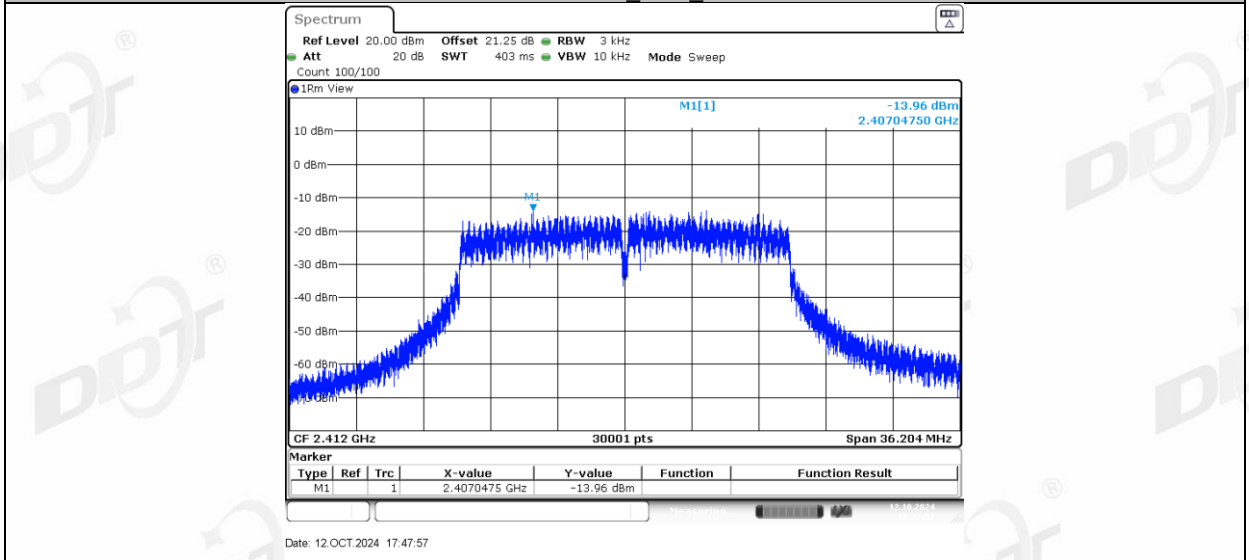
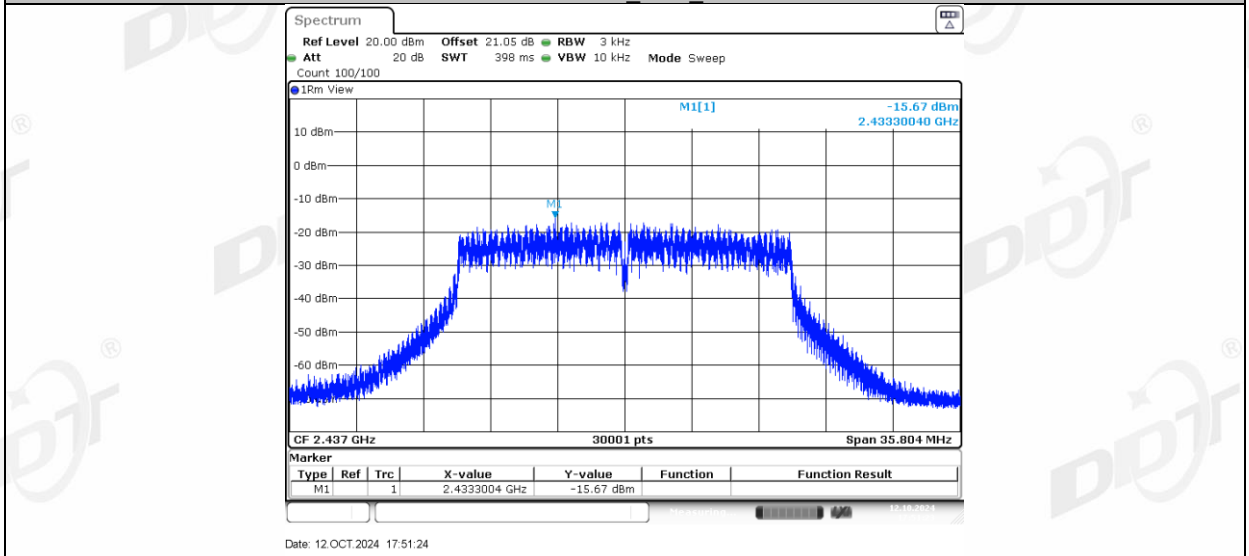


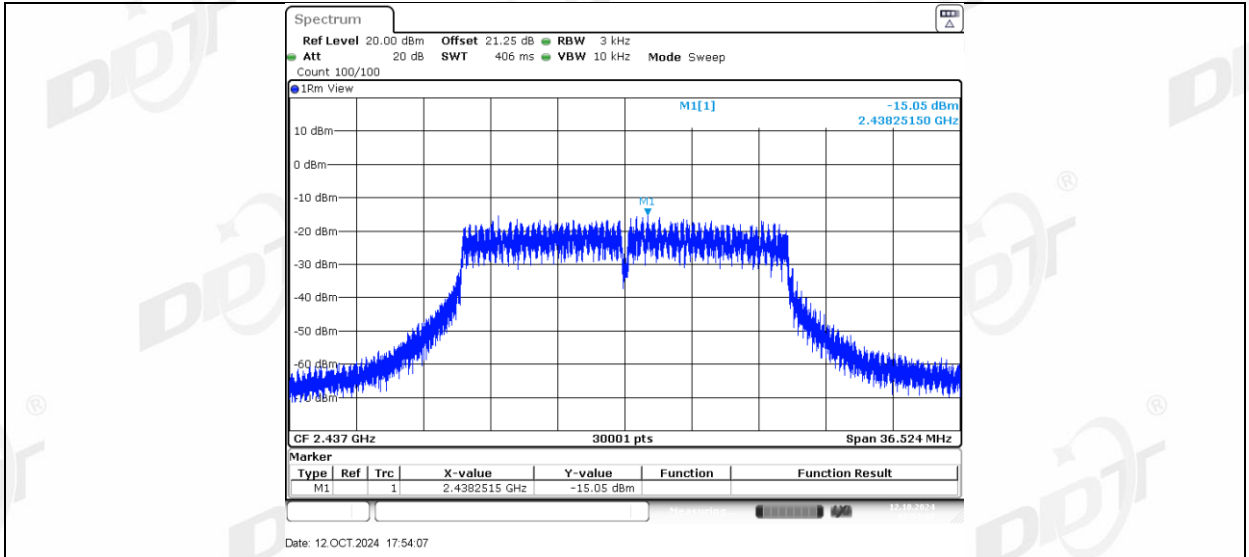
11N20MIMO\_Ant2\_2412



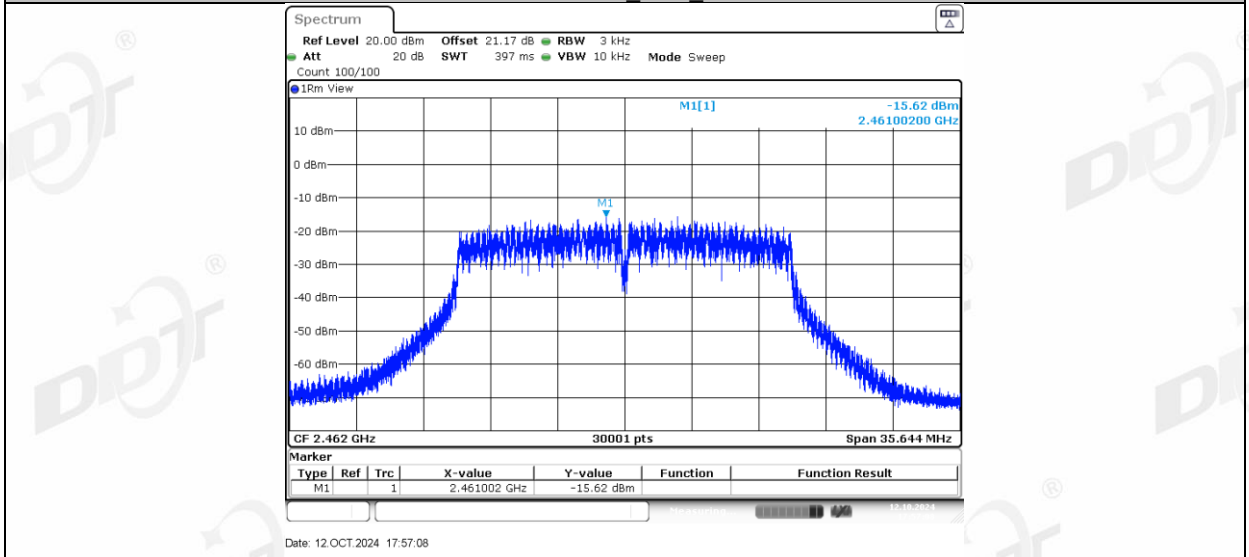
11N20MIMO\_Ant1\_2437



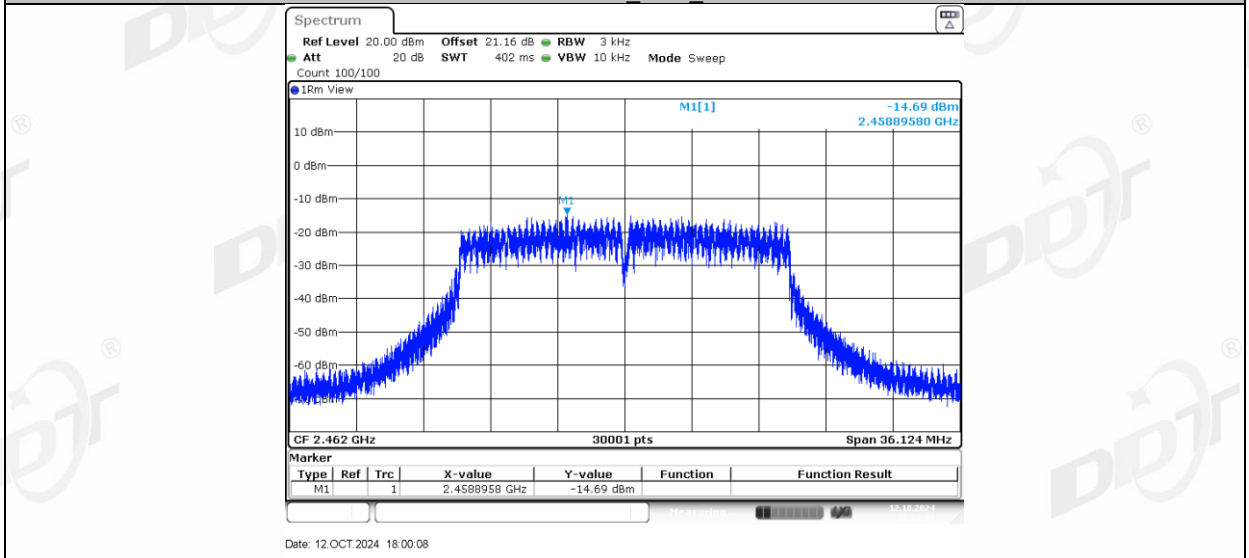
11N20MIMO\_Ant2\_2437



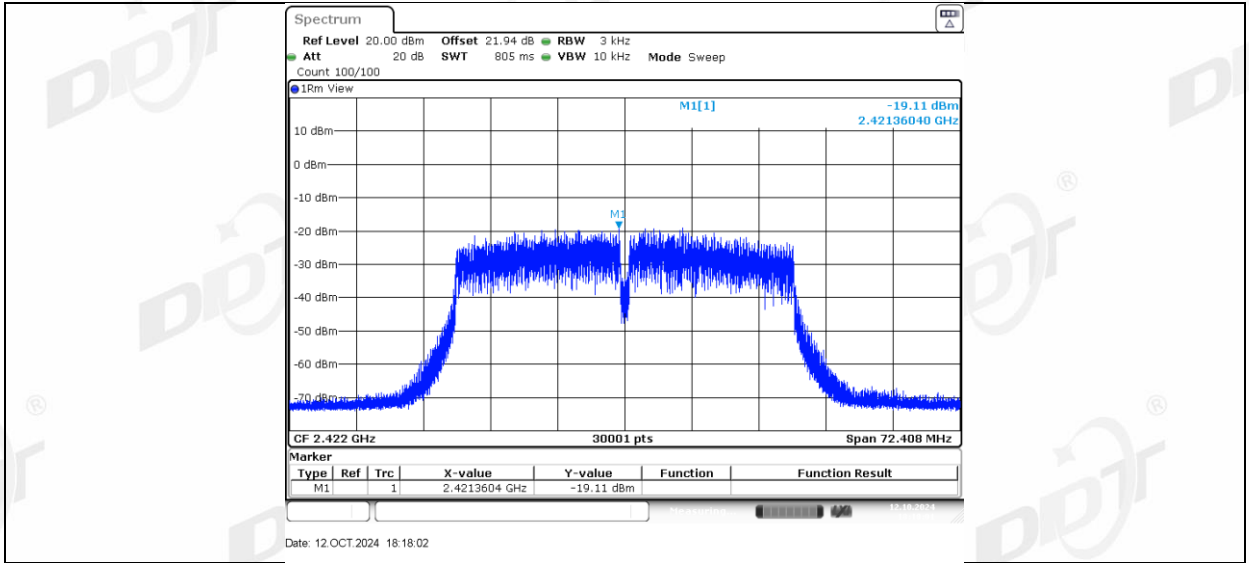
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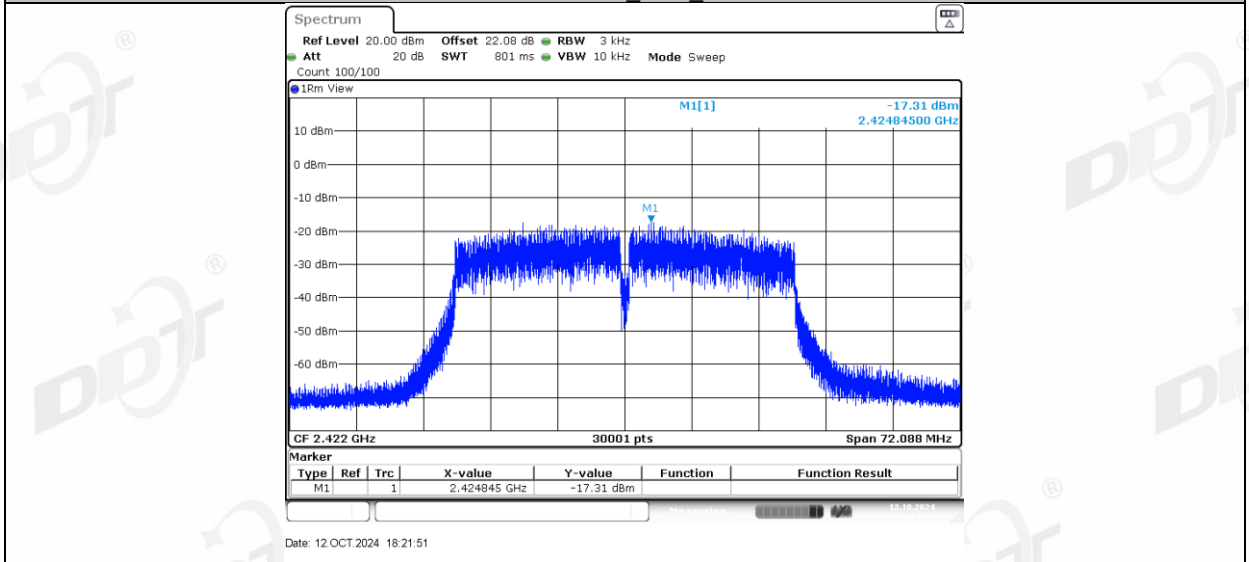
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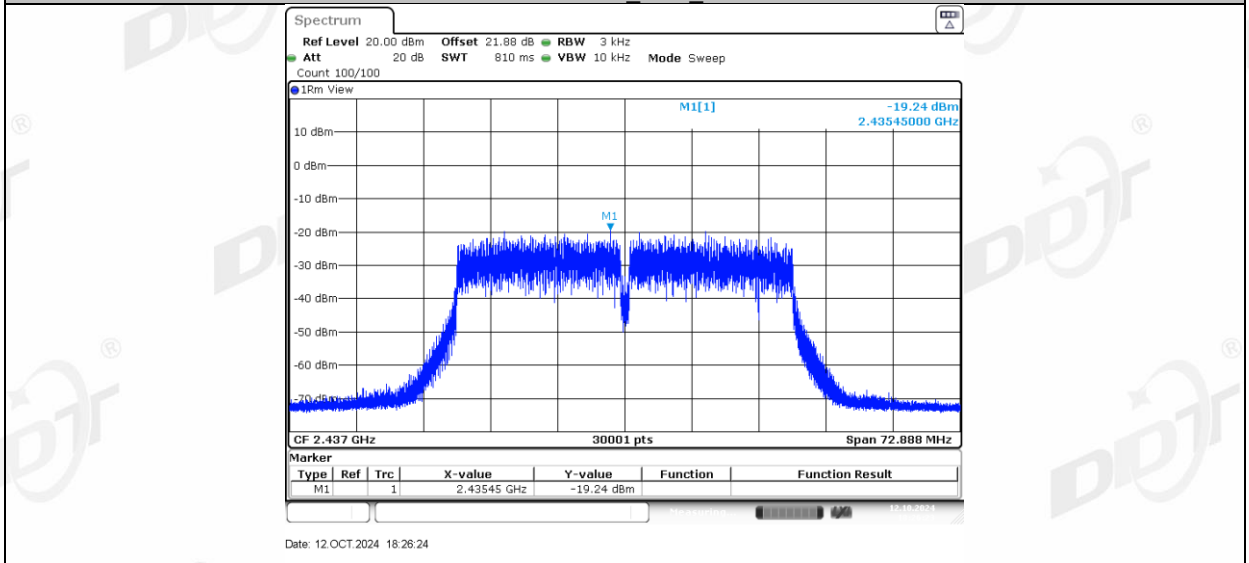
11N40MIMO\_Ant1\_2422



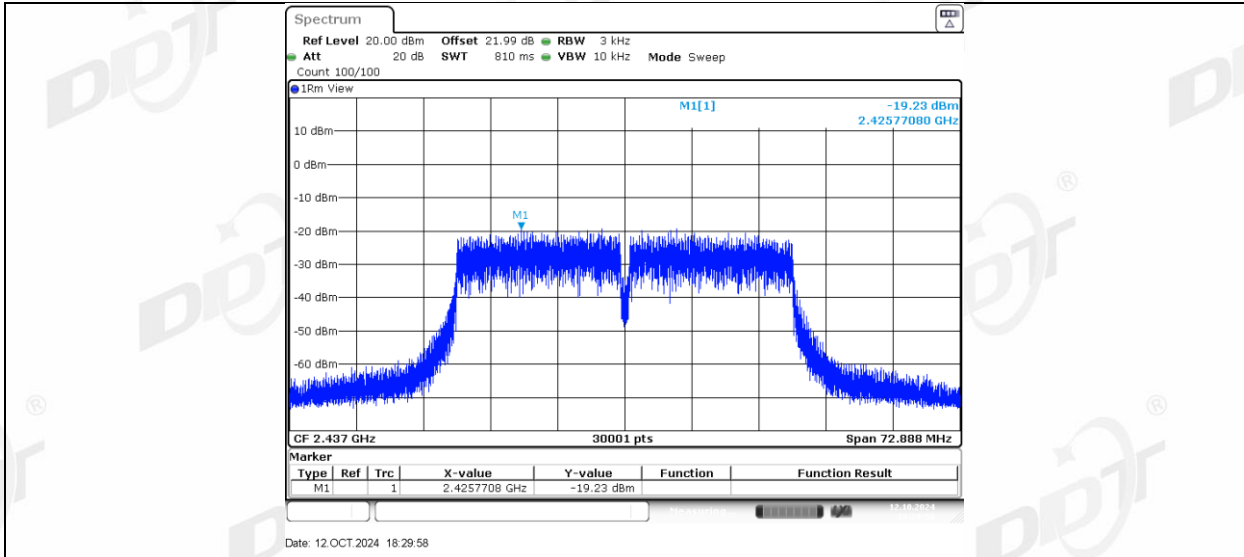
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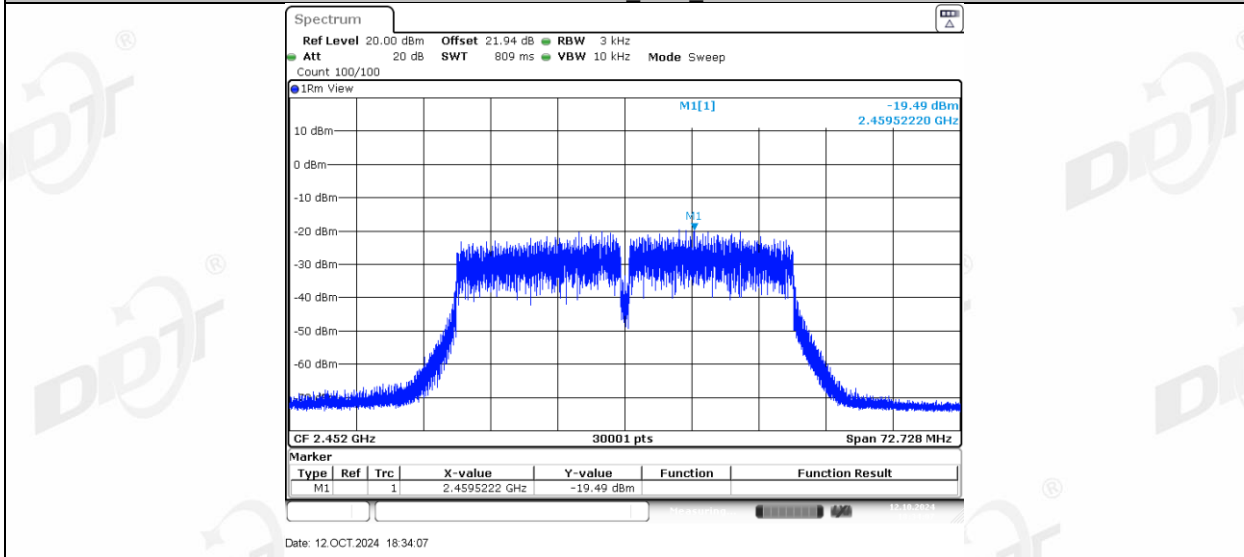
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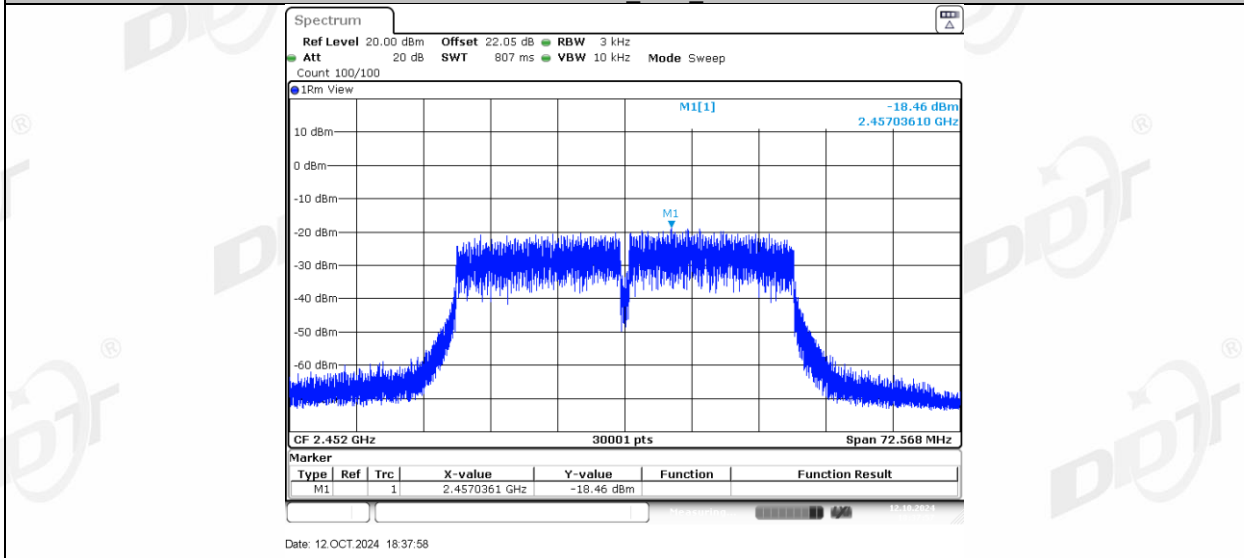
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11N40MIMO\_Ant1\_2452

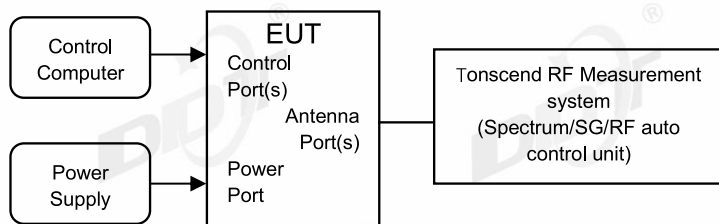


11N40MIMO\_Ant2\_2452



## 8. Band Edge Compliance (Conducted Method)

### 8.1. Block diagram of test setup



### 8.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

### 8.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) Establish a reference level by using the following procedure:

RBW: 100 kHz

VBW: 300 kHz

Span Encompass frequency range to be measured

Detector Mode: Peak

Sweep time: auto

Trace mode Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.

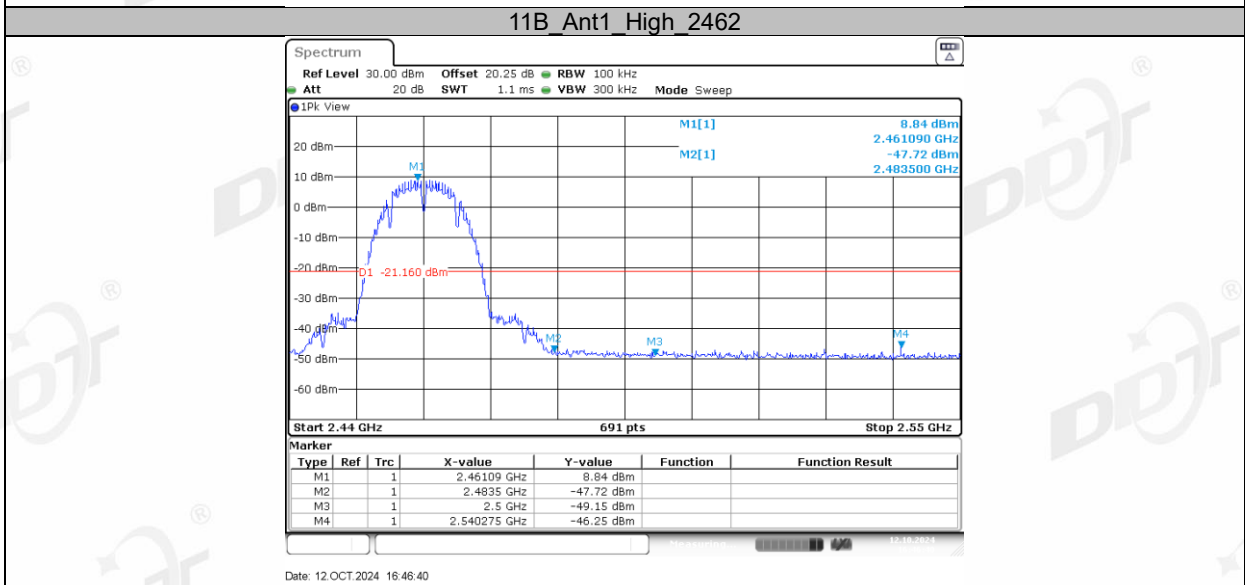
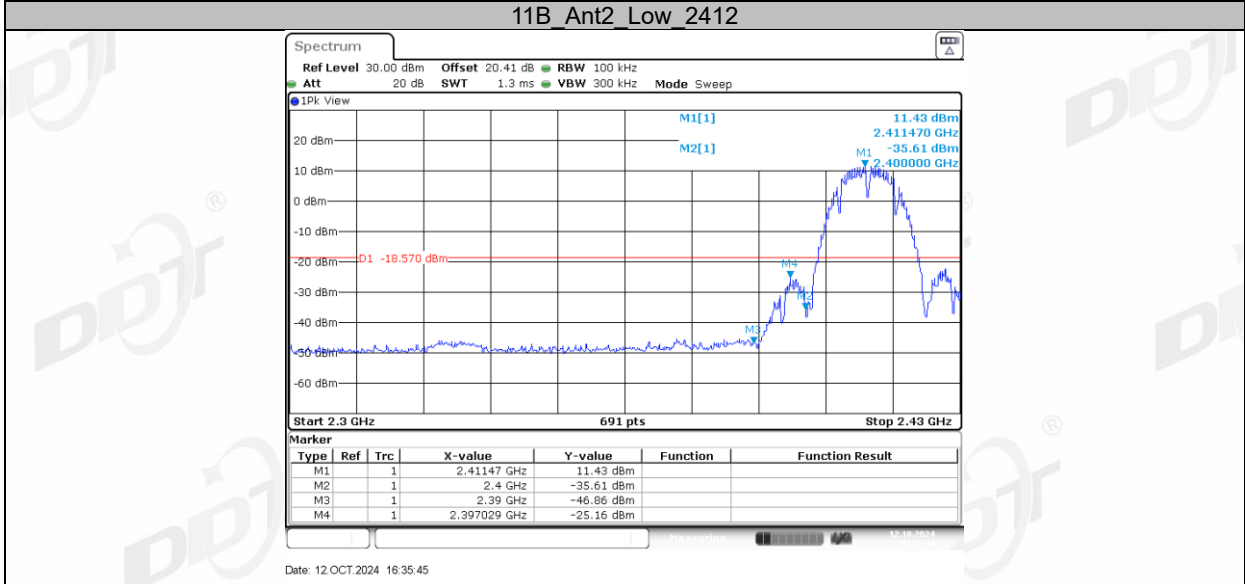
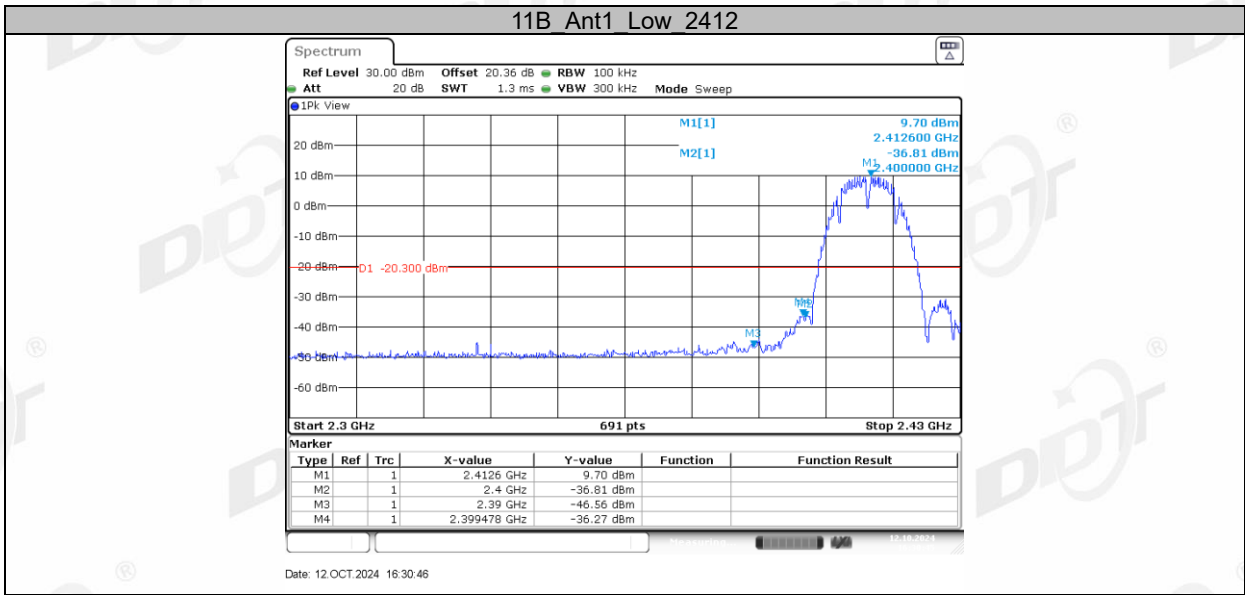
Then mark the maximum amplitude of all unwanted emissions outside of the authorized frequency band.

**8.4. Test result**

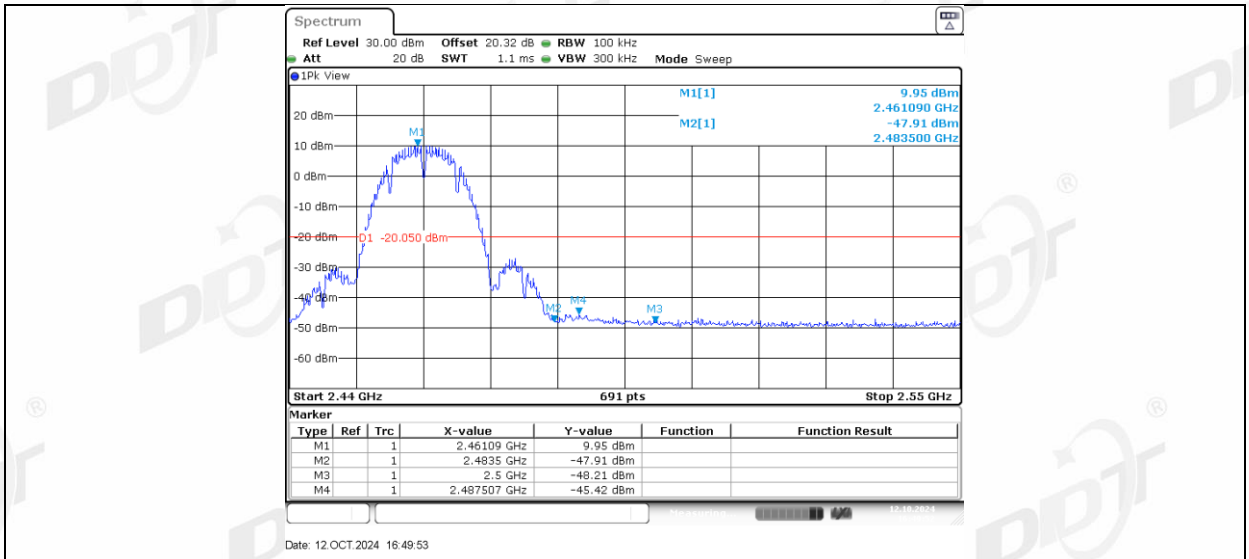
Test Engineer:	Zhongyao	Test Site:	RF Measurement System 3#
Ambient Condition:	26.4°C,46.9%RH	Test Date:	2024.10.12
Test Power Supply:	DC 12V	Sample Number:	S24092008-001

EUT Set Mode	CH or Frequency	Result(dBm)	EUT Set Mode	CH or Frequency	Result (dBm)
11b	CH1	Pass	11g	CH1	Pass
	CH11	Pass		CH11	Pass
11n HT 20	CH1	Pass	11n HT 40	CH3	Pass
	CH11	Pass		CH9	Pass

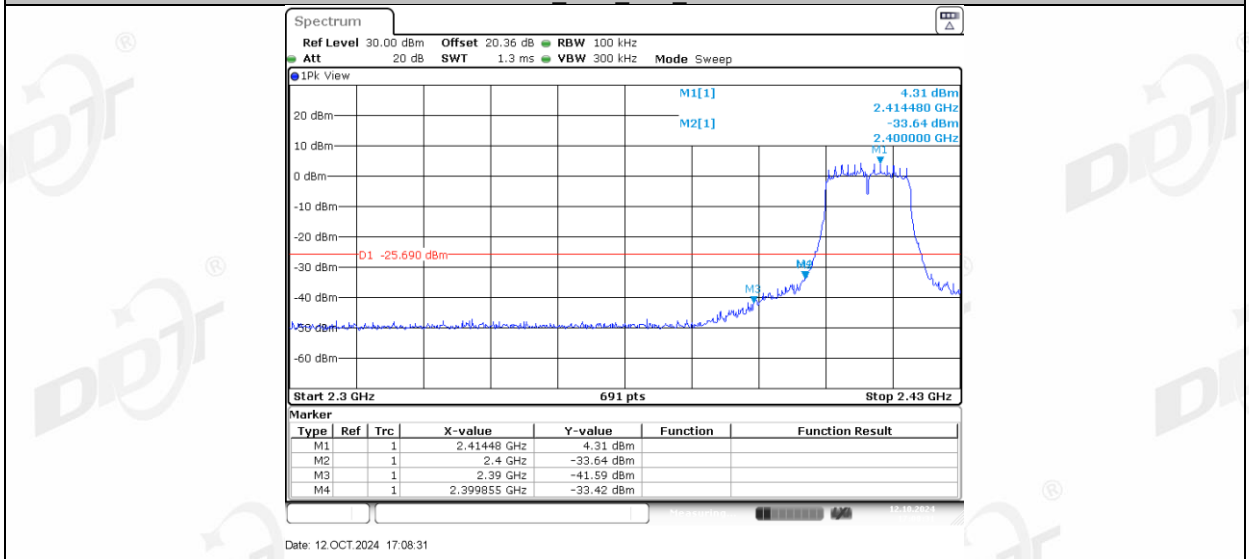
8.5. Test graphs



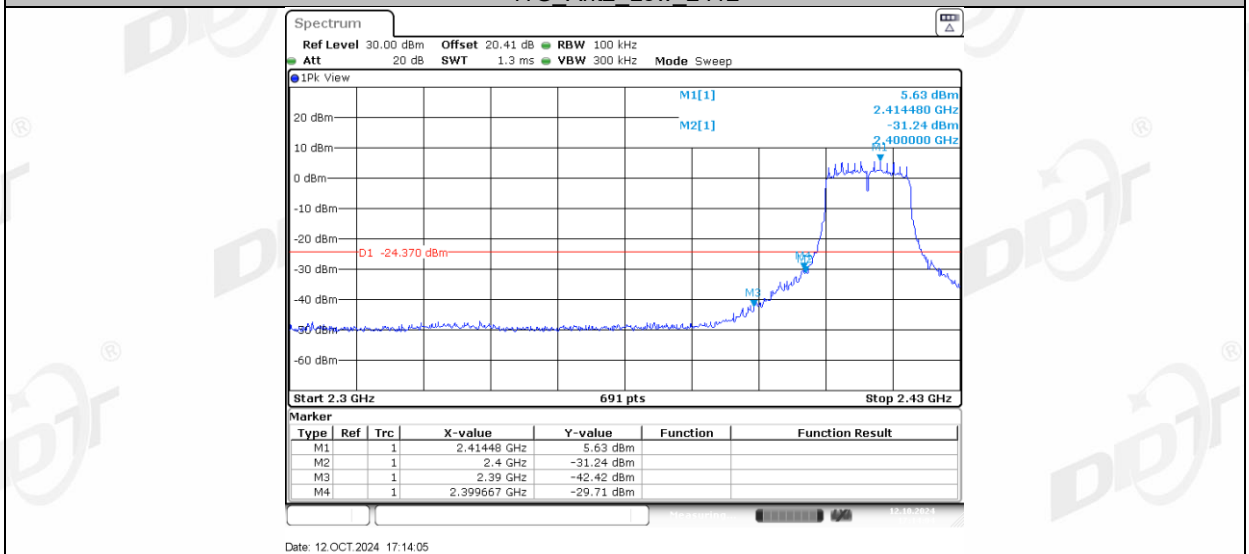
**11B Ant2 High 2462**



11G Ant1 Low 2412

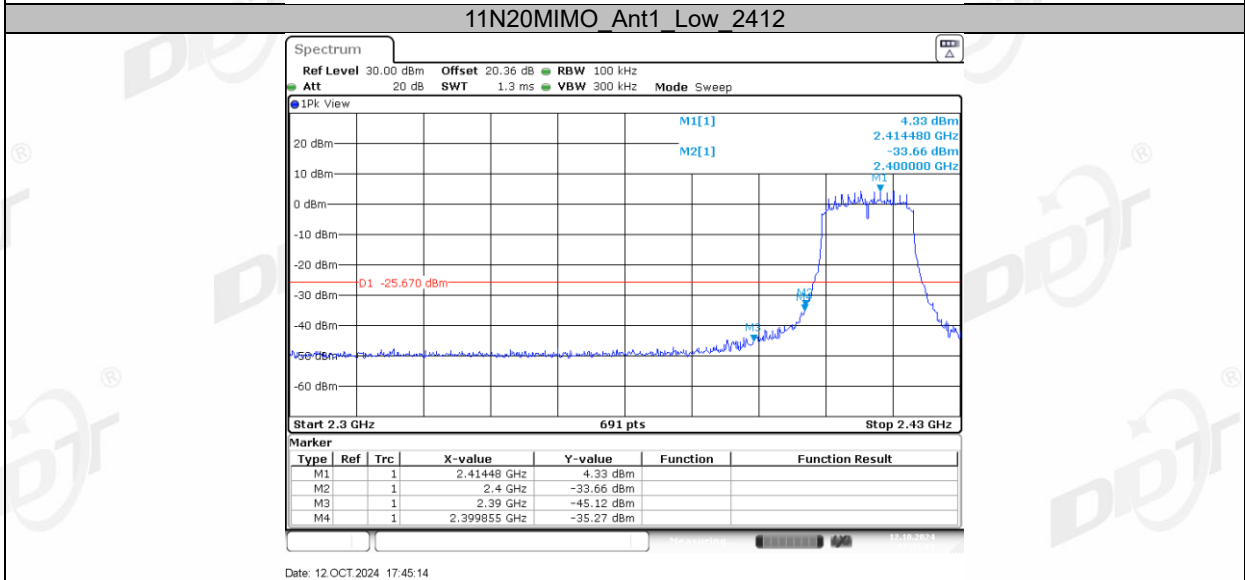
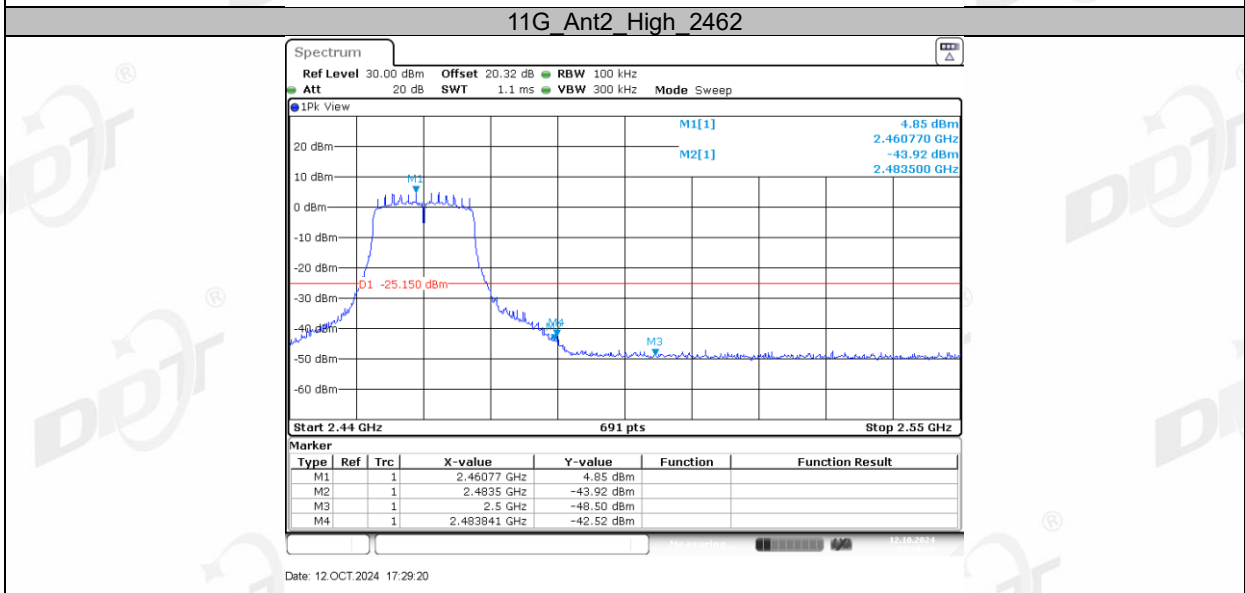
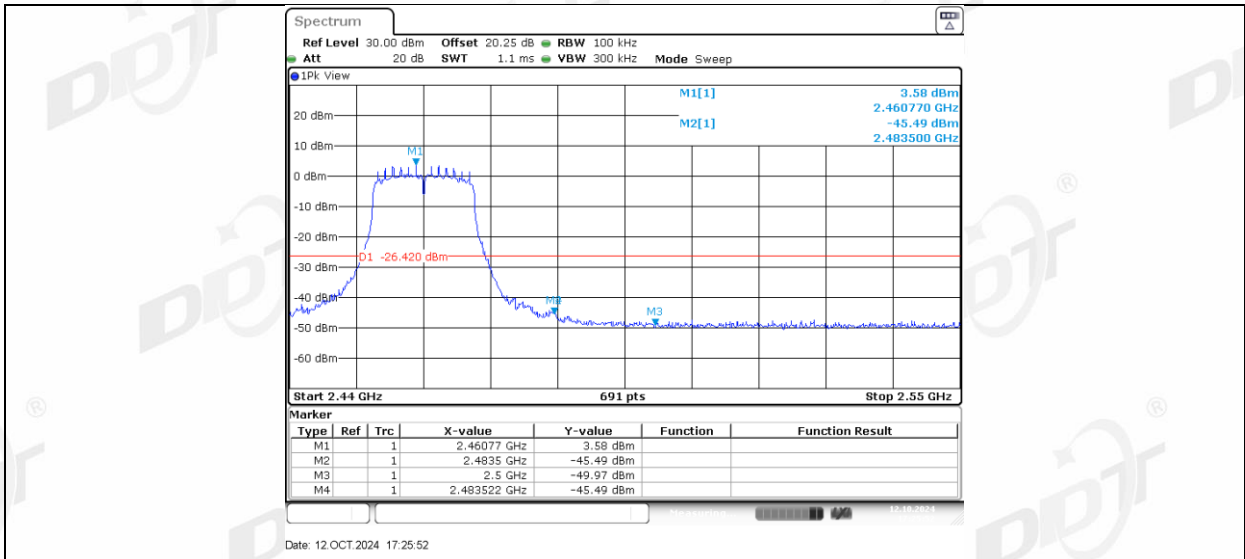


11G Ant2 Low 2412

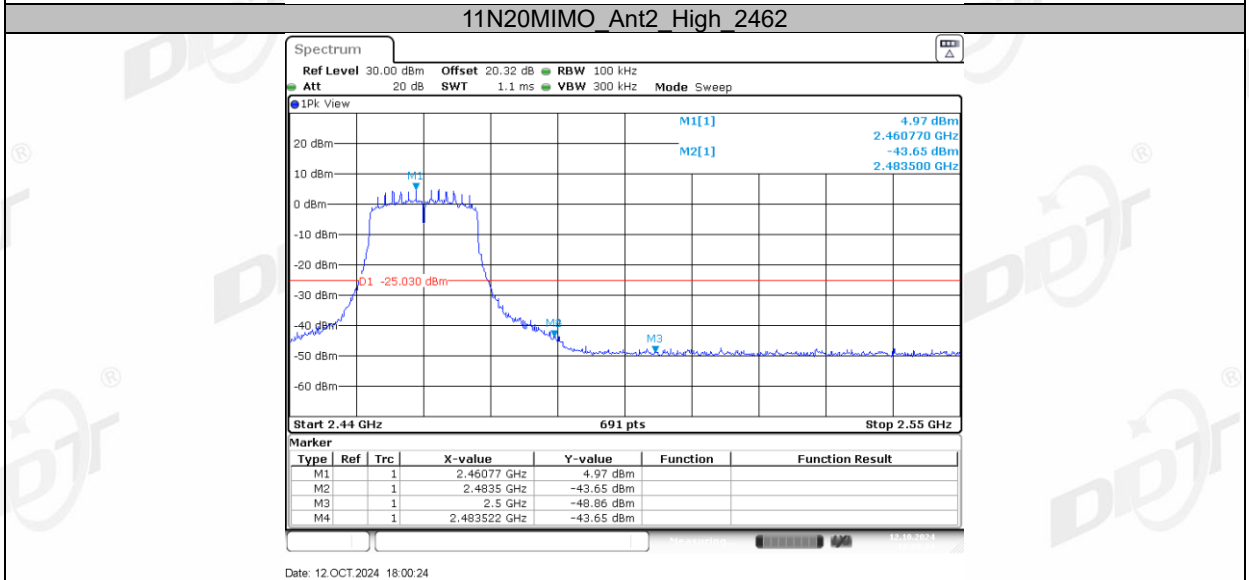
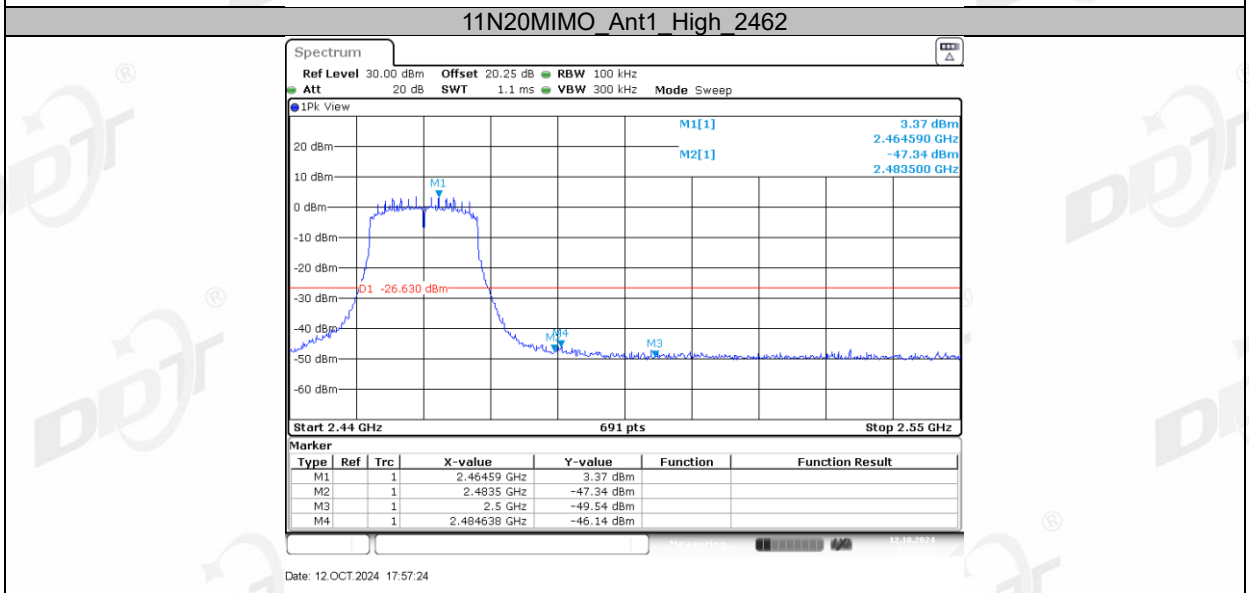
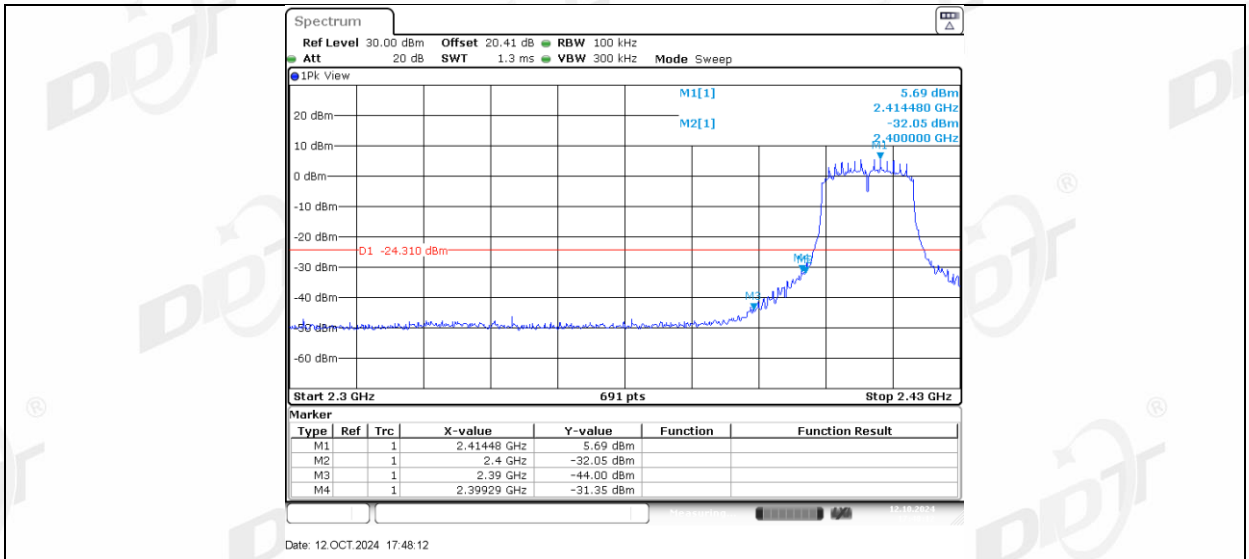


11G Ant1 High 2462

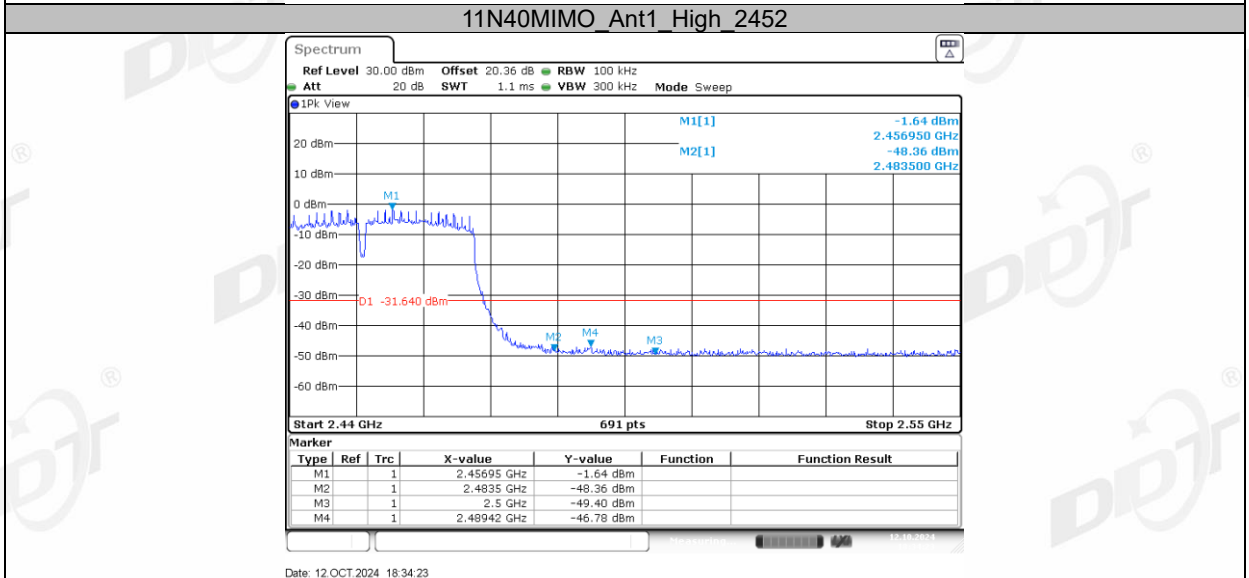
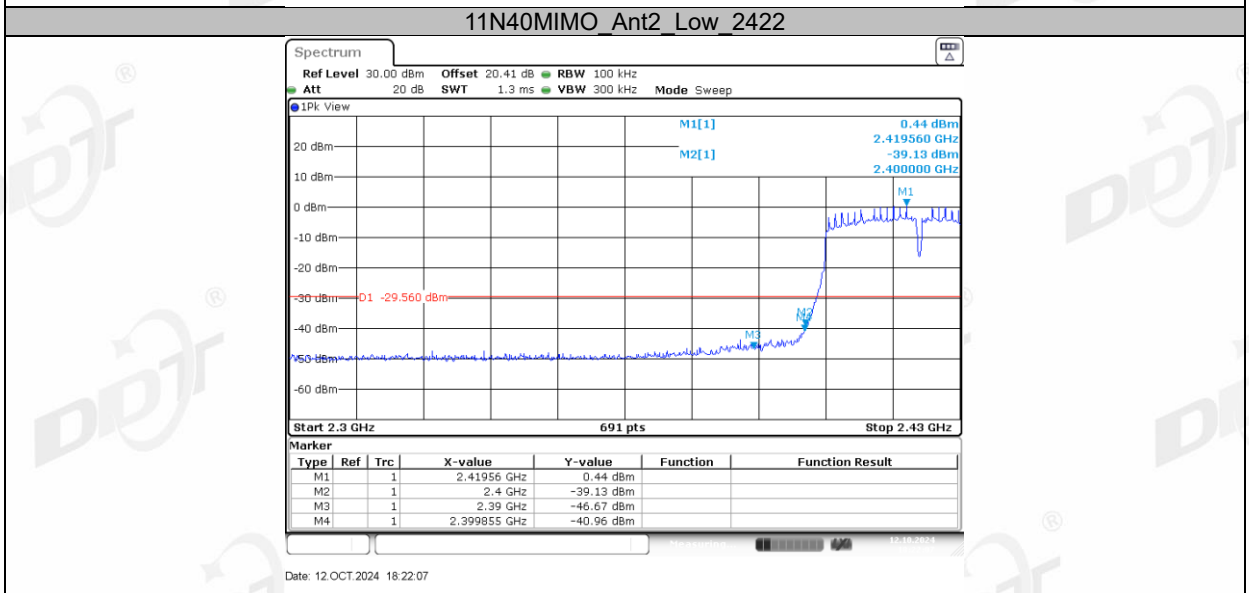
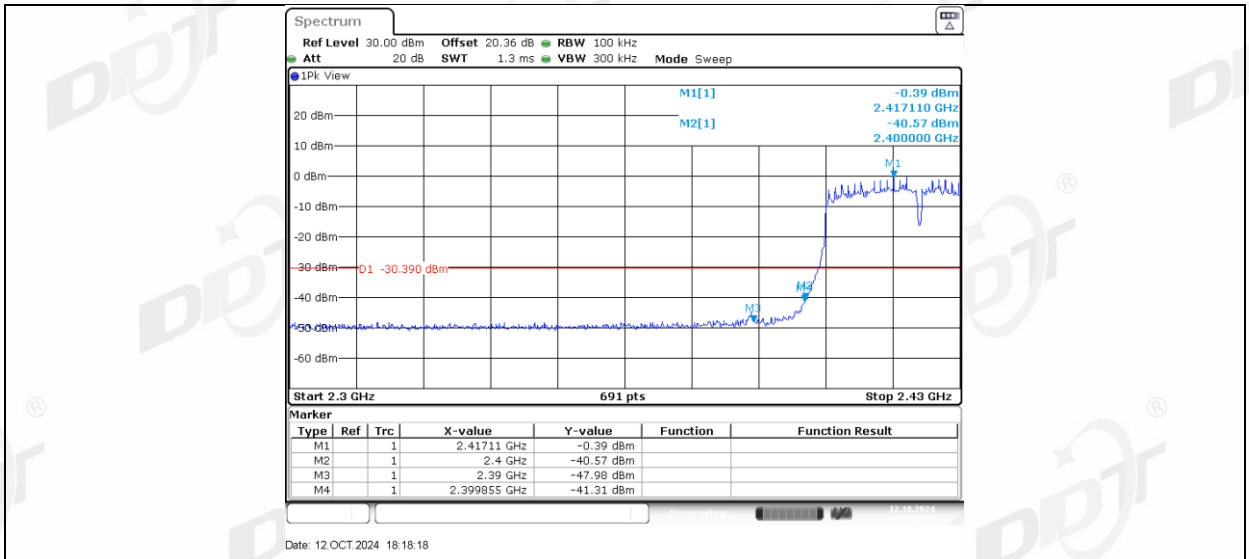




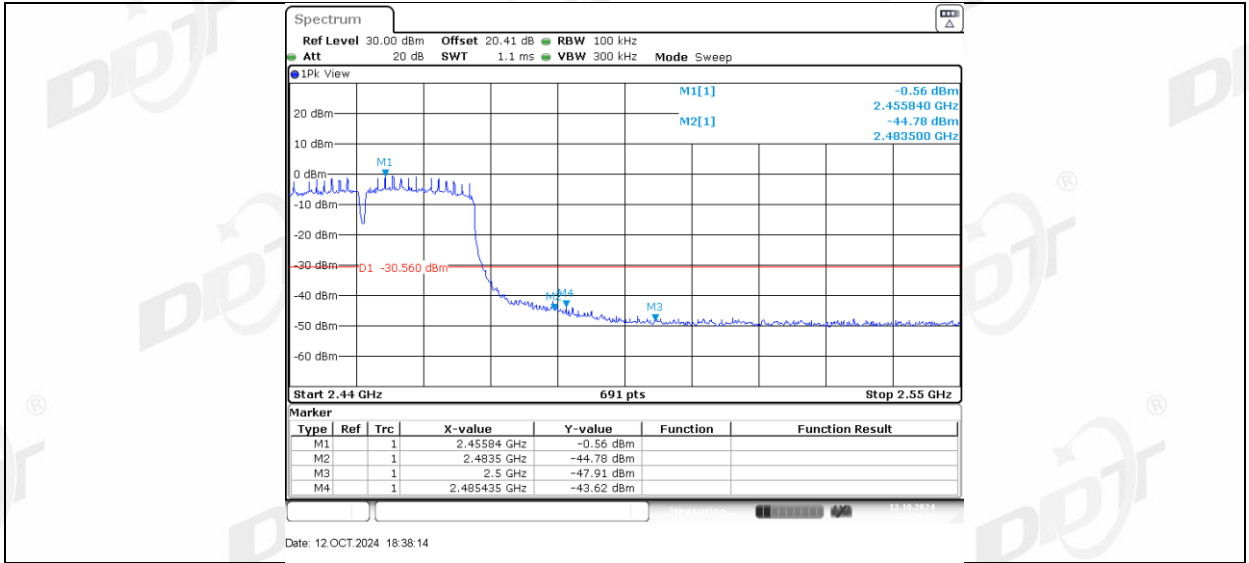
**11N20MIMO Ant2\_Low\_2412**



**11N40MIMO Ant1\_Low\_2422**

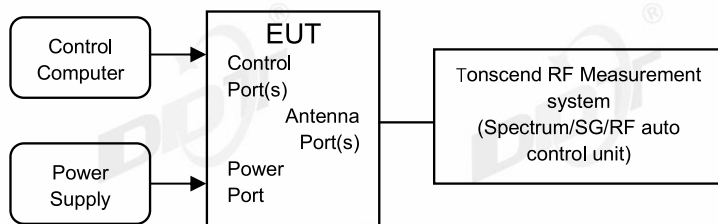


**11N40MIMO\_Ant2\_High\_2452**



## 9. RF Conducted Spurious Emissions

### 9.1. Block diagram of test setup



### 9.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

### 9.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) Establish a reference level by using the following procedure:

Center frequency	Test frequency
RBW:	100 kHz
VBW:	300 kHz
Span	Wide enough to capture the peak level of the in-band emission
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.

(4) Set the spectrum analyzer as follows:

RBW:	100 kHz
VBW:	300 kHz
Span	Encompass frequency range to be measured
Number of measurement points	$\geq \text{Span/RBW}$
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

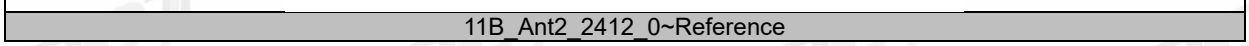
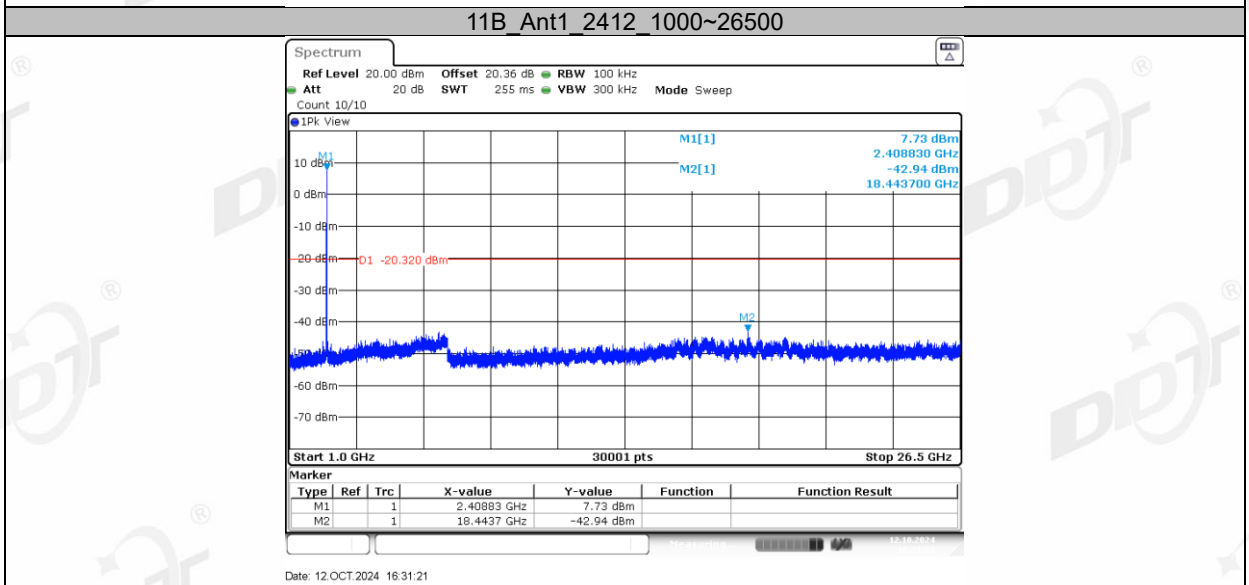
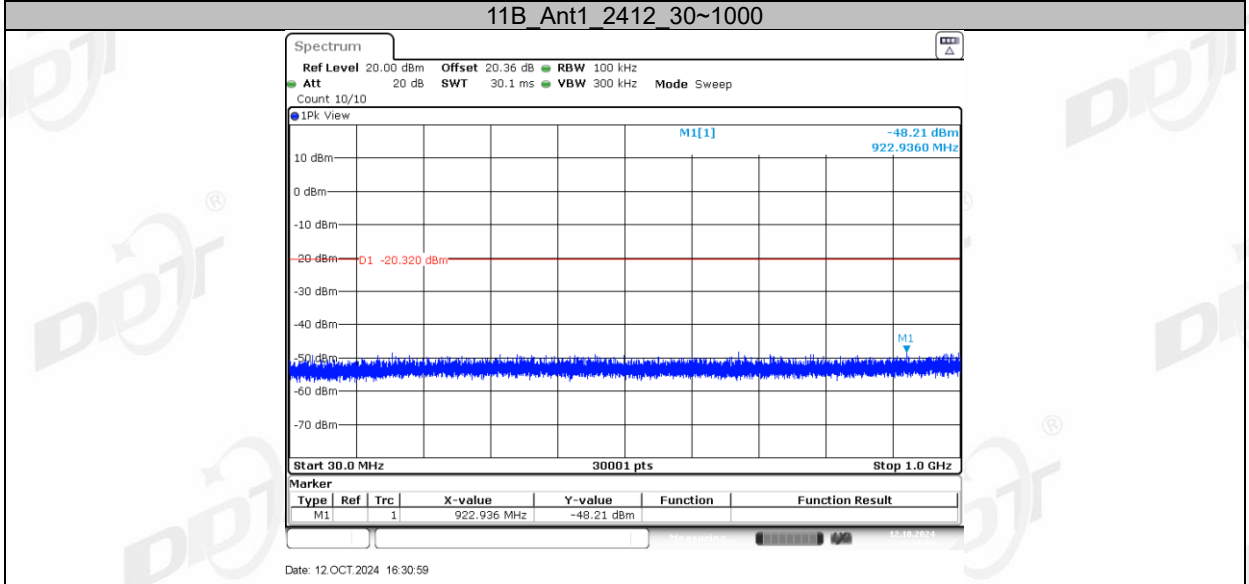
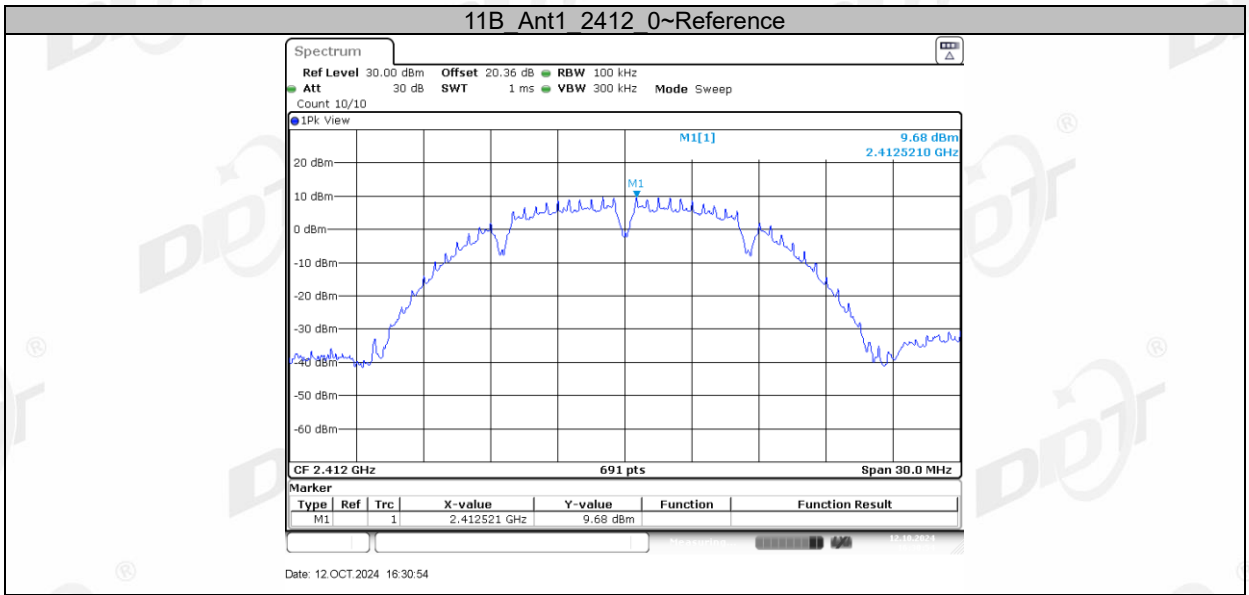
- (5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

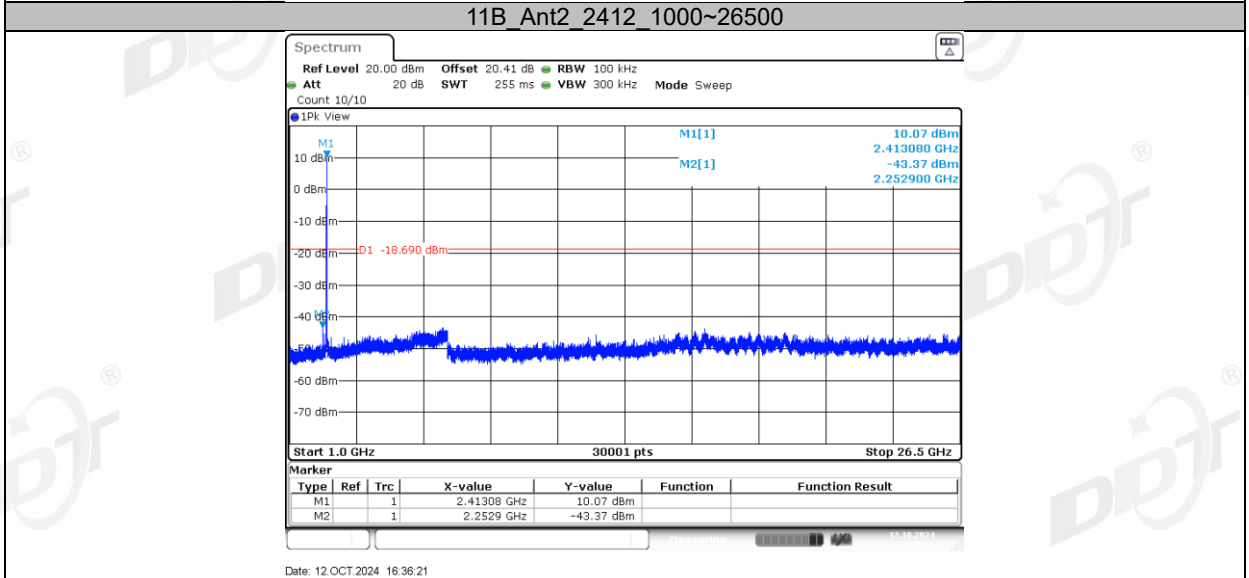
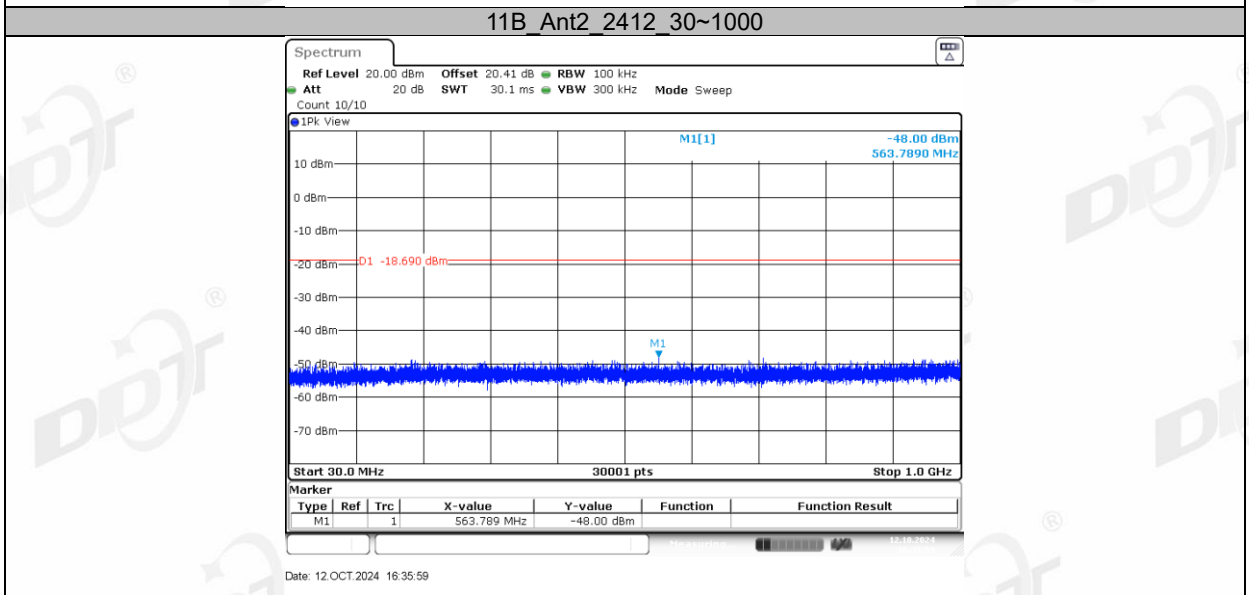
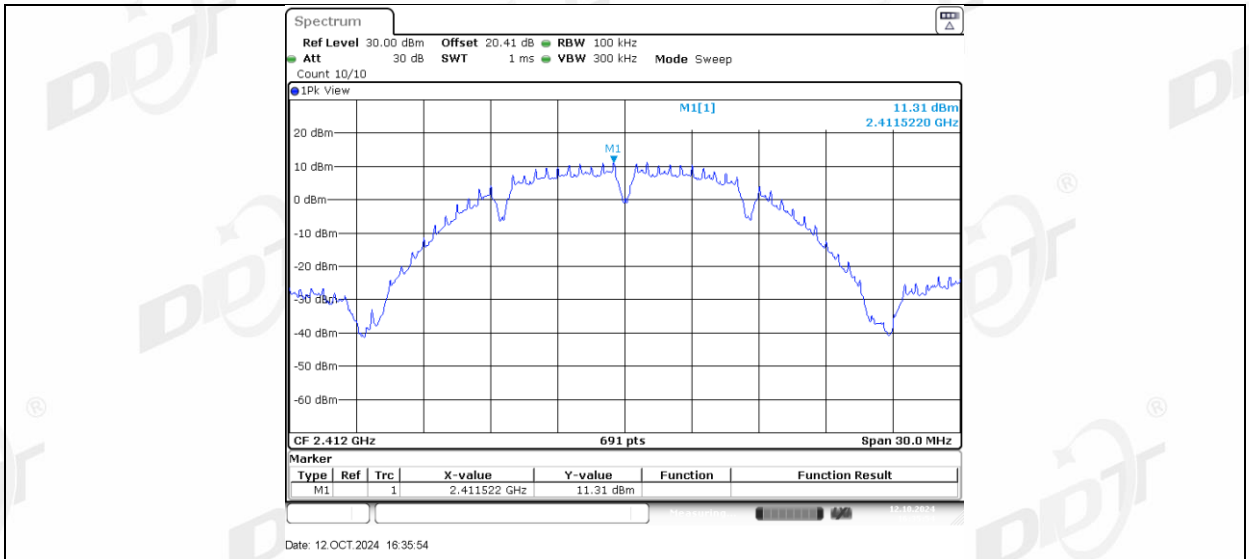
#### 9.4. Test result

Test Engineer:	Zhongyao	Test Site:	RF Measurement System 3#
Ambient Condition:	26.4°C,46.9%RH	Test Date:	2024.10.12
Test Power Supply:	DC 12V	Sample Number:	S24092008-001

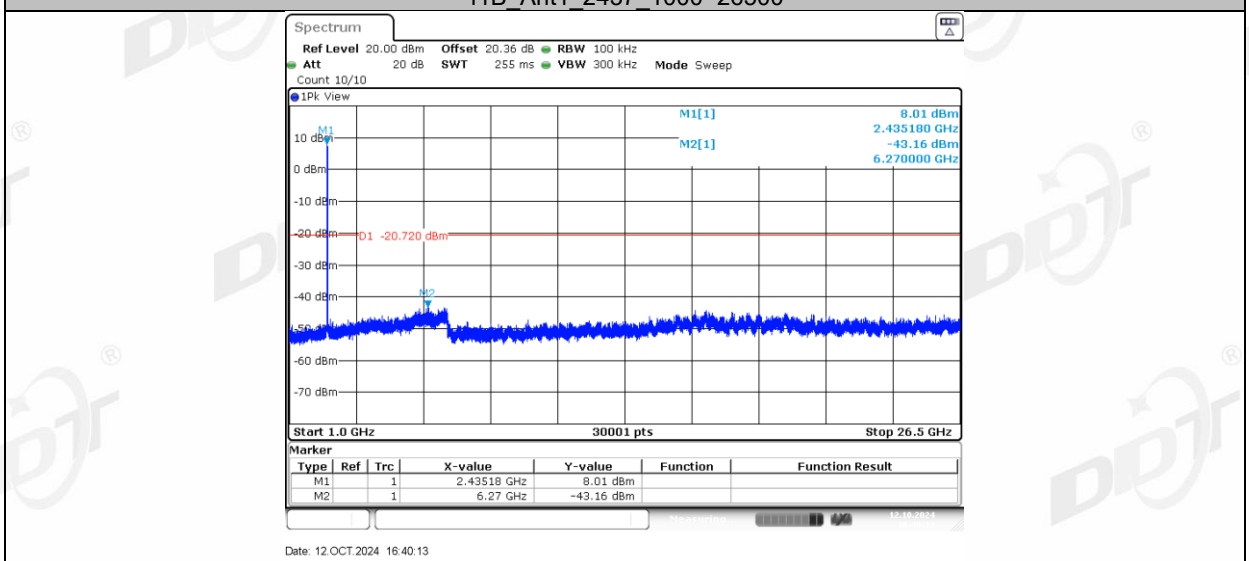
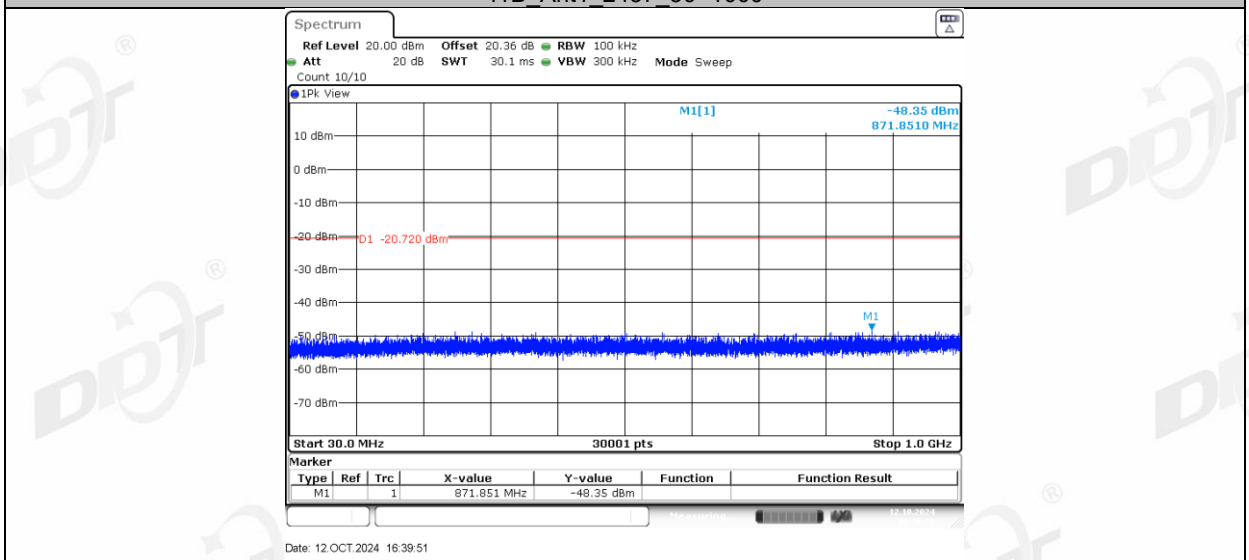
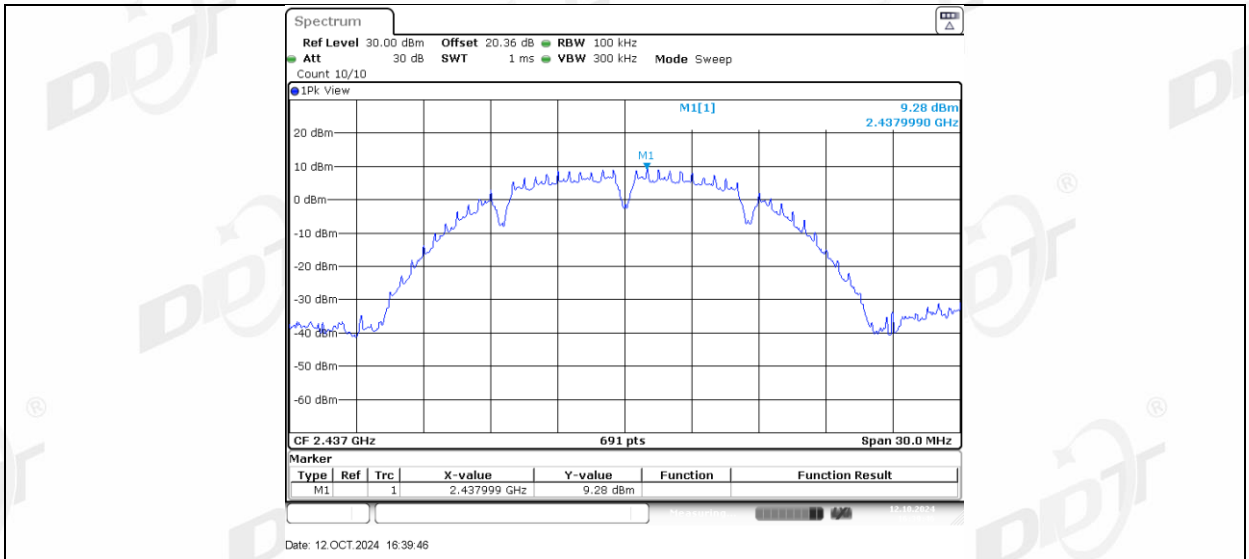
EUT Set Mode	CH or Frequency	Result(dBm)	EUT Set Mode	CH or Frequency	Result (dBm)
11b	CH1	Pass	11g	CH1	Pass
	CH11	Pass		CH11	Pass
11n HT 20	CH1	Pass	11n HT 40	CH3	Pass
	CH11	Pass		CH9	Pass

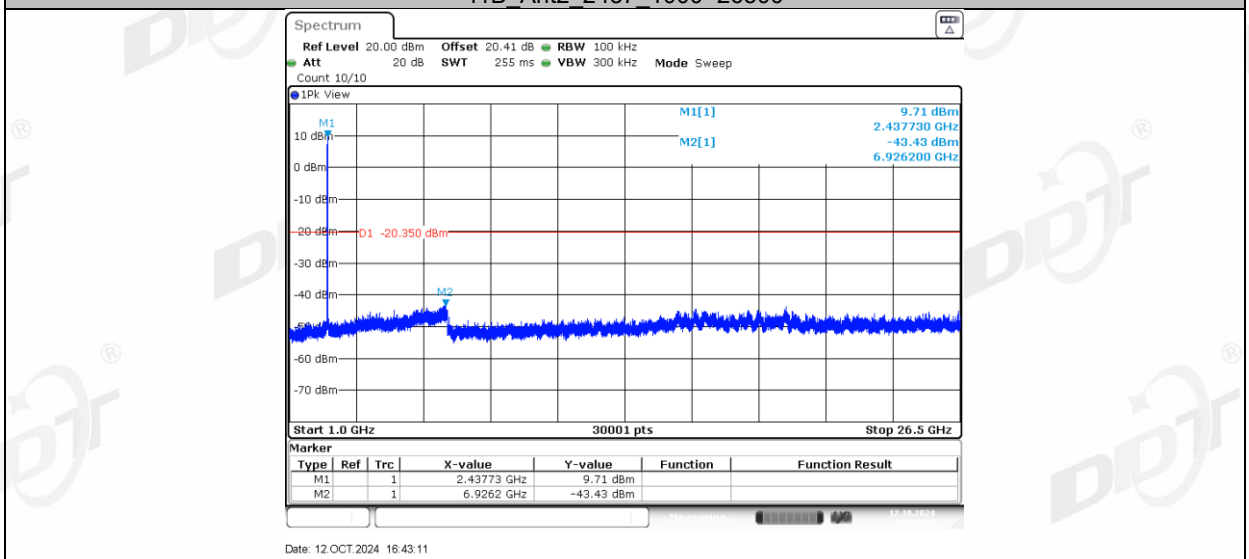
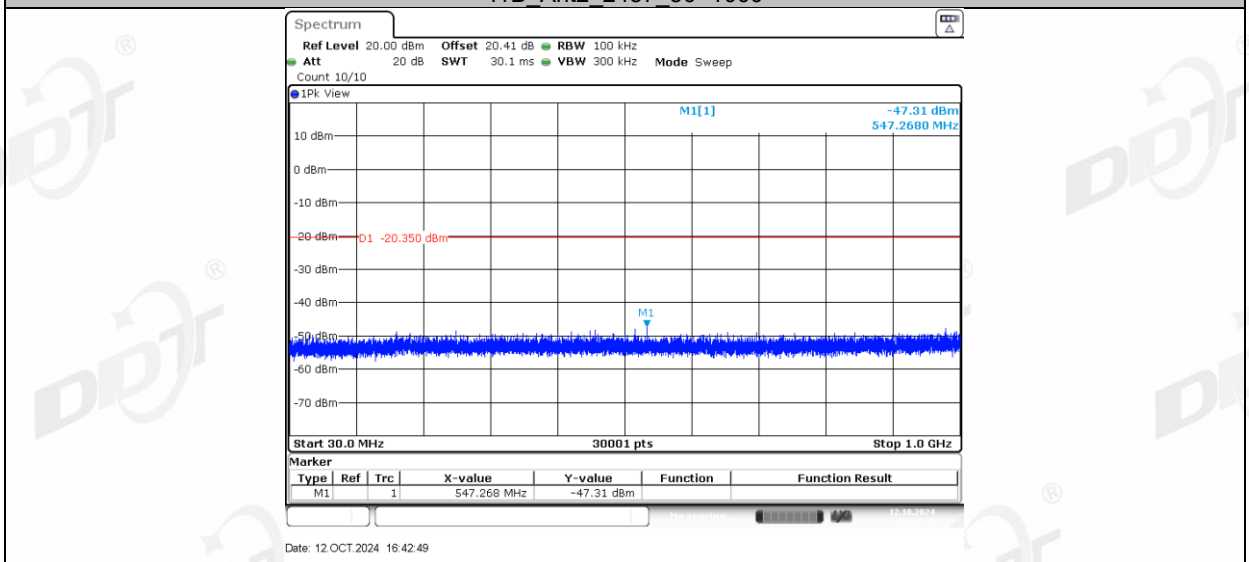
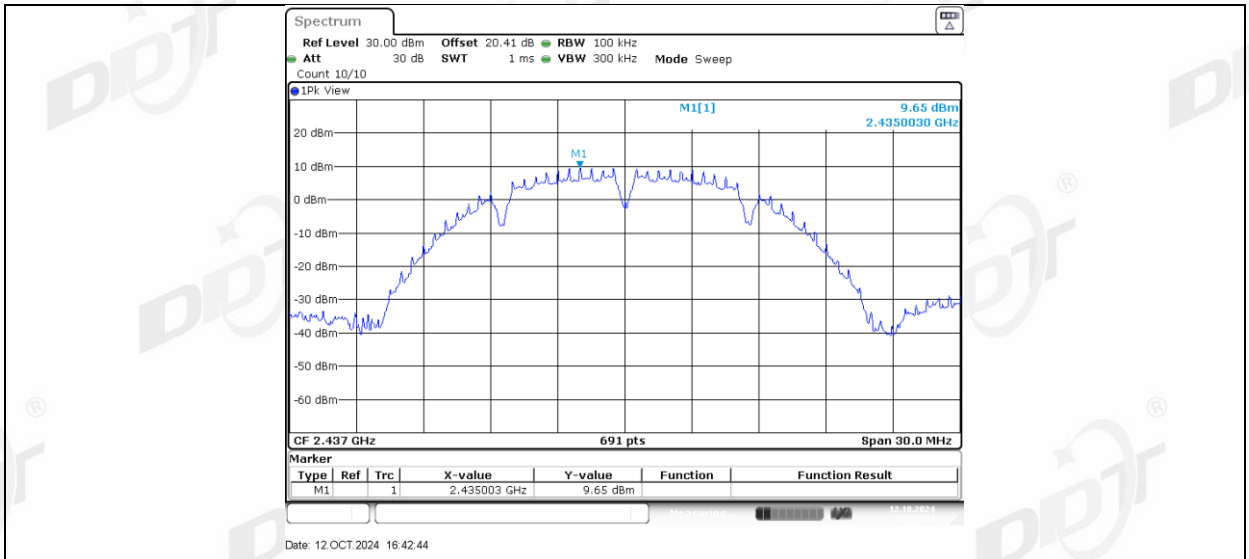
9.5. Test graphs

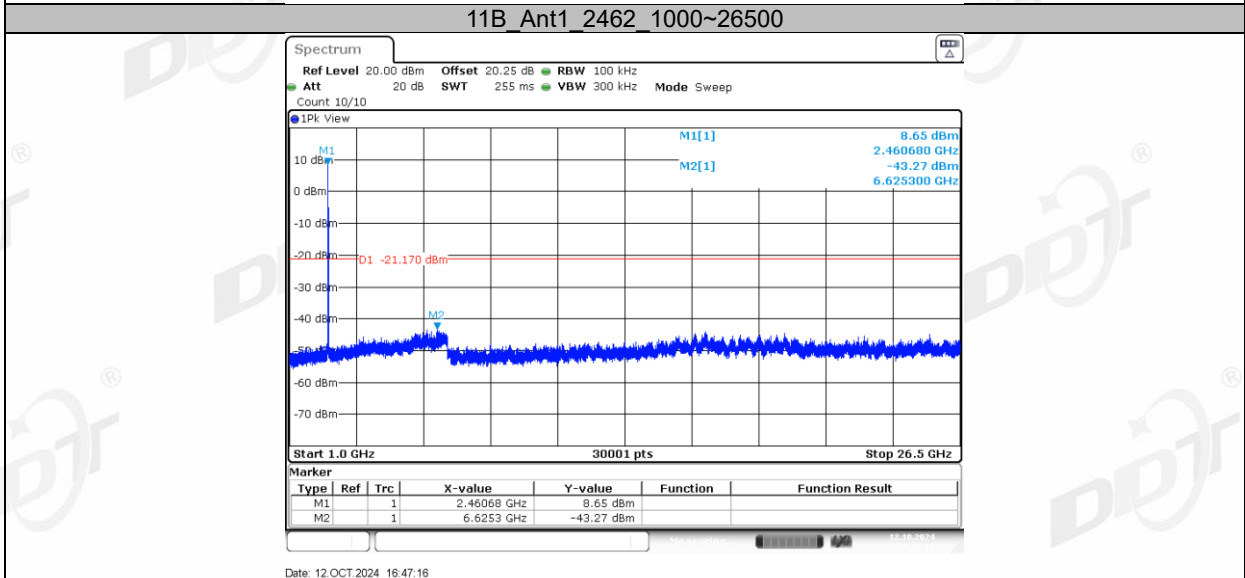
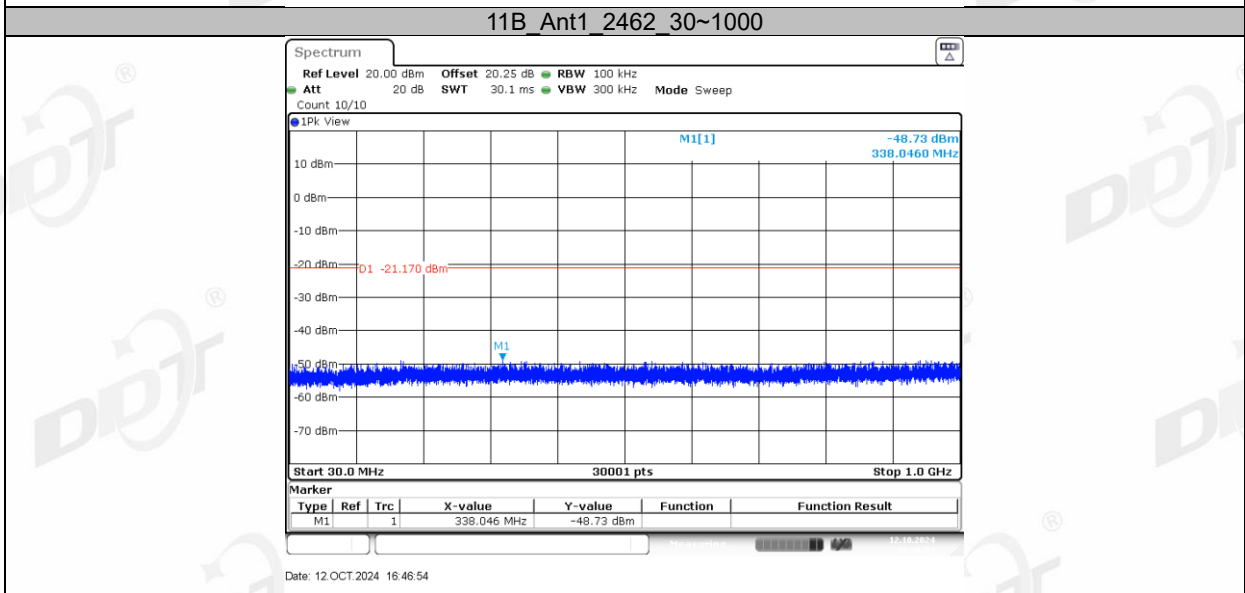
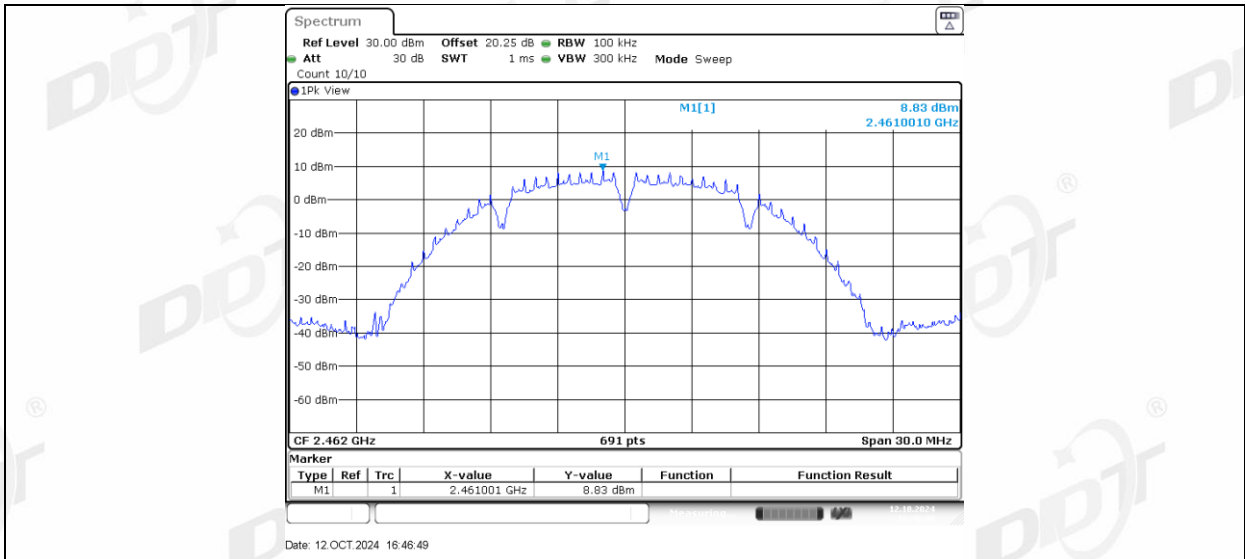


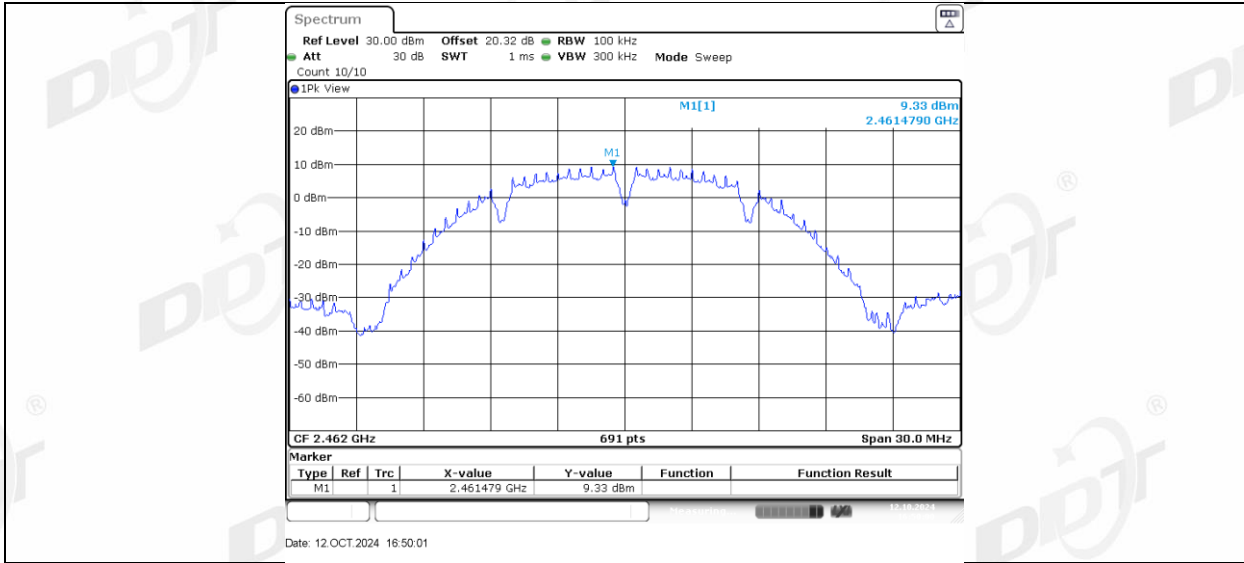




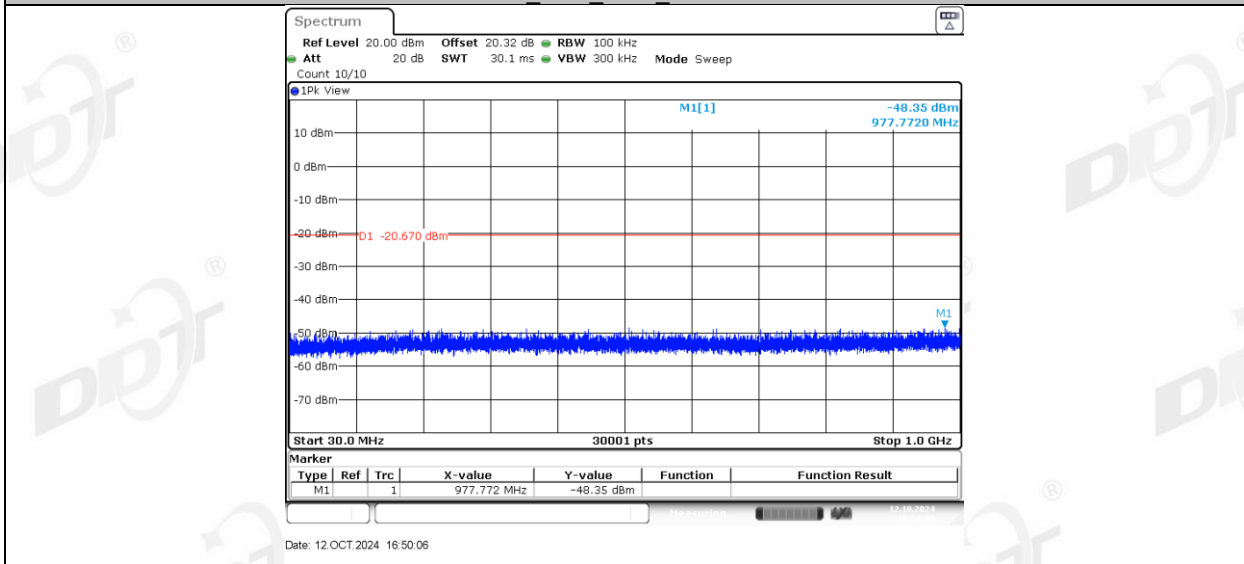




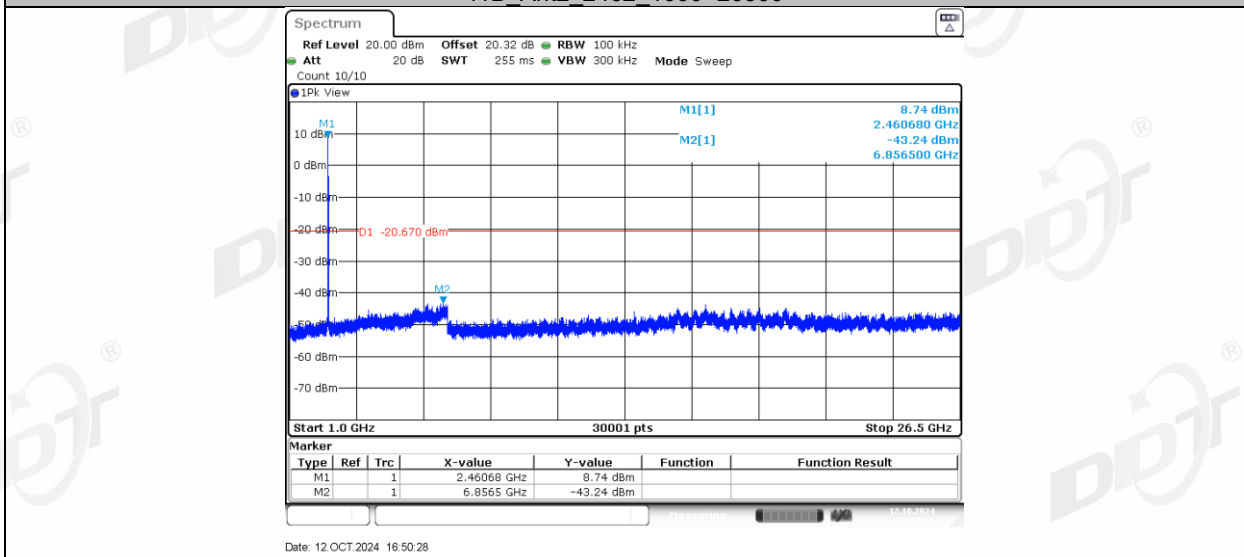




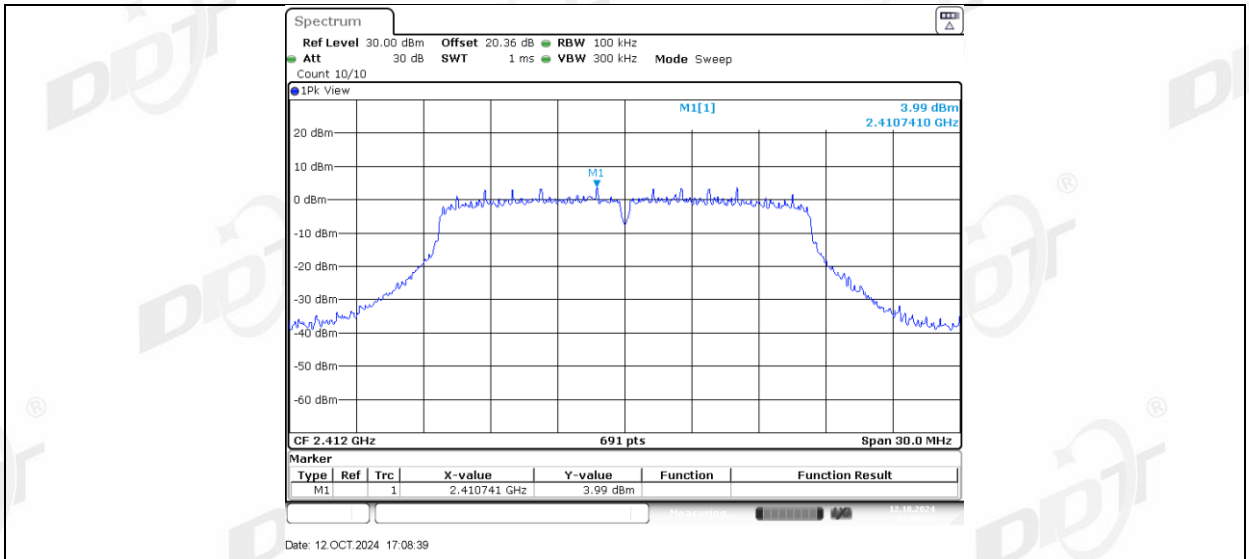
11B\_Ant2\_2462\_30~1000



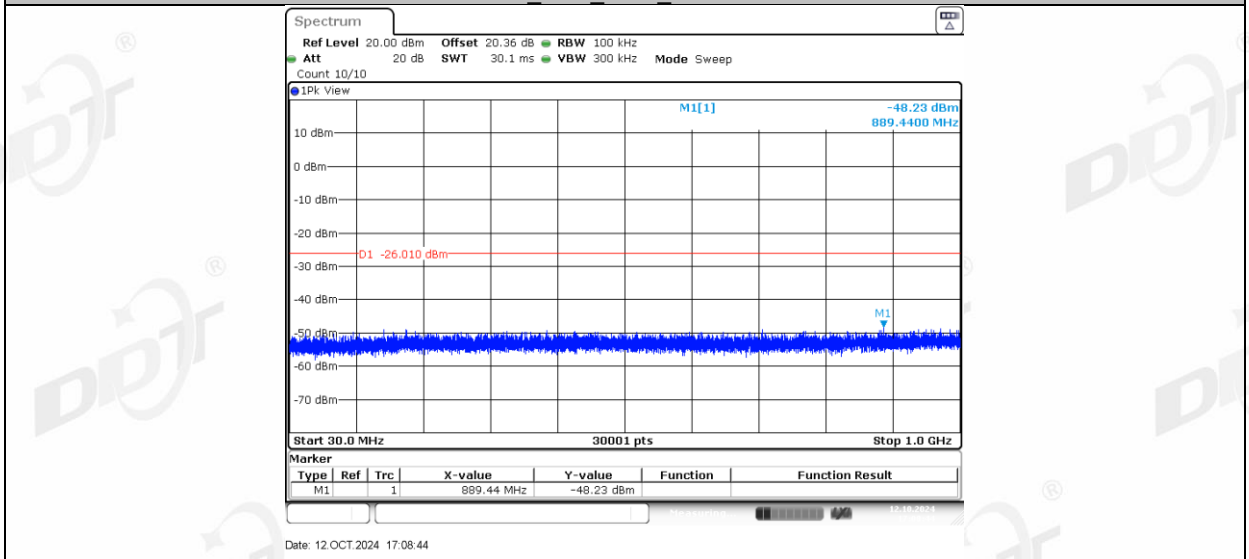
11B\_Ant2\_2462\_1000~26500



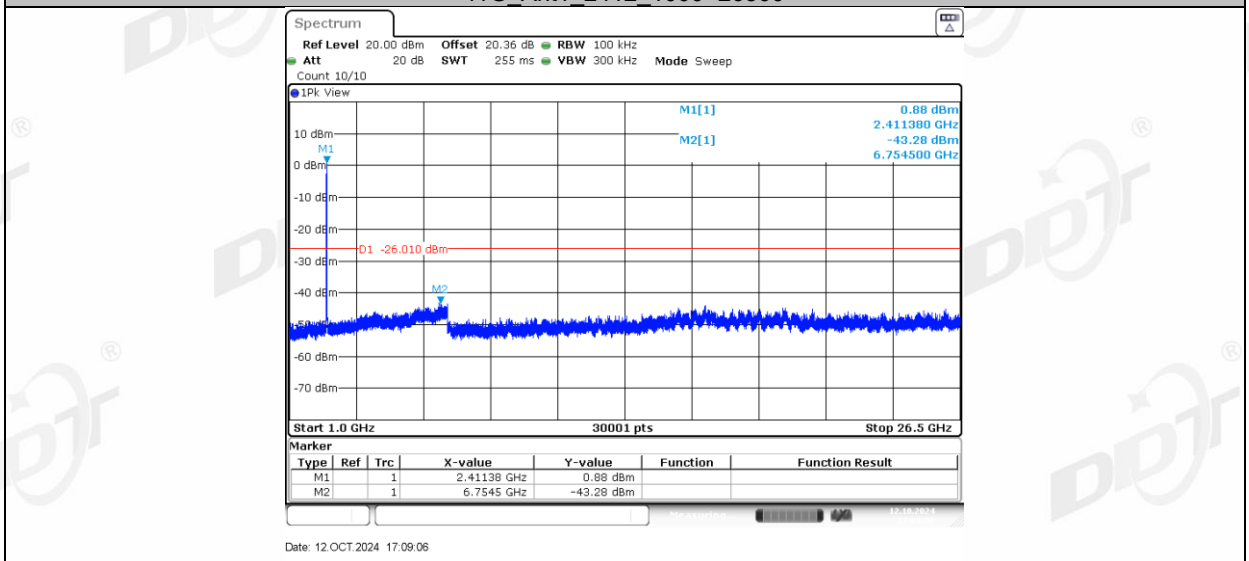
11G\_Ant1\_2412\_0~Reference



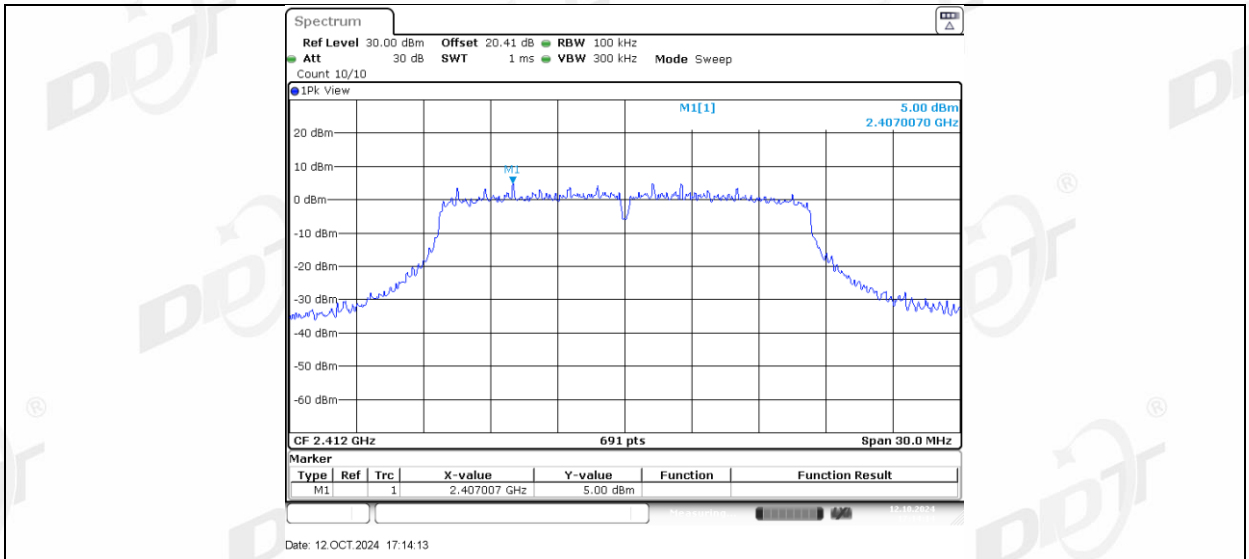
11G\_Ant1\_2412\_30~1000



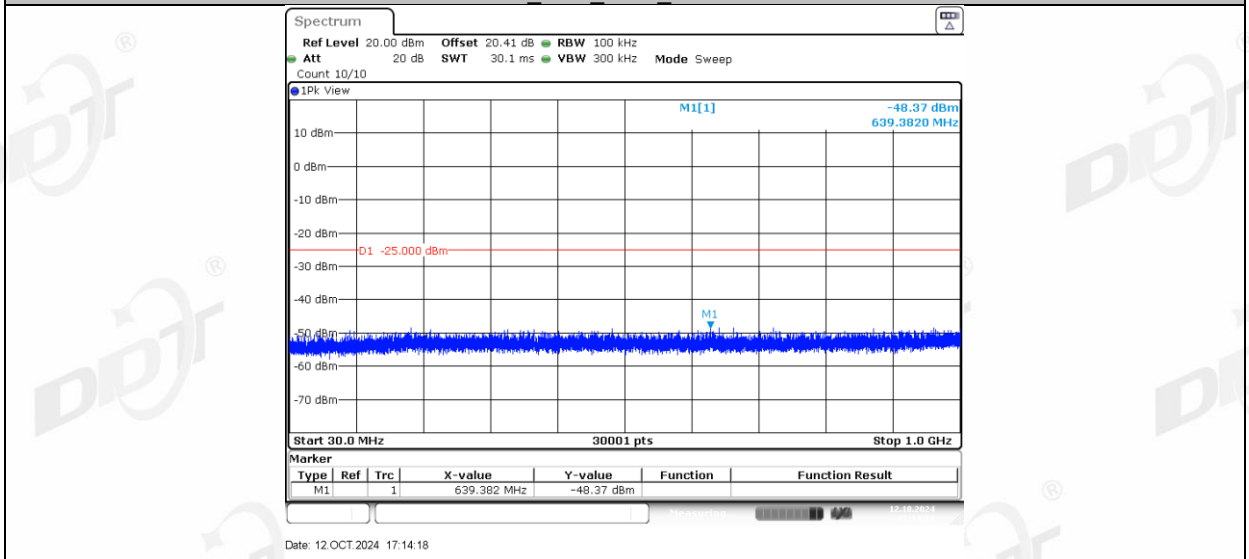
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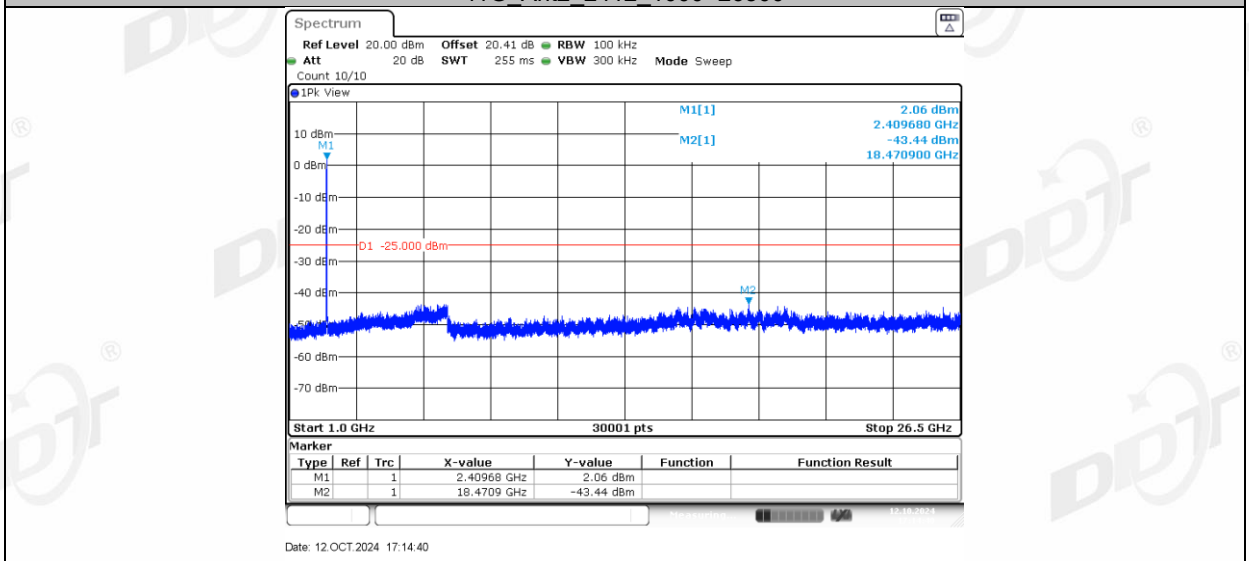
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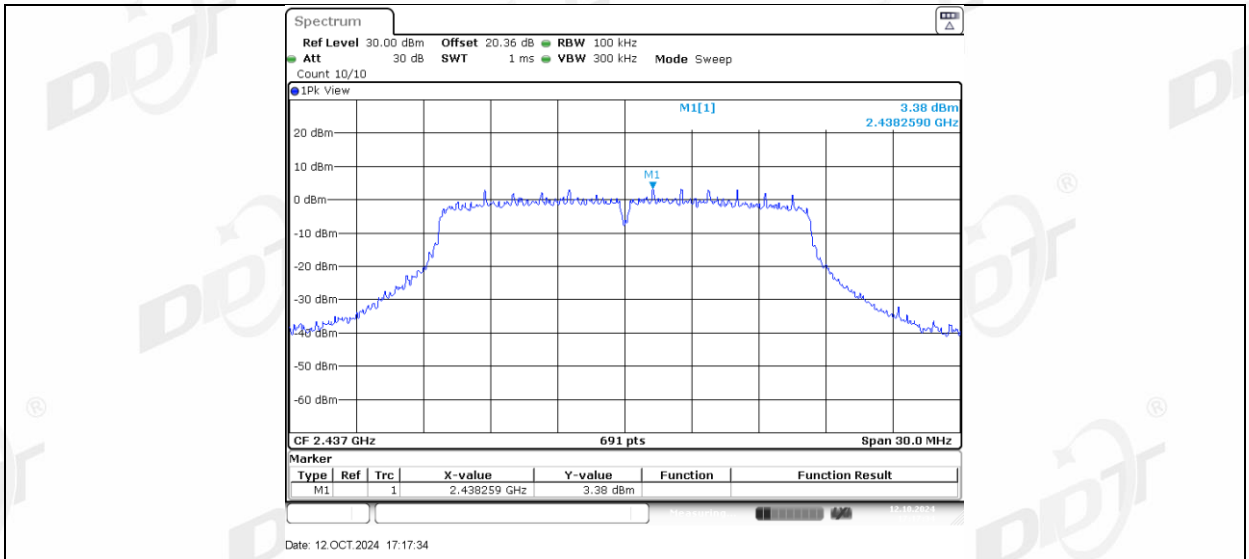
11G\_Ant2\_2412\_30~1000



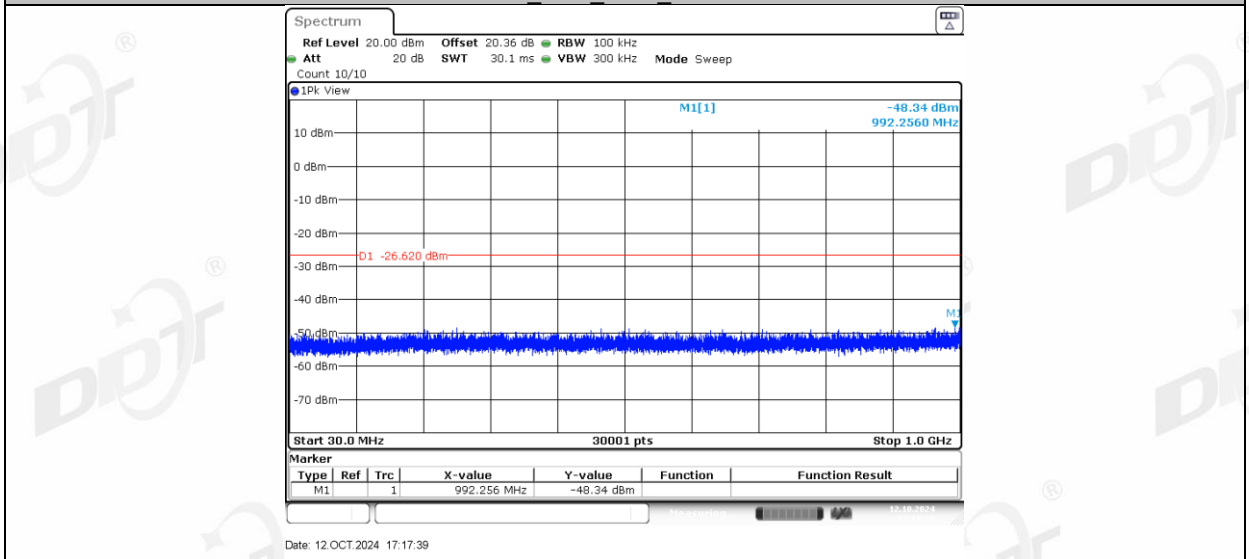
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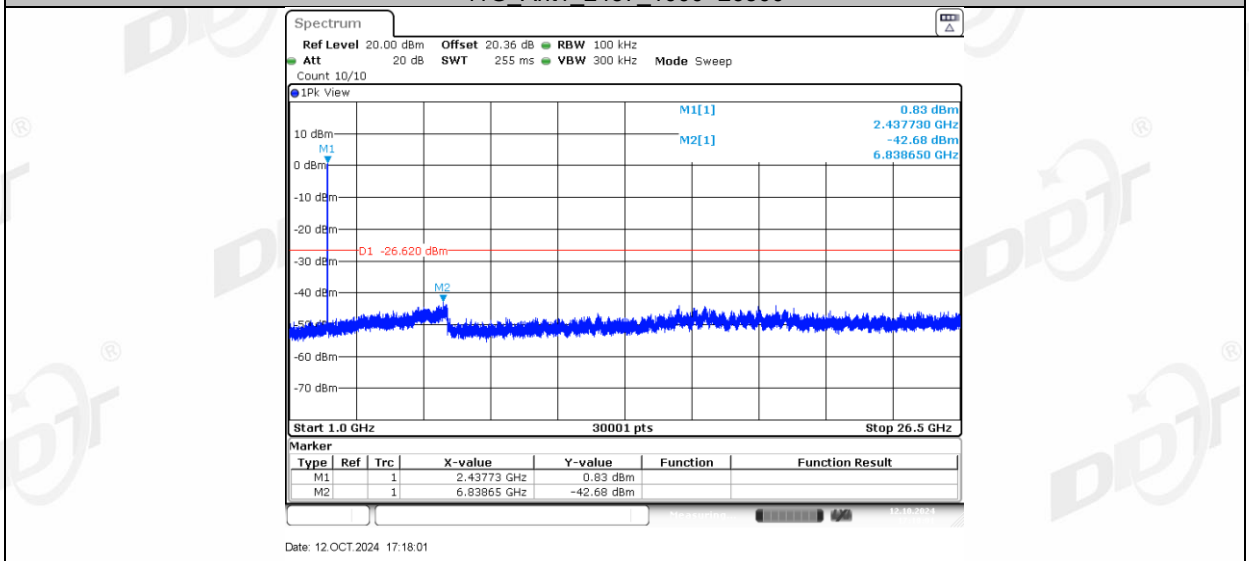
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11G\_Ant1\_2437\_30~1000

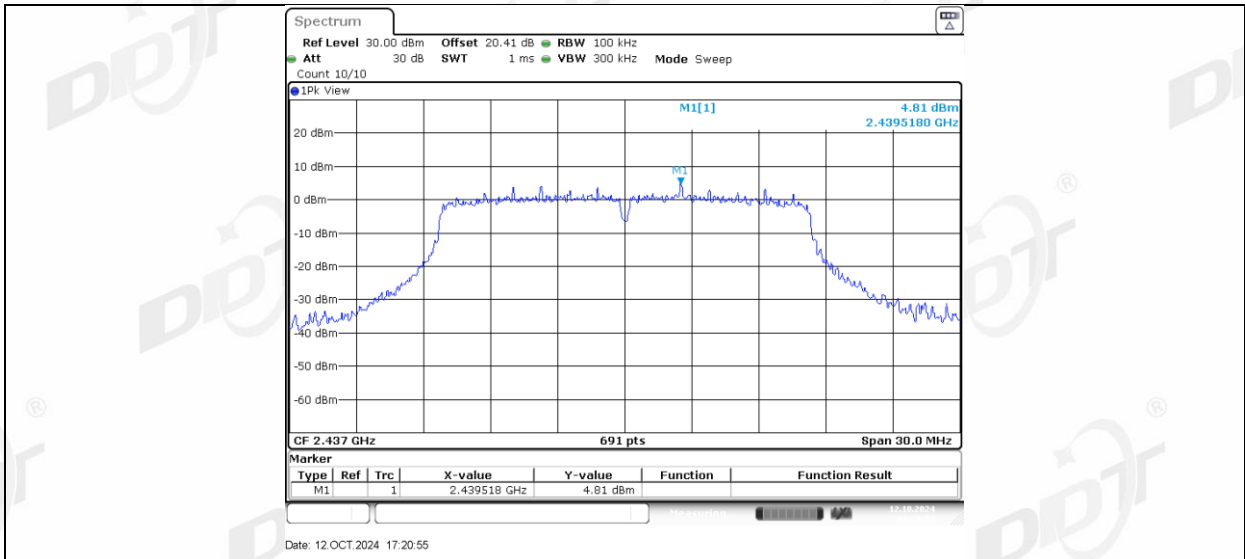


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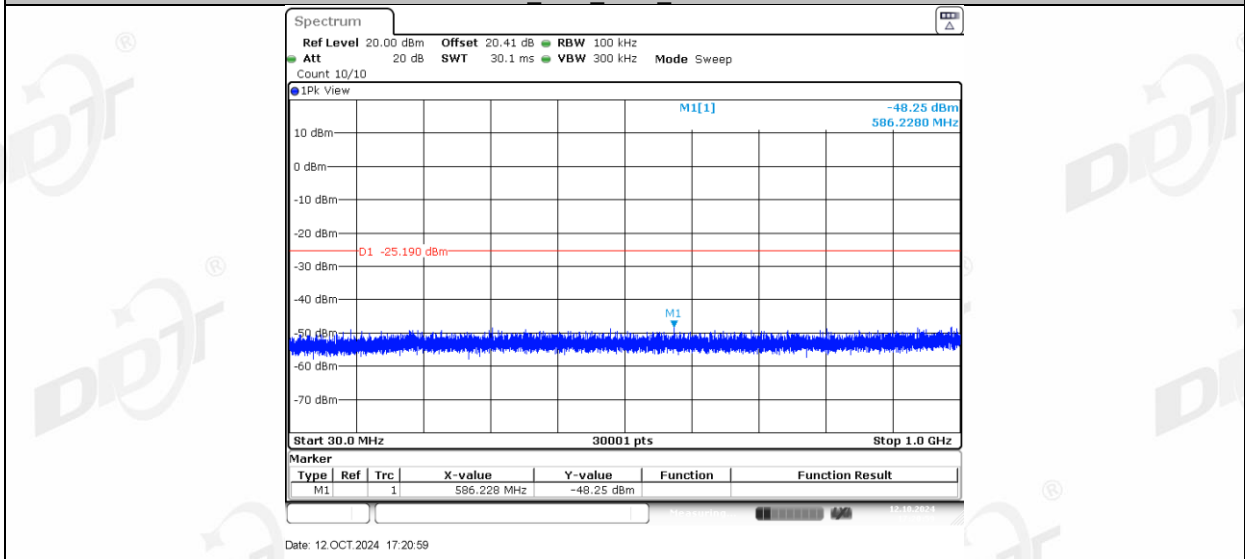


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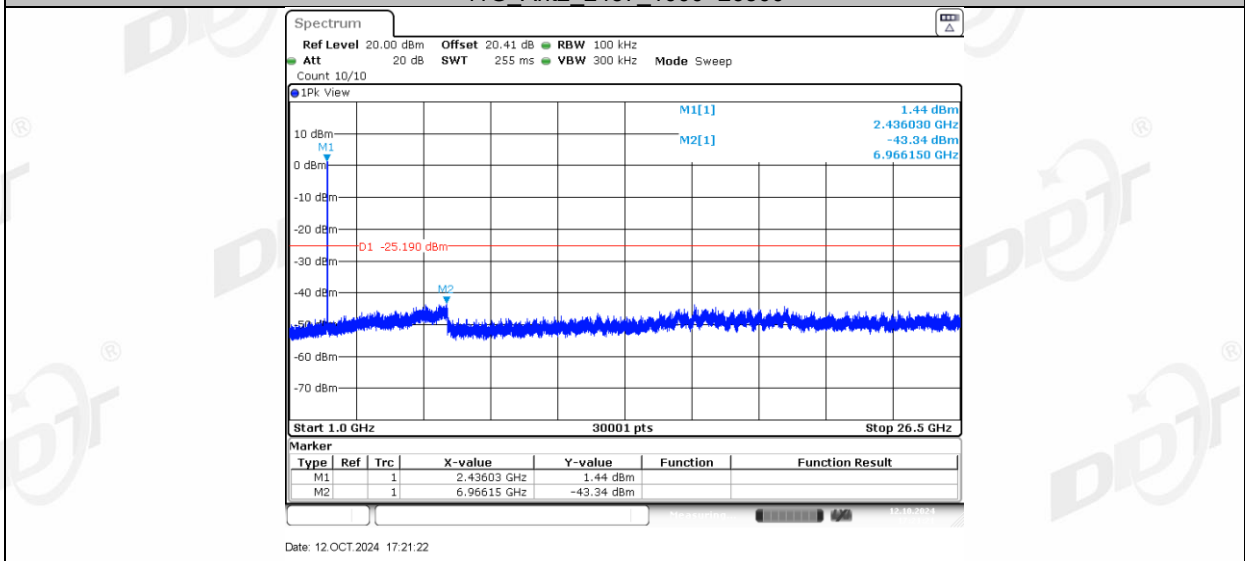




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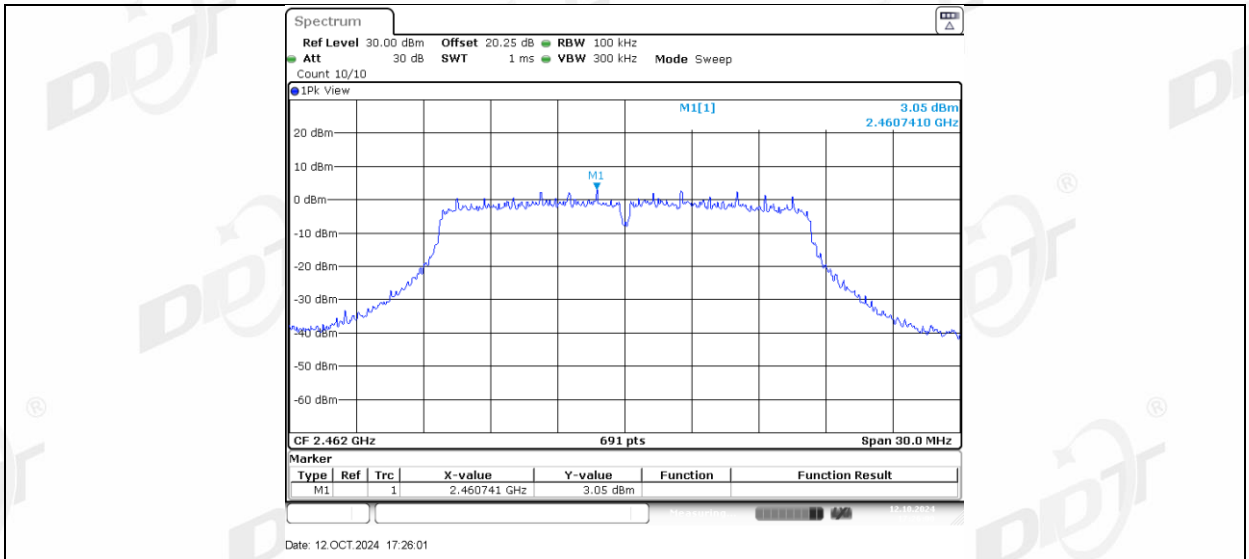


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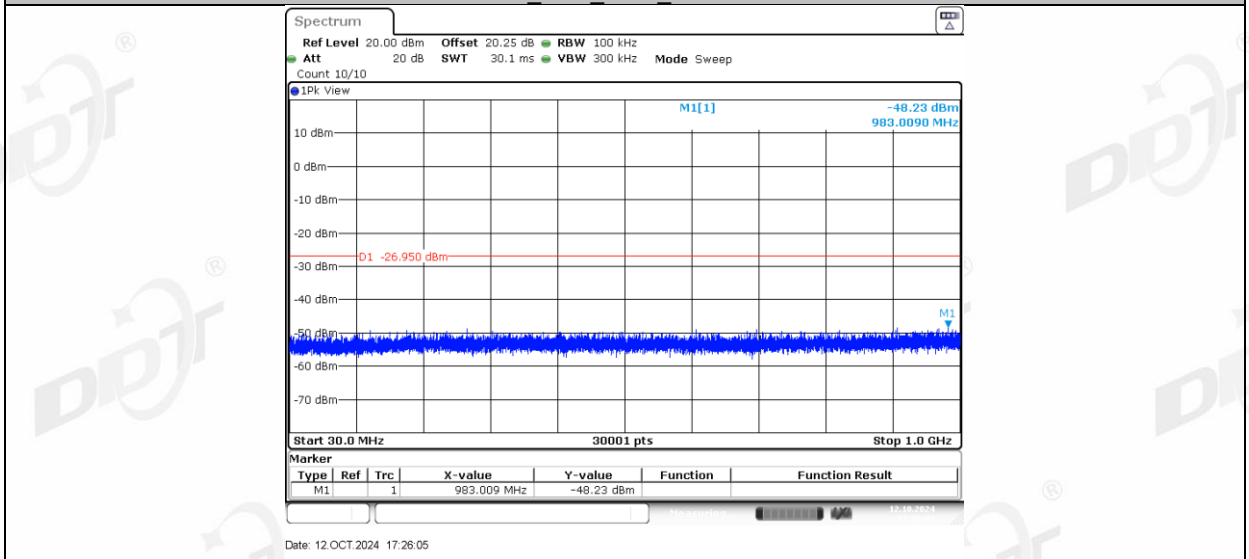


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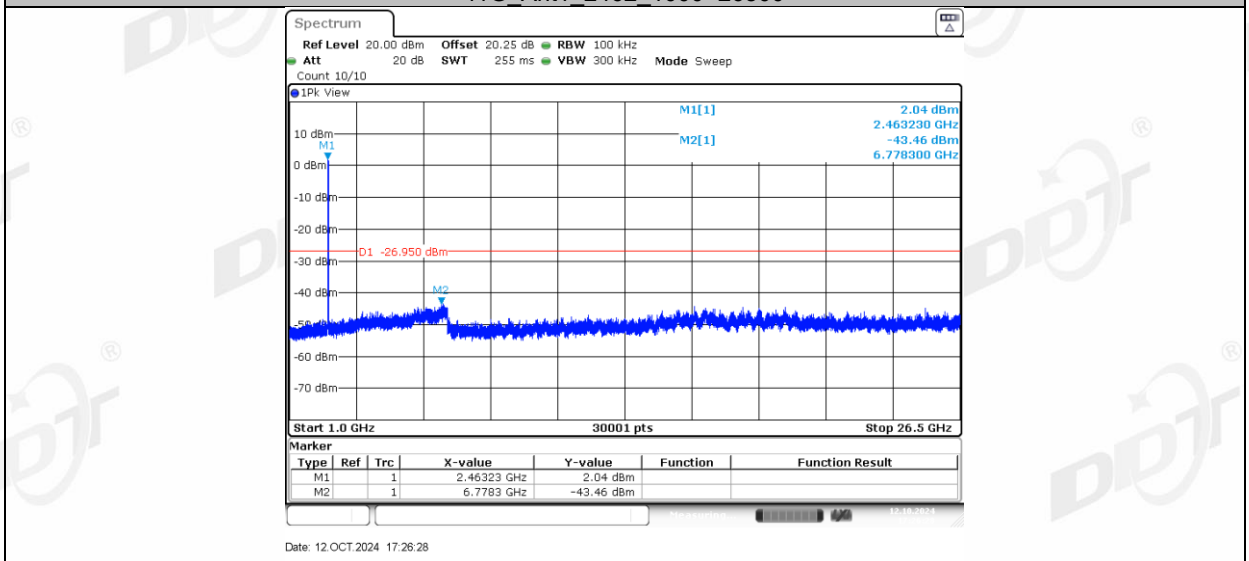




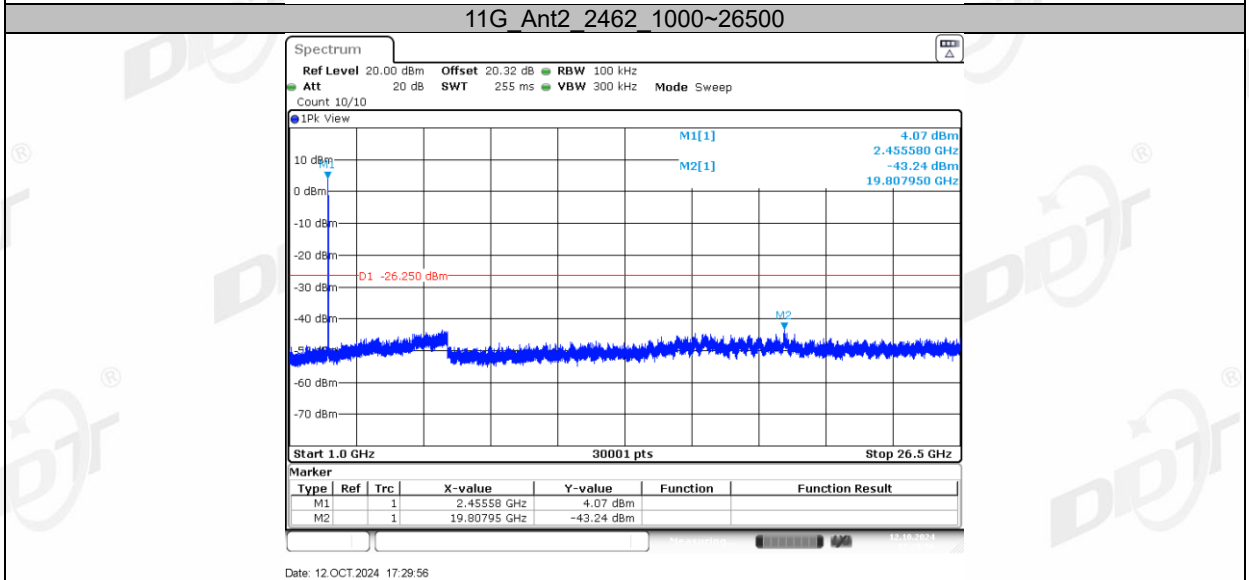
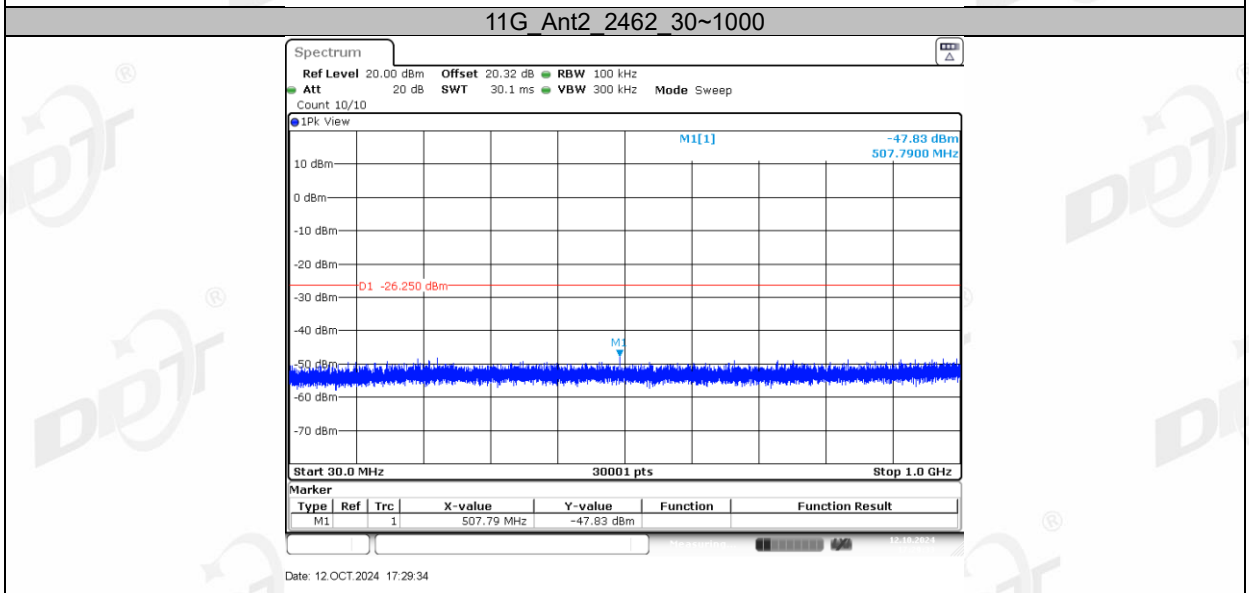
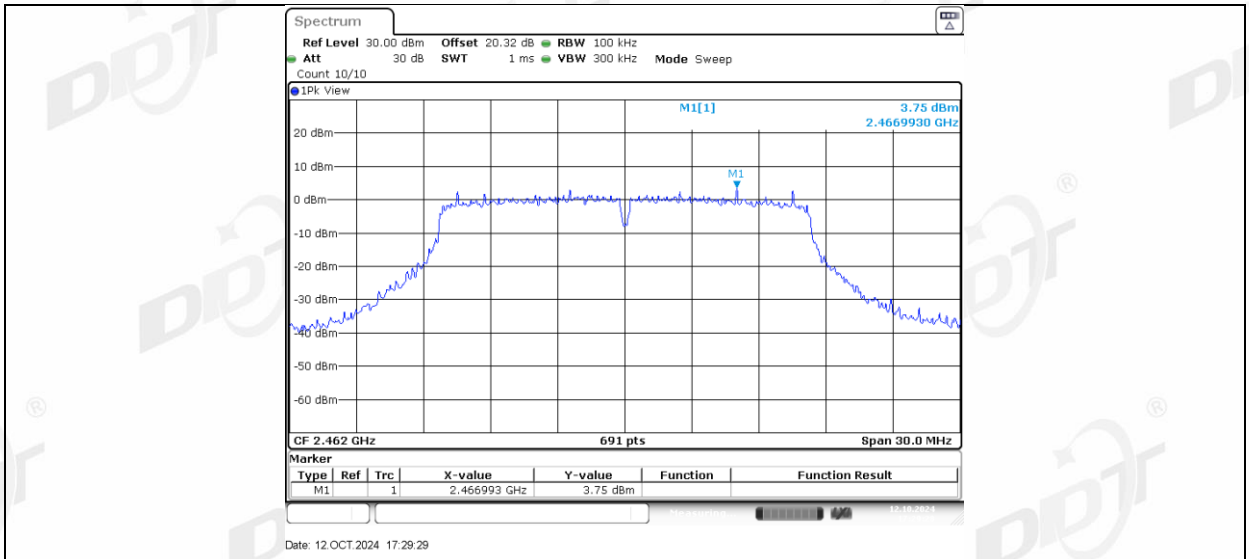
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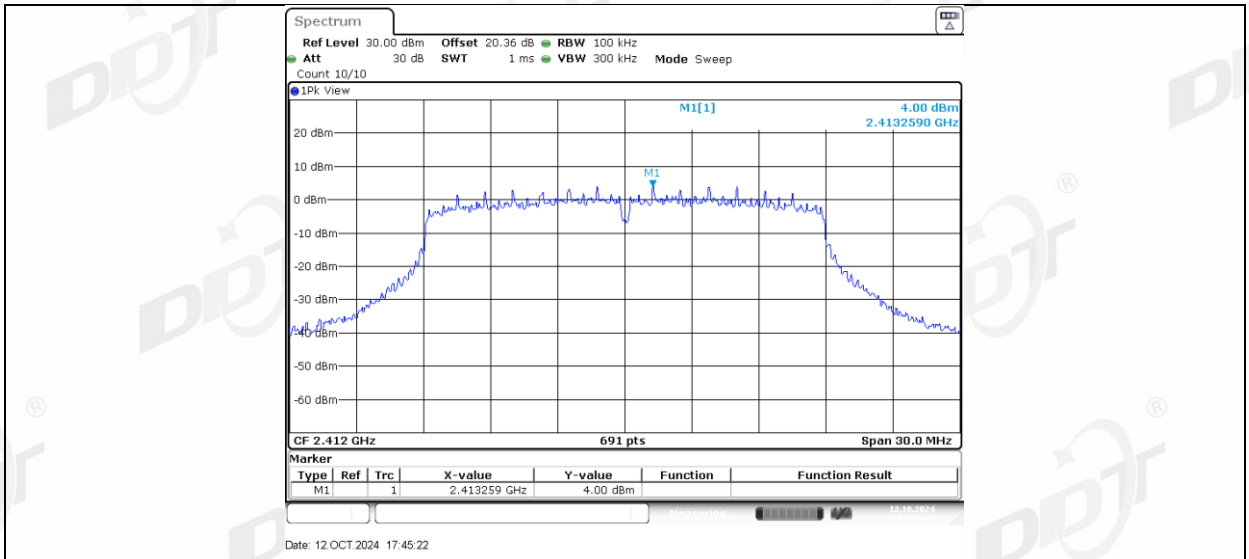


11G\_Ant1\_2462\_1000~26500

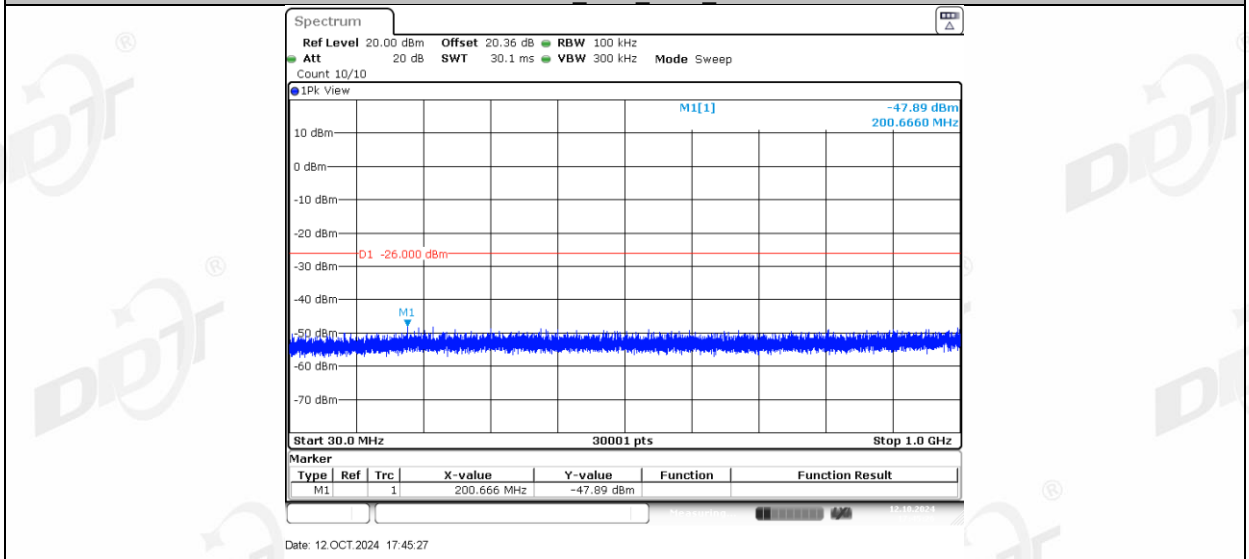


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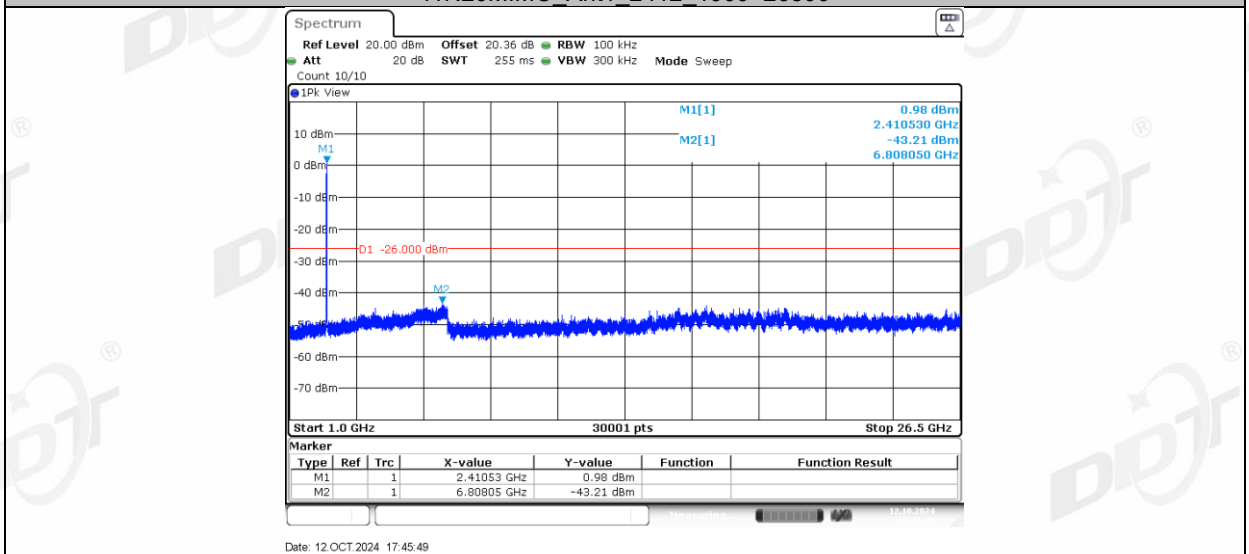




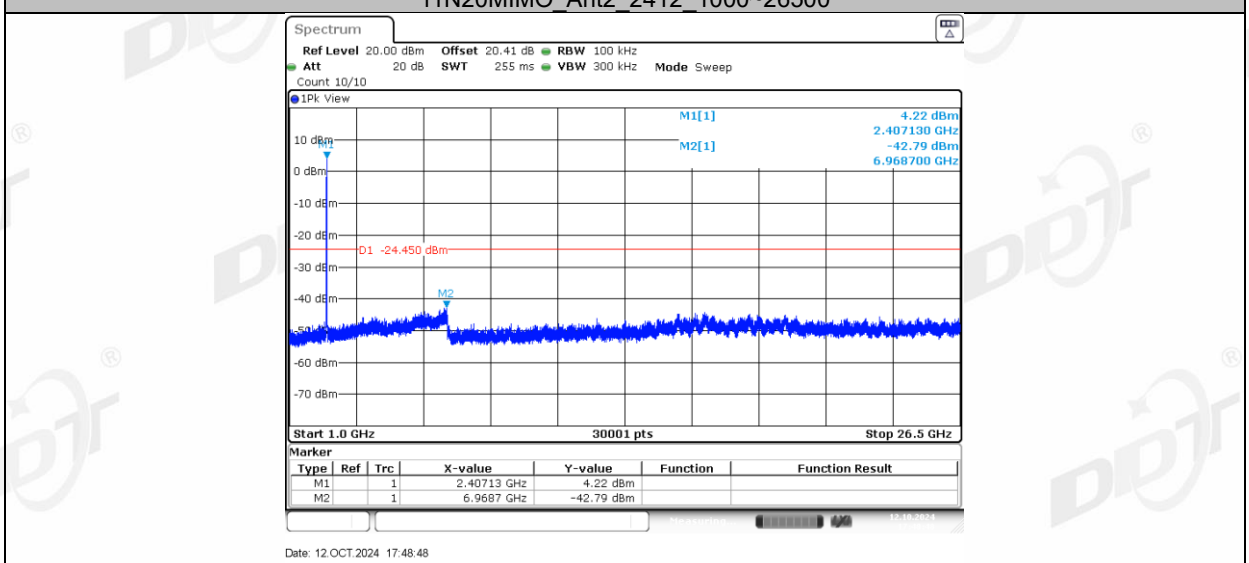
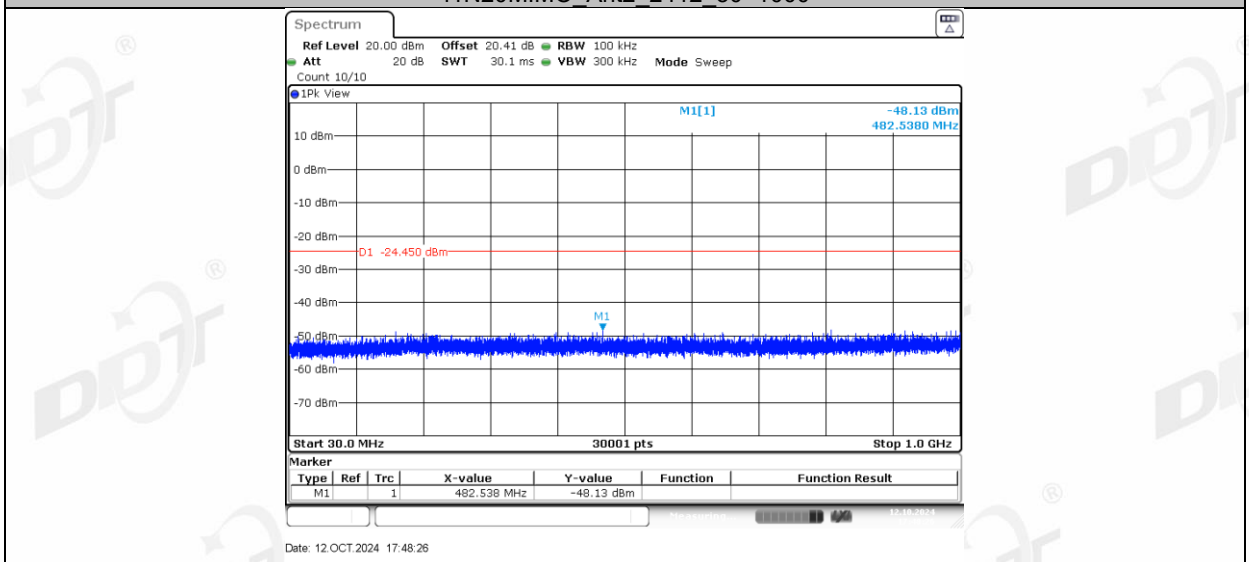
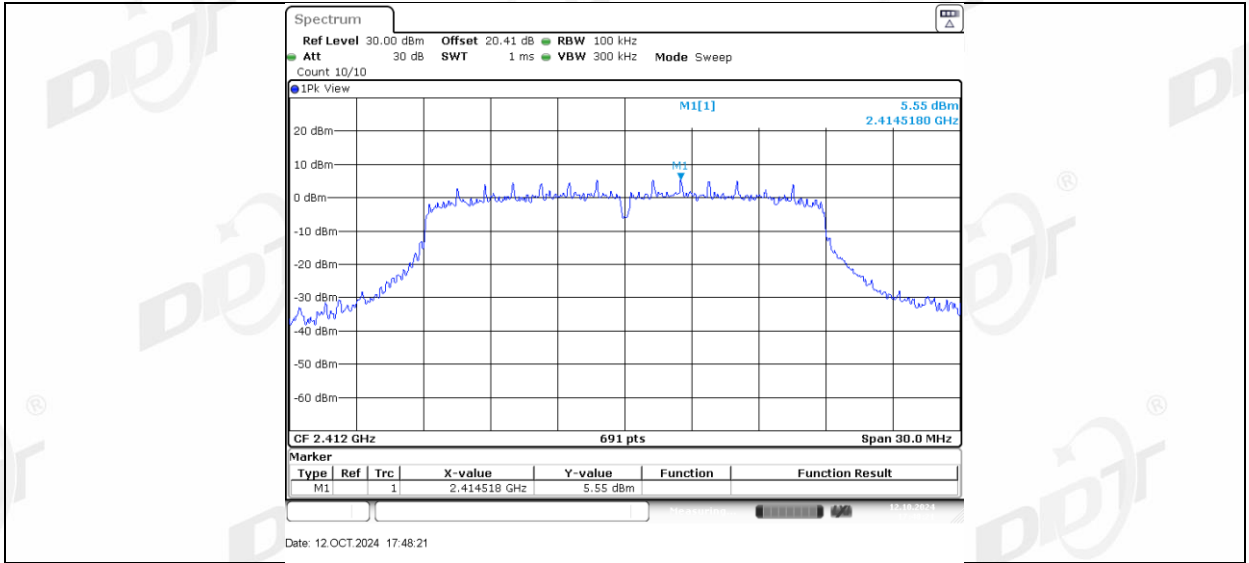
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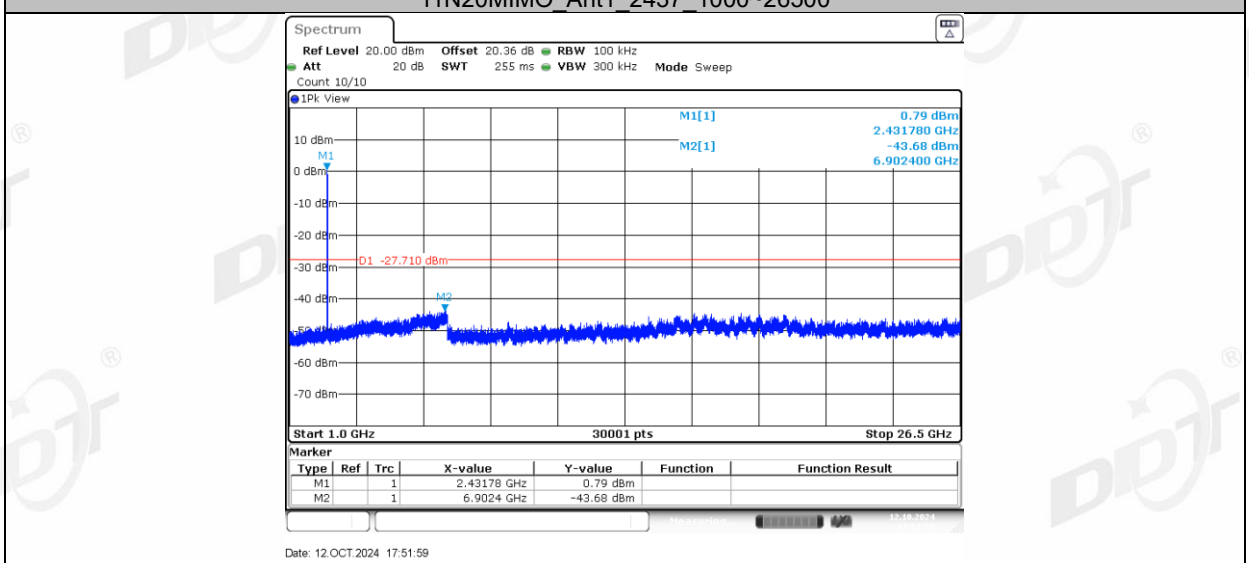
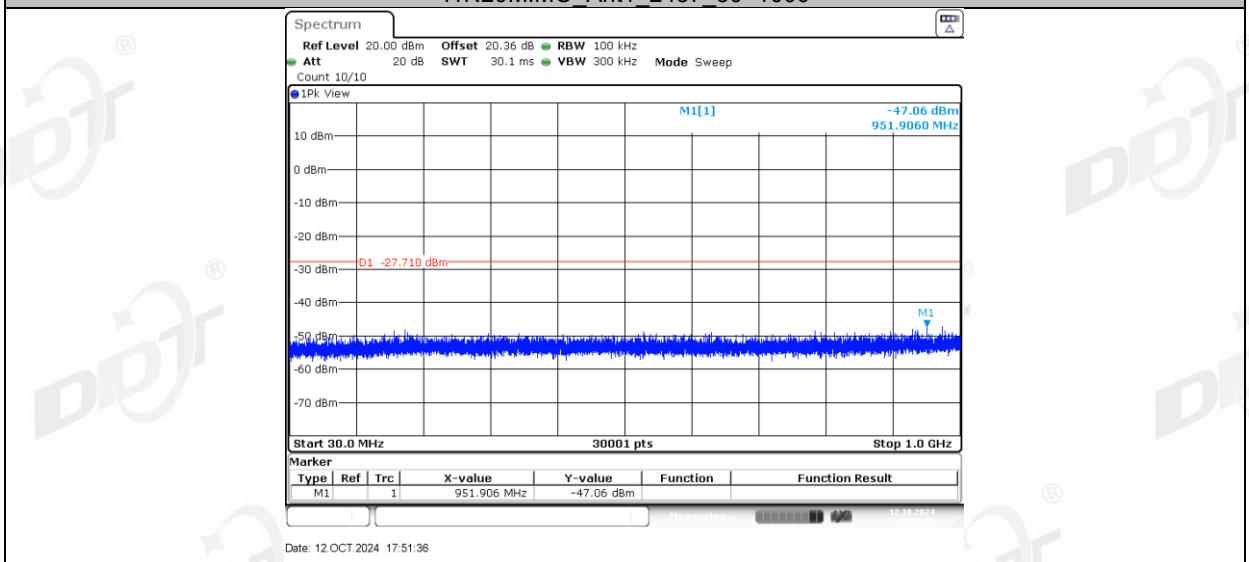
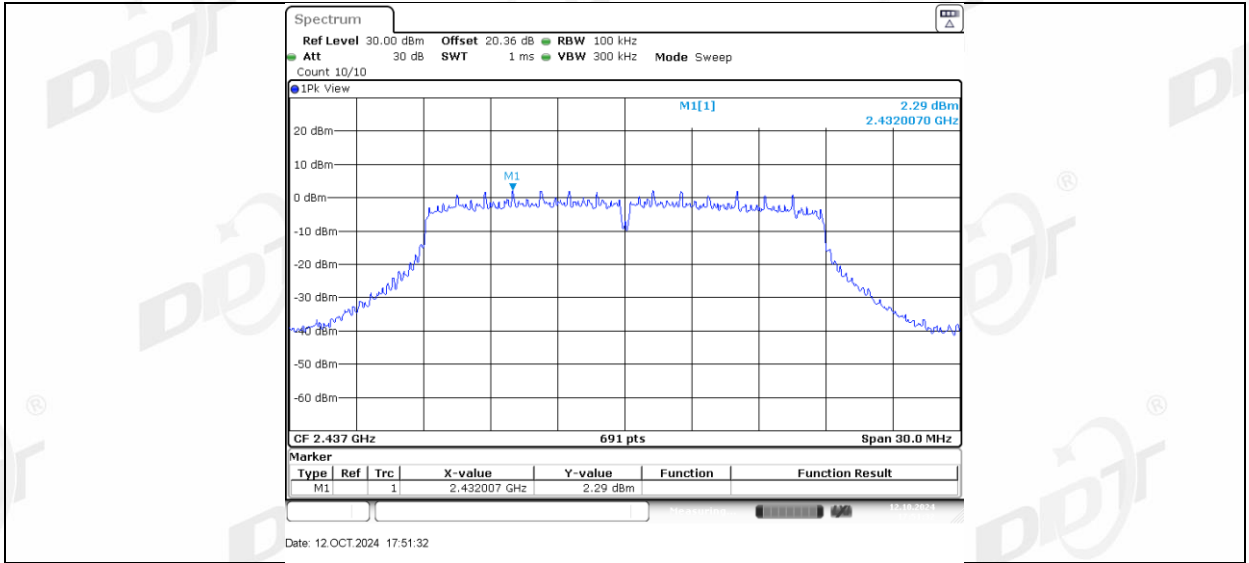


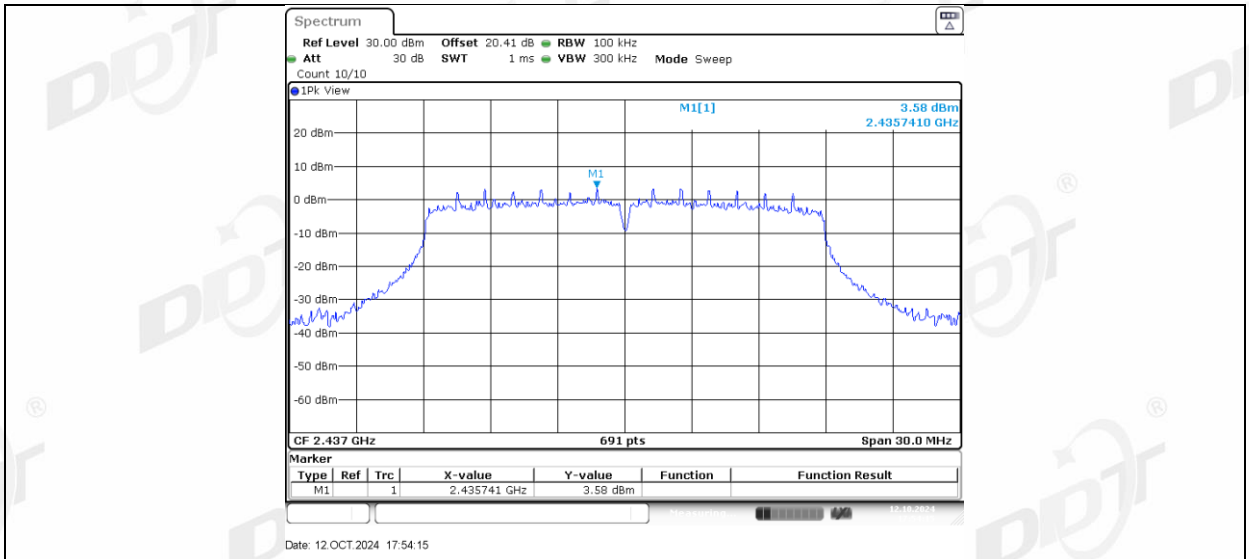
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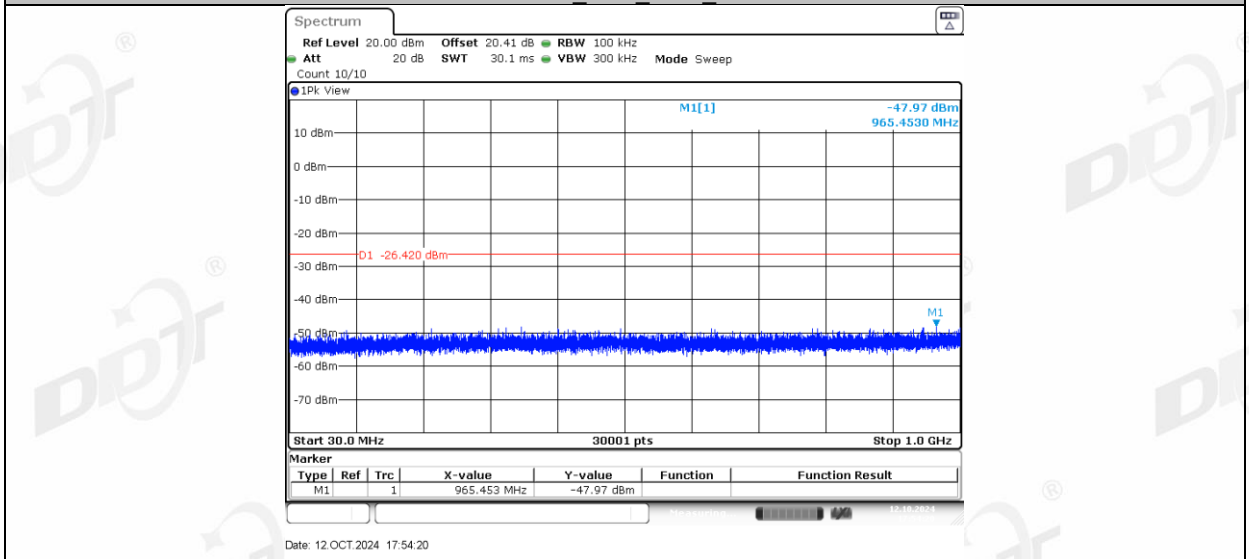
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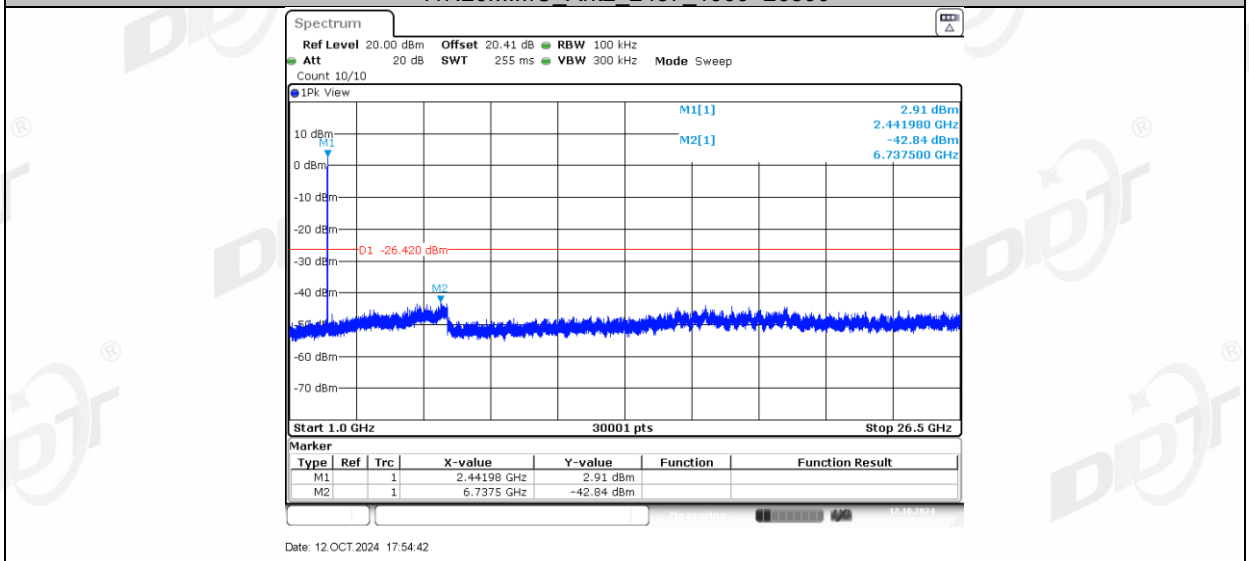




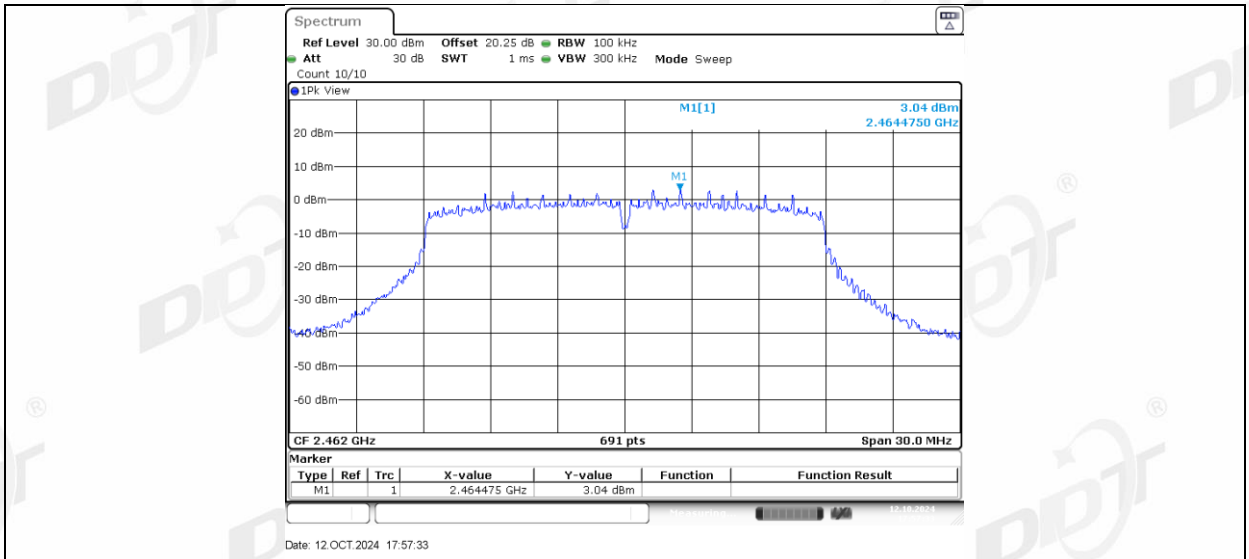
11N20MIMO\_Ant2\_2437\_30~1000



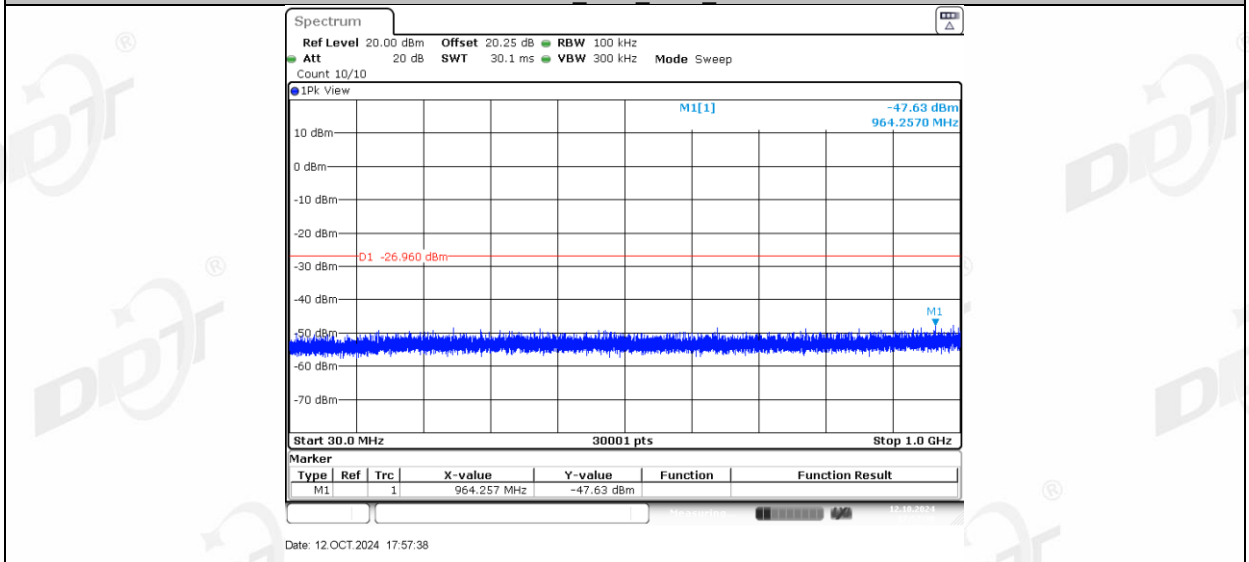
11N20MIMO\_Ant2\_2437\_1000~26500



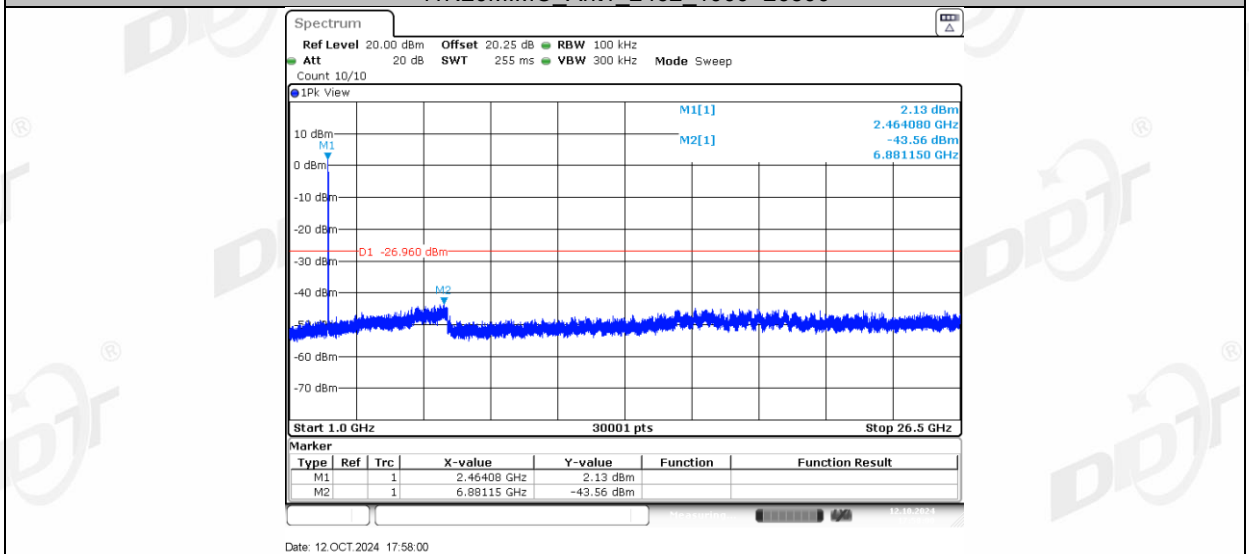
11N20MIMO\_Ant1\_2462\_0~Reference



11N20MIMO\_Ant1\_2462\_30~1000

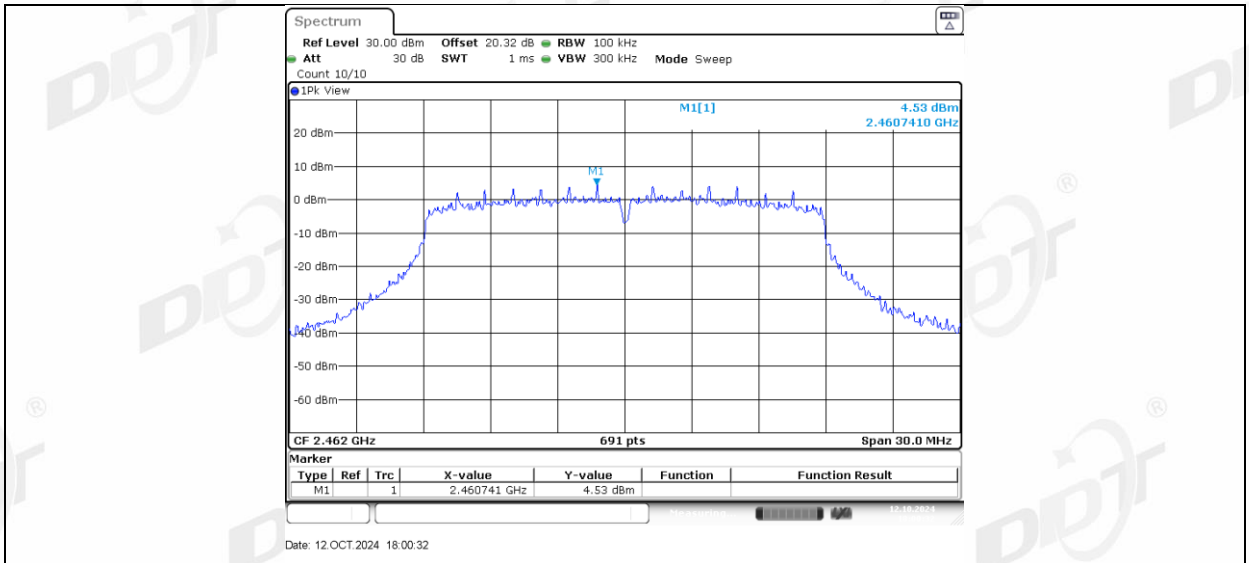


11N20MIMO\_Ant1\_2462\_1000~26500

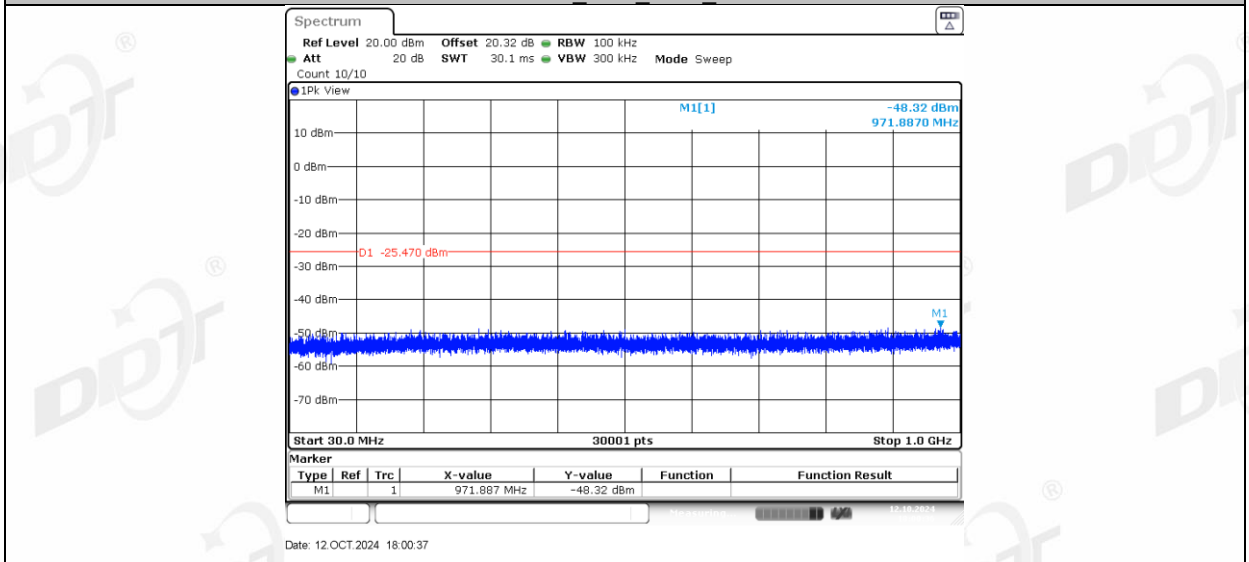


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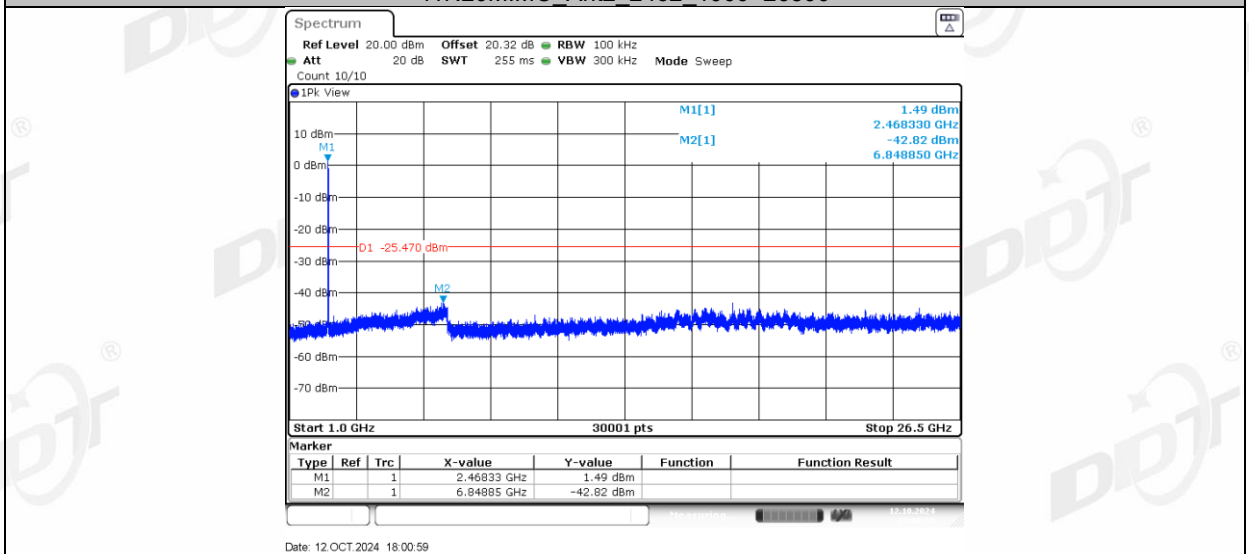




11N20MIMO\_Ant2\_2462\_30~1000

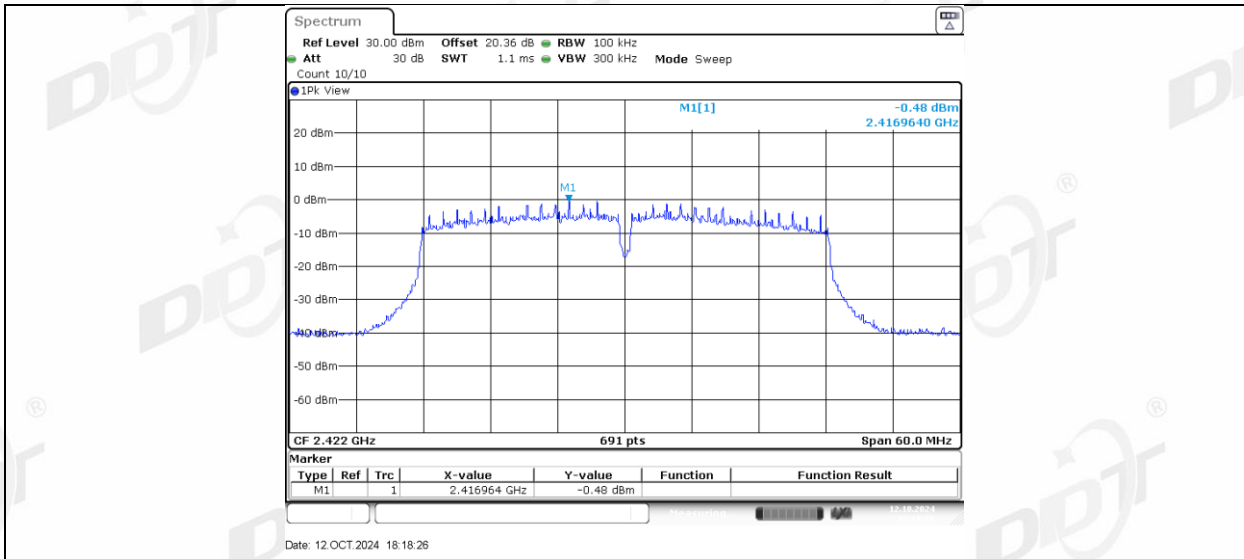


11N20MIMO\_Ant2\_2462\_1000~26500

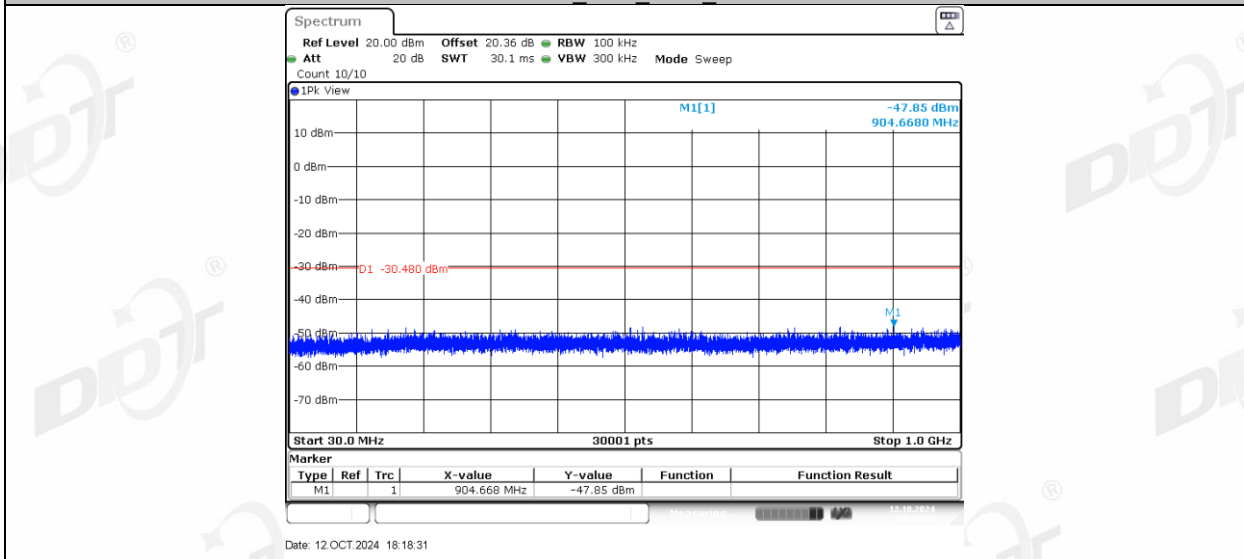


11N40MIMO\_Ant1\_2422\_0~Reference

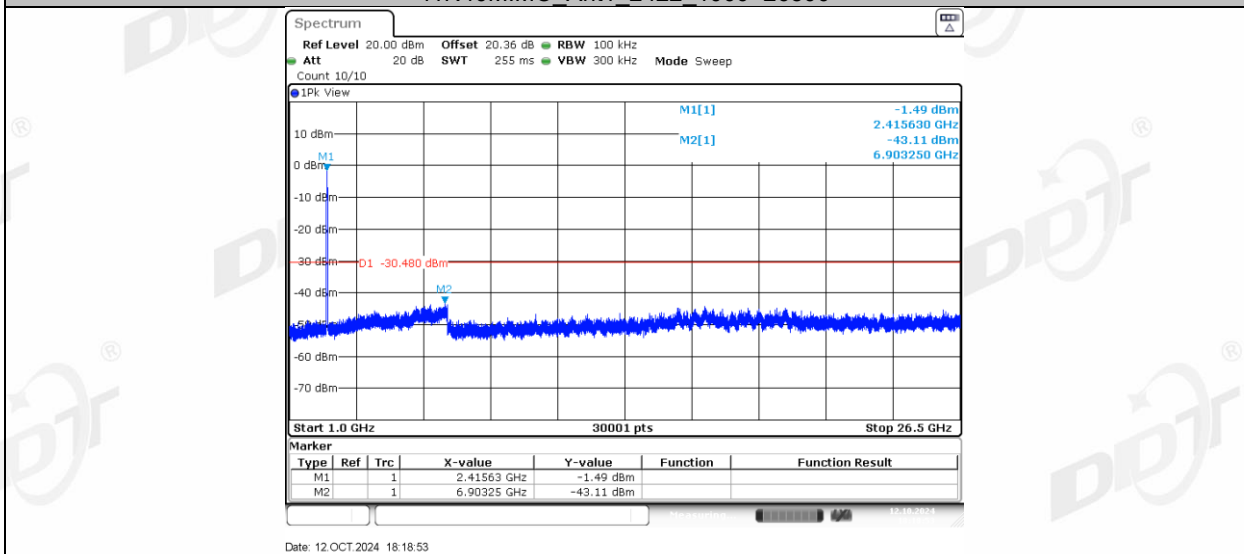




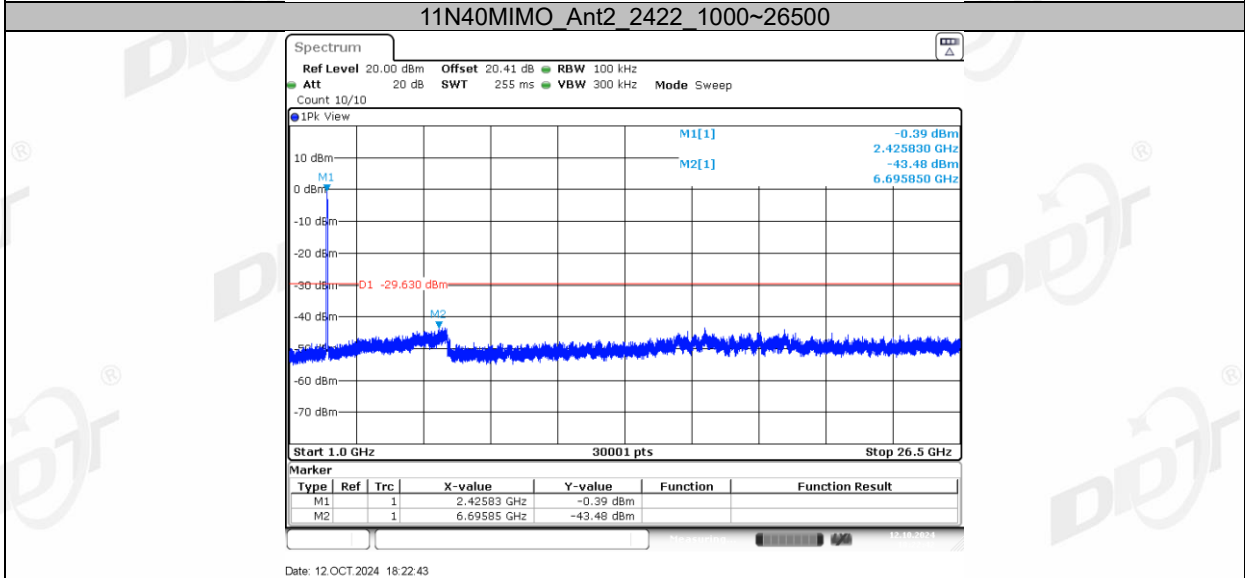
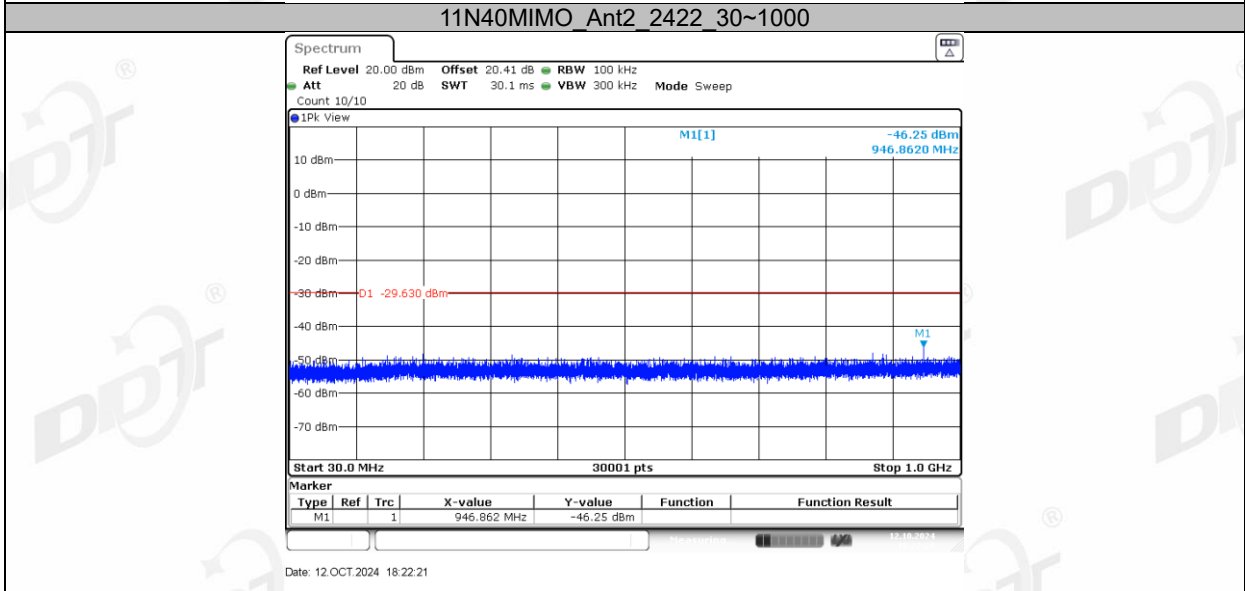
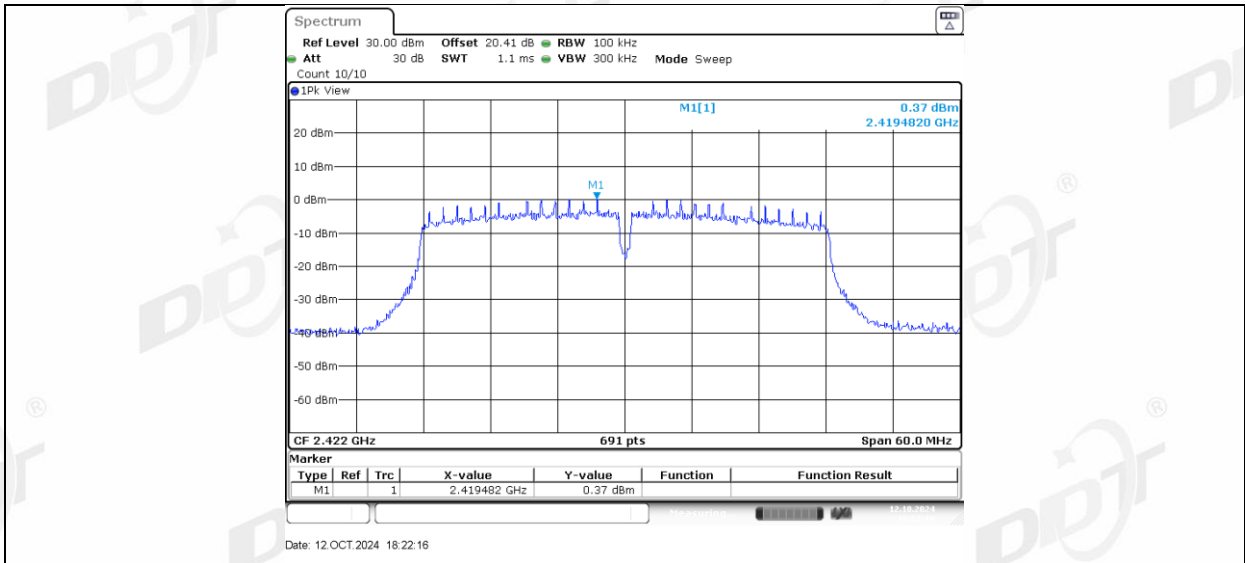
11N40MIMO Ant1 2422 30~1000

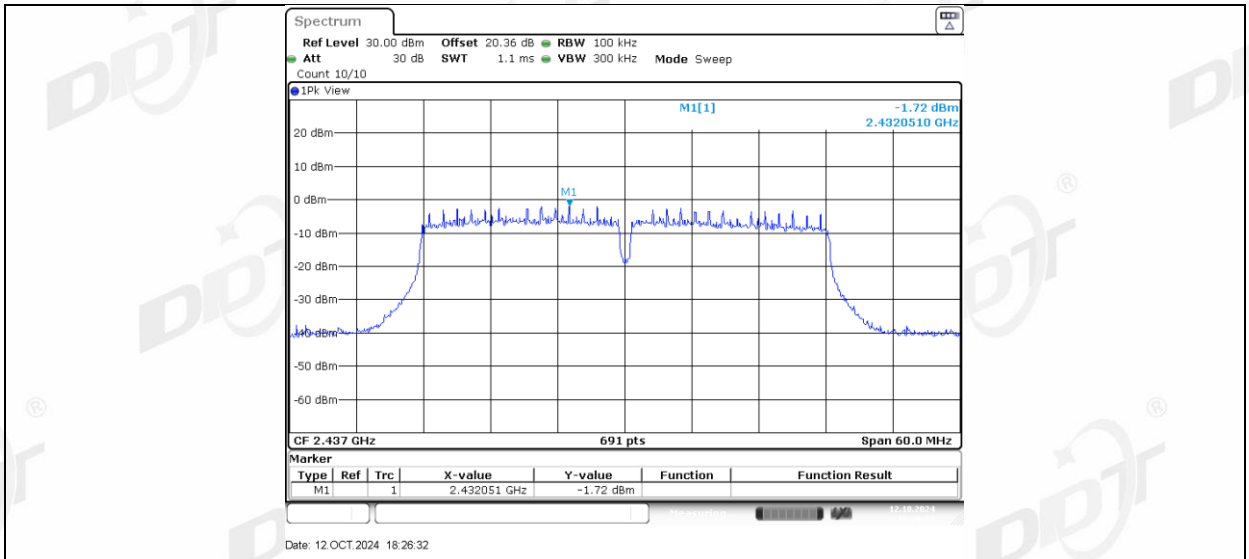


11N40MIMO Ant1 2422 1000~26500

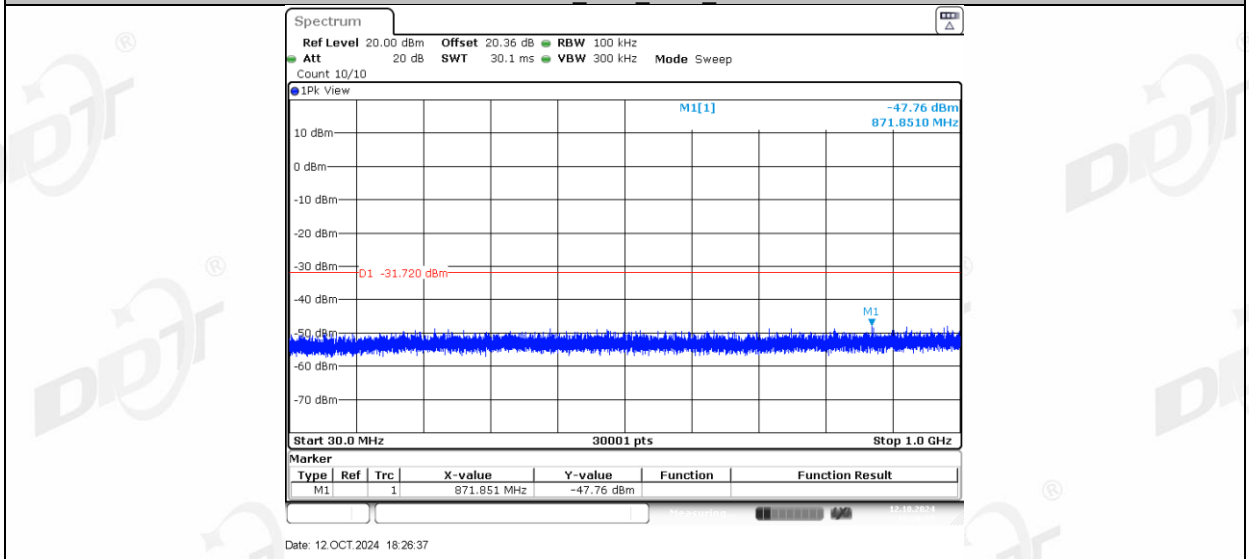


11N40MIMO Ant2 2422 0~Reference

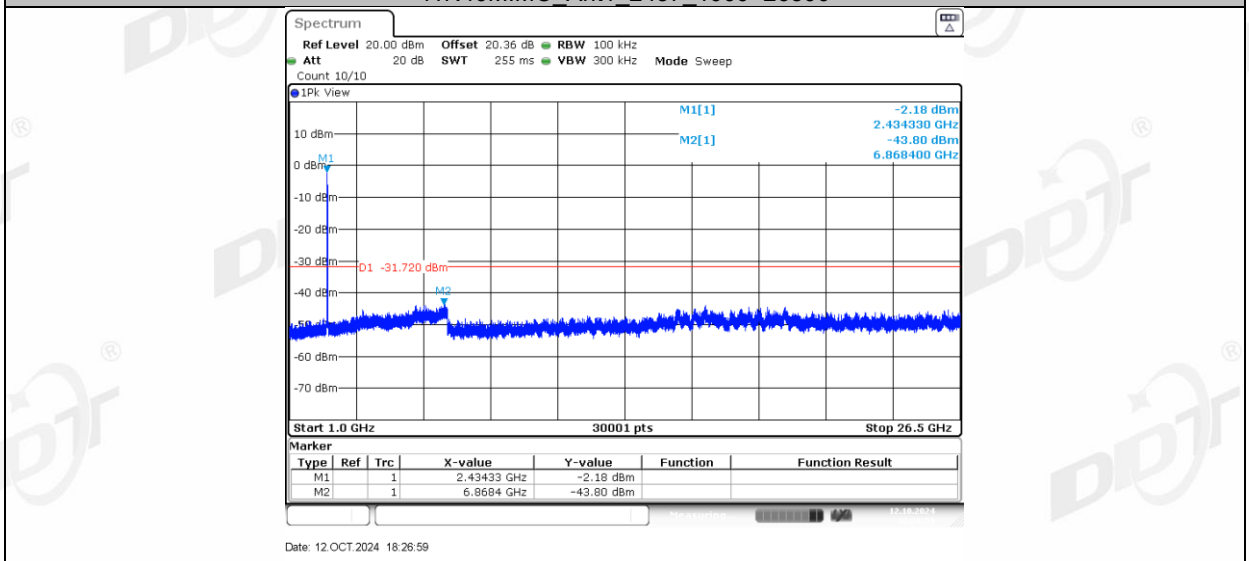




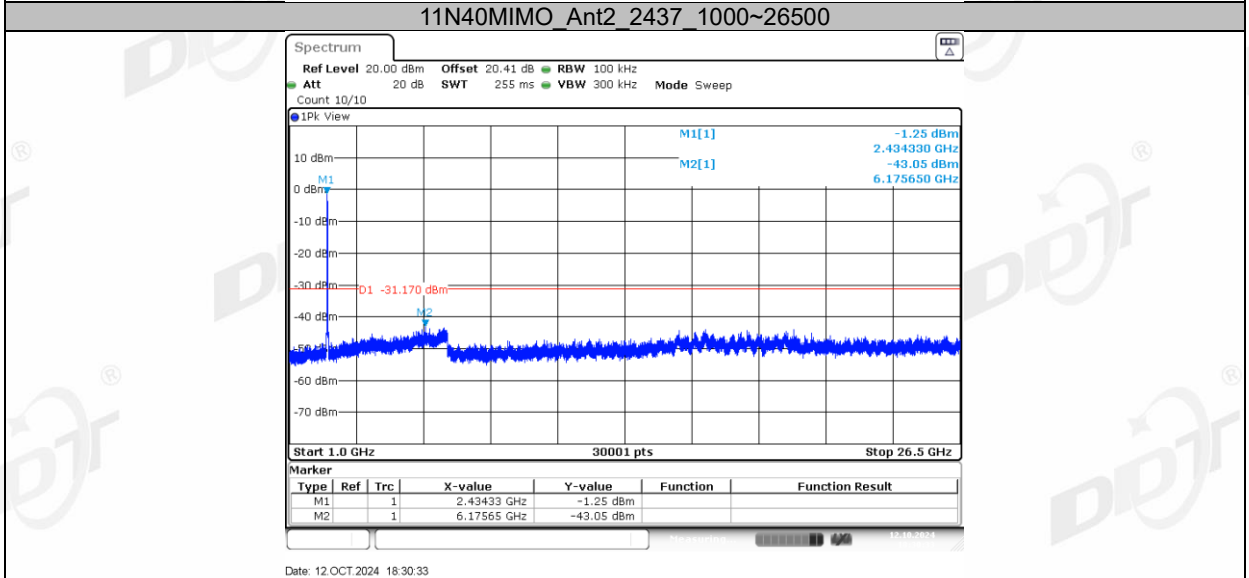
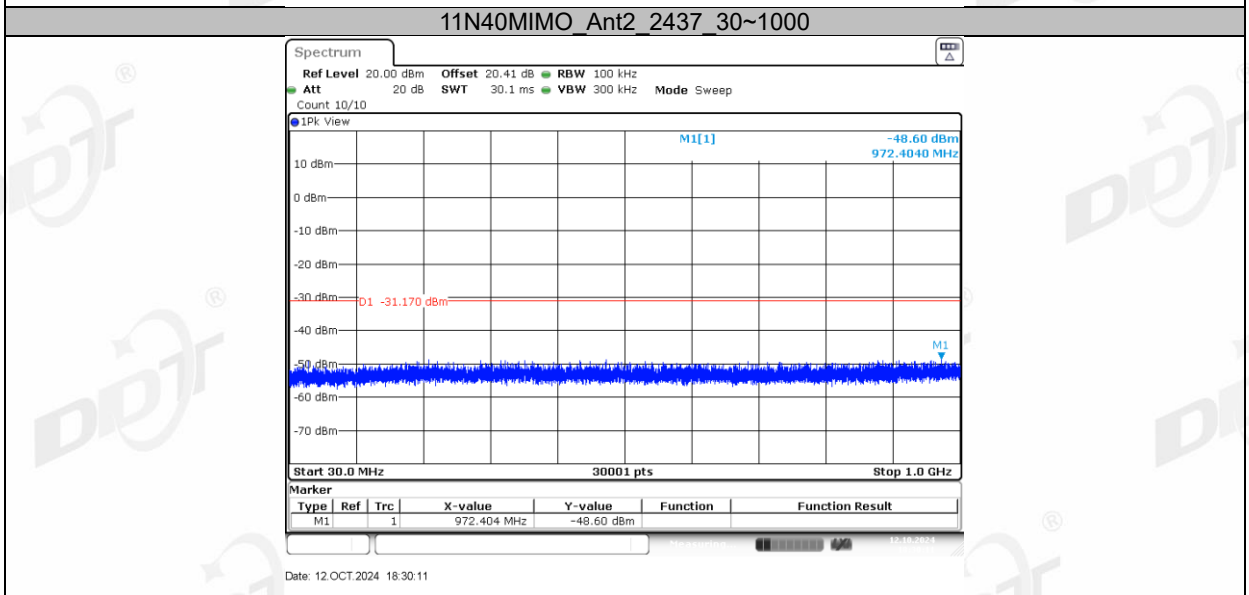
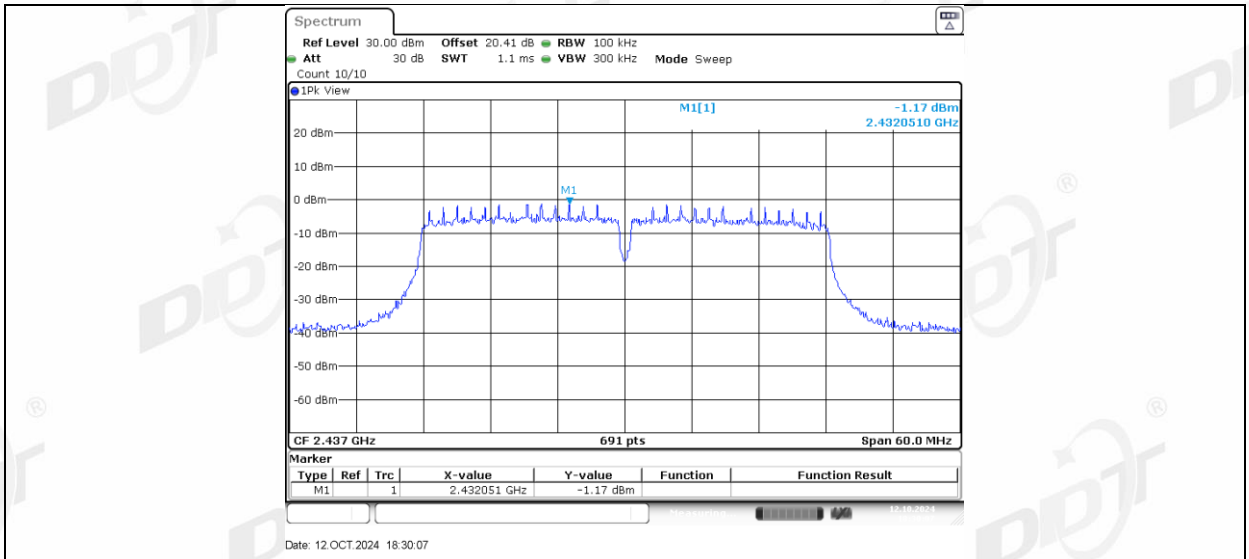
11N40MIMO\_Ant1\_2437\_30~1000

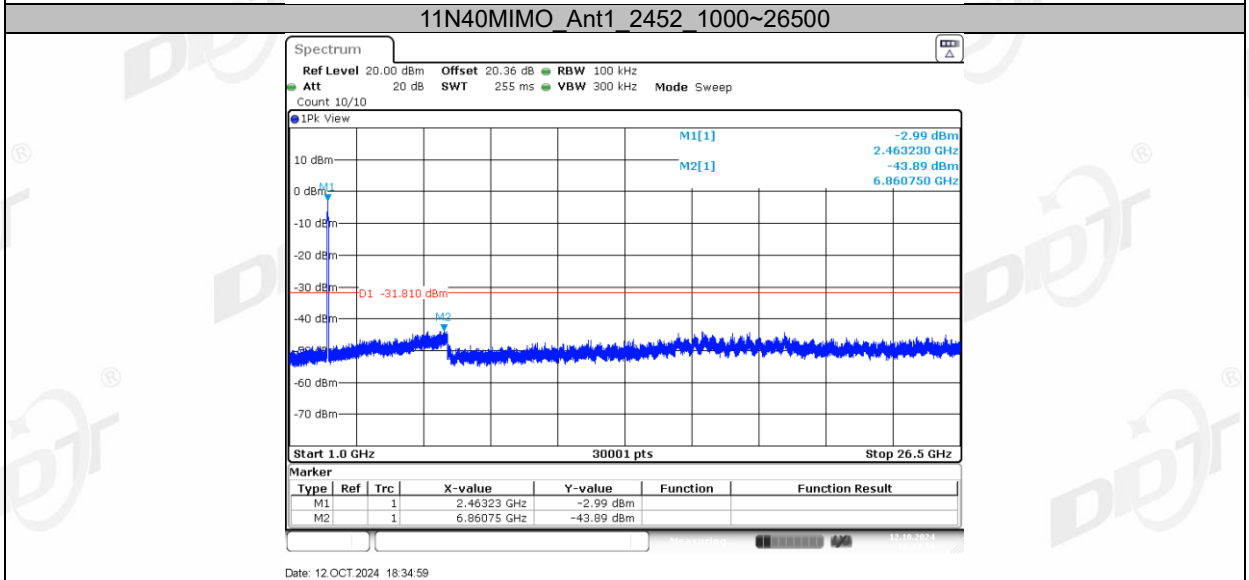
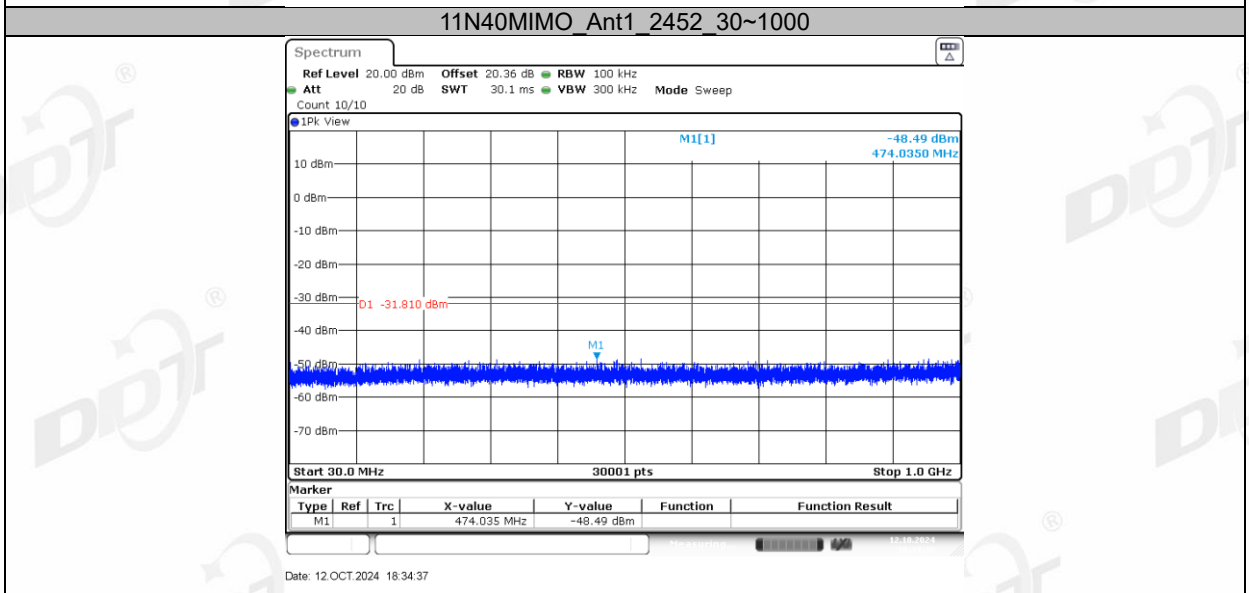
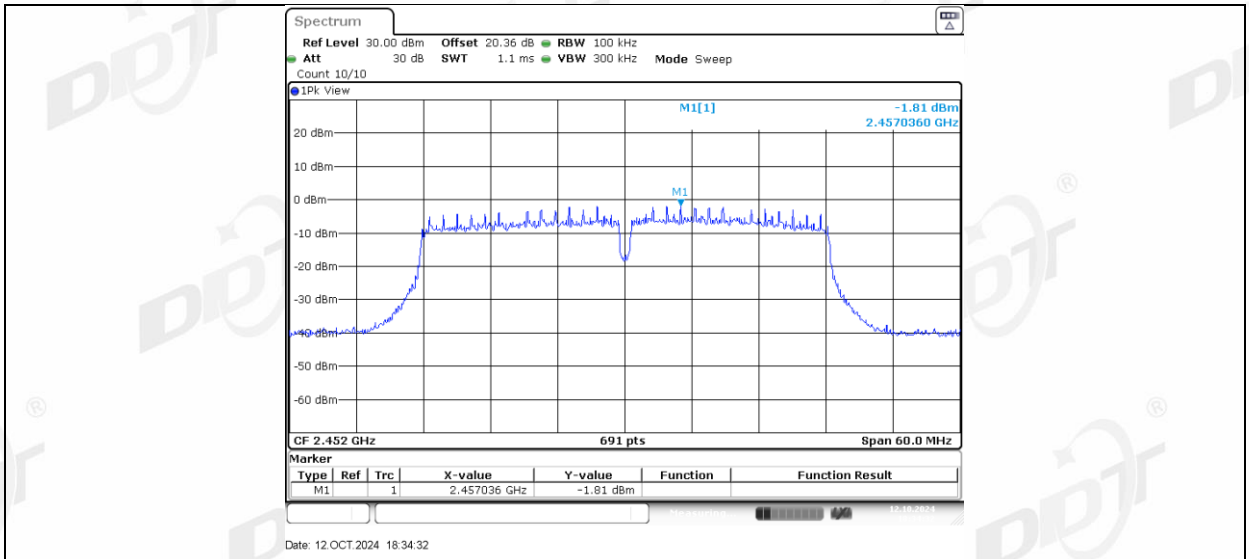


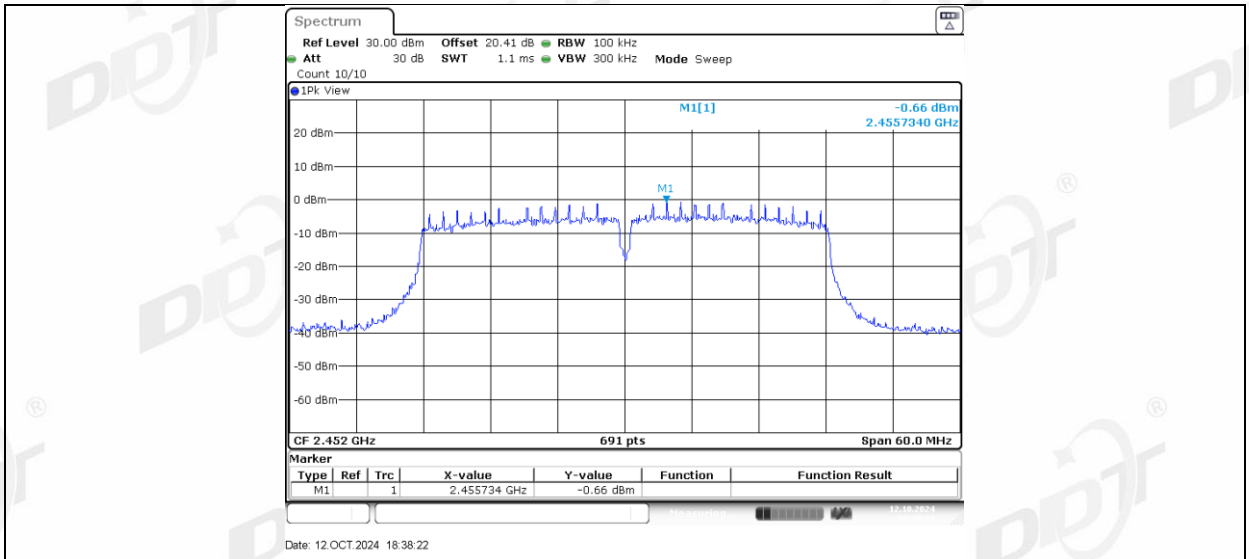
11N40MIMO\_Ant1\_2437\_1000~26500



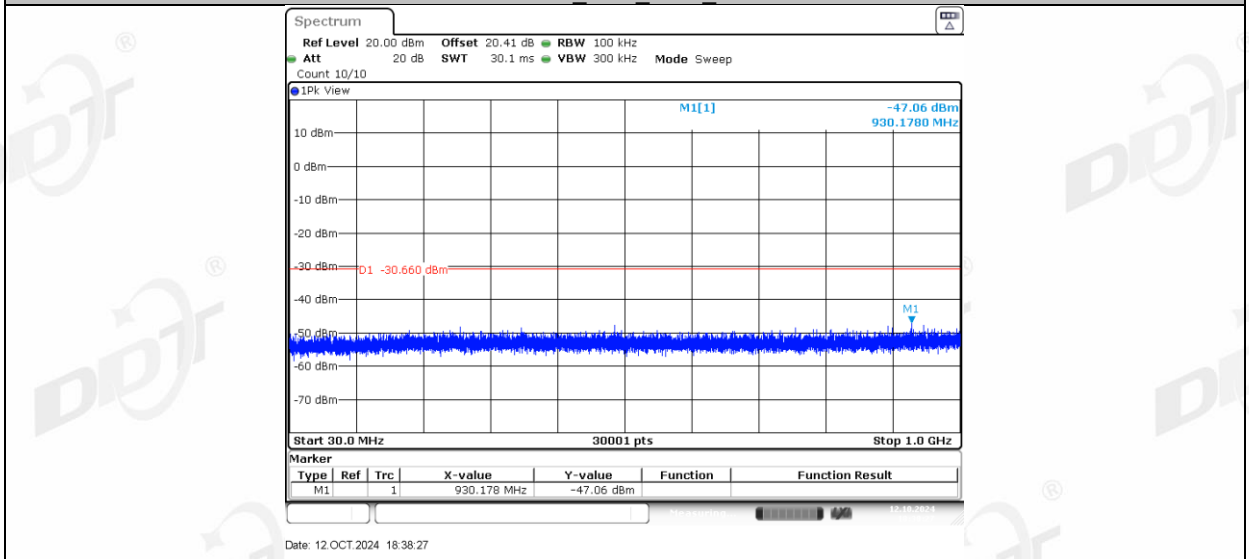
11N40MIMO\_Ant2\_2437\_0~Reference



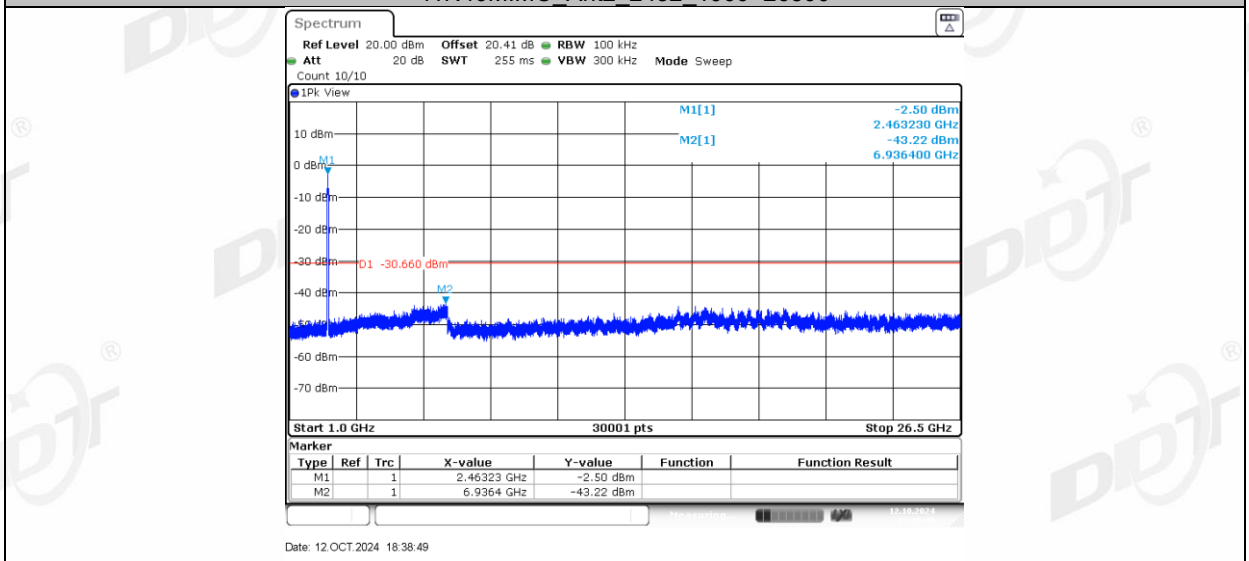




11N40MIMO\_Ant2\_2452\_30~1000

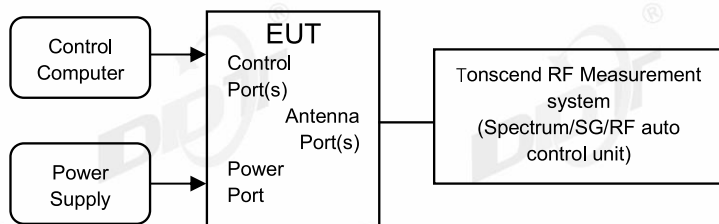


11N40MIMO\_Ant2\_2452\_1000~26500



## 10. Duty Cycle

### 10.1. Block diagram of test setup



### 10.2. Limit

Just for Report.

### 10.3. 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

## 10.4. Test result

Test Engineer:	Zhongyao	Test Site:	RF Measurement System 3#
Ambient Condition:	26.4°C,46.9%RH	Test Date:	2024.10.12
Test Power Supply:	DC 12V	Sample Number:	S24092008-001

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	12.43	12.80	97.11
	Ant2	2412	12.43	12.88	96.51
	Ant1	2437	12.44	12.84	96.88
	Ant2	2437	12.44	12.80	97.19
	Ant1	2462	12.44	12.84	96.88
	Ant2	2462	12.42	12.77	97.26
11G	Ant1	2412	2.07	2.19	94.52
	Ant2	2412	2.07	2.28	90.79
	Ant1	2437	2.07	2.21	93.67
	Ant2	2437	2.07	2.26	91.59
	Ant1	2462	2.07	2.23	92.83
	Ant2	2462	2.07	2.30	90.00
11N20MIMO	Ant1	2412	0.99	1.20	82.50
	Ant2	2412	0.99	1.20	82.50
	Ant1	2437	0.99	1.16	85.34
	Ant2	2437	0.98	1.19	82.35
	Ant1	2462	0.98	1.21	80.99
	Ant2	2462	0.99	1.20	82.50
11N40MIMO	Ant1	2422	0.50	0.72	69.44
	Ant2	2422	0.49	0.72	68.06
	Ant1	2437	0.50	0.71	70.42
	Ant2	2437	0.50	0.72	69.44
	Ant1	2452	0.50	0.72	69.44
	Ant2	2452	0.50	0.73	68.49