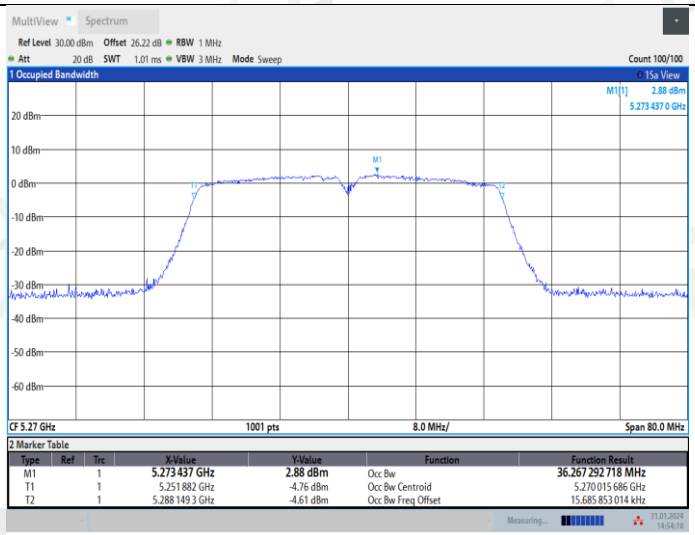

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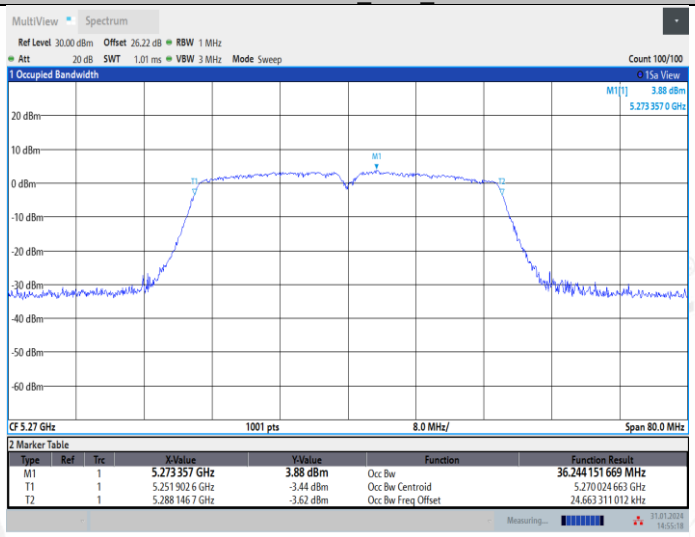

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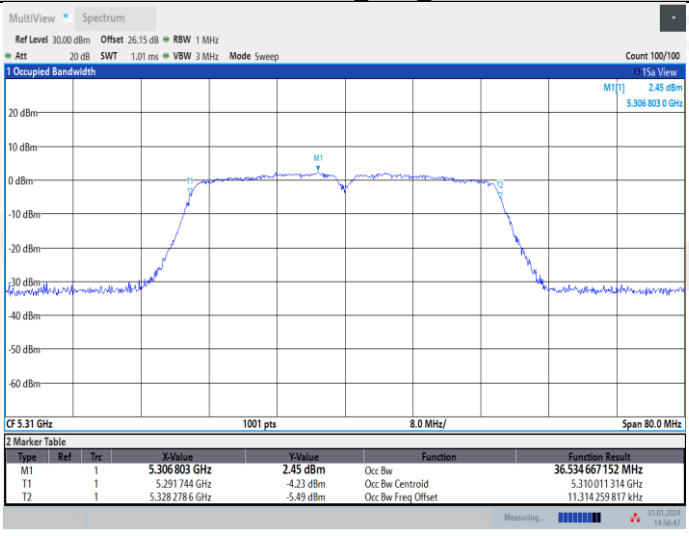

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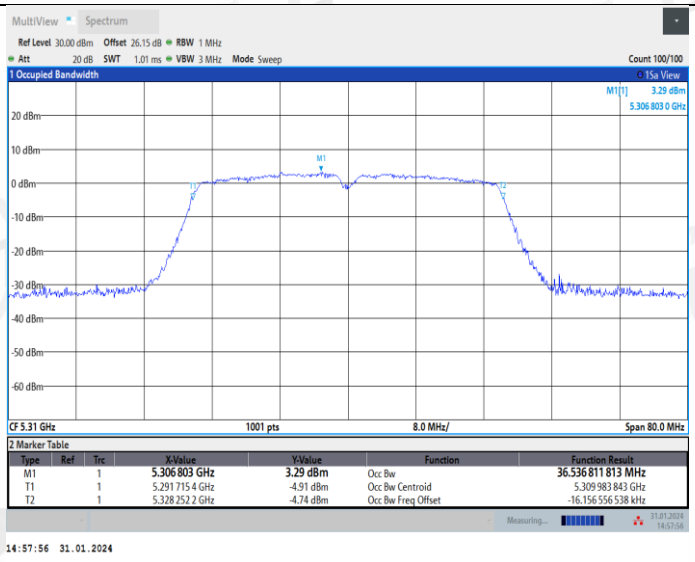

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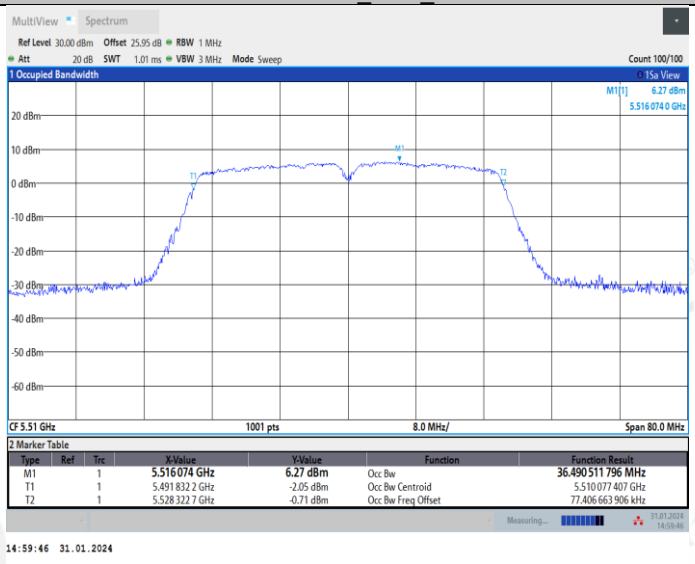

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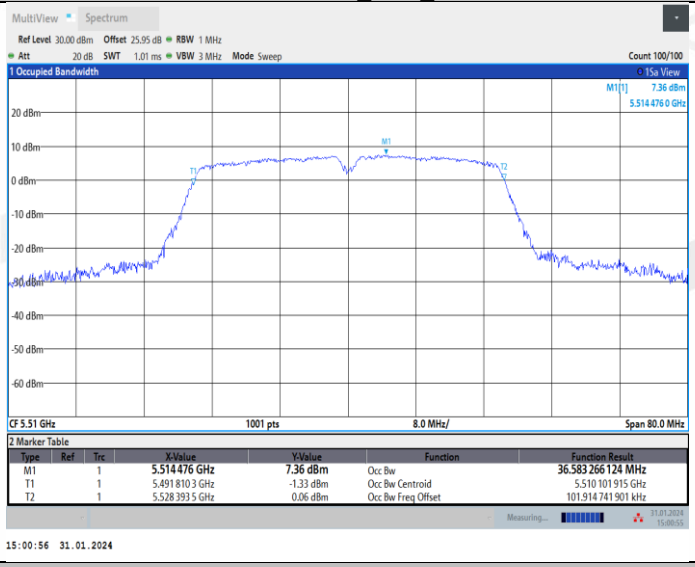

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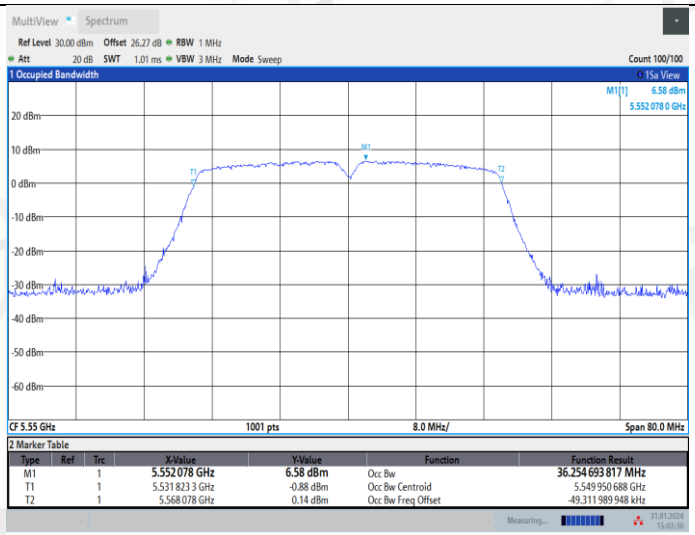

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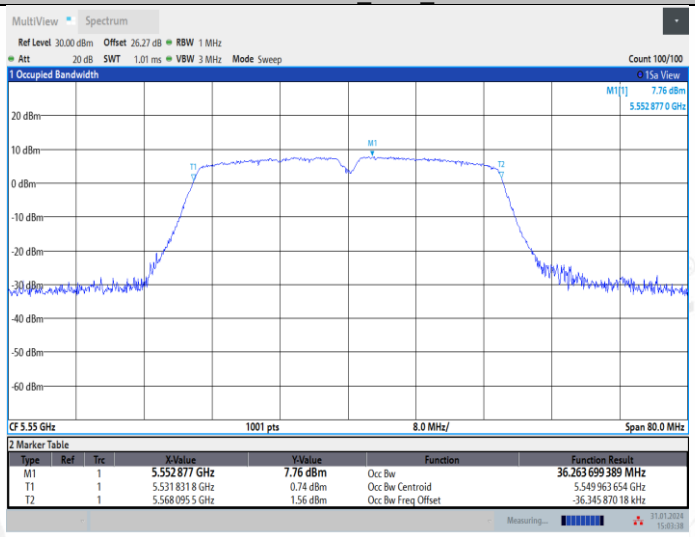

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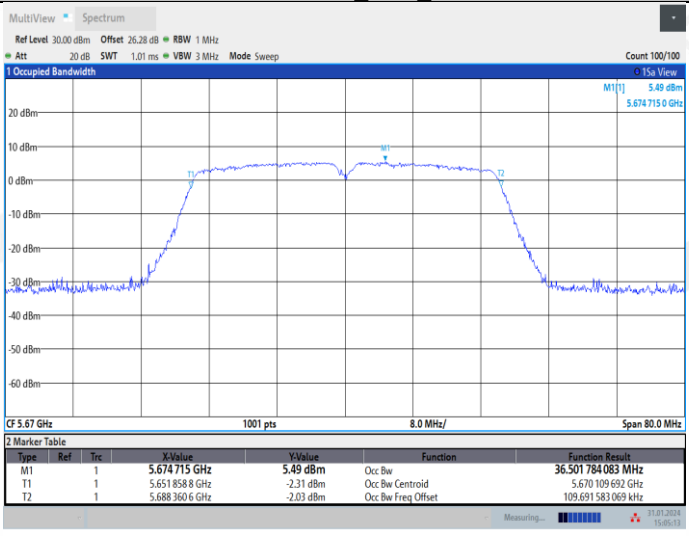

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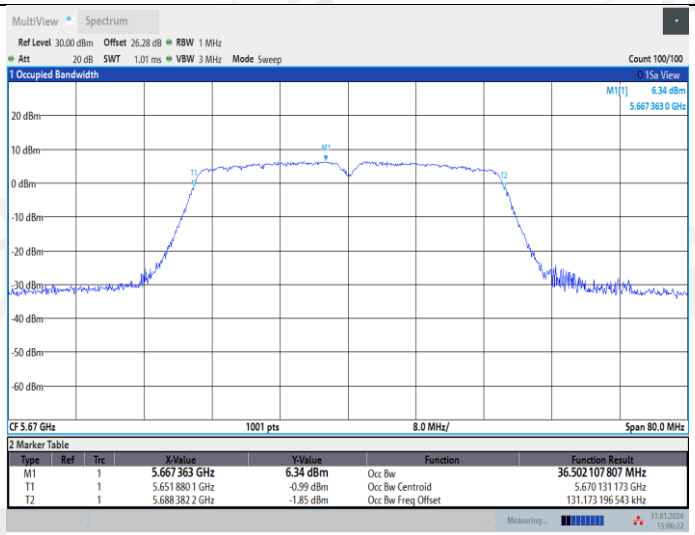

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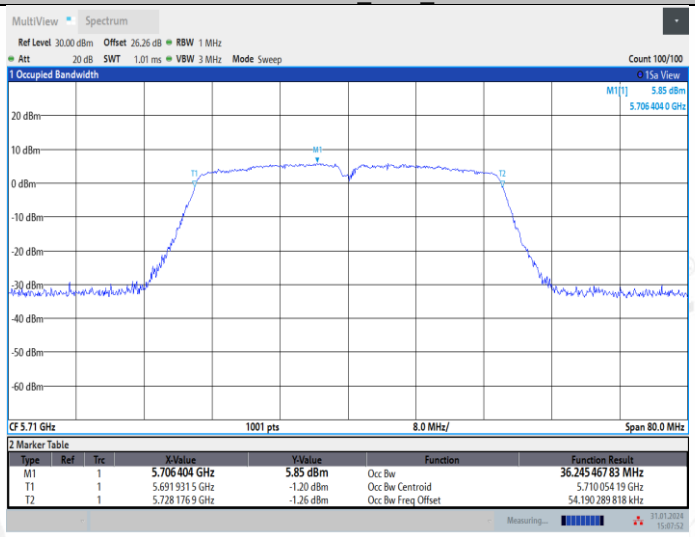

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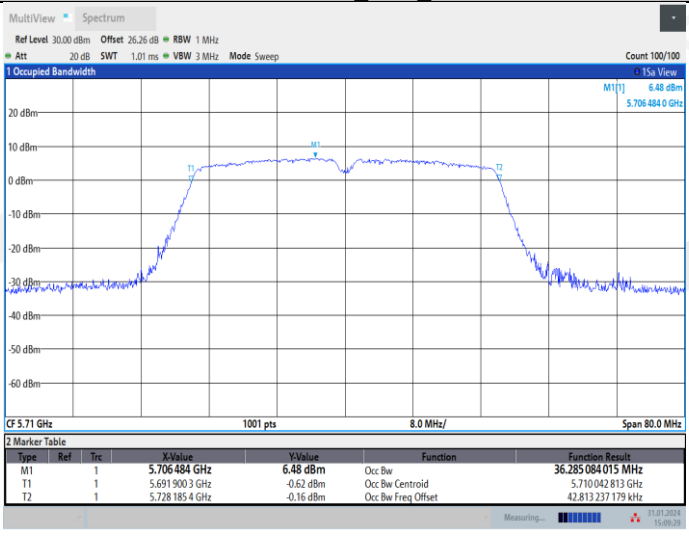

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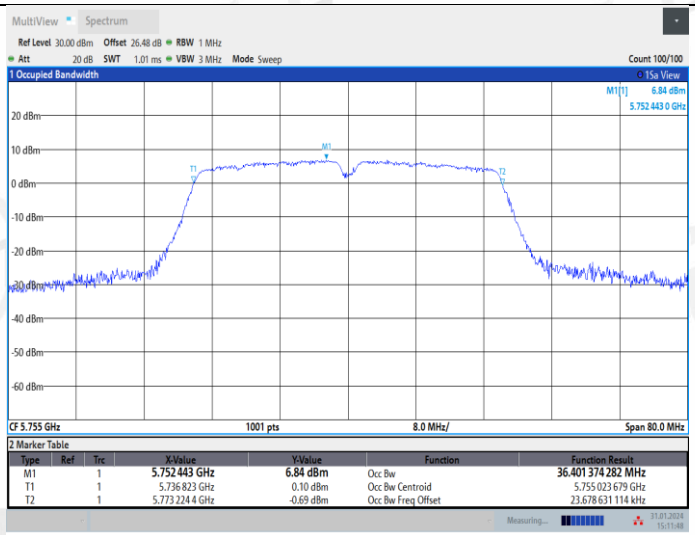

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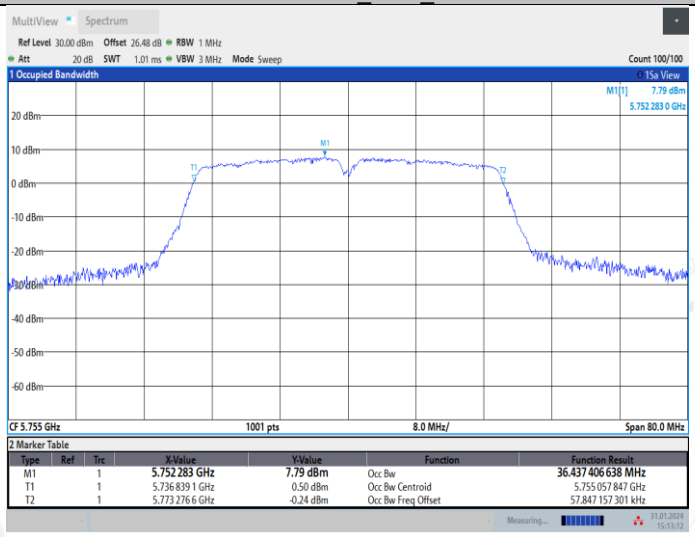

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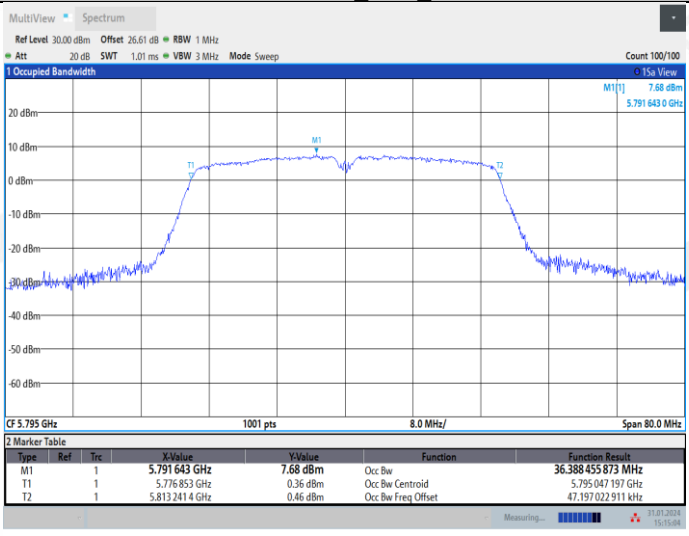

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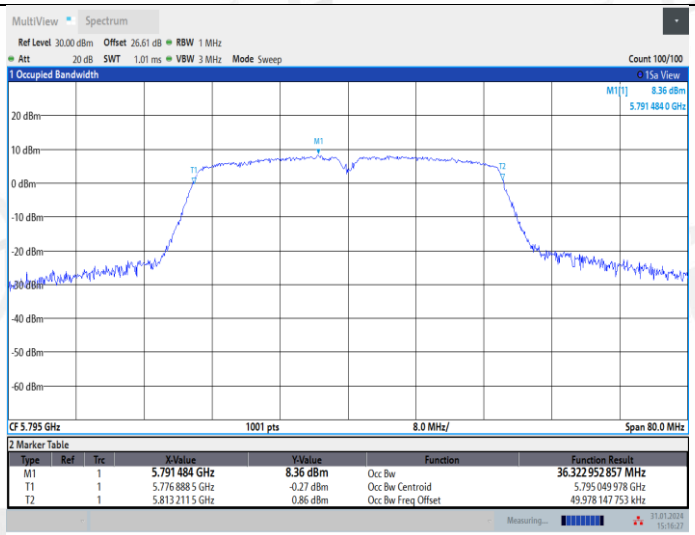

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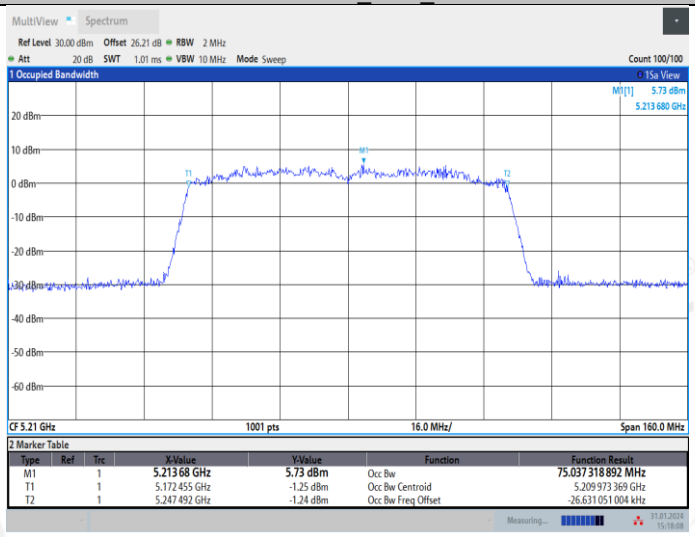

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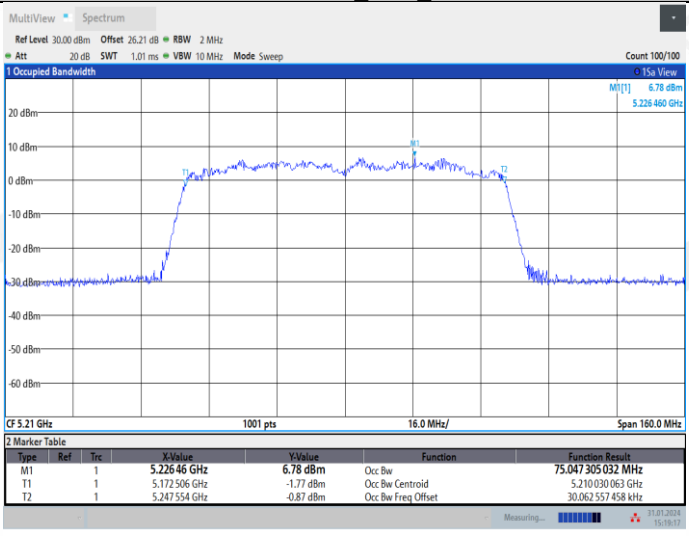

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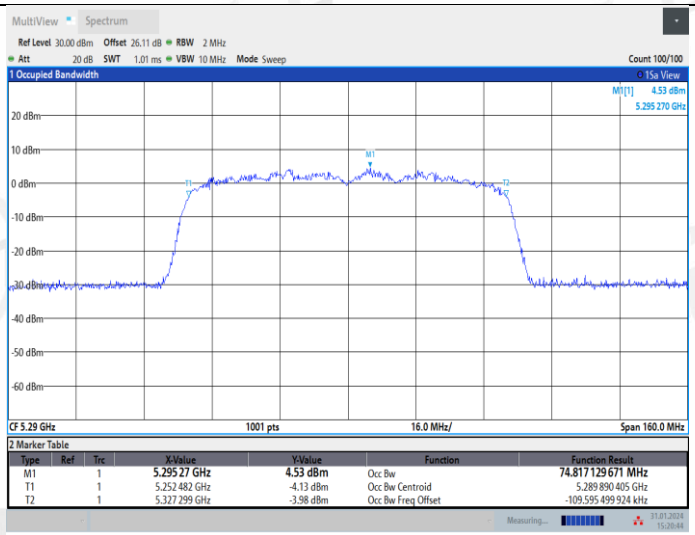

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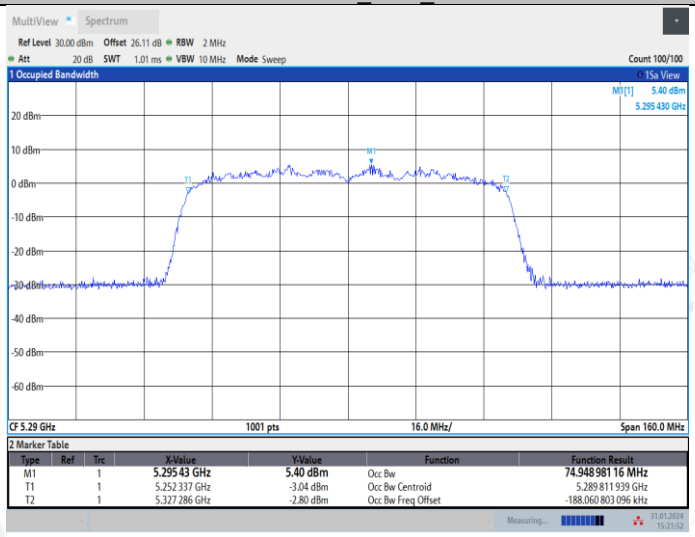

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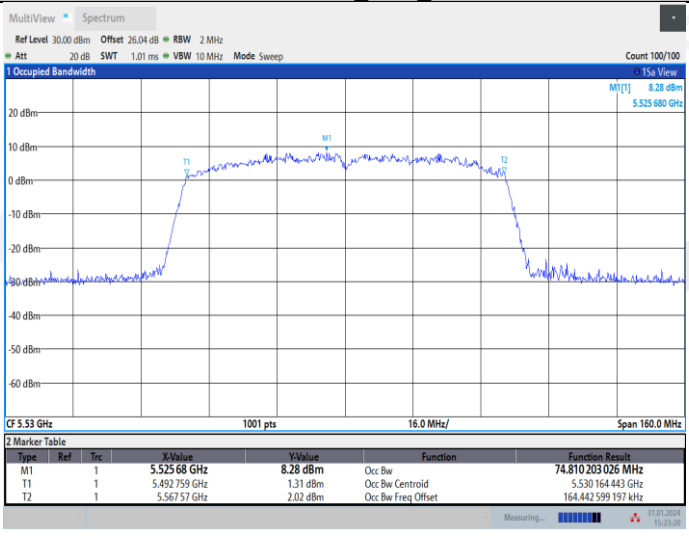

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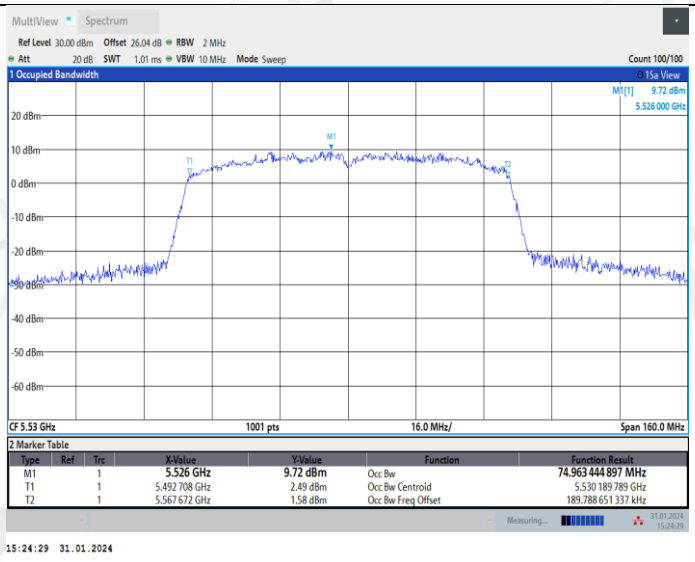

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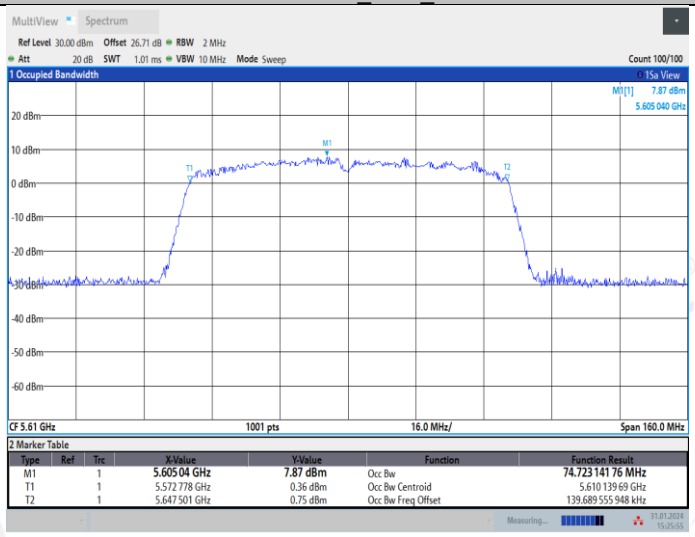

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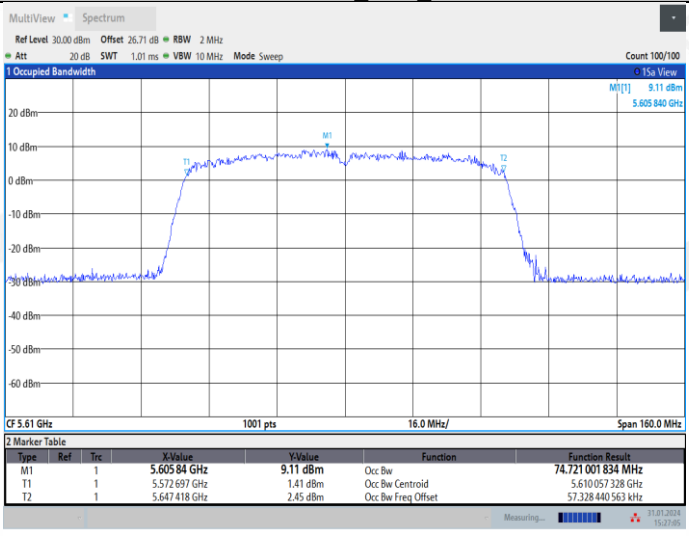

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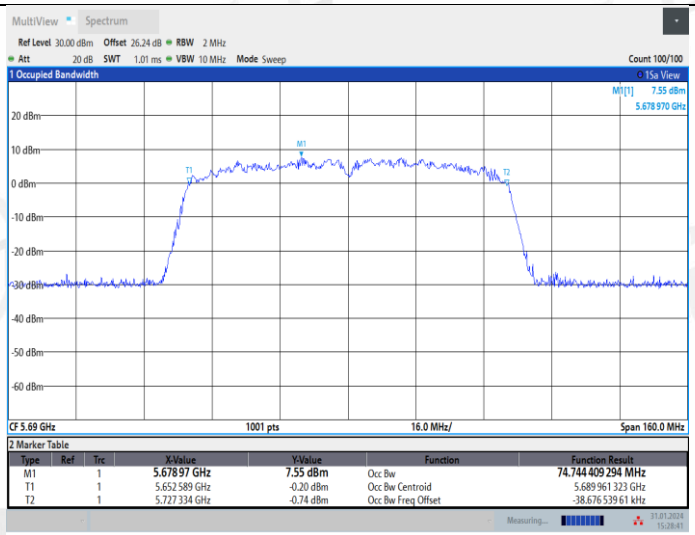
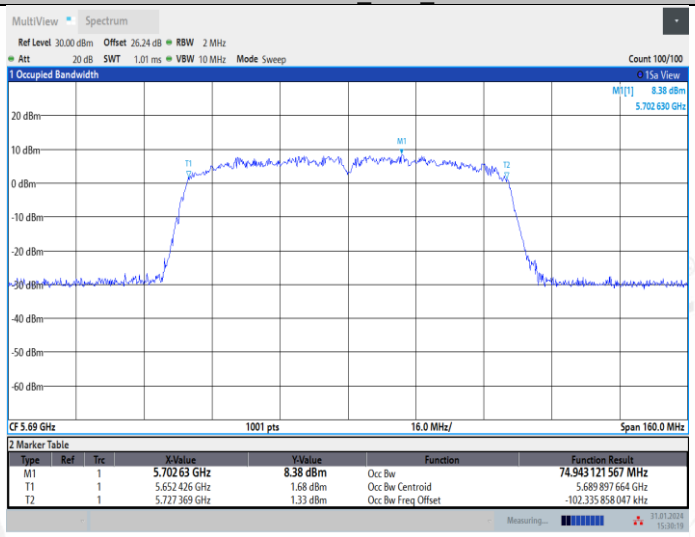


11AC80MIMO_Ant2_5690



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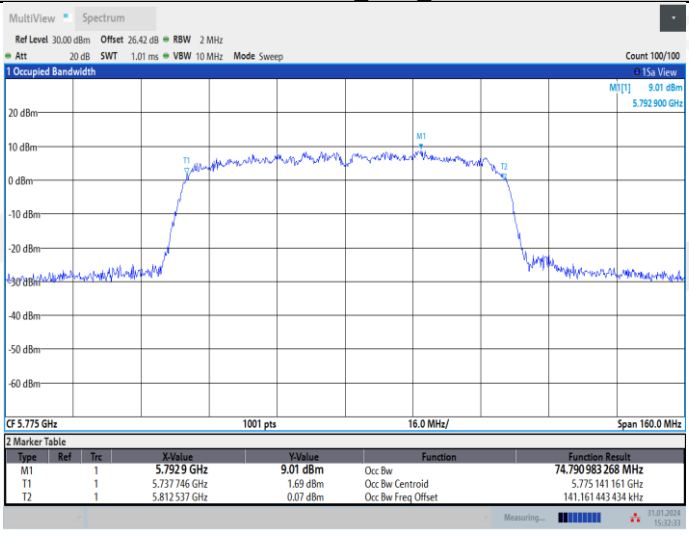

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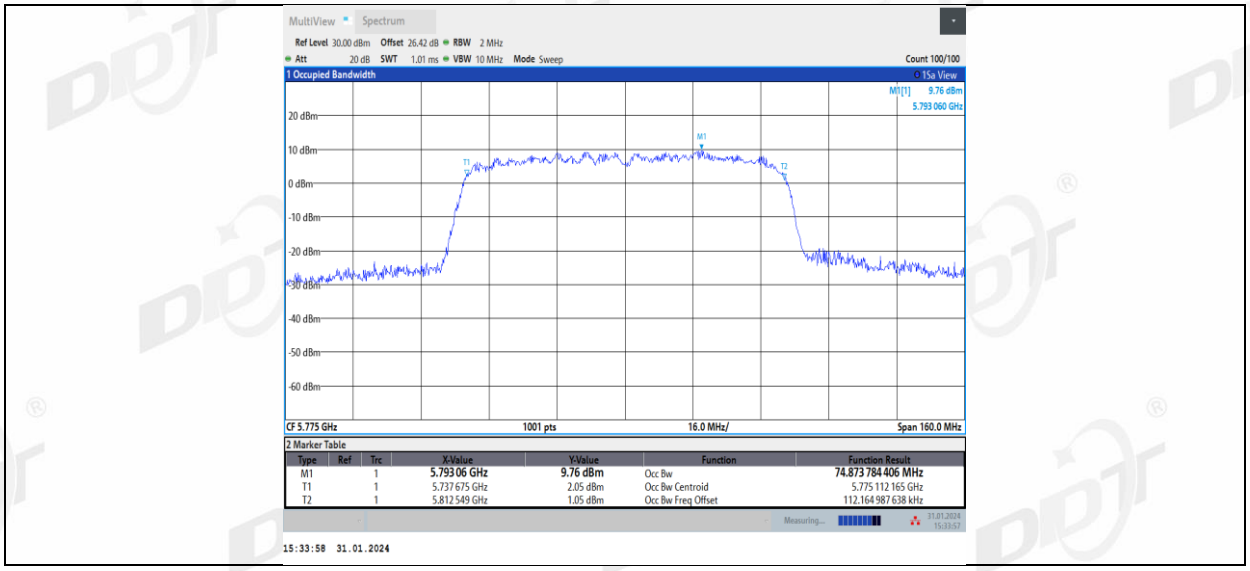
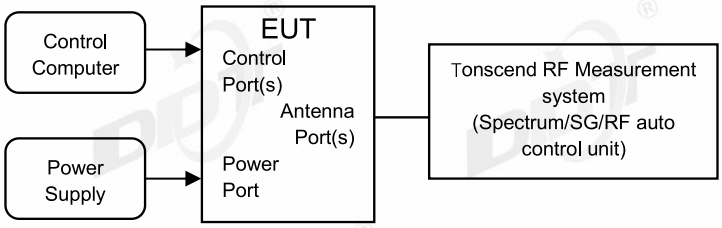

MultiView
Spectrum
Ref Level 30.00 dBm Offset 26.42 dB RBW 2 MHz
Att 20 dB SWT 1.01 ms VBW 10 MHz Mode Sweep
Count 100/100
1 Occupied Bandwidth
1Sa View
M1[1] 9.76 dBm
5.793 060 GHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
M1
T1
T2
CF 5.775 GHz
1001 pts
16.0 MHz/
Span 160.0 MHz
2 Marker Table
Type Ref Trc X-Value Y-Value Function Function Result
M1 1 5.793 06 GHz 9.76 dBm Occ Bw 74.873 784 406 MHz
T1 1 5.737 675 GHz 2.05 dBm Occ Bw Centroid 5.775 112 165 GHz
T2 1 5.812 549 GHz 1.05 dBm Occ Bw Freq Offset 112.164 987 638 kHz
Measuring...
15:33:58 31.01.2024

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.
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: Clear Write.
Sweep: Video Trigger

(2) When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.

(3) Calculate dwell time follow below formula:
Duty cycle= Pulse's on time / Burst cycle

7.4. Test result

Test Engineer:	Haofeng CHEN	Test Site:	RF Measurement System 4#
Ambient Condition:	23.6℃,51.2%RH	Test Date:	2024.01.22-2024.01.31
Test Power Supply:	DC 5V	EUT:	AIoT Edge Controller
Sample Number:	S23111537-05	Model No.:	MB41

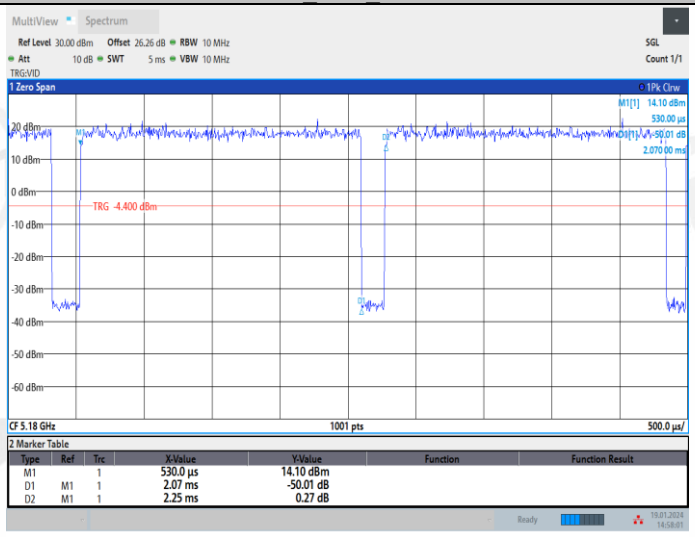
Test Mode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	2.07	2.25	92.00
	Ant2	5180	2.07	2.25	92.00
	Ant1	5200	2.06	2.24	91.96
	Ant2	5200	2.06	2.21	93.21
	Ant1	5240	2.06	2.28	90.35
	Ant2	5240	2.07	2.26	91.59
	Ant1	5260	2.07	2.25	92.00
	Ant2	5260	2.07	2.27	91.19
	Ant1	5280	2.07	2.24	92.41

	Ant2	5280	2.07	2.22	93.24
	Ant1	5320	2.06	2.21	93.21
	Ant2	5320	2.07	2.29	90.39
	Ant1	5500	2.07	2.24	92.41
	Ant2	5500	2.07	2.20	94.09
	Ant1	5580	2.07	2.23	92.83
	Ant2	5580	2.06	2.23	92.38
	Ant1	5700	2.07	2.23	92.83
	Ant2	5700	2.07	2.26	91.59
	Ant1	5720	2.06	2.30	89.57
	Ant2	5720	2.06	2.25	91.56
	Ant1	5745	2.06	2.20	93.64
	Ant2	5745	2.07	2.26	91.59
	Ant1	5785	2.06	2.25	91.56
	Ant2	5785	2.06	2.27	90.75
	Ant1	5825	2.06	2.29	89.96
	Ant2	5825	2.07	2.29	90.39
11N20MIMO	Ant1	5180	0.98	1.18	83.05
	Ant2	5180	0.99	1.22	81.15
	Ant1	5200	0.99	1.19	83.19
	Ant2	5200	0.98	1.18	83.05
	Ant1	5240	0.99	1.22	81.15
	Ant2	5240	0.98	1.15	85.22
	Ant1	5260	0.98	1.13	86.73
	Ant2	5260	0.99	1.18	83.90
	Ant1	5280	0.98	1.15	85.22
	Ant2	5280	0.99	1.22	81.15
	Ant1	5320	0.99	1.18	83.90
	Ant2	5320	0.98	1.15	85.22
	Ant1	5500	0.99	1.16	85.34
	Ant2	5500	0.99	1.19	83.19
	Ant1	5580	0.98	1.20	81.67
	Ant2	5580	0.99	1.19	83.19
	Ant1	5700	0.99	1.15	86.09
	Ant2	5700	0.98	1.19	82.35
	Ant1	5720	0.98	1.21	80.99
	Ant2	5720	0.98	1.18	83.05
	Ant1	5745	0.98	1.18	83.05
	Ant2	5745	0.98	1.16	84.48
	Ant1	5785	0.98	1.14	85.96
	Ant2	5785	0.98	1.19	82.35
	Ant1	5825	0.99	1.20	82.50
	Ant2	5825	0.99	1.18	83.90
11N40MIMO	Ant1	5190	0.50	0.70	71.43
	Ant2	5190	0.50	0.71	70.42
	Ant1	5230	0.50	0.72	69.44
	Ant2	5230	0.49	0.70	70.00
	Ant1	5270	0.49	0.73	67.12
	Ant2	5270	0.49	0.69	71.01
	Ant1	5310	0.50	0.72	69.44
	Ant2	5310	0.50	0.69	72.46
	Ant1	5510	0.50	0.71	70.42
	Ant2	5510	0.50	0.69	72.46
	Ant1	5550	0.50	0.69	72.46
	Ant2	5550	0.50	0.73	68.49
	Ant1	5670	0.50	0.72	69.44
	Ant2	5670	0.50	0.69	72.46
	Ant1	5710	0.49	0.71	69.01
	Ant2	5710	0.50	0.69	72.46
	Ant1	5755	0.49	0.71	69.01
	Ant2	5755	0.50	0.71	70.42
	Ant1	5795	0.50	0.69	72.46
	Ant2	5795	0.50	0.73	68.49
11AC20MIMO	Ant1	5180	1.94	2.16	89.81

	Ant2	5180	1.93	2.10	91.90
	Ant1	5200	1.93	2.12	91.04
	Ant2	5200	1.93	2.13	90.61
	Ant1	5240	1.93	2.13	90.61
	Ant2	5240	1.94	2.12	91.51
	Ant1	5260	1.93	2.11	91.47
	Ant2	5260	1.93	2.14	90.19
	Ant1	5280	1.94	2.06	94.17
	Ant2	5280	1.93	2.08	92.79
	Ant1	5320	1.94	2.15	90.23
	Ant2	5320	1.93	2.18	88.53
	Ant1	5500	1.93	2.10	91.90
	Ant2	5500	1.94	2.06	94.17
	Ant1	5580	1.93	2.16	89.35
	Ant2	5580	1.93	2.18	88.53
	Ant1	5700	1.94	2.11	91.94
	Ant2	5700	1.94	2.06	94.17
	Ant1	5720	1.93	2.11	91.47
	Ant2	5720	1.93	2.18	88.53
	Ant1	5745	1.94	2.07	93.72
	Ant2	5745	1.94	2.19	88.58
	Ant1	5785	1.93	2.18	88.53
	Ant2	5785	1.93	2.13	90.61
	Ant1	5825	1.94	2.08	93.27
	Ant2	5825	1.94	2.18	88.99
11AC40MIMO	Ant1	5190	0.96	1.20	80.00
	Ant2	5190	0.96	1.21	79.34
	Ant1	5230	0.96	1.19	80.67
	Ant2	5230	0.96	1.21	79.34
	Ant1	5270	0.95	1.21	78.51
	Ant2	5270	0.95	1.20	79.17
	Ant1	5310	0.95	1.19	79.83
	Ant2	5310	0.95	1.21	78.51
	Ant1	5510	0.95	1.20	79.17
	Ant2	5510	0.95	1.20	79.17
	Ant1	5550	0.95	1.18	80.51
	Ant2	5550	0.95	1.17	81.20
	Ant1	5670	0.95	1.17	81.20
	Ant2	5670	0.96	1.18	81.36
	Ant1	5710	0.96	1.20	80.00
	Ant2	5710	0.95	1.18	80.51
	Ant1	5755	0.95	1.19	79.83
	Ant2	5755	0.96	1.19	80.67
	Ant1	5795	0.95	1.15	82.61
	Ant2	5795	0.96	1.18	81.36
11AC80MIMO	Ant1	5210	0.47	0.68	69.12
	Ant2	5210	0.46	0.69	66.67
	Ant1	5290	0.46	0.71	64.79
	Ant2	5290	0.46	0.72	63.89
	Ant1	5530	0.46	0.68	67.65
	Ant2	5530	0.46	0.69	66.67
	Ant1	5610	0.46	0.72	63.89
	Ant2	5610	0.46	0.72	63.89
	Ant1	5690	0.46	0.70	65.71
	Ant2	5690	0.46	0.69	66.67
	Ant1	5775	0.46	0.71	64.79
	Ant2	5775	0.46	0.72	63.89

7.5. Test graphs

11A_Ant1_5180



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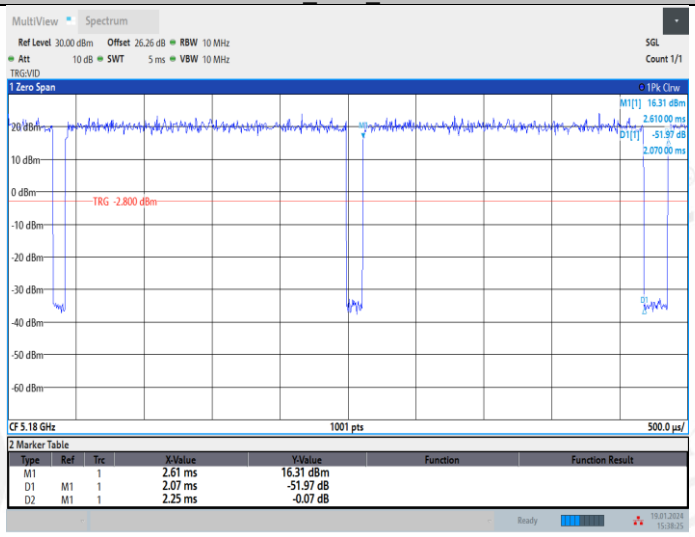

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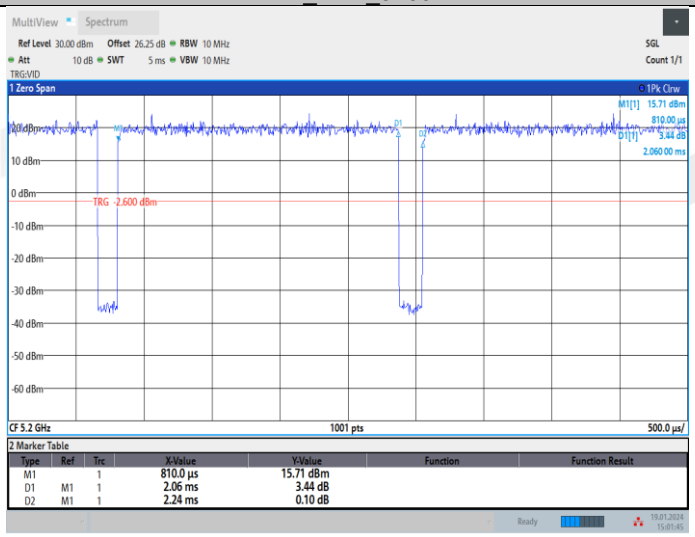

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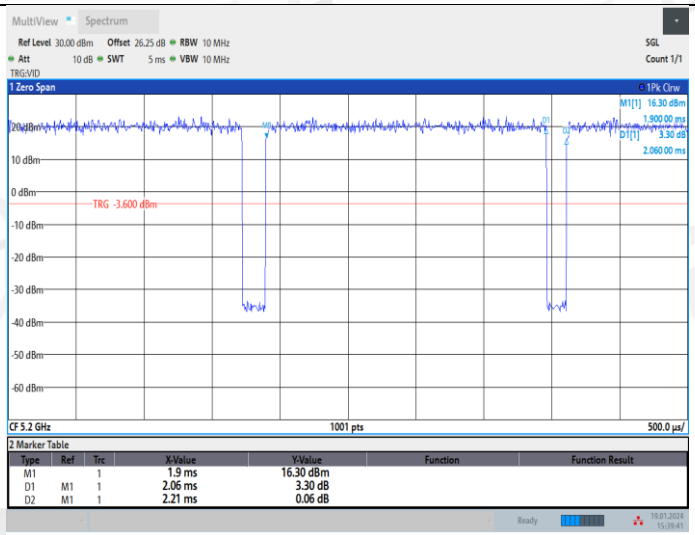

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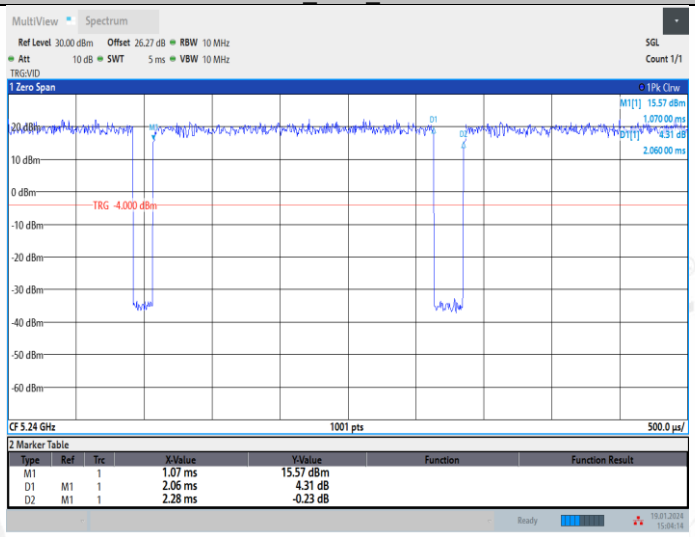

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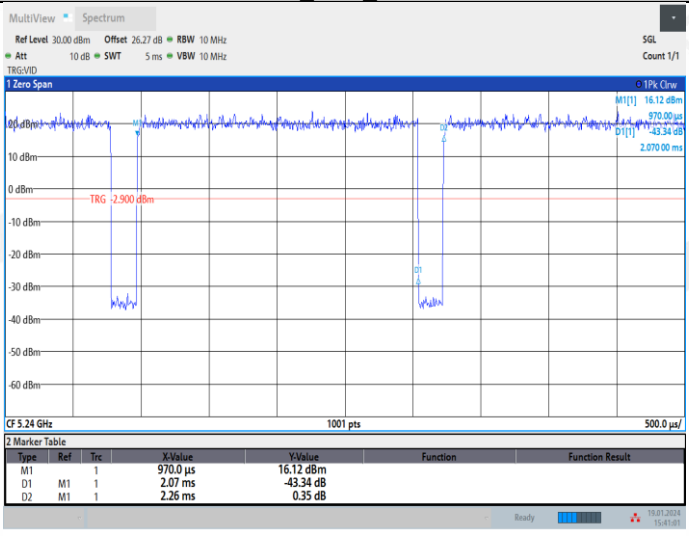

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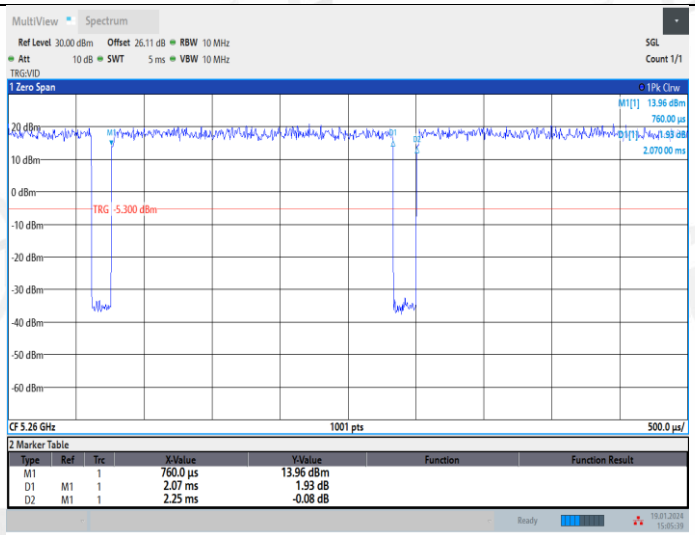
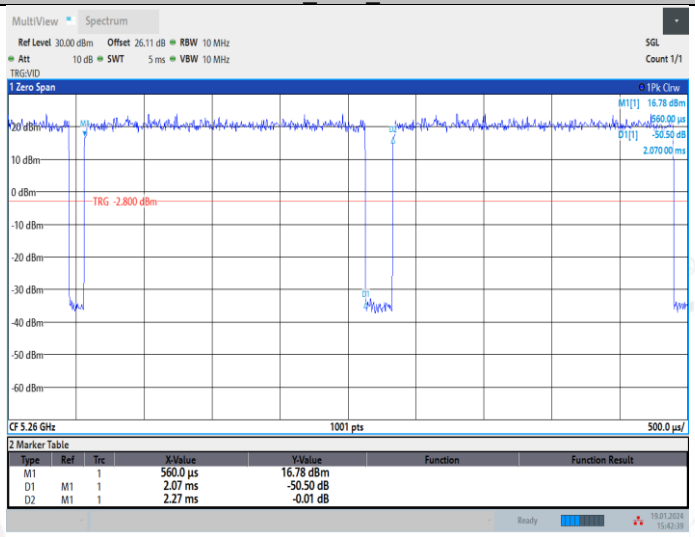


11A_Ant2_5260



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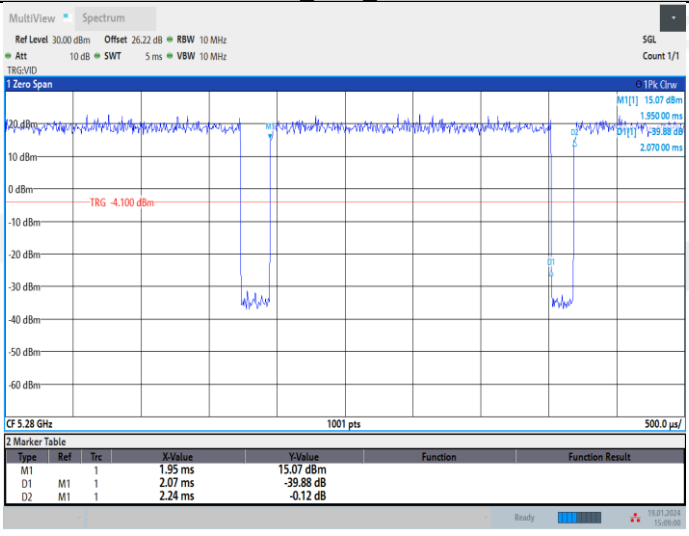

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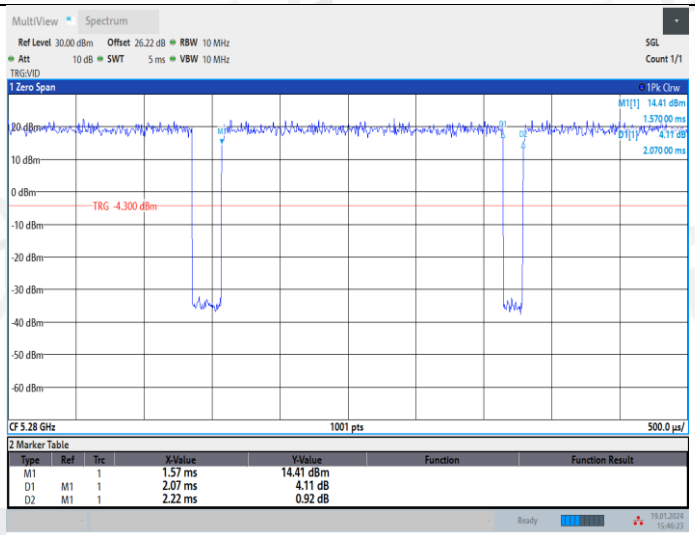

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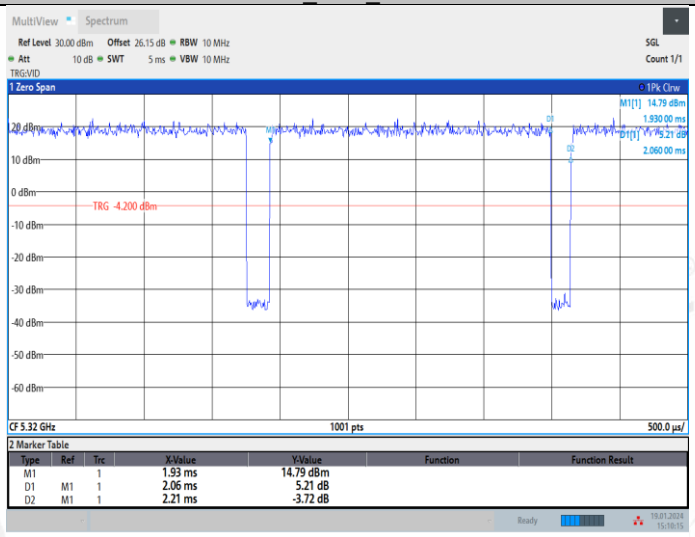

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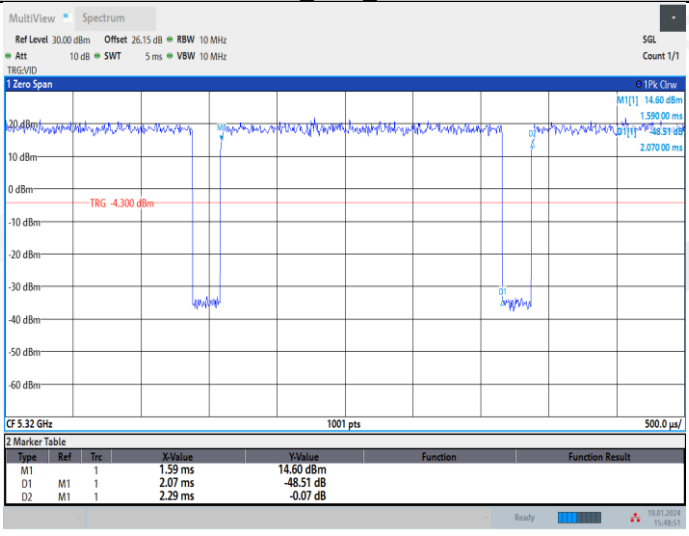

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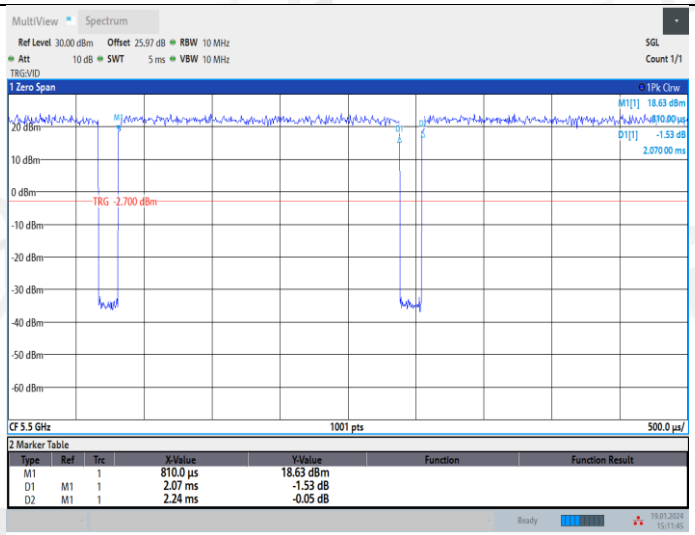

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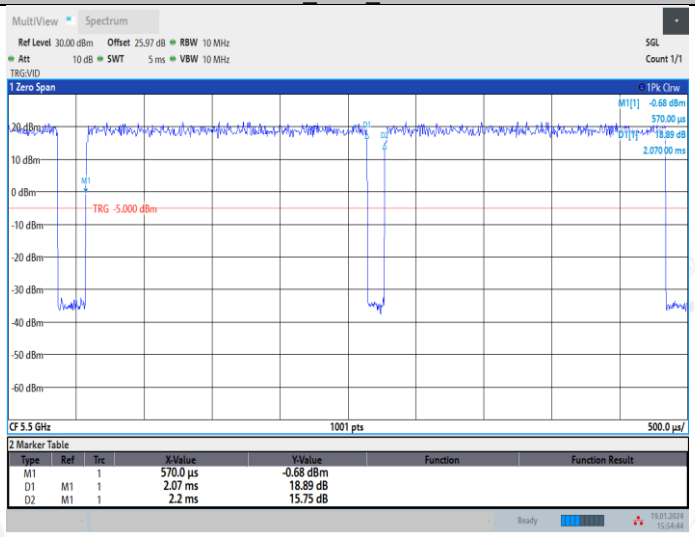

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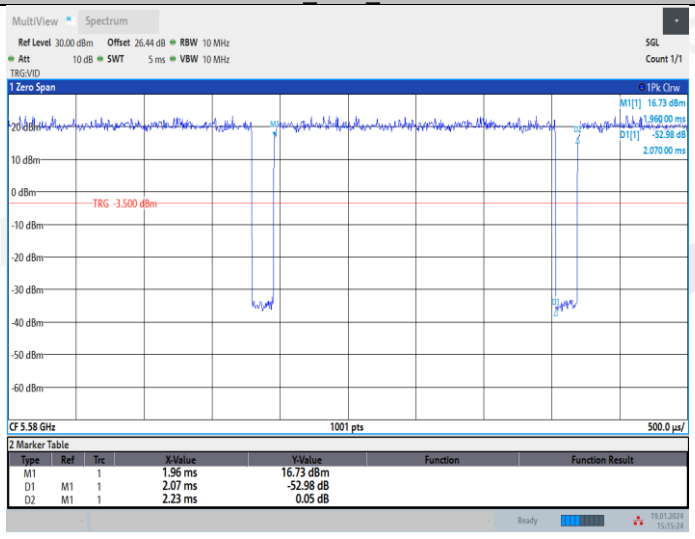

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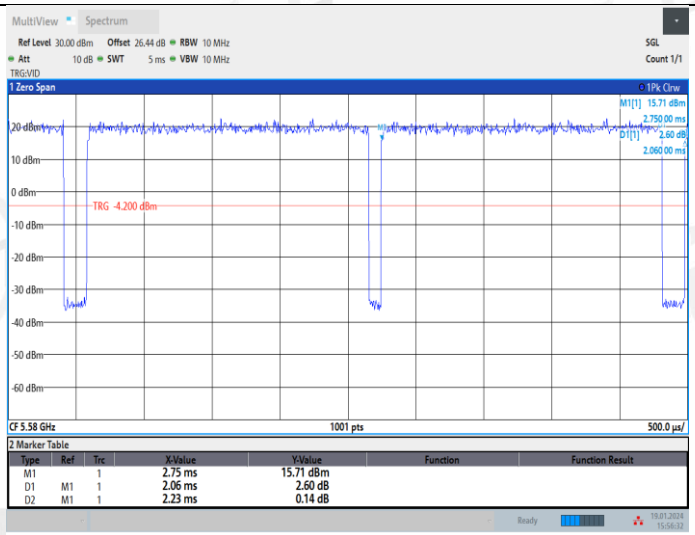

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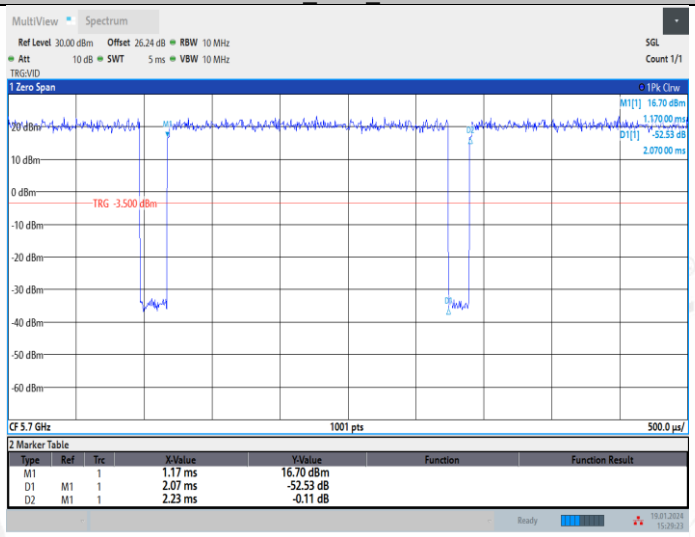

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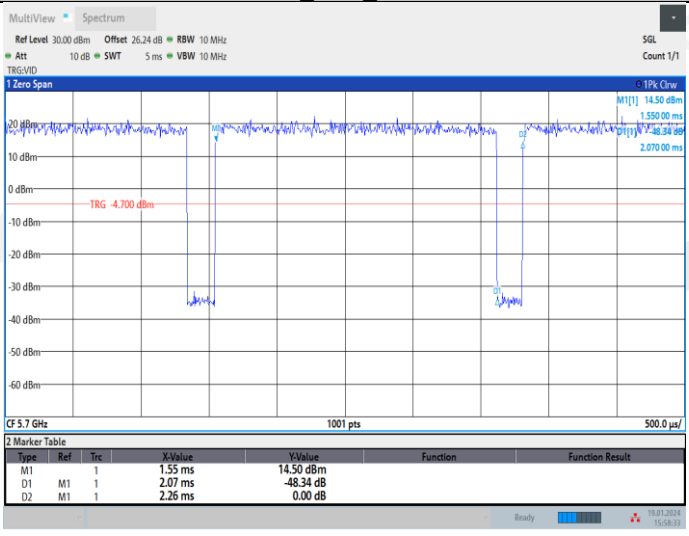

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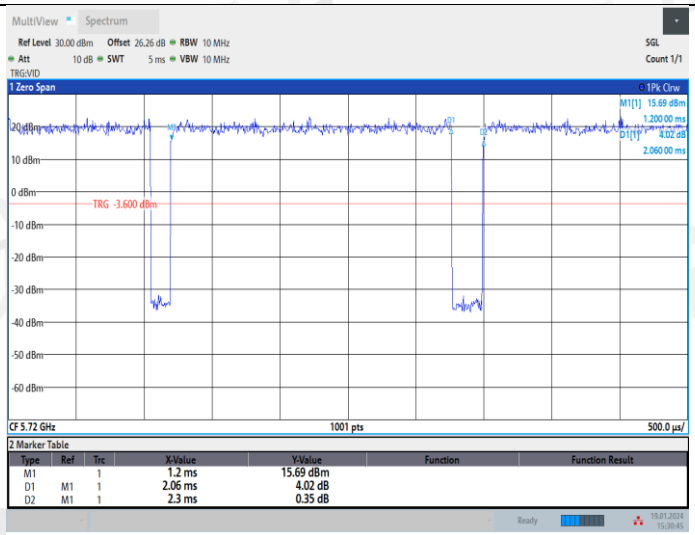

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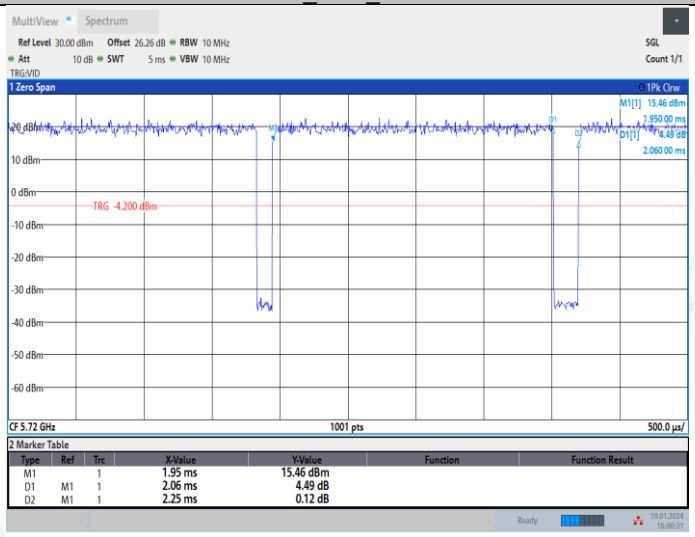

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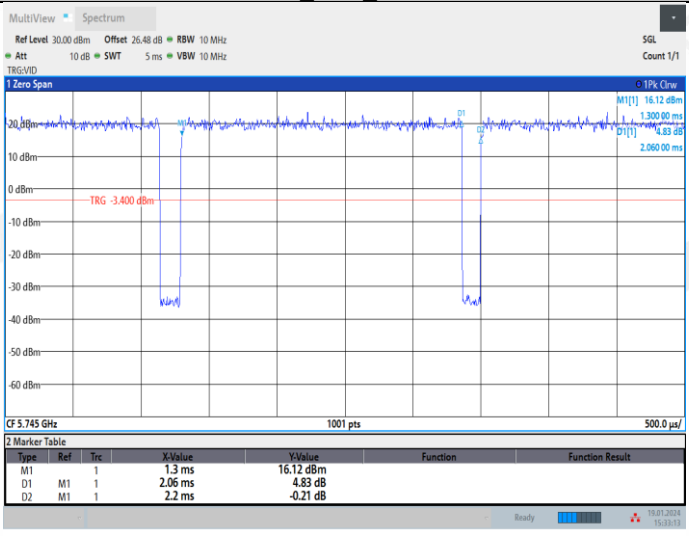

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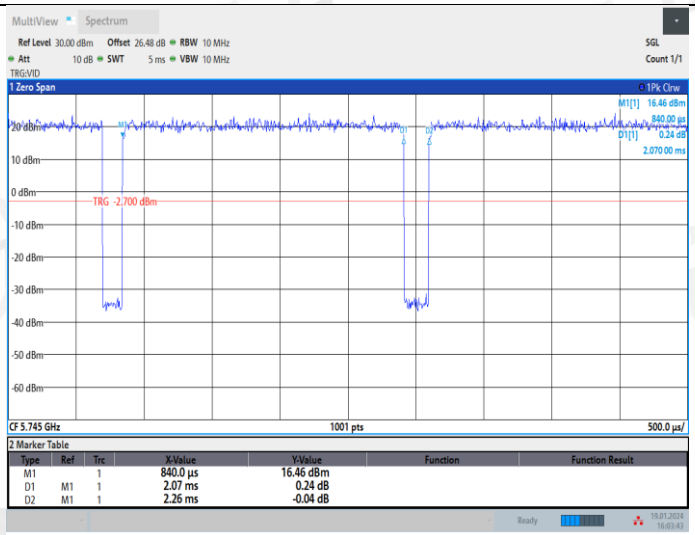

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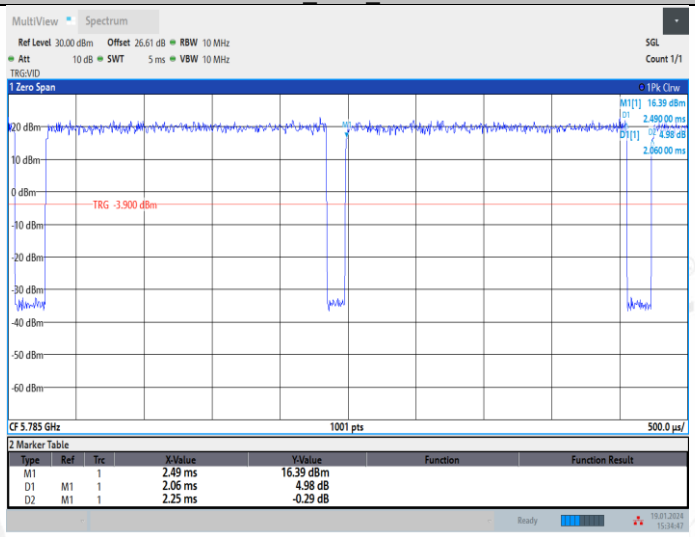

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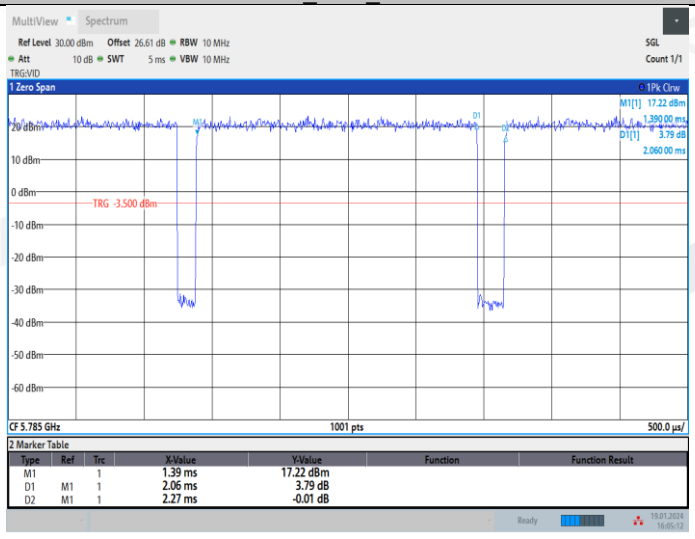

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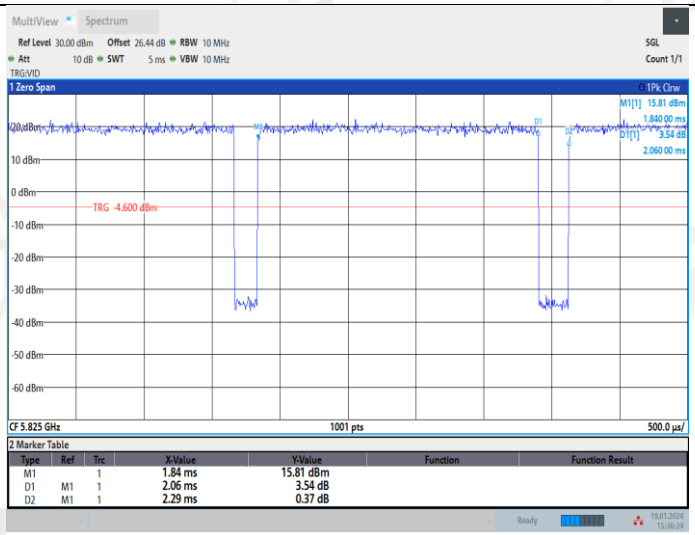

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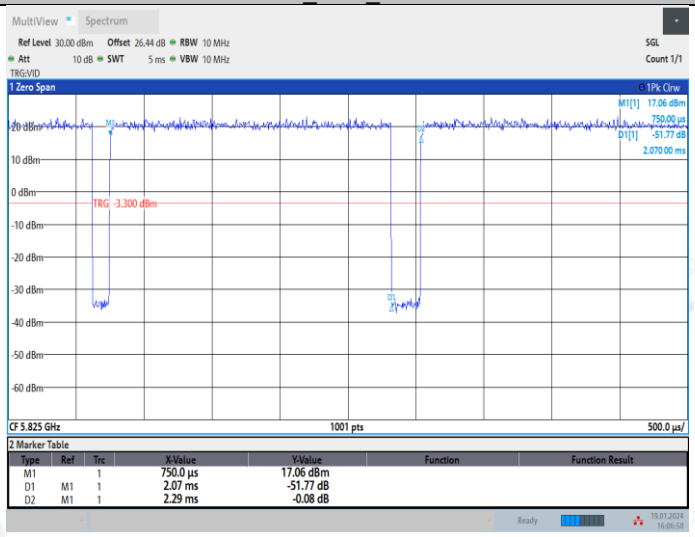

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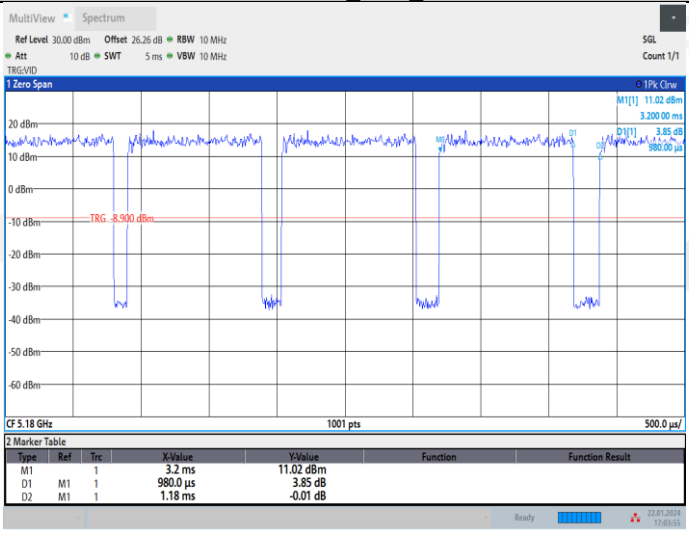

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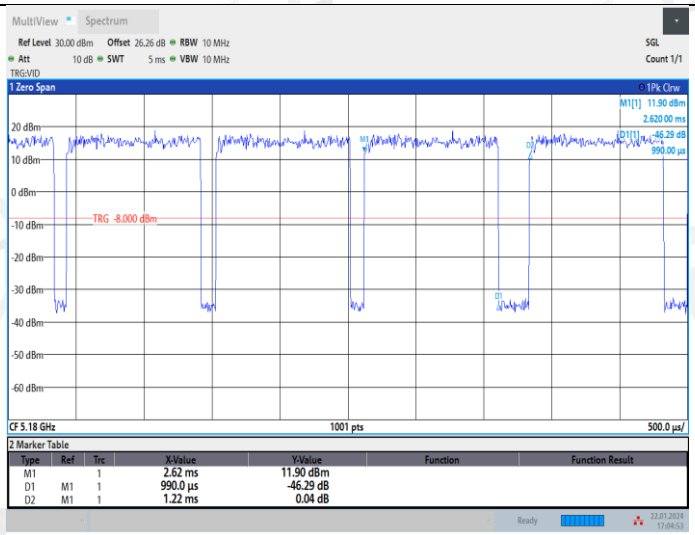

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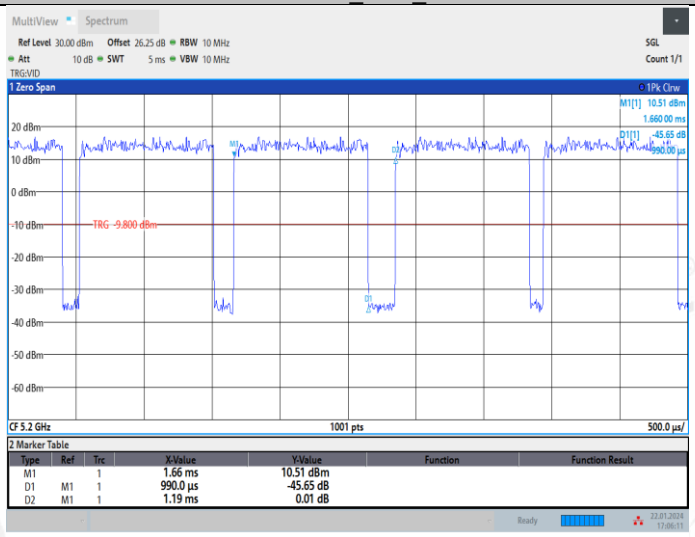

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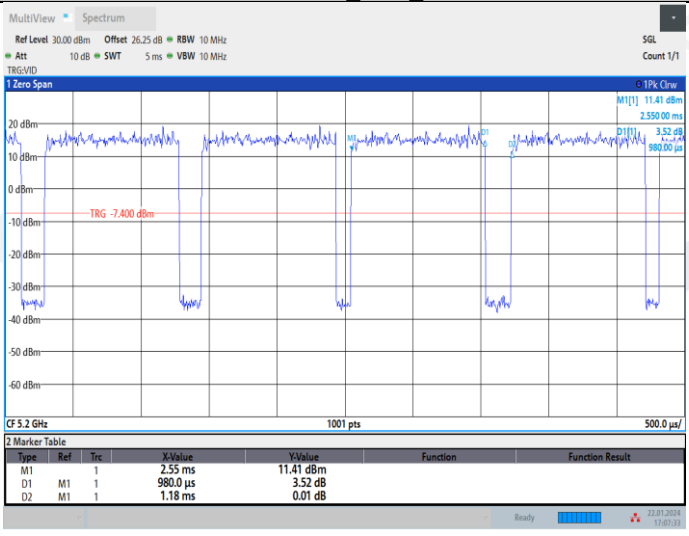

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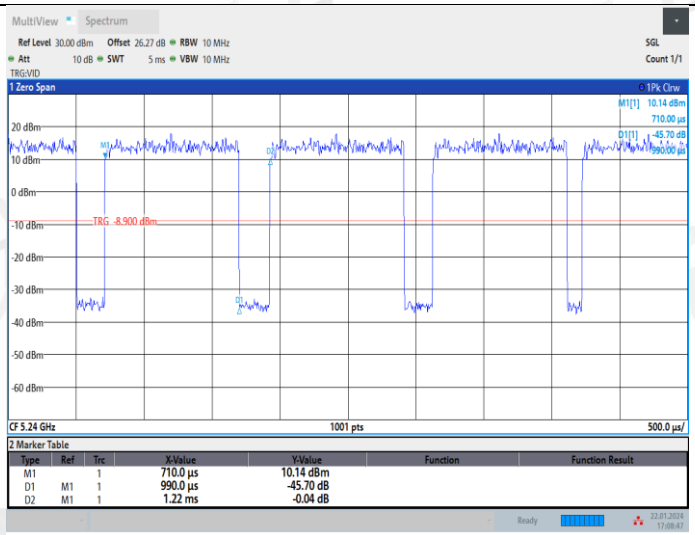

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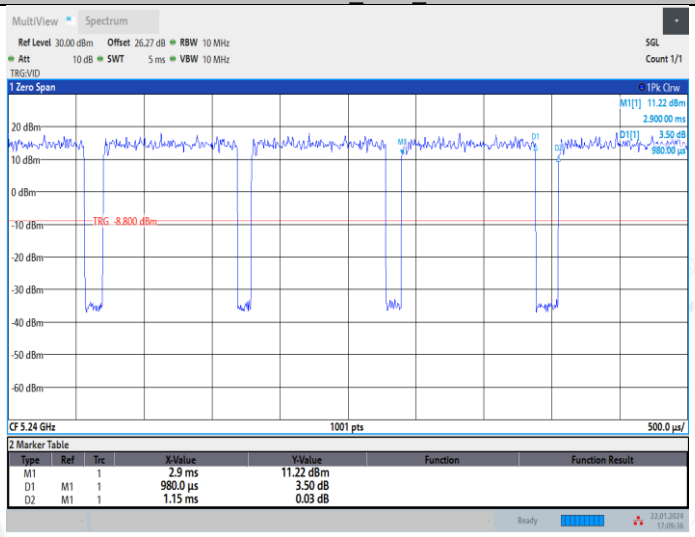

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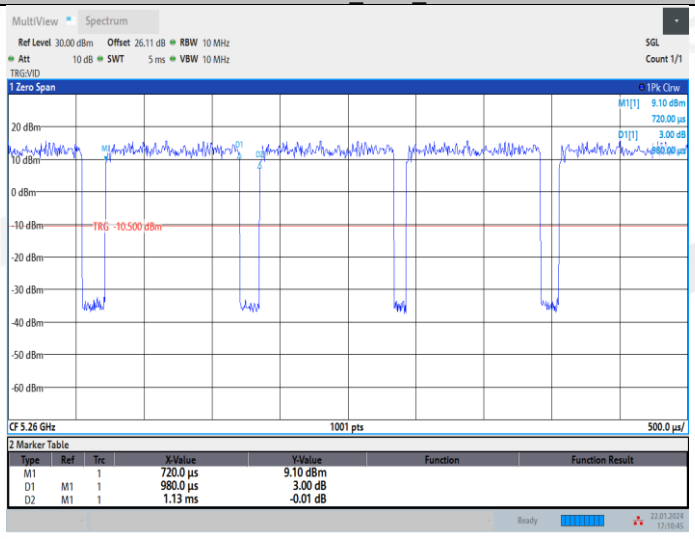

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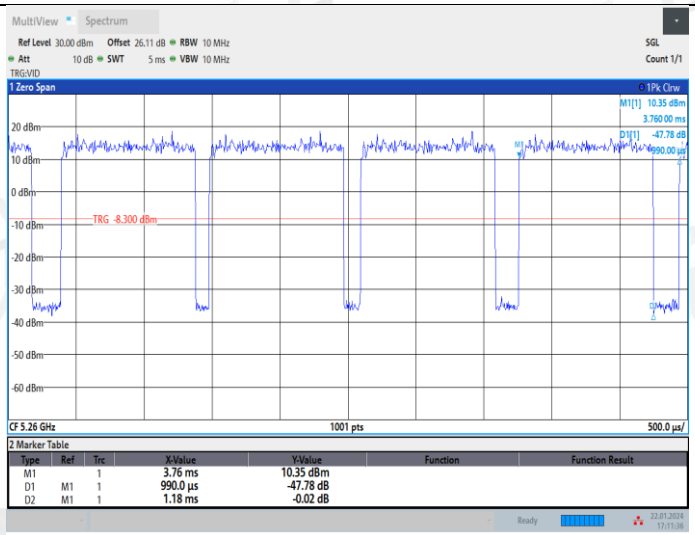

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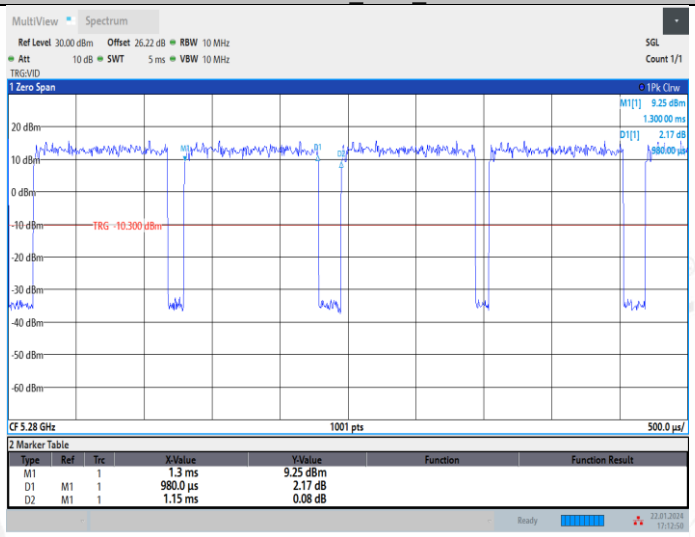

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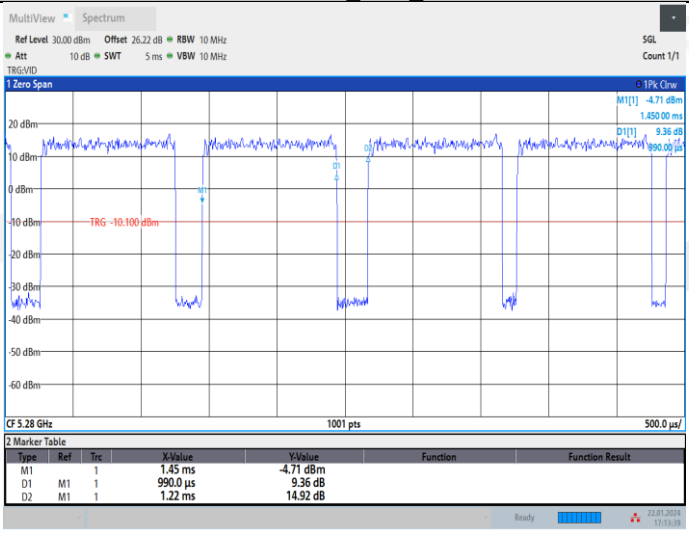

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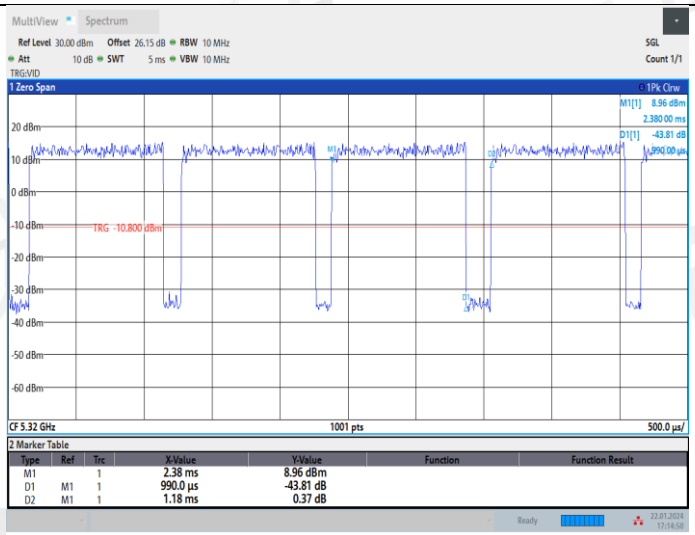

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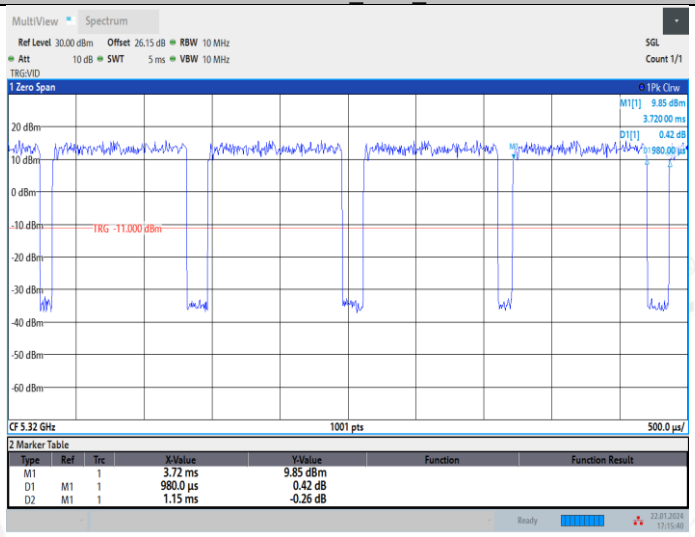

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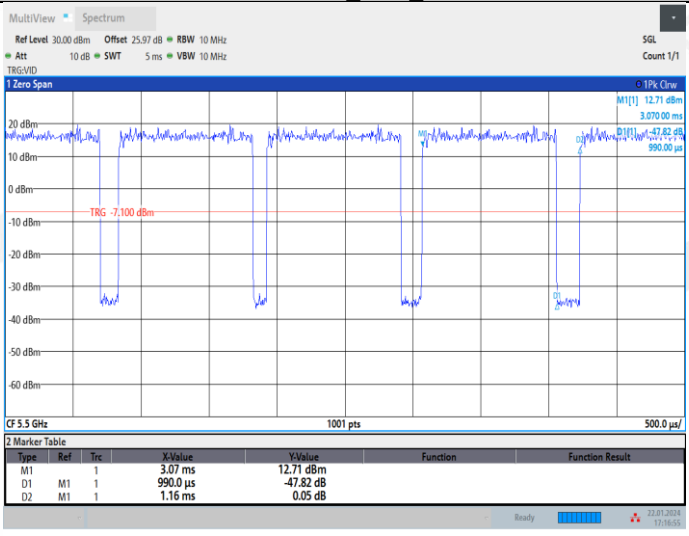

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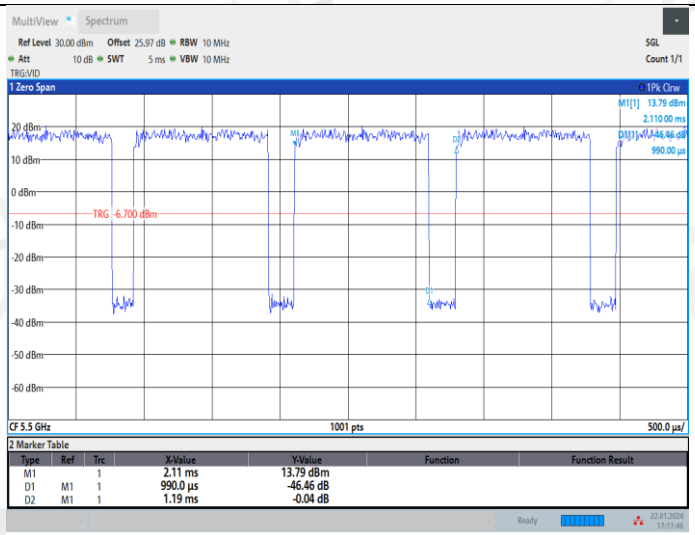

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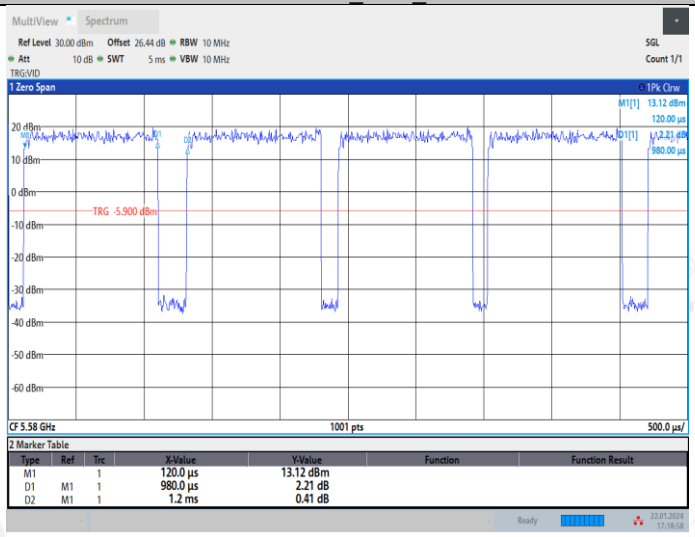

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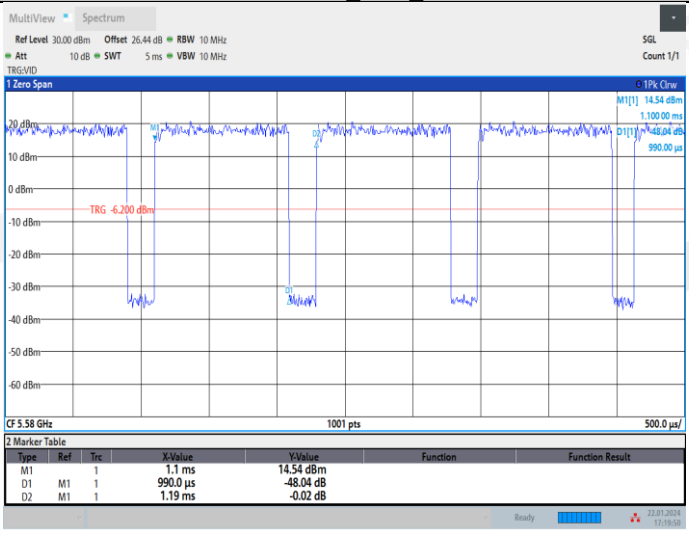

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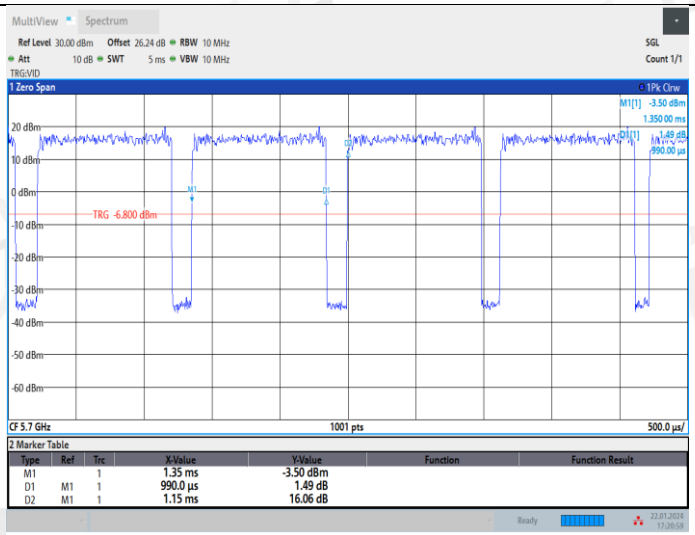

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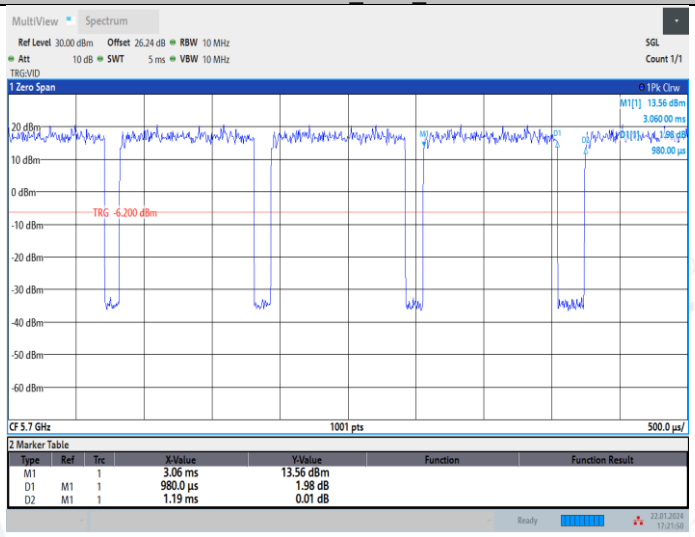

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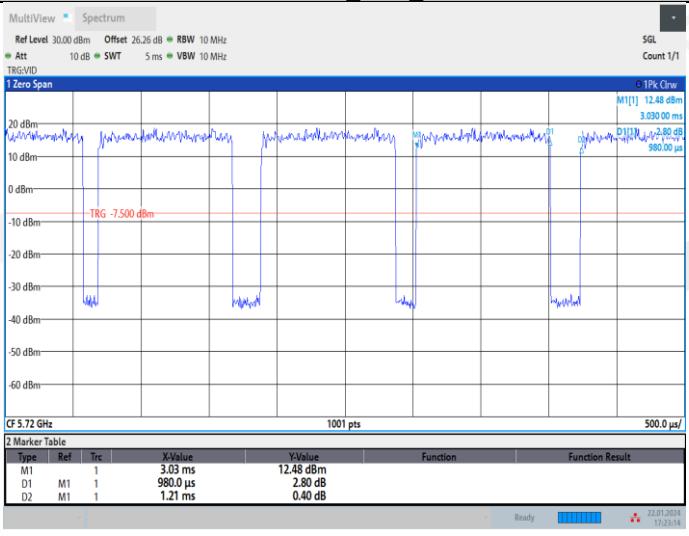

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