



3.7 Time of occupancy (dwell time)

Test Method:

The test method was referred to the subclause 7.8.4 of ANSI C63.10-2020.

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

- a) Span: Zero span, centered on a hopping channel.
- b) RBW shall be $\leq$ channel spacing and where possible RBW should be set $\gg 1 / T$, where T is the expected dwell time per channel.
- c) Sweep: As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment to prevent triggering when the system hops on an adjacent channel; a second plot might be needed with a longer sweep time to show two successive hops on a channel.
- d) Detector function: Peak.
- e) Trace: Max hold.

Use the marker-delta function to determine the transmit time per hop. If this value varies with different modes of operation (data rate, modulation format, number of hopping channels, etc.), then repeat this test for each variation in transmit time.

Repeat the measurement using a longer sweep time to determine the number of hops over the period specified in the requirements. The sweep time shall be equal to, or less than, the period specified in the requirements. Determine the number of hops over the sweep time and calculate the total number of hops in the period specified in the requirements, using the following equation:

$$\begin{aligned} & \text{(Number of hops in the period specified in the requirements)} = \\ & \text{(number of hops on spectrum analyzer)} \times \text{(period specified in the requirements / analyzer sweep time)} \end{aligned}$$

The average time of occupancy is calculated from the transmit time per hop multiplied by the number of hops in the period specified in the requirements. If the number of hops in a specific time varies with different modes of operation (data rate, modulation format, number of hopping channels, etc.), then repeat this test for each variation.

Limit:

FCC §15.247 (a) (1) (iii)

RSS-247 (5.1) (d)

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

Test Result:

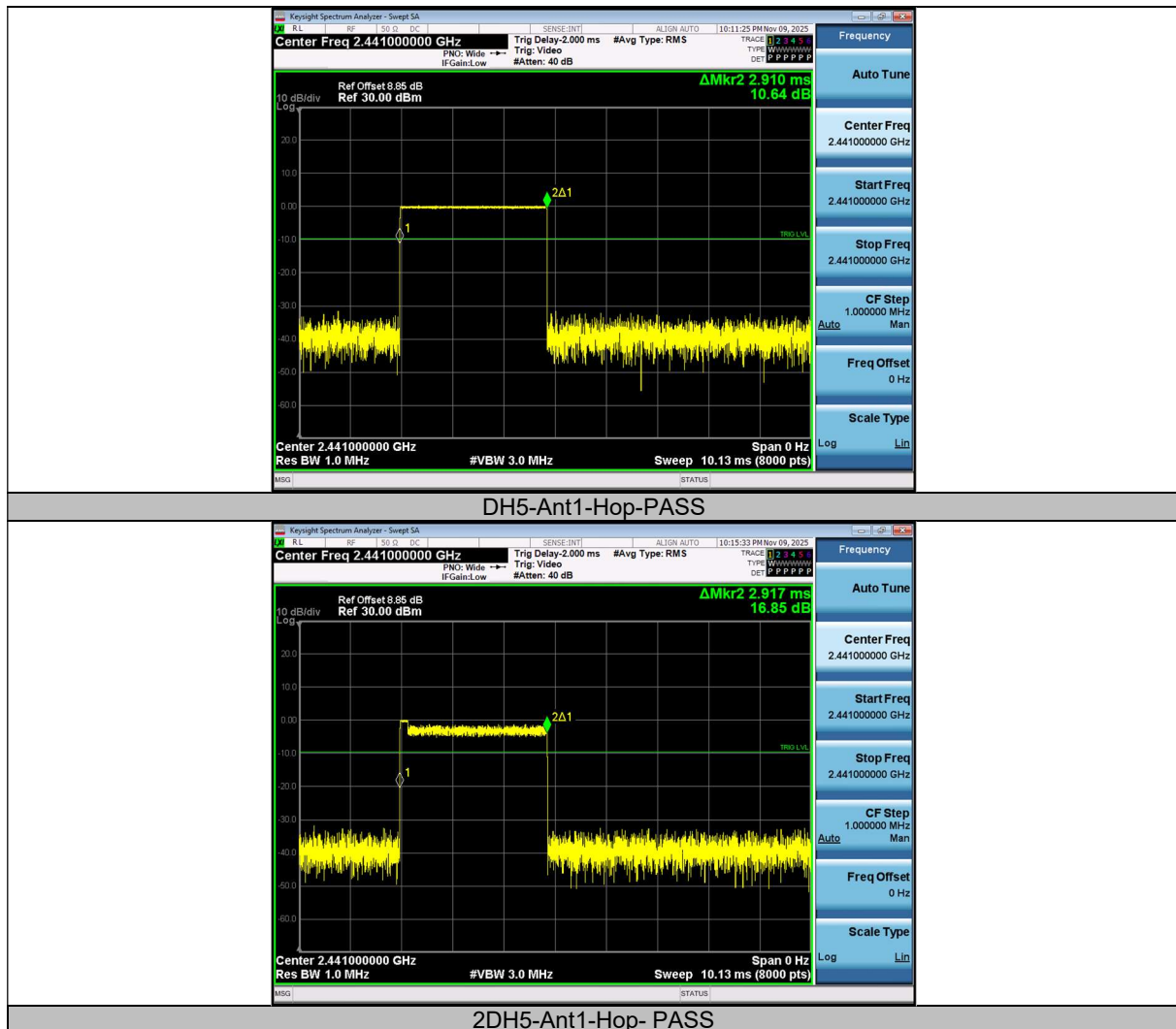
TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Re-sult[ms]	Limit[ms]	Verdict
DH5	Ant1	Hop	2.910	106.67	310.4097	≤ 400	PASS
2DH5	Ant1	Hop	2.917	106.67	311.1564	≤ 400	PASS

In normal mode, hopping rate is 1600 hops/s with 6 slots in 79 hopping channels.

With channel hopping rate (1600 / 6 / 79) in Occupancy Time Limit (0.4 x 79) (s), Hops

Over Occupancy Time comes to (1600 / 6 / 79) x (0.4 x 79) = 106.67 hops.

Dwell Time(s) = Hops Over Occupancy Time (hops) x BurstWidth (ms)



3.8 Peak Output Power

Test Method:

The test method was referred to the subclause 7.8.5 of ANSI C63.10-2020.

This is an RF-conducted test to evaluate maximum peak output power. Use a direct connection between the antenna port of the unlicensed wireless device and the spectrum analyzer, through suitable attenuation. The hopping shall be disabled for this test:

- a) Use the following spectrum analyzer settings:
 - 1) Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel.
 - 2) RBW > 20 dB bandwidth of the emission being measured.
 - 3) VBW $\geq$ RBW.
 - 4) Sweep: Auto.
 - 5) Detector function: Peak.
 - 6) Trace: Max hold.
- b) Allow trace to stabilize.
- c) Use the marker-to-peak function to set the marker to the peak of the emission.
- d) The indicated level is the peak output power, after any corrections for external attenuators and cables.
- e) A plot of the test results and setup description shall be included in the test report.

NOTE—A peak responding power meter may be used, where the power meter and sensor system video bandwidth is greater than the occupied bandwidth of the unlicensed wireless device, rather than a spectrum analyzer.

Limits:

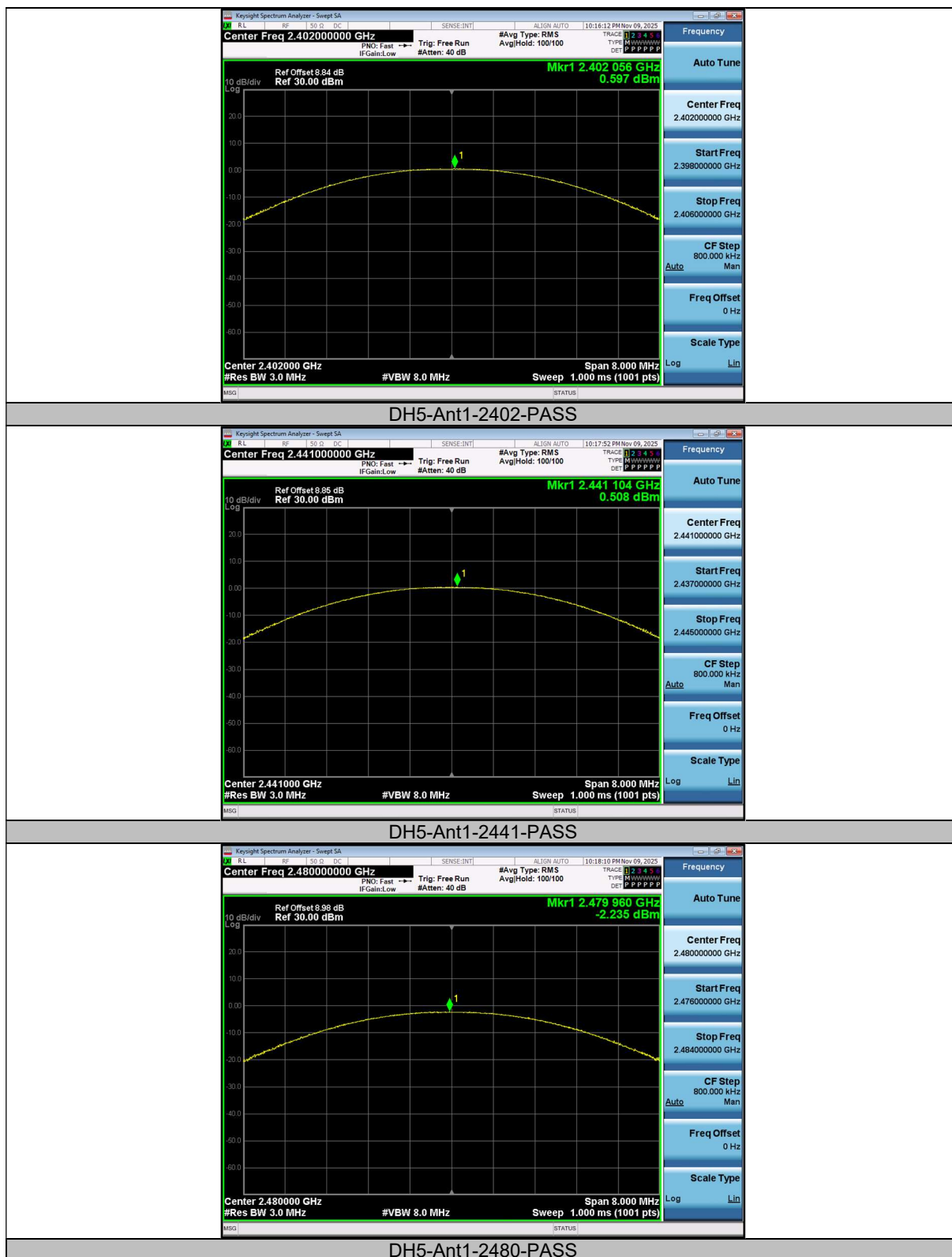
§15.247 (b) (1)

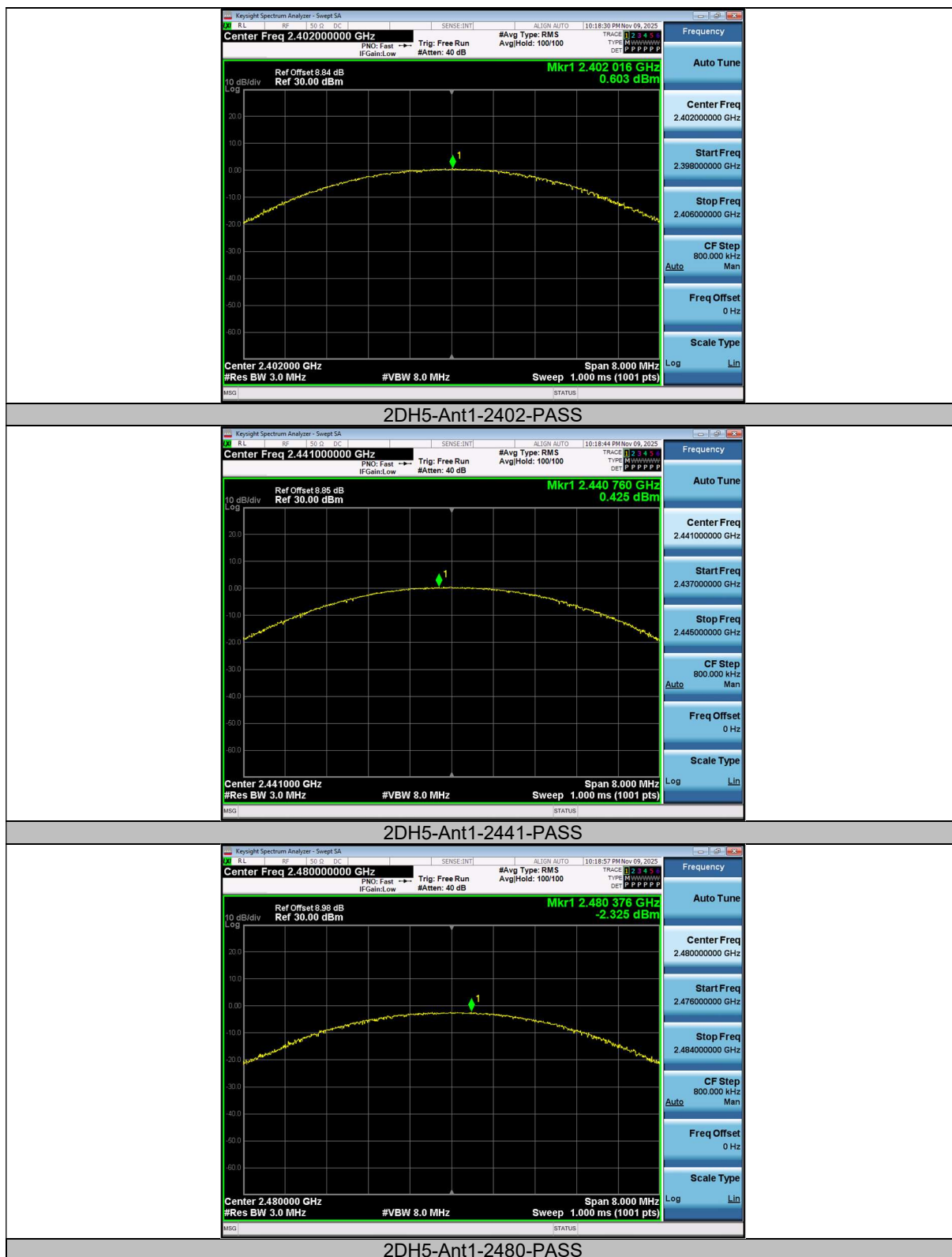
RSS-247 (5.4) (b)

For FHSs operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1.0 W if the hopset uses 75 or more hopping channels; the maximum peak conducted output power shall not exceed 0.125 W if the hopset uses less than 75 hopping channels. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e).

Test Result:

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP [dBm]	EIRP [dBm]	Verdict
DH5	Ant1	2402	0.60	≤ 30	2.42	≤ 36	PASS
DH5	Ant1	2441	0.51	≤ 30	2.33	≤ 36	PASS
DH5	Ant1	2480	-2.24	≤ 30	-0.42	≤ 36	PASS
2DH5	Ant1	2402	0.60	≤ 30	2.42	≤ 36	PASS
2DH5	Ant1	2441	0.43	≤ 30	2.25	≤ 36	PASS
2DH5	Ant1	2480	-2.33	≤ 30	-0.51	≤ 36	PASS





3.9 Conducted Band-edge & Spurious Emissions

Test Method:

The test method was referred to the subclause 7.8.6 & 7.8.8 of ANSI C63.10-2020.

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

Limit:

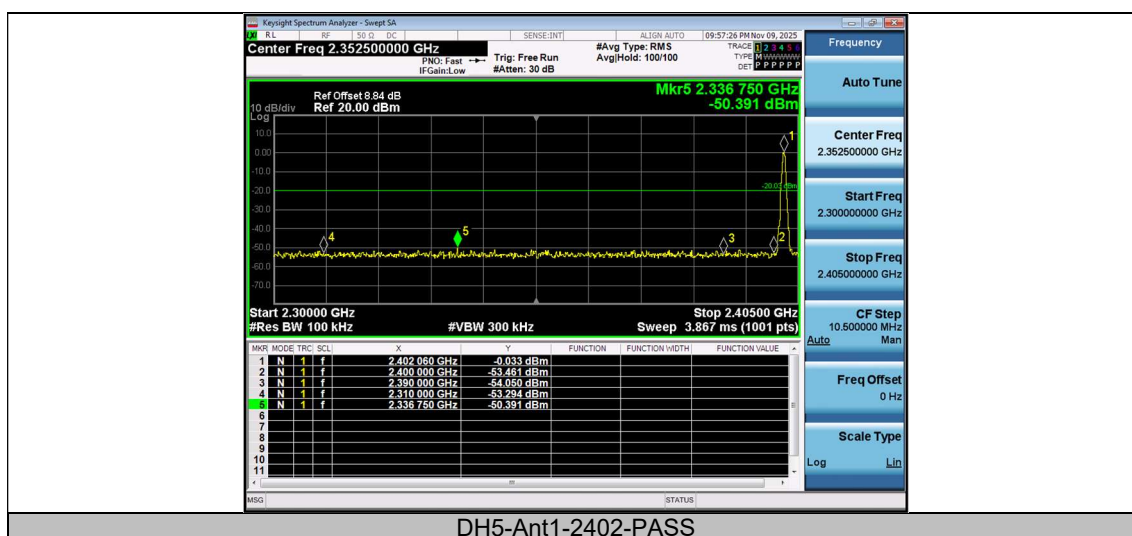
FCC §15.247 (d)

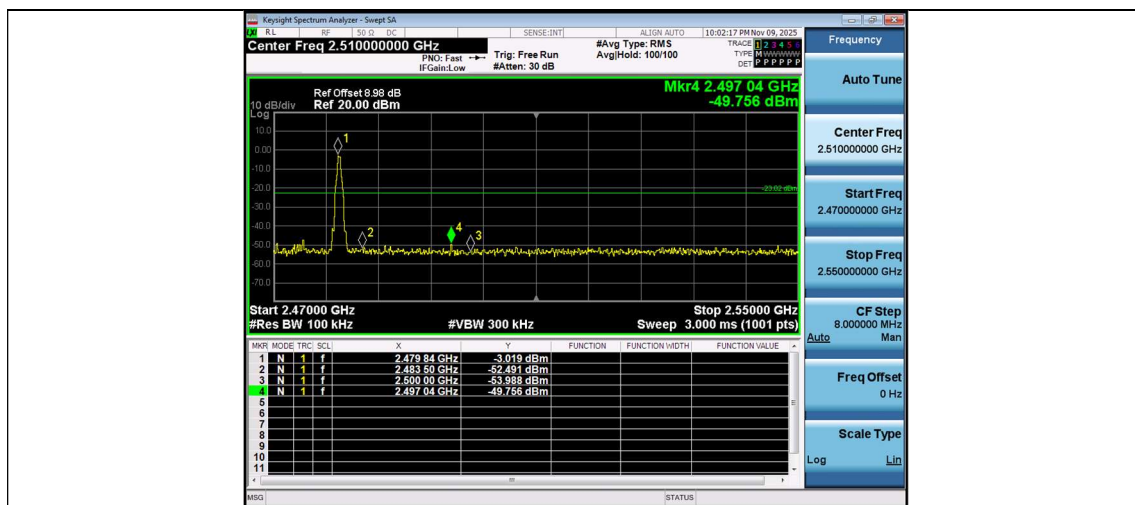
RSS-247 5.5

Limit = -20 dBc

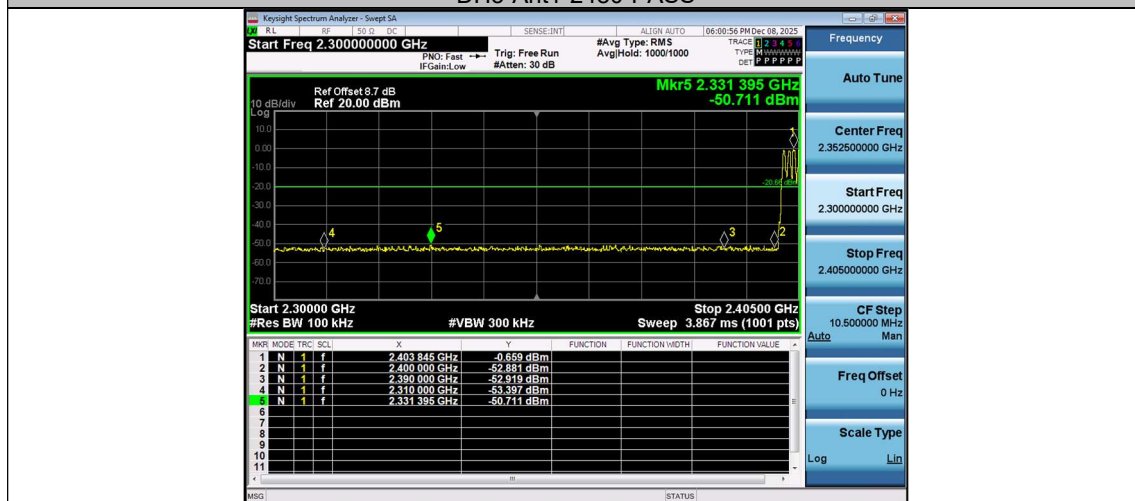
Conducted Band-edge Test Result:

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.03	-50.39	≤-20.03	PASS
DH5	Ant1	High	2480	-3.02	-49.76	≤-23.02	PASS
DH5	Ant1	Low	Hop_2402	-0.66	-50.71	≤-20.66	PASS
DH5	Ant1	High	Hop_2480	-2.59	-50.04	≤-22.59	PASS
2DH5	Ant1	Low	2402	-0.72	-50.42	≤-20.72	PASS
2DH5	Ant1	High	2480	-3.64	-49.72	≤-23.64	PASS
2DH5	Ant1	Low	Hop_2402	-8.22	-49.25	≤-28.22	PASS
2DH5	Ant1	High	Hop_2480	-2.68	-50.01	≤-22.68	PASS

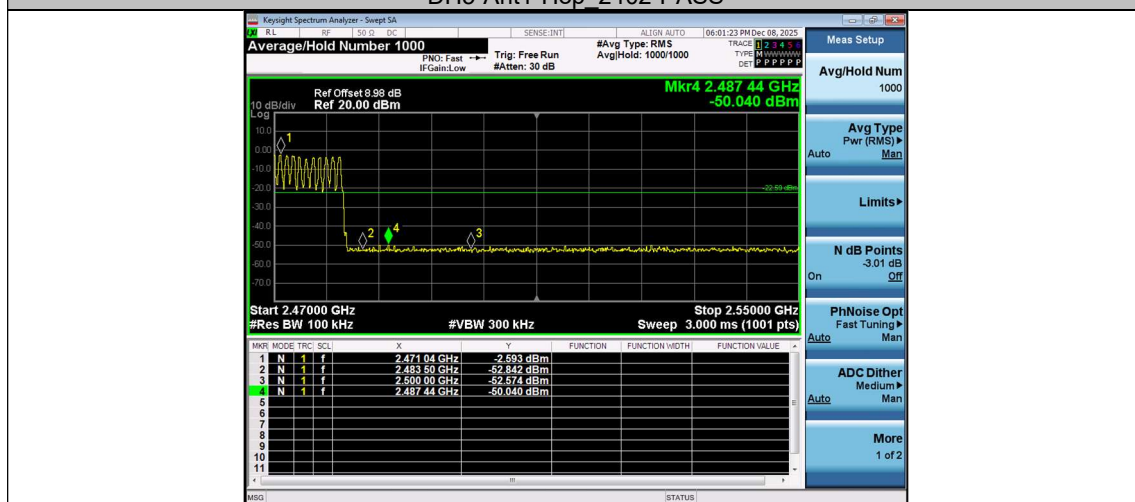




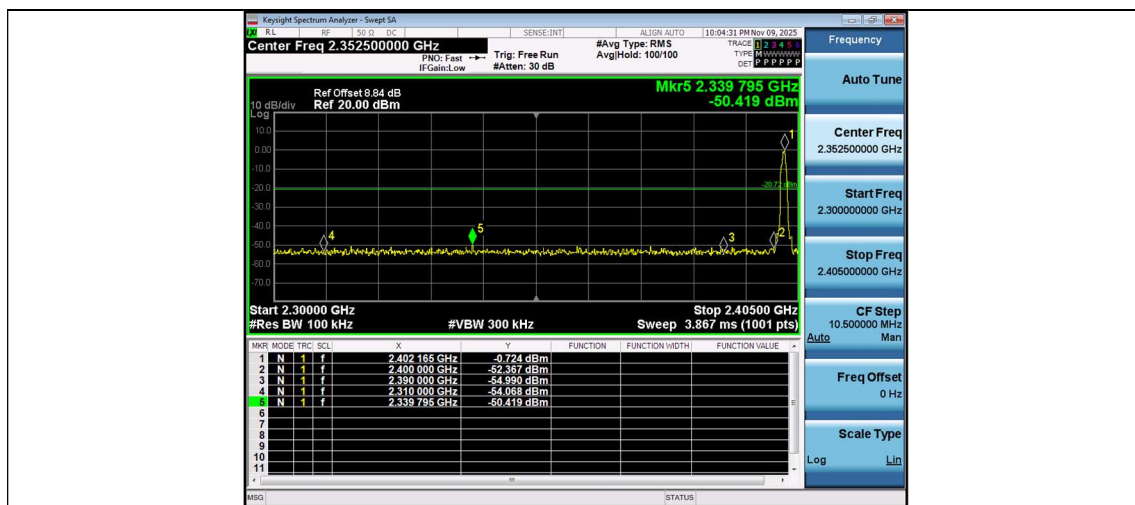
DH5-Ant1-2480-PASS



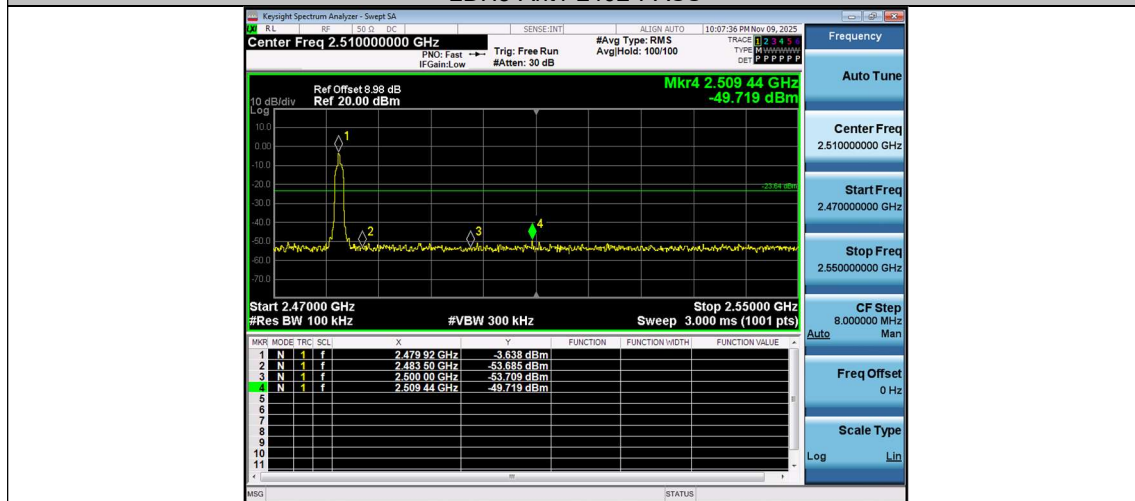
DH5-Ant1-Hop_2402-PASS



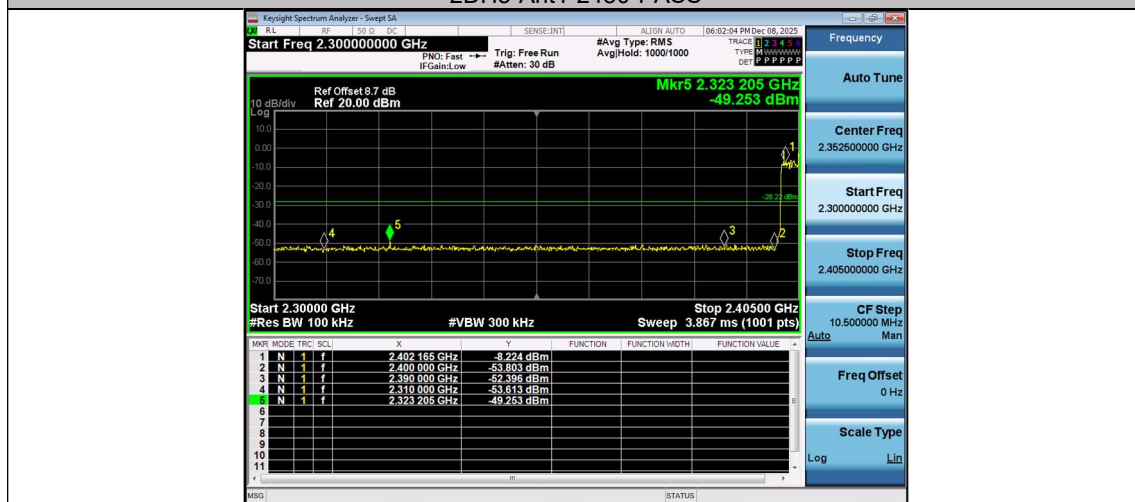
DH5-Ant1-Hop_2480-PASS



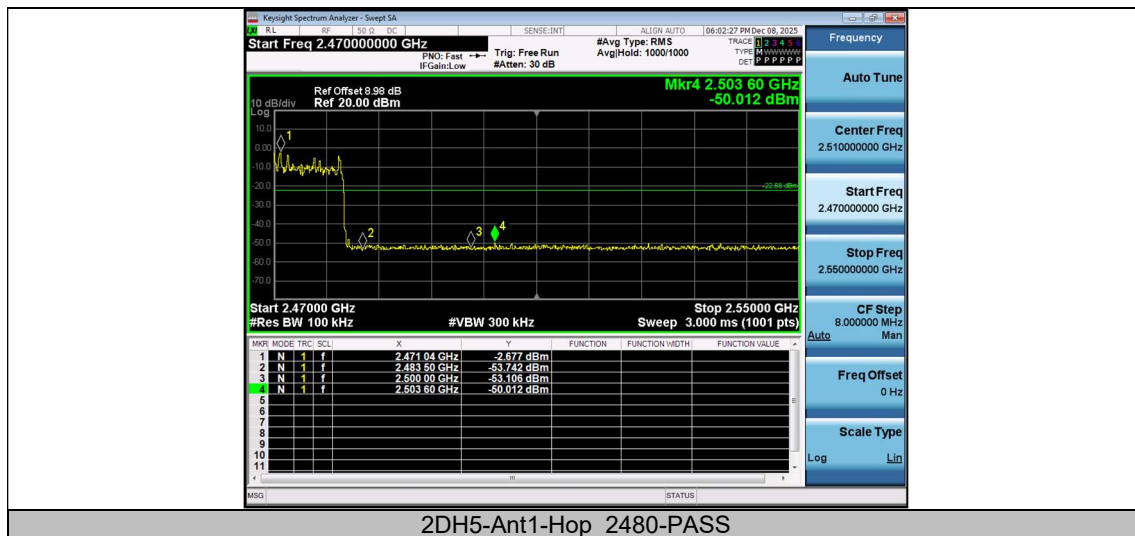
2DH5-Ant1-2402-PASS



2DH5-Ant1-2480-PASS

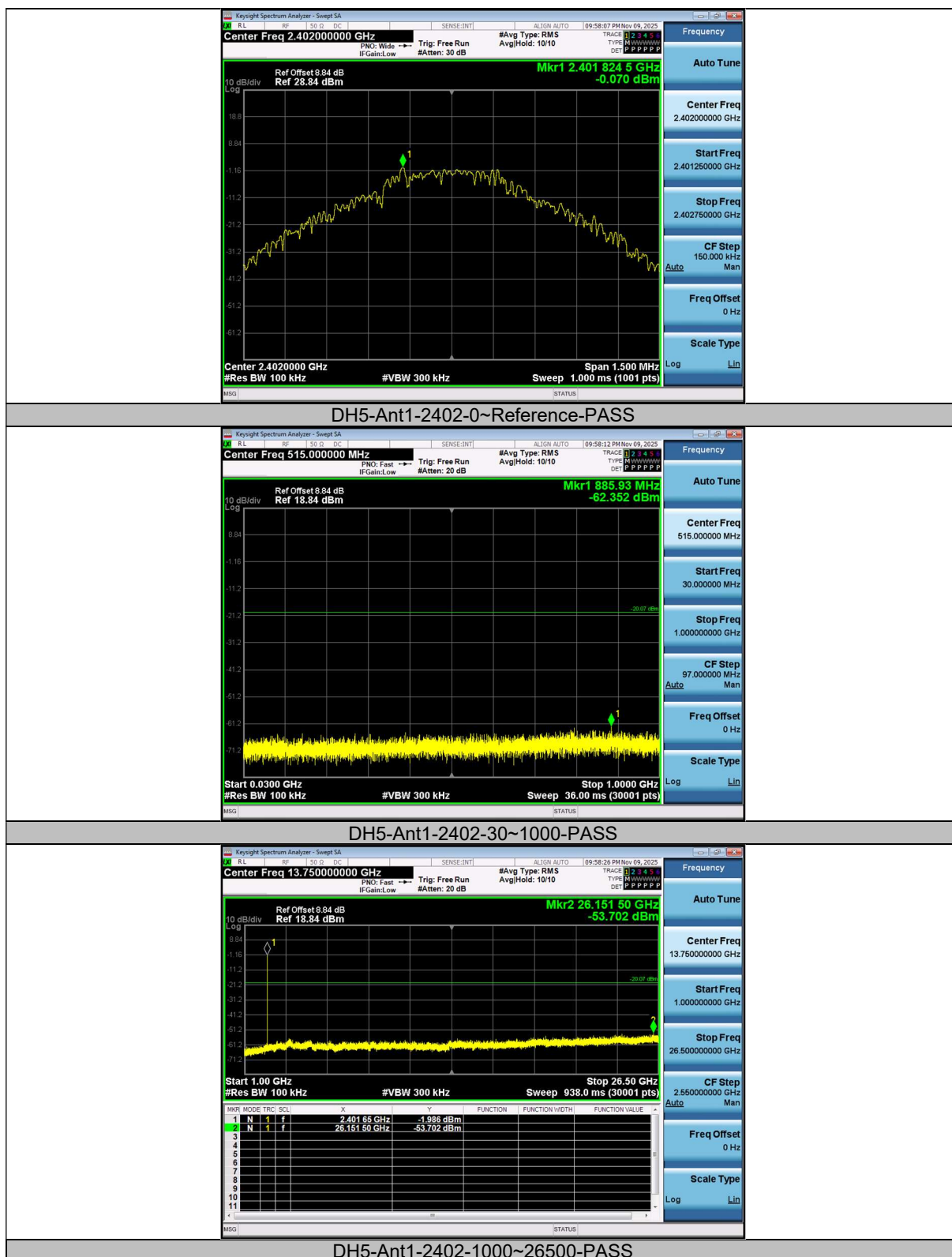


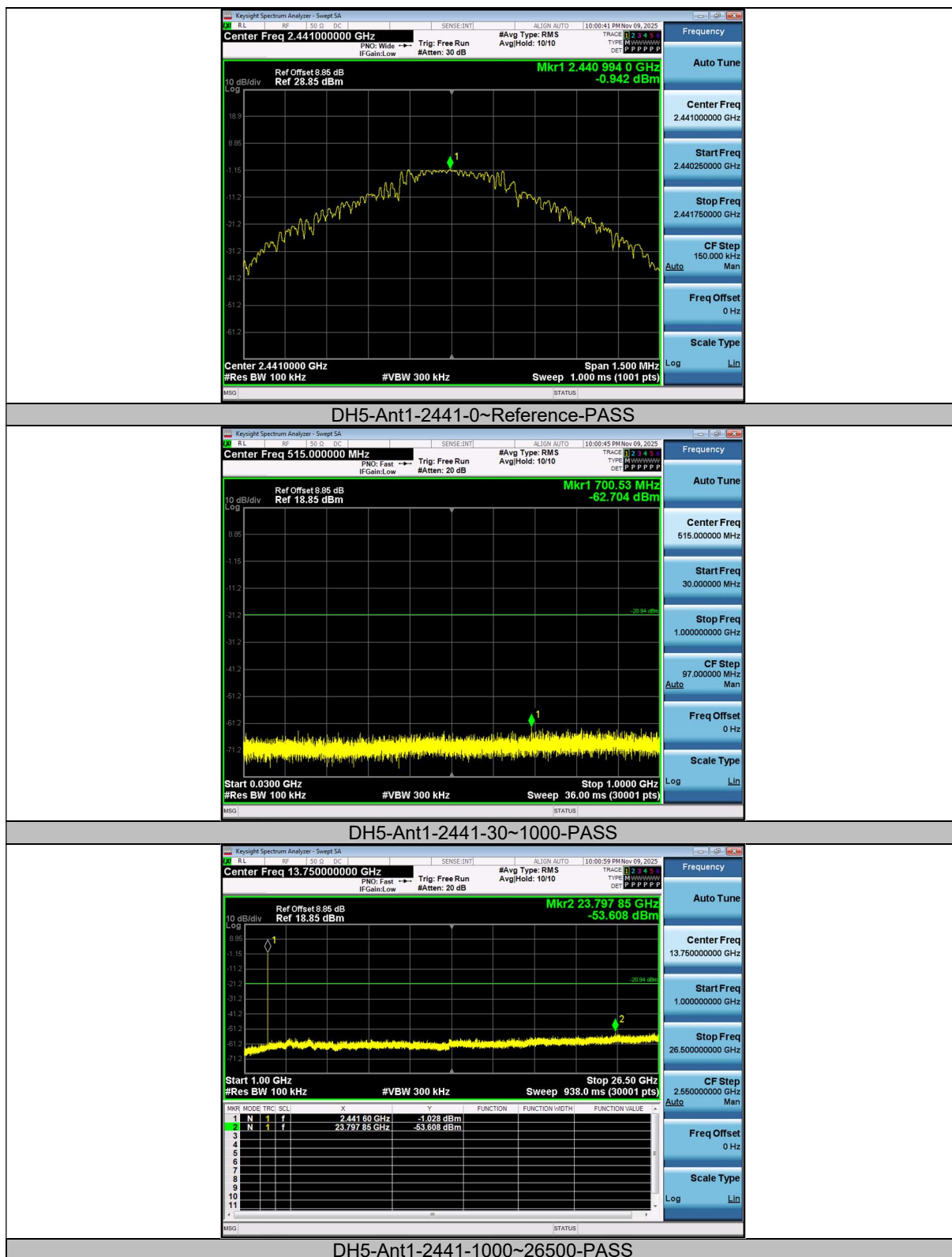
2DH5-Ant1-Hop_2402-PASS

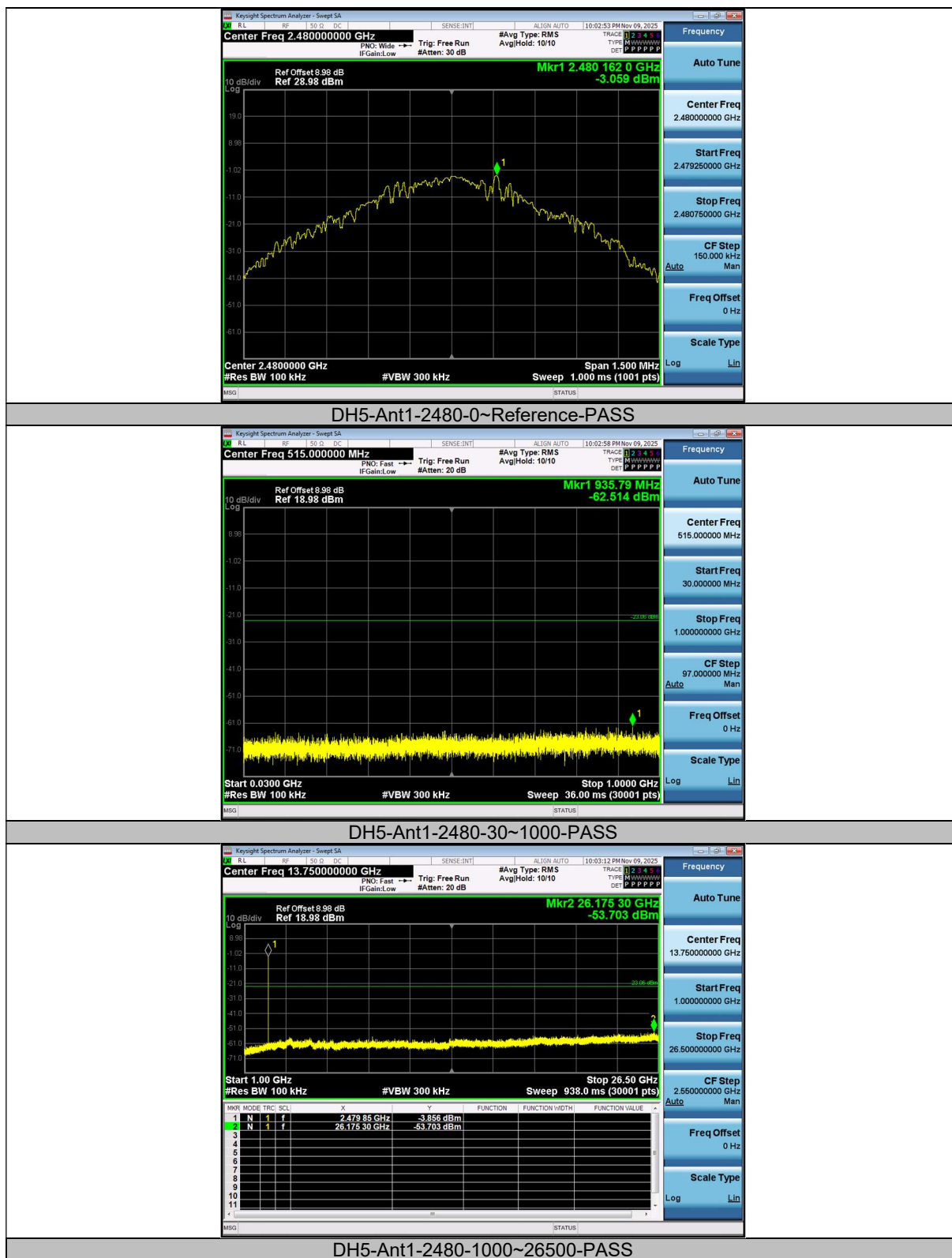


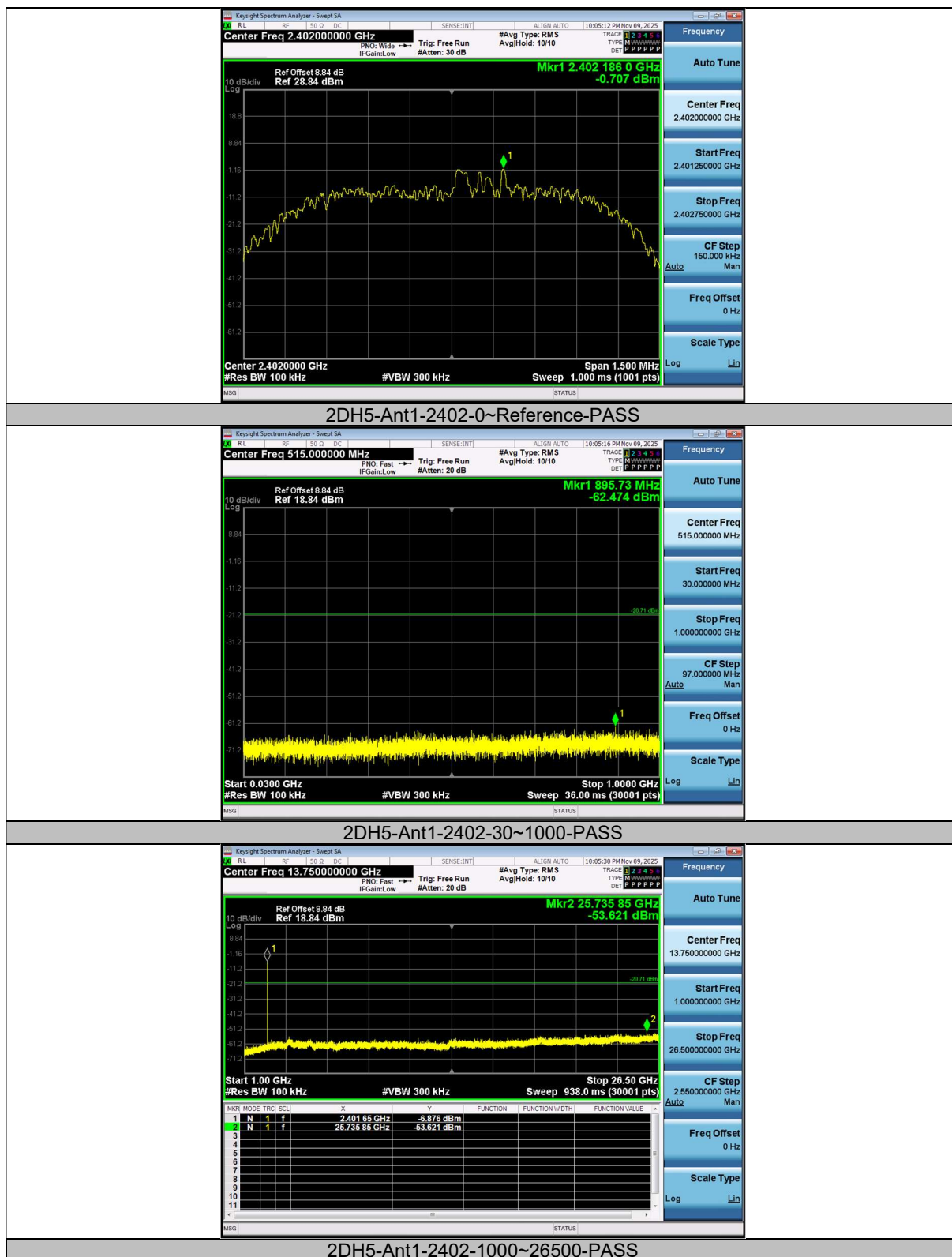
Conducted Spurious Emissions Test Result:

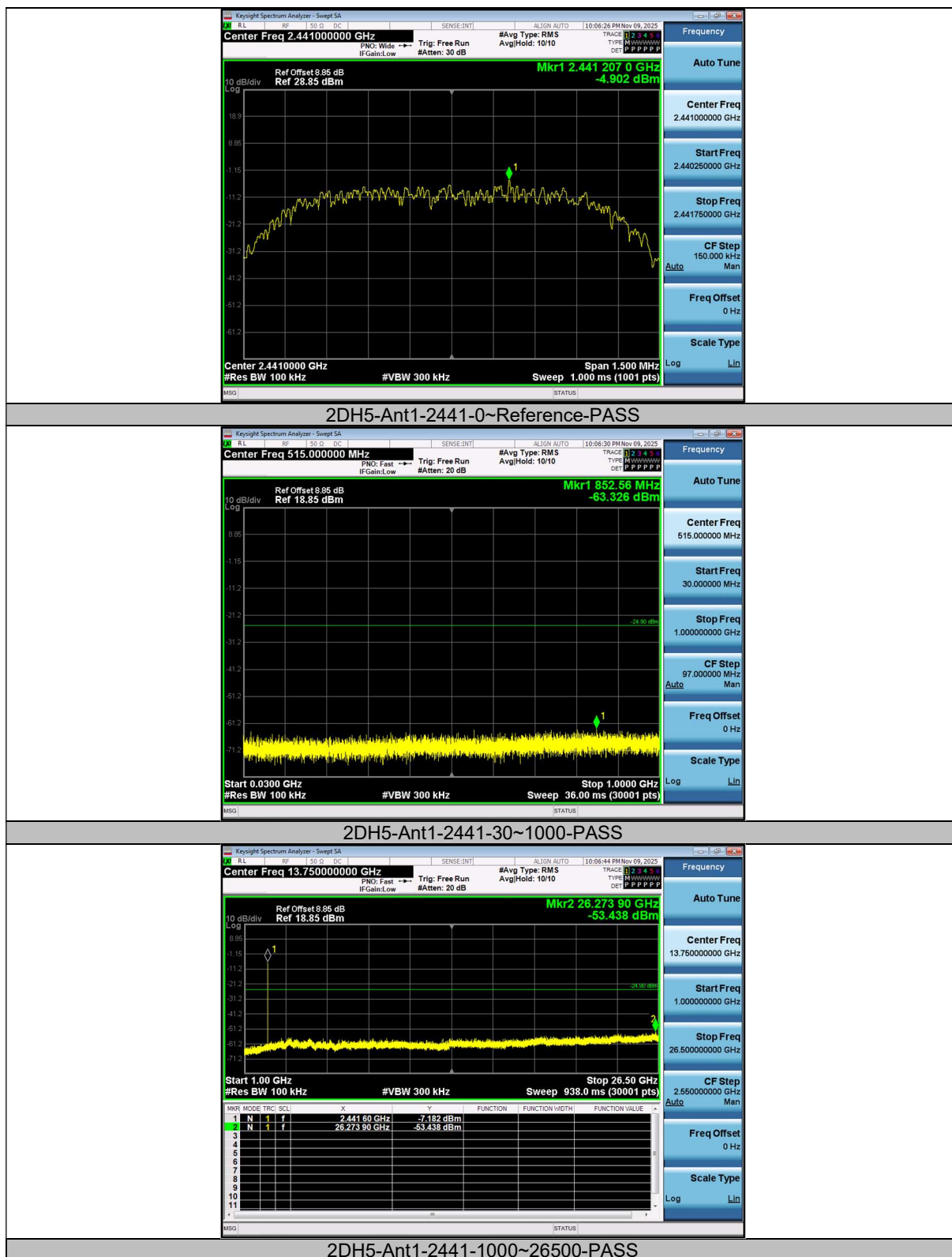
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-0.07	-0.07	---	PASS
DH5	Ant1	2402	30~1000	-0.07	-62.35	≤-20.07	PASS
DH5	Ant1	2402	1000~26500	-0.07	-53.7	≤-20.07	PASS
DH5	Ant1	2441	0~Reference	-0.94	-0.94	---	PASS
DH5	Ant1	2441	30~1000	-0.94	-62.7	≤-20.94	PASS
DH5	Ant1	2441	1000~26500	-0.94	-53.61	≤-20.94	PASS
DH5	Ant1	2480	0~Reference	-3.06	-3.06	---	PASS
DH5	Ant1	2480	30~1000	-3.06	-62.51	≤-23.06	PASS
DH5	Ant1	2480	1000~26500	-3.06	-53.7	≤-23.06	PASS
2DH5	Ant1	2402	0~Reference	-0.71	-0.71	---	PASS
2DH5	Ant1	2402	30~1000	-0.71	-62.47	≤-20.71	PASS
2DH5	Ant1	2402	1000~26500	-0.71	-53.62	≤-20.71	PASS
2DH5	Ant1	2441	0~Reference	-4.90	-4.90	---	PASS
2DH5	Ant1	2441	30~1000	-4.90	-63.33	≤-24.9	PASS
2DH5	Ant1	2441	1000~26500	-4.90	-53.44	≤-24.9	PASS
2DH5	Ant1	2480	0~Reference	-3.36	-3.36	---	PASS
2DH5	Ant1	2480	30~1000	-3.36	-62.71	≤-23.36	PASS
2DH5	Ant1	2480	1000~26500	-3.36	-53.72	≤-23.36	PASS

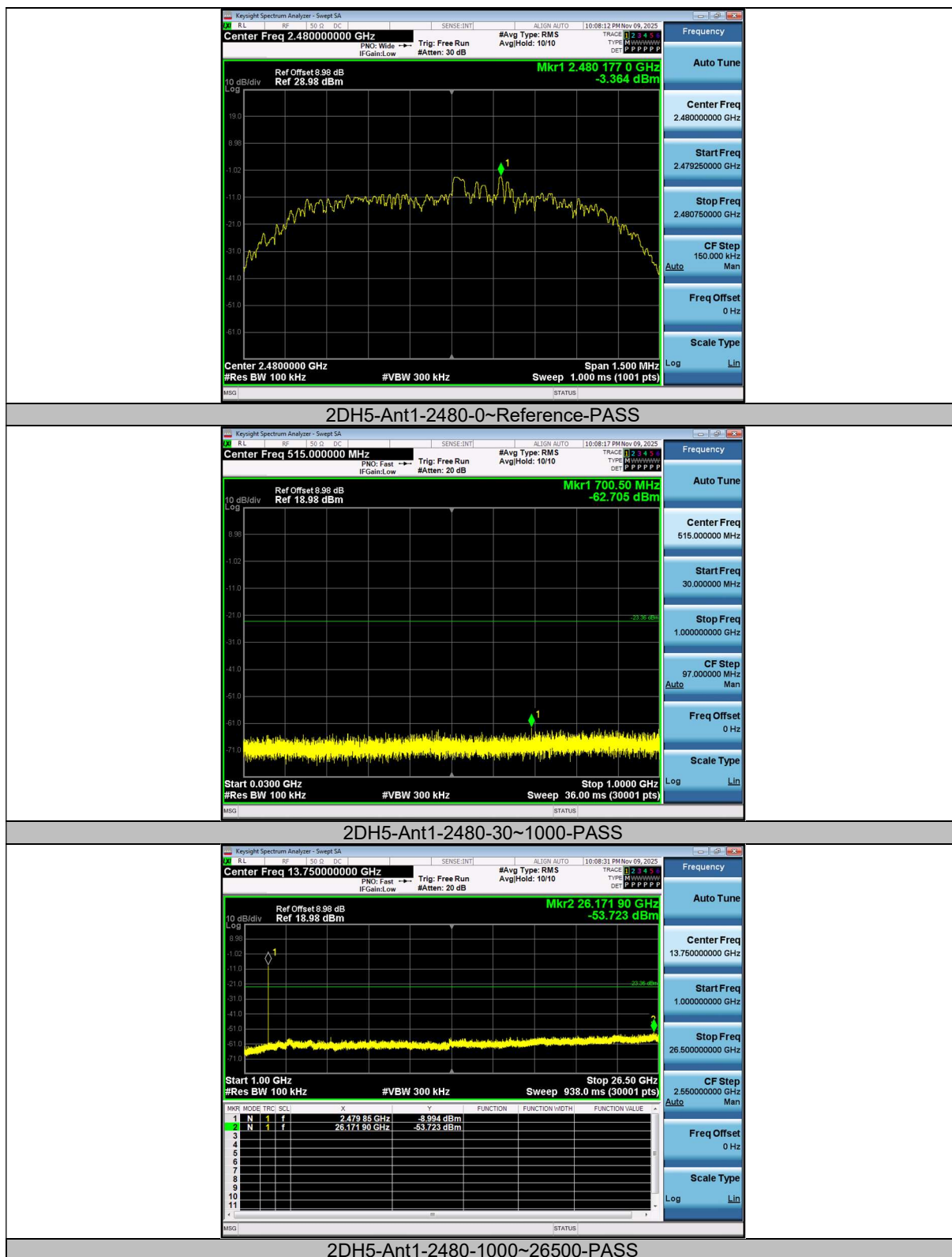












3.10 Radiated emissions for transmitter

Test Method:

Radiated Spurious Emissions Below 30MHz: ANSI C63.10-2020 Section 6.4

Radiated Spurious Emissions 30-1000MHz: ANSI C63.10-2020 Section 6.3 and 6.5

Radiated Spurious Emissions above 1GHz: ANSI C63.10-2020 Section 6.3 and 6.6

Radiated Band-edge: ANSI C63.10-2020 Section 6.10.5

- 1: The EUT was placed on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2: The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
- 3: The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 4: For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- 5: Use the following spectrum analyzer settings According to C63.10:
 For Above 1GHz
 Span = wide enough to capture the peak level of the in-band emission and all spurious
 RBW = 1MHz, VBW ≥ RBW for peak measurement and VBW = 10Hz for average measurement, Sweep = auto, Detector function = peak, Trace = max hold.
 For Below 1GHz
 Use the following spectrum analyzer settings:
 Span = wide enough to capture the peak level of the in-band emission and all spurious
 RBW = 100 KHz, VBW ≥ RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.
 For Below 30MHz
 Use the following spectrum analyzer settings:
 Span = wide enough to capture the peak level of the in-band emission and all spurious
 RBW = 200 Hz, VBW ≥ RBW from 9KHz to 0.15MHz, RBW 9KHz VBW ≥ RBW from 0.15MHz to 30MHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

Note:

- 1: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for peak detection (PK) at frequency above 1GHz.
- 3: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average ((duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (20log(1/duty cycle)).
- 4: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
- 5: When duty cycle < 98%, The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $VBW \geq 1 / T$, the T is transmission duration (T).

Limit:

FCC §15.205 and §15.209

RSS-GEN, Section 8.9 and 8.10.

Frequency Range	Field Strength Limit	Field Strength Limit
(MHz)	(uV/m) at 3 m	(dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

§15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	
13.36-13.41			

RSS-GEN 8.10

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	1660 - 1710	9.0 - 9.2
0.495 - 0.505	16.69475 - 16.69525	1718.8 - 1722.2	9.3 - 9.5
2.1735 - 2.1905	25.5 - 25.67	2200 - 2300	10.6 - 12.7
3.020 - 3.026	37.5 - 38.25	2310 - 2390	13.25 - 13.4
4.125 - 4.128	73 - 74.6	2483.5 - 2500	14.47 - 14.5
4.17725 - 4.17775	74.8 - 75.2	2655 - 2900	15.35 - 16.2
4.20725 - 4.20775	108 - 138	3260 - 3267	17.7 - 21.4
5.677 - 5.683	149.9 - 150.05	3332 - 3339	22.01 - 23.12
6.215 - 6.218	156.52475 - 156.52525	3345.8 - 3358	23.6 - 24.0
6.26775 - 6.26825	156.7 - 156.9	3500 - 4400	31.2 - 31.8
6.31175 - 6.31225	162.0125 - 167.17	4500 - 5150	36.43 - 36.5
8.291 - 8.294	167.72 - 173.2	5350 - 5460	Above 38.6
8.362 - 8.366	240 - 285	7250 - 7750	
8.37625 - 8.38675	322 - 335.4	8025 - 8500	
8.41425 - 8.41475	399.9 - 410		
12.29 - 12.293	608 - 614		
12.51975 - 12.52025	960 - 1427		
12.57675 - 12.57725	1435 - 1626.5		
13.36 - 13.41	1645.5 - 1646.5		

Emissions in Restricted Bands Test Result

Mode:	DH5-2402
-------	----------

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2310	6.96	47.62	74.00	26.38	44.04	54.00	9.96	150	331	Horizontal	PASS
2	2317.2	7.12	48.39	74.00	25.61	45.04	54.00	8.96	150	248	Horizontal	PASS
3	2347.36	7.29	48.64	74.00	25.36	44.25	54.00	9.75	150	90	Horizontal	PASS
4	2373.52	7.78	48.64	74.00	25.36	46.35	54.00	7.65	150	41	Horizontal	PASS
5	2382.48	8.13	49.15	74.00	24.85	46.56	54.00	7.44	150	305	Horizontal	PASS
6	2390	8.28	48.20	74.00	25.80	45.88	54.00	8.12	150	83	Horizontal	PASS

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2310	6.96	46.90	74.00	27.10	43.70	54.00	10.30	150	310	Vertical	PASS
2	2316	7.11	48.21	74.00	25.79	45.70	54.00	8.30	150	155	Vertical	PASS
3	2335.84	7.10	48.21	74.00	25.79	45.42	54.00	8.58	150	209	Vertical	PASS
4	2353.04	7.33	49.13	74.00	24.87	45.32	54.00	8.68	150	325	Vertical	PASS
5	2365.84	7.51	48.85	74.00	25.15	45.47	54.00	8.53	150	102	Vertical	PASS
6	2390	8.28	47.99	74.00	26.01	45.95	54.00	8.05	150	310	Vertical	PASS

Mode:	DH5-2480
-------	----------

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5	7.53	54.85	74.00	19.15	42.55	54.00	11.45	150	352	Horizontal	PASS
2	2486.1235	7.55	56.46	74.00	17.54	45.75	54.00	8.25	150	288	Horizontal	PASS
3	2490.3475	7.64	56.47	74.00	17.53	44.05	54.00	9.95	150	78	Horizontal	PASS
4	2493.136	7.66	56.40	74.00	17.60	48.46	54.00	5.54	150	201	Horizontal	PASS
5	2497.1125	7.69	56.25	74.00	17.75	48.01	54.00	5.99	150	92	Horizontal	PASS
6	2500	7.60	54.51	74.00	19.49	42.00	54.00	12.00	150	161	Horizontal	PASS

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5	7.53	55.27	74.00	18.73	42.47	54.00	11.53	150	310	Vertical	PASS
2	2486.272	7.57	56.91	74.00	17.09	48.02	54.00	5.98	150	221	Vertical	PASS
3	2490.991	7.63	56.56	74.00	17.44	48.27	54.00	5.73	150	100	Vertical	PASS
4	2494.225	7.67	56.59	74.00	17.41	47.01	54.00	6.99	150	296	Vertical	PASS
5	2495.413	7.65	57.80	74.00	16.20	47.13	54.00	6.87	150	224	Vertical	PASS
6	2500	7.60	54.27	74.00	19.73	41.93	54.00	12.07	150	139	Vertical	PASS

Mode:	2DH5-2402
-------	-----------

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2310	6.96	46.84	74.00	27.16	43.80	54.00	10.20	150	338	Horizontal	PASS
2	2323.92	7.15	48.27	74.00	25.73	43.80	54.00	10.20	150	154	Horizontal	PASS
3	2343.44	7.25	48.27	74.00	25.73	45.46	54.00	8.54	150	183	Horizontal	PASS
4	2361.36	7.40	48.42	74.00	25.58	45.24	54.00	8.76	150	356	Horizontal	PASS
5	2372.96	7.77	49.33	74.00	24.67	44.86	54.00	9.14	150	302	Horizontal	PASS
6	2390	8.28	48.33	74.00	25.67	46.21	54.00	7.79	150	230	Horizontal	PASS

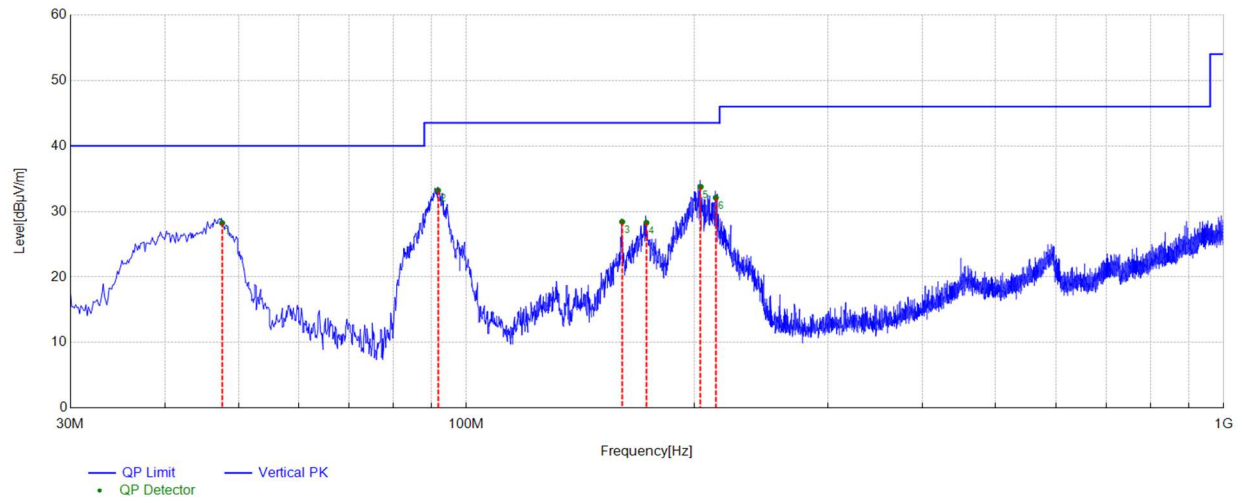
Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2310	6.96	46.76	74.00	27.24	44.31	54.00	9.69	150	224	Vertical	PASS
2	2320.64	7.17	48.92	74.00	25.08	45.85	54.00	8.15	150	110	Vertical	PASS
3	2341.12	7.17	49.01	74.00	24.99	46.01	54.00	7.99	150	359	Vertical	PASS
4	2354.4	7.36	48.81	74.00	25.19	44.49	54.00	9.51	150	316	Vertical	PASS
5	2365.28	7.54	48.81	74.00	25.19	46.24	54.00	7.76	150	131	Vertical	PASS
6	2390	8.28	48.15	74.00	25.85	45.60	54.00	8.40	150	292	Vertical	PASS

Mode:	2DH5-2480
-------	-----------

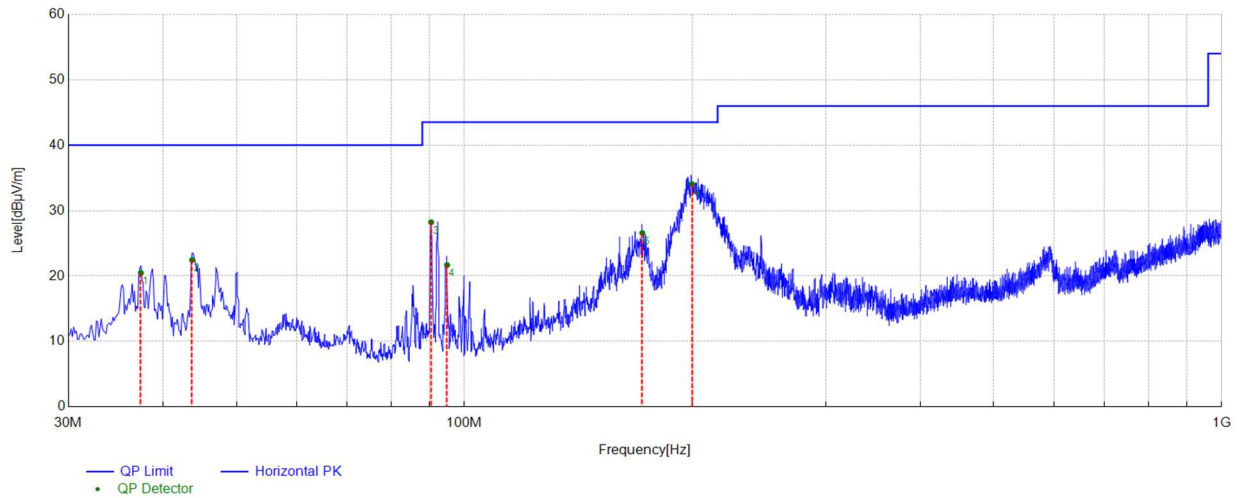
Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5	7.53	58.18	74.00	15.82	47.60	54.00	6.40	150	56	Horizontal	PASS
2	2484.0115	7.53	58.49	74.00	15.51	48.16	54.00	5.84	150	17	Horizontal	PASS
3	2488.879	7.63	56.55	74.00	17.45	49.31	54.00	4.69	150	114	Horizontal	PASS
4	2492.311	7.65	56.51	74.00	17.49	49.24	54.00	4.76	150	262	Horizontal	PASS
5	2495.0005	7.65	57.29	74.00	16.71	48.55	54.00	5.45	150	215	Horizontal	PASS
6	2500	7.60	55.02	74.00	18.98	41.93	54.00	12.07	150	184	Horizontal	PASS

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2483.5	7.53	55.42	74.00	18.58	42.24	54.00	11.76	150	188	Vertical	PASS
2	2486.239	7.56	56.53	74.00	17.47	48.91	54.00	5.09	150	25	Vertical	PASS
3	2488.648	7.60	56.67	74.00	17.33	49.25	54.00	4.75	150	325	Vertical	PASS
4	2492.7235	7.66	56.99	74.00	17.01	48.39	54.00	5.61	150	152	Vertical	PASS
5	2494.852	7.65	58.07	74.00	15.93	48.29	54.00	5.71	150	181	Vertical	PASS
6	2500	7.60	54.95	74.00	19.05	42.45	54.00	11.55	150	163	Vertical	PASS

Radiated Emissions Test Result



QP Final Data List									
NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	47.5812	-16.30	28.24	40.00	11.76	100	300	Vertical	PASS
2	91.7162	-20.35	33.21	43.50	10.29	100	48	Vertical	PASS
3	160.5862	-16.11	28.42	43.50	15.08	100	231	Vertical	PASS
4	172.8325	-17.03	28.29	43.50	15.21	100	226	Vertical	PASS
5	203.8725	-19.28	33.76	43.50	9.74	100	350	Vertical	PASS
6	213.4512	-19.39	32.11	43.50	11.39	100	350	Vertical	PASS



QP Final Data List									
NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	37.3962	-16.29	20.49	40.00	19.51	100	10	Horizontal	PASS
2	43.7012	-16.12	22.46	40.00	17.54	100	10	Horizontal	PASS
3	90.3825	-20.41	28.24	43.50	15.26	100	10	Horizontal	PASS
4	94.8688	-20.20	21.69	43.50	21.81	100	10	Horizontal	PASS
5	171.7412	-16.94	26.58	43.50	16.92	100	168	Horizontal	PASS
6	199.7500	-19.22	34.06	43.50	9.44	100	15	Horizontal	PASS

Mode:	DH5-2402
-------	----------

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1211.2	2.55	43.09	74.00	30.91	54.00	150	77	Horizontal	PASS
2	1914.4	6.10	45.00	74.00	29.00	54.00	150	94	Horizontal	PASS
3	4804.5	-13.97	44.47	74.00	29.53	54.00	150	321	Horizontal	PASS
4	6649.5	-10.97	44.23	74.00	29.77	54.00	150	110	Horizontal	PASS
5	9609	-7.16	46.96	74.00	27.04	54.00	150	94	Horizontal	PASS
6	11294.25	-3.84	47.04	74.00	26.96	54.00	150	358	Horizontal	PASS

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1164.4	2.26	46.34	74.00	27.66	54.00	150	181	Vertical	PASS
2	1997.6	6.55	47.38	74.00	26.62	54.00	150	115	Vertical	PASS
3	4913.25	-12.96	41.69	74.00	32.31	54.00	150	110	Vertical	PASS
4	6949.5	-10.70	43.51	74.00	30.49	54.00	150	261	Vertical	PASS
5	9609	-7.16	46.73	74.00	27.27	54.00	150	245	Vertical	PASS
6	11282.25	-3.80	47.19	74.00	26.81	54.00	150	140	Vertical	PASS

Mode:	DH5-2441
-------	----------

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1164.8	2.27	44.49	74.00	29.51	54.00	150	239	Horizontal	PASS
2	1739.6	4.26	43.27	74.00	30.73	54.00	150	356	Horizontal	PASS
3	4881.75	-13.63	48.04	74.00	25.96	54.00	150	349	Horizontal	PASS
4	7323.75	-10.17	45.98	74.00	28.02	54.00	150	318	Horizontal	PASS
5	9764.25	-6.68	46.04	74.00	27.96	54.00	150	86	Horizontal	PASS
6	12206.25	-2.76	48.23	74.00	25.77	54.00	150	19	Horizontal	PASS

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1166.8	2.30	44.73	74.00	29.27	54.00	150	8	Vertical	PASS
2	1994	6.60	48.15	74.00	25.85	54.00	150	112	Vertical	PASS
3	4881.75	-13.63	43.81	74.00	30.19	54.00	150	327	Vertical	PASS
4	7323	-10.16	47.05	74.00	26.95	54.00	150	297	Vertical	PASS
5	11221.5	-3.35	46.35	74.00	27.65	54.00	150	155	Vertical	PASS
6	12204.75	-2.77	47.33	74.00	26.67	54.00	150	297	Vertical	PASS

Mode:	DH5-2480
-------	----------

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1332.8	2.40	42.98	74.00	31.02	54.00	150	106	Horizontal	PASS
2	1879.2	6.16	45.01	74.00	28.99	54.00	150	72	Horizontal	PASS
3	4959.75	-14.68	48.93	74.00	25.07	54.00	150	115	Horizontal	PASS
4	6380.25	-10.51	43.83	74.00	30.17	54.00	150	336	Horizontal	PASS
5	9919.5	-6.37	47.14	74.00	26.86	54.00	150	60	Horizontal	PASS
6	12399.75	-2.46	48.69	74.00	25.31	54.00	150	23	Horizontal	PASS

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1166	2.28	45.51	74.00	28.49	54.00	150	342	Vertical	PASS
2	1994.4	6.60	48.22	74.00	25.78	54.00	150	102	Vertical	PASS
3	3581.25	-17.19	41.92	74.00	32.08	54.00	150	97	Vertical	PASS
4	4960.5	-14.64	44.13	74.00	29.87	54.00	150	337	Vertical	PASS
5	6411.75	-10.91	43.79	74.00	30.21	54.00	150	360	Vertical	PASS
6	12401.25	-2.46	48.93	74.00	25.07	54.00	150	300	Vertical	PASS

Mode:	2DH5-2402
-------	-----------

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1339.2	2.42	42.95	74.00	31.05	54.00	150	1	Horizontal	PASS
2	2075.6	6.47	45.45	74.00	28.55	54.00	150	356	Horizontal	PASS
3	4490.25	-14.41	41.39	74.00	32.61	54.00	150	60	Horizontal	PASS
4	5527.5	-12.80	42.92	74.00	31.08	54.00	150	79	Horizontal	PASS
5	6366	-10.88	44.54	74.00	29.46	54.00	150	60	Horizontal	PASS
6	11205	-3.75	47.42	74.00	26.58	54.00	150	337	Horizontal	PASS

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1292.4	2.79	42.73	74.00	31.27	54.00	150	145	Vertical	PASS
2	1997.6	6.55	49.63	74.00	24.37	54.00	150	110	Vertical	PASS
3	3848.25	-15.99	41.92	74.00	32.08	54.00	150	130	Vertical	PASS
4	5149.5	-13.39	42.16	74.00	31.84	54.00	150	4	Vertical	PASS
5	6941.25	-10.94	43.98	74.00	30.02	54.00	150	223	Vertical	PASS
6	11181	-3.70	46.76	74.00	27.24	54.00	150	223	Vertical	PASS

Mode:	2DH5-2441
-------	-----------

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1340.4	2.44	43.53	74.00	30.47	54.00	150	282	Horizontal	PASS
2	2165.6	6.70	45.52	74.00	28.48	54.00	150	168	Horizontal	PASS
3	4882.5	-13.61	46.39	74.00	27.61	54.00	150	334	Horizontal	PASS
4	7323.75	-10.17	46.22	74.00	27.78	54.00	150	316	Horizontal	PASS
5	9373.5	-7.38	44.73	74.00	29.27	54.00	150	316	Horizontal	PASS
6	11310.75	-3.99	46.82	74.00	27.18	54.00	150	224	Horizontal	PASS

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1167.2	2.30	48.00	74.00	26.00	54.00	150	0	Vertical	PASS
2	1996.4	6.56	47.78	74.00	26.22	54.00	150	92	Vertical	PASS
3	4638	-14.22	41.96	74.00	32.04	54.00	150	326	Vertical	PASS
4	5556.75	-12.60	43.25	74.00	30.75	54.00	150	86	Vertical	PASS
5	7323	-10.16	45.18	74.00	28.82	54.00	150	307	Vertical	PASS
6	11296.5	-3.84	46.75	74.00	27.25	54.00	150	326	Vertical	PASS

Mode:	2DH5-2480
-------	-----------

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1248.4	2.48	42.41	74.00	31.59	54.00	150	145	Horizontal	PASS
2	1938	6.10	46.51	74.00	27.49	54.00	150	12	Horizontal	PASS
3	4960.5	-14.64	48.89	74.00	25.11	54.00	150	105	Horizontal	PASS
4	6964.5	-10.77	44.93	74.00	29.07	54.00	150	253	Horizontal	PASS
5	9921	-6.36	44.81	74.00	29.19	54.00	150	60	Horizontal	PASS
6	12399.75	-2.46	48.66	74.00	25.34	54.00	150	360	Horizontal	PASS

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1168.4	2.31	46.24	74.00	27.76	54.00	150	176	Vertical	PASS
2	1995.6	6.57	48.86	74.00	25.14	54.00	150	114	Vertical	PASS
3	4494.75	-14.50	41.60	74.00	32.40	54.00	150	189	Vertical	PASS
4	4961.25	-14.54	43.51	74.00	30.49	54.00	150	336	Vertical	PASS
5	8987.25	-8.40	44.26	74.00	29.74	54.00	150	23	Vertical	PASS
6	9317.25	-7.61	44.48	74.00	29.52	54.00	150	225	Vertical	PASS

3.11 Hopping sequence requirement

Limit:

FCC §15.207 (g)

FCC §15.207 (h)

Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. However, the system, consisting of both the transmitter and the receiver, must be designed to comply with all of the regulations in this section should the transmitter be presented with a continuous data (or information) stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its transmissions over the minimum number of hopping channels specified in this section.

The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

Result: Meet the requirements of this chapter

4 Test Setup Photos

Ref "EFGX25100007-IE-02-E06 Setup Photos.pdf"

5 External Photo

Ref "EFGX25100007-IE-02-E06 External Photos.pdf"

6 Internal Photos

Ref "EFGX25100007-IE-02-E06 Internal Photos.pdf"

-End of report-