

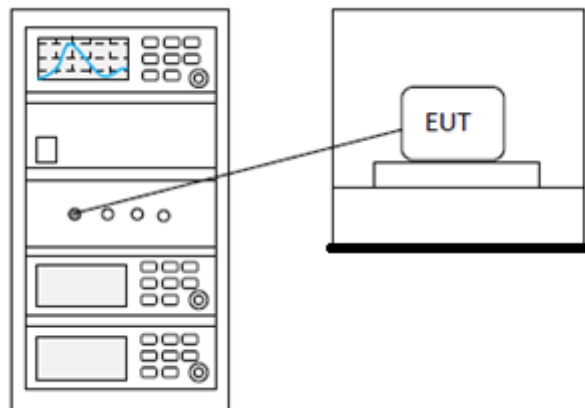
DWELL TIME

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.4
Test Mode (Pre-Scan)	TX_non-Hop mode
Test Mode (Final Test)	TX_non-Hop mode
Tester	Eason
Temperature	25°C
Humidity	60%

LIMITS

Frequency(MHz)	Limit
902-928	0.4S within a 20S period(20dB bandwidth<250kHz)
	0.4S within a 10S period(20dB bandwidth≥250kHz)
2400-2483.5	0.4S within a period of 0.4S multiplied by the number of hopping channels
5725-5850	0.4S within a 30S period

BLOCK DIAGRAM OF TEST SETUP



TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

BlueAsia

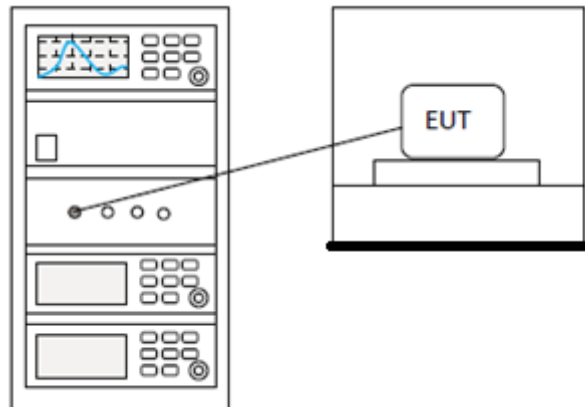
HOPPING CHANNEL NUMBER

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.3
Test Mode (Pre-Scan)	TX_non-Hop mode
Test Mode (Final Test)	TX_non-Hop mode
Tester	Eason
Temperature	25°C
Humidity	60%

LIMITS

Frequency range(MHz)	Number of hopping channels (minimum)
902-928	50 for 20dB bandwidth <250kHz
	25 for 20dB bandwidth ≥250kHz
2400-2483.5	15
5725-5850	75

BLOCK DIAGRAM OF TEST SETUP



TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

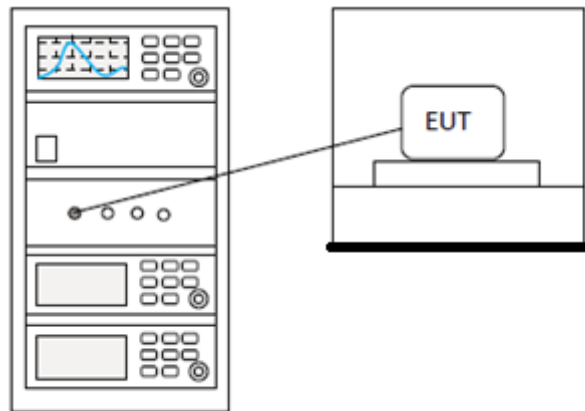
CARRIER FREQUENCIES SEPARATION

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.2
Test Mode (Pre-Scan)	TX_non-Hop mode
Test Mode (Final Test)	TX_non-Hop mode
Tester	Eason
Temperature	25°C
Humidity	60%

LIMITS

Limit:	2/3 of the 20dB bandwidth base on the transmission power is less than 0.125W
---------------	--

BLOCK DIAGRAM OF TEST SETUP



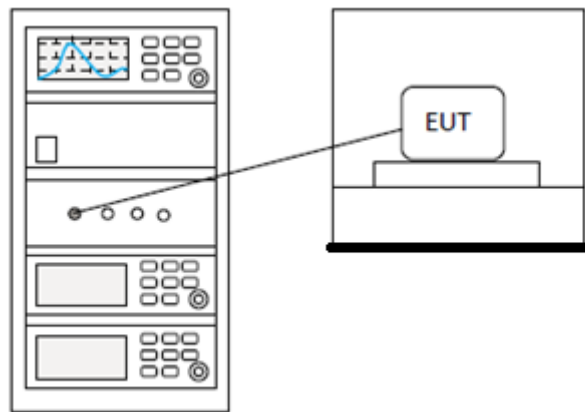
TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

20DB BANDWIDTH

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.7
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	60%

BLOCK DIAGRAM OF TEST SETUP



TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

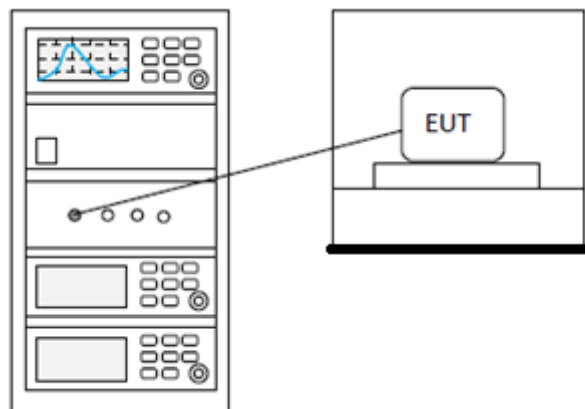
CONDUCTED PEAK OUTPUT POWER

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.5
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	60%

LIMITS

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥ 50 hopping channels
	0.25 for $25 \leq$ hopping channels < 50
	1 for digital modulation
2400-2483.5	1 for ≥ 75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

BLOCK DIAGRAM OF TEST SETUP



TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

BlueAsia

10 APPENDIX

Appendix1

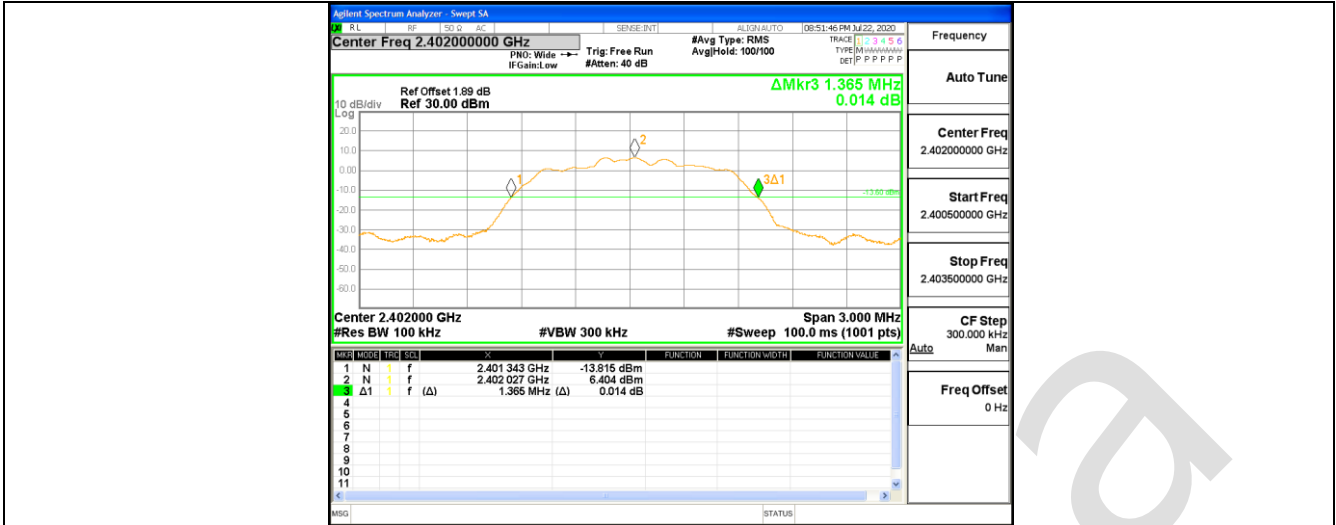
10.1 APPENDIX: 20DBEMISSION BANDWIDTH

Test Result

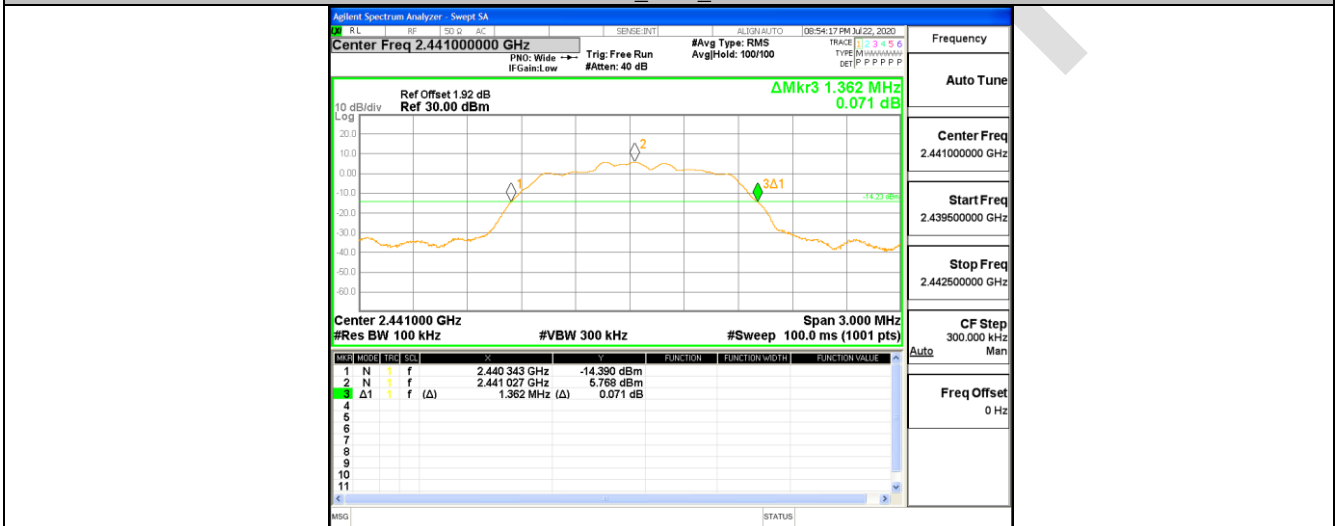
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	1.104	2401.478	2402.582	---	PASS
		2441	1.107	2440.478	2441.585	---	PASS
		2480	1.104	2479.478	2480.582	---	PASS
2DH1	Ant1	2402	1.365	2401.343	2402.708	---	PASS
		2441	1.362	2440.343	2441.705	---	PASS
		2480	1.362	2479.343	2480.705	---	PASS
3DH1	Ant1	2402	1.335	2401.370	2402.705	---	PASS
		2441	1.332	2440.370	2441.702	---	PASS
		2480	1.332	2479.370	2480.702	---	PASS

Test Graphs

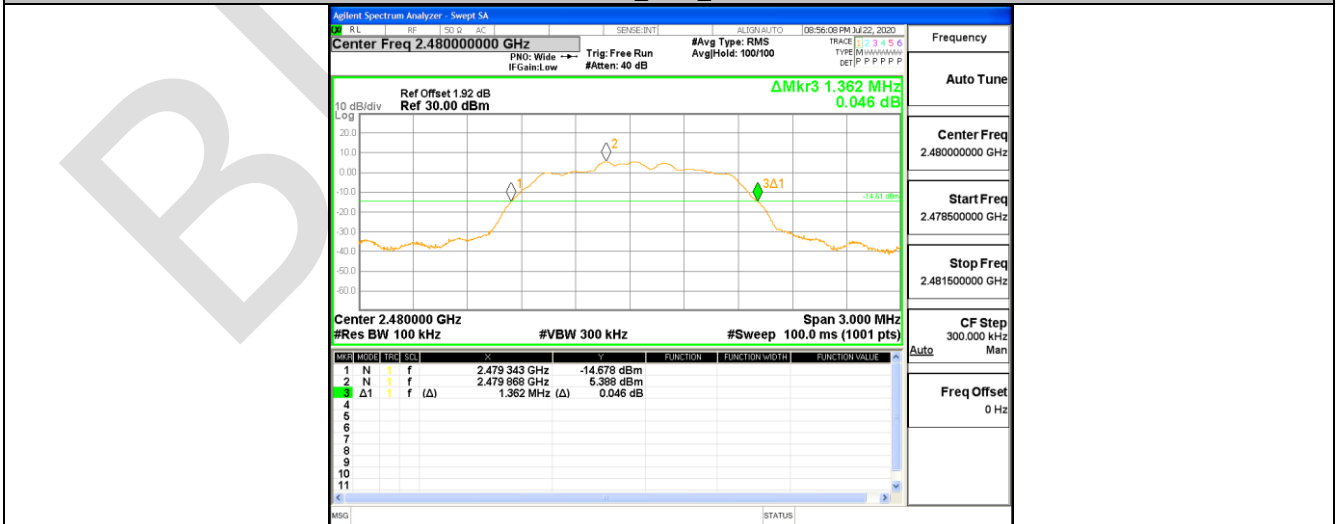




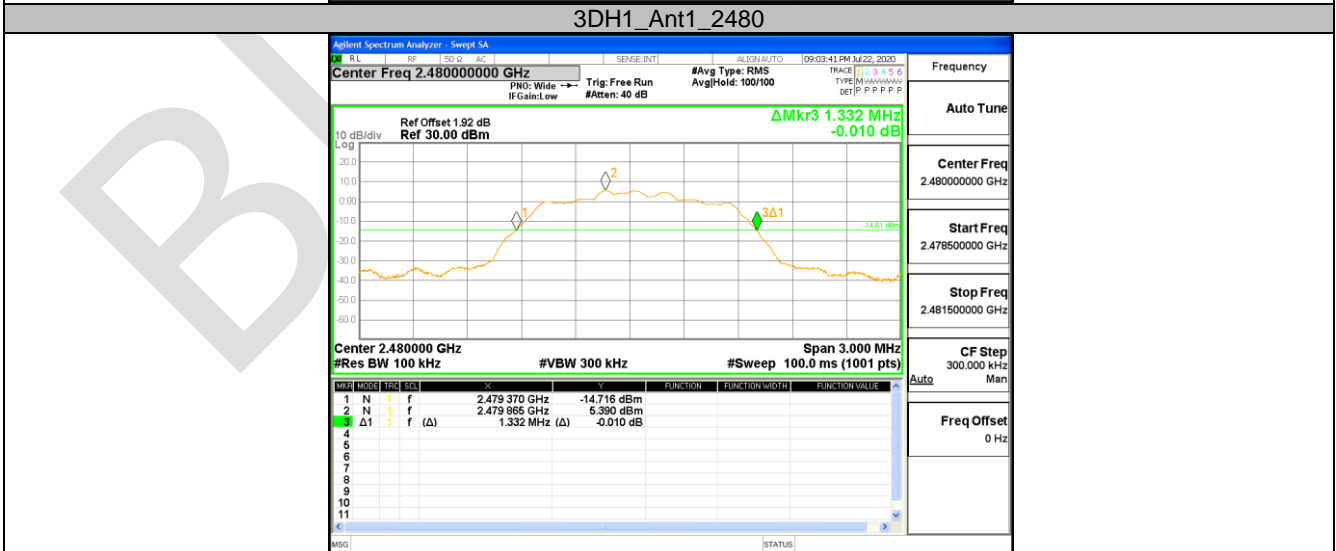
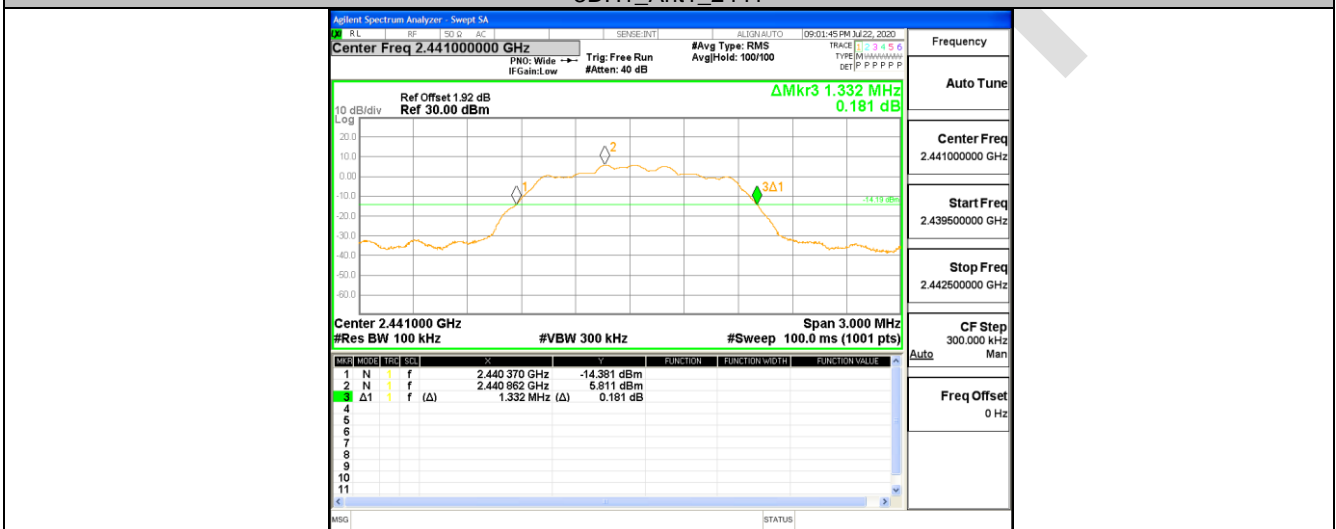
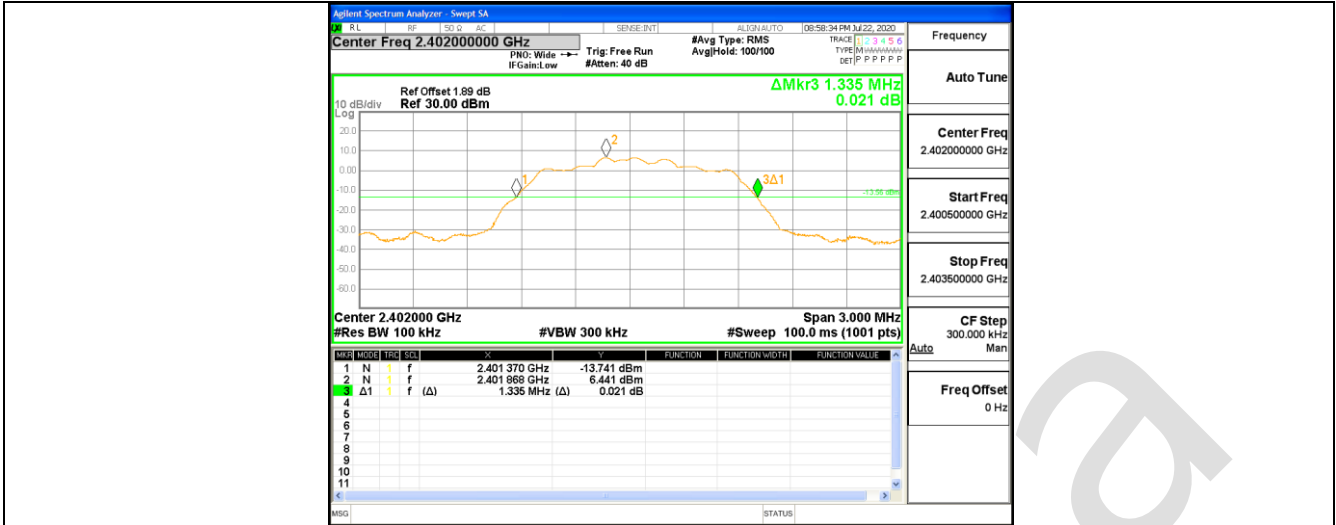
2DH1_Ant1_2441



2DH1_Ant1_2480



3DH1_Ant1_2402

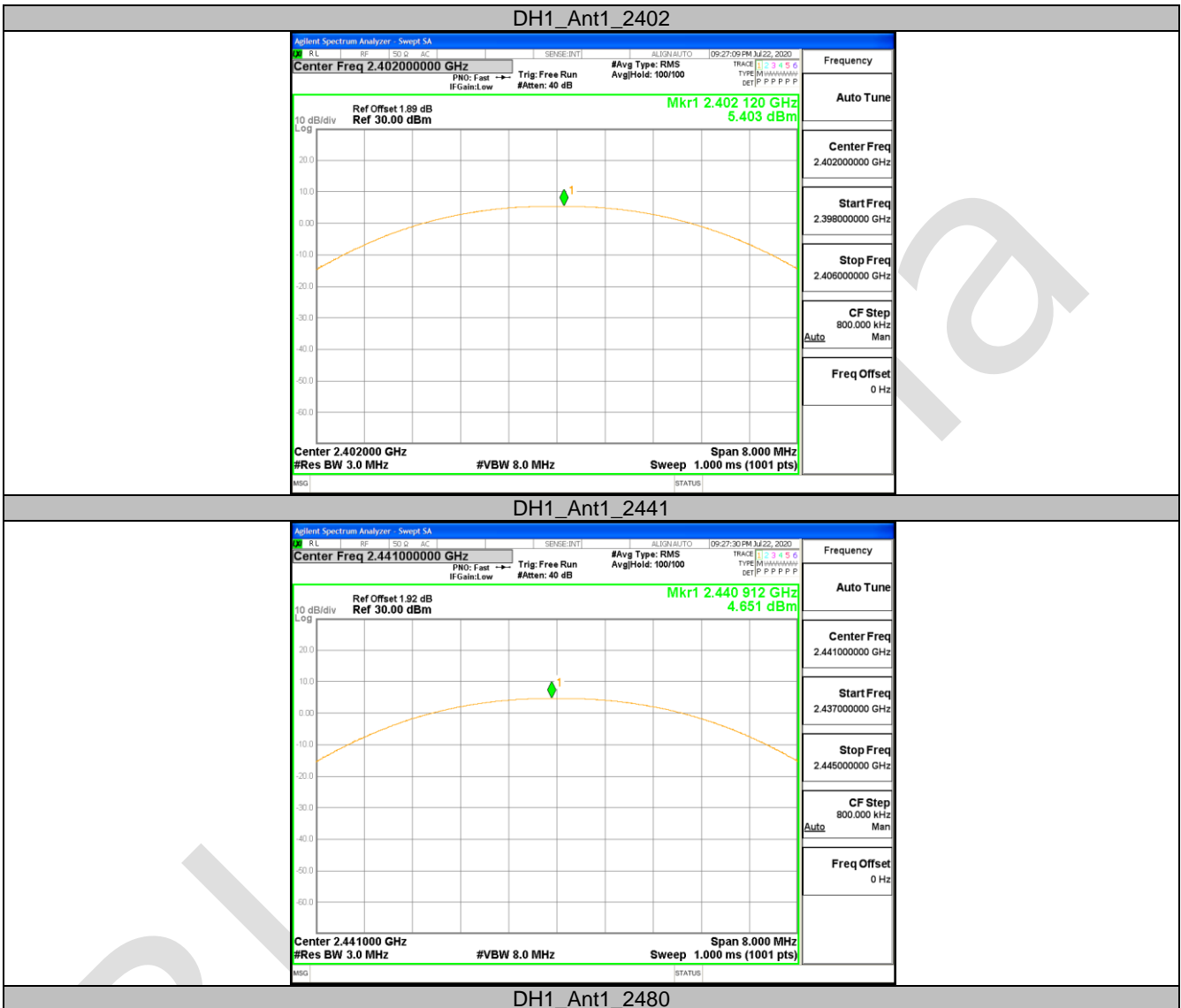


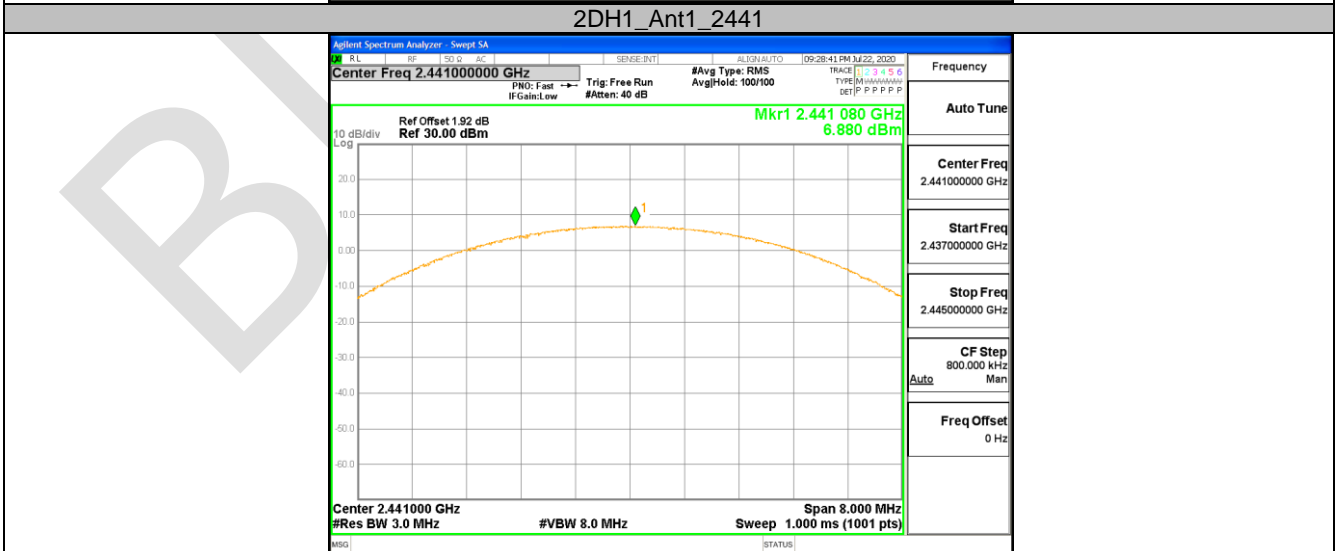
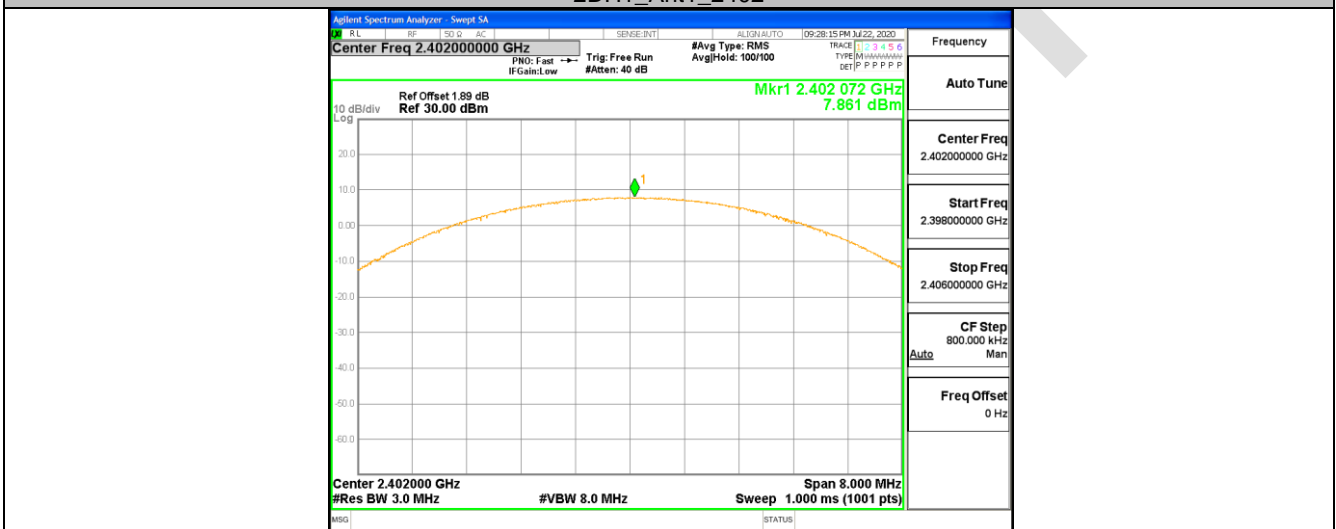
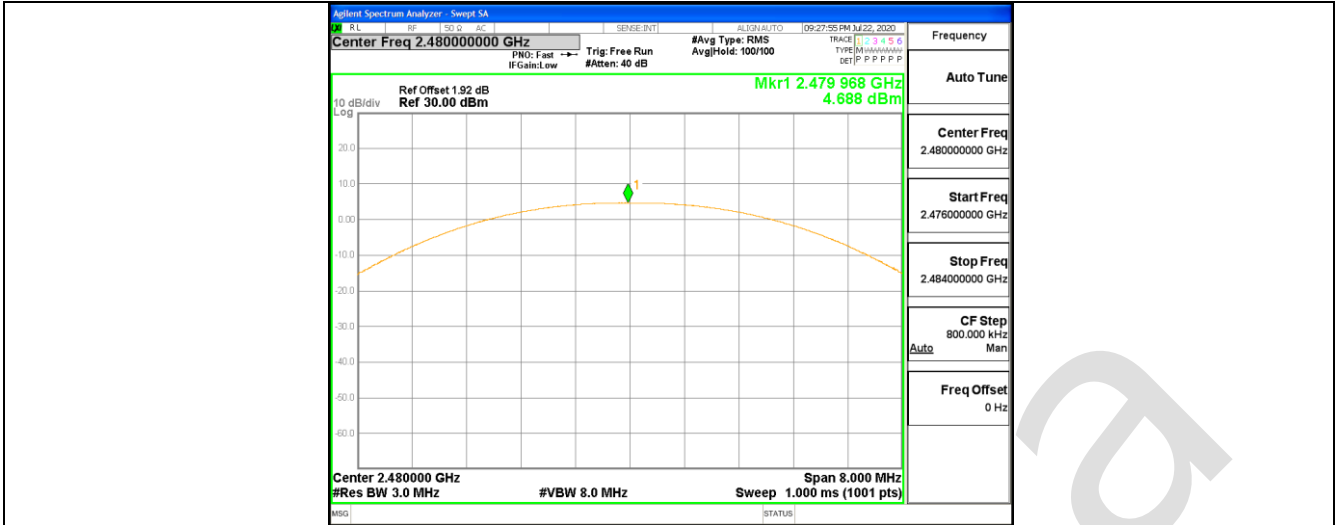
10.2 APPENDIX: MAXIMUM CONDUCTED OUTPUT POWER

Test Result

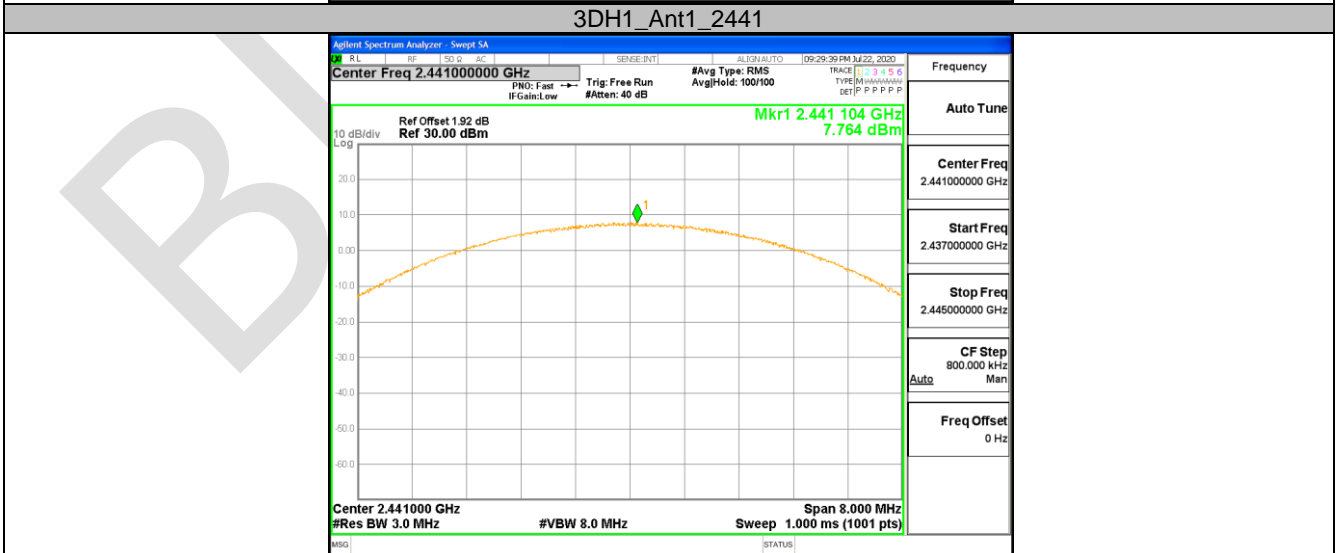
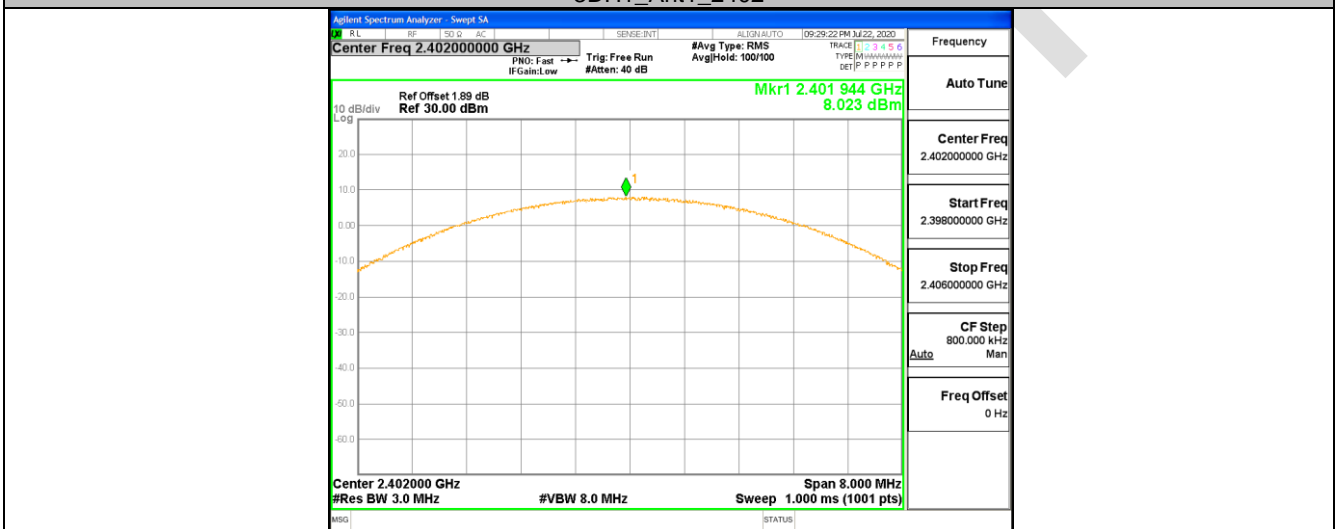
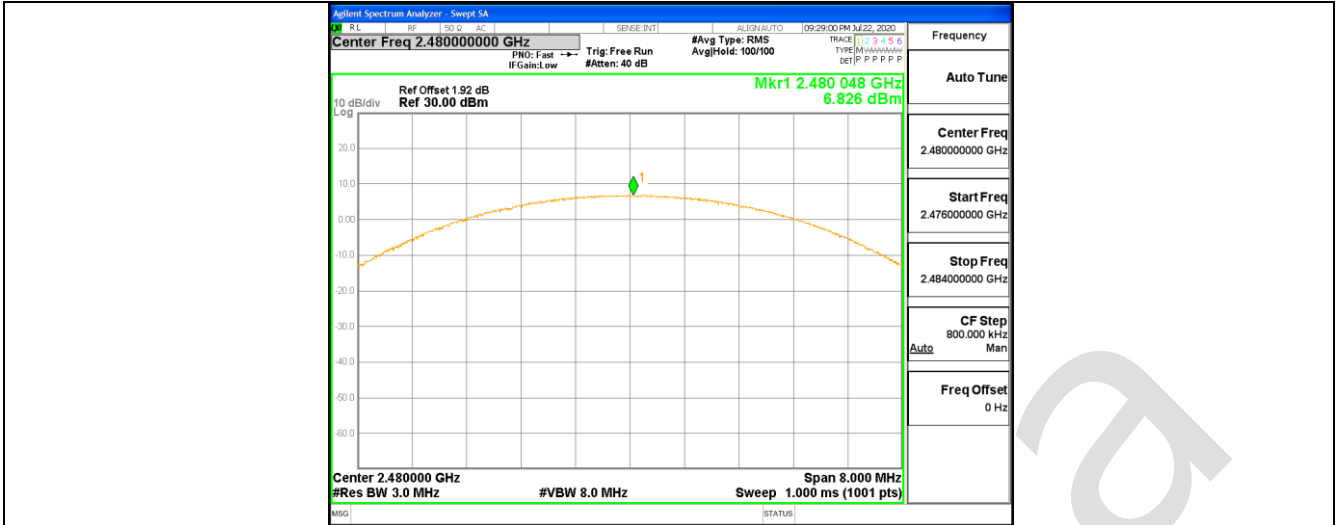
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH1	Ant1	2402	5.4	<=20.97	PASS
		2441	4.65	<=20.97	PASS
		2480	4.69	<=20.97	PASS
2DH1	Ant1	2402	7.86	<=20.97	PASS
		2441	6.88	<=20.97	PASS
		2480	6.83	<=20.97	PASS
3DH1	Ant1	2402	8.02	<=20.97	PASS
		2441	7.76	<=20.97	PASS
		2480	7.42	<=20.97	PASS

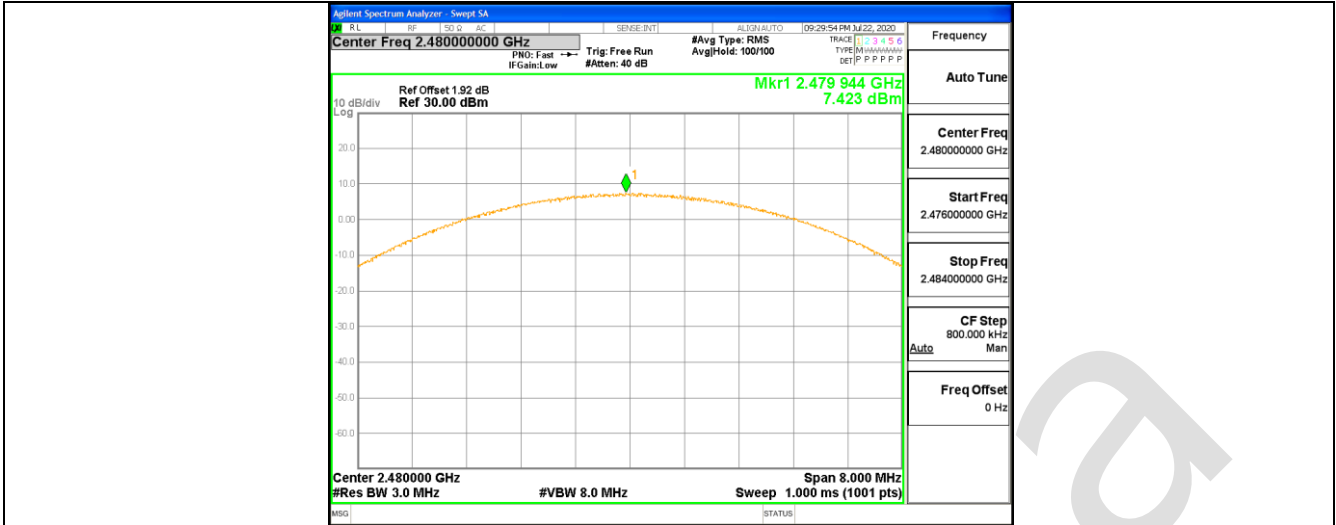
Test Graphs





2DH1_Ant1_2480



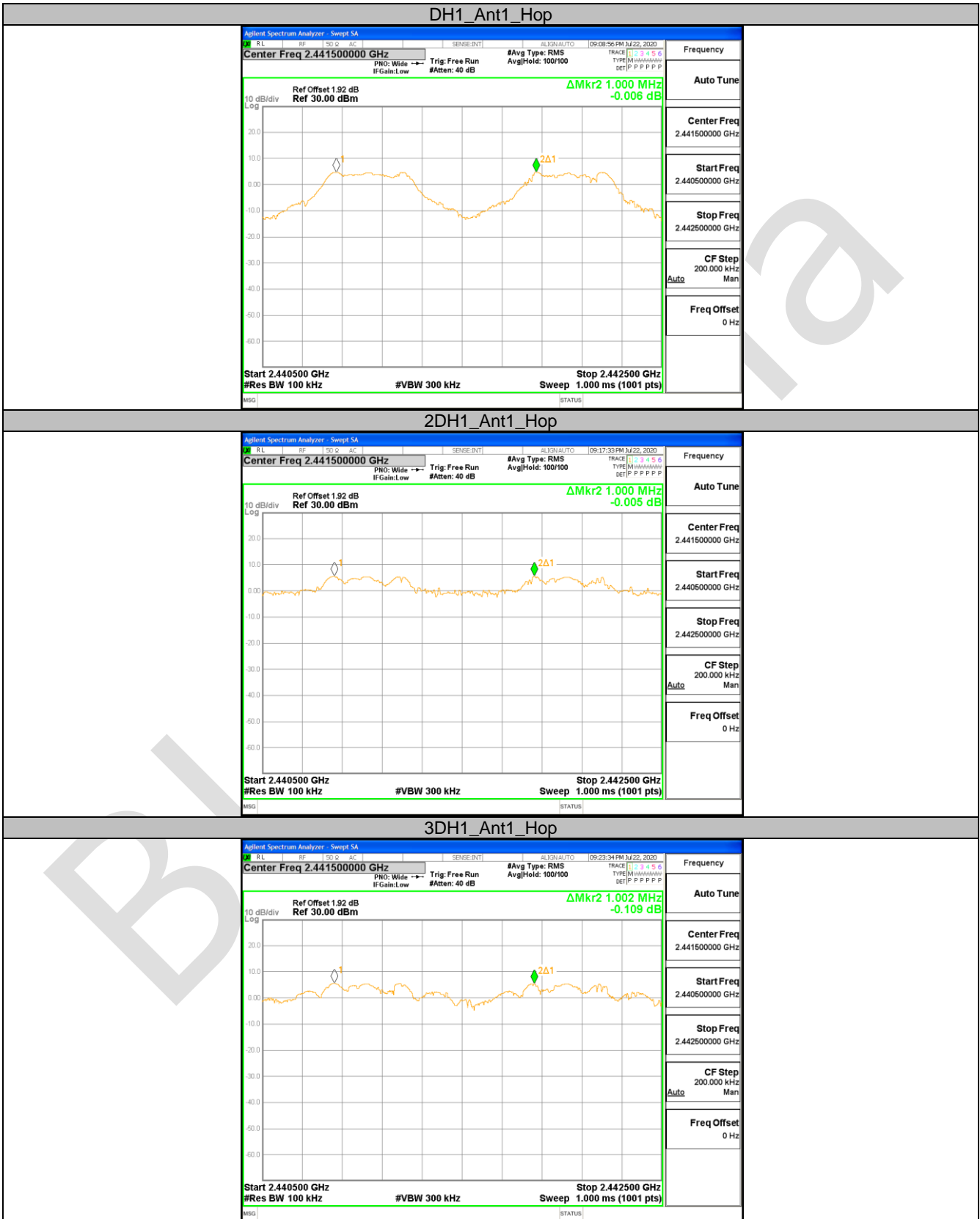


10.3 APPENDIX: CARRIER FREQUENCY SEPARATION

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH1	Ant1	Hop	1	≥ 0.738	PASS
2DH1	Ant1	Hop	1	≥ 0.910	PASS
3DH1	Ant1	Hop	1.002	≥ 0.890	PASS

Test Graphs



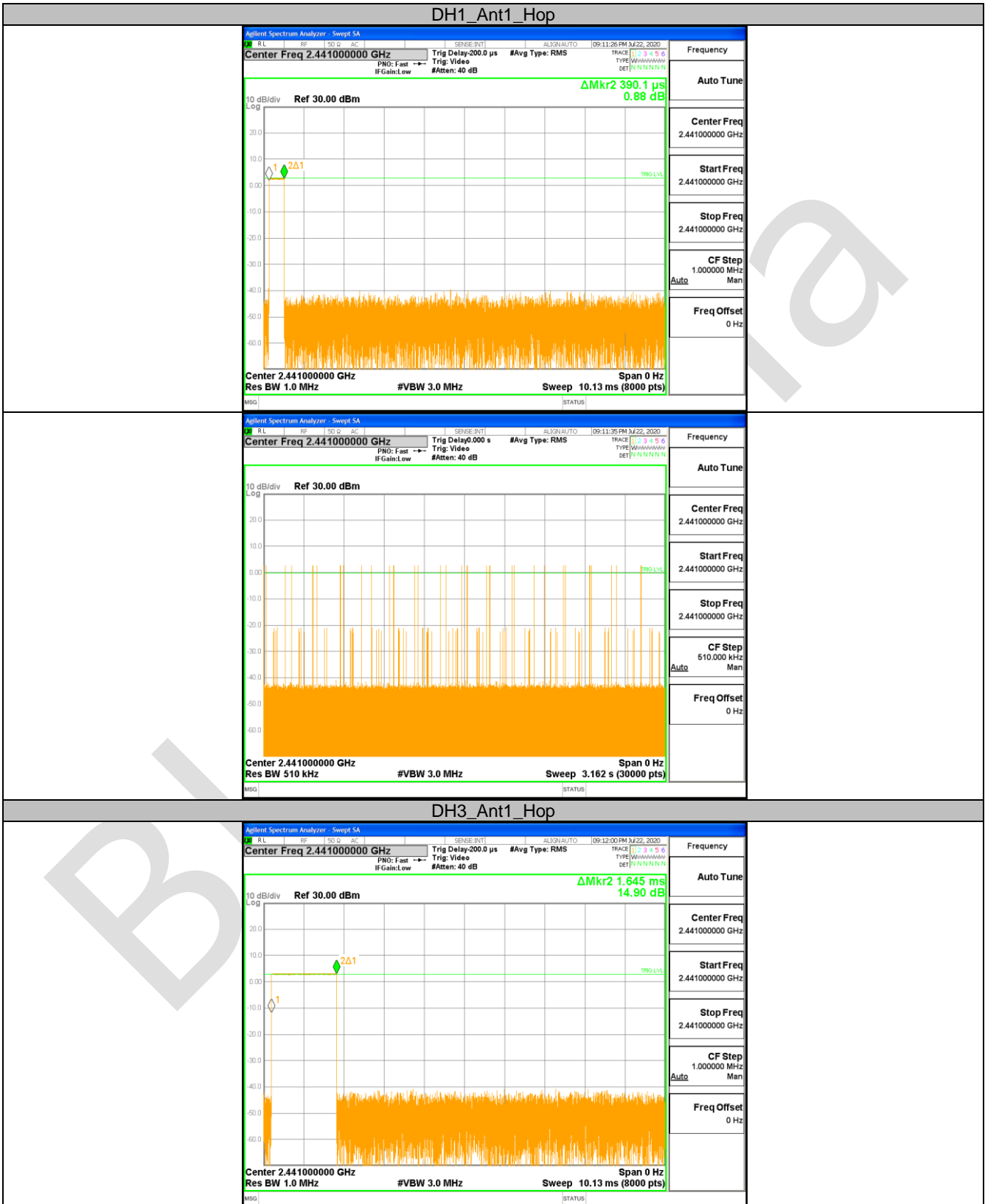
10.4 APPENDIX: TIME OF OCCUPANCY

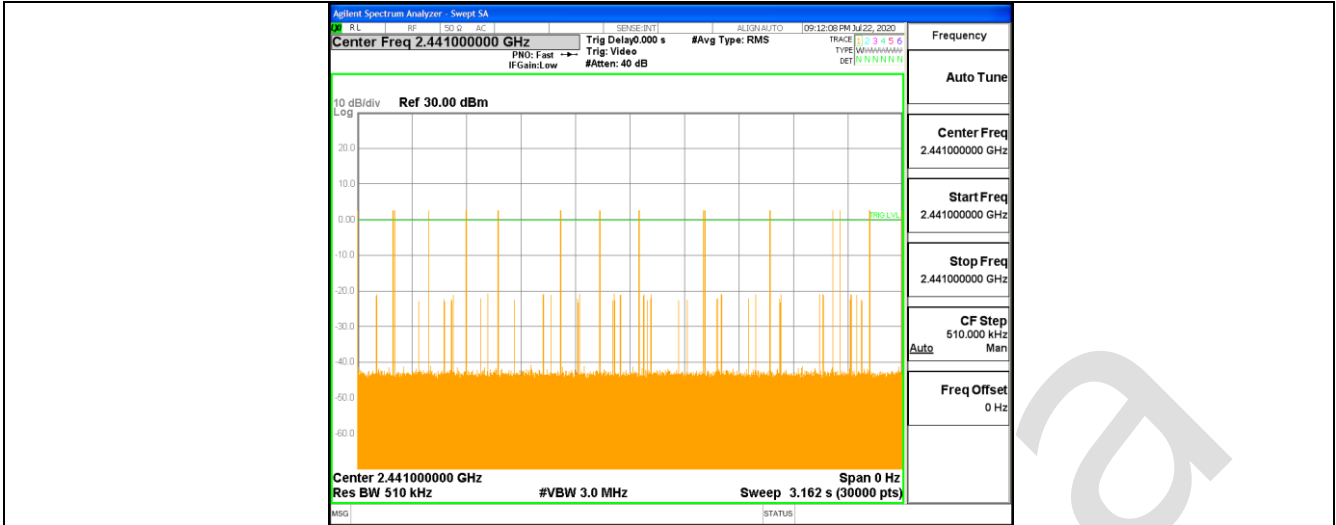
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.39	320	0.125	<=0.4	PASS
DH3	Ant1	Hop	1.65	160	0.263	<=0.4	PASS
DH5	Ant1	Hop	2.89	100	0.289	<=0.4	PASS

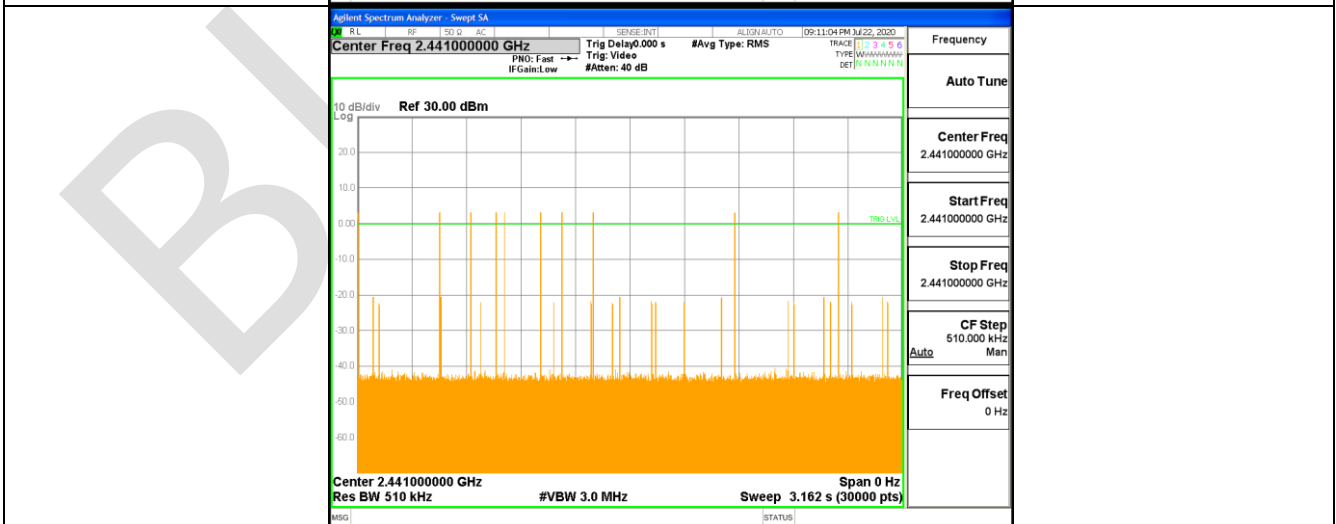
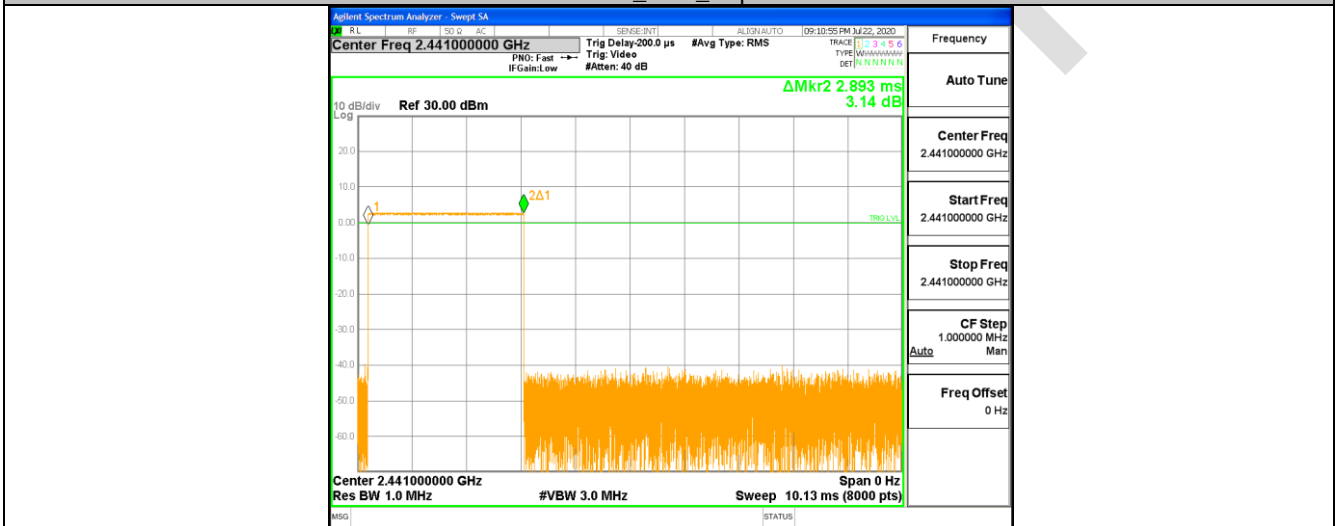
BlueAsia

Test Graphs





DH5_Ant1_Hop



10.5 APPENDIXF: NUMBER OF HOPPING CHANNELS**Test Result**

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH1	Ant1	Hop	79	≥ 15	PASS
2DH1	Ant1	Hop	79	≥ 15	PASS
3DH1	Ant1	Hop	79	≥ 15	PASS

BlueAsia

Test Graphs

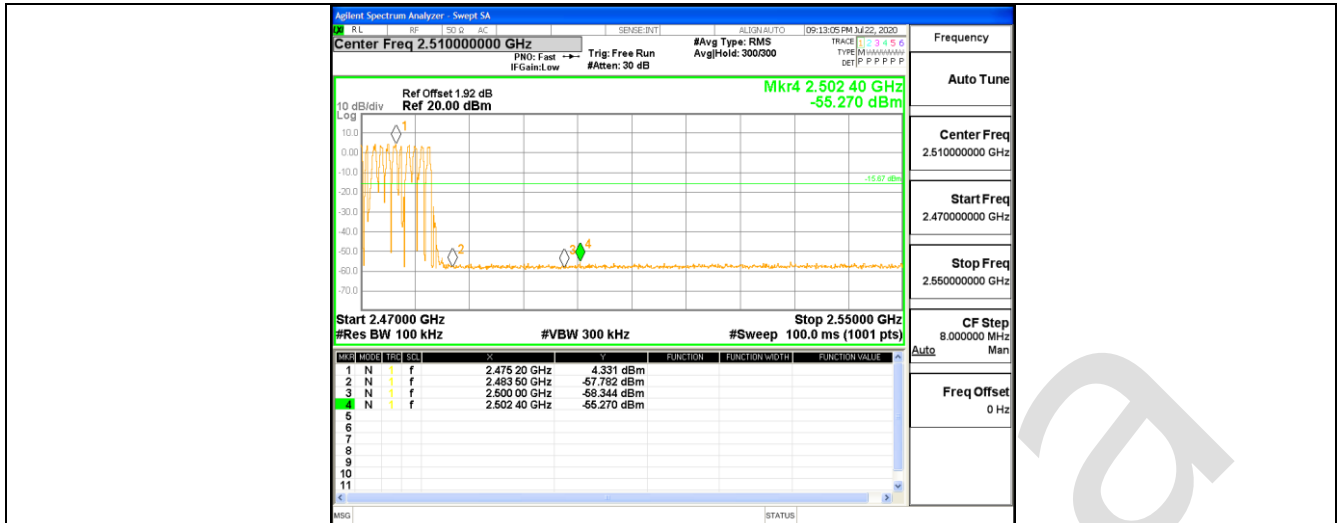


10.6 APPENDIX: BAND EDGE MEASUREMENTS
Test Result

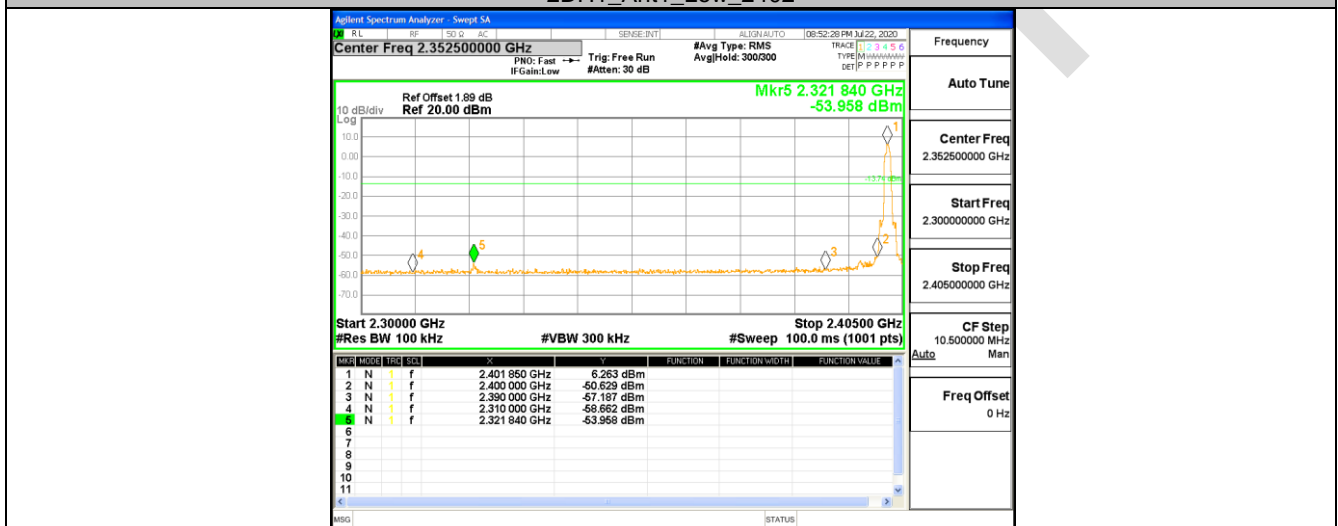
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	5.42	-54.36	<=-14.58	PASS
		High	2480	4.44	-55.16	<=-15.56	PASS
		Low	Hop_2402	4.77	-55.2	-15.23	PASS
		High	Hop_2480	4.33	-55.27	-15.67	PASS
2DH1	Ant1	Low	2402	6.26	-53.96	<=-13.74	PASS
		High	2480	5.32	-55.76	<=-14.68	PASS
		Low	Hop_2402	5.89	-54.74	-14.11	PASS
		High	Hop_2480	5.12	-55.17	-14.88	PASS
3DH1	Ant1	Low	2402	6.33	-55.09	<=-13.67	PASS
		High	2480	5.32	-55.98	<=-14.68	PASS
		Low	Hop_2402	5.42	-55.19	-14.58	PASS
		High	Hop_2480	5.21	-55.71	-14.79	PASS

Test Graphs

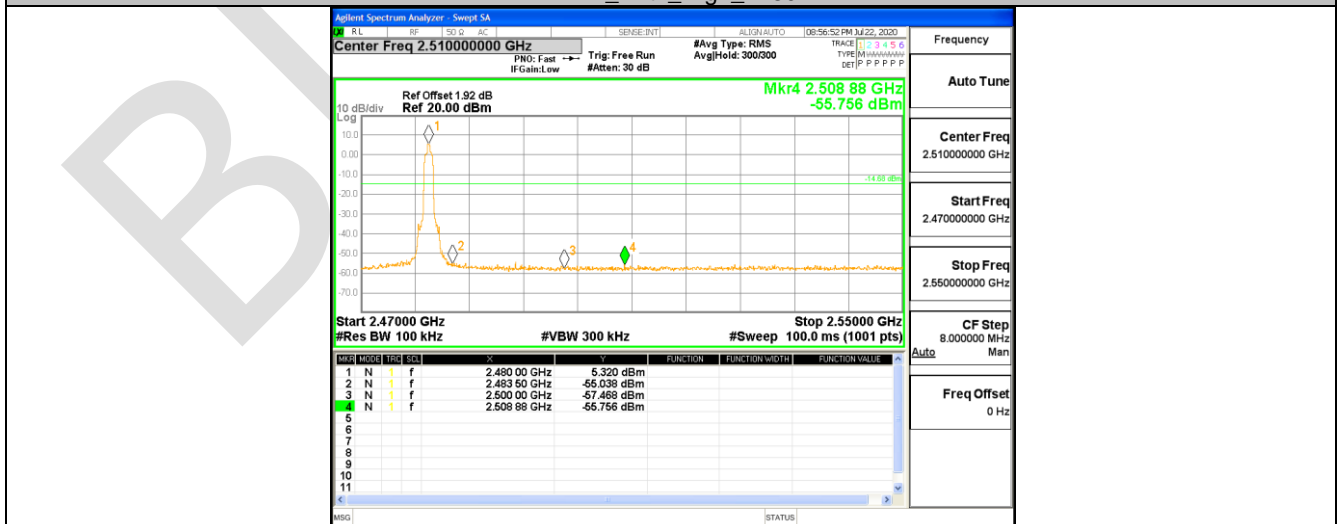




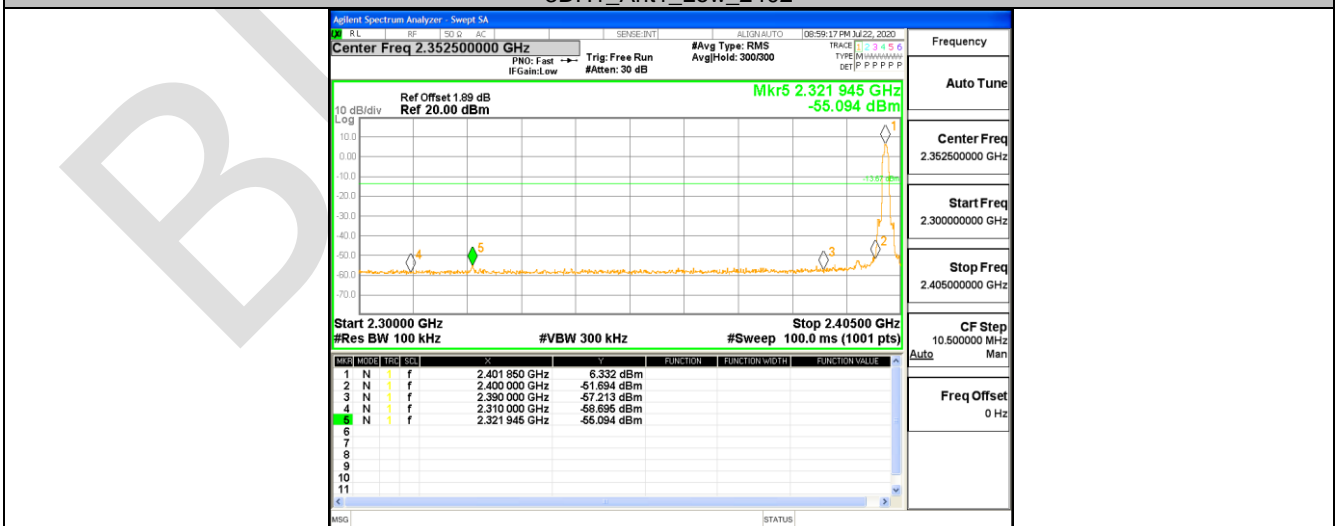
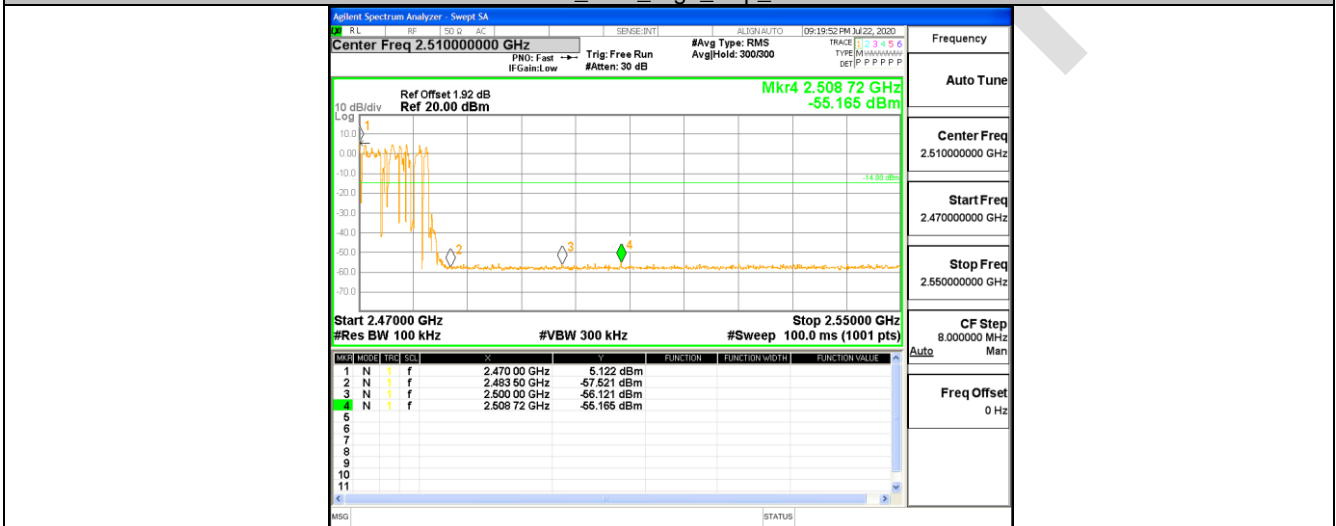
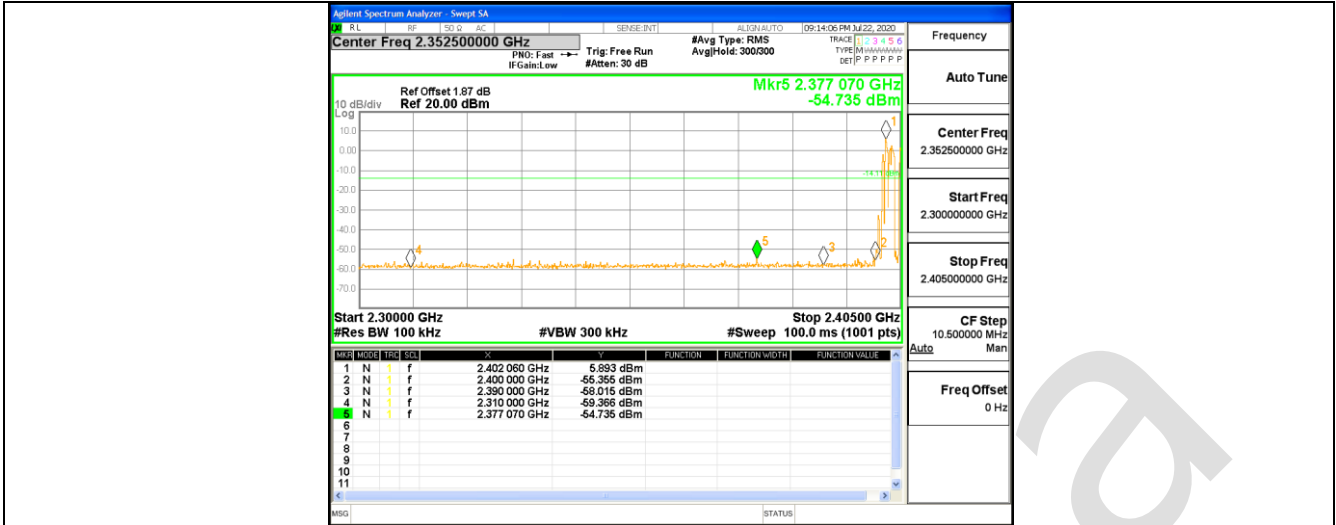
2DH1_Ant1_Low_2402

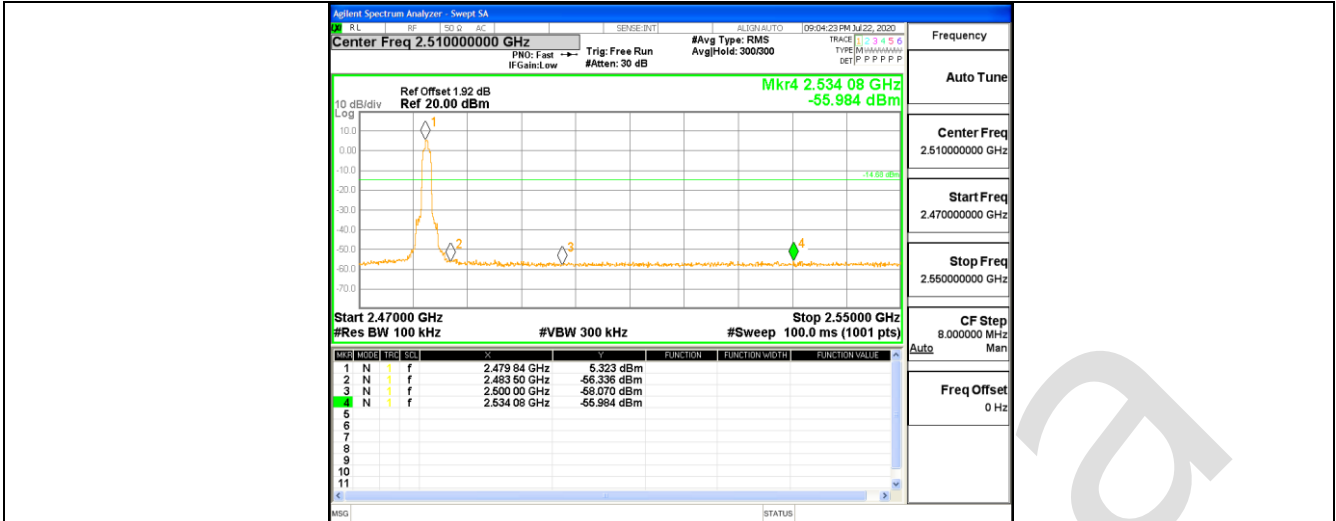


2DH1_Ant1_High_2402

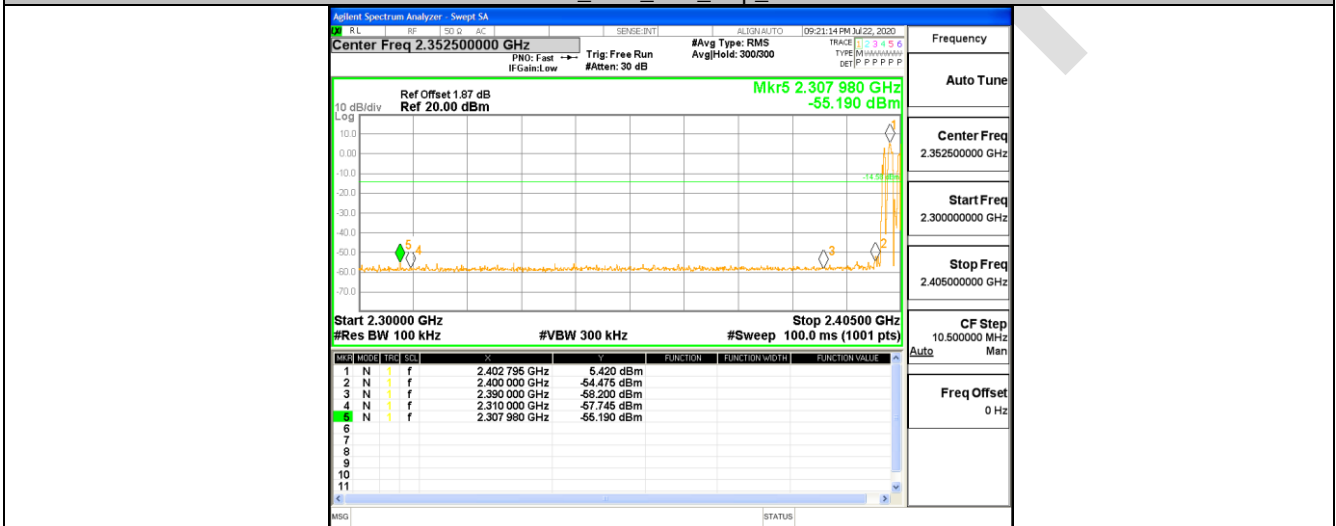


2DH1_Ant1_Low_Hop_2402

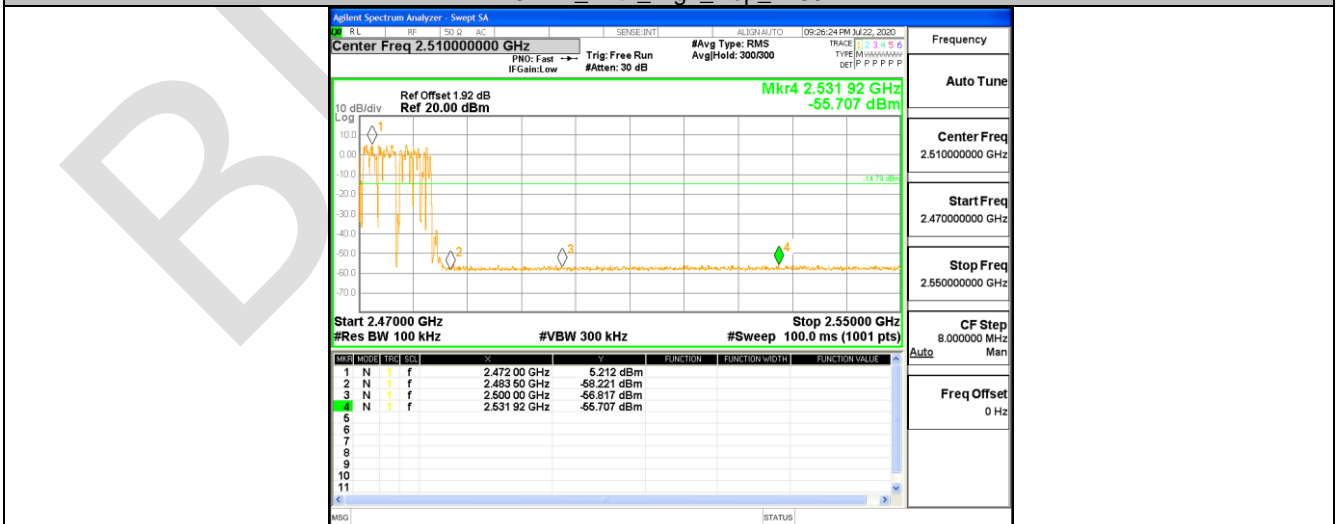




3DH1_Ant1_Low_Hop_2402



3DH1_Ant1_High_Hop_2480

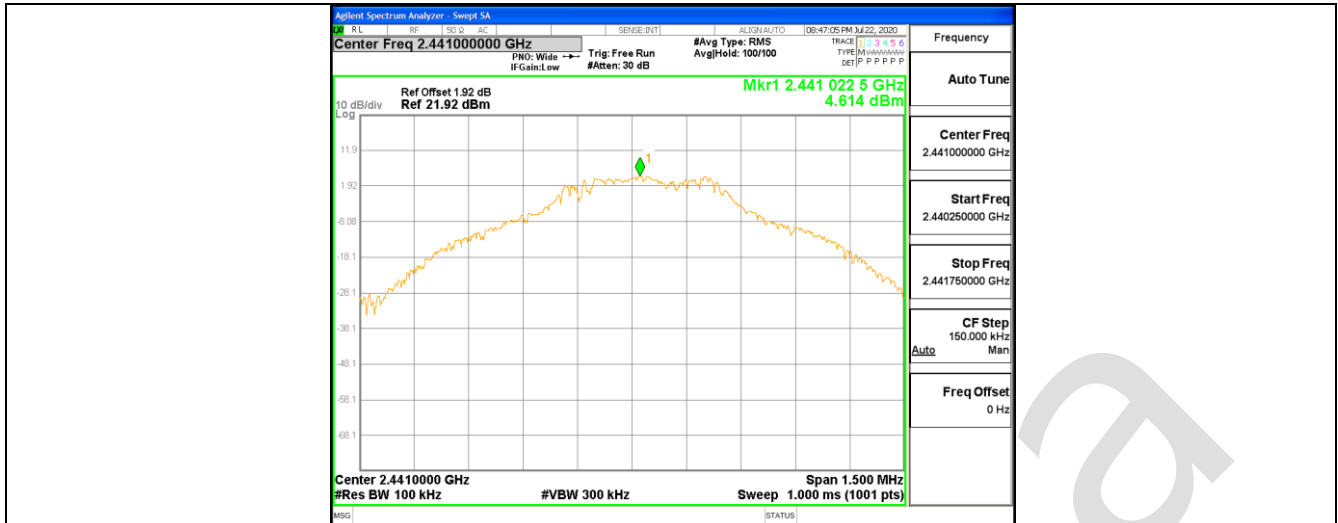


10.7 APPENDIX: CONDUCTED SPURIOUS EMISSION
Test Result

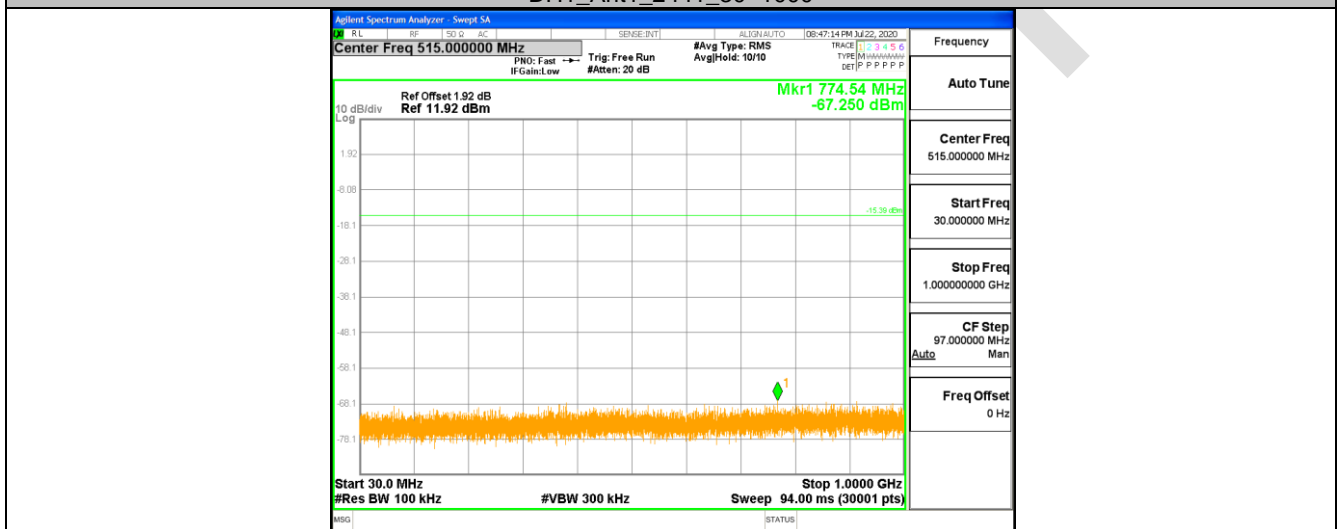
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	2402	Reference	5.24	5.24	---	PASS
			30~1000	30~1000	-67.551	<=-14.762	PASS
			1000~26500	1000~26500	-35.23	<=-14.762	PASS
		2441	Reference	4.61	4.61	---	PASS
			30~1000	30~1000	-67.25	<=-15.386	PASS
			1000~26500	1000~26500	-37.704	<=-15.386	PASS
		2480	Reference	4.42	4.42	---	PASS
			30~1000	30~1000	-67.64	<=-15.577	PASS
			1000~26500	1000~26500	-38.369	<=-15.577	PASS
2DH1	Ant1	2402	Reference	6.26	6.26	---	PASS
			30~1000	30~1000	-66.855	<=-13.744	PASS
			1000~26500	1000~26500	-36.03	<=-13.744	PASS
		2441	Reference	5.50	5.50	---	PASS
			30~1000	30~1000	-67.402	<=-14.505	PASS
			1000~26500	1000~26500	-38.275	<=-14.505	PASS
		2480	Reference	5.31	5.31	---	PASS
			30~1000	30~1000	-67.578	<=-14.692	PASS
			1000~26500	1000~26500	-37.859	<=-14.692	PASS
3DH1	Ant1	2402	Reference	6.27	6.27	---	PASS
			30~1000	30~1000	-67.356	<=-13.73	PASS
			1000~26500	1000~26500	-37.138	<=-13.73	PASS
		2441	Reference	5.64	5.64	---	PASS
			30~1000	30~1000	-66.724	<=-14.364	PASS
			1000~26500	1000~26500	-35.651	<=-14.364	PASS
		2480	Reference	5.18	5.18	---	PASS
			30~1000	30~1000	-67.46	<=-14.816	PASS
			1000~26500	1000~26500	-36.862	<=-14.816	PASS

Test Graphs

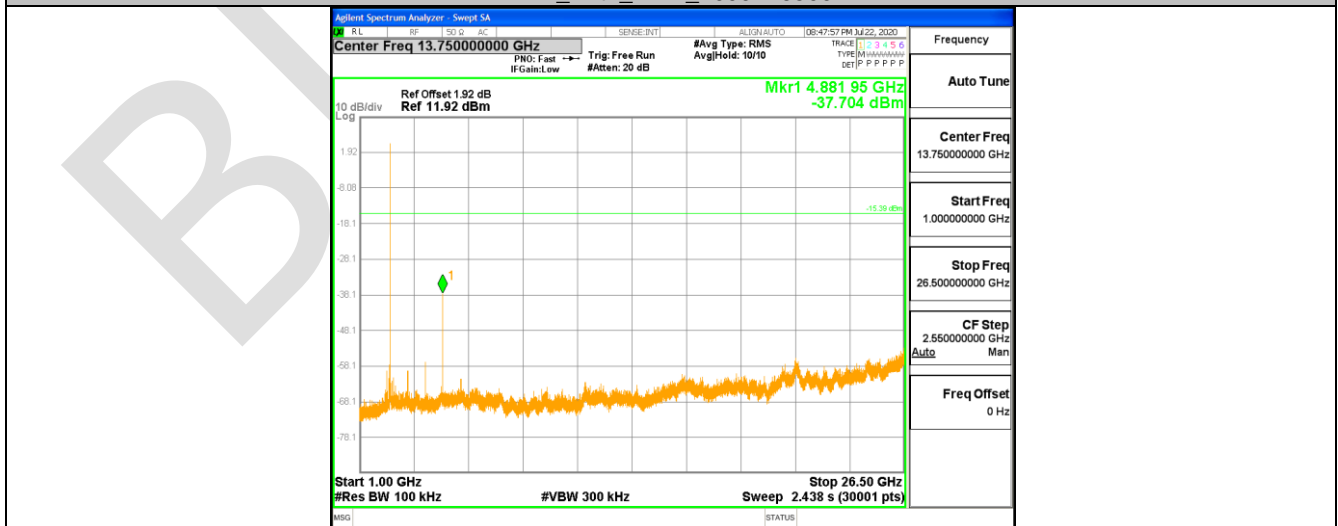




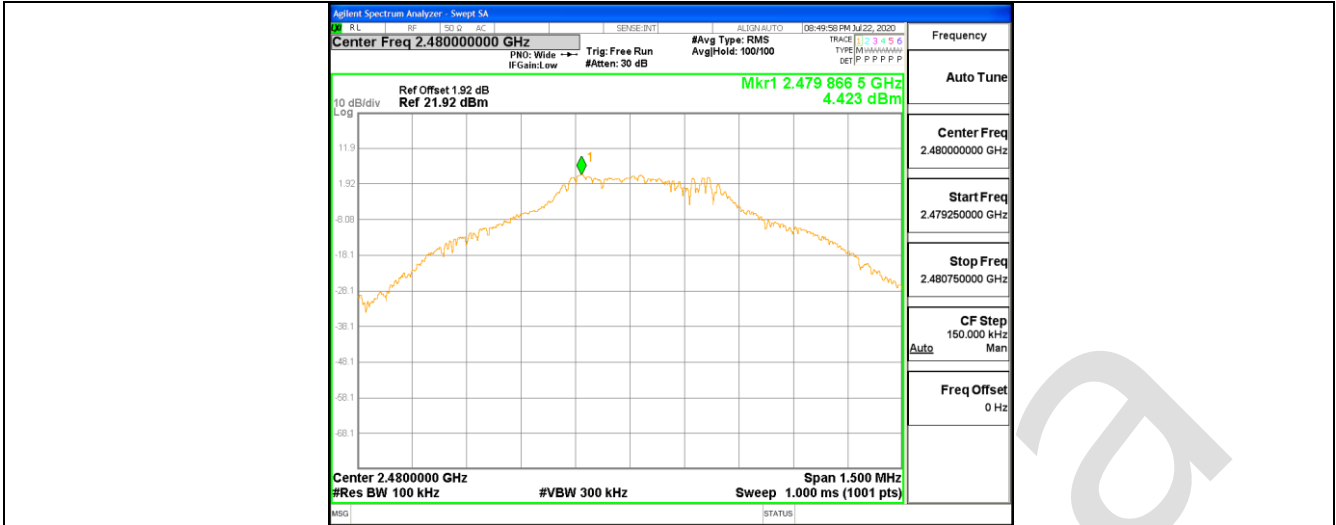
DH1_Ant1_2441_30~1000



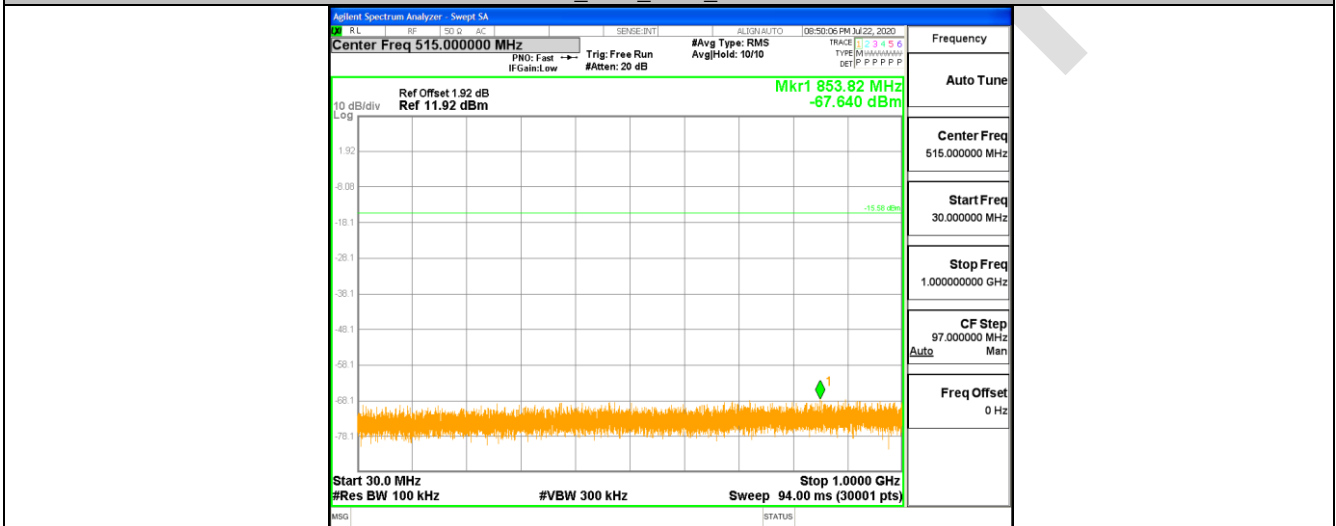
DH1_Ant1_2441_1000~26500



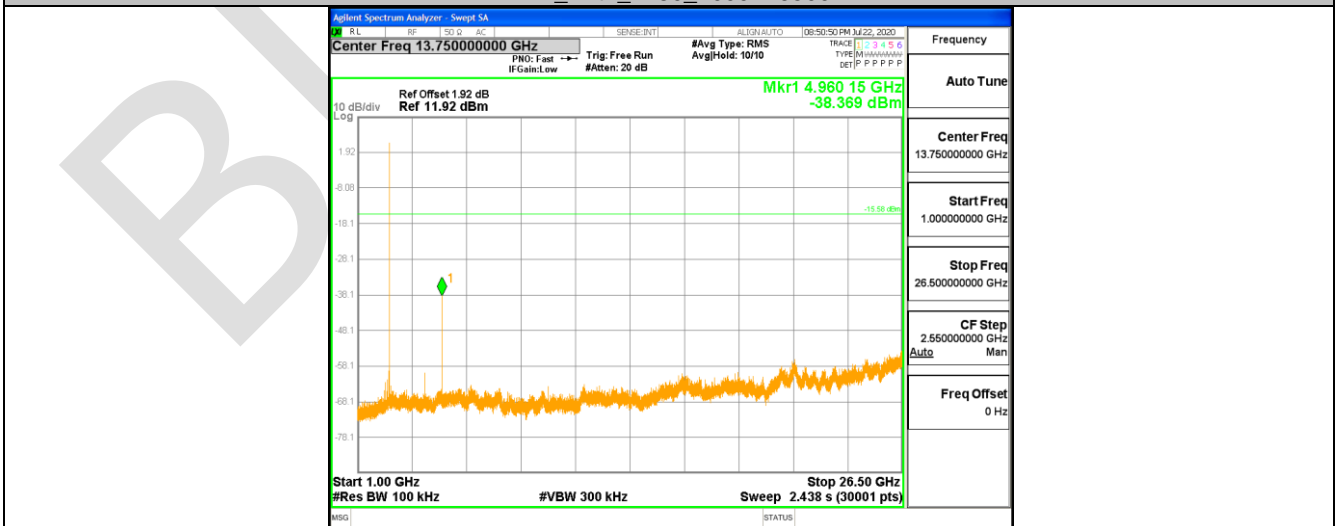
DH1_Ant1_2480_0~Reference



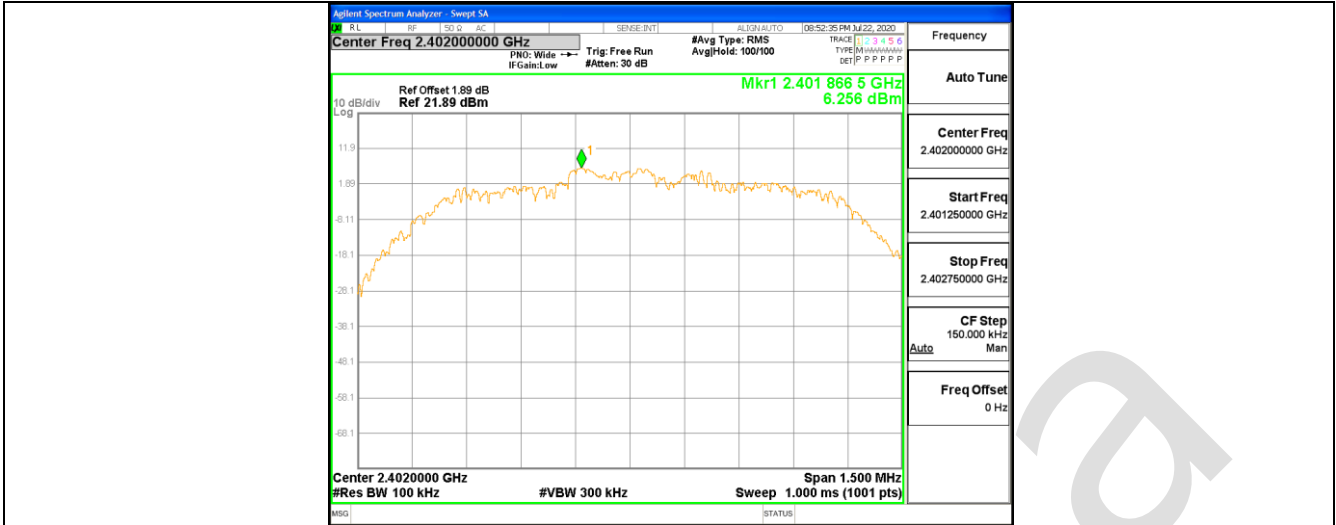
DH1_Ant1_2480_30~1000



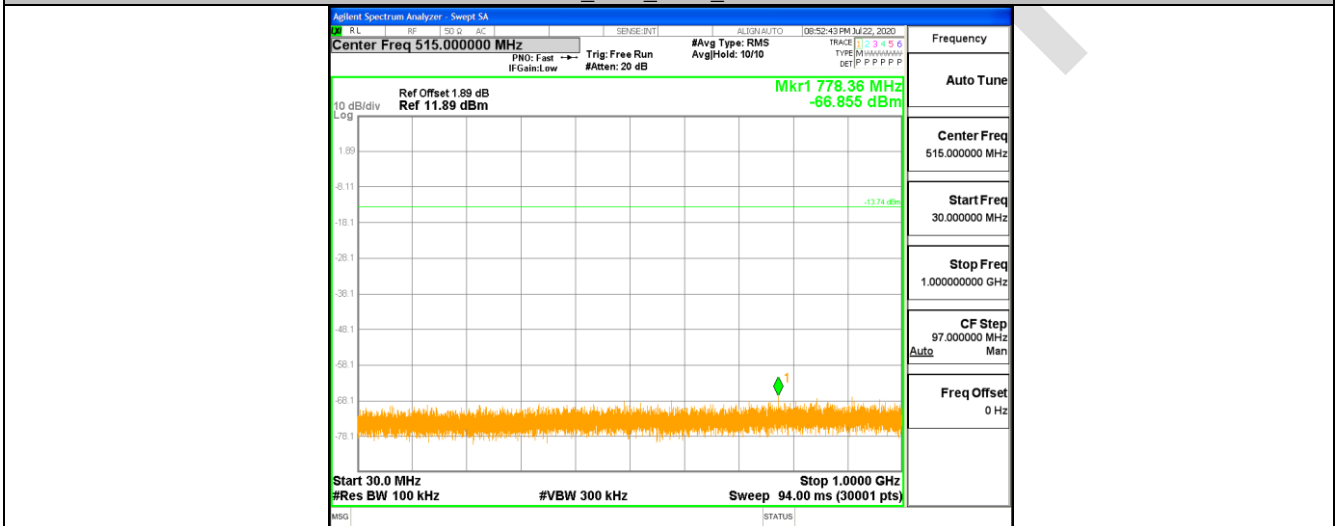
DH1_Ant1_2480_1000~26500



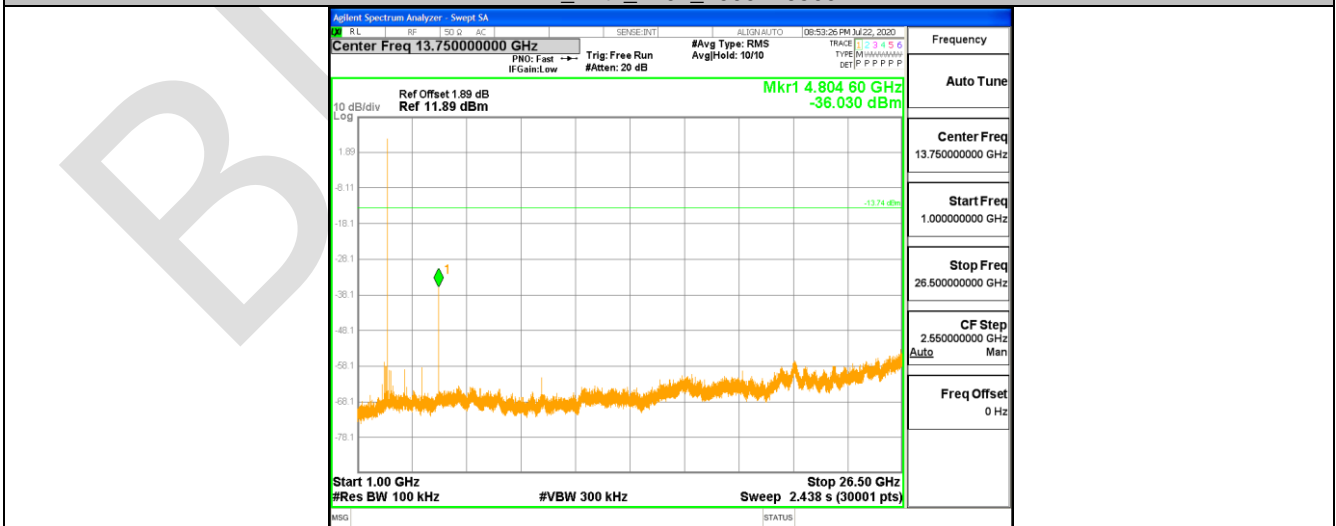
2DH1_Ant1_2402_0-Reference



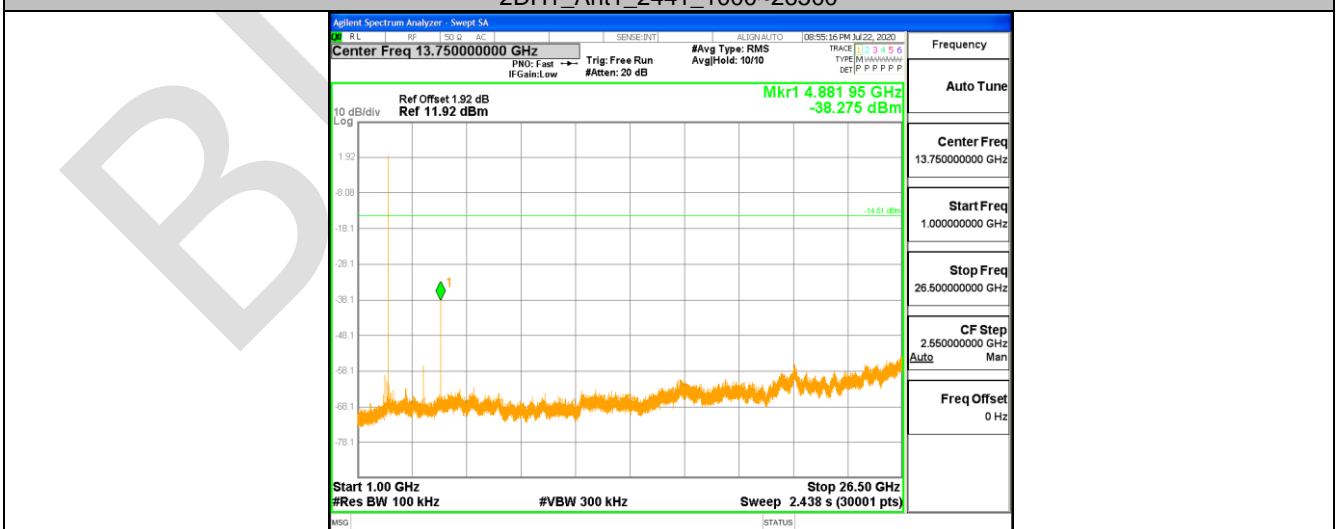
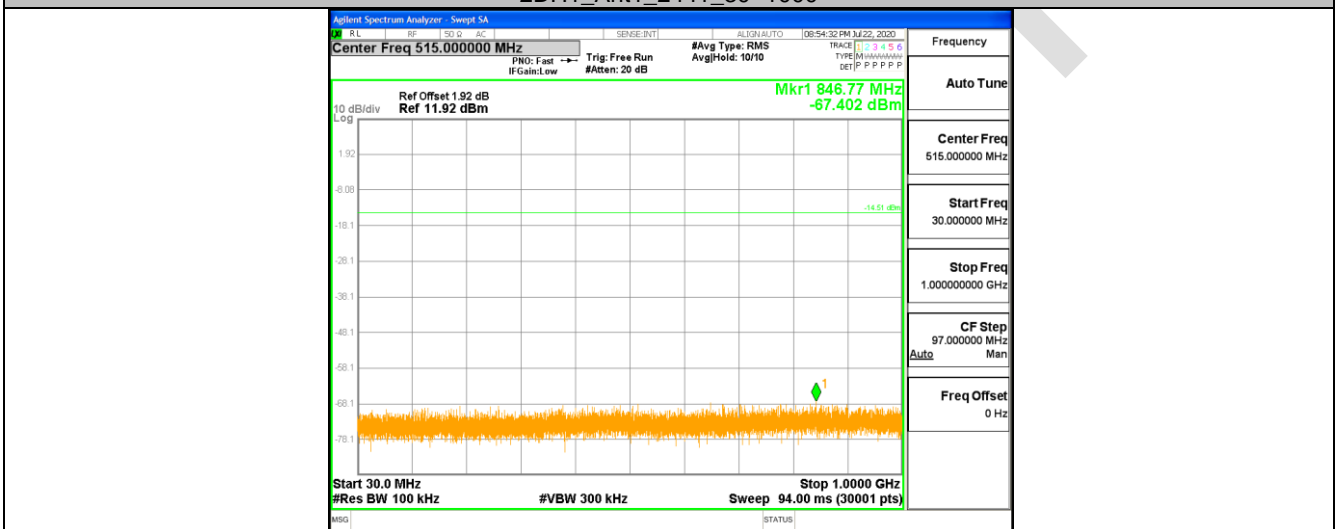
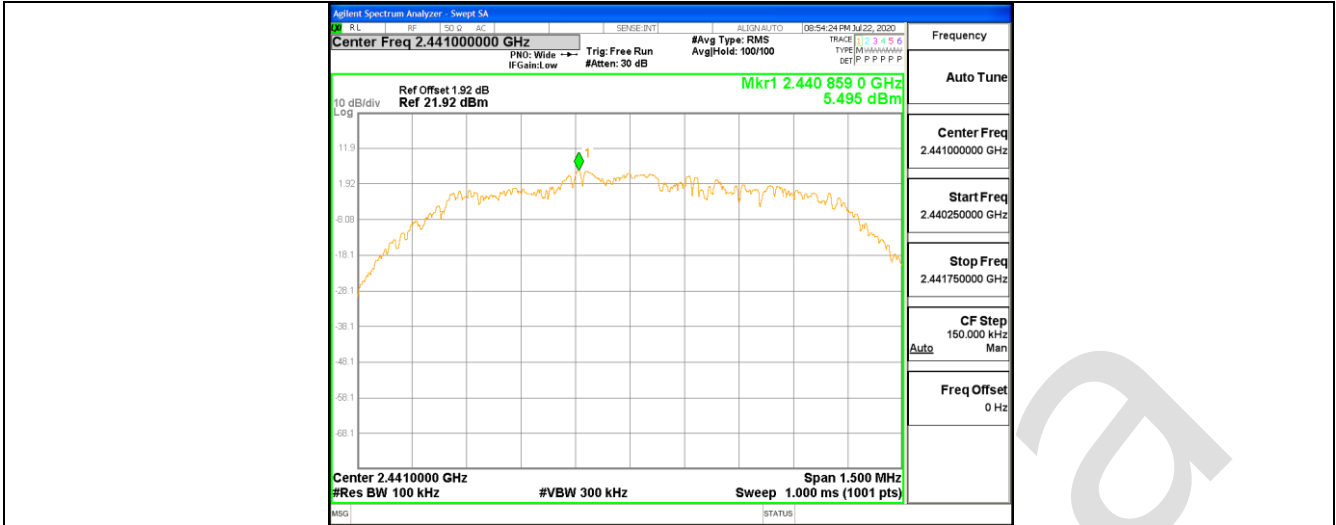
2DH1_Ant1_2402_30~1000

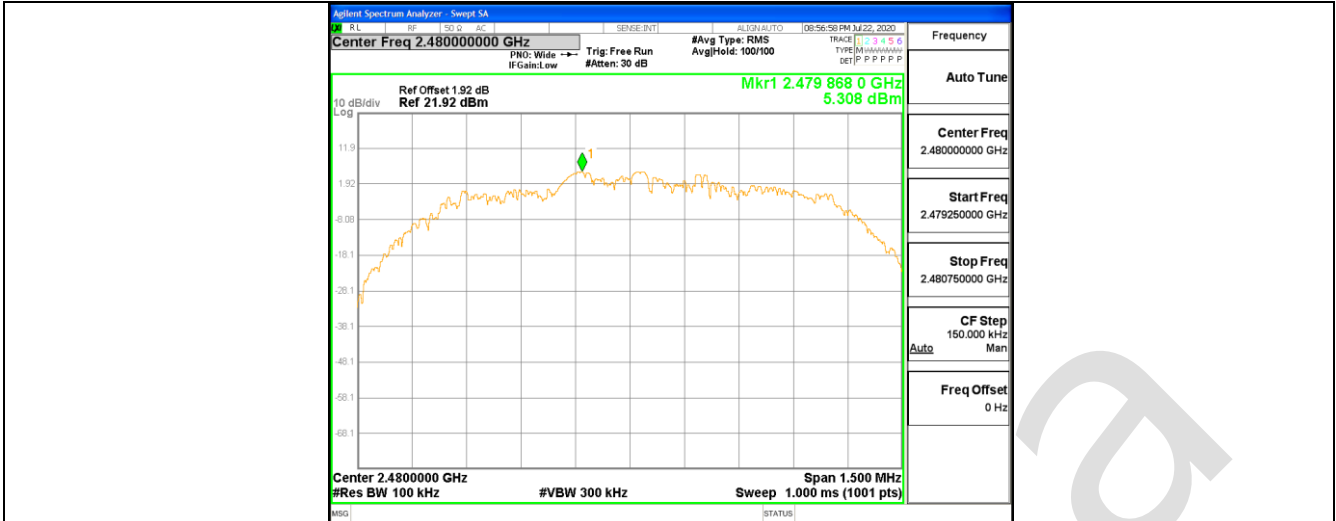


2DH1_Ant1_2402_1000~26500

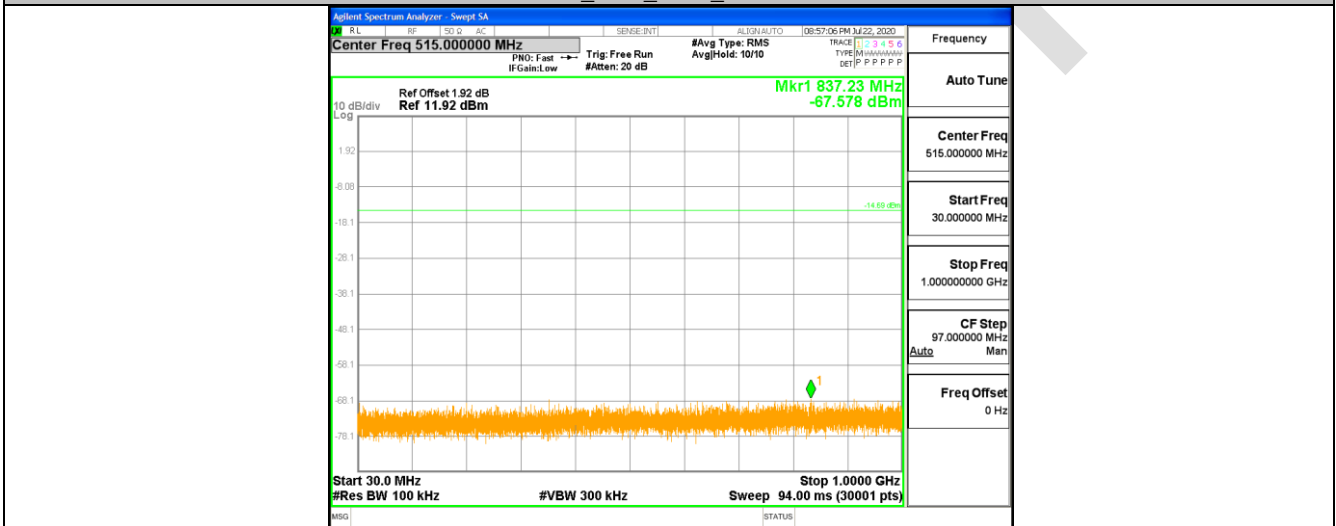


2DH1_Ant1_2441_0-Reference

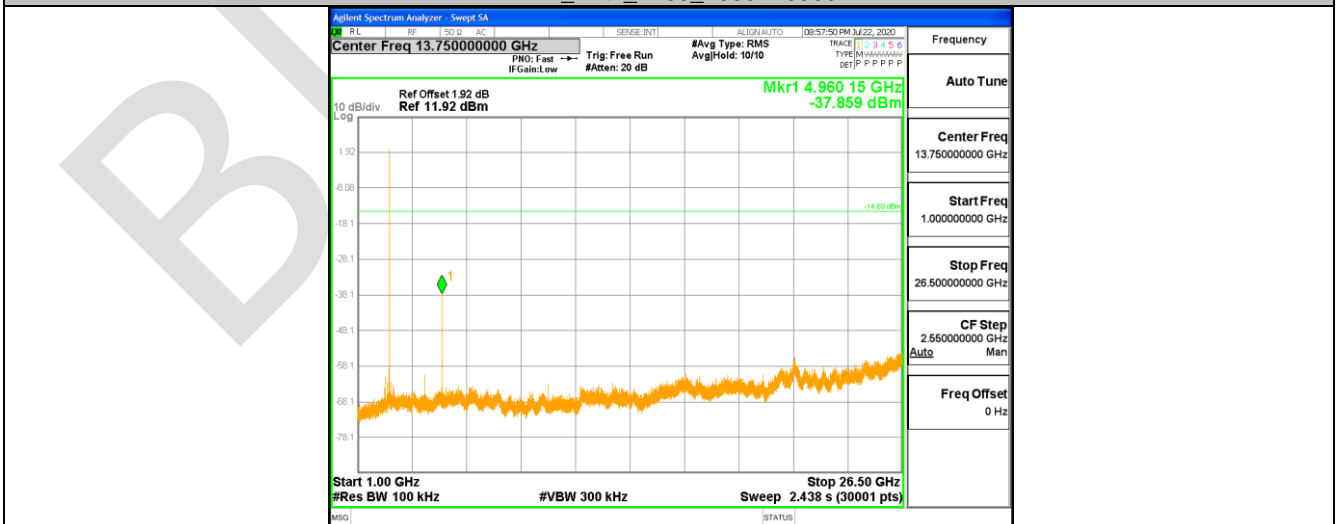




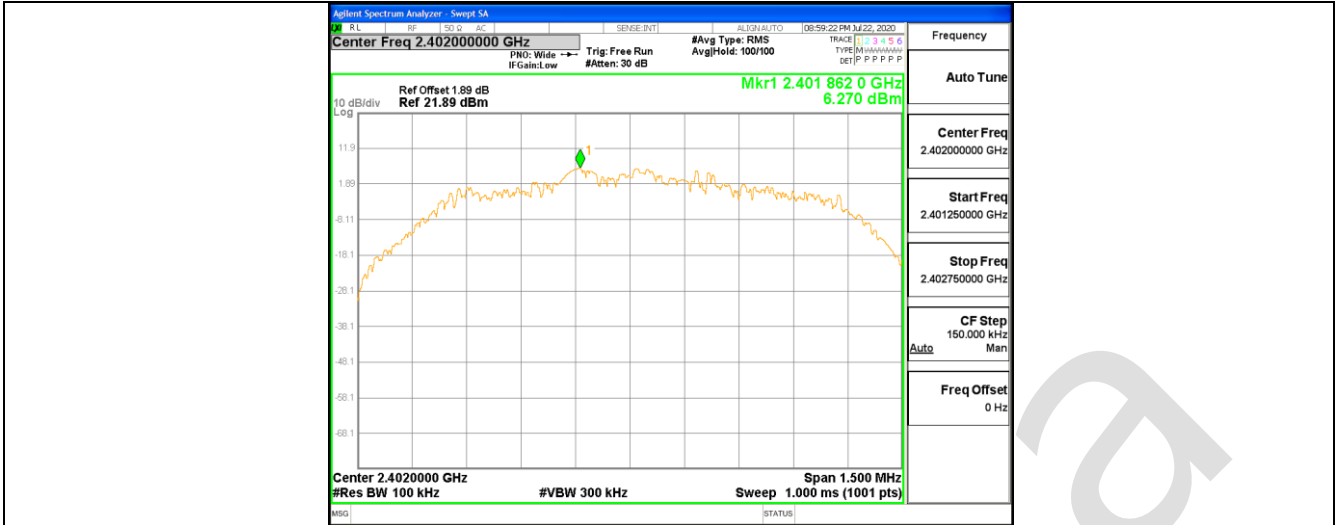
2DH1_Ant1_2480_30~1000



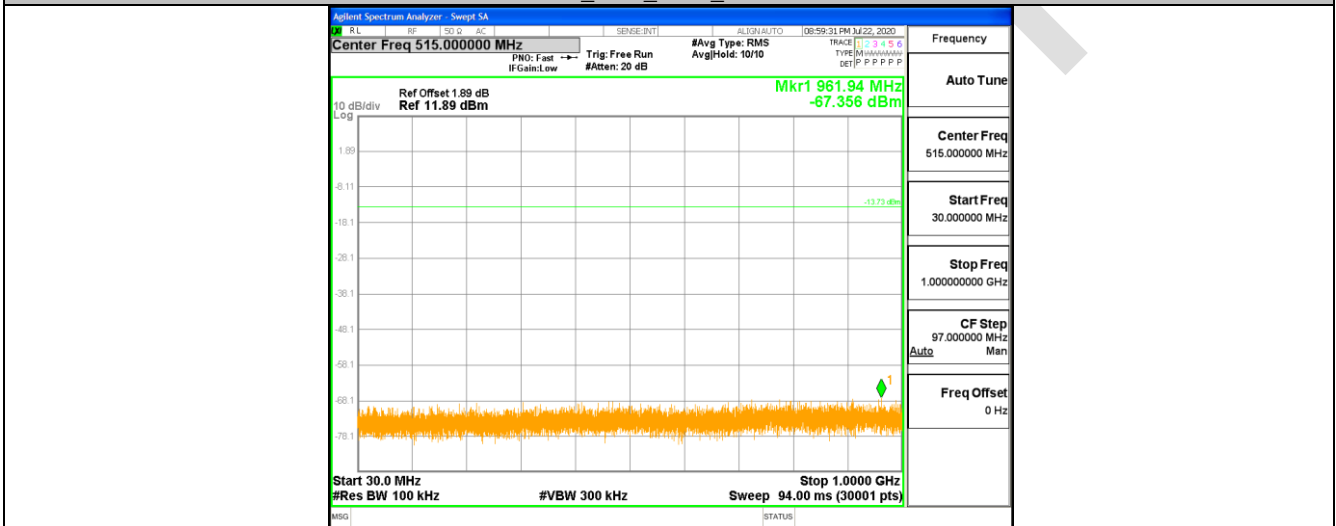
2DH1_Ant1_2480_1000~26500



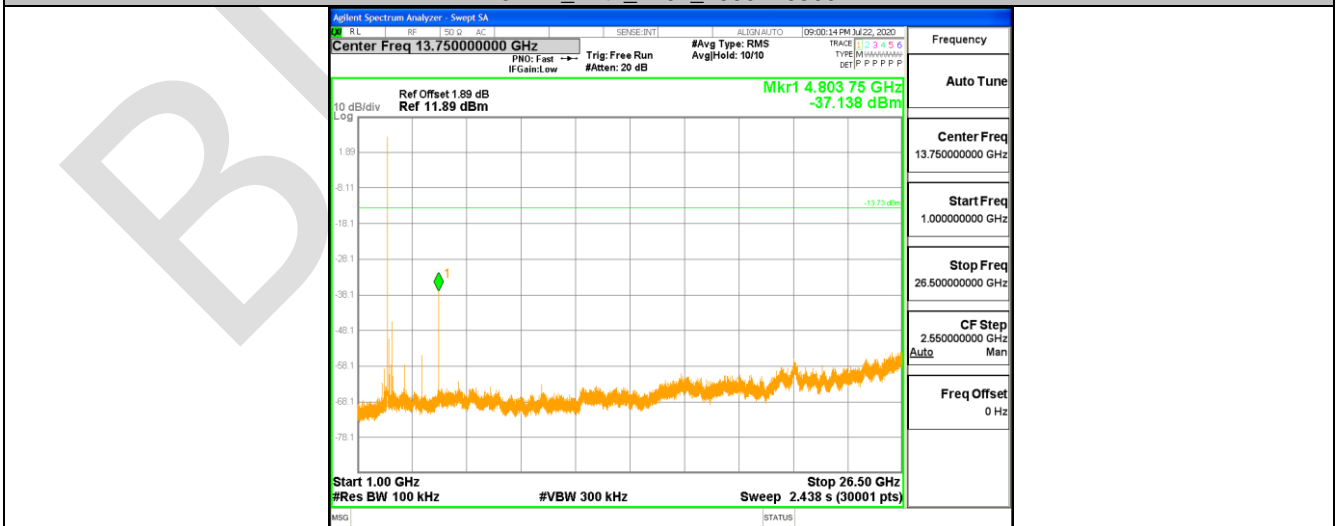
3DH1_Ant1_2402_0-Reference



3DH1_Ant1_2402_30~1000



3DH1_Ant1_2402_1000~26500



3DH1_Ant1_2441_0-Reference

