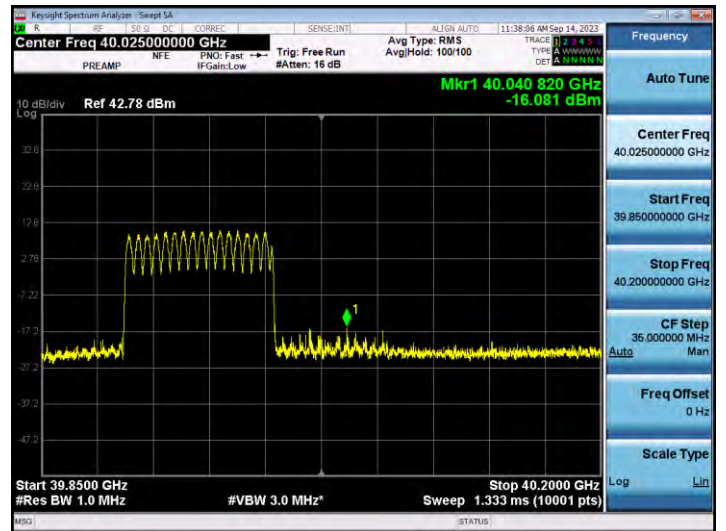
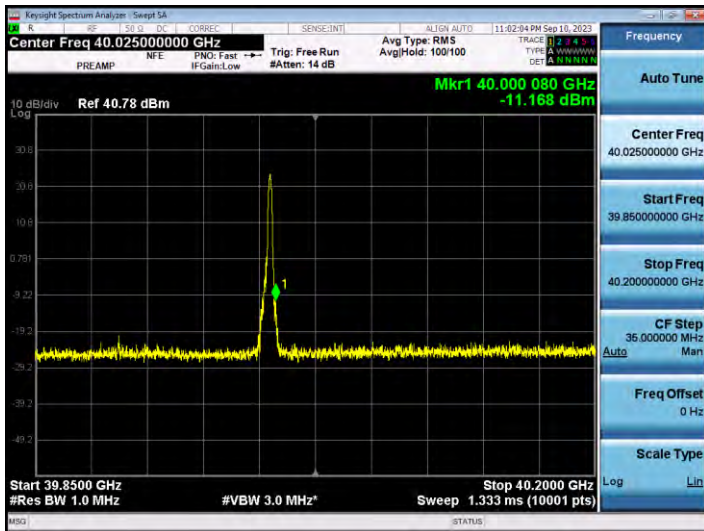
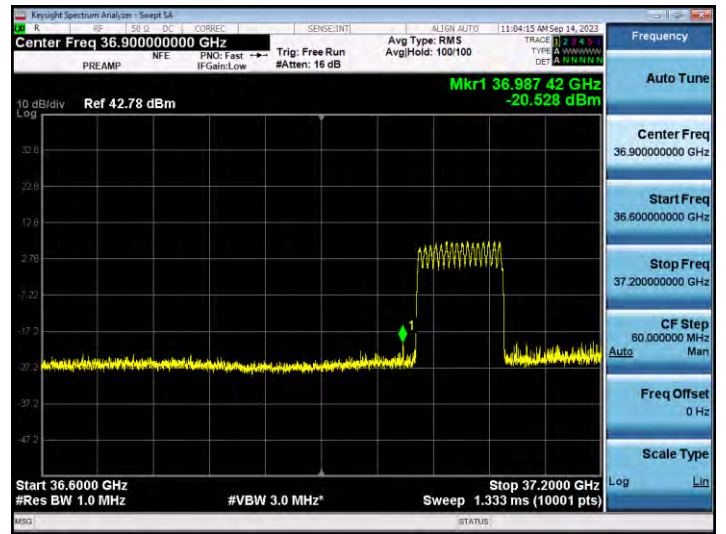
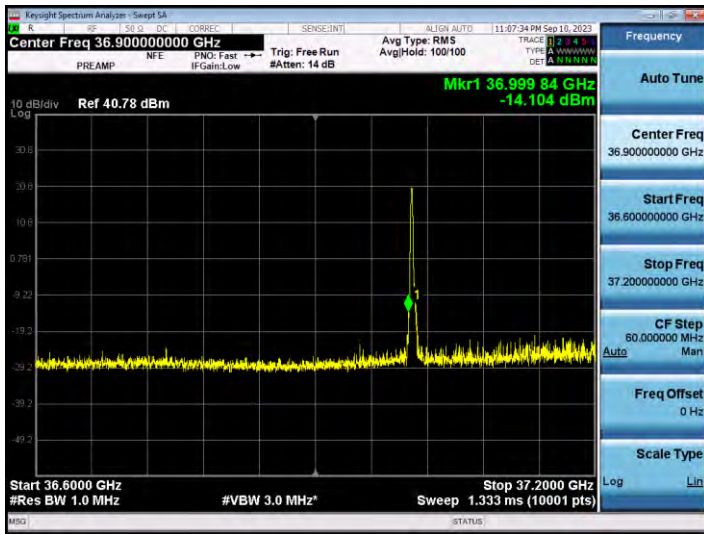
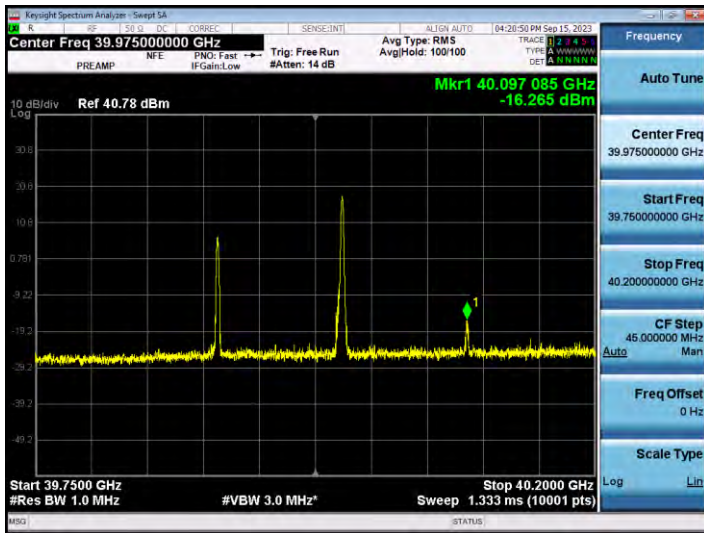
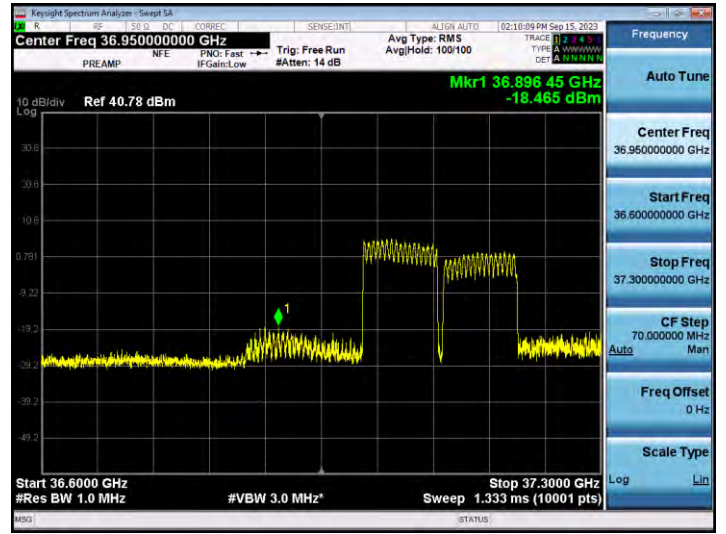
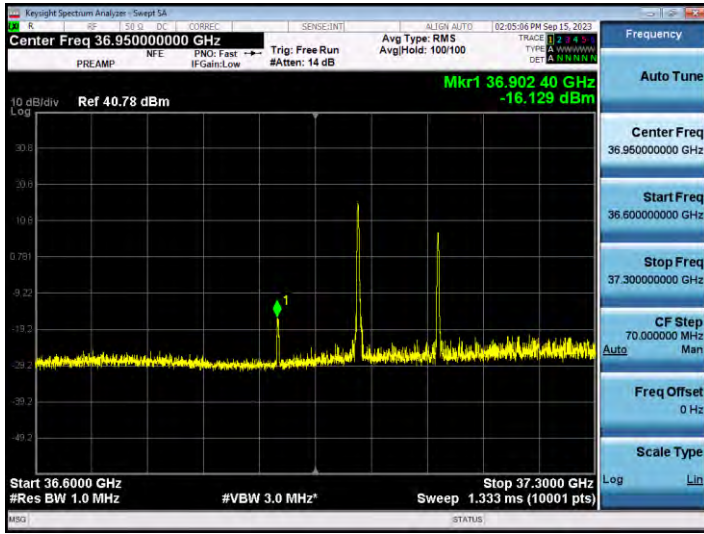


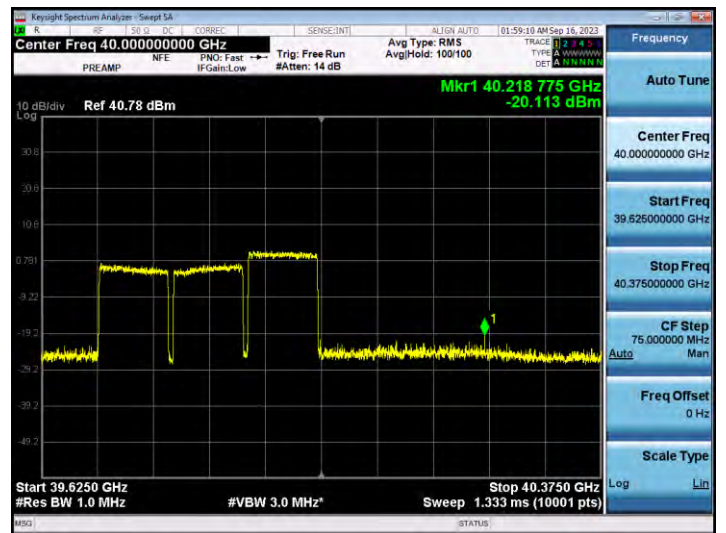
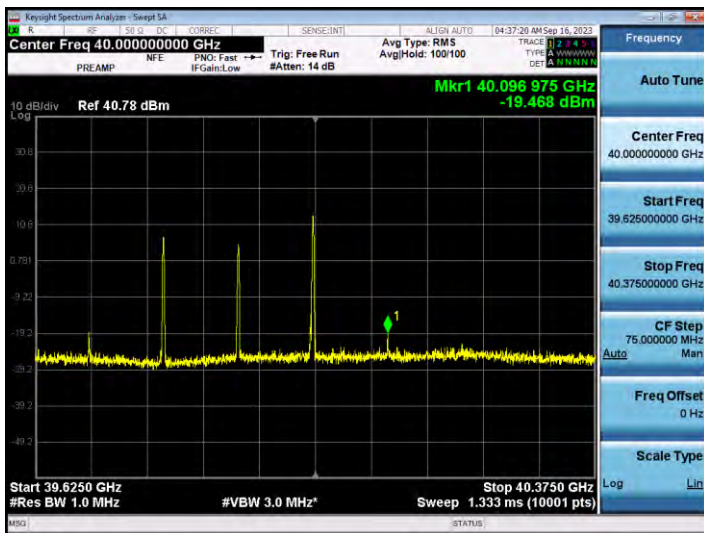
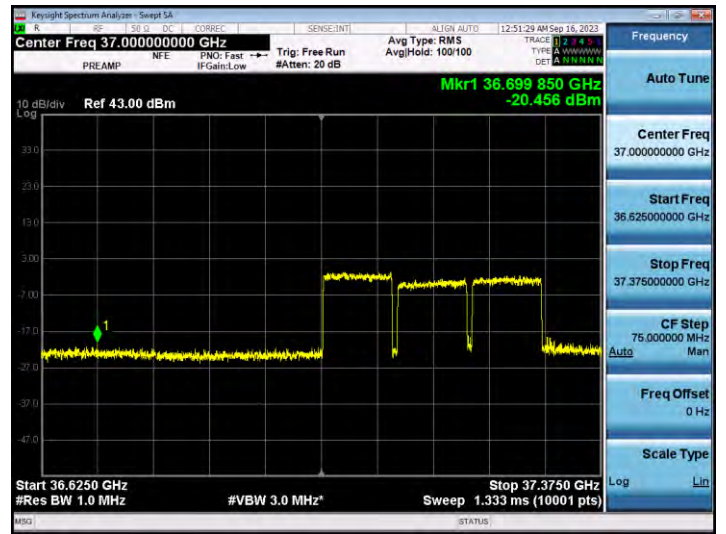
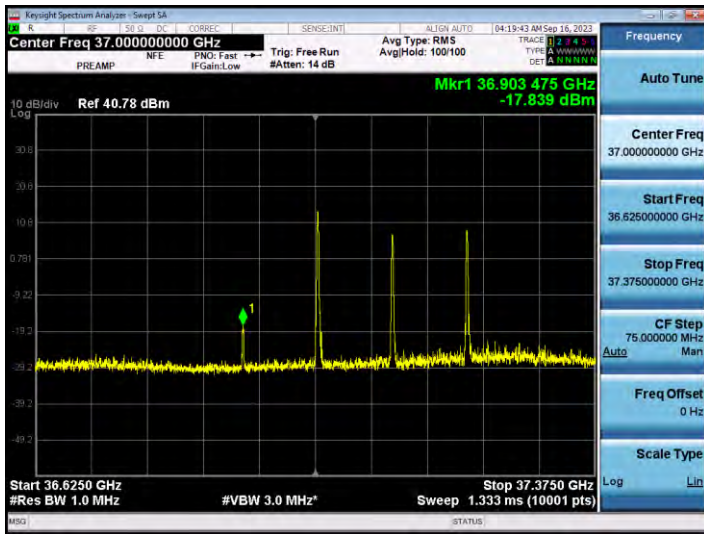
100 MHz, 1CC



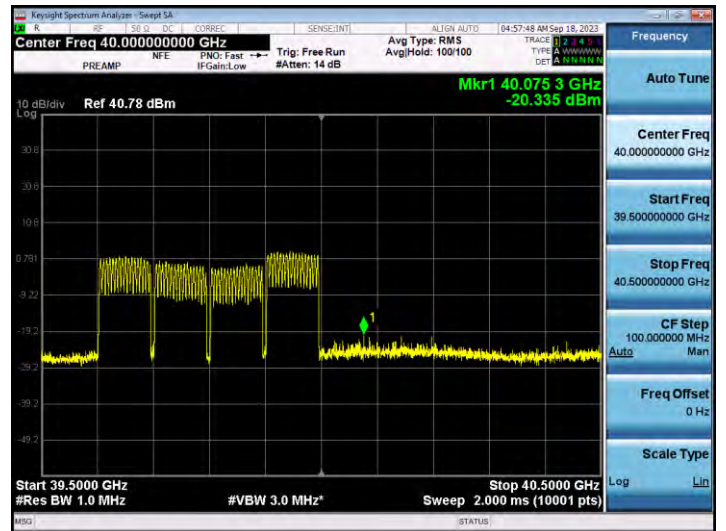
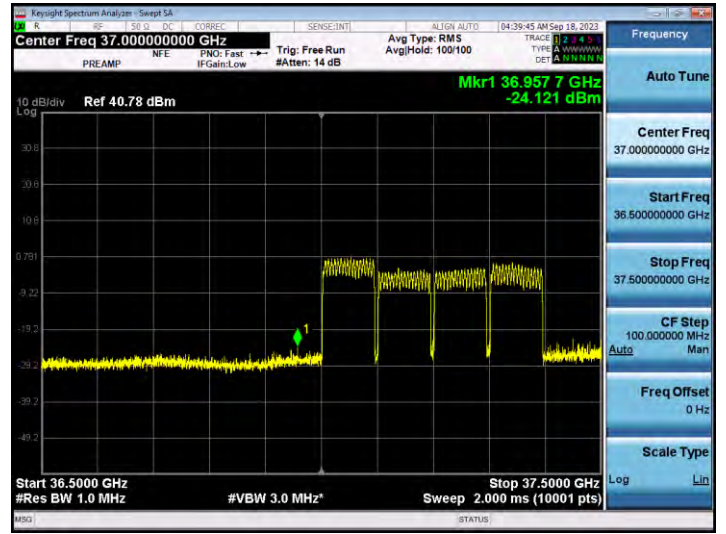
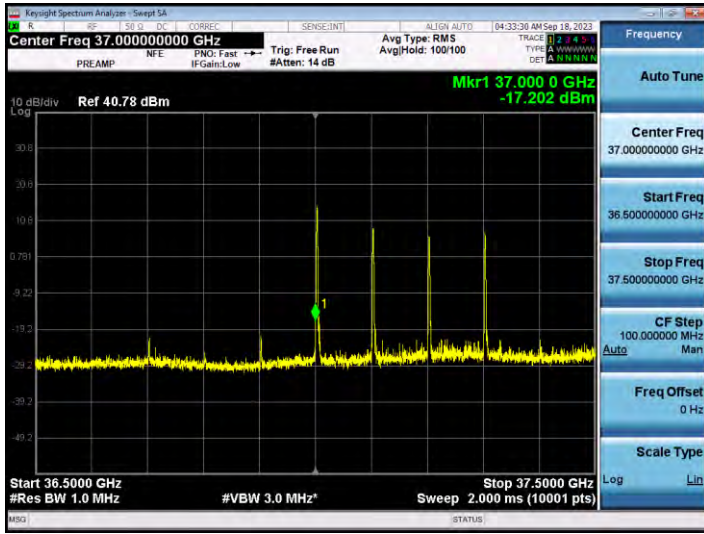
100 MHz, 2CC



100 MHz, 3CC

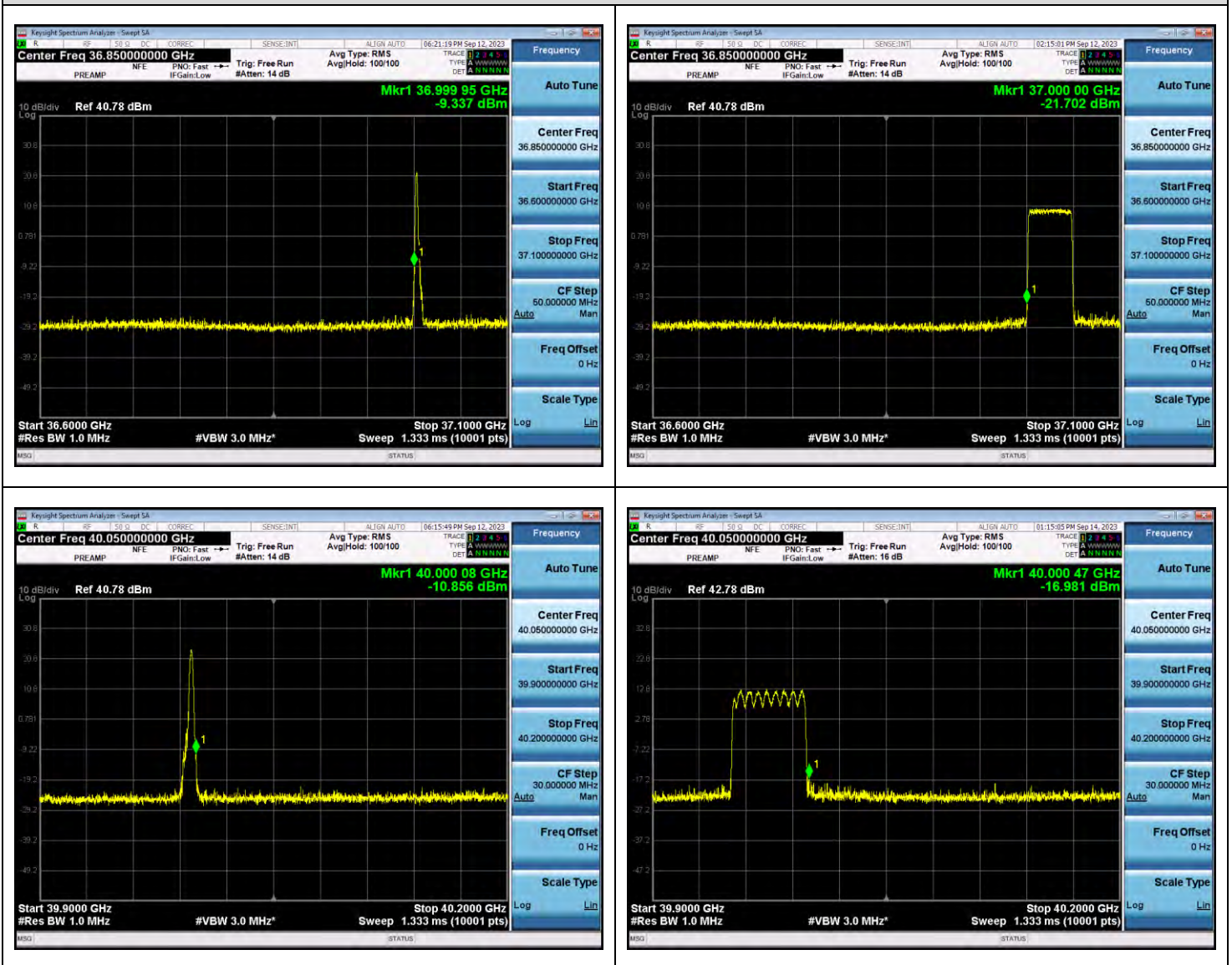


100 MHz, 4CC

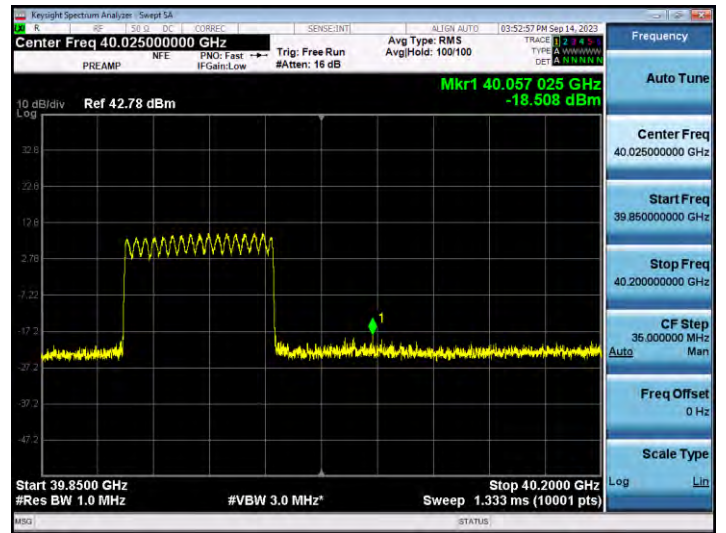
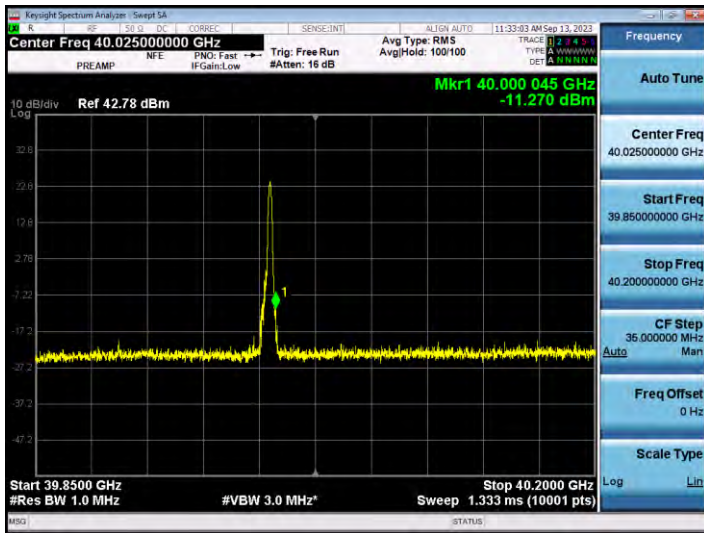
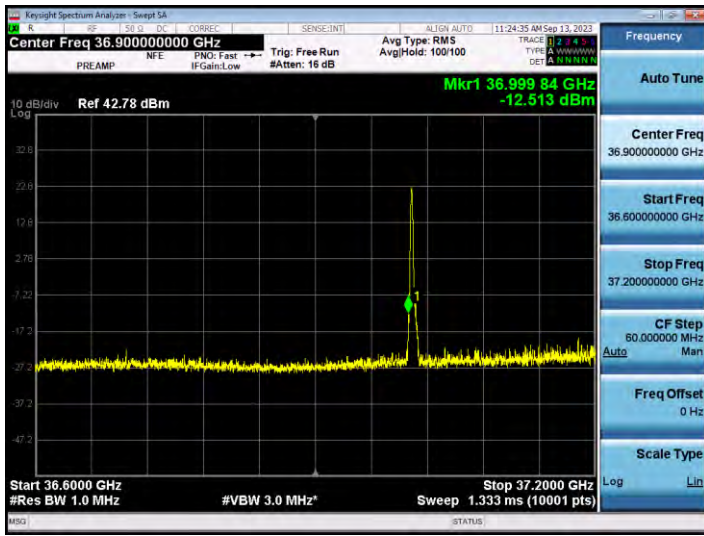


n260 Band Antenna 1 (N patch)

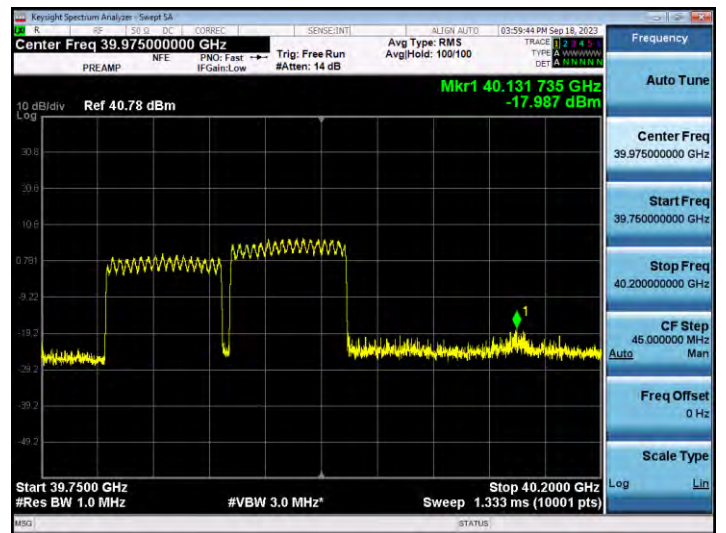
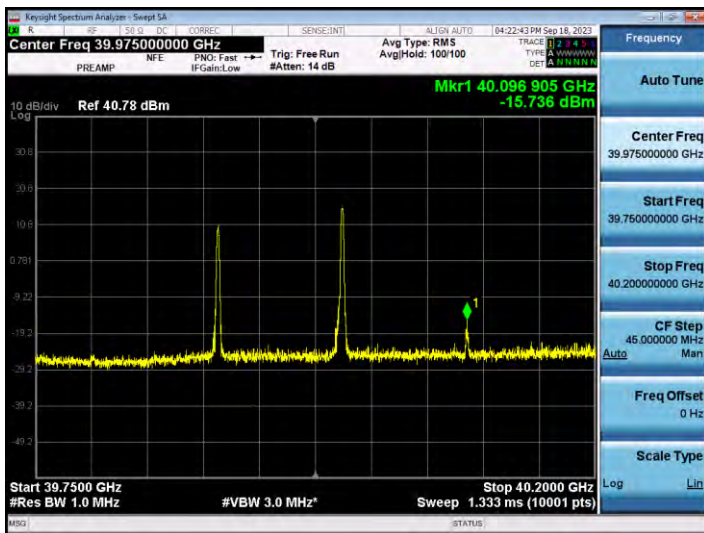
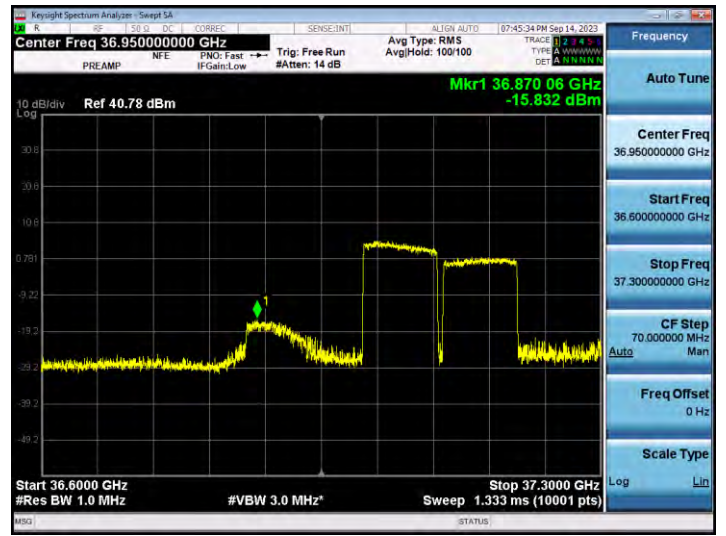
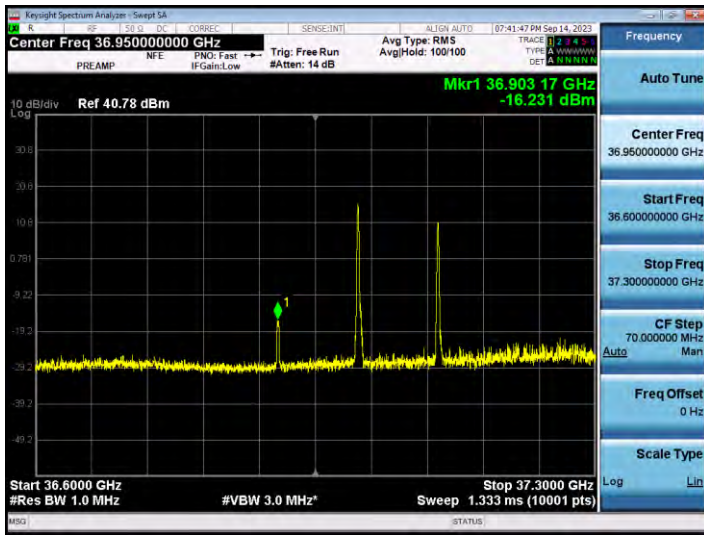
50 MHz, 1CC



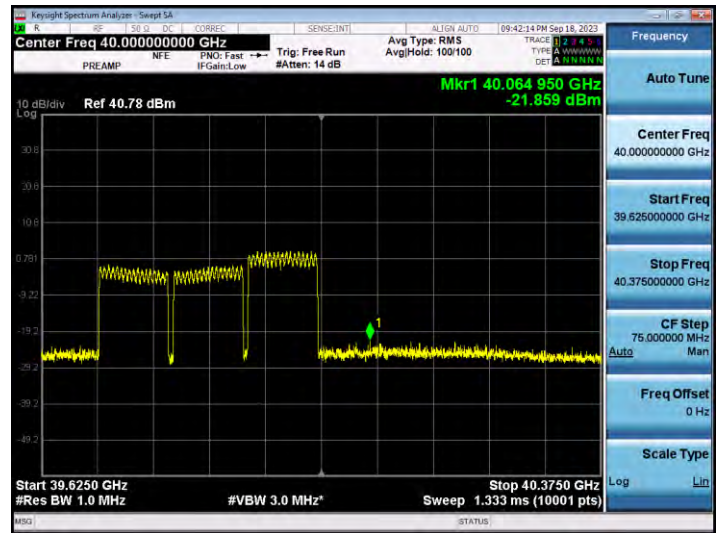
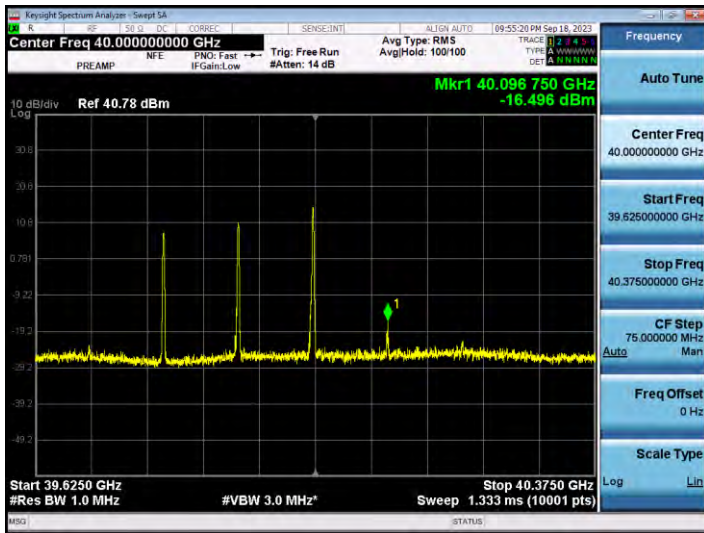
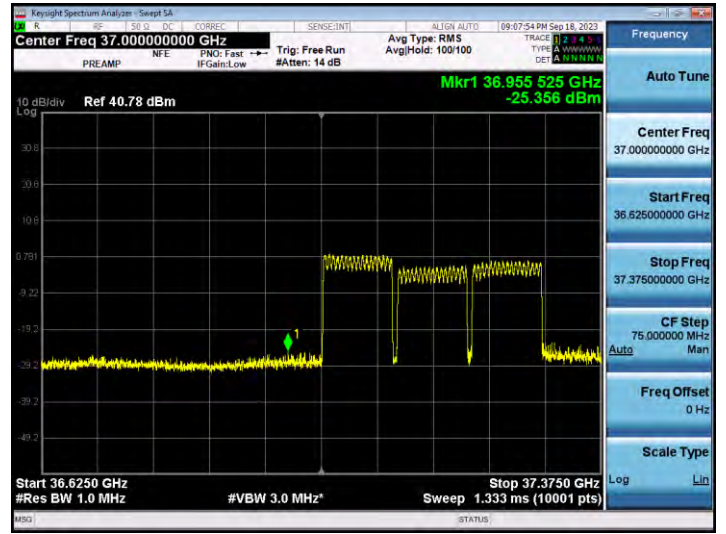
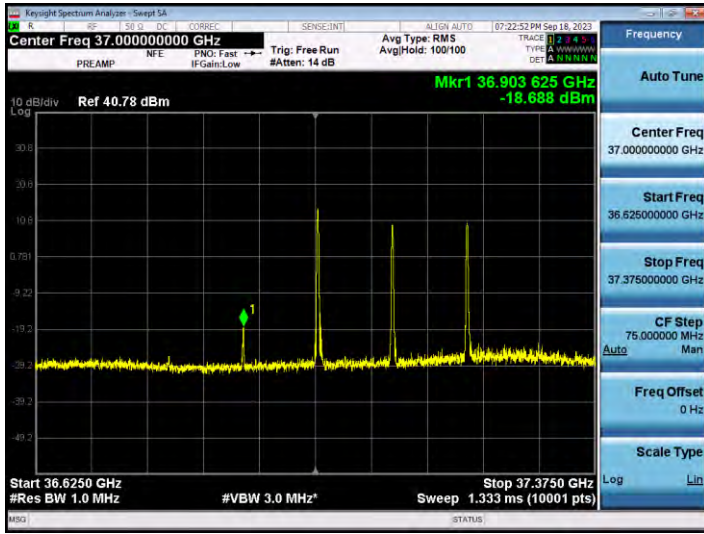
100 MHz, 1CC



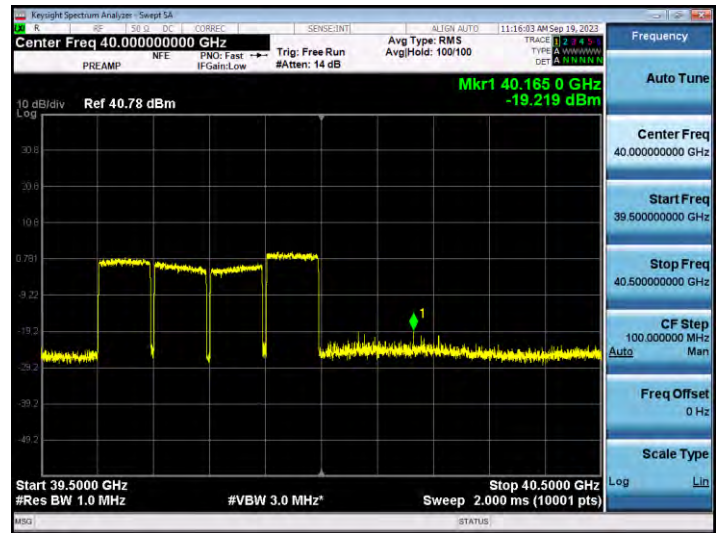
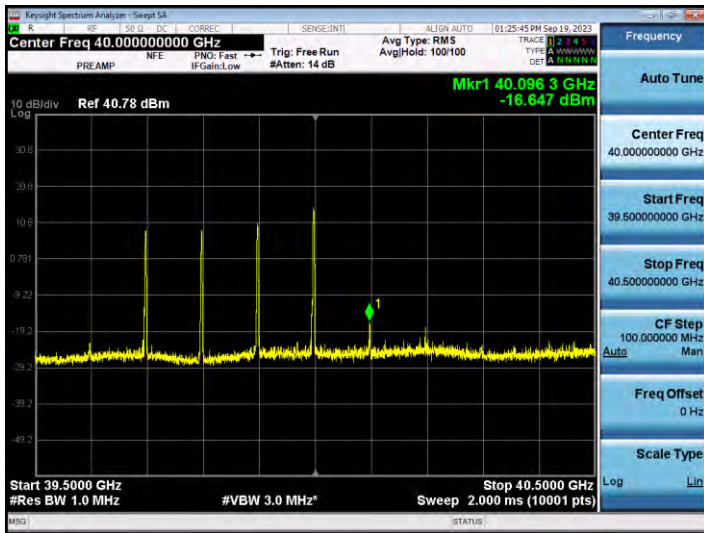
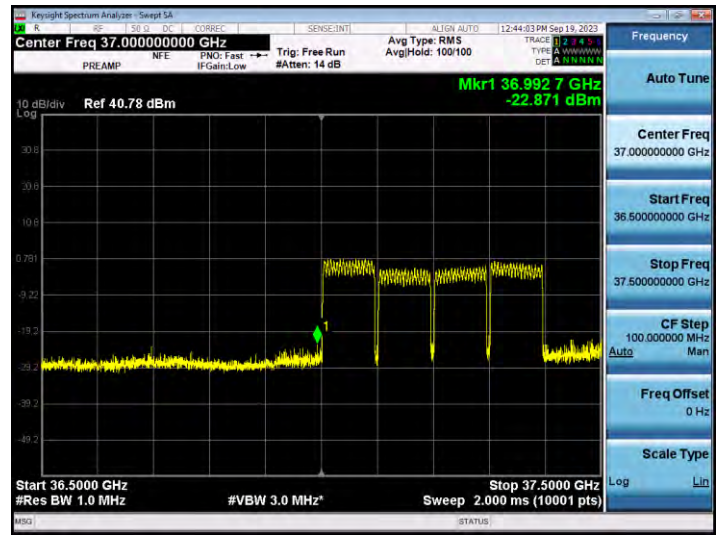
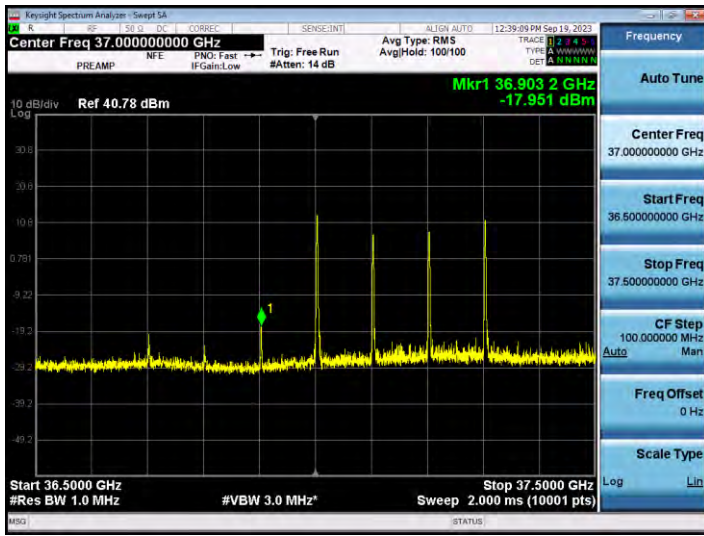
100 MHz, 2CC



100 MHz, 3CC

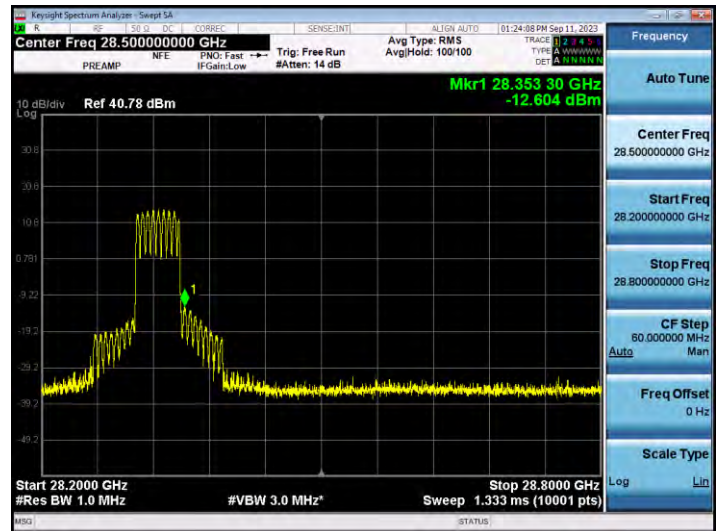
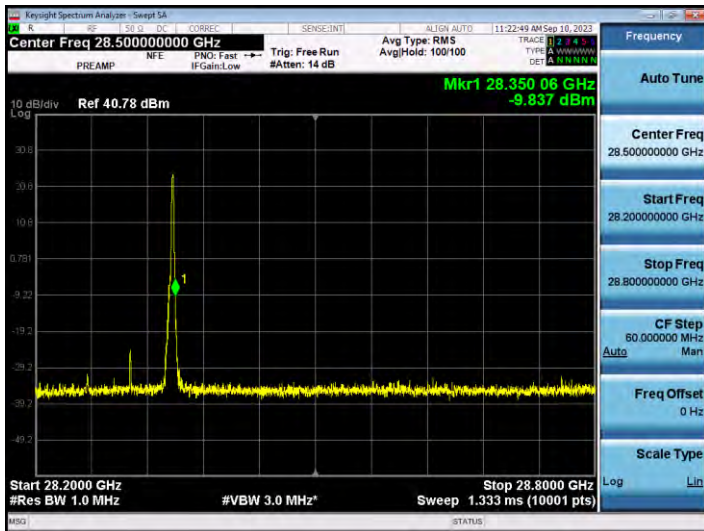
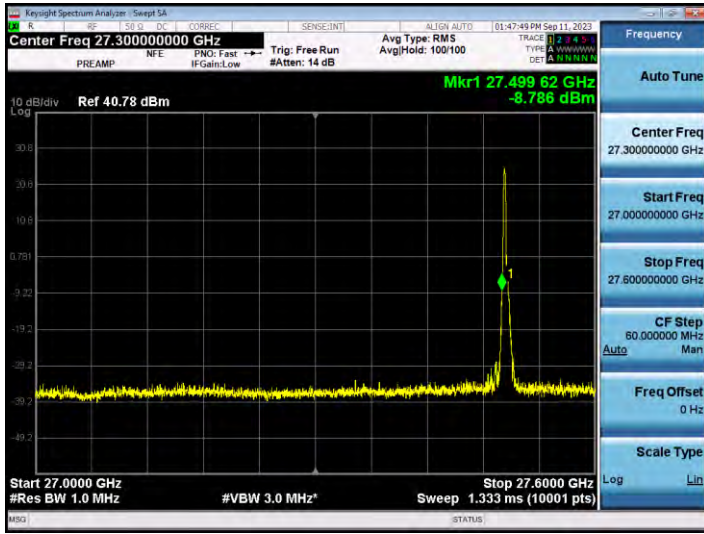


100 MHz, 4CC

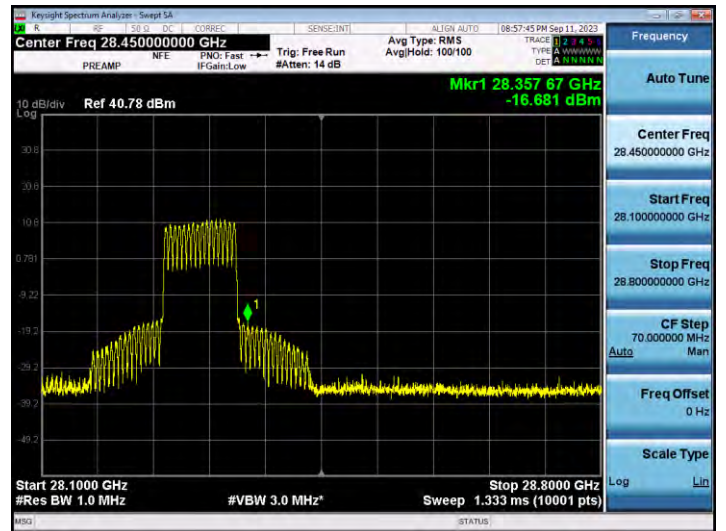
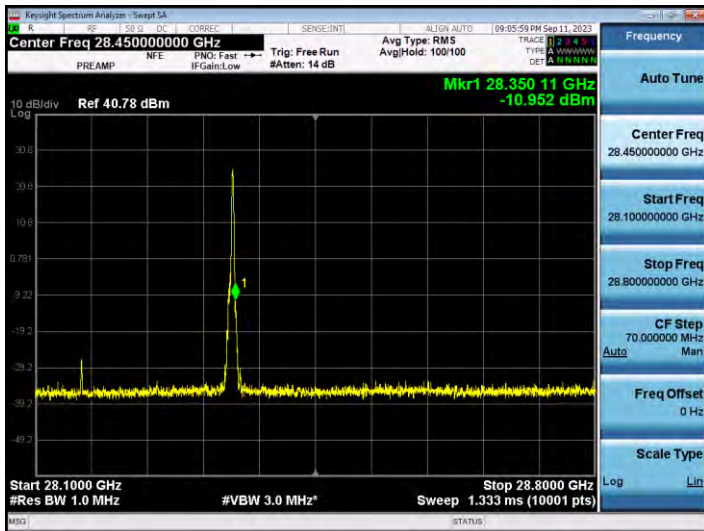
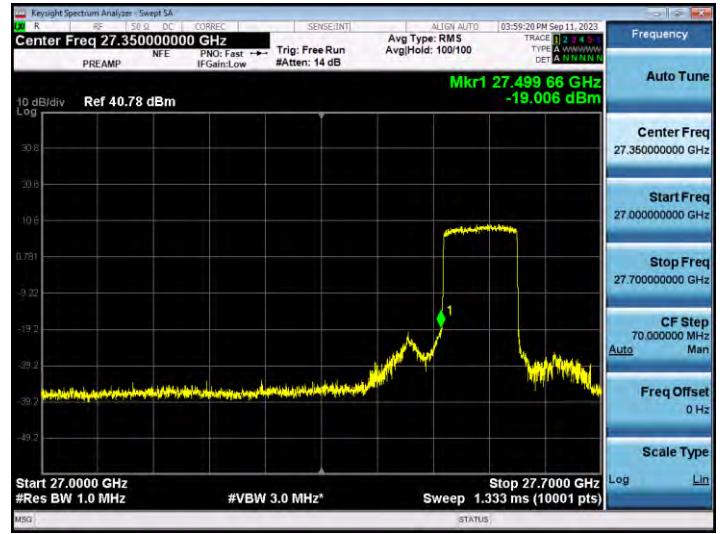
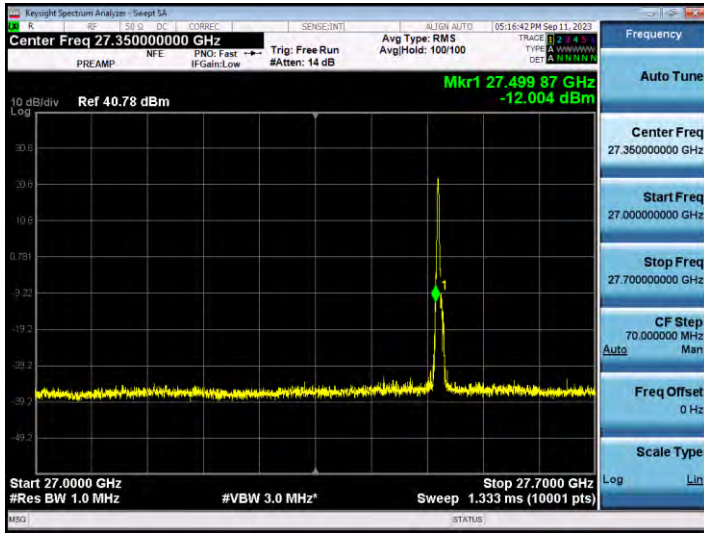


n261 Band Antenna 0 (M patch)

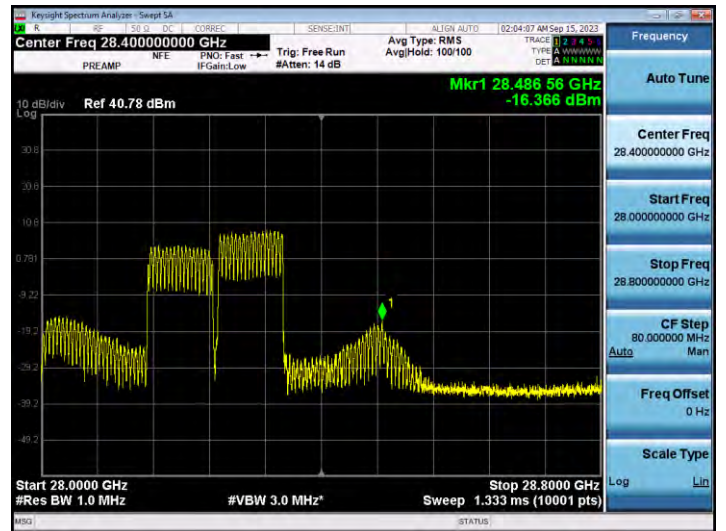
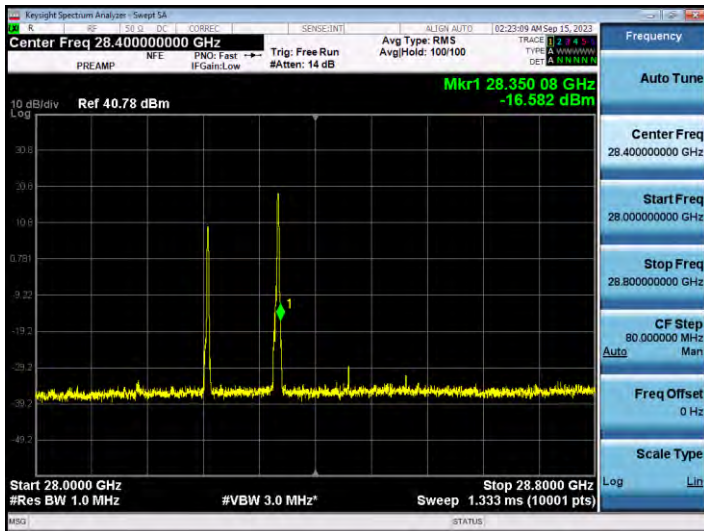
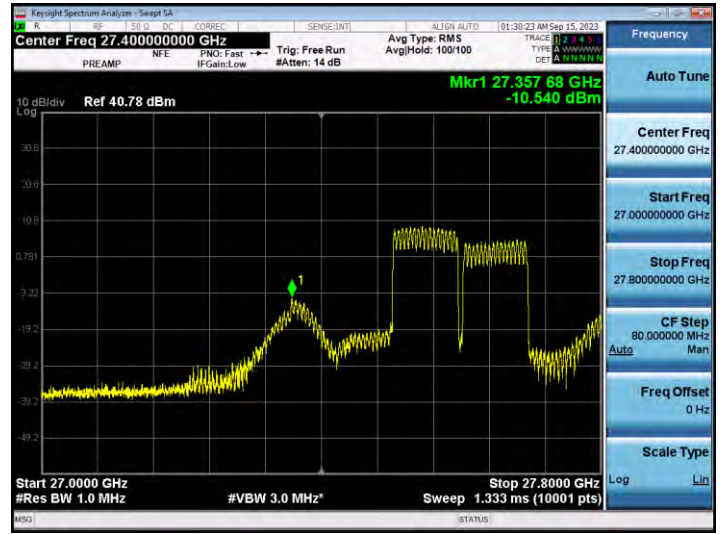
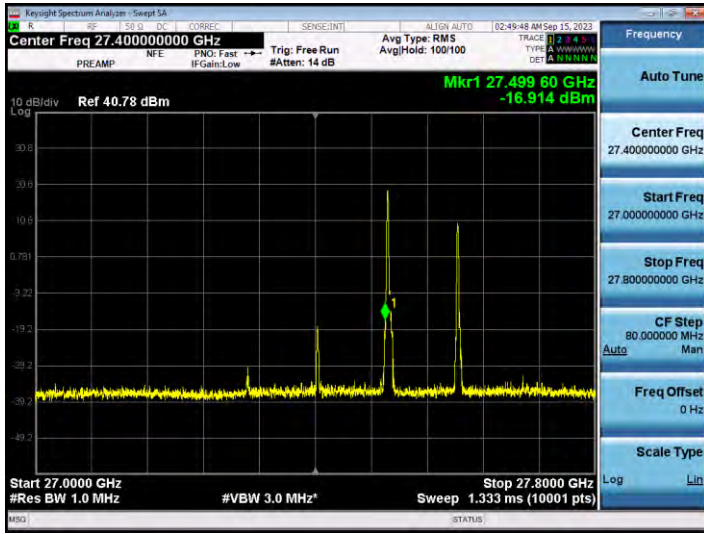
50 MHz, 1CC



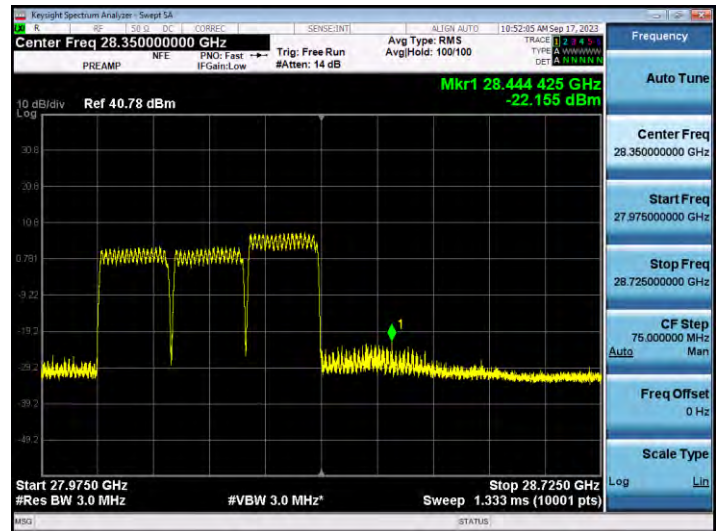
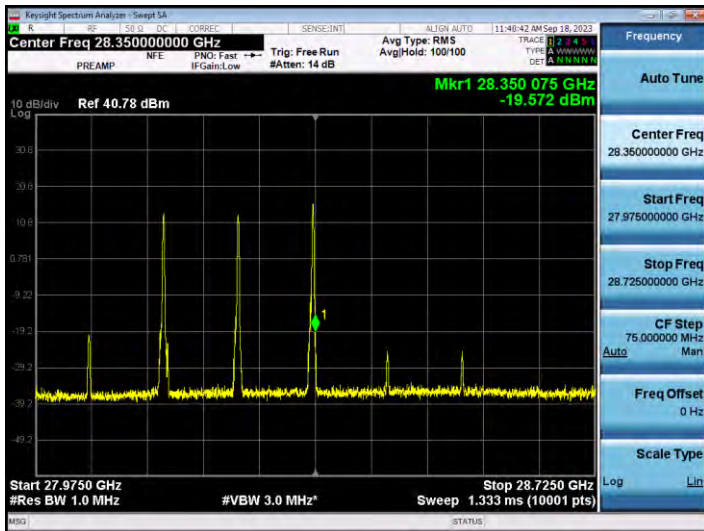
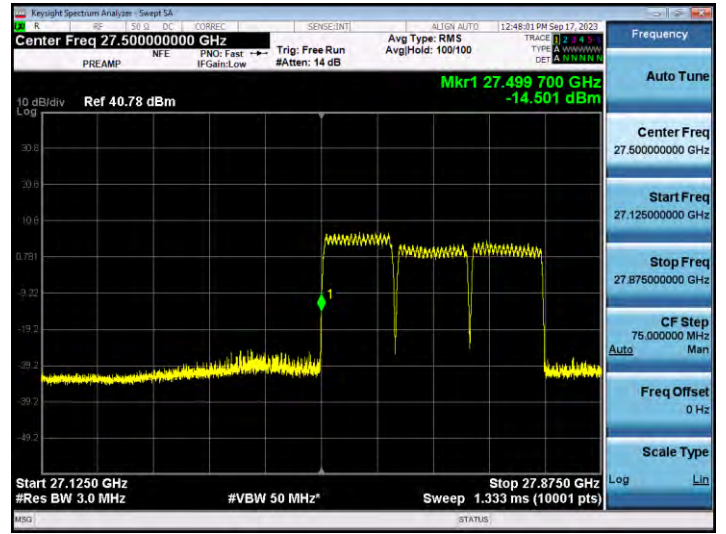
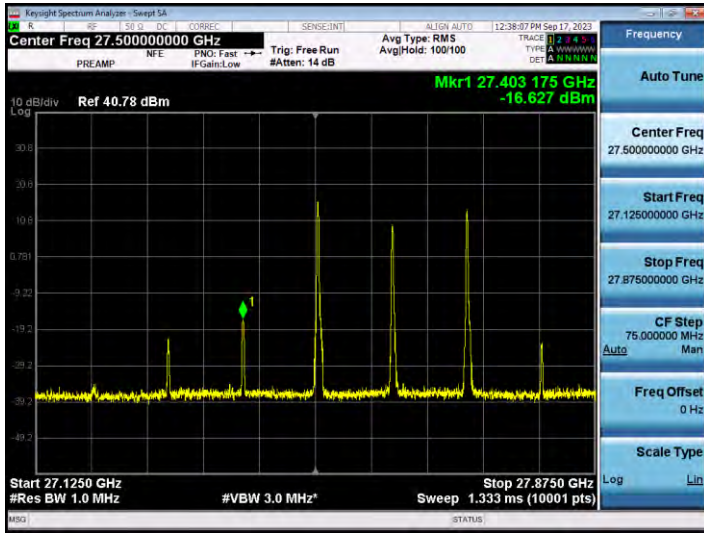
100 MHz, 1CC



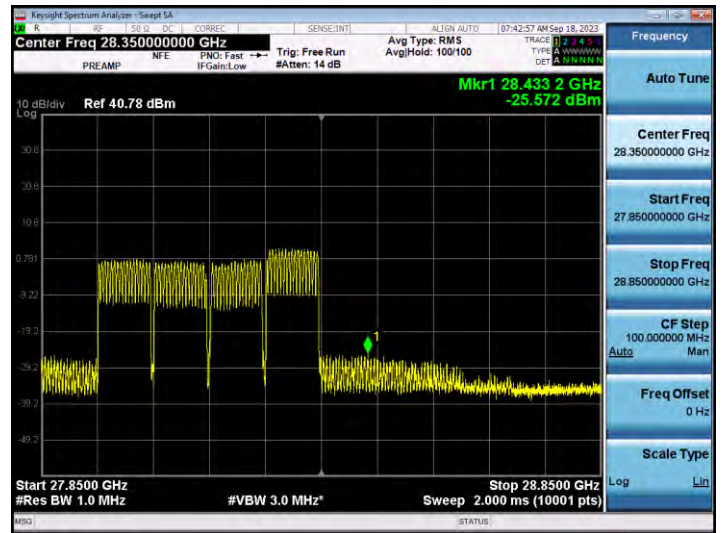
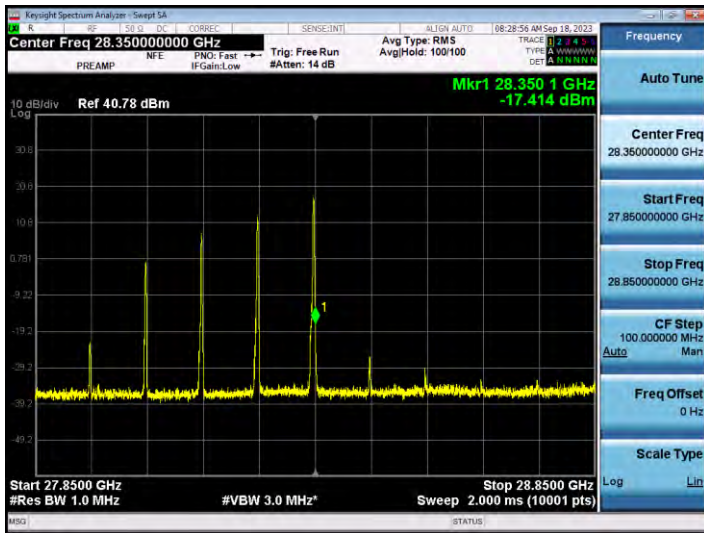
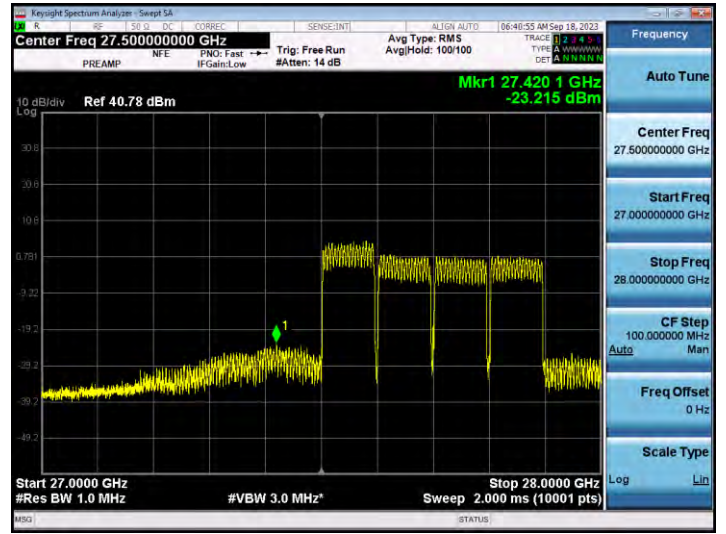
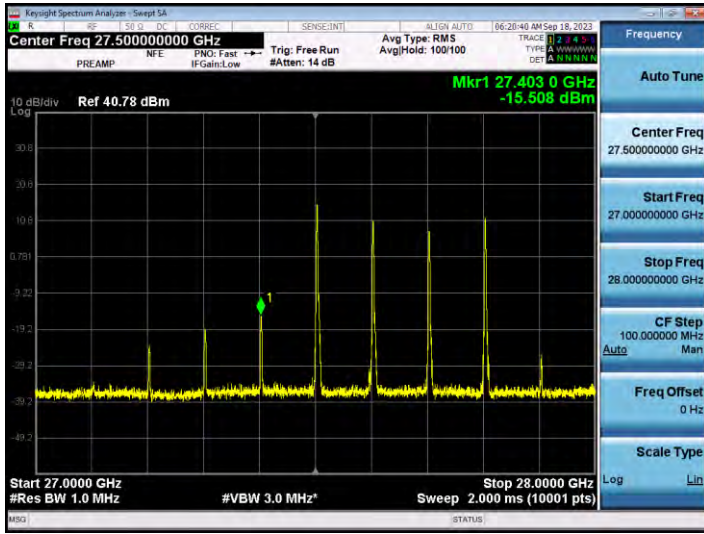
100 MHz, 2CC



100 MHz, 3CC

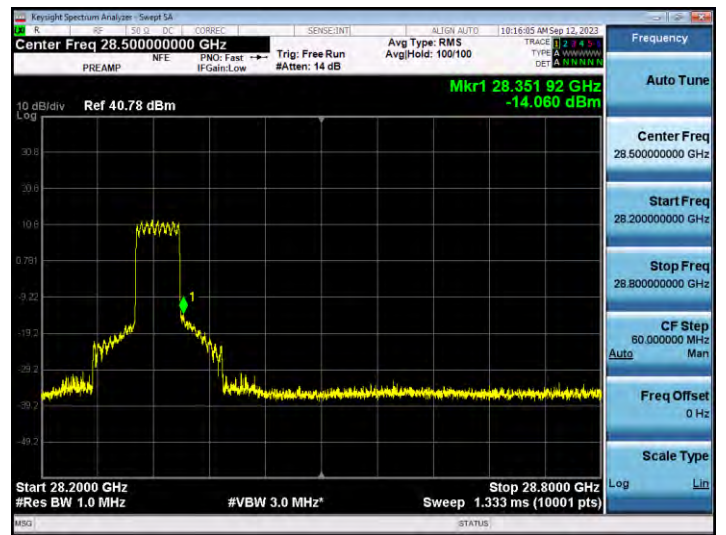
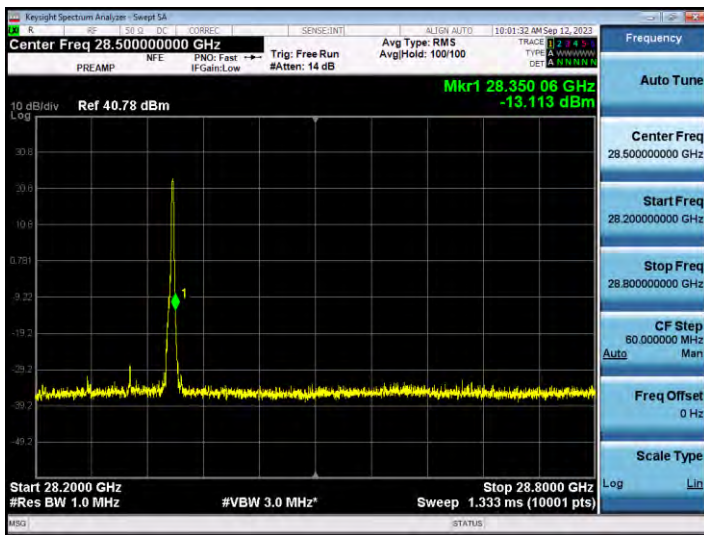
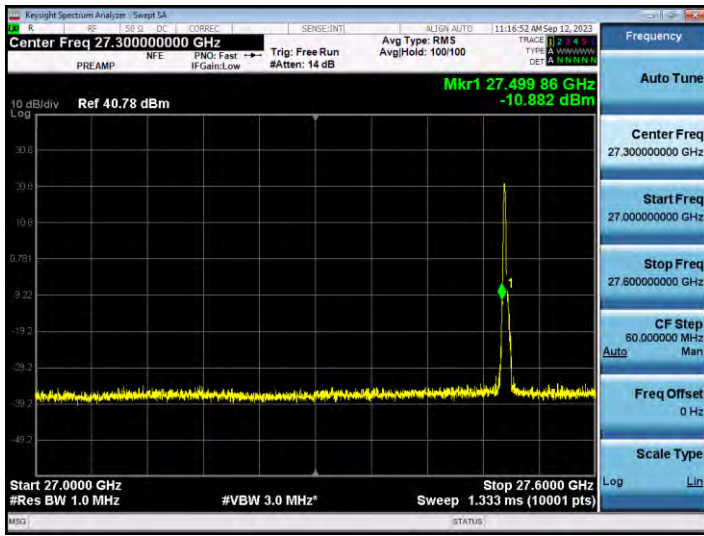


100 MHz, 4CC

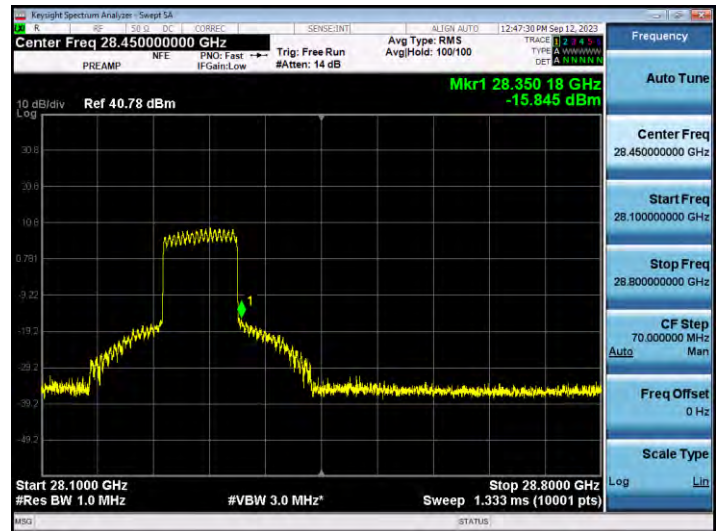
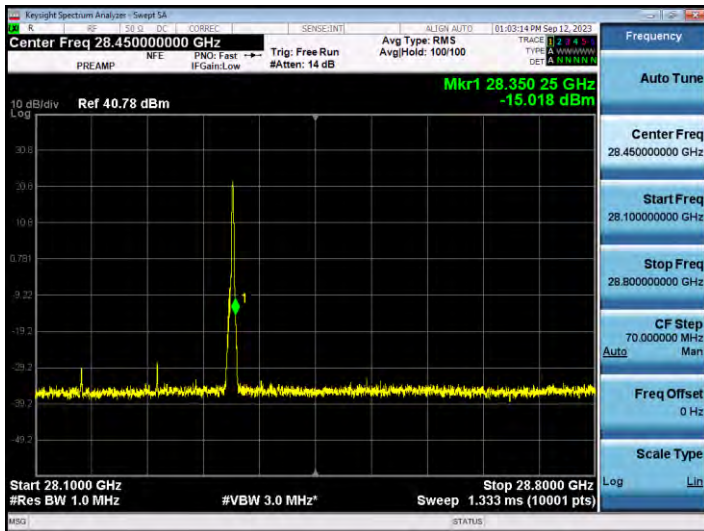
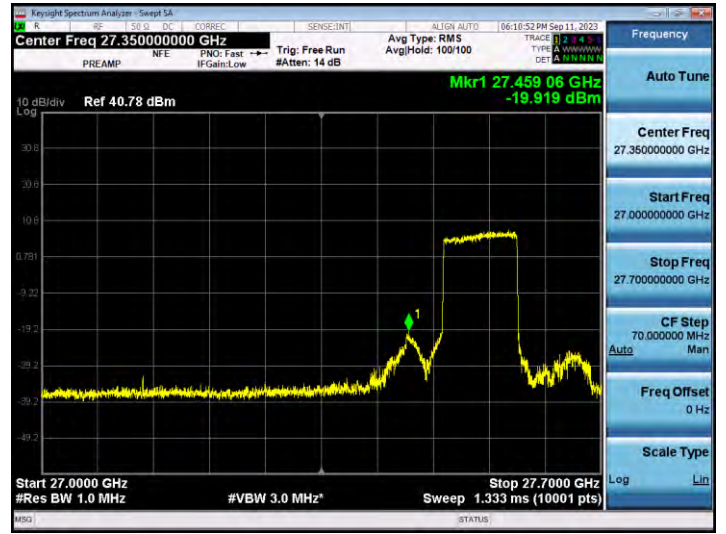
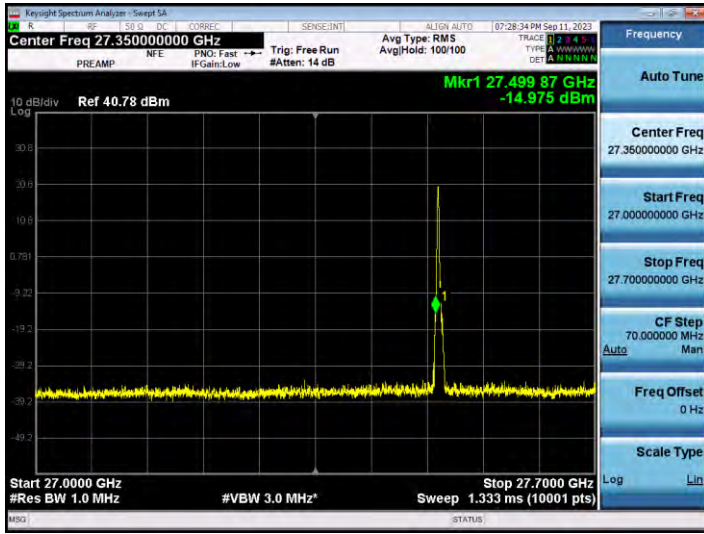


n261 Band Antenna 1 (N patch)

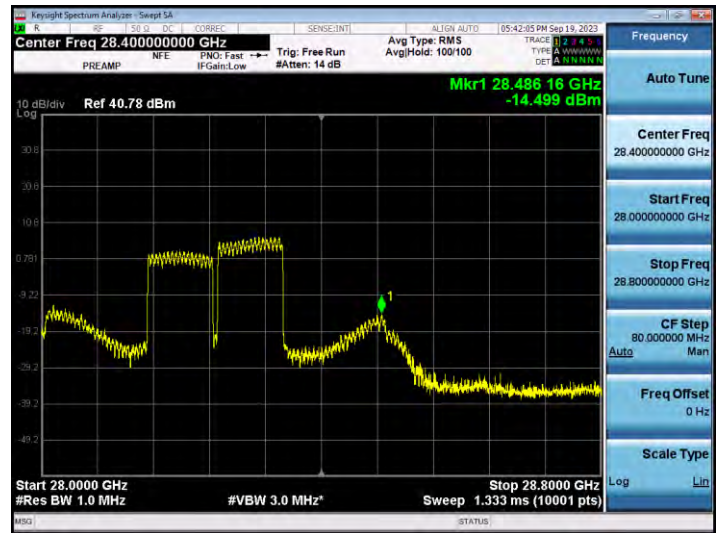
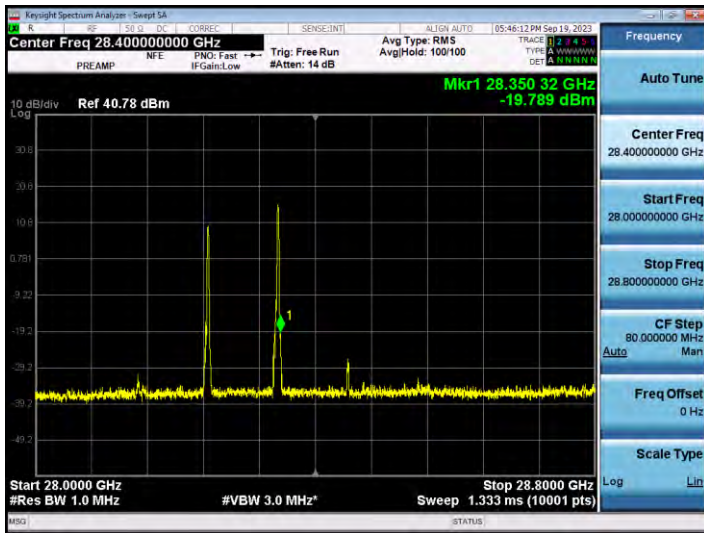
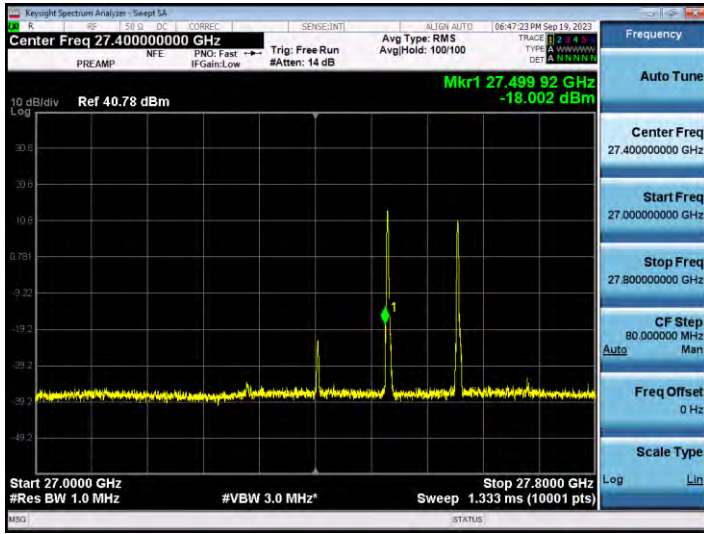
50 MHz, 1CC



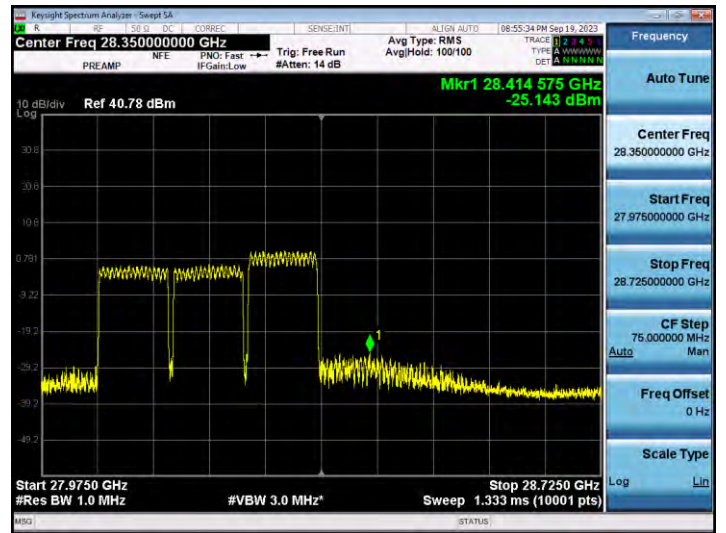
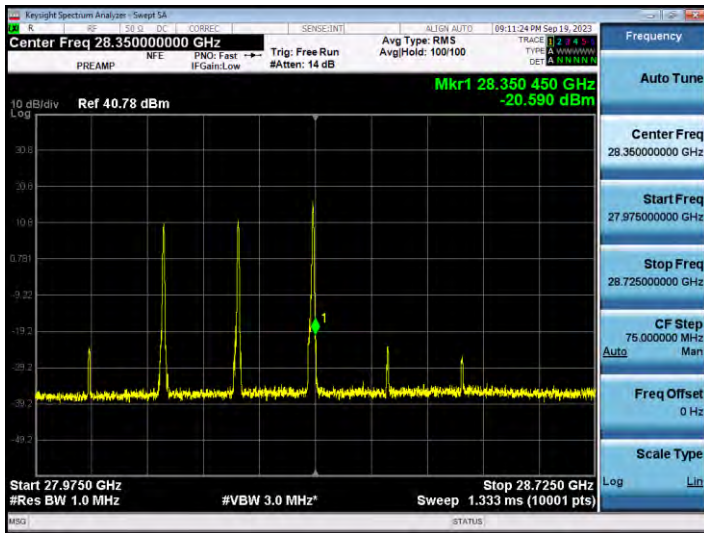
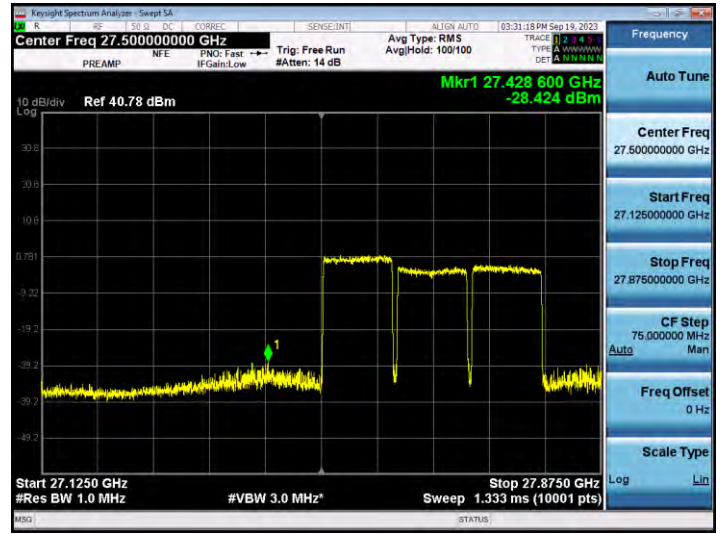
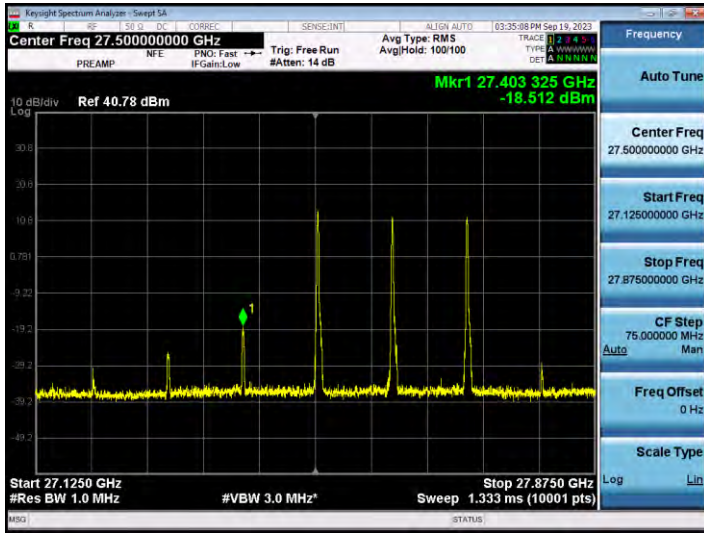
100 MHz, 1CC



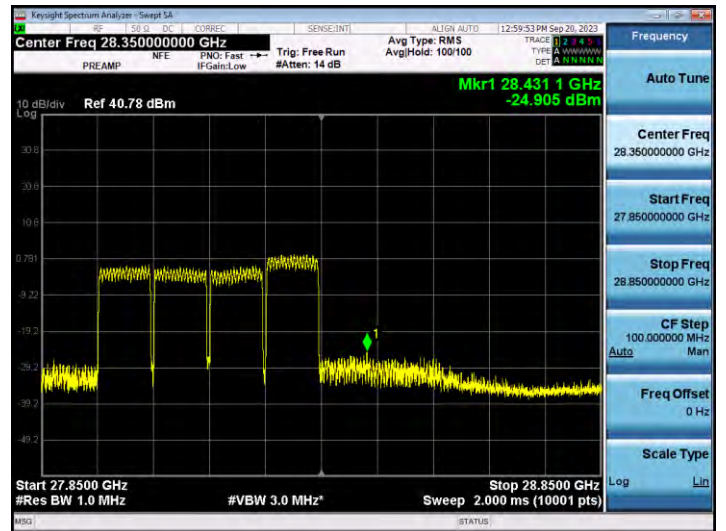
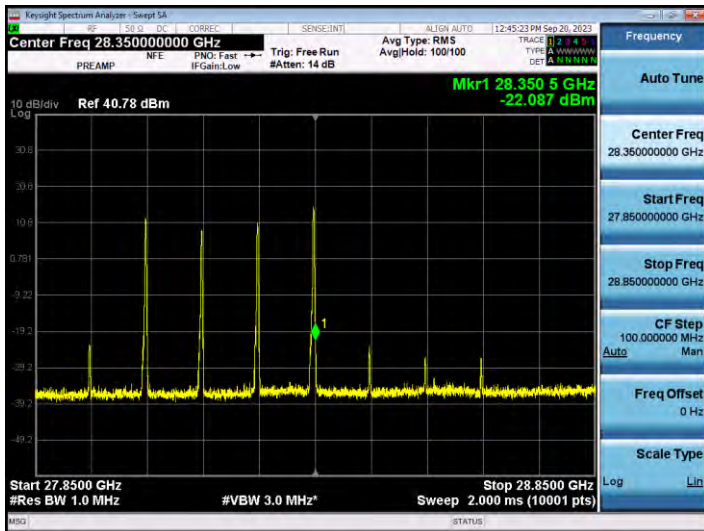
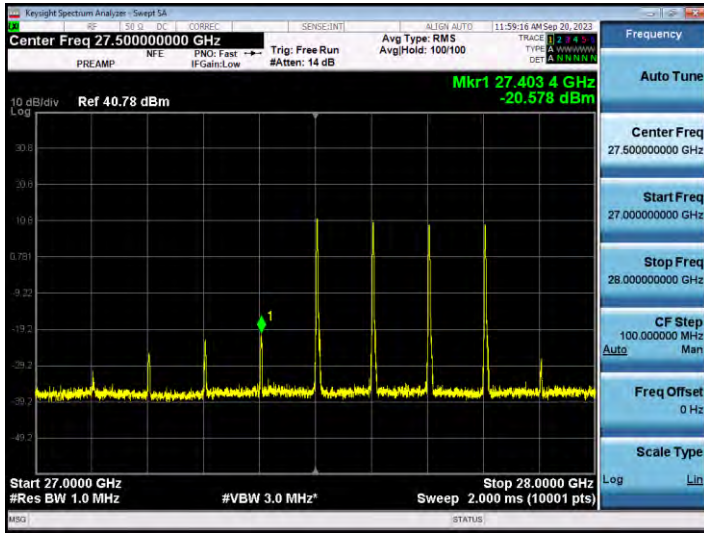
100 MHz, 2CC



100 MHz, 3CC



100 MHz, 4CC



5.4. RADIATED SPURIOUS EMISSIONS

Test Overview

The test frequency range is from 9 kHz to 200GHz. All out of band emissions are measured in a radiated test setup while the EUT is operating at maximum power, and at the appropriate frequencies. All modulations were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The conductive power or total radiated power of any emissions outside a licensee's frequency block shall be -13dBm/1MHz.

FCC Rules

Test Requirements:

§ 30.203 Emission limits.

- (a) The conductive power or the total radiated power of any emission outside a licensee's frequency block shall be -13 dBm/MHz or lower. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be -5 dBm/MHz or lower.
- (b)(1) Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.
- (2) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the licensee's frequency block edges as the design permits.
- (3) The measurements of emission power can be expressed in peak or average values.

EIRP Test Procedures:

The measurement is performed in accordance with Section 5.7.4 of ANSI C63.26.

5.7.4 Spurious unwanted emission measurements

- a) Set the spectrum analyzer start frequency to the lowest frequency generated by the EUT, without going below 9 kHz, and the stop frequency to the lower frequency covered by the measurements previously performed in 5.7.3. As an alternative, the stop frequency can be set to the value specified in 5.1.1, depending on the EUT operating range, if the resulting plot can clearly demonstrate compliance for all frequencies not addressed by the out-of-band emissions measurements performed as per 5.7.3.
- b) When using an average power (rms) detector, ensure that the number of points in the sweep $\geq 2 \times (\text{span} / \text{RBW})$. This may require that the measurement range defined by the start and stop frequencies be subdivided, depending on the spectrum analyzer capabilities. This requirement does not apply to peak-detected power measurements. When average power is specified by the applicable regulation, a peak-

detector can be utilized for preliminary measurements to accommodate wider frequency spans. Any emissions found in the preliminary measurement to exceed the applicable limit(s) shall be further examined using a power averaging (rms) detector with the minimum number of measurement points as defined above.

c) The sweep time should be set to auto-couple for performing peak-detector measurements. For measurements that use a power averaging (rms) detector, the sweep time shall be set as described for out-of-band emissions measurements in item d) of 5.7.3.

d) Identify and measure the highest spurious emission levels in each frequency range. It is not necessary to re-measure the out-of-band emissions as a part of this test. Record the frequencies and amplitudes corresponding to the measured emissions and capture the data plots.

e) Repeat step b) through step d) for the upper spurious emission frequency range if not already captured by a wide span measurement performed as per the alternative provided in step a). The upper frequency for this measurement is defined in 5.1.1 as a function of the EUT operating range.

f) Compare the results with the corresponding limit in the applicable regulation.

g) The test report shall include the data plots of the measuring instrument display and the measured data.

TRP Test Procedures:

The measurement is performed in accordance with Section 4.4.3.3.2 of KDB 842590 v01r02 (2021-04).

a) Align the EUT with a chosen xy-plane and the xz-plane of the antenna measurement coordinate system.

NOTE 1 For harmonics and spurious emission frequencies which are beamforming as identified in exploratory scan, it may be required to align the orthogonal cuts to include the peak based on exploratory scans.

b) Measure the EUT dimensions, i.e., depth (d), width (w), and height (h); see Figure A.1 in Appendix A.

c) Calculate the spherical and cylindrical diameters (D and D_{cyl}) using Equations (A.1) and (A.2) (see Appendix A).

d) For the highest frequency (smallest wavelength) of the frequency band measured, calculate the reference angular steps $\Delta\theta_{ref}$ and $\Delta\phi_{ref}$ using Equations (A.3) and (A.4).

e) Set the grid spatial sampling step $\Delta\theta \leq \Delta\theta_{ref}$ for the vertical angle and $\Delta\phi \leq \Delta\phi_{ref}$ for the horizontal cut.

f) For each emission frequency, measure the EIRP (as a sum of two orthogonal polarizations) at each spatial sampling step on the selected grid.

g) For each emission frequency, calculate the average EIRP for both the cuts separately, and then take the average of these two average values.

h) Add 2 dB as a correction factor to the averaged value computed in step g).

i) If the TRP limit is exceeded, a third orthogonal cut in the yz-plane and using the $\Delta\theta$ angular step, can be added. Now, calculate the average values in all three cuts separately, and then take the average value of these three average values.

j) Add 1.5 dB as a correction factor to the averaged value computed in step i).

k) Evaluate the pass/fail decision by comparing TRP from step h) or step j) against the applicable TRP limit.

Note:

1. Spurious emission test is performed up to 200 GHz(up to 100 GHz for n261) frequency according to section 5.1.1 of ANSI C63.26 -2015.

2. Measurement distance is applied far field condition on page 17.

3. All RSE's were measured with 1CC. It was determined that adding more CC's causes the overall amplitude of just 1CC to decrease, therefore, 1CC is the worst case for the purposes of spurious emissions measurements.

4. All RSE's were investigated in EN-DC mode and with 802.11 chipset active. It was determined that there is no new emission introduced by EN-DC mode, or the 802.11 chipset. For EN-DC mode, n261 uses LTE B2, B5, B12, B13, B48 and B66, n260 uses LTE B2, B5, B12, B13, B14, B30, B48 and B66 and n258 uses LTE B2, B5, B12, B66 and B71.

5. Additionally, this device supports anchor bands operating in FR1 spectrum. The n261 band uses NR Bands n2, n5, n25, n41, n48, n66, and n77 as anchor bands. The n260 band uses NR Bands n2, n5, n12, n25, n30, n41, n48, n66 and n77 as anchor bands. The n258 band uses NR Bands n2, n12, n25, n41, n66 and n77 as anchor bands.

6. LTE and FR1 anchor bands supports default configuration. There was no discernible difference in the spurious emission levels when using different LTE and NR FR1 anchor bands. Thus, LTE Band 2 was used as a representative anchor band for ENDC and NR-DC investigations.

7. All factors except spectrum analyzer level are applied as correction factor each band in the analyzer and calculated in tabular data.

In this test, AFCL factor consists of antenna factor, cable loss, mixer loss, amplifier gain and duty correction. Emissions value is first converted by distance factor as follow.

Converted value (dBm) = Measured Value (dBuV) + 20 LOG(D)-104.77

Final spurious emissions result is calculated as follows.

Spurious Emissions = Converted Value (dBm) + AFCL

8. Measurement RBW correction factor(Reference RBW : 1 MHz)

The measured value in table is included the RBW correction factor.

10log(Reference RBW/Measured RBW)

In case of 1 kHz RBW, correction factor is 30 dB.

In case of 10 kHz RBW, correction factor is 20 dB.

In case of 100 kHz RBW, correction factor is 10 dB.

9. Calculations

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses.

10. In case of 9 kHz to 30 MHz, the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.

11. All modes of operation were investigated and the worst case configuration results are reported.

- Mode : Stand alone, Simultaneous transmission scenarios

- Worst case : Stand alone

10. Corrcction Factor

30 MHz - 1 GHz		1 GHz - 3 GHz		3 GHz - 18 GHz		18 GHz - 40 GHz		40 GHz - 200 GHz	
Freq. (MHz)	AFCL (dB)	Freq. (MHz)	AFCL (dB)	Freq. (MHz)	AFCL (dB)	Freq. (GHz)	AFCL (dB)	Freq. (GHz)	AFCL (dB)
30	-20.24	1000	-7.32	3000	-11.04	18	-9.33	40	56.26
40	-19.11	1500	-3.88	4000	-9.62	18.5	-8.79	45	55.32
50	-18.50	2000	-1.55	5000	-5.99	19	-8.95	50	56.85
60	-19.27	2500	0.78	6000	-4.12	19.5	-8.91	55	58.13
70	-20.61	3000	2.33	7000	-0.23	20	-8.70	60	61.87
80	-23.55	-	-	8000	2.56	20.5	-8.37	60	57.36
90	-24.10	-	-	9000	4.10	21	-8.17	65	58.44
100	-23.08	-	-	10000	6.55	21.5	-7.81	70	59.03
150	-18.21	-	-	11000	8.33	22	-7.72	75	57.51
200	-21.70	-	-	12000	7.86	22.5	-7.32	80	61.11
250	-19.61	-	-	13000	8.59	23	-7.09	85	59.67
300	-17.82	-	-	14000	10.67	23.5	-7.20	90	59.73
350	-16.84	-	-	15000	11.13	24	-6.78	90	58.87
400	-15.59	-	-	16000	8.90	24.5	-6.72	95	61.77
450	-14.02	-	-	17000	13.10	25	-6.12	100	61.28
500	-13.27	-	-	18000	22.10	25.5	-7.20	105	60.93
550	-12.48	-	-	-	-	26	-7.05	110	63.67
600	-11.14	-	-	-	-	26.5	-6.61	115	61.66
650	-10.39	-	-	-	-	27	-7.29	120	63.02
700	-9.78	-	-	-	-	27.5	-8.26	125	62.86
750	-8.48	-	-	-	-	28	-8.33	130	62.95
800	-7.69	-	-	-	-	28.5	-7.75	135	63.85
850	-6.93	-	-	-	-	29	-7.22	140	63.36
900	-6.03	-	-	-	-	29.5	-7.30	140	67.17
950	-4.71	-	-	-	-	30	-6.59	145	64.24
1000	-3.82	-	-	-	-	30.5	-6.53	150	65.71
-	-	-	-	-	-	31	-4.90	155	63.68
-	-	-	-	-	-	31.5	-5.91	160	64.04
-	-	-	-	-	-	32	-5.45	165	64.62
-	-	-	-	-	-	32.5	-5.35	170	67.85
-	-	-	-	-	-	33	-5.12	175	65.65
-	-	-	-	-	-	33.5	-4.97	180	65.25
-	-	-	-	-	-	34	-4.63	185	67.16

30 MHz - 1 GHz		1 GHz - 3 GHz		3 GHz - 18 GHz		18 GHz - 40 GHz		40 GHz - 200 GHz	
Freq. (MHz)	AFCL (dB)	Freq. (MHz)	AFCL (dB)	Freq. (MHz)	AFCL (dB)	Freq. (GHz)	AFCL (dB)	Freq. (GHz)	AFCL (dB)
-	-	-	-	-	-	34.5	-4.10	190	66.69
-	-	-	-	-	-	35	-4.33	195	65.33
-	-	-	-	-	-	35.5	-3.24	200	66.83
-	-	-	-	-	-	36	-3.95	-	-
-	-	-	-	-	-	36.5	-3.15	-	-
-	-	-	-	-	-	37	-1.44	-	-
-	-	-	-	-	-	37.5	-1.87	-	-
-	-	-	-	-	-	38	-0.98	-	-
-	-	-	-	-	-	38.5	0.34	-	-
-	-	-	-	-	-	39	3.01	-	-
-	-	-	-	-	-	39.5	3.94	-	-
-	-	-	-	-	-	40	5.27	-	-

*Correction Factor= Antenna Factor + Cable Loss – Amp. Gain + (Harmonic Mixer Conversion Loss)

Test Results: Tabular Data of Radiated Spurious Emissions
DFT-s OFDM (SISO or SISO Dual)

1. n258a

30 MHz ~ 1 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24300.00	Low	H+V	BPSK	1/33	V	29.956	3	-65.272
		50	24350.04	Mid	H+V	BPSK	1/16	V	28.354	3	-66.874
		50	24424.92	High	H+V	BPSK	1/16	V	31.109	3	-64.119
1 (N)	1	100	24300.00	Low	V	QPSK	1/33	V	29.332	3	-65.896
		100	24350.04	Mid	V	BPSK	1/33	V	29.965	3	-65.263
		100	24399.96	High	V	BPSK	1/33	V	28.346	3	-66.882

1 GHz ~ 3 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24300.00	Low	H+V	BPSK	1/33	H	68.597	3	-26.631
		50	24350.04	Mid	H+V	BPSK	1/16	V	60.197	3	-35.031
		50	24424.92	High	H+V	BPSK	1/16	H	59.895	3	-35.333
1 (N)	1	100	24300.00	Low	V	QPSK	1/33	H	59.931	3	-35.297
		100	24350.04	Mid	V	BPSK	1/33	V	64.522	3	-30.706
		100	24399.96	High	V	BPSK	1/33	H	65.272	3	-29.956

3 GHz ~ 18 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24300.00	Low	H+V	BPSK	1/33	H	66.240	3	-28.988
		50	24350.04	Mid	H+V	BPSK	1/16	V	65.455	3	-29.773
		50	24424.92	High	H+V	BPSK	1/16	H	65.684	3	-29.544
1 (N)	1	100	24300.00	Low	V	QPSK	1/33	V	66.328	3	-28.900
		100	24350.04	Mid	V	BPSK	1/33	H	65.777	3	-29.451
		100	24399.96	High	V	BPSK	1/33	V	66.506	3	-28.722

18 GHz ~ 23.75 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24300.00	Low	H+V	BPSK	1/33	H	62.850	3	-32.378
		50	24350.04	Mid	H+V	BPSK	1/16	H	54.123	3	-41.105
		50	24424.92	High	H+V	BPSK	1/16	H	56.502	3	-38.726
1 (N)	1	100	24300.00	Low	V	QPSK	1/33	H	52.353	3	-42.875
		100	24350.04	Mid	V	BPSK	1/33	H	51.929	3	-43.299
		100	24399.96	High	V	BPSK	1/33	H	51.186	3	-44.042

24.90 GHz ~ 40 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24300.00	Low	H+V	BPSK	1/33	V	61.985	3	-33.243
		50	24350.04	Mid	H+V	BPSK	1/16	H	61.902	3	-33.326
		50	24424.92	High	H+V	BPSK	1/16	H	62.149	3	-33.079
1 (N)	1	100	24300.00	Low	V	QPSK	1/33	V	61.267	3	-33.961
		100	24350.04	Mid	V	BPSK	1/33	V	62.205	3	-33.023
		100	24399.96	High	V	BPSK	1/33	V	61.822	3	-33.406

40 GHz ~ 60 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24300.00	Low	H+V	BPSK	1/33	H	81.890	1.5	-19.358
		50	24350.04	Mid	H+V	BPSK	1/16	H	84.210	1.5	-17.038
		50	24424.92	High	H+V	BPSK	1/16	H	84.210	1.5	-17.038
1 (N)	1	100	24300.00	Low	V	QPSK	1/33	H	82.580	1.5	-18.668
		100	24350.04	Mid	V	BPSK	1/33	H	82.220	1.5	-19.028
		100	24399.96	High	V	BPSK	1/33	H	83.700	1.5	-17.548

60 GHz ~ 90 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24300.00	Low	H+V	BPSK	1/33	H	72.540	1	-32.230
		50	24350.04	Mid	H+V	BPSK	1/16	H	71.630	1	-33.140
		50	24424.92	High	H+V	BPSK	1/16	H	72.960	1	-31.810
1 (N)	1	100	24300.00	Low	V	QPSK	1/33	H	72.930	1	-31.840
		100	24350.04	Mid	V	BPSK	1/33	H	72.450	1	-32.320
		100	24399.96	High	V	BPSK	1/33	H	72.680	1	-32.090

90 GHz ~ 100 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24300.00	Low	H+V	BPSK	1/33	H	74.260	1	-30.510
		50	24350.04	Mid	H+V	BPSK	1/16	H	73.610	1	-31.160
		50	24424.92	High	H+V	BPSK	1/16	H	75.300	1	-29.470
1 (N)	1	100	24300.00	Low	V	QPSK	1/33	H	76.740	1	-28.030
		100	24350.04	Mid	V	BPSK	1/33	H	78.050	1	-26.720
		100	24399.96	High	V	BPSK	1/33	H	77.230	1	-27.540

2. n258b

30 MHz ~ 1 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24800.04	Low	H+V	BPSK	1/33	V	30.931	3	-64.297
		50	24999.96	Mid	H+V	BPSK	1/16	V	29.106	3	-66.122
		100	25200.00	High	H+V	QPSK	1/33	V	27.812	3	-67.416
1 (N)	1	100	24800.04	Low	H+V	BPSK	1/33	V	26.935	3	-68.293
		50	24999.96	Mid	H+V	BPSK	1/11	V	28.230	3	-66.998
		100	25200.00	High	H+V	BPSK	1/33	V	30.315	3	-64.913

1 GHz ~ 3 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24800.04	Low	H+V	BPSK	1/33	V	60.397	3	-34.831
		50	24999.96	Mid	H+V	BPSK	1/16	V	59.967	3	-35.261
		100	25200.00	High	H+V	QPSK	1/33	V	60.795	3	-34.433
1 (N)	1	100	24800.04	Low	H+V	BPSK	1/33	V	62.123	3	-33.105
		50	24999.96	Mid	H+V	BPSK	1/11	V	60.388	3	-34.840
		100	25200.00	High	H+V	BPSK	1/33	H	60.584	3	-34.644

3 GHz ~ 18 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24800.04	Low	H+V	BPSK	1/33	H	65.905	3	-29.323
		50	24999.96	Mid	H+V	BPSK	1/16	V	66.008	3	-29.220
		100	25200.00	High	H+V	QPSK	1/33	V	66.462	3	-28.766
1 (N)	1	100	24800.04	Low	H+V	BPSK	1/33	V	65.342	3	-29.886
		50	24999.96	Mid	H+V	BPSK	1/11	H	65.359	3	-29.869
		100	25200.00	High	H+V	BPSK	1/33	H	66.109	3	-29.119

18 GHz ~ 24.25 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24800.04	Low	H+V	BPSK	1/33	H	54.938	3	-40.290
		50	24999.96	Mid	H+V	BPSK	1/16	H	60.204	3	-35.024
		100	25200.00	High	H+V	QPSK	1/33	H	62.920	3	-32.308
1 (N)	1	100	24800.04	Low	H+V	BPSK	1/33	H	62.688	3	-32.540
		50	24999.96	Mid	H+V	BPSK	1/11	H	67.767	3	-27.461
		100	25200.00	High	H+V	BPSK	1/33	H	51.692	3	-43.536

25.70 GHz ~ 40 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24800.04	Low	H+V	BPSK	1/33	H	61.561	3	-33.667
		50	24999.96	Mid	H+V	BPSK	1/16	V	61.661	3	-33.567
		100	25200.00	High	H+V	QPSK	1/33	V	61.369	3	-33.859
1 (N)	1	100	24800.04	Low	H+V	BPSK	1/33	V	62.457	3	-32.771
		50	24999.96	Mid	H+V	BPSK	1/11	H	61.565	3	-33.663
		100	25200.00	High	H+V	BPSK	1/33	H	61.363	3	-33.865

40 GHz ~ 60 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24800.04	Low	H+V	BPSK	1/33	V	75.080	1.5	-26.168
		50	24999.96	Mid	H+V	BPSK	1/16	H	84.770	1.5	-16.478
		100	25200.00	High	H+V	QPSK	1/33	H	79.390	1.5	-21.858
1 (N)	1	100	24800.04	Low	H+V	BPSK	1/33	V	77.390	1.5	-23.858
		50	24999.96	Mid	H+V	BPSK	1/11	H	78.150	1.5	-23.098
		100	25200.00	High	H+V	BPSK	1/33	H	78.800	1.5	-22.448

60 GHz ~ 90 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24800.04	Low	H+V	BPSK	1/33	V	71.980	1	-32.790
		50	24999.96	Mid	H+V	BPSK	1/16	H	71.930	1	-32.840
		100	25200.00	High	H+V	QPSK	1/33	H	71.720	1	-33.050
1 (N)	1	100	24800.04	Low	H+V	BPSK	1/33	V	71.320	1	-33.450
		50	24999.96	Mid	H+V	BPSK	1/11	H	73.690	1	-31.080
		100	25200.00	High	H+V	BPSK	1/33	H	72.150	1	-32.620

90 GHz ~ 100 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	100	24800.04	Low	H+V	BPSK	1/33	V	74.130	1	-30.640
		50	24999.96	Mid	H+V	BPSK	1/16	H	75.190	1	-29.580
		100	25200.00	High	H+V	QPSK	1/33	H	74.220	1	-30.550
1 (N)	1	100	24800.04	Low	H+V	BPSK	1/33	V	73.980	1	-30.790
		50	24999.96	Mid	H+V	BPSK	1/11	H	74.520	1	-30.250
		100	25200.00	High	H+V	BPSK	1/33	H	74.160	1	-30.610

3. n260

30 MHz ~ 1 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	37025.04	Low	H+V	BPSK	1/16	V	28.556	3	-66.672
		100	38499.96	Mid	V	BPSK	1/33	V	28.116	3	-67.112
		100	39949.92	High	H+V	16QAM	1/33	V	28.007	3	-67.221
1 (N)	1	50	37025.04	Low	H+V	BPSK	1/16	V	25.718	3	-69.510
		50	38499.96	Mid	H	16QAM	1/11	V	27.926	3	-67.302
		100	39949.92	High	H	BPSK	1/33	V	28.134	3	-67.094

1 GHz ~ 3 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	37025.04	Low	H+V	BPSK	1/16	V	60.619	3	-34.609
		100	38499.96	Mid	V	BPSK	1/33	H	63.542	3	-31.686
		100	39949.92	High	H+V	16QAM	1/33	V	60.065	3	-35.163
1 (N)	1	50	37025.04	Low	H+V	BPSK	1/16	V	60.349	3	-34.879
		50	38499.96	Mid	H	16QAM	1/11	H	72.016	3	-23.212
		100	39949.92	High	H	BPSK	1/33	V	61.309	3	-33.919

3 GHz ~ 18 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	37025.04	Low	H+V	BPSK	1/16	H	65.898	3	-29.330
		100	38499.96	Mid	V	BPSK	1/33	V	65.377	3	-29.851
		100	39949.92	High	H+V	16QAM	1/33	H	65.793	3	-29.435
1 (N)	1	50	37025.04	Low	H+V	BPSK	1/16	V	65.243	3	-29.985
		50	38499.96	Mid	H	16QAM	1/11	H	65.465	3	-29.763
		100	39949.92	High	H	BPSK	1/33	H	66.841	3	-28.387

18 GHz ~ 36.6 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	37025.04	Low	H+V	BPSK	1/16	V	57.650	3	-37.578
		100	38499.96	Mid	V	BPSK	1/33	V	56.653	3	-38.575
		100	39949.92	High	H+V	16QAM	1/33	H	57.399	3	-37.829
1 (N)	1	50	37025.04	Low	H+V	BPSK	1/16	H	57.984	3	-37.244
		50	38499.96	Mid	H	16QAM	1/11	H	56.794	3	-38.434
		100	39949.92	High	H	BPSK	1/33	V	56.793	3	-38.435

40.20 GHz ~ 60 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	37025.04	Low	H+V	BPSK	1/16	H	72.040	1.5	-29.208
		100	38499.96	Mid	V	BPSK	1/33	H	74.100	1.5	-27.148
		100	39949.92	High	H+V	16QAM	1/33	V	72.750	1.5	-28.498
1 (N)	1	50	37025.04	Low	H+V	BPSK	1/16	V	72.580	1.5	-28.668
		50	38499.96	Mid	H	16QAM	1/11	V	76.280	1.5	-24.968
		100	39949.92	High	H	BPSK	1/33	V	76.350	1.5	-24.898

60 GHz ~ 90 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	37025.04	Low	H+V	BPSK	1/16	V	72.040	1	-32.730
		100	38499.96	Mid	V	BPSK	1/33	H	72.380	1	-32.390
		100	39949.92	High	H+V	16QAM	1/33	H	71.770	1	-33.000
1 (N)	1	50	37025.04	Low	H+V	BPSK	1/16	H	73.060	1	-31.710
		50	38499.96	Mid	H	16QAM	1/11	H	73.140	1	-31.630
		100	39949.92	High	H	BPSK	1/33	V	73.670	1	-31.100

90 GHz ~ 140 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	37025.04	Low	H+V	BPSK	1/16	V	79.700	1	-25.070
		100	38499.96	Mid	V	BPSK	1/33	H	78.630	1	-26.140
		100	39949.92	High	H+V	16QAM	1/33	H	76.000	1	-28.770
1 (N)	1	50	37025.04	Low	H+V	BPSK	1/16	V	79.210	1	-25.560
		50	38499.96	Mid	H	16QAM	1/11	V	88.650	1	-16.120
		100	39949.92	High	H	BPSK	1/33	H	76.470	1	-28.300

140 GHz ~ 170 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	37025.04	Low	H+V	BPSK	1/16	V	79.470	0.5	-31.321
		100	38499.96	Mid	V	BPSK	1/33	H	80.430	0.5	-30.361
		100	39949.92	High	H+V	16QAM	1/33	H	79.380	0.5	-31.411
1 (N)	1	50	37025.04	Low	H+V	BPSK	1/16	V	79.590	0.5	-31.201
		50	38499.96	Mid	H	16QAM	1/11	V	80.600	0.5	-30.191
		100	39949.92	High	H	BPSK	1/33	H	80.210	0.5	-30.581

170 GHz ~ 200 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	37025.04	Low	H+V	BPSK	1/16	V	80.830	0.5	-29.961
		100	38499.96	Mid	V	BPSK	1/33	H	79.770	0.5	-31.021
		100	39949.92	High	H+V	16QAM	1/33	H	80.210	0.5	-30.581
1 (N)	1	50	37025.04	Low	H+V	BPSK	1/16	V	80.790	0.5	-30.001
		50	38499.96	Mid	H	16QAM	1/11	V	80.210	0.5	-30.581
		100	39949.92	High	H	BPSK	1/33	H	79.860	0.5	-30.931

4. n261

30 MHz ~ 1 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	27525.00	Low	H+V	BPSK	1/16	V	30.070	3	-65.158
		100	27924.96	Mid	H+V	BPSK	1/33	V	27.206	3	-68.022
		50	28324.92	High	H+V	QPSK	1/16	V	30.155	3	-65.073
1 (N)	1	50	27525.00	Low	V	BPSK	1/11	V	27.016	3	-68.212
		100	27924.96	Mid	V	BPSK	1/22	V	28.410	3	-66.818
		50	28324.92	High	H+V	BPSK	1/11	V	27.355	3	-67.873

1 GHz ~ 3 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	27525.00	Low	H+V	BPSK	1/16	H	62.961	3	-32.267
		100	27924.96	Mid	H+V	BPSK	1/33	H	70.843	3	-24.385
		50	28324.92	High	H+V	QPSK	1/16	H	60.282	3	-34.946
1 (N)	1	50	27525.00	Low	V	BPSK	1/11	H	59.936	3	-35.292
		100	27924.96	Mid	V	BPSK	1/22	H	60.716	3	-34.512
		50	28324.92	High	H+V	BPSK	1/11	H	62.429	3	-32.799

3 GHz ~ 18 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	27525.00	Low	H+V	BPSK	1/16	V	65.757	3	-29.471
		100	27924.96	Mid	H+V	BPSK	1/33	H	65.263	3	-29.965
		50	28324.92	High	H+V	QPSK	1/16	V	65.523	3	-29.705
1 (N)	1	50	27525.00	Low	V	BPSK	1/11	H	66.031	3	-29.197
		100	27924.96	Mid	V	BPSK	1/22	V	65.724	3	-29.504
		50	28324.92	High	H+V	BPSK	1/11	V	65.344	3	-29.884

18 GHz ~ 27 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	27525.00	Low	H+V	BPSK	1/16	H	61.838	3	-33.390
		100	27924.96	Mid	H+V	BPSK	1/33	H	63.991	3	-31.237
		50	28324.92	High	H+V	QPSK	1/16	H	55.662	3	-39.566
1 (N)	1	50	27525.00	Low	V	BPSK	1/11	H	64.537	3	-30.691
		100	27924.96	Mid	V	BPSK	1/22	H	67.432	3	-27.796
		50	28324.92	High	H+V	BPSK	1/11	H	57.449	3	-37.779

28.8 GHz ~ 40 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	27525.00	Low	H+V	BPSK	1/16	V	62.226	3	-33.002
		100	27924.96	Mid	H+V	BPSK	1/33	V	63.804	3	-31.424
		50	28324.92	High	H+V	QPSK	1/16	V	62.610	3	-32.618
1 (N)	1	50	27525.00	Low	V	BPSK	1/11	V	61.900	3	-33.328
		100	27924.96	Mid	V	BPSK	1/22	H	62.691	3	-32.537
		50	28324.92	High	H+V	BPSK	1/11	H	61.480	3	-33.748

40 GHz ~ 60 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	27525.00	Low	H+V	BPSK	1/16	H	75.710	1.5	-25.538
		100	27924.96	Mid	H+V	BPSK	1/33	H	80.230	1.5	-21.018
		50	28324.92	High	H+V	QPSK	1/16	H	77.970	1.5	-23.278
1 (N)	1	50	27525.00	Low	V	BPSK	1/11	H	72.710	1.5	-28.538
		100	27924.96	Mid	V	BPSK	1/22	H	72.360	1.5	-28.888
		50	28324.92	High	H+V	BPSK	1/11	H	72.740	1.5	-28.508

60 GHz ~ 90 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	27525.00	Low	H+V	BPSK	1/16	H	72.730	1	-32.040
		100	27924.96	Mid	H+V	BPSK	1/33	H	71.730	1	-33.040
		50	28324.92	High	H+V	QPSK	1/16	H	72.740	1	-32.030
1 (N)	1	50	27525.00	Low	V	BPSK	1/11	H	72.140	1	-32.630
		100	27924.96	Mid	V	BPSK	1/22	H	72.460	1	-32.310
		50	28324.92	High	H+V	BPSK	1/11	H	73.690	1	-31.080

90 GHz ~ 100 GHz											
Ant. (Patch)	CCs active	BW [MHz]	Frequency [MHz]	Channel	Beam Pol.	Modulation	RB Size/Offset	Ant. Pol. [H/V]	Measured Value (dBuV)	Distance (m)	Conversion Value Result (dBm)
0 (M)	1	50	27525.00	Low	H+V	BPSK	1/16	H	74.730	1	-30.040
		100	27924.96	Mid	H+V	BPSK	1/33	H	74.540	1	-30.230
		50	28324.92	High	H+V	QPSK	1/16	H	74.210	1	-30.560
1 (N)	1	50	27525.00	Low	V	BPSK	1/11	H	73.390	1	-31.380
		100	27924.96	Mid	V	BPSK	1/22	H	74.070	1	-30.700
		50	28324.92	High	H+V	BPSK	1/11	H	75.510	1	-29.260

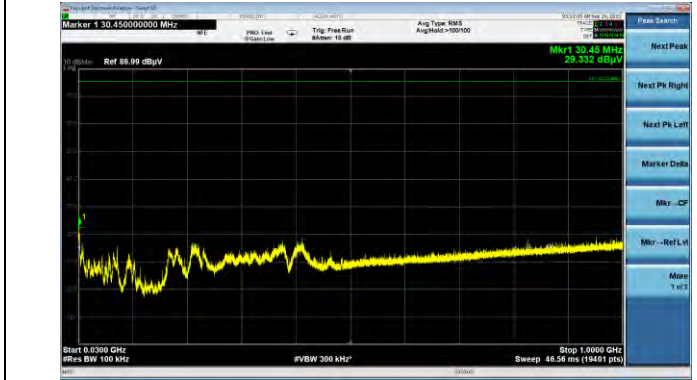
DFT-s OFDM (SISO or SISO Dual)
Plot data of Radiated Spurious Emissions

n258a, 30 MHz ~ 1 GHz

Antenna 0 (M patch)
Low Channel



Antenna 1 (N patch)
Low Channel



Middle Channel



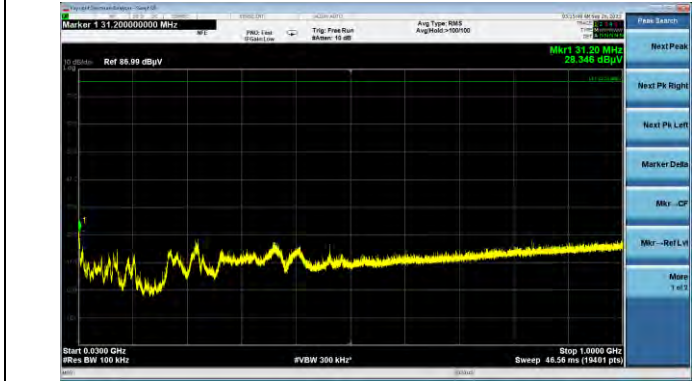
Middle Channel

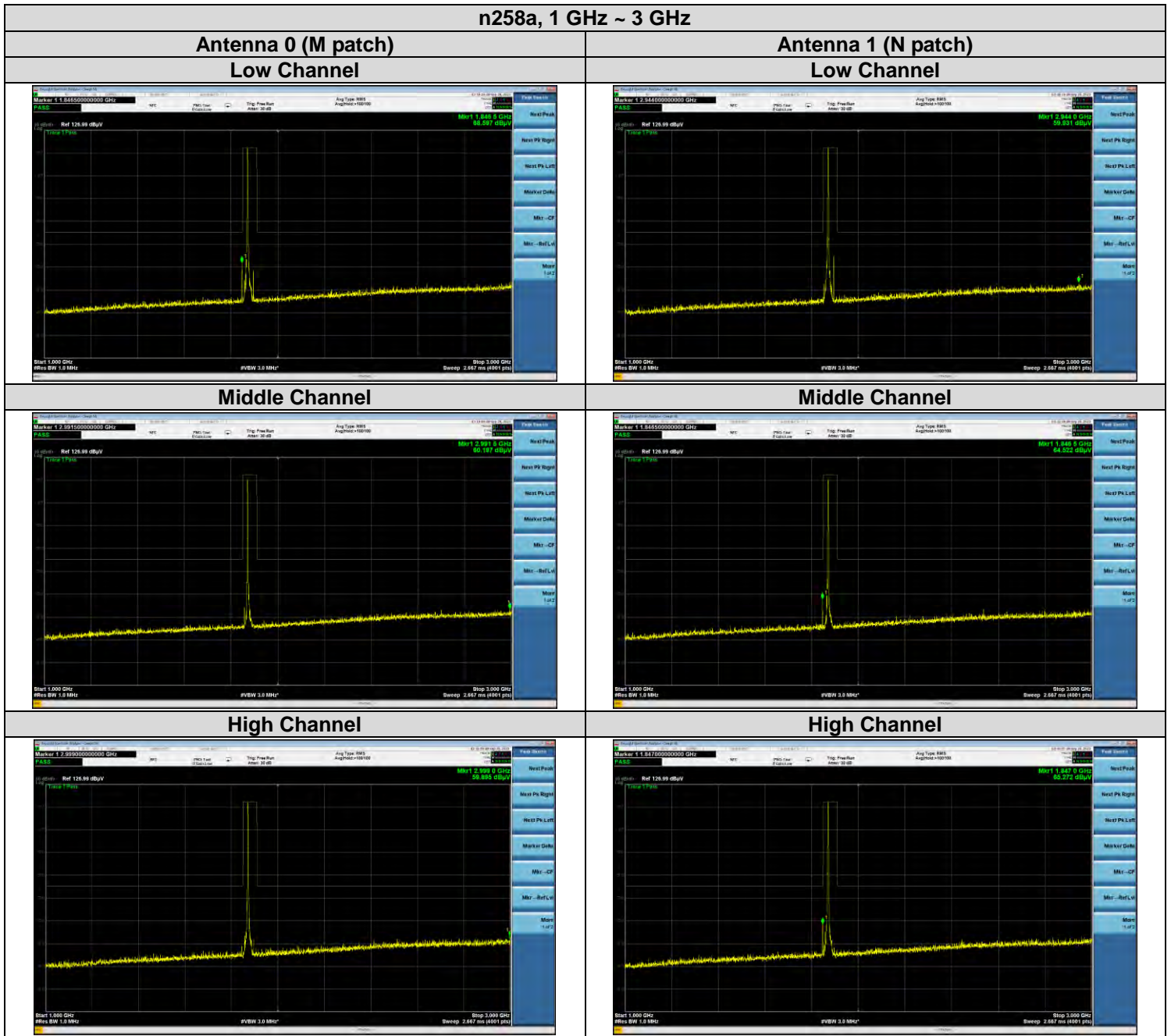


High Channel



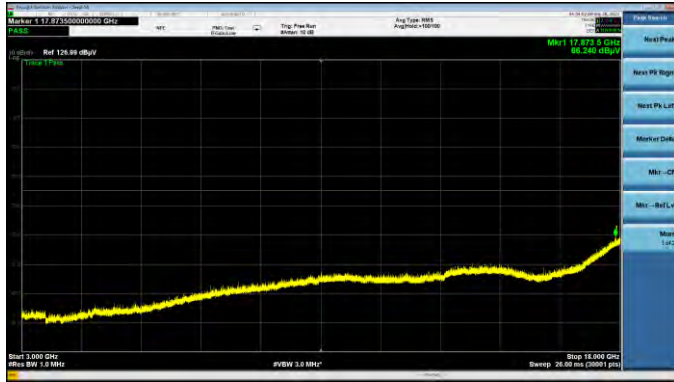
High Channel



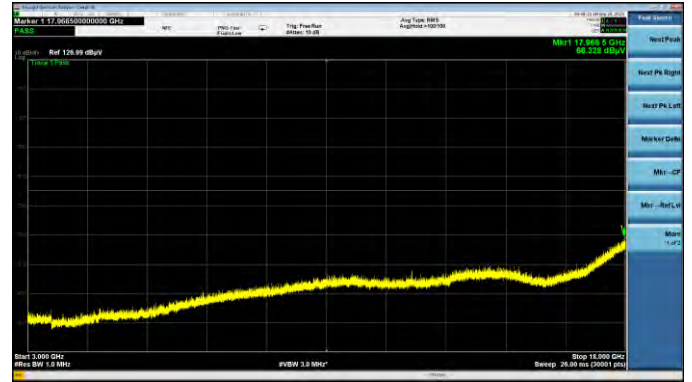


n258a, 3 GHz ~ 18 GHz

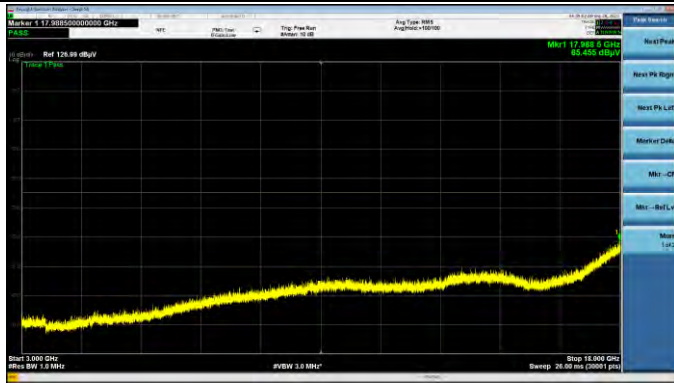
Antenna 0 (M patch)
Low Channel



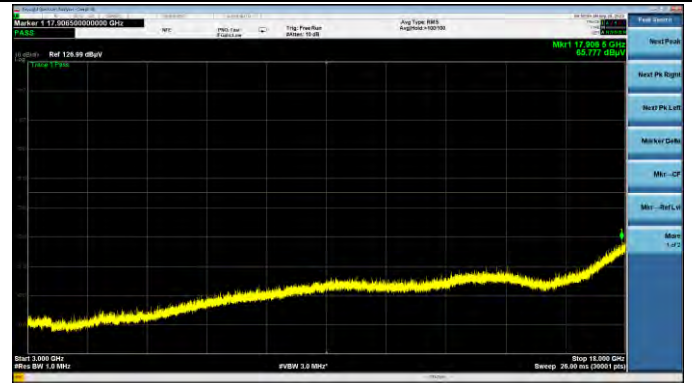
Antenna 1 (N patch)
Low Channel



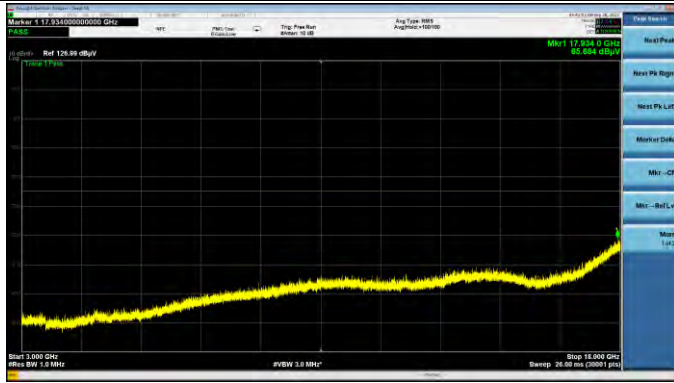
Middle Channel



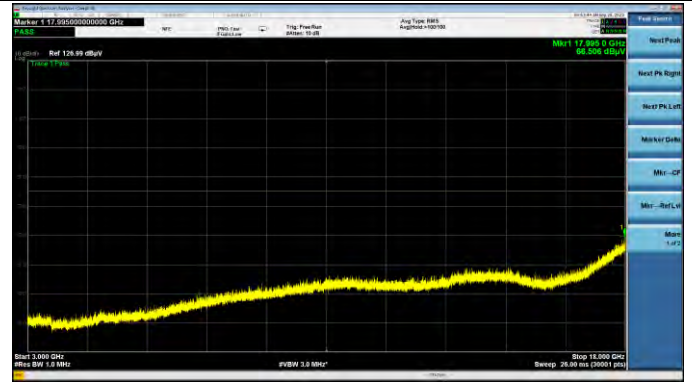
Middle Channel



High Channel

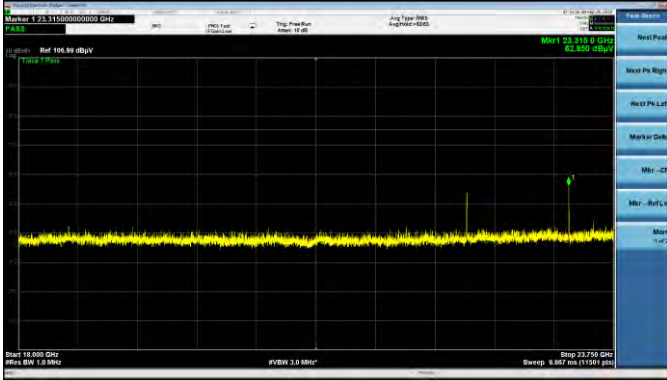


High Channel

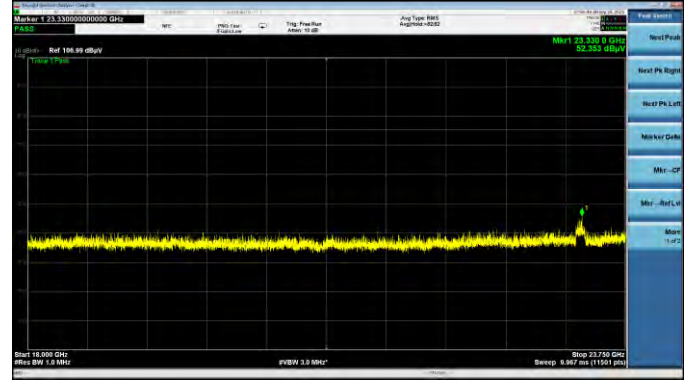


n258a, 18 GHz ~ 23.75 GHz

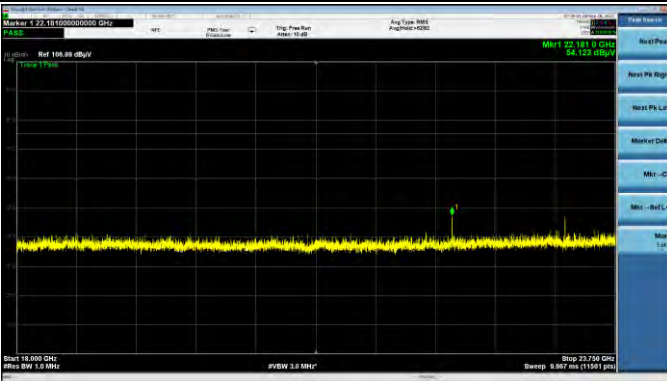
**Antenna 0 (M patch)
Low Channel**



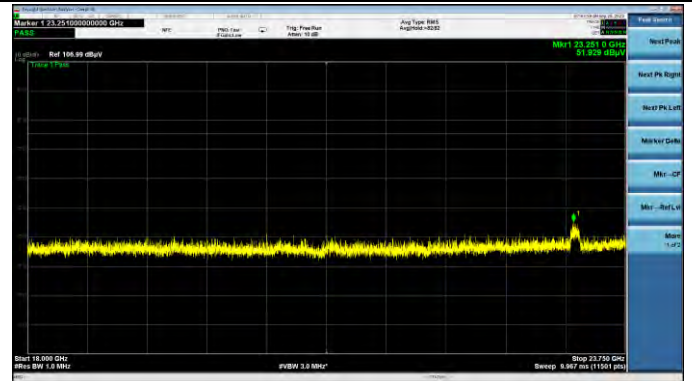
**Antenna 1 (N patch)
Low Channel**



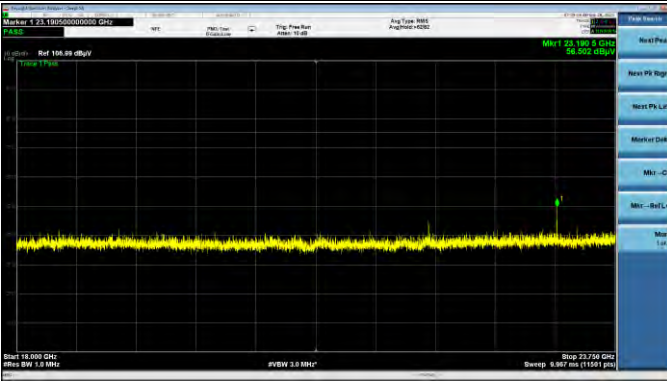
Middle Channel



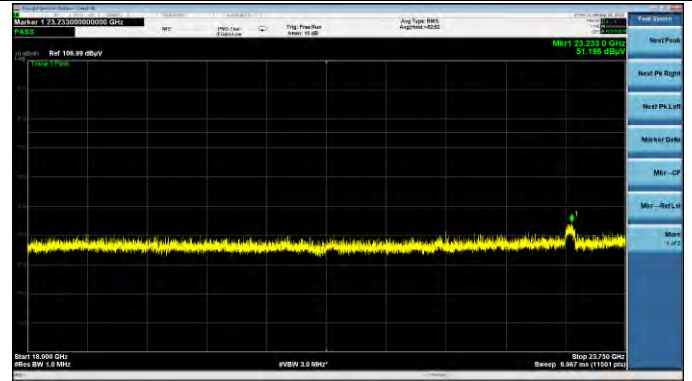
Middle Channel



High Channel

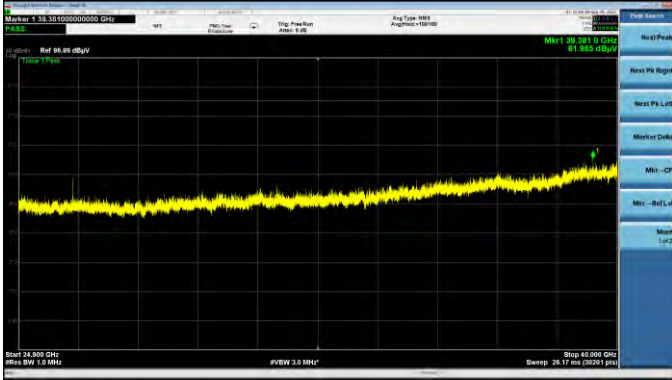


High Channel

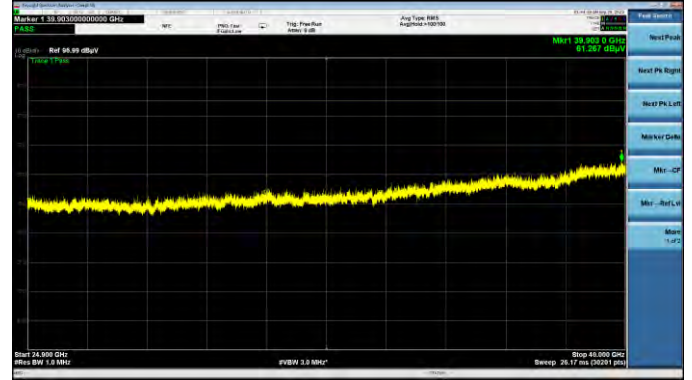


n258a, 24.90 GHz ~ 40 GHz

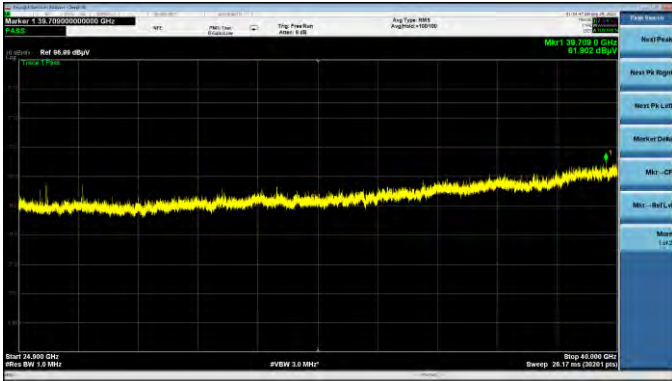
Antenna 0 (M patch)
Low Channel



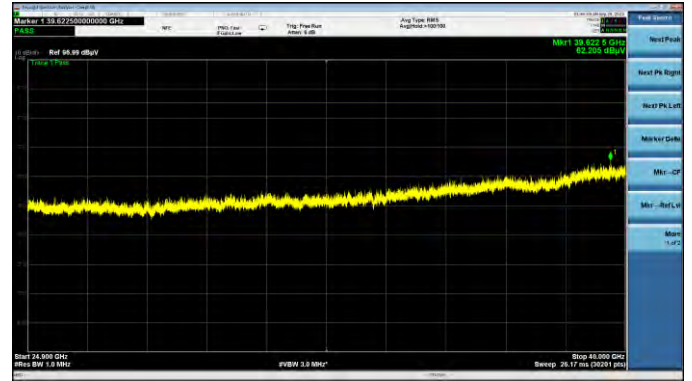
Antenna 1 (N patch)
Low Channel



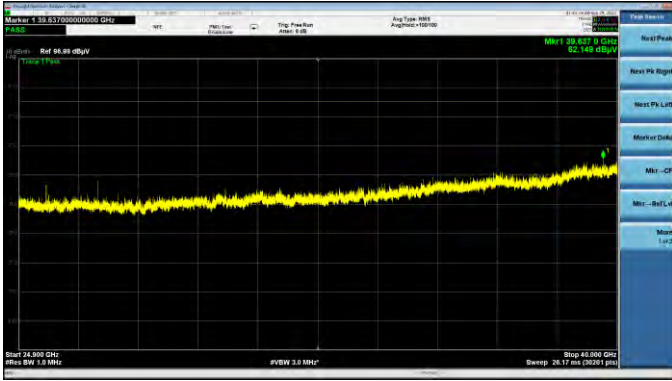
Middle Channel



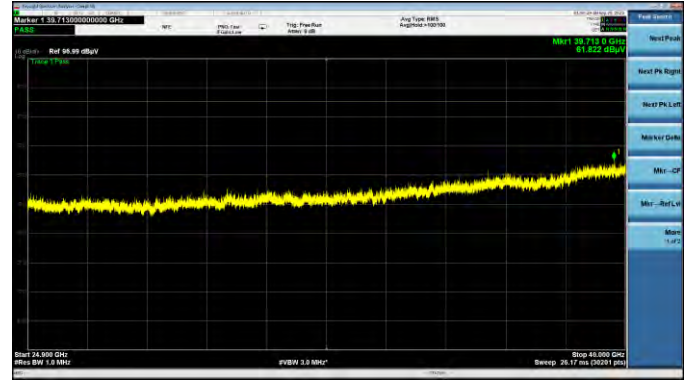
Middle Channel



High Channel

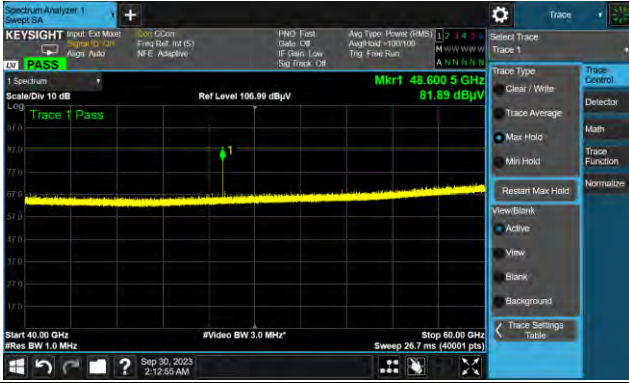


High Channel

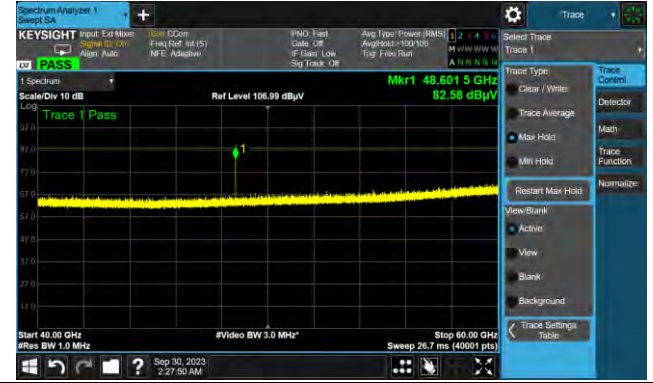


n258a, 40 GHz ~ 60 GHz

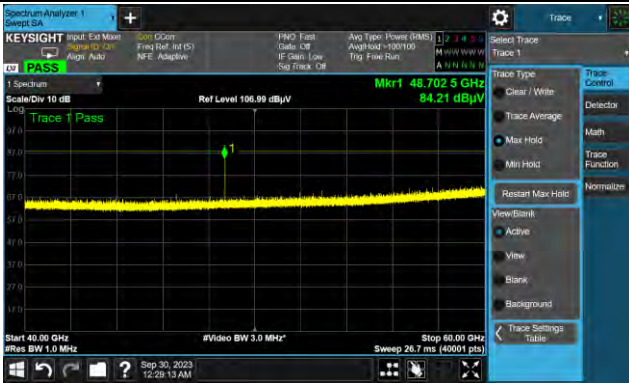
Antenna 0 (M patch)
Low Channel



Antenna 1 (N patch)
Low Channel



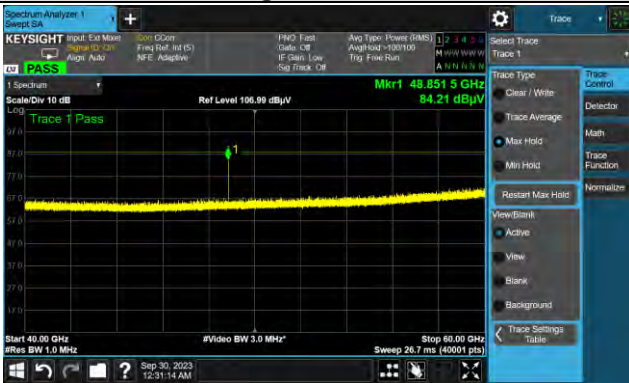
Middle Channel



Middle Channel



High Channel



High Channel

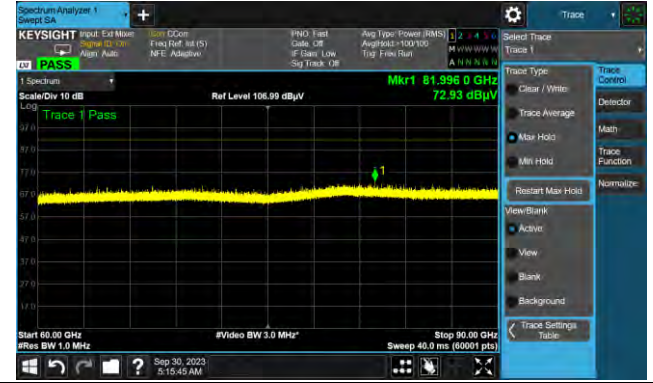


n258a, 60 GHz ~ 90 GHz

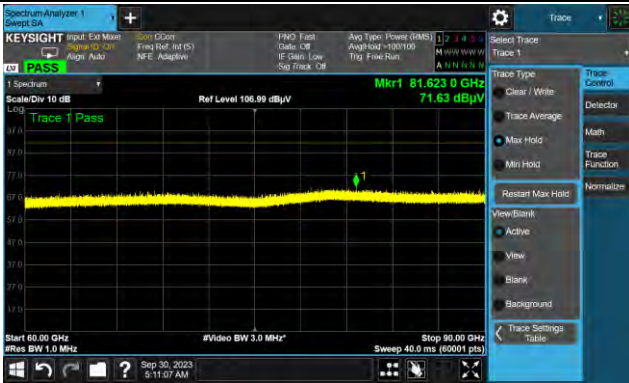
**Antenna 0 (M patch)
Low Channel**



**Antenna 1 (N patch)
Low Channel**



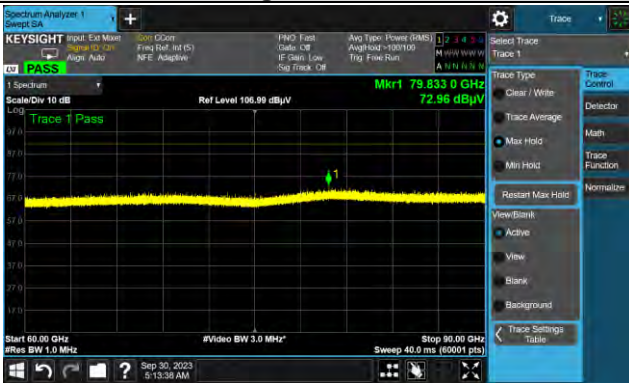
Middle Channel



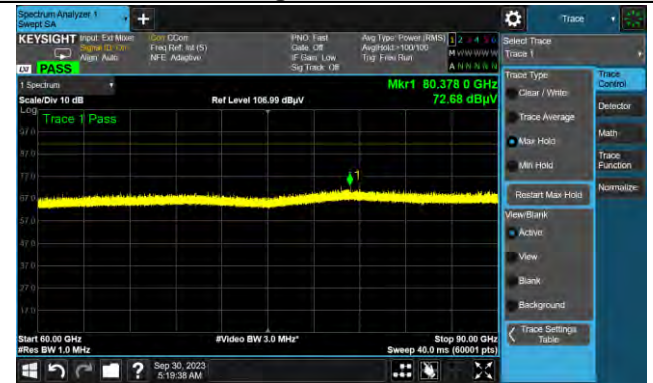
Middle Channel



High Channel

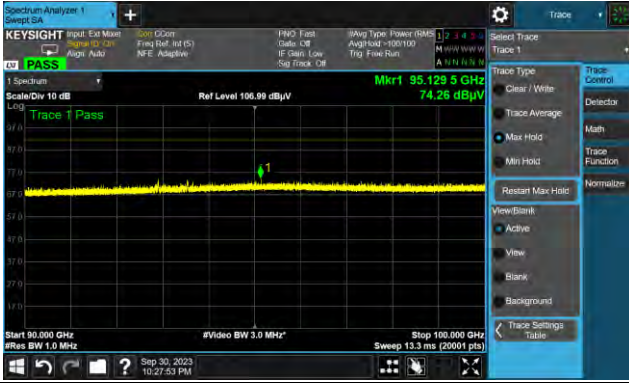


High Channel



n258a, 90 GHz ~ 100 GHz

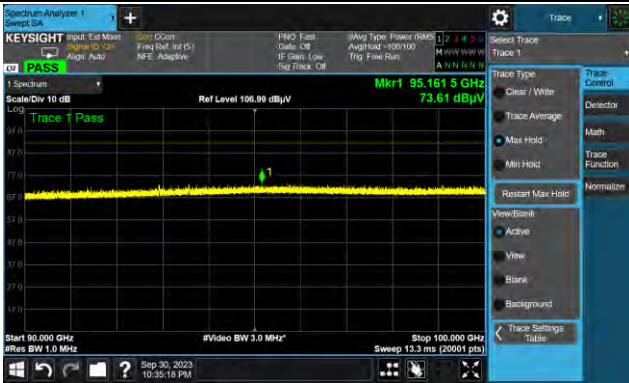
**Antenna 0 (M patch)
Low Channel**



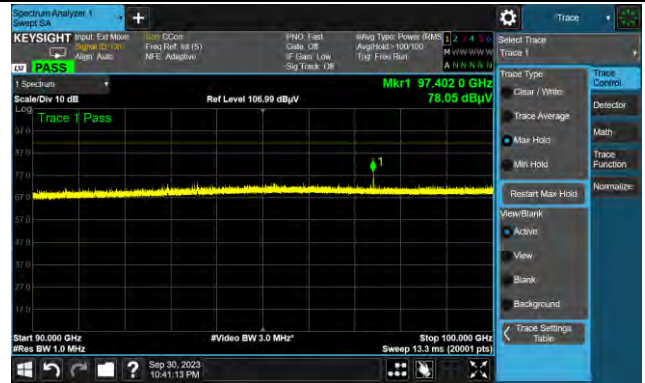
**Antenna 1 (N patch)
Low Channel**



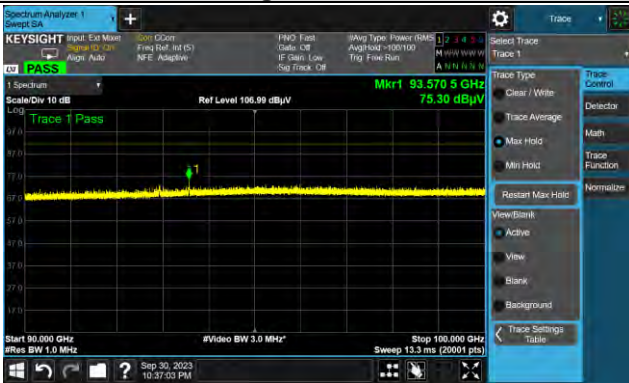
Middle Channel



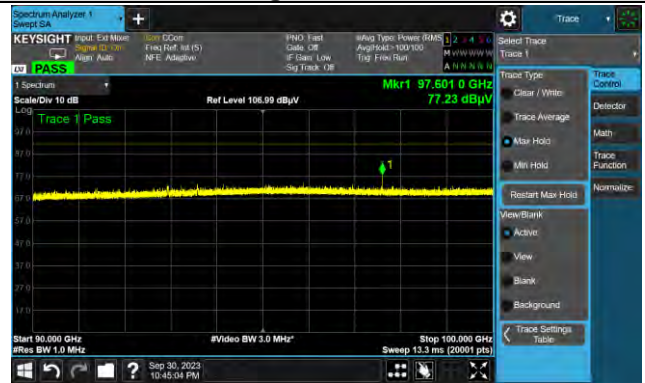
Middle Channel



High Channel

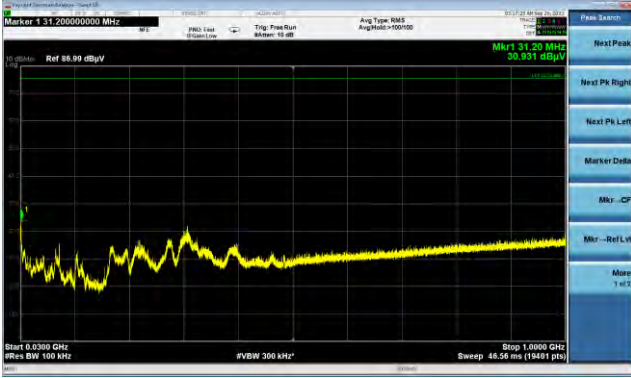


High Channel

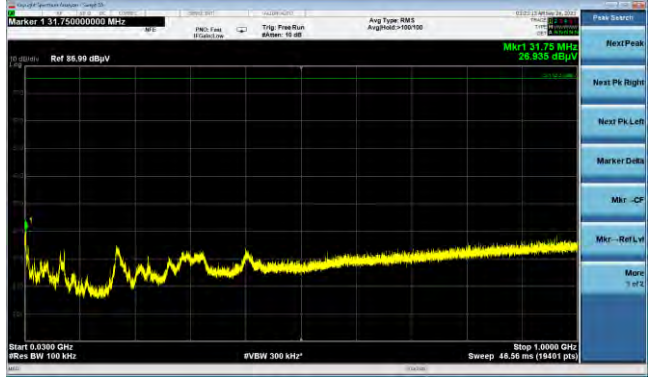


n258b, 30 MHz ~ 1 GHz

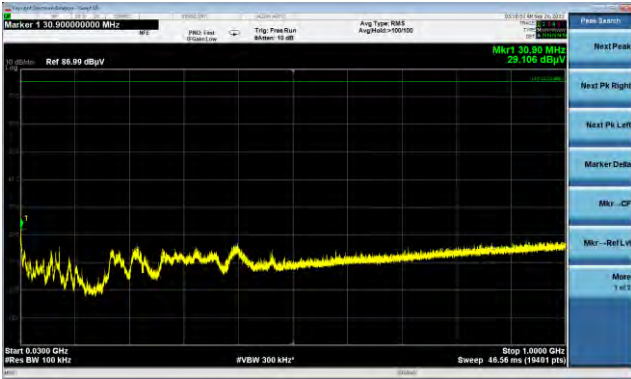
Antenna 0 (M patch)
Low Channel



Antenna 1 (N patch)
Low Channel



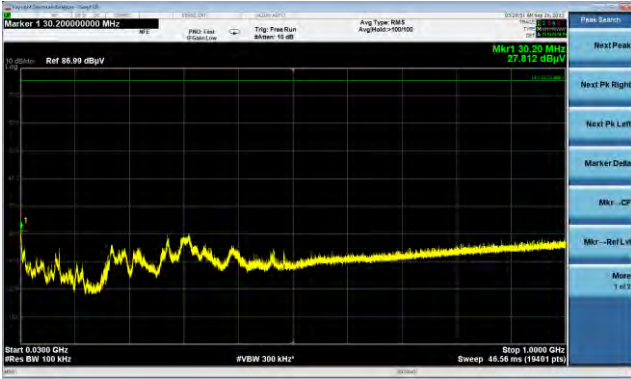
Middle Channel



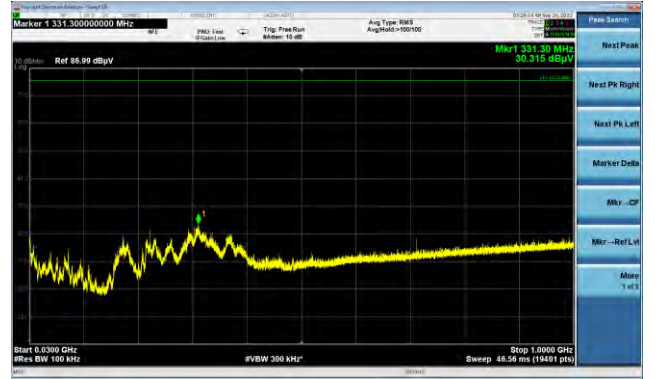
Middle Channel

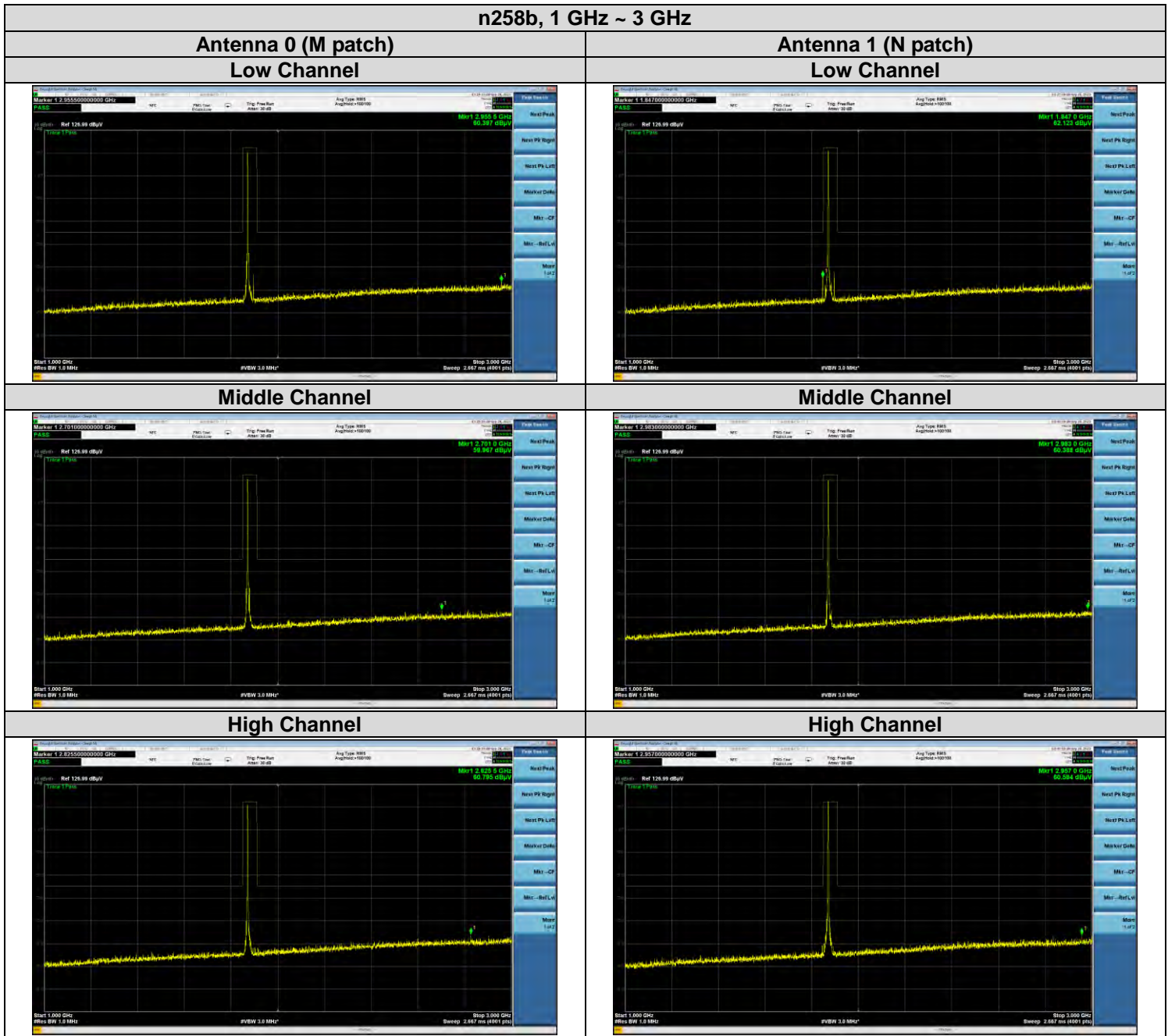


High Channel



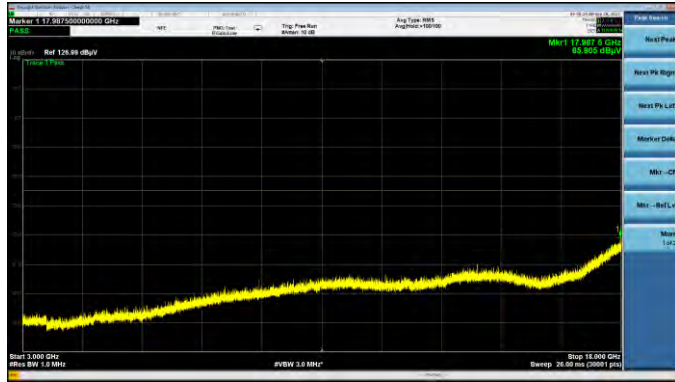
High Channel



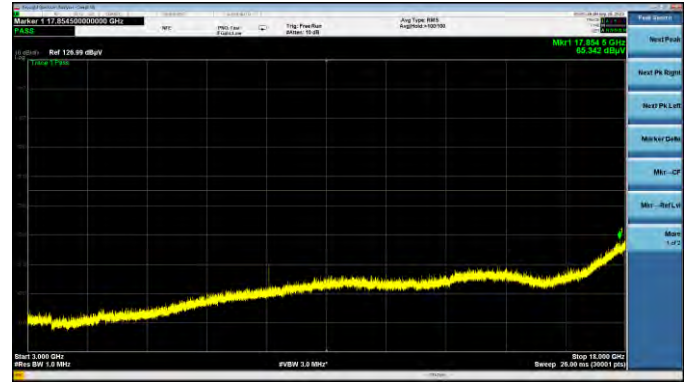


n258b, 3 GHz ~ 18 GHz

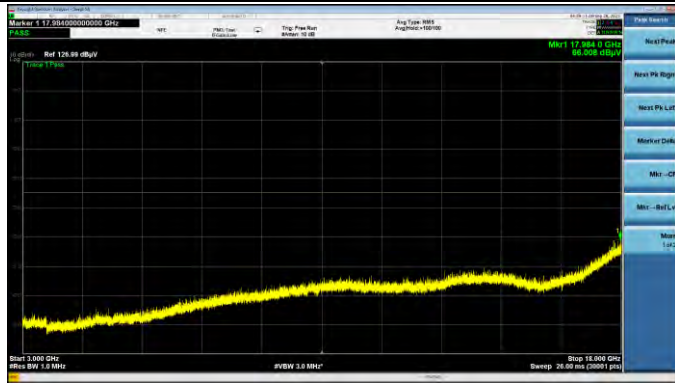
Antenna 0 (M patch)
Low Channel



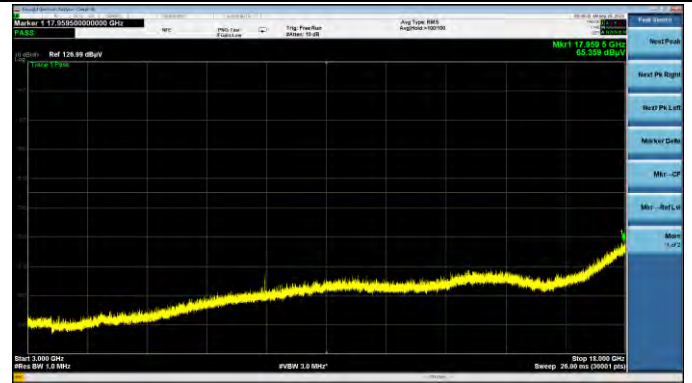
Antenna 1 (N patch)
Low Channel



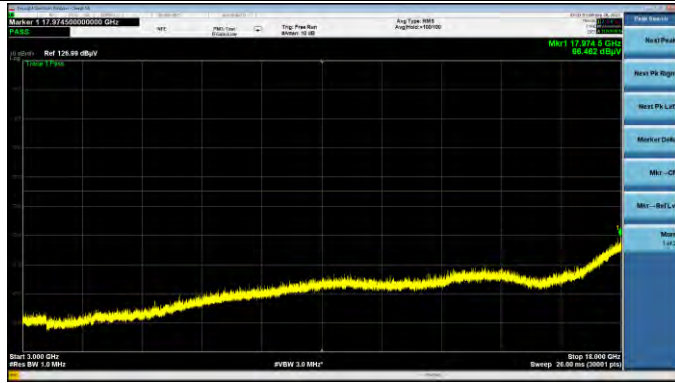
Middle Channel



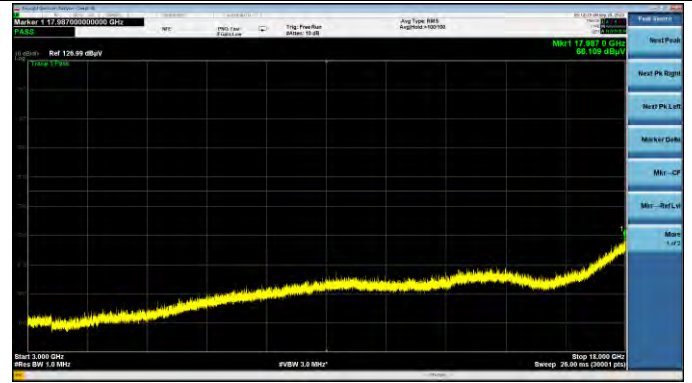
Middle Channel



High Channel

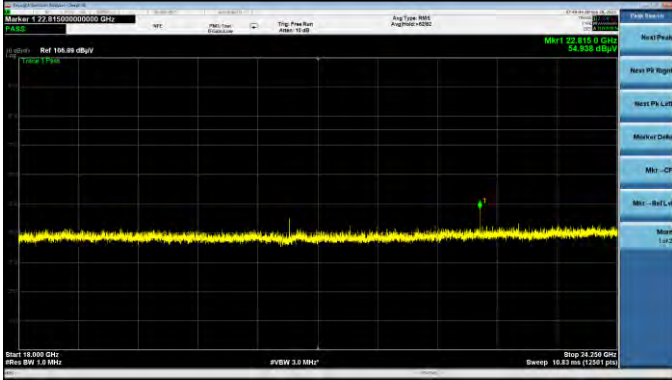


High Channel

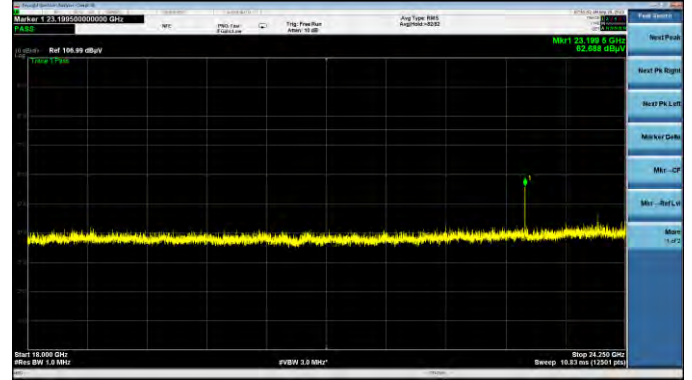


n258b, 18 GHz ~ 24.25 GHz

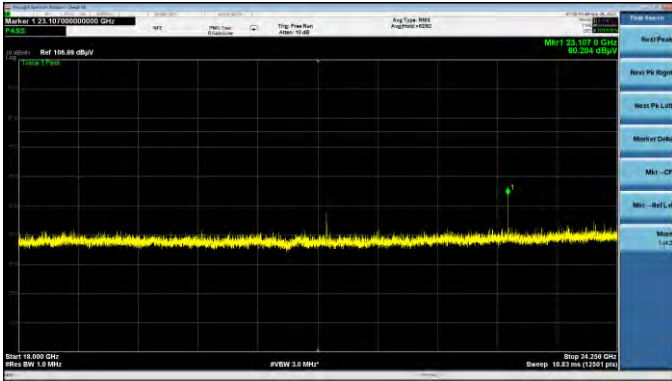
**Antenna 0 (M patch)
Low Channel**



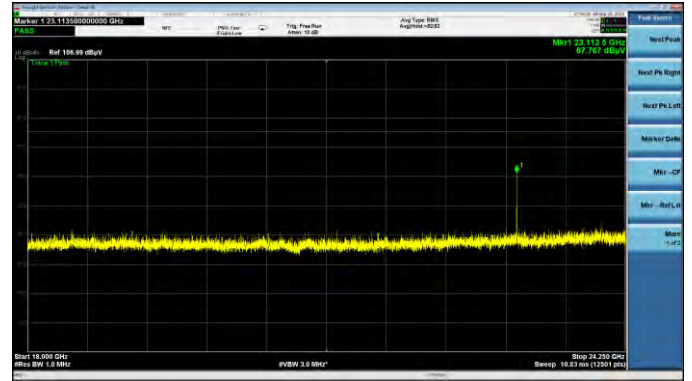
**Antenna 1 (N patch)
Low Channel**



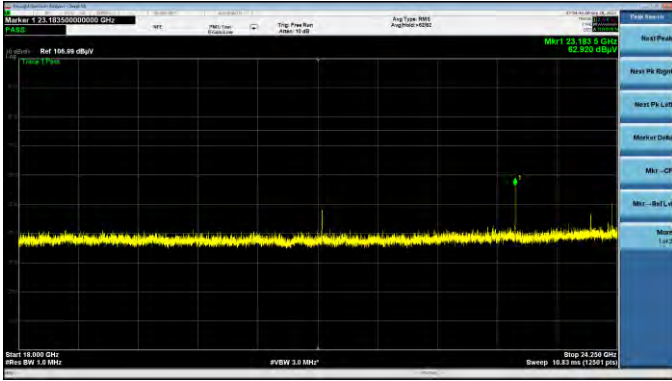
Middle Channel



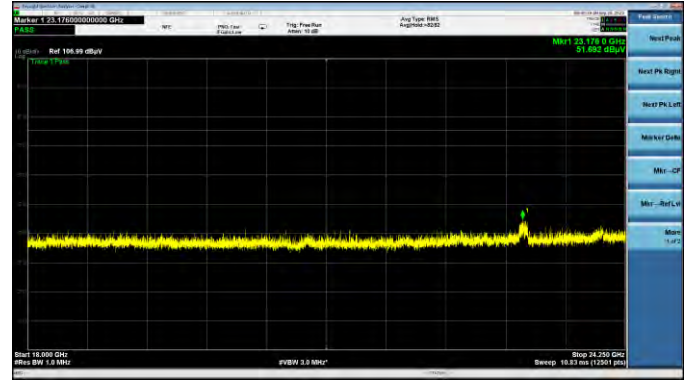
Middle Channel



High Channel

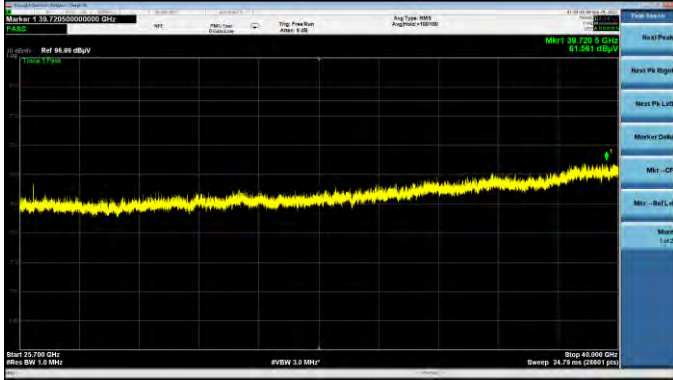


High Channel

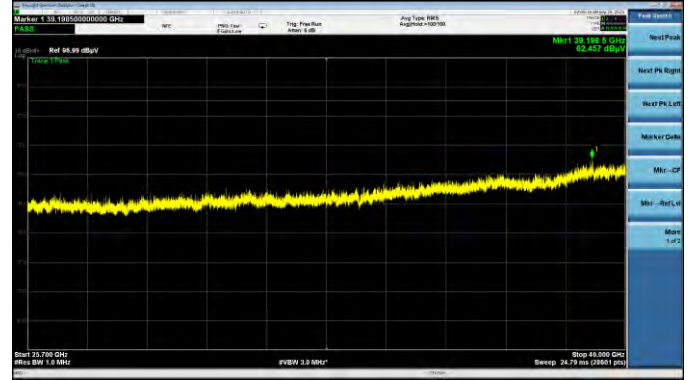


n258b, 25.70 GHz ~ 40 GHz

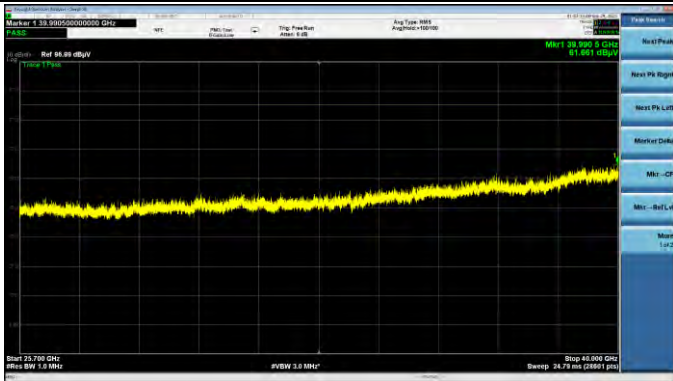
**Antenna 0 (M patch)
Low Channel**



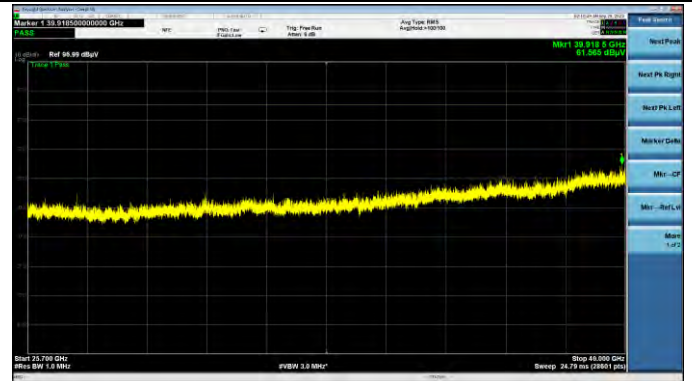
**Antenna 1 (N patch)
Low Channel**



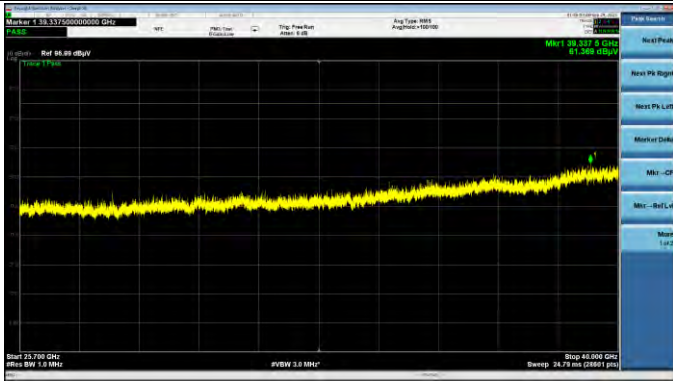
Middle Channel



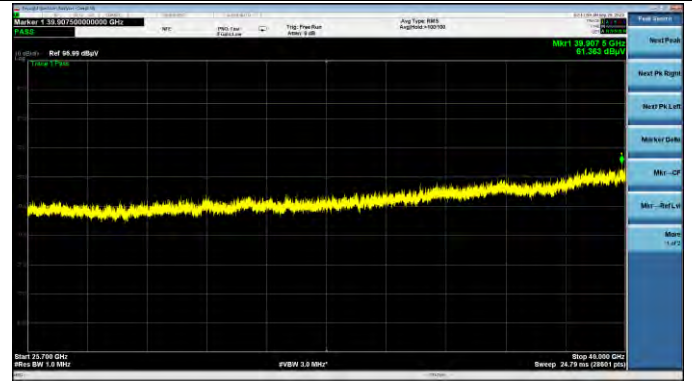
Middle Channel



High Channel

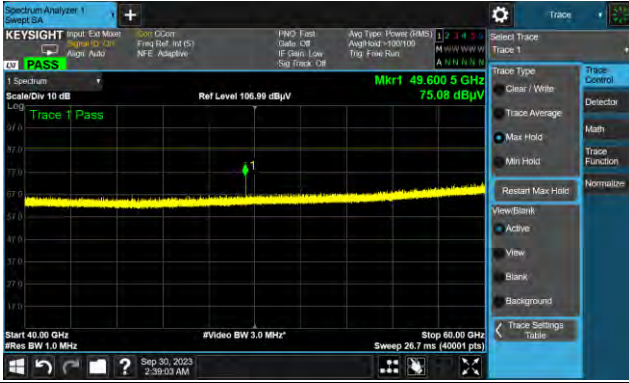


High Channel

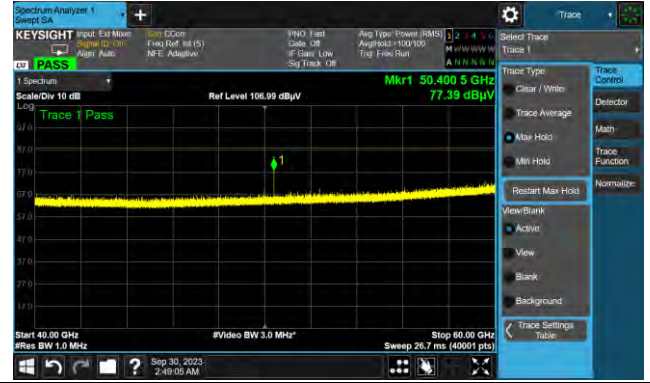


n258b, 40 GHz ~ 60 GHz

Antenna 0 (M patch)
Low Channel



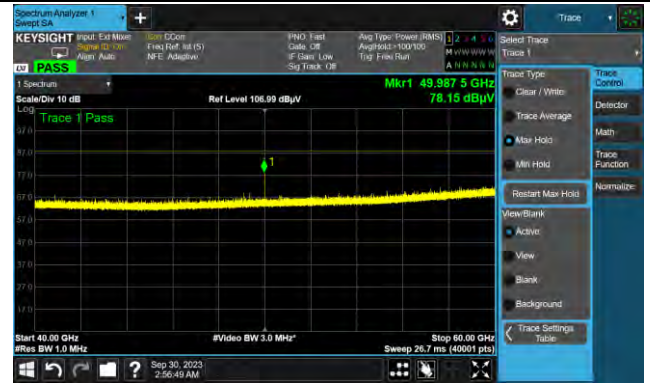
Antenna 1 (N patch)
Low Channel



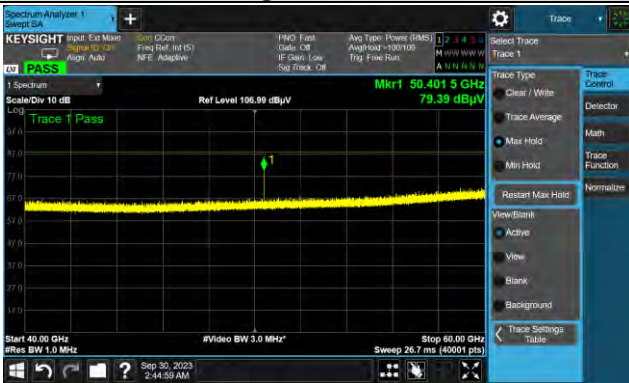
Middle Channel



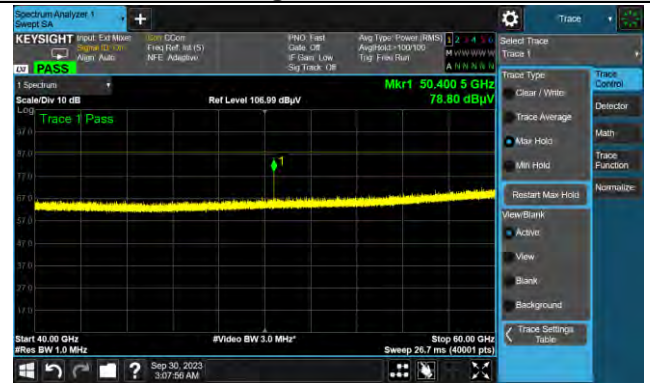
Middle Channel



High Channel

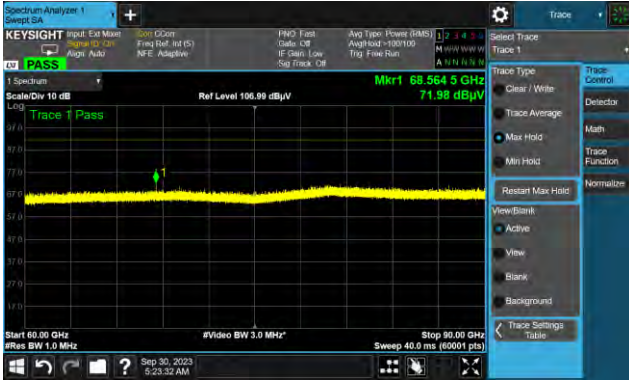


High Channel



n258b, 60 GHz ~ 90 GHz

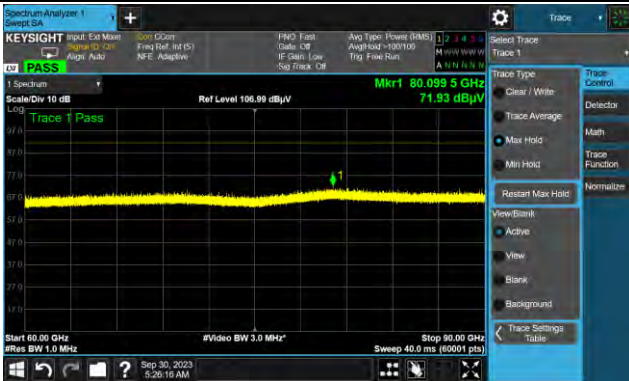
**Antenna 0 (M patch)
Low Channel**



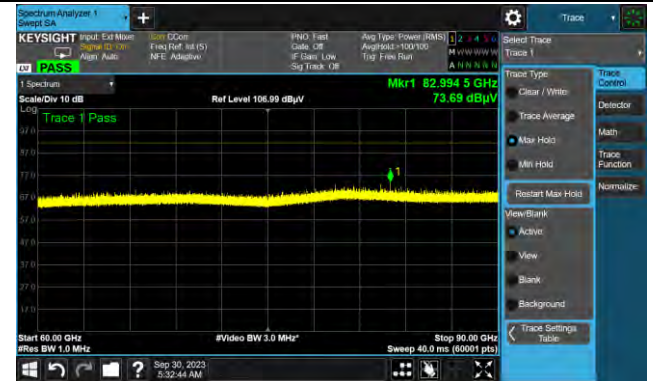
**Antenna 1 (N patch)
Low Channel**



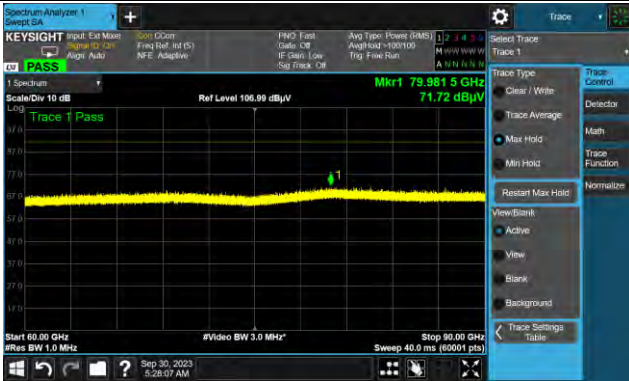
Middle Channel



Middle Channel



High Channel



High Channel

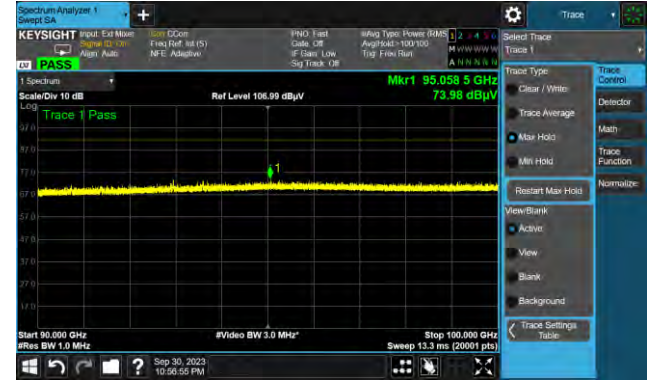


n258b, 90 GHz ~ 100 GHz

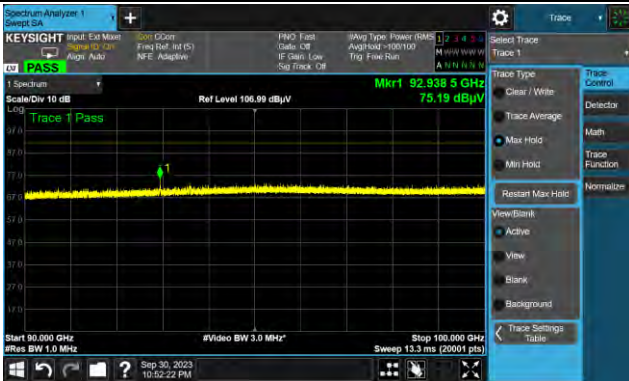
**Antenna 0 (M patch)
Low Channel**



**Antenna 1 (N patch)
Low Channel**



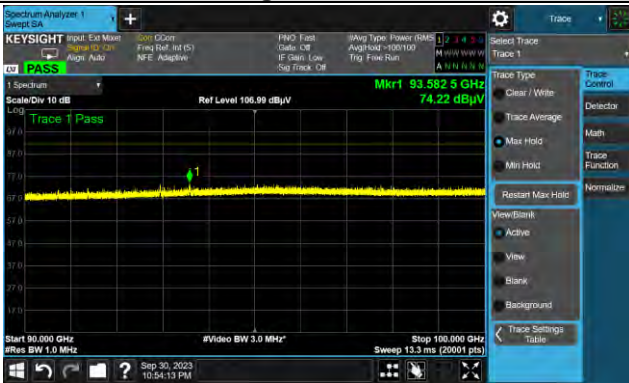
Middle Channel



Middle Channel



High Channel



High Channel

