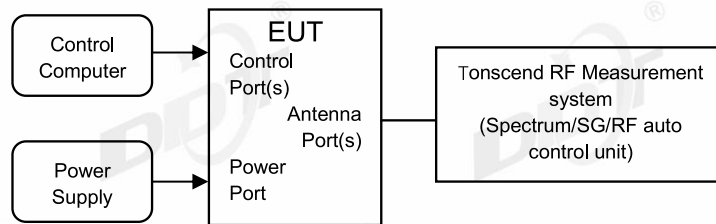


7. Duty Cycle

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:	Zora Zhang	Test Site:	RF Measurement System 1#
Ambient Condition:	26.58℃,40.0%RH	Test Date:	2024.07.12-2024.08.01
Test Power Supply:	AC120V/60Hz	Sample Number:	S24052212-001

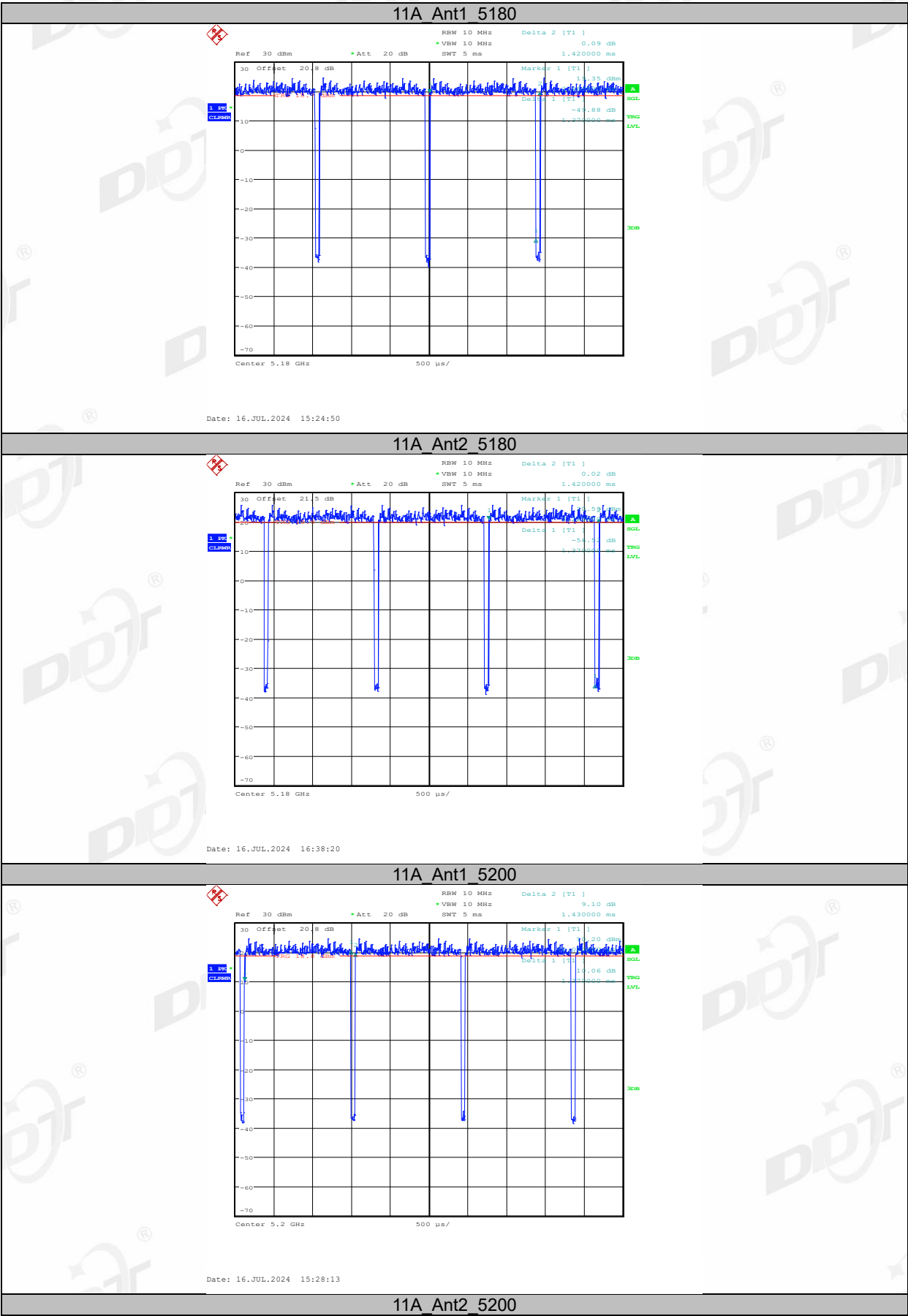
Test Mode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	1.37	1.42	96.48
	Ant2	5180	1.37	1.42	96.48
	Ant1	5200	1.37	1.43	95.80
	Ant2	5200	1.37	1.43	95.80
	Ant1	5240	1.37	1.42	96.48
	Ant2	5240	1.37	1.42	96.48
	Ant1	5260	1.36	1.42	95.77
	Ant2	5260	1.37	1.42	96.48
	Ant1	5280	1.36	1.42	95.77
	Ant2	5280	1.37	1.42	96.48
	Ant1	5320	1.37	1.42	96.48
	Ant2	5320	1.37	1.42	96.48
	Ant1	5500	1.37	1.42	96.48
	Ant2	5500	1.37	1.42	96.48
	Ant1	5580	1.37	1.42	96.48
	Ant2	5580	1.36	1.42	95.77
	Ant1	5700	1.36	1.42	95.77
	Ant2	5700	1.36	1.42	95.77
	Ant1	5720	1.36	1.42	95.77
	Ant2	5720	1.37	1.42	96.48
	Ant1	5745	1.37	1.43	95.80
	Ant2	5745	1.36	1.42	95.77
	Ant1	5785	1.37	1.43	95.80
	Ant2	5785	1.37	1.43	95.80
	Ant1	5825	1.36	1.42	95.77
	Ant2	5825	1.36	1.42	95.77
11N20MIMO	Ant1	5180	1.28	1.34	95.52
	Ant2	5180	1.28	1.34	95.52
	Ant1	5200	1.28	1.34	95.52
	Ant2	5200	1.28	1.33	96.24
	Ant1	5240	1.28	1.34	95.52
	Ant2	5240	1.28	1.34	95.52
	Ant1	5260	1.28	1.34	95.52
	Ant2	5260	1.28	1.34	95.52
	Ant1	5280	1.28	1.33	96.24
	Ant2	5280	1.28	1.34	95.52
	Ant1	5320	1.28	1.33	96.24
	Ant2	5320	1.28	1.33	96.24
	Ant1	5500	1.28	1.34	95.52
	Ant2	5500	1.28	1.33	96.24
	Ant1	5580	1.28	1.34	95.52
	Ant2	5580	1.28	1.33	96.24
	Ant1	5700	1.28	1.34	95.52
	Ant2	5700	1.28	1.34	95.52
	Ant1	5720	1.28	1.34	95.52
	Ant2	5720	1.28	1.34	95.52
	Ant1	5745	1.28	1.34	95.52
	Ant2	5745	1.28	1.33	96.24
	Ant1	5785	1.28	1.33	96.24
	Ant2	5785	1.28	1.33	96.24
	Ant1	5825	1.28	1.33	96.24
	Ant2	5825	1.28	1.34	95.52
11N40MIMO	Ant1	5190	0.63	0.69	91.30
	Ant2	5190	0.64	0.69	92.75
	Ant1	5230	0.64	0.69	92.75

	Ant2	5230	0.63	0.69	91.30
	Ant1	5270	0.63	0.69	91.30
	Ant2	5270	0.64	0.69	92.75
	Ant1	5310	0.64	0.69	92.75
	Ant2	5310	0.64	0.69	92.75
	Ant1	5510	0.63	0.69	91.30
	Ant2	5510	0.63	0.69	91.30
	Ant1	5550	0.63	0.69	91.30
	Ant2	5550	0.63	0.69	91.30
	Ant1	5670	0.64	0.69	92.75
	Ant2	5670	0.64	0.69	92.75
	Ant1	5710	0.64	0.69	92.75
	Ant2	5710	0.64	0.69	92.75
	Ant1	5755	0.64	0.69	92.75
	Ant2	5755	0.63	0.69	91.30
	Ant1	5795	0.64	0.69	92.75
	Ant2	5795	0.64	0.69	92.75
11AC20MIMO	Ant1	5180	1.28	1.33	96.24
	Ant2	5180	1.29	1.34	96.27
	Ant1	5200	1.28	1.34	95.52
	Ant2	5200	1.28	1.34	95.52
	Ant1	5240	1.29	1.34	96.27
	Ant2	5240	1.28	1.33	96.24
	Ant1	5260	1.28	1.34	95.52
	Ant2	5260	1.29	1.34	96.27
	Ant1	5280	1.28	1.34	95.52
	Ant2	5280	1.29	1.34	96.27
	Ant1	5320	1.29	1.34	96.27
	Ant2	5320	1.29	1.34	96.27
	Ant1	5500	1.28	1.34	95.52
	Ant2	5500	1.28	1.34	95.52
	Ant1	5580	1.29	1.34	96.27
	Ant2	5580	1.28	1.34	95.52
	Ant1	5700	1.29	1.34	96.27
	Ant2	5700	1.28	1.34	95.52
	Ant1	5720	1.28	1.33	96.24
	Ant2	5720	1.29	1.34	96.27
	Ant1	5745	1.29	1.34	96.27
	Ant2	5745	1.28	1.34	95.52
	Ant1	5785	1.29	1.34	96.27
	Ant2	5785	1.28	1.34	95.52
	Ant1	5825	1.29	1.34	96.27
	Ant2	5825	1.28	1.33	96.24
11AC40MIMO	Ant1	5190	0.64	0.70	91.43
	Ant2	5190	0.64	0.70	91.43
	Ant1	5230	0.64	0.70	91.43
	Ant2	5230	0.64	0.70	91.43
	Ant1	5270	0.64	0.70	91.43
	Ant2	5270	0.64	0.69	92.75
	Ant1	5310	0.64	0.70	91.43
	Ant2	5310	0.64	0.70	91.43
	Ant1	5510	0.64	0.69	92.75
	Ant2	5510	0.64	0.69	92.75
	Ant1	5550	0.64	0.69	92.75
	Ant2	5550	0.64	0.69	92.75
	Ant1	5670	0.64	0.70	91.43
	Ant2	5670	0.64	0.70	91.43
	Ant1	5710	0.64	0.70	91.43
	Ant2	5710	0.64	0.70	91.43
	Ant1	5755	0.64	0.70	91.43
	Ant2	5755	0.64	0.69	92.75
	Ant1	5795	0.64	0.70	91.43
	Ant2	5795	0.64	0.70	91.43
11AC80MIMO	Ant1	5210	0.32	0.37	86.49

	Ant2	5210	0.32	0.37	86.49
	Ant1	5290	0.31	0.37	83.78
	Ant2	5290	0.31	0.37	83.78
	Ant1	5530	0.32	0.37	86.49
	Ant2	5530	0.31	0.37	83.78
	Ant1	5610	0.32	0.37	86.49
	Ant2	5610	0.31	0.37	83.78
	Ant1	5690	0.32	0.37	86.49
	Ant2	5690	0.31	0.37	83.78
	Ant1	5775	0.32	0.37	86.49
11AC160MIMO	Ant2	5775	0.32	0.37	86.49
	Ant1	5250	0.87	0.92	94.57
	Ant2	5250	0.87	0.92	94.57
	Ant1	5570	0.87	0.92	94.57
	Ant2	5570	0.87	0.92	94.57
11AX20MIMO	Ant1	5180	0.99	1.04	95.19
	Ant2	5180	0.99	1.05	94.29
	Ant1	5200	0.99	1.05	94.29
	Ant2	5200	0.99	1.05	94.29
	Ant1	5240	0.99	1.04	95.19
	Ant2	5240	0.99	1.05	94.29
	Ant1	5260	1.28	1.33	96.24
	Ant2	5260	1.29	1.34	96.27
	Ant1	5280	1.28	1.34	95.52
	Ant2	5280	1.29	1.34	96.27
	Ant1	5320	1.29	1.34	96.27
	Ant2	5320	1.28	1.33	96.24
	Ant1	5500	1.28	1.34	95.52
	Ant2	5500	1.29	1.34	96.27
	Ant1	5580	0.99	1.04	95.19
	Ant2	5580	0.99	1.05	94.29
	Ant1	5700	0.99	1.05	94.29
	Ant2	5700	0.99	1.04	95.19
	Ant1	5720	0.99	1.05	94.29
	Ant2	5720	0.99	1.04	95.19
	Ant1	5745	0.99	1.04	95.19
	Ant2	5745	0.99	1.05	94.29
	Ant1	5785	0.99	1.04	95.19
	Ant2	5785	0.99	1.05	94.29
	Ant1	5825	0.99	1.04	95.19
	Ant2	5825	0.99	1.04	95.19
11AX40MIMO	Ant1	5190	0.52	0.57	91.23
	Ant2	5190	0.52	0.57	91.23
	Ant1	5230	0.52	0.57	91.23
	Ant2	5230	0.52	0.58	89.66
	Ant1	5270	0.52	0.58	89.66
	Ant2	5270	0.52	0.57	91.23
	Ant1	5310	0.52	0.57	91.23
	Ant2	5310	0.52	0.57	91.23
	Ant1	5510	0.52	0.57	91.23
	Ant2	5510	0.52	0.57	91.23
	Ant1	5550	0.52	0.58	89.66
	Ant2	5550	0.52	0.57	91.23
	Ant1	5670	0.52	0.57	91.23
	Ant2	5670	0.52	0.58	89.66
	Ant1	5710	0.52	0.57	91.23
	Ant2	5710	0.52	0.58	89.66
	Ant1	5755	0.52	0.58	89.66
	Ant2	5755	0.52	0.57	91.23
	Ant1	5795	0.52	0.58	89.66
	Ant2	5795	0.52	0.57	91.23
11AX80MIMO	Ant1	5210	0.28	0.33	84.85
	Ant2	5210	0.28	0.34	82.35
	Ant1	5290	0.28	0.33	84.85

	Ant2	5290	0.28	0.34	82.35
	Ant1	5530	0.28	0.33	84.85
	Ant2	5530	0.28	0.34	82.35
	Ant1	5610	0.28	0.33	84.85
	Ant2	5610	0.28	0.34	82.35
	Ant1	5690	0.28	0.33	84.85
	Ant2	5690	0.28	0.34	82.35
	Ant1	5775	0.28	0.33	84.85
11AX160MIM O	Ant2	5775	0.28	0.33	84.85
	Ant1	5250	0.72	0.78	92.31
	Ant2	5250	0.73	0.78	93.59
	Ant1	5570	0.72	0.78	92.31
	Ant2	5570	0.73	0.78	93.59

7.5. Test graphs



11A_Ant1_5200

Ref 30 dBm

Offset 20.9 dB

Att 20 dB

RBW 10 MHz

VBW 10 MHz

SWT 5 ms

Delta 2 [T1]

9.10 dB

1.430000 ms

Marker 1 [T1]

51.20 dBm

Delta 1 [T1]

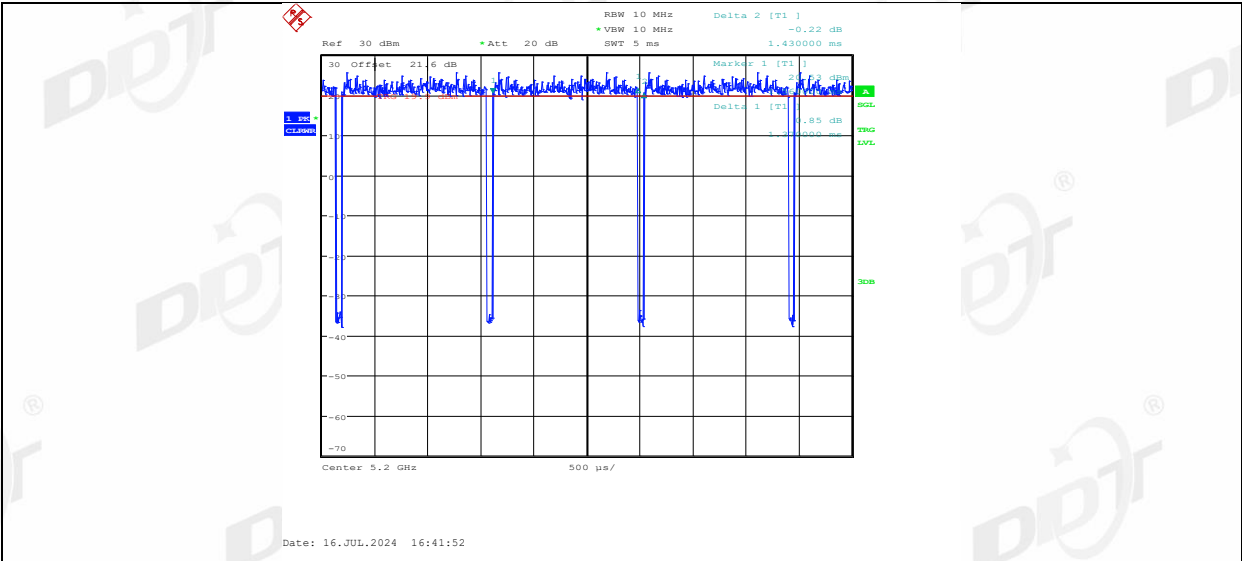
19.06 dB

1.430000 ms

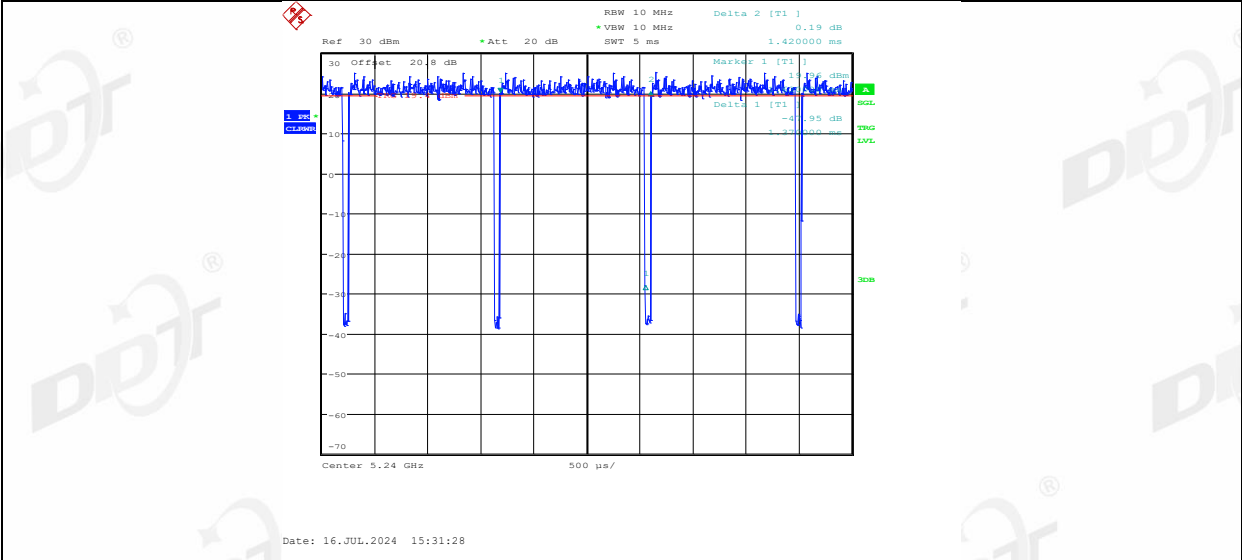
Center 5.2 GHz 500 us/

Date: 16.JUL.2024 15:28:13

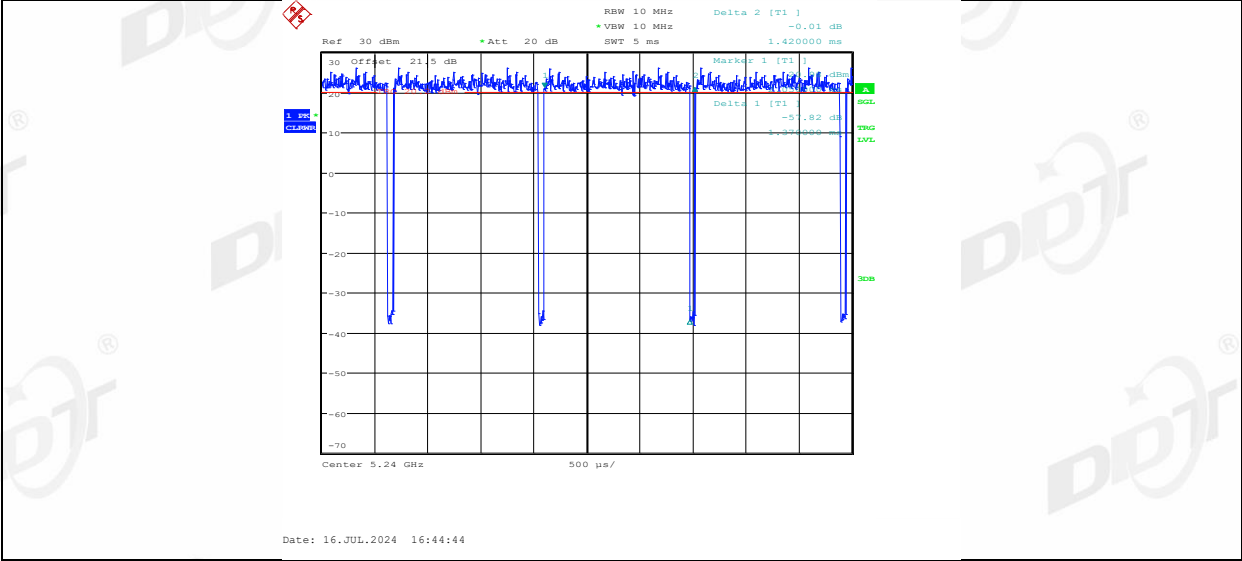
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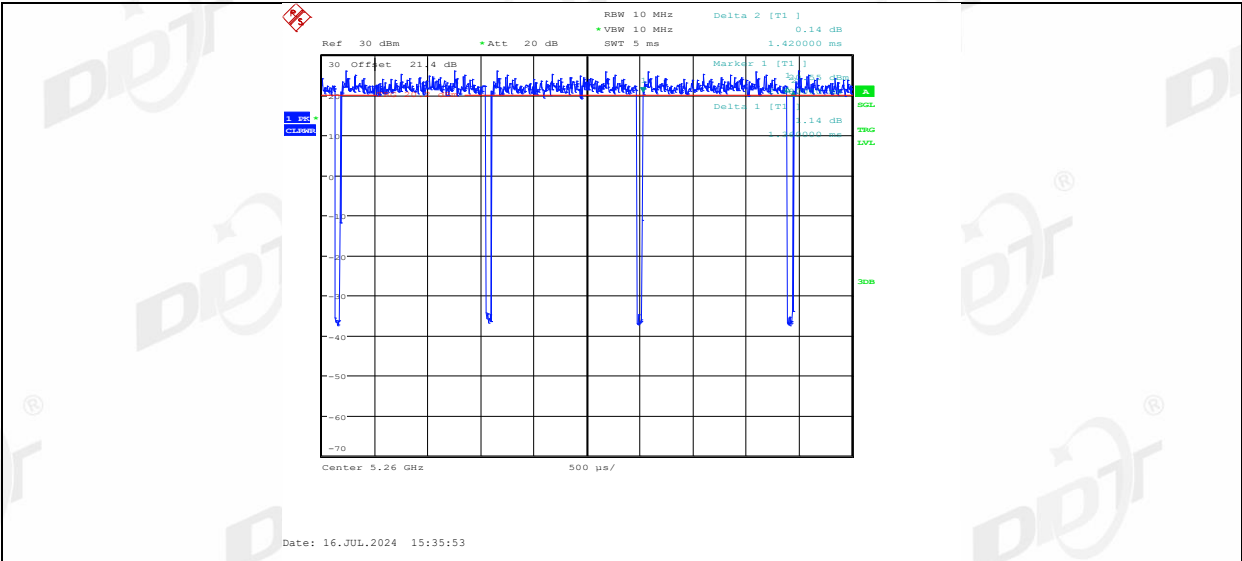
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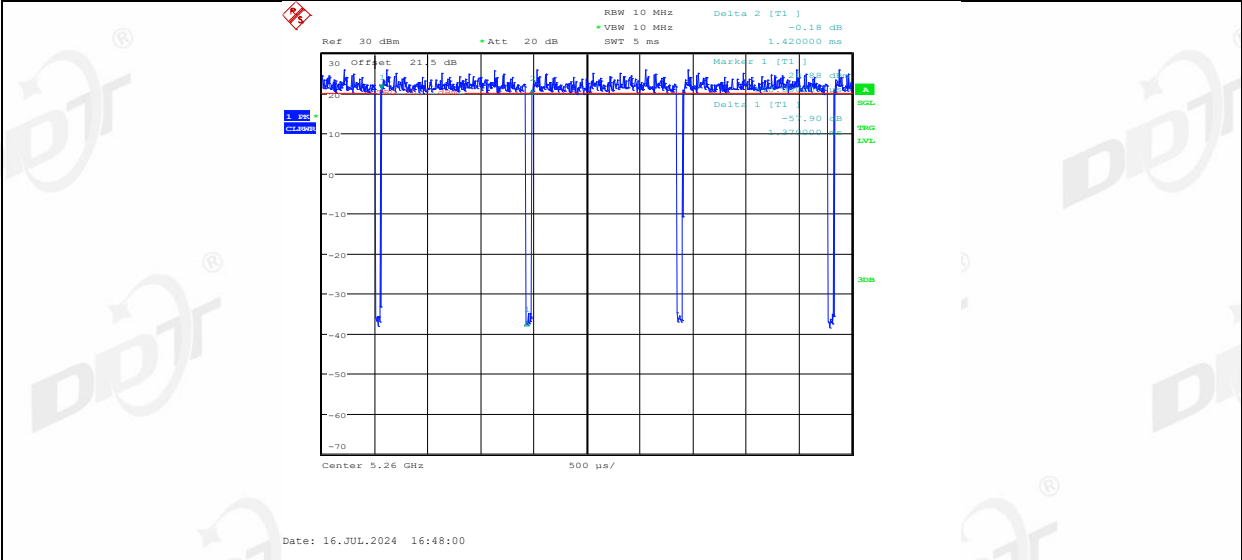
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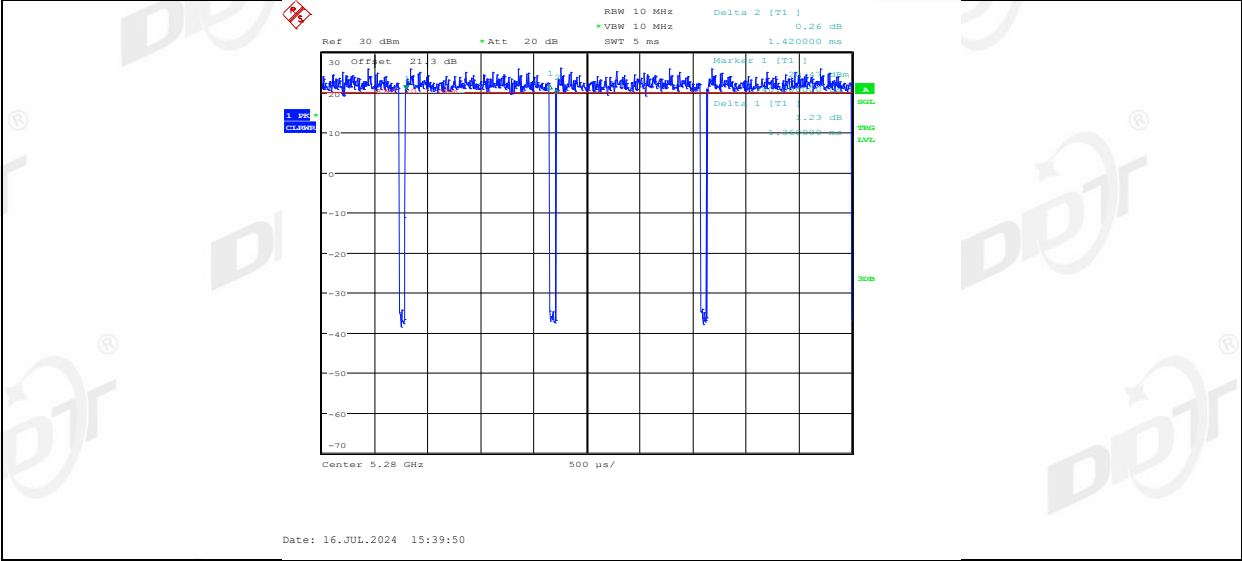
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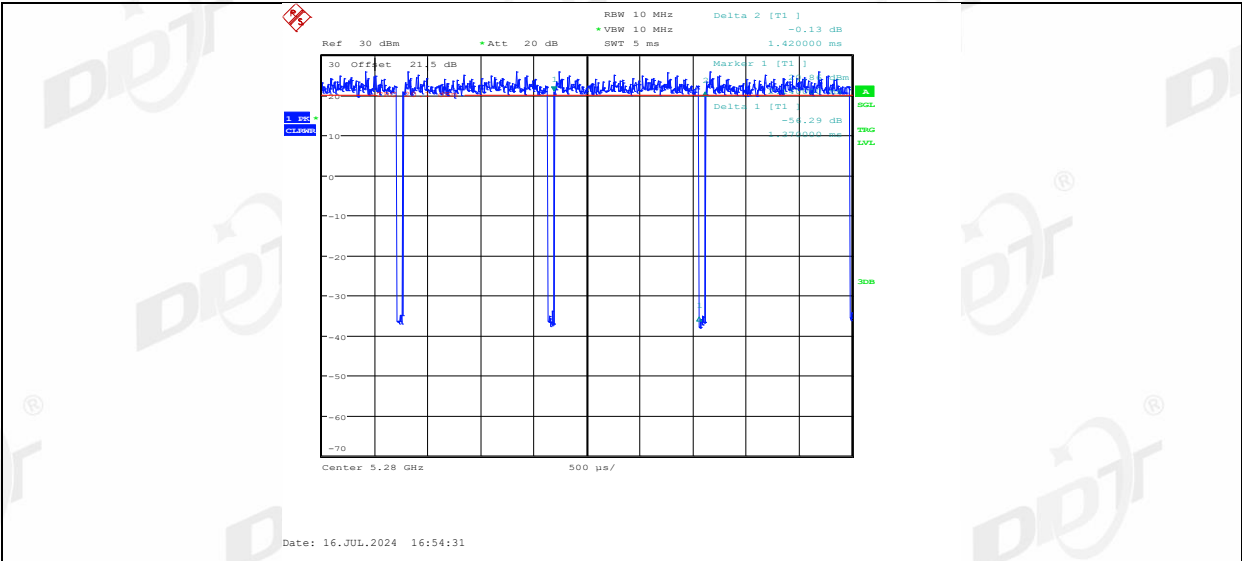
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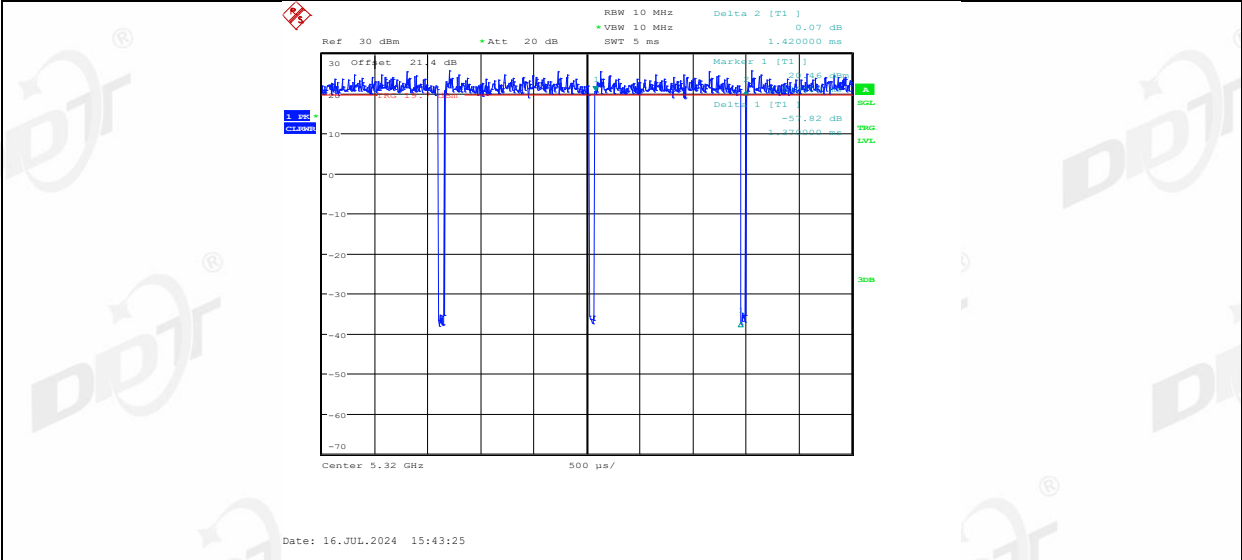
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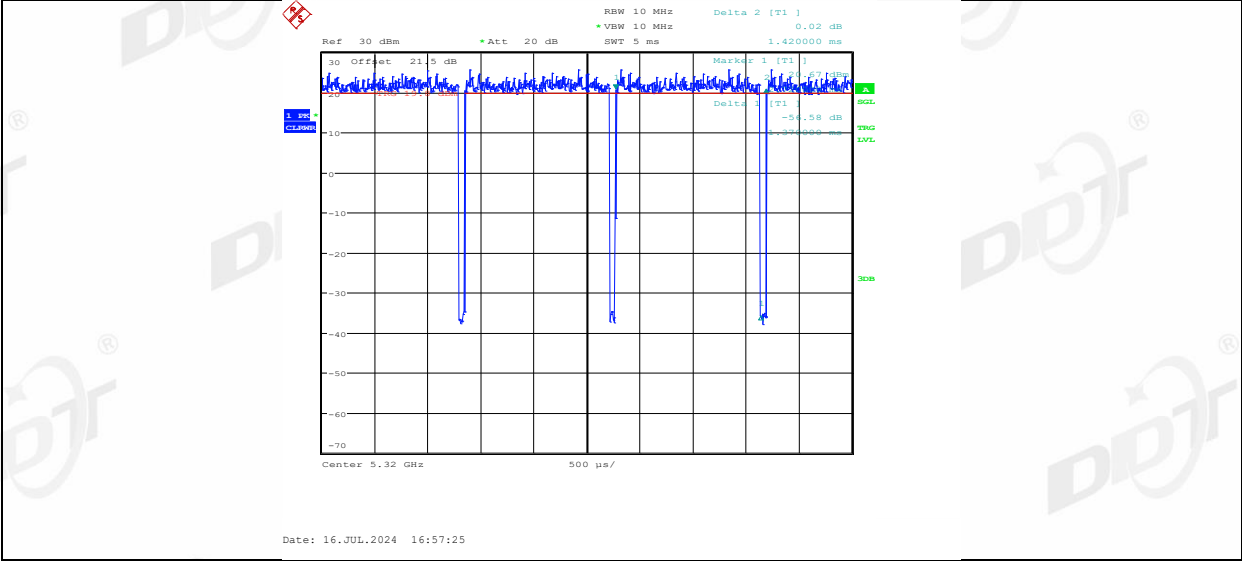
11A_Ant2_5280



11A_Ant1_5320



11A_Ant2_5320



11A_Ant1_5500

Ref 30 dBm Act 20 dB RBW 10 MHz VBW 10 MHz SWT 5 ms Delta 2 [T1] -0.11 dB 1.420000 ms

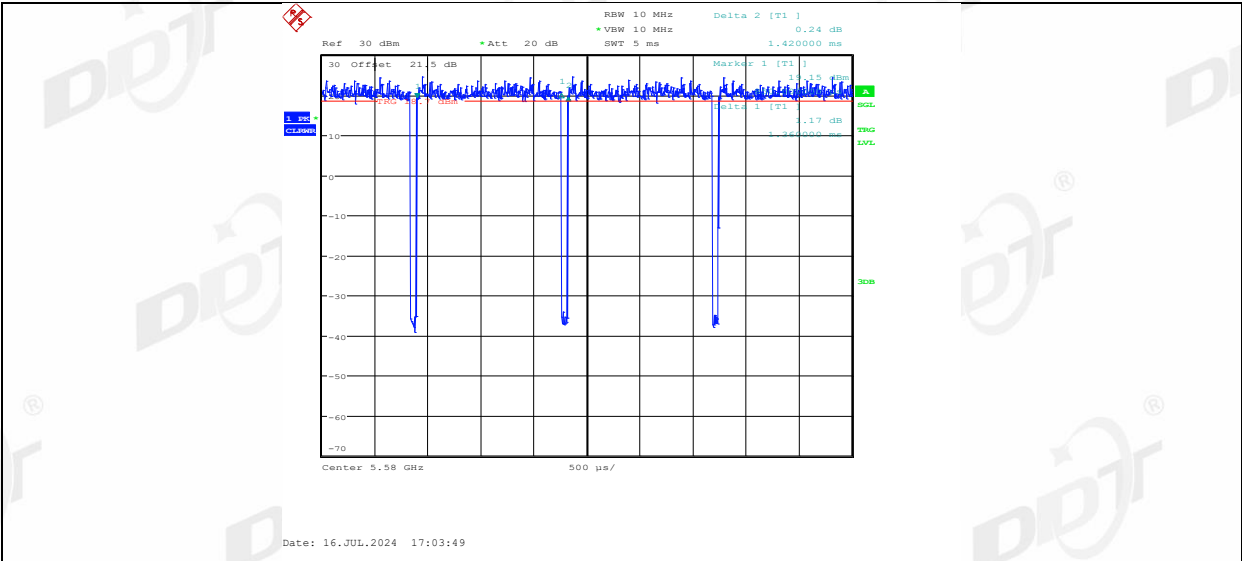
30 Off-set 21.7 dB Marker 1 [T1] -13 dBm SGL TNG LVL

Delta 1 [T1] -5.8 dB 1.330000 ms

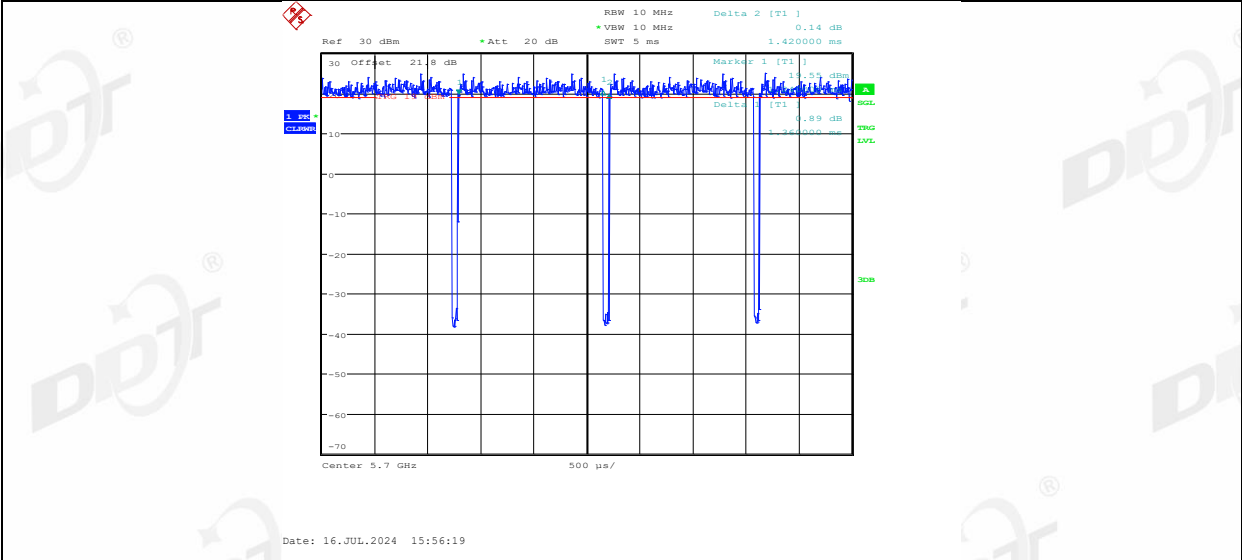
Center 5.5 GHz 500 µs/

Date: 16.JUL.2024 17:00:50

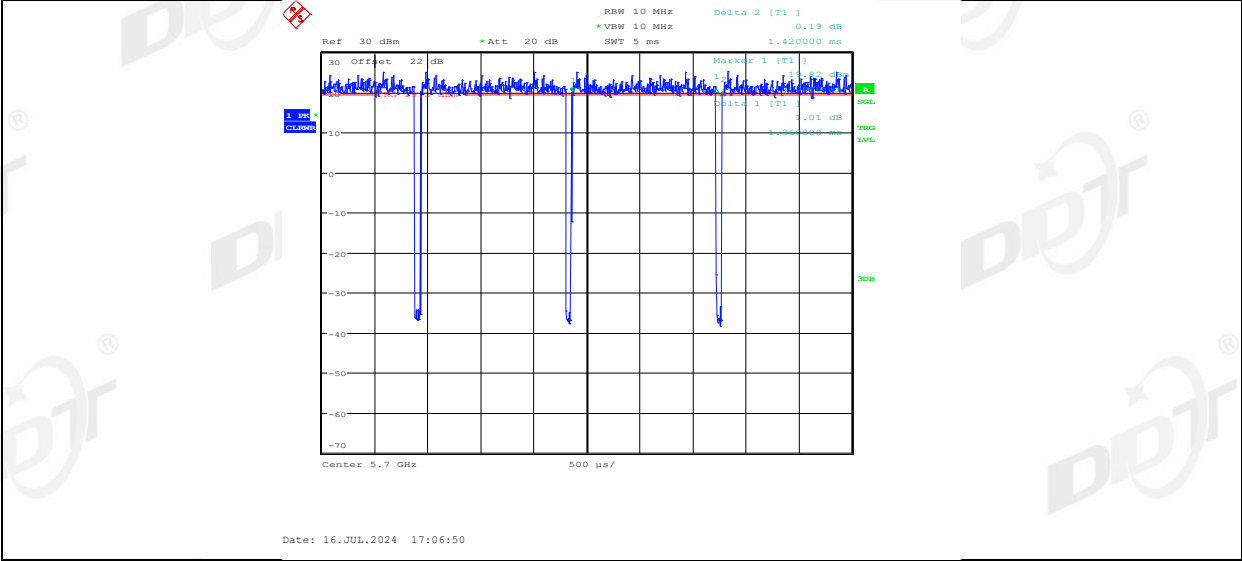
[illegible]



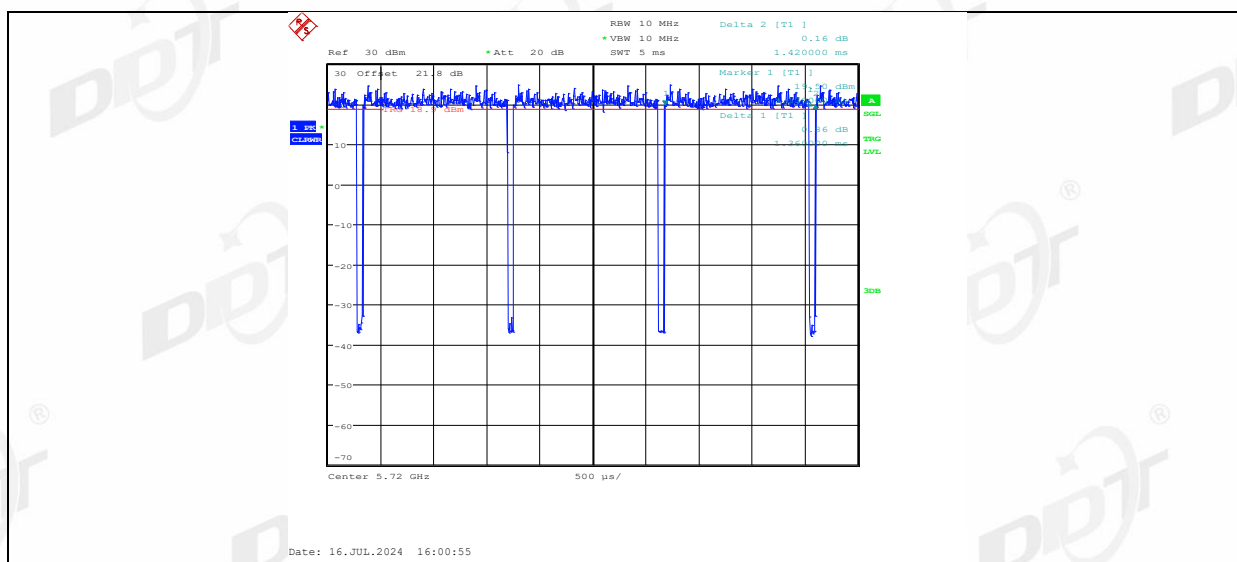
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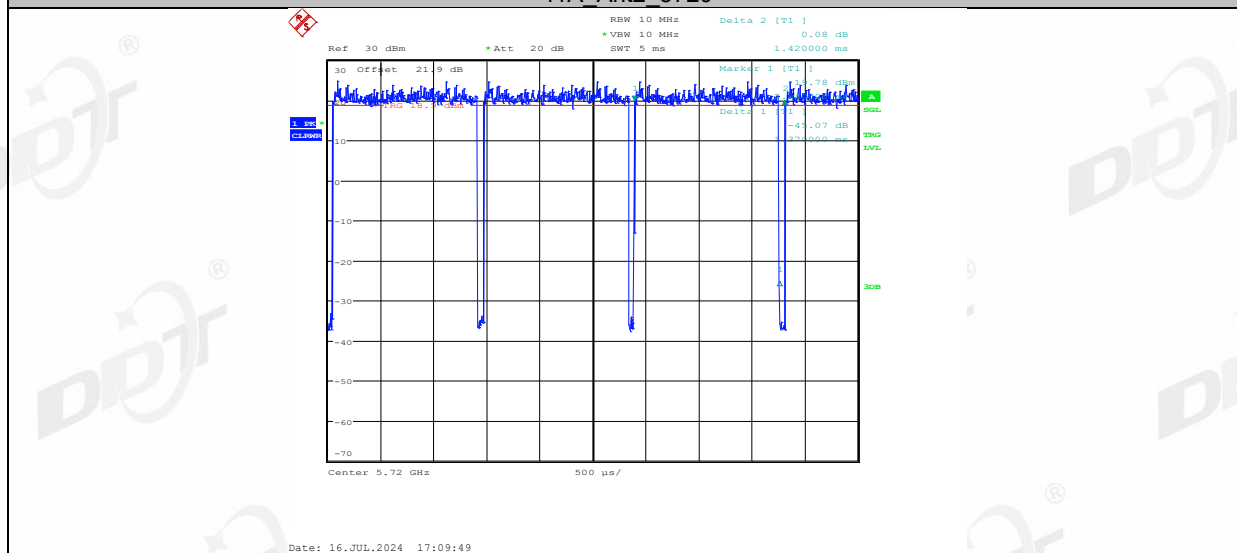
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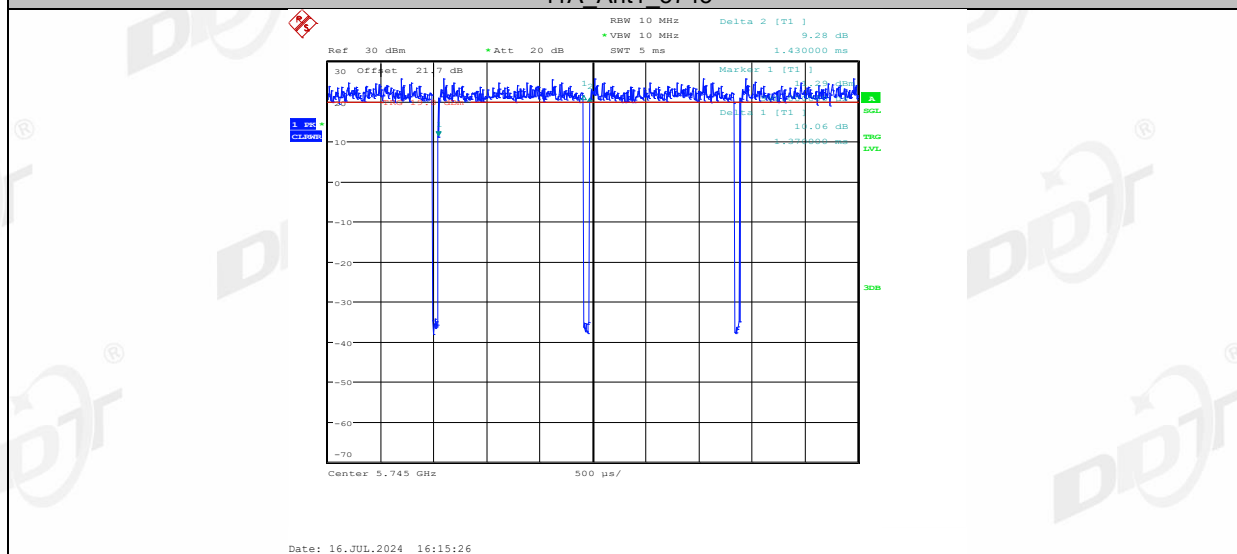
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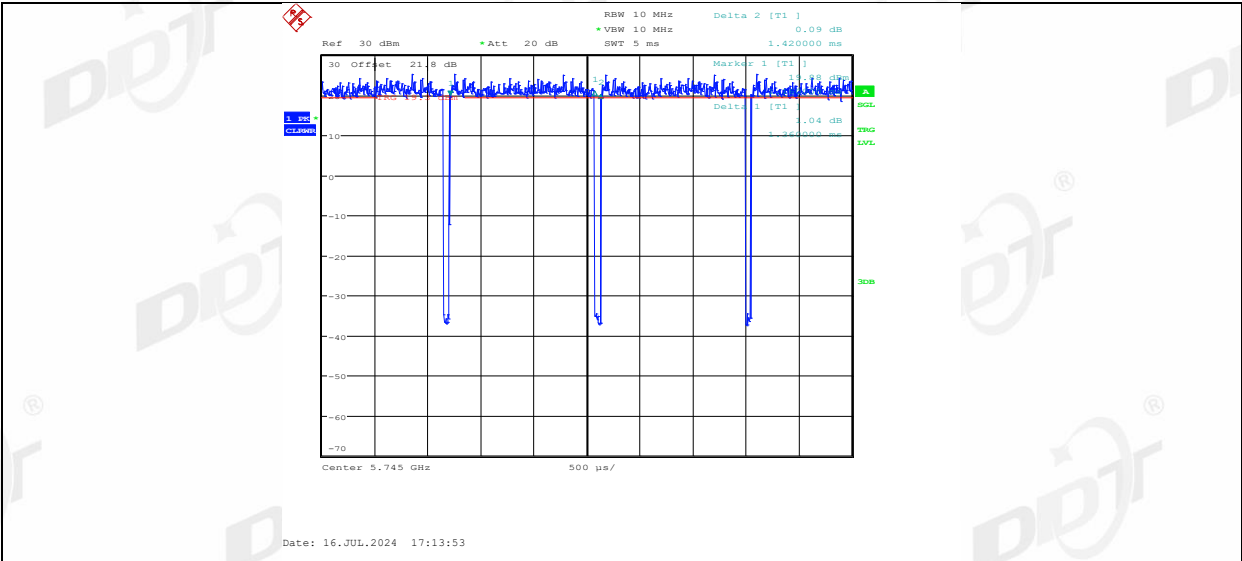
11A Ant2 5720



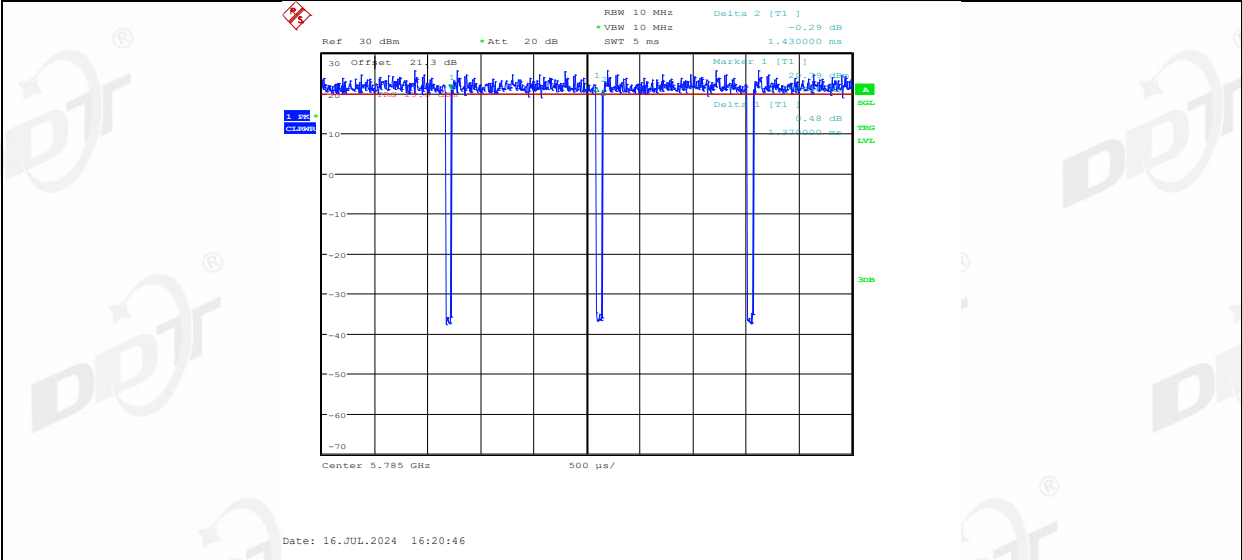
11A Ant1 5745



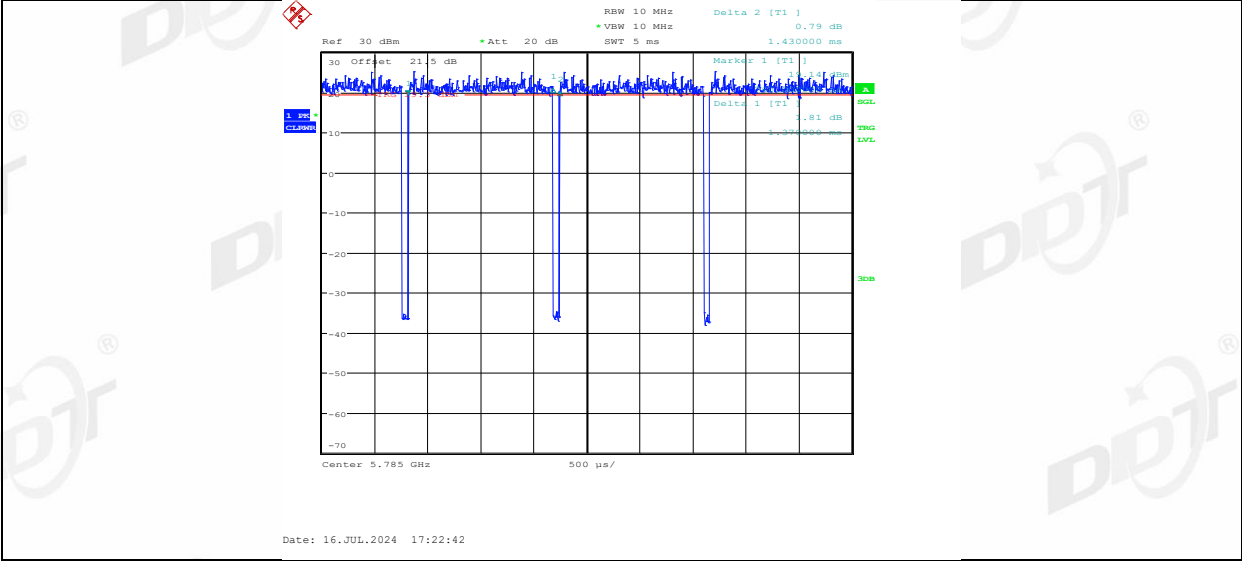
11A Ant2 5745



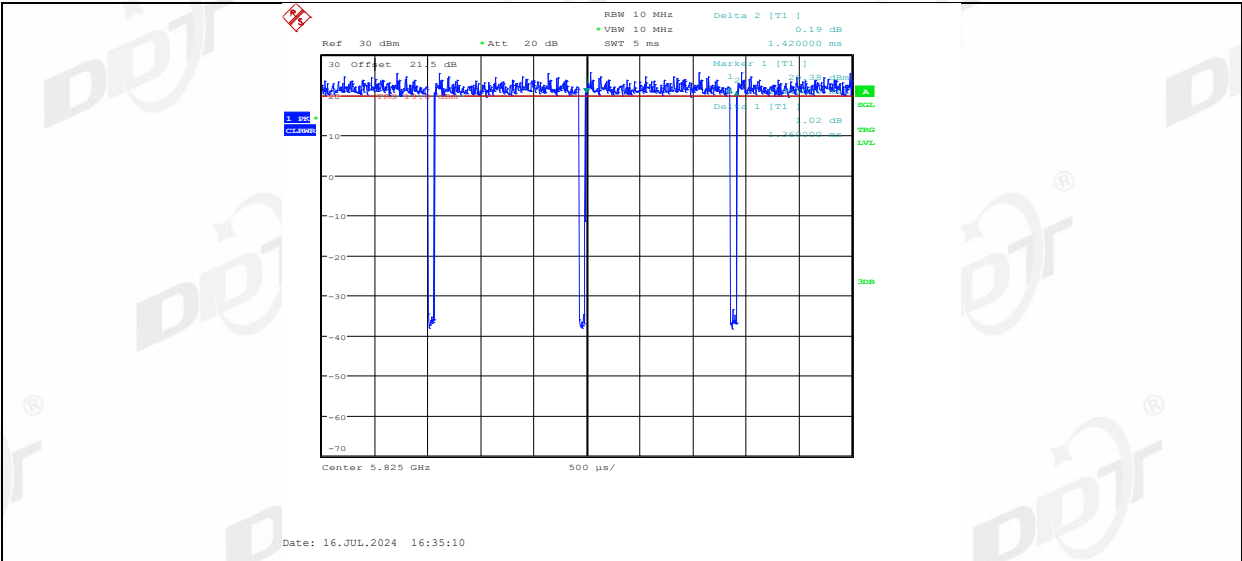
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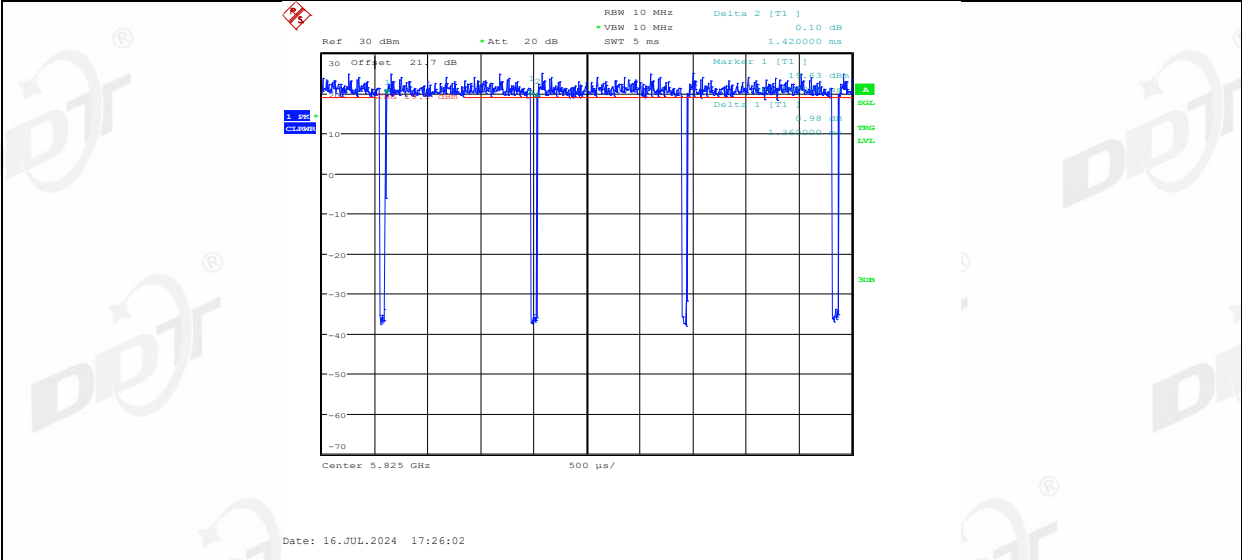
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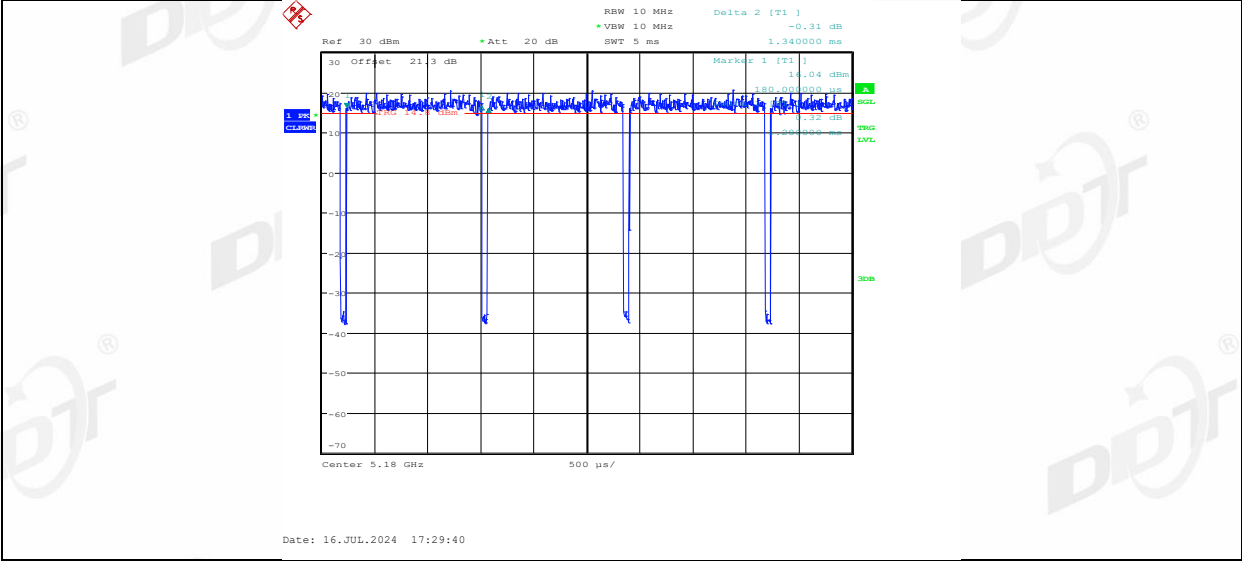
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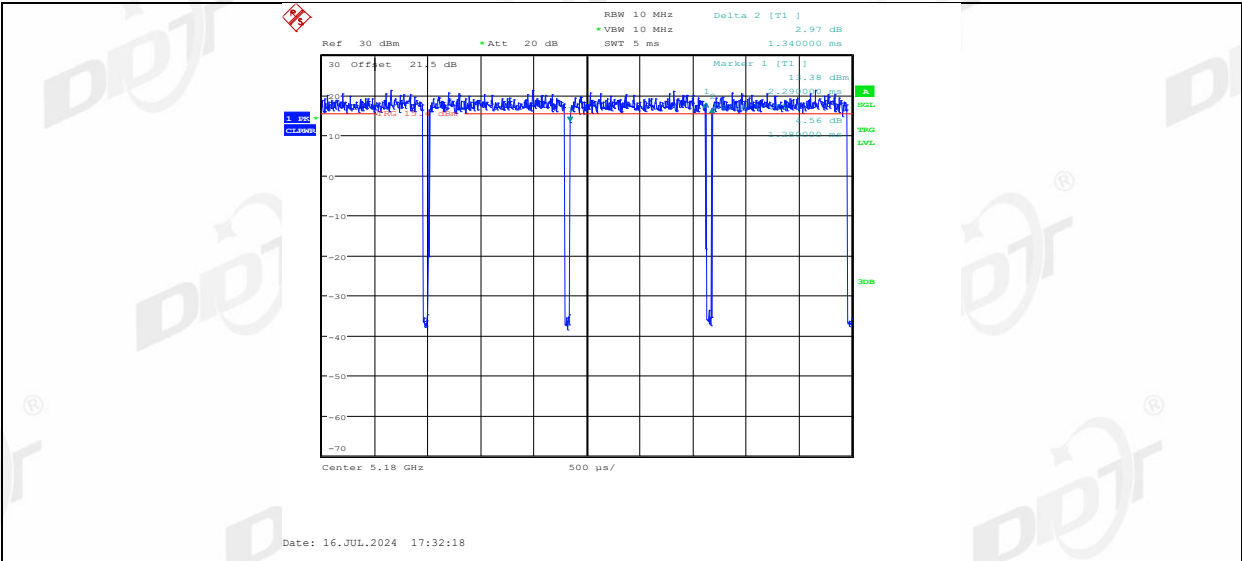
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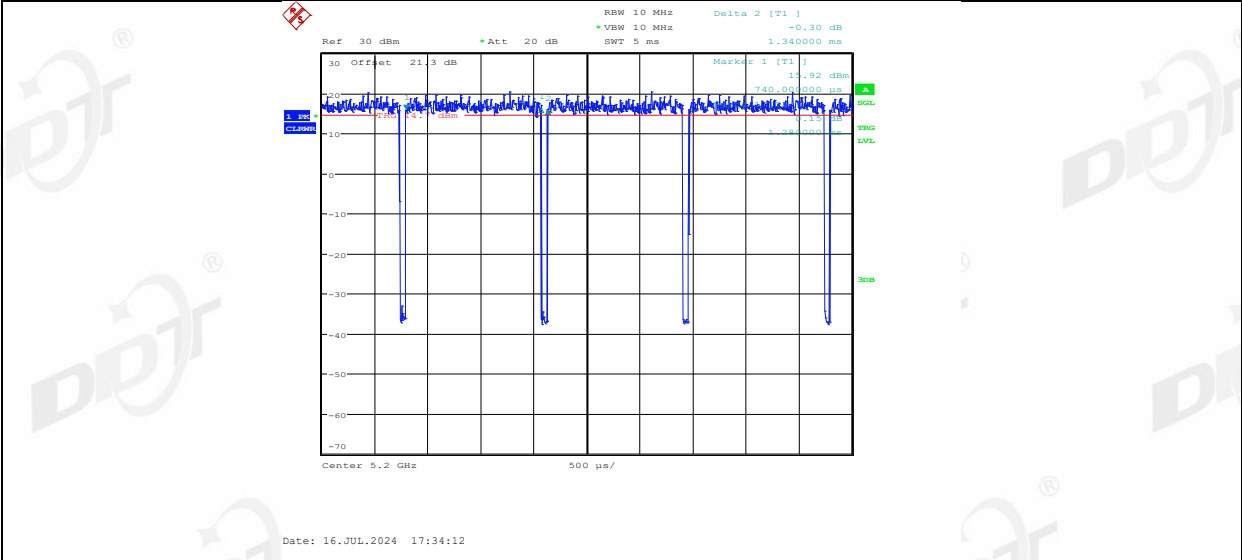
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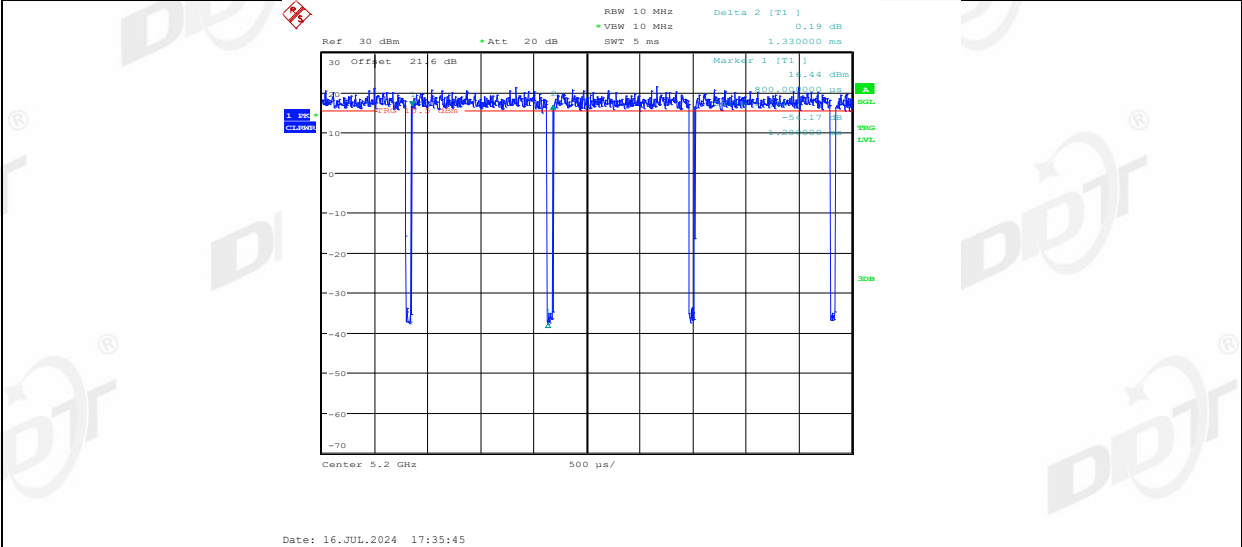
11N20MIMO_Ant2_5180



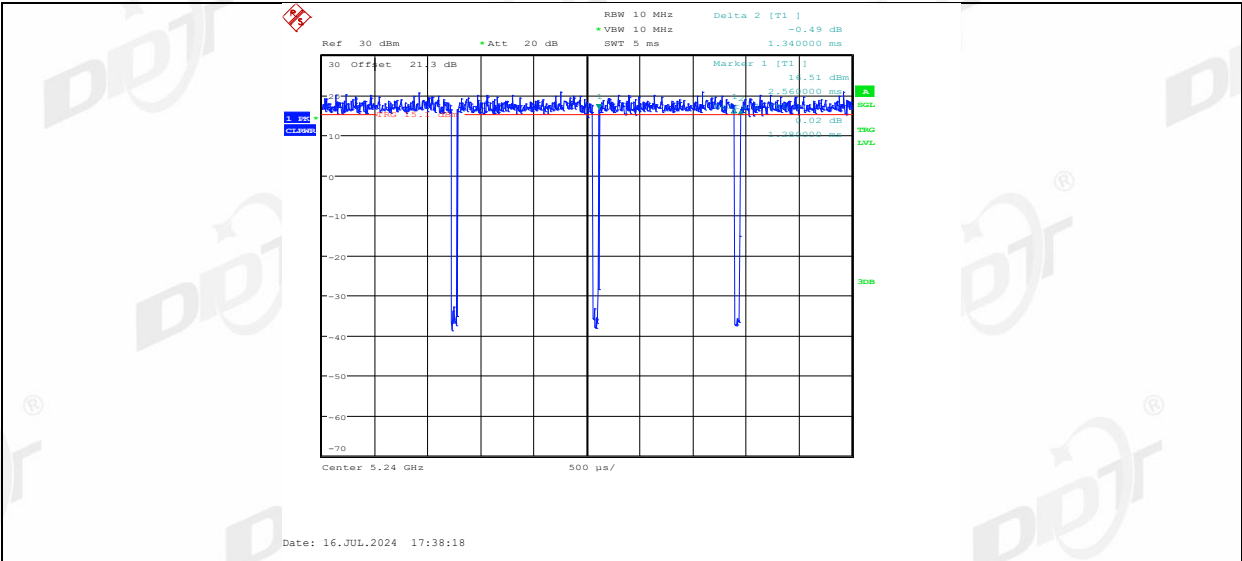
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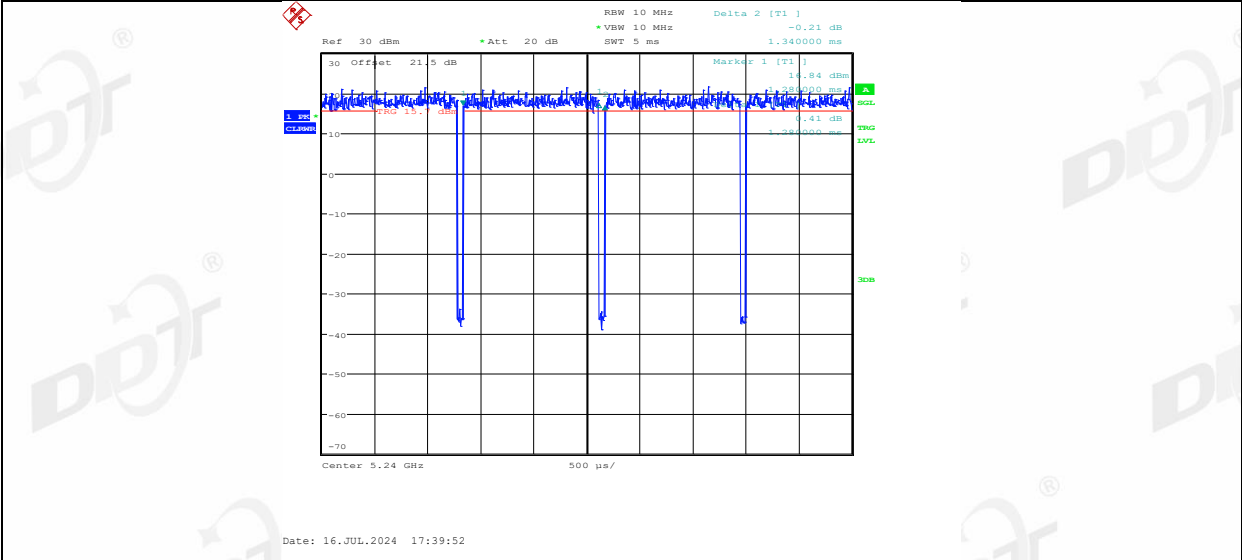
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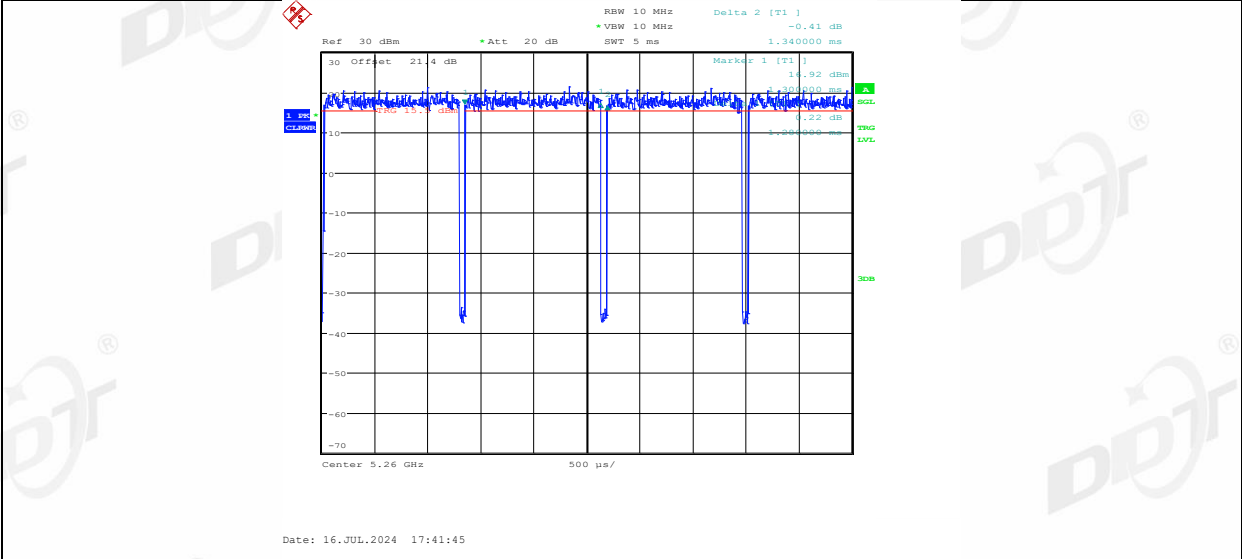
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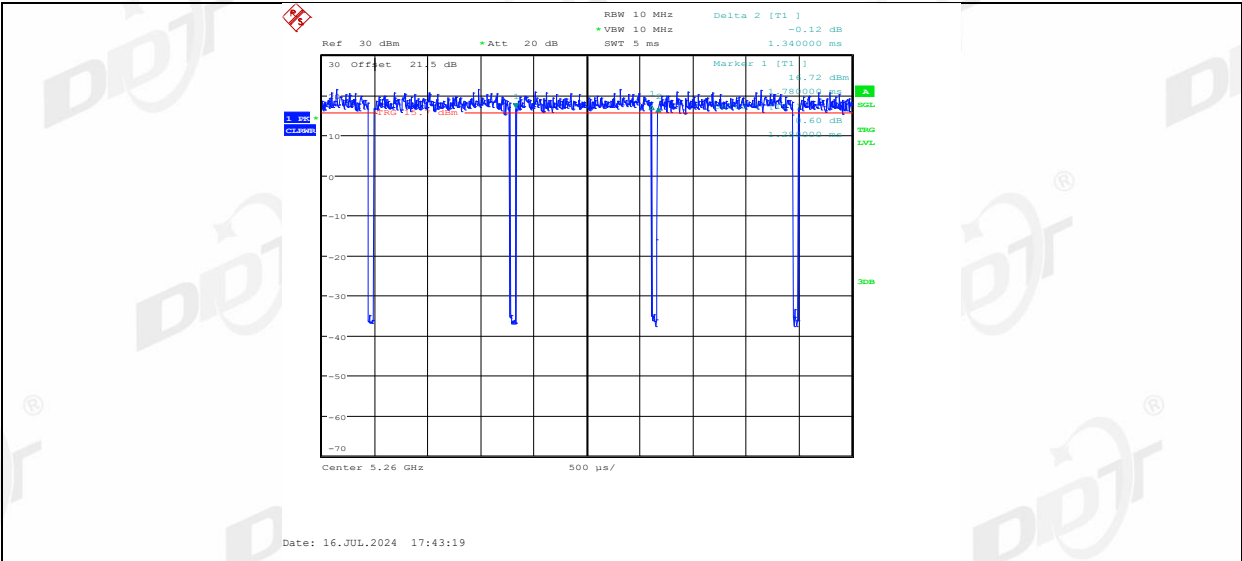
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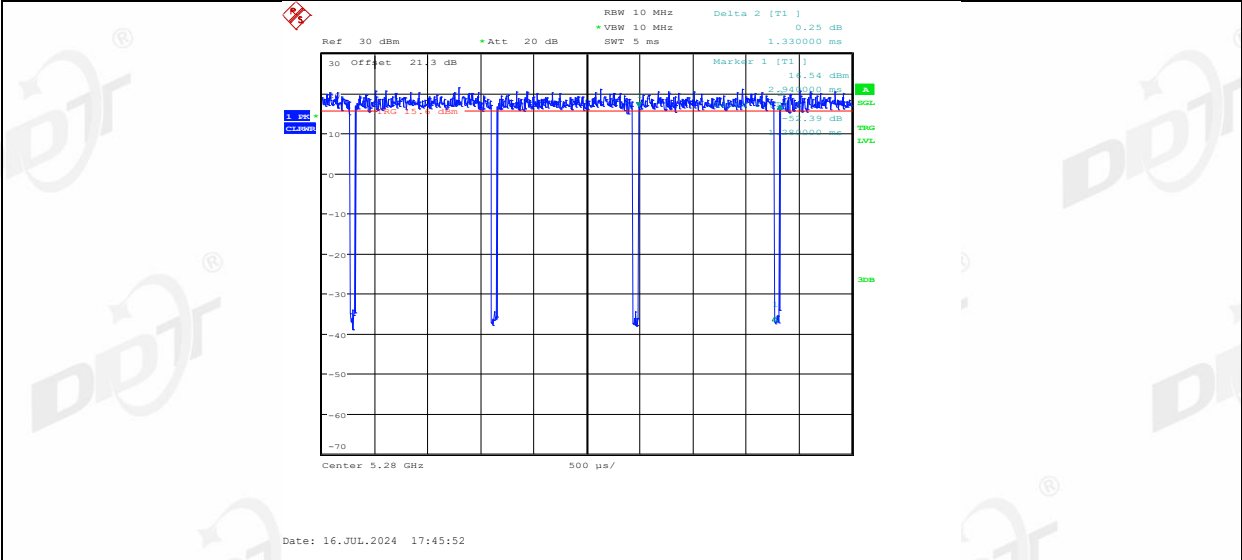
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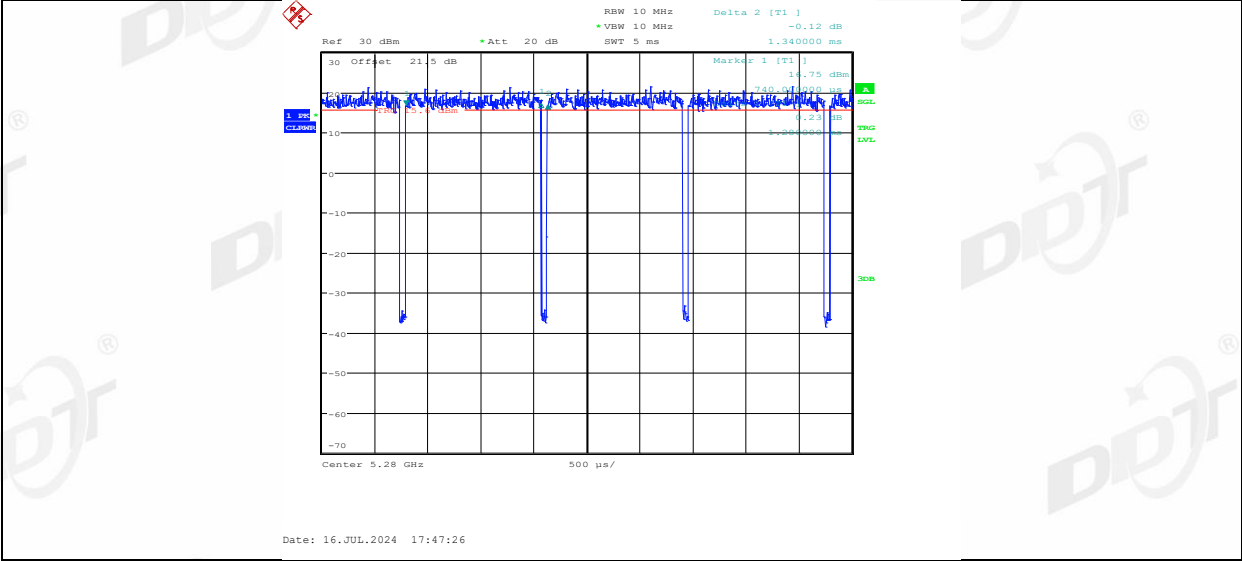
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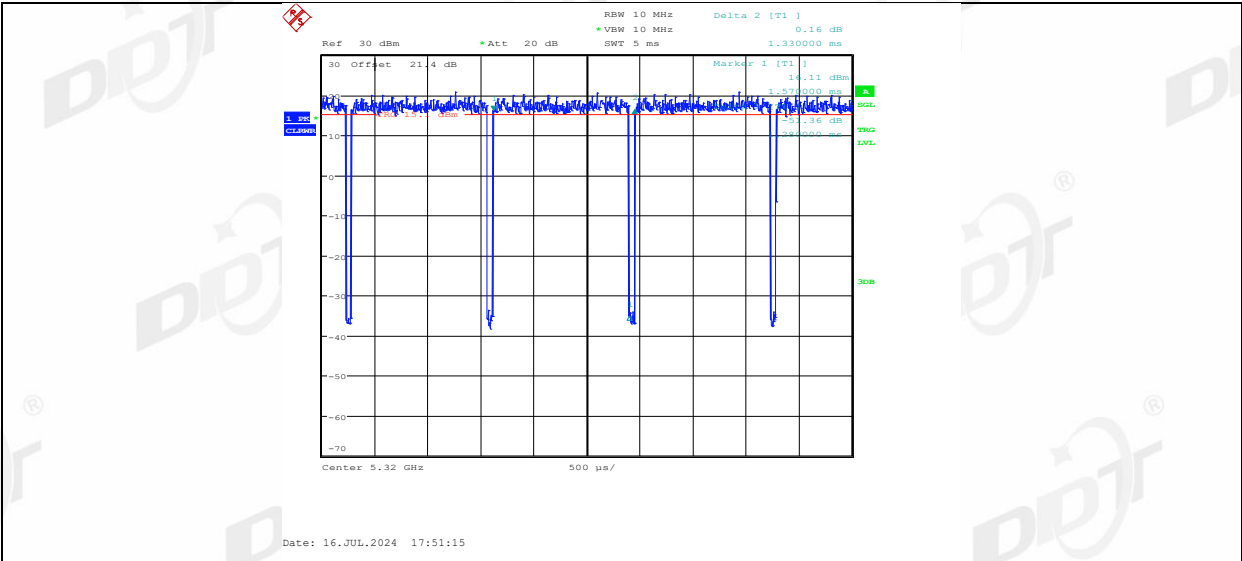
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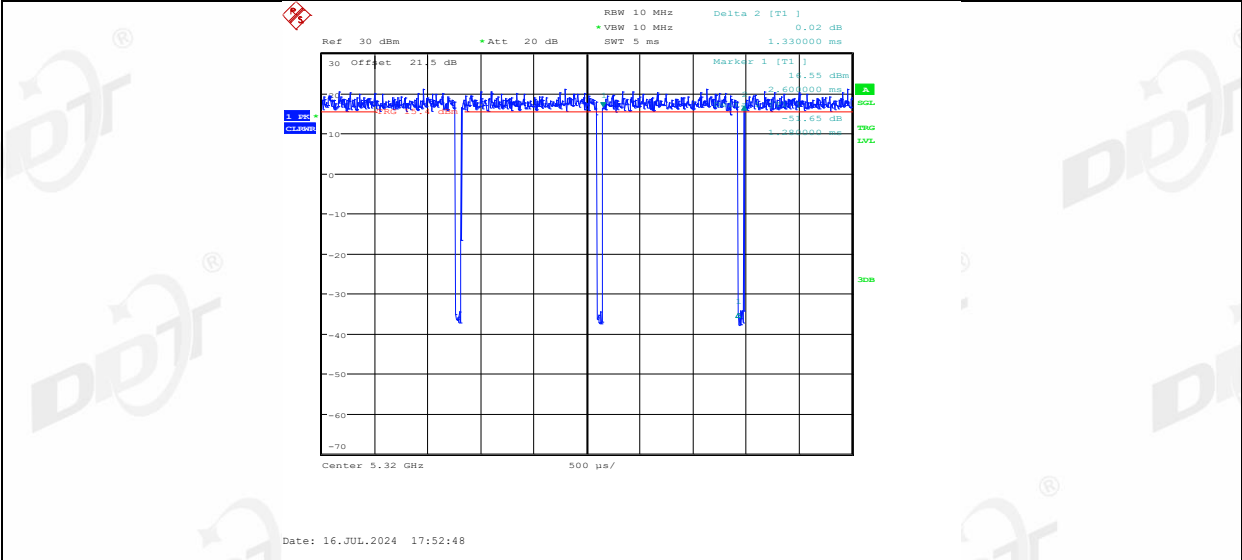
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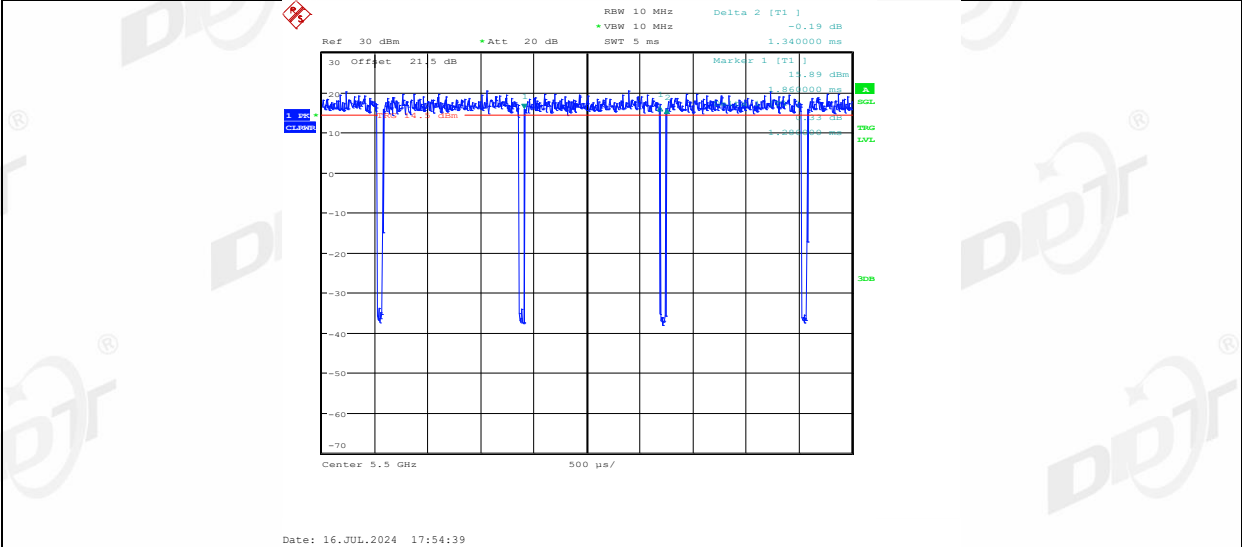
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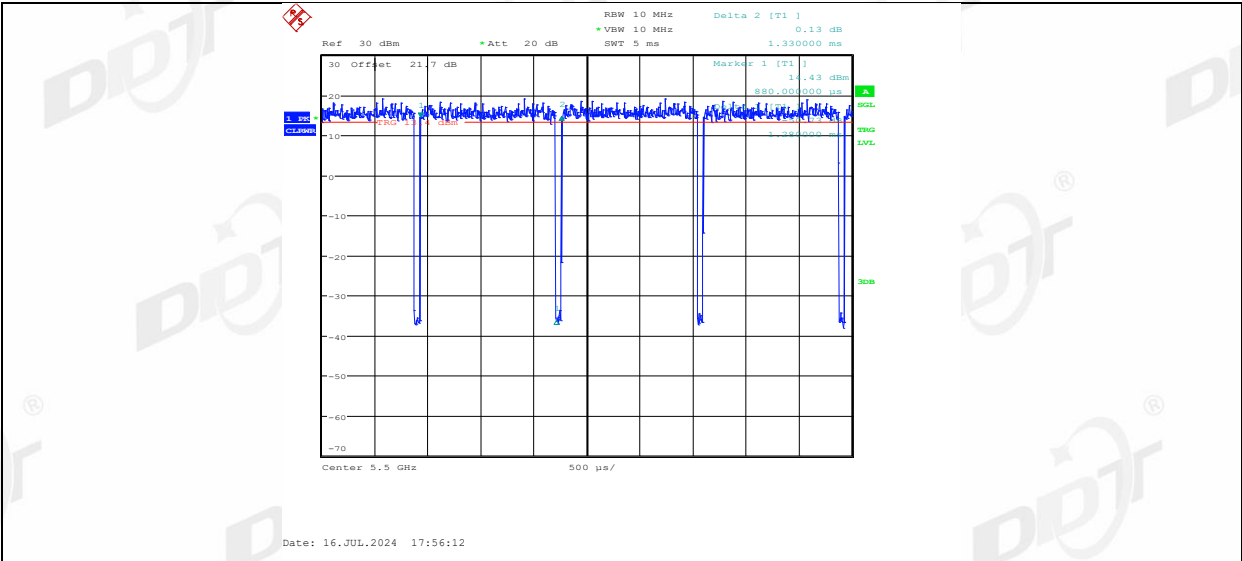
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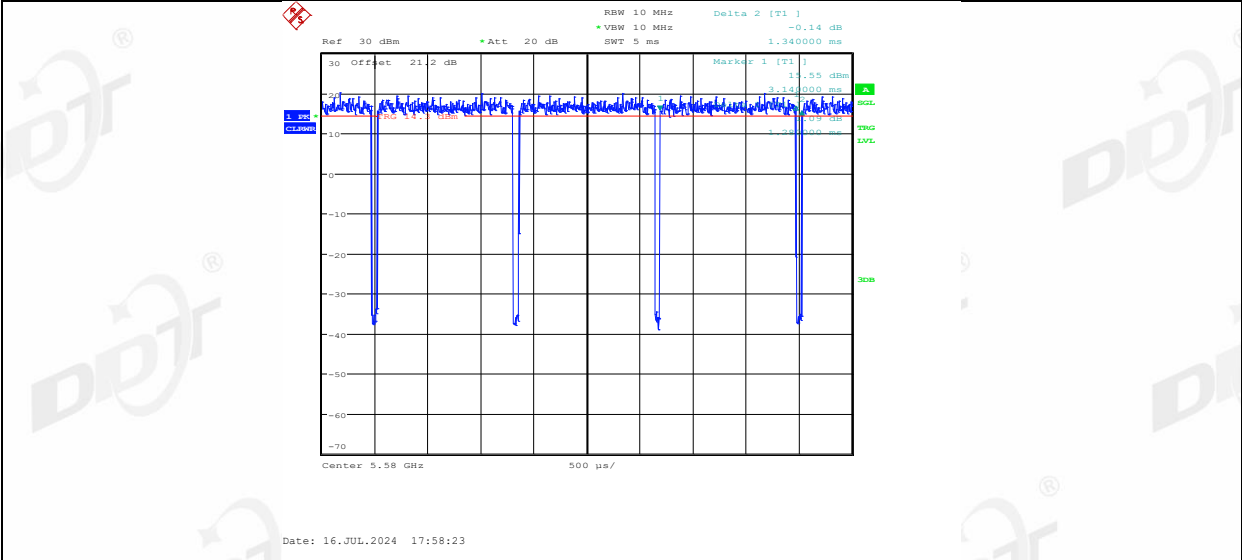
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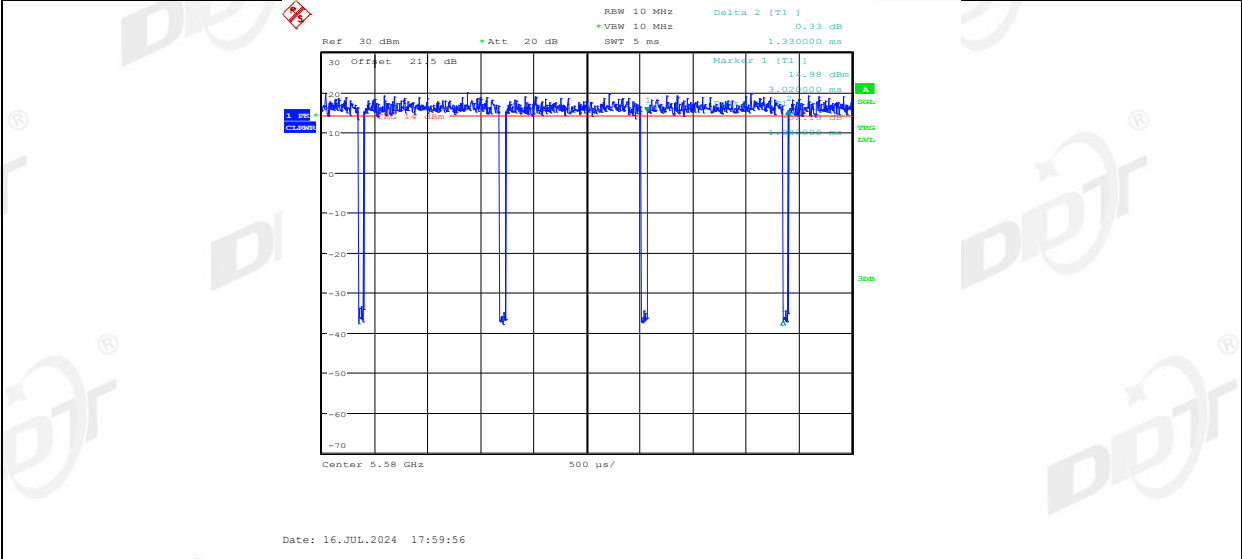
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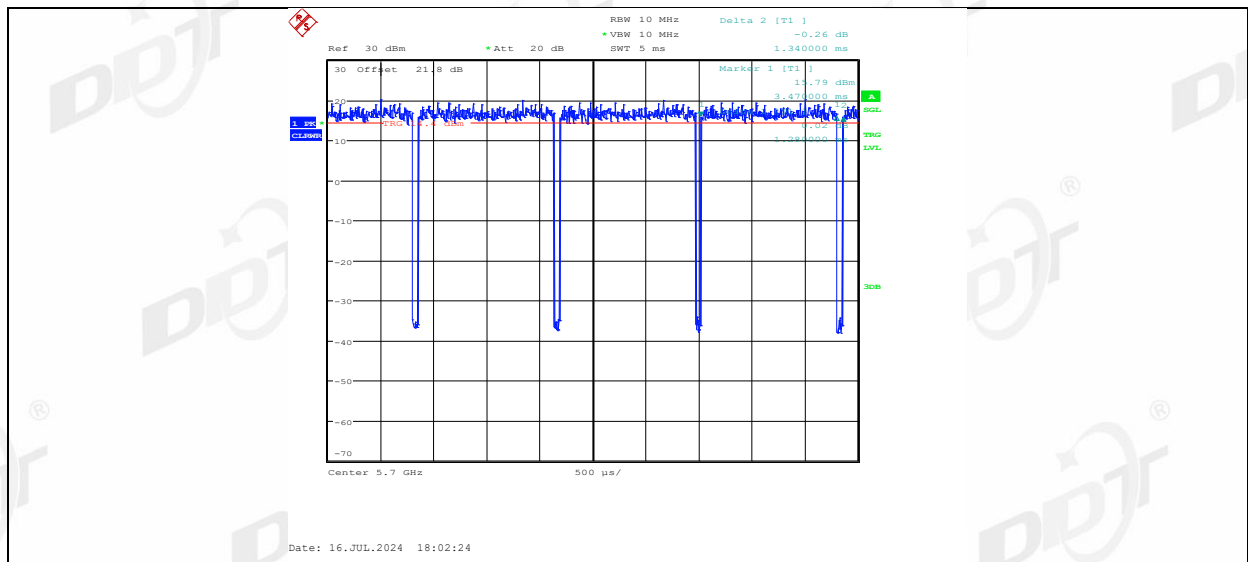
11N20MIMO_Ant1_5580



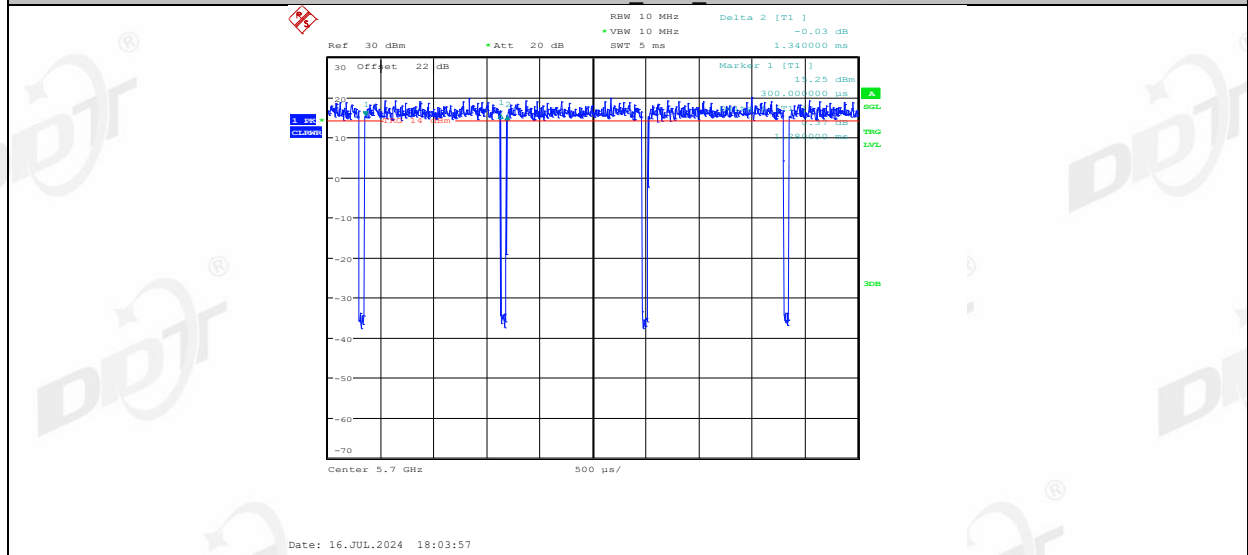
11N20MIMO_Ant2_5580



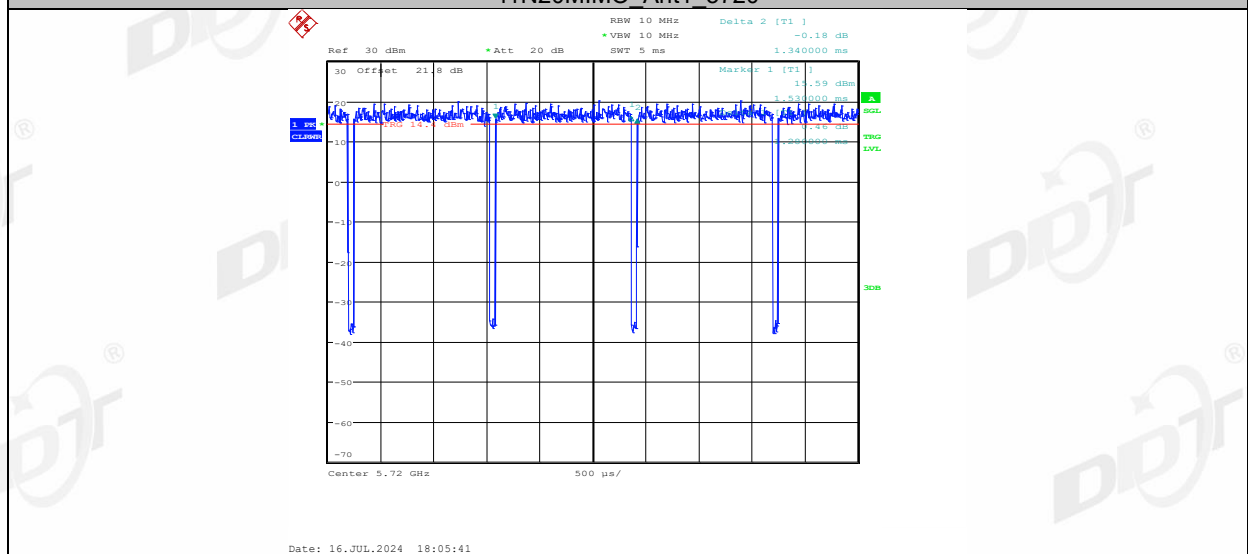
11N20MIMO_Ant1_5700



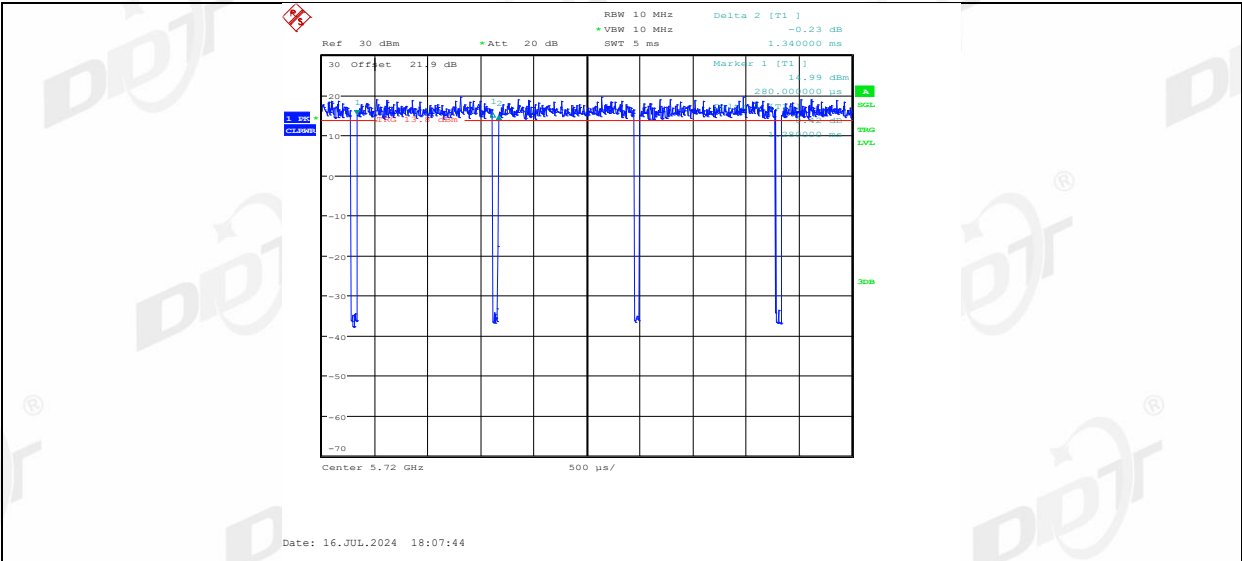
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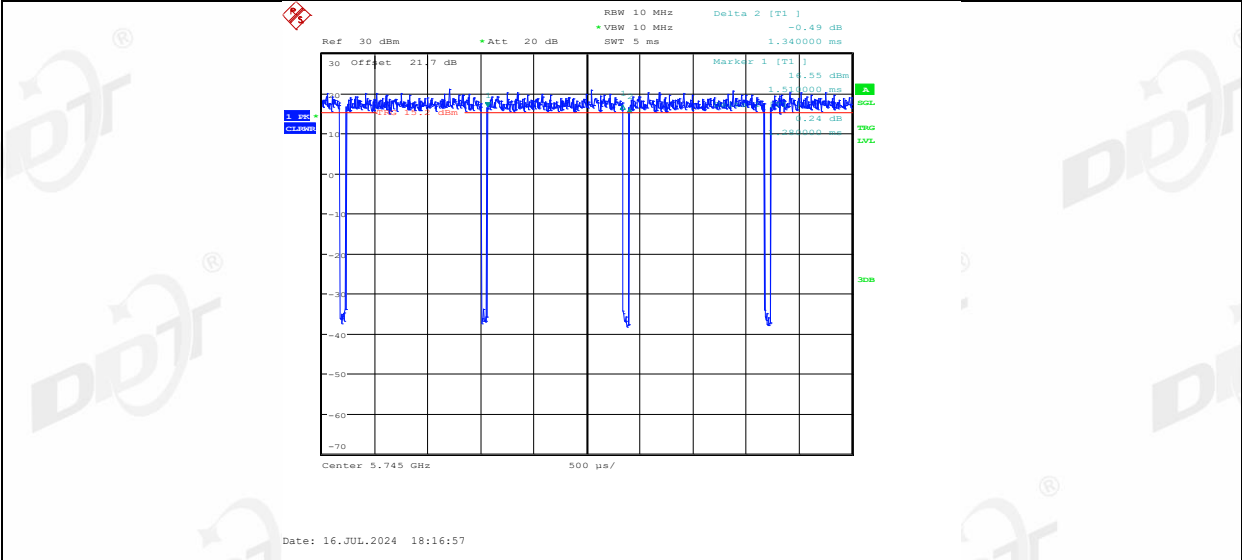
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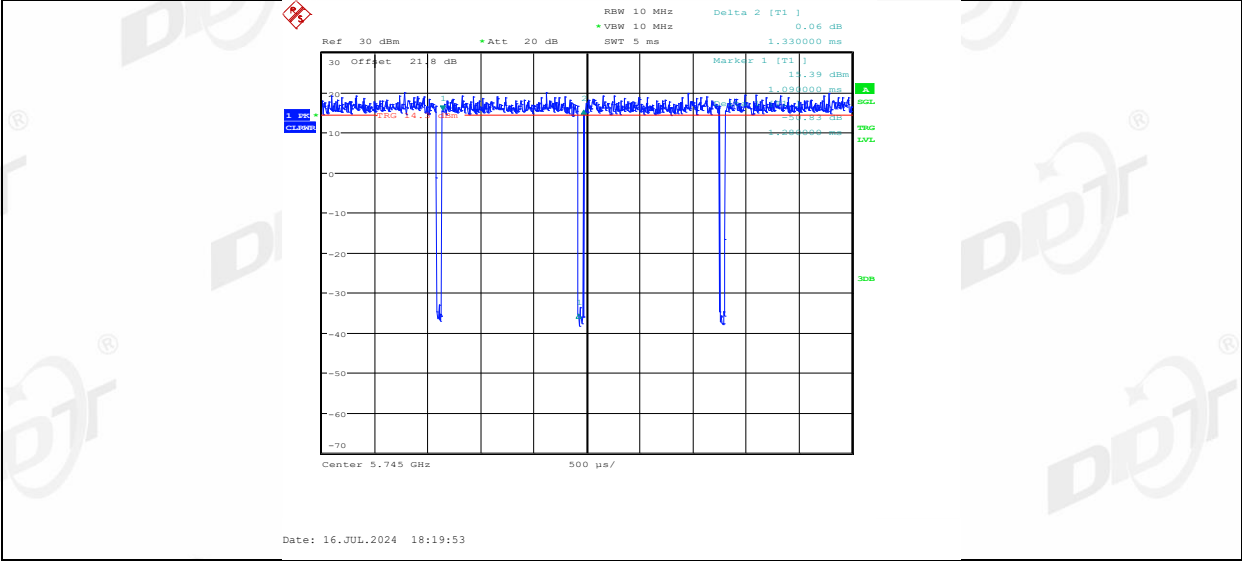
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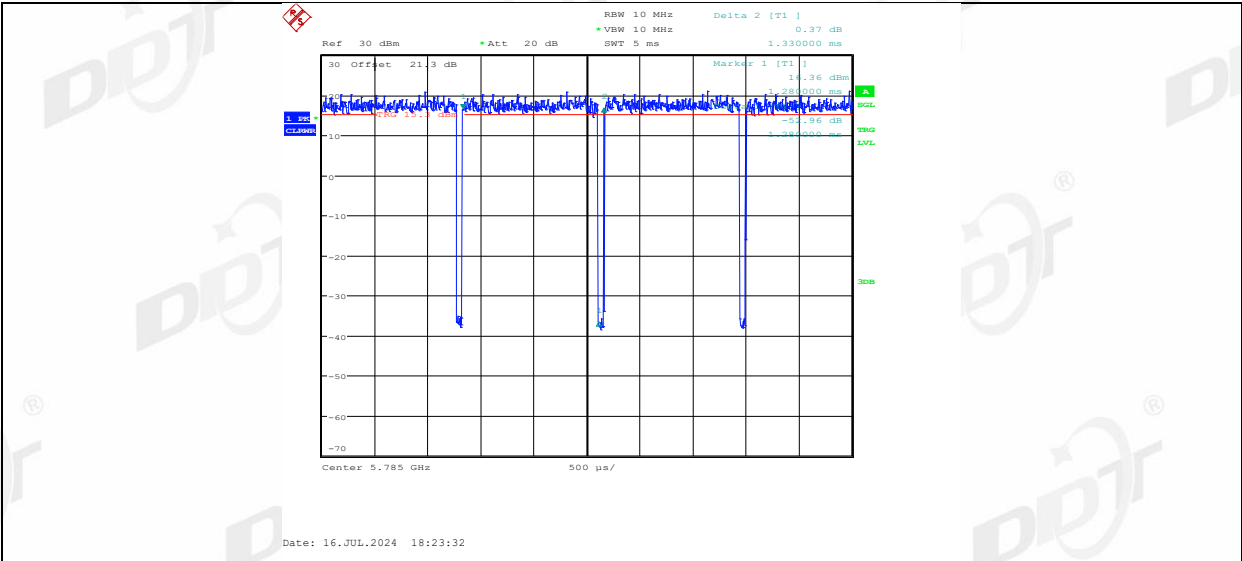
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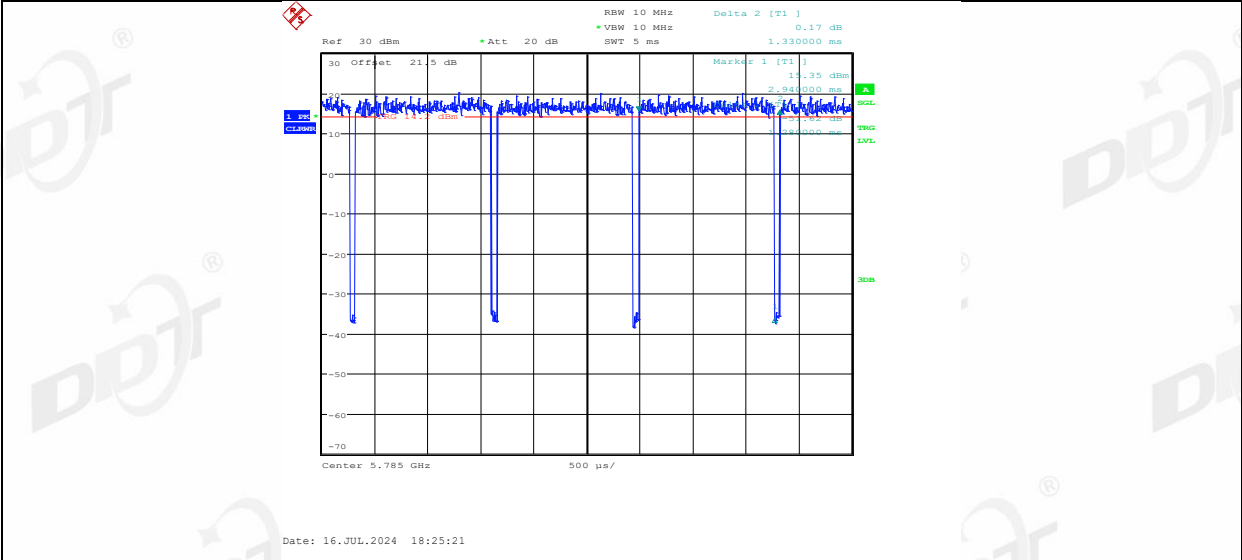
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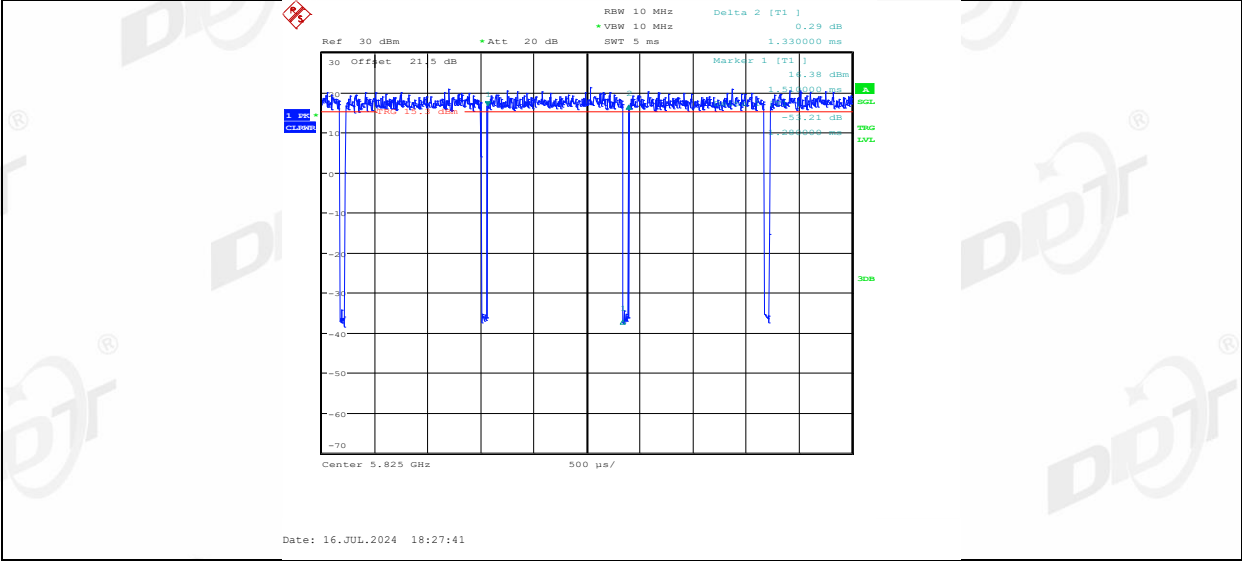
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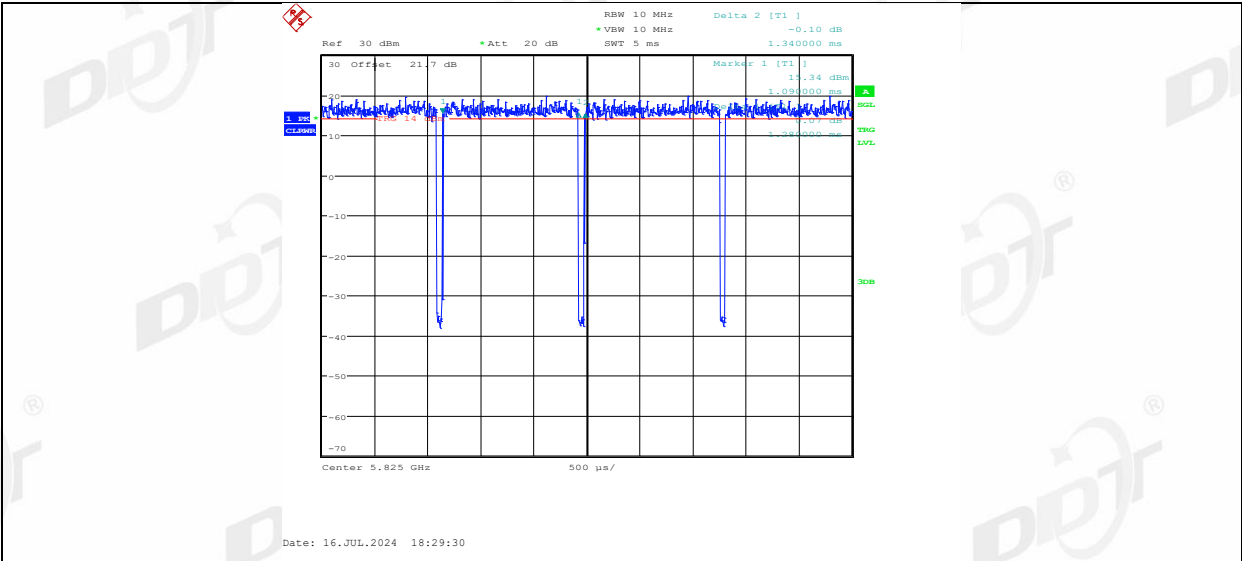
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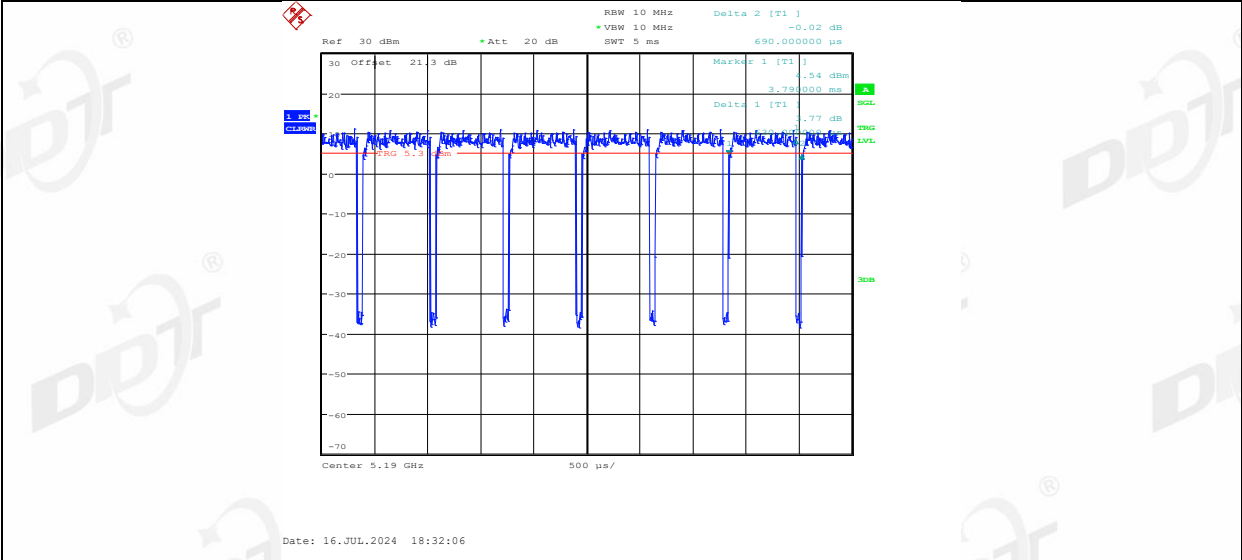
11N20MIMO_Ant1_5825



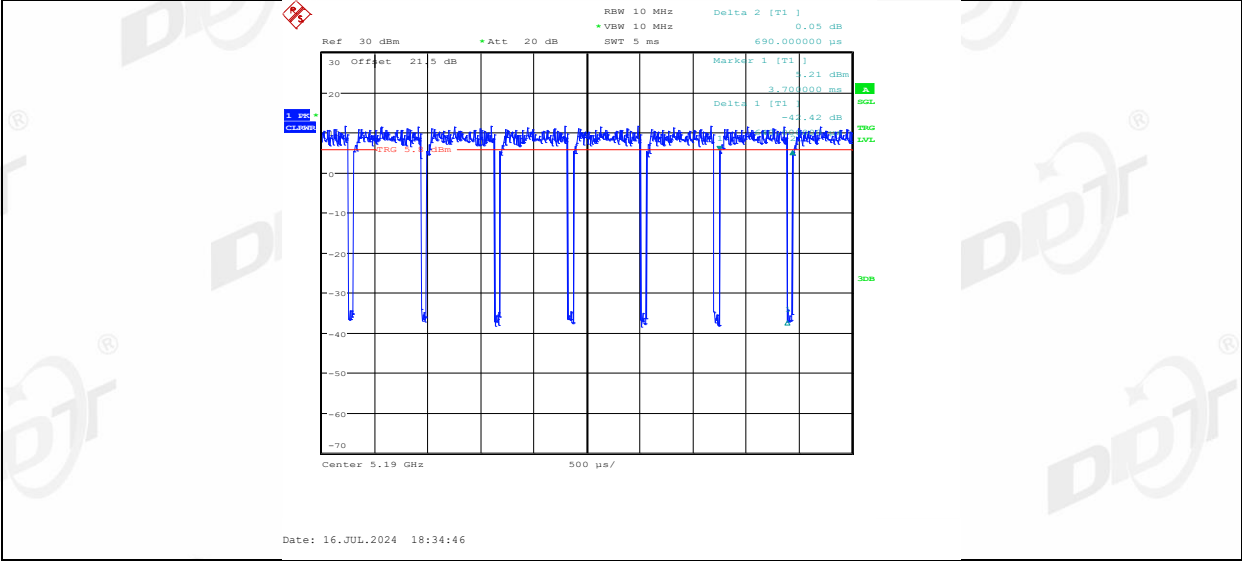
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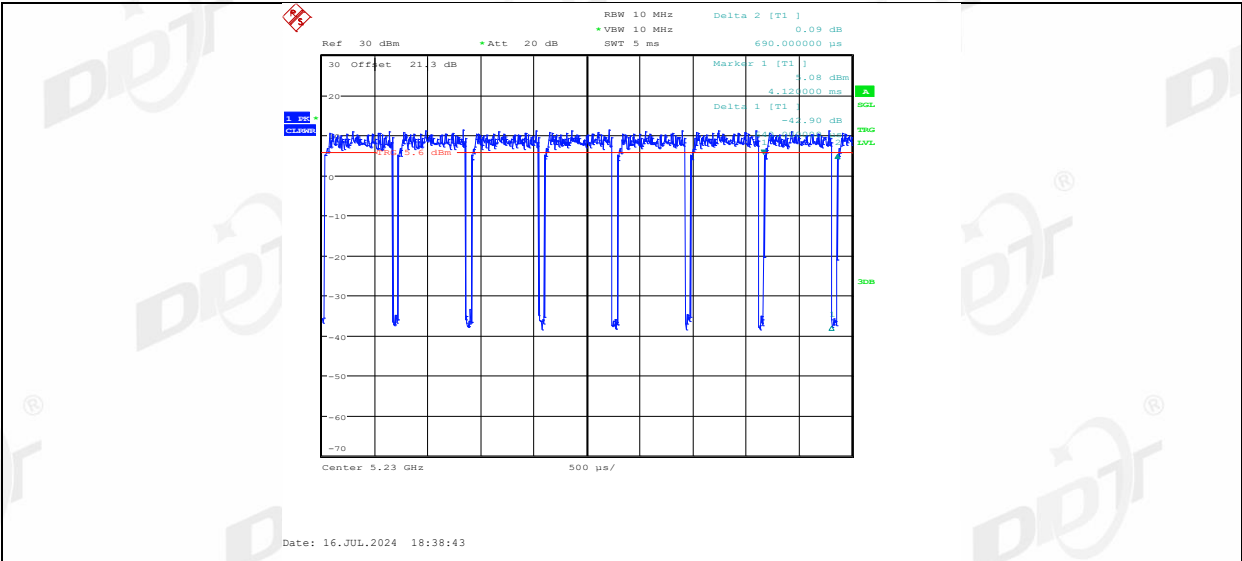
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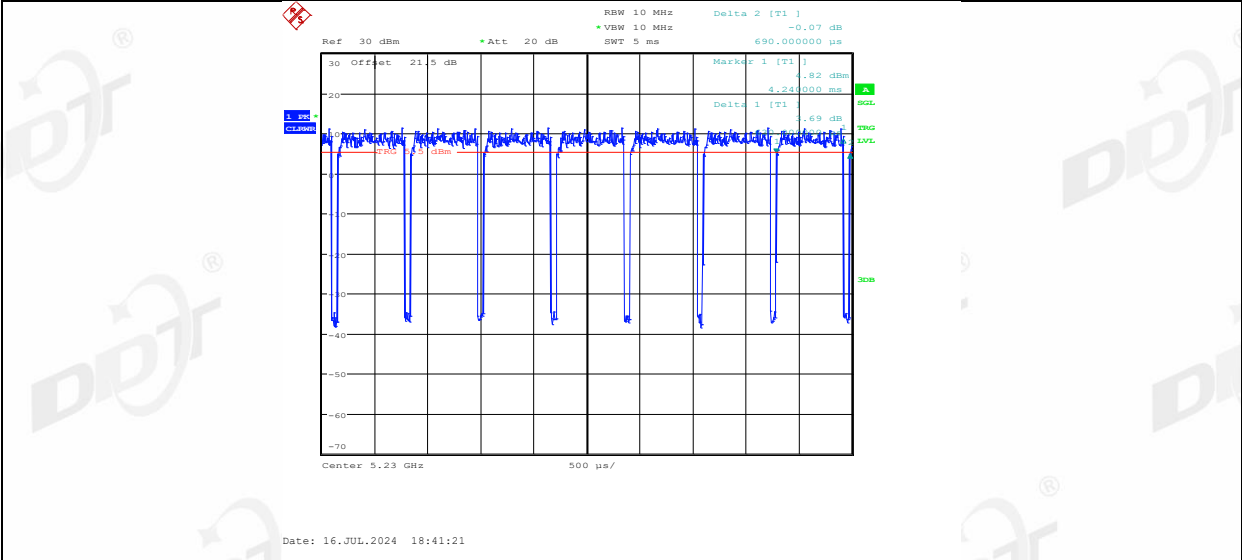
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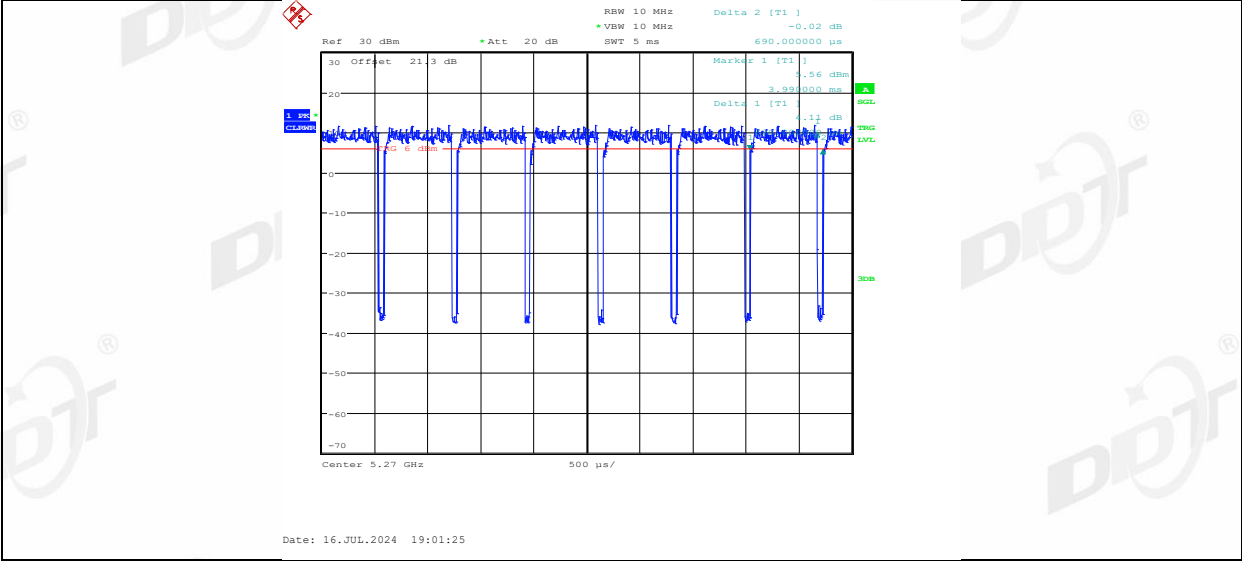
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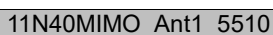
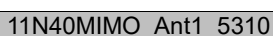
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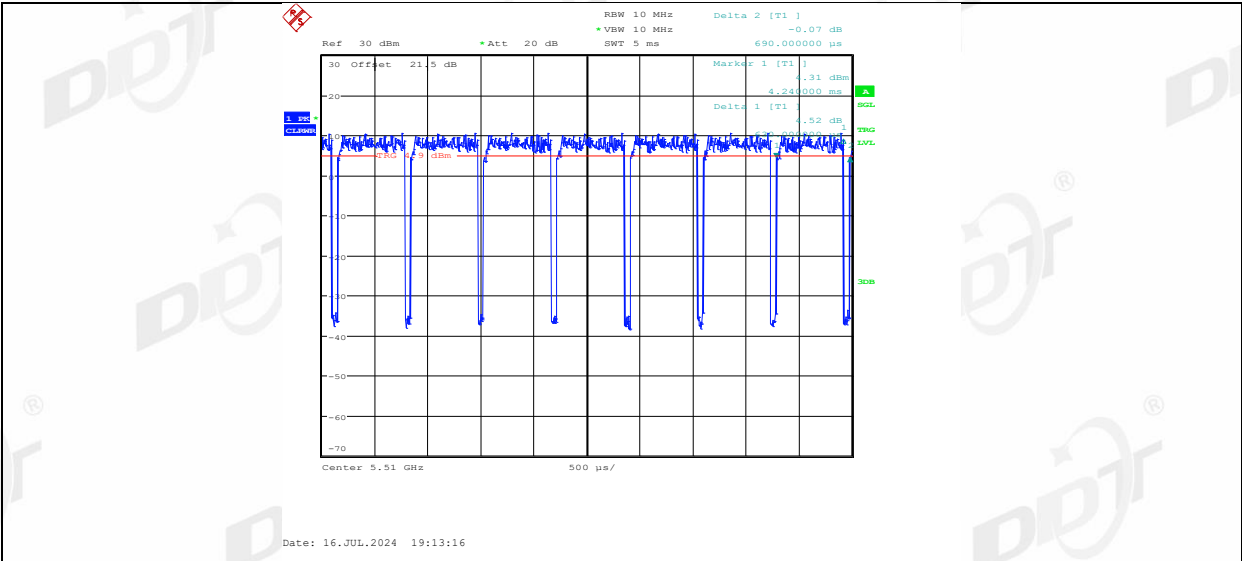


11N40MIMO_Ant1_5270

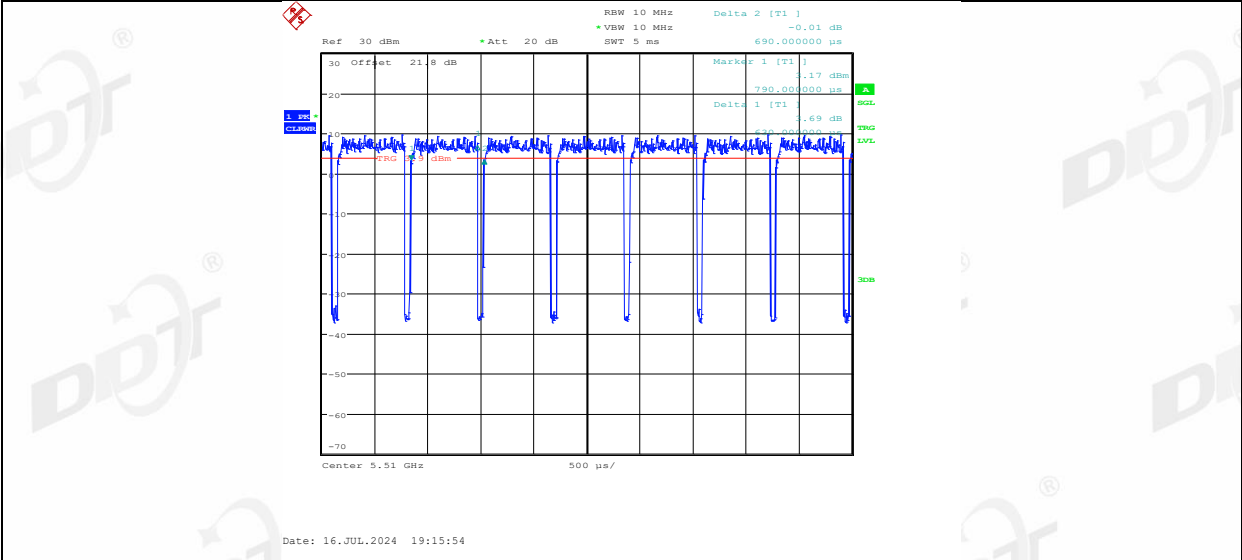


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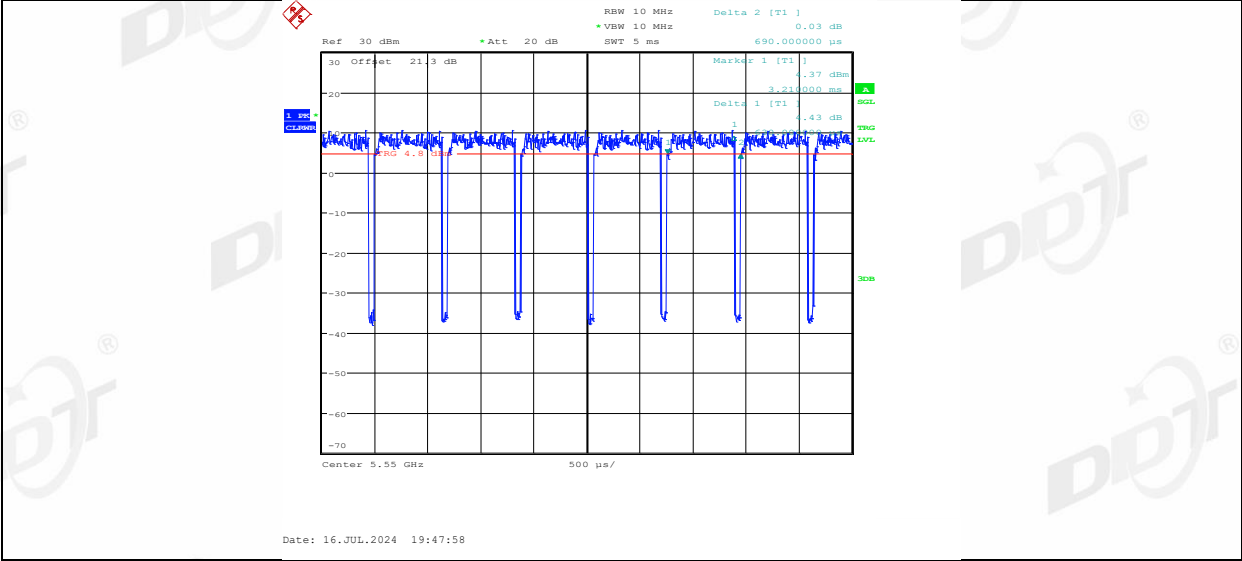




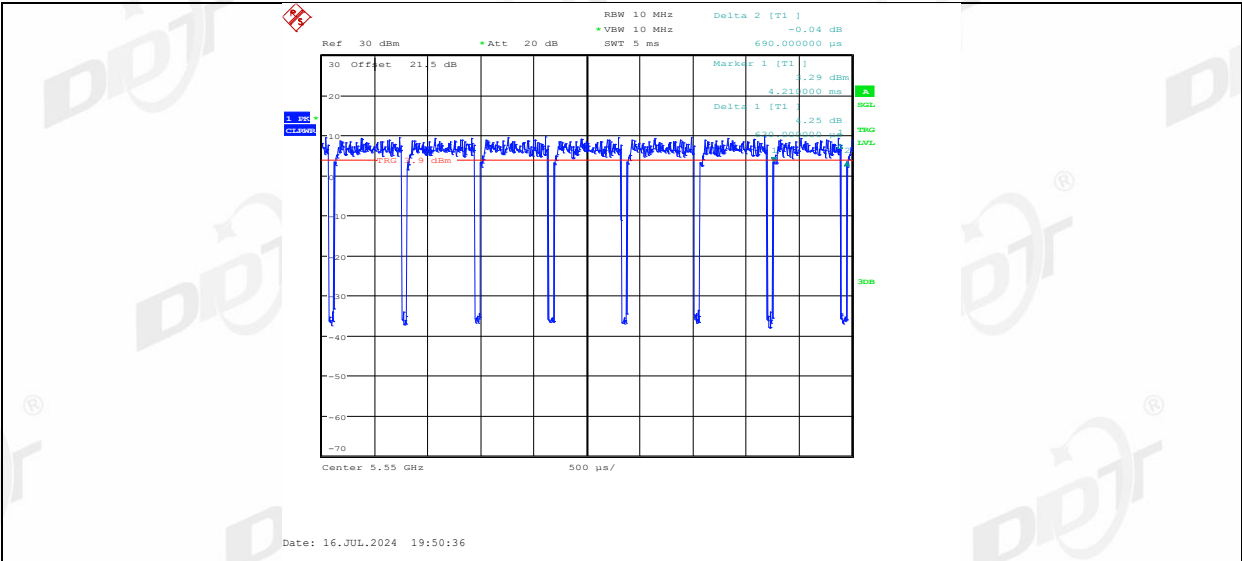
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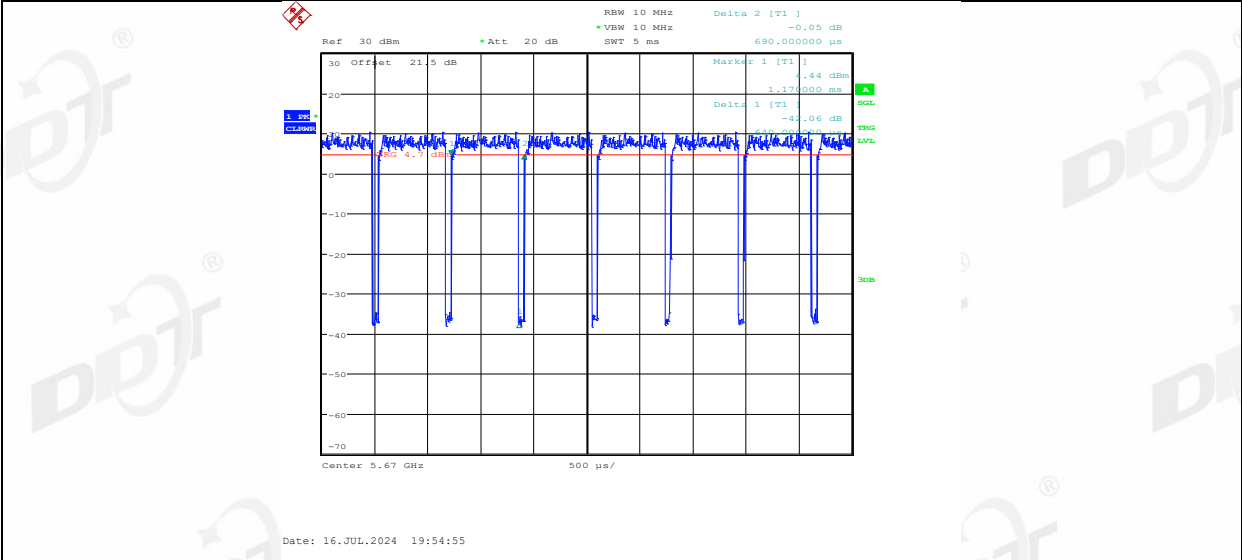
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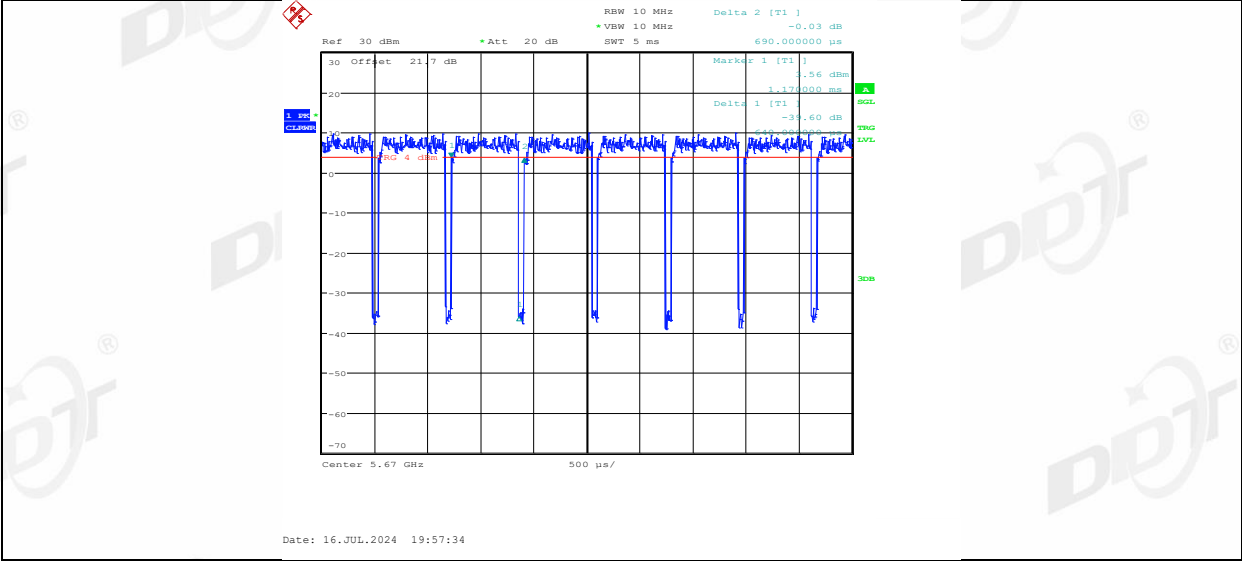
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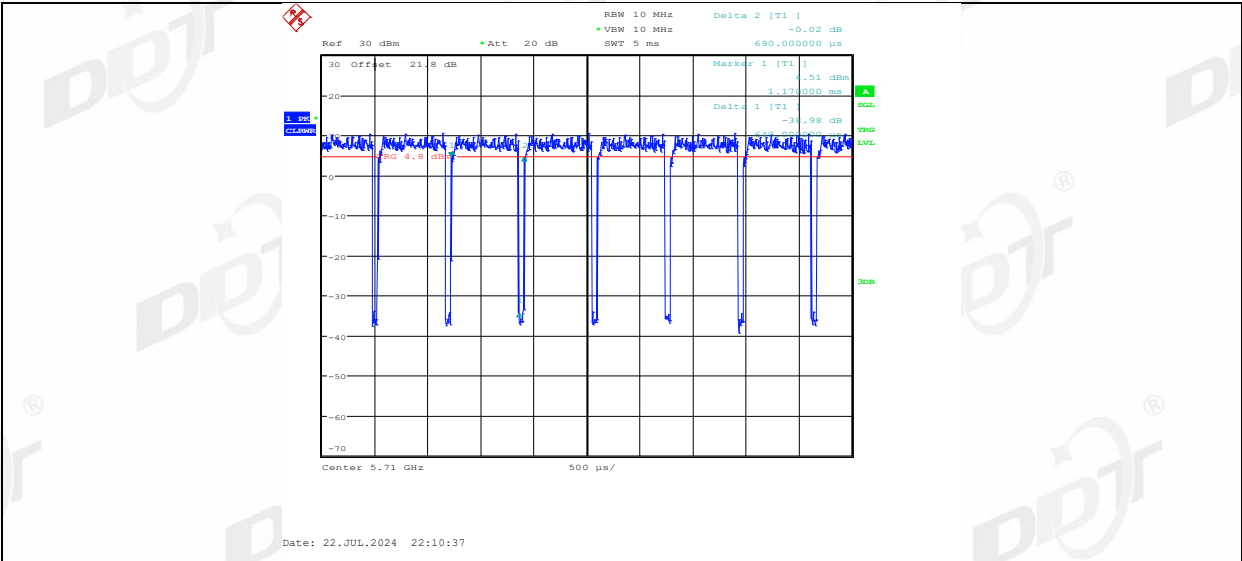
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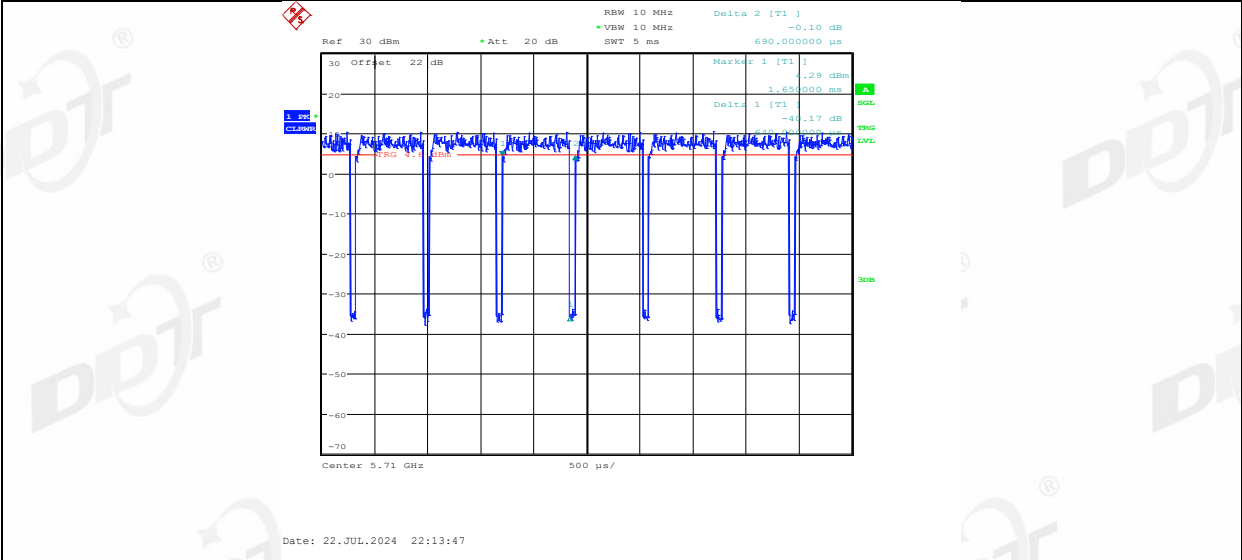
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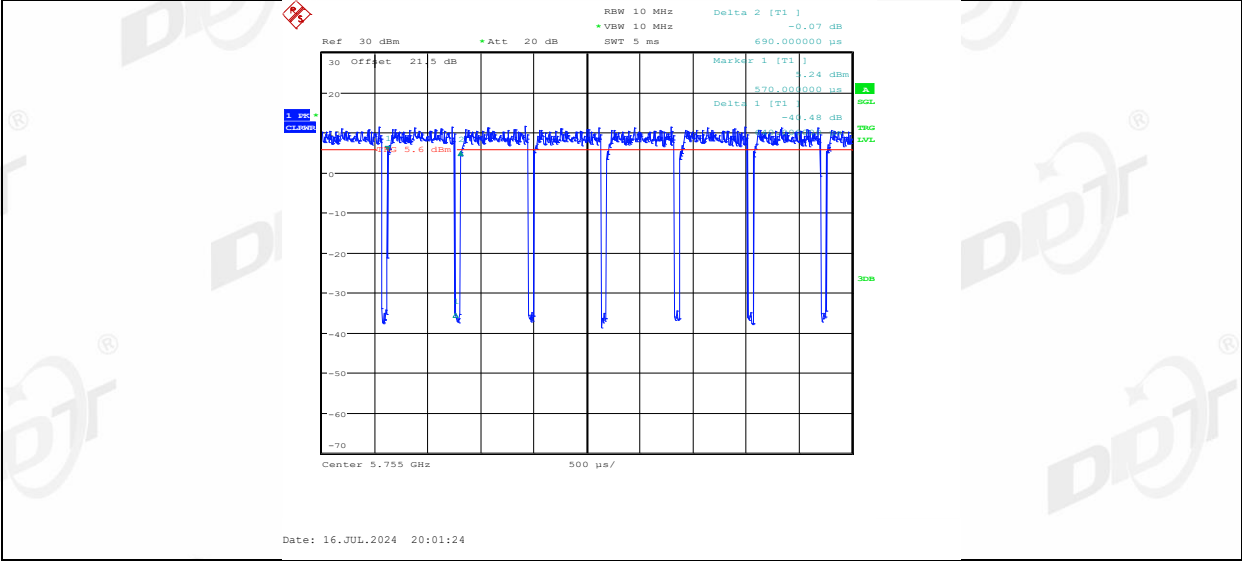
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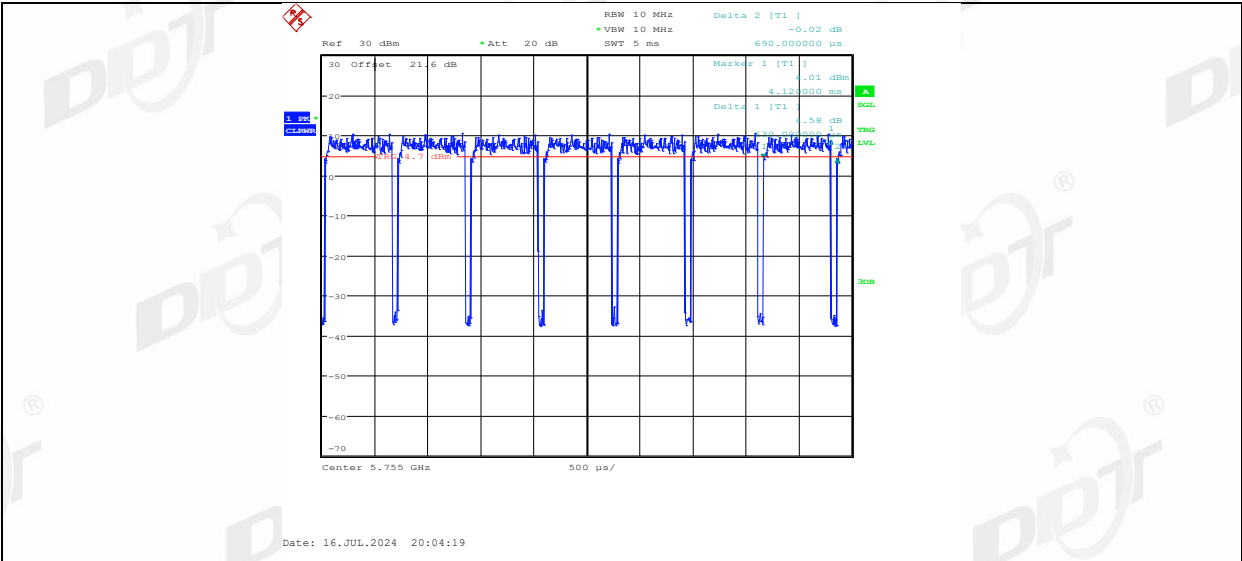
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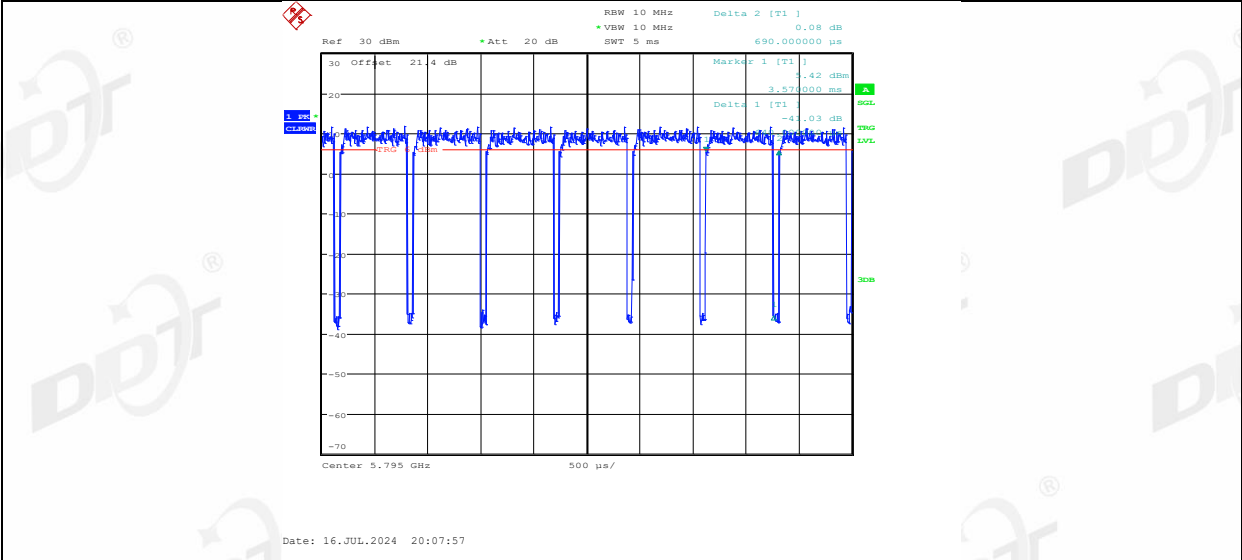
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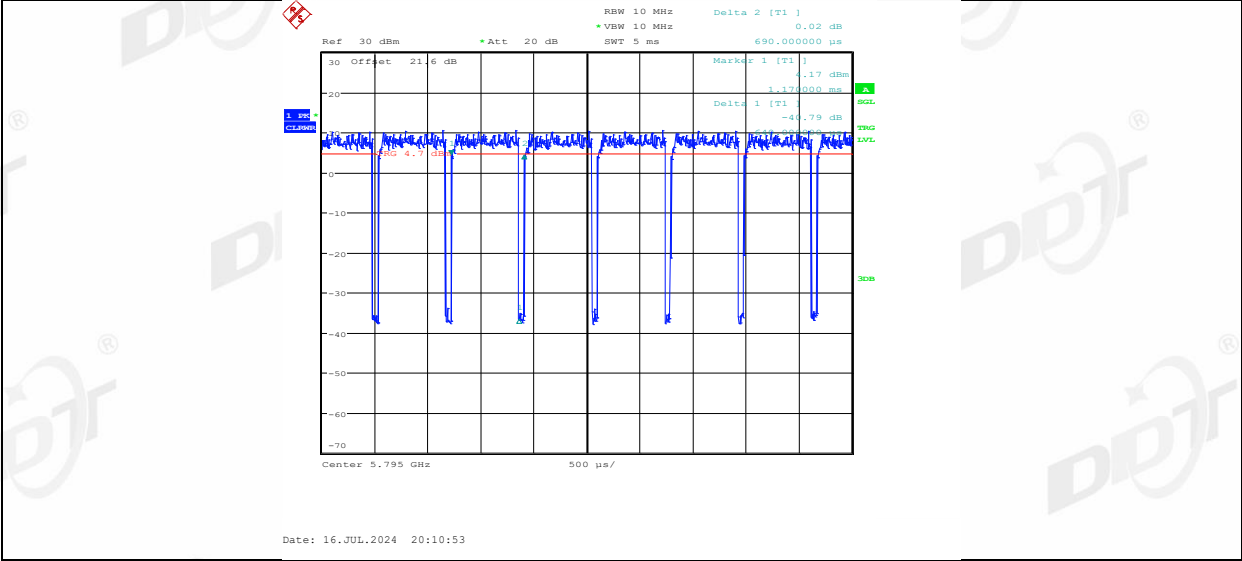
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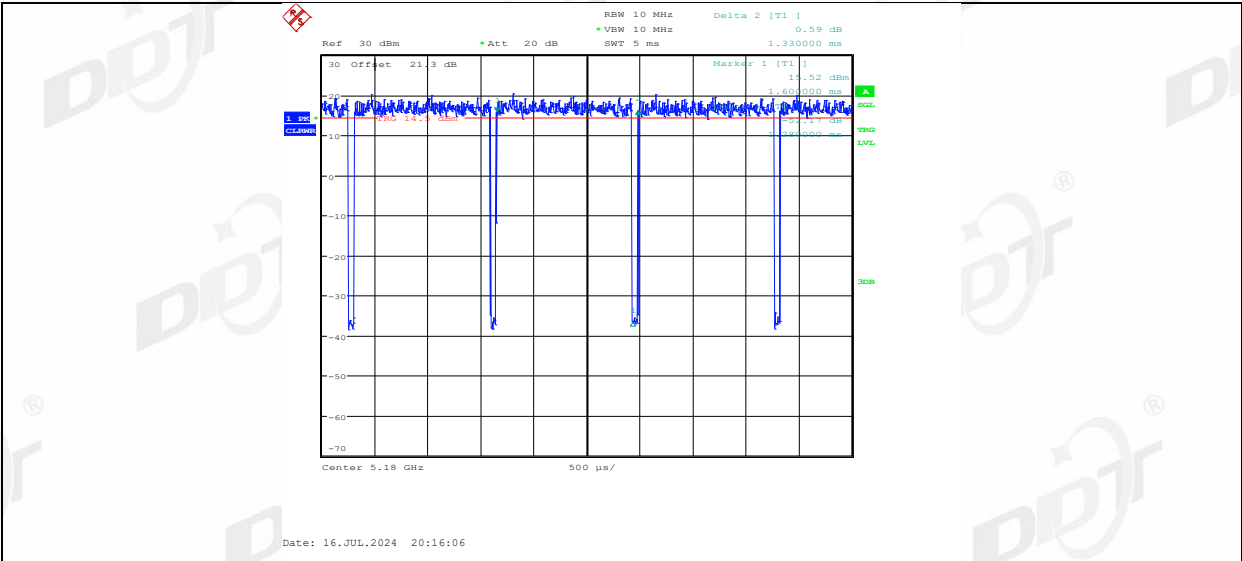
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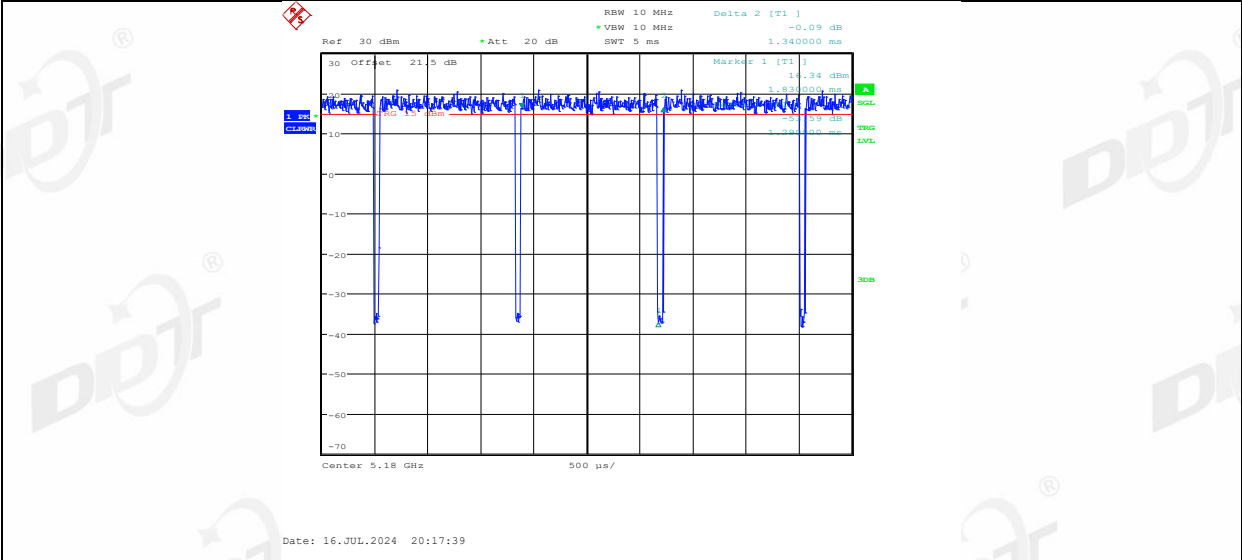
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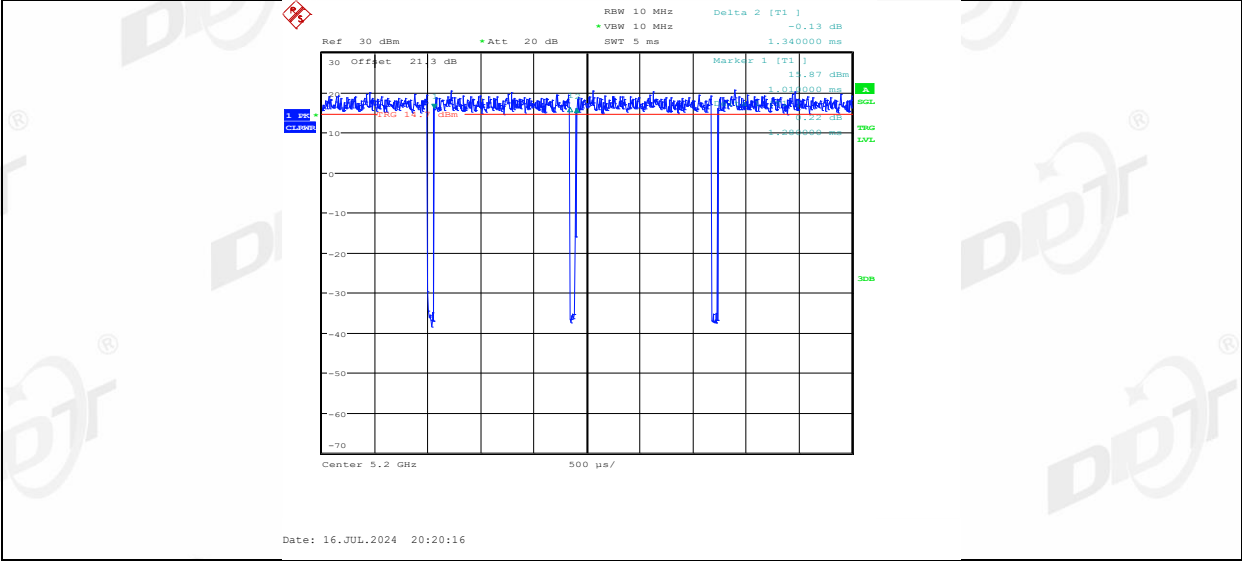
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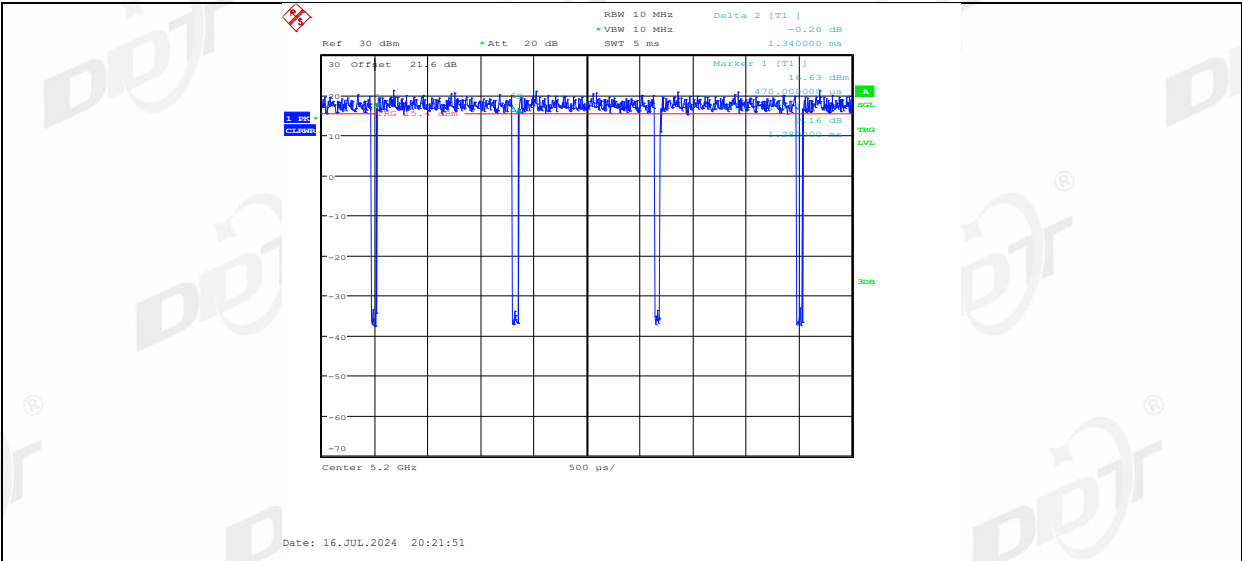
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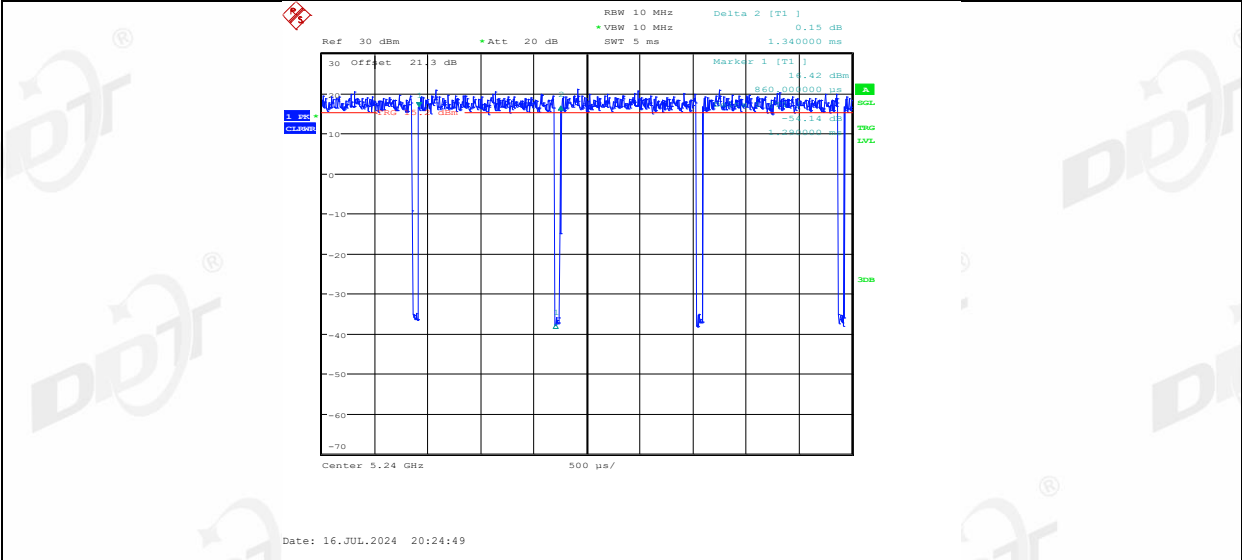
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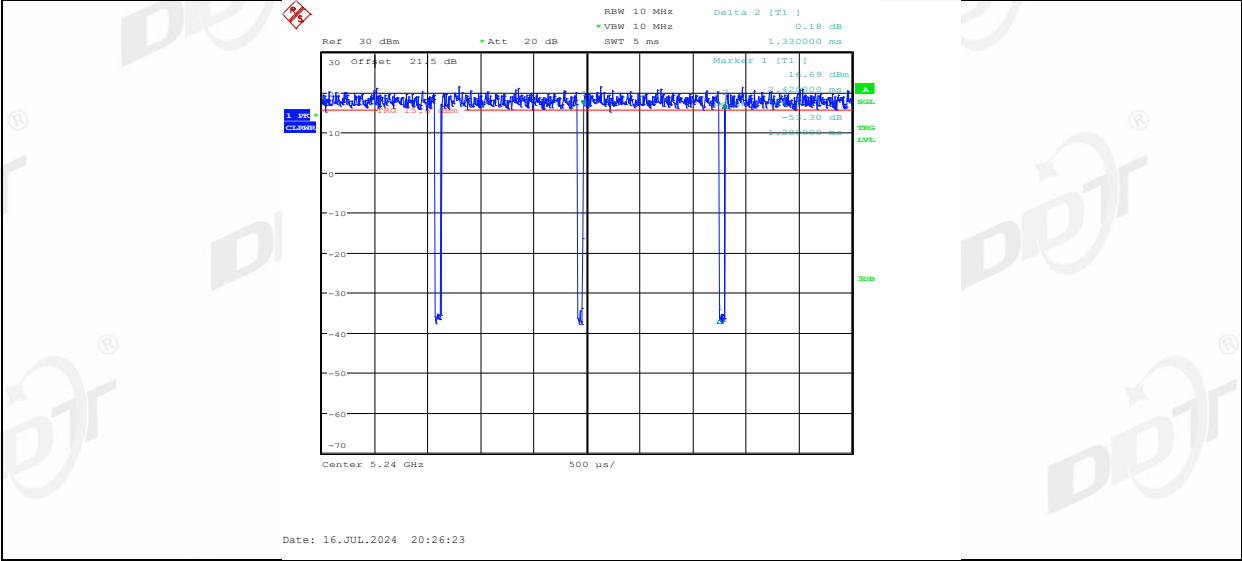
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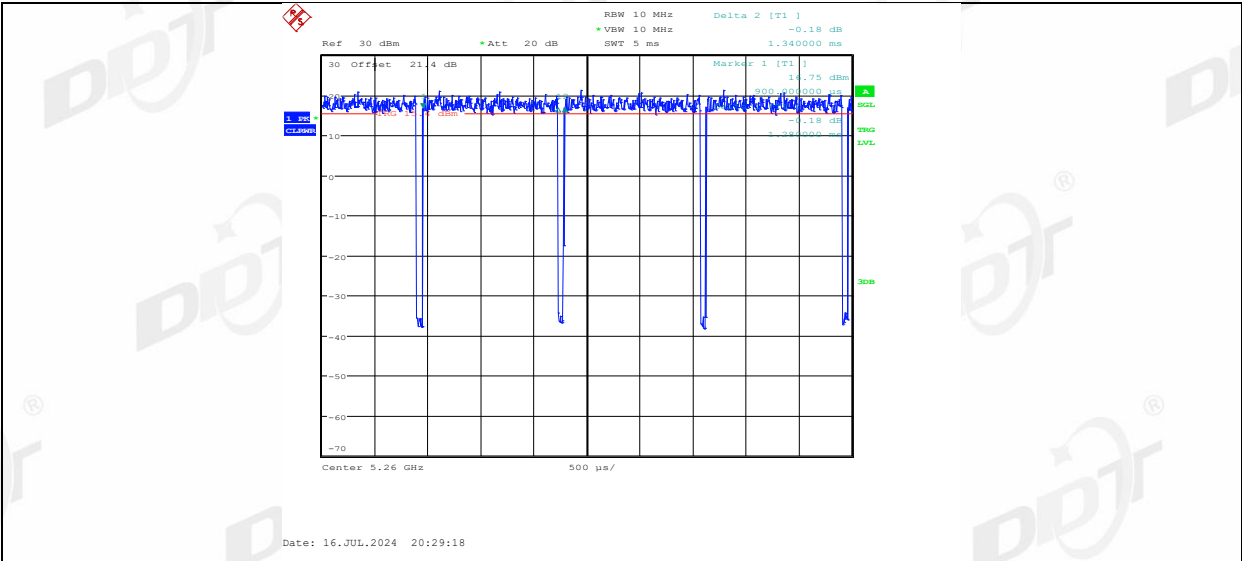
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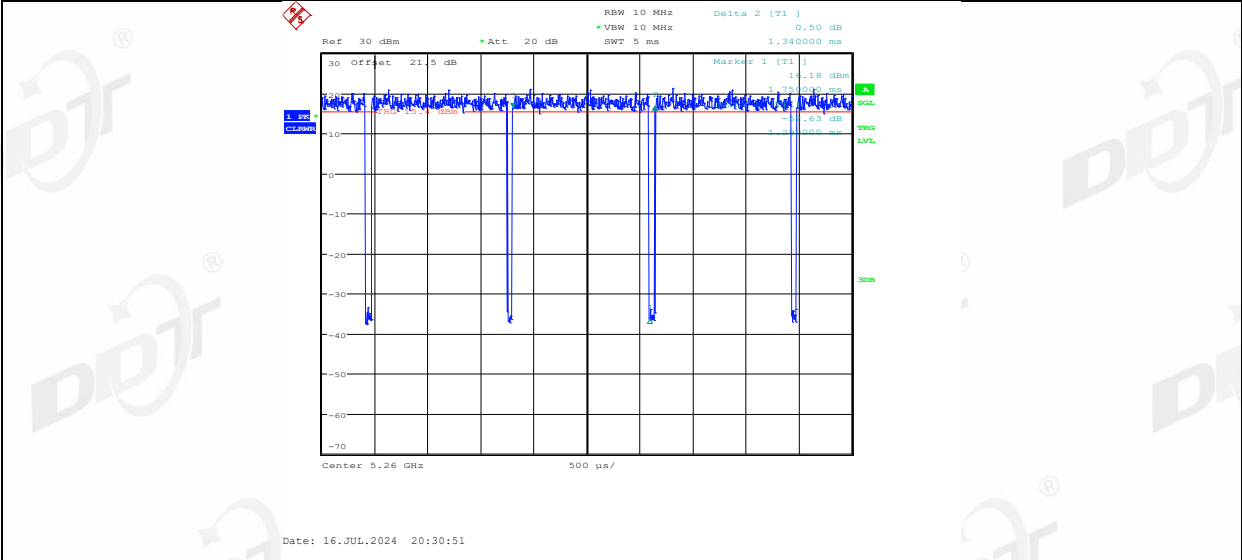
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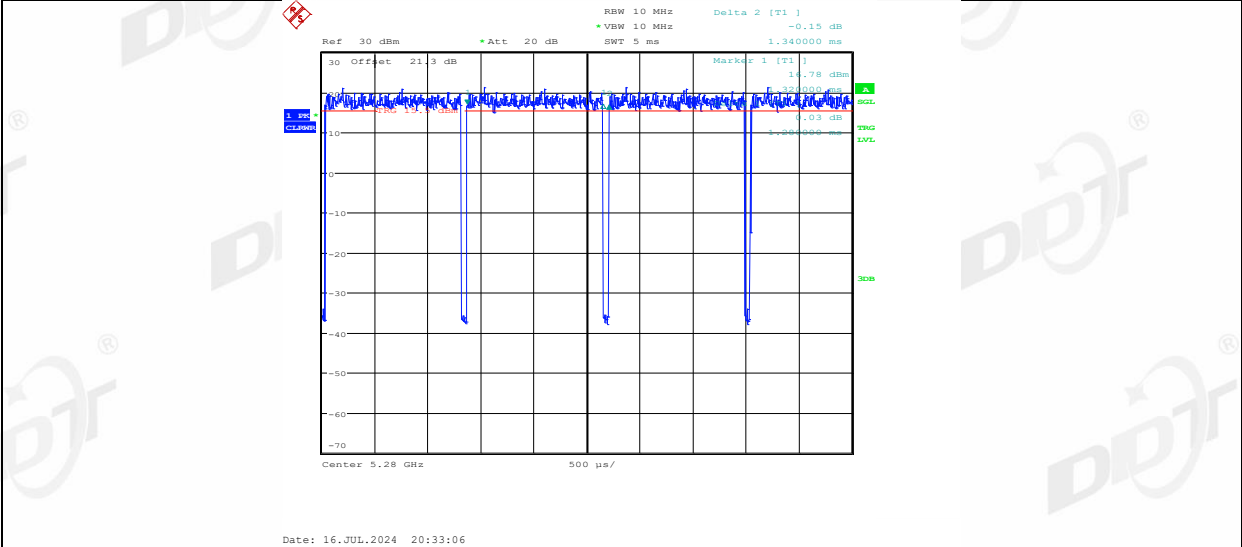
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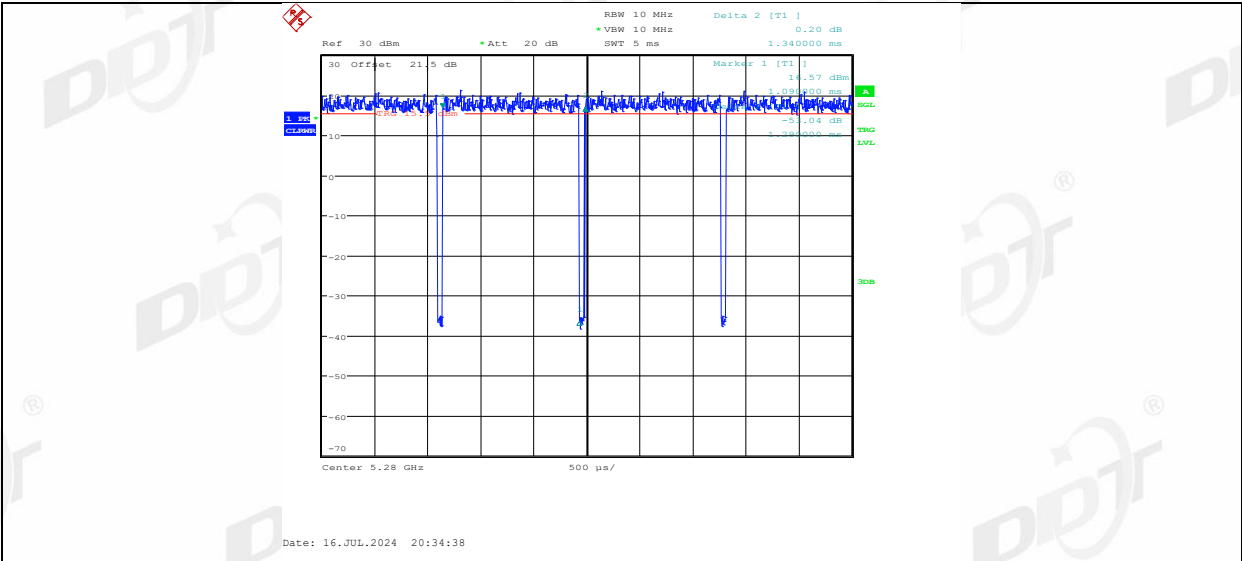
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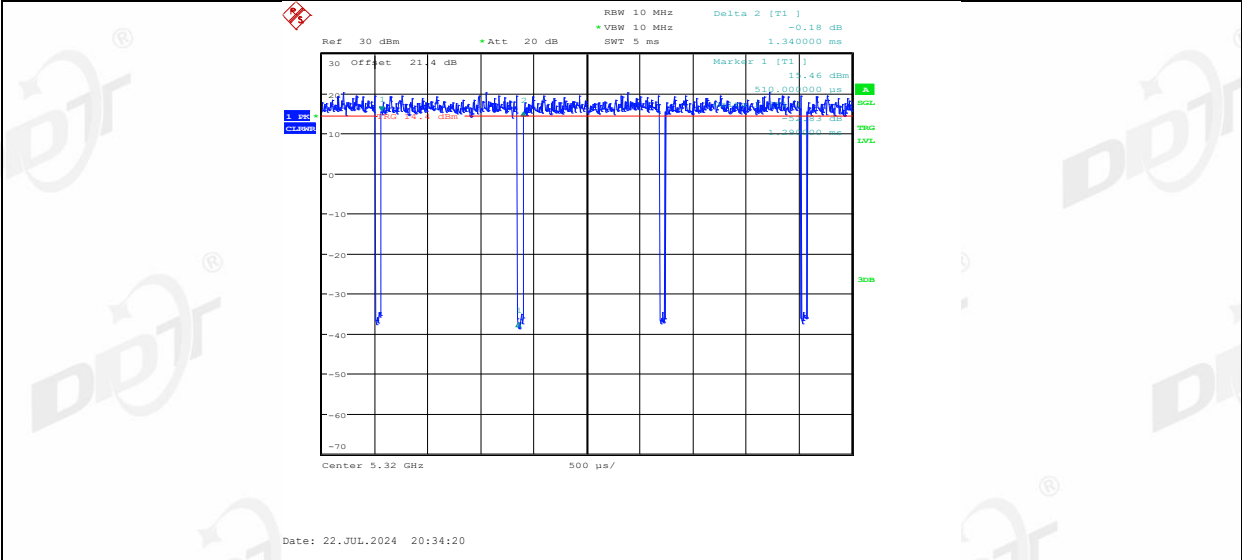
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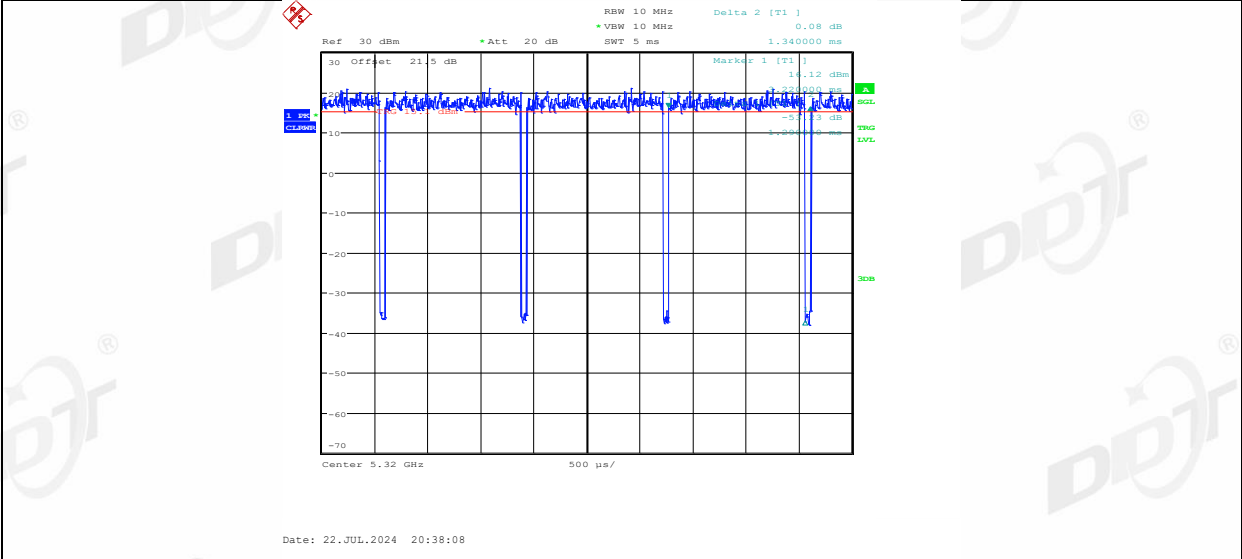
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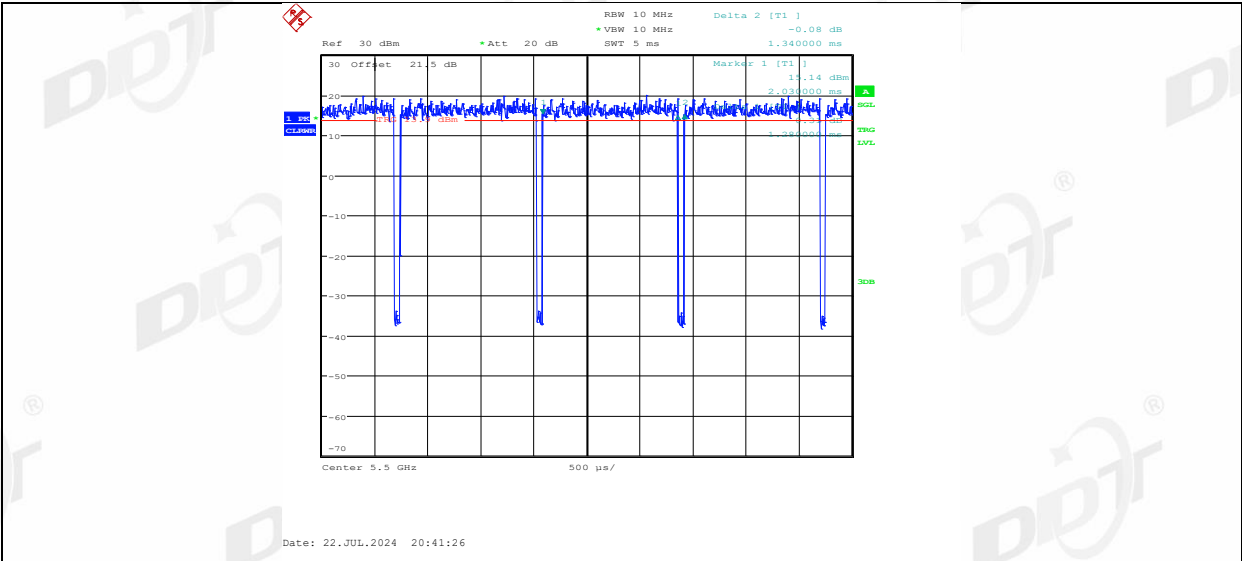
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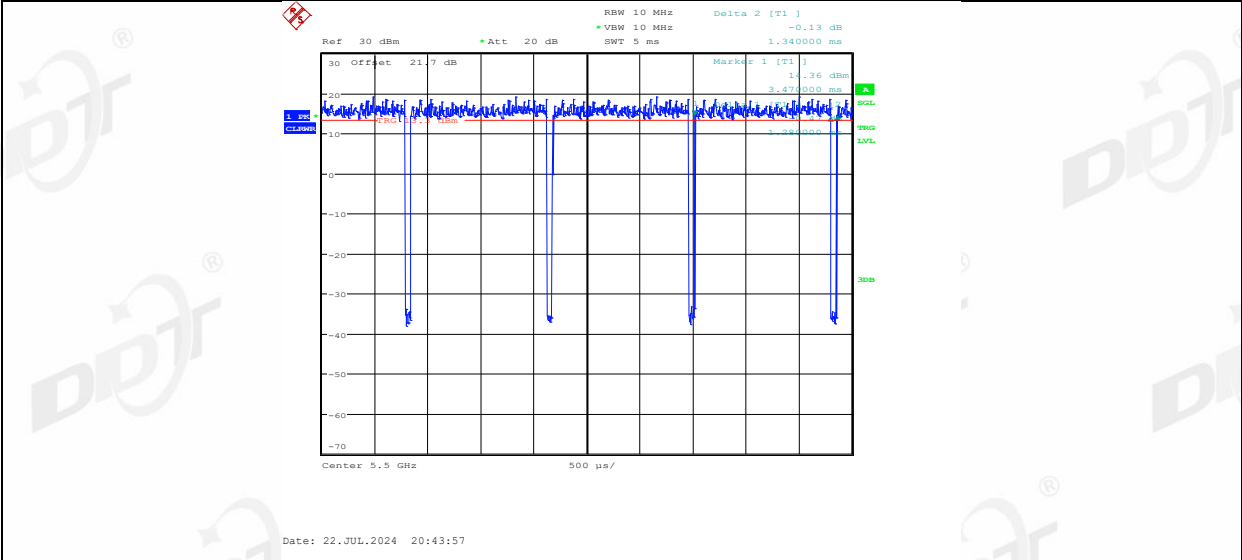
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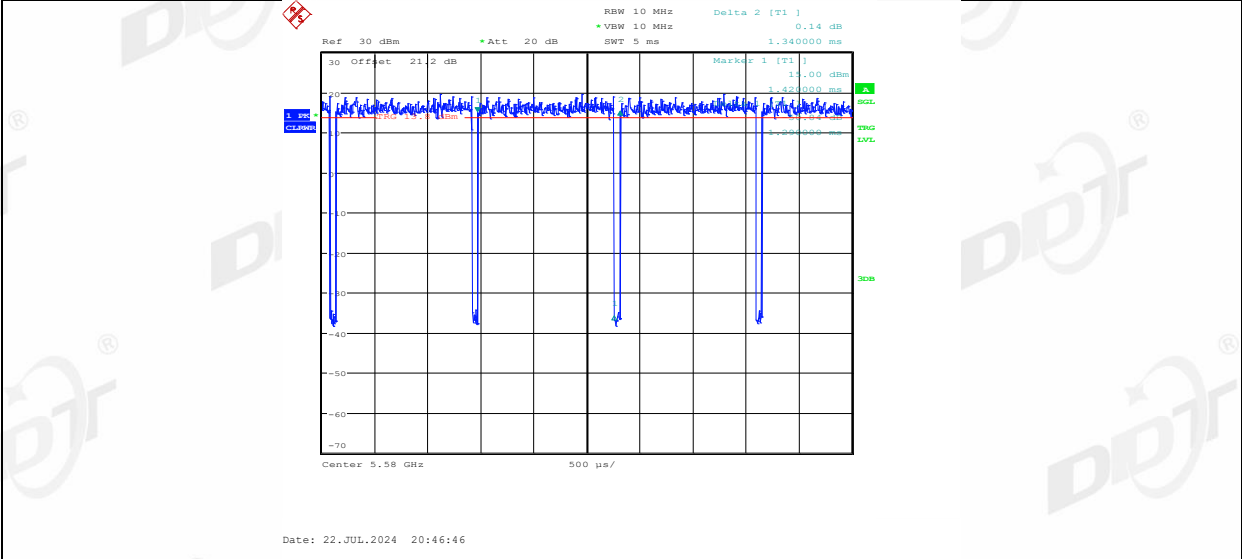
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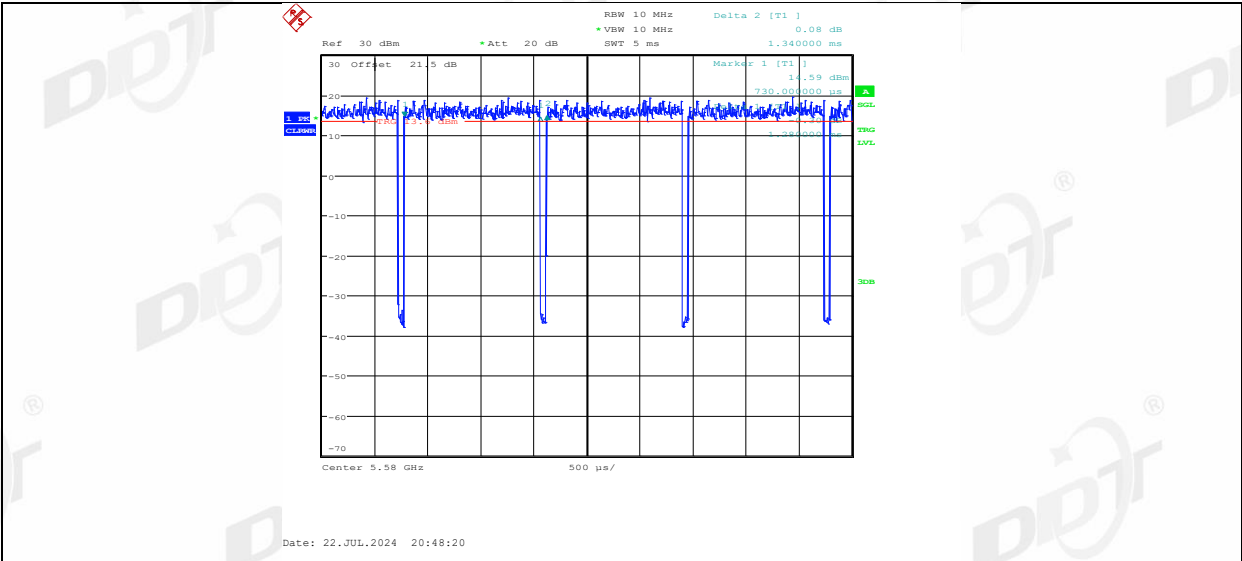
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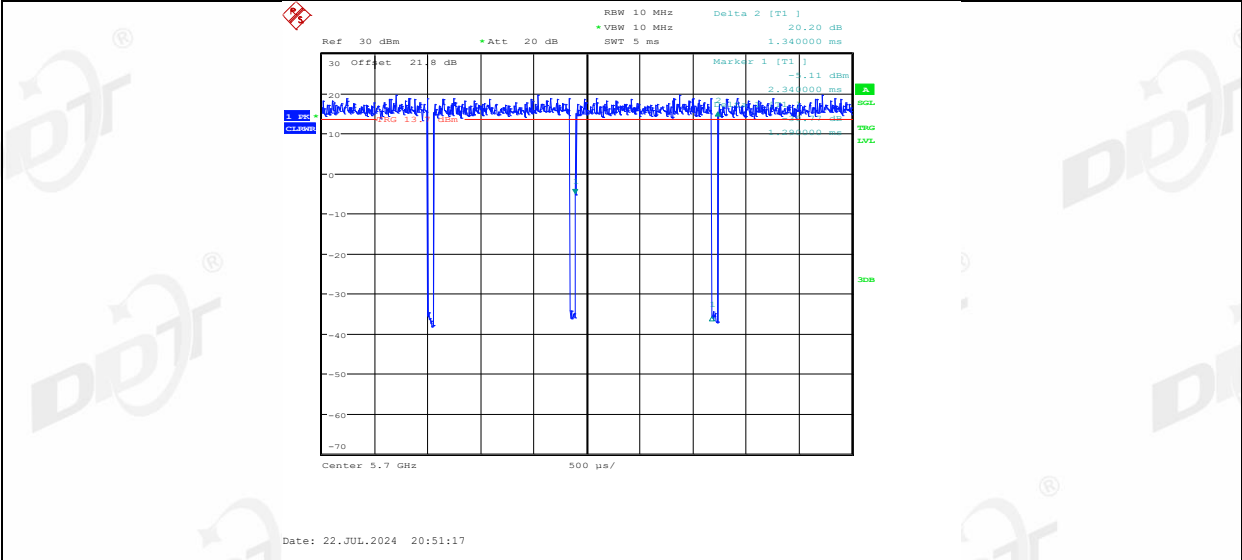
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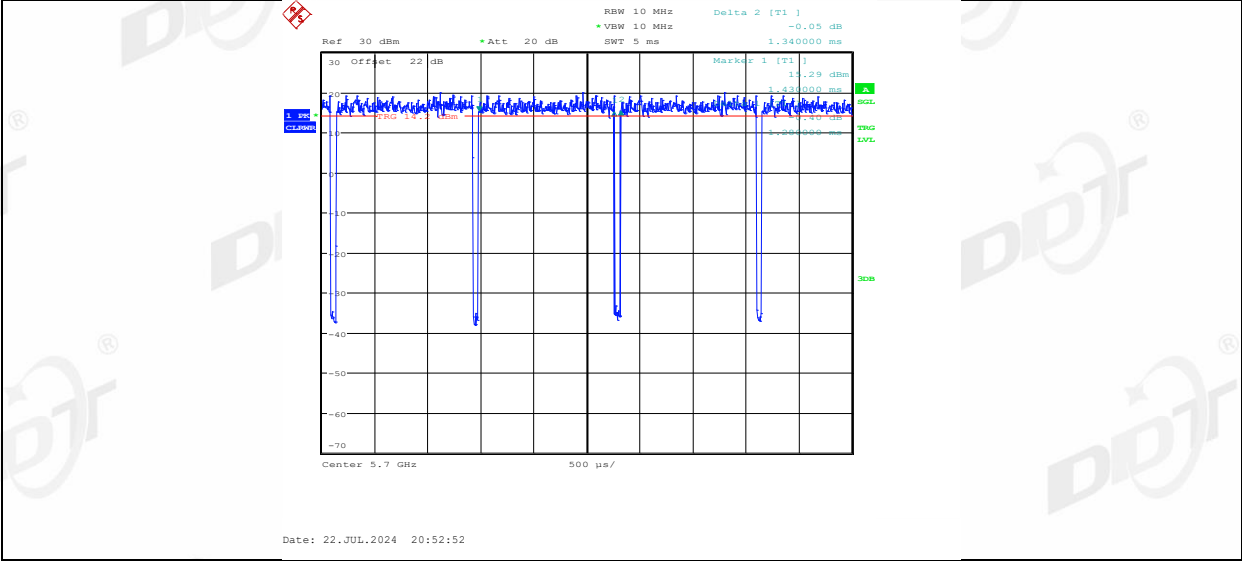
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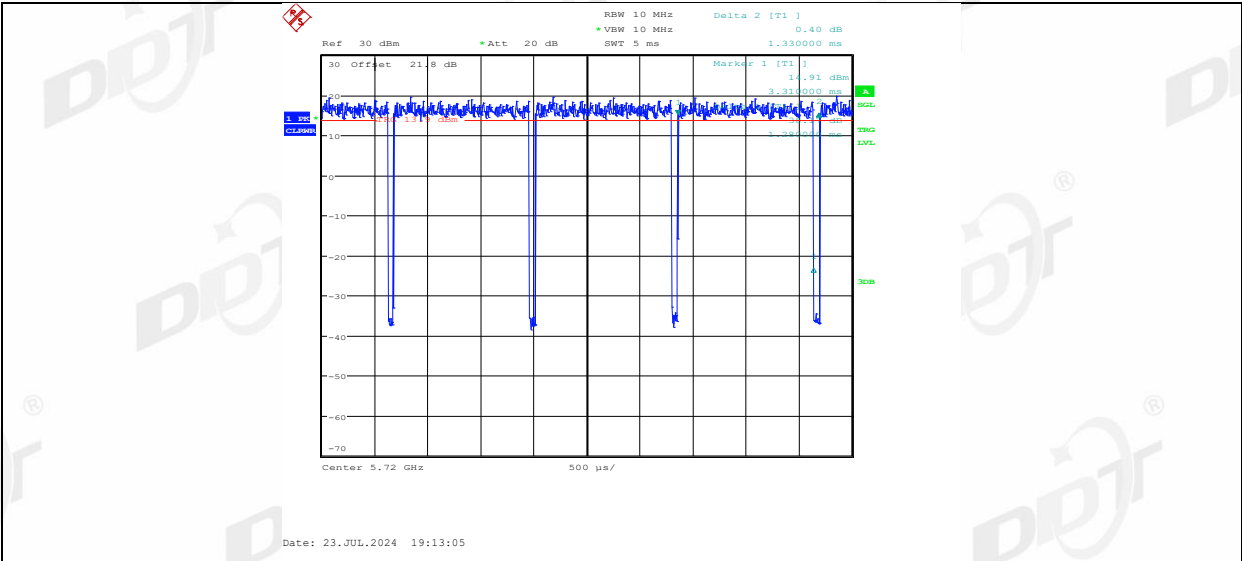
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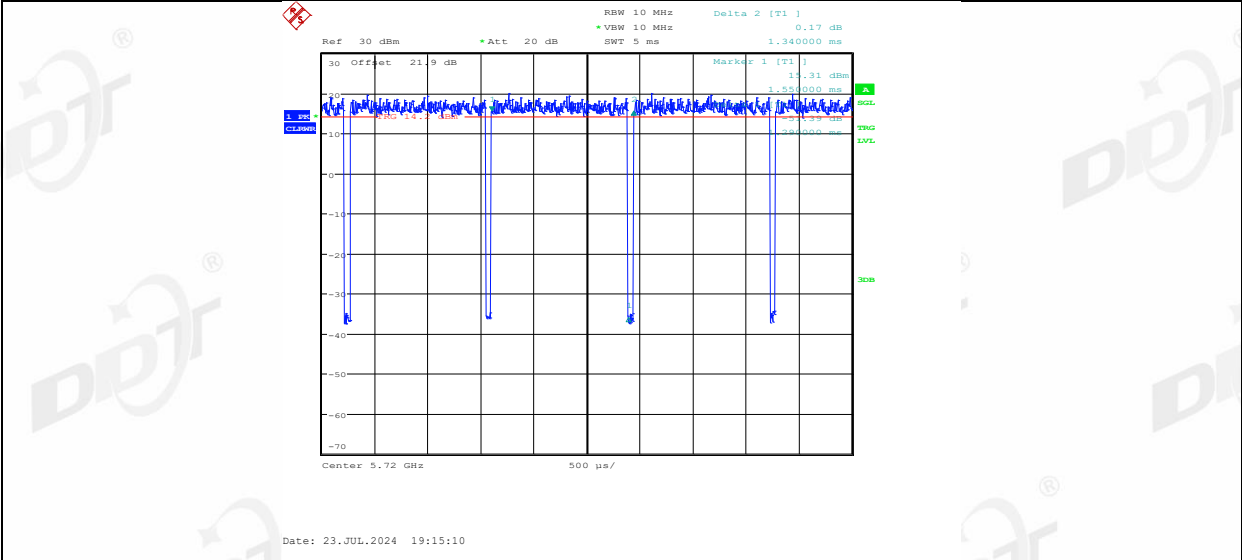
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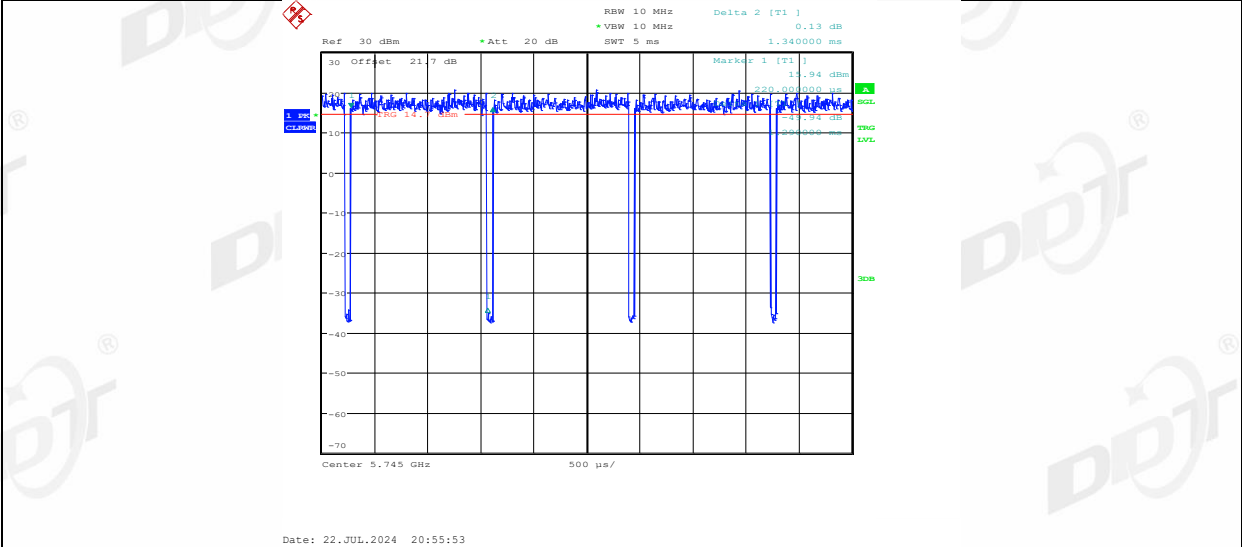
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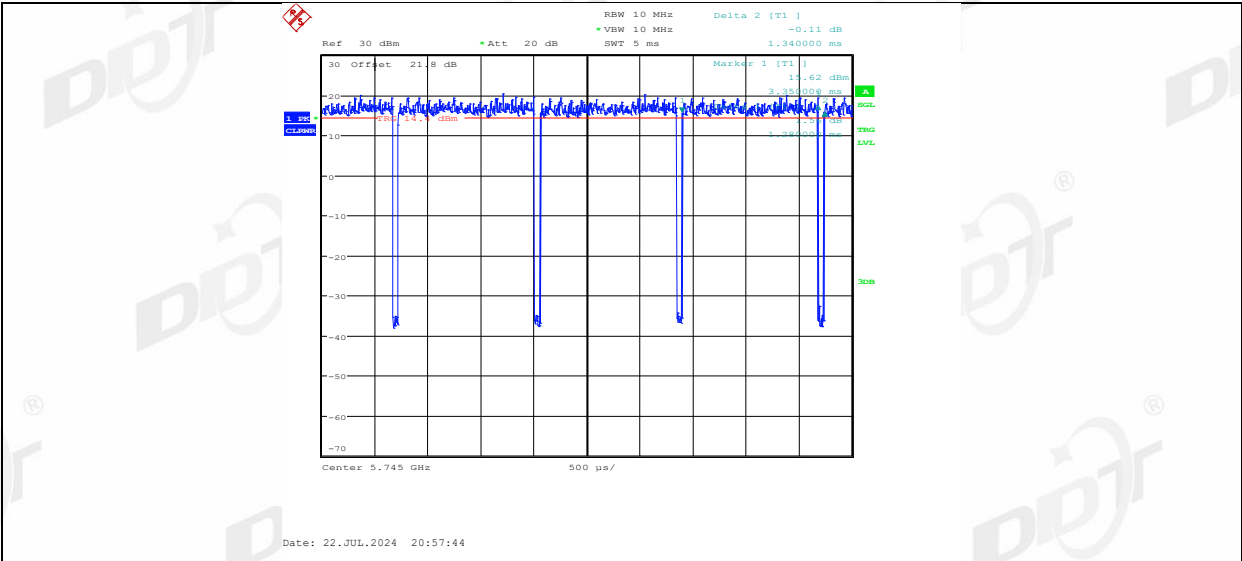
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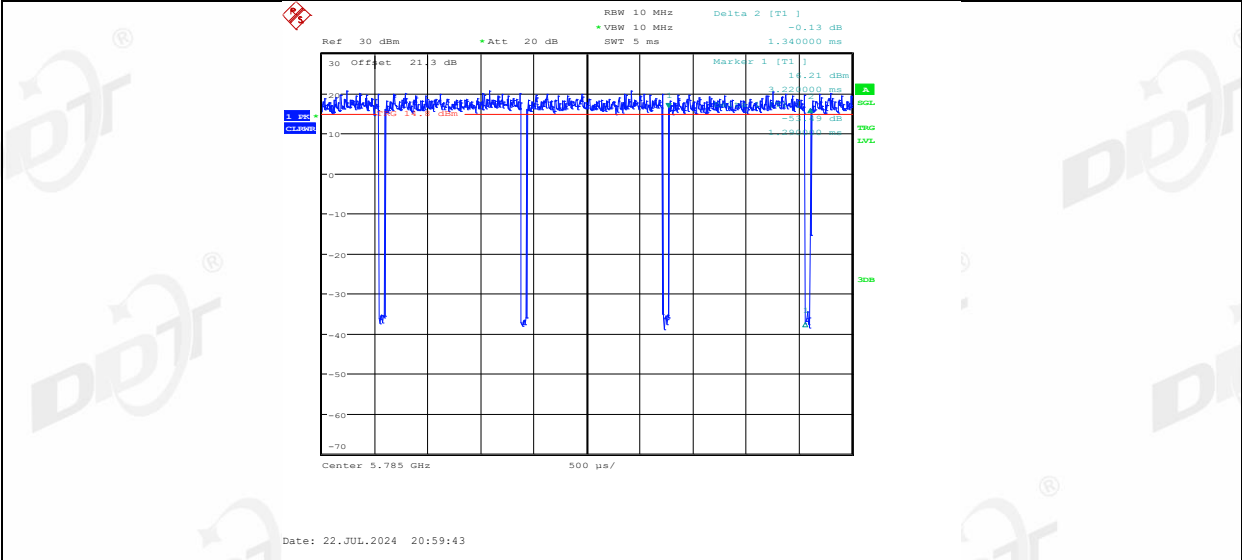
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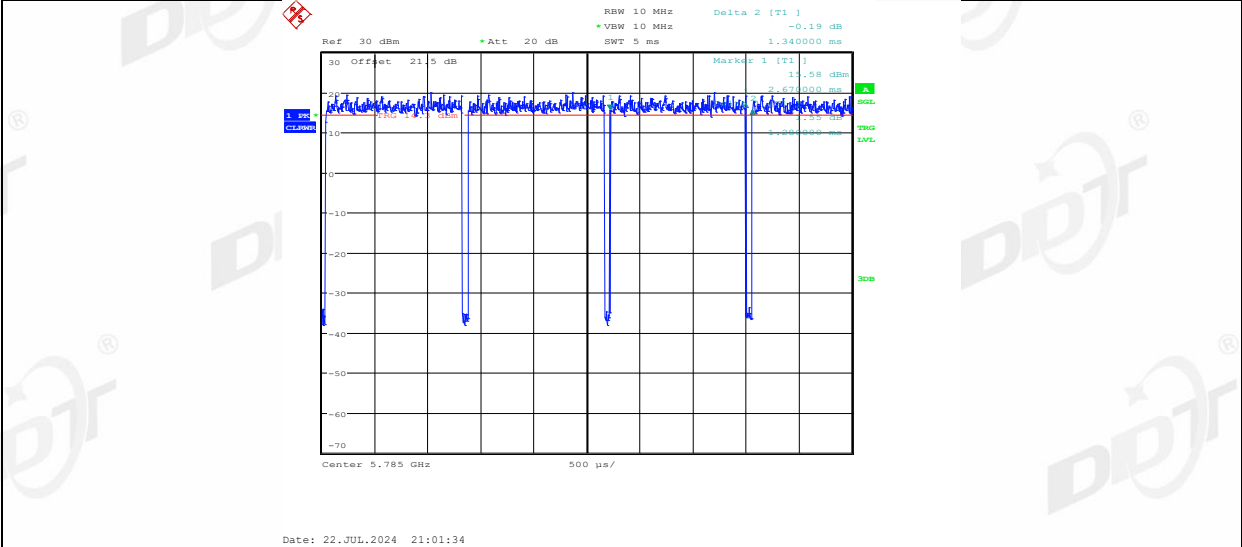
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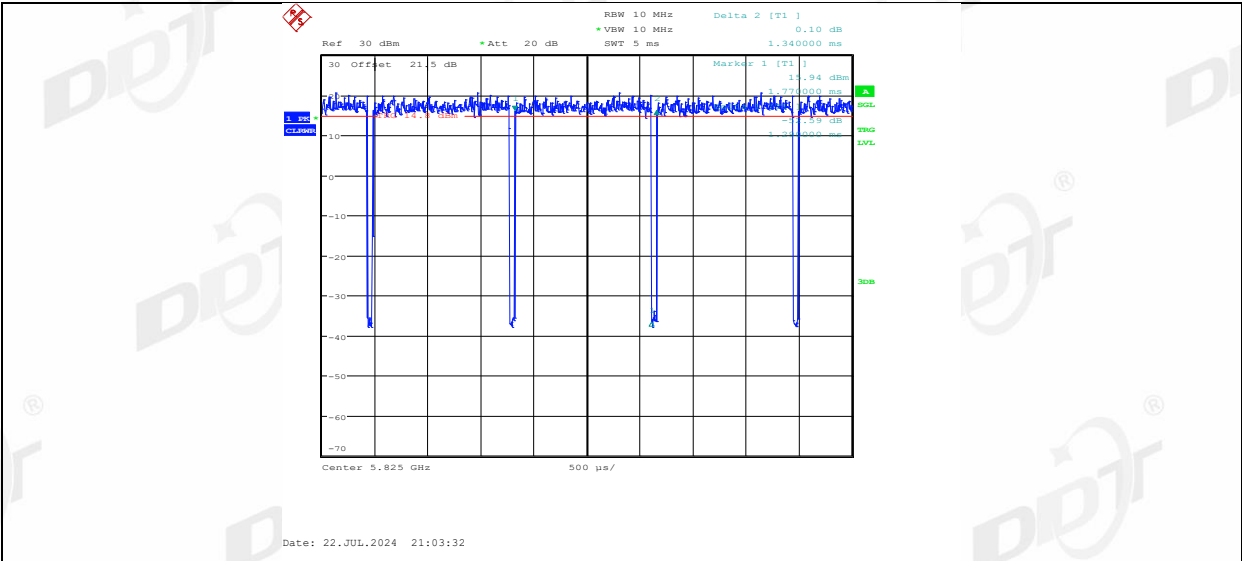
11AC20MIMO_Ant1_5785



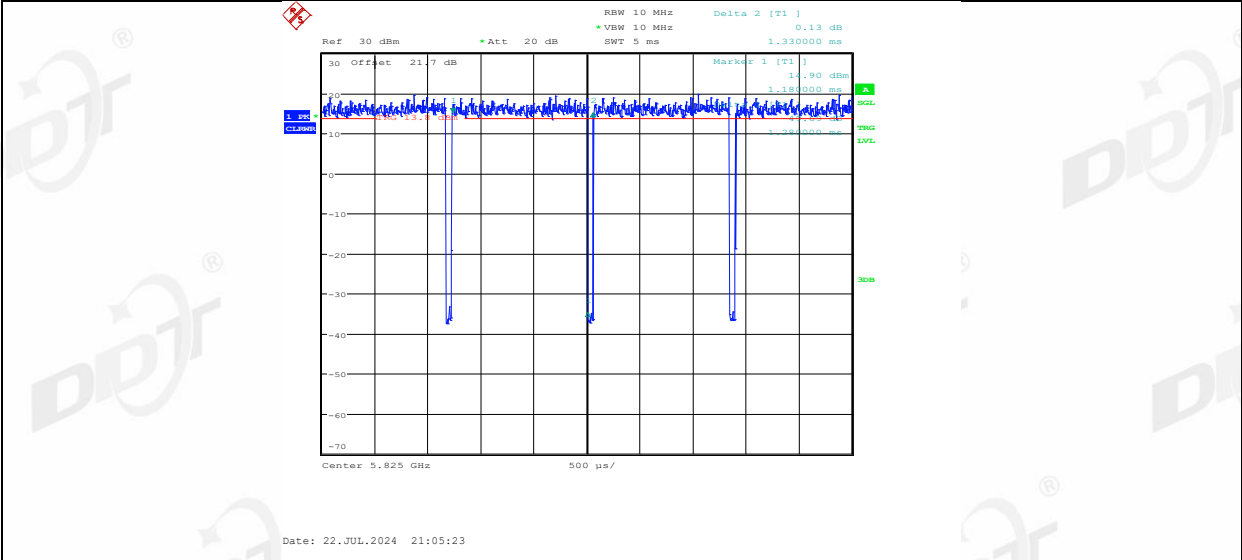
11AC20MIMO_Ant2_5785



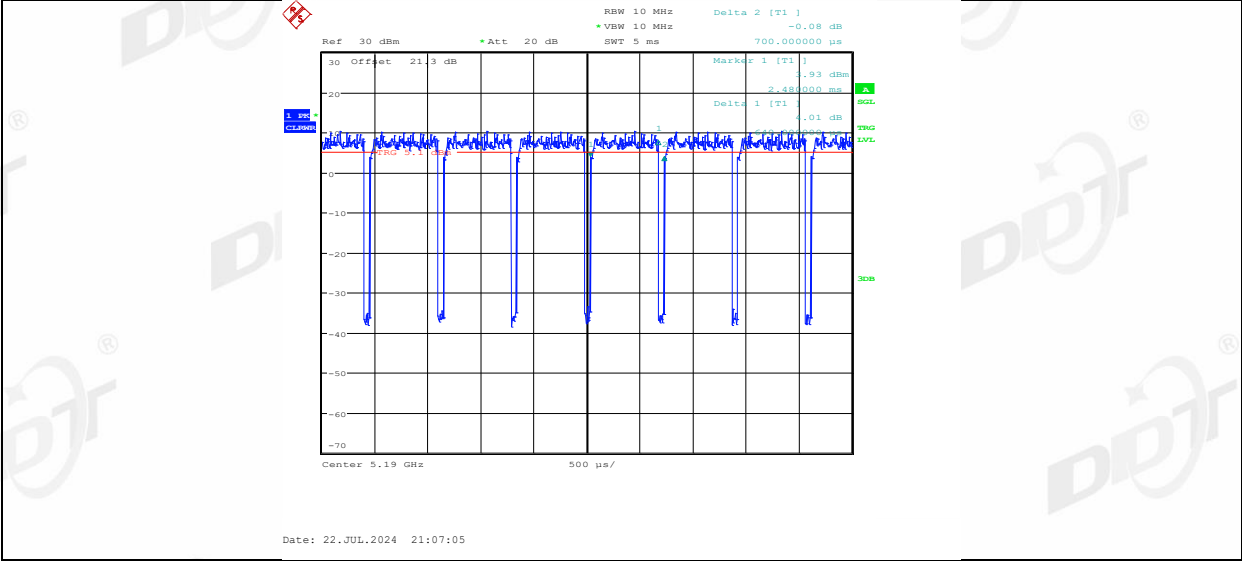
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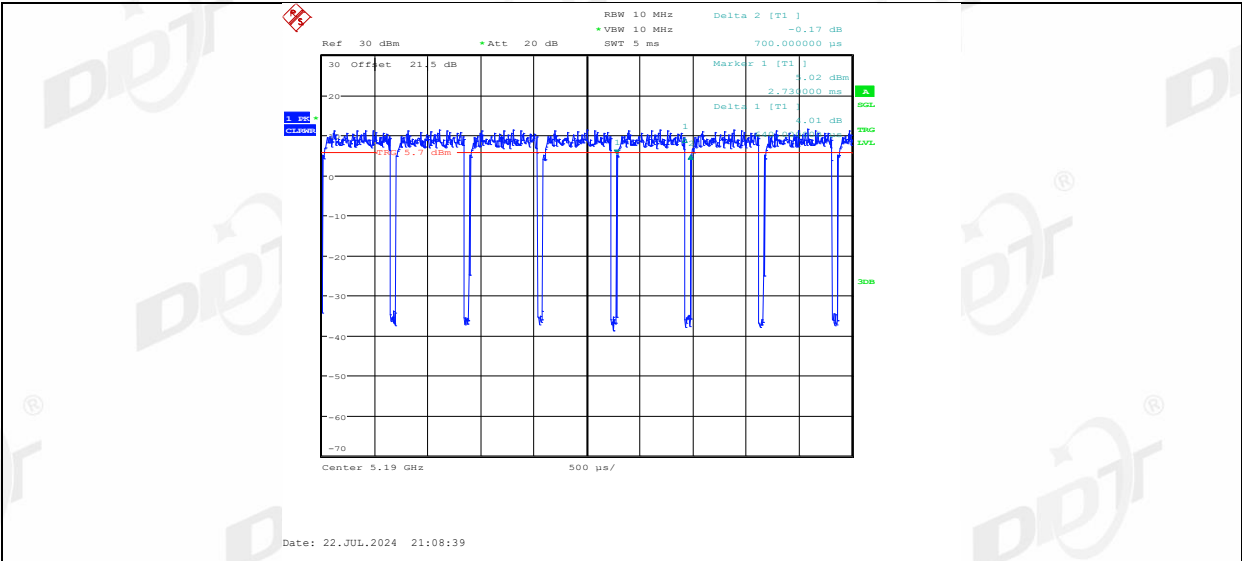
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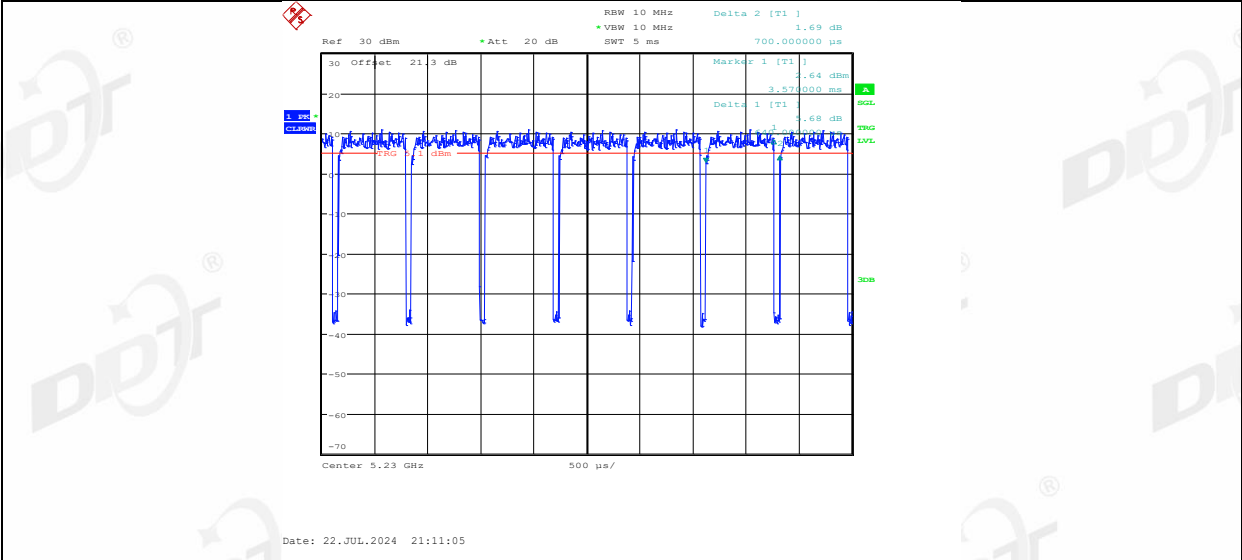
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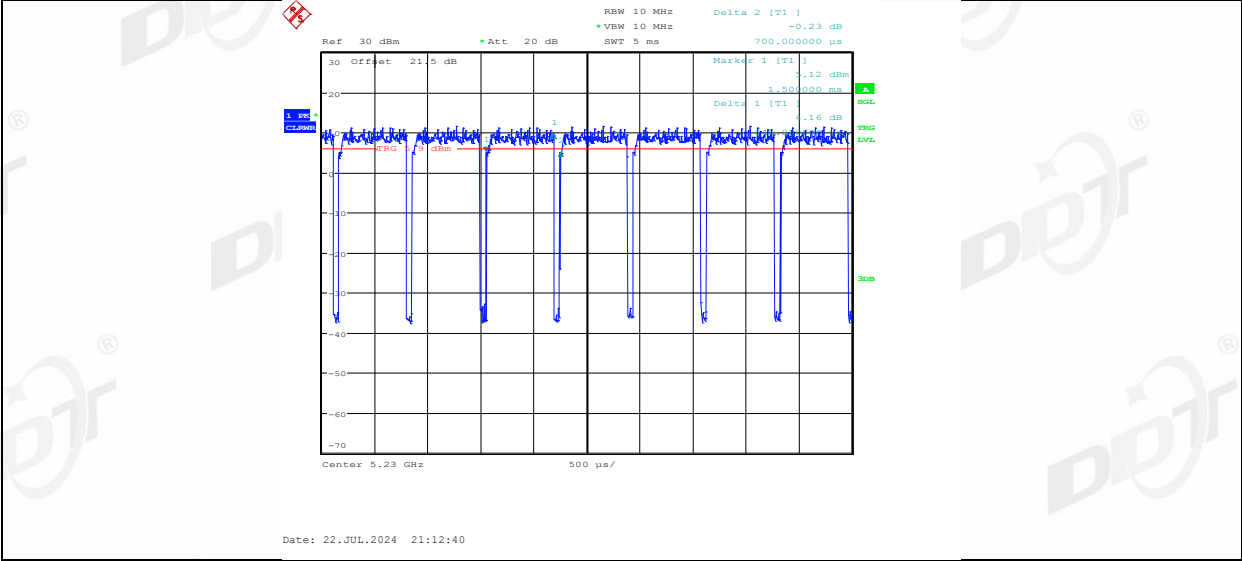
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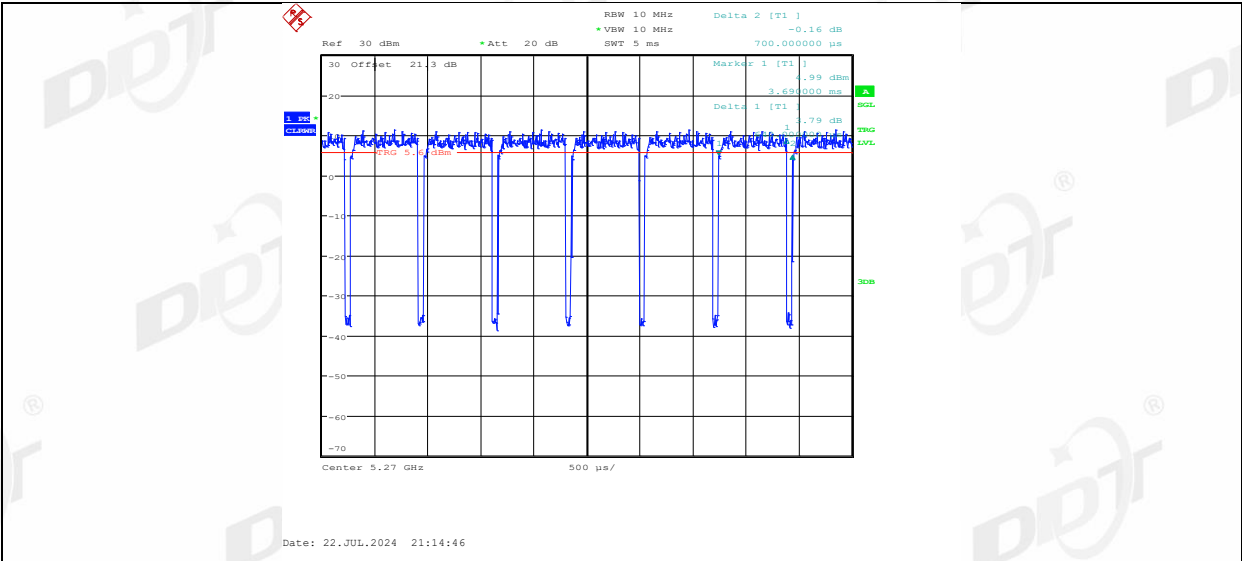
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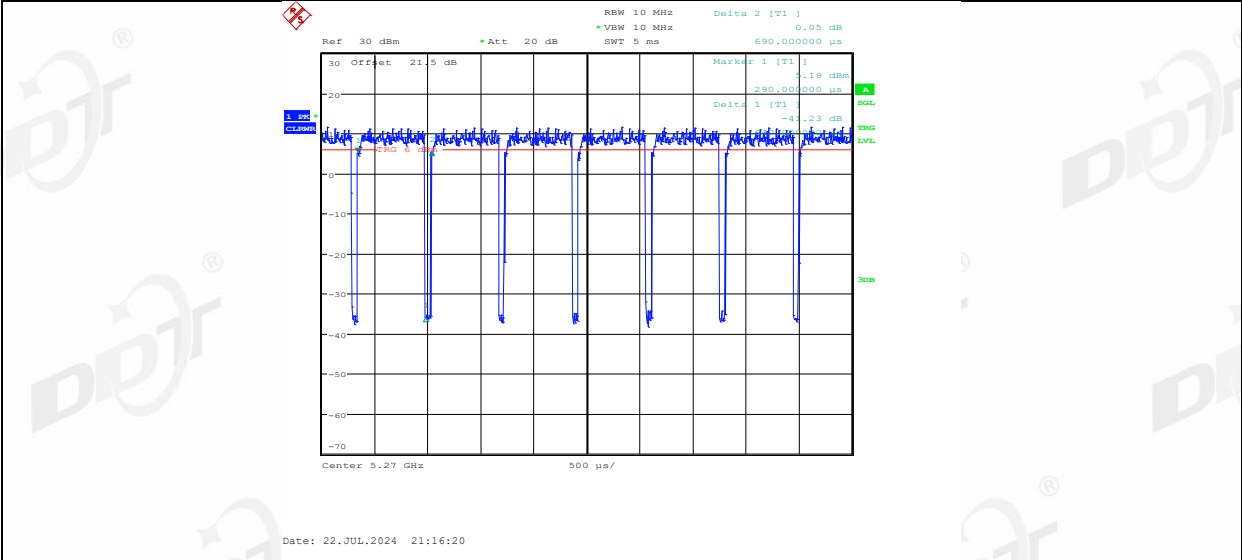
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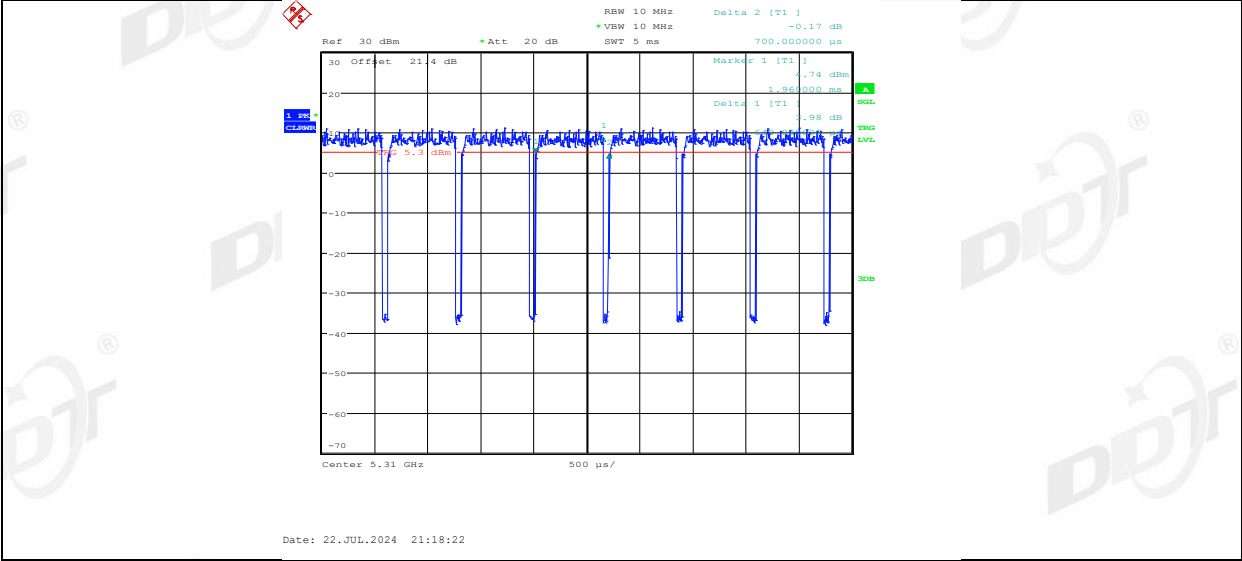
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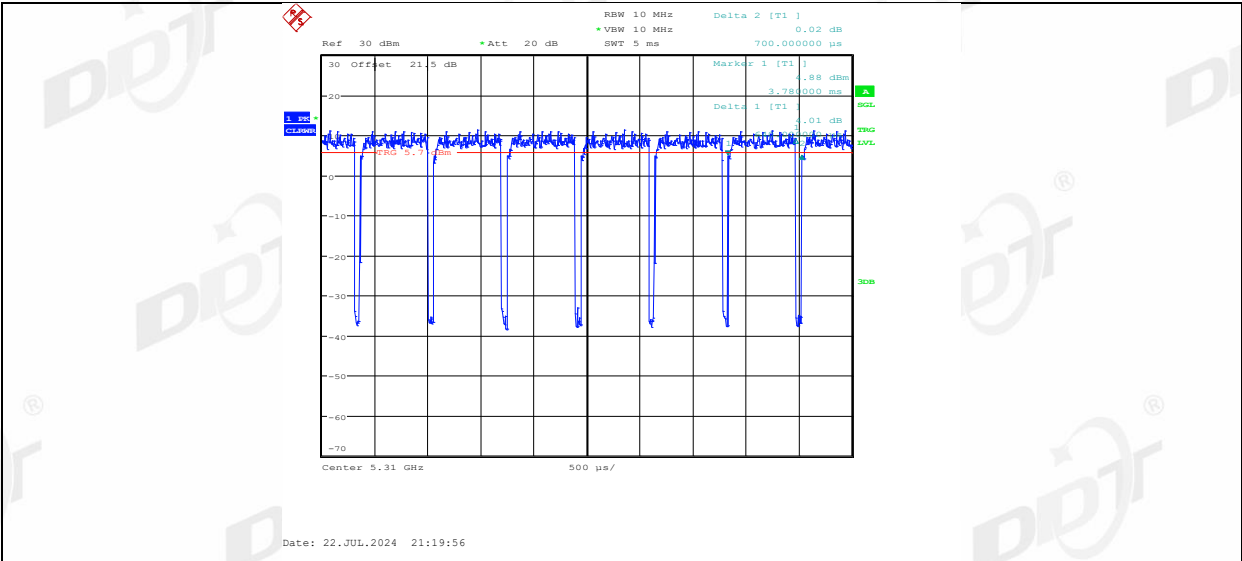
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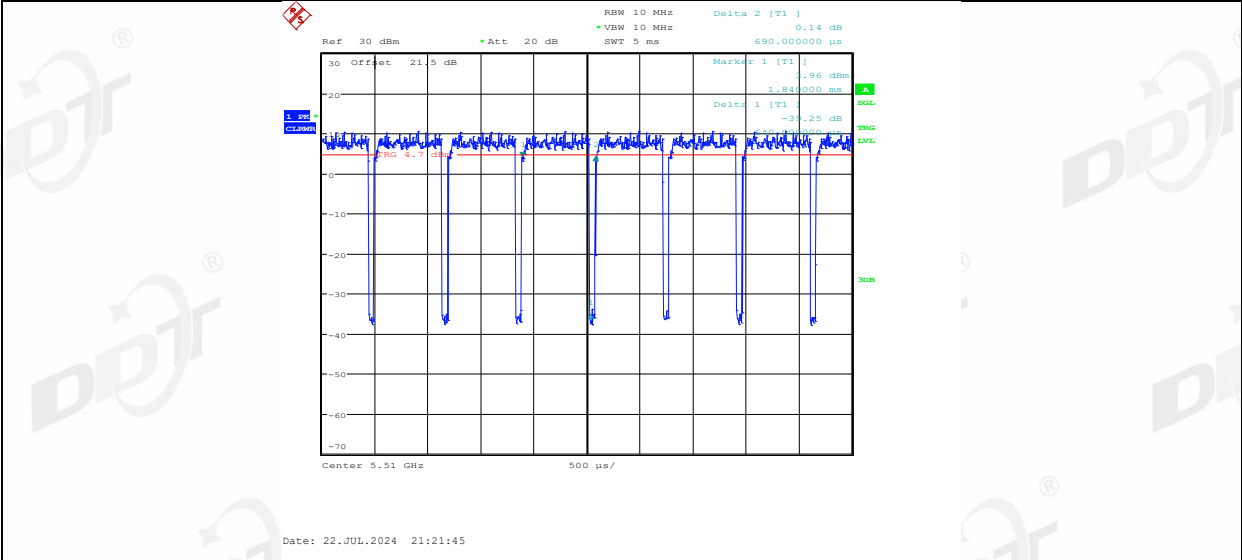
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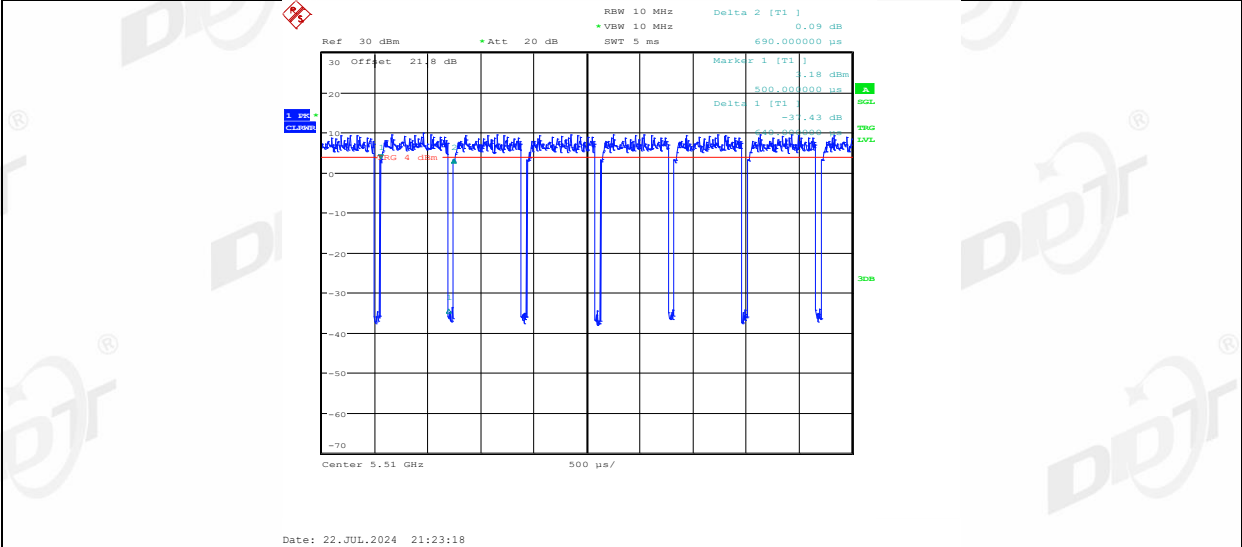
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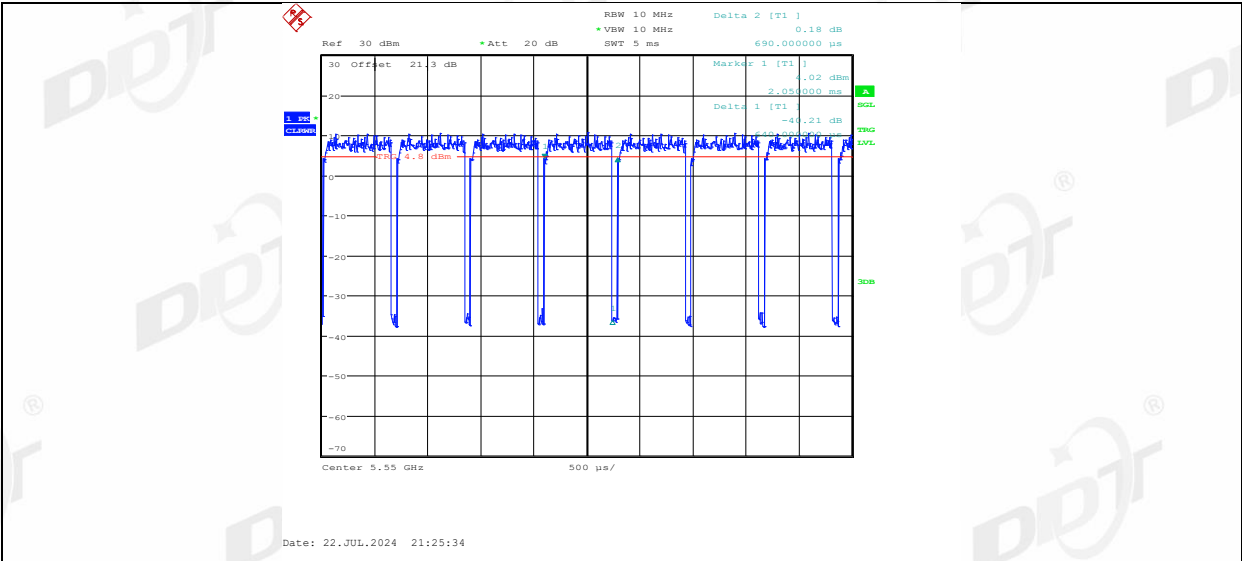
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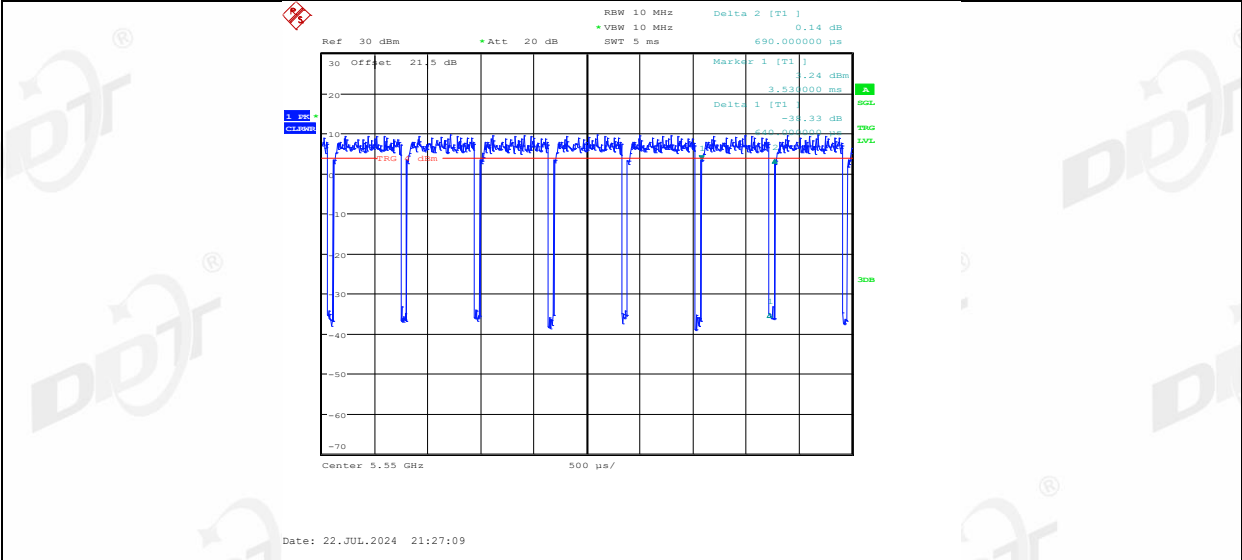
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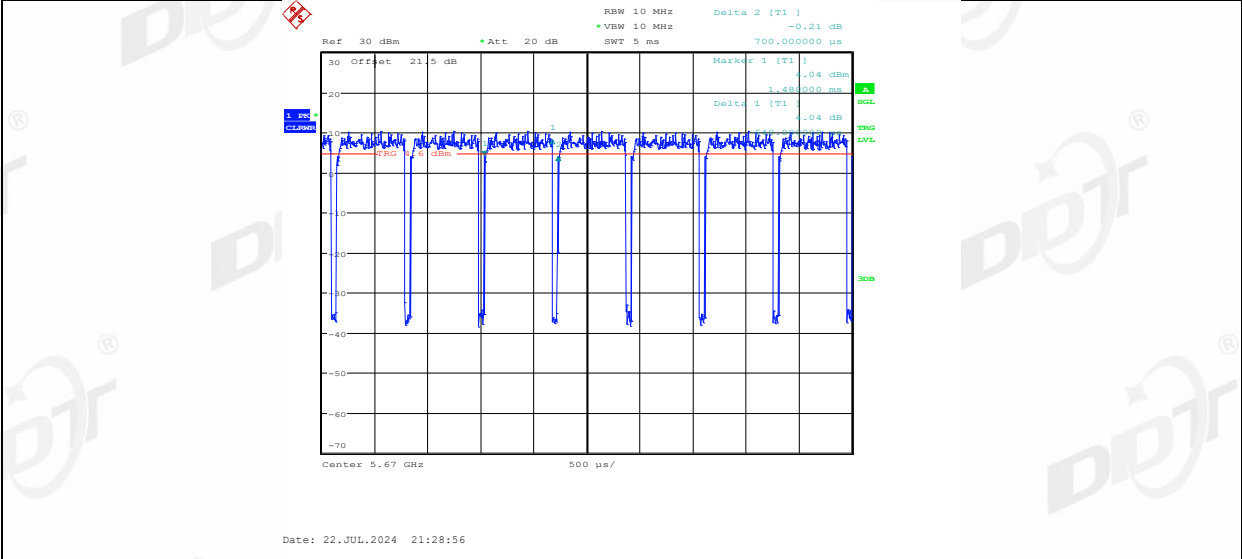
11AC40MIMO_Ant1_5550



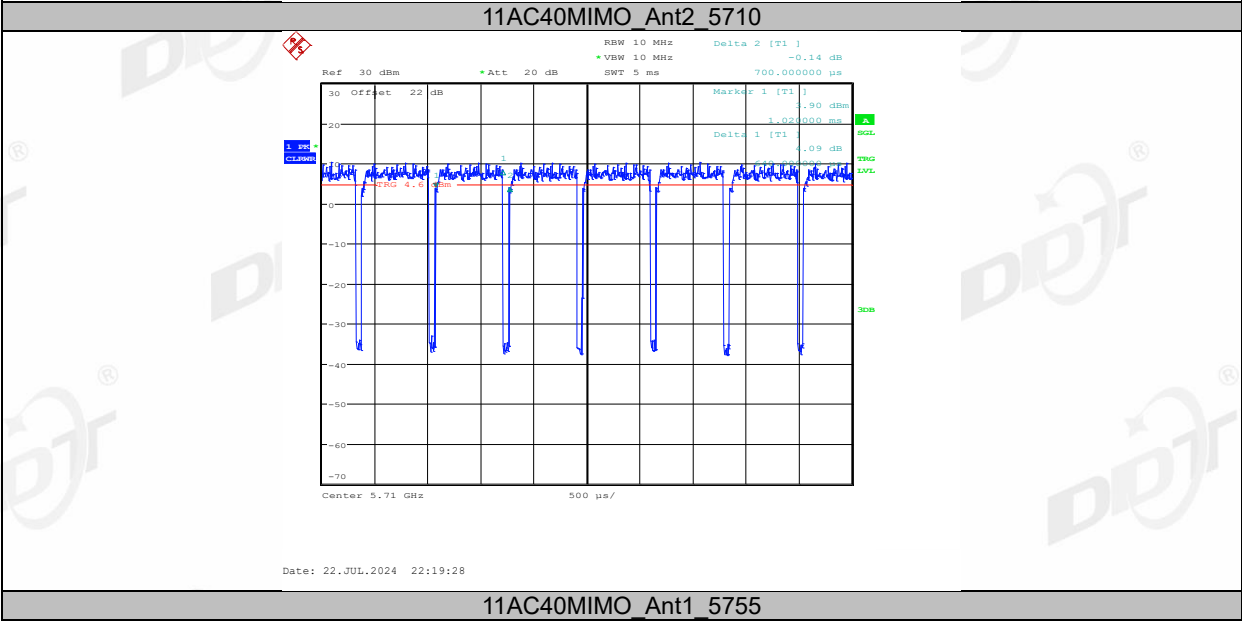
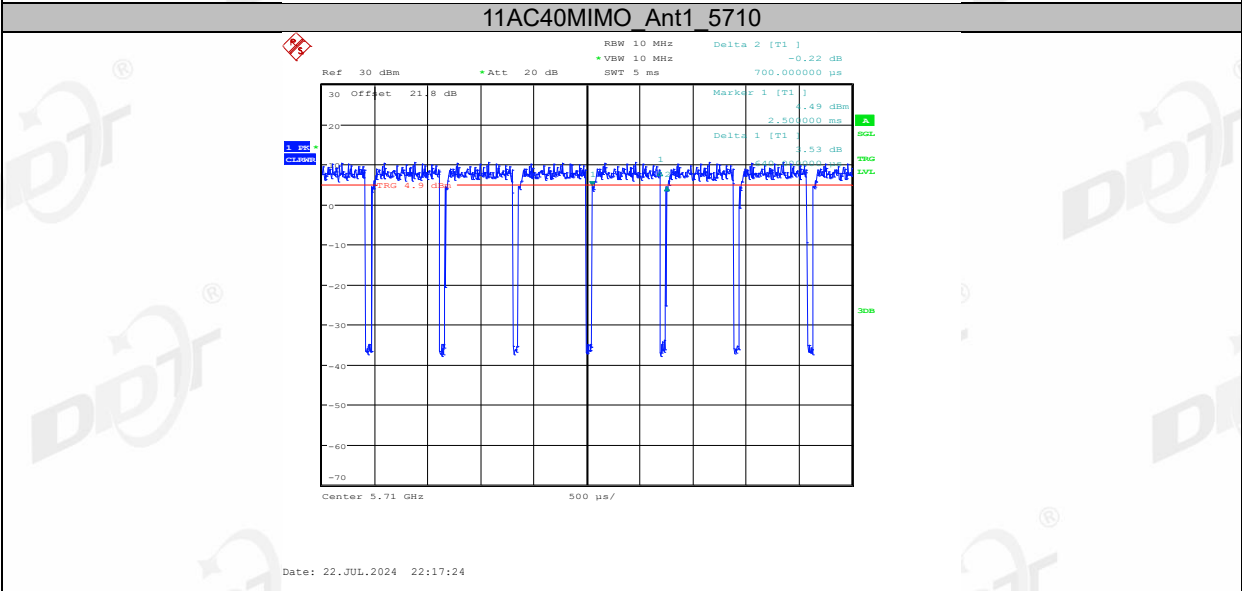
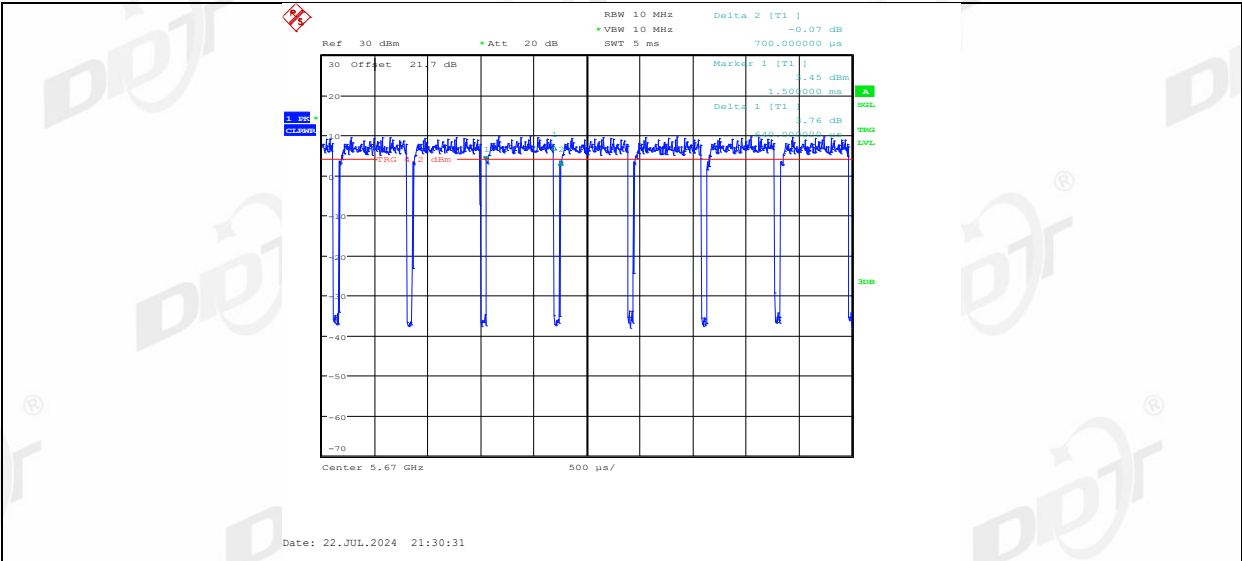
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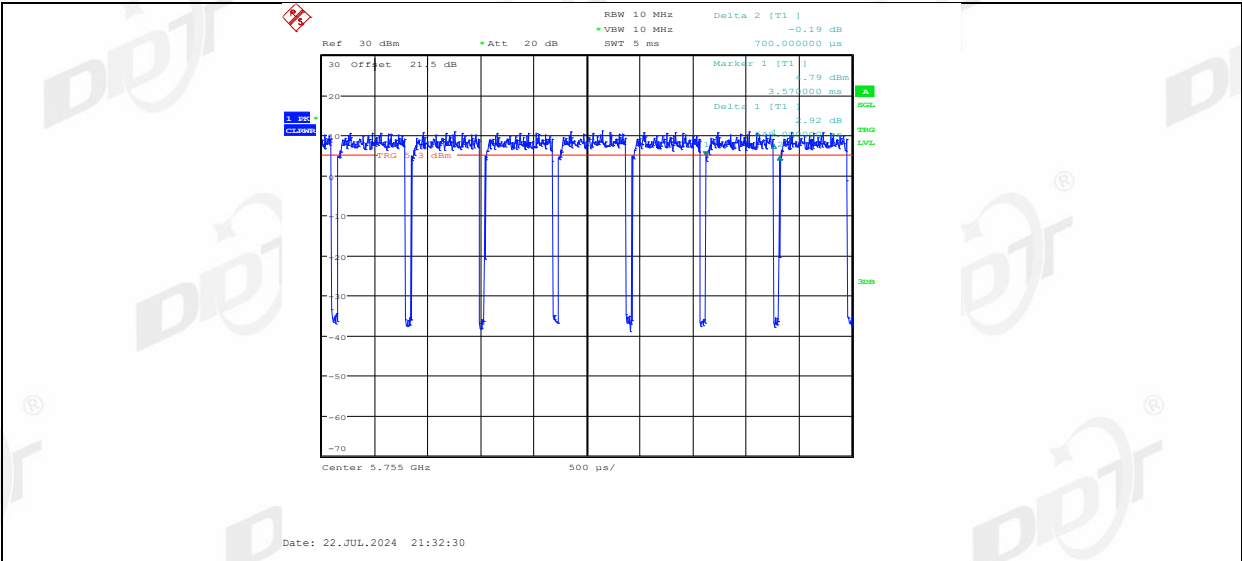


11AC40MIMO_Ant1_5670

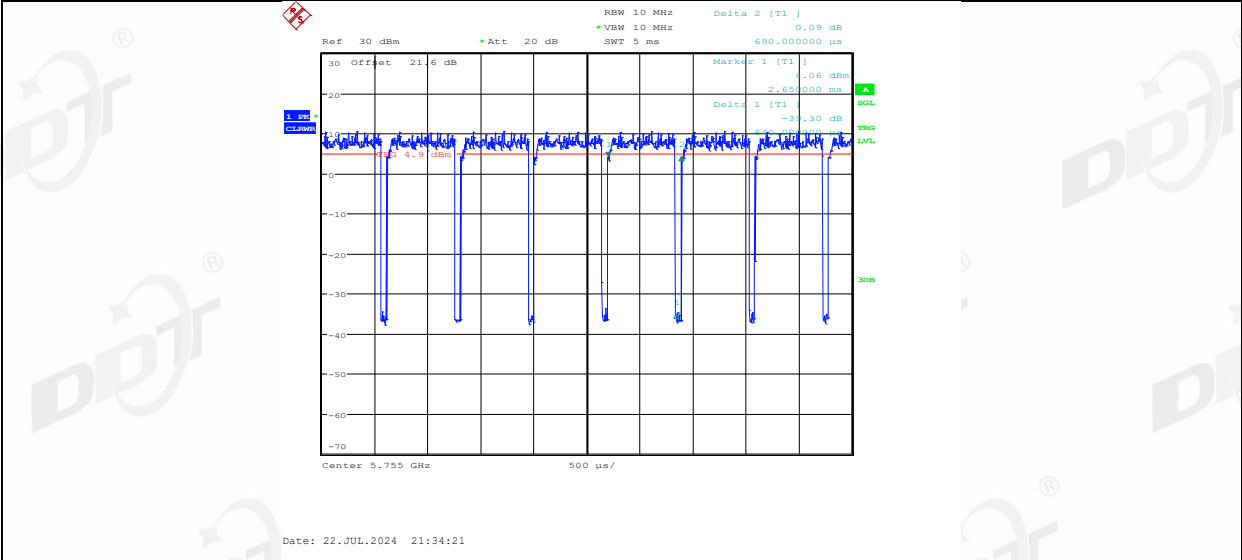


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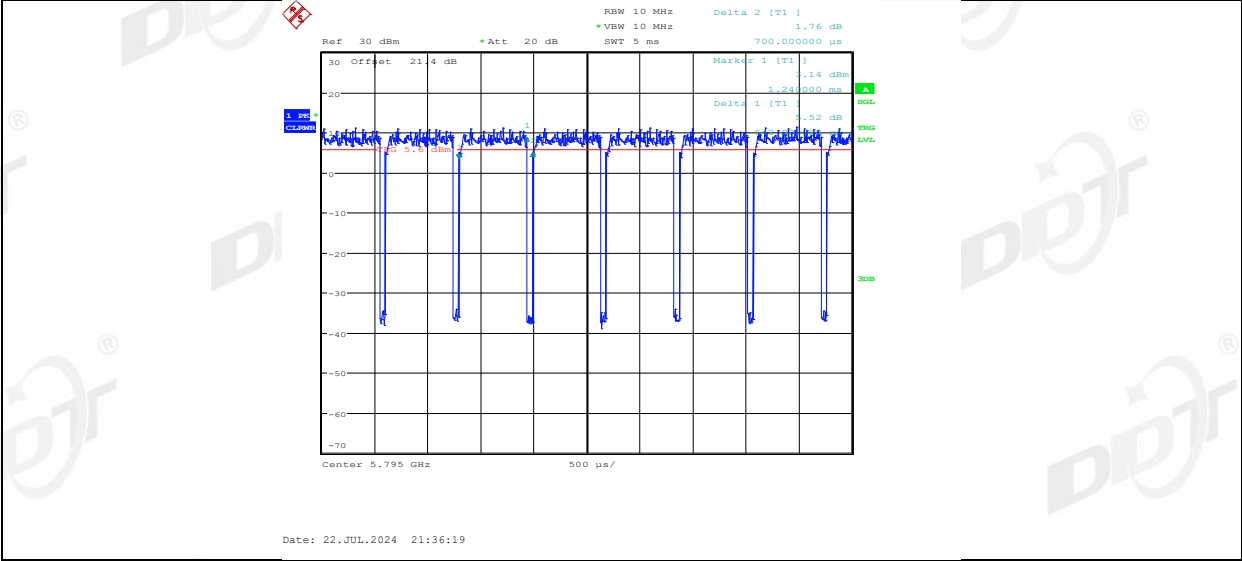




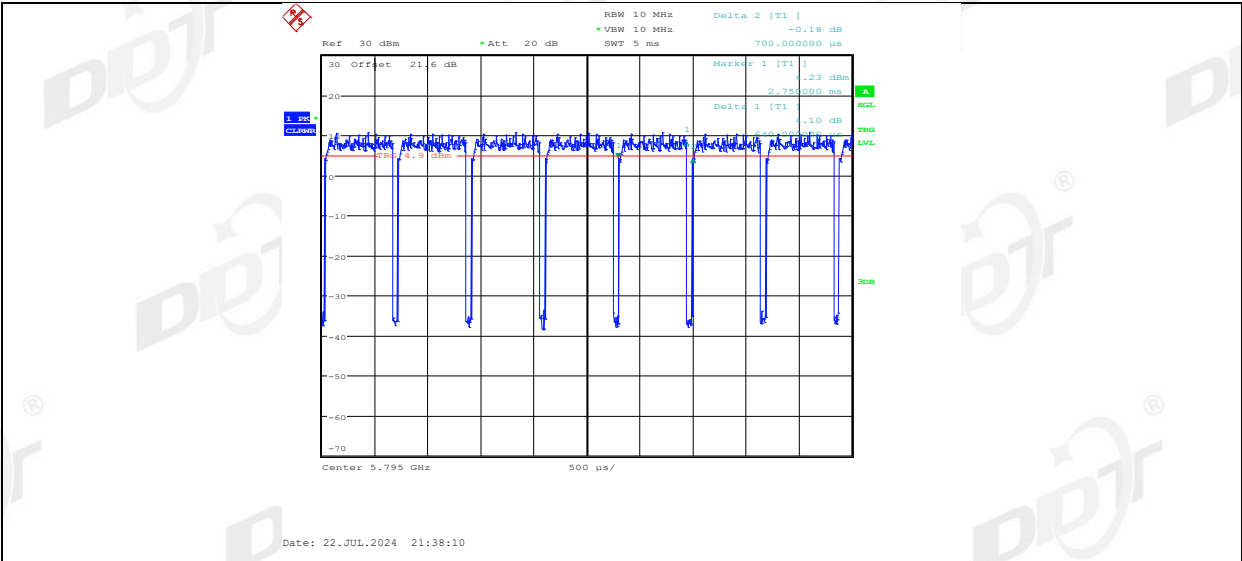
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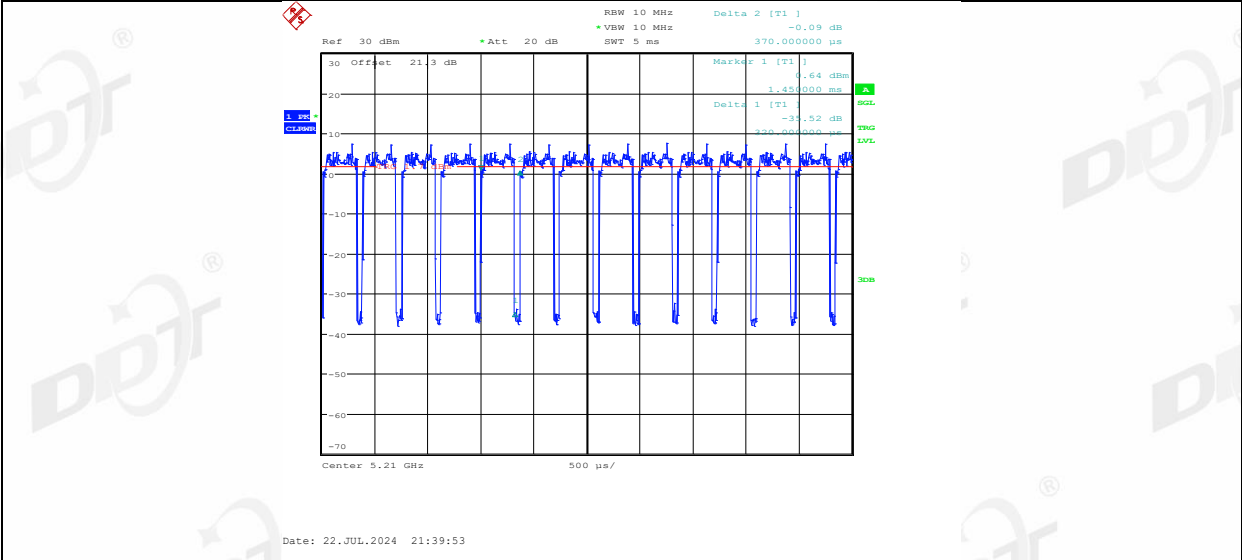
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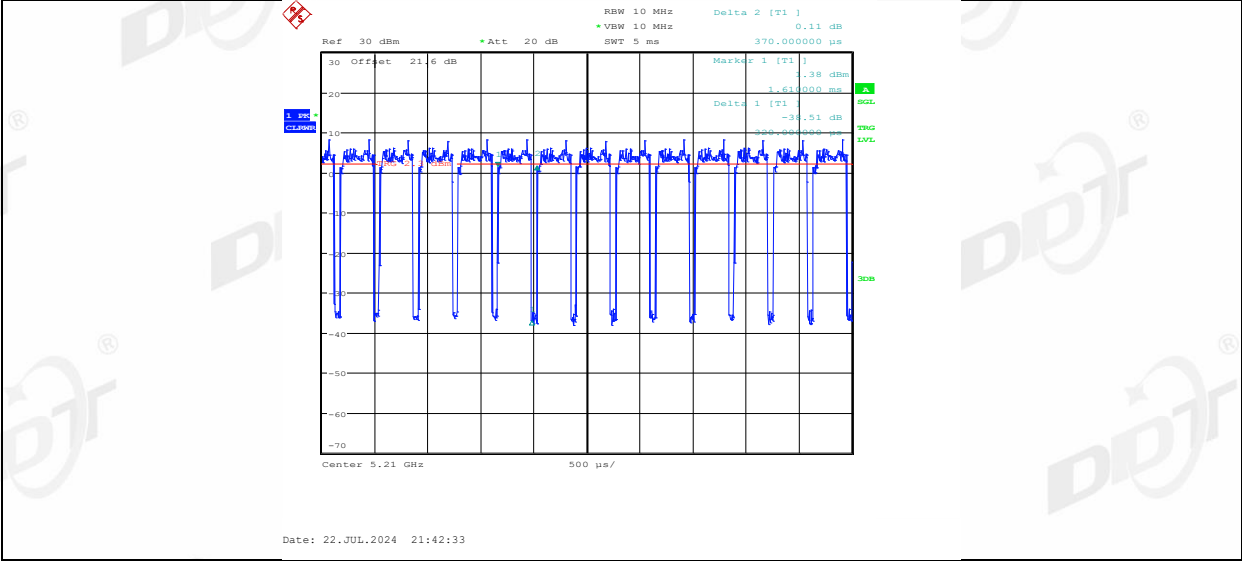
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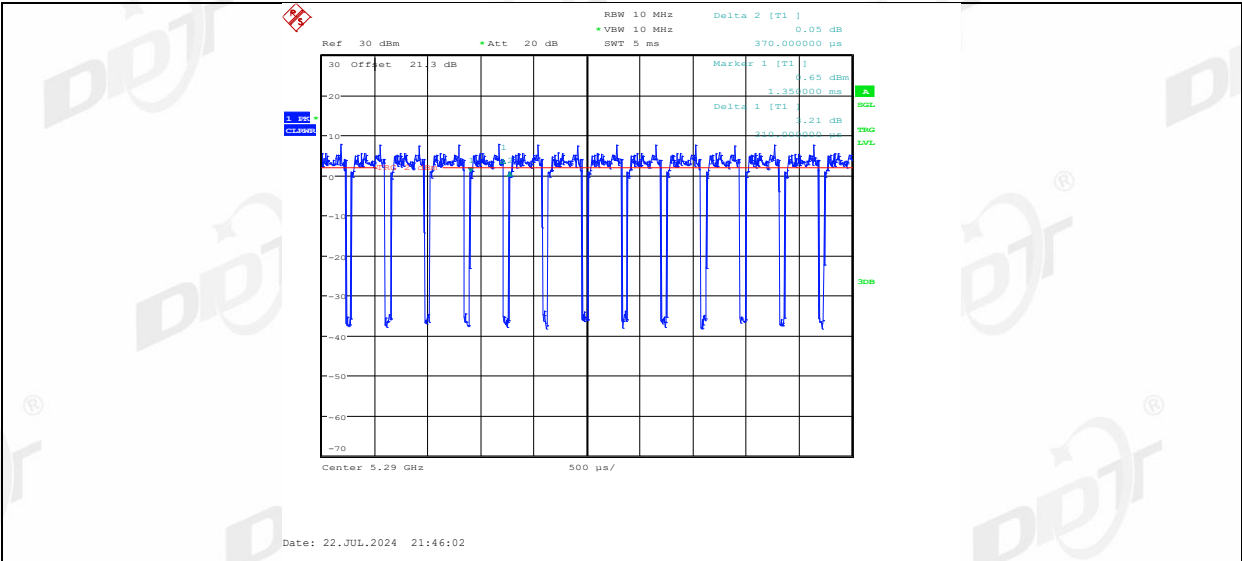
11AC80MIMO_Ant1_5210



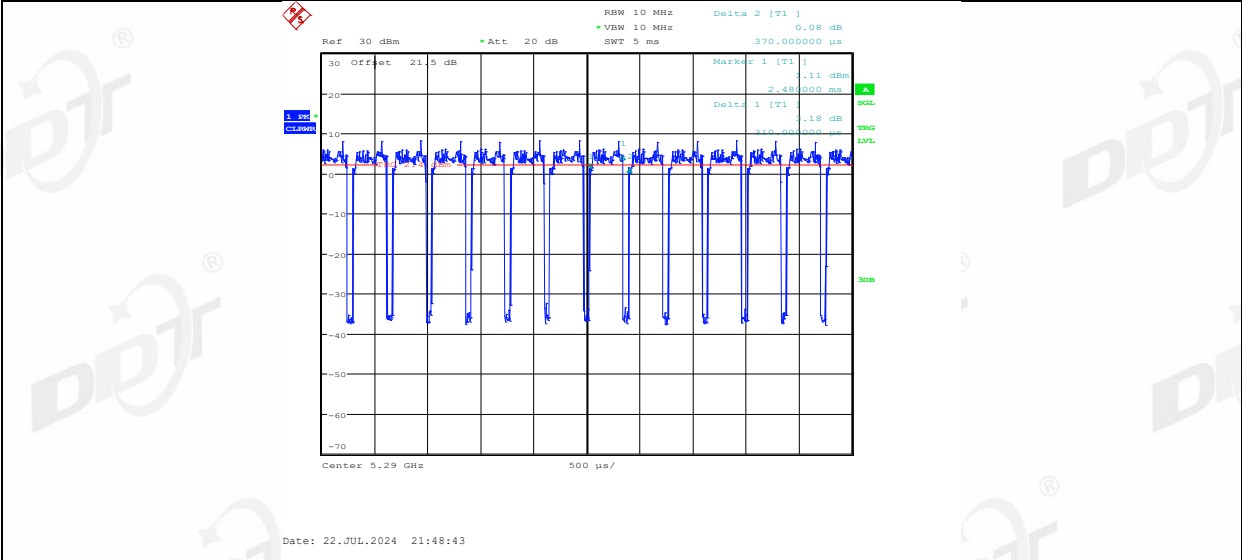
11AC80MIMO_Ant2_5210



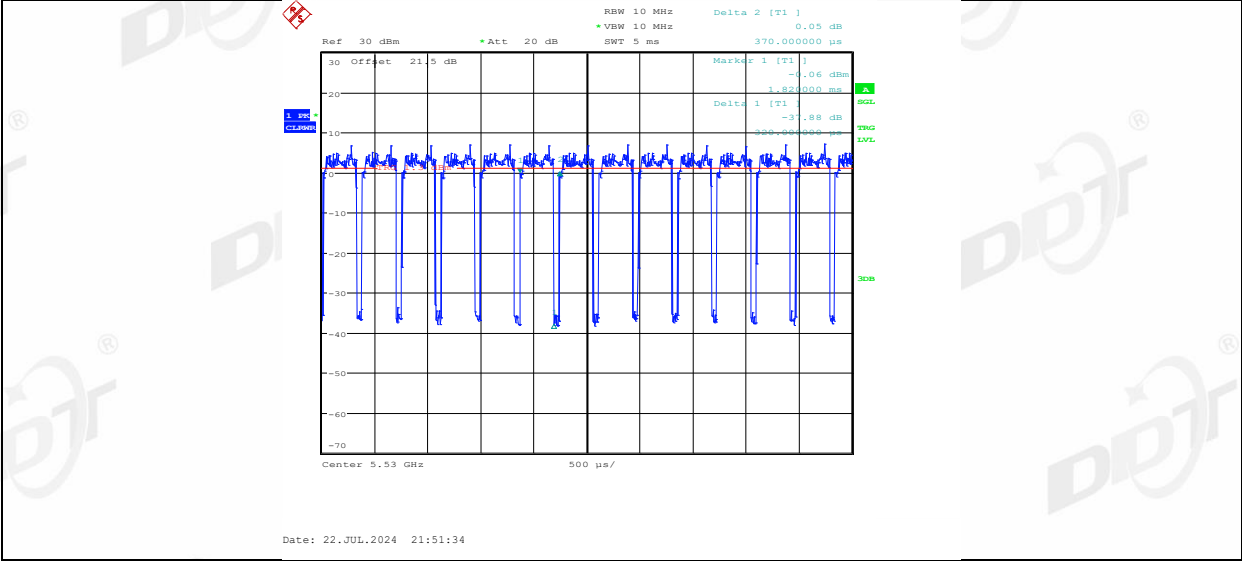
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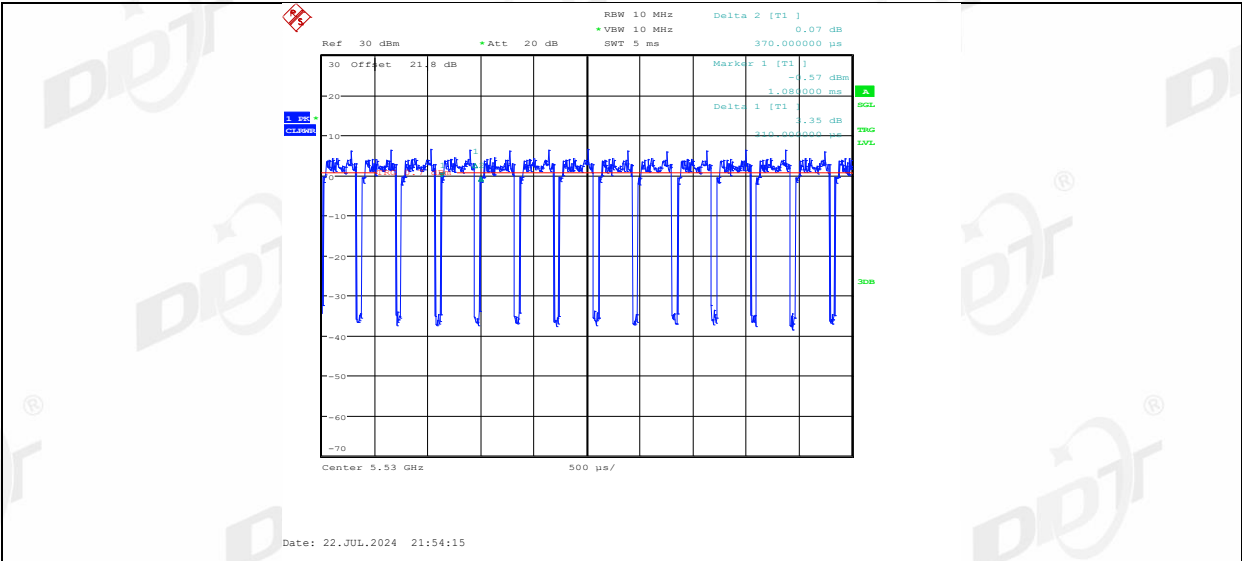
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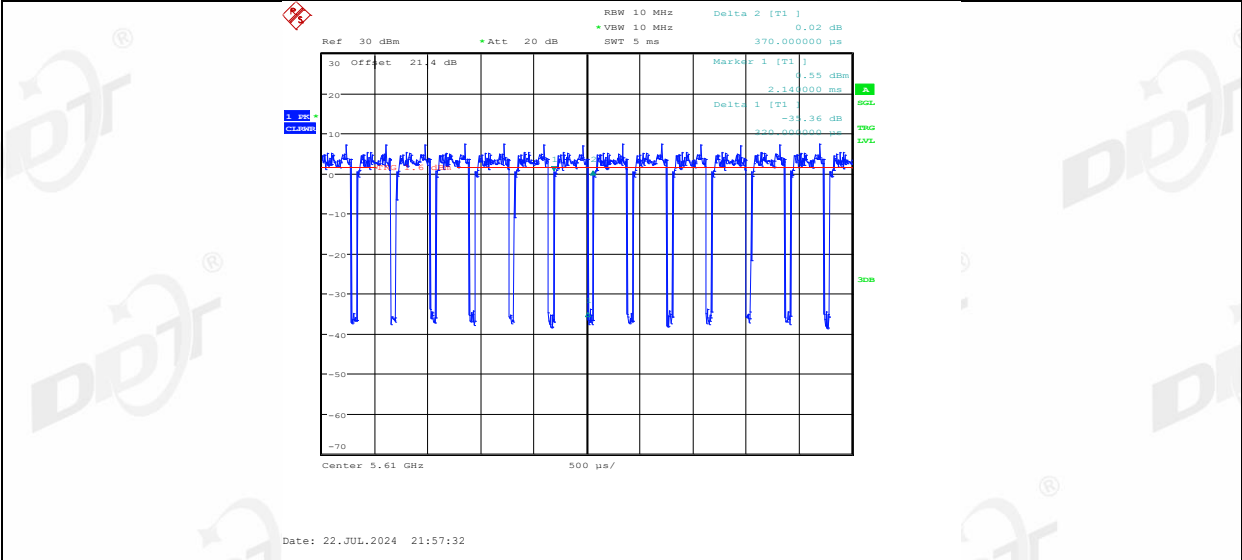
11AC80MIMO_Ant1_5530



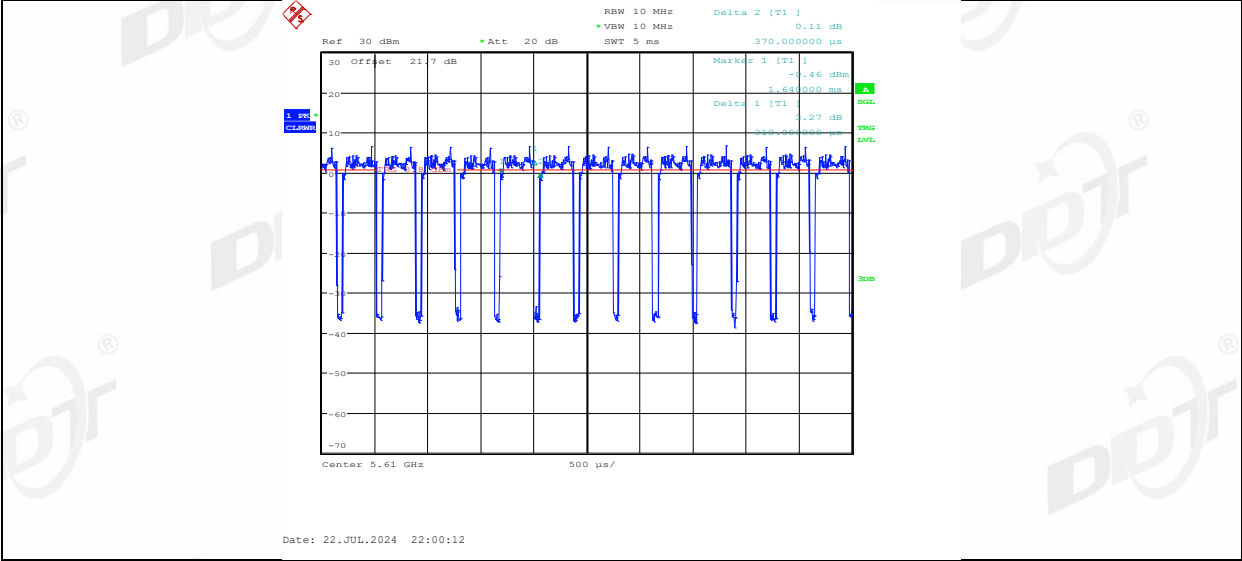
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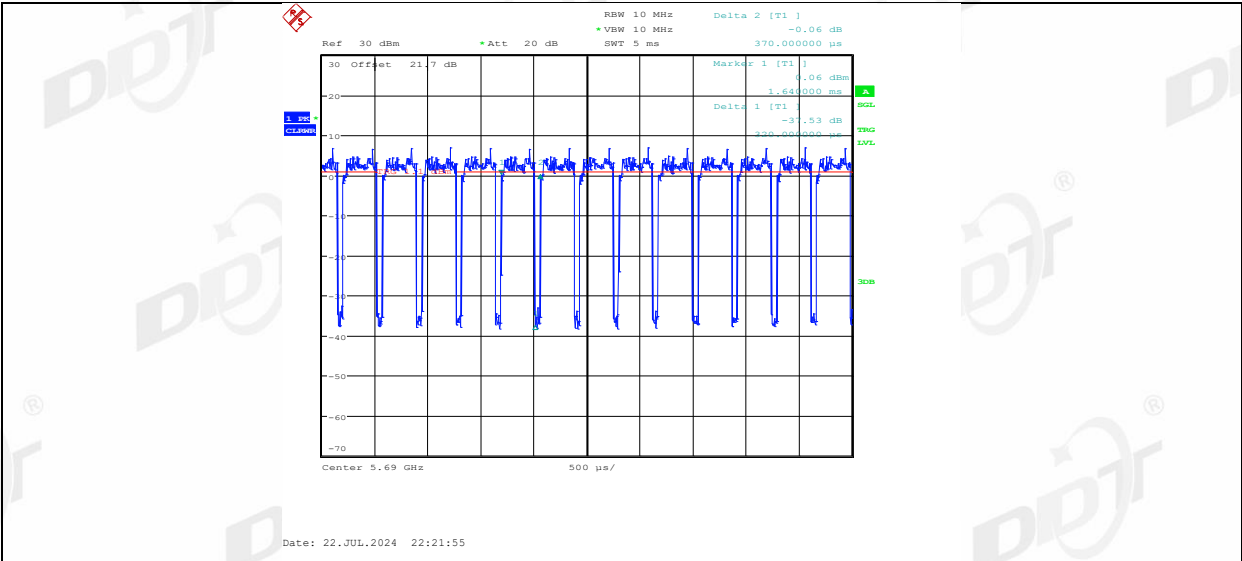
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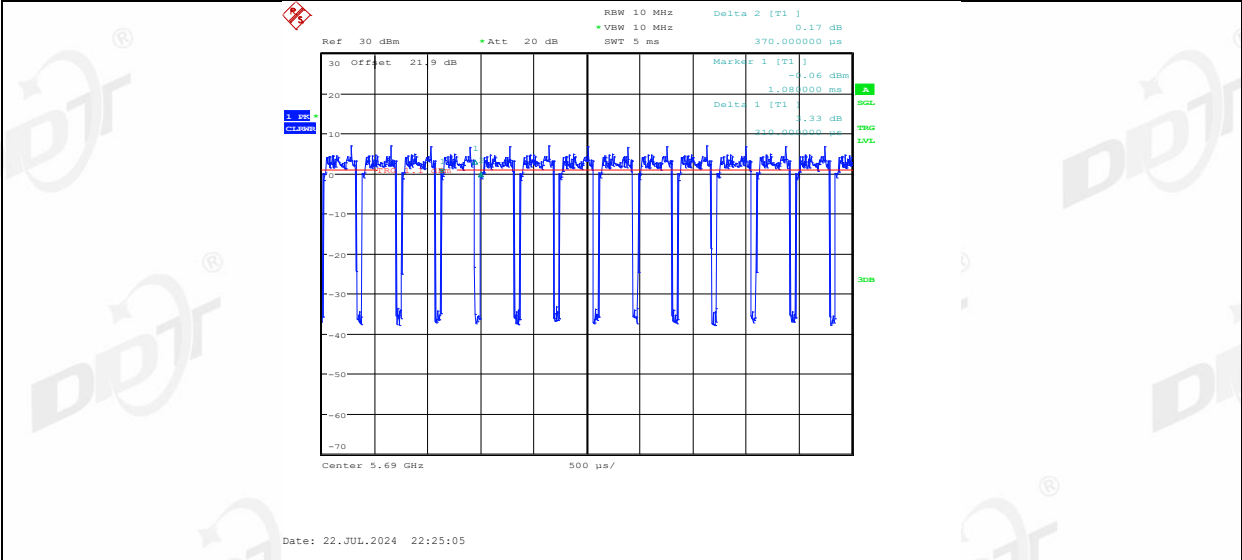
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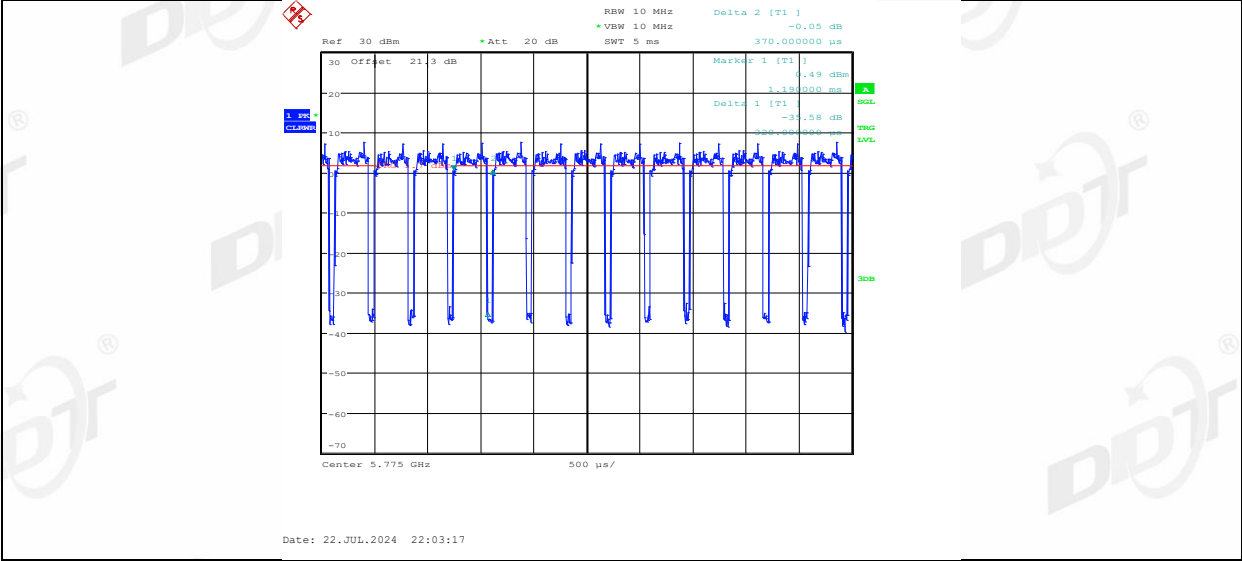
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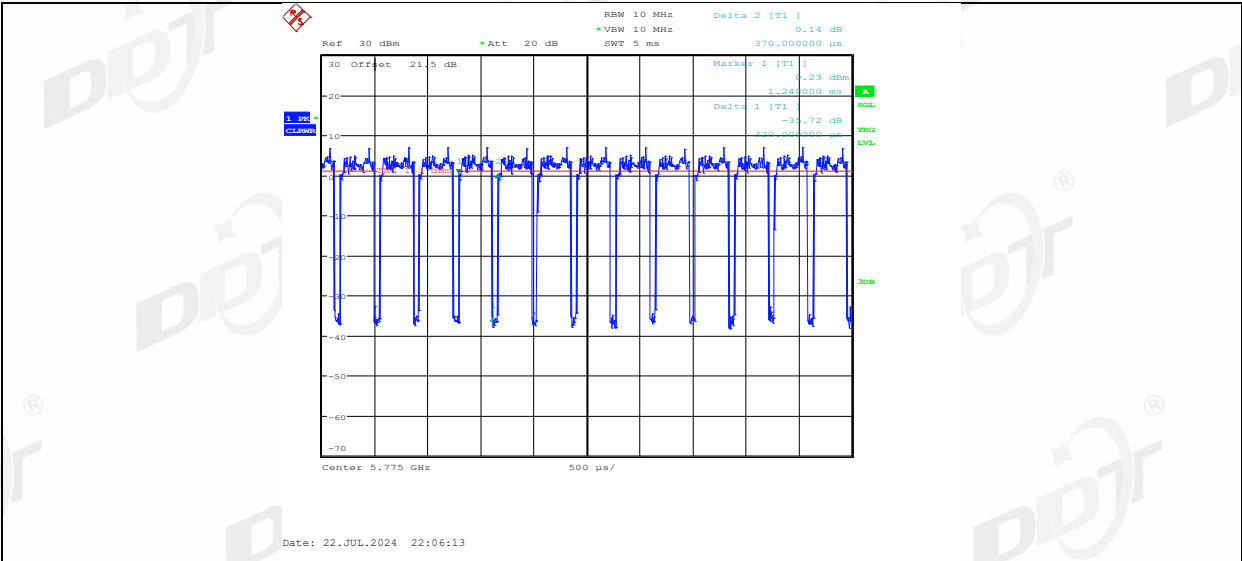
11AC80MIMO_Ant2_5690



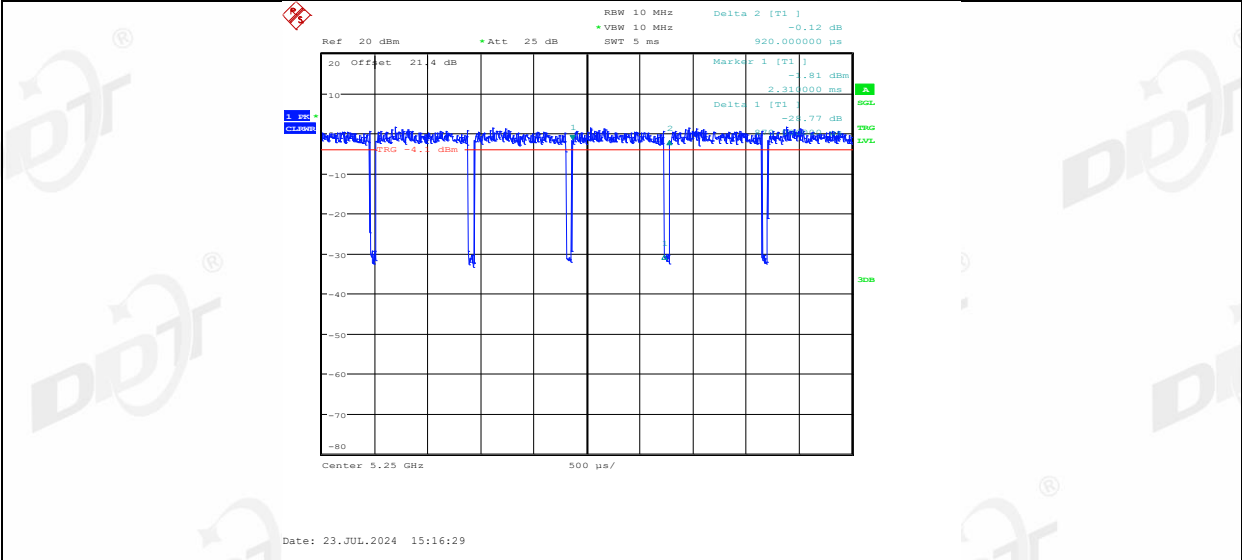
11AC80MIMO_Ant1_5775



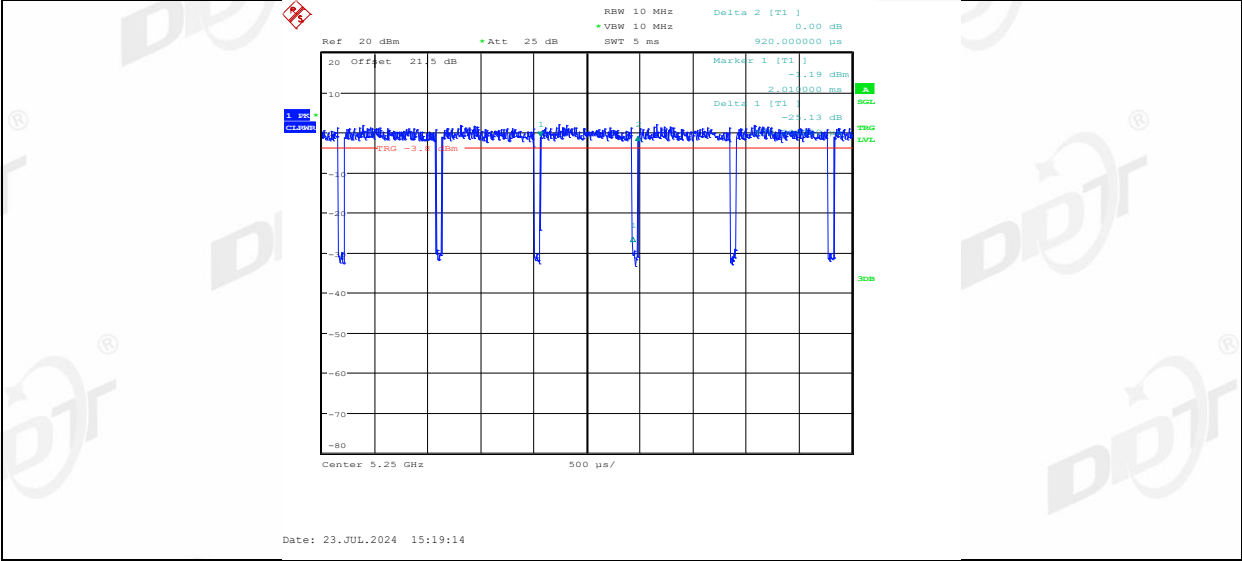
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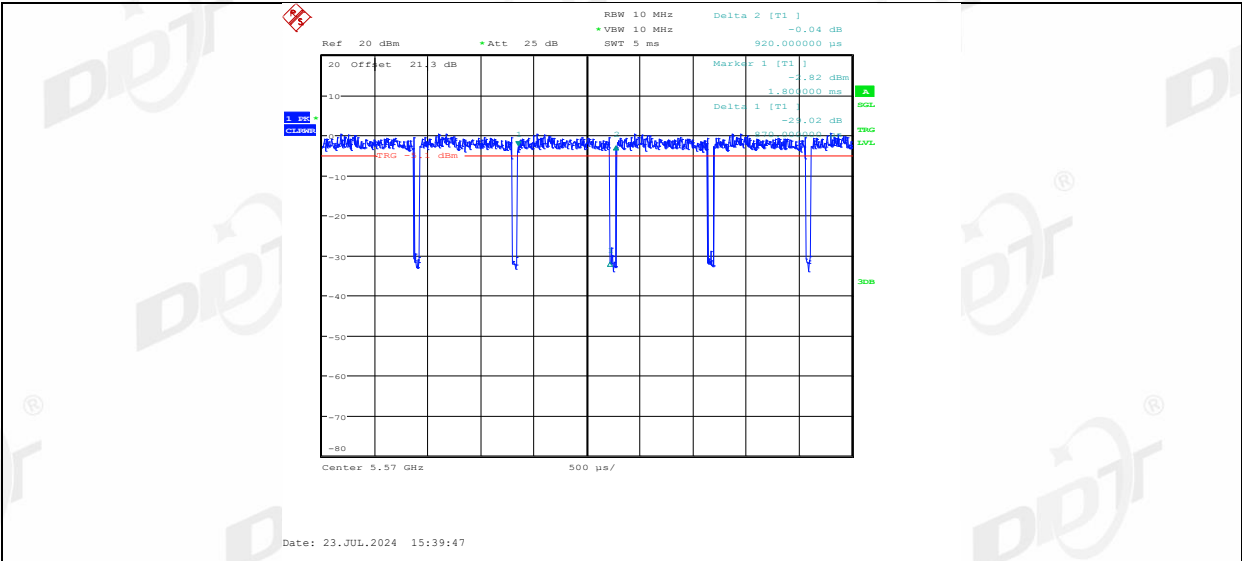
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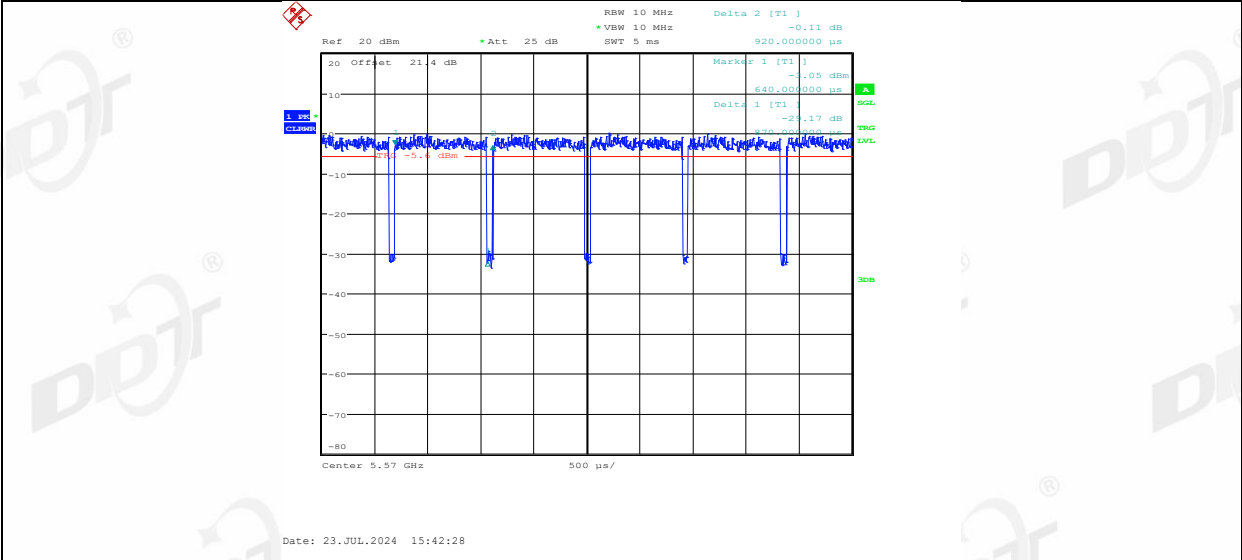
11AC160MIMO_Ant2_5250



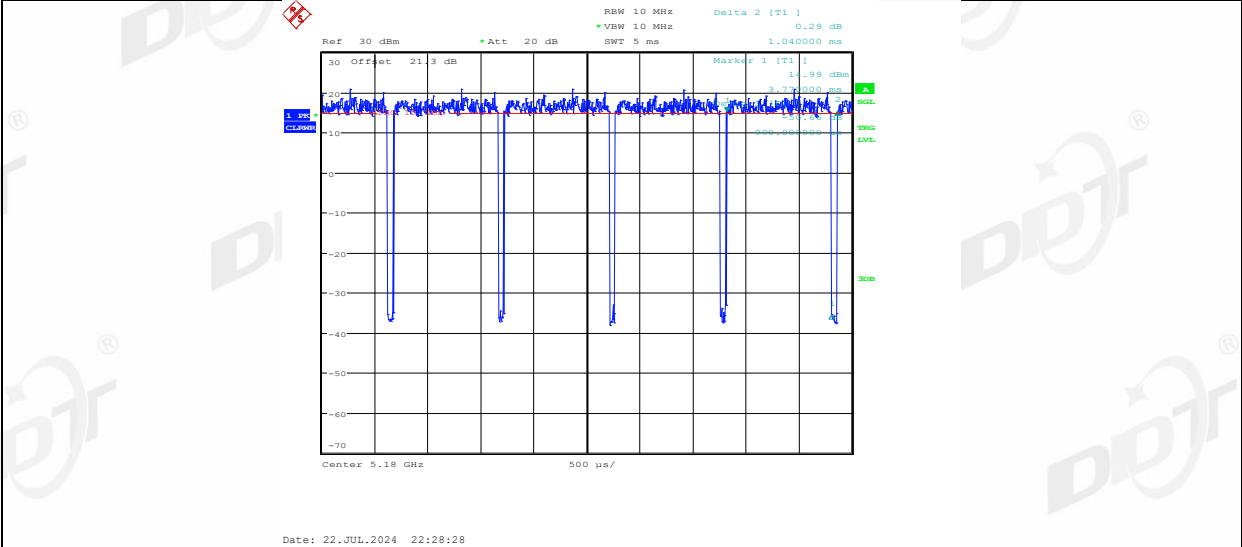
11AC160MIMO_Ant1_5570



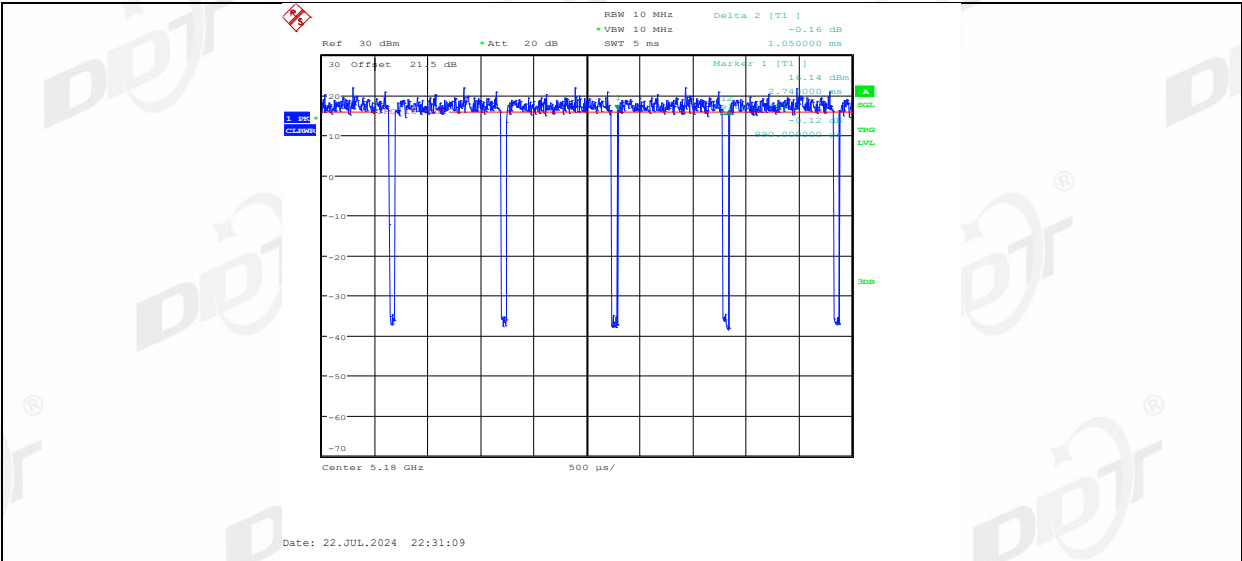
11AC160MIMO_Ant2_5570



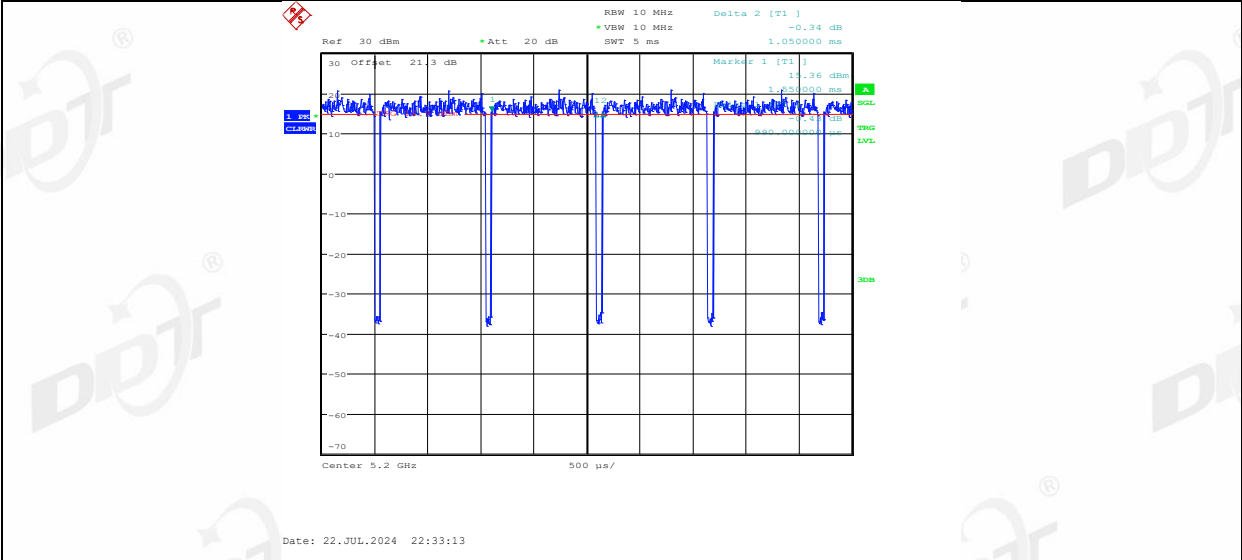
11AX20MIMO_Ant1_5180



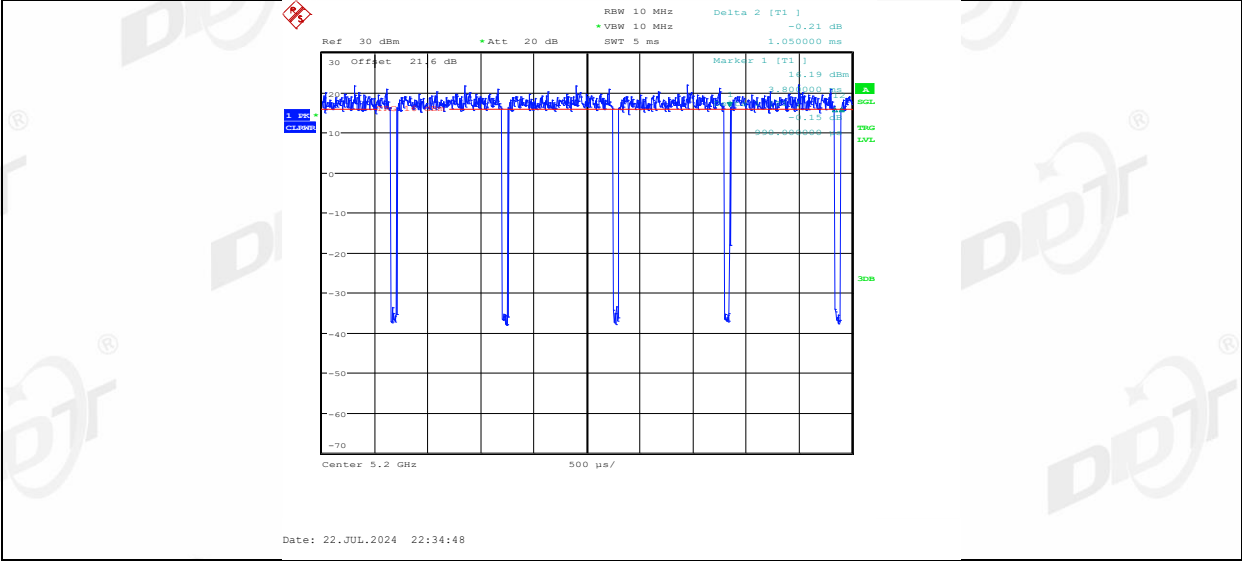
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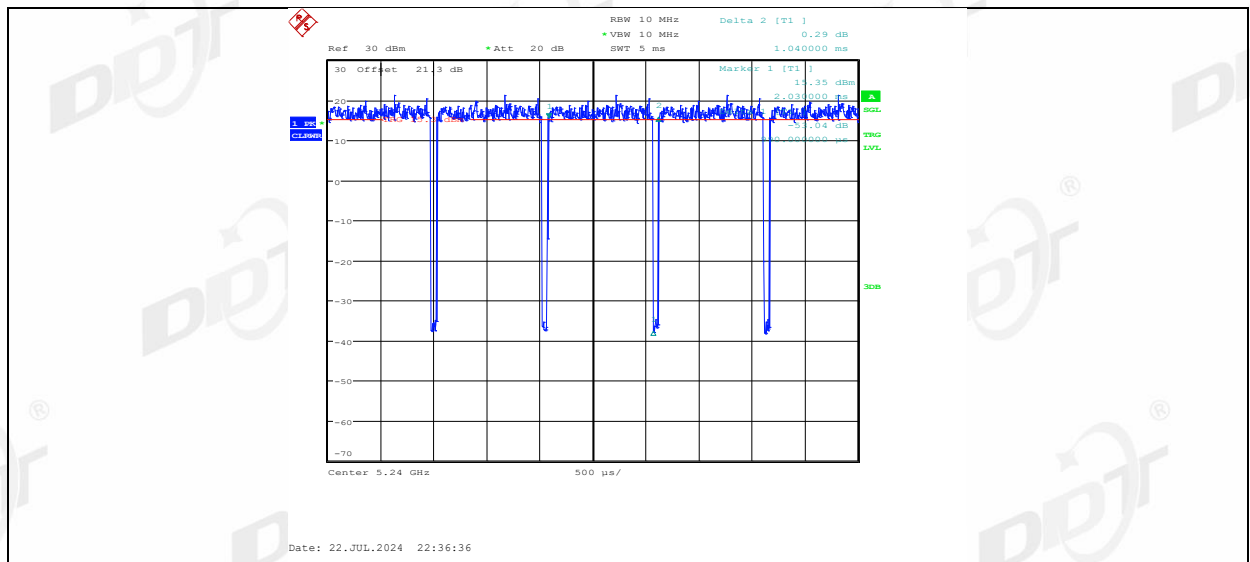
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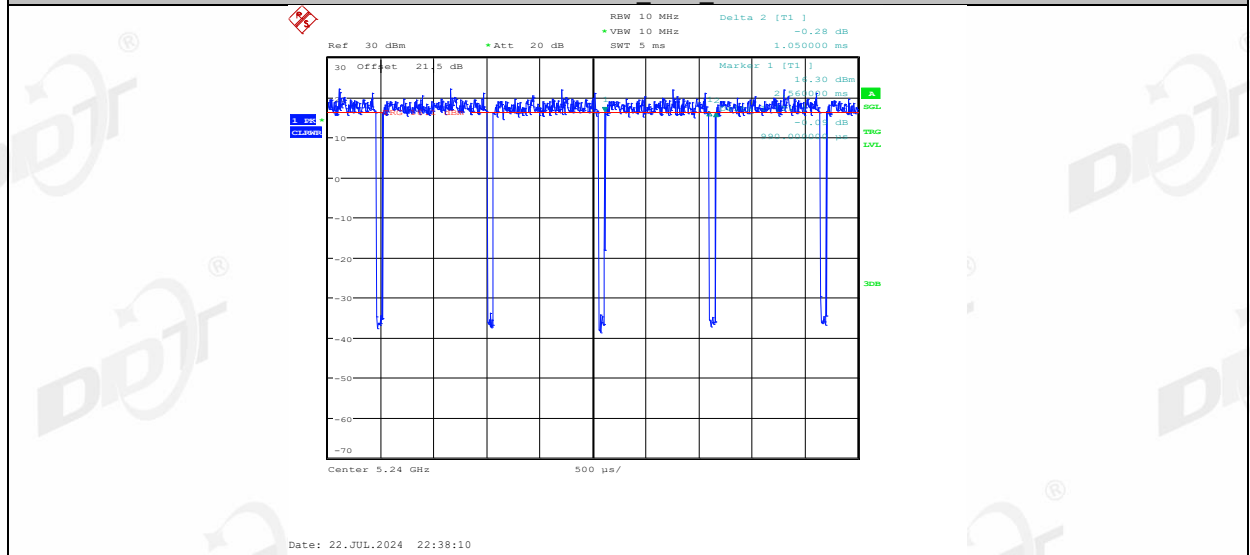
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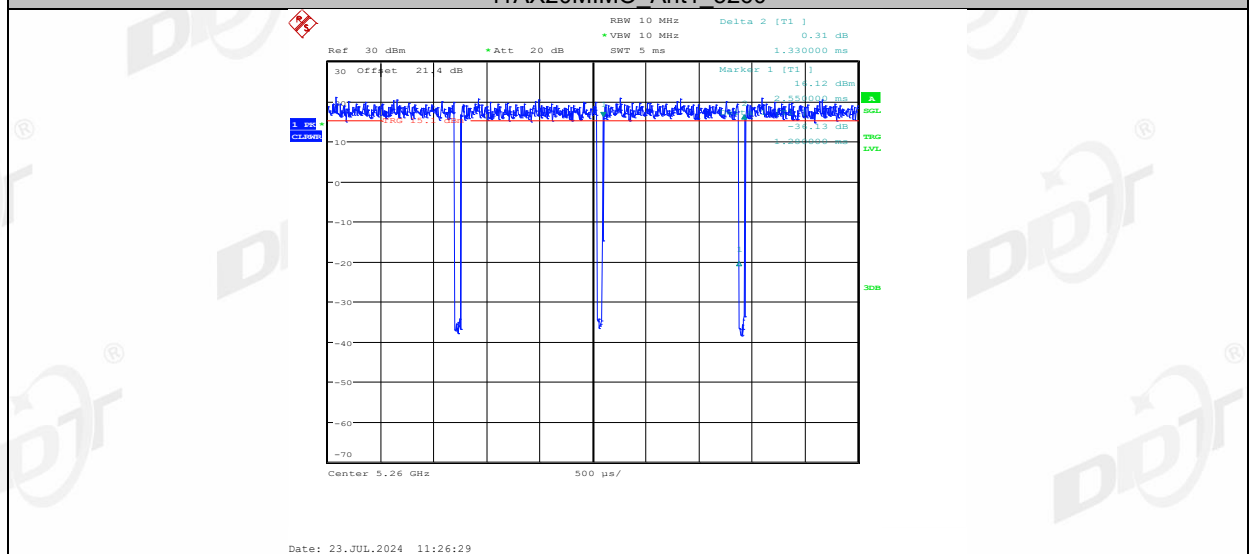
11AX20MIMO_Ant1_5240



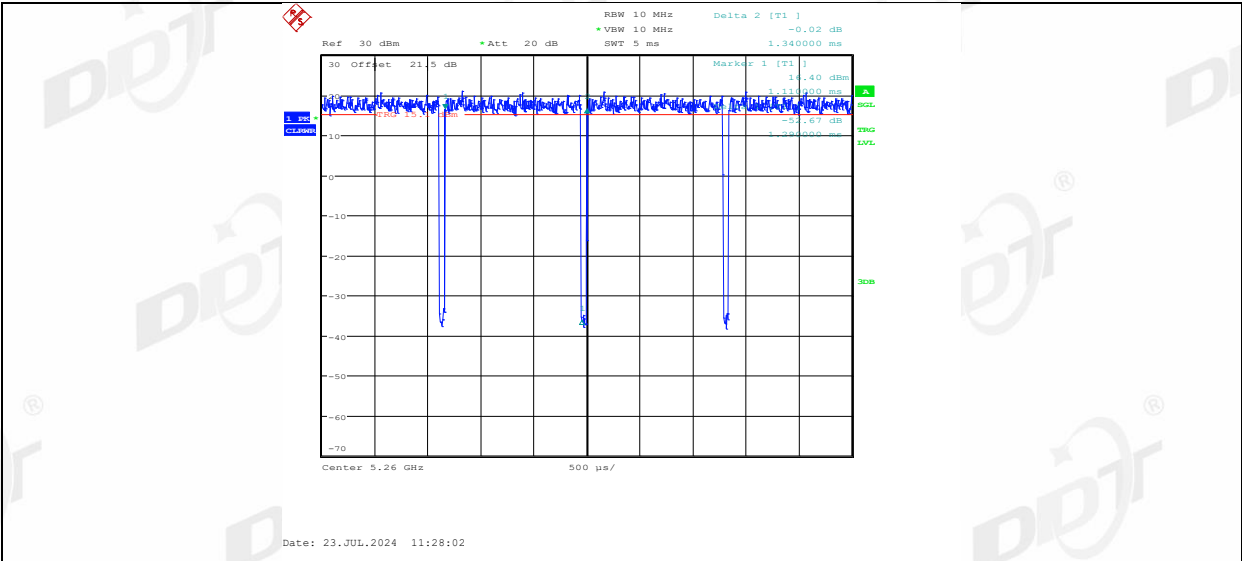
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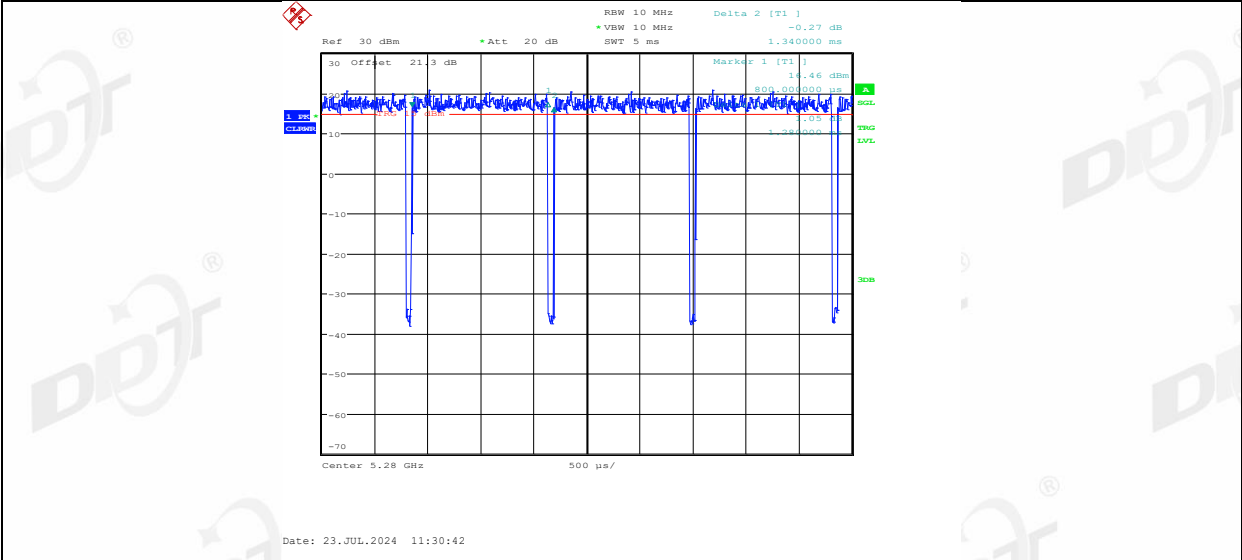
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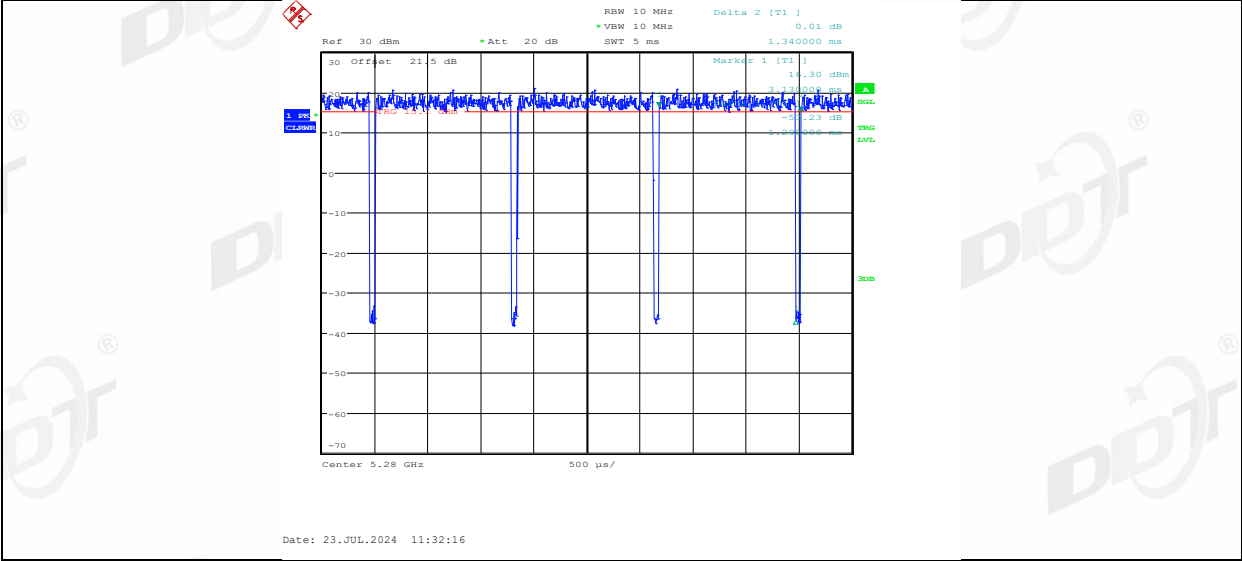
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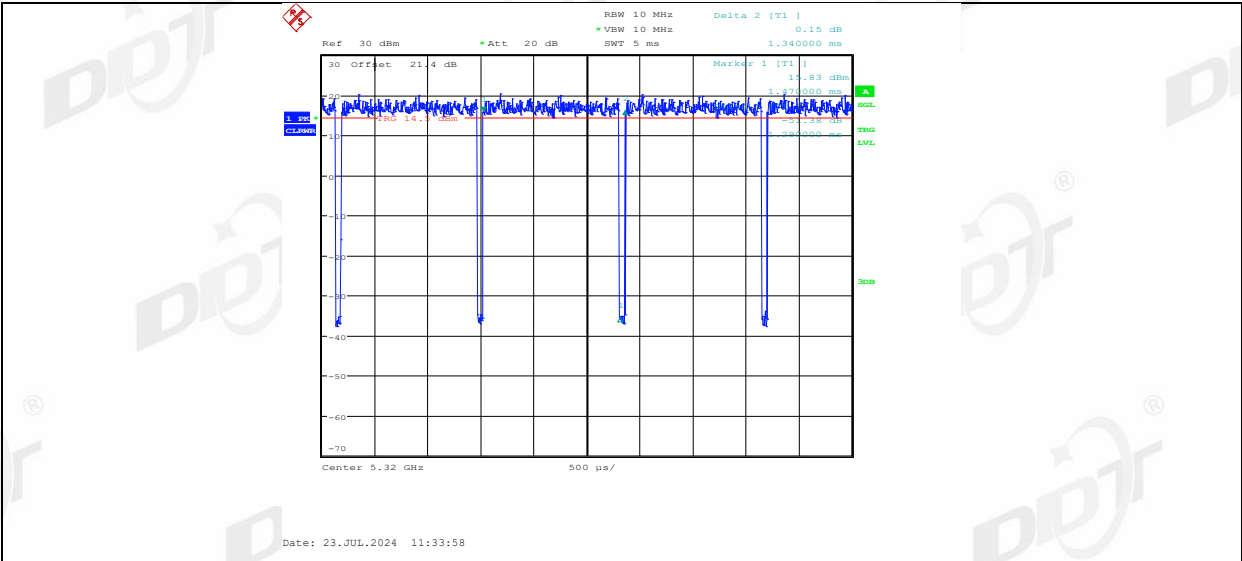
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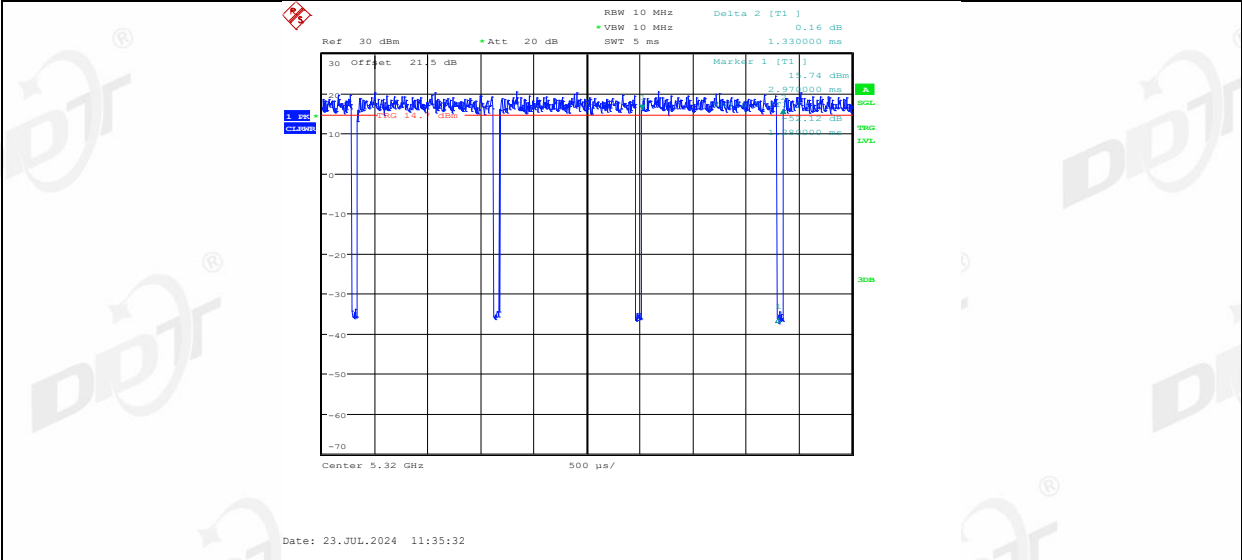
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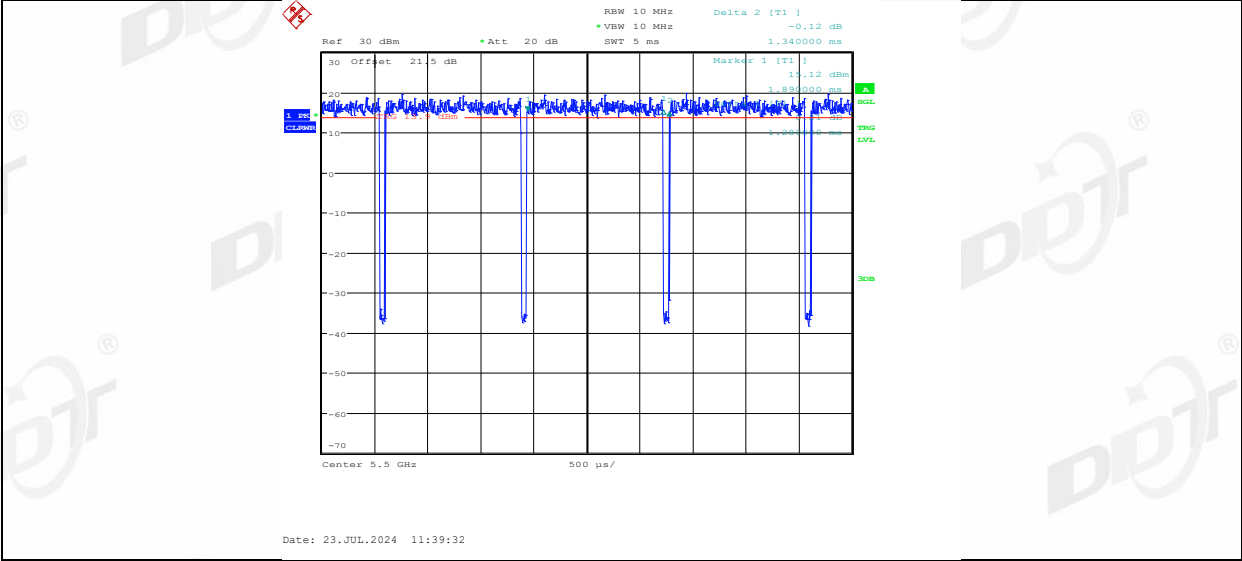
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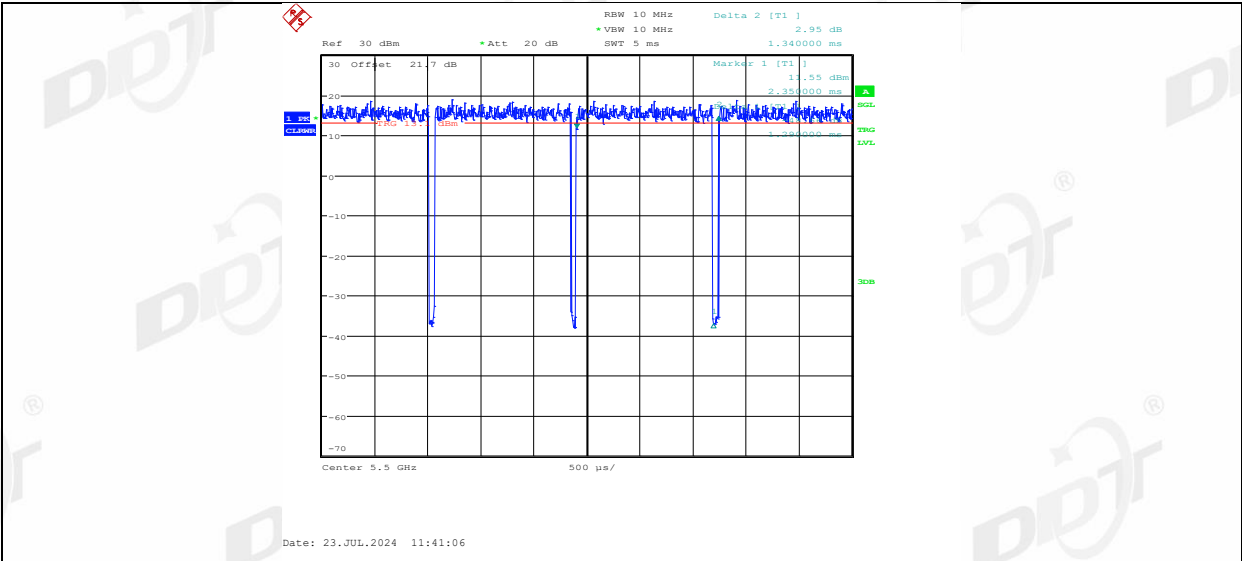
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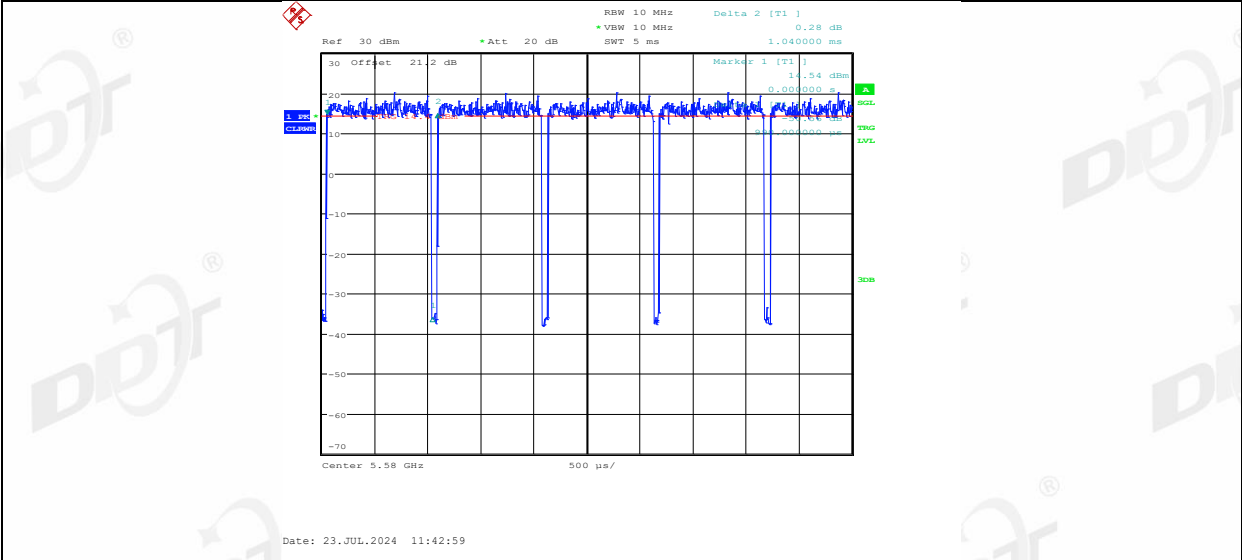
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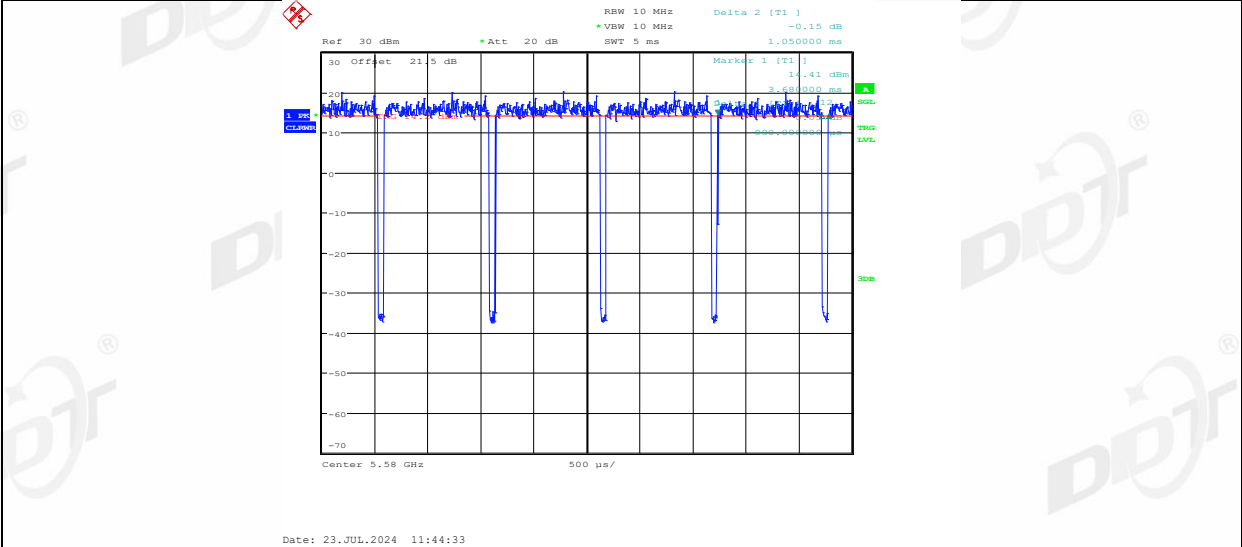
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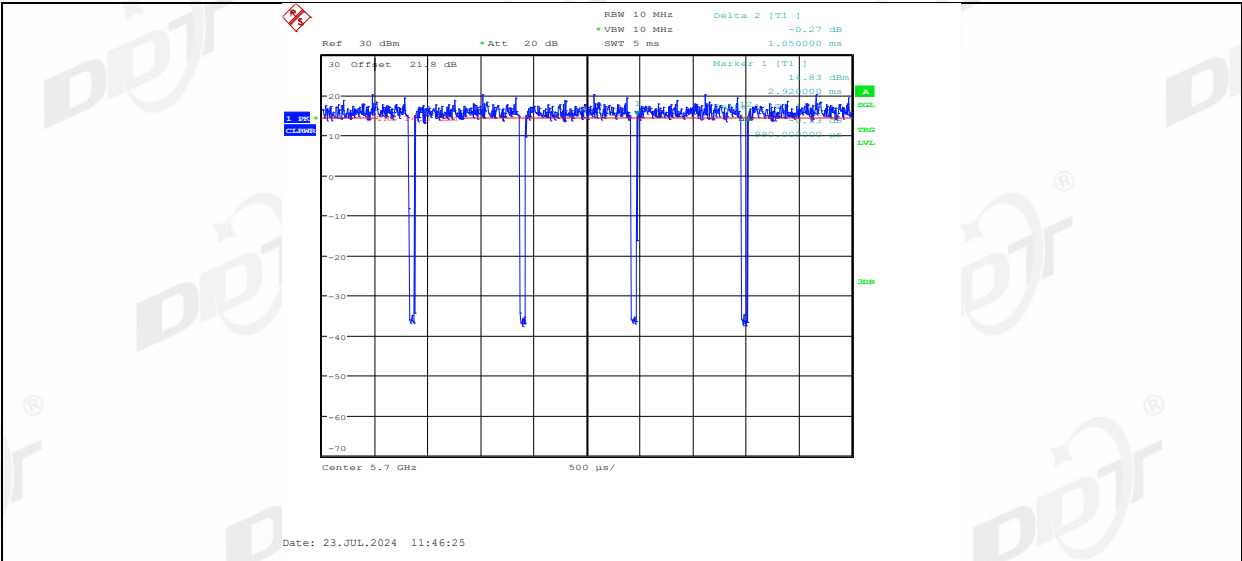
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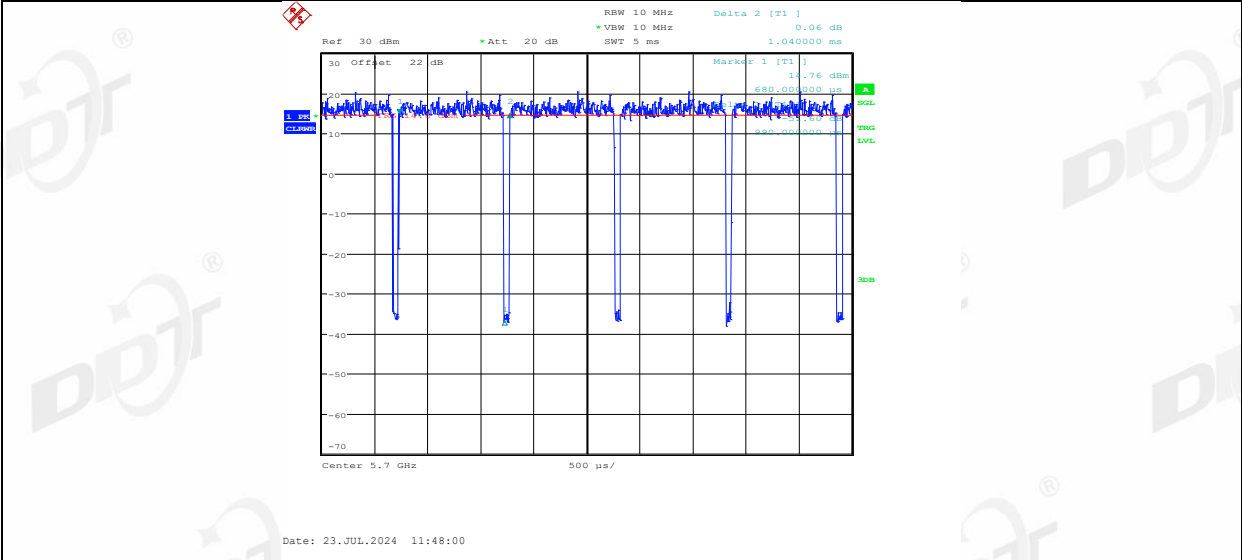
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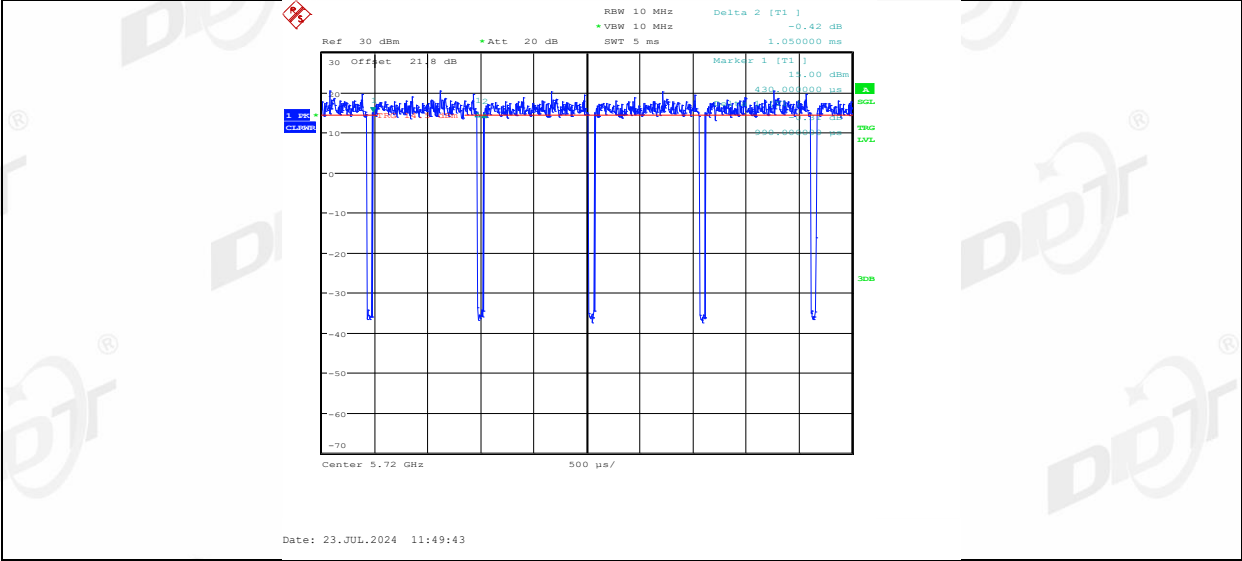
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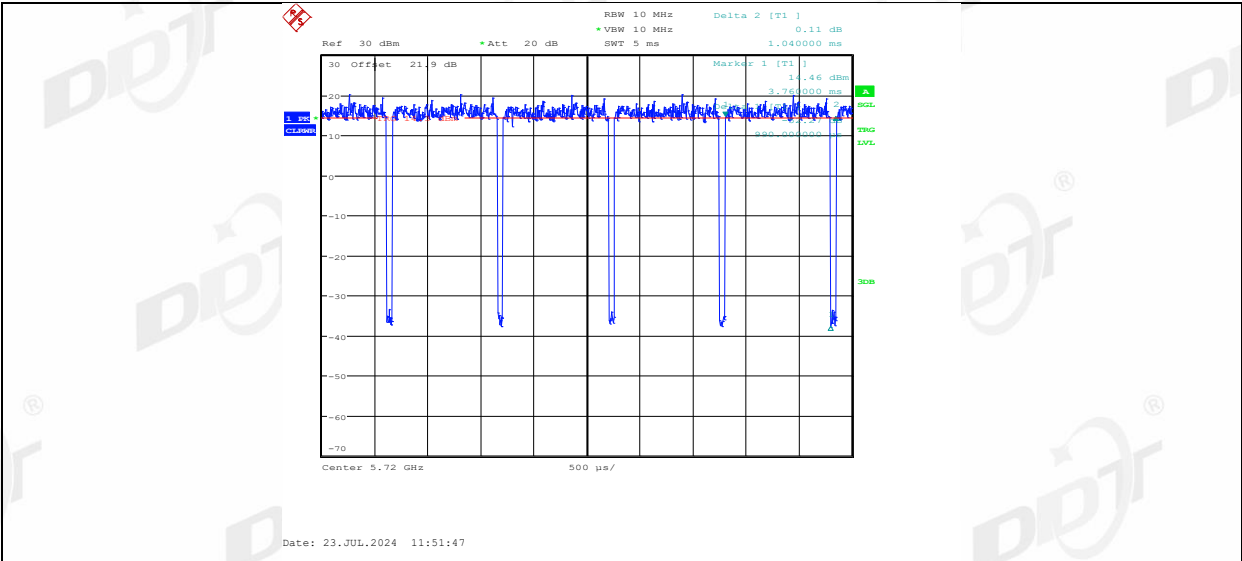
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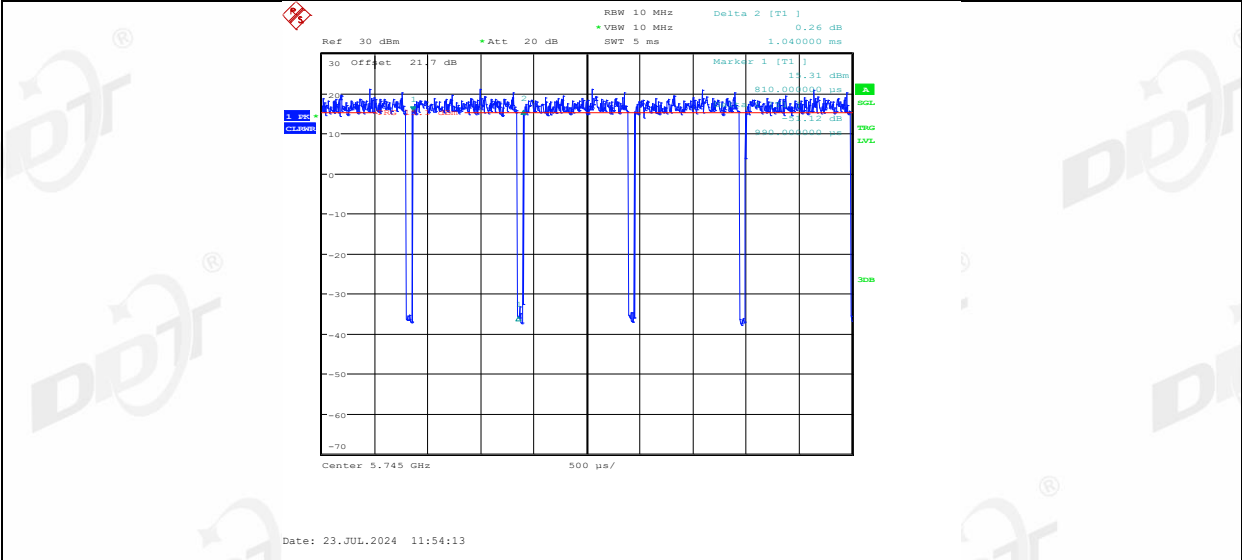
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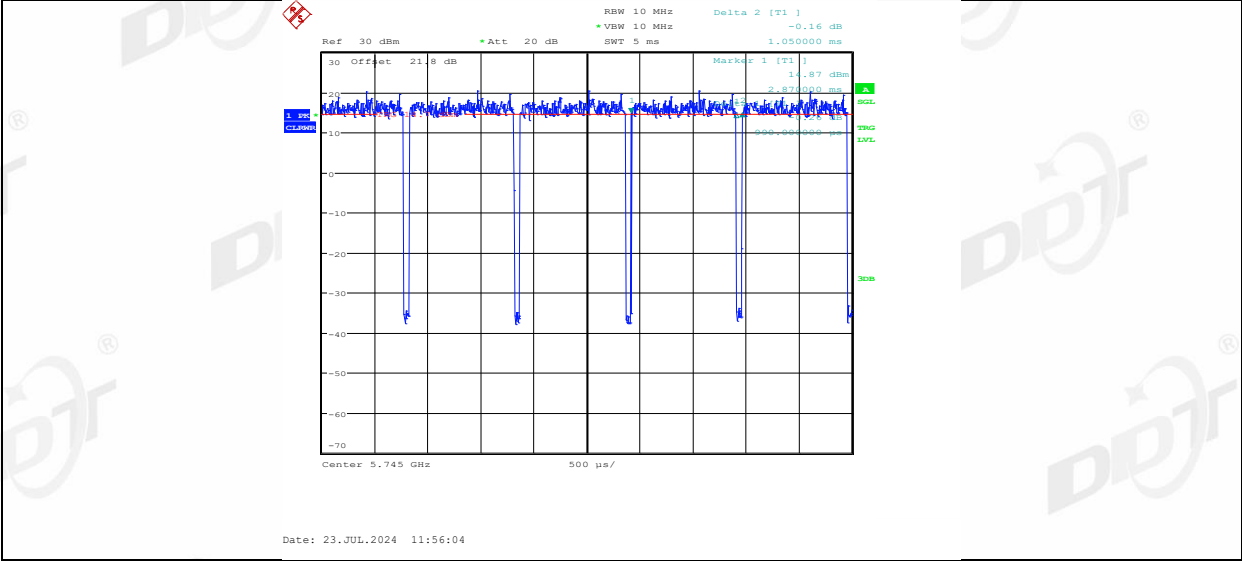
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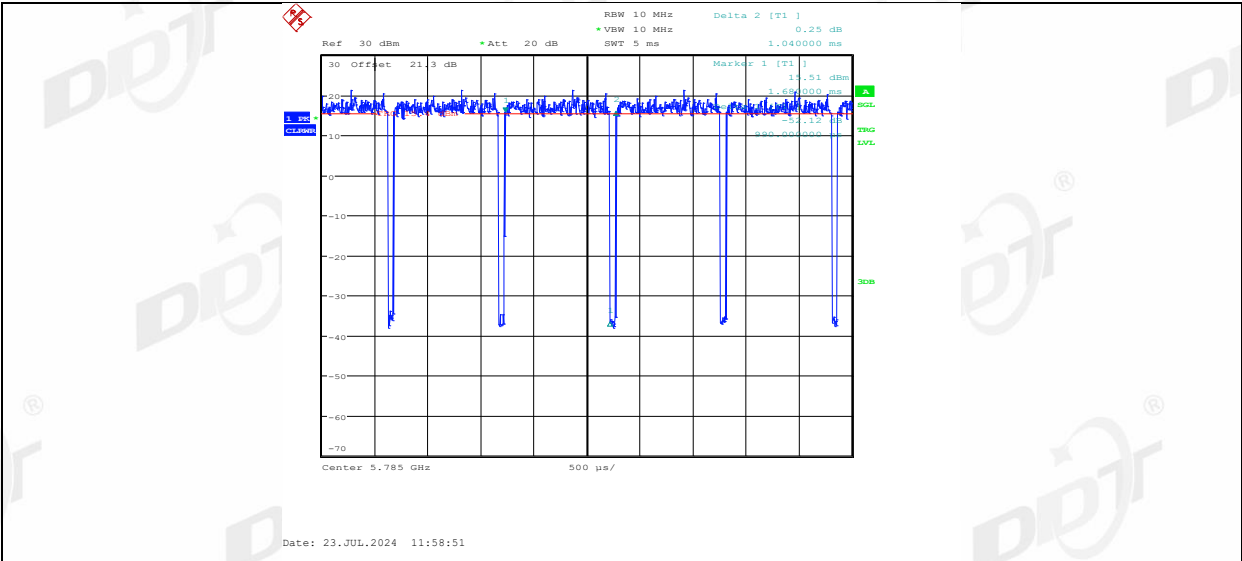
11AX20MIMO_Ant1_5745



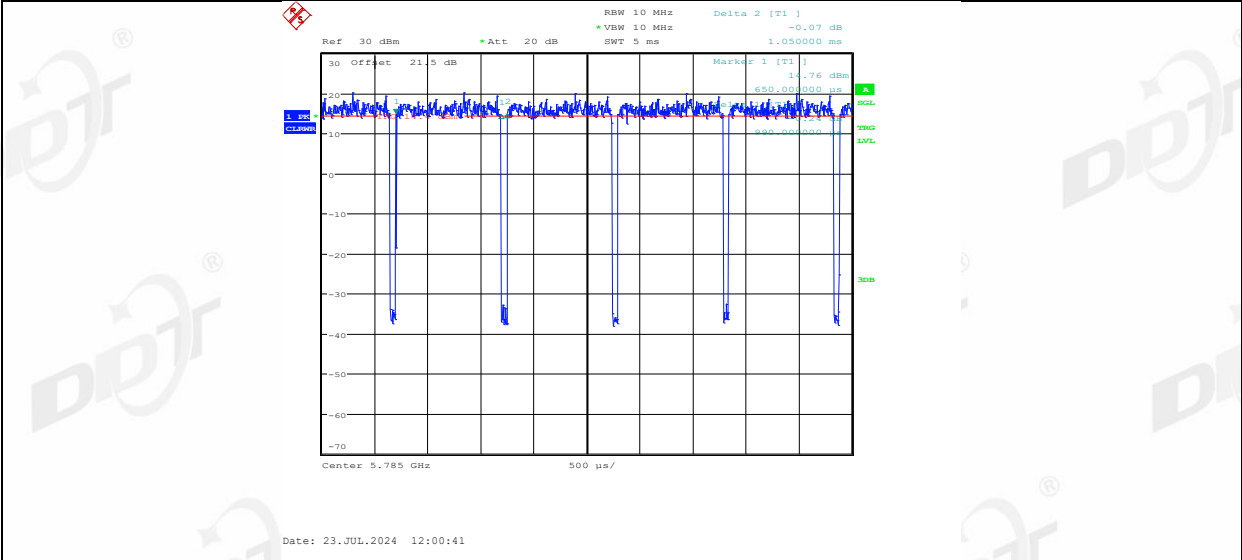
11AX20MIMO_Ant2_5745



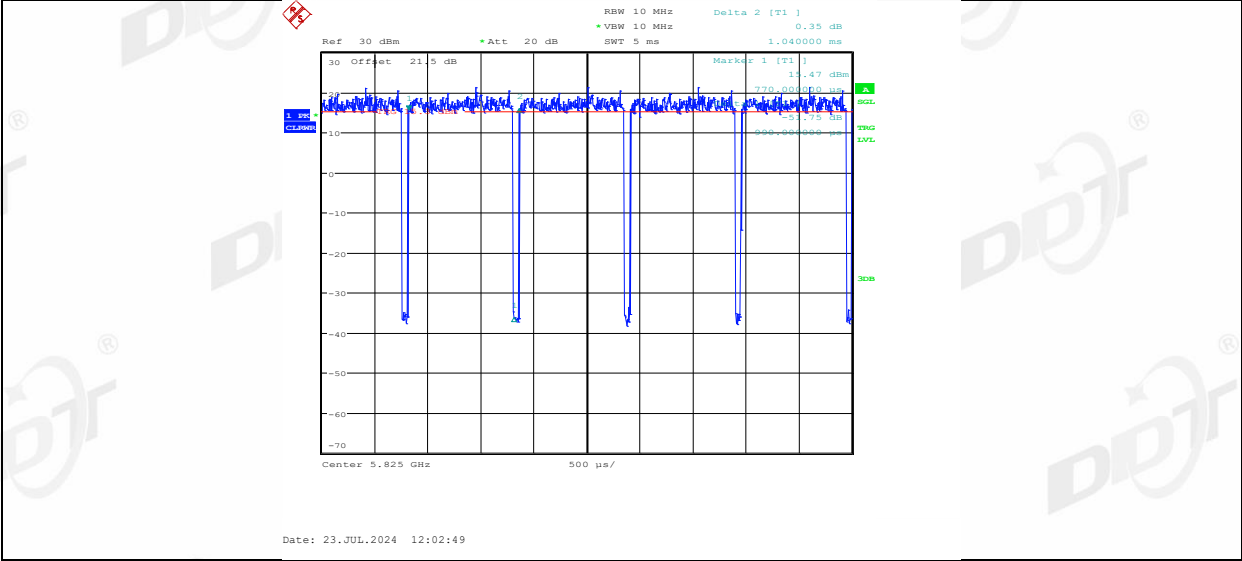
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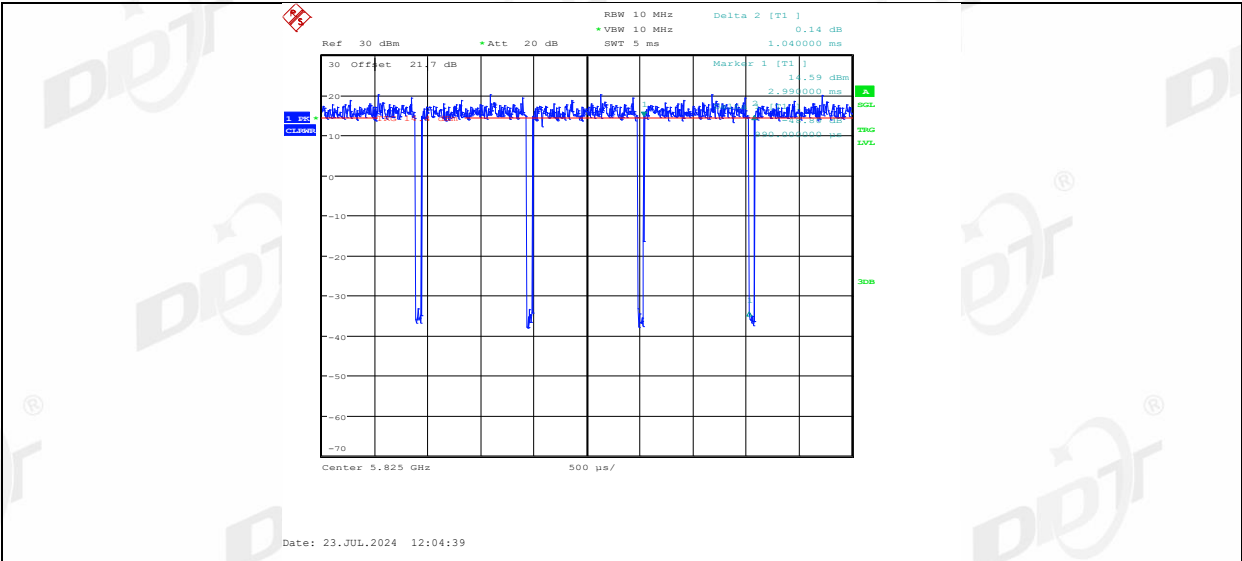
11AX20MIMO_Ant2_5785



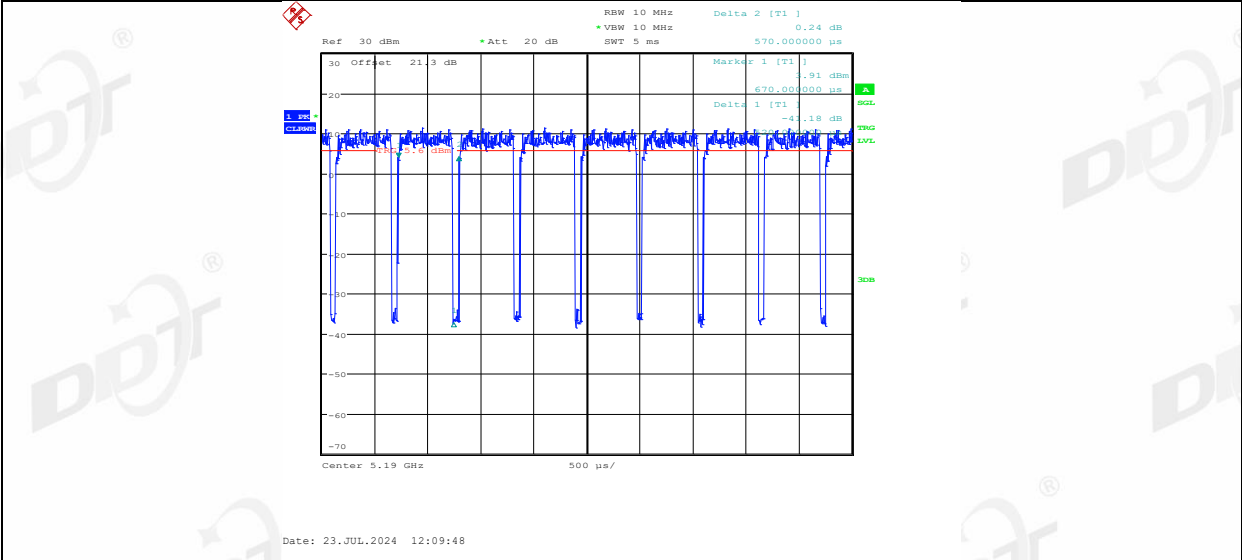
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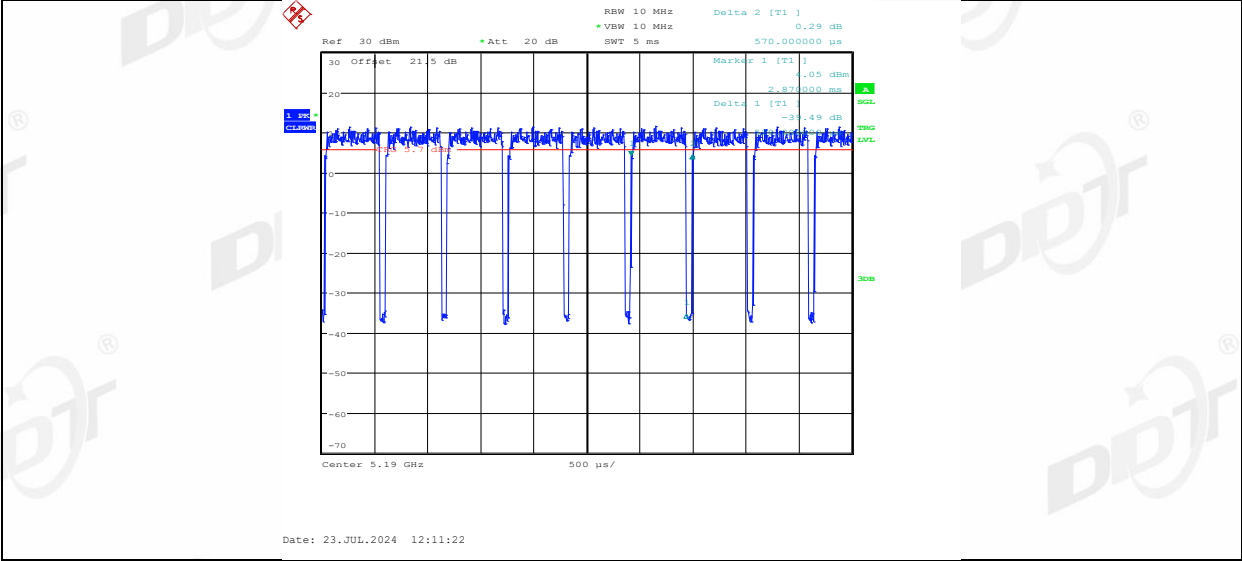
11AX20MIMO_Ant2_5825



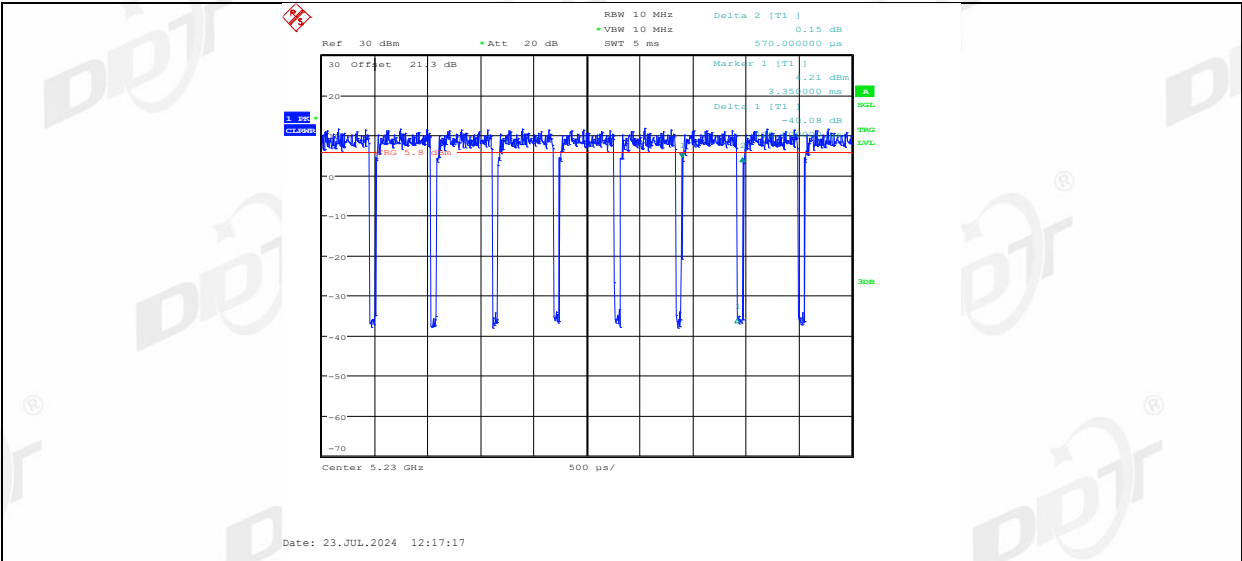
11AX40MIMO_Ant1_5190



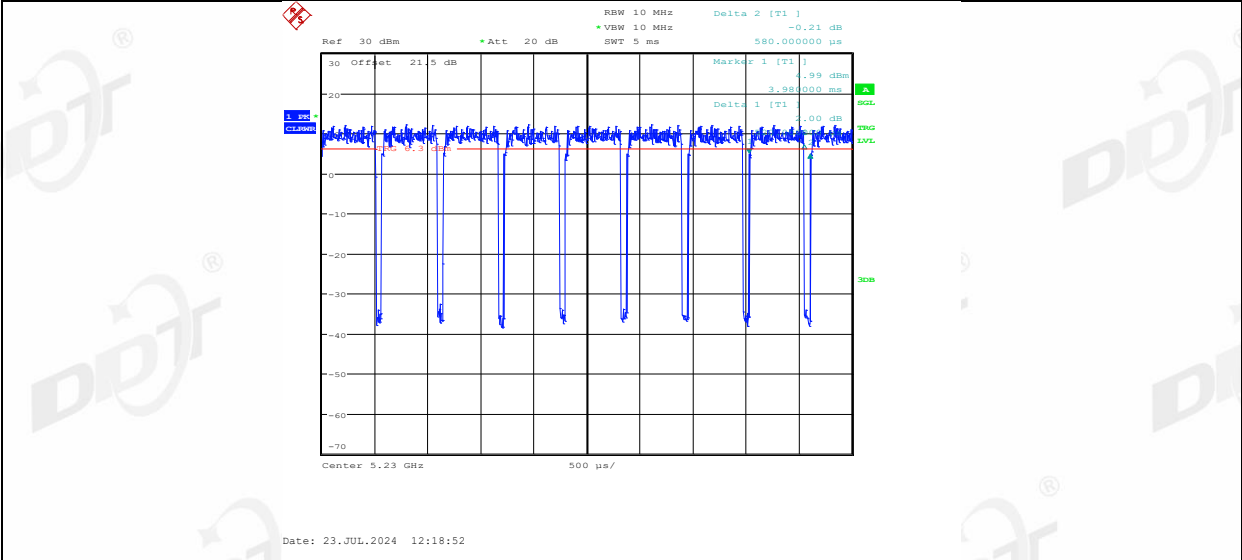
11AX40MIMO_Ant2_5190



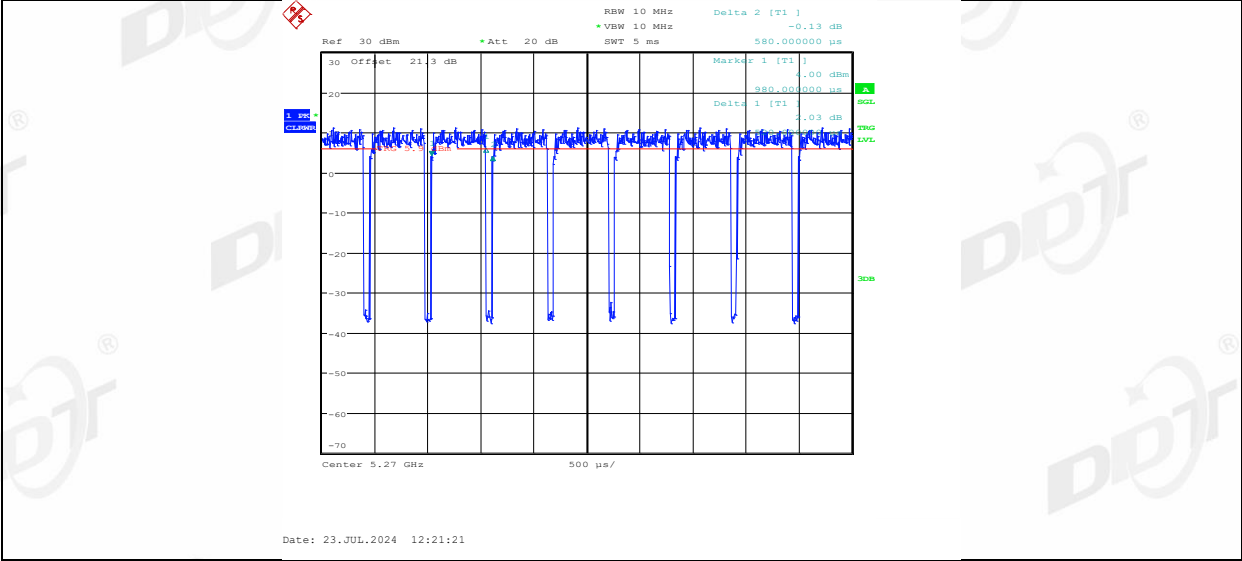
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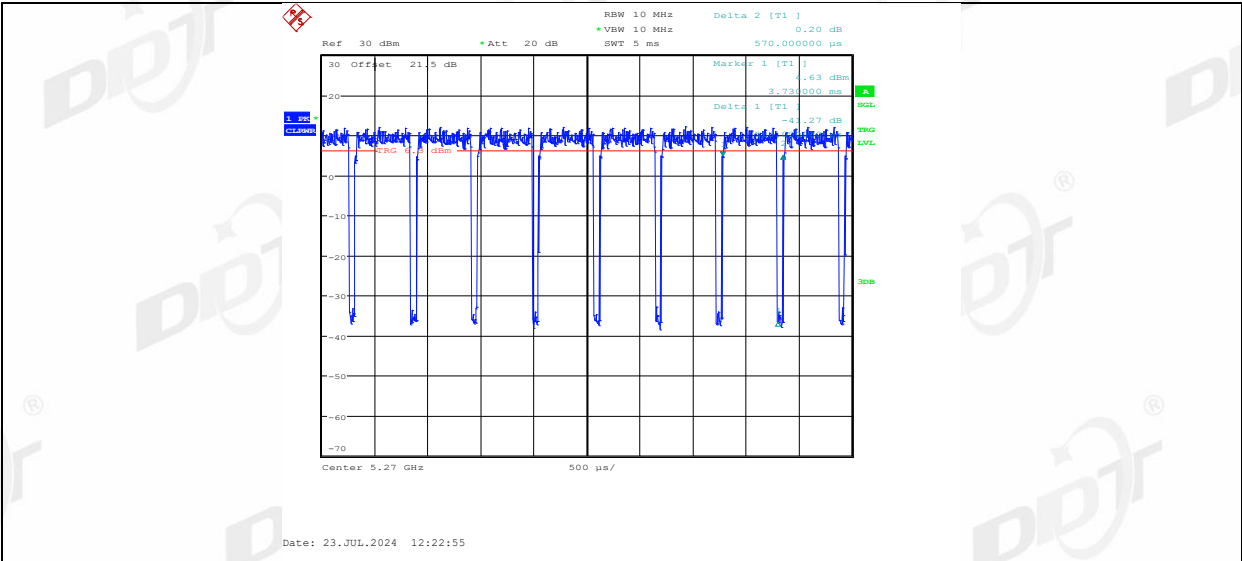
11AX40MIMO_Ant2_5230



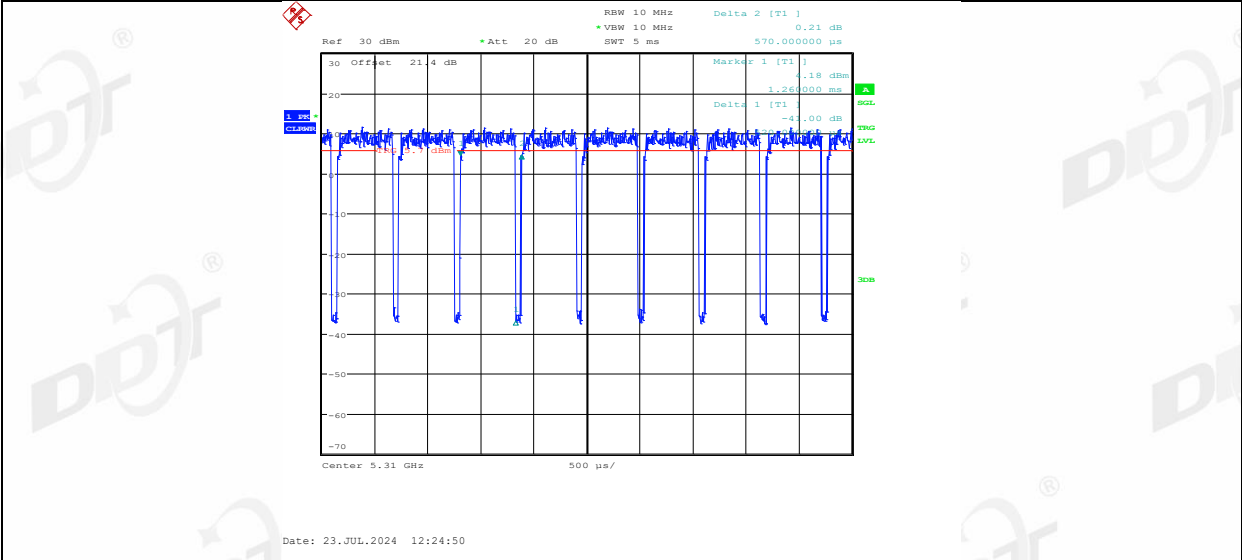
11AX40MIMO_Ant1_5270



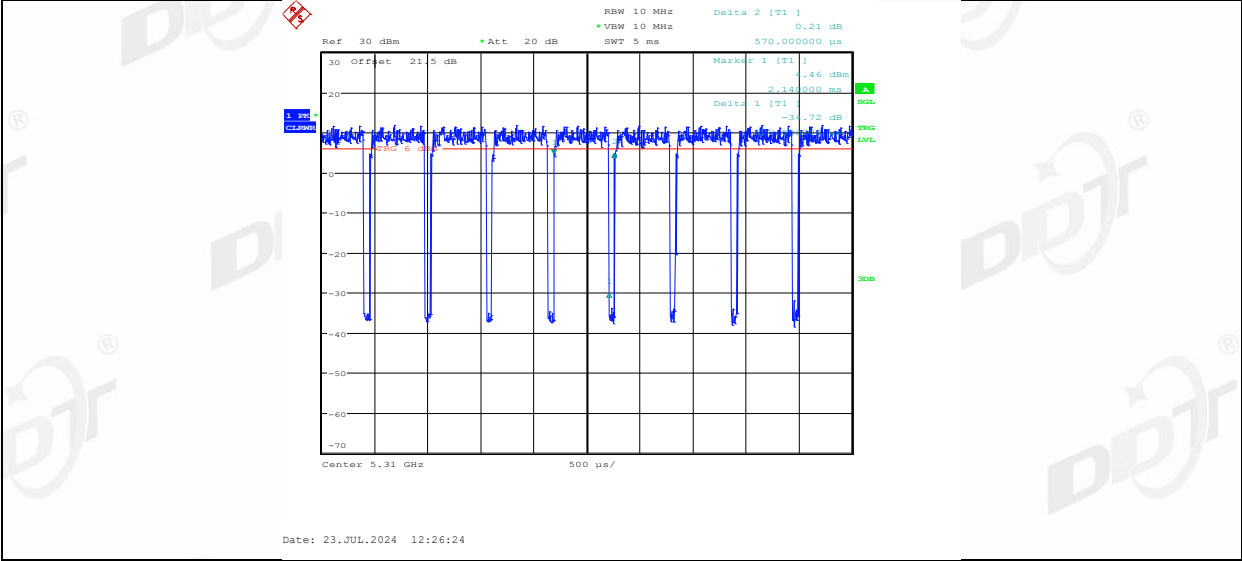
11AX40MIMO_Ant2_5270



11AX40MIMO_Ant1_5310



11AX40MIMO_Ant2_5310



11AX40MIMO_Ant1_5510