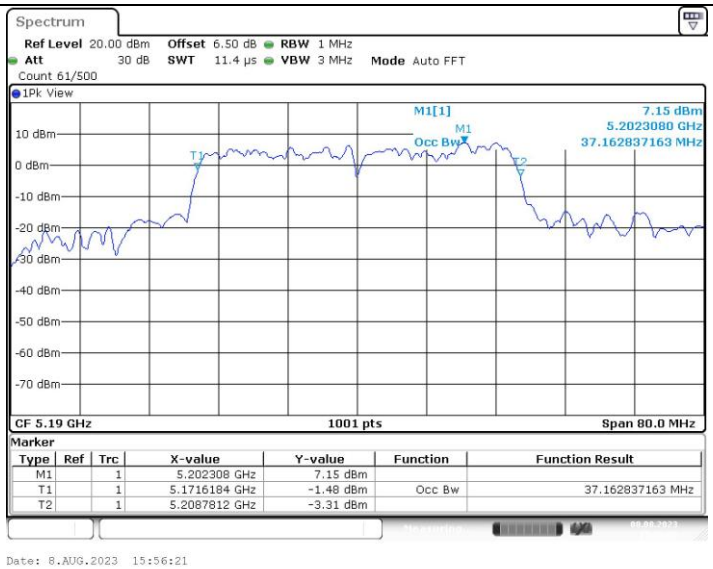
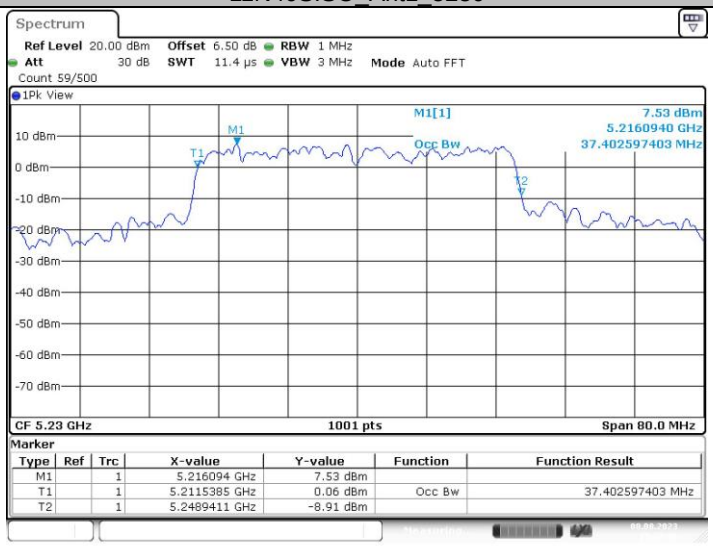
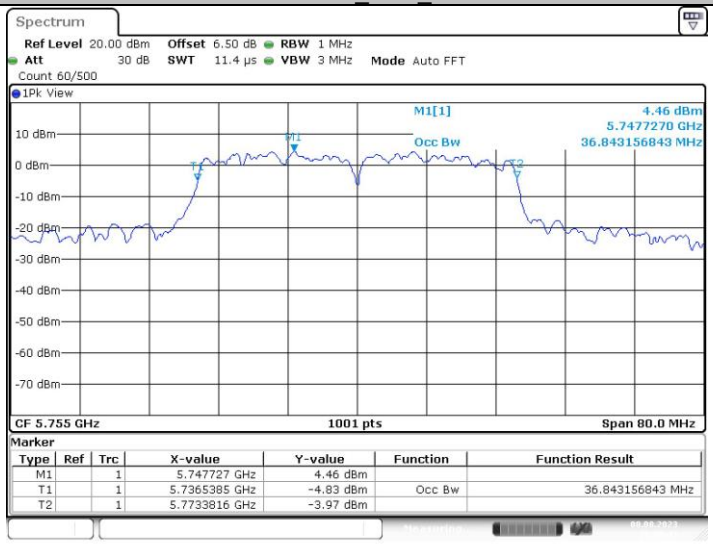


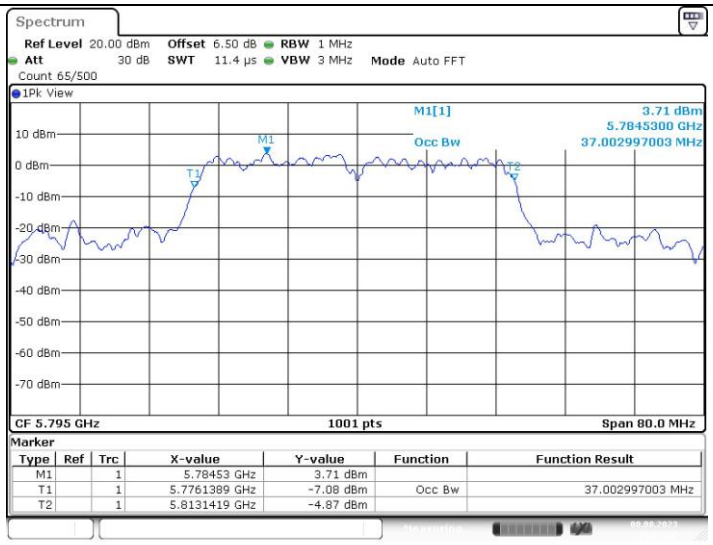
11N40SISO_Ant1_5230



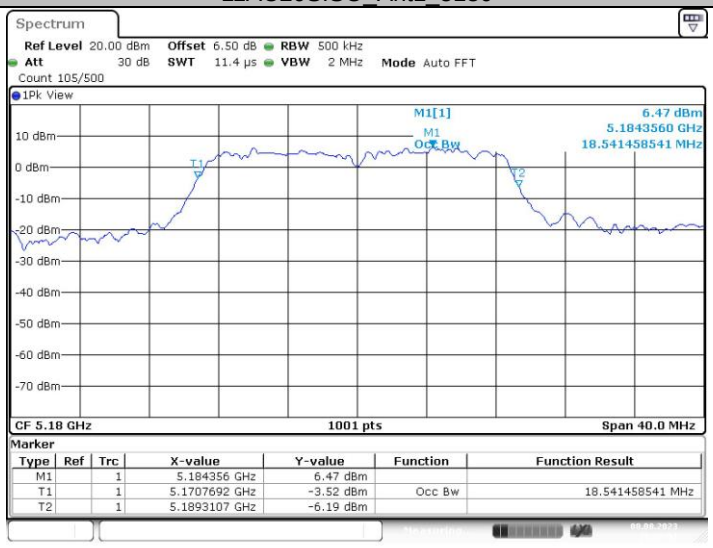
11N40SISO_Ant1_5755



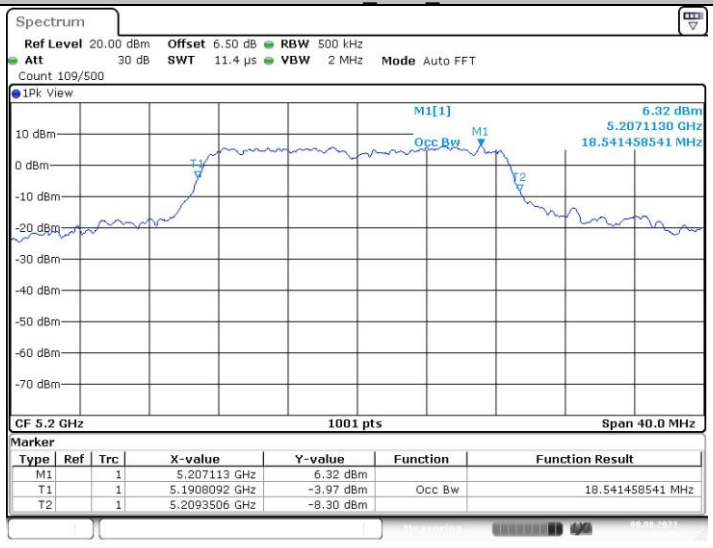
11N40SISO_Ant1_5795



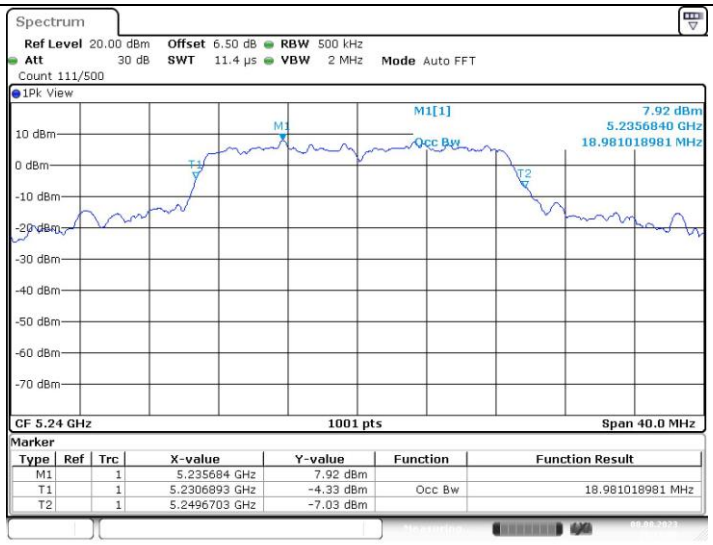
11AC20SISO_Ant1_5180



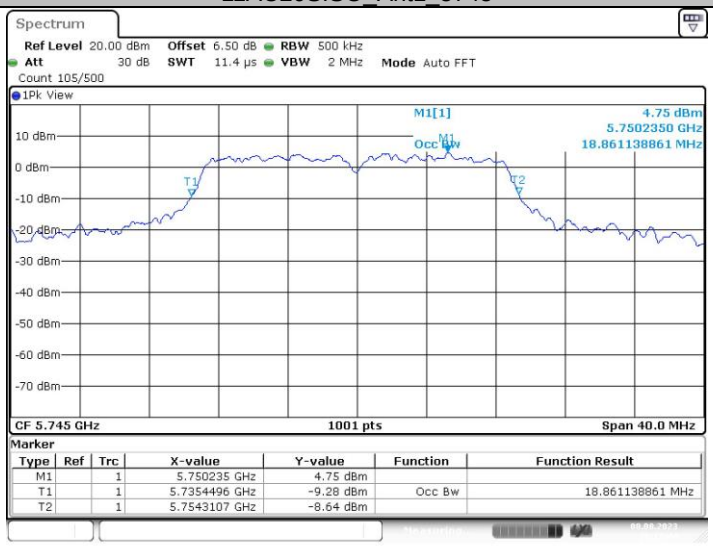
11AC20SISO_Ant1_5200



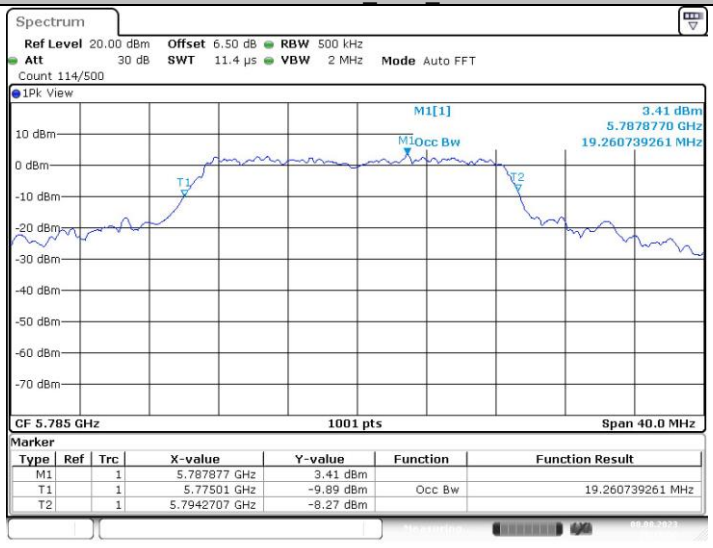
11AC20SISO_Ant1_5240



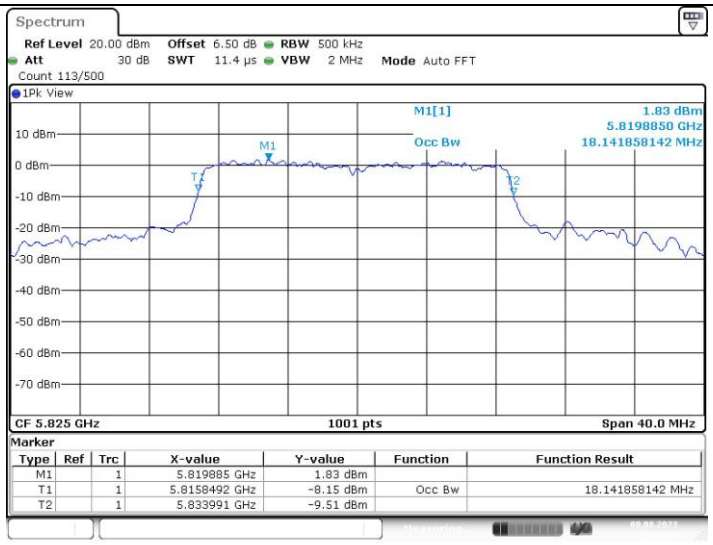
11AC20SISO_Ant1_5745



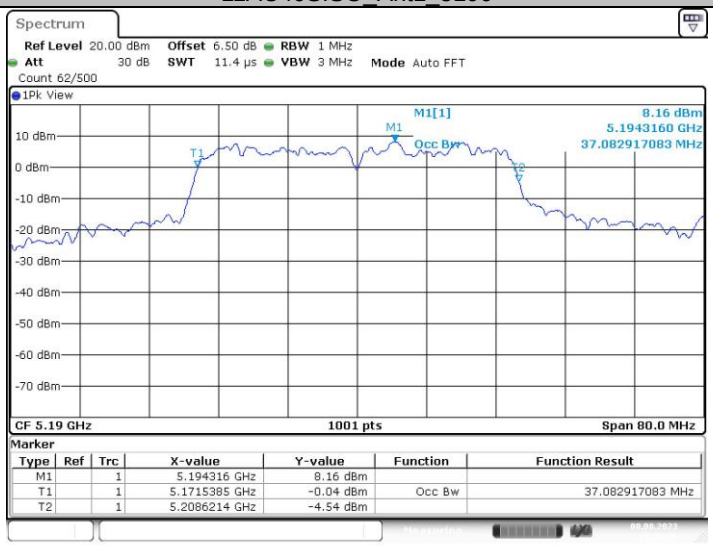
11AC20SISO_Ant1_5785



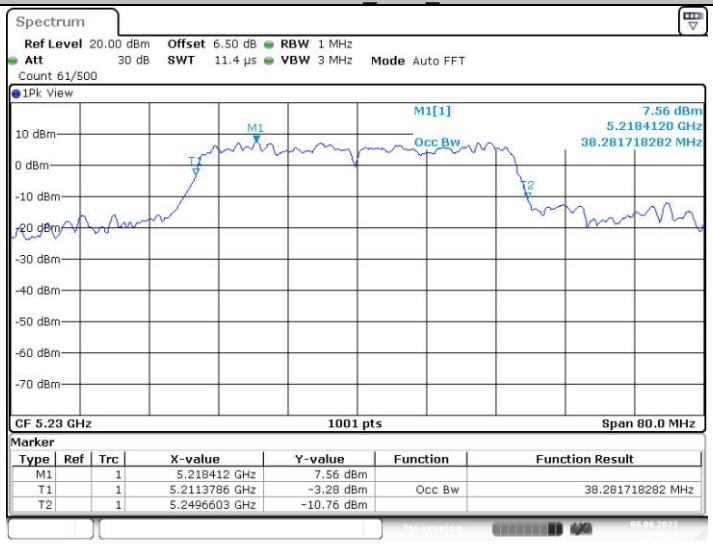
11AC20SISO_Ant1_5825



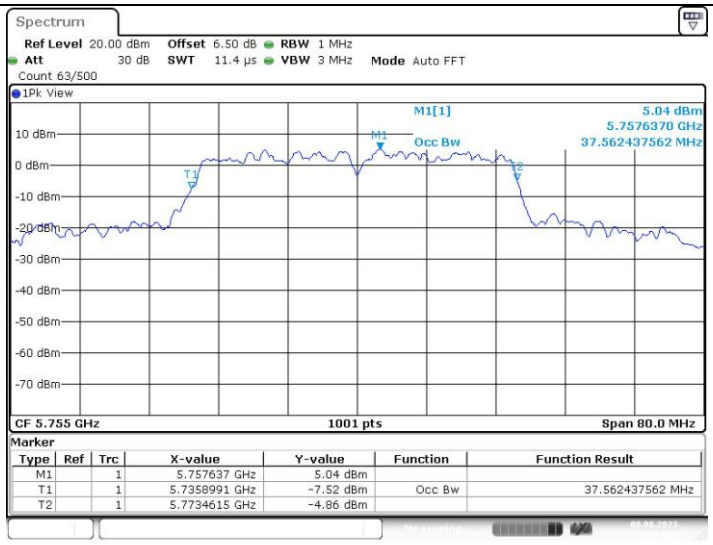
11AC40SISO_Ant1_5190



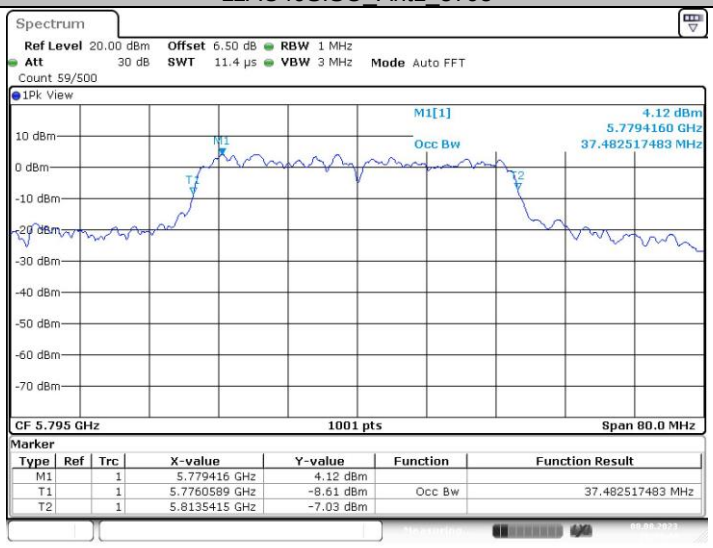
11AC40SISO_Ant1_5230



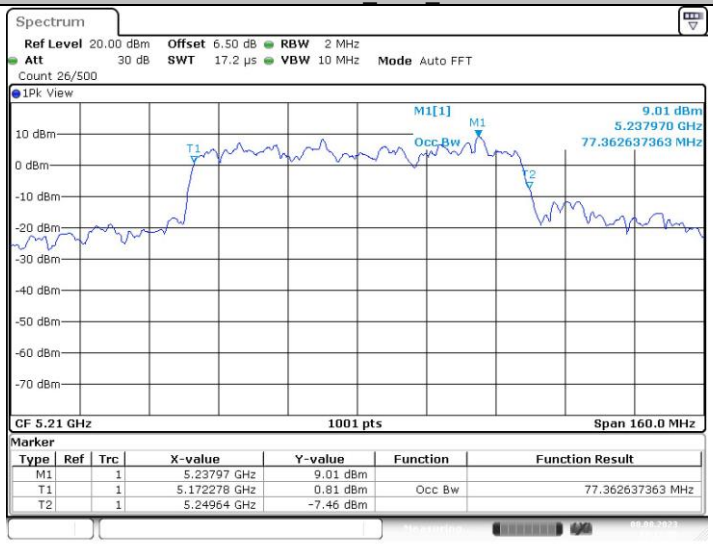
11AC40SISO_Ant1_5755



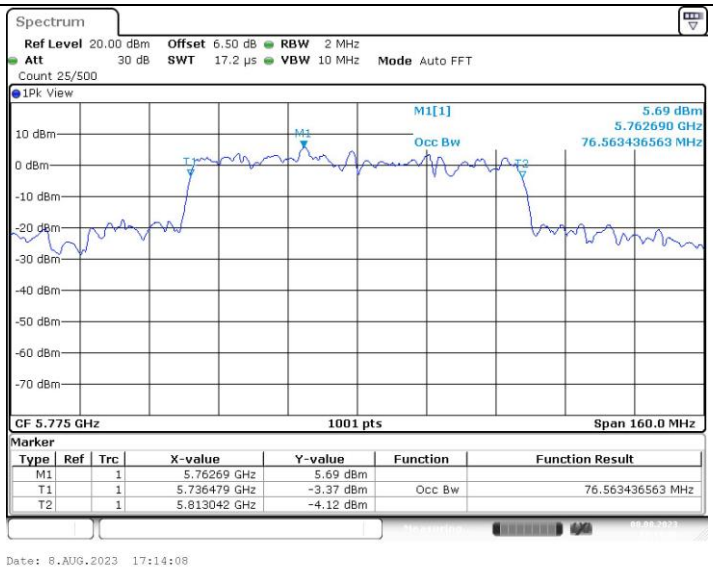
11AC40SISO_Ant1_5795



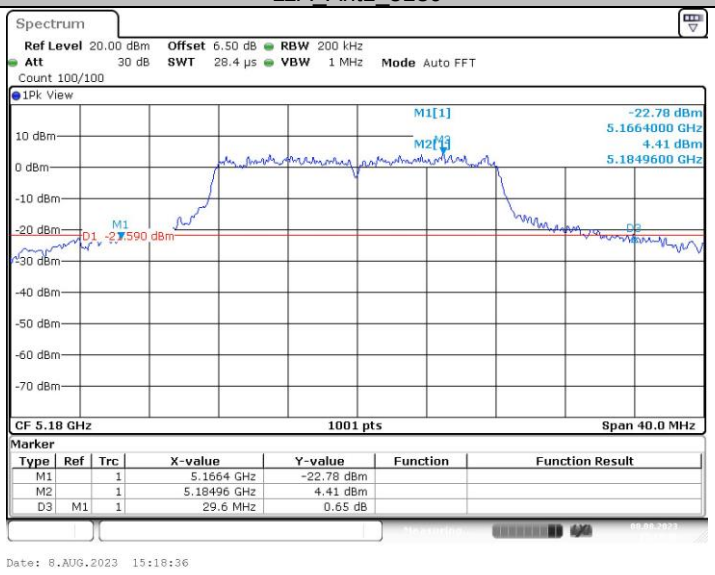
11AC80SISO_Ant1_5210

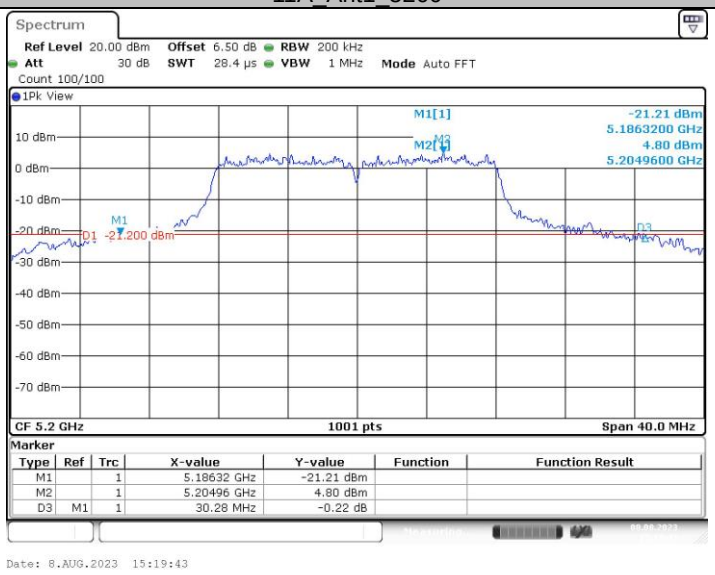


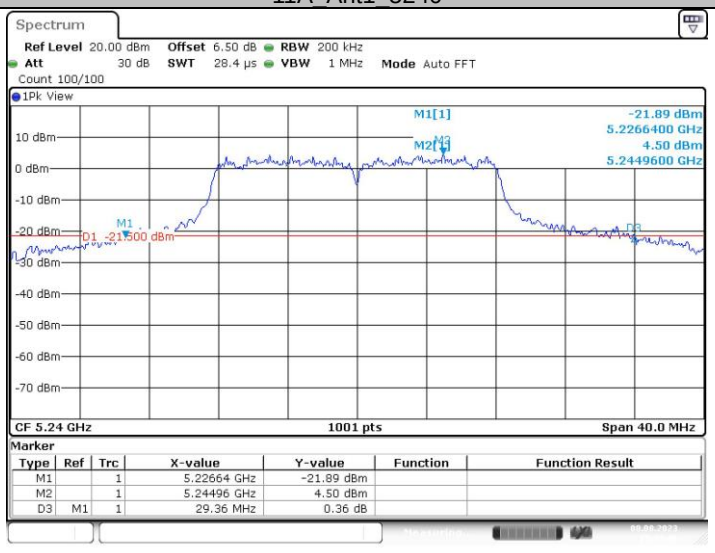
11AC80SISO_Ant1_5775


Spectrum
Ref Level 20.00 dBm Offset 6.50 dB RBW 2 MHz
Att 30 dB SWT 17.2 µs VBW 10 MHz Mode Auto FFT
Count 25/500
1Pk View
M1[1] 5.69 dBm
5.762690 GHz
Occ Bw 76.563436563 MHz
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 5.775 GHz 1001 pts Span 160.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 5.76269 GHz 5.69 dBm
T1 1 5.736479 GHz -3.37 dBm Occ Bw 76.563436563 MHz
T2 1 5.813042 GHz -4.12 dBm
Date: 8.AUG.2023 17:14:08

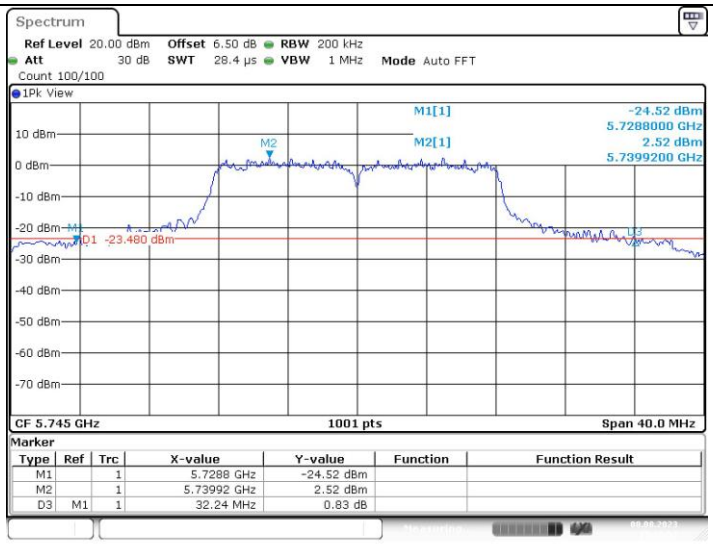
26dB Bandwidth:

11A_Ant1_5180


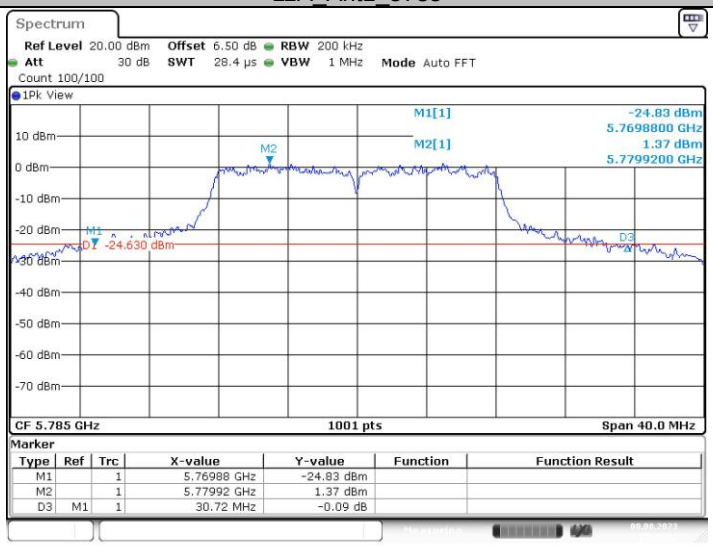
11A_Ant1_5200


11A_Ant1_5240


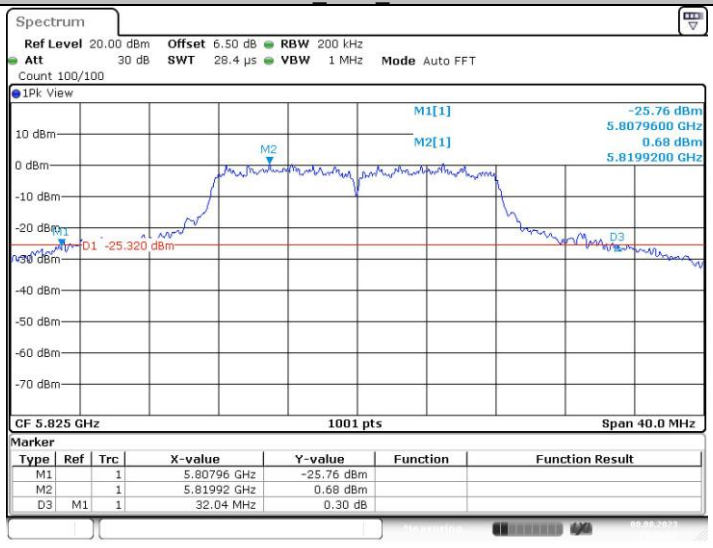
11A_Ant1_5745



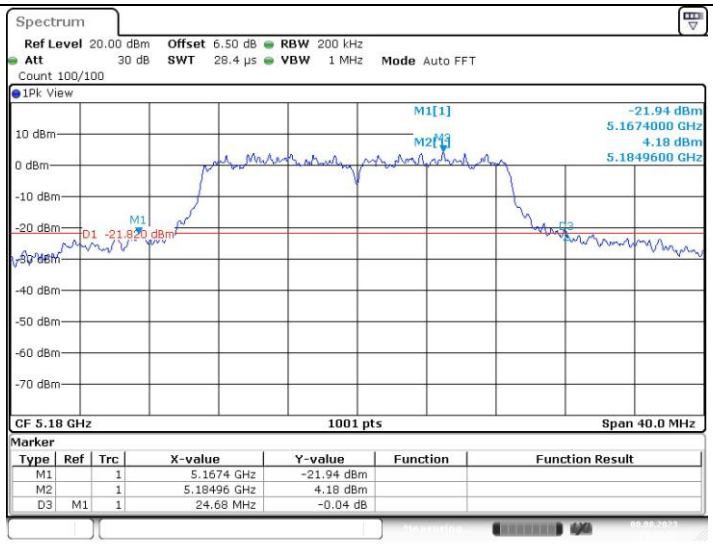
11A_Ant1_5785



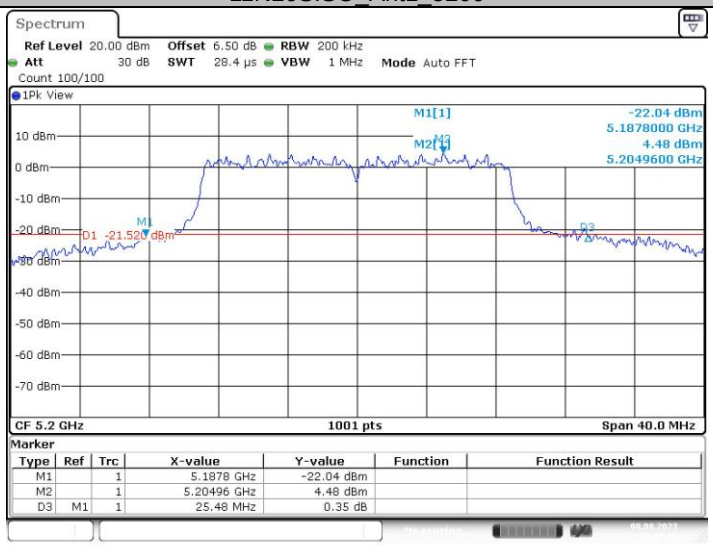
11A_Ant1_5825



11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



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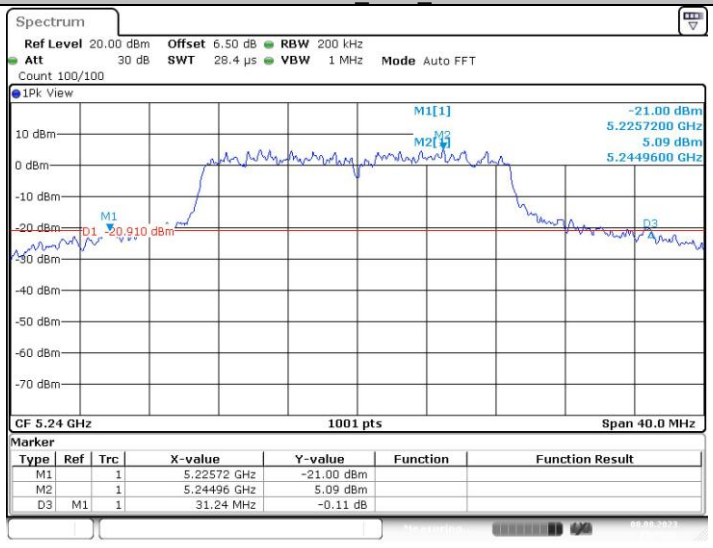

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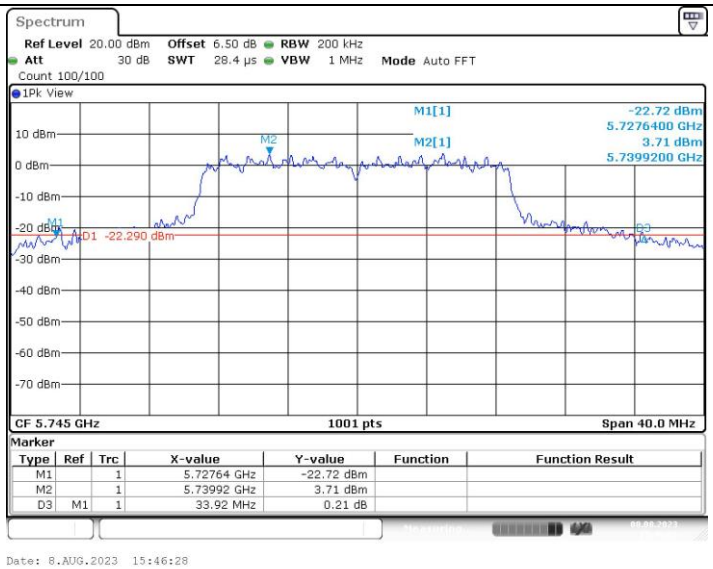

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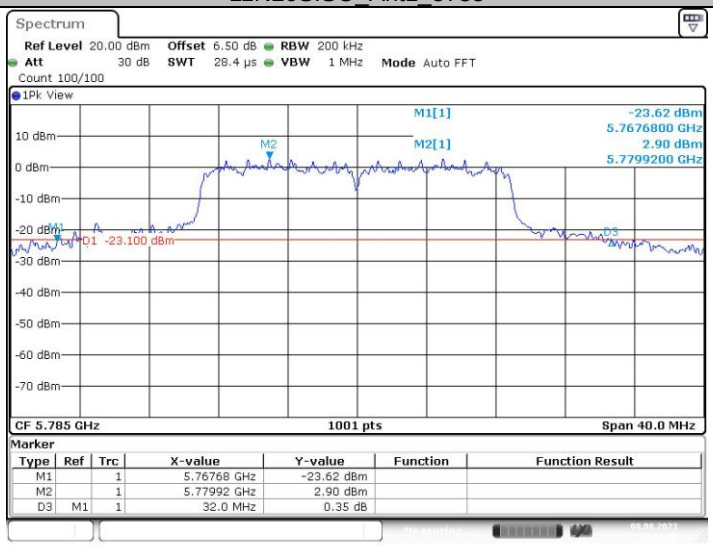
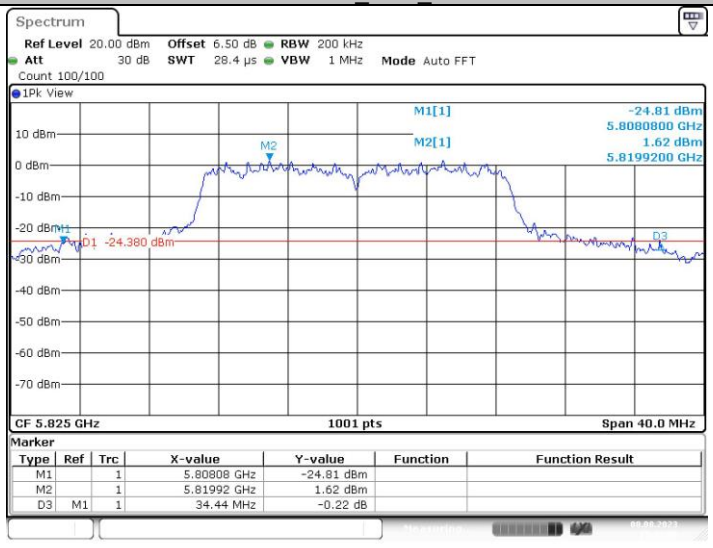
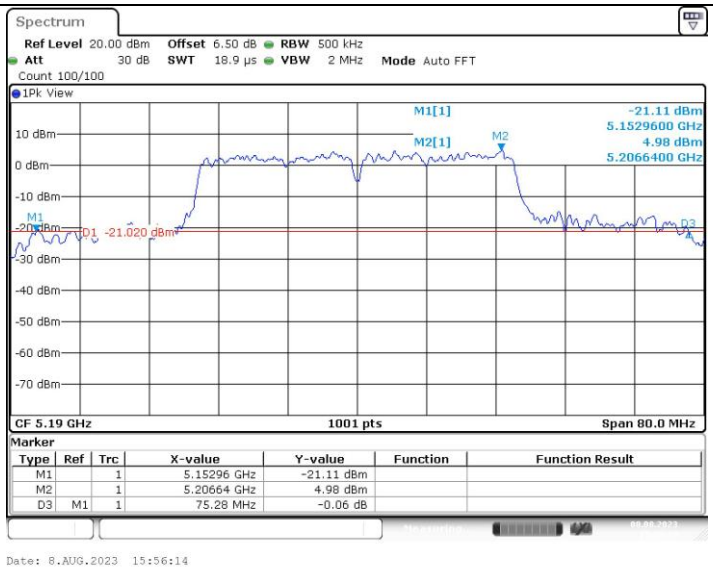


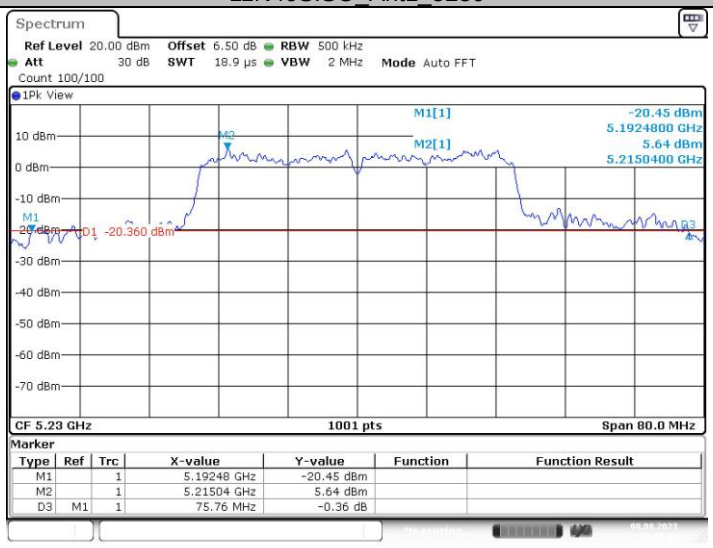
11N20SISO_Ant1_5825



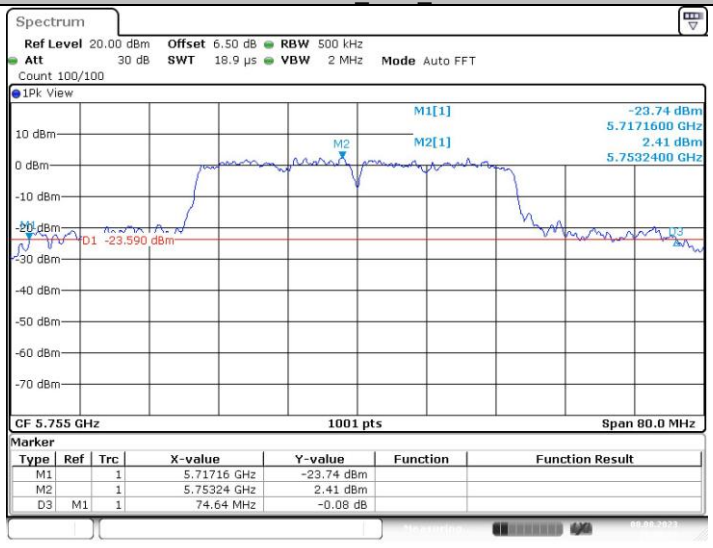
11N40SISO_Ant1_5190



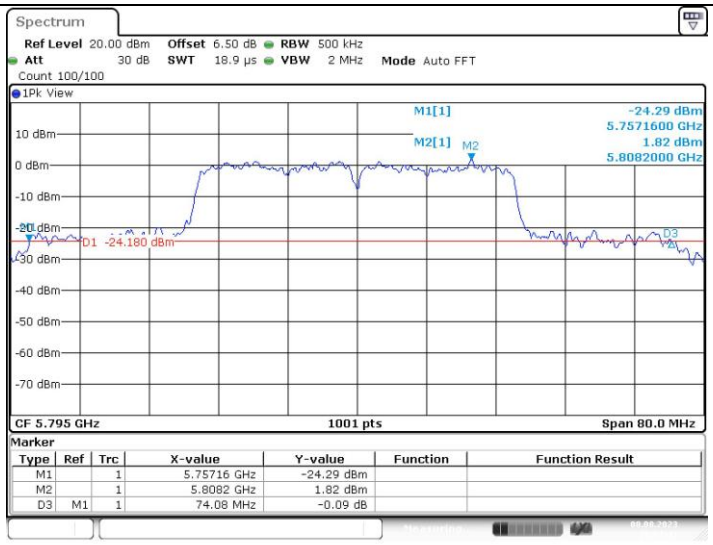
11N40SISO_Ant1_5230



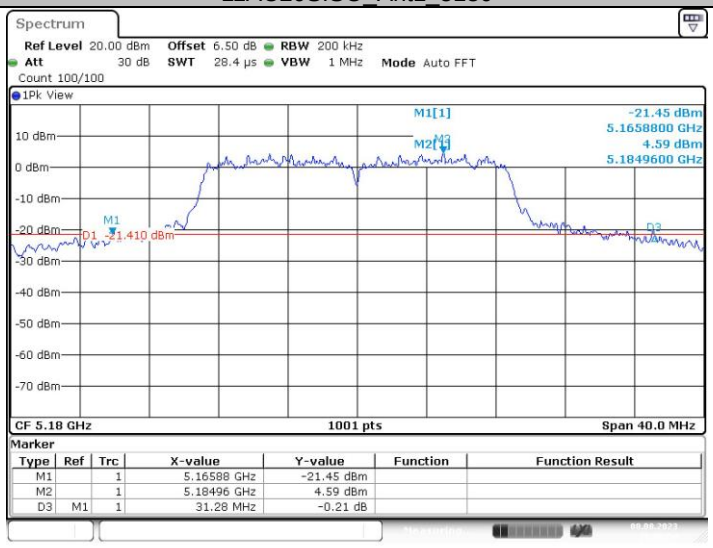
11N40SISO_Ant1_5755



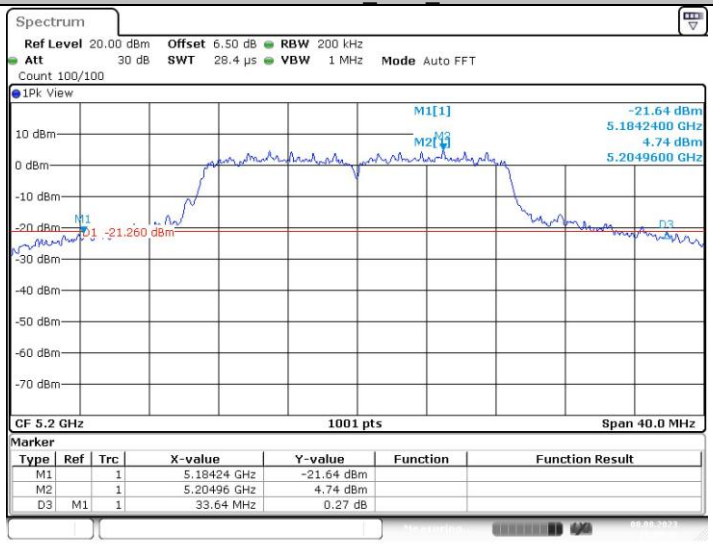
11N40SISO_Ant1_5795



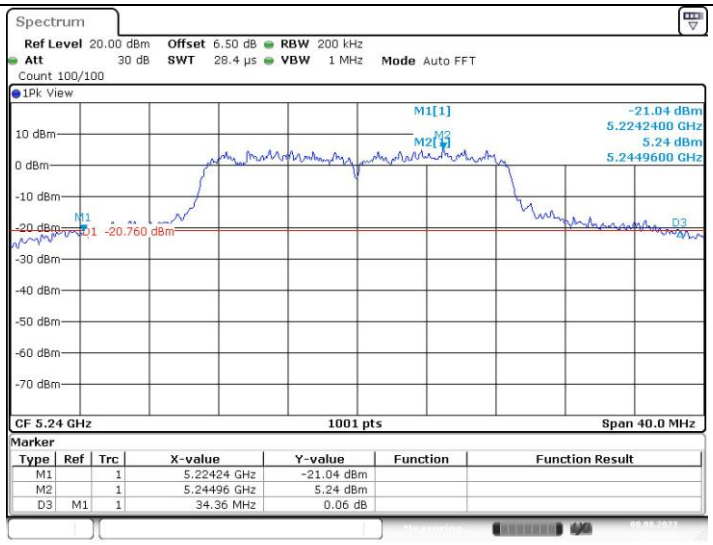
11AC20SISO_Ant1_5180



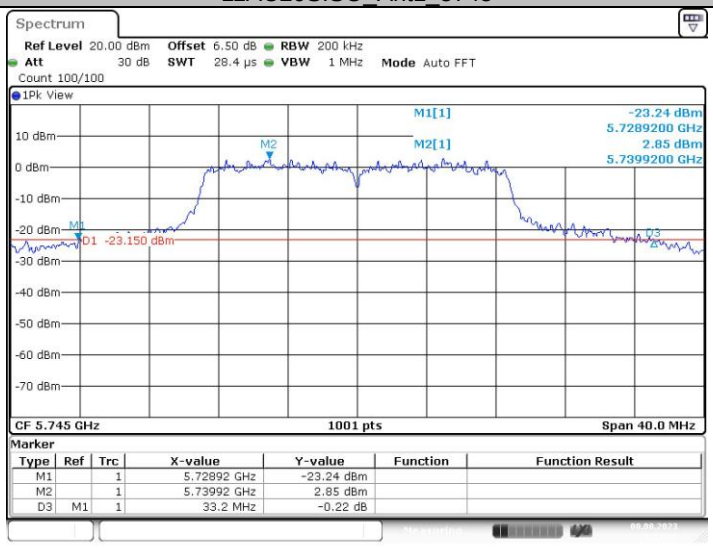
11AC20SISO_Ant1_5200



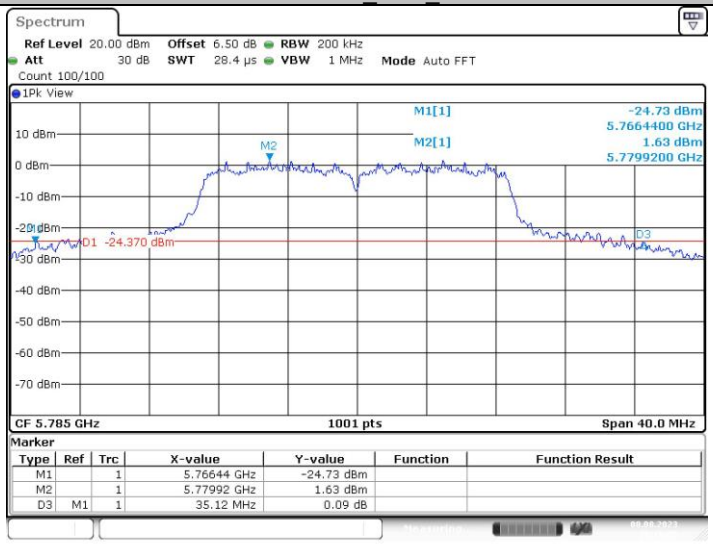
11AC20SISO_Ant1_5240



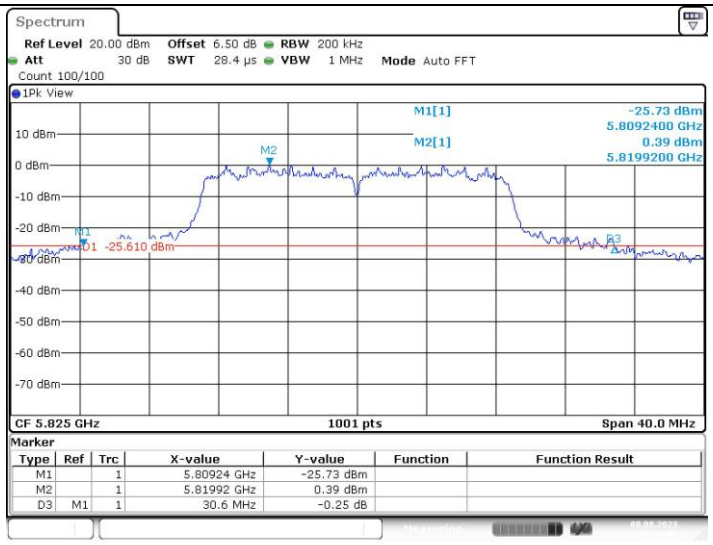
11AC20SISO_Ant1_5745



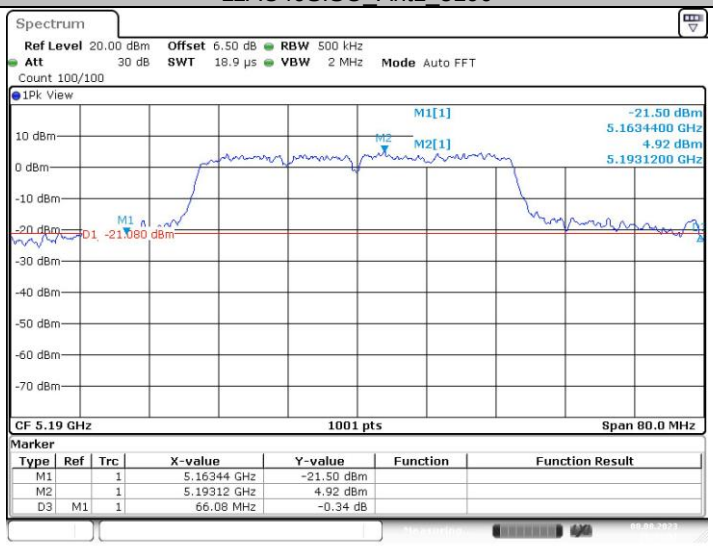
11AC20SISO_Ant1_5785



11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5190



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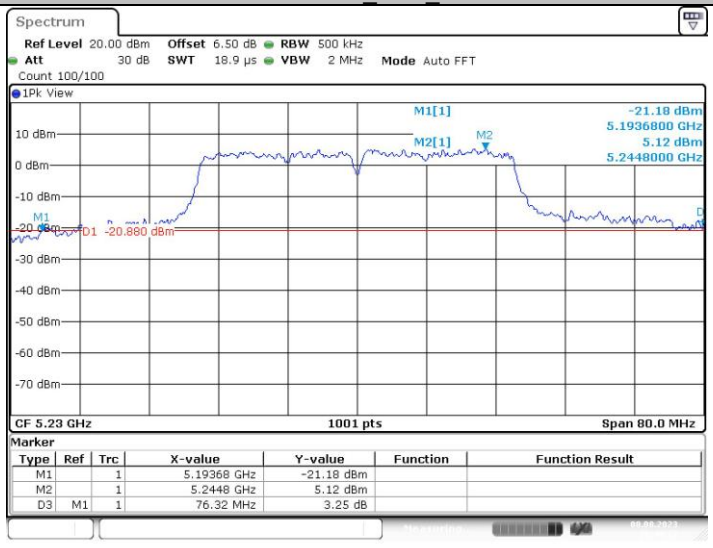
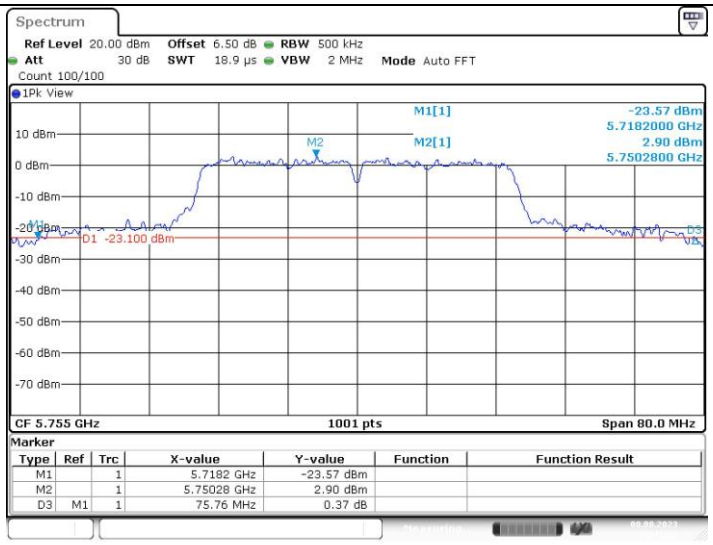
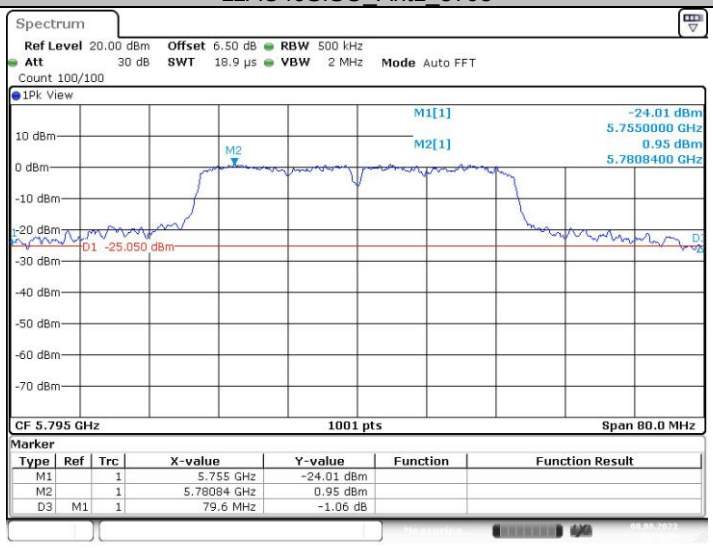


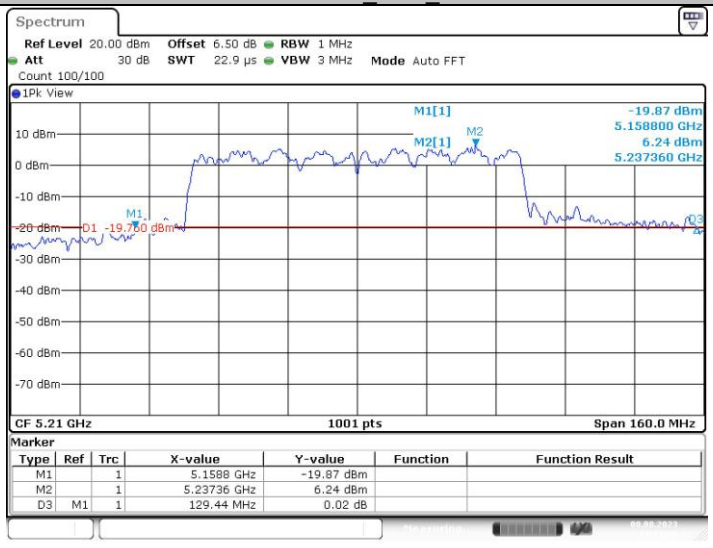
11AC40SISO_Ant1_5755



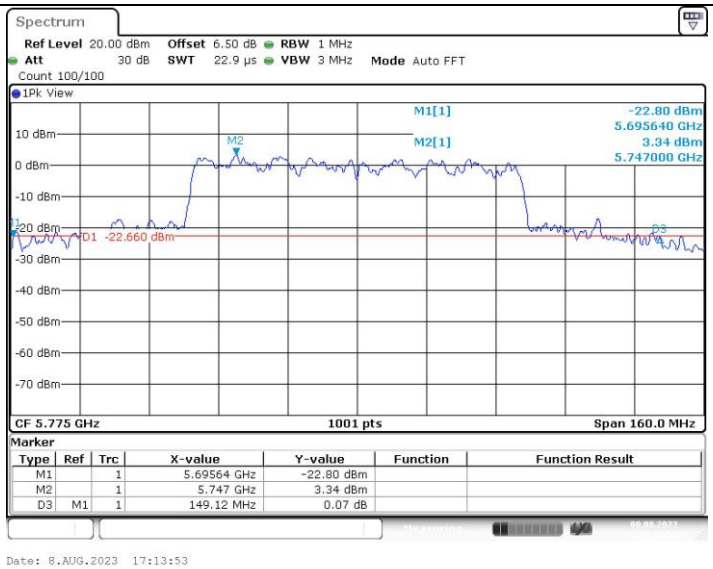
11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5210

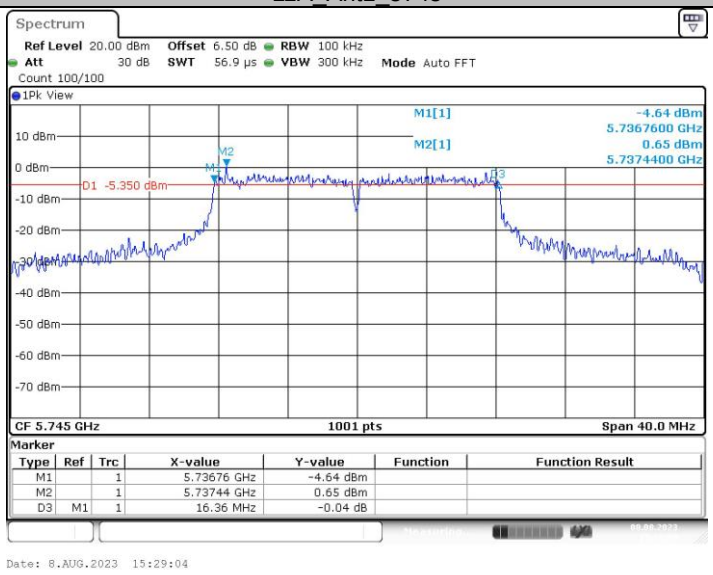


11AC80SISO_Ant1_5775

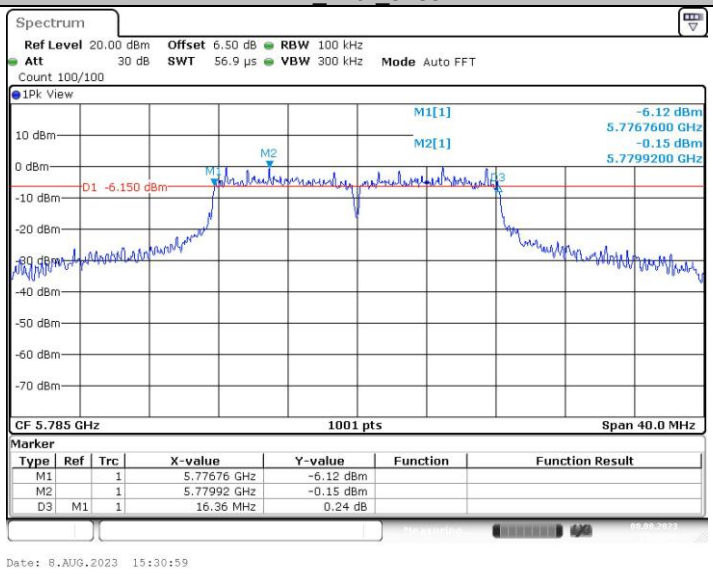

Spectrum
Ref Level 20.00 dBm Offset 6.50 dB RBW 1 MHz
Att 30 dB SWT 22.9 µs VBW 3 MHz Mode Auto FFT
Count 100/100
1Pk View
M1[1] -22.80 dBm
5.695640 GHz
M2[1] 3.34 dBm
5.747000 GHz
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
M2
D1 -22.660 dBm
D3
CF 5.775 GHz
1001 pts
Span 160.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 5.69564 GHz -22.80 dBm
M2 1 5.747 GHz 3.34 dBm
D3 M1 1 149.12 MHz 0.07 dB
Date: 8.AUG.2023 17:13:53

6dB Bandwidth:

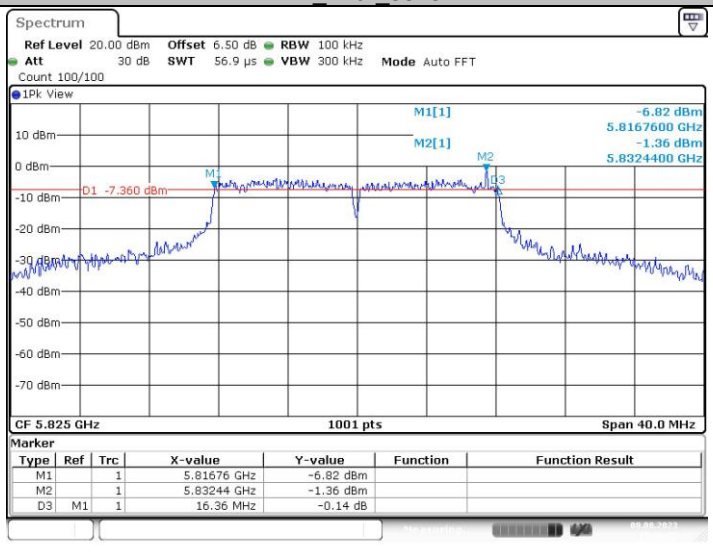
11A_Ant1_5745



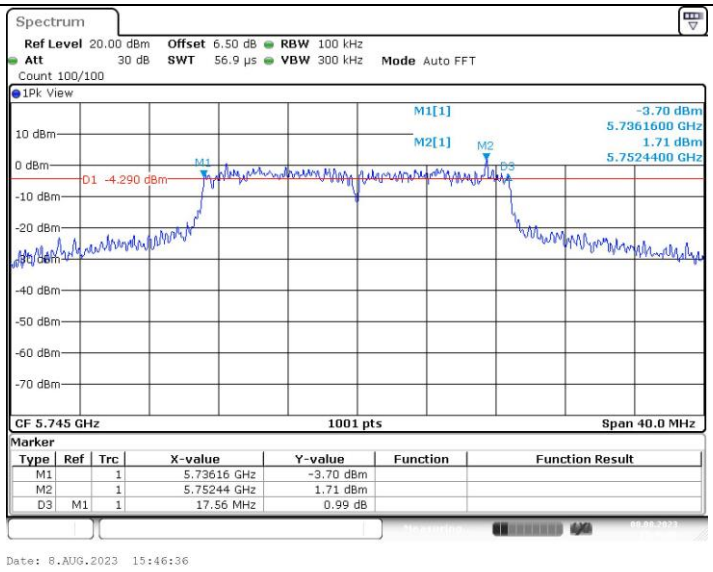
11A_Ant1_5785



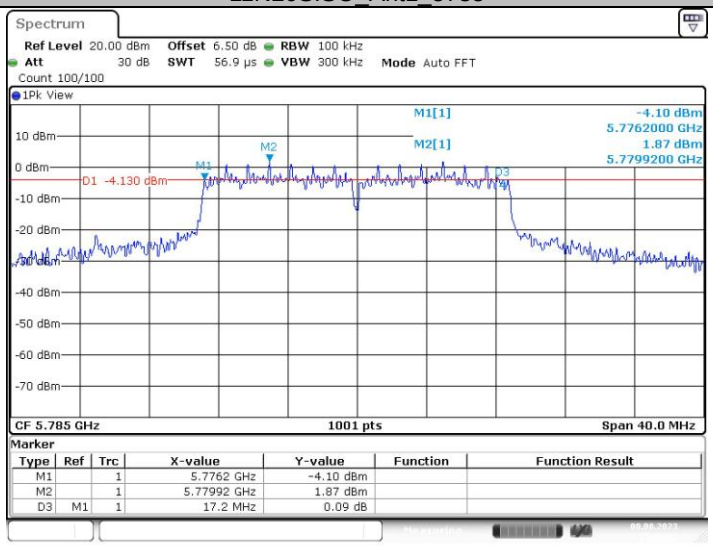
11A_Ant1_5825



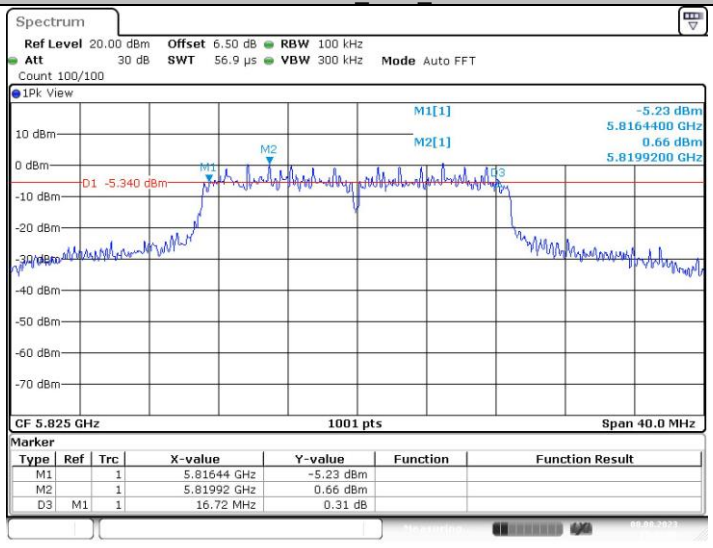
11N20SISO_Ant1_5745



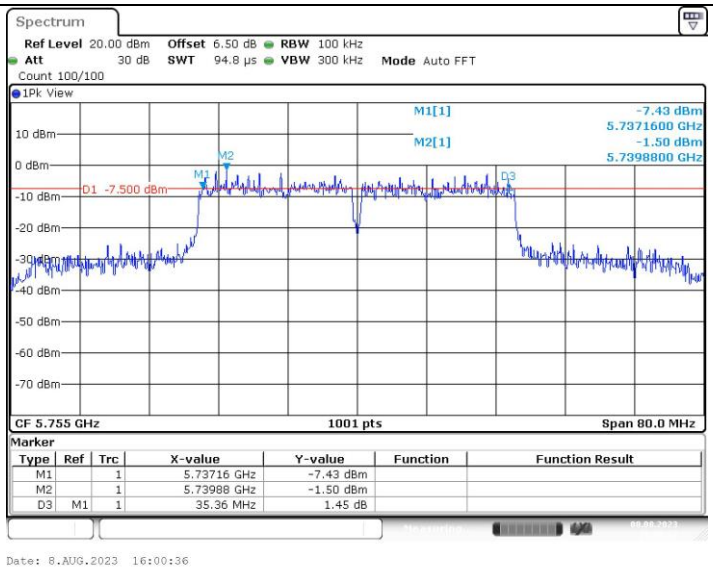
11N20SISO_Ant1_5785



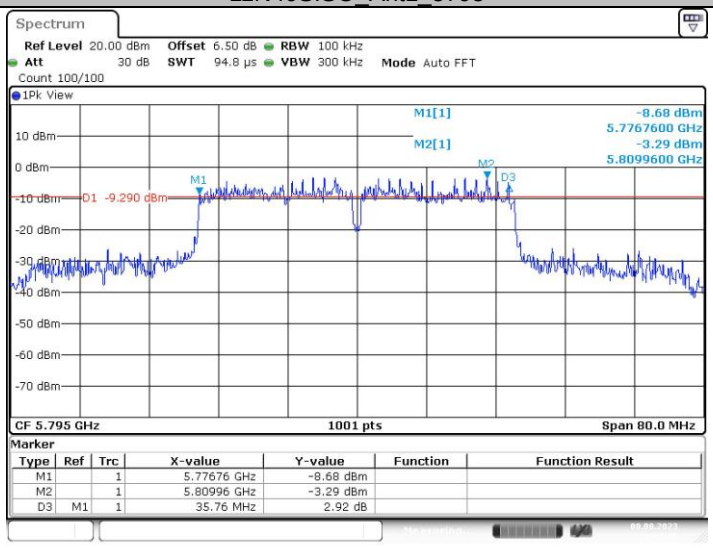
11N20SISO_Ant1_5825



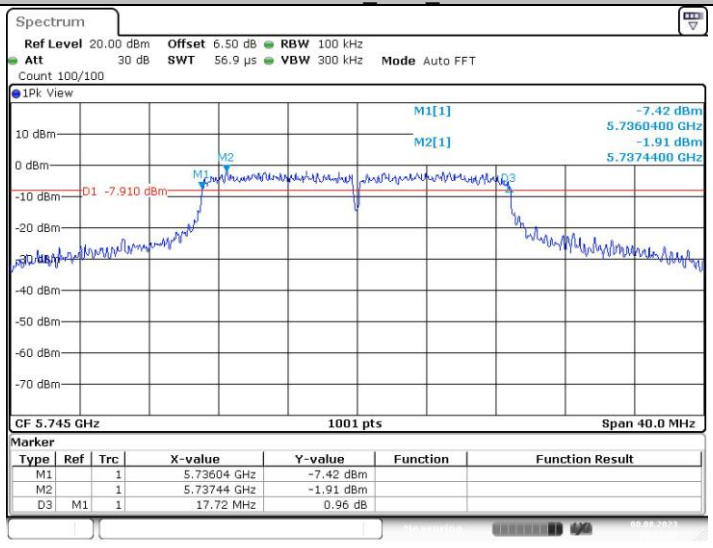
11N40SISO_Ant1_5755



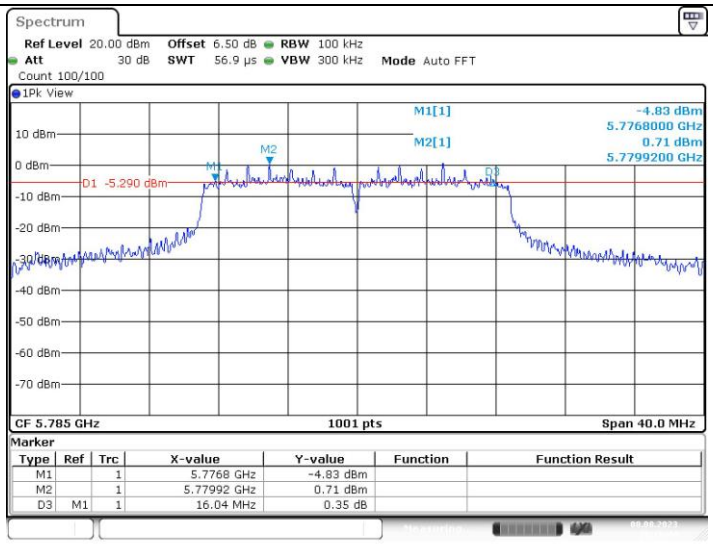
11N40SISO_Ant1_5795



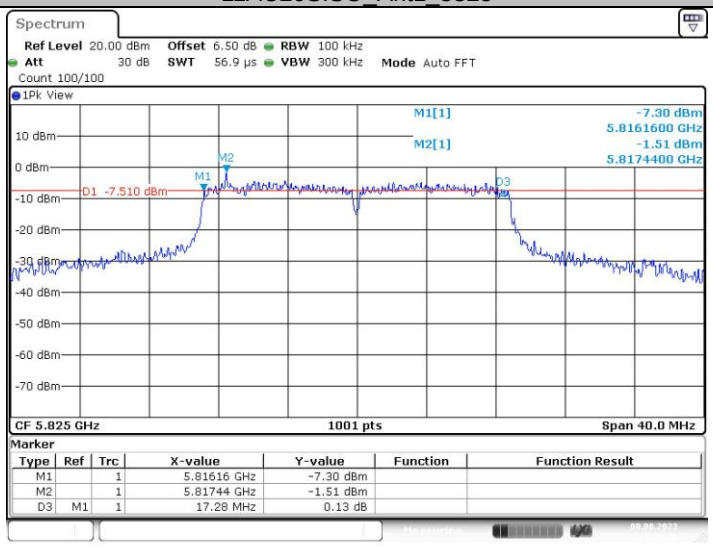
11AC20SISO_Ant1_5745



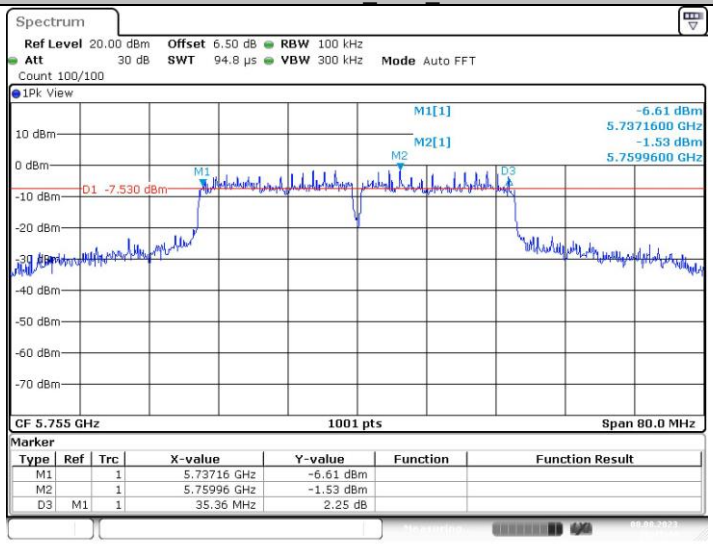
11AC20SISO_Ant1_5785



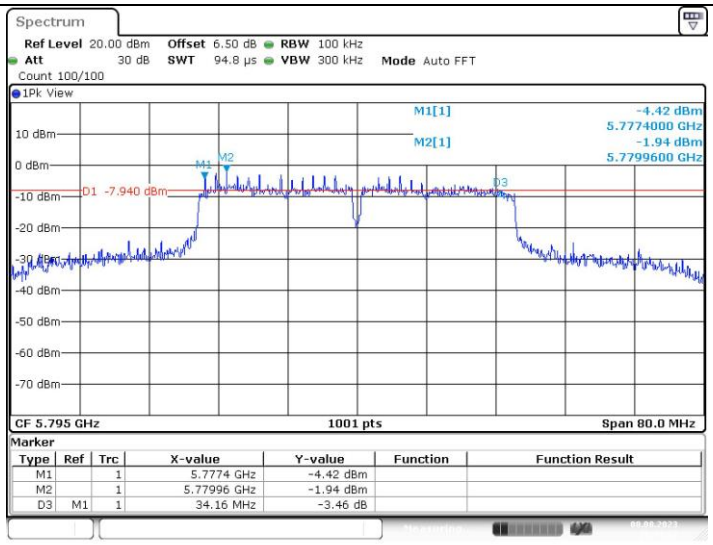
11AC20SISO_Ant1_5825



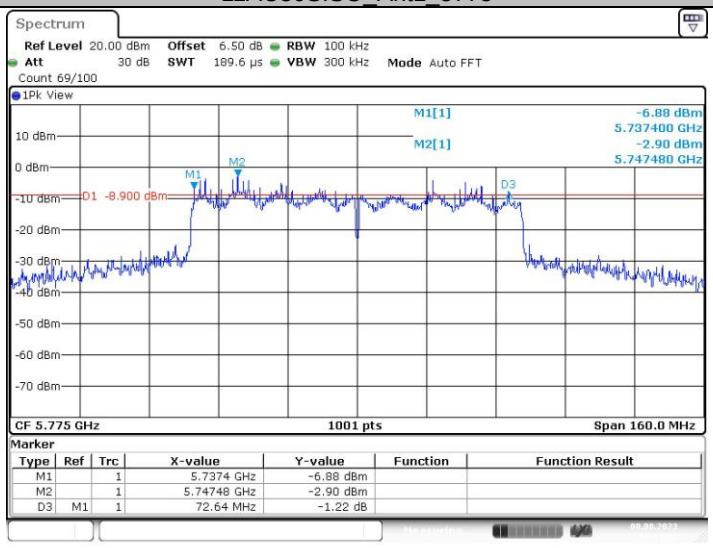
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775



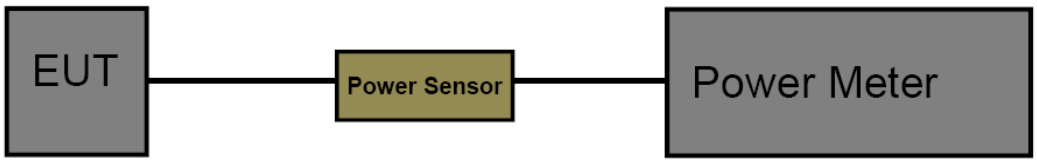
3.5. Peak Output Power

Limit

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a)

Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	Fixed: 1 Watt (30dBm) Mobile and Portable: 250mW (24dBm)	5150~5250
	250mW (24dBm)	5250~5350
	250mW (24dBm)	5500~5700
	1 Watt (30dBm)	5725~5850

Test Configuration



Test Procedure

The measurement is according to section 3 of KDB 789033 D02 General UNII Test Procedures New Rules V02r01.

Test Mode

Please refer to the clause 2.4.

Test Result

Test Mode	Antenna	Freq(MHz)	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	14.44	≤23.98	PASS
		5200	14.69	≤23.98	PASS
		5240	14.42	≤23.98	PASS
		5745	12.41	≤30.00	PASS
		5785	12.28	≤30.00	PASS
		5825	10.39	≤30.00	PASS
11N20SISO	Ant1	5180	14.92	≤23.98	PASS
		5200	15.03	≤23.98	PASS
		5240	15.57	≤23.98	PASS
		5745	14.39	≤30.00	PASS
		5785	13.29	≤30.00	PASS
		5825	11.63	≤30.00	PASS
11N40SISO	Ant1	5190	14.01	≤23.98	PASS
		5230	15.91	≤23.98	PASS
		5755	12.83	≤30.00	PASS
		5795	11.78	≤30.00	PASS
11AC20SISO	Ant1	5180	14.25	≤23.98	PASS
		5200	14.48	≤23.98	PASS
		5240	15.04	≤23.98	PASS
		5745	12.66	≤30.00	PASS
		5785	11.30	≤30.00	PASS
		5825	10.11	≤30.00	PASS
11AC40SISO	Ant1	5190	15.17	≤23.98	PASS
		5230	15.52	≤23.98	PASS
		5755	12.79	≤30.00	PASS
		5795	11.75	≤30.00	PASS
11AC80SISO	Ant1	5210	15.34	≤23.98	PASS
		5775	12.27	≤30.00	PASS

3.6. Power Spectral Density

Limit

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a)

For the 5.15~5.25GHz band:

- Outdoor AP

  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  If G_{Tx}>6dBi, then PSD =17-(G_{Tx}-6).

- Indoor AP

  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  If G_{Tx}>6dBi, then PSD =17-(G_{Tx}-6).

- Point-to-point AP

  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  If G_{Tx}>23dBi, then PSD =17-(G_{Tx}-23).

- Client devices

  The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
  If G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.25~5.35GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
If G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.47~5.725GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
If G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.725~5.85GHz band:

- Point-to-multipoint systems (P2M)

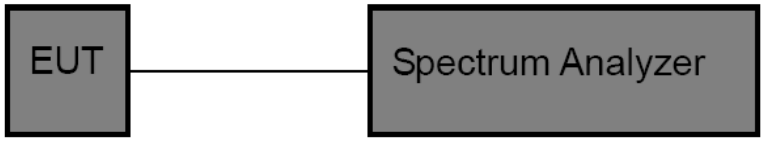
  The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.
  If G_{Tx}>6dBi, then PSD =30-(G_{Tx}-6).

- Point-to-point systems (P2P)

  The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.

Note: G_{Tx}: EUT Antenna gain.

Test Configuration



Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement is according to KDB 789033 D02 General UNII Test Procedures New Rules V02r01.

(1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
(2) Set analyzer center frequency to transmitting frequency.
(3) Set the span to encompass the entire emissions bandwidth (EBW) (alternatively, the entire 99% OBW) of the signal.
(4) RBW=1MHz for devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz RBW=500kHz for devices operating in the band 5.725-5.85 GHz.

(5) Set the VBW to: ≥ 3 RBW
(6) Detector: AVG
(7) Trace: Max Hold and View
(7) Sweep time: auto
(8) Trace average at least 100 traces in power averaging.
(9) User the peak marker function to determine the maximum amplitude level within the RBW. Apply correction to the result if different RBW is used.

NOTE: The EUT was set to continuously transmitting in each mode and low, middle and high channel for the test.

Test Mode

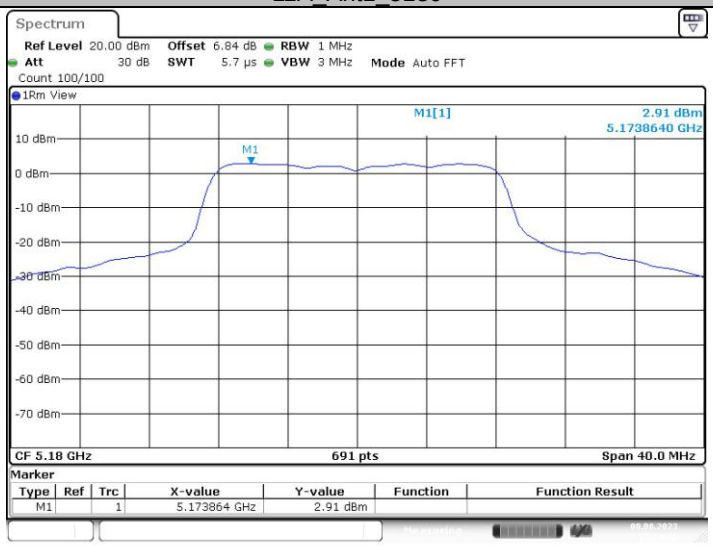
Please refer to the clause 2.4.

Test Result

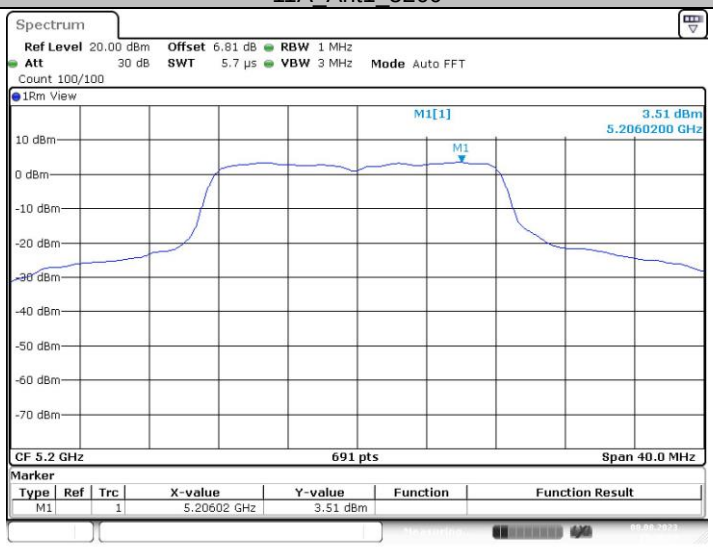
TestMode	Antenna	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	2.91	≤30.00	PASS
		5200	3.51	≤30.00	PASS
		5240	3.33	≤30.00	PASS
		5745	-1.55	≤30.00	PASS
		5785	-1.68	≤30.00	PASS
		5825	-3.61	≤30.00	PASS
11N20SISO	Ant1	5180	3.97	≤30.00	PASS
		5200	3.6	≤30.00	PASS
		5240	4.63	≤30.00	PASS
		5745	0.48	≤30.00	PASS
		5785	-0.19	≤30.00	PASS
		5825	-2.24	≤30.00	PASS
11N40SISO	Ant1	5190	2.13	≤30.00	PASS
		5230	2.34	≤30.00	PASS
		5755	-3.82	≤30.00	PASS
		5795	-4.96	≤30.00	PASS
11AC20SISO	Ant1	5180	3.14	≤30.00	PASS
		5200	2.88	≤30.00	PASS
		5240	3.76	≤30.00	PASS
		5745	-1.22	≤30.00	PASS
		5785	-3.01	≤30.00	PASS
		5825	-4.18	≤30.00	PASS
11AC40SISO	Ant1	5190	1.14	≤30.00	PASS
		5230	1.29	≤30.00	PASS
		5755	-4.26	≤30.00	PASS
		5795	-5.46	≤30.00	PASS
11AC80SISO	Ant1	5210	-0.47	≤30.00	PASS
		5775	-5.47	≤30.00	PASS

Test plot as follows:

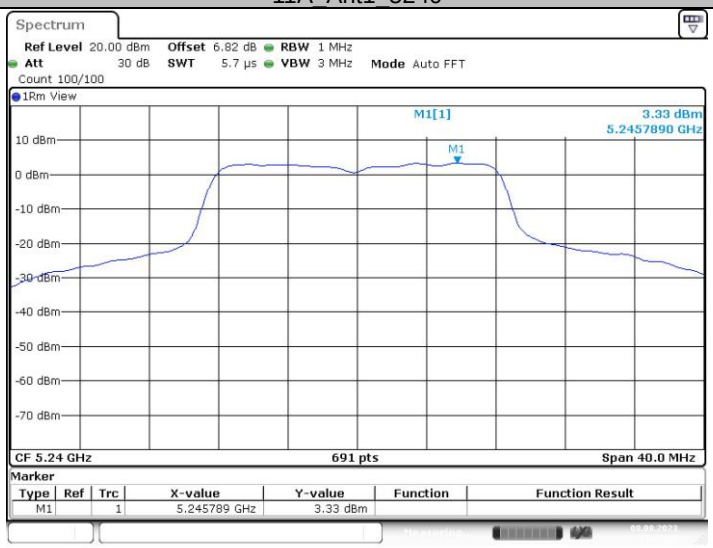
11A_Ant1_5180



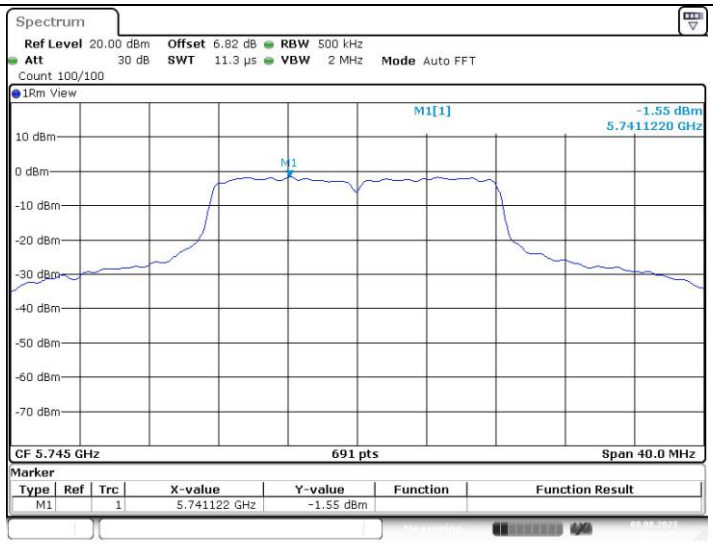
11A_Ant1_5200



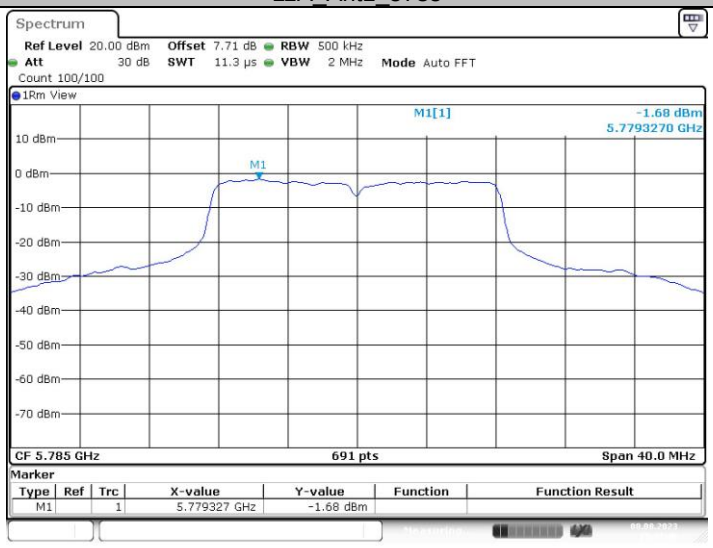
11A_Ant1_5240



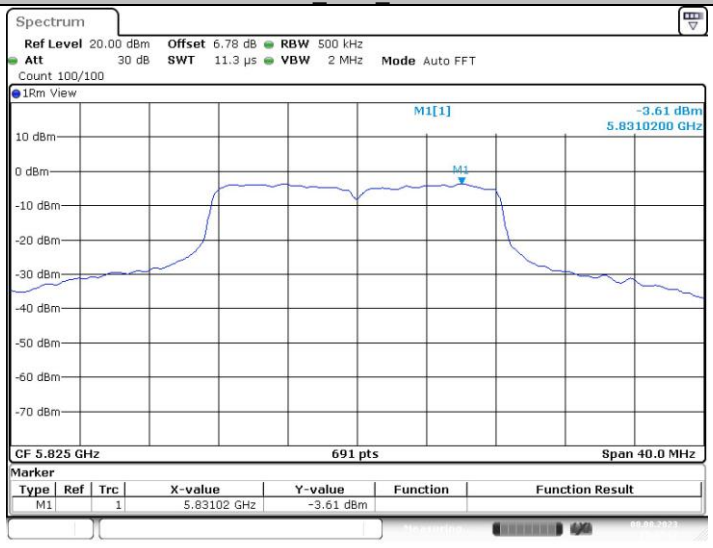
11A_Ant1_5745



11A_Ant1_5785



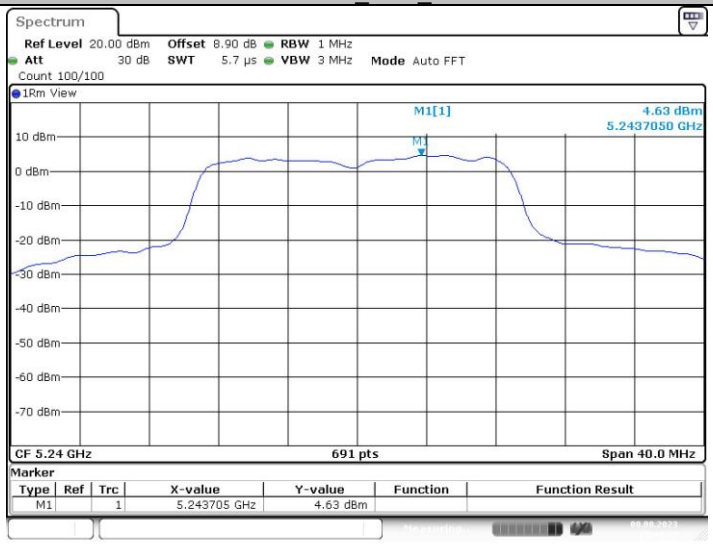
11A_Ant1_5825



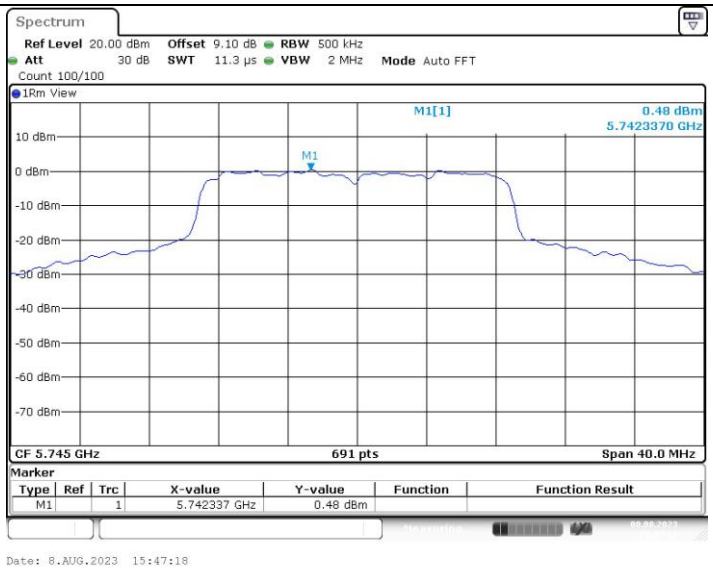
11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

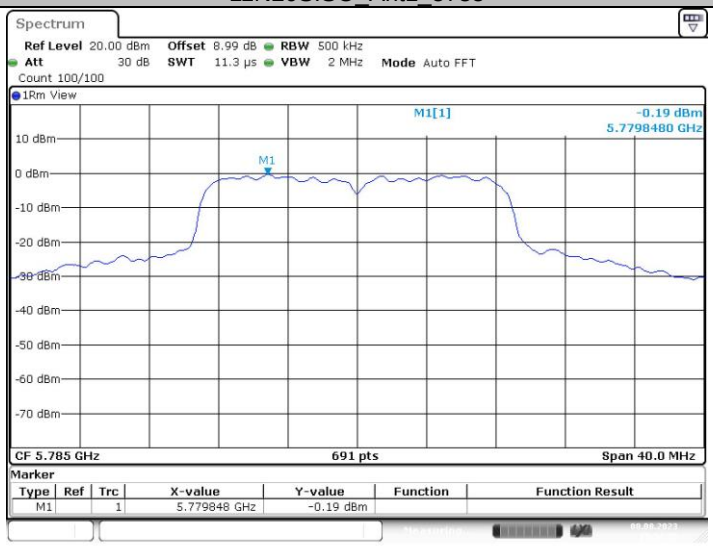
11N20SISO_Ant1_5240



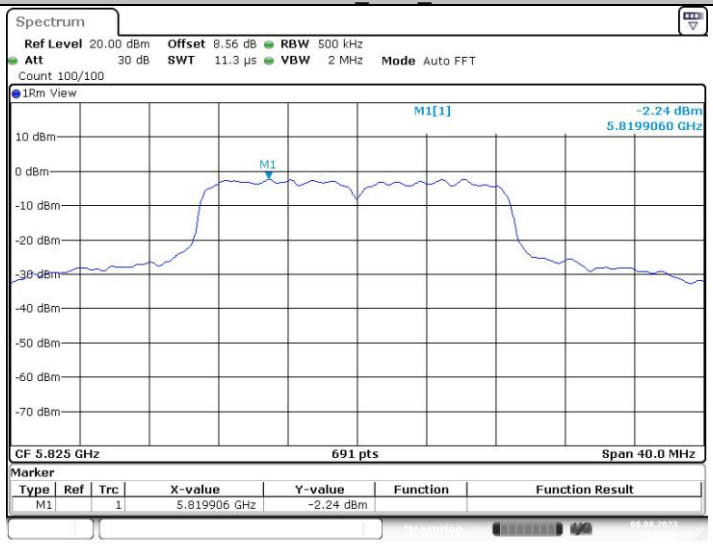
11N20SISO_Ant1_5745



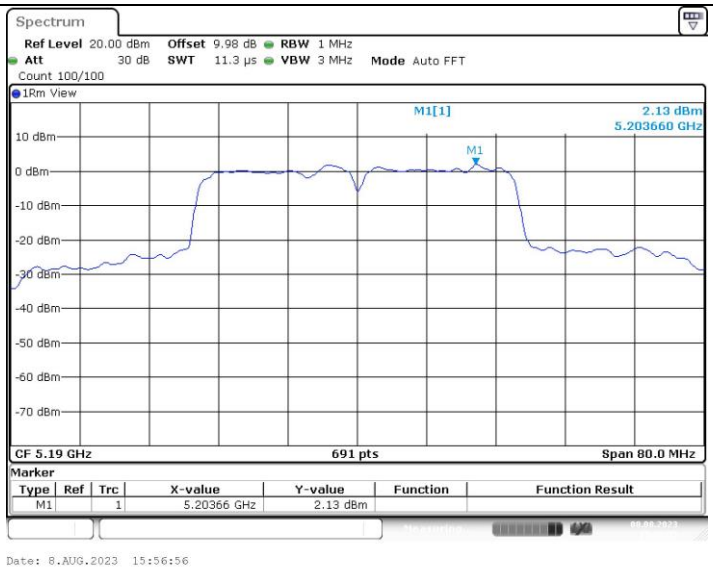
11N20SISO_Ant1_5785



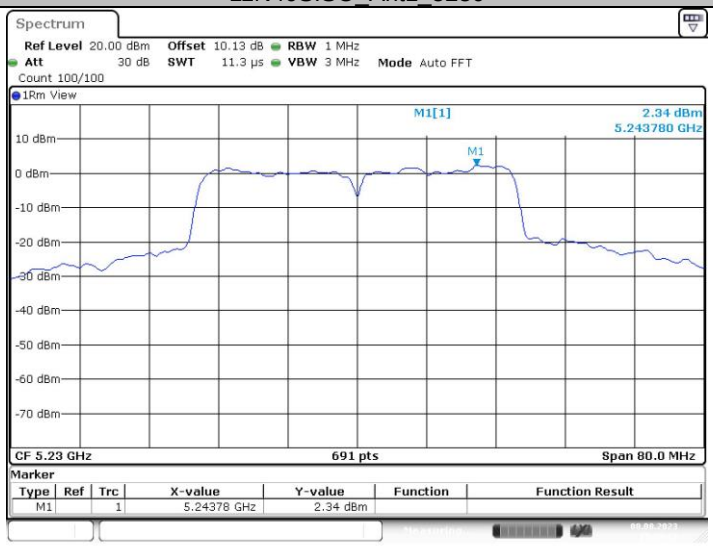
11N20SISO_Ant1_5825



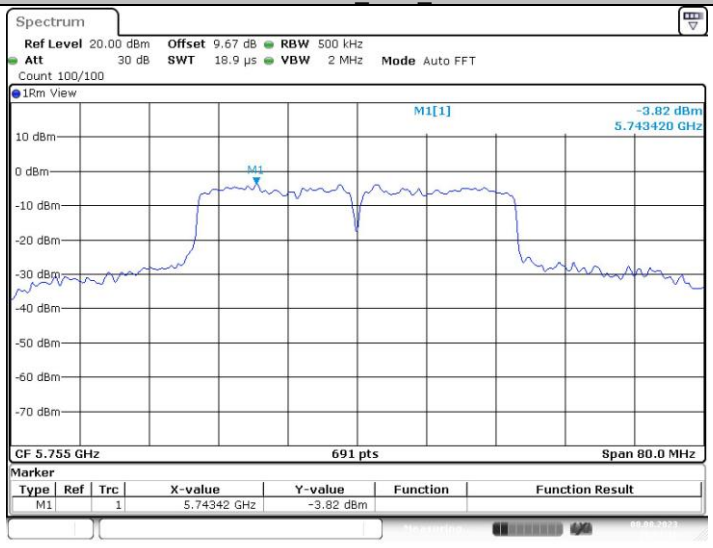
11N40SISO_Ant1_5190



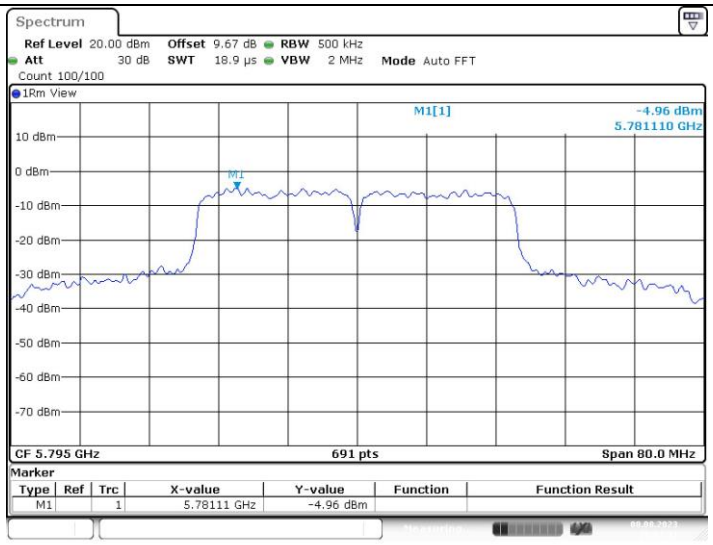
11N40SISO_Ant1_5230



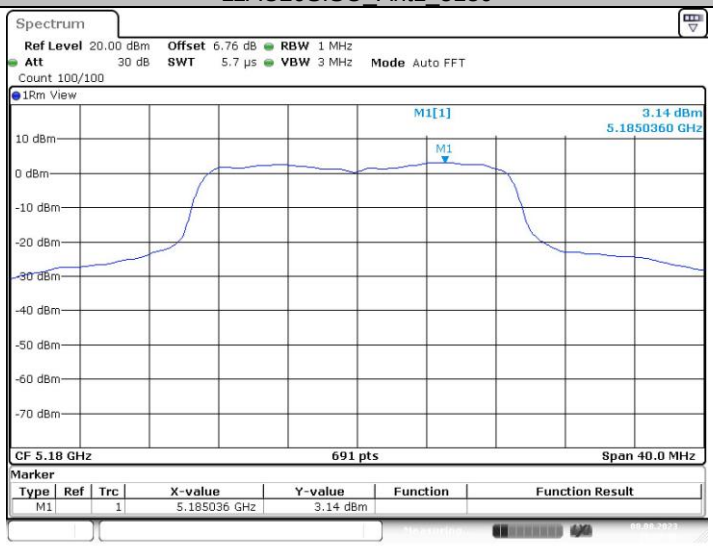
11N40SISO_Ant1_5755



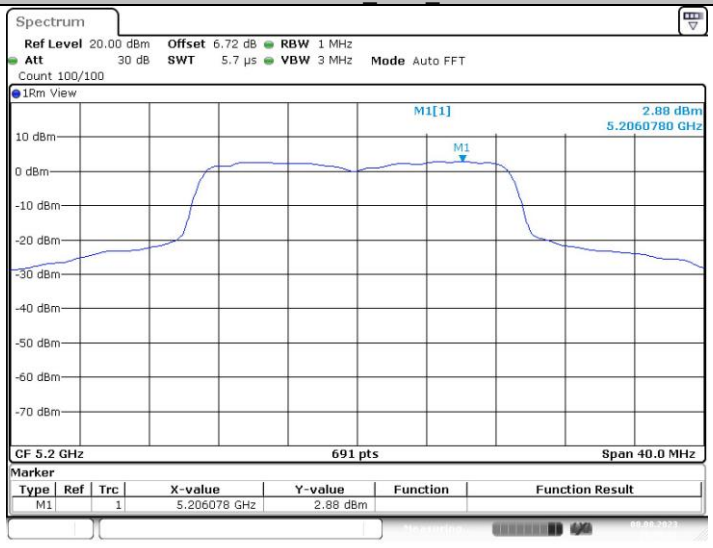
11N40SISO_Ant1_5795



11AC20SISO_Ant1_5180



11AC20SISO_Ant1_5200



11AC20SISO_Ant1_5240