

Appendix A

RF Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: MINI Stereo Radio

Trade Mark: N/A

Test Model: Mini M90

FCC ID: 2A30Q-MINIM90

Environmental Conditions

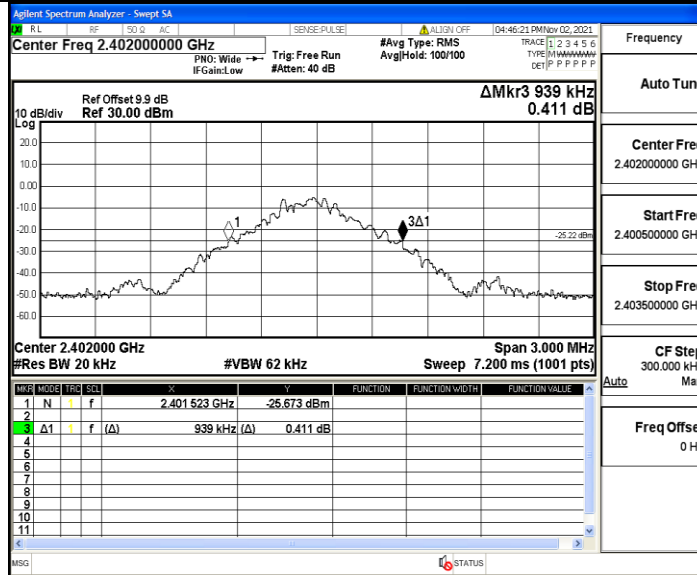
Temperature:	22.8°C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen

A.1 20 dB Bandwidth

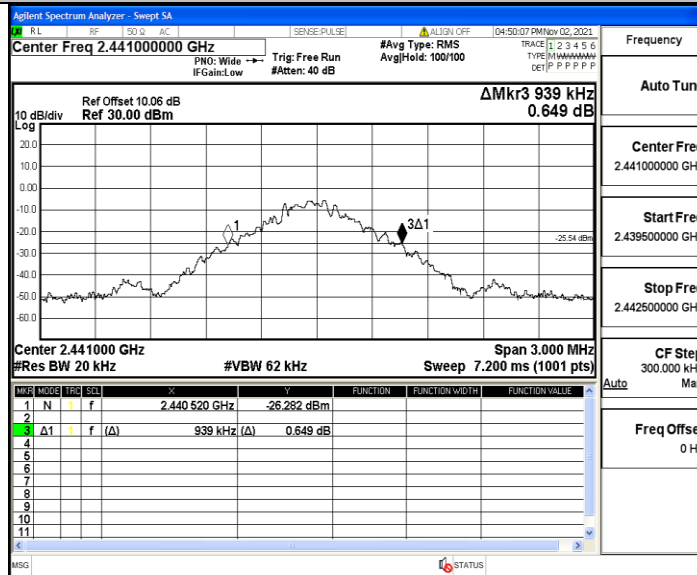
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.939	2401.523	2402.462	---	PASS
		2441	0.939	2440.520	2441.459	---	PASS
		2480	0.918	2479.520	2480.438	---	PASS
2DH5	Ant1	2402	1.332	2401.319	2402.651	---	PASS
		2441	1.323	2440.319	2441.642	---	PASS
		2480	1.317	2479.322	2480.639	---	PASS

Test Graph

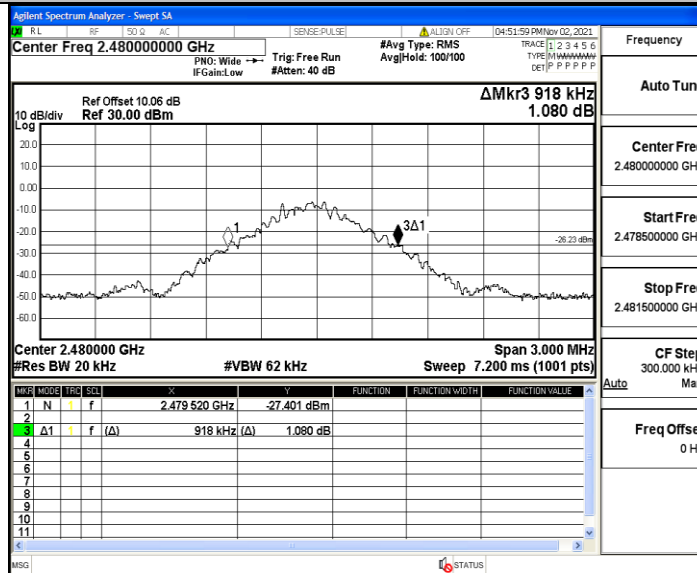
DH5_Ant1_2402



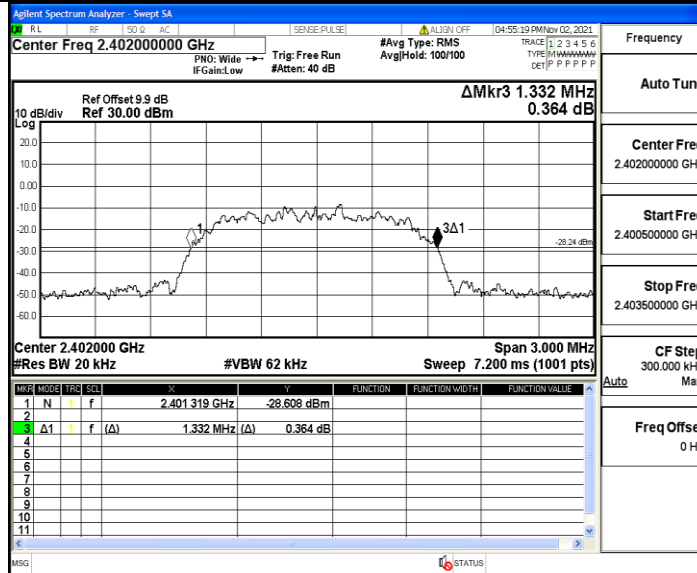
DH5_Ant1_2441



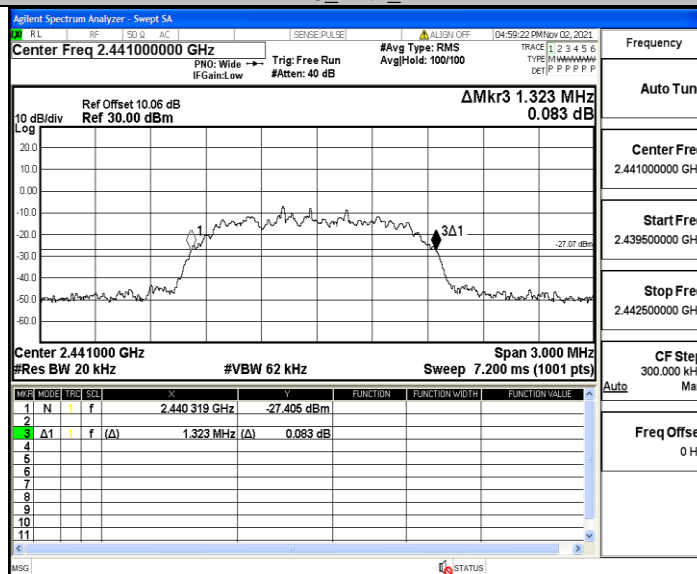
DH5_Ant1_2480



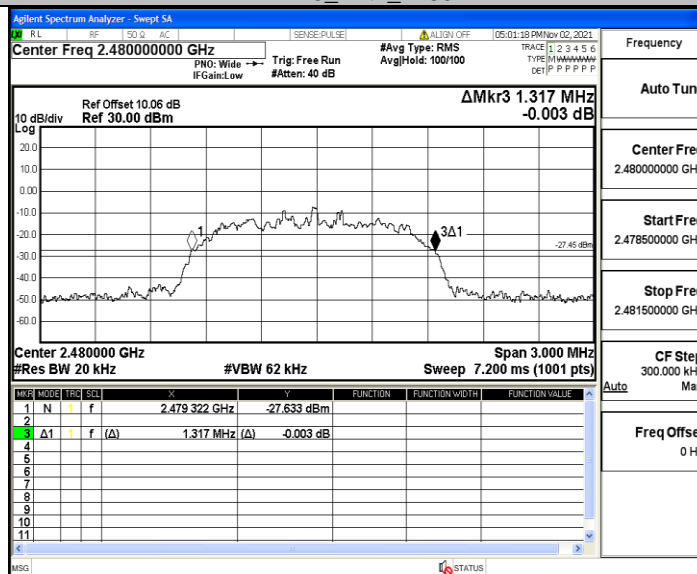
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

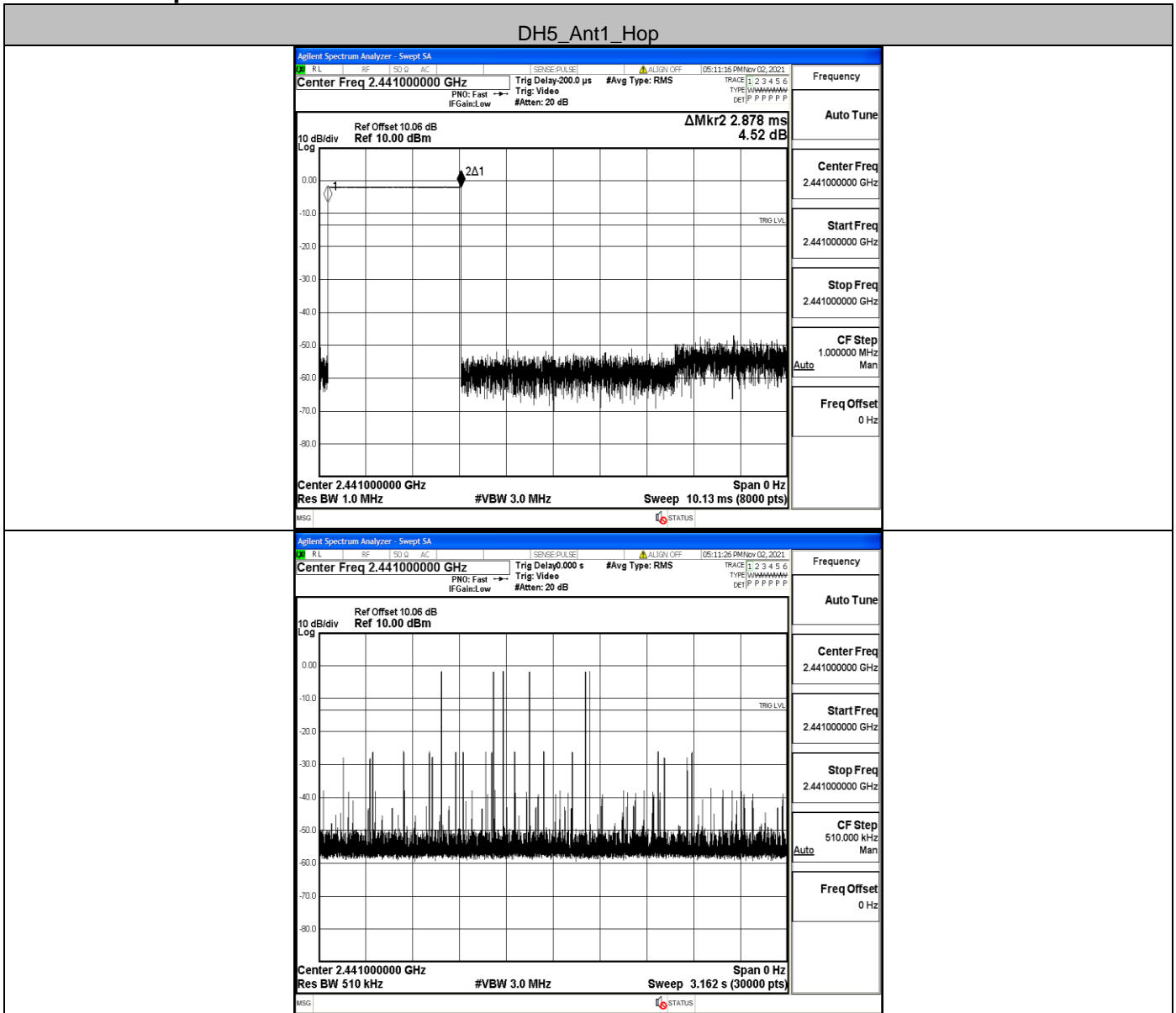


A.2 Dwell Time

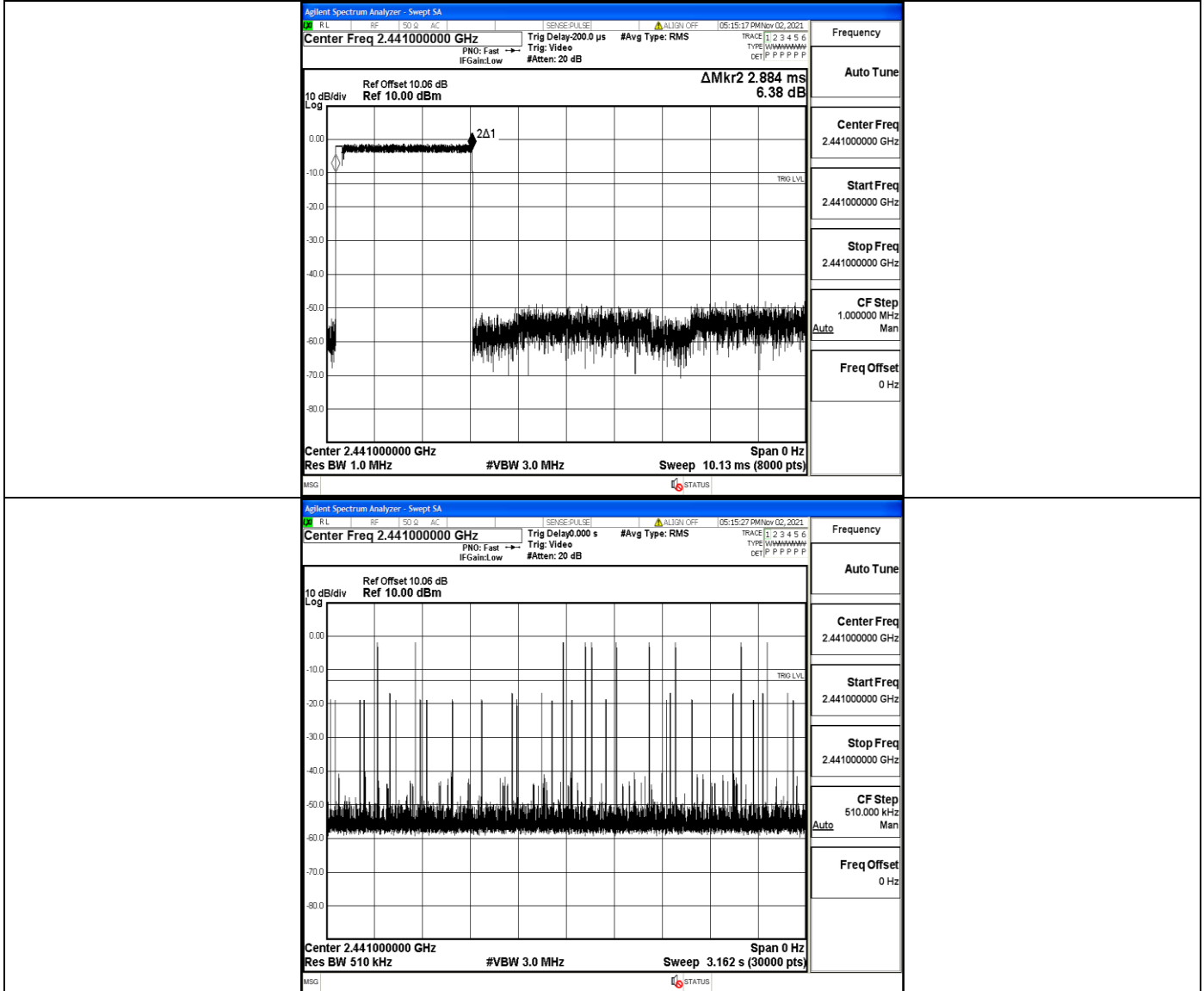
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	70	0.201	≤0.4	PASS
2DH5	Ant1	Hop	2.88	110	0.317	≤0.4	PASS

Test Graph

DH5_Ant1_Hop



2DH5_Ant1_Hop

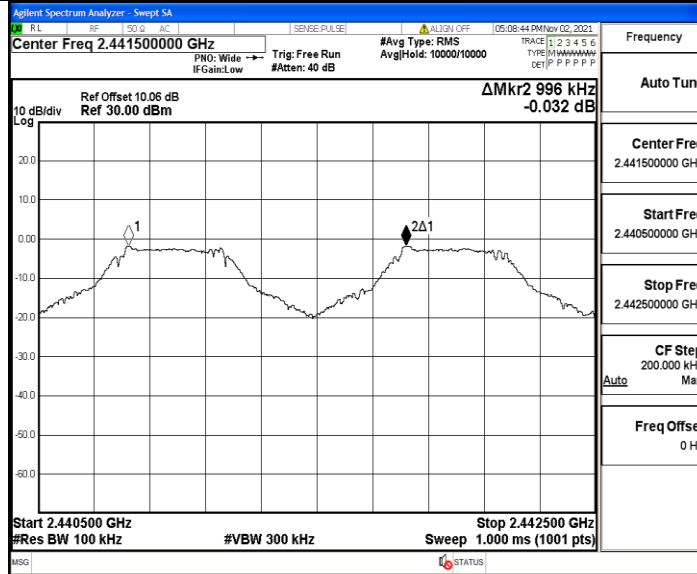


A.3 Carrier Frequency Separation

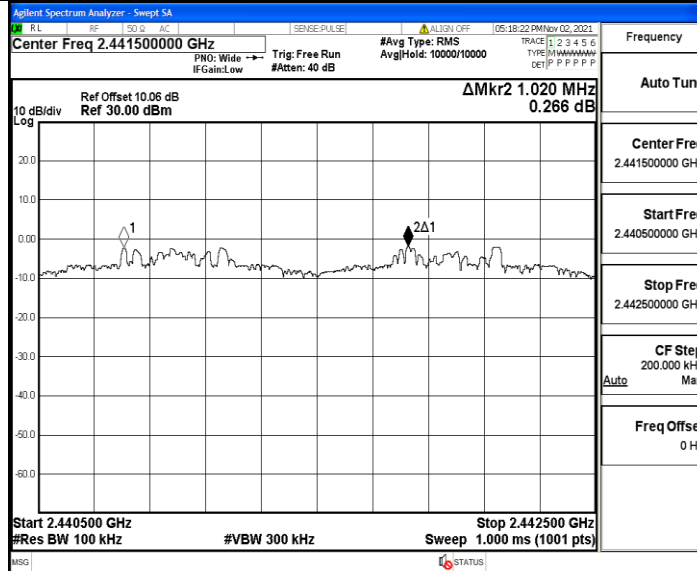
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.996	≥ 0.939	PASS
2DH5	Ant1	Hop	1.02	≥ 0.888	PASS

Test Graph

DH5_Ant1_Hop



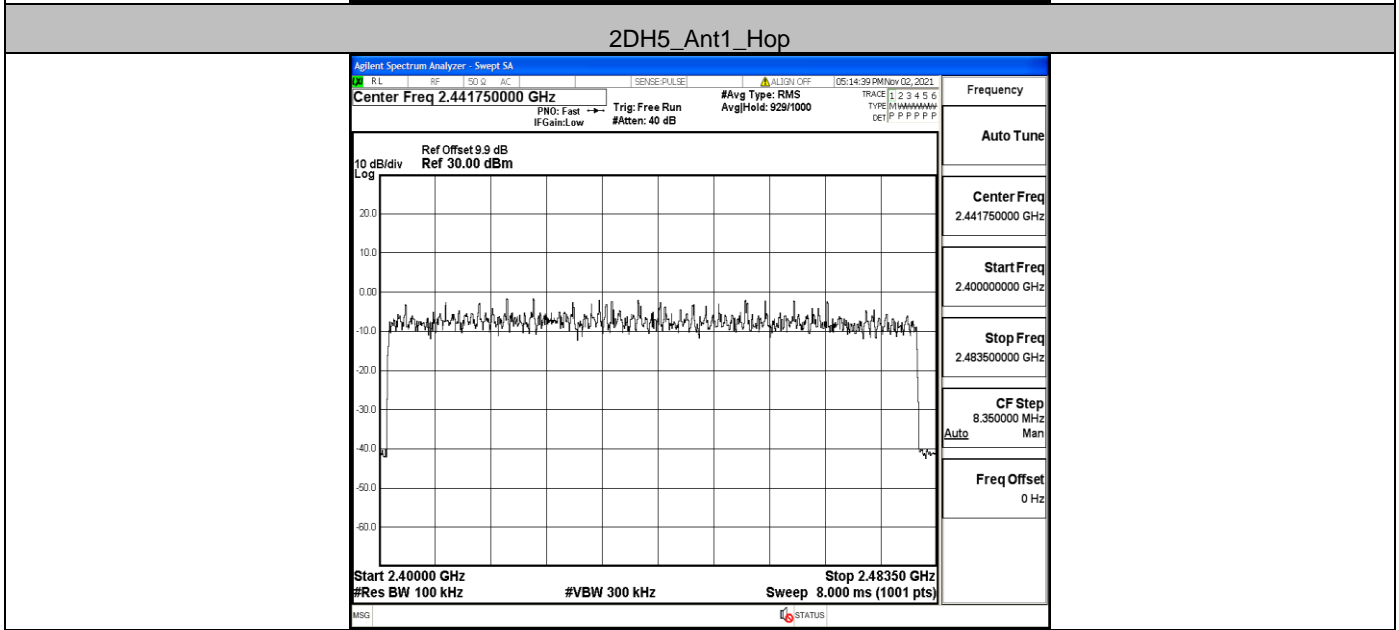
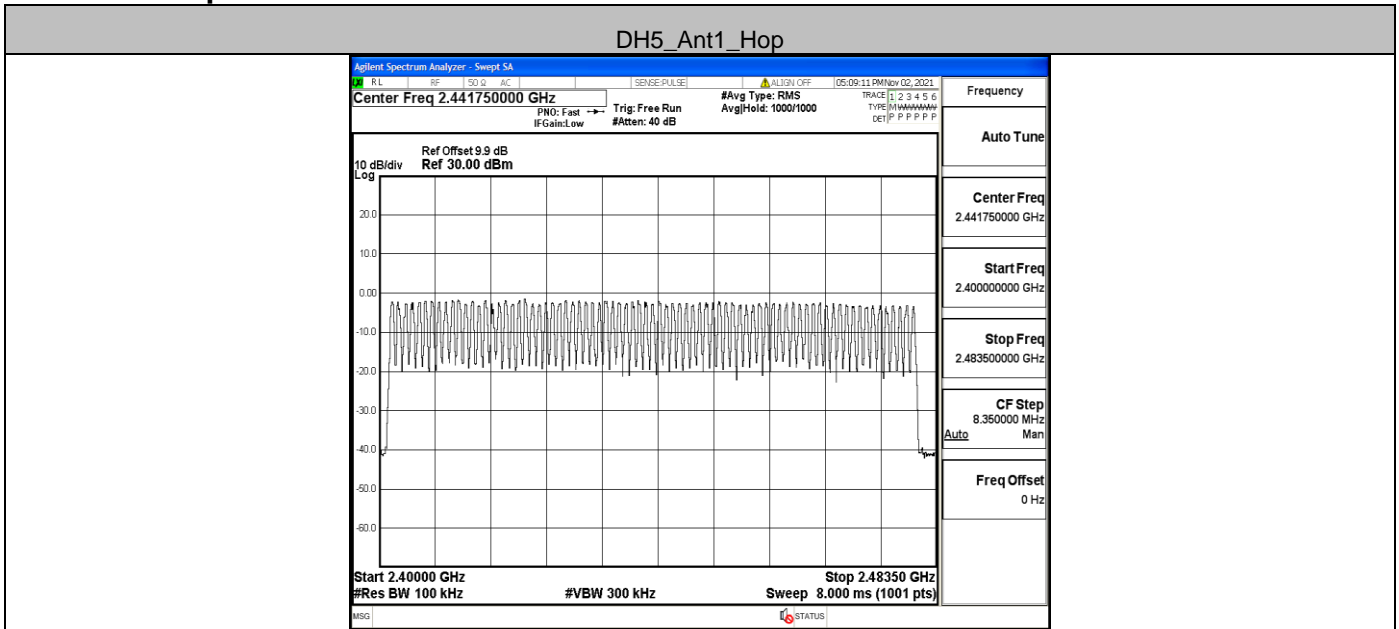
2DH5_Ant1_Hop



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

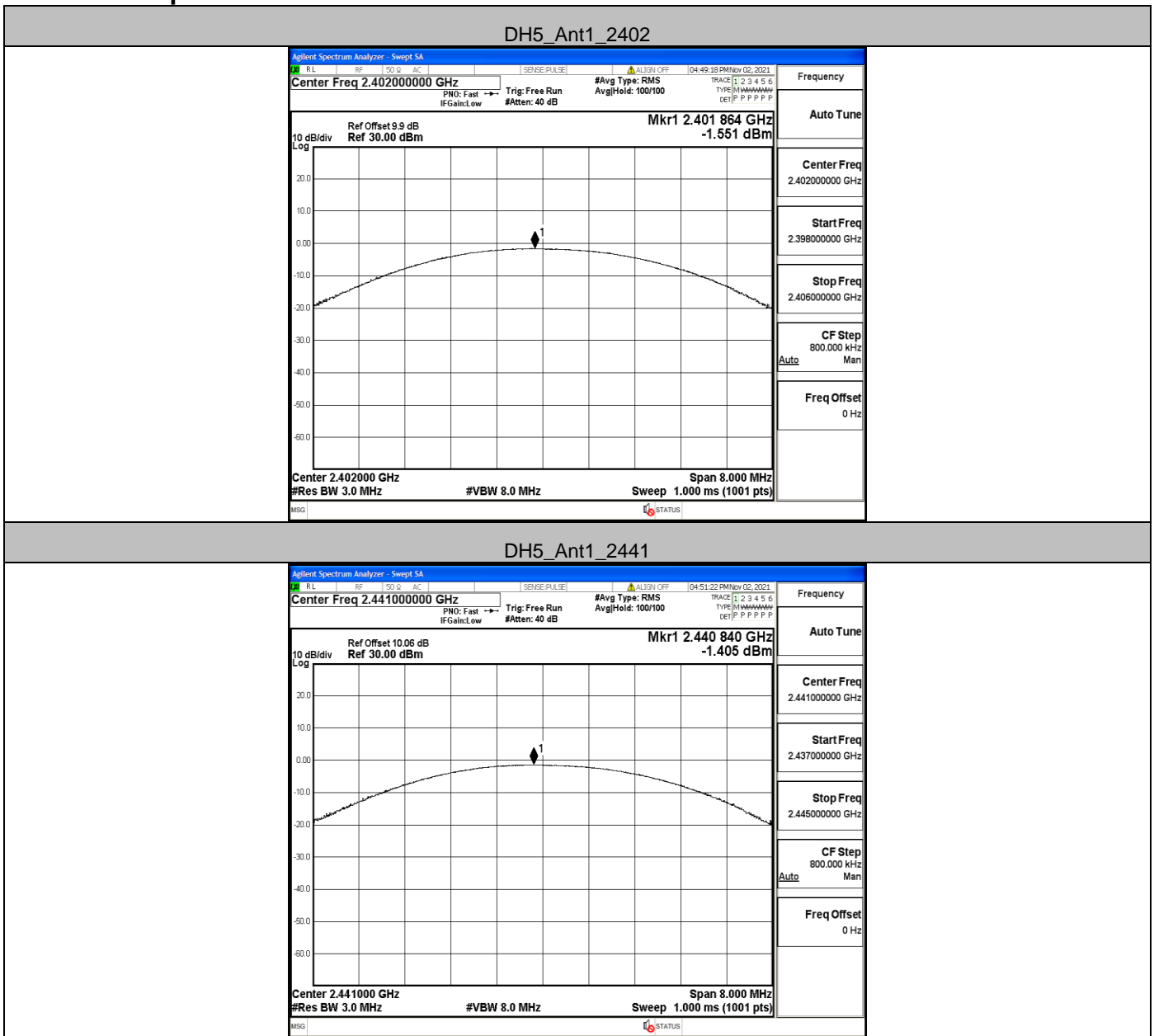
Test Graph



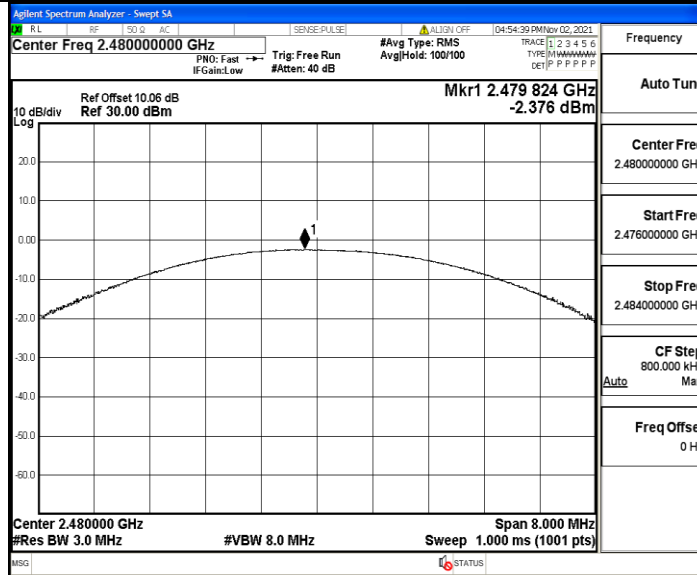
A.5 Conducted Peak Output Power

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-1.55	≤30.0	PASS
		2441	-1.41	≤30.0	PASS
		2480	-2.38	≤30.0	PASS
2DH5	Ant1	2402	-0.86	≤20.97	PASS
		2441	-0.67	≤20.97	PASS
		2480	-1.71	≤20.97	PASS

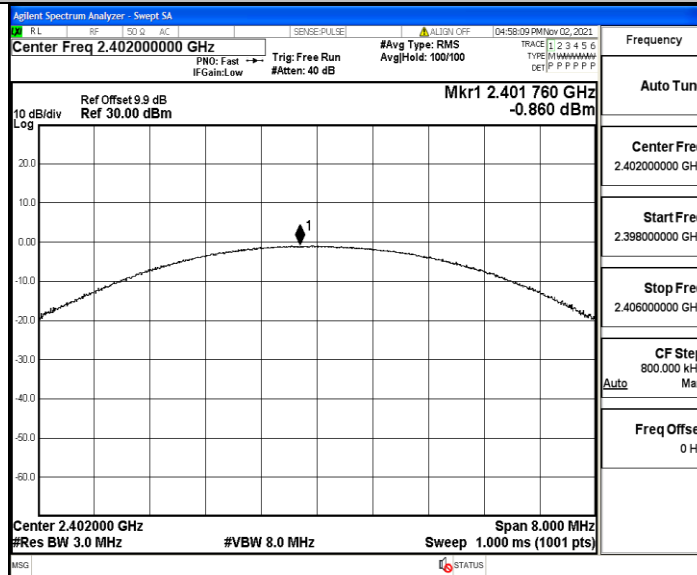
Test Graph



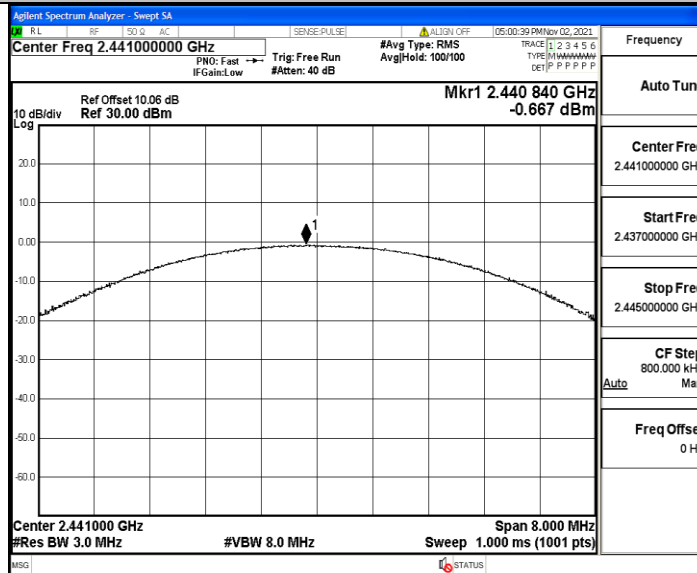
DH5_Ant1_2480



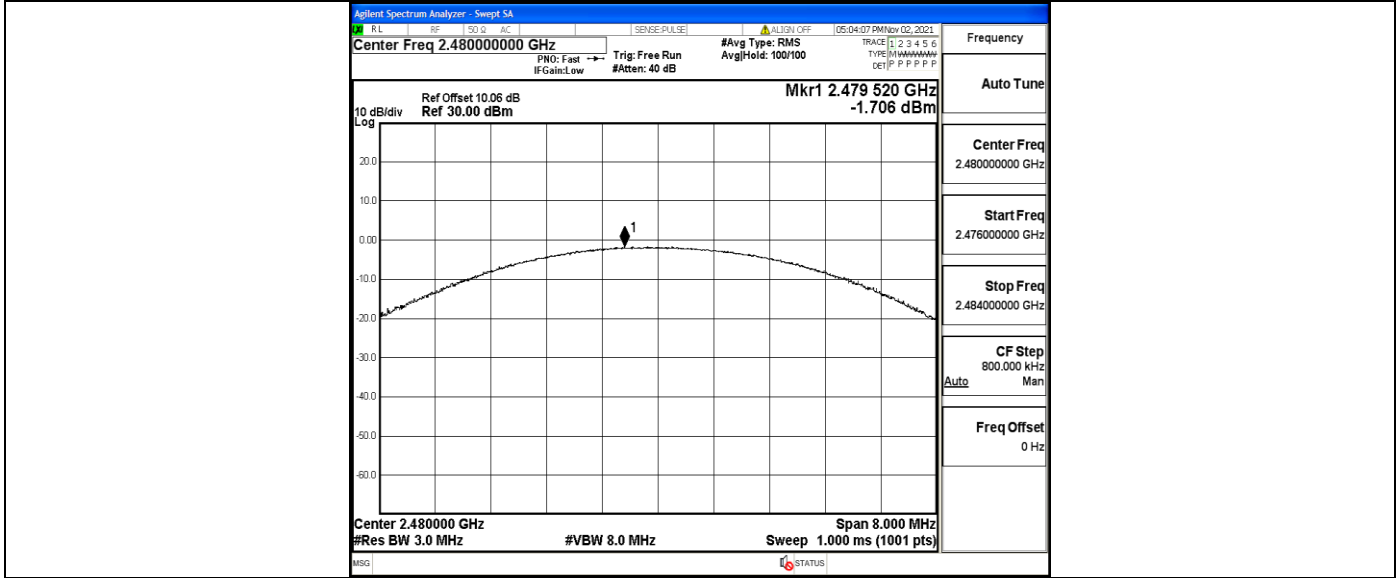
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

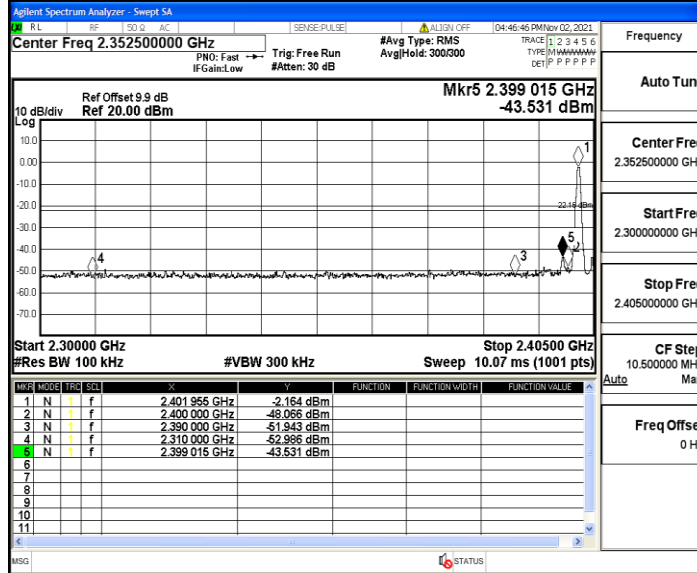


A.6 Band-edge for RF Conducted Emissions

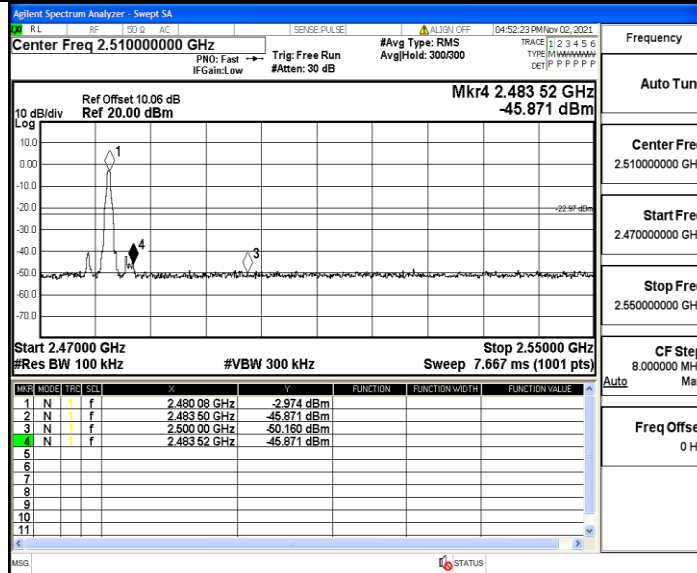
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.16	-43.53	≤-22.16	PASS
		High	2480	-2.97	-45.87	≤-22.97	PASS
		Low	Hop_2402	-2.48	-47.8	≤-22.48	PASS
		High	Hop_2480	-2.92	-47.54	≤-22.92	PASS
2DH5	Ant1	Low	2402	-3.62	-45.35	≤-23.62	PASS
		High	2480	-3.37	-45.12	≤-23.37	PASS
		Low	Hop_2402	-6.07	-48.71	≤-26.07	PASS
		High	Hop_2480	-3.85	-48.33	≤-23.85	PASS

Test Graph

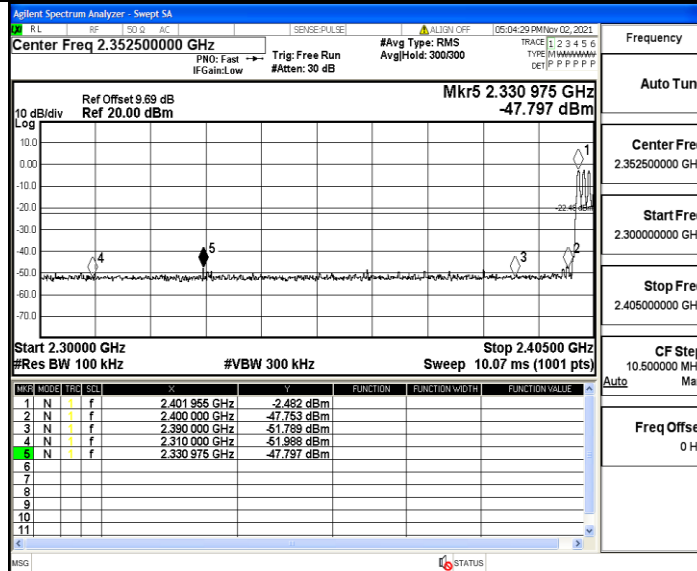
DH5_Ant1_Low_2402



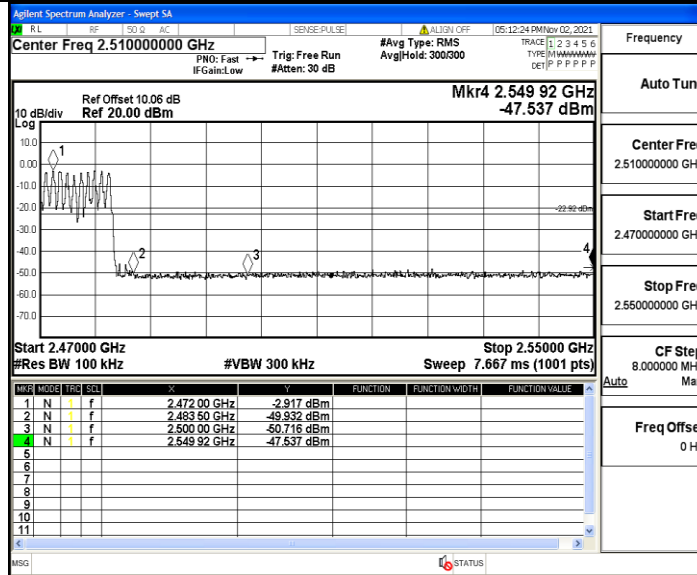
DH5_Ant1_High_2480



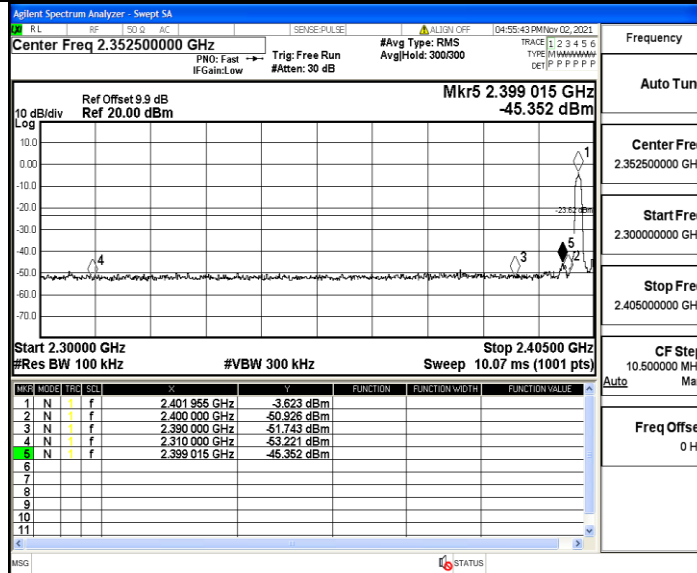
DH5_Ant1_Low_Hop_2402



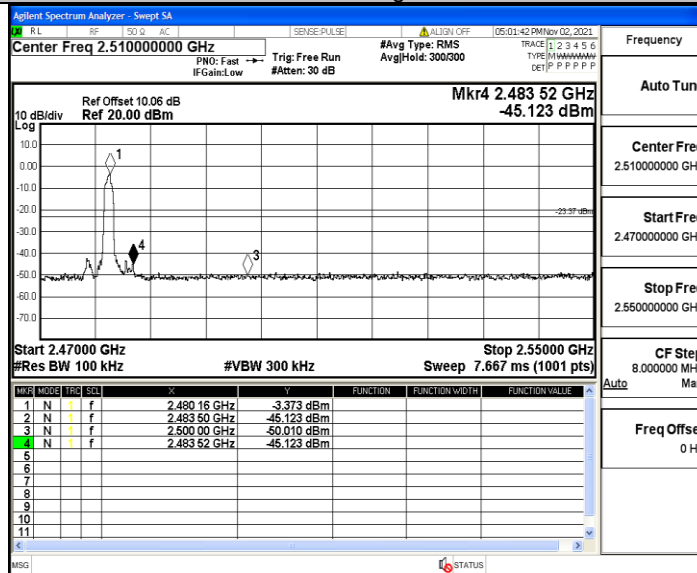
DH5_Ant1_High_Hop_2480



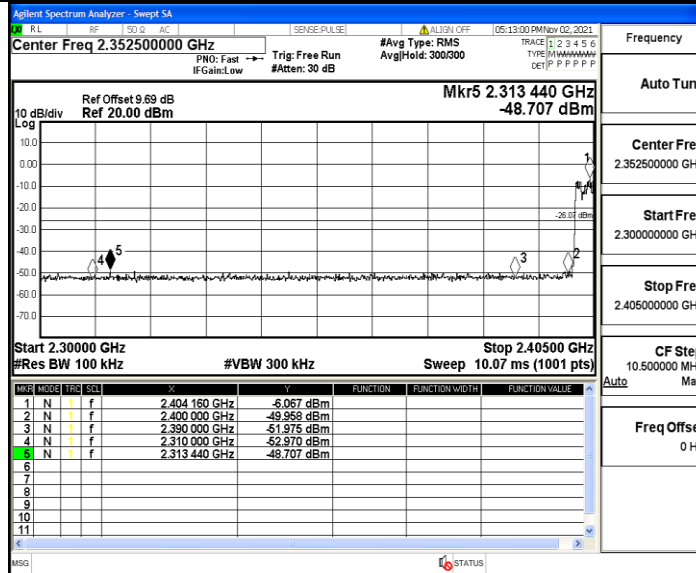
2DH5_Ant1_Low_2402



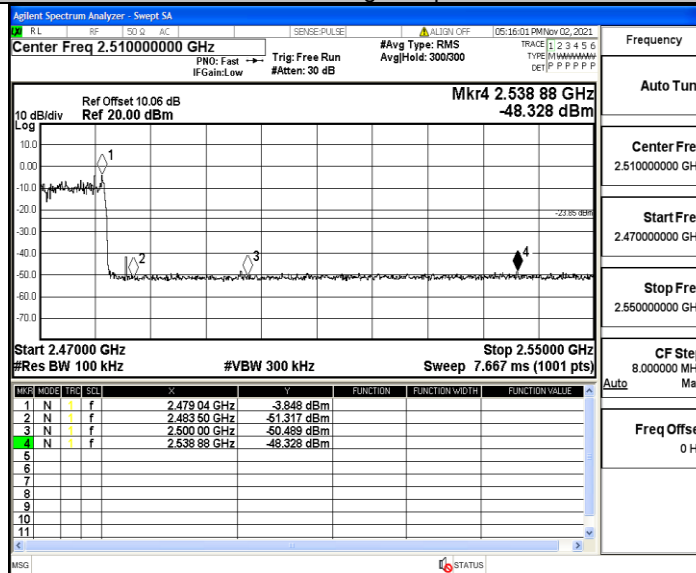
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402

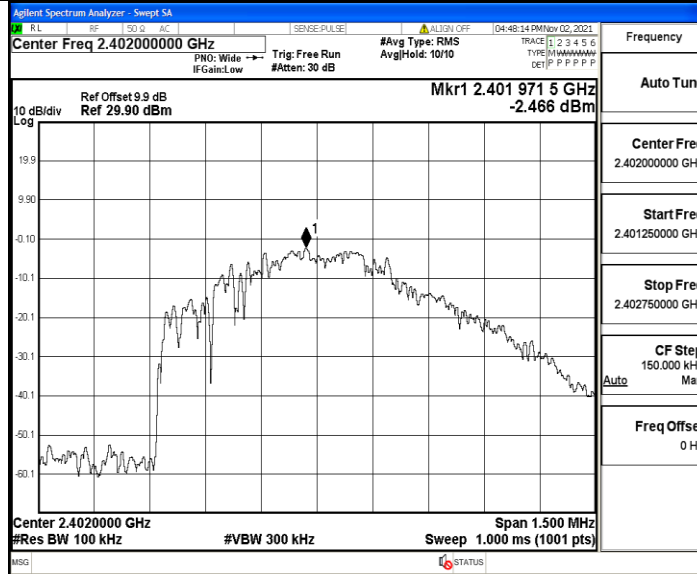


2DH5_Ant1_High_Hop_2480

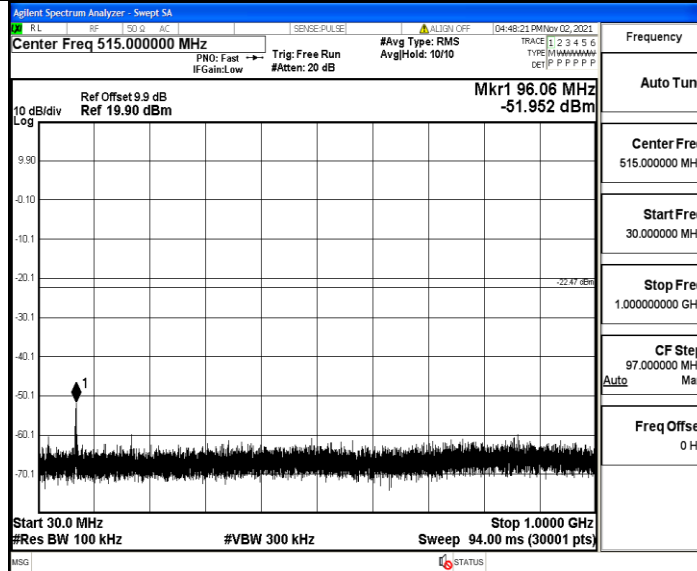


A.7 RF Conducted Spurious Emissions Test Graph

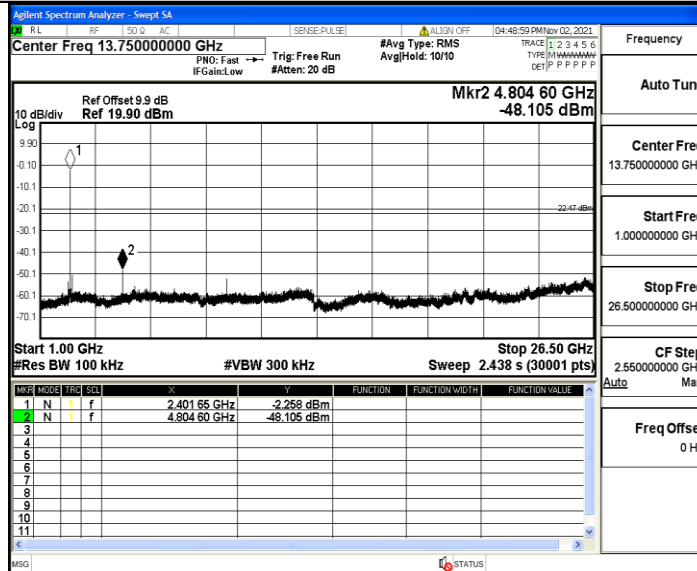
DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000



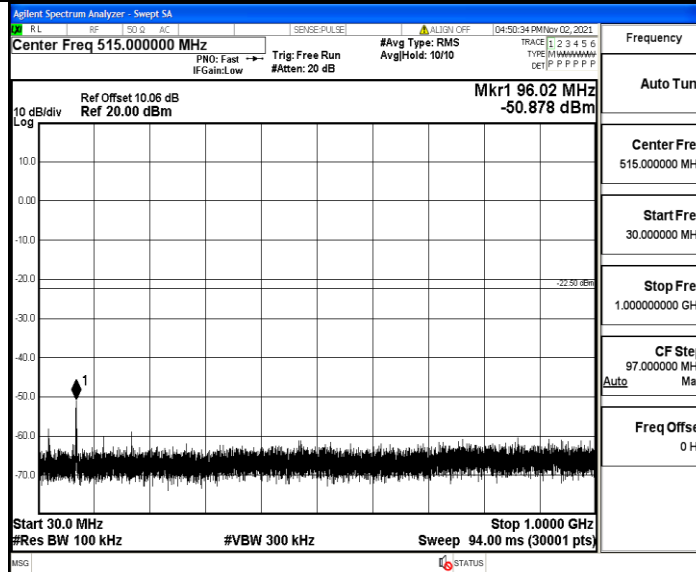
DH5_Ant1_2402_1000~26500



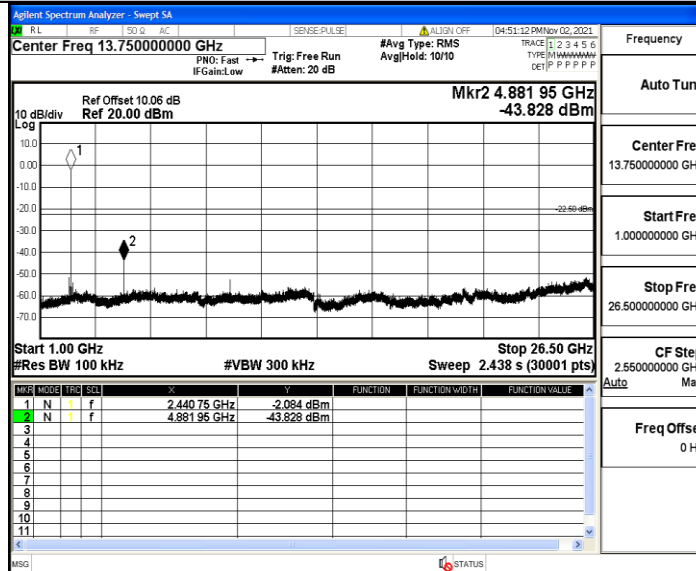
DH5_Ant1_2441_0~Reference



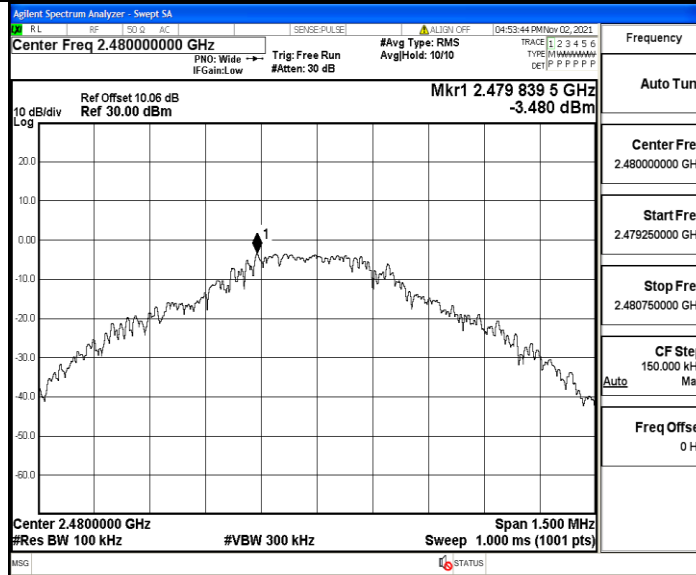
DH5_Ant1_2441_30~1000



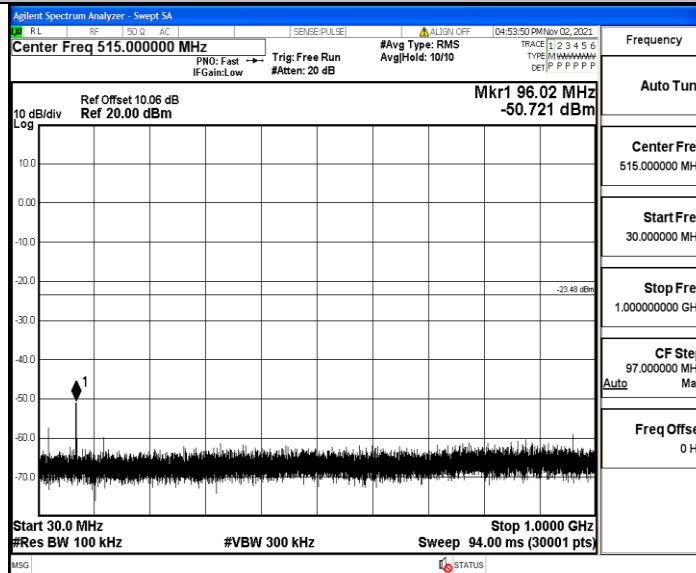
DH5_Ant1_2441_1000~26500



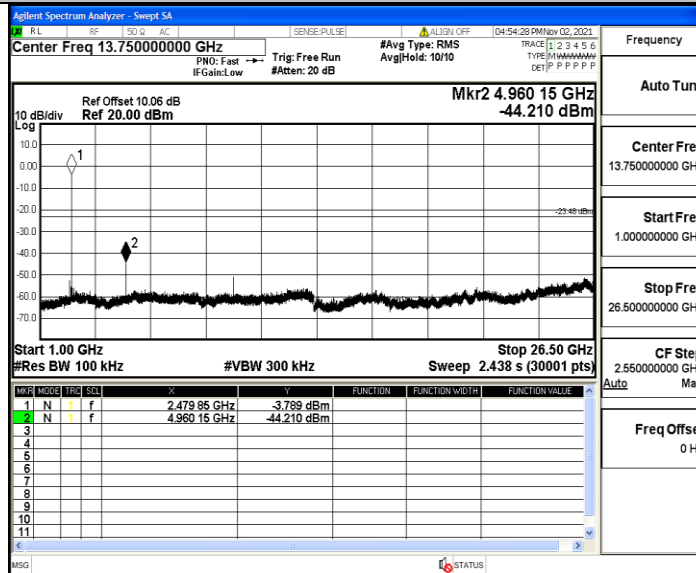
DH5_Ant1_2480_0-Reference



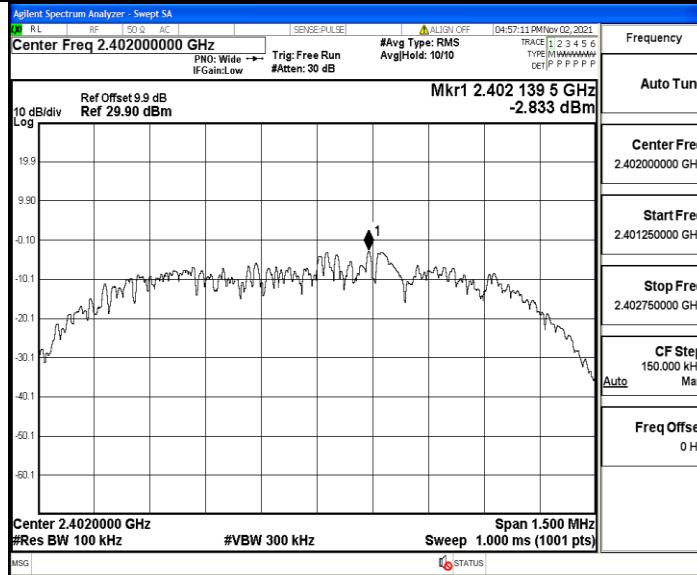
DH5_Ant1_2480_30-1000



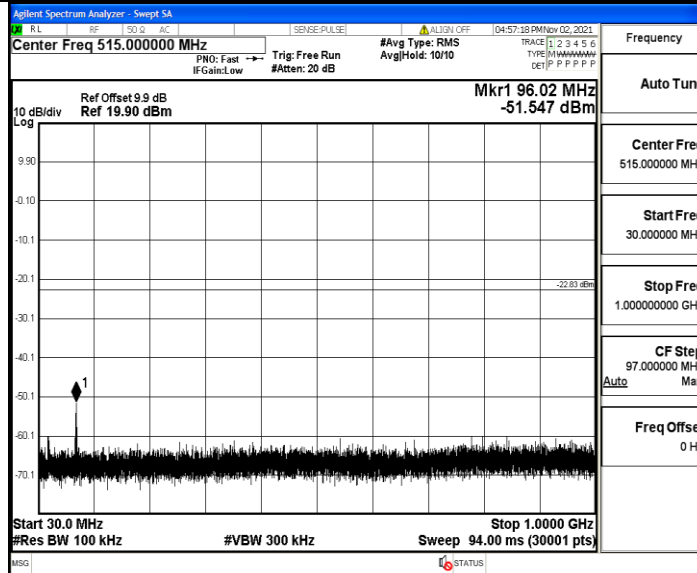
DH5_Ant1_2480_1000-26500



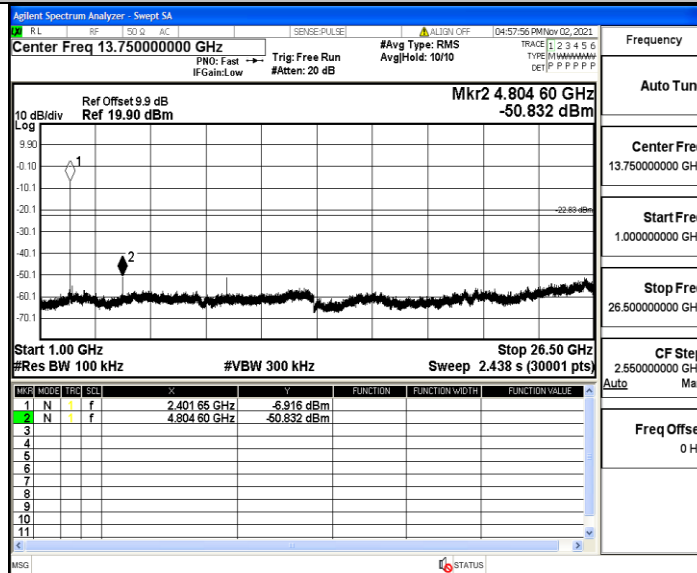
2DH5_Ant1_2402_0~Reference



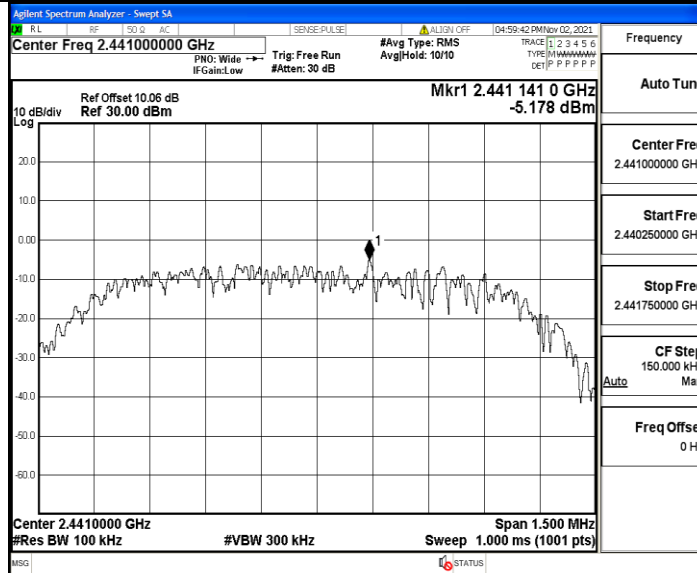
2DH5_Ant1_2402_30~1000



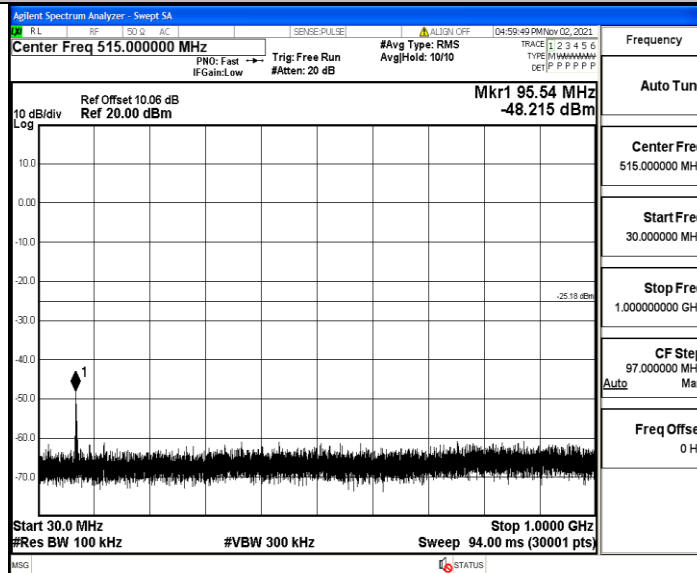
2DH5_Ant1_2402_1000~26500



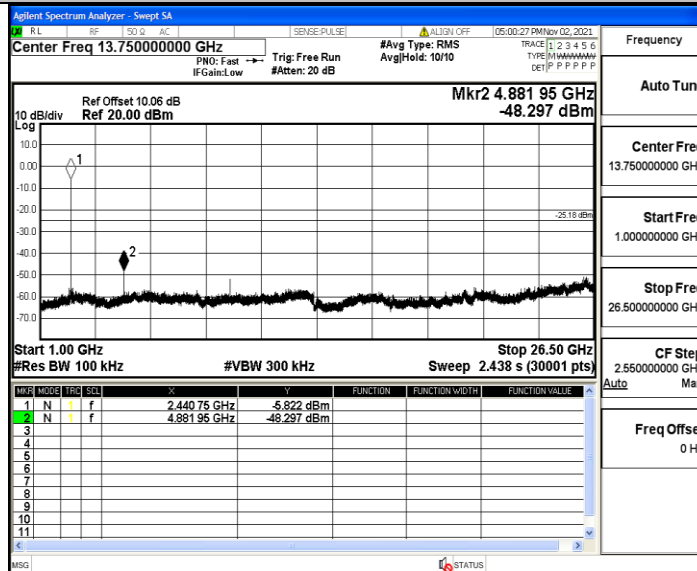
2DH5_Ant1_2441_0~Reference



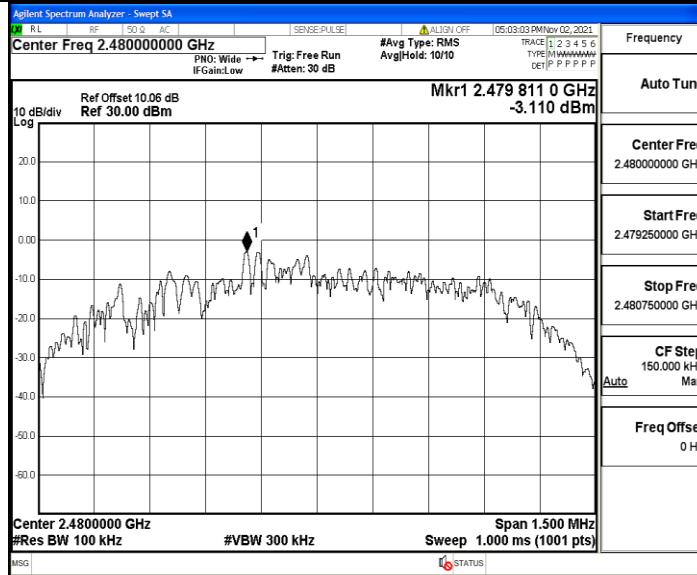
2DH5_Ant1_2441_30~1000



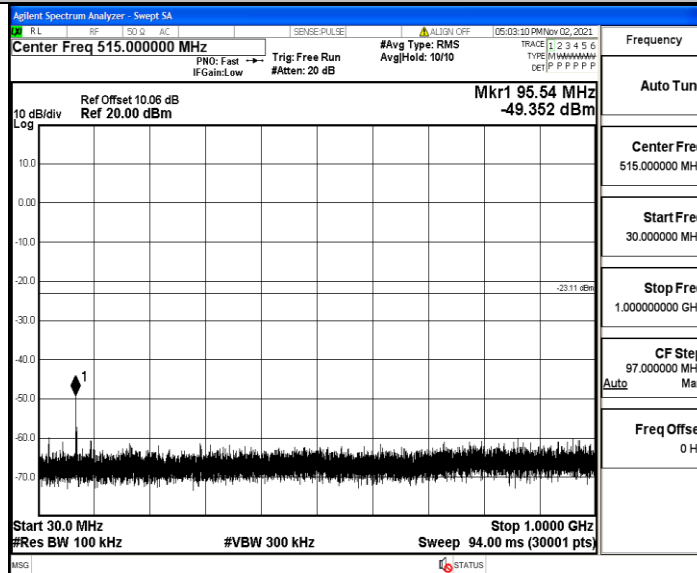
2DH5_Ant1_2441_1000~26500



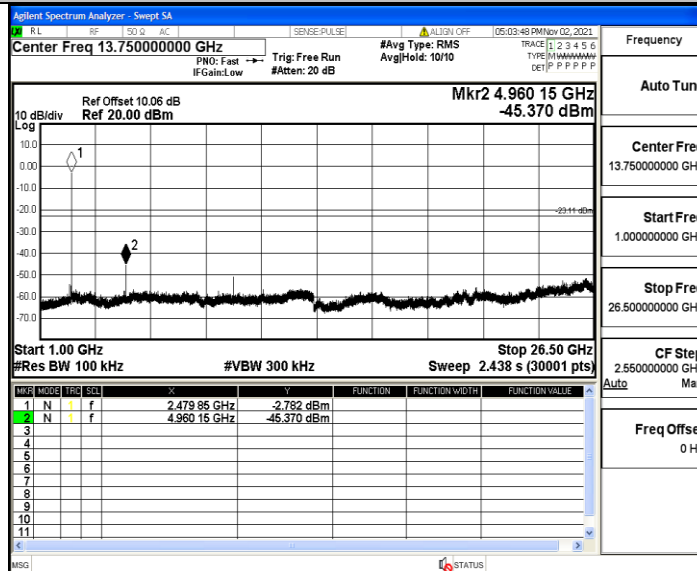
2DH5_Ant1_2480_0-Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



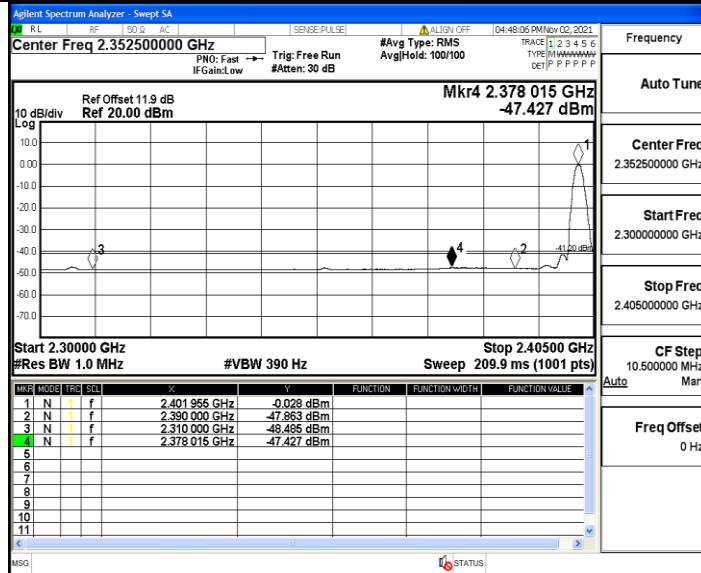
A.8 Restrict-band band-edge measurements

TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-48.49	≤-41.20	PASS
				AV	2378.015	-47.43	≤-41.20	PASS
				AV	2390.000	-47.86	≤-41.20	PASS
				Peak	2310.000	-41.44	≤-21.20	PASS
				Peak	2360.270	-38.05	≤-21.20	PASS
				Peak	2390.000	-40.68	≤-21.20	PASS
		High	2480	AV	2483.500	-43.32	≤-41.20	PASS
				AV	2483.520	-43.32	≤-41.20	PASS
				AV	2500.000	-47.21	≤-41.20	PASS
				Peak	2483.500	-36.18	≤-21.20	PASS
				Peak	2483.520	-36.18	≤-21.20	PASS
				Peak	2500.000	-39.8	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.51	≤-41.20	PASS
				AV	2379.800	-47.5	≤-41.20	PASS
				AV	2390.000	-47.7	≤-41.20	PASS
				Peak	2310.000	-41.97	≤-21.20	PASS
				Peak	2353.970	-37	≤-21.20	PASS
				Peak	2390.000	-42.08	≤-21.20	PASS
		High	2480	AV	2483.500	-44.85	≤-41.20	PASS
				AV	2483.520	-44.85	≤-41.20	PASS
				AV	2500.000	-47.24	≤-41.20	PASS
				Peak	2483.500	-37.46	≤-21.20	PASS
				Peak	2483.520	-37.46	≤-21.20	PASS
				Peak	2500.000	-40.07	≤-21.20	PASS

Note:

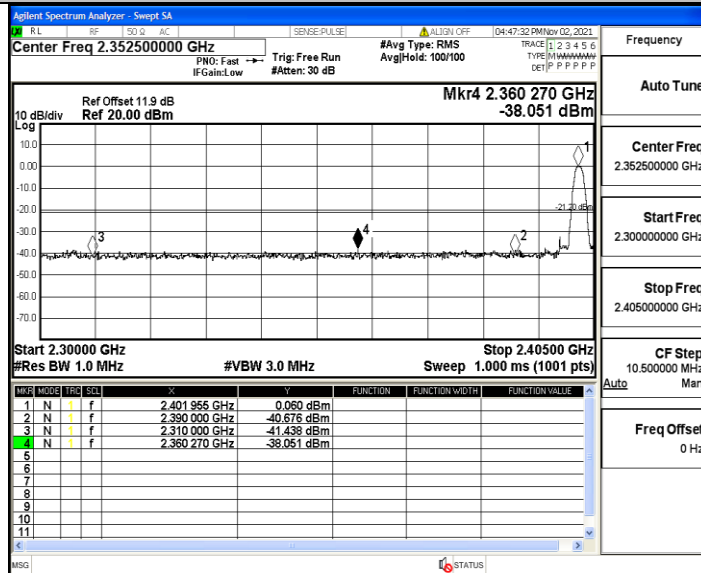
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

DH5_Ant1_Low_2402_AV



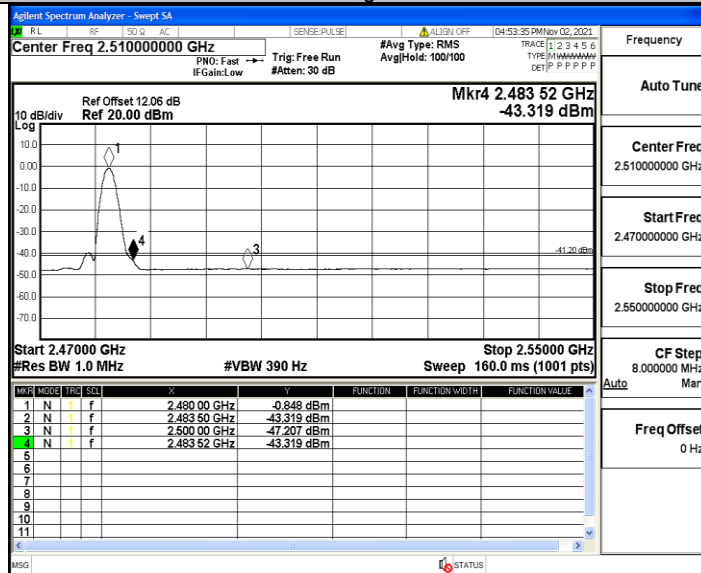
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Freq Offset	0 Hz

DH5_Ant1_Low_2402_Peak



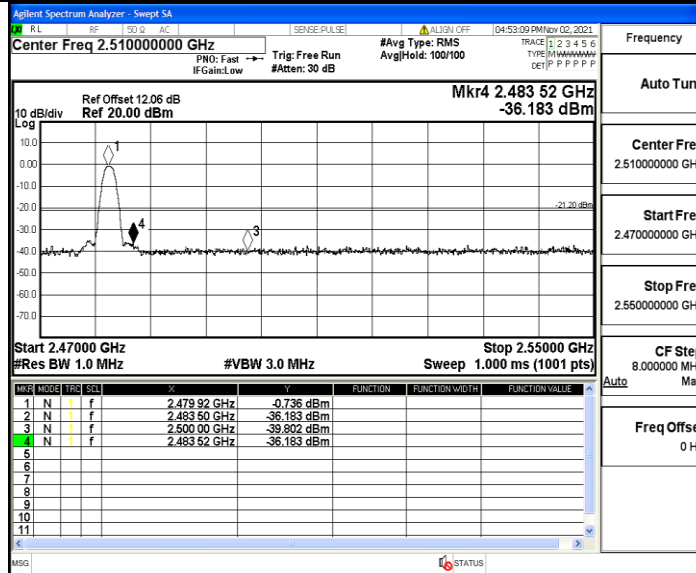
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Freq Offset	0 Hz

DH5_Ant1_High_2480_AV



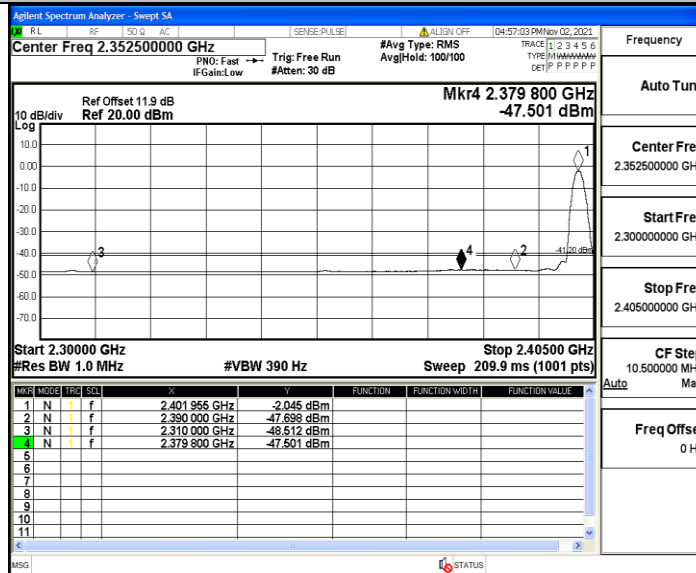
Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.000000 MHz
Freq Offset	0 Hz

DH5_Ant1_High_2480_Peak



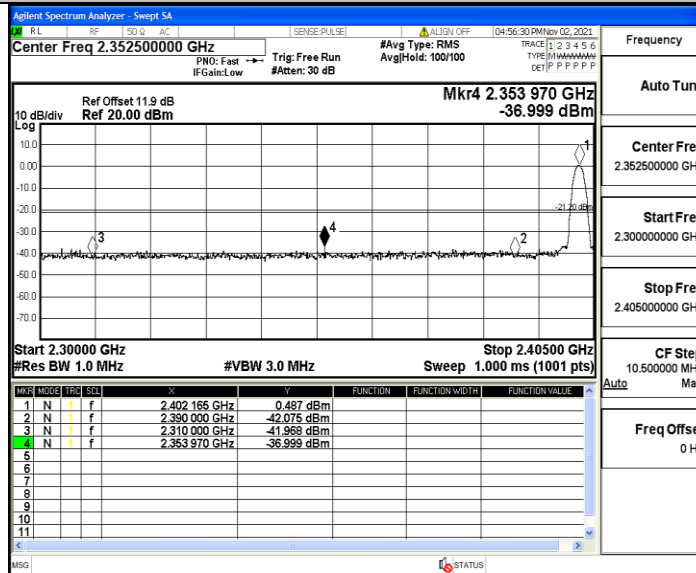
Frequency	Auto Tune
Center Freq	2.510000000 GHz
Start Freq	2.470000000 GHz
Stop Freq	2.550000000 GHz
CF Step	8.000000 MHz
Auto	Man
Freq Offset	0 Hz

2DH5_Ant1_Low_2402_AV



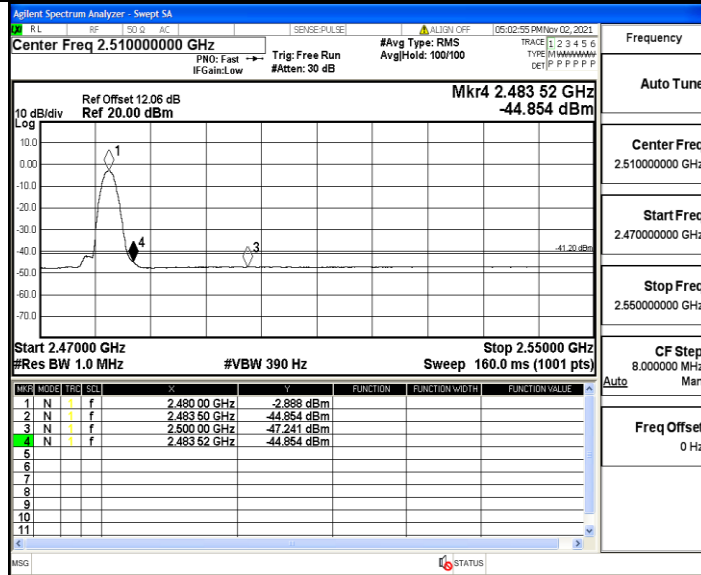
Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Auto	Man
Freq Offset	0 Hz

2DH5_Ant1_Low_2402_Peak



Frequency	Auto Tune
Center Freq	2.352500000 GHz
Start Freq	2.300000000 GHz
Stop Freq	2.405000000 GHz
CF Step	10.500000 MHz
Auto	Man
Freq Offset	0 Hz

2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak

