

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

Product Name: 4K Set Top Box

Trade Mark: N/A

Test Model: Box R 4K-SX6BHES

FCC ID: 2AOVU-SN6BHXY

Environmental Conditions

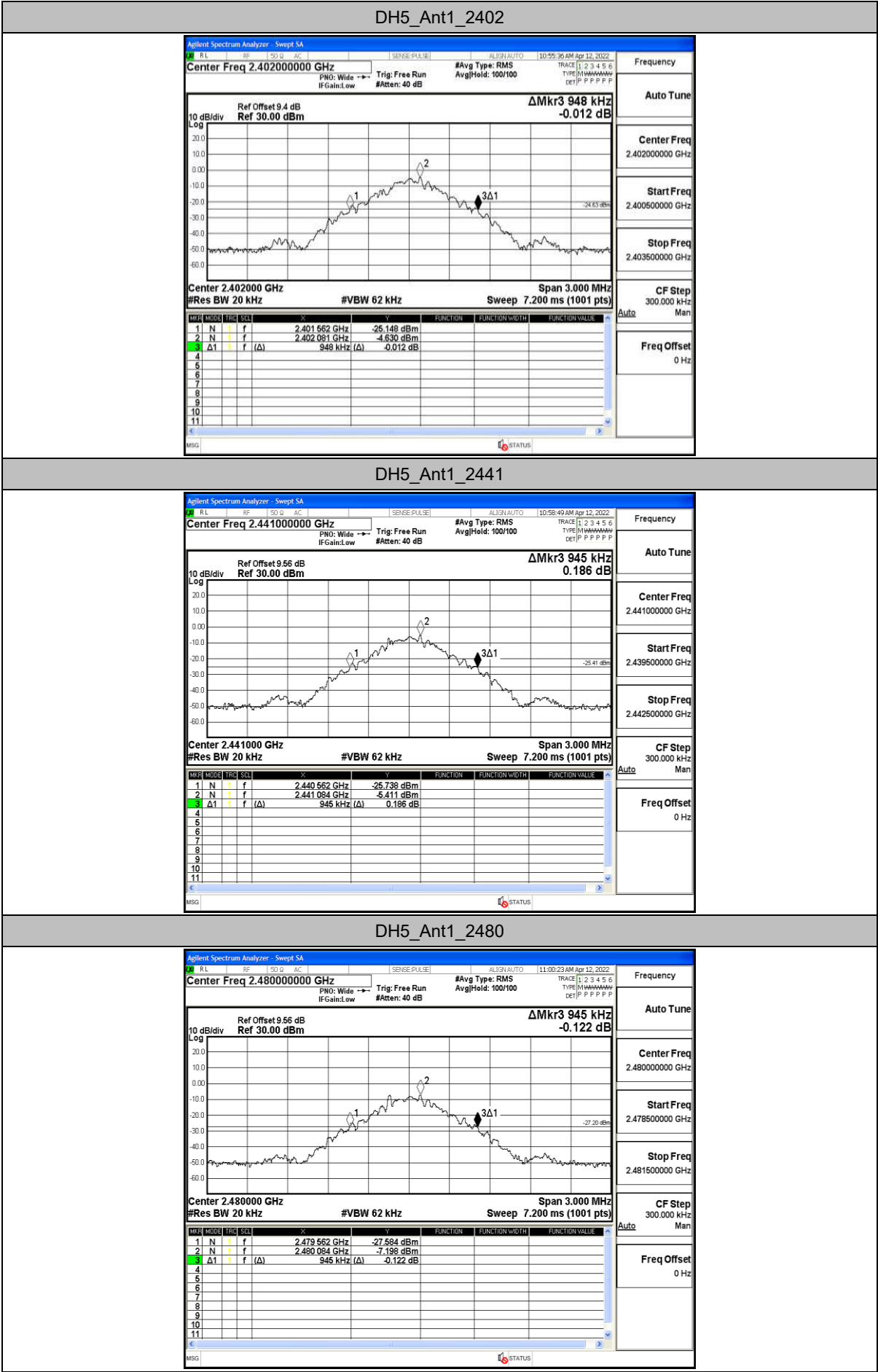
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: 20dB Emission Bandwidth

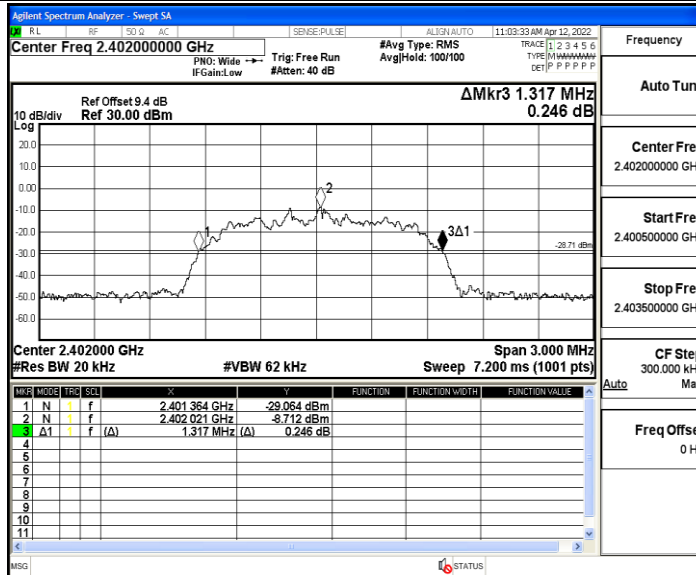
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.562	2402.510	---	---
		2441	0.945	2440.562	2441.507	---	---
		2480	0.945	2479.562	2480.507	---	---
2DH5	Ant1	2402	1.317	2401.364	2402.681	---	---
		2441	1.317	2440.364	2441.681	---	---
		2480	1.317	2479.364	2480.681	---	---
3DH5	Ant1	2402	1.266	2401.376	2402.642	---	---
		2441	1.266	2440.376	2441.642	---	---
		2480	1.275	2479.373	2480.648	---	---

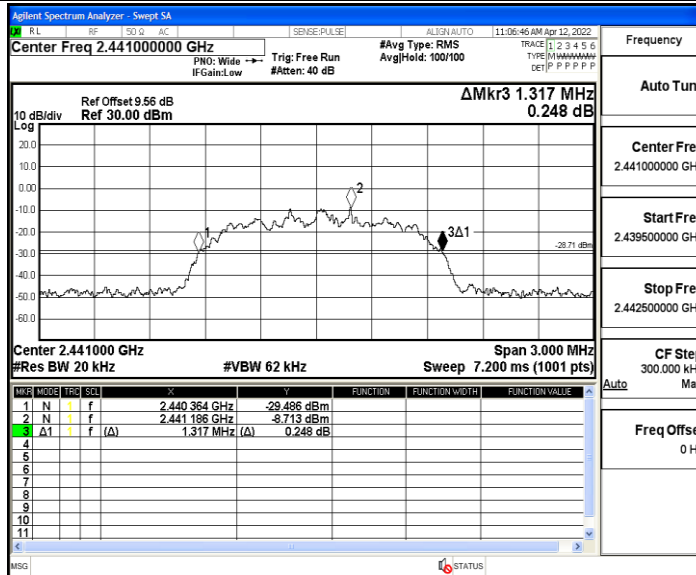
Test Graphs



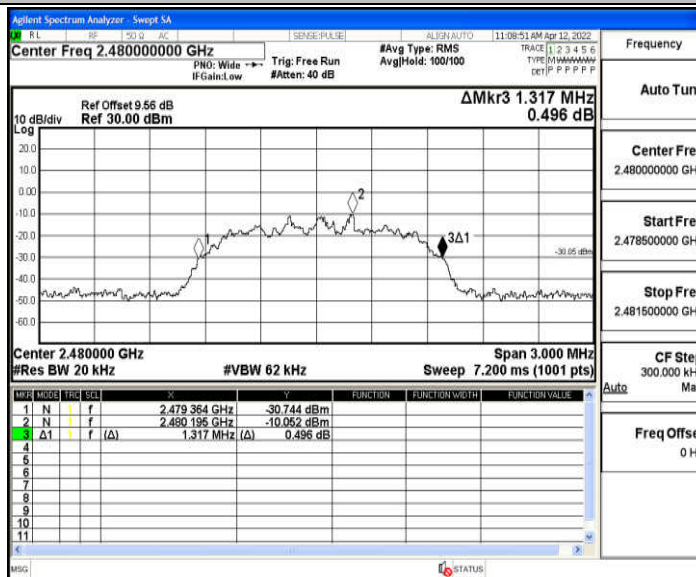
2DH5_Ant1_2402



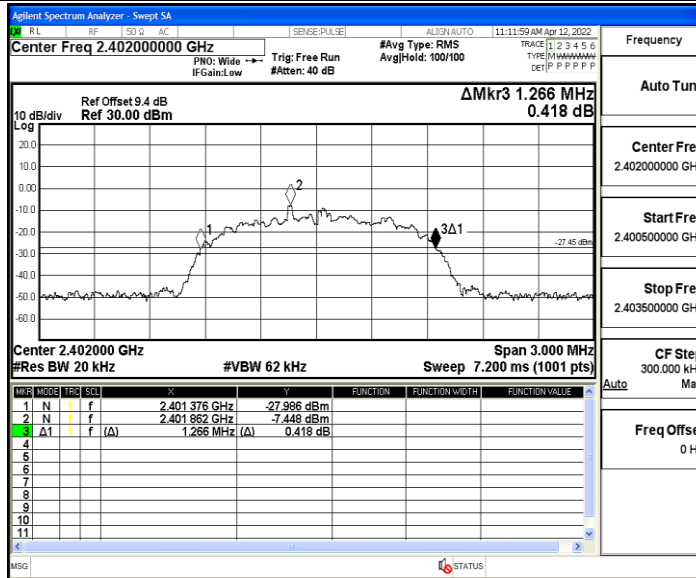
2DH5_Ant1_2441



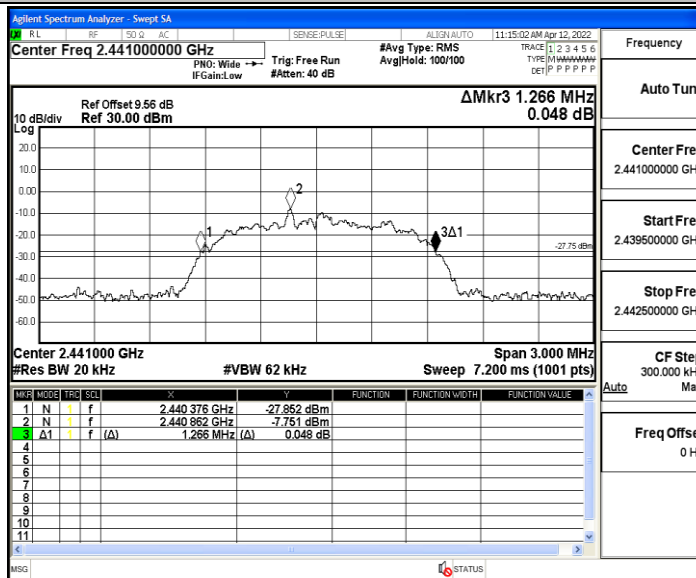
2DH5_Ant1_2480



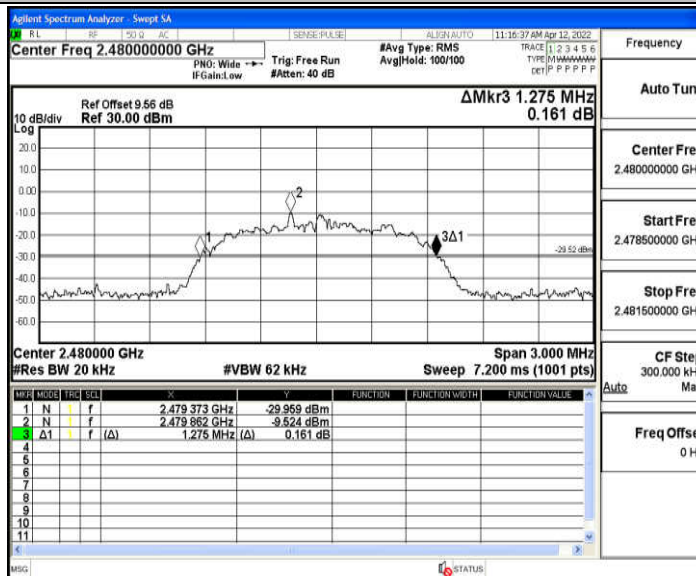
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

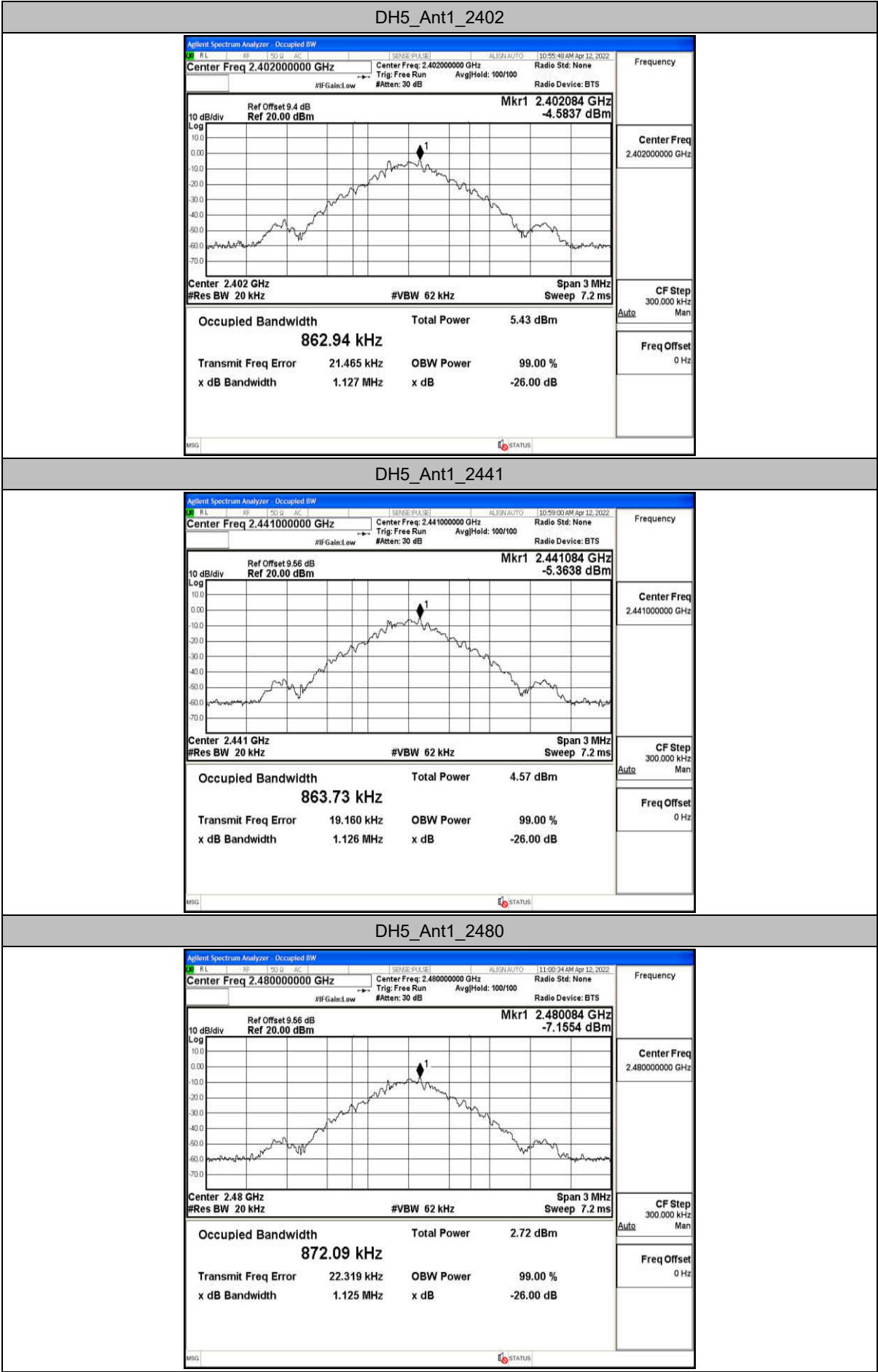


Appendix B: Occupied Channel Bandwidth

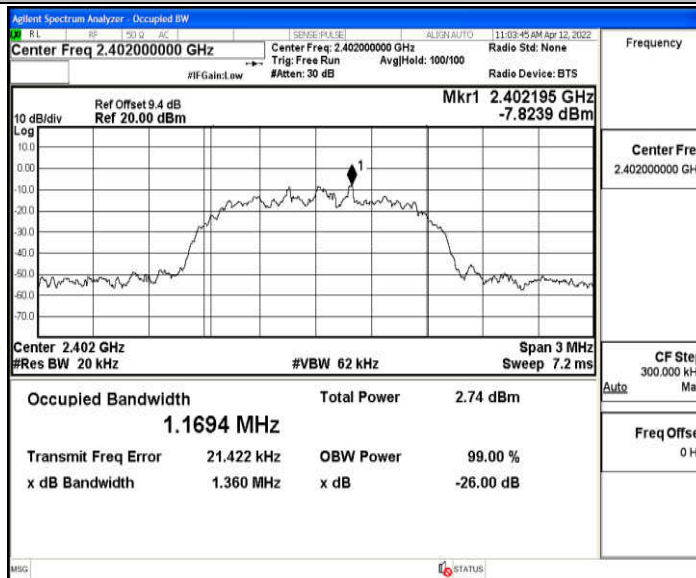
Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86294	2401.590	2402.453	---	---
		2441	0.86373	2440.587	2441.451	---	---
		2480	0.87209	2479.586	2480.458	---	---
2DH5	Ant1	2402	1.1694	2401.437	2402.606	---	---
		2441	1.1803	2440.431	2441.612	---	---
		2480	1.1870	2479.430	2480.617	---	---
3DH5	Ant1	2402	1.1702	2401.434	2402.604	---	---
		2441	1.1858	2440.422	2441.608	---	---
		2480	1.2020	2479.413	2480.615	---	---

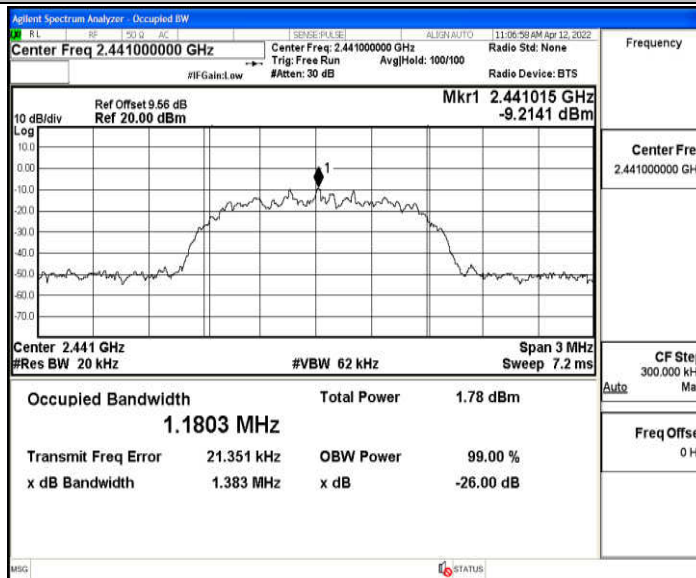
Test Graphs



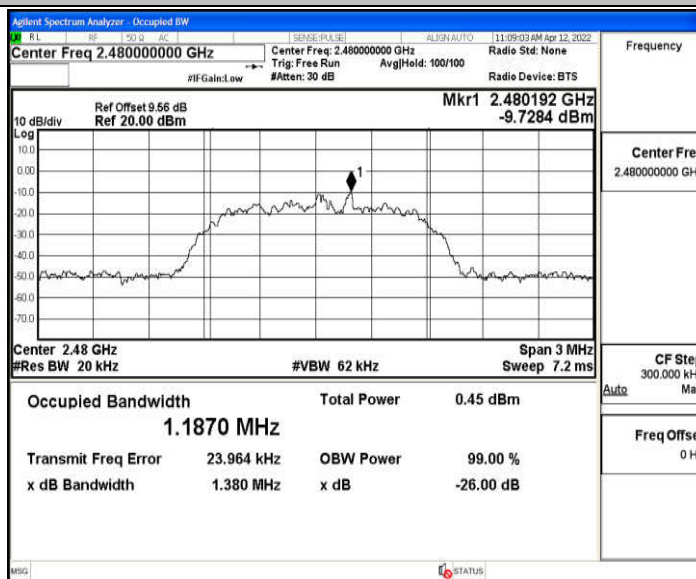
2DH5_Ant1_2402



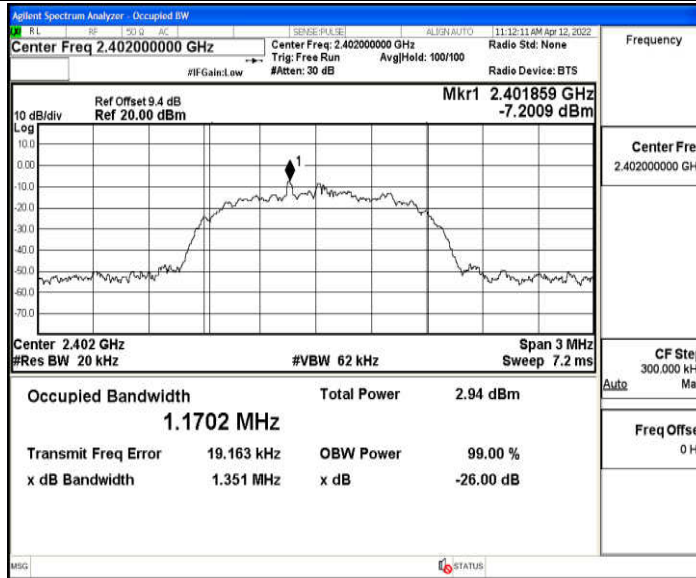
2DH5_Ant1_2441



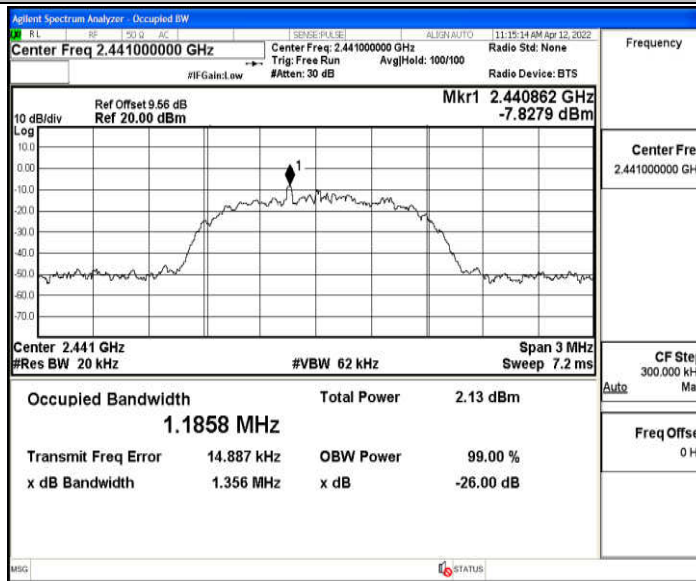
2DH5_Ant1_2480



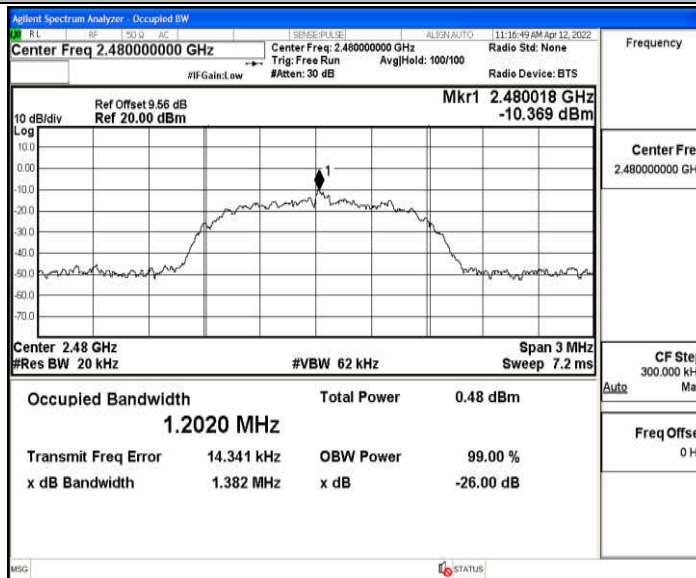
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

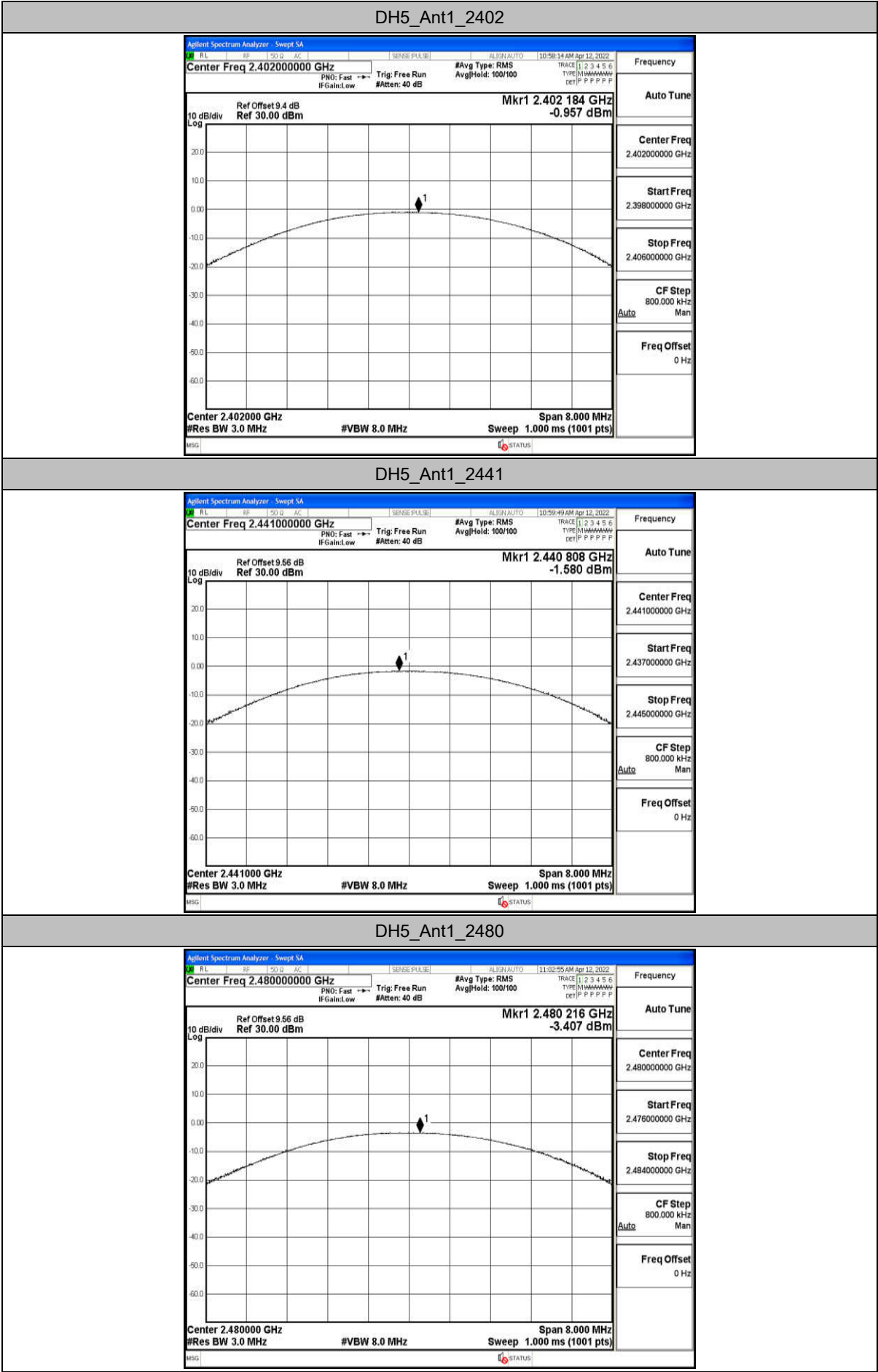


Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.96	≤30.00	PASS
		2441	-1.58	≤30.00	PASS
		2480	-3.41	≤30.00	PASS
2DH5	Ant1	2402	-2.1	≤20.97	PASS
		2441	-2.76	≤20.97	PASS
		2480	-4.26	≤20.97	PASS
3DH5	Ant1	2402	-1.65	≤20.97	PASS
		2441	-2.36	≤20.97	PASS
		2480	-4.02	≤20.97	PASS

Test Graphs



DH5_Ant1_2441

Agilent Spectrum Analyzer - Sweep SA

RL

RF

50 Ω

AC

SENSE: PULSE

ALIGN: AUTO

10:59:49 AM Apr 12, 2022

Center Freq 2.441000000 GHz

PNO: Fast

IF Gain: Low

Trig: Free Run

#Atten: 40 dB

#Avg Type: RMS

Avg Hold: 100/100

TRACE [1 2 3 4 5 6]

TYPE [MANUAL]

DET [P P P P P P]

Frequency

Auto Tune

Center Freq
2.441000000 GHz

Start Freq
2.437000000 GHz

Stop Freq
2.445000000 GHz

CF Step
800.000 kHz
Auto Man

Freq Offset
0 Hz

Ref Offset 9.56 dB

Ref 30.00 dBm

Mkr1 2.440808 GHz

-1.580 dBm

10 dB/div

Log

20.0

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-60.0

Center 2.441000 GHz

#Res BW 3.0 MHz

#VBW 8.0 MHz

Sweep 1.000 ms (1001 pts)

MSG

STATUS

DH5_Ant1_2480

Agilent Spectrum Analyzer - Sweep SA

RL

RF

50 Ω

AC

SENSE: PULSE

ALIGN: AUTO

11:02:55 AM Apr 12, 2022

Center Freq 2.480000000 GHz

PNO: Fast

IF Gain: Low

Trig: Free Run

#Atten: 40 dB

#Avg Type: RMS

Avg Hold: 100/100

TRACE [1 2 3 4 5 6]

TYPE [MANUAL]

DET [P P P P P P]

Frequency

Auto Tune

Center Freq
2.480000000 GHz

Start Freq
2.476000000 GHz

Stop Freq
2.484000000 GHz

CF Step
800.000 kHz
Auto Man

Freq Offset
0 Hz

Ref Offset 9.56 dB

Ref 30.00 dBm

Mkr1 2.480216 GHz

-3.407 dBm

10 dB/div

Log

20.0

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-60.0

Center 2.480000 GHz

#Res BW 3.0 MHz

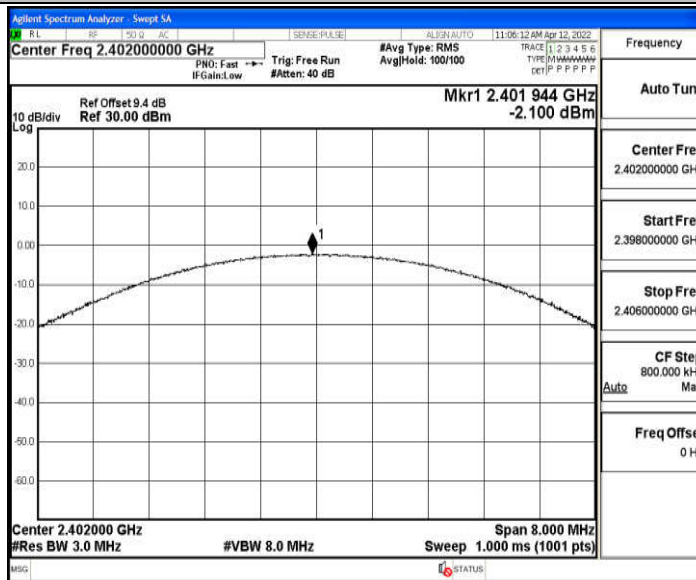
#VBW 8.0 MHz

Sweep 1.000 ms (1001 pts)

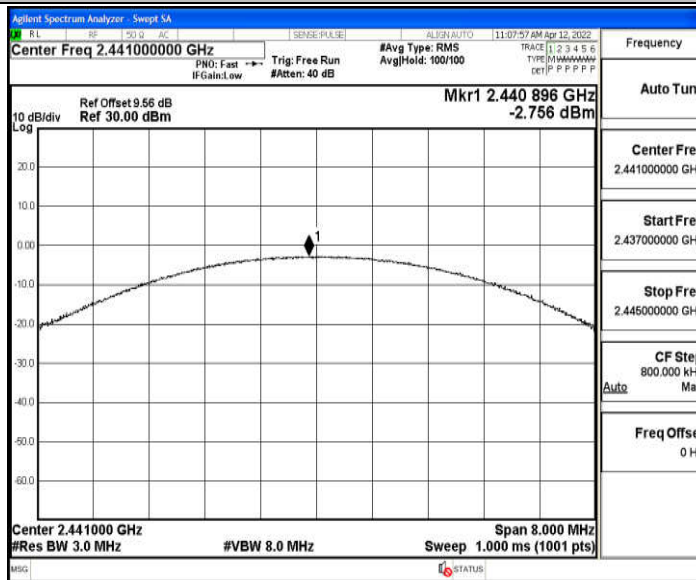
MSG

STATUS

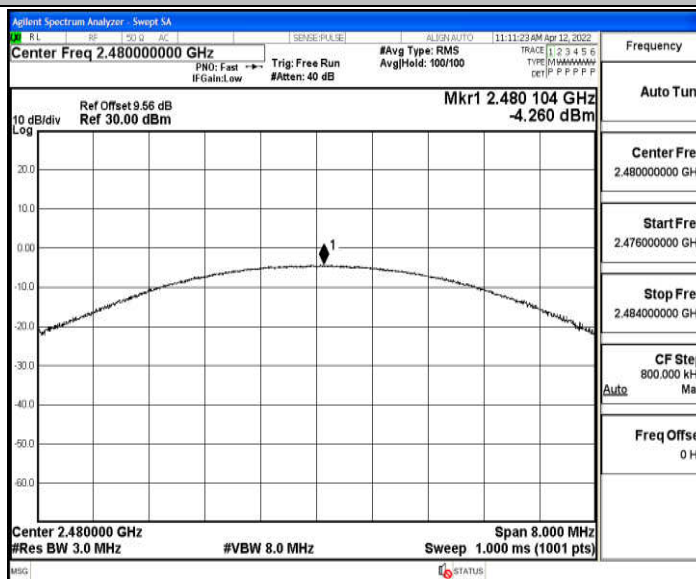
2DH5_Ant1_2402



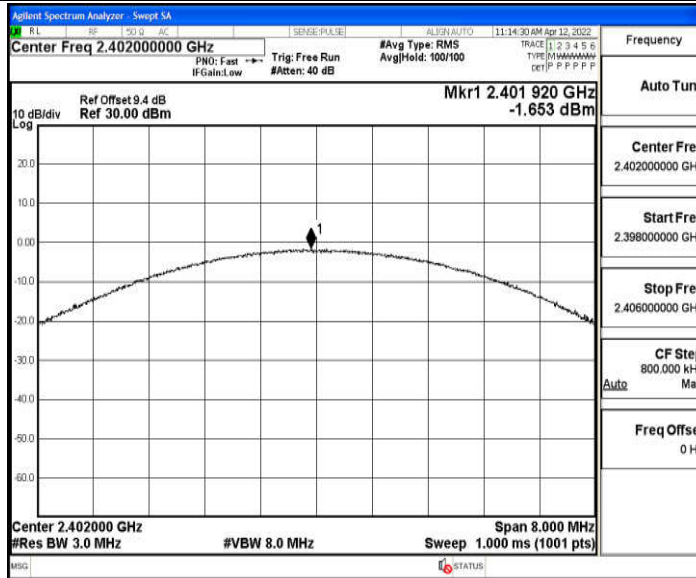
2DH5_Ant1_2441



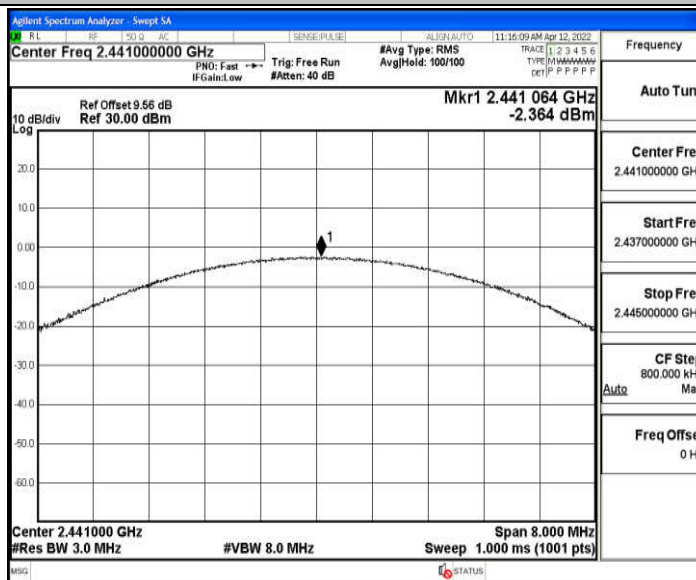
2DH5_Ant1_2480



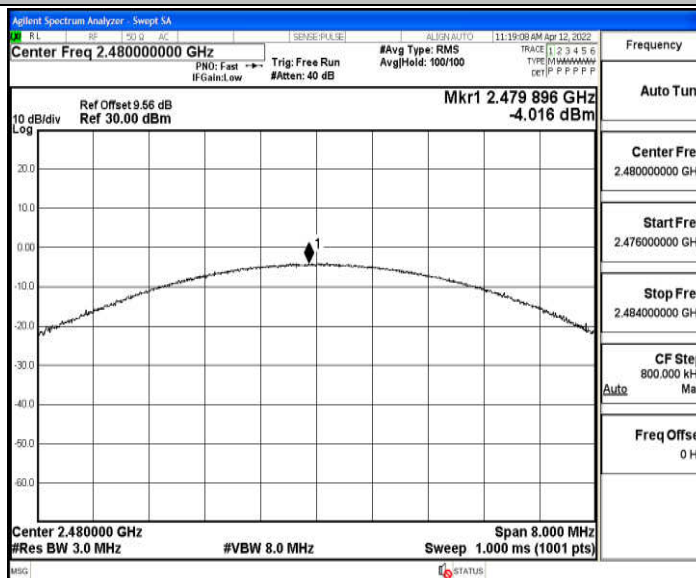
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

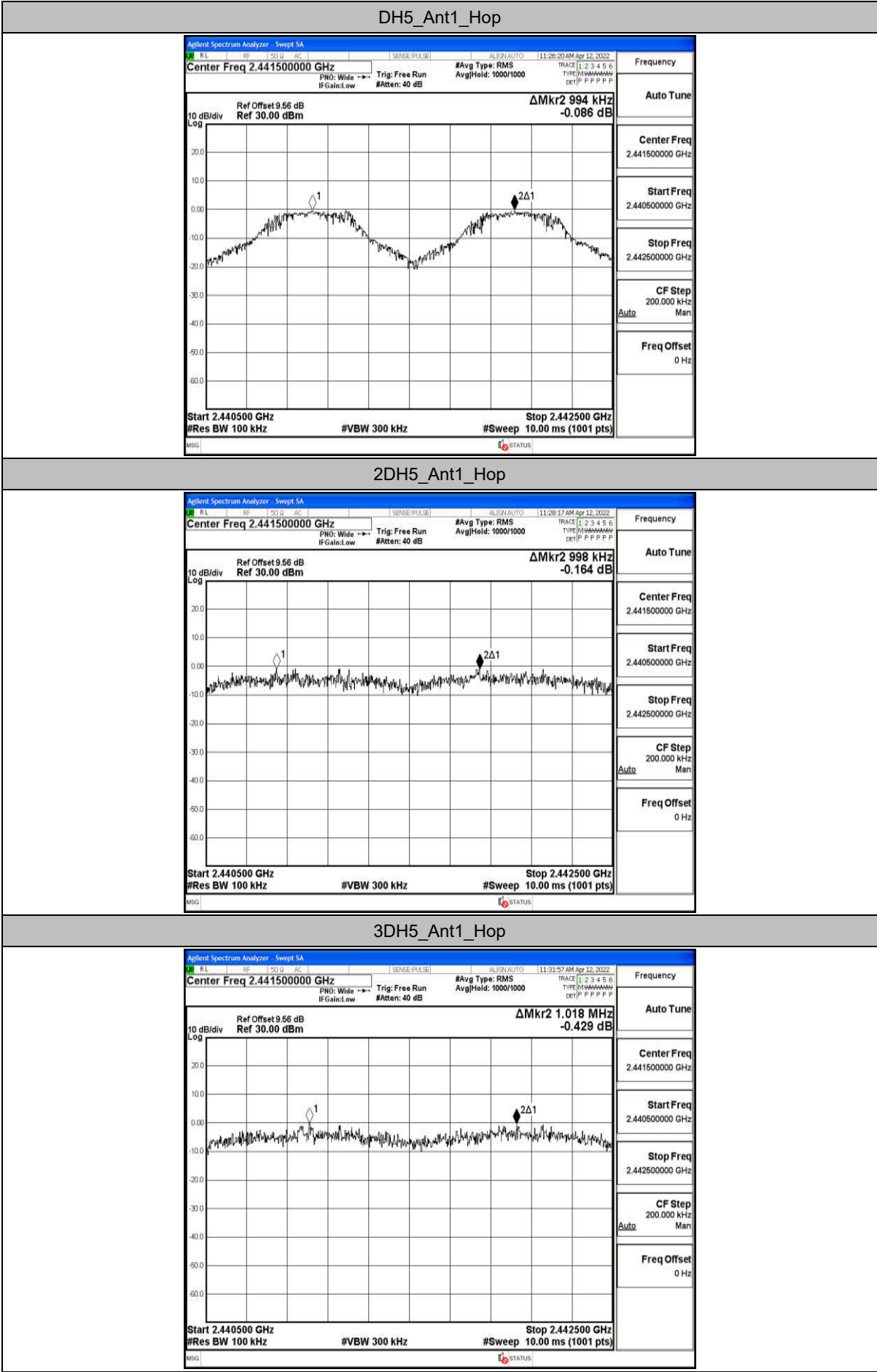


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.994	≥0.948	PASS
2DH5	Ant1	Hop	0.998	≥0.878	PASS
3DH5	Ant1	Hop	1.018	≥0.850	PASS

Test Graphs

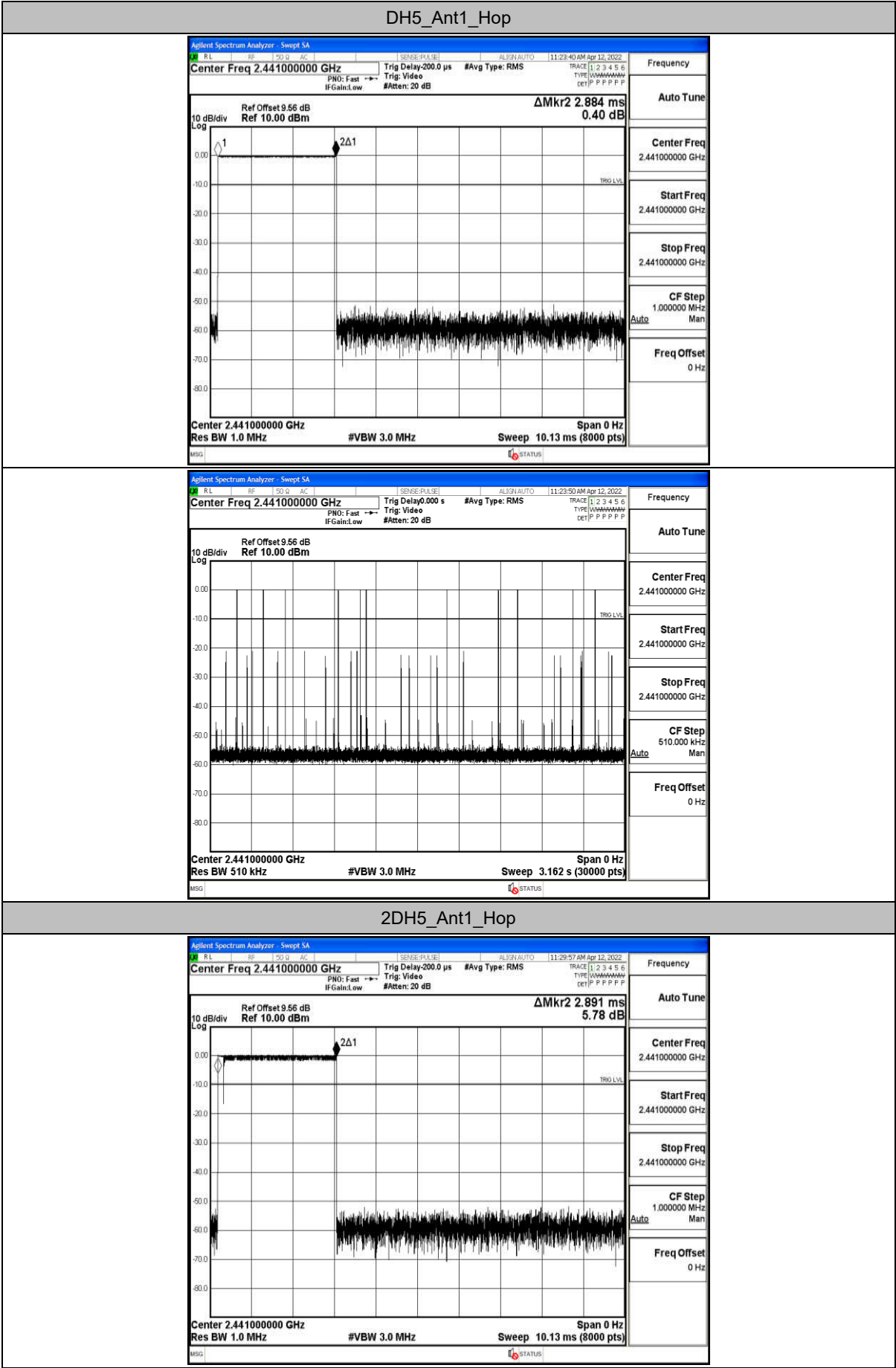


Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	120	0.346	≤0.4	PASS
2DH5	Ant1	Hop	2.89	100	0.289	≤0.4	PASS
3DH5	Ant1	Hop	2.89	130	0.376	≤0.4	PASS

Test Graphs



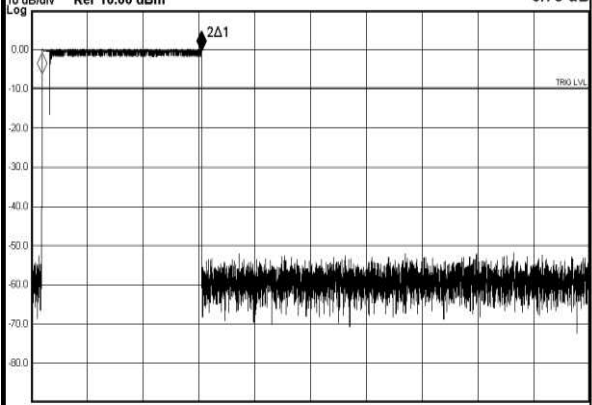
2DH5_Ant1_Hop

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.441000000 GHz

Ref Offset 9.56 dB
Ref 10.00 dBm

10 dB/div
Log



Center 2.441000000 GHz
Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep 10.13 ms (8000 pts)

Span 0 Hz

Frequency

Auto Tune

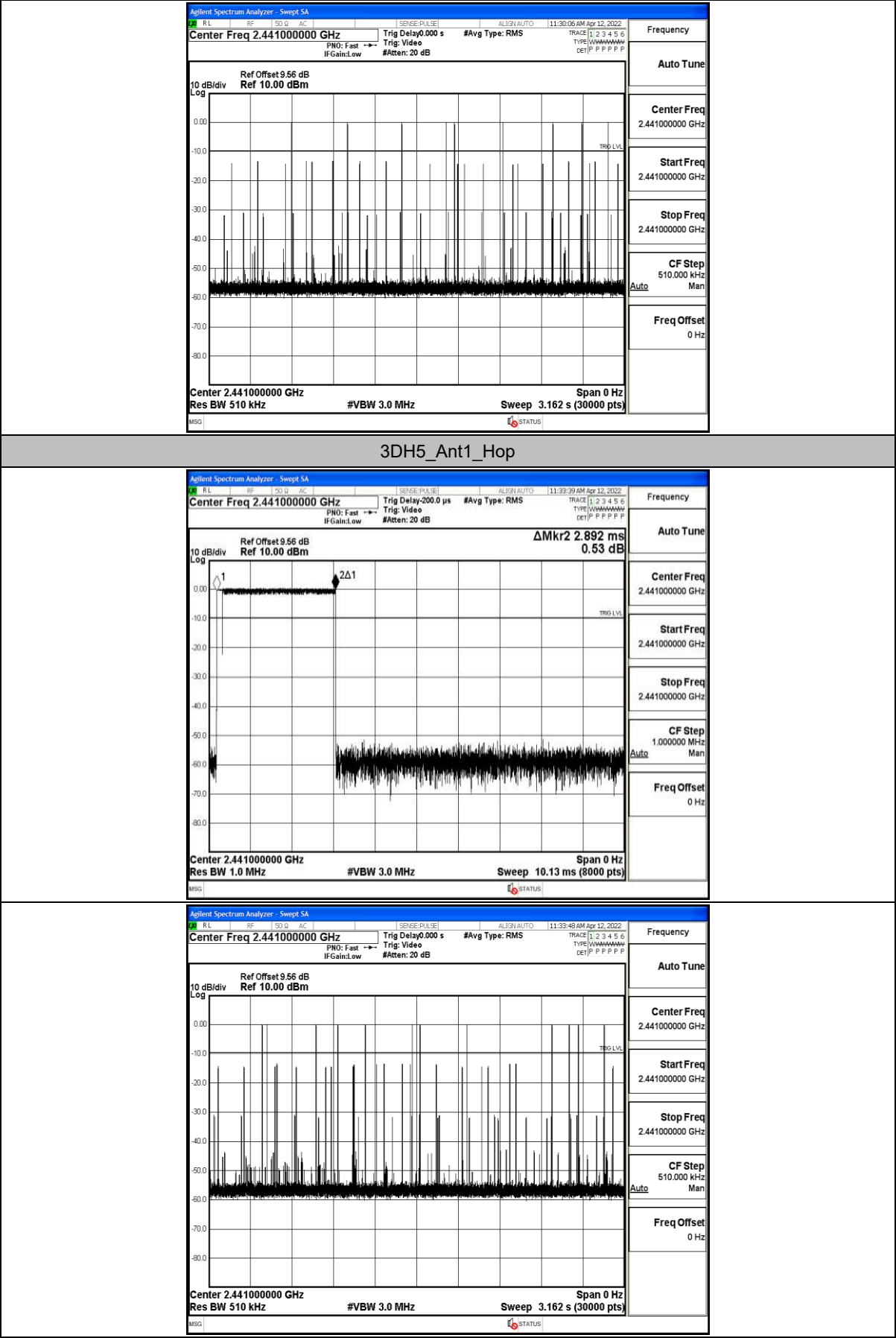
Center Freq
2.441000000 GHz

Start Freq
2.441000000 GHz

Stop Freq
2.441000000 GHz

CF Step
1.000000 MHz
Auto

Freq Offset
0 Hz

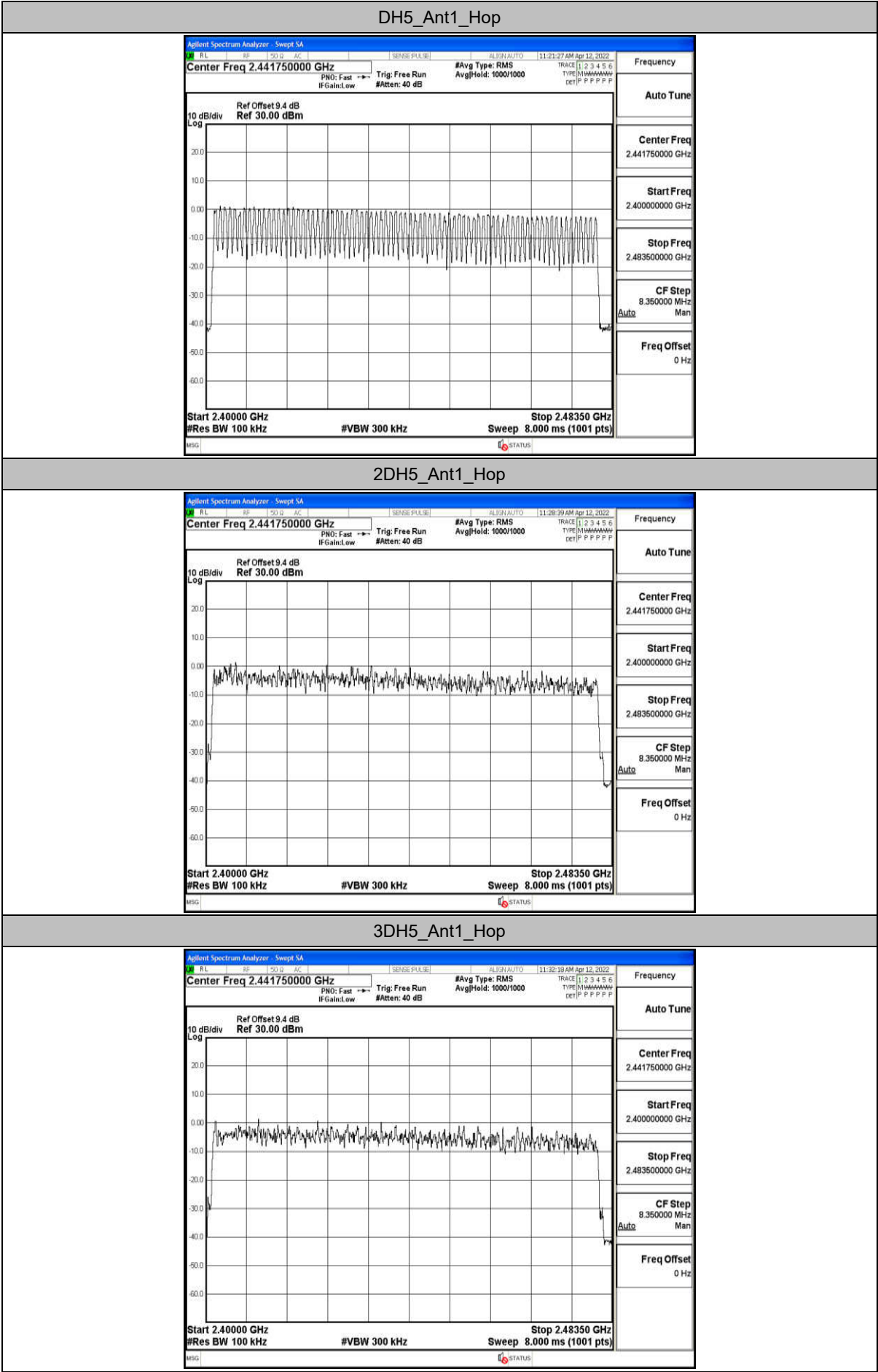


Appendix F: Number of hopping channels

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



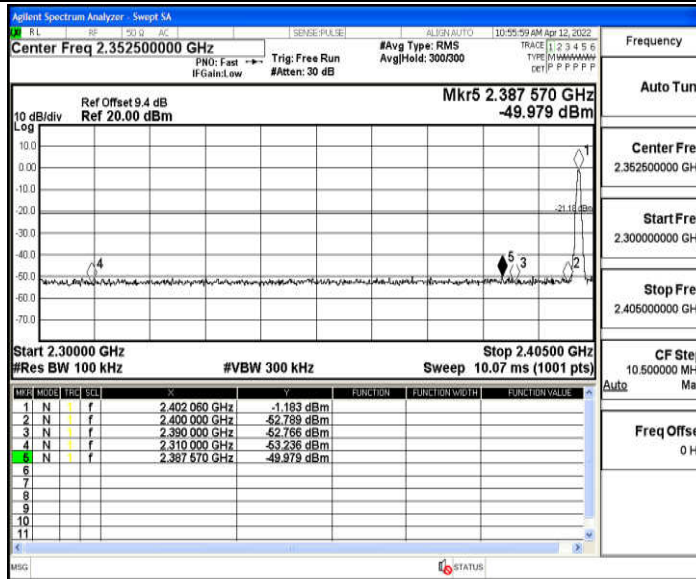
Appendix G: Band edge measurements

Test Result

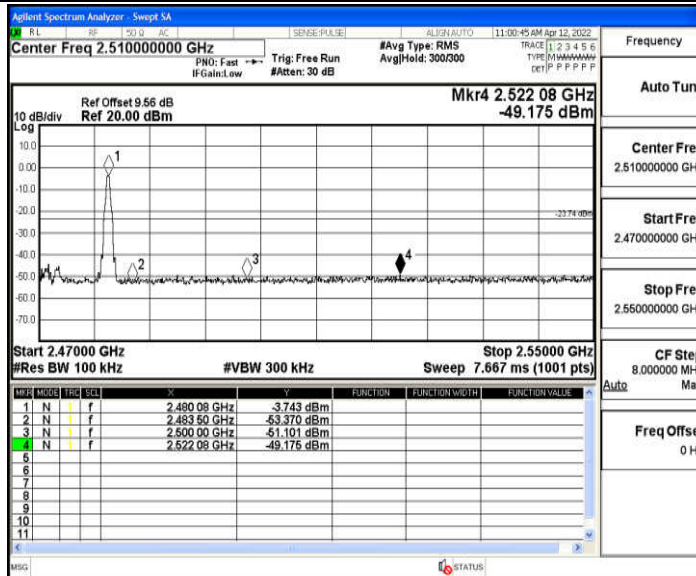
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.18	-49.98	≤ -21.18	PASS
		High	2480	-3.74	-49.18	≤ -23.74	PASS
		Low	Hop_2402	0.20	-50.04	≤ -19.8	PASS
		High	Hop_2480	-1.85	-49	≤ -21.85	PASS
2DH5	Ant1	Low	2402	-3.72	-49.34	≤ -23.72	PASS
		High	2480	-5.62	-49.4	≤ -25.62	PASS
		Low	Hop_2402	-0.25	-50.14	≤ -20.25	PASS
		High	Hop_2480	-1.90	-48.79	≤ -21.9	PASS
3DH5	Ant1	Low	2402	-3.59	-50.15	≤ -23.59	PASS
		High	2480	-5.74	-48.92	≤ -25.74	PASS
		Low	Hop_2402	1.07	-50.27	≤ -18.93	PASS
		High	Hop_2480	-1.27	-49.39	≤ -21.27	PASS

Test Graphs

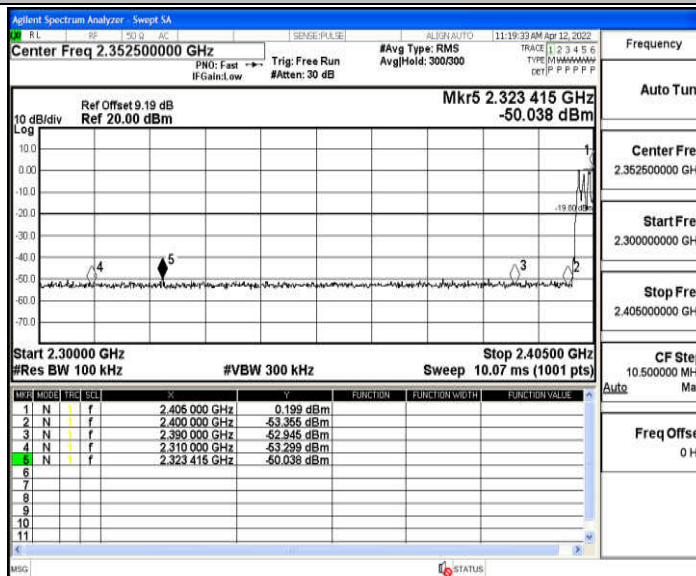
DH5_Ant1_Low_2402



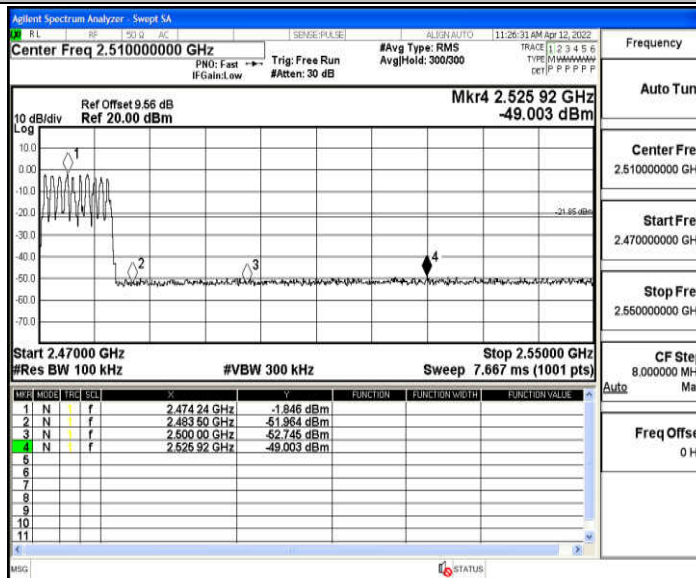
DH5_Ant1_High_2480



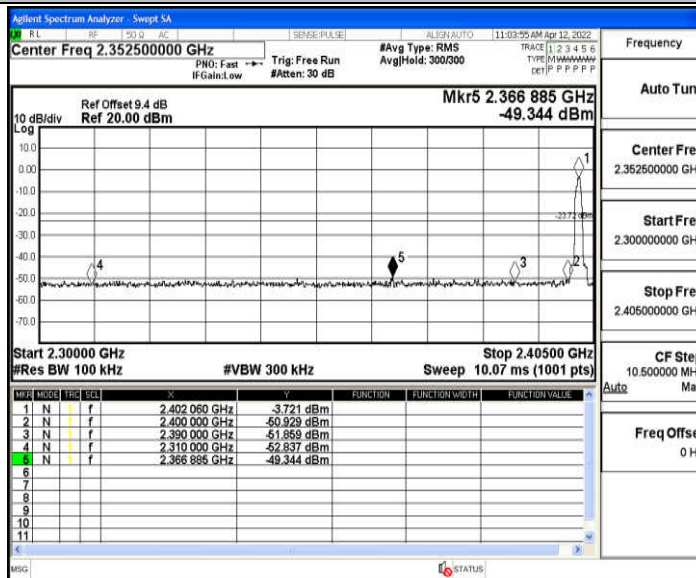
DH5_Ant1_Low_Hop_2402



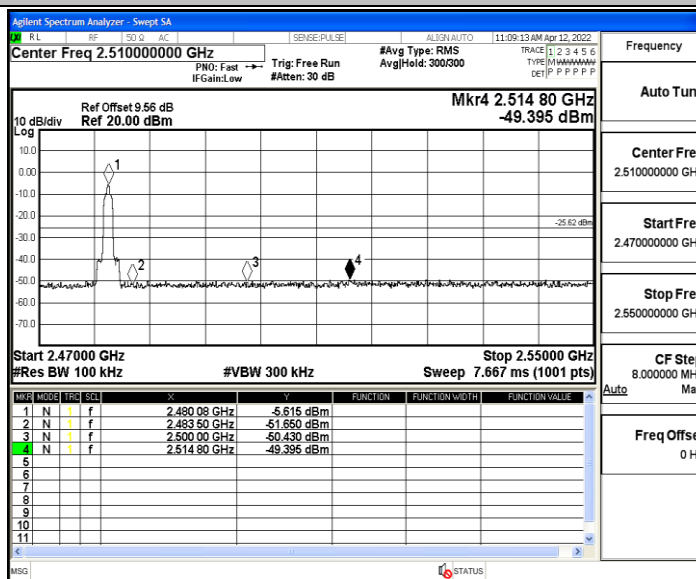
DH5_Ant1_High_Hop_2480



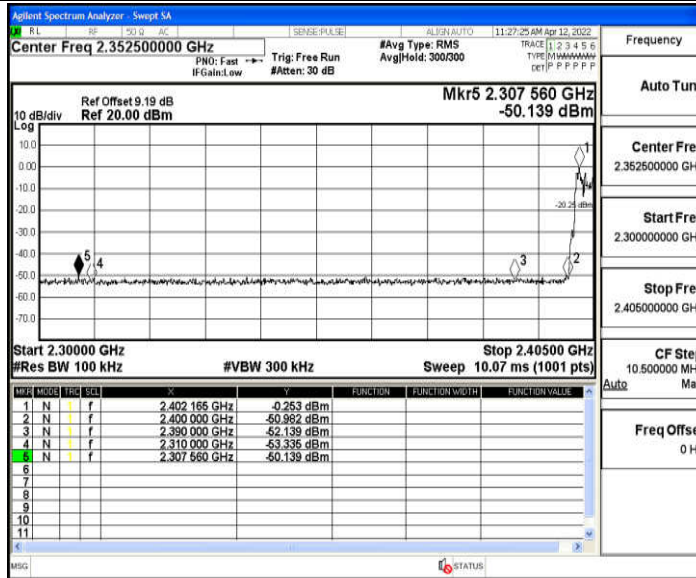
2DH5_Ant1_Low_2402



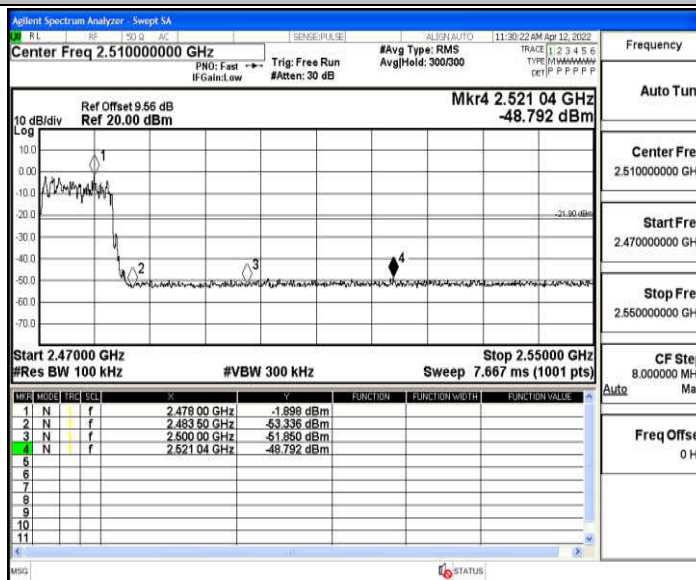
2DH5_Ant1_High_2480



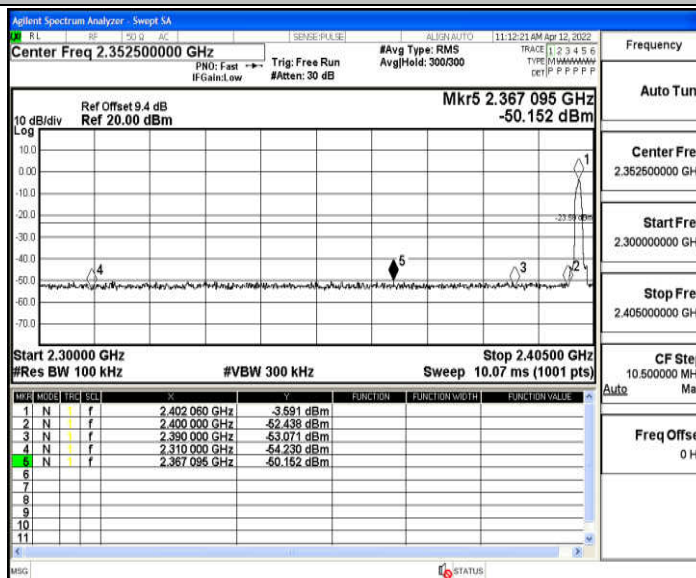
2DH5_Ant1_Low_Hop_2402



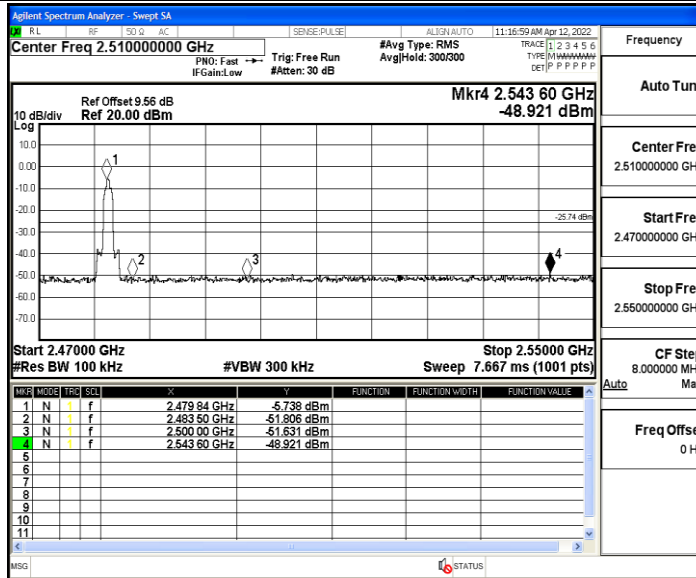
2DH5_Ant1_High_Hop_2480



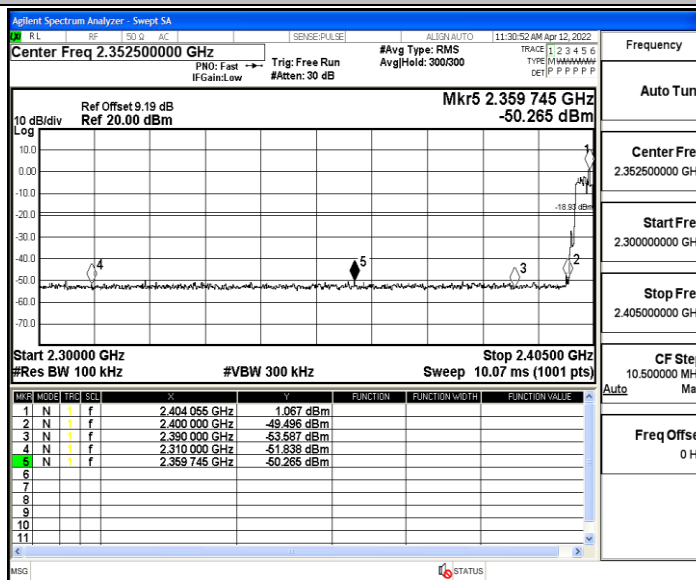
3DH5_Ant1_Low_2402



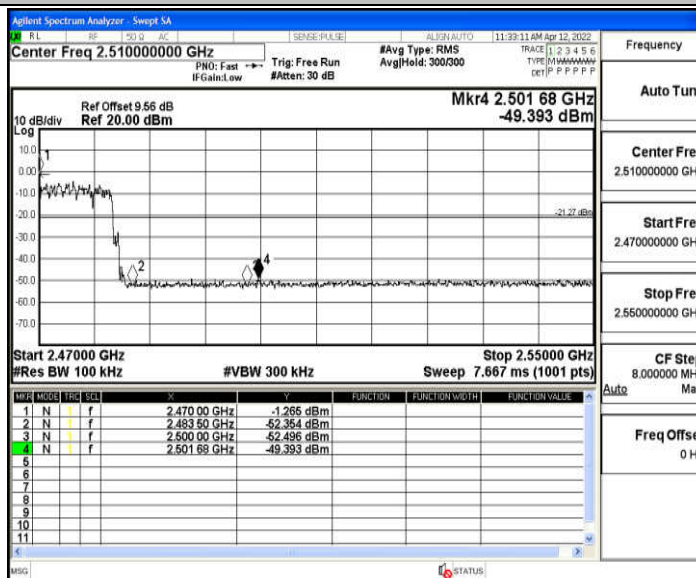
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

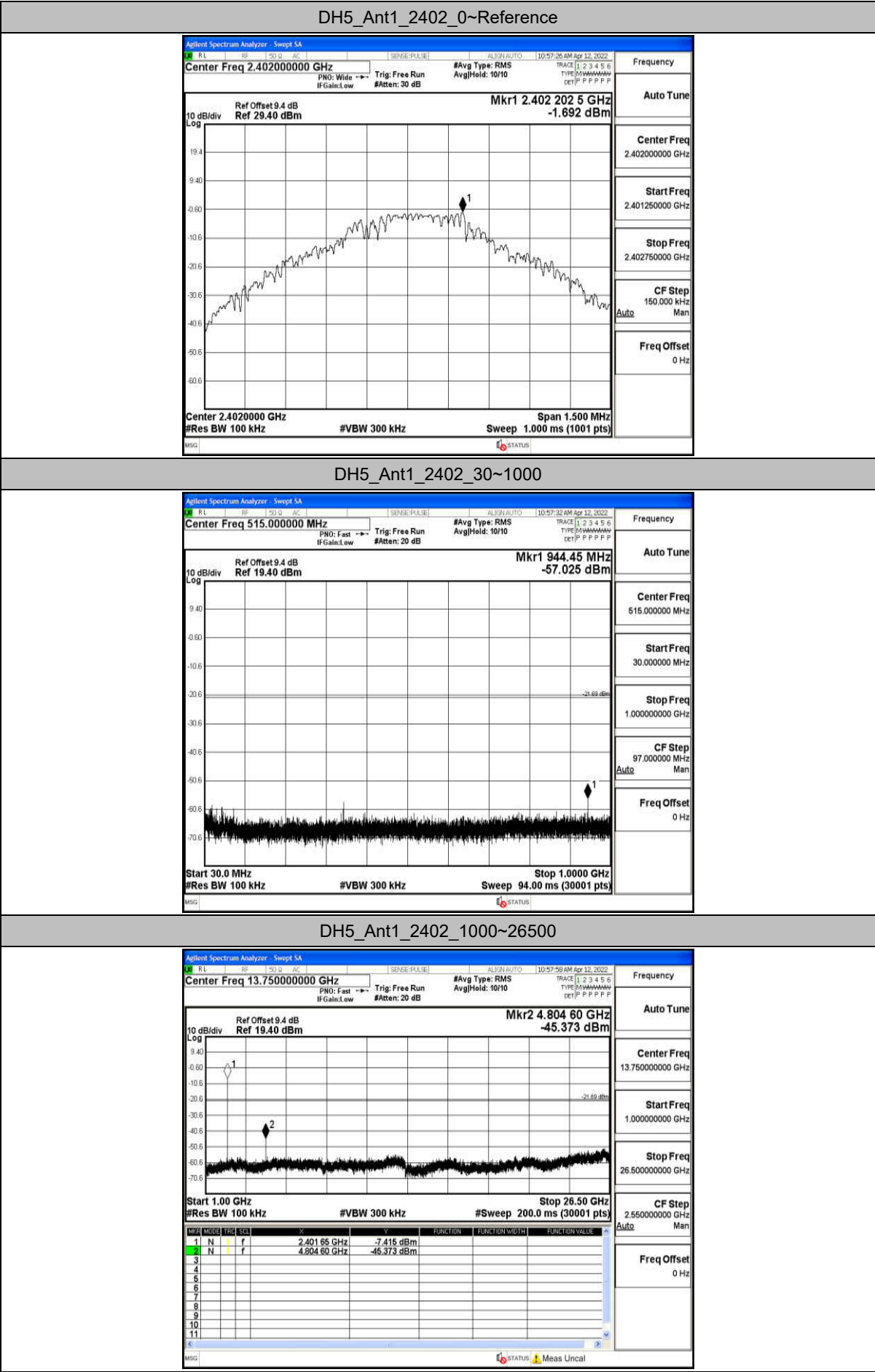


Appendix H: Conducted Spurious Emission

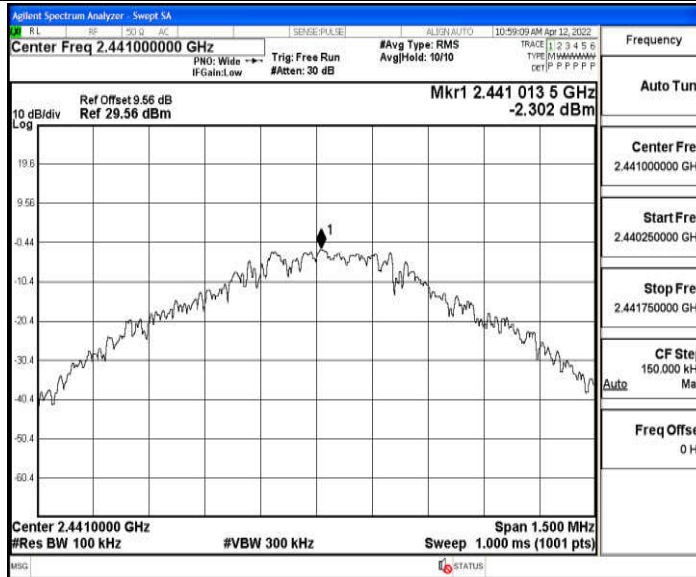
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-1.69	-1.69	---	PASS
			30~1000	-1.69	-57.03	≤ -21.69	PASS
			1000~26500	-1.69	-45.37	≤ -21.69	PASS
		2441	Reference	-2.30	-2.30	---	PASS
			30~1000	-2.30	-57.63	≤ -22.3	PASS
			1000~26500	-2.30	-43.47	≤ -22.3	PASS
		2480	Reference	-4.65	-4.65	---	PASS
			30~1000	-4.65	-57.44	≤ -24.65	PASS
			1000~26500	-4.65	-45.37	≤ -24.65	PASS
2DH5	Ant1	2402	Reference	-3.95	-3.95	---	PASS
			30~1000	-3.95	-58.96	≤ -23.95	PASS
			1000~26500	-3.95	-49.93	≤ -23.95	PASS
		2441	Reference	-7.88	-7.88	---	PASS
			30~1000	-7.88	-57.92	≤ -27.88	PASS
			1000~26500	-7.88	-49.19	≤ -27.88	PASS
		2480	Reference	-6.01	-6.01	---	PASS
			30~1000	-6.01	-56.86	≤ -26.01	PASS
			1000~26500	-6.01	-50.59	≤ -26.01	PASS
3DH5	Ant1	2402	Reference	-3.85	-3.85	---	PASS
			30~1000	-3.85	-52.12	≤ -23.85	PASS
			1000~26500	-3.85	-50.26	≤ -23.85	PASS
		2441	Reference	-7.10	-7.10	---	PASS
			30~1000	-7.10	-57.68	≤ -27.1	PASS
			1000~26500	-7.10	-49.03	≤ -27.1	PASS
		2480	Reference	-7.10	-7.10	---	PASS
			30~1000	-7.10	-58.27	≤ -27.1	PASS
			1000~26500	-7.10	-48.61	≤ -27.1	PASS

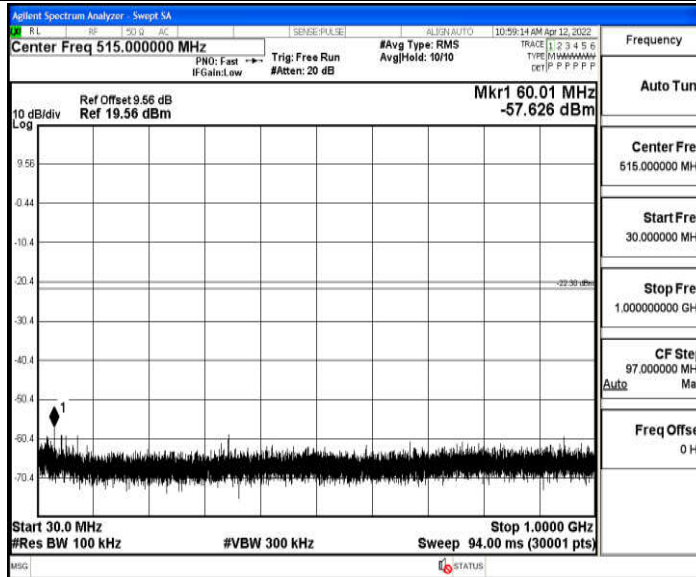
Test Graphs



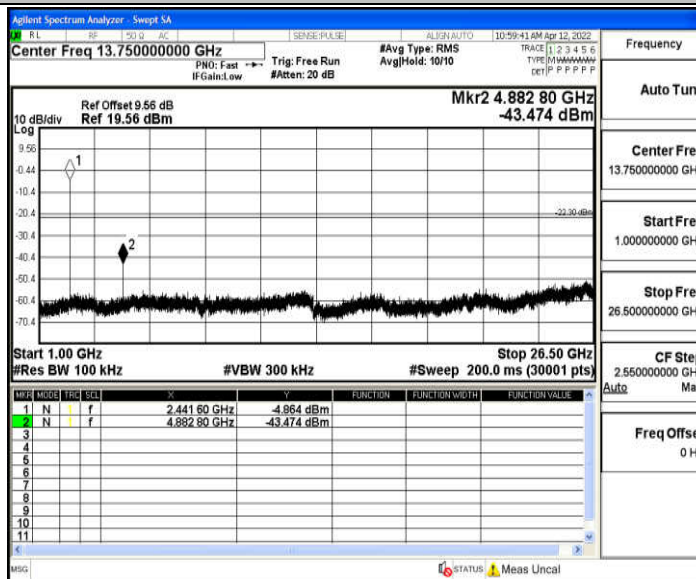
DH5_Ant1_2441_0~Reference



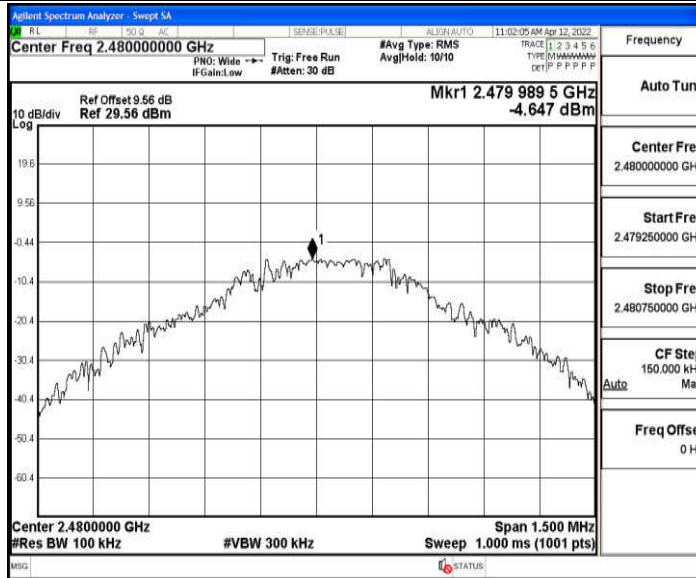
DH5_Ant1_2441_30~1000



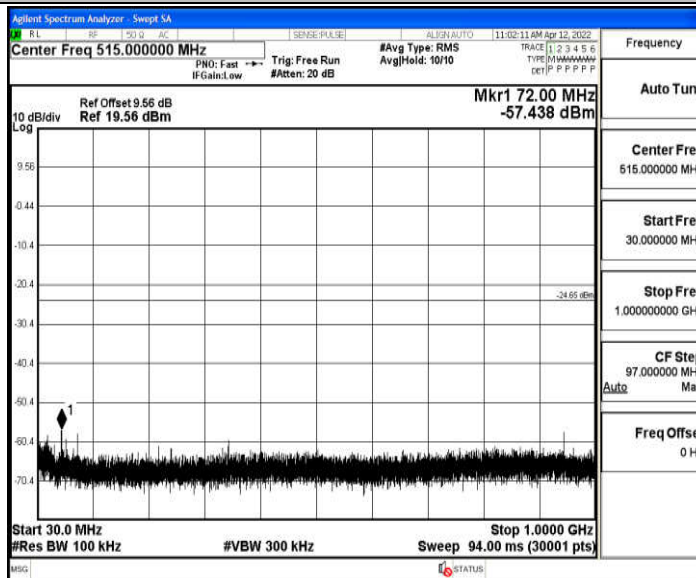
DH5_Ant1_2441_1000~26500



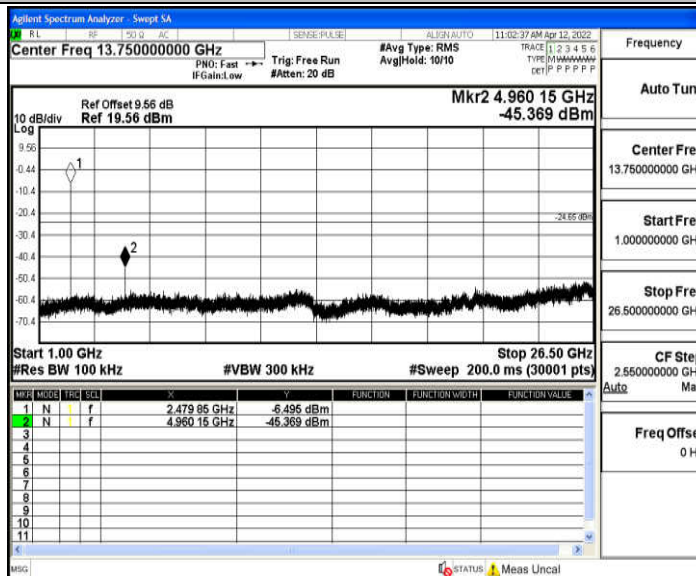
DH5_Ant1_2480_0~Reference



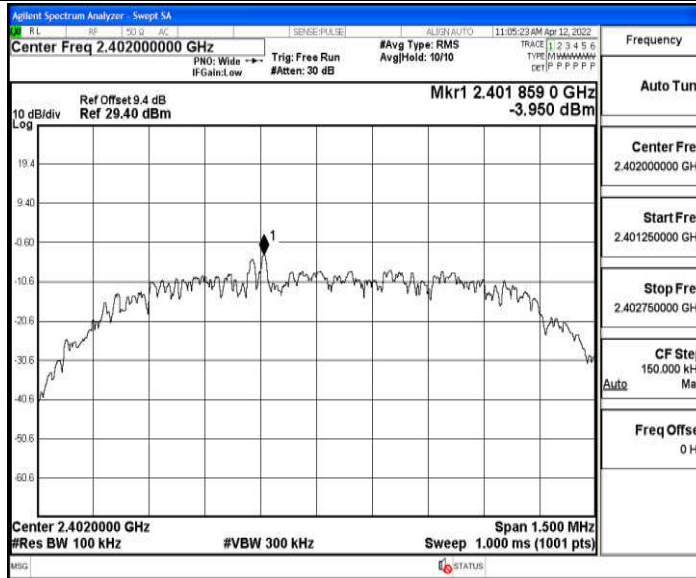
DH5_Ant1_2480_30~1000



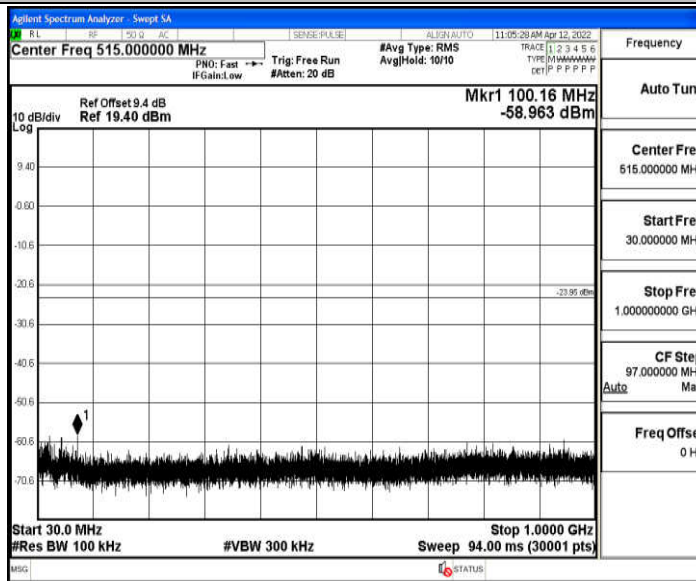
DH5_Ant1_2480_1000~26500



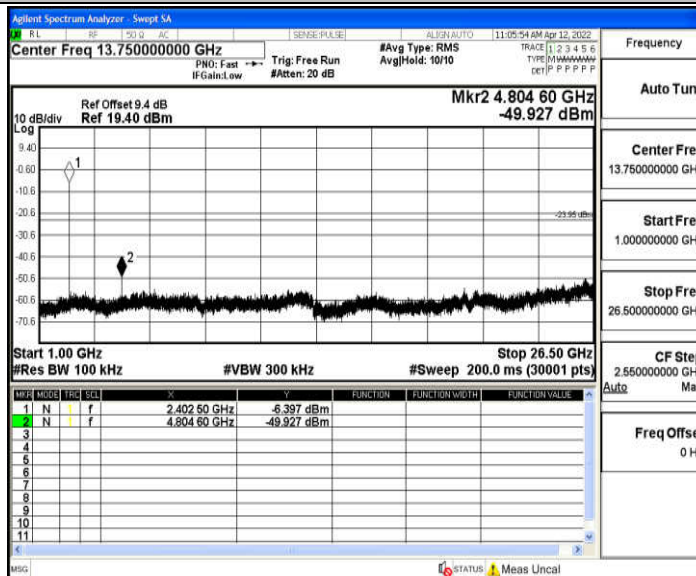
2DH5_Ant1_2402_0~Reference



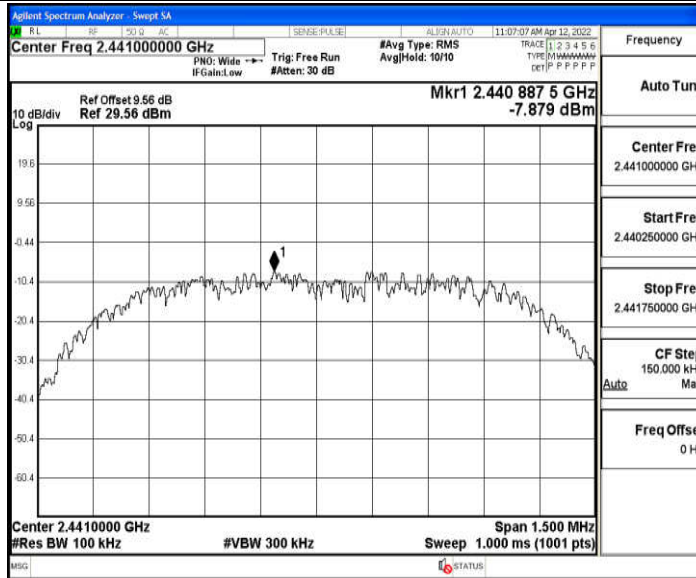
2DH5_Ant1_2402_30~1000



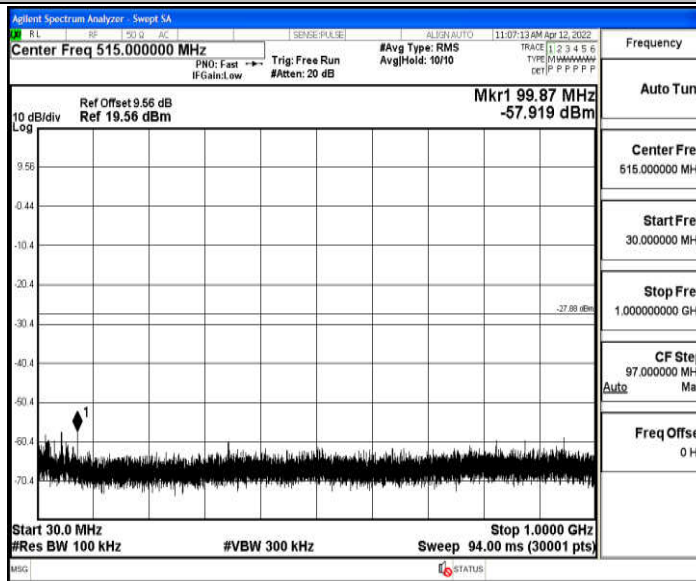
2DH5_Ant1_2402_1000~26500



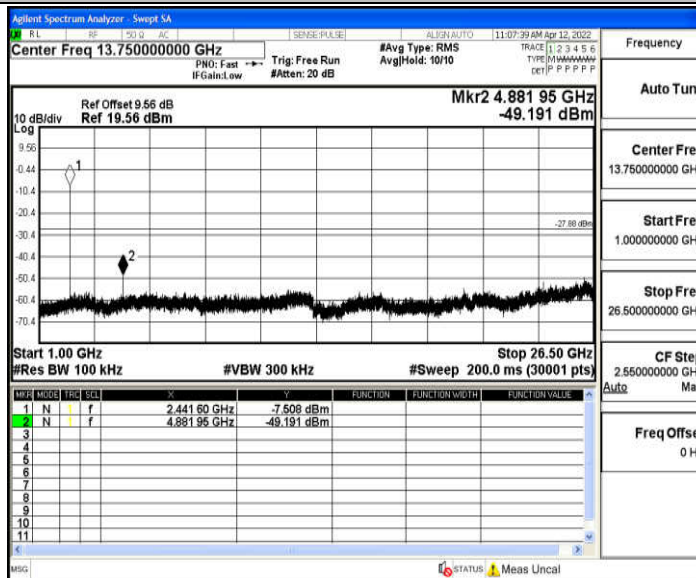
2DH5_Ant1_2441_0~Reference



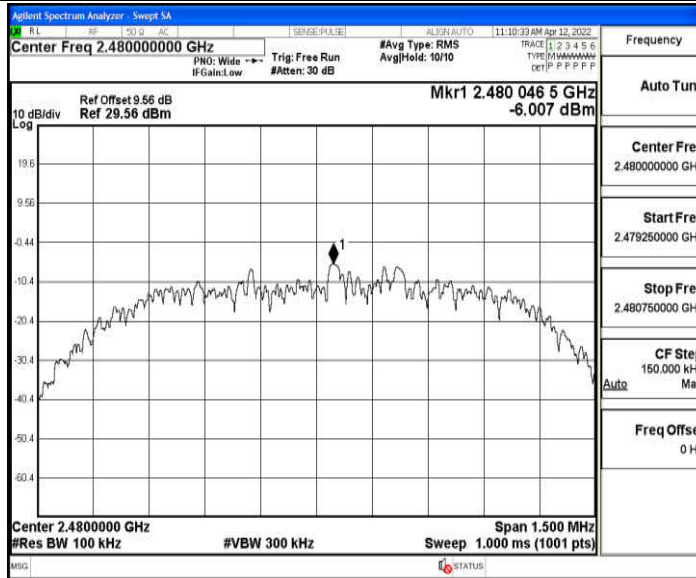
2DH5_Ant1_2441_30~1000



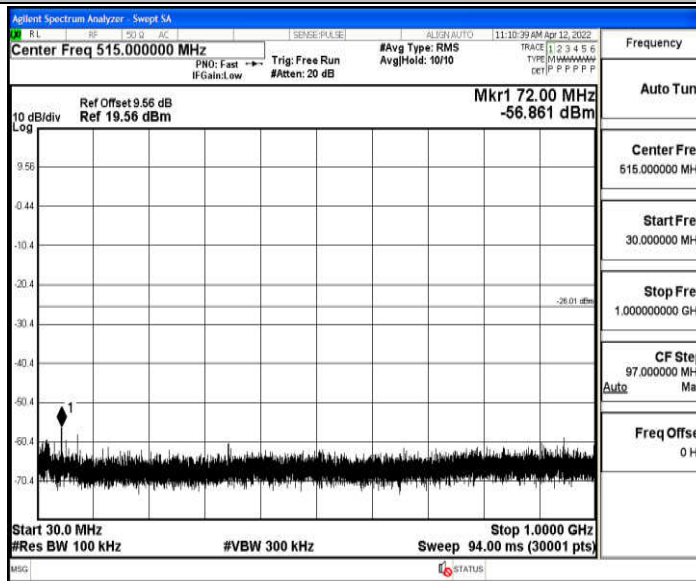
2DH5_Ant1_2441_1000~26500



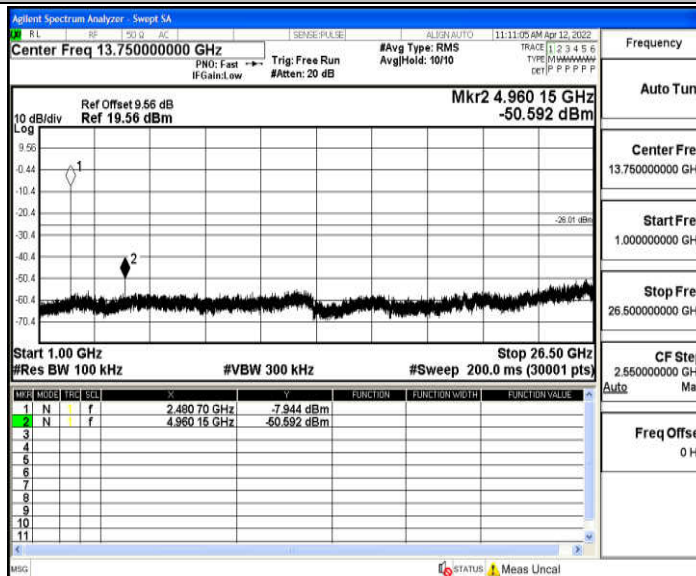
2DH5_Ant1_2480_0~Reference



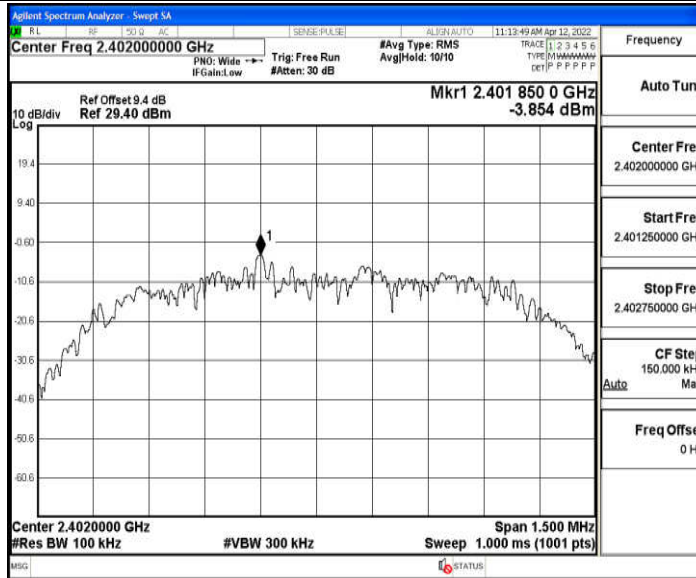
2DH5_Ant1_2480_30~1000



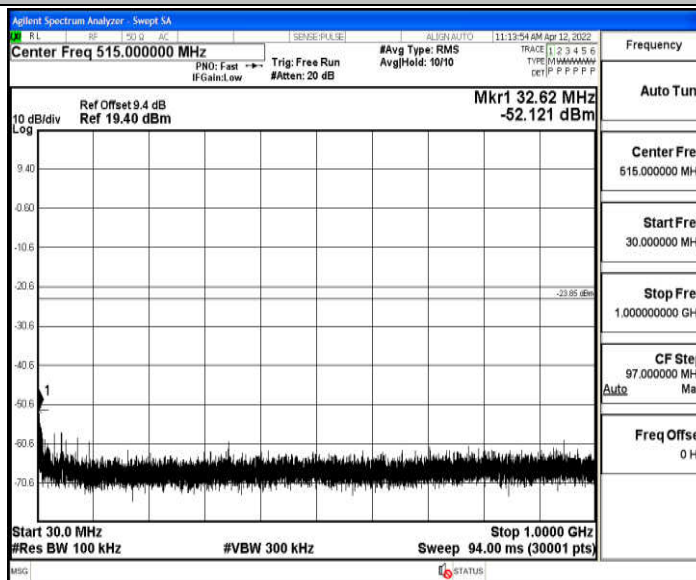
2DH5_Ant1_2480_1000~26500



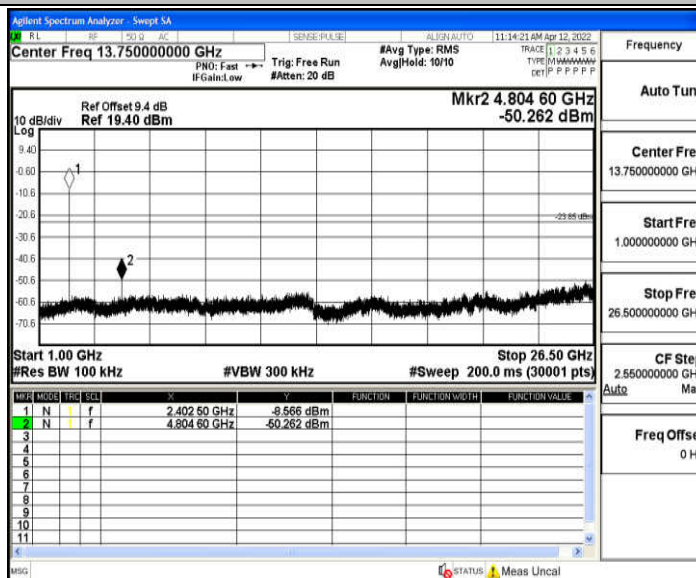
3DH5_Ant1_2402_0~Reference



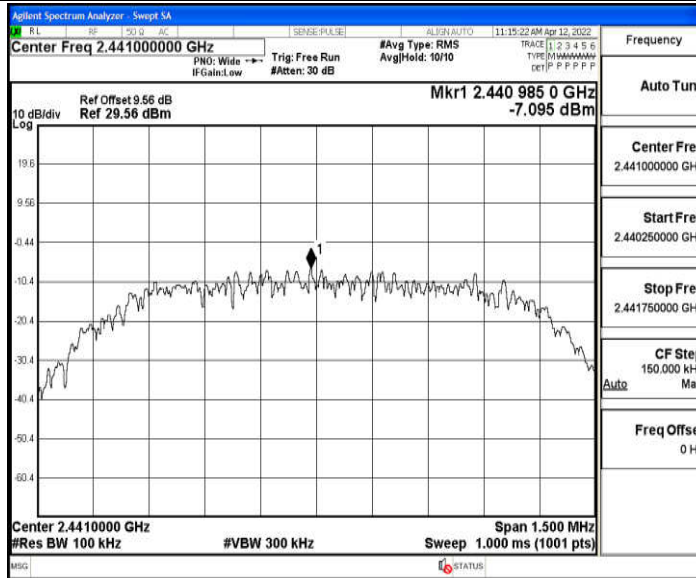
3DH5_Ant1_2402_30~1000



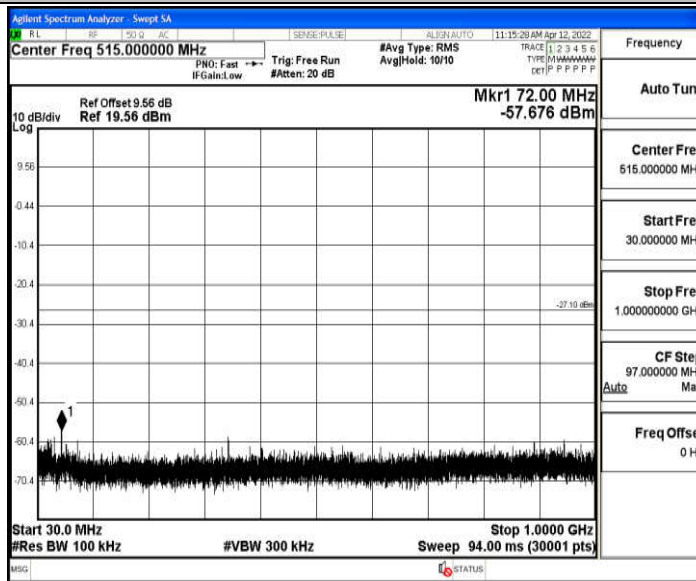
3DH5_Ant1_2402_1000~26500



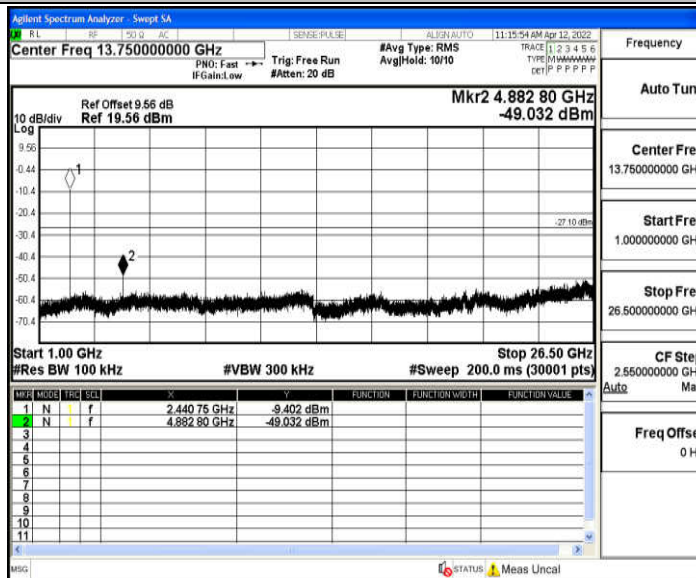
3DH5_Ant1_2441_0~Reference



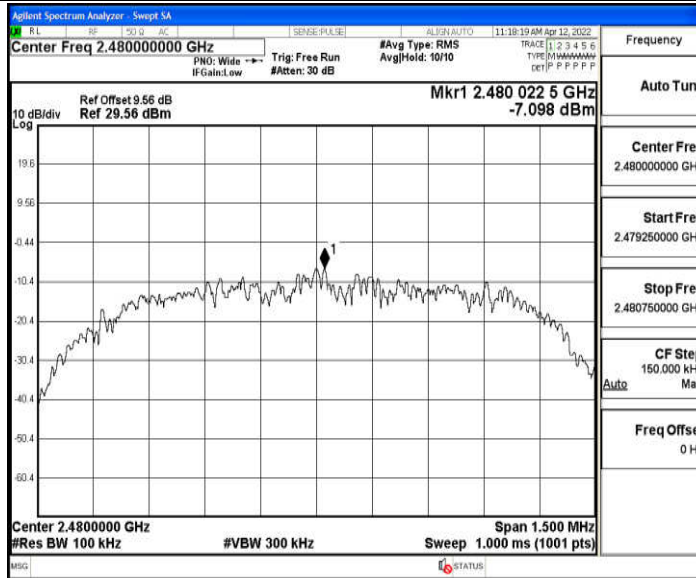
3DH5_Ant1_2441_30~1000



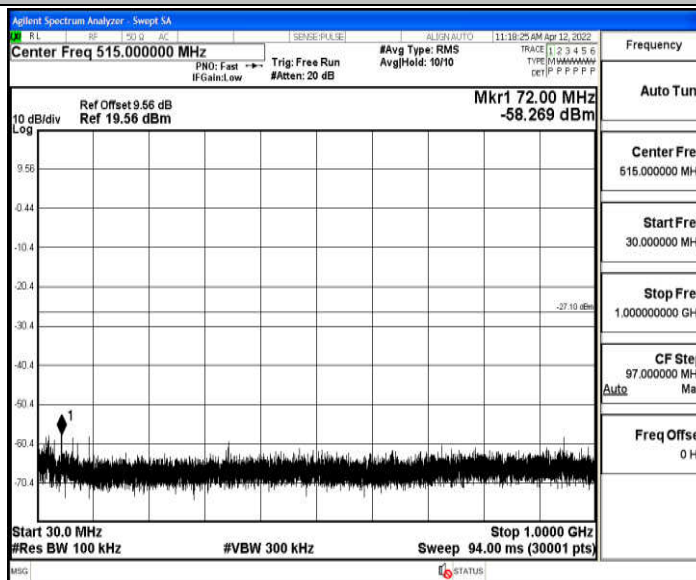
3DH5_Ant1_2441_1000~26500



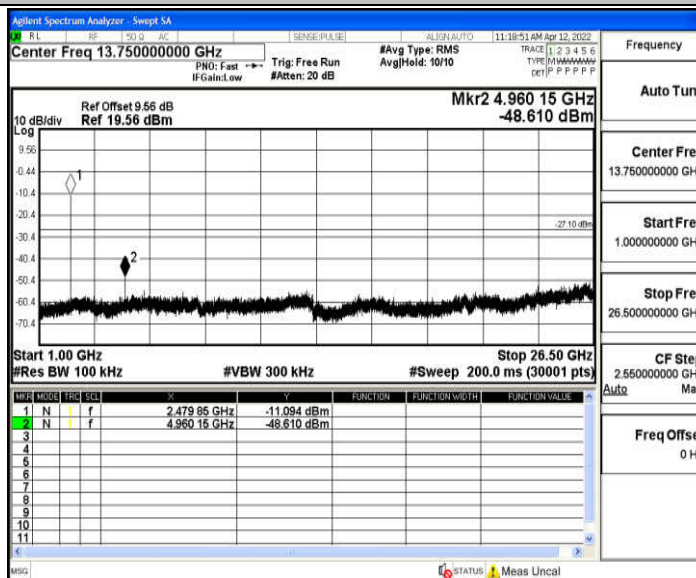
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



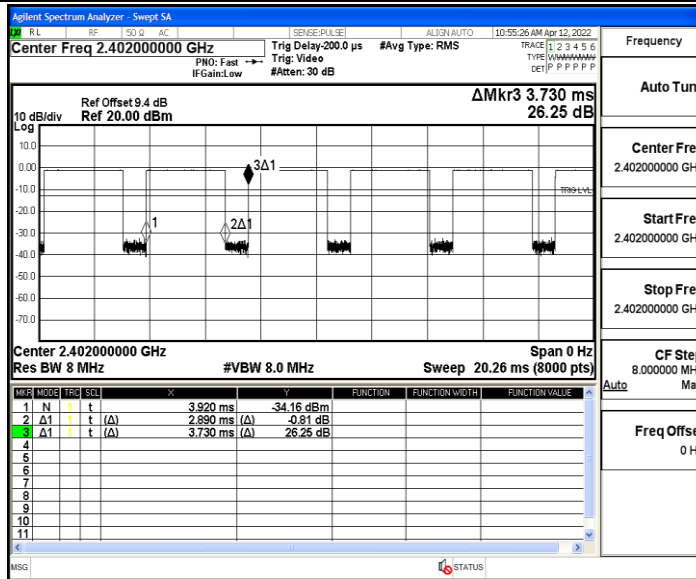
Appendix I: Duty Cycle

Test Result

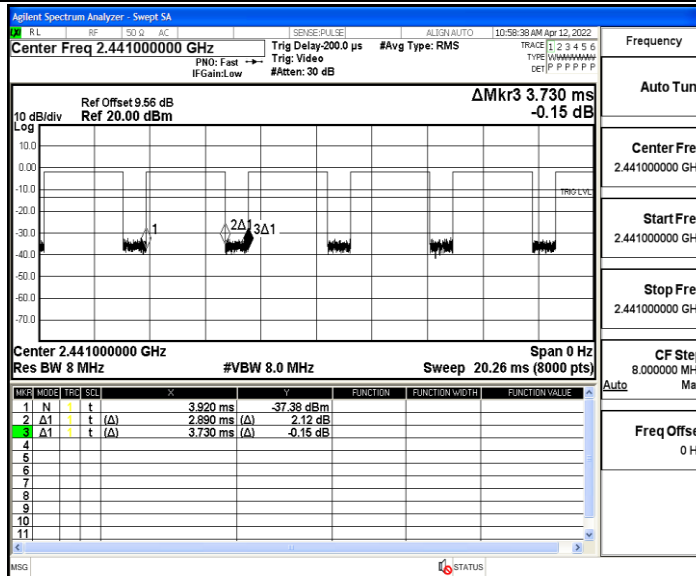
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [kHz]
DH5	Ant1	2402	2.89	3.73	77.48	0.35
		2441	2.89	3.73	77.48	0.35
		2480	2.89	3.73	77.48	0.35
2DH5	Ant1	2402	2.89	3.73	77.48	0.35
		2441	2.89	3.73	77.48	0.35
		2480	2.89	3.73	77.48	0.35
3DH5	Ant1	2402	2.89	3.74	77.27	0.35
		2441	2.89	3.73	77.48	0.35
		2480	2.89	3.74	77.27	0.35

Test Graphs

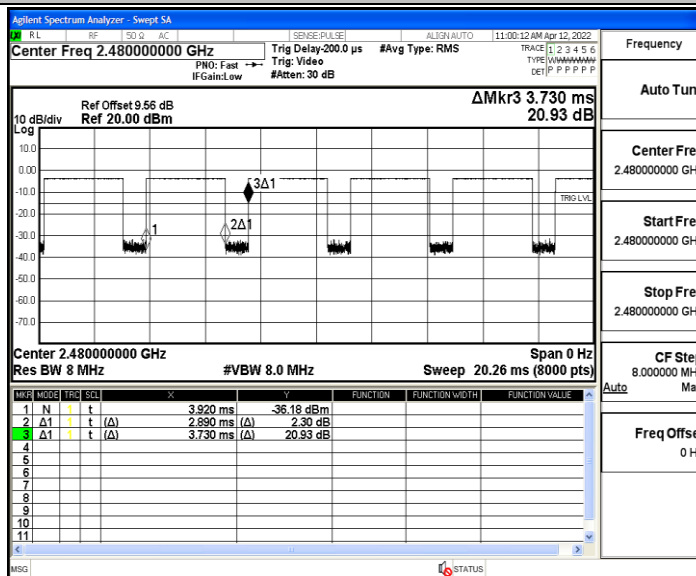
DH5_Ant1_2402



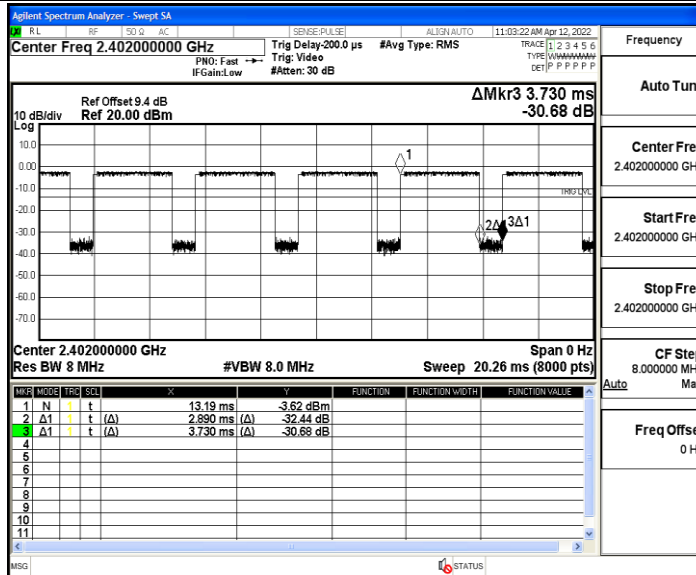
DH5_Ant1_2441



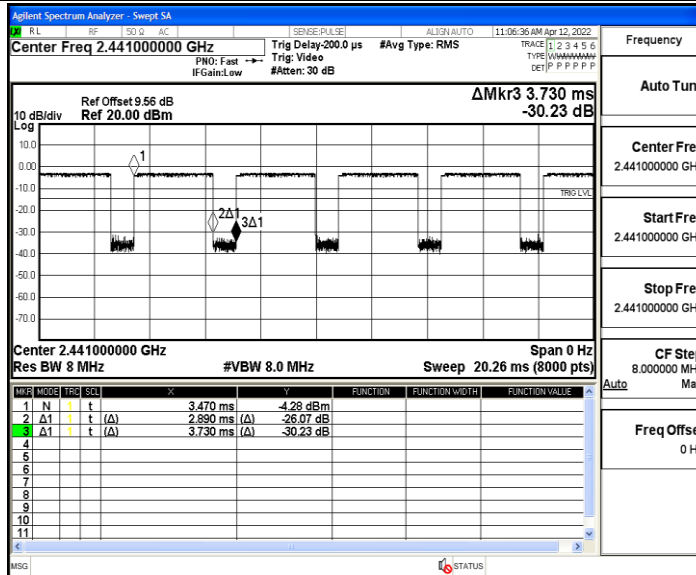
DH5_Ant1_2480



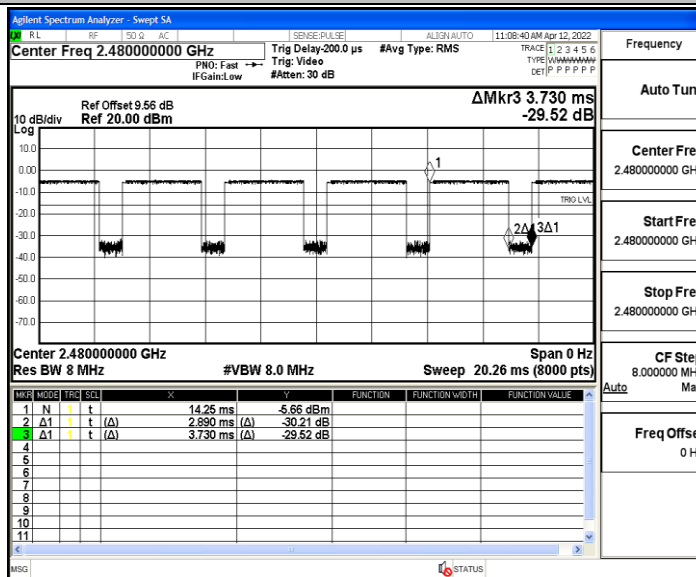
2DH5_Ant1_2402



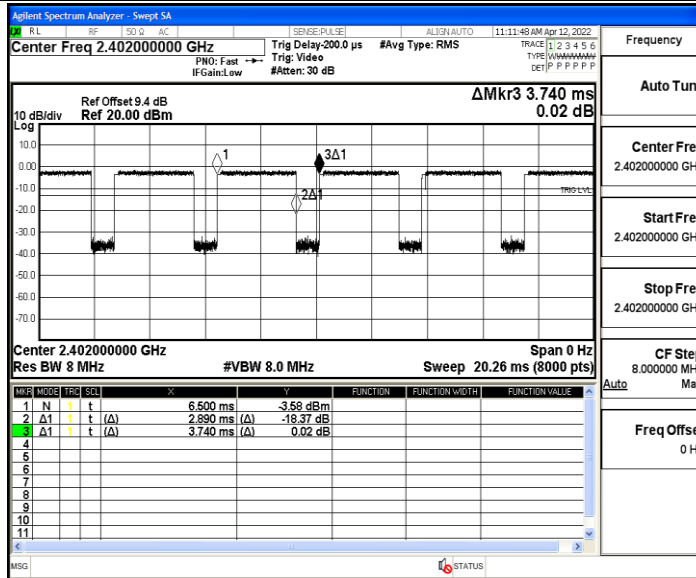
2DH5_Ant1_2441



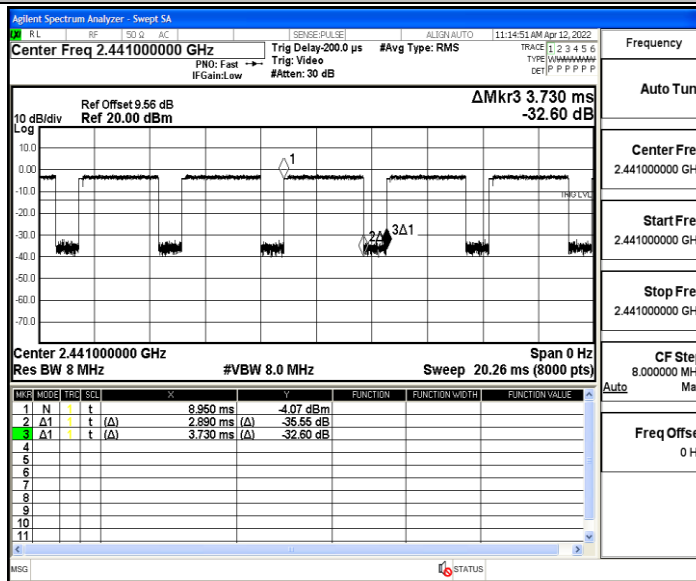
2DH5_Ant1_2480



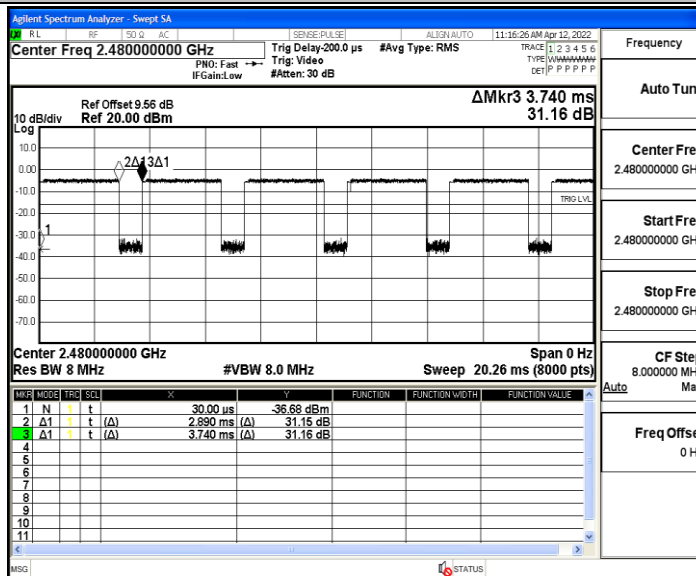
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix J: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49.03	≤-41.20	PASS
				AV	2386.100	-48.59	≤-41.20	PASS
				AV	2390.000	-48.72	≤-41.20	PASS
				Peak	2310.000	-40.79	≤-21.20	PASS
				Peak	2334.545	-38.75	≤-21.20	PASS
				Peak	2390.000	-40.48	≤-21.20	PASS
		High	2480	AV	2483.500	-48.18	≤-41.20	PASS
				AV	2497.280	-47.98	≤-41.20	PASS
				AV	2500.000	-48.04	≤-41.20	PASS
				Peak	2483.500	-41.99	≤-21.20	PASS
				Peak	2490.800	-38.76	≤-21.20	PASS
				Peak	2500.000	-40.71	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.95	≤-41.20	PASS
				AV	2386.415	-48.59	≤-41.20	PASS
				AV	2390.000	-48.78	≤-41.20	PASS
				Peak	2310.000	-42.88	≤-21.20	PASS
				Peak	2328.455	-38.27	≤-21.20	PASS
				Peak	2390.000	-42.37	≤-21.20	PASS
		High	2480	AV	2483.500	-48.17	≤-41.20	PASS
				AV	2498.640	-47.92	≤-41.20	PASS
				AV	2500.000	-47.99	≤-41.20	PASS
				Peak	2483.500	-40.85	≤-21.20	PASS
				Peak	2497.600	-38.52	≤-21.20	PASS
				Peak	2500.000	-41.83	≤-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-49.07	≤-41.20	PASS
				AV	2388.935	-48.62	≤-41.20	PASS
				AV	2390.000	-48.82	≤-41.20	PASS
				Peak	2310.000	-42.9	≤-21.20	PASS
				Peak	2385.050	-38.72	≤-21.20	PASS
				Peak	2390.000	-42.34	≤-21.20	PASS
		High	2480	AV	2483.500	-48.14	≤-41.20	PASS
				AV	2499.520	-47.91	≤-41.20	PASS
				AV	2500.000	-48.05	≤-41.20	PASS
				Peak	2483.500	-41.4	≤-21.20	PASS
				Peak	2494.880	-38.38	≤-21.20	PASS
				Peak	2500.000	-41.5	≤-21.20	PASS

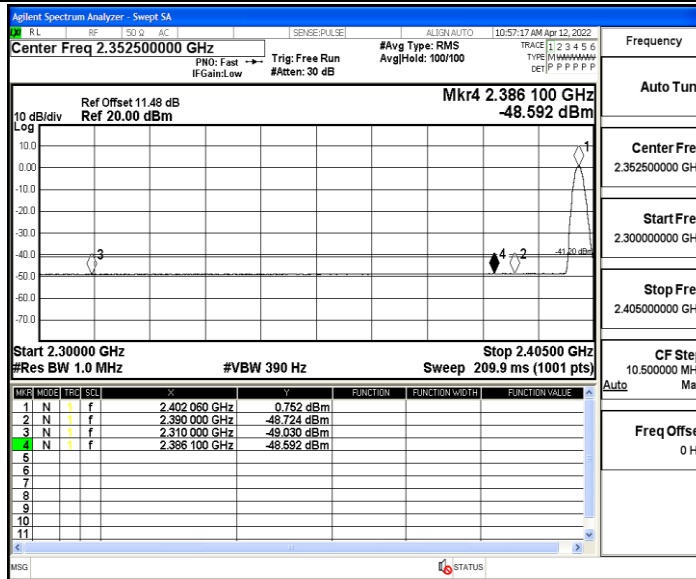
Note:

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

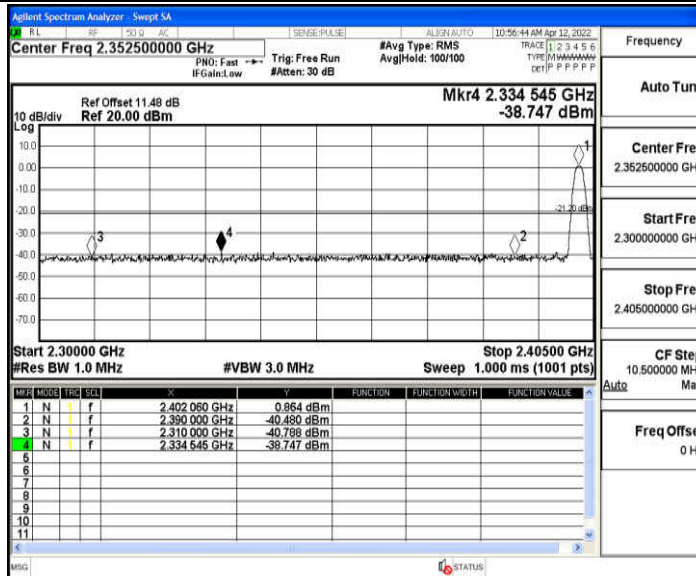
dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

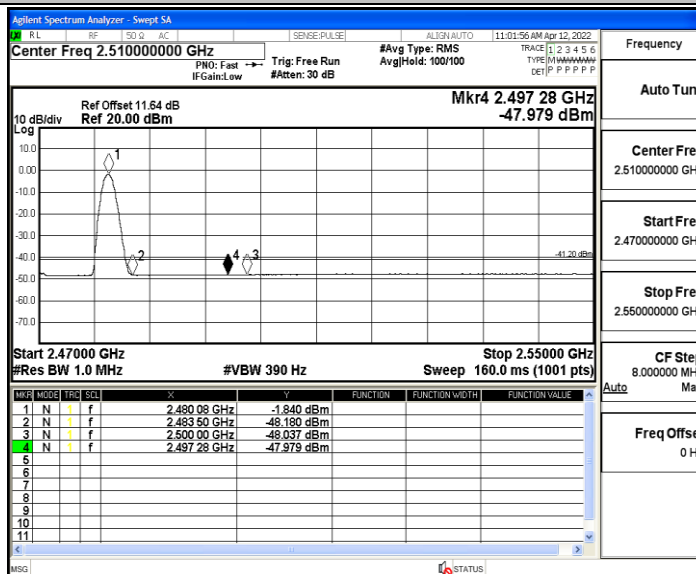
DH5_Ant1_Low_2402_AV



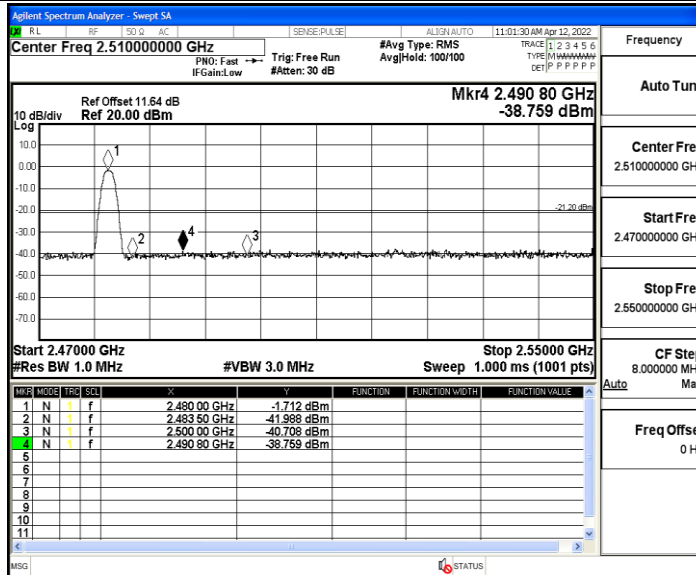
DH5_Ant1_Low_2402_Peak



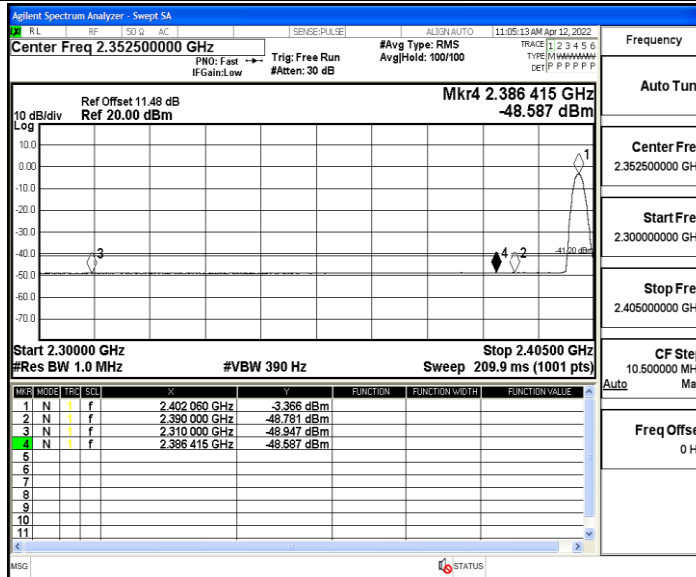
DH5_Ant1_High_2480_AV



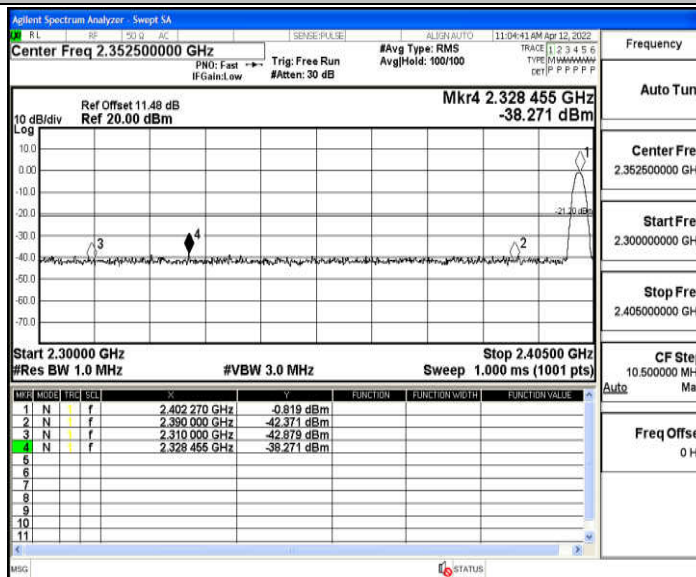
DH5_Ant1_High_2480_Peak



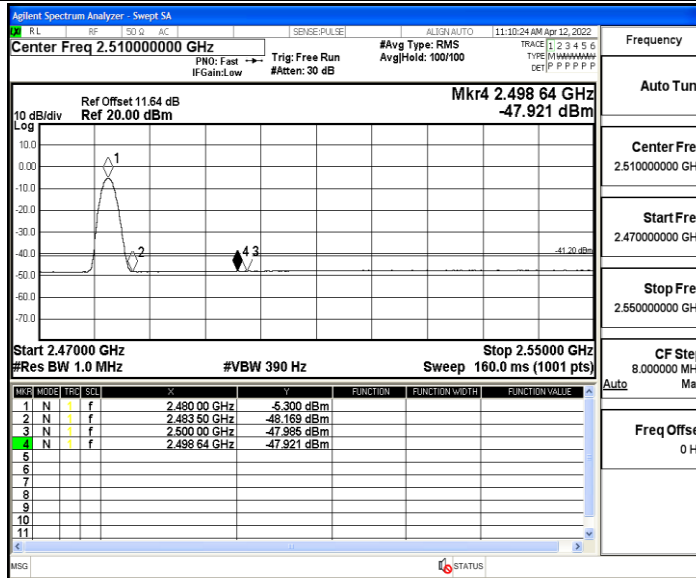
2DH5_Ant1_Low_2402_AV



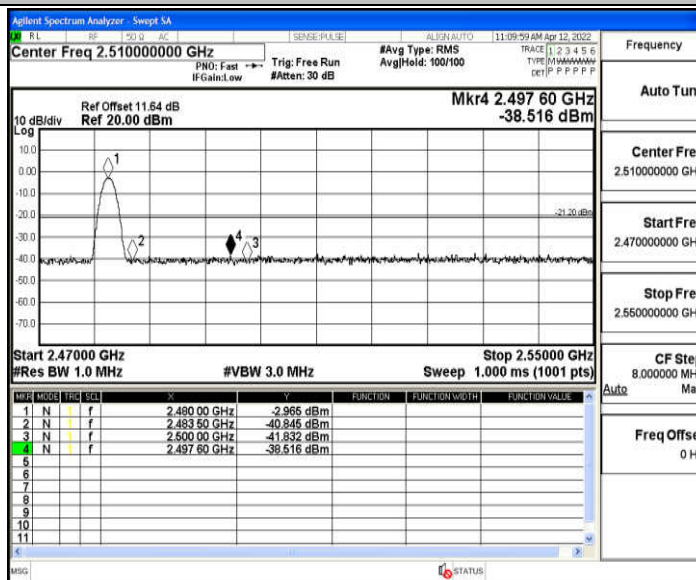
2DH5_Ant1_Low_2402_Peak



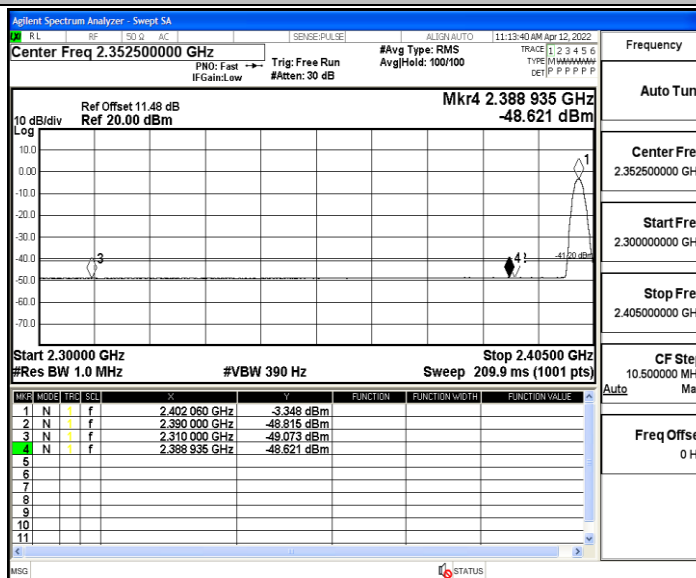
2DH5_Ant1_High_2480_AV



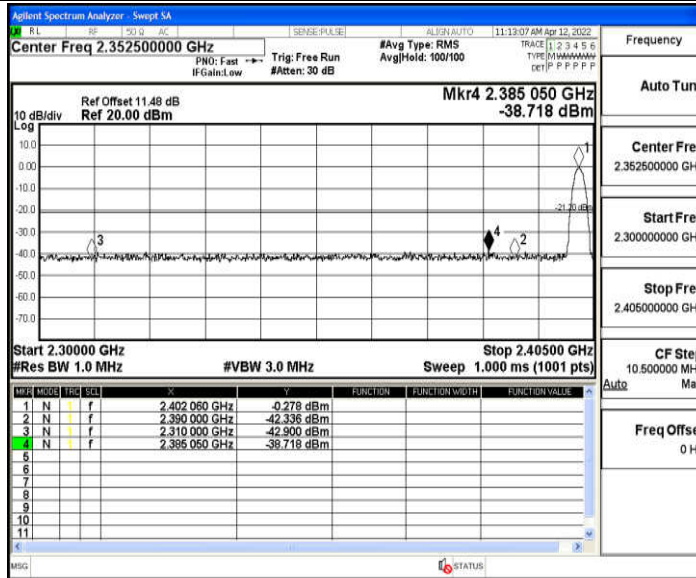
2DH5_Ant1_High_2480_Peak



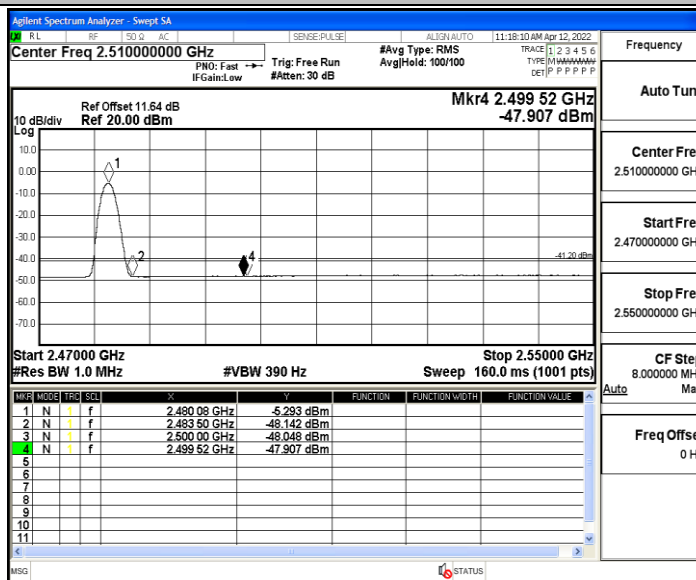
3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak



3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak

