

2500	38.39	-3.7	34.69	54	-19.31	Vertical
Test Result: Pass						

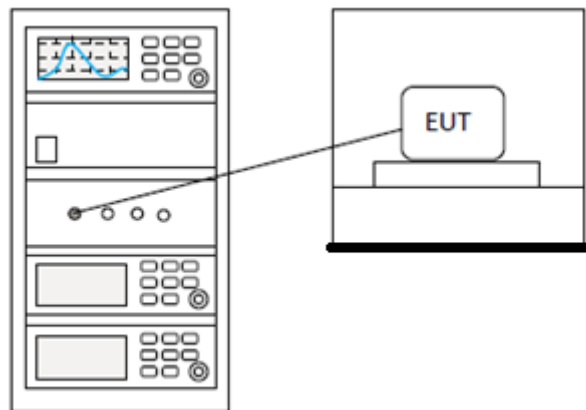
5 CONDUCTED SPURIOUS EMISSIONS

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.6 & Section 11.11
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	60%

5.1 LIMITS

Limit:	<p>In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).</p>
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5.2 BLOCK DIAGRAM OF TEST SETUP



BlueAsia

5.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

BlueAsia

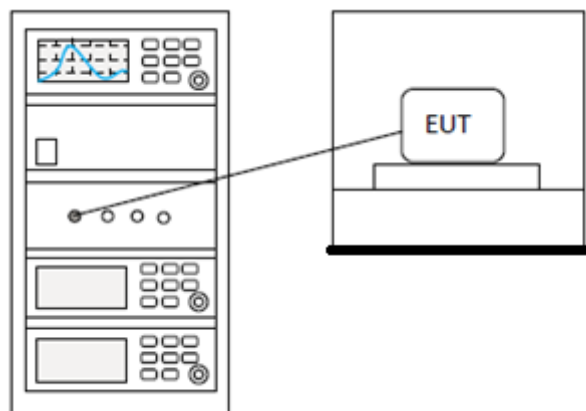
6 CONDUCTED BAND EDGES MEASUREMENT

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	60%

6.1 LIMITS

Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).
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6.2 BLOCK DIAGRAM OF TEST SETUP



6.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

BlueAsia

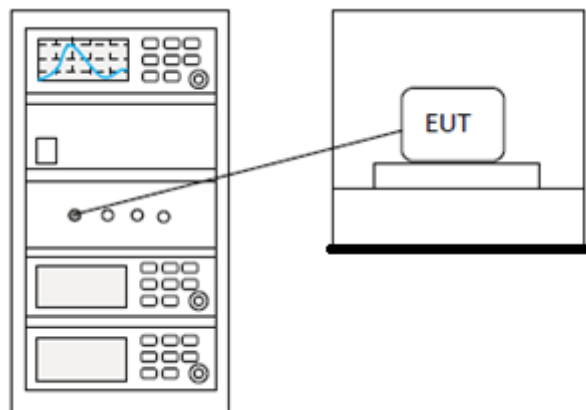
7 DWELL TIME

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
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	60%

7.1 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 0.4Smultiplied by the number of hopping channels
5725-5850	0.4S within a 30S period

7.2 BLOCK DIAGRAM OF TEST SETUP



7.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

BlueAsia

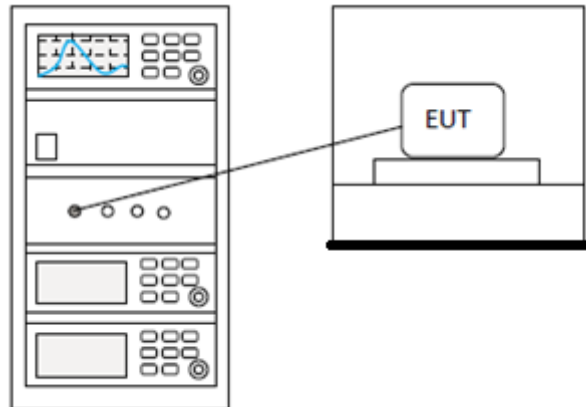
8 HOPPING CHANNEL NUMBER

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
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	60%

8.1 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

8.2 BLOCK DIAGRAM OF TEST SETUP



8.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

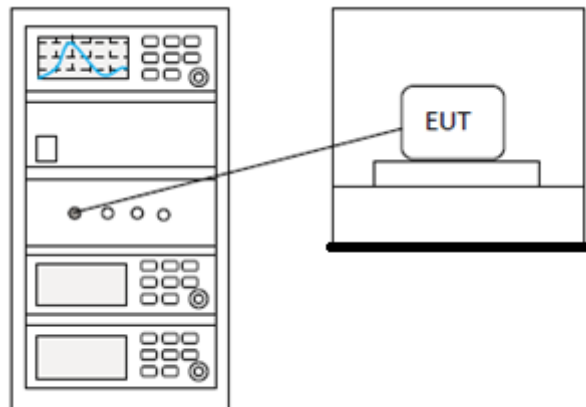
9 CARRIER FREQUENCIES SEPARATION

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
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	60%

9.1 LIMITS

Limit:	2/3 of the 20dB bandwidth base on the transmission power is less than 0.125W
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9.2 BLOCK DIAGRAM OF TEST SETUP



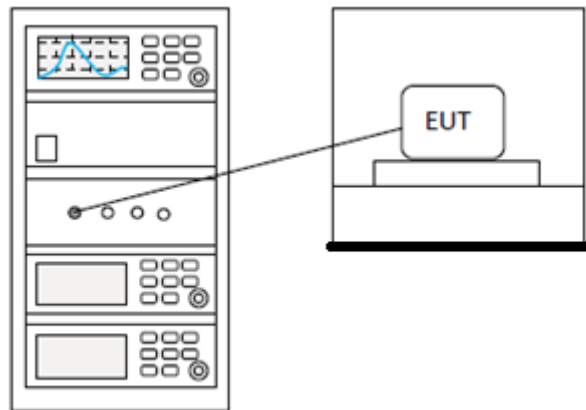
9.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

10 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%

10.1 BLOCK DIAGRAM OF TEST SETUP



10.2 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

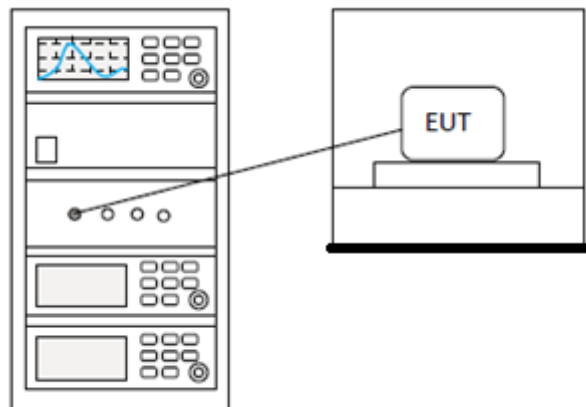
11 CONDUCTED PEAK OUTPUT POWER

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%

11.1 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

11.2 BLOCK DIAGRAM OF TEST SETUP



11.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

BlueAsia

12 APPENDIX

12.1 APPENDIX :20DB EMISSION BANDWIDTH

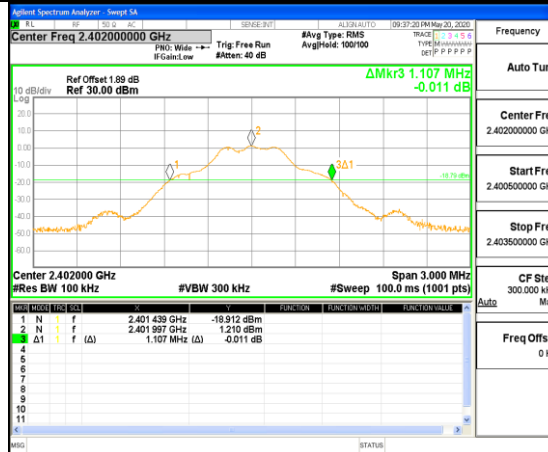
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH1	Ant1	2402	1.107	2401.439	2402.546	---	PASS
		2441	1.107	2440.439	2441.546	---	PASS
		2480	1.107	2479.439	2480.546	---	PASS
2DH1	Ant1	2402	1.107	2401.439	2402.546	---	PASS
		2441	1.110	2440.439	2441.549	---	PASS
		2480	1.098	2479.442	2480.540	---	PASS
3DH1	Ant1	2402	1.107	2401.442	2402.549	---	PASS
		2441	1.107	2440.439	2441.546	---	PASS
		2480	1.107	2479.439	2480.546	---	PASS

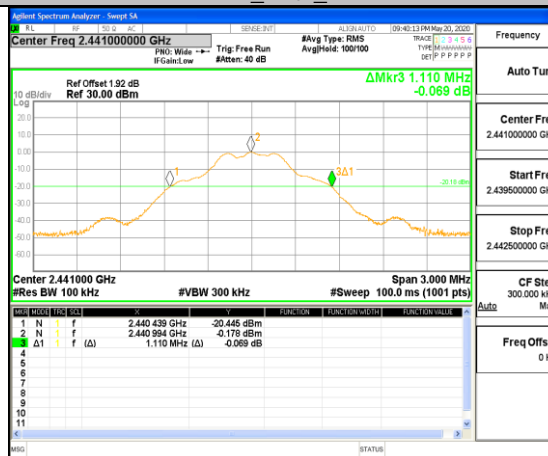
Test Graphs



2DH1_Ant1_2402



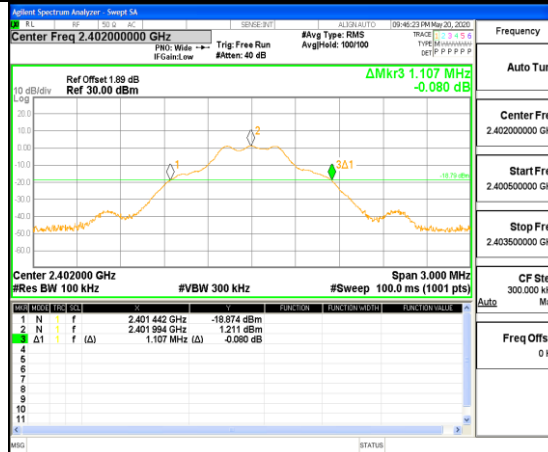
2DH1_Ant1_2441



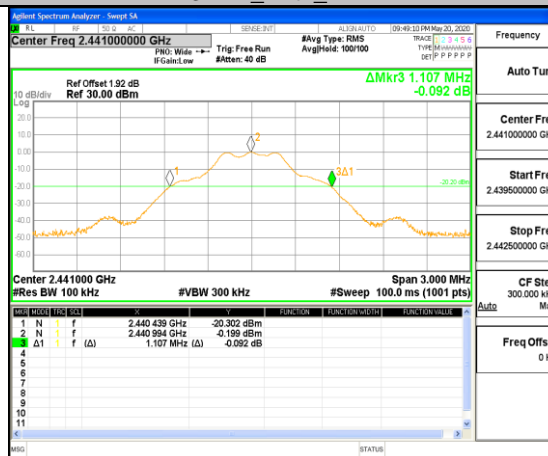
2DH1_Ant1_2480



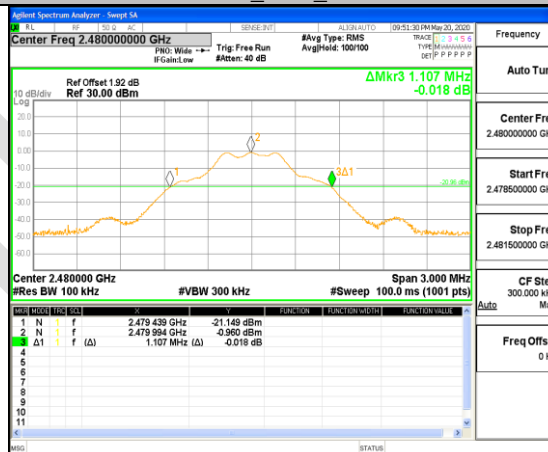
3DH1_Ant1_2402



3DH1_Ant1_2441



3DH1_Ant1_2480

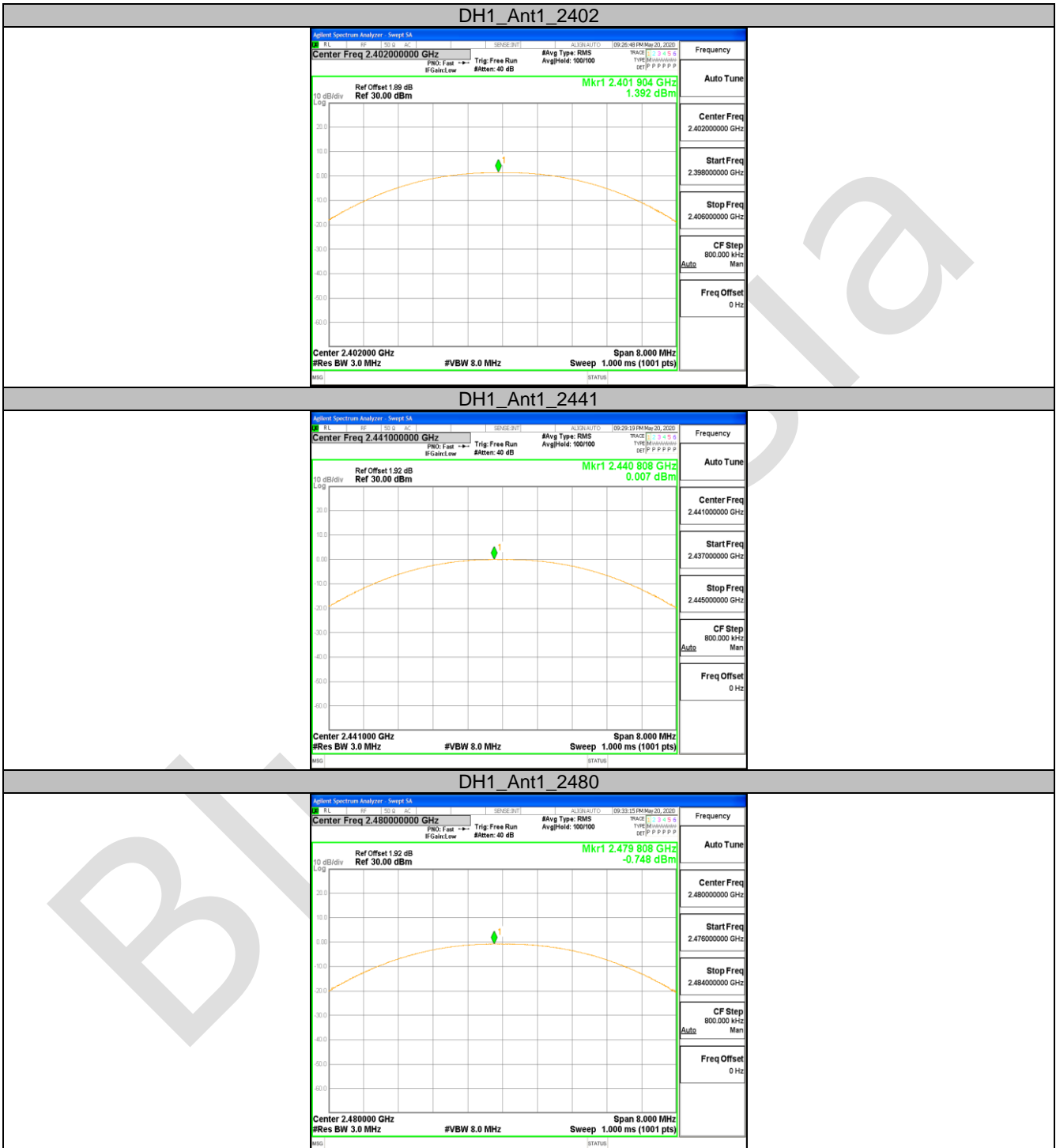


12.2 APPENDIX : MAXIMUM CONDUCTED OUTPUT POWER

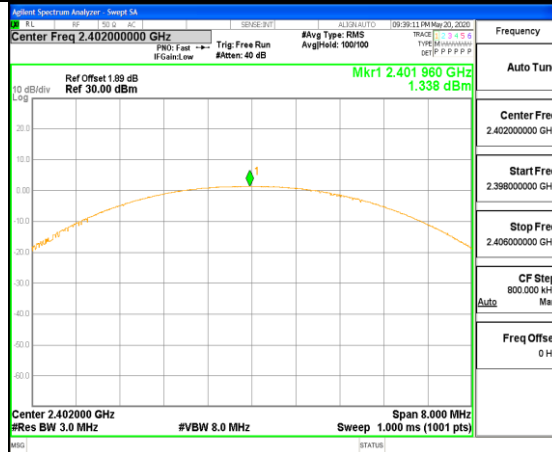
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH1	Ant1	2402	1.39	<=30	PASS
		2441	0.01	<=30	PASS
		2480	-0.75	<=30	PASS
2DH1	Ant1	2402	1.34	<=20.97	PASS
		2441	-0.04	<=20.97	PASS
		2480	-0.78	<=20.97	PASS
3DH1	Ant1	2402	1.32	<=20.97	PASS
		2441	-0.07	<=20.97	PASS
		2480	-0.8	<=30	PASS

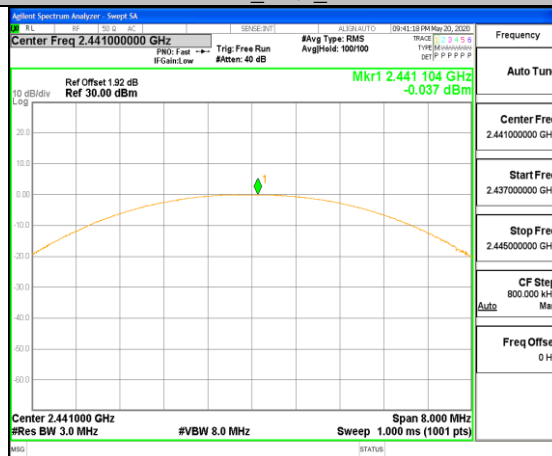
Test Graphs



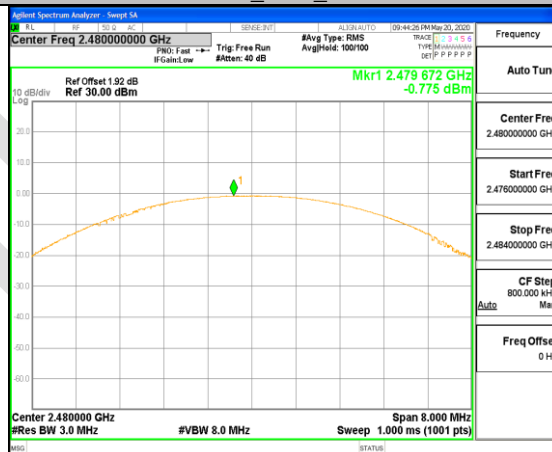
2DH1_Ant1_2402



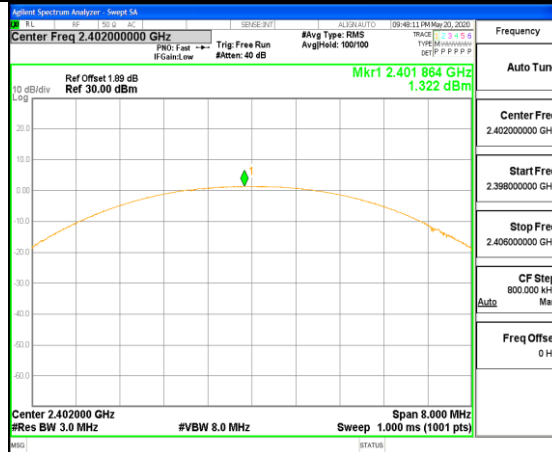
2DH1_Ant1_2441



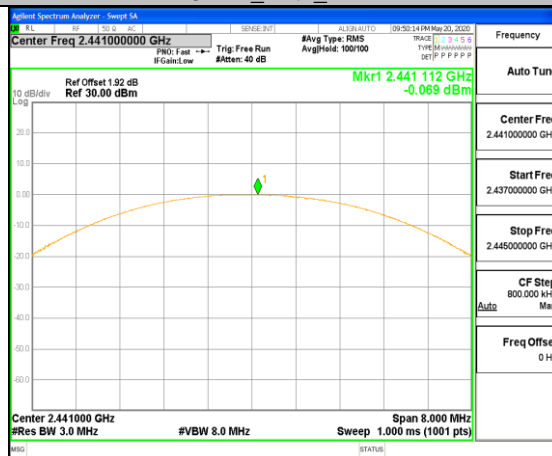
2DH1_Ant1_2480



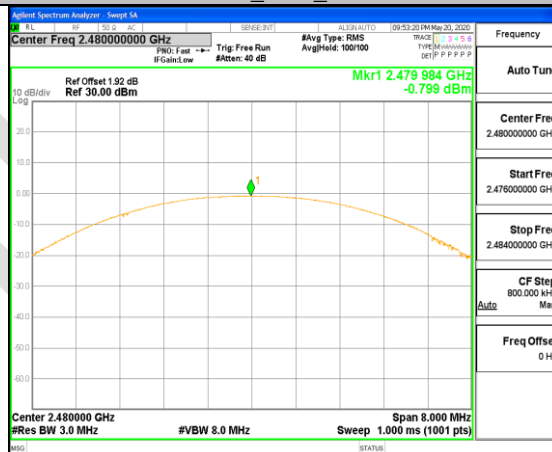
3DH1_Ant1_2402



3DH1_Ant1_2441



3DH1_Ant1_2480



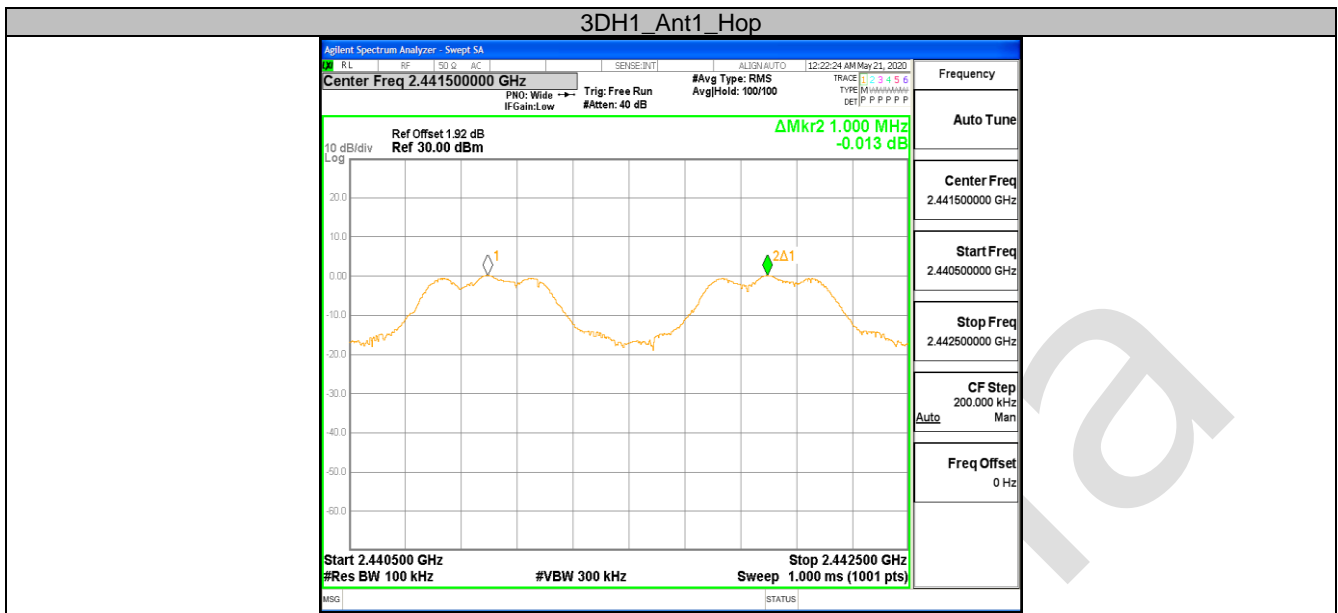
12.3 APPENDIX : CARRIER FREQUENCY SEPARATION

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH1	Ant1	Hop	1.000	>=0.738	PASS
2DH1	Ant1	Hop	1.002	>=0.740	PASS
3DH1	Ant1	Hop	1.000	>=0.738	PASS

Test Graphs





12.4 APPENDIX : TIME OF OCCUPANCY

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.36	330	0.118	<=0.4	PASS
DH3	Ant1	Hop	1.64	170	0.279	<=0.4	PASS
DH5	Ant1	Hop	2.89	110	0.318	<=0.4	PASS

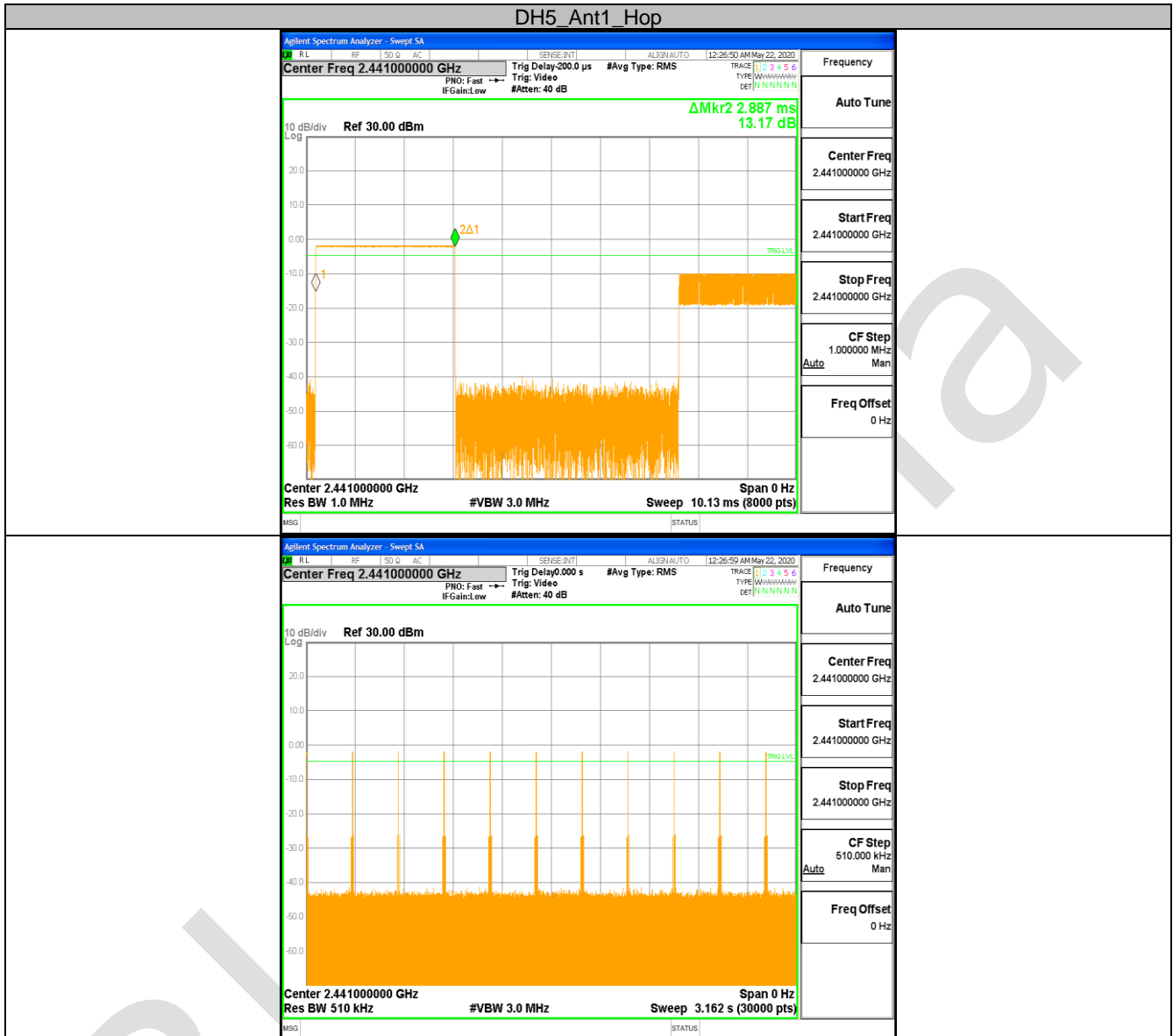
BlueAsia

Test Graphs





DH5_Ant1_Hop

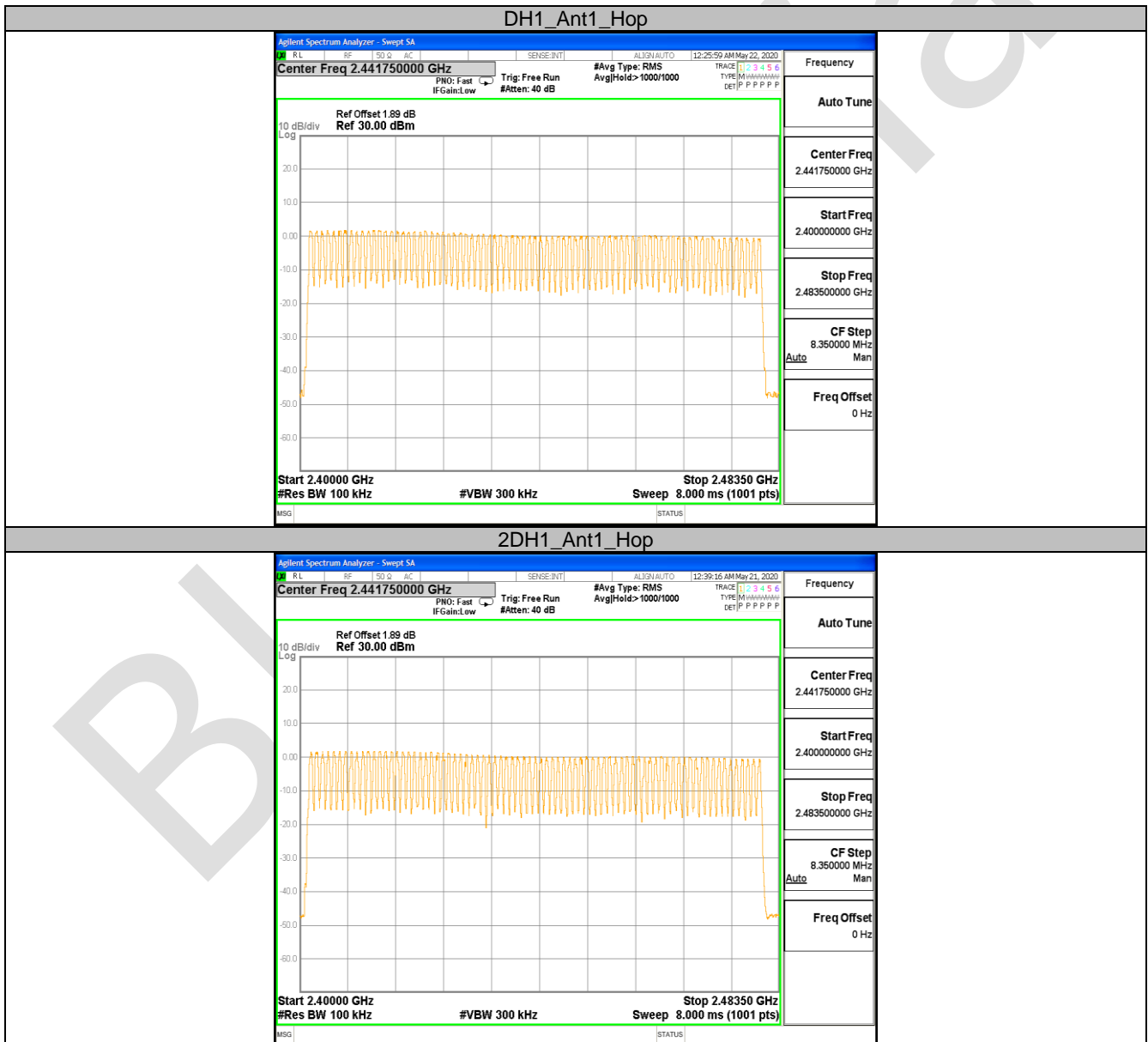


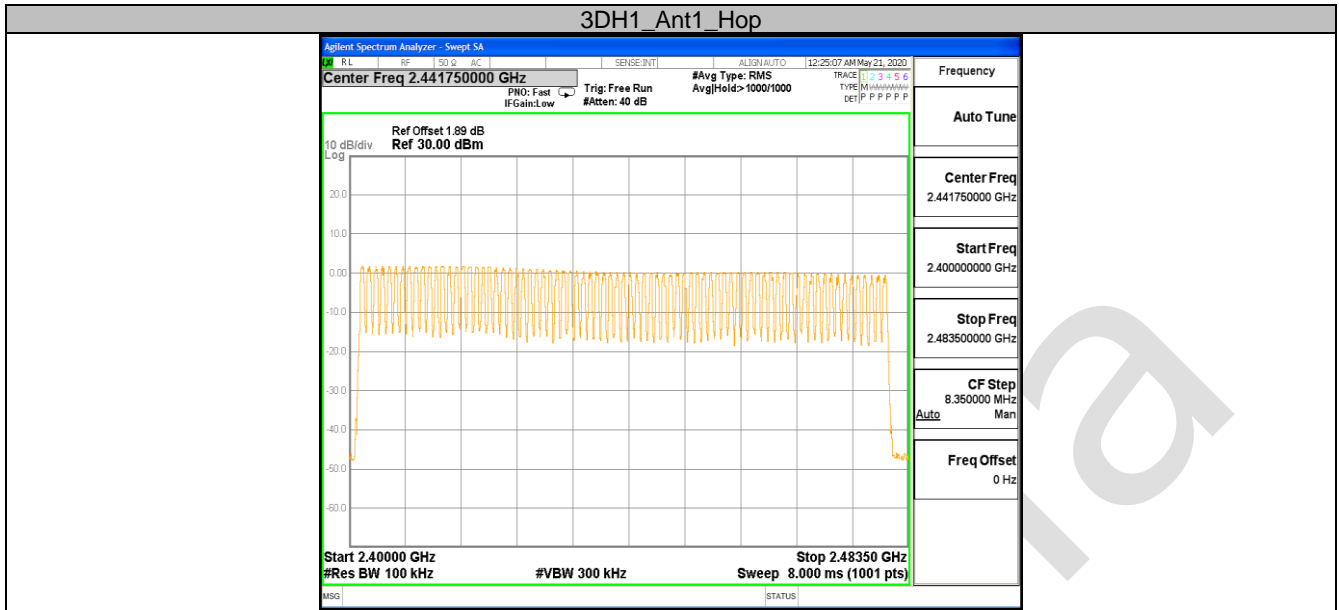
12.5 APPENDIX : NUMBER OF HOPPING CHANNELS

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

Test Graphs





12.6 APPENDIX : BAND EDGE MEASUREMENTS

Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH1	Ant1	Low	2402	1.16	-56.28	<=-18.84	PASS
		High	2480	-0.95	-56.07	<=-20.95	PASS
		Low	Hop_2402	-3.52	-56.45	-23.52	PASS
		High	Hop_2480	-0.31	-55.73	-20.31	PASS
2DH1	Ant1	Low	2402	1.12	-55.94	<=-18.88	PASS
		High	2480	-1.00	-55.22	<=-21	PASS
		Low	Hop_2402	-5.49	-55.88	-25.49	PASS
		High	Hop_2480	-0.15	-55.21	-20.15	PASS
3DH1	Ant1	Low	2402	1.12	-55.87	<=-18.88	PASS
		High	2480	-1.01	-55.62	<=-21.01	PASS
		Low	Hop_2402	-5.36	-56.34	-25.36	PASS
		High	Hop_2480	-0.23	-55.18	-20.23	PASS

Test Graphs

