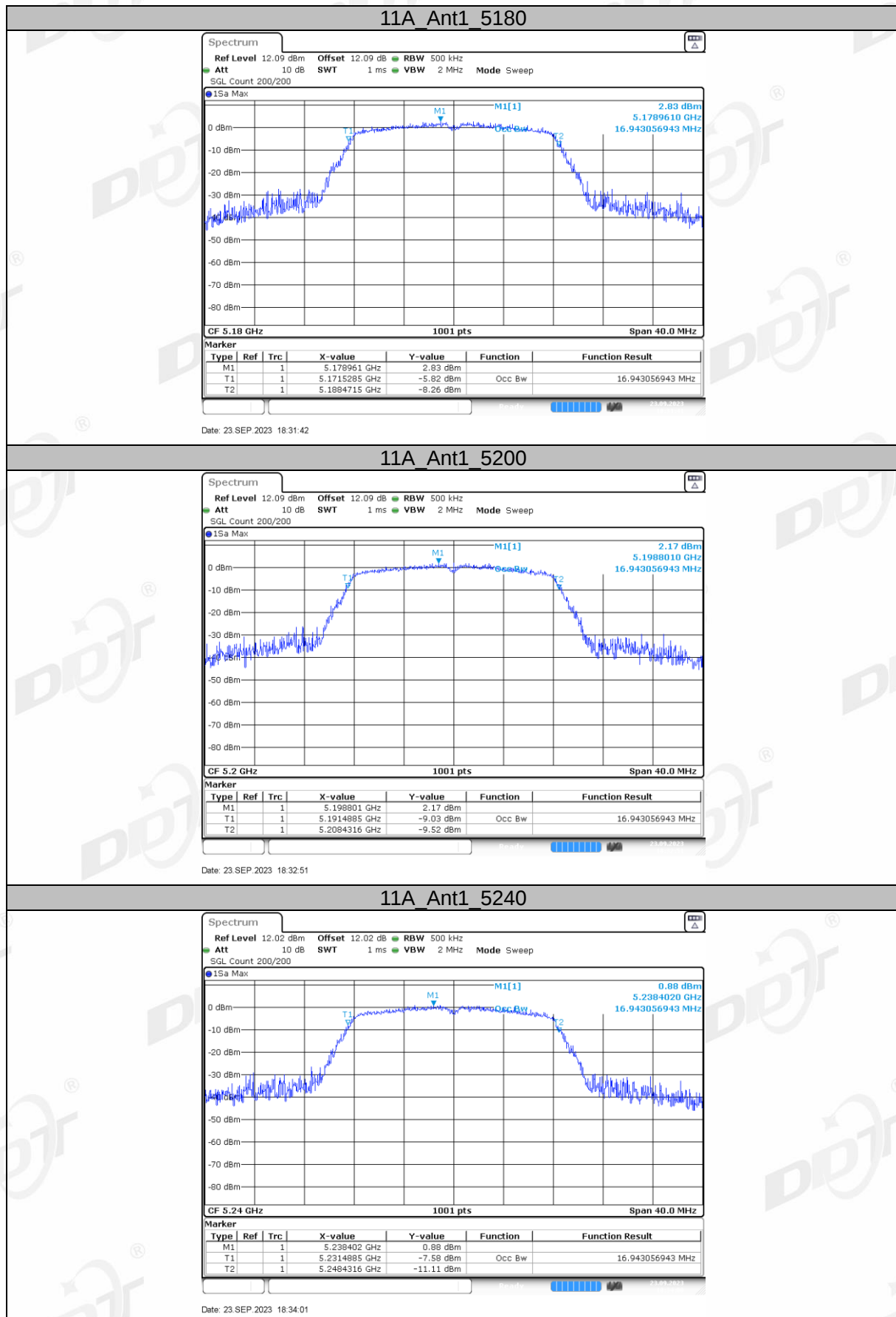
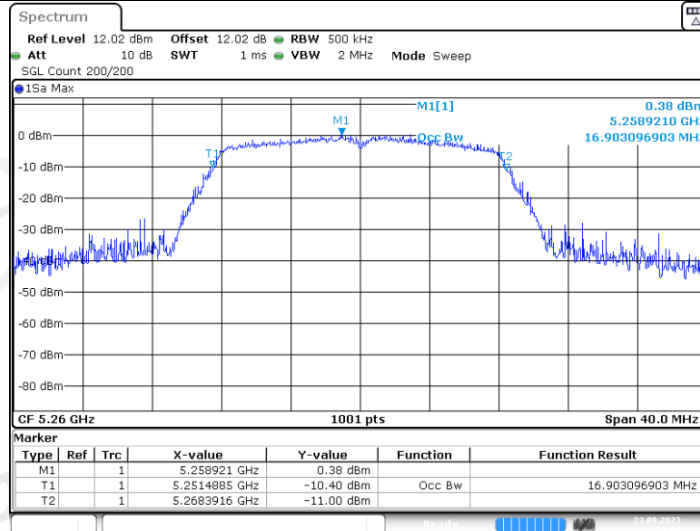


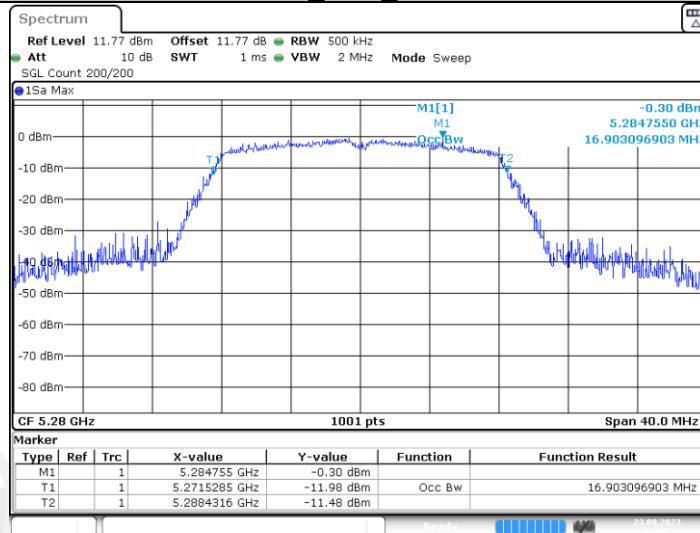
6.5. Test graphs



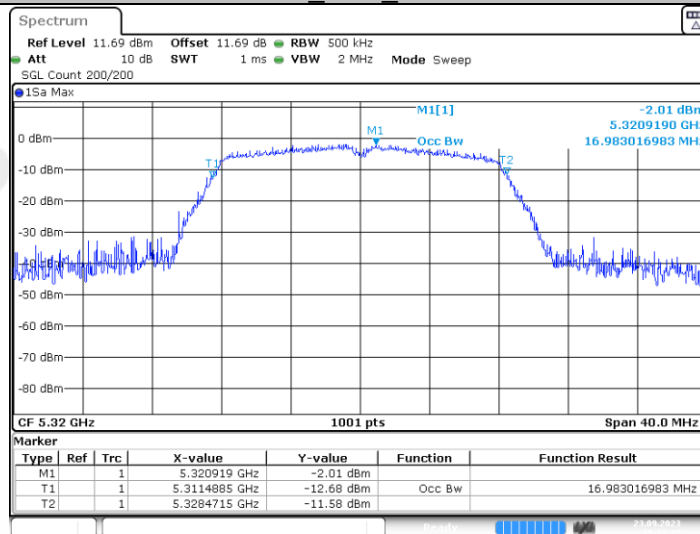
11A_Ant1_5260



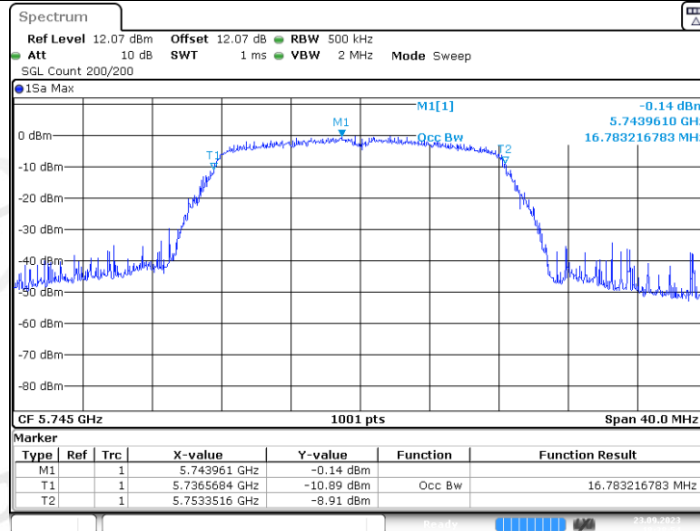
11A_Ant1_5280



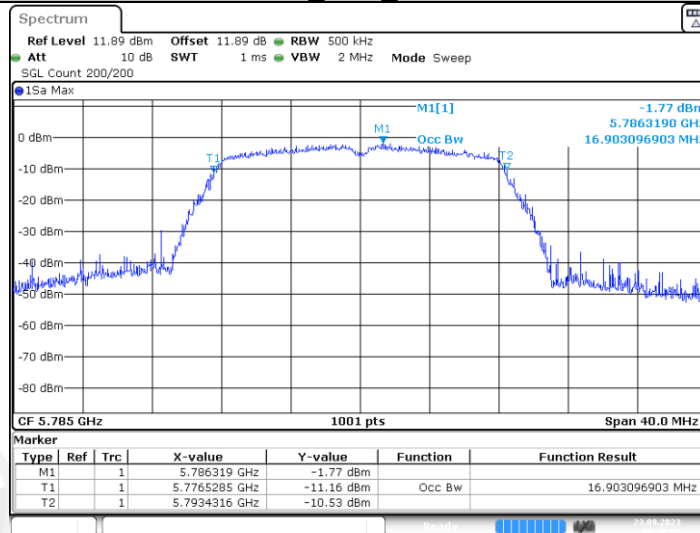
11A_Ant1_5320



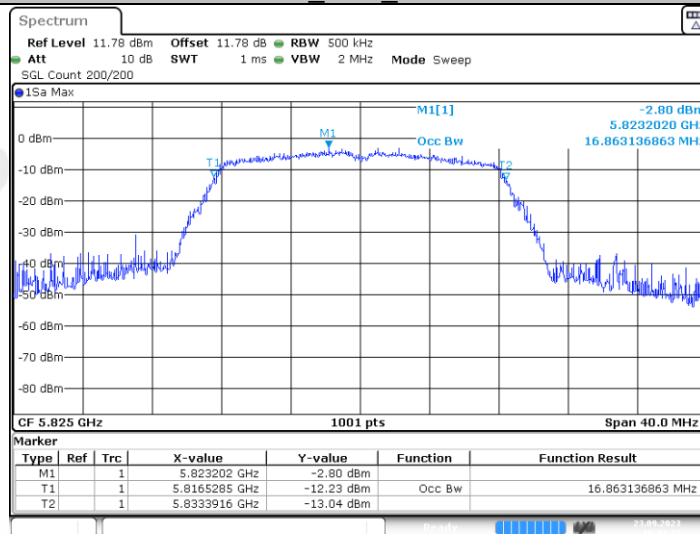
11A_Ant1_5745

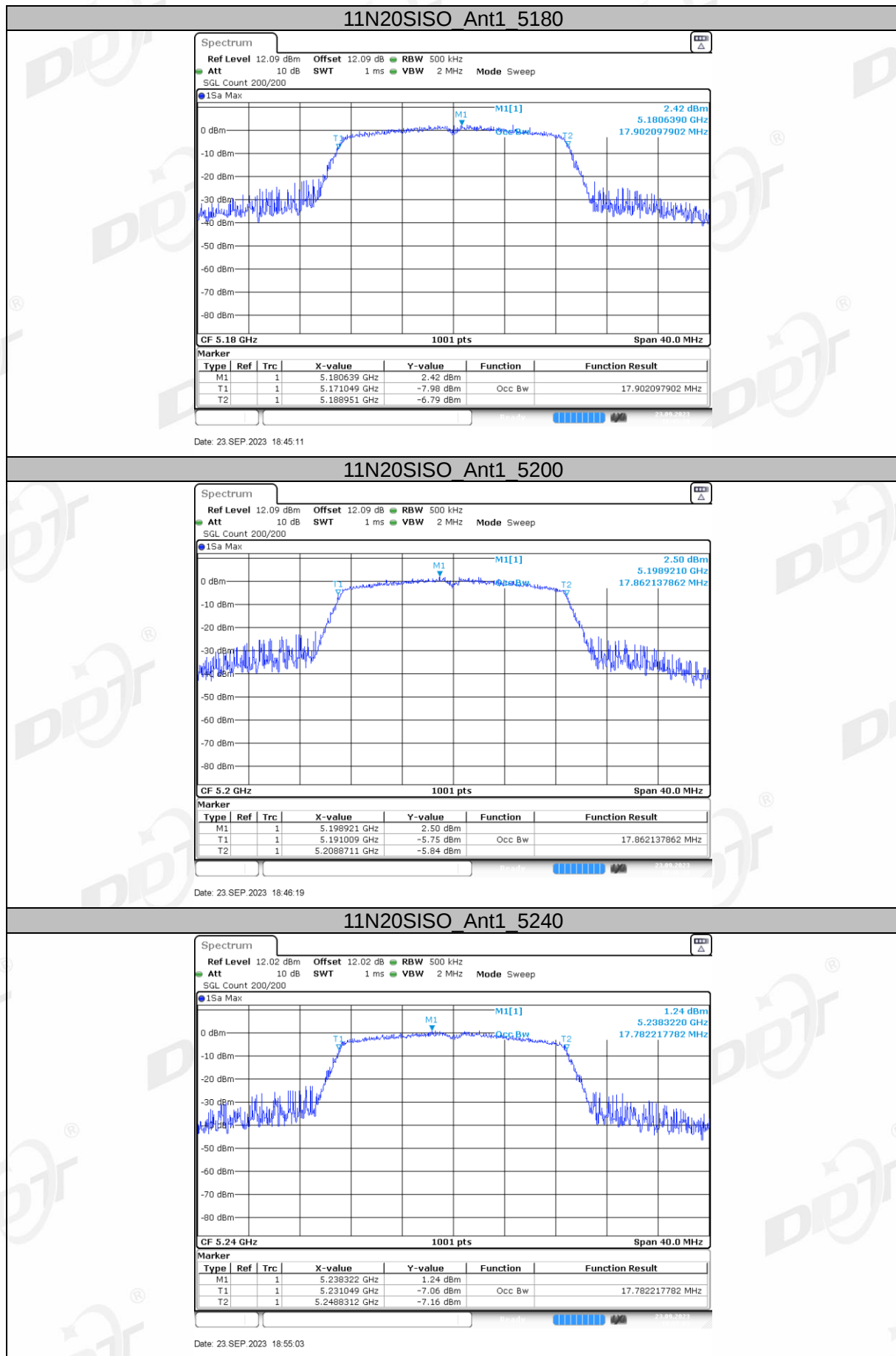


11A_Ant1_5785

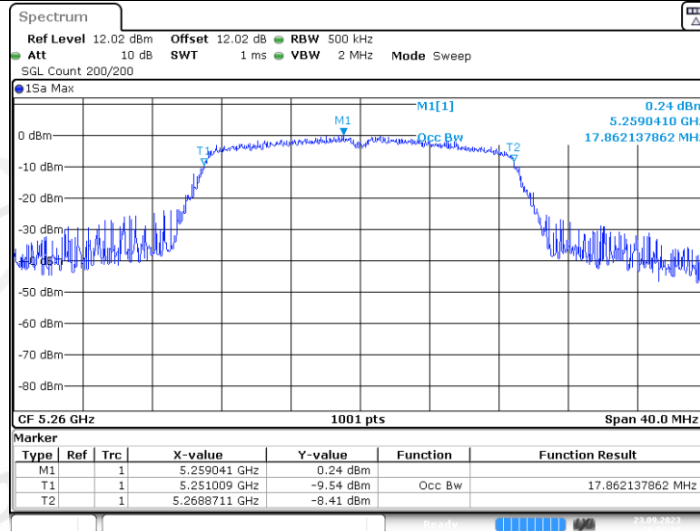


11A_Ant1_5825



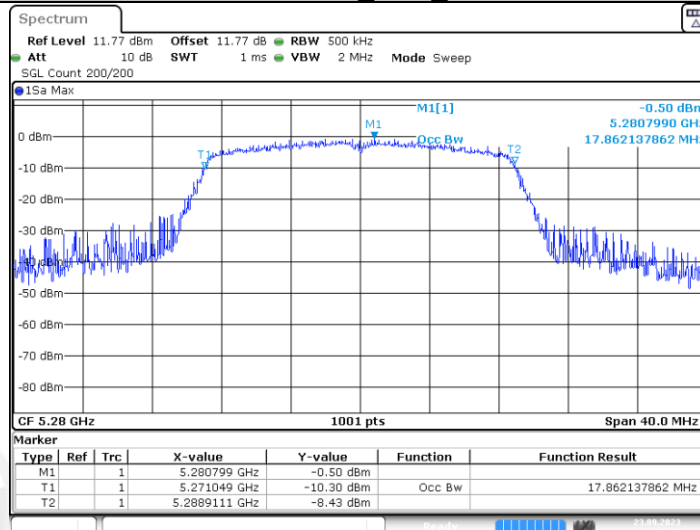


11N20SISO_Ant1_5260



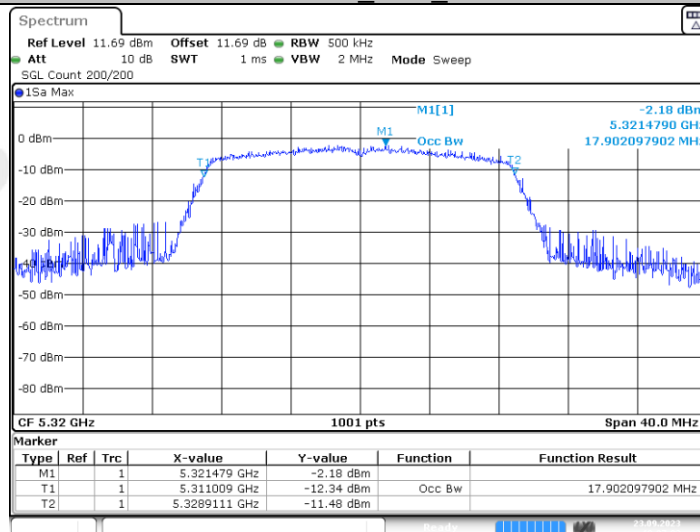
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11N20SISO_Ant1_5280



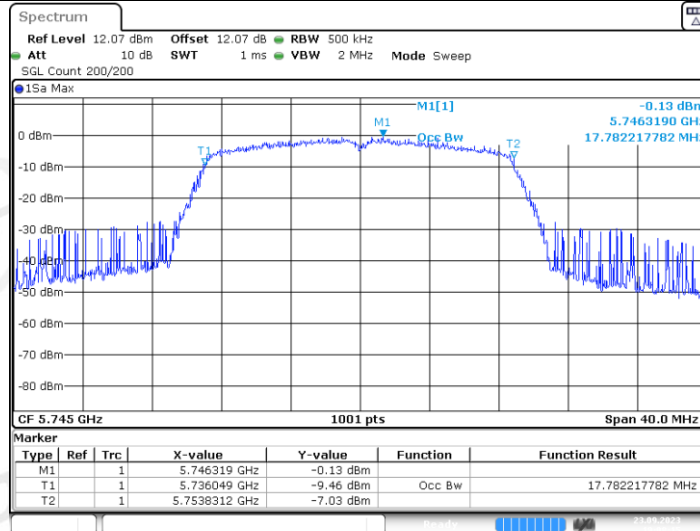
Date: 23 SEP.2023 18:59:19

11N20SISO_Ant1_5320



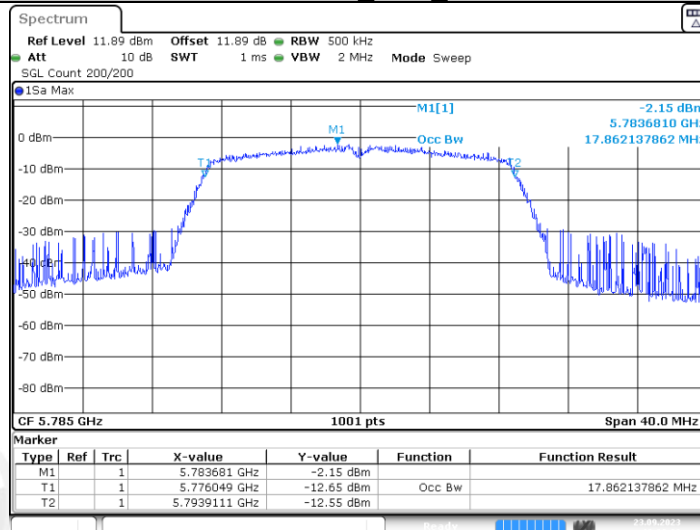
Date: 23 SEP.2023 19:07:02

11N20SISO_Ant1_5745



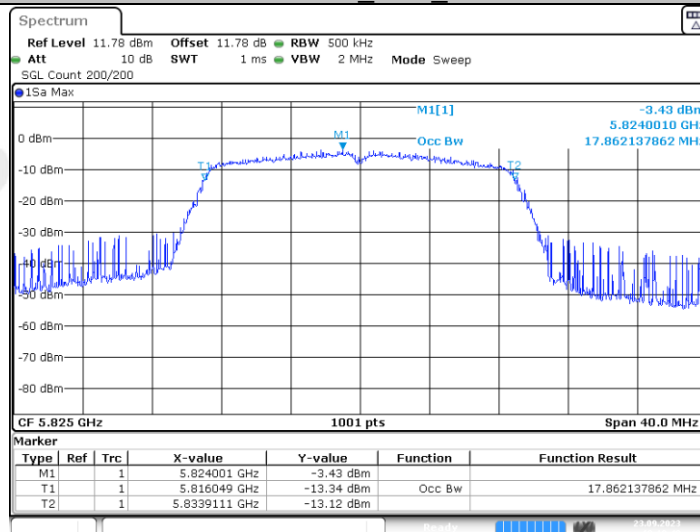
Date: 23 SEP.2023 19:08:15

11N20SISO_Ant1_5785



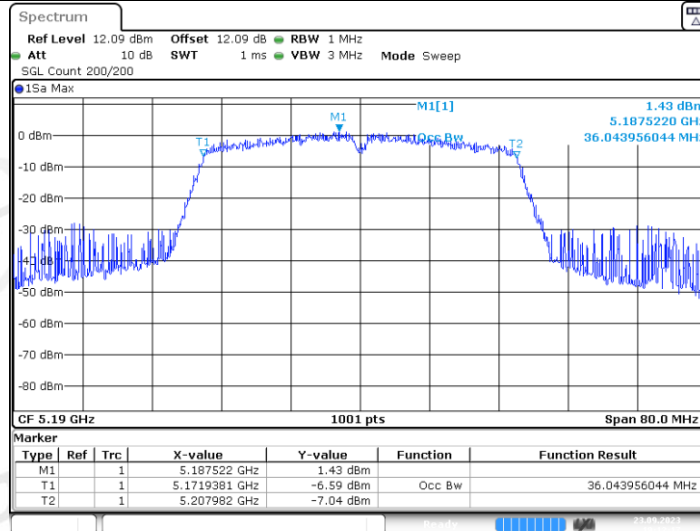
Date: 23 SEP.2023 19:09:29

11N20SISO_Ant1_5825



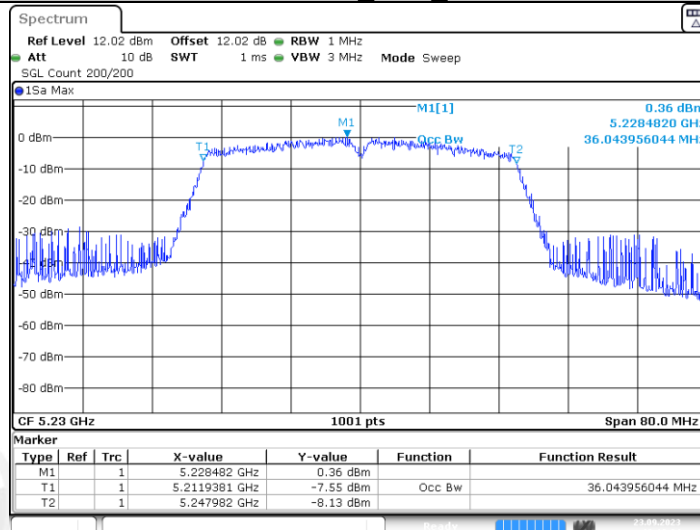
Date: 23 SEP.2023 19:10:48

11N40SISO_Ant1_5190



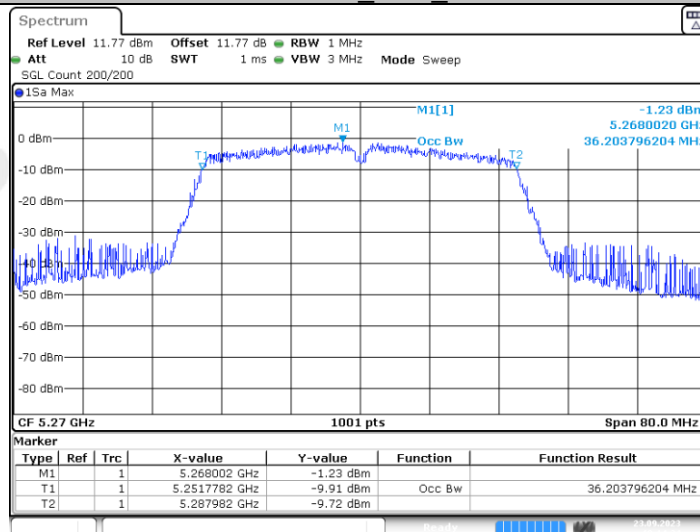
Date: 23 SEP.2023 19:12:17

11N40SISO_Ant1_5230

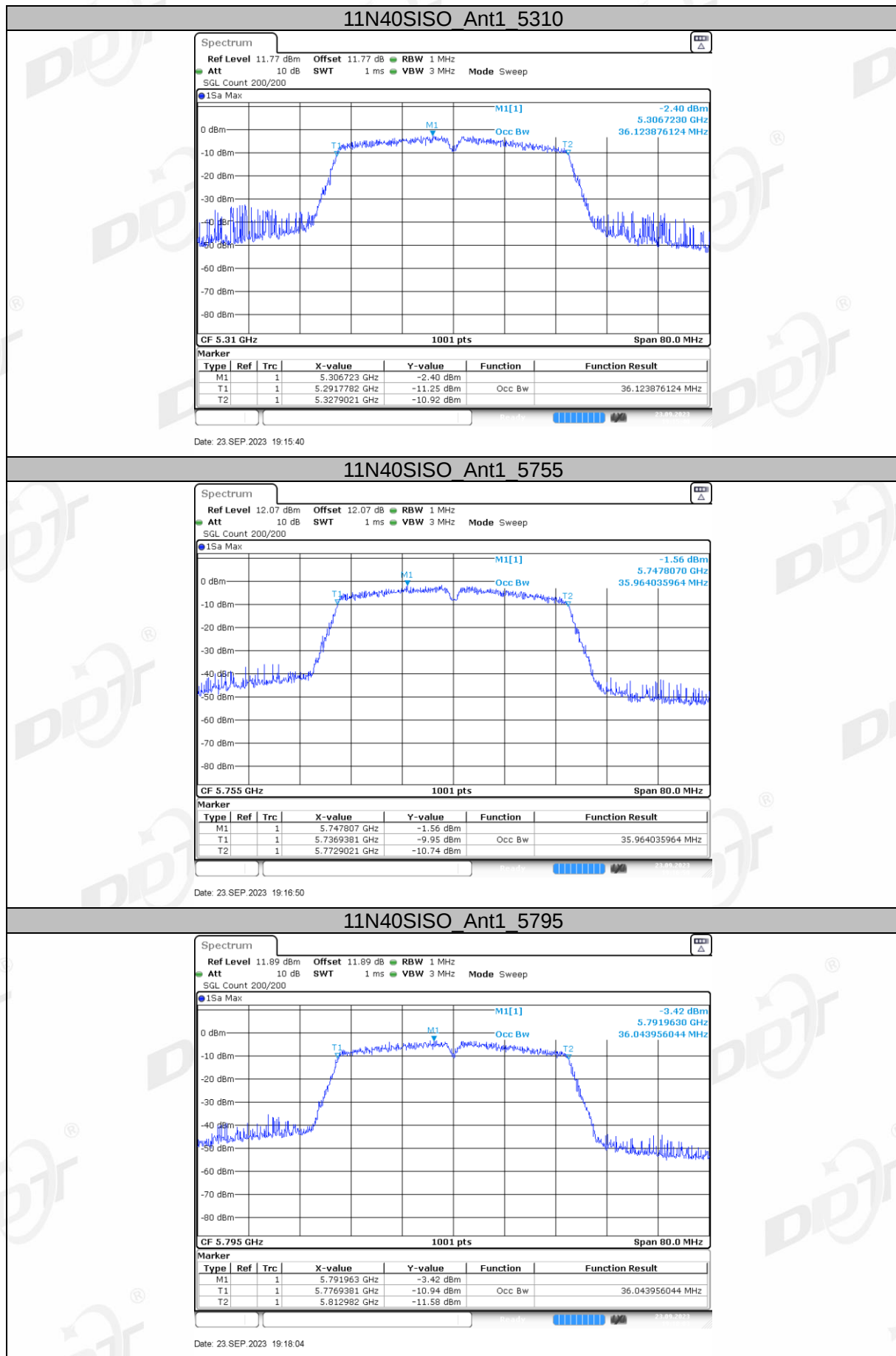


Date: 23 SEP.2023 19:13:24

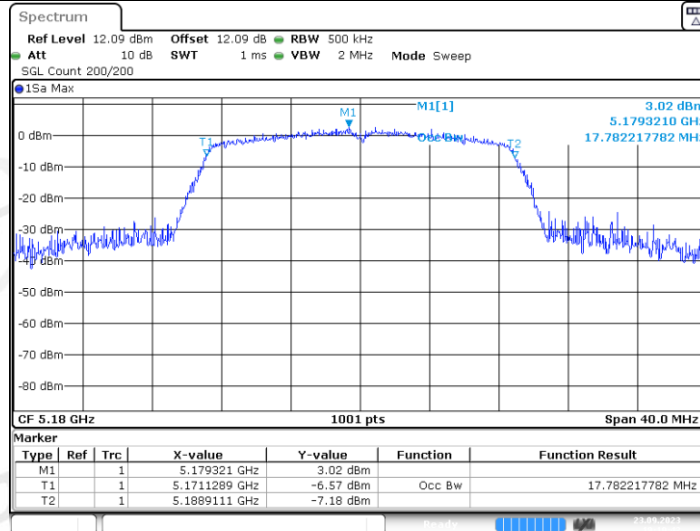
11N40SISO_Ant1_5270



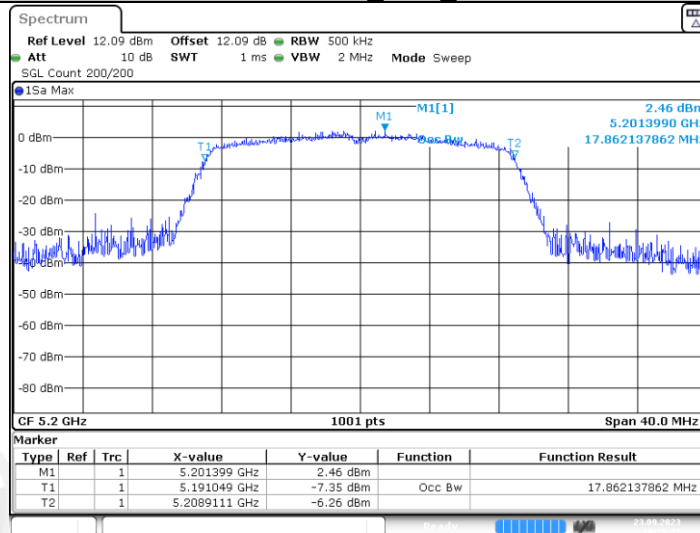
Date: 23 SEP.2023 19:14:34



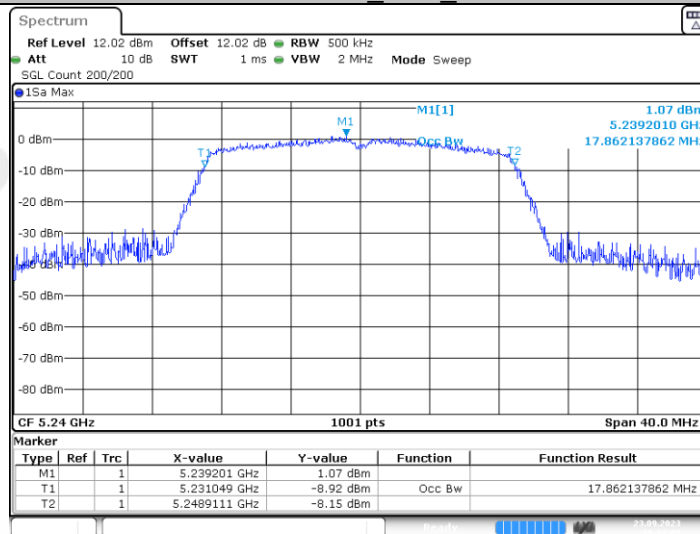
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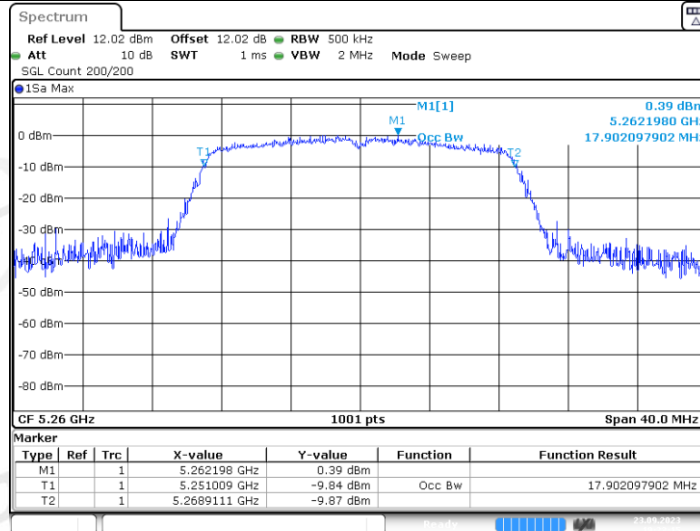
11AC20SISO_Ant1_5200



11AC20SISO_Ant1_5240

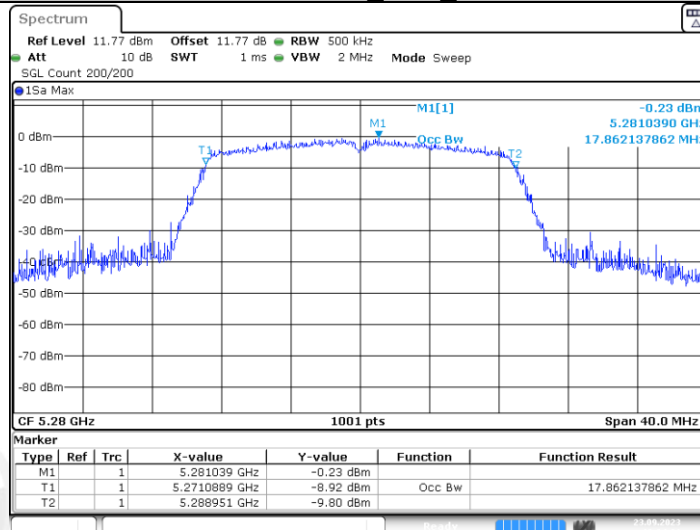


11AC20SISO_Ant1_5260



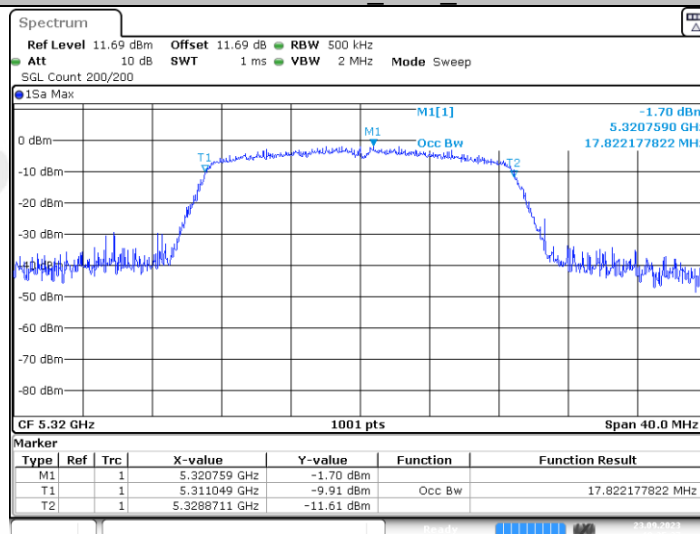
Date: 23 SEP.2023 19:23:16

11AC20SISO_Ant1_5280



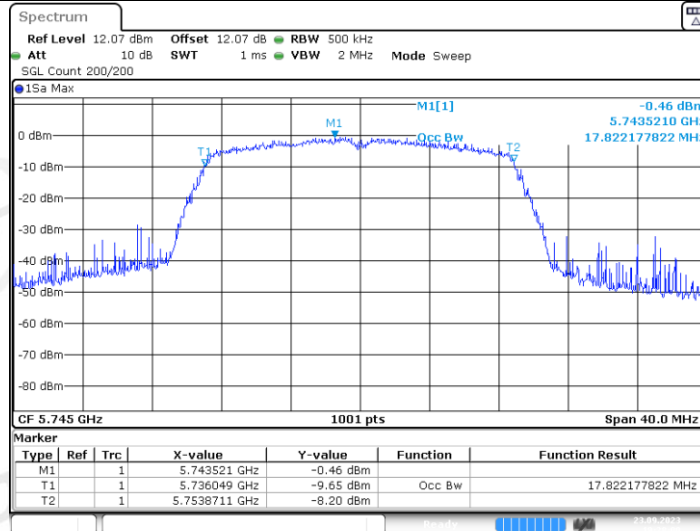
Date: 23 SEP.2023 19:24:22

11AC20SISO_Ant1_5320



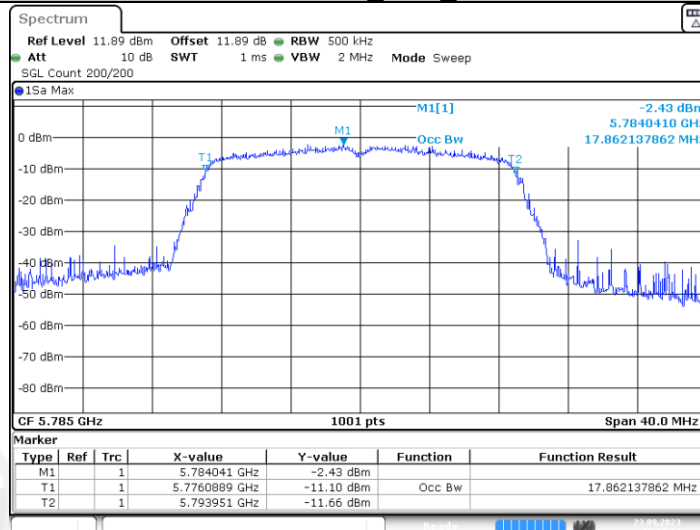
Date: 23 SEP.2023 19:25:38

11AC20SISO_Ant1_5745



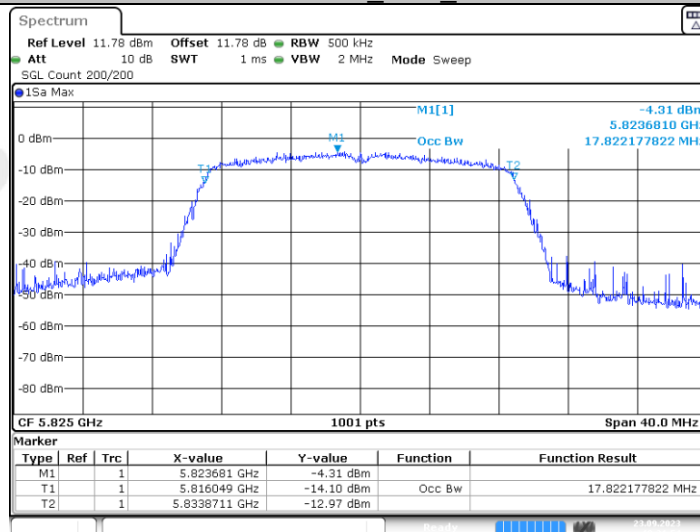
Date: 23 SEP.2023 19:28:01

11AC20SISO_Ant1_5785



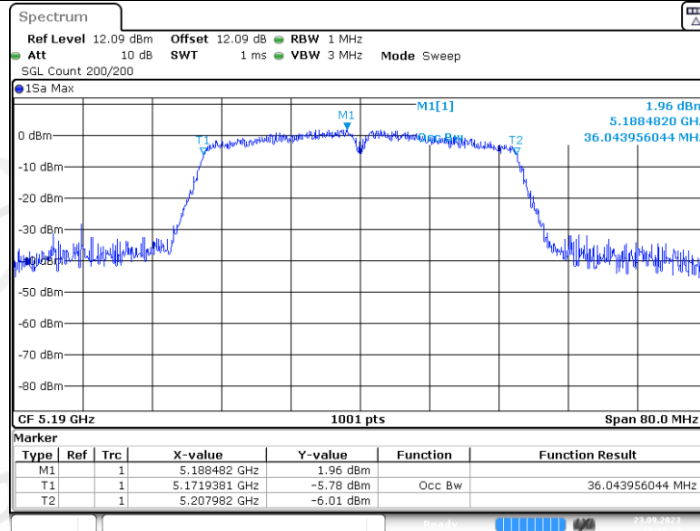
Date: 23 SEP.2023 19:30:24

11AC20SISO_Ant1_5825

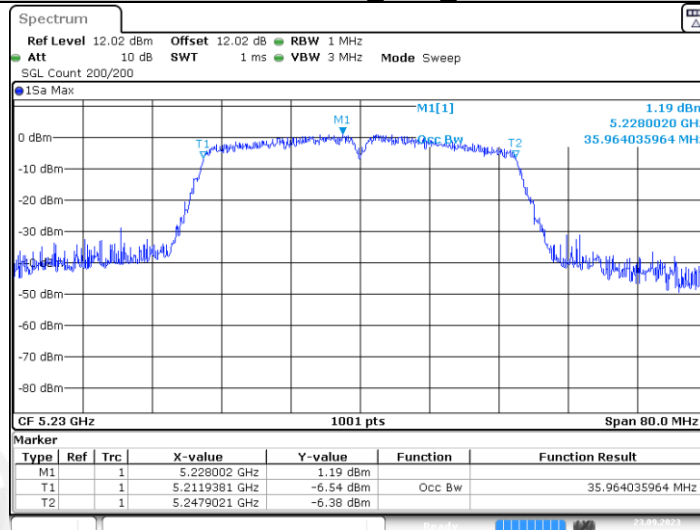


Date: 23 SEP.2023 19:31:55

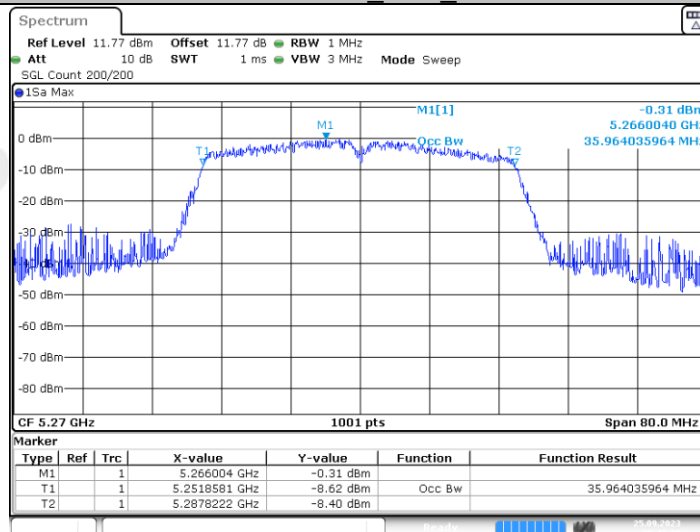
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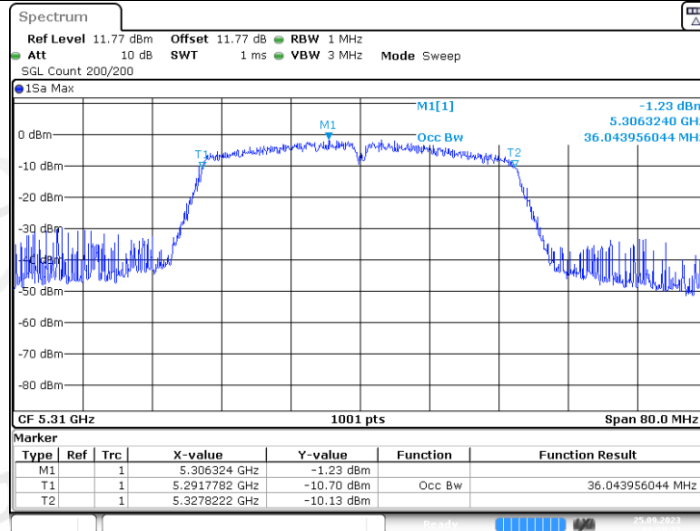
11AC40SISO_Ant1_5230



11AC40SISO_Ant1_5270

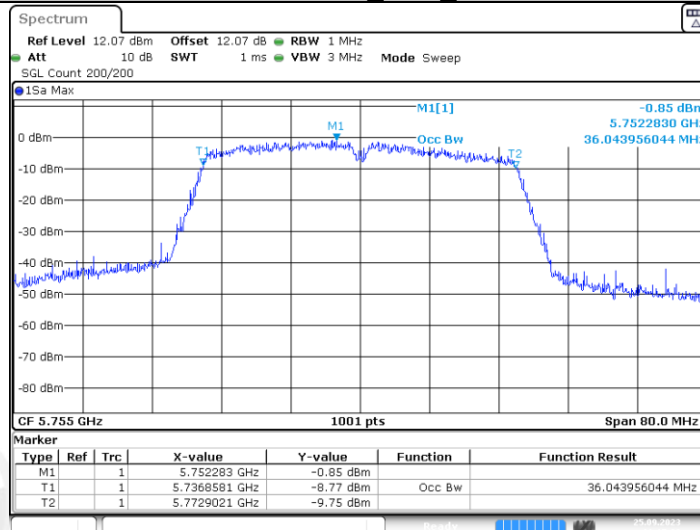


11AC40SISO_Ant1_5310



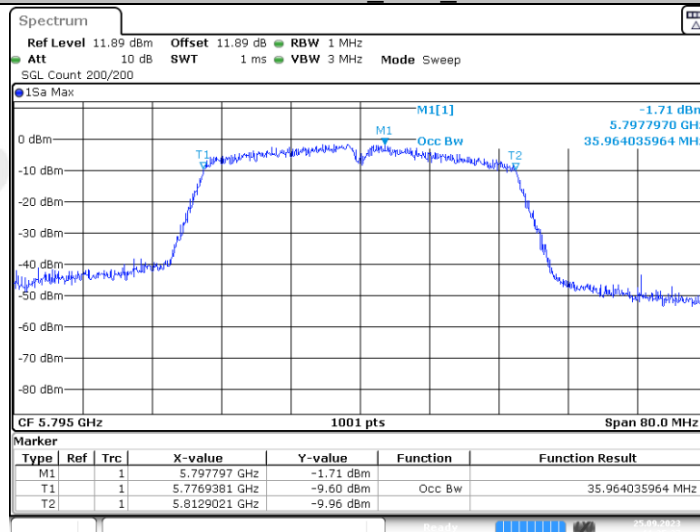
Date: 25 SEP.2023 09:50:33

11AC40SISO_Ant1_5755



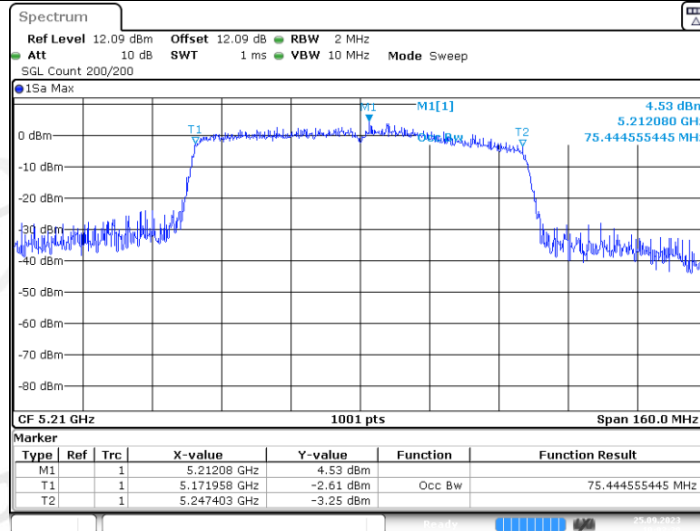
Date: 25 SEP.2023 11:17:32

11AC40SISO_Ant1_5795



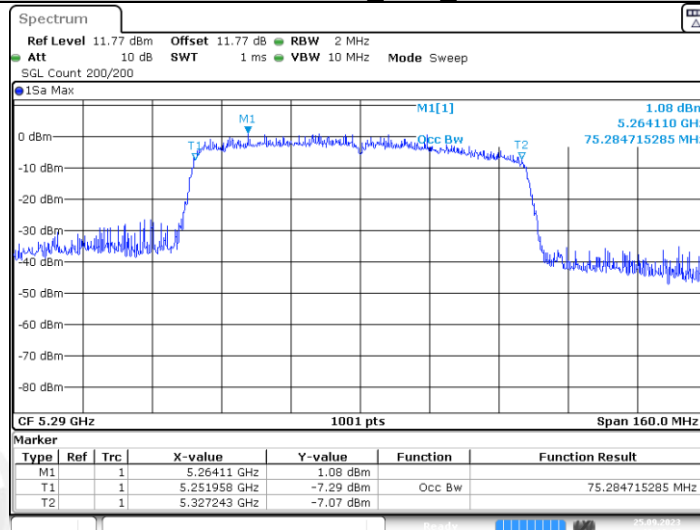
Date: 25 SEP.2023 11:25:38

11AC80SISO_Ant1_5210



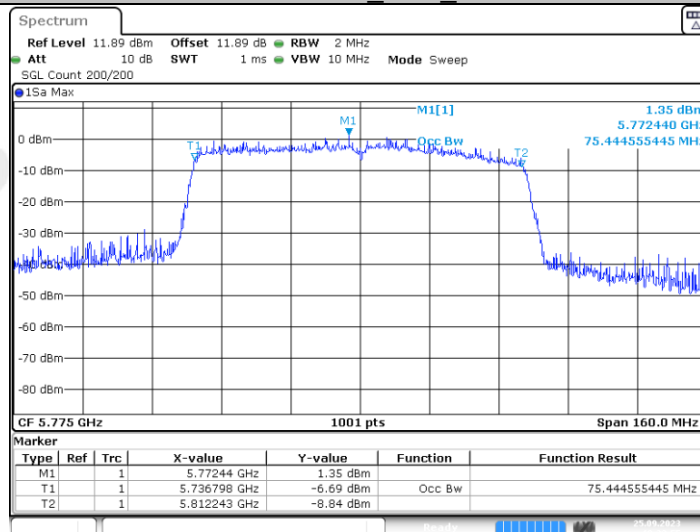
Date: 25 SEP.2023 10:03:39

11AC80SISO_Ant1_5290



Date: 25 SEP.2023 10:13:17

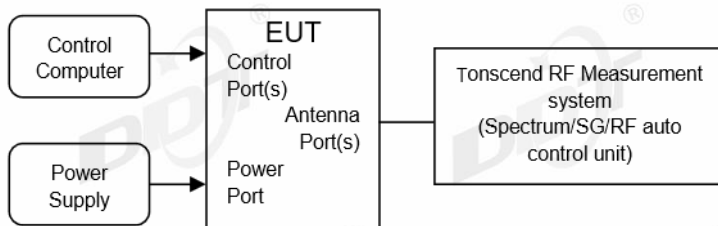
11AC80SISO_Ant1_5775



Date: 25 SEP.2023 10:22:56

7. Duty Cycle

7.1. Block diagram of test setup



7.2. Limit

Just for Report.

7.3. Test procedure

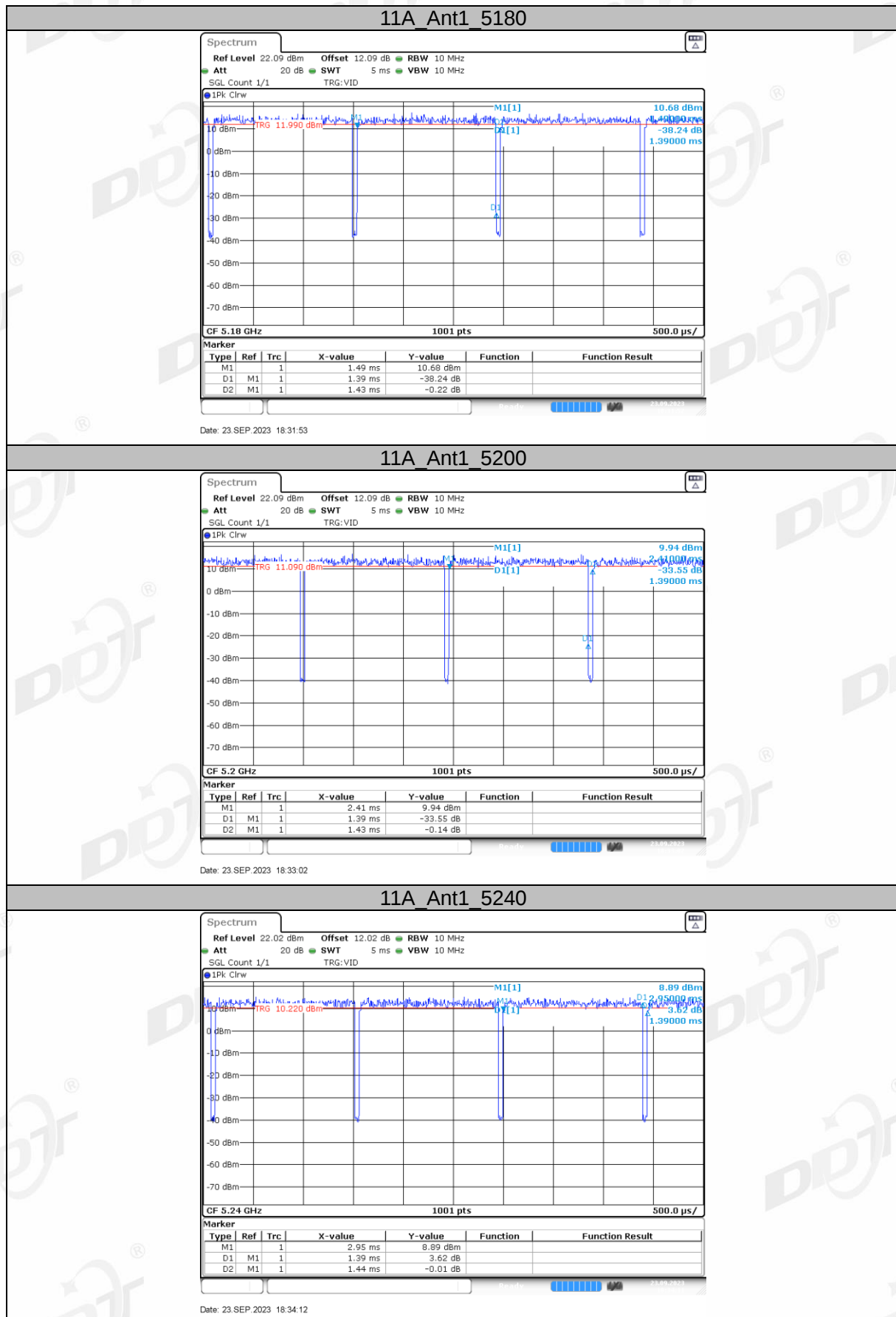
- (1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, The cable loss and attenuator loss have been put into spectrum analyzer as amplitude offset.
- (2) set the Spectrum Analyzer as below:
 - Centre Frequency: The centre frequency of the middle hopping channel.
 - Resolution BW: 10 MHz.
 - Video BW: 10 MHz.
 - Span: Zero span.
 - Detector: Peak.
 - Trace Mode: Max Hold.
 - Sweep: Video Trigger
- (3) When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.
- (4) Calculate dwell time follow below formula:
$$\text{Duty cycle} = \text{Pulse's on time} / \text{Burst cycle}$$

7.4. Test result

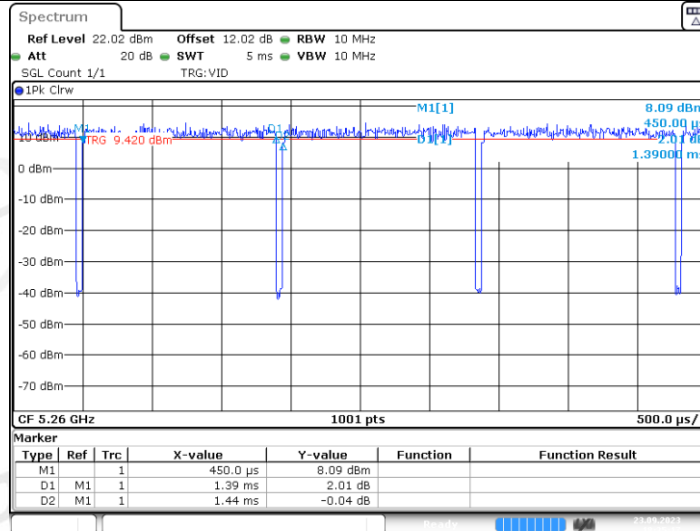
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	1.39	1.43	97.20
		5200	1.39	1.43	97.20
		5240	1.39	1.44	96.53
		5260	1.39	1.44	96.53
		5280	1.39	1.44	96.53
		5320	1.40	1.44	97.22
		5745	1.39	1.44	96.53
		5785	1.39	1.44	96.53
		5825	1.40	1.44	97.22
11N20SISO	Ant1	5180	1.30	1.34	97.01
		5200	1.30	1.35	96.30
		5240	1.30	1.35	96.30
		5260	1.30	1.34	97.01
		5280	1.30	1.34	97.01
		5320	1.30	1.34	97.01
		5745	1.30	1.35	96.30
		5785	1.30	1.35	96.30
		5825	1.30	1.34	97.01
11N40SISO	Ant1	5190	0.65	0.69	94.20
		5230	0.65	0.69	94.20
		5270	0.64	0.69	92.75
		5310	0.65	0.69	94.20
		5755	0.65	0.70	92.86
		5795	0.65	0.69	94.20

11AC20SISO	Ant1	5180	1.31	1.36	96.32
		5200	1.31	1.35	97.04
		5240	1.31	1.36	96.32
		5260	1.31	1.35	97.04
		5280	1.31	1.35	97.04
		5320	1.32	1.36	97.06
		5745	1.31	1.36	96.32
		5785	1.32	1.36	97.06
		5825	1.31	1.35	97.04
11AC40SISO	Ant1	5190	0.65	0.70	92.86
		5230	0.65	0.70	92.86
		5270	0.64	0.69	92.75
		5310	0.64	0.69	92.75
		5755	0.65	0.70	92.86
		5795	0.65	0.70	92.86
11AC80SISO	Ant1	5210	0.32	0.37	86.49
		5290	0.32	0.36	88.89
		5775	0.32	0.36	88.89

7.5. Test graphs

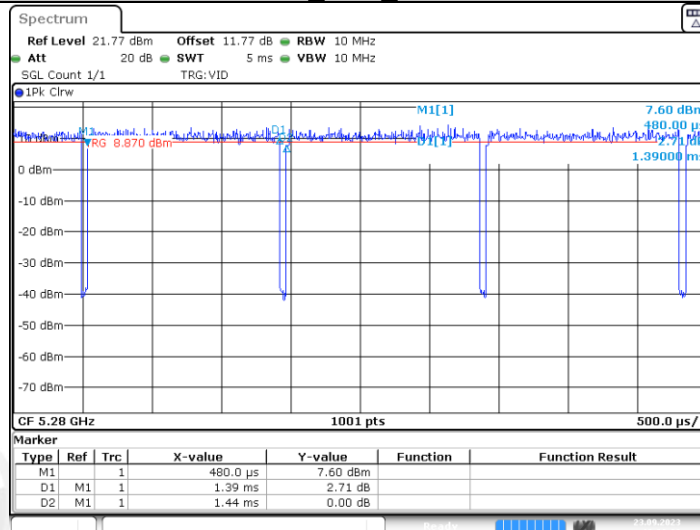


11A_Ant1_5260



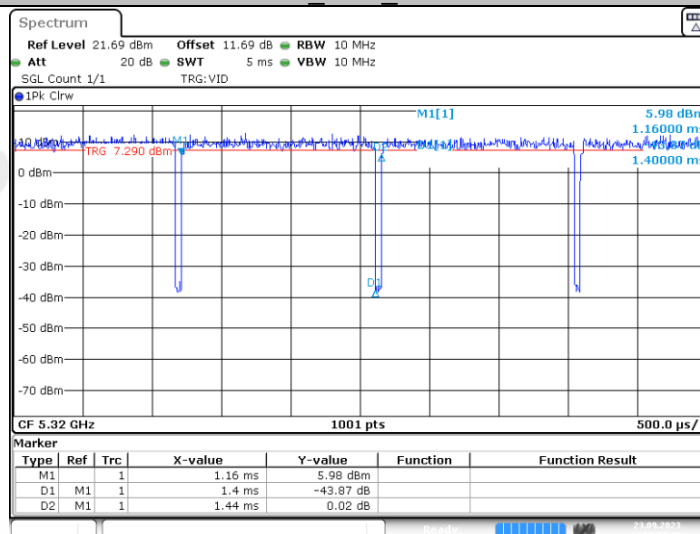
Date: 23 SEP.2023 18:35:17

11A_Ant1_5280



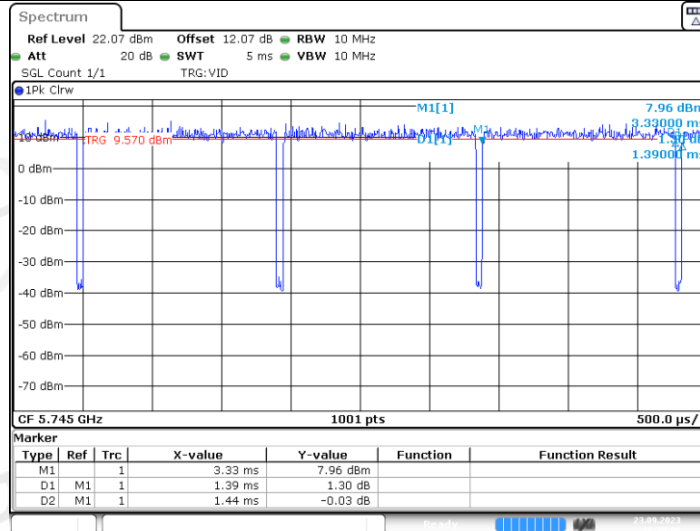
Date: 23 SEP.2023 18:36:23

11A_Ant1_5320

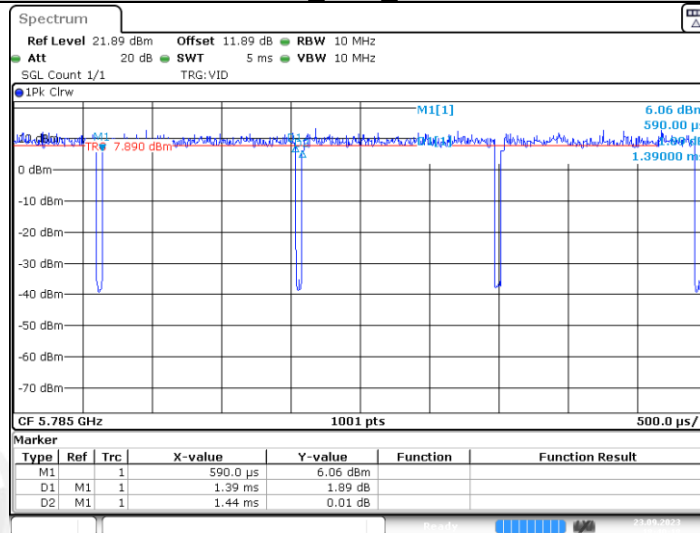


Date: 23 SEP.2023 18:37:49

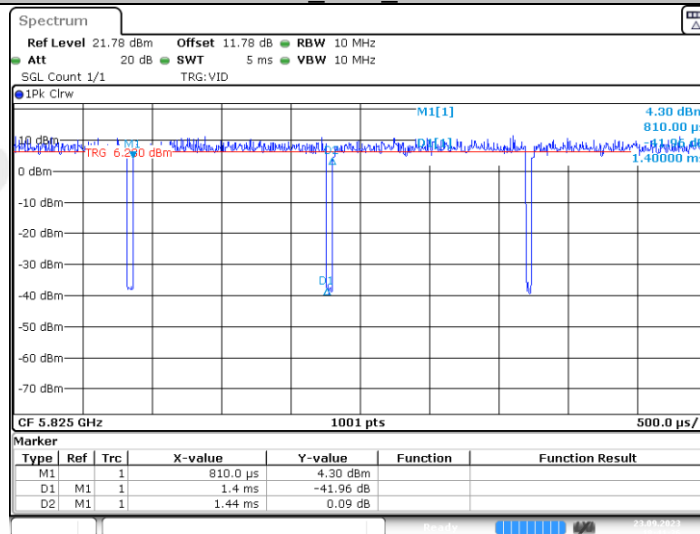
11A_Ant1_5745



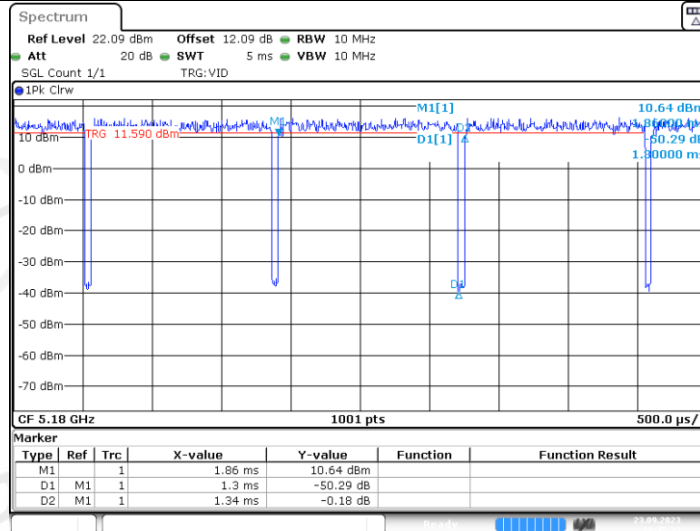
11A_Ant1_5785



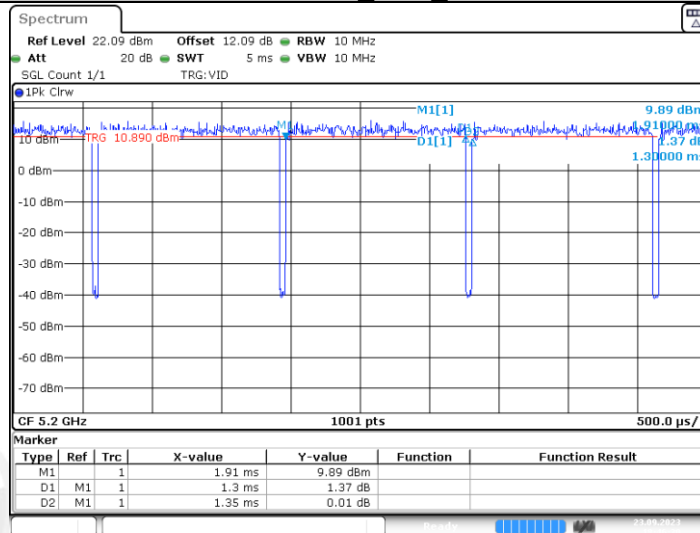
11A_Ant1_5825



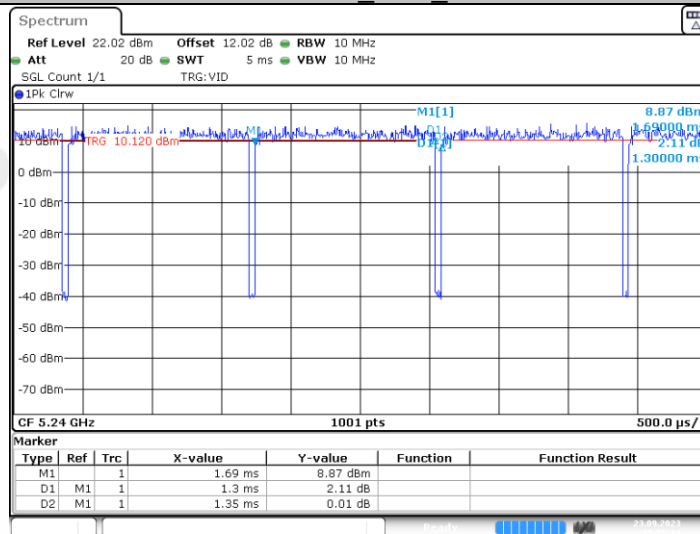
11N20SISO_Ant1_5180

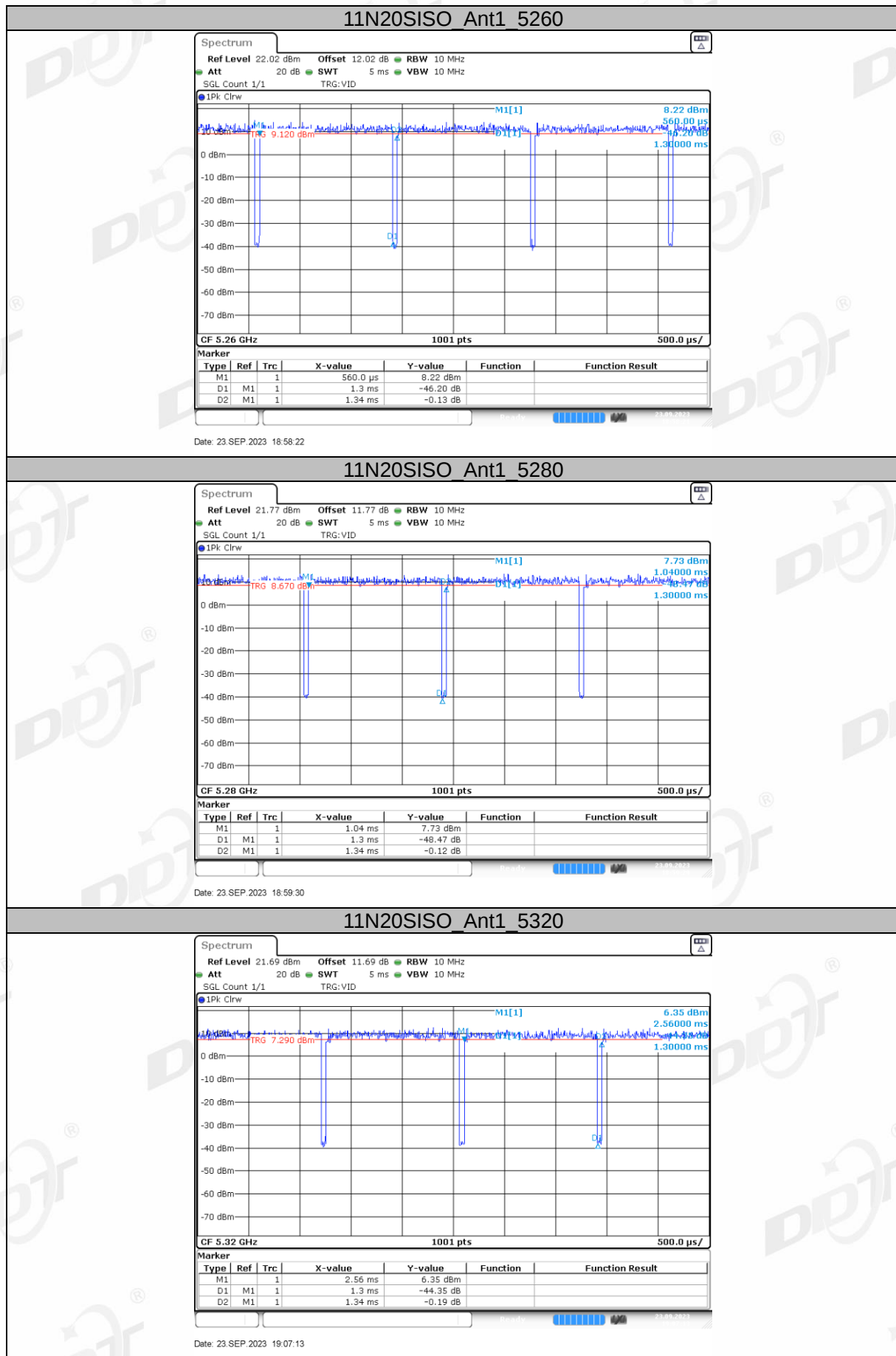


11N20SISO_Ant1_5200

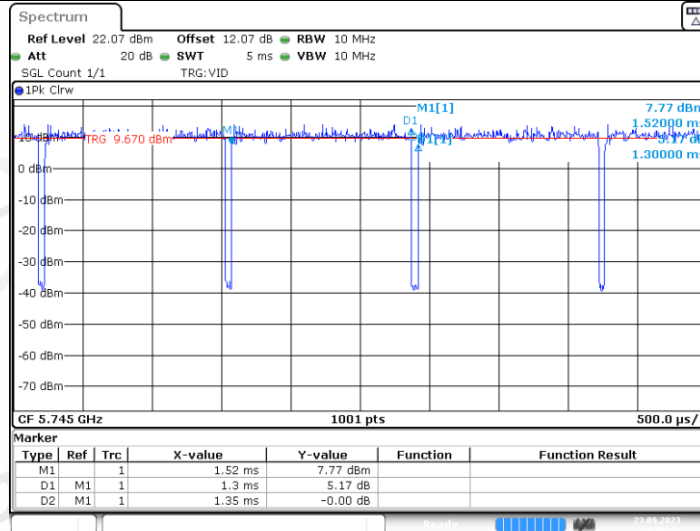


11N20SISO_Ant1_5240



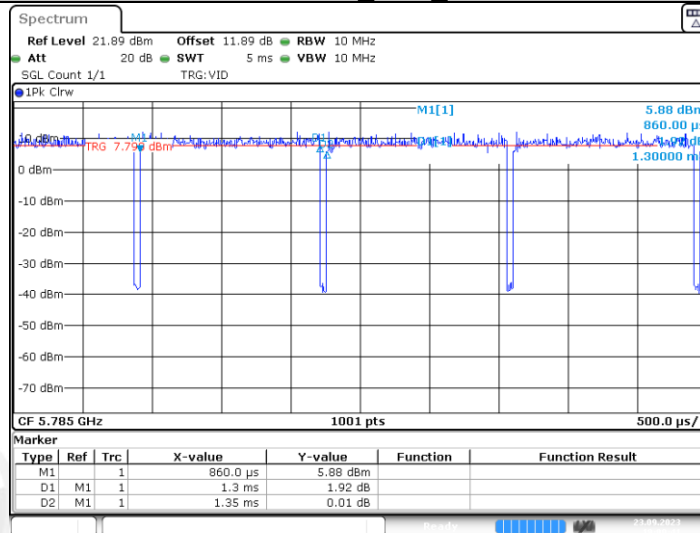


11N20SISO_Ant1_5745



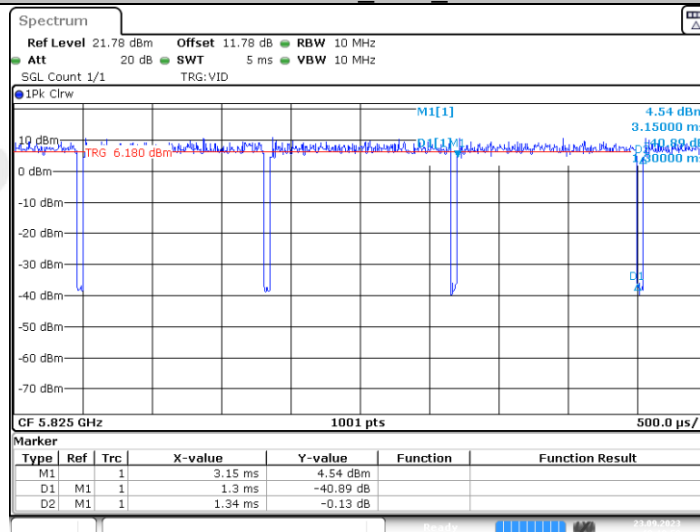
Date: 23.SEP.2023 19:08:26

11N20SISO_Ant1_5785



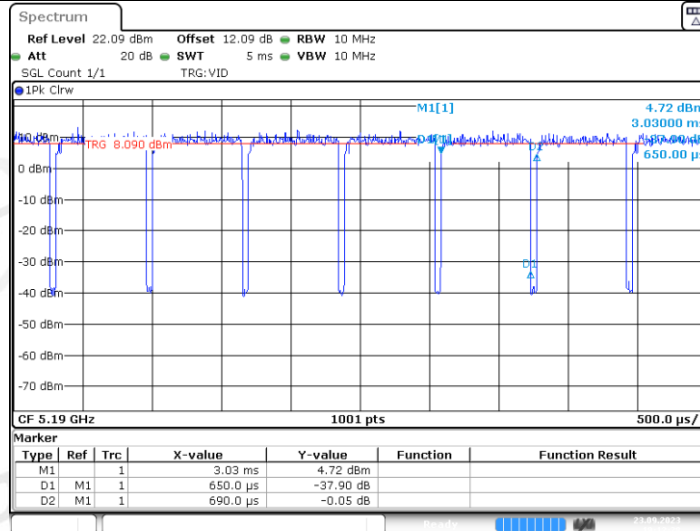
Date: 23.SEP.2023 19:09:41

11N20SISO_Ant1_5825



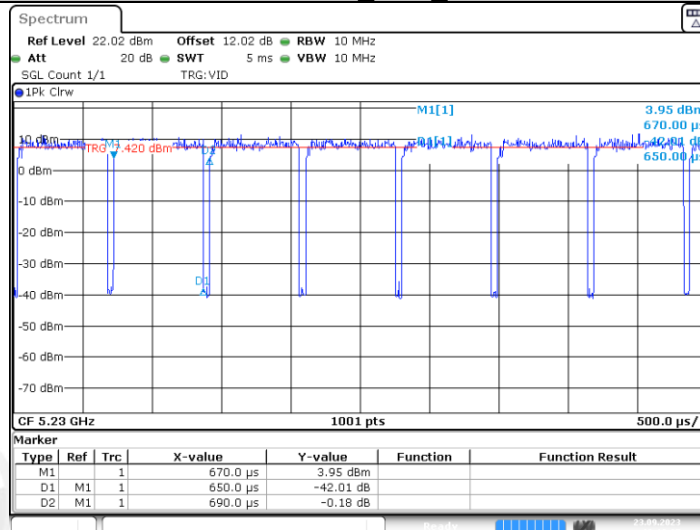
Date: 23.SEP.2023 19:11:00

11N40SISO_Ant1_5190



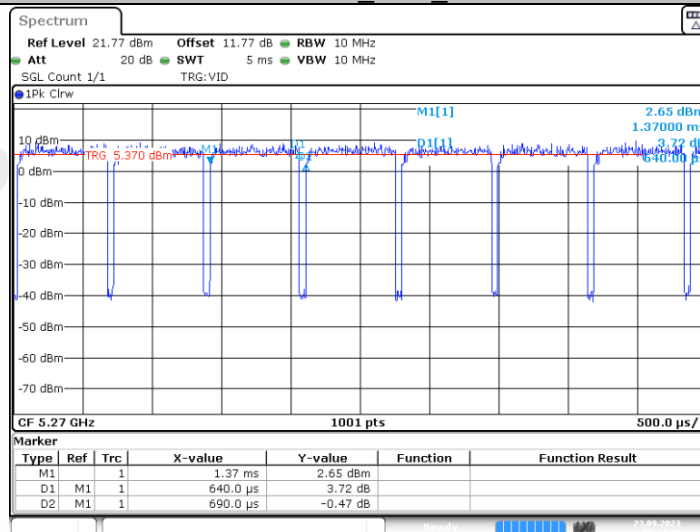
Date: 23.SEP.2023 19:12:28

11N40SISO_Ant1_5230

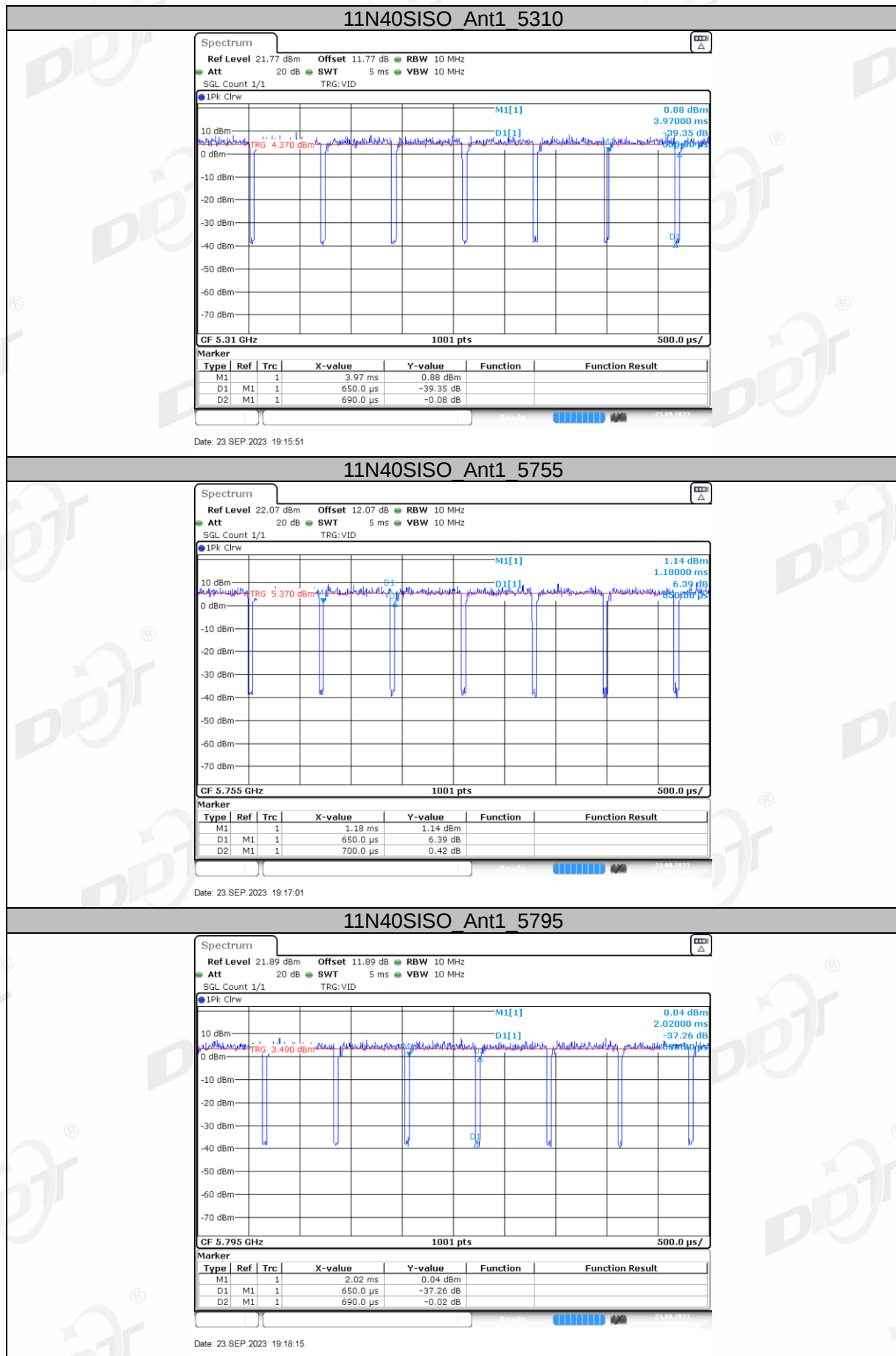


Date: 23.SEP.2023 19:13:35

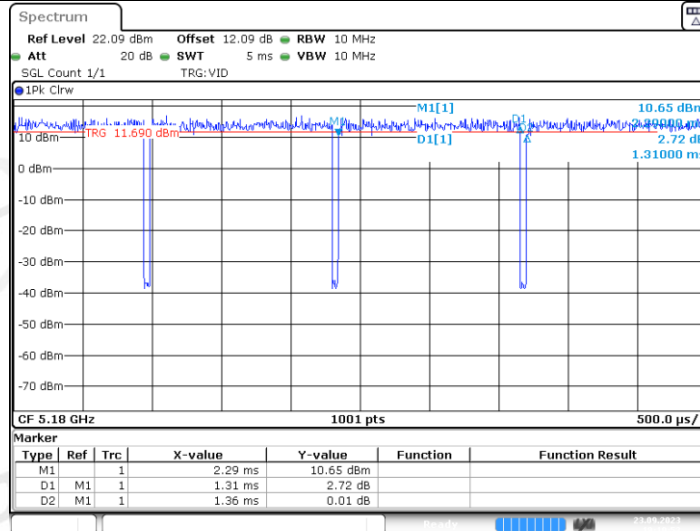
11N40SISO_Ant1_5270



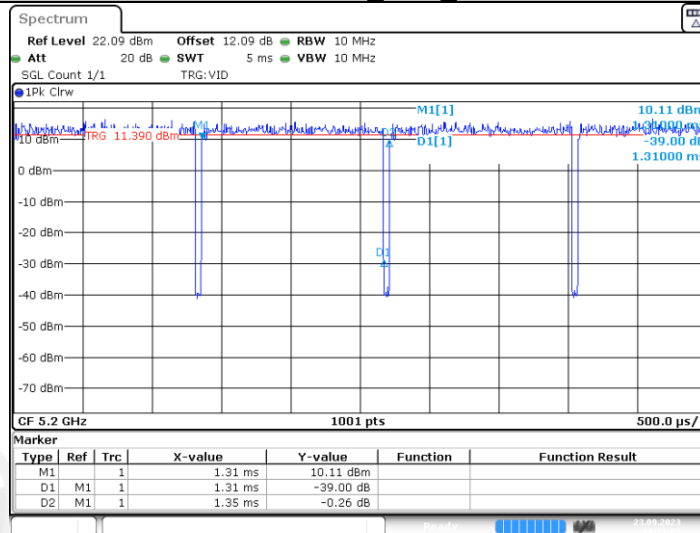
Date: 23.SEP.2023 19:14:45



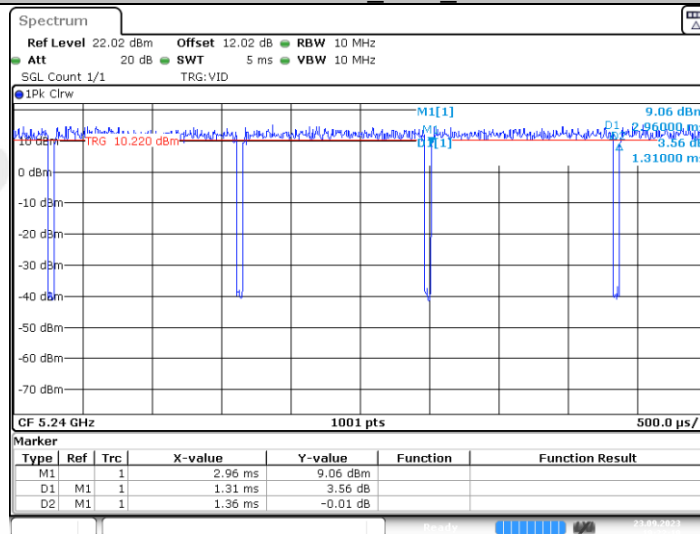
11AC20SISO_Ant1_5180



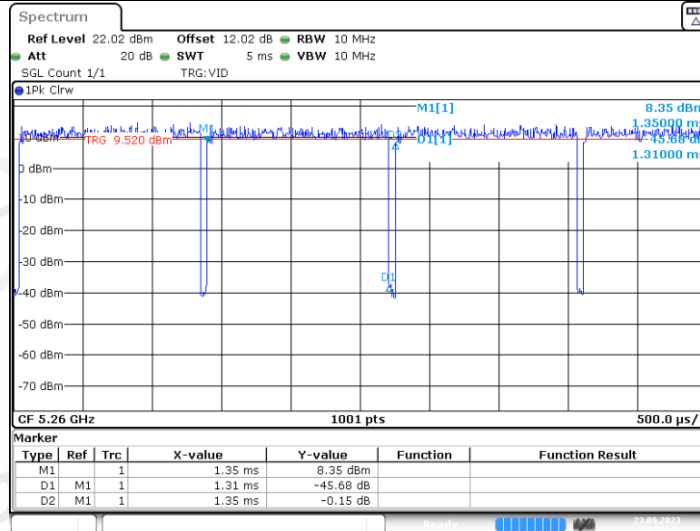
11AC20SISO_Ant1_5200



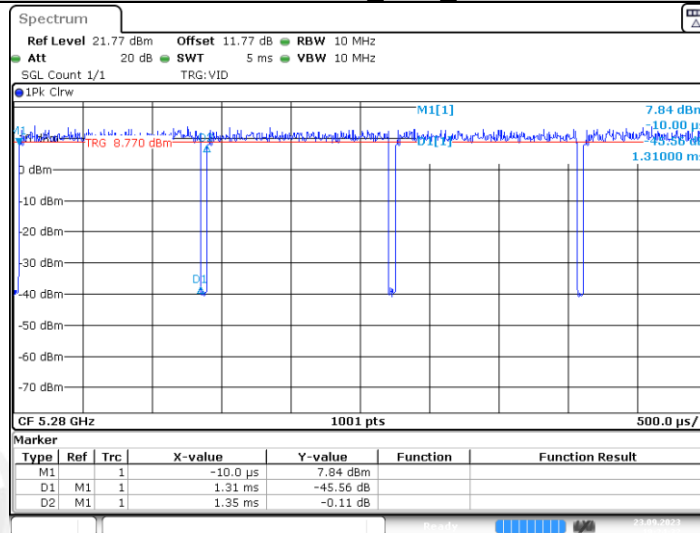
11AC20SISO_Ant1_5240



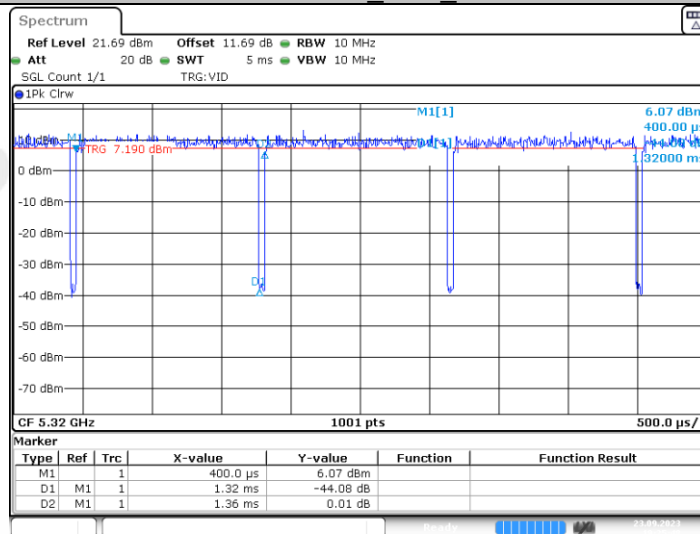
11AC20SISO_Ant1_5260



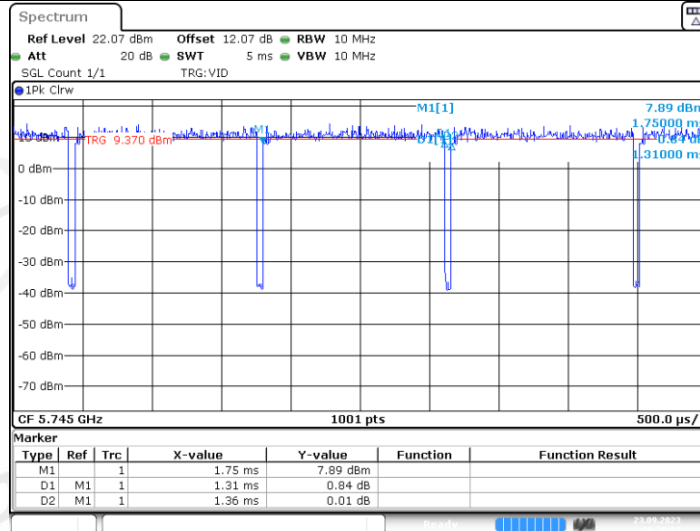
11AC20SISO_Ant1_5280



11AC20SISO_Ant1_5320

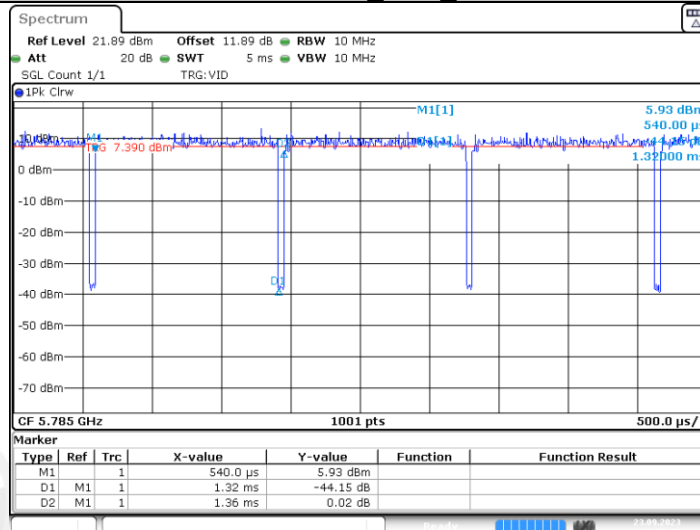


11AC20SISO_Ant1_5745



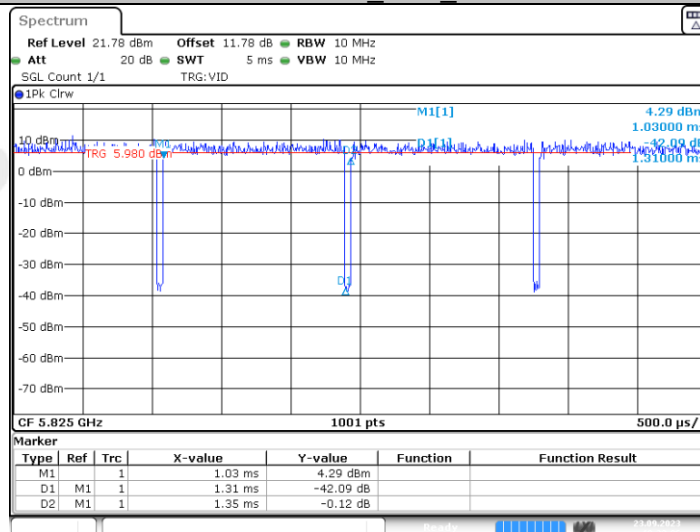
Date: 23 SEP.2023 19:28:12

11AC20SISO_Ant1_5785



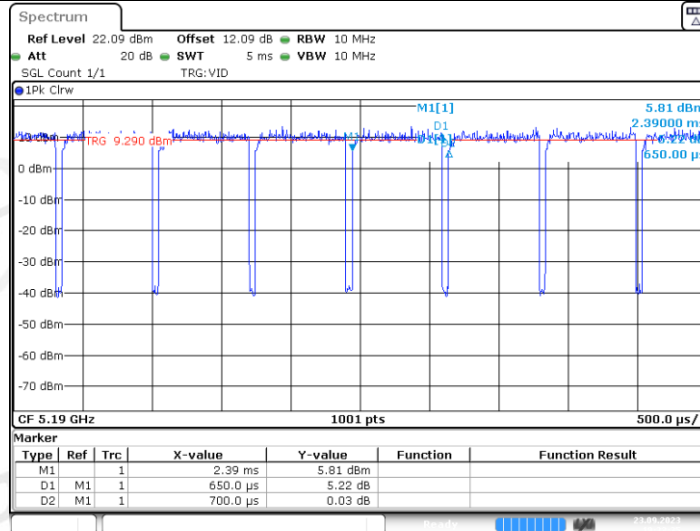
Date: 23 SEP.2023 19:30:36

11AC20SISO_Ant1_5825



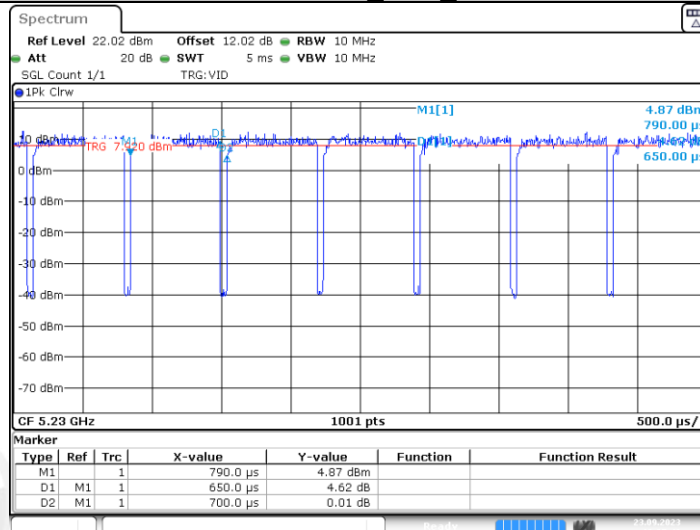
Date: 23 SEP.2023 19:32:06

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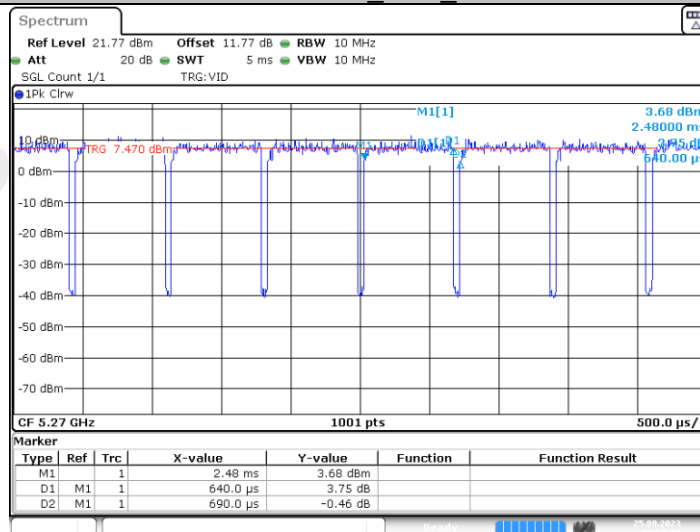
Date: 23 SEP.2023 19:33:35

11AC40SISO_Ant1_5230



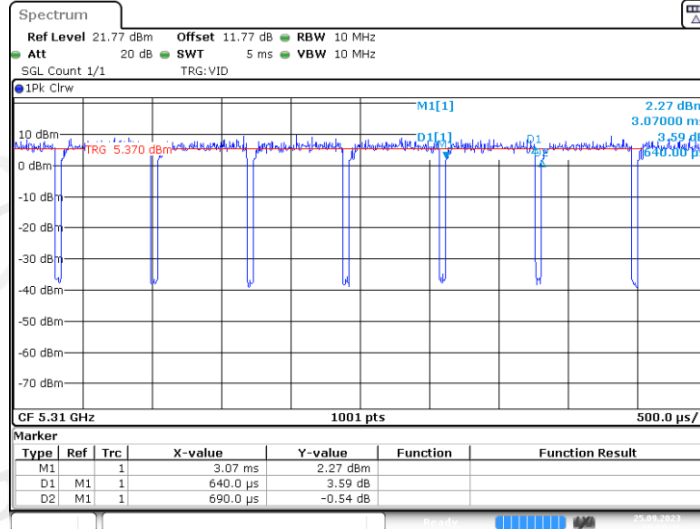
Date: 23 SEP.2023 19:37:47

11AC40SISO_Ant1_5270

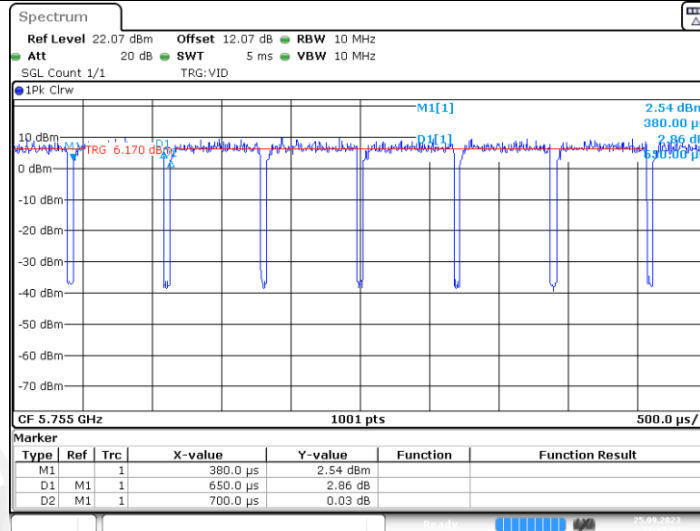


Date: 25 SEP.2023 09:47:42

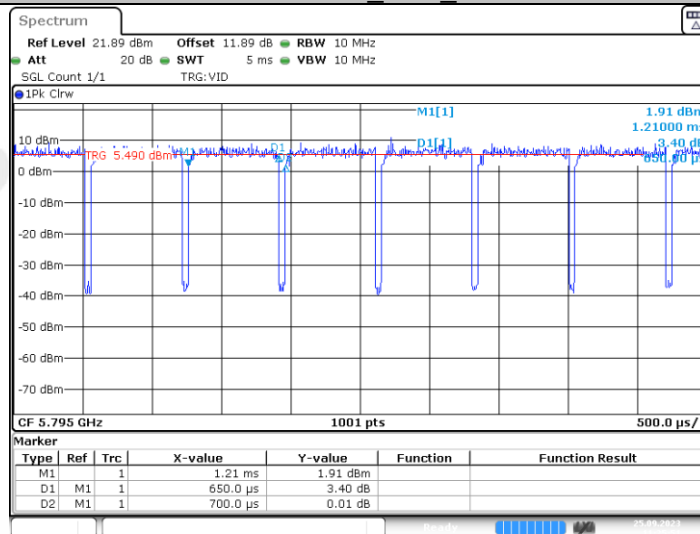
11AC40SISO_Ant1_5310



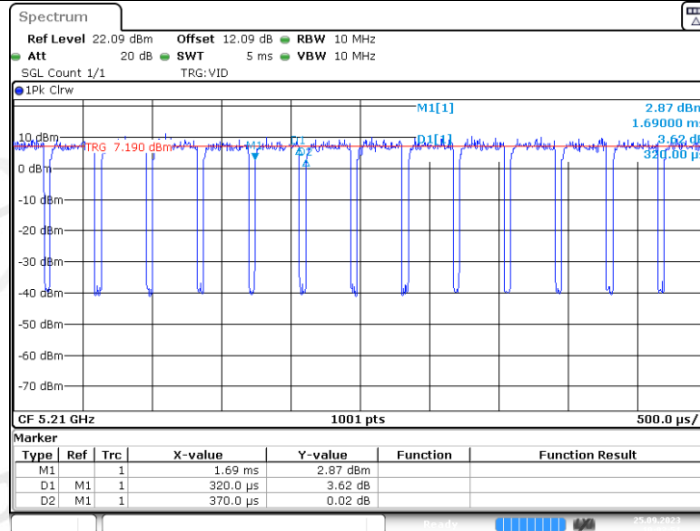
11AC40SISO_Ant1_5755



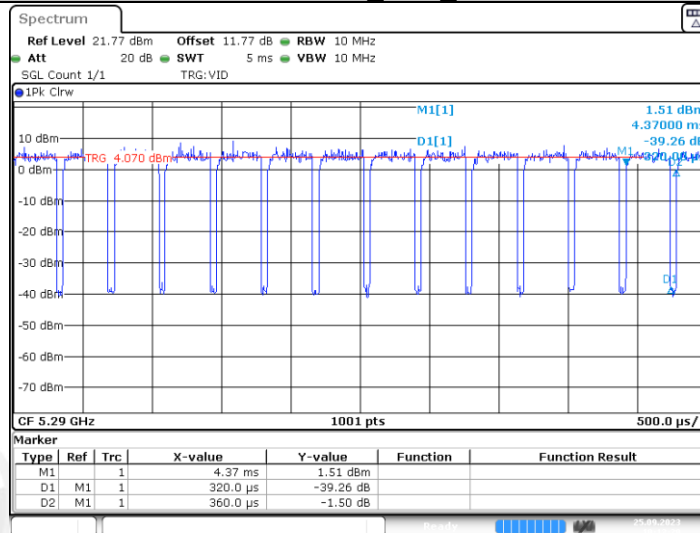
11AC40SISO_Ant1_5795



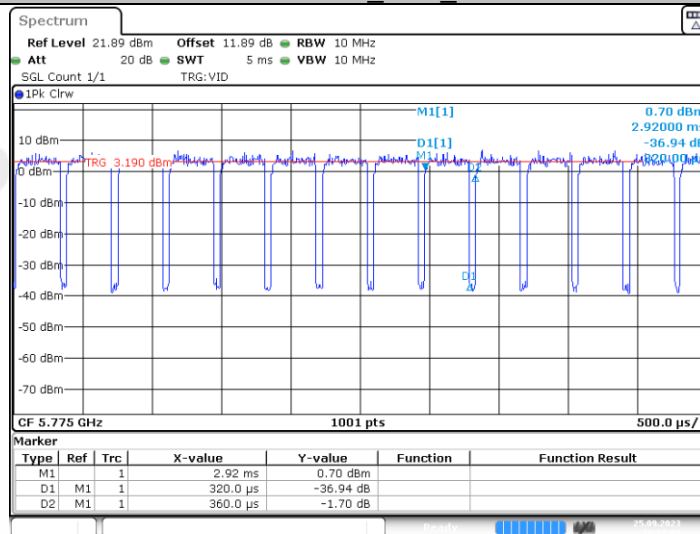
11AC80SISO_Ant1_5210



11AC80SISO_Ant1_5290

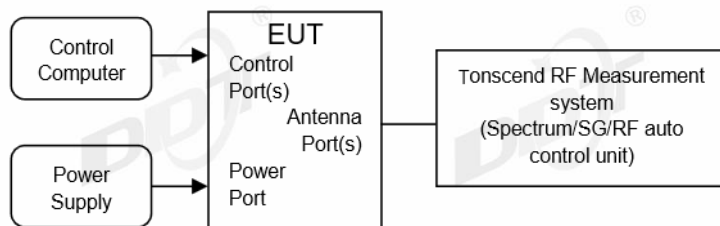


11AC80SISO_Ant1_5775



8. Maximum Output Power

8.1. Block diagram of test setup



8.2. Limits

FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Maximum Output Power	outdoor access point: 1 W(30 dBm) indoor access point: 1 W(30 dBm) fixed point-to-point access points1 W(30 dBm) client devices: 250 mW (24 dBm)	5150-5250
	250 mW (24 dBm) or $11 + 10 \log_{10} B$	5250-5350
	250 mW (24 dBm) or $11 + 10 \log_{10} B$	5470 - 5725
	1 Watt (30 dBm)	5725-5850
Note : B=26 bandwidth.		

8.3. Test procedure

- (1) The test according to ANSI C63.10-2013 clause 11.9.2.3.
- (2) Connect EUT's antenna output to RF power meter by RF cable, the path loss was compensated to the results.
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously, If the transmitter does not transmit continuously, measure the duty cycle, D, of the transmitter output signal.
- (4) Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.
- (5) Adjust the measurement in dBm by adding $[10 \log (1 / D)]$, where D is the duty cycle.
- (6) Record the RF average power of each antenna port.

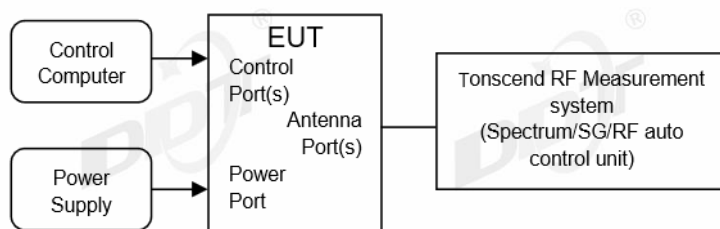
8.4. Test result channel power

Test Mode	Antenna	Frequency [MHz]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11A	Ant1	5180	97.20	0.12	9.21	≤23.98	12.68	---	PASS
		5200	97.20	0.12	9.03	≤23.98	12.50	---	PASS
		5240	96.53	0.15	7.89	≤23.98	11.36	---	PASS
		5260	96.53	0.15	7.32	≤23.98	10.79	---	PASS
		5280	96.53	0.15	6.64	≤23.98	10.11	---	PASS
		5320	97.22	0.12	5.23	≤23.98	8.70	---	PASS
		5745	96.53	0.15	6.83	≤30.00	10.30	---	PASS
		5785	96.53	0.15	5.01	≤30.00	8.48	---	PASS
		5825	97.22	0.12	3.84	≤30.00	7.31	---	PASS
11N20SISO	Ant1	5180	97.01	0.13	9.07	≤23.98	12.54	---	PASS
		5200	96.30	0.16	8.80	≤23.98	12.27	---	PASS
		5240	96.30	0.16	7.79	≤23.98	11.26	---	PASS
		5260	97.01	0.13	7.18	≤23.98	10.65	---	PASS
		5280	97.01	0.13	6.49	≤23.98	9.96	---	PASS
		5320	97.01	0.13	5.12	≤23.98	8.59	---	PASS
		5745	96.30	0.16	6.58	≤30.00	10.05	---	PASS
		5785	96.30	0.16	4.73	≤30.00	8.20	---	PASS
		5825	97.01	0.13	3.81	≤30.00	7.28	---	PASS
11N40SISO	Ant1	5190	94.20	0.26	7.29	≤23.98	10.76	---	PASS
		5230	94.20	0.26	6.40	≤23.98	9.87	---	PASS
		5270	92.75	0.33	5.16	≤23.98	8.63	---	PASS
		5310	94.20	0.26	3.62	≤23.98	7.09	---	PASS
		5755	92.86	0.32	4.40	≤30.00	7.87	---	PASS
		5795	94.20	0.26	2.48	≤30.00	5.95	---	PASS

11AC20SISO	Ant1	5180	96.32	0.16	9.30	≤23.98	12.77	---	PASS
		5200	97.04	0.13	8.86	≤23.98	12.33	---	PASS
		5240	96.32	0.16	7.94	≤23.98	11.41	---	PASS
		5260	97.04	0.13	7.28	≤23.98	10.75	---	PASS
		5280	97.04	0.13	6.62	≤23.98	10.09	---	PASS
		5320	97.06	0.13	5.21	≤23.98	8.68	---	PASS
		5745	96.32	0.16	6.67	≤30.00	10.14	---	PASS
		5785	97.06	0.13	4.76	≤30.00	8.23	---	PASS
		5825	97.04	0.13	3.65	≤30.00	7.12	---	PASS
11AC40SISO	Ant1	5190	92.86	0.32	8.17	≤23.98	11.64	---	PASS
		5230	92.86	0.32	7.44	≤23.98	10.91	---	PASS
		5270	92.75	0.33	5.77	≤23.98	9.24	---	PASS
		5310	92.75	0.33	3.85	≤23.98	7.32	---	PASS
		5755	92.86	0.32	5.00	≤30.00	8.47	---	PASS
		5795	92.86	0.32	3.54	≤30.00	7.01	---	PASS
11AC80SISO	Ant1	5210	86.49	0.63	8.76	≤23.98	12.23	---	PASS
		5290	88.89	0.51	6.19	≤23.98	9.66	---	PASS
		5775	88.89	0.51	5.31	≤30.00	8.78	---	PASS

9. Power Spectral Density

9.1. Block diagram of test setup



9.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	Other than Mobile and portable:17 dBm/MHz Mobile and portable client devices:11 dBm/MHz	5150-5250
	11 dBm/MHz	5250-5350
	11 dBm/MHz	5470 - 5725
	30 dBm/500 kHz	5725-5850

9.3. Test procedure

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW.

Connect the UUT to the spectrum analyser and use the following settings:

5150 MHz~5250 MHz, 5250 MHz~5350 MHz, 5470 MHz~5725 MHz:

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	1MHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

5725 MHz-5850 MHz:

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	500 kHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

9.4. Test result

Test Mode	Antenna	Frequency [MHz]	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5180	-1.42	≤11.00	PASS
		5200	-1.98	≤11.00	PASS
		5240	-2.99	≤11.00	PASS
		5260	-3.70	≤11.00	PASS
		5280	-4.26	≤11.00	PASS
		5320	-6.00	≤11.00	PASS
		5745	-6.80	≤30.00	PASS
		5785	-8.83	≤30.00	PASS
		5825	-10.28	≤30.00	PASS
11N20SISO	Ant1	5180	-1.59	≤11.00	PASS
		5200	-2.44	≤11.00	PASS
		5240	-3.21	≤11.00	PASS
		5260	-4.02	≤11.00	PASS
		5280	-4.67	≤11.00	PASS
		5320	-6.04	≤11.00	PASS
		5745	-7.26	≤30.00	PASS
		5785	-9.32	≤30.00	PASS
		5825	-10.69	≤30.00	PASS
11N40SISO	Ant1	5190	-6.64	≤11.00	PASS
		5230	-7.56	≤11.00	PASS
		5270	-9.33	≤11.00	PASS
		5310	-10.55	≤11.00	PASS
		5755	-12.75	≤30.00	PASS
		5795	-14.26	≤30.00	PASS
11AC20SISO	Ant1	5180	-1.61	≤11.00	PASS
		5200	-2.03	≤11.00	PASS
		5240	-3.11	≤11.00	PASS
		5260	-3.98	≤11.00	PASS

		5280	-4.56	≤11.00	PASS
		5320	-6.10	≤11.00	PASS
		5745	-7.17	≤30.00	PASS
		5785	-9.29	≤30.00	PASS
		5825	-10.85	≤30.00	PASS
11AC40SISO	Ant1	5190	-5.66	≤11.00	PASS
		5230	-6.50	≤11.00	PASS
		5270	-7.81	≤11.00	PASS
		5310	-9.29	≤11.00	PASS
		5755	-11.65	≤30.00	PASS
		5795	-12.36	≤30.00	PASS
11AC80SISO	Ant1	5210	-7.96	≤11.00	PASS
		5290	-11.07	≤11.00	PASS
		5775	-14.9	≤30.00	PASS

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2.The Duty Cycle Factor is compensated in the graph.