



Appendix Test Data for SRD (Conducted Measurement)

Product Name: Helicopter

Trade Mark: /

Test Model: S5H

FCC ID: QV7-GC88752-116

Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Max Zhang
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
SRD	Ant1	2410	0.672	2409.632	2410.304	0.5	PASS
SRD	Ant1	2441	0.652	2440.636	2441.288	0.5	PASS
SRD	Ant1	2472	0.684	2471.656	2472.340	0.5	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





The figure displays two screenshots of an Agilent Spectrum Analyzer, showing the frequency response of two different antennas: SRD-Ant1-2410-PASS and SRD-Ant1-2441-PASS.

Top Screenshot (SRD-Ant1-2410-PASS):

- Center Freq:** 2.41000000 GHz
- Span:** 4.000 MHz
- Res BW:** 100 kHz
- #VBW:** 300 kHz
- Sweep:** 1.000 ms (1001 pts)
- Ref Offset:** 9.9 dB
- Ref:** 10.00 dBm
- ΔMkr3:** 672 kHz, 0.568 dB
- Frequency Settings:**
 - Auto Tune
 - Center Freq: 2.410000000 GHz
 - Start Freq: 2.408000000 GHz
 - Stop Freq: 2.412000000 GHz
 - CF Step: 400.000 kHz
 - Auto
 - Frequency Offset: 0 Hz

Bottom Screenshot (SRD-Ant1-2441-PASS):

- Center Freq:** 2.441000000 GHz
- Span:** 4.000 MHz
- Res BW:** 100 kHz
- #VBW:** 300 kHz
- Sweep:** 1.000 ms (1001 pts)
- Ref Offset:** 9.06 dB
- Ref:** 10.00 dBm
- ΔMkr3:** 652 kHz, 0.330 dB
- Frequency Settings:**
 - Auto Tune
 - Center Freq: 2.441000000 GHz
 - Start Freq: 2.439000000 GHz
 - Stop Freq: 2.443000000 GHz
 - CF Step: 400.000 kHz
 - Auto
 - Frequency Offset: 0 Hz





Appendix B: Occupied Channel Bandwidth

Test Result

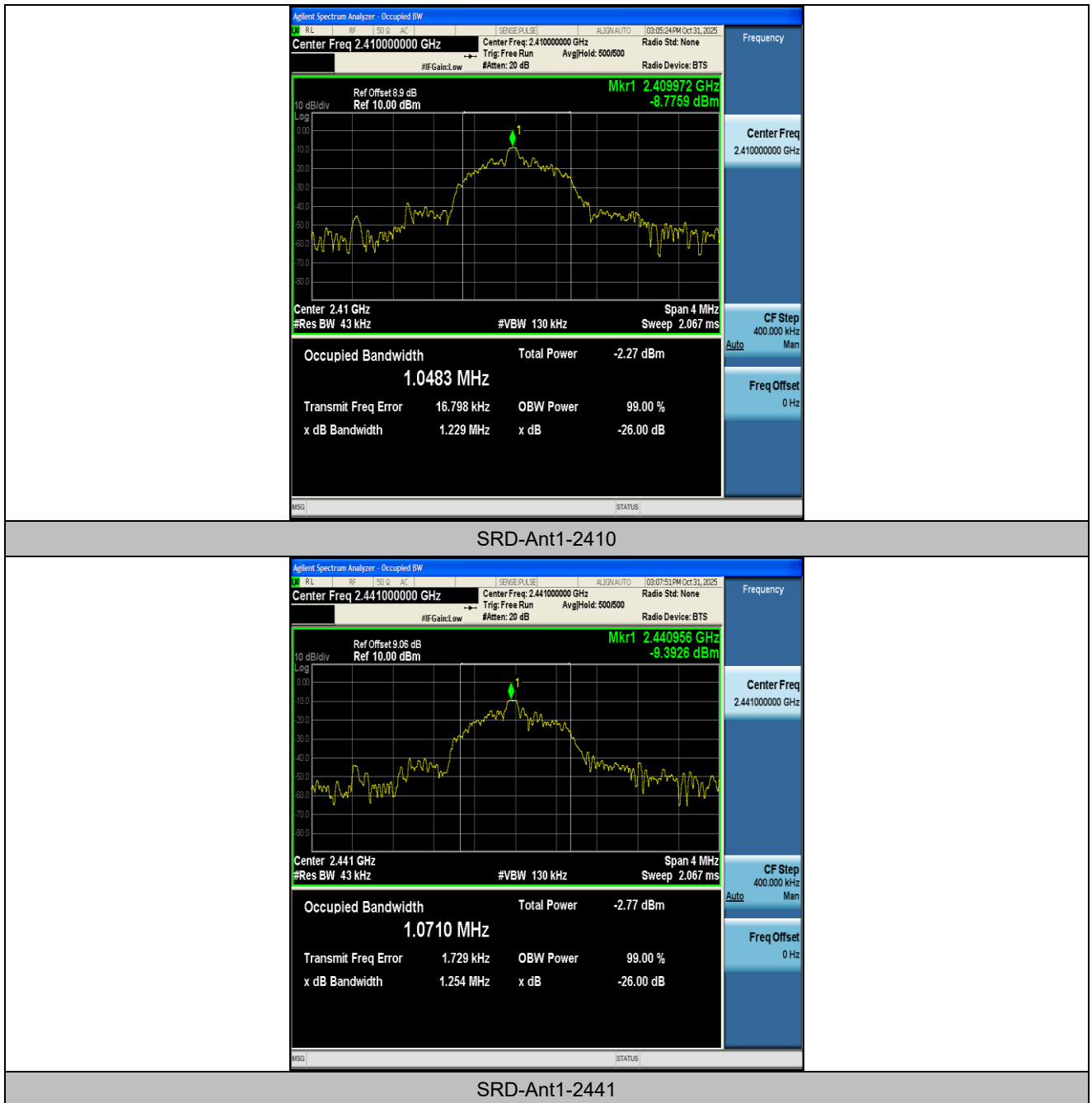
Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
SRD	Ant1	2410	1.0483	2409.4927	2410.5410	---	---
SRD	Ant1	2441	1.0710	2440.4662	2441.5372	---	---
SRD	Ant1	2472	1.1015	2471.4506	2472.5521	---	---

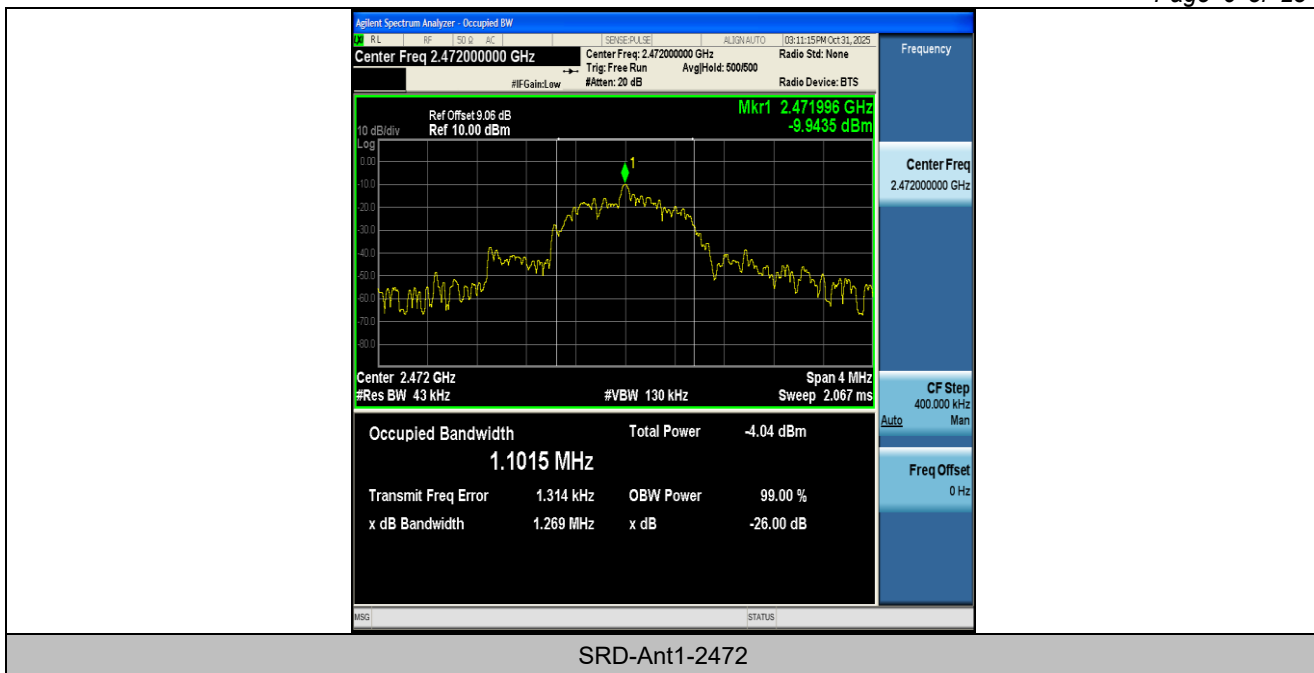
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix C: Maximum peak conducted output power

Test Result Peak

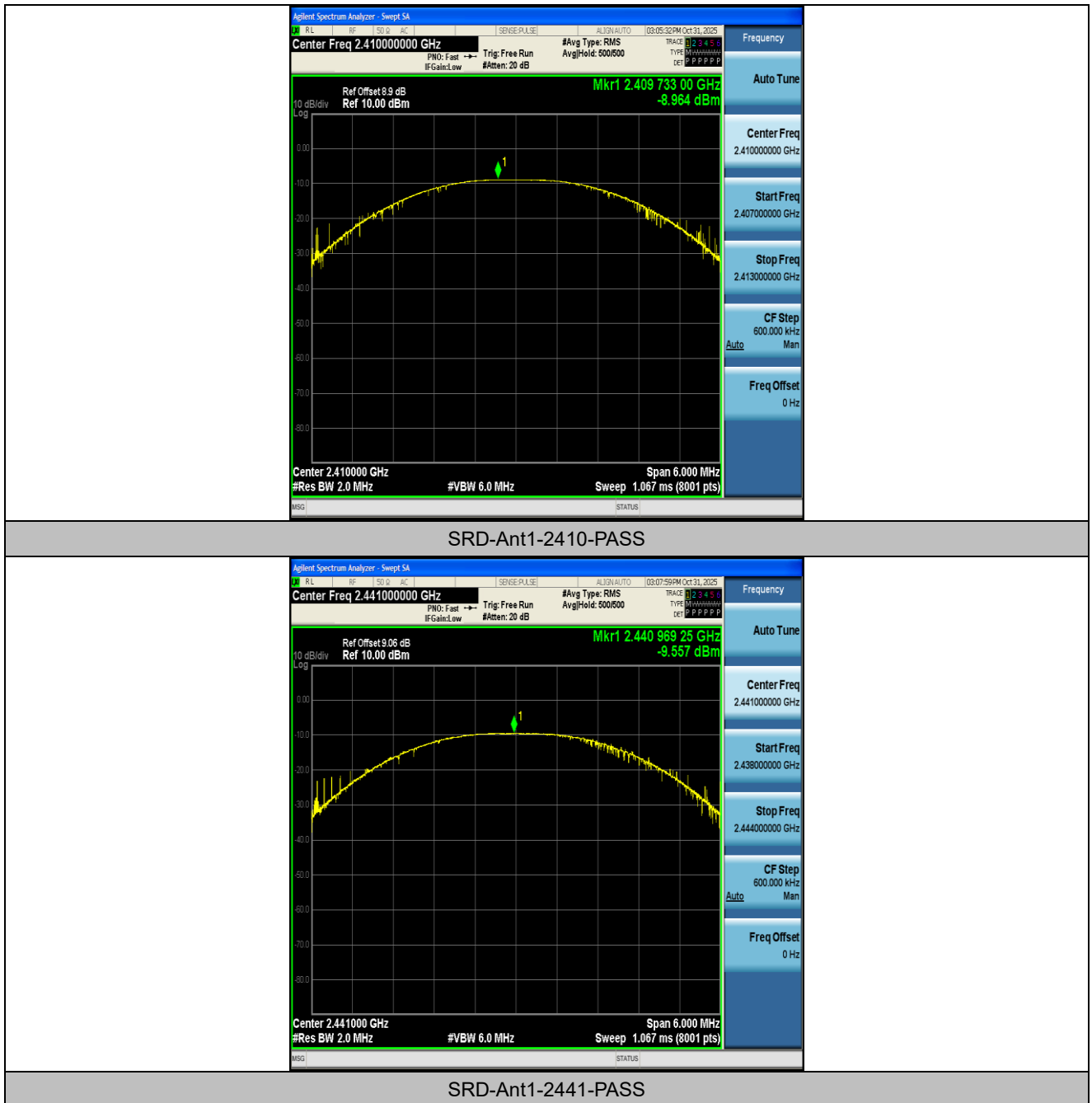
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
SRD	Ant1	2410	-8.96	≤30	PASS
SRD	Ant1	2441	-9.56	≤30	PASS
SRD	Ant1	2472	-10.00	≤30	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs Peak







Appendix D: Maximum peak power spectral density

Test Result

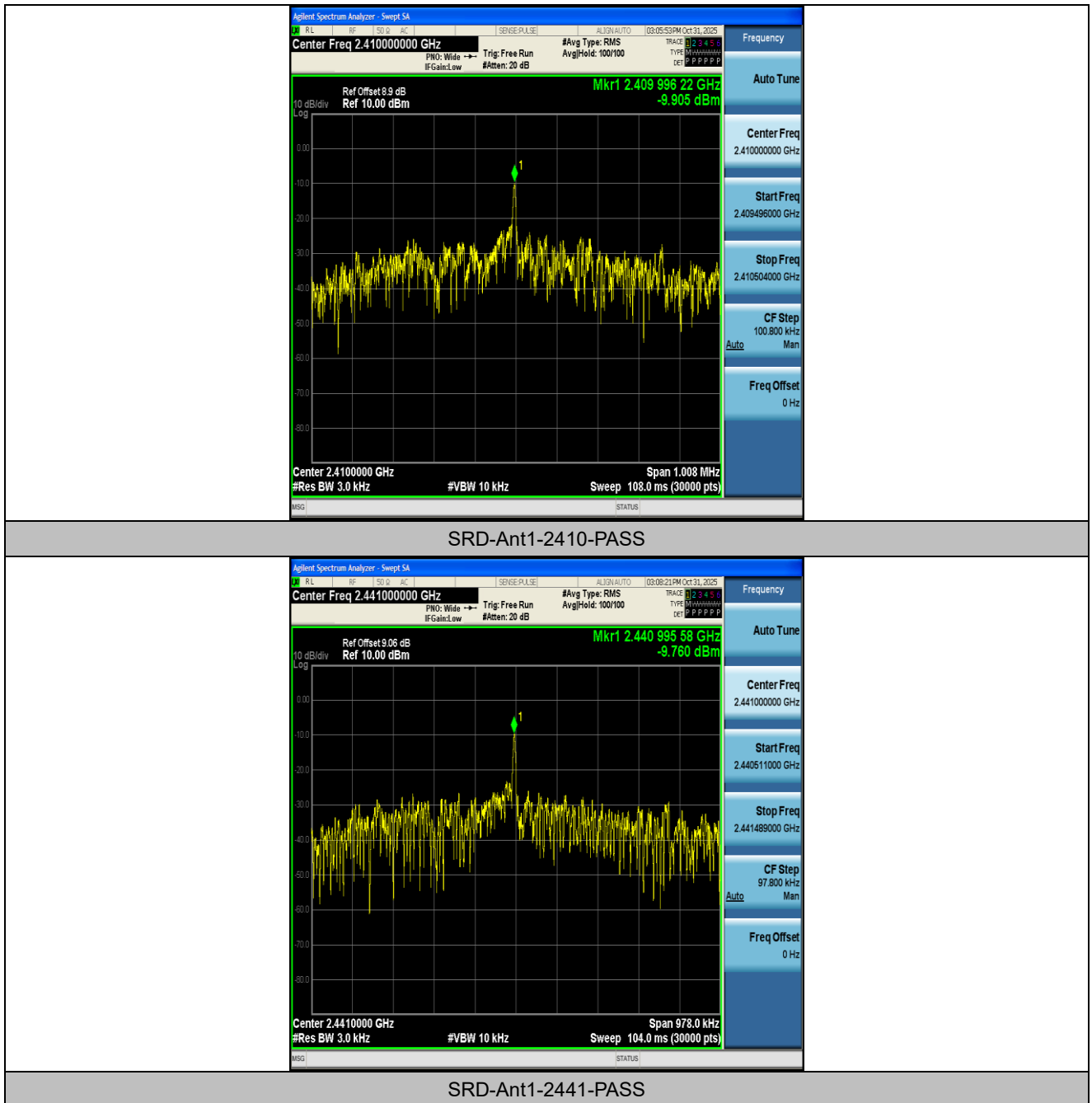
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
SRD	Ant1	2410	-9.91	≤8.00	PASS
SRD	Ant1	2441	-9.76	≤8.00	PASS
SRD	Ant1	2472	-10.33	≤8.00	PASS

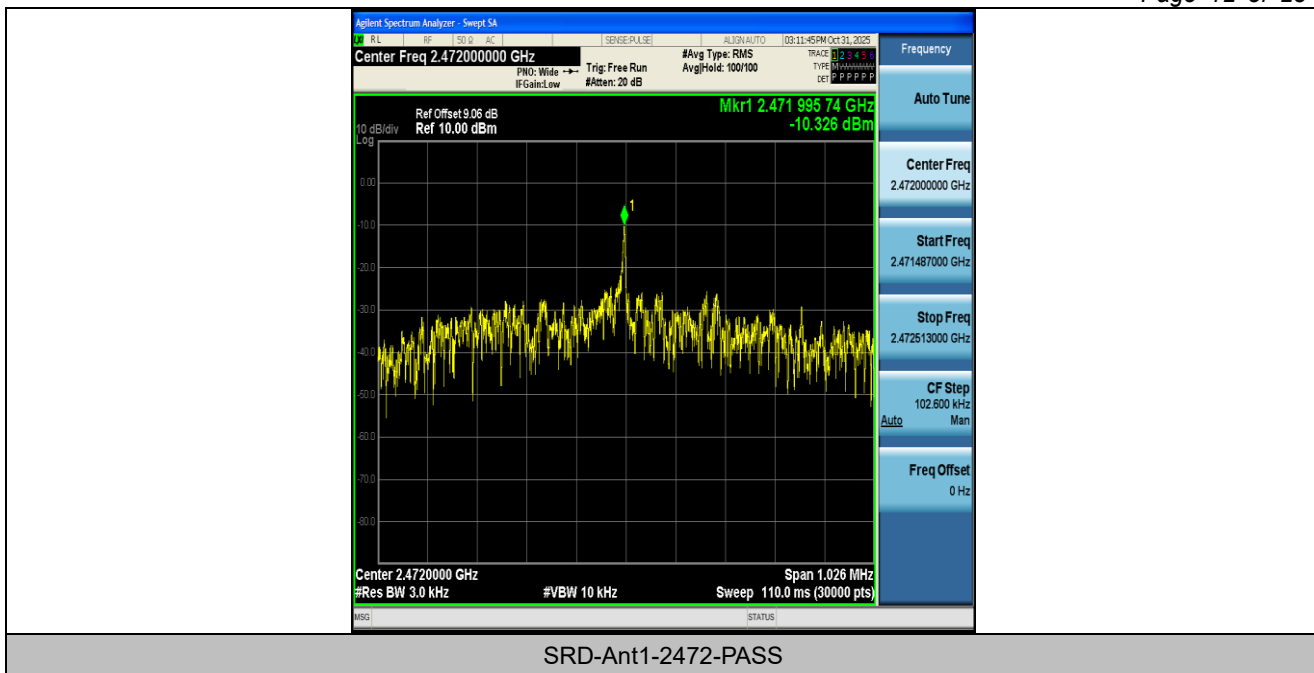
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs







Appendix E: Band edge measurements

Test Result

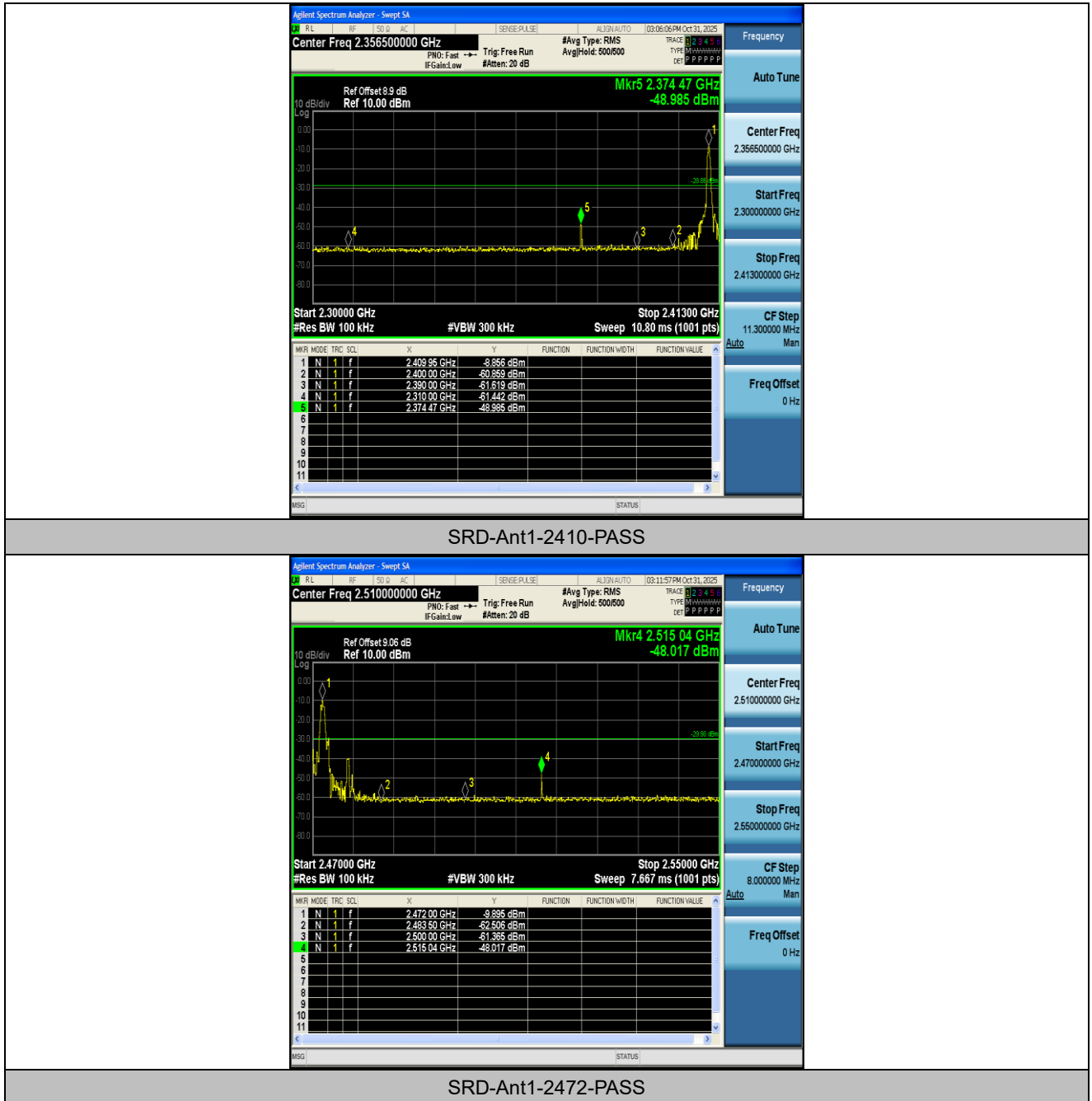
Test Mode	Antenna	Ch. Name	Frequency [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
SRD	Ant1	Low	2410	-8.86	-48.99	≤ -28.86	PASS
SRD	Ant1	High	2472	-9.90	-48.02	≤ -29.9	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs





Appendix F: Conducted Spurious Emission

Test Result

Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
SRD	Ant1	2410	0~Reference	-9.03	-9.03	---	PASS
SRD	Ant1	2410	30~1000	-9.03	-62.25	≤-29.03	PASS
SRD	Ant1	2410	1000~26500	-9.03	-45.22	≤-29.03	PASS
SRD	Ant1	2441	0~Reference	-9.69	-9.69	---	PASS
SRD	Ant1	2441	30~1000	-9.69	-62.46	≤-29.69	PASS
SRD	Ant1	2441	1000~26500	-9.69	-44.88	≤-29.69	PASS
SRD	Ant1	2472	0~Reference	-10.16	-10.16	---	PASS
SRD	Ant1	2472	30~1000	-10.16	-62.87	≤-30.16	PASS
SRD	Ant1	2472	1000~26500	-10.16	-44.66	≤-30.16	PASS

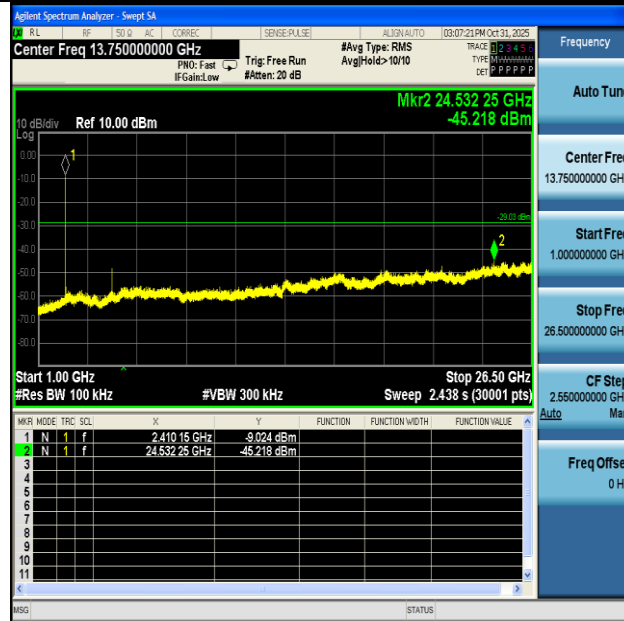
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.





Test Graphs



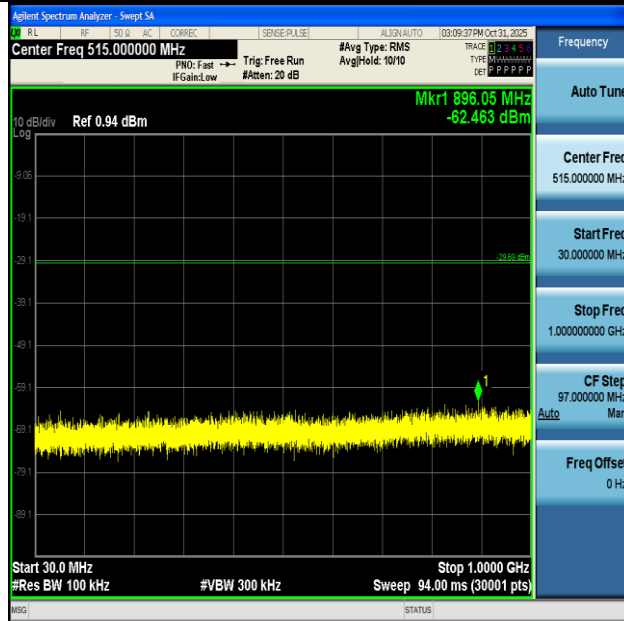


SRD-Ant1-2410-1000~26500-PASS

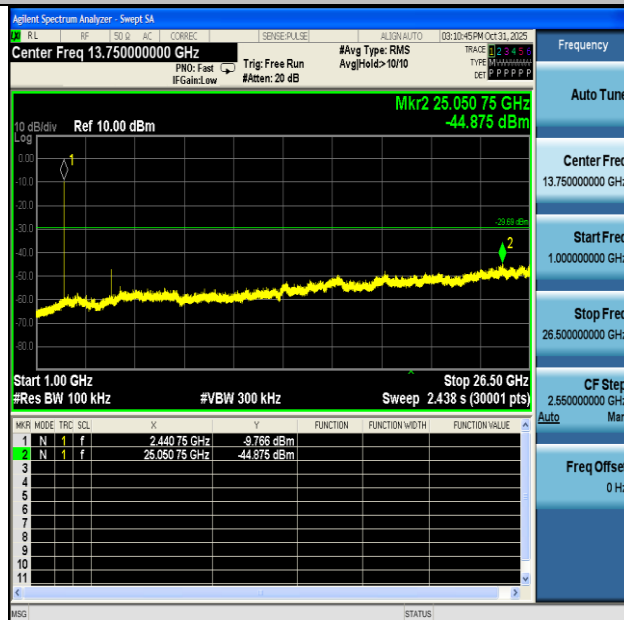


SRD-Ant1-2441-0~Reference-PASS



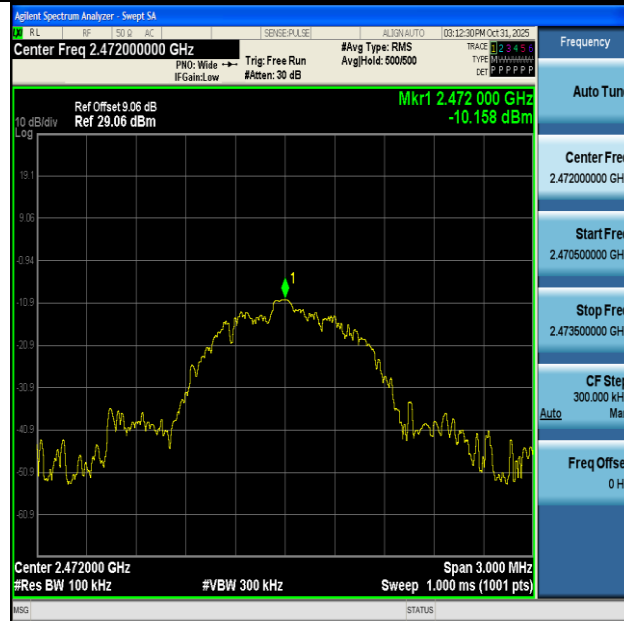


SRD-Ant1-2441-30~1000-PASS

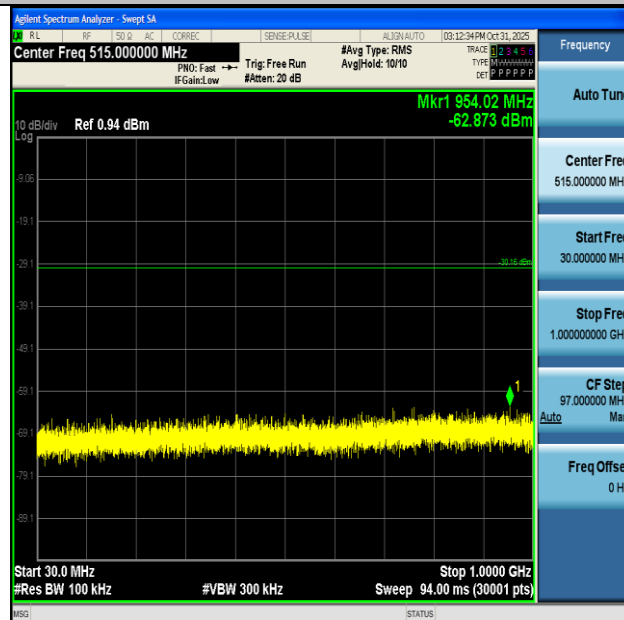


SRD-Ant1-2441-1000~26500-PASS



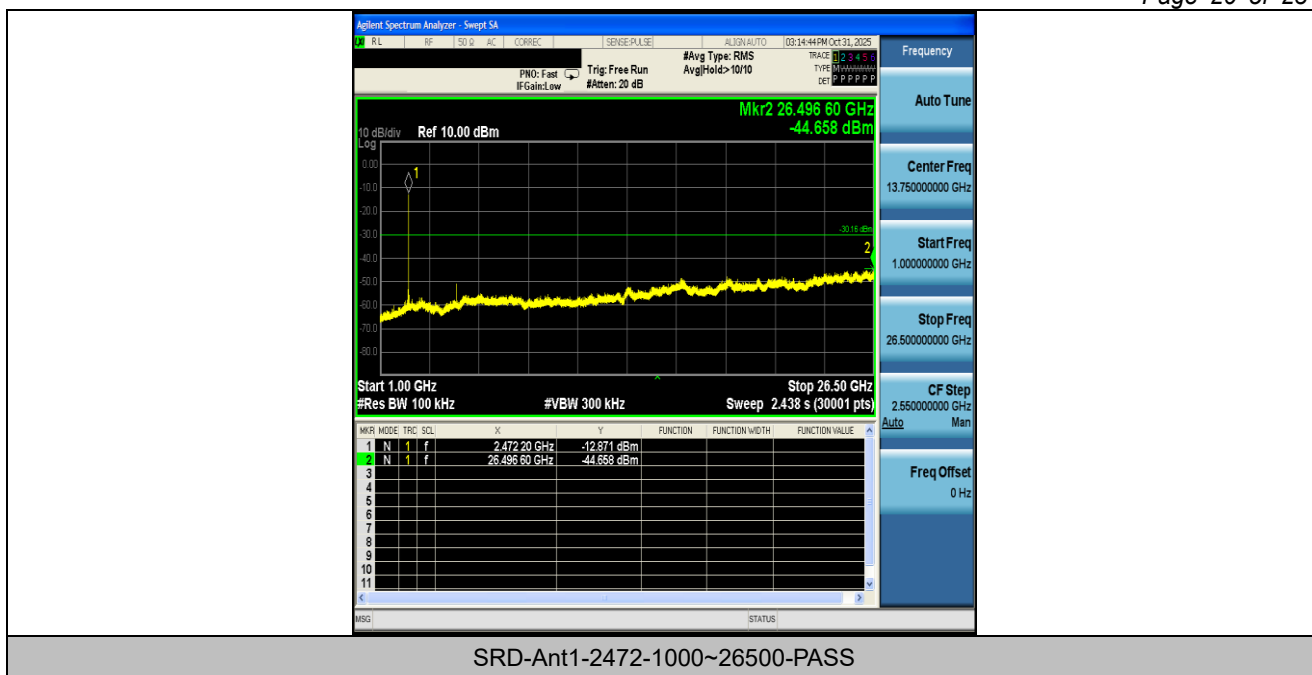


SRD-Ant1-2472-0~Reference-PASS



SRD-Ant1-2472-30~1000-PASS





SRD-Ant1-2472-1000~26500-PASS





Appendix G: Duty Cycle

Test Result

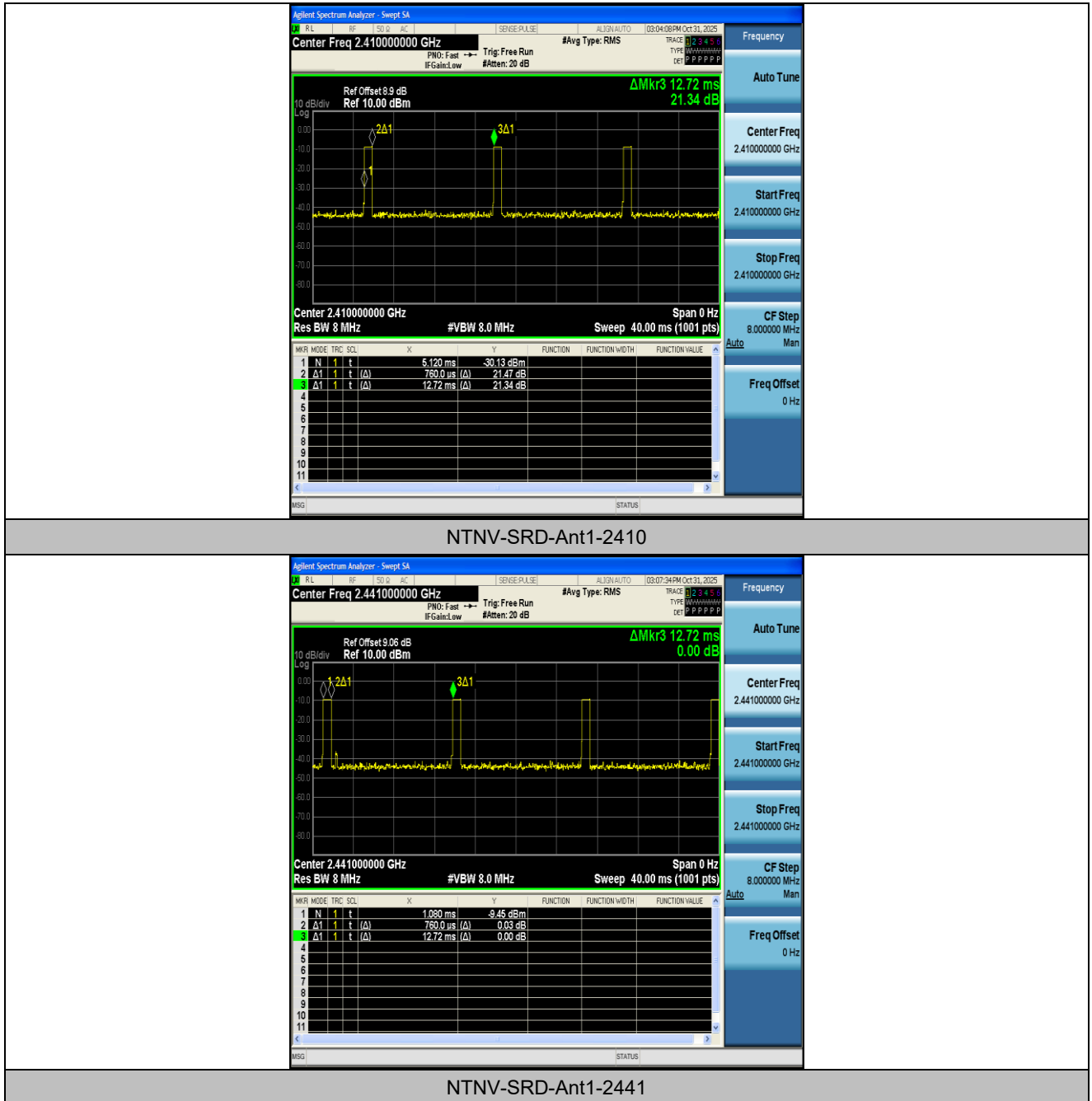
Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
SRD	Ant1	2410	0.76	12.72	5.97	12.24
SRD	Ant1	2441	0.76	12.72	5.97	12.24
SRD	Ant1	2472	0.76	12.72	5.97	12.24

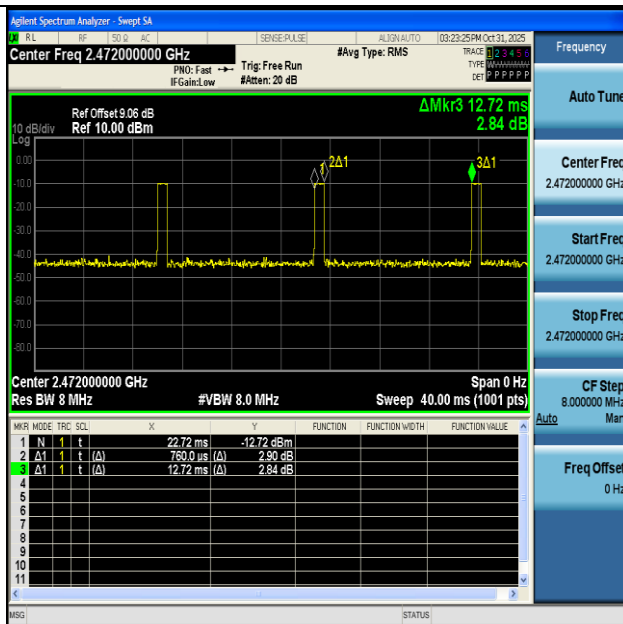
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs





NTNV-SRD-Ant1-2472

