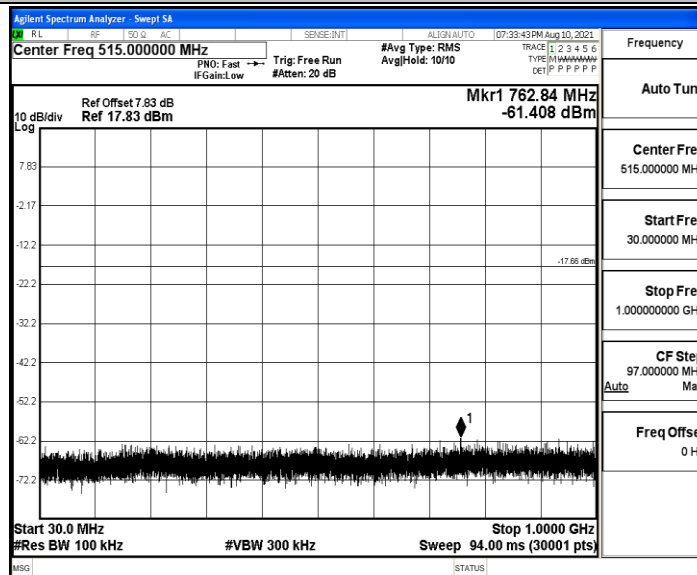
2DH5_Ant1_2402_1000~26500



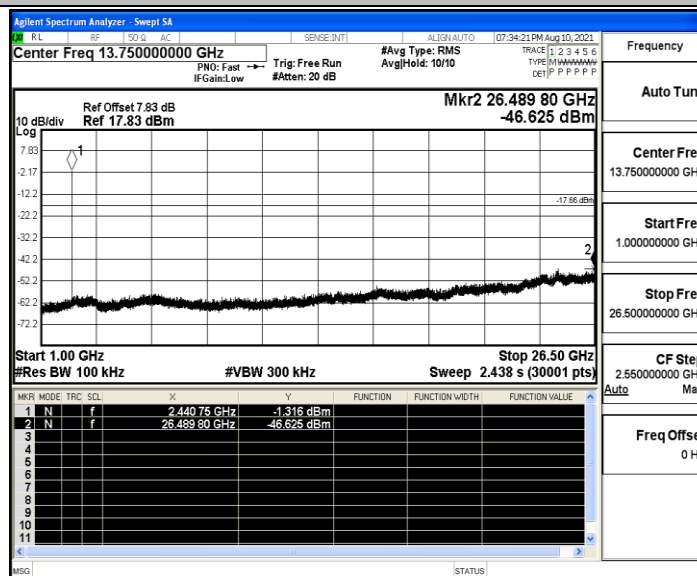
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

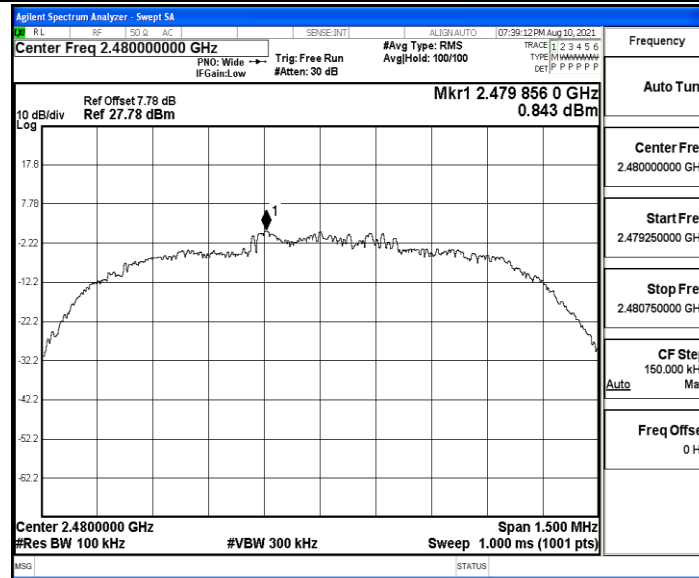


2DH5_Ant1_2441_1000~26500

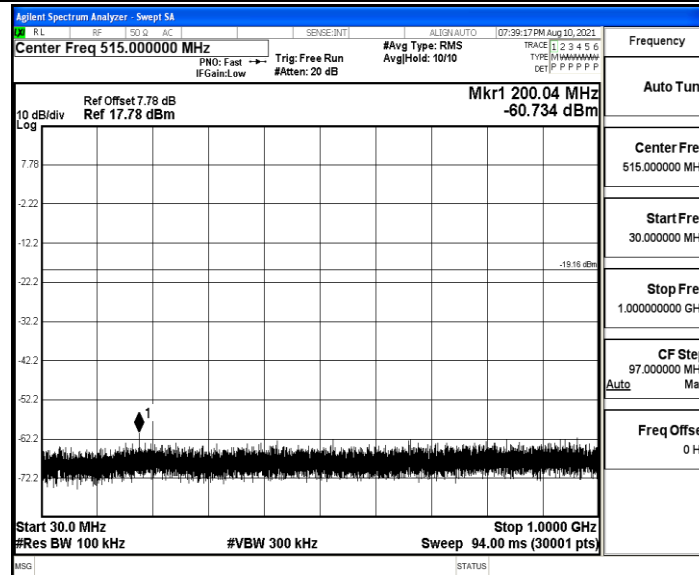




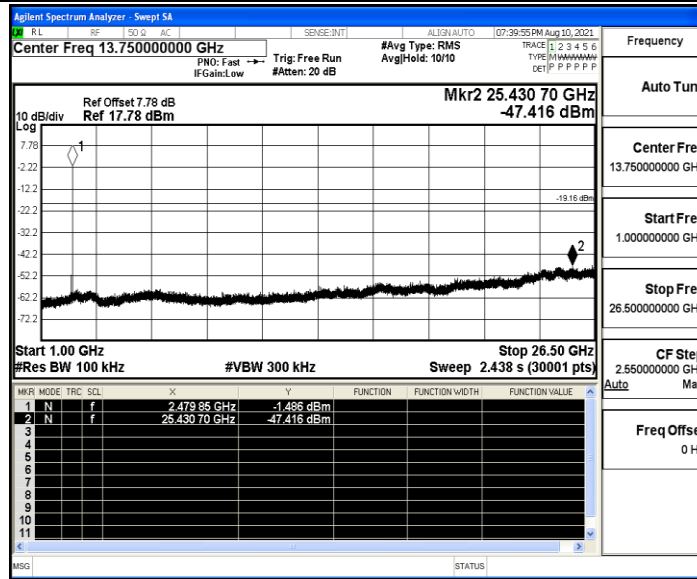
2DH5_Ant1_2480_0~Reference



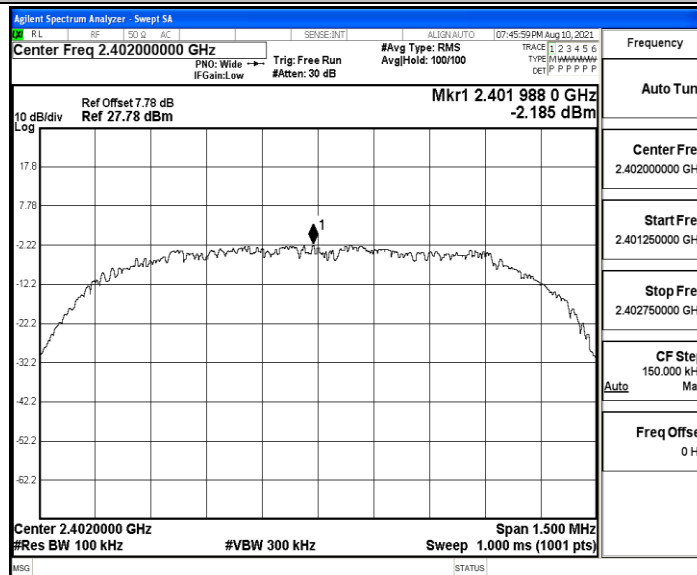
2DH5_Ant1_2480_30~1000



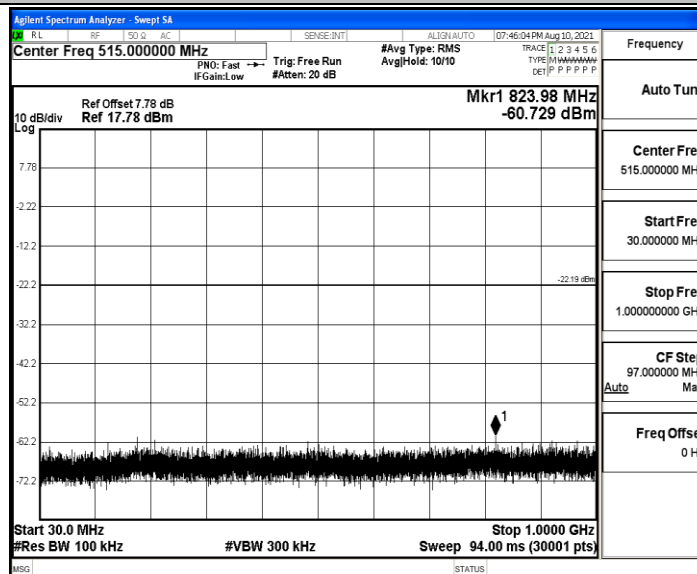
2DH5_Ant1_2480_1000~26500



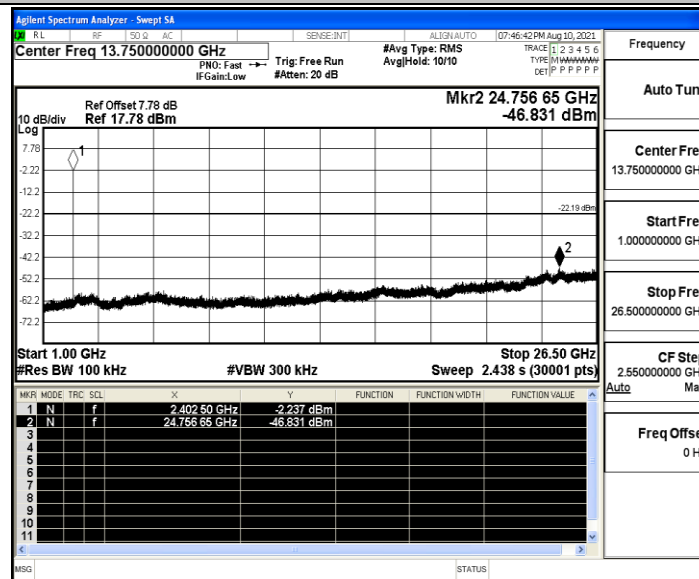
3DH5_Ant1_2402_0~Reference



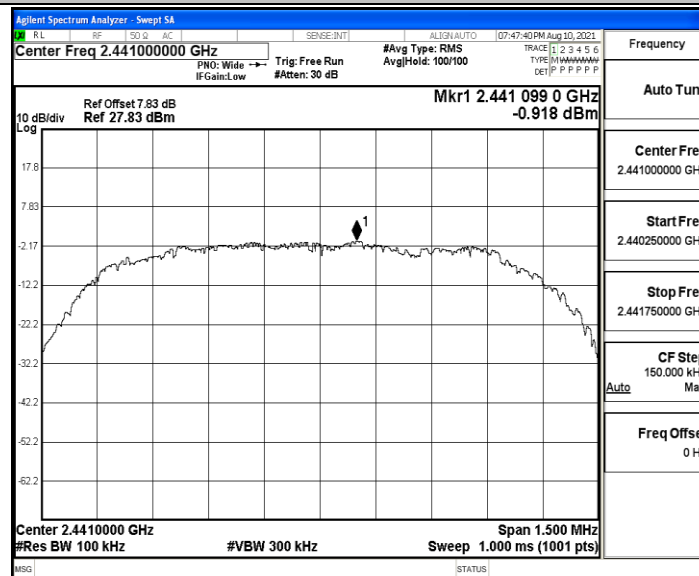
3DH5_Ant1_2402_30~1000



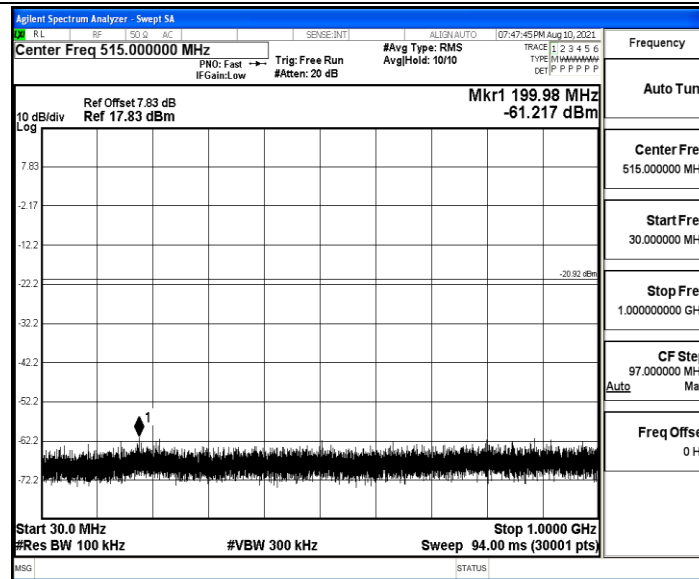
3DH5_Ant1_2402_1000~26500



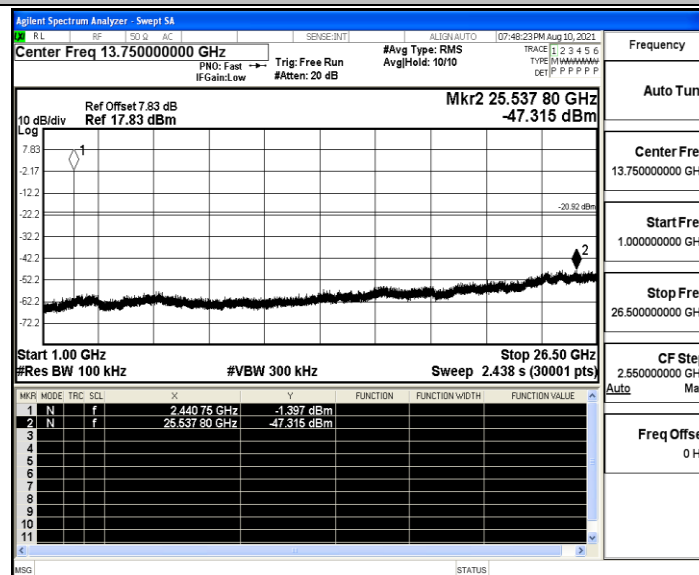
3DH5_Ant1_2441_0~Reference



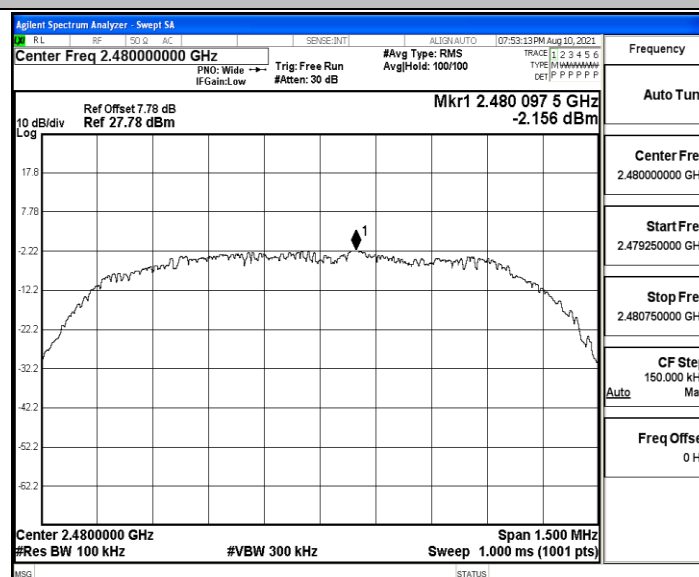
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

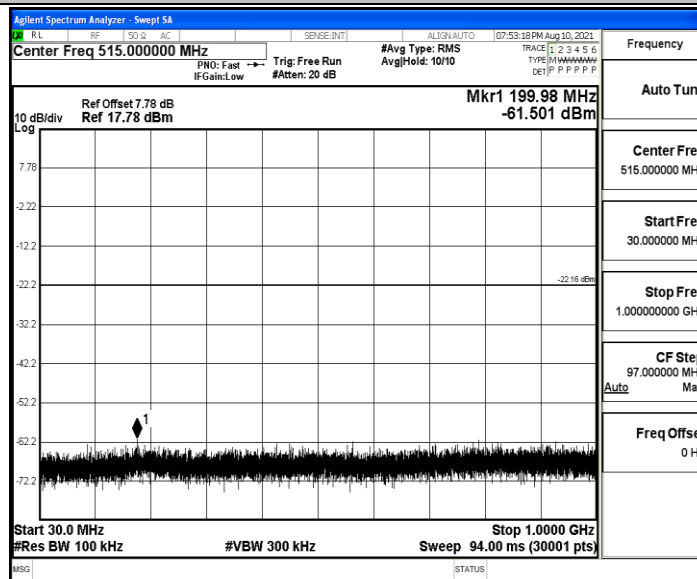


3DH5_Ant1_2480_0~Reference

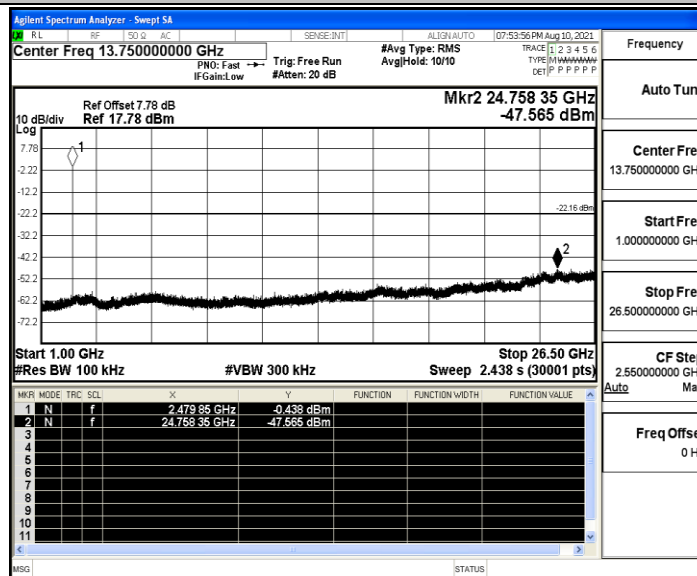




3DH5_Ant1_2480_30~1000



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	-48.95	≤-41.20	46.25	≤54	PASS
				AV	2377.490	-48.49	≤-41.20	46.71	≤54	PASS
				AV	2390.000	-48.52	≤-41.20	46.68	≤54	PASS
				Peak	2310.000	-40.2	≤-21.20	55.00	≤74	PASS
				Peak	2357.330	-37.62	≤-21.20	57.58	≤74	PASS
				Peak	2390.000	-41.5	≤-21.20	53.70	≤74	PASS
		High	2480	AV	2483.500	-47.72	≤-41.20	47.48	≤54	PASS
				AV	2483.520	-47.72	≤-41.20	47.48	≤54	PASS
				AV	2500.000	-48.06	≤-41.20	47.14	≤54	PASS
				Peak	2483.500	-40.76	≤-21.20	54.44	≤74	PASS
				Peak	2492.320	-38.4	≤-21.20	56.80	≤74	PASS
				Peak	2500.000	-39.95	≤-21.20	55.25	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.99	≤-41.20	46.21	≤54	PASS
				AV	2389.985	-48.48	≤-41.20	46.72	≤54	PASS
				AV	2390.000	-48.48	≤-41.20	46.72	≤54	PASS
				Peak	2310.000	-40.41	≤-21.20	54.79	≤74	PASS
				Peak	2328.140	-37.98	≤-21.20	57.22	≤74	PASS
				Peak	2390.000	-39.53	≤-21.20	55.67	≤74	PASS
		High	2480	AV	2483.500	-47.74	≤-41.20	47.46	≤54	PASS
				AV	2483.520	-47.74	≤-41.20	47.46	≤54	PASS
				AV	2500.000	-48.06	≤-41.20	47.14	≤54	PASS
				Peak	2483.500	-39.09	≤-21.20	56.11	≤74	PASS
				Peak	2489.760	-37.44	≤-21.20	57.76	≤74	PASS
				Peak	2500.000	-39.57	≤-21.20	55.63	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.94	≤-41.20	46.26	≤54	PASS
				AV	2386.205	-48.48	≤-41.20	46.72	≤54	PASS
				AV	2390.000	-48.59	≤-41.20	46.61	≤54	PASS
				Peak	2310.000	-41.46	≤-21.20	53.74	≤74	PASS
				Peak	2387.570	-38.37	≤-21.20	56.83	≤74	PASS
				Peak	2390.000	-40.52	≤-21.20	54.68	≤74	PASS
		High	2480	AV	2483.500	-47.62	≤-41.20	47.58	≤54	PASS
				AV	2483.520	-47.62	≤-41.20	47.58	≤54	PASS
				AV	2500.000	-48	≤-41.20	47.20	≤54	PASS
				Peak	2483.500	-40.01	≤-21.20	55.19	≤74	PASS
				Peak	2492.960	-37.92	≤-21.20	57.28	≤74	PASS
				Peak	2500.000	-39.71	≤-21.20	55.49	≤74	PASS



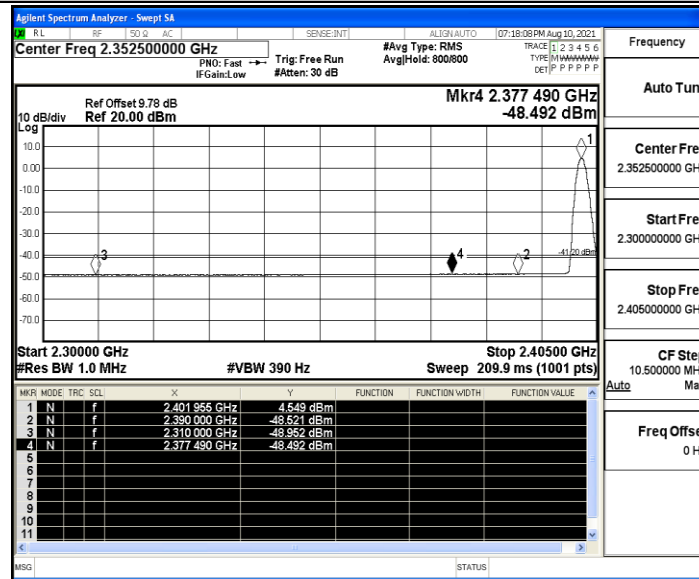
Note:

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.

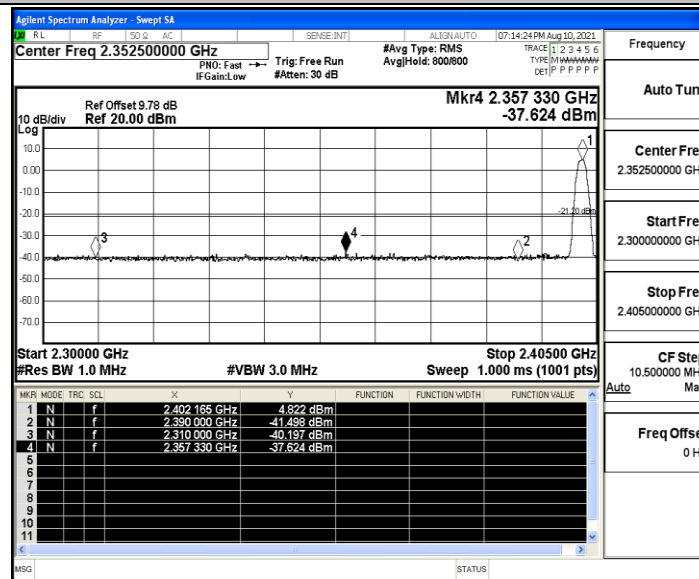


Test Graphs

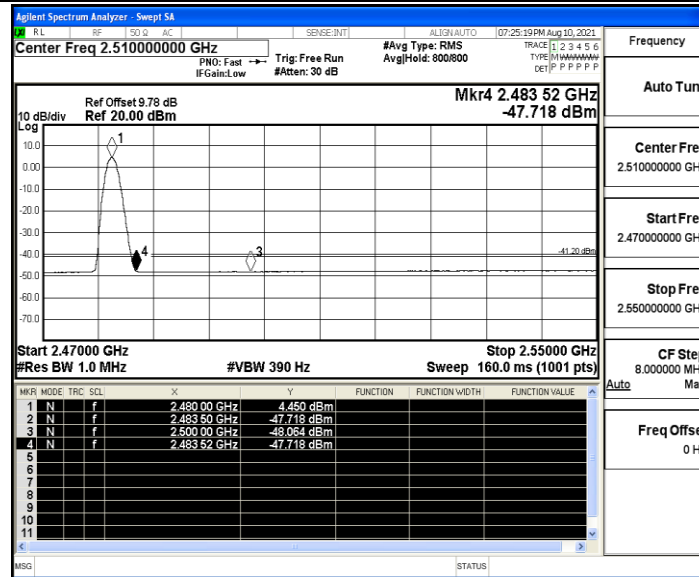
DH5_Ant1_Low_2402_AV



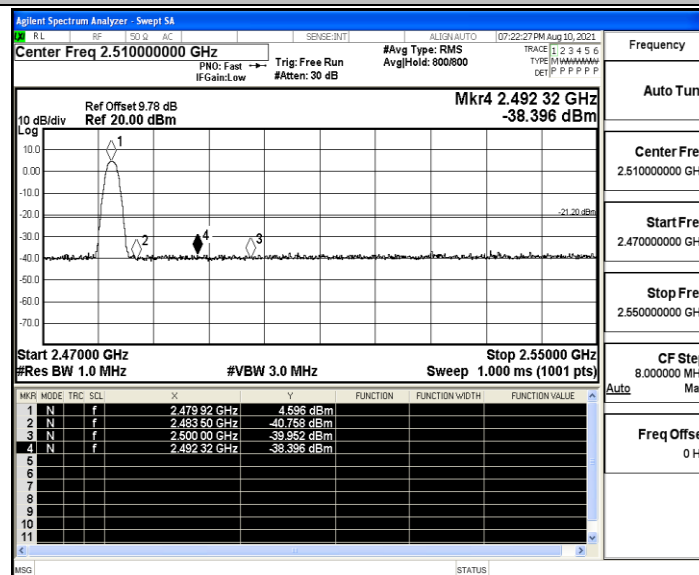
DH5_Ant1_Low_2402_Peak



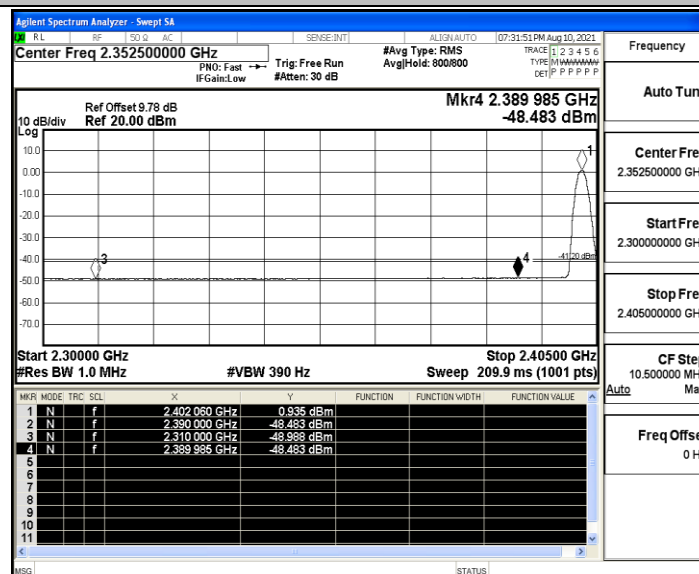
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

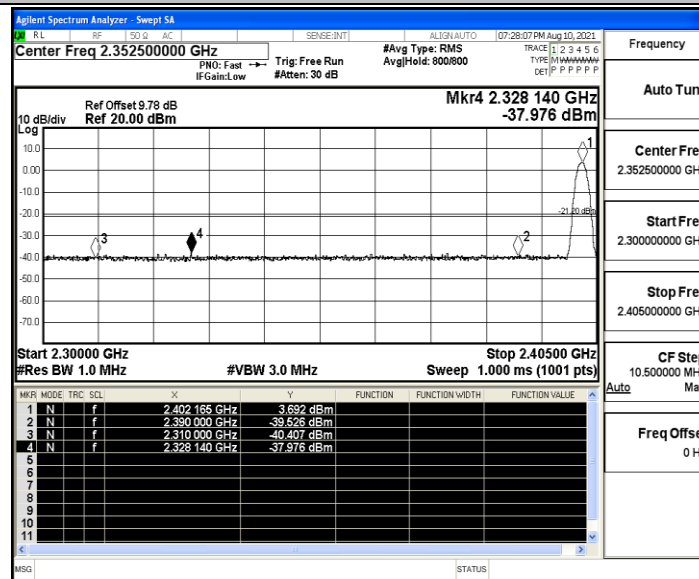


2DH5_Ant1_Low_2402_AV

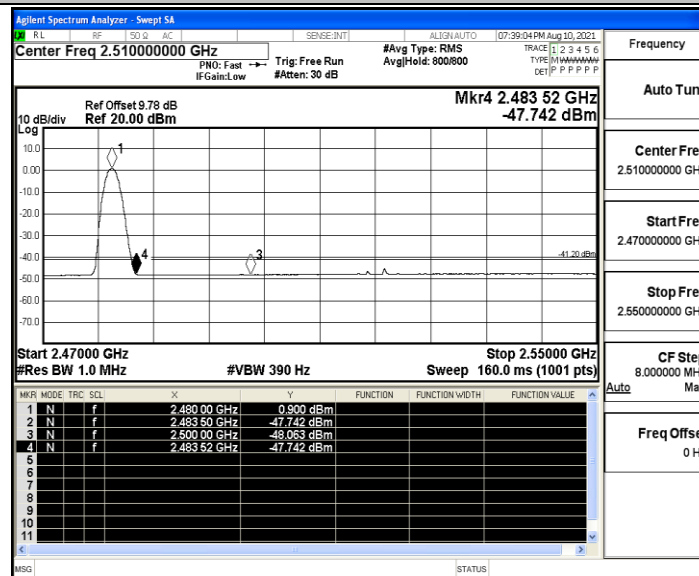




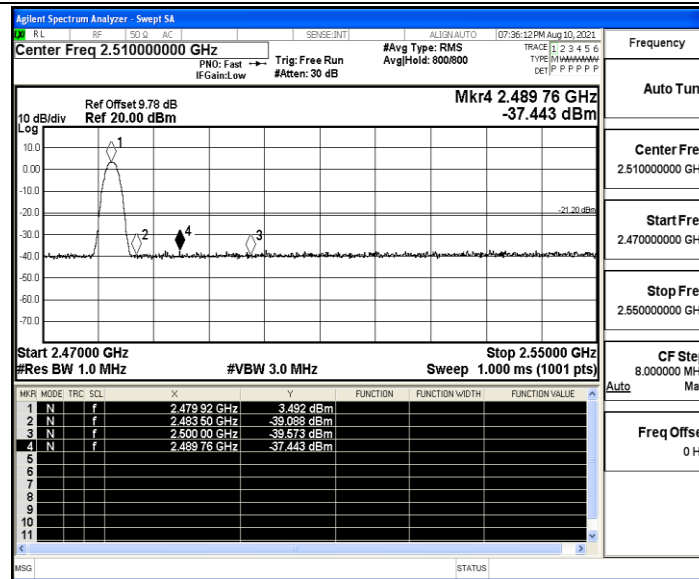
2DH5_Ant1_Low_2402_Peak



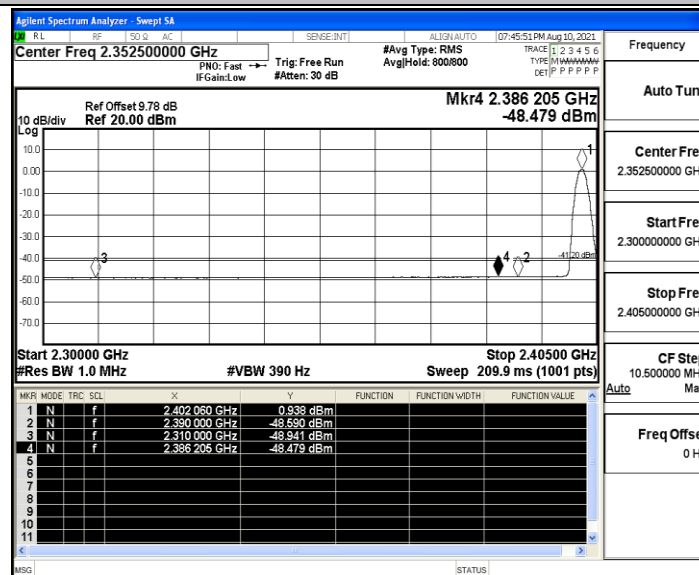
2DH5_Ant1_High_2480_AV



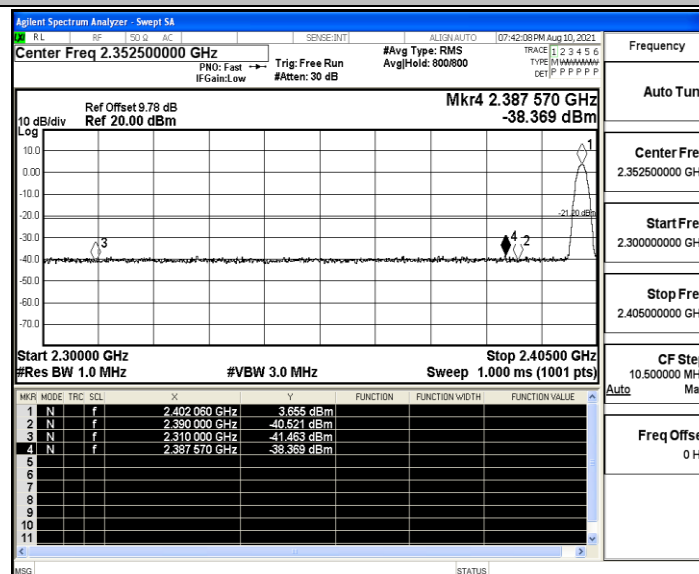
2DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_2402_AV

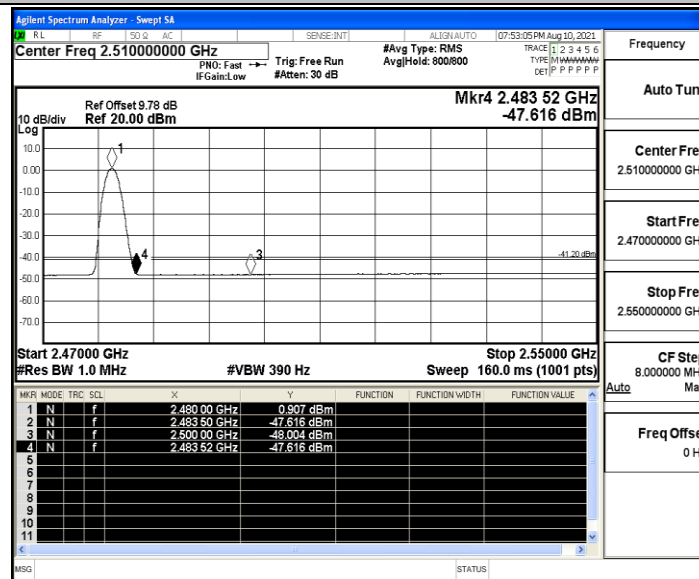


3DH5_Ant1_Low_2402_Peak





3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak

