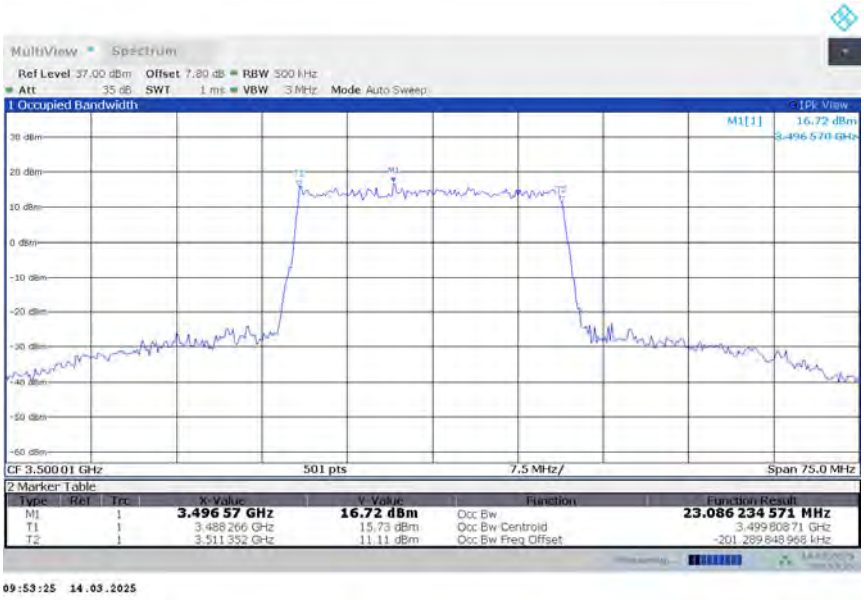

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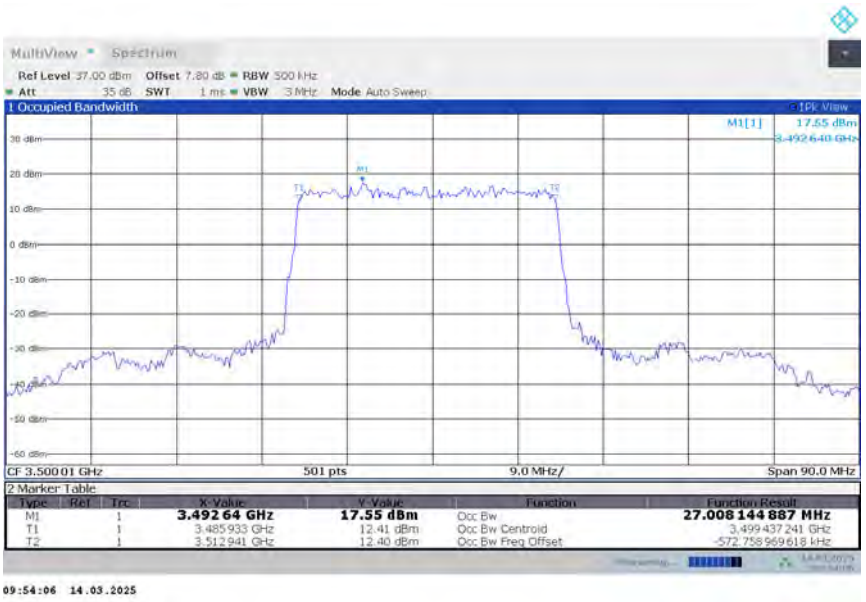
n78L

n78L,30MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	27.008	26.994	26.984

n78L,30MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n78L,30MHz Bandwidth,DFT-s-QPSK (99% BW)

n78L,30MHz Bandwidth,DFT-s-16QAM (99% BW)

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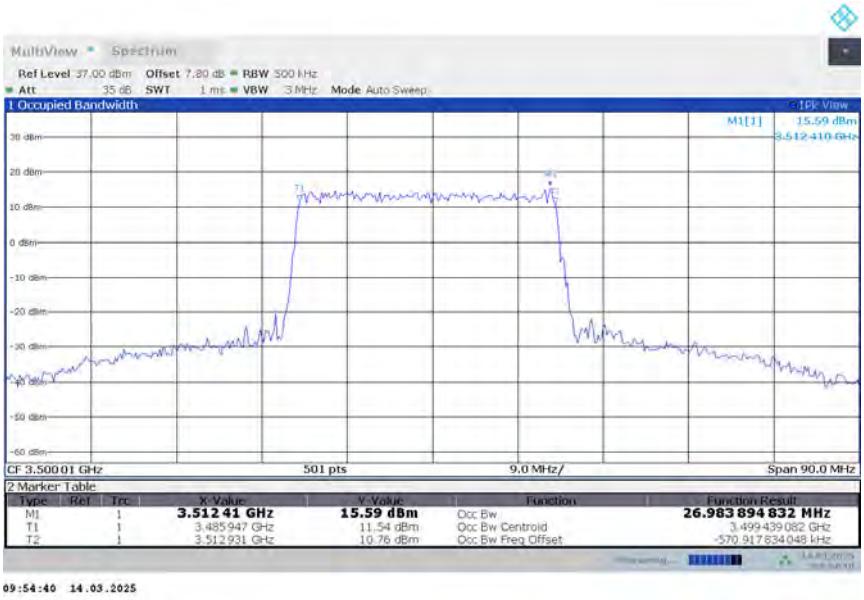

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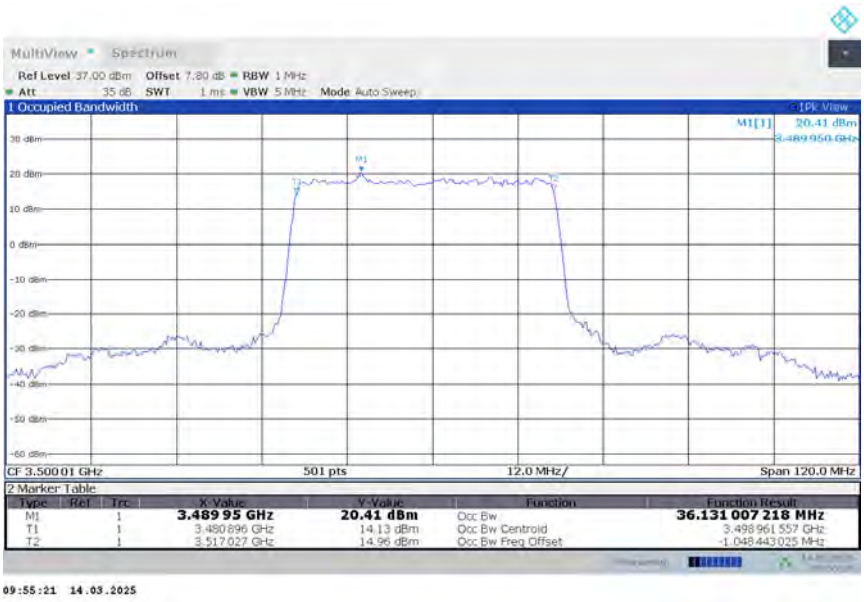
n78L

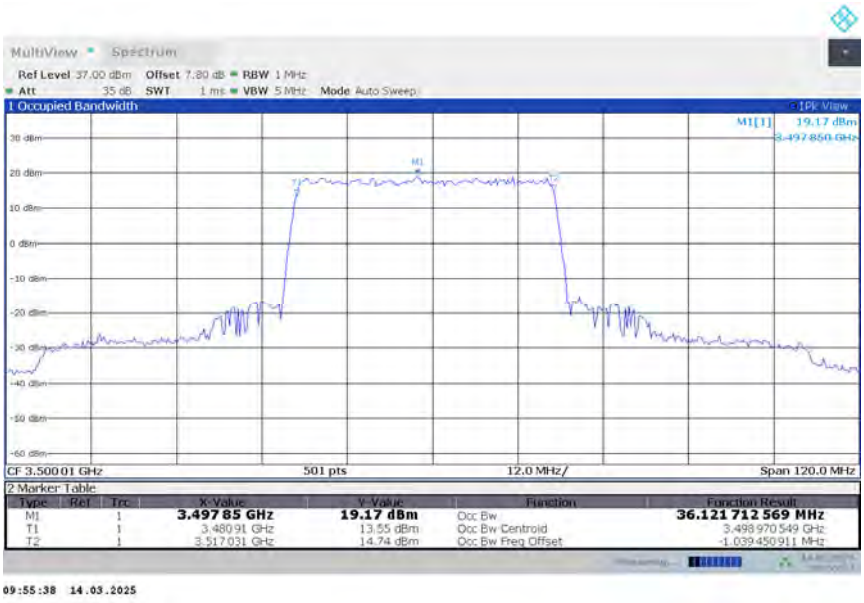
n78L,40MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	36.131	36.122	36.142

n78L,40MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n78L,40MHz Bandwidth,DFT-s-QPSK (99% BW)



n78L,40MHz Bandwidth,DFT-s-16QAM (99% BW)

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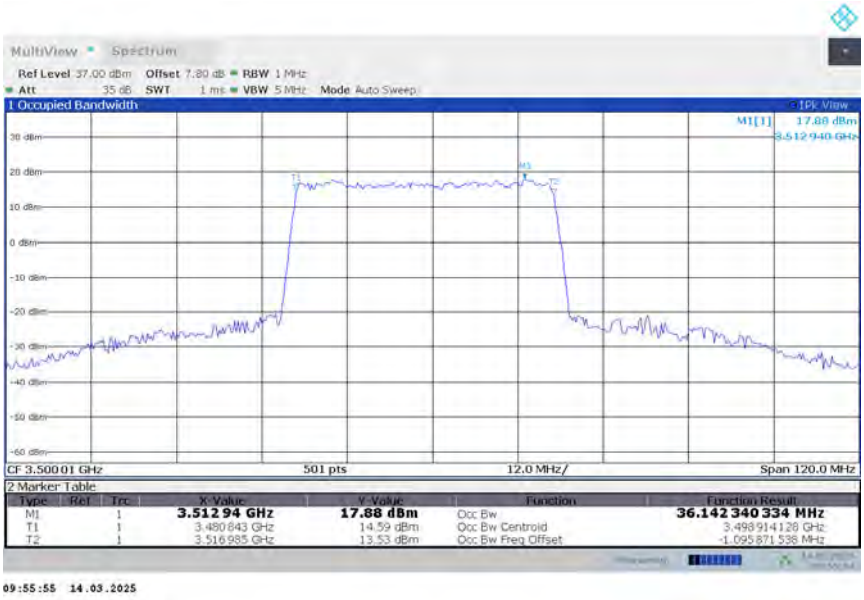

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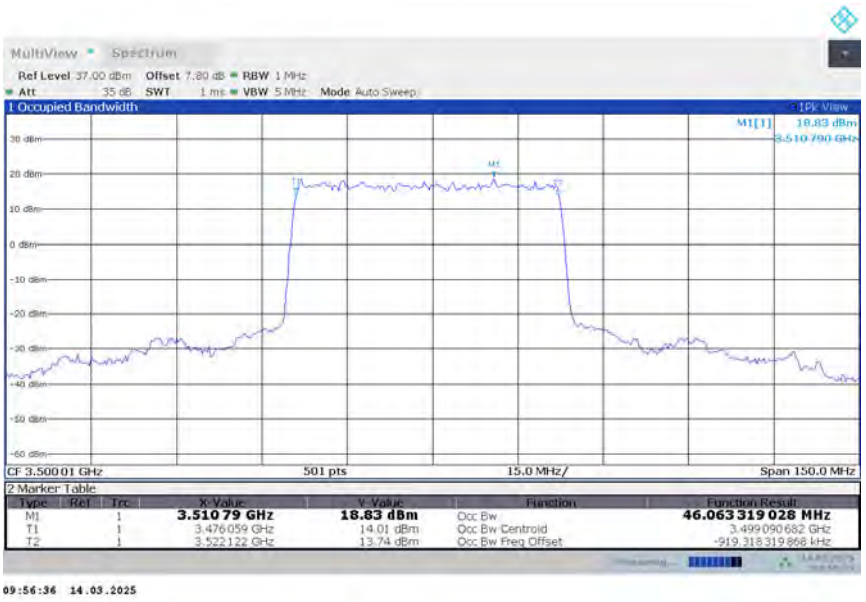
n78L

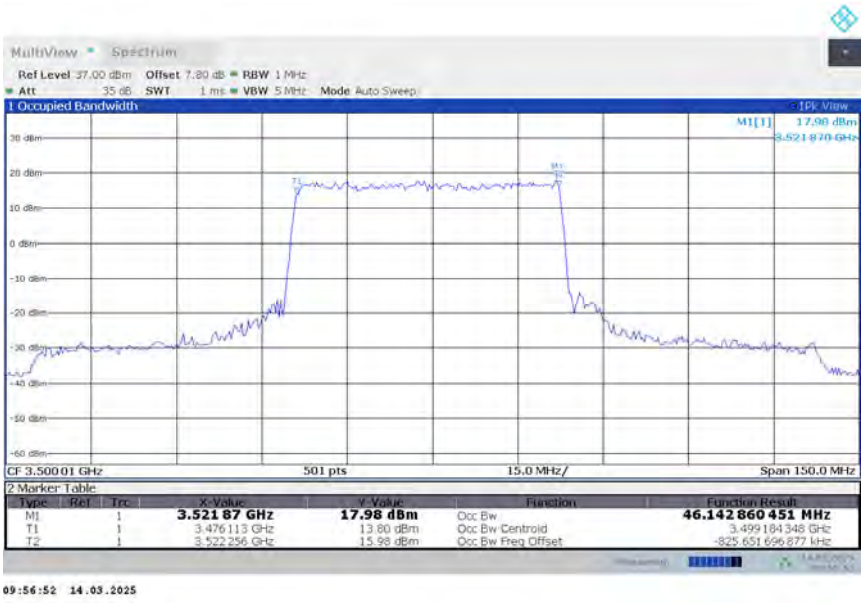
n78L,50MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	46.063	46.143	46.169

n78L,50MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n78L,50MHz Bandwidth,DFT-s-QPSK (99% BW)



n78L,50MHz Bandwidth,DFT-s-16QAM (99% BW)

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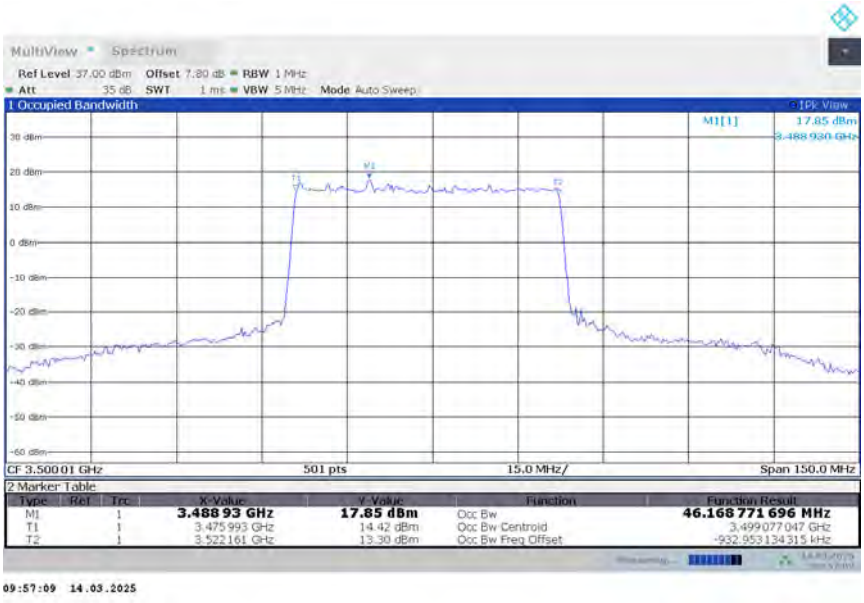

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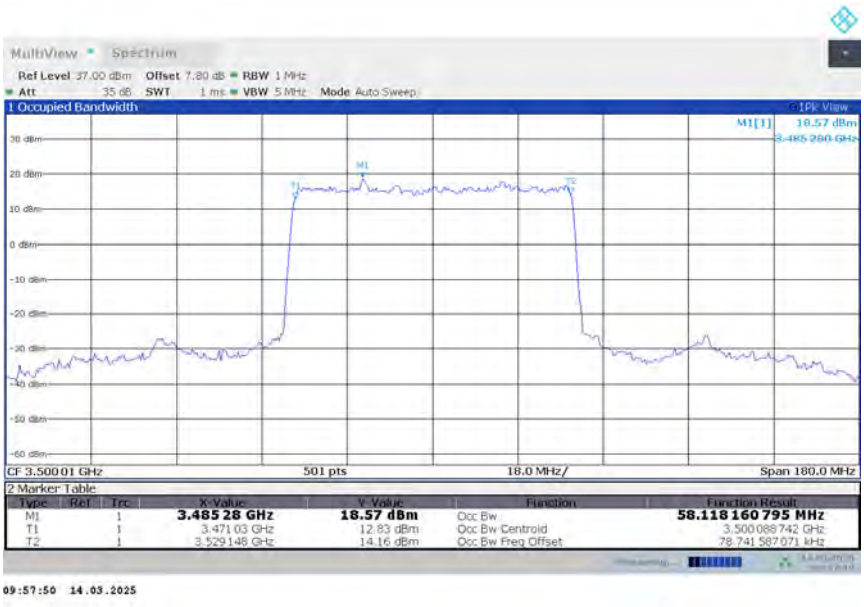
n78L

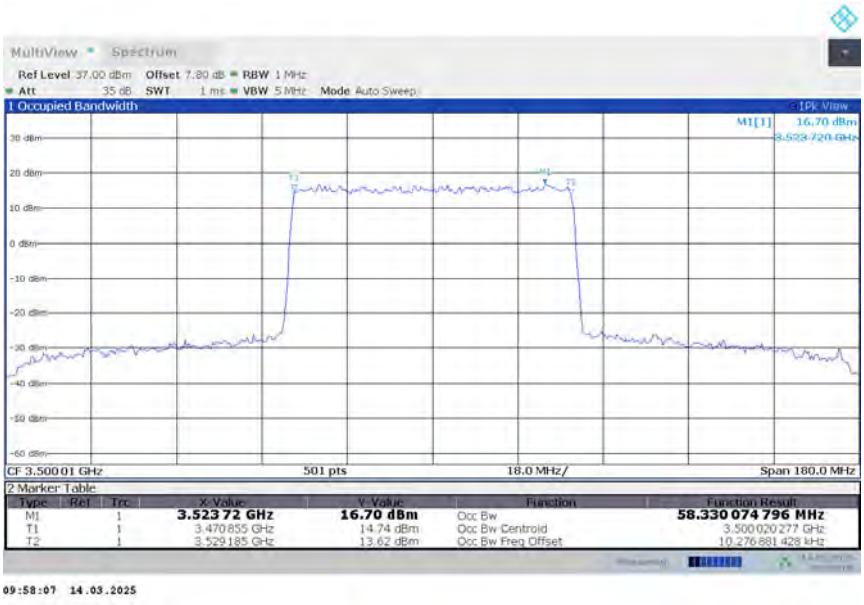
n78L,60MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	58.118	58.330	58.288

n78L,60MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n78L,60MHz Bandwidth,DFT-s-QPSK (99% BW)



n78L,60MHz Bandwidth,DFT-s-16QAM (99% BW)

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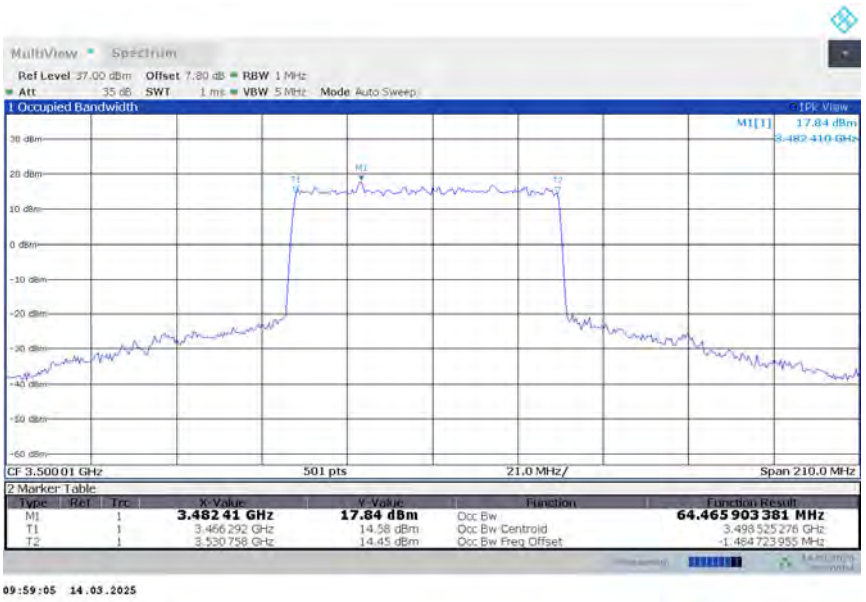
n78L

n78L,70MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	64.466	64.559	64.450

n78L,70MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n78L,70MHz Bandwidth,DFT-s-QPSK (99% BW)

n78L,70MHz Bandwidth,DFT-s-16QAM (99% BW)

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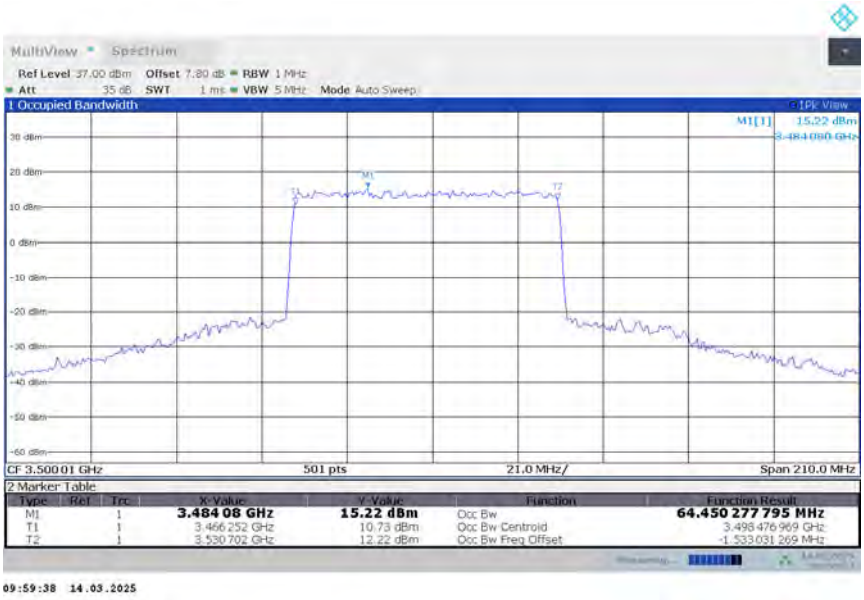

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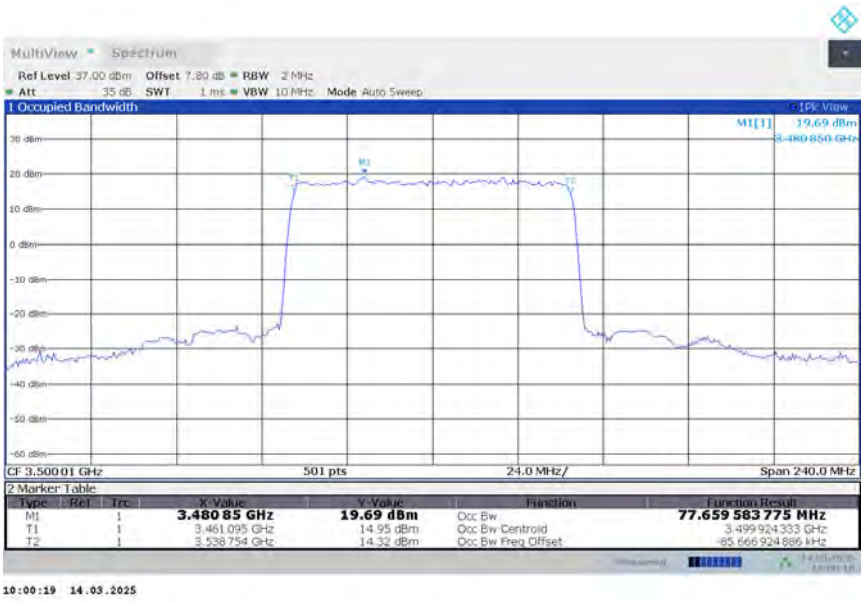
n78L

n78L,80MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	77.660	77.646	77.847

n78L,80MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n78L,80MHz Bandwidth,DFT-s-QPSK (99% BW)

n78L,80MHz Bandwidth,DFT-s-16QAM (99% BW)

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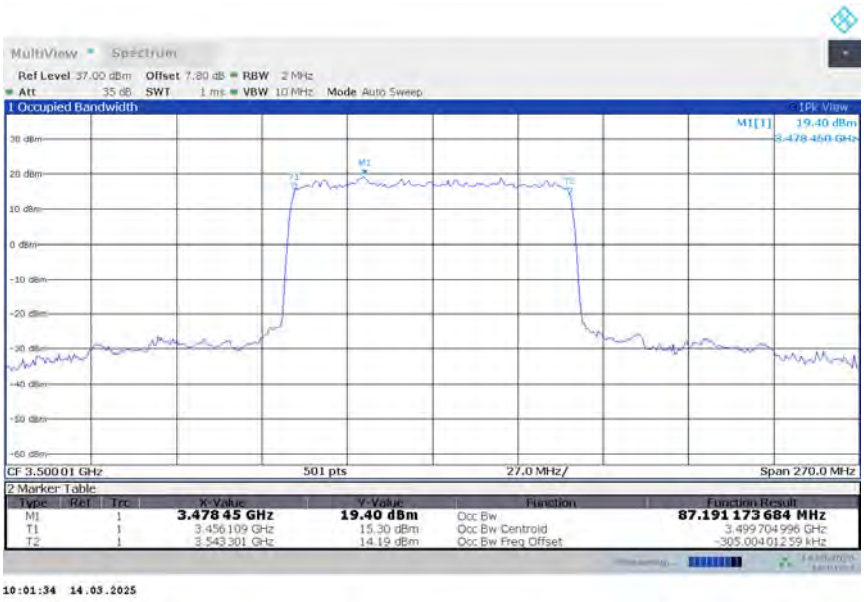
n78L

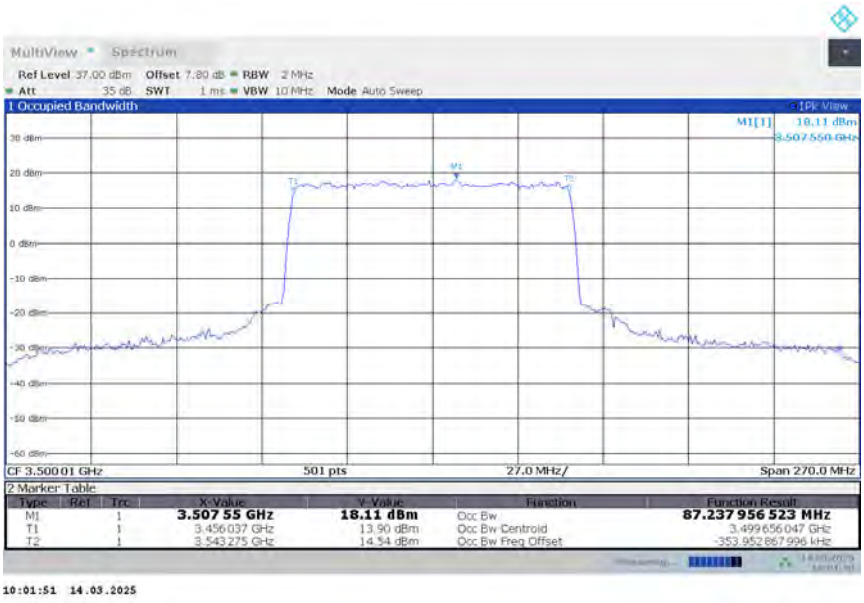
n78L,90MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	87.191	87.238	87.557

n78L,90MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n78L,90MHz Bandwidth,DFT-s-QPSK (99% BW)



n78L,90MHz Bandwidth,DFT-s-16QAM (99% BW)

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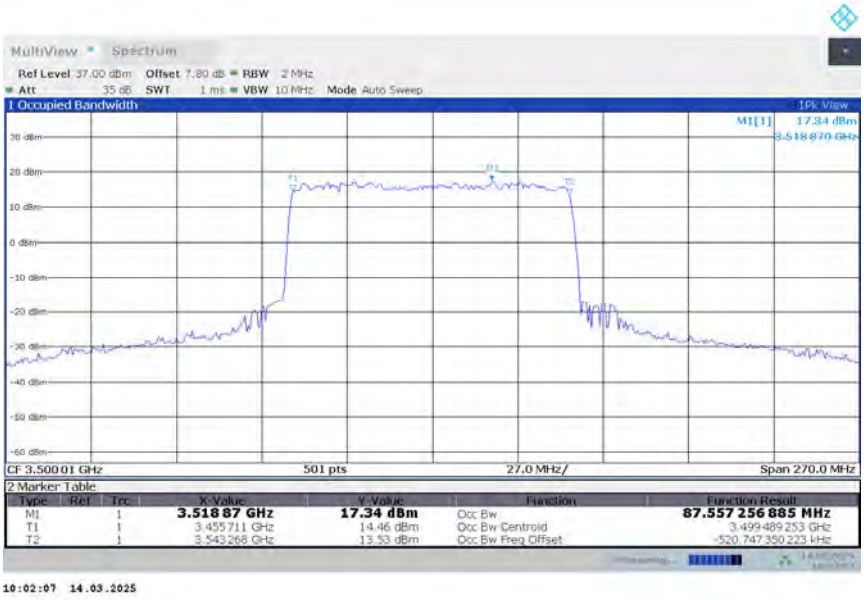

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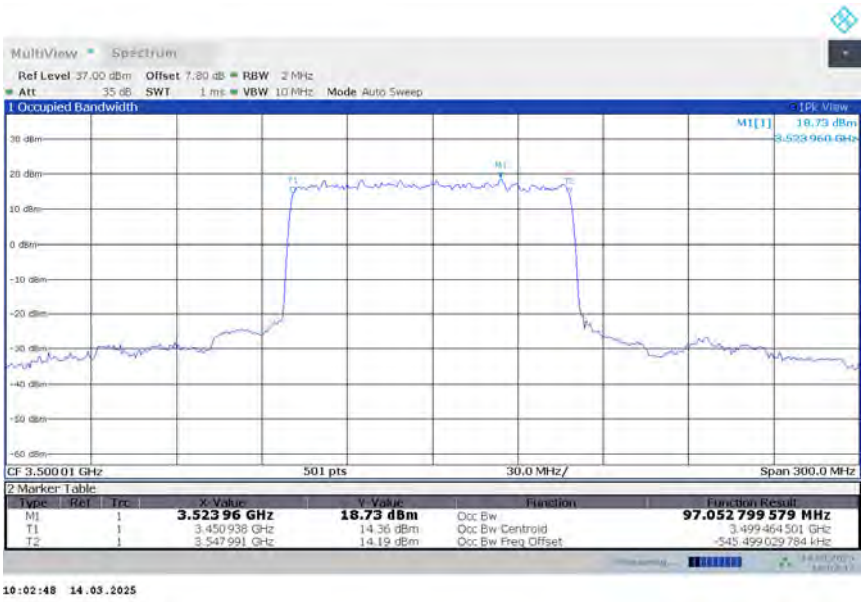
n78L

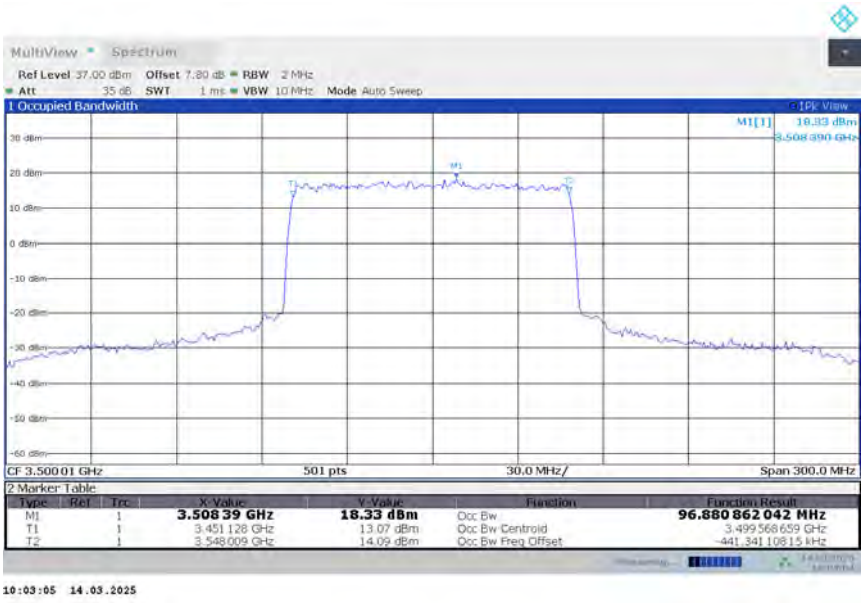
n78L,100MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	97.053	96.881	96.937

n78L,100MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



n78L,100MHz Bandwidth,DFT-s-QPSK (99% BW)



n78L,100MHz Bandwidth,DFT-s-16QAM (99% BW)

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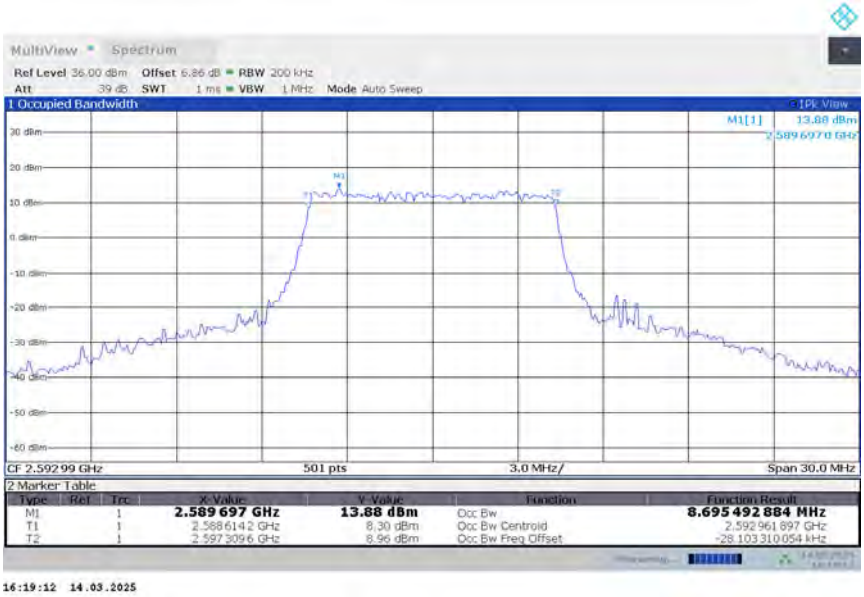
n41-MIMO

n41-MIMO,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	8.695	8.706

n41,10MHz Bandwidth,CP-QPSK (99% BW)



n41,10MHz Bandwidth,CP-16QAM (99% BW)

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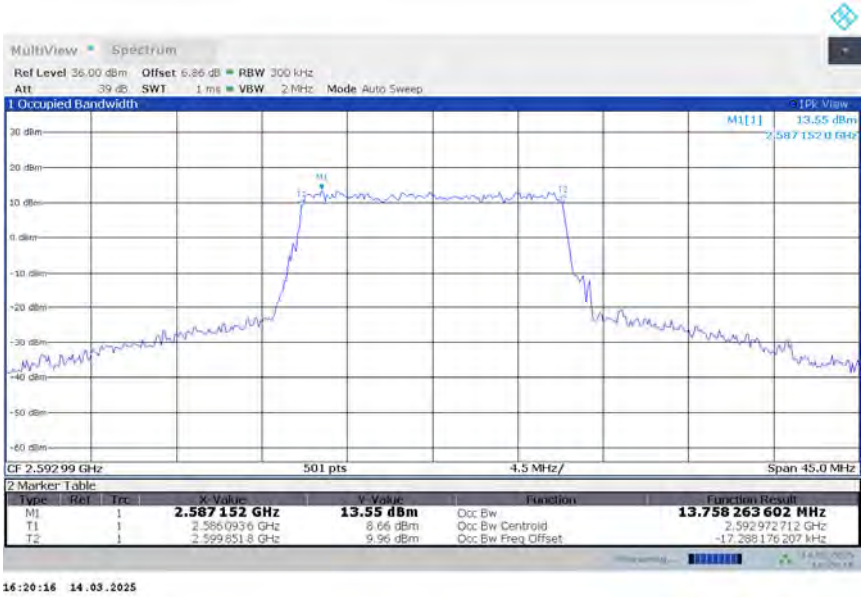
n41-MIMO

n41-MIMO,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	13.758	13.746

n41,15MHz Bandwidth,CP-QPSK (99% BW)



n41,15MHz Bandwidth,CP-16QAM (99% BW)

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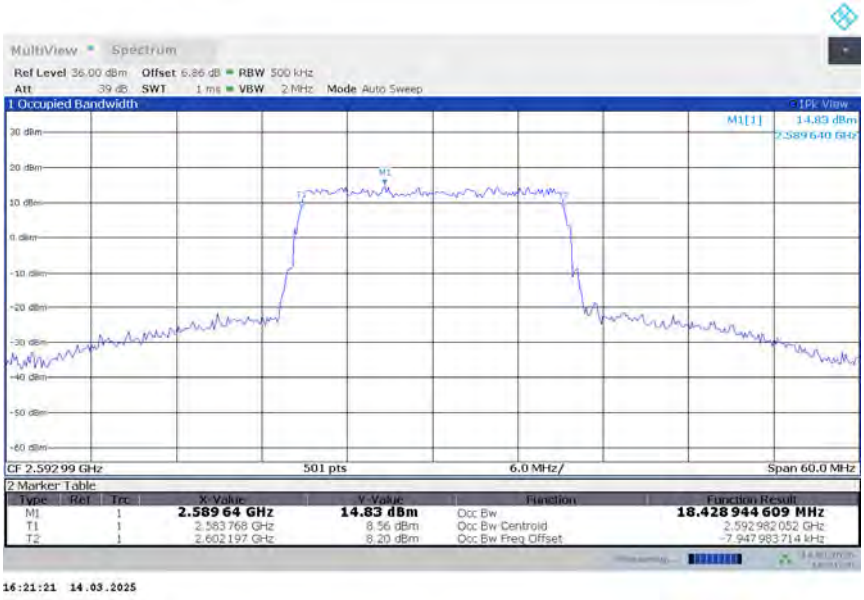
n41-MIMO

n41-MIMO,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	18.429	18.474

n41,20MHz Bandwidth,CP-QPSK (99% BW)



n41,20MHz Bandwidth,CP-16QAM (99% BW)

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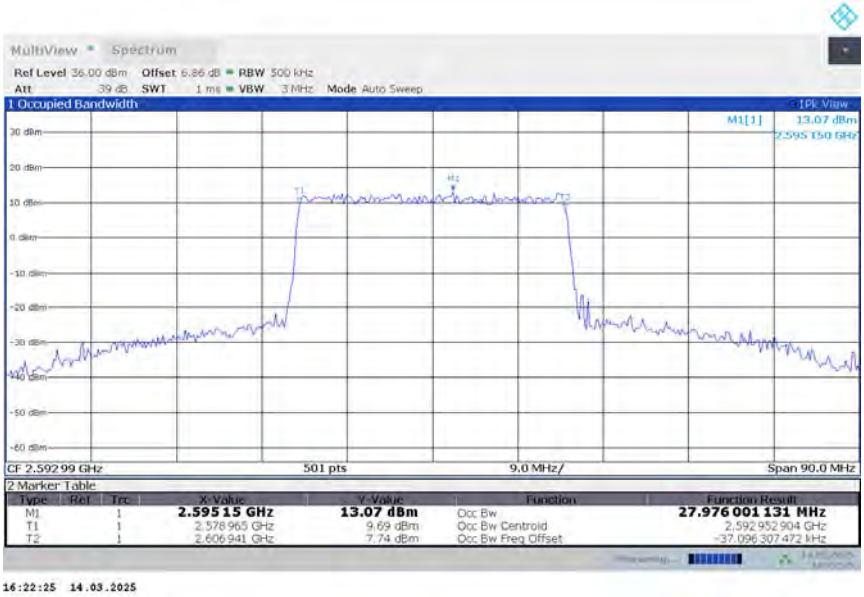
n41-MIMO

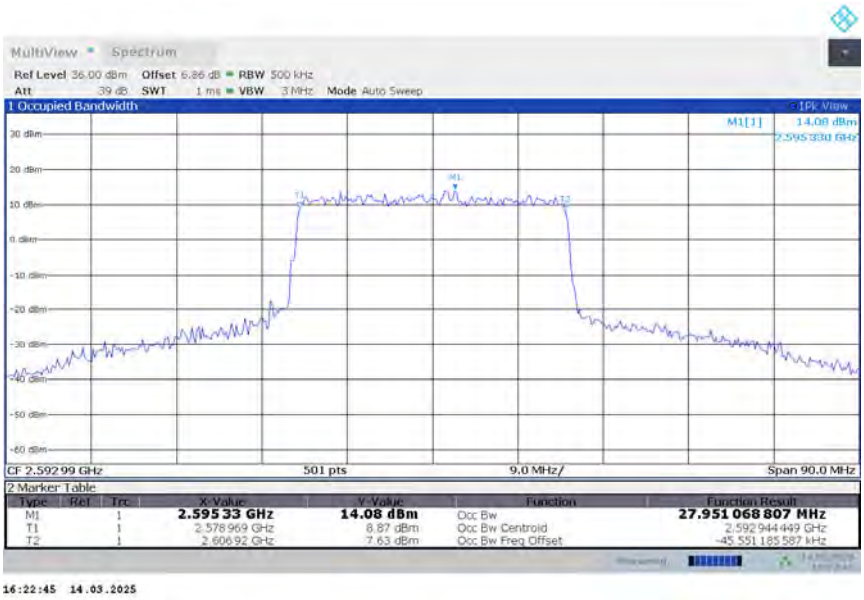
n41-MIMO,30MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	27.976	27.951

n41,30MHz Bandwidth,CP-QPSK (99% BW)



n41,30MHz Bandwidth,CP-16QAM (99% BW)



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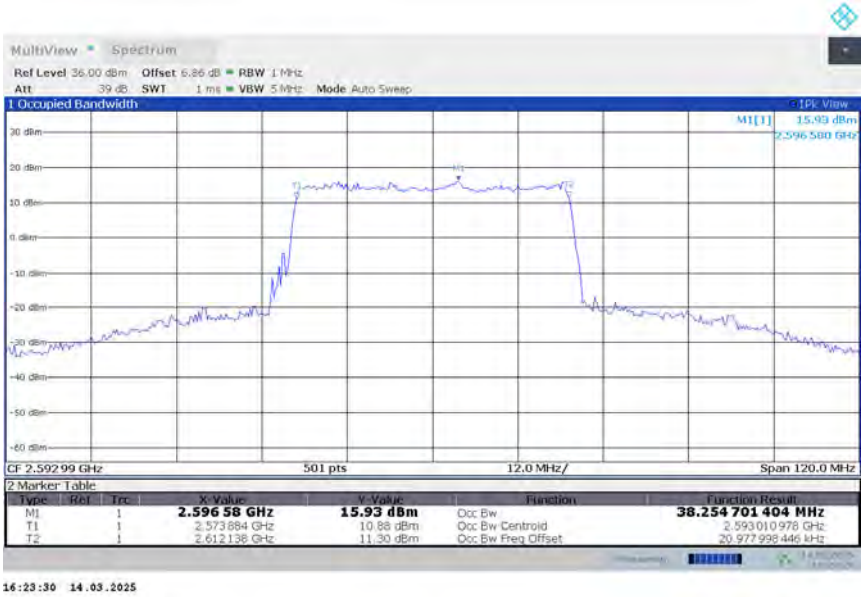
n41-MIMO

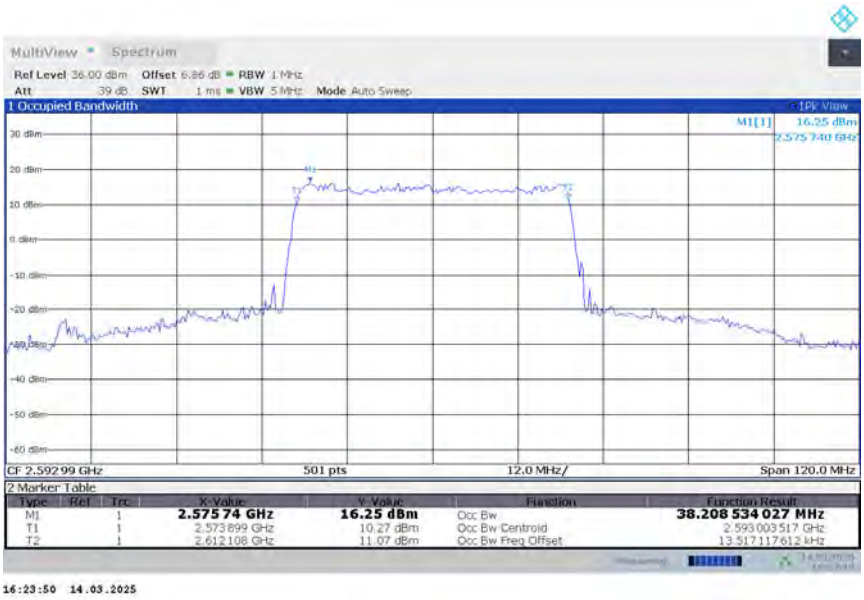
n41-MIMO,40MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	38.255	38.209

n41,40MHz Bandwidth,CP-QPSK (99% BW)



n41,40MHz Bandwidth,CP-16QAM (99% BW)



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n41-MIMO

n41-MIMO,50MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	47.923	47.871

n41,50MHz Bandwidth,CP-QPSK (99% BW)

n41,50MHz Bandwidth,CP-16QAM (99% BW)

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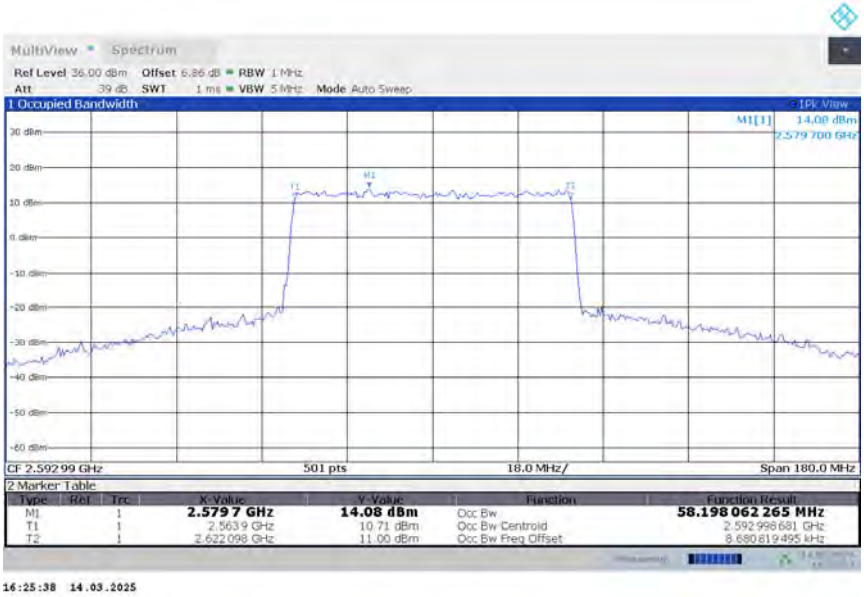
n41-MIMO

n41-MIMO,60MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	58.198	58.162

n41,60MHz Bandwidth,CP-QPSK (99% BW)



n41,60MHz Bandwidth,CP-16QAM (99% BW)

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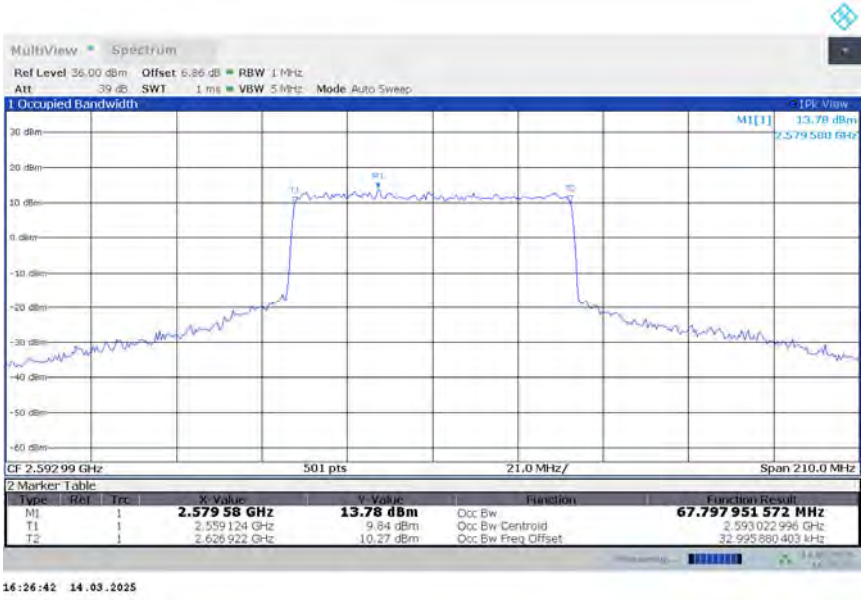
n41-MIMO

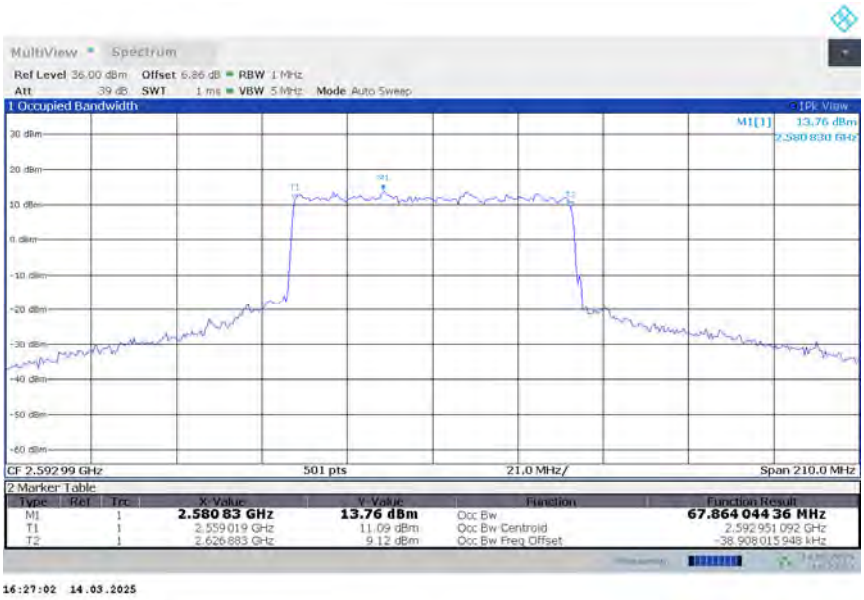
n41-MIMO,70MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	67.798	67.864

n41,70MHz Bandwidth,CP-QPSK (99% BW)



n41,70MHz Bandwidth,CP-16QAM (99% BW)



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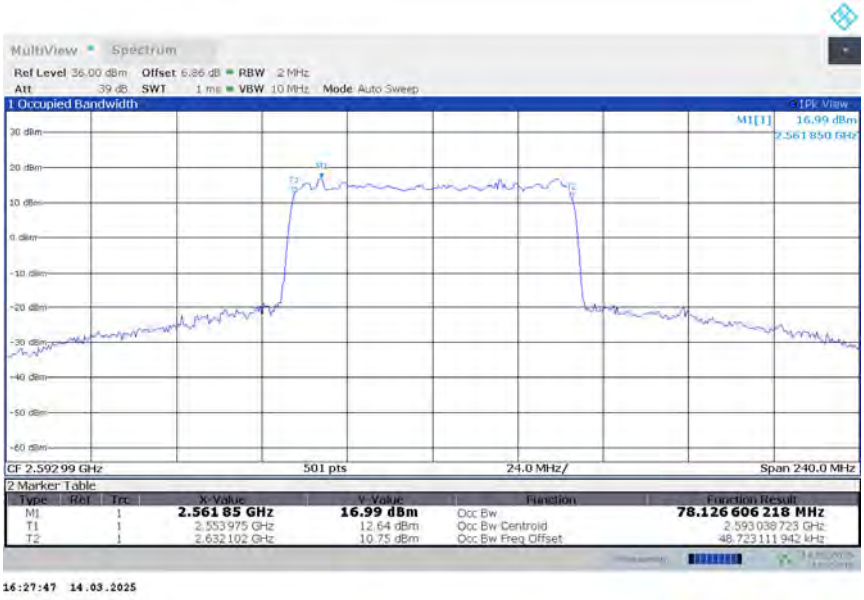
n41-MIMO

n41-MIMO,80MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	78.127	78.216

n41,80MHz Bandwidth,CP-QPSK (99% BW)



n41,80MHz Bandwidth,CP-16QAM (99% BW)

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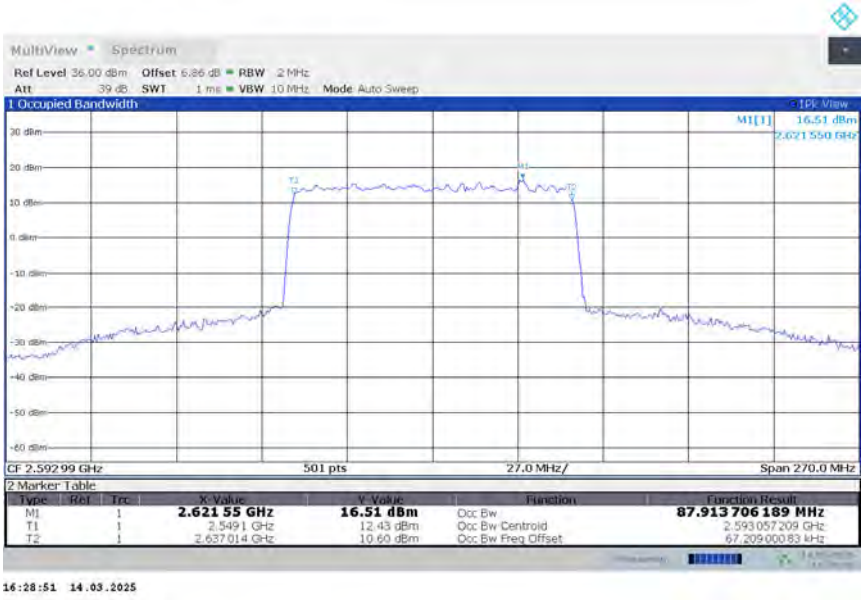
n41-MIMO

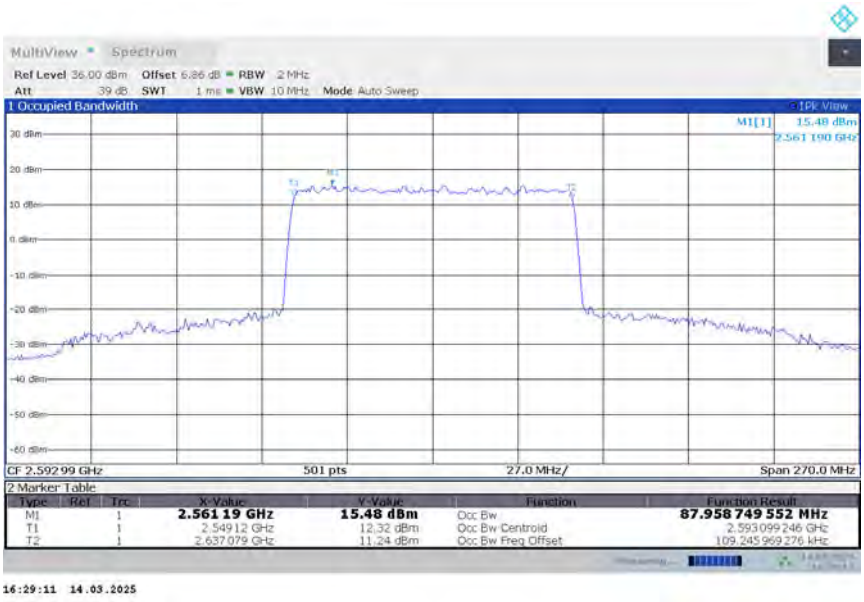
n41-MIMO,90MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	87.914	87.959

n41,90MHz Bandwidth,CP-QPSK (99% BW)



n41,90MHz Bandwidth,CP-16QAM (99% BW)



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n41-MIMO

n41-MIMO,100MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	98.034	97.972

n41,100MHz Bandwidth,CP-QPSK (99% BW)

n41,100MHz Bandwidth,CP-16QAM (99% BW)

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A.5 Emission Bandwidth

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
The measurement method is from ANSI C63.26:
a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
b) The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.
c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “−X dB” requirement, i.e., if the requirement calls for measuring the −26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.

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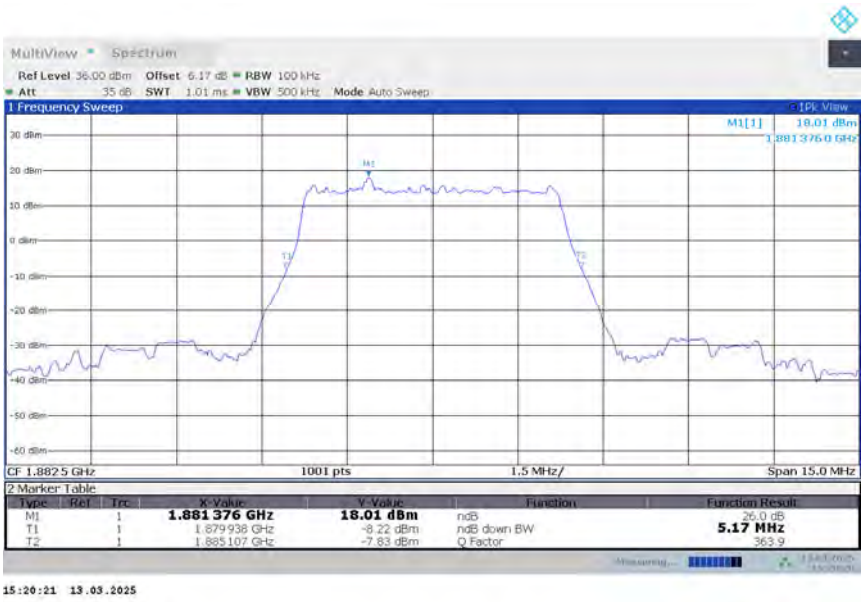
n25

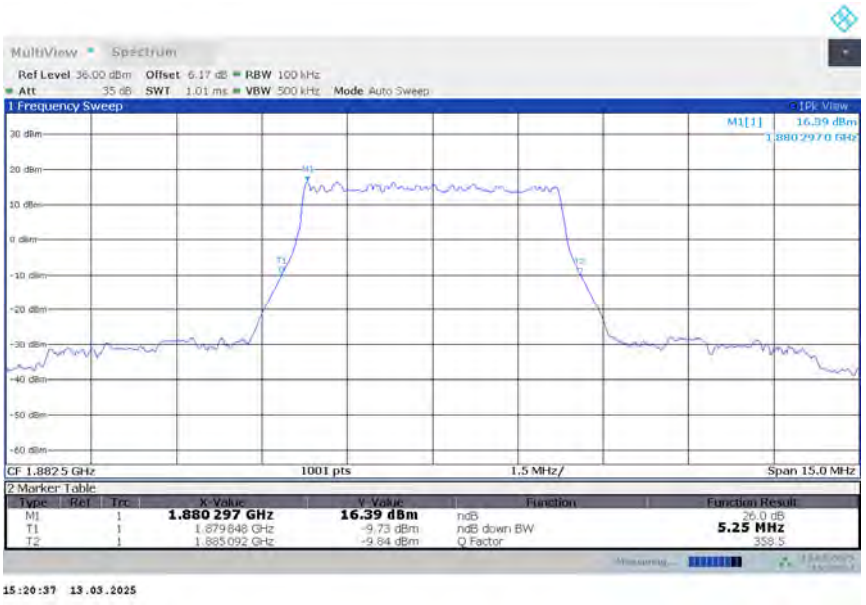
n25,5MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	5.170	5.245	5.245

n25,5MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n25,5MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n25,5MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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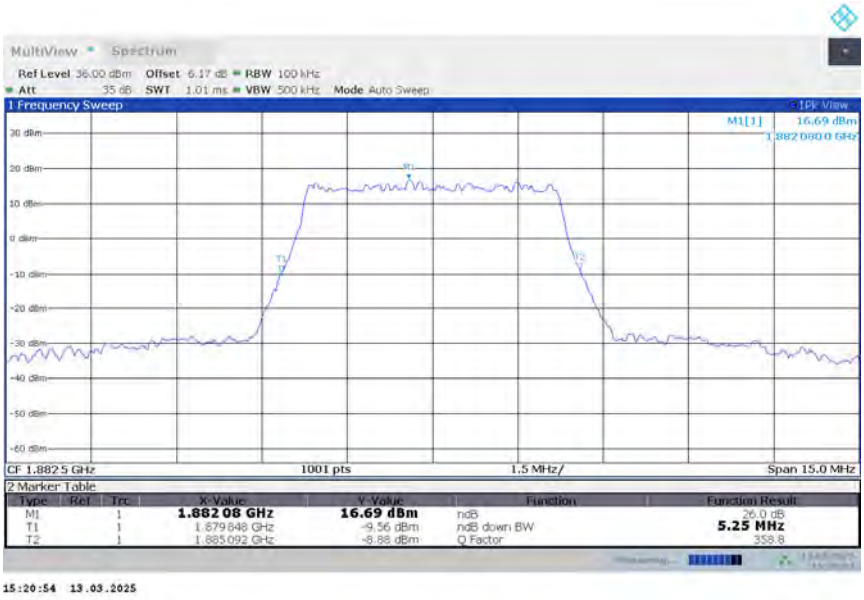

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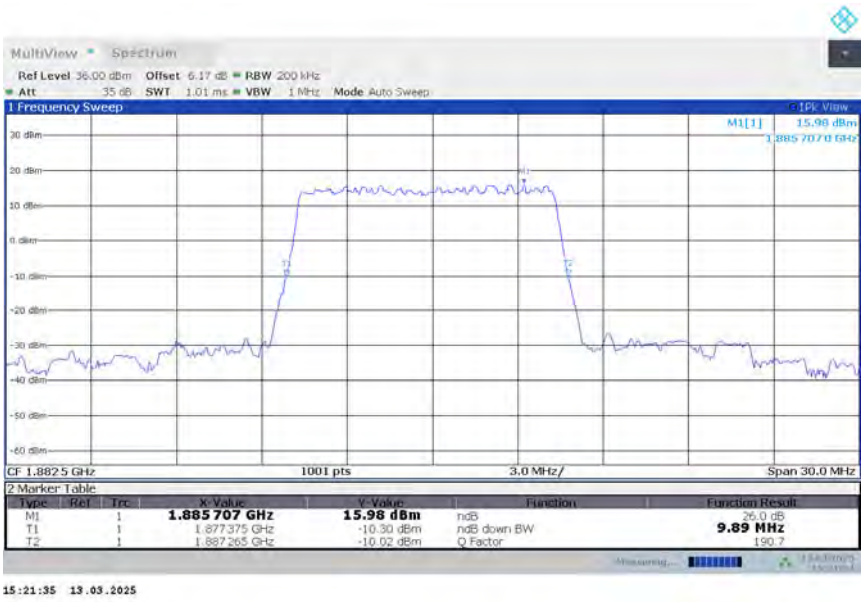
n25

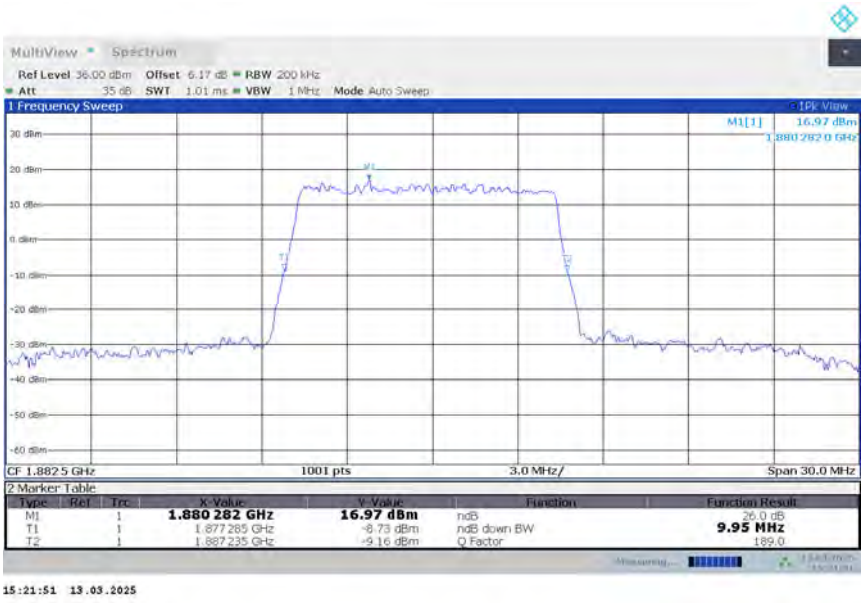
n25,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	9.890	9.950	9.890

n25,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n25,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n25,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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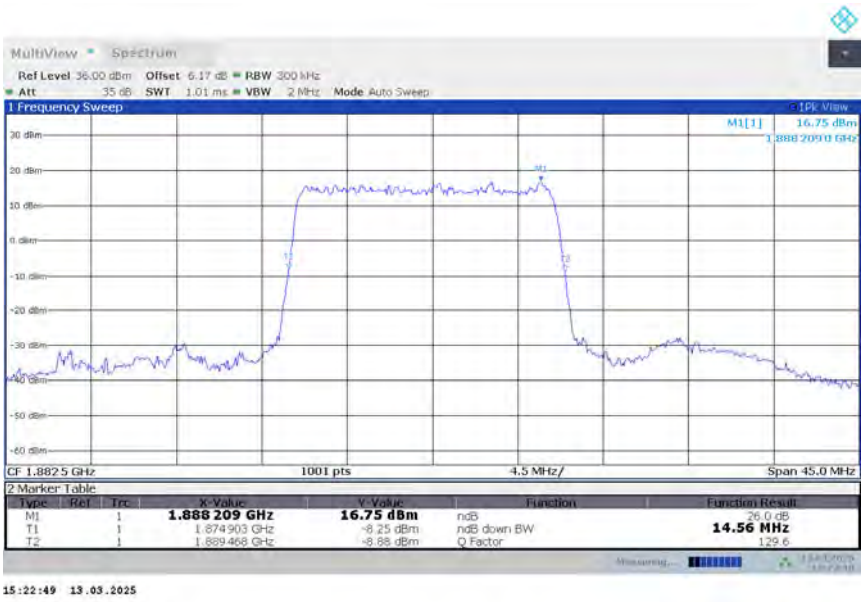
n25

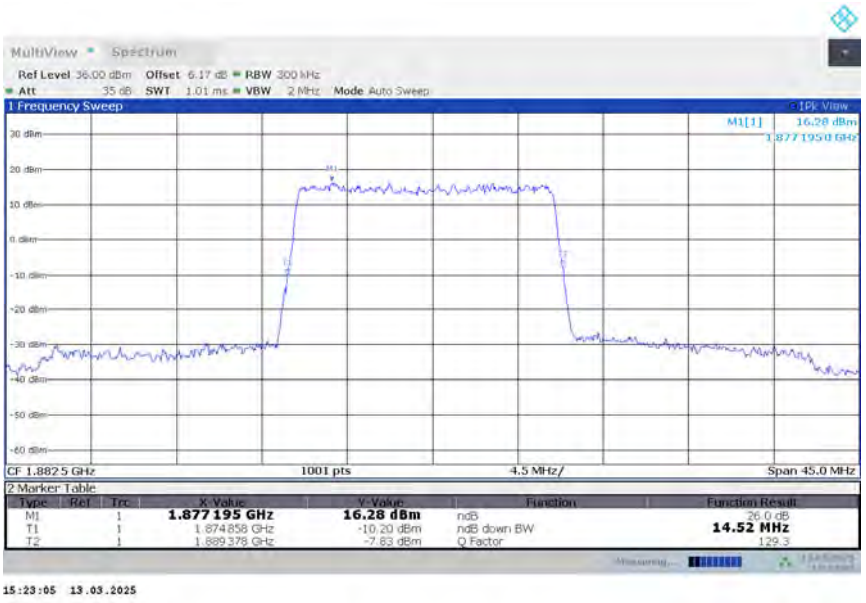
n25,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	14.565	14.520	14.655

n25,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n25,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n25,15MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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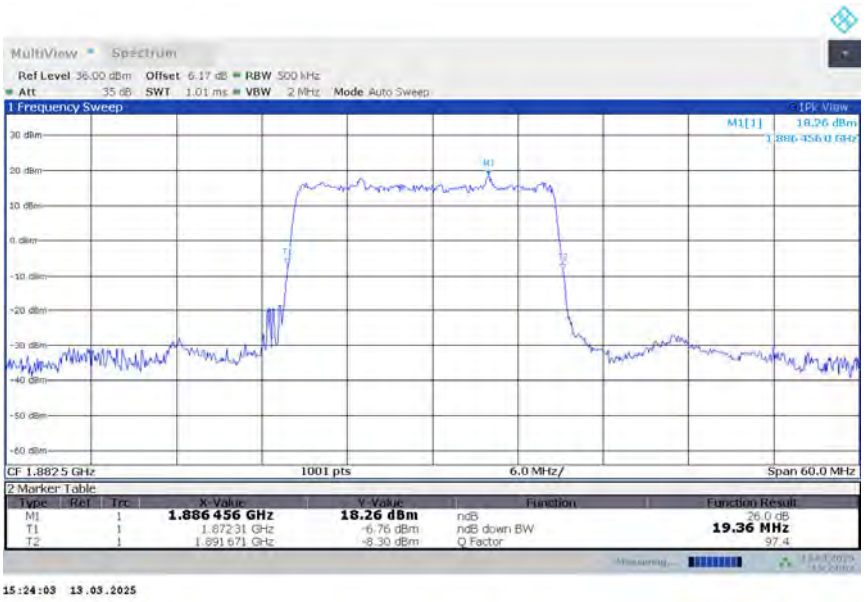
n25

n25,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	19.361	19.421	19.421

n25,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n25,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

n25,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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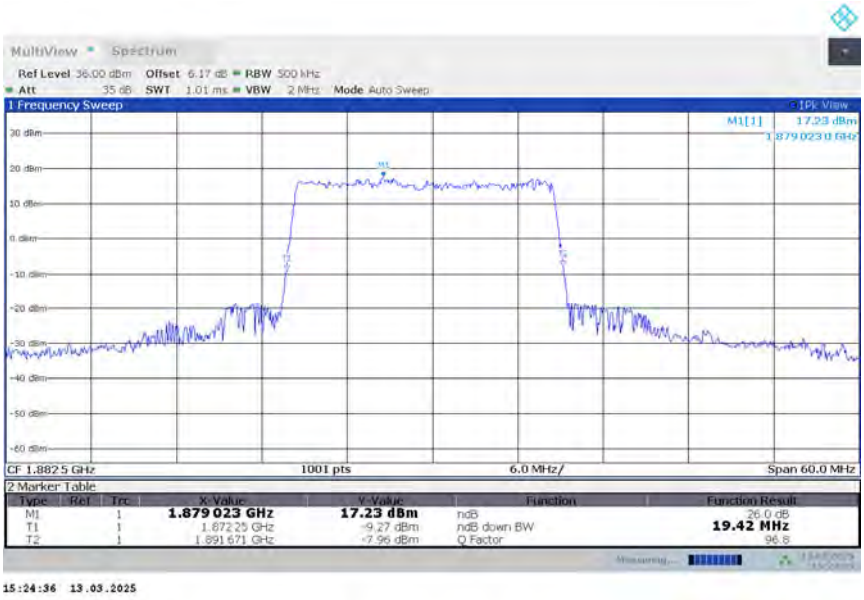

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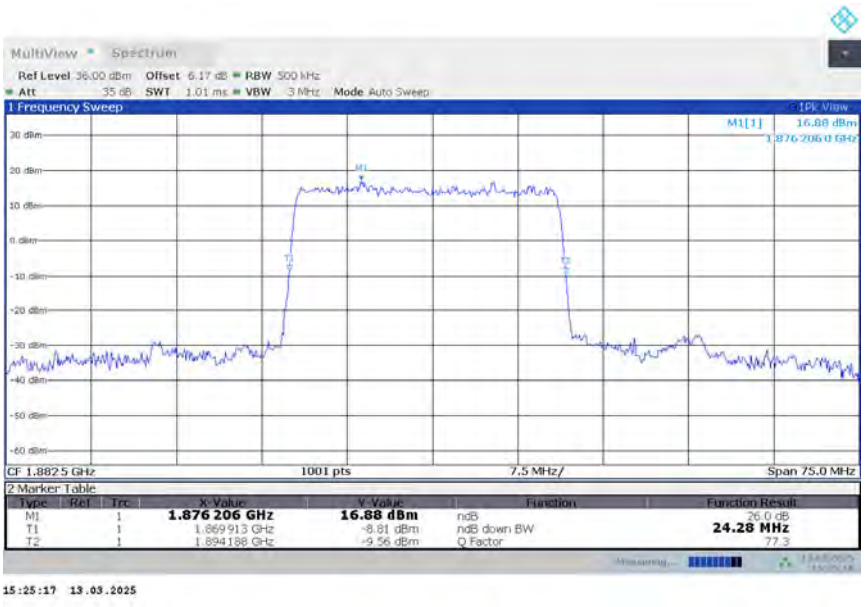
n25

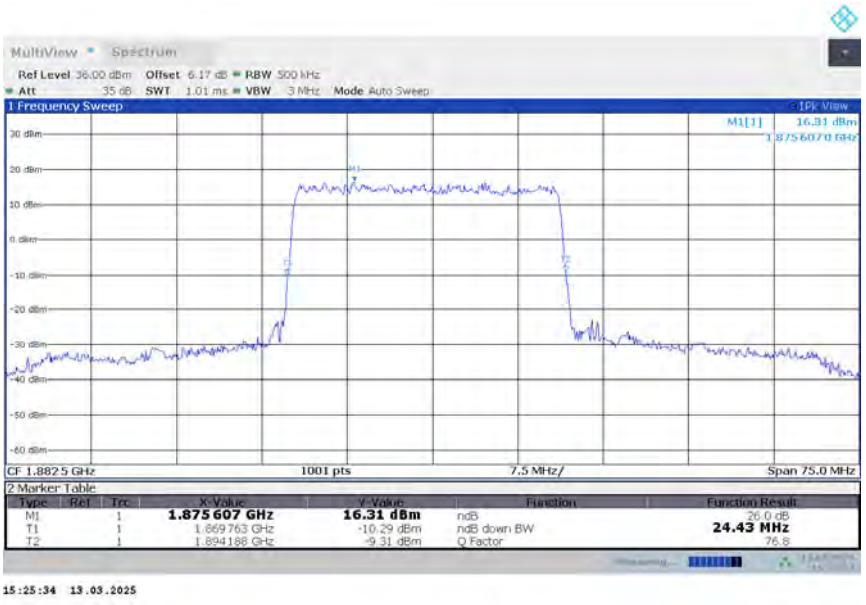
n25,25MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	24.276	24.426	24.276

n25,25MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n25,25MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n25,25MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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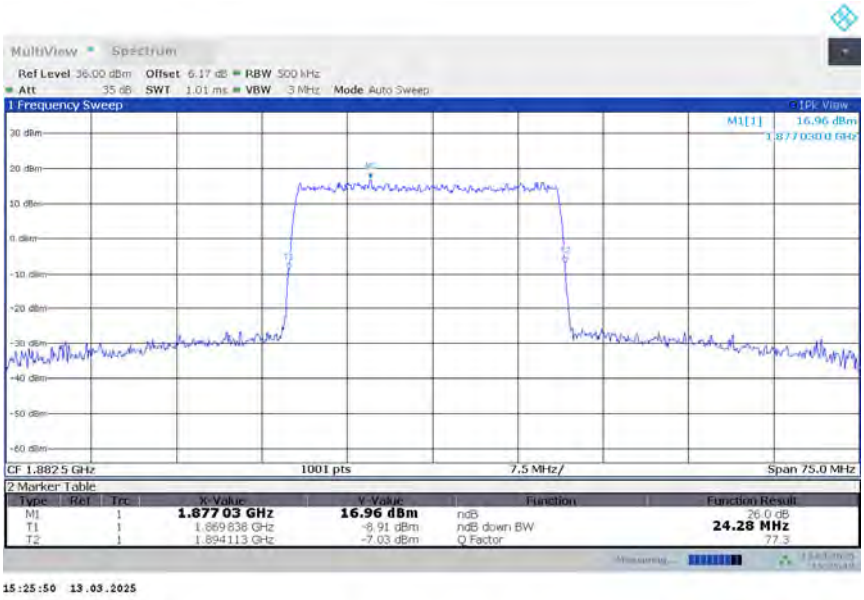

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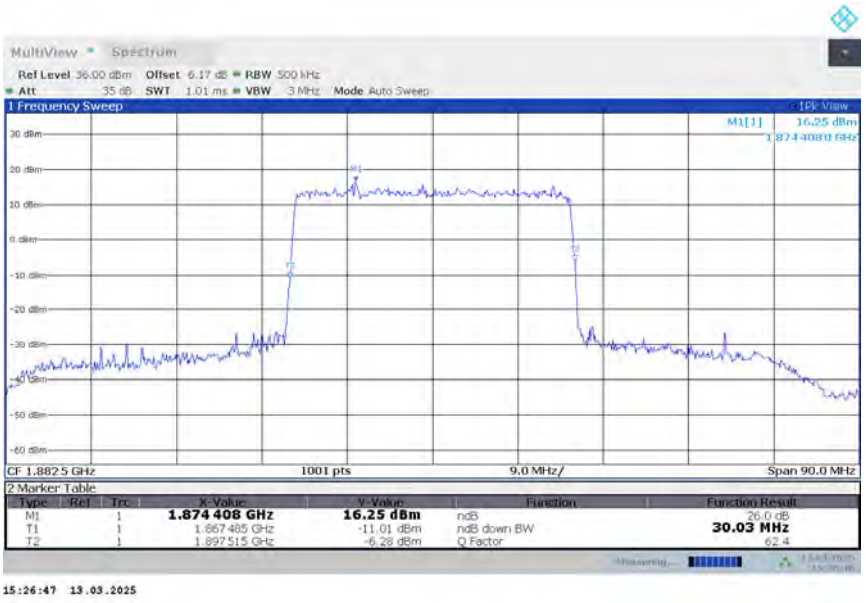
n25

n25,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	30.120	30.030	29.940

n25,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n25,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n25,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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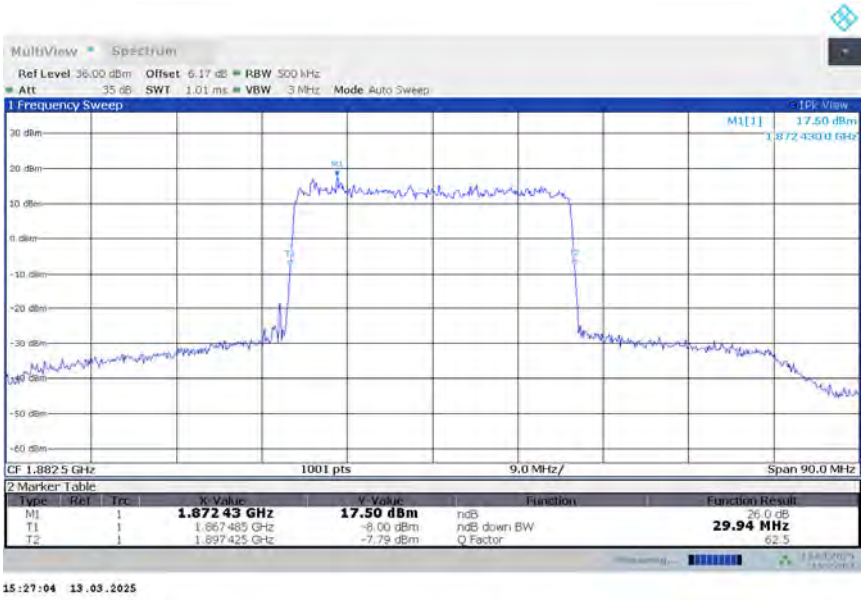

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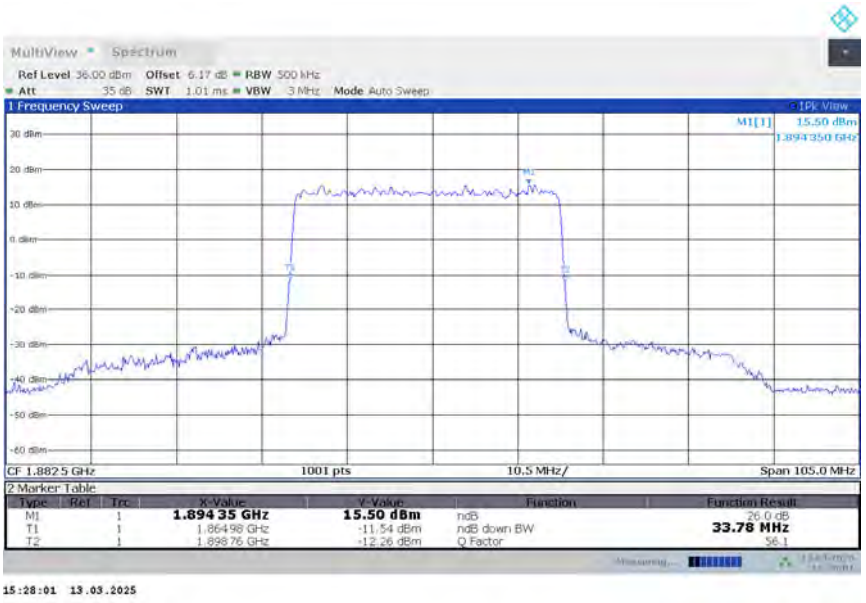
n25

n25,35MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	33.780	33.780	33.670

n25,35MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n25,35MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n25,35MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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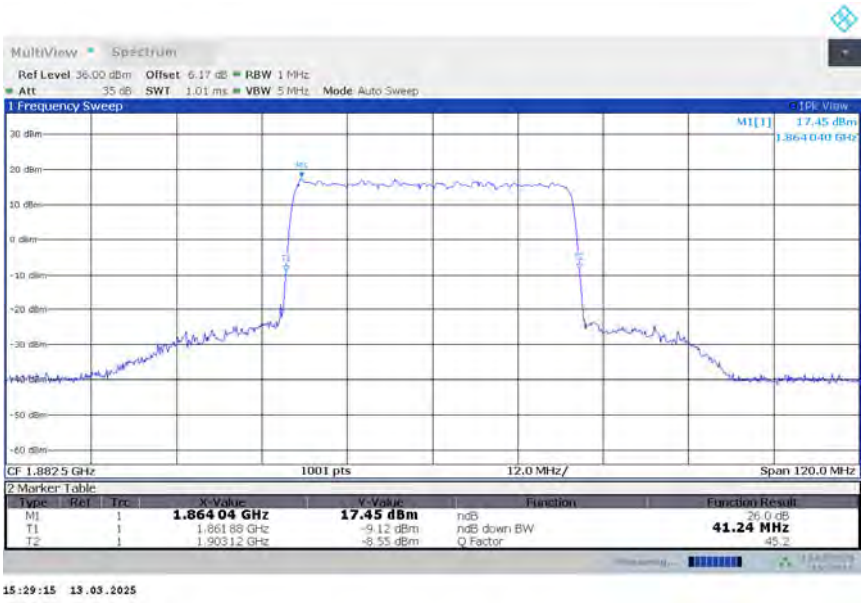
n25

n25,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	41.120	41.240	41.240

n25,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n25,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n25,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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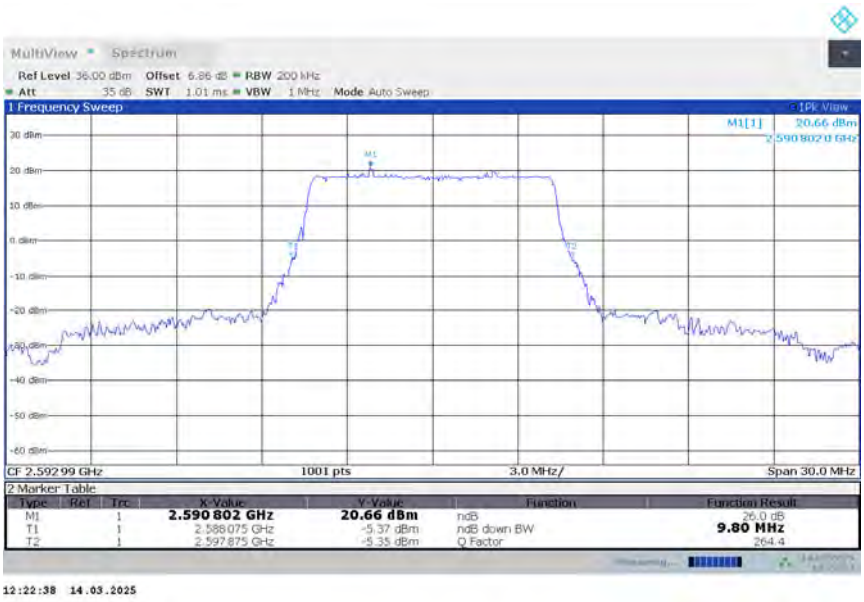
n41

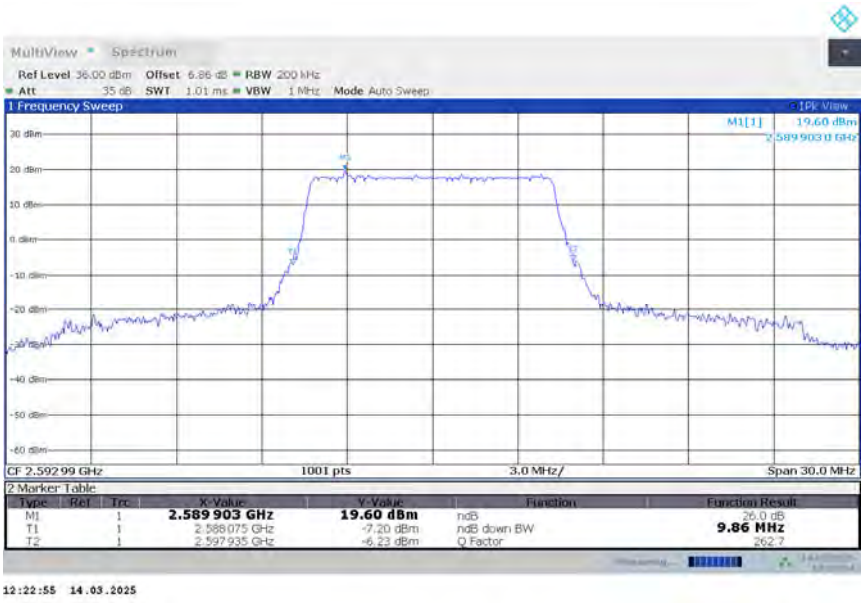
n41,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	9.800	9.860	9.980

n41,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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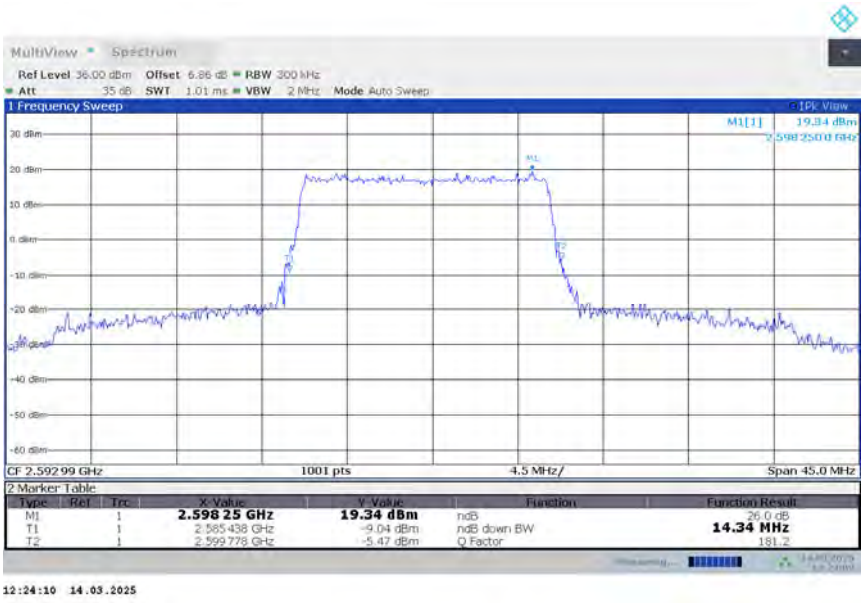
n41

n41,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	14.296	14.341	14.431

n41,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n41,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,15MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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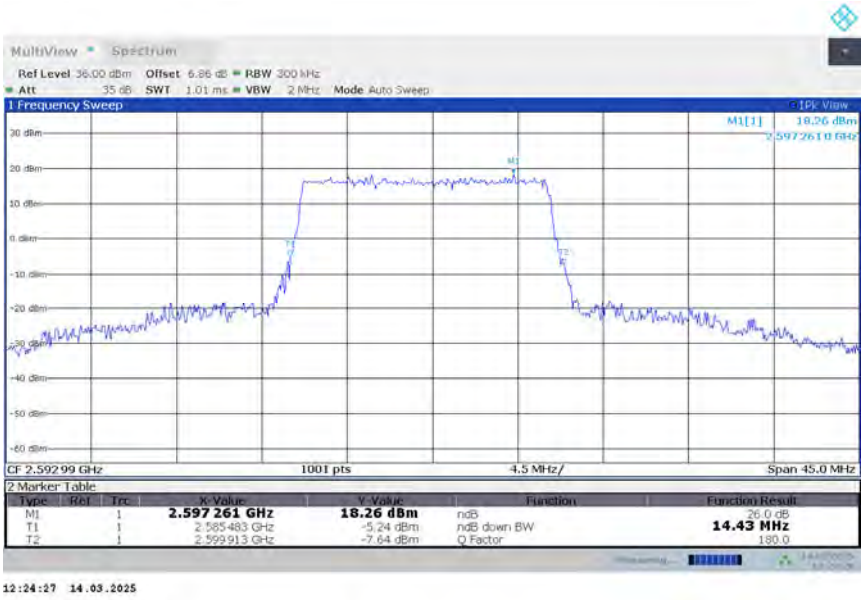

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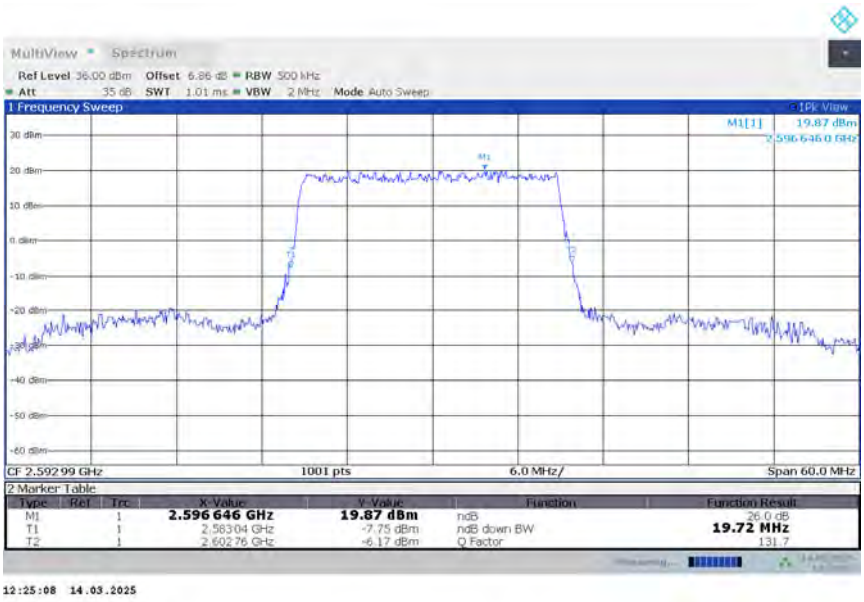
n41

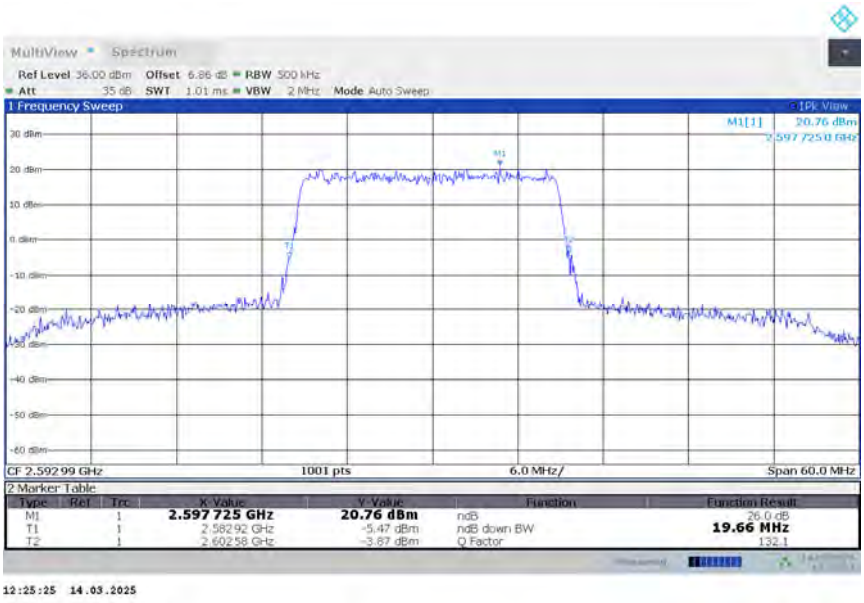
n41,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	19.720	19.660	19.241

n41,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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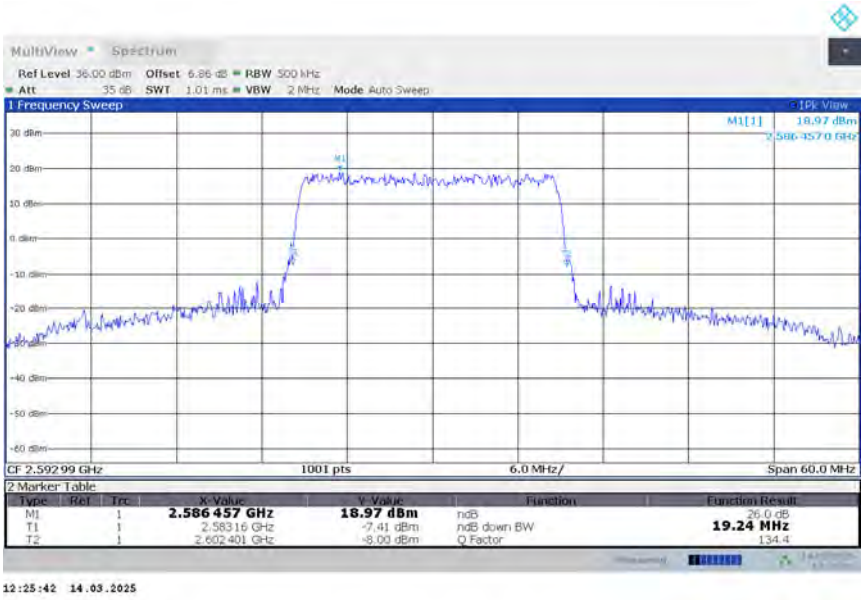

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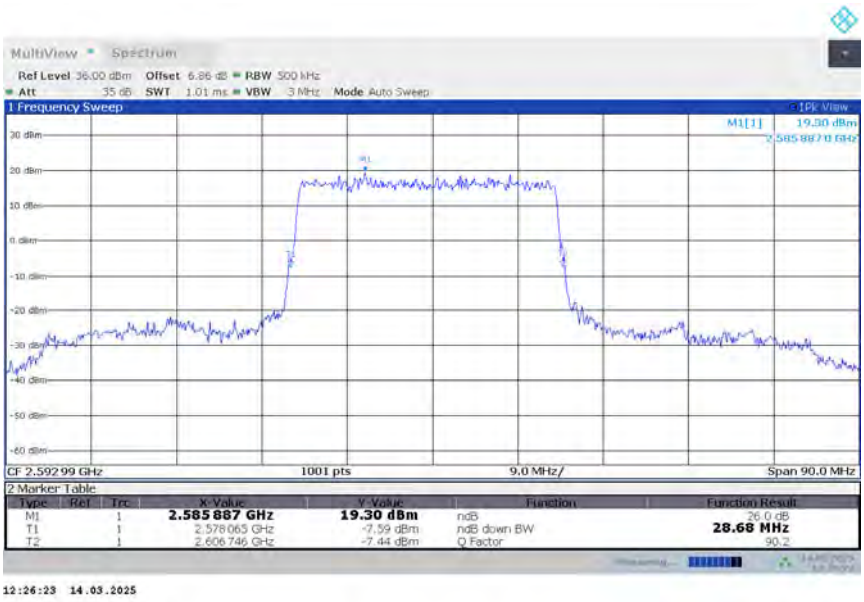
n41

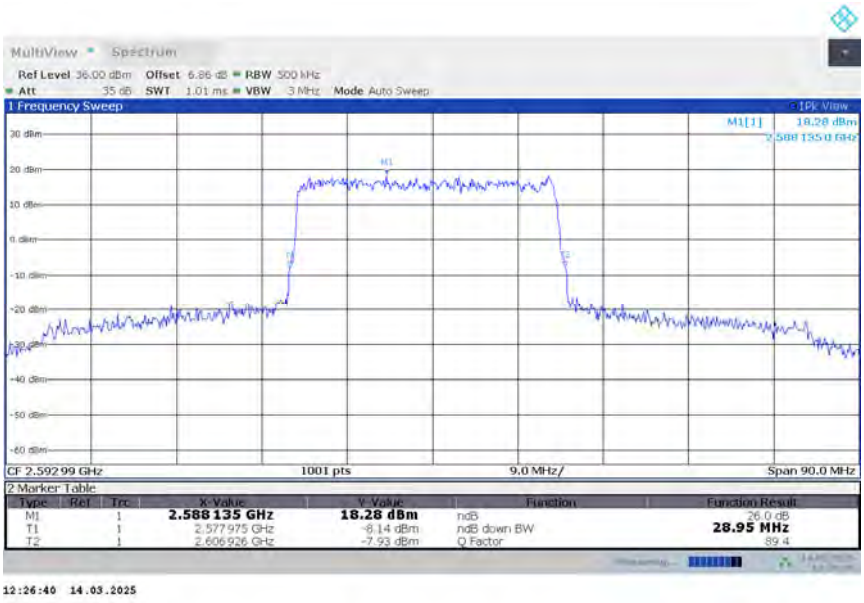
n41,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	28.681	28.951	28.412

n41,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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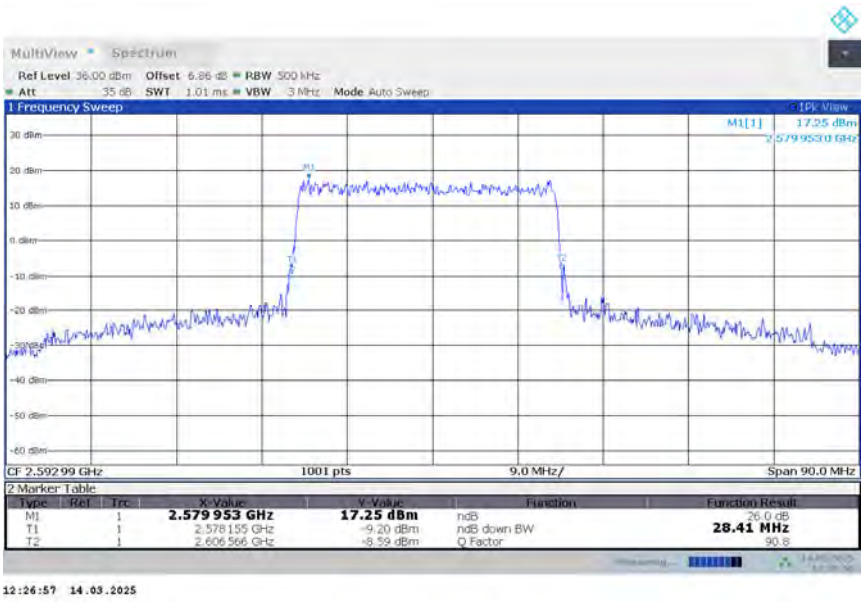

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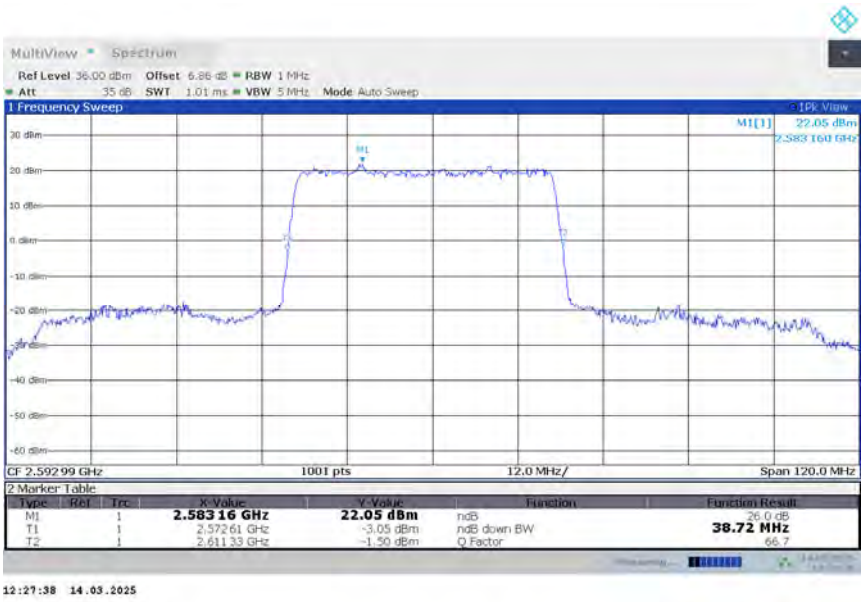
n41

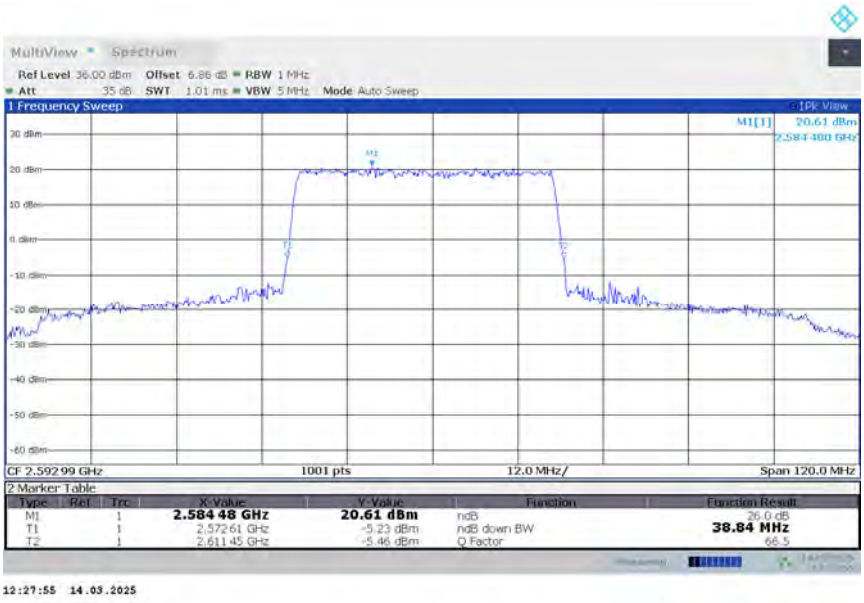
n41,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	38.720	38.840	38.840

n41,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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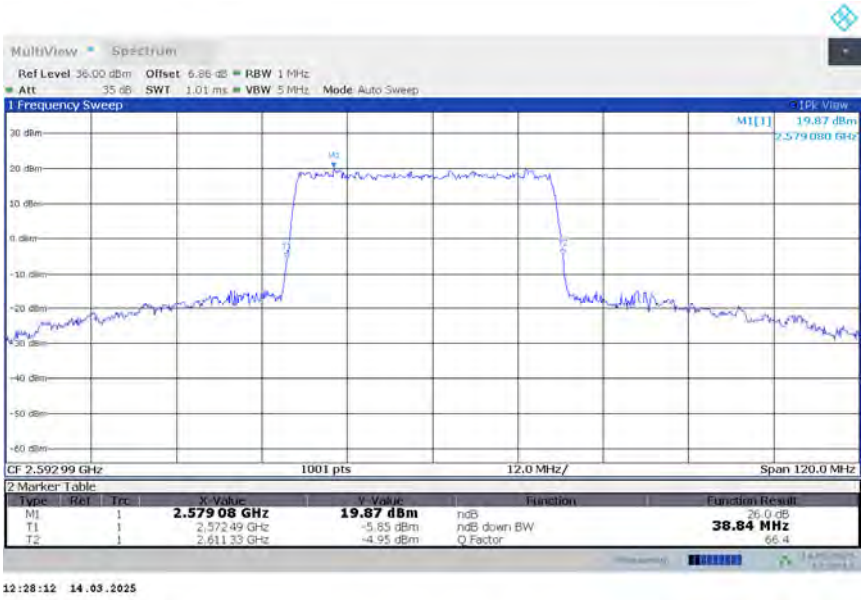

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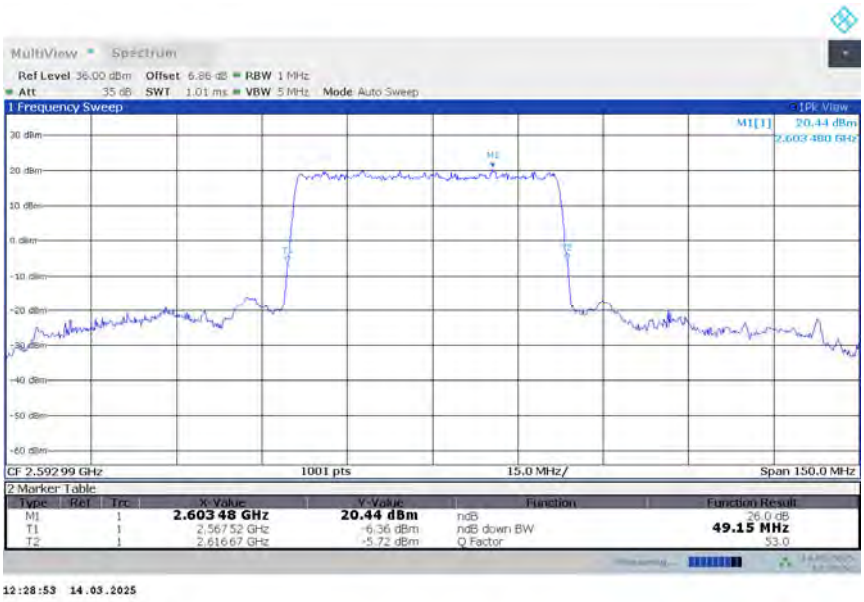
n41

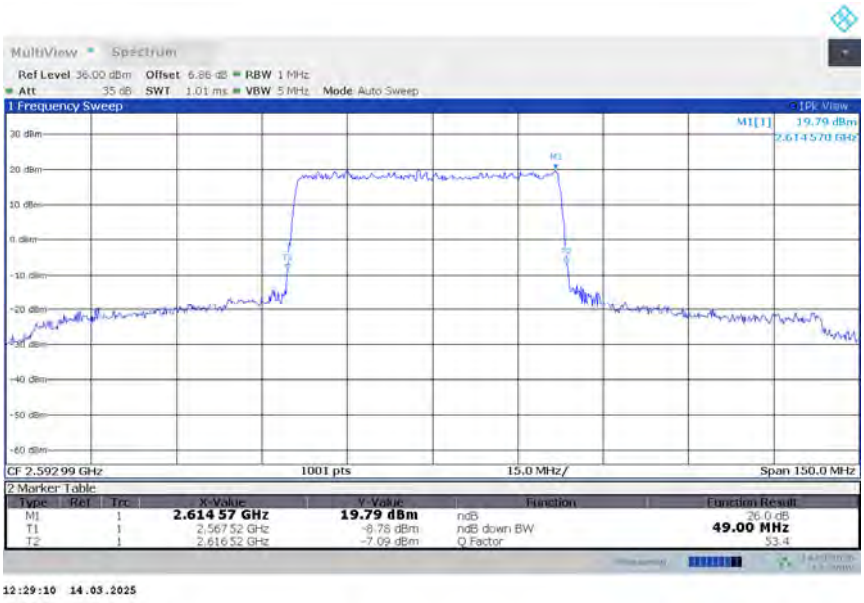
n41,50MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	49.150	49.000	48.700

n41,50MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,50MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,50MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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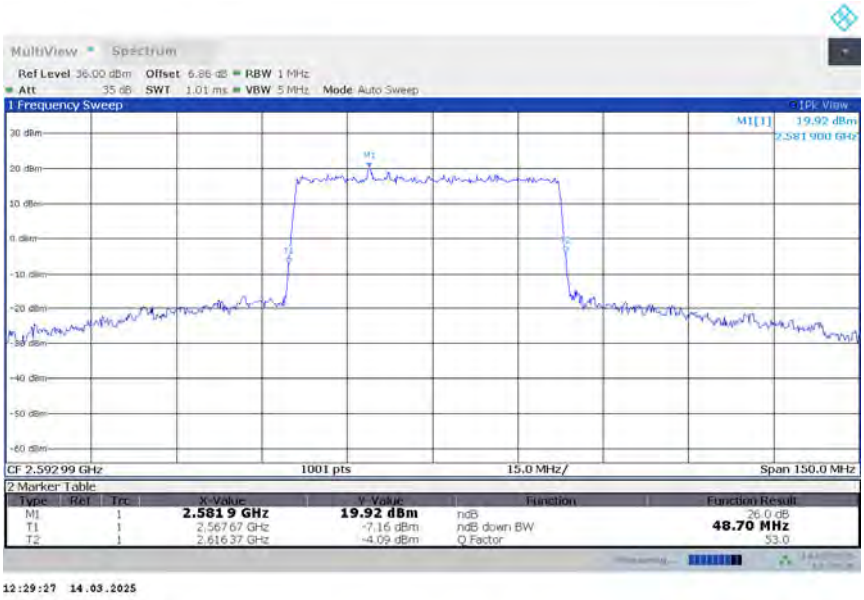

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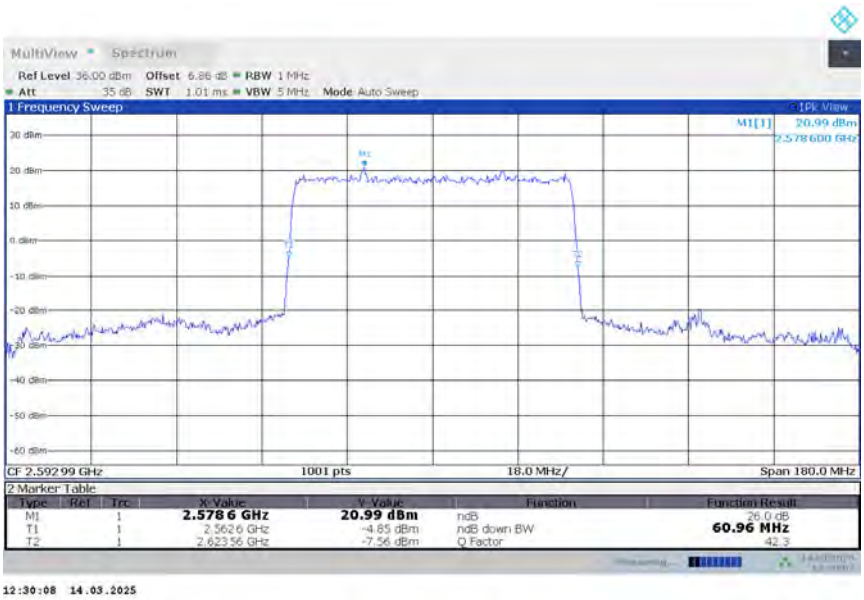
n41

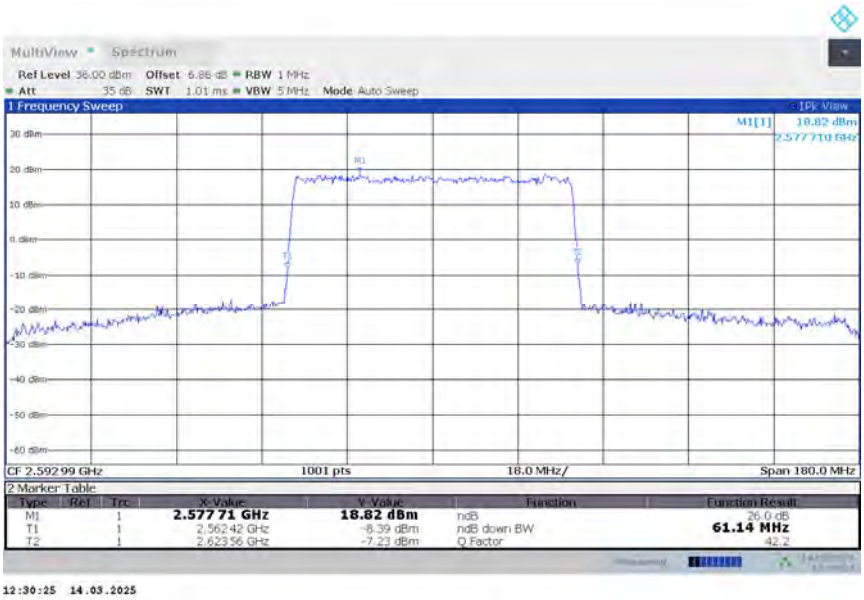
n41,60MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	60.960	61.140	61.140

n41,60MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,60MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,60MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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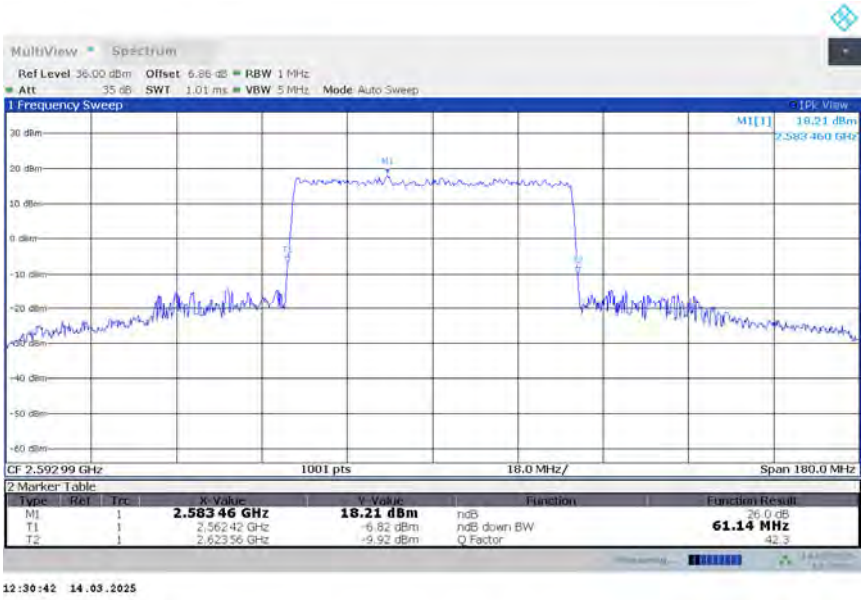

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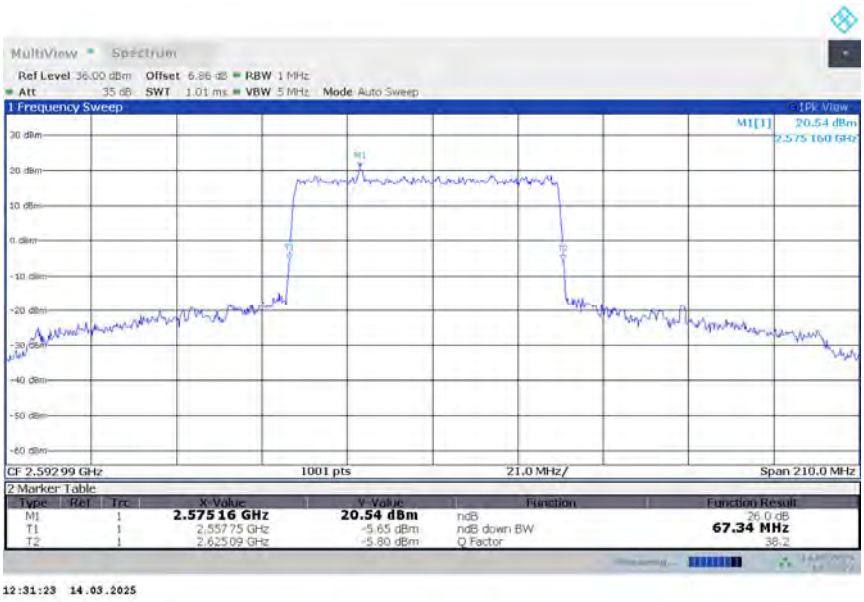
n41

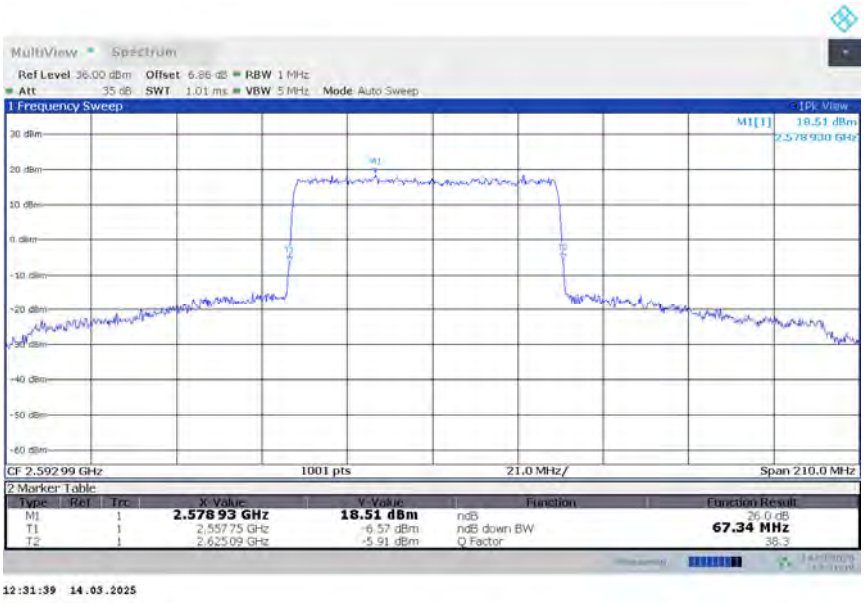
n41,70MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	67.340	67.340	67.550

n41,70MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,70MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,70MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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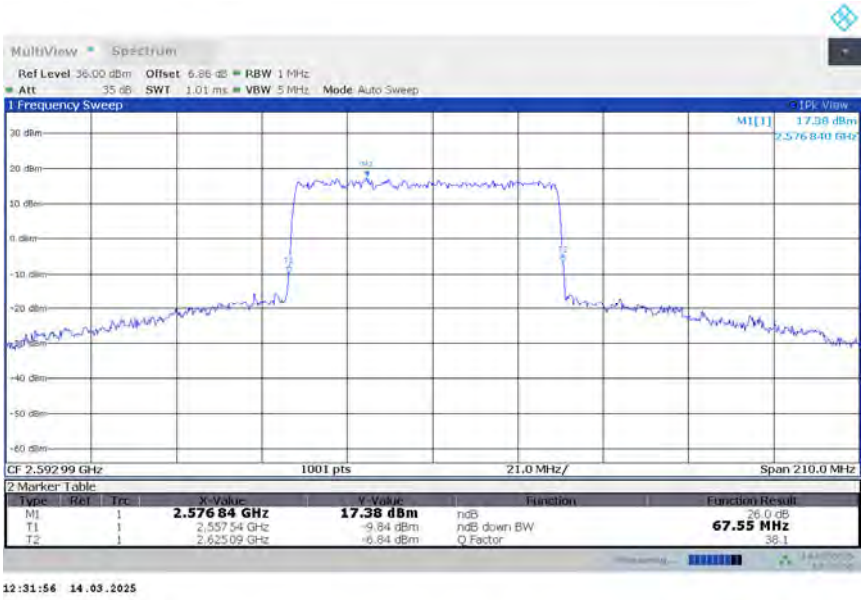

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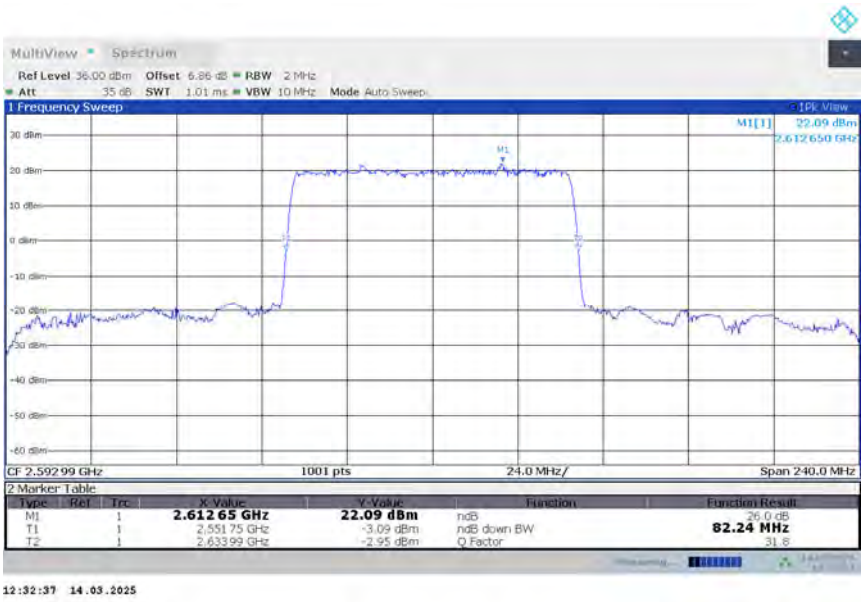
n41

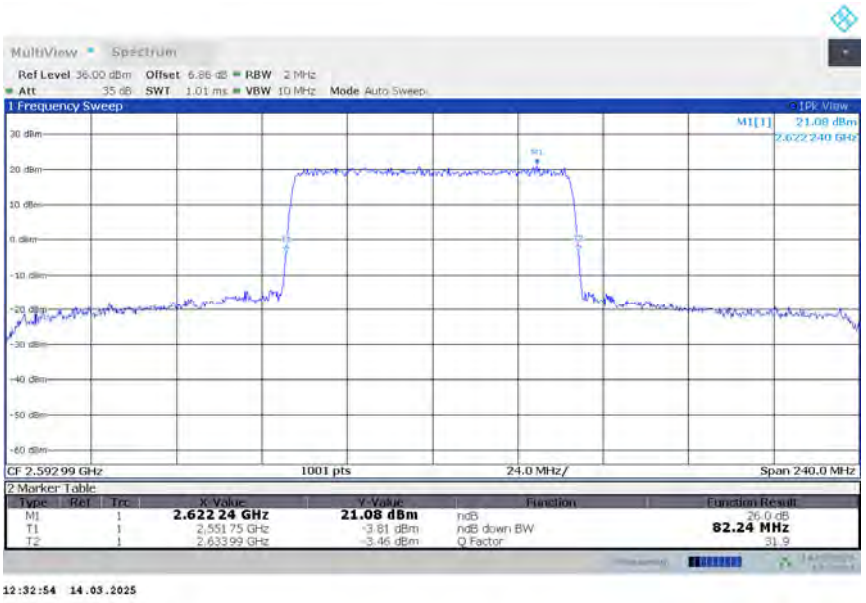
n41,80MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	82.240	82.240	82.480

n41,80MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,80MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,80MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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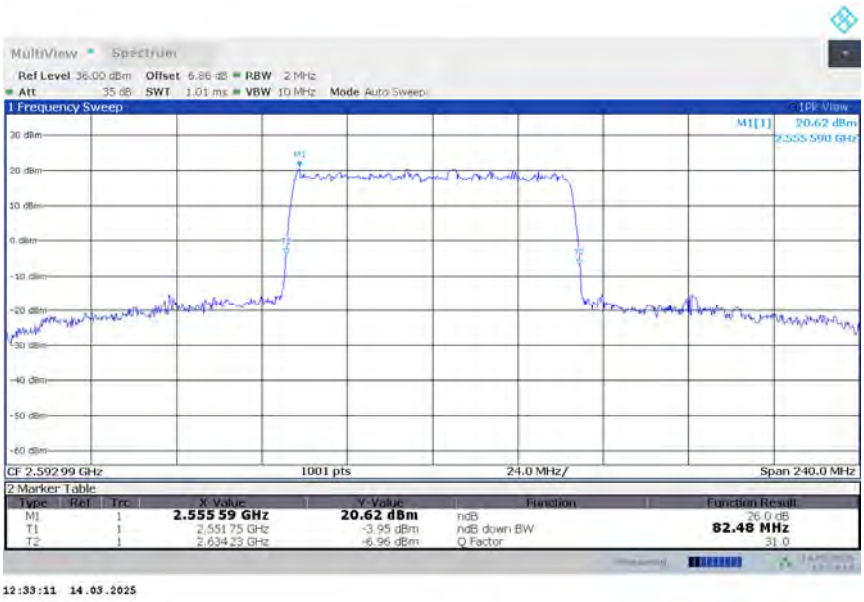

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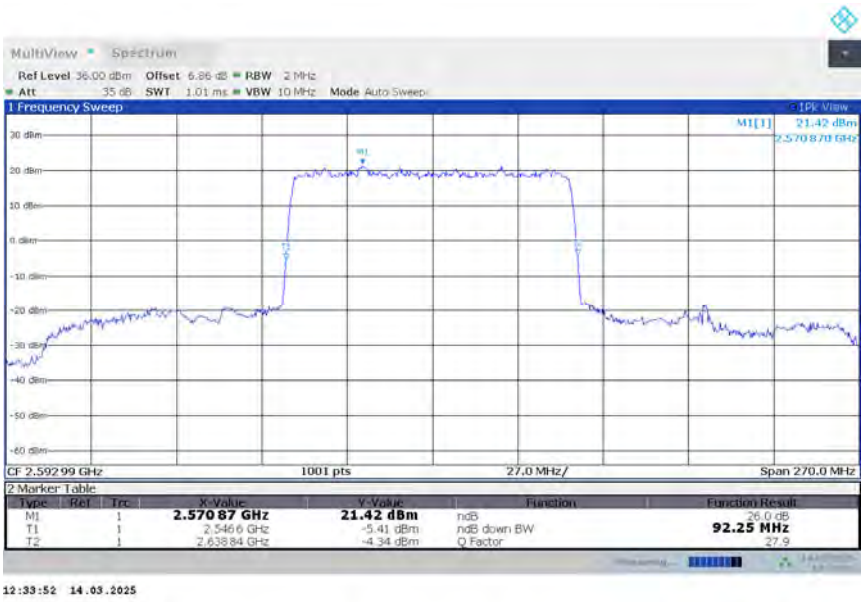
n41

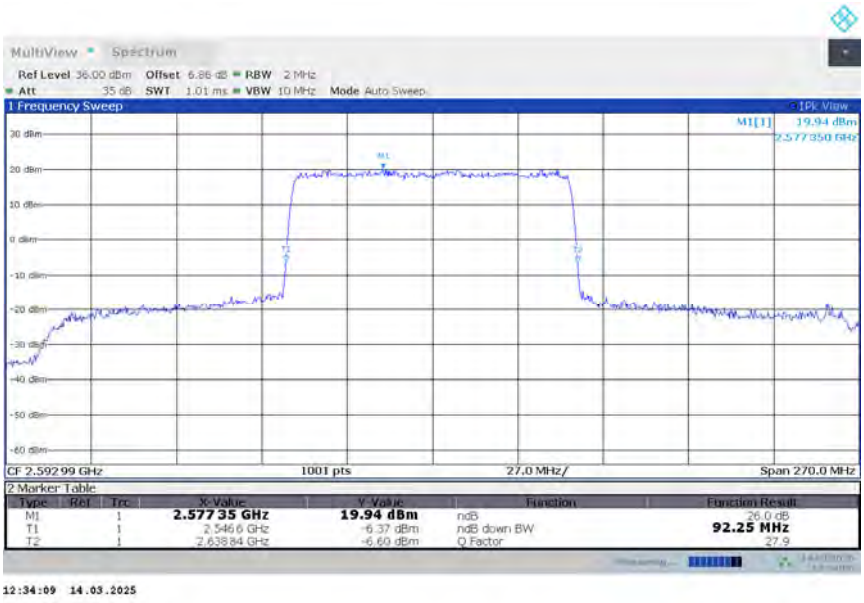
n41,90MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	92.250	92.250	92.250

n41,90MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,90MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,90MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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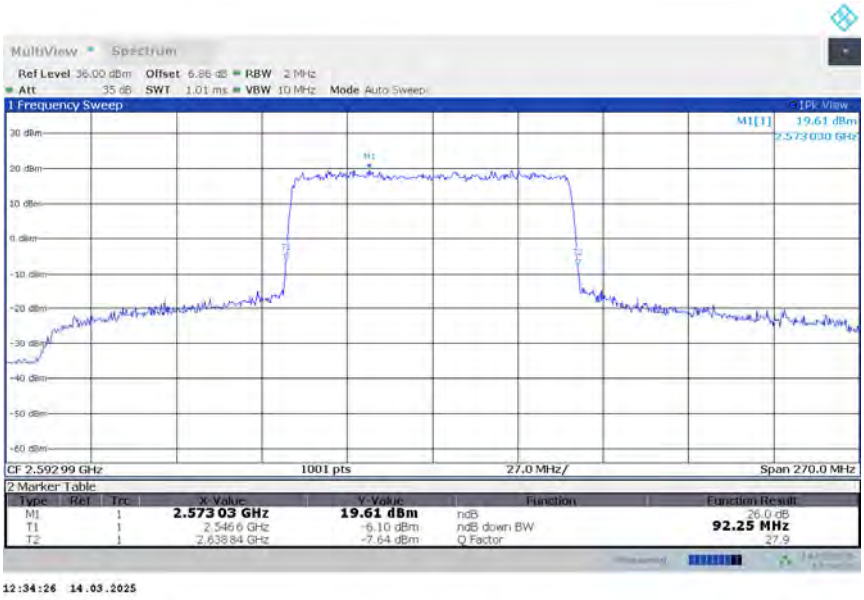

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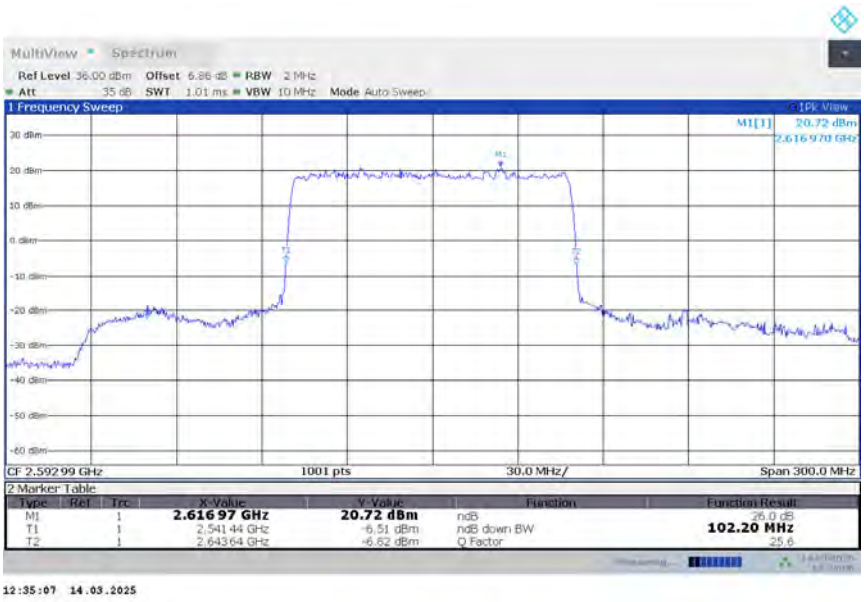
n41

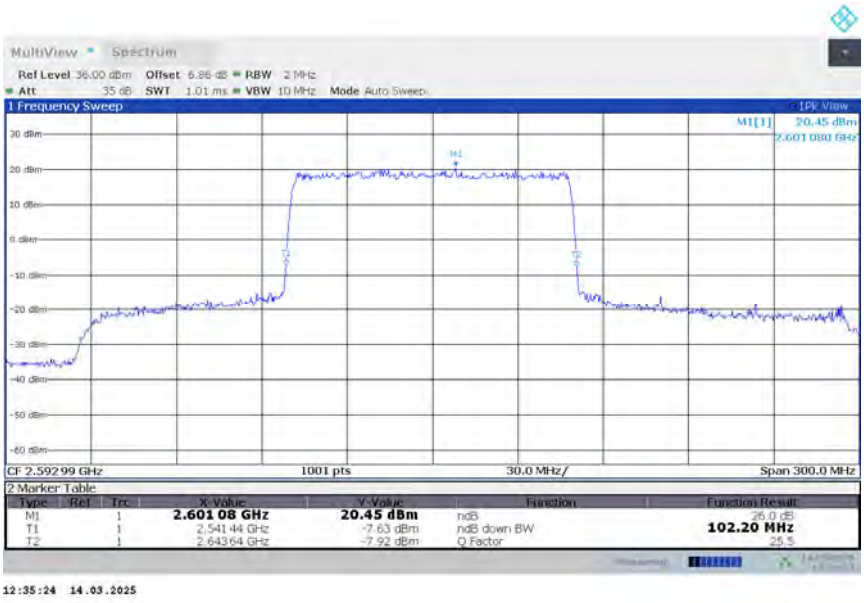
n41,100MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	102.200	102.200	101.900

n41,100MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,100MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,100MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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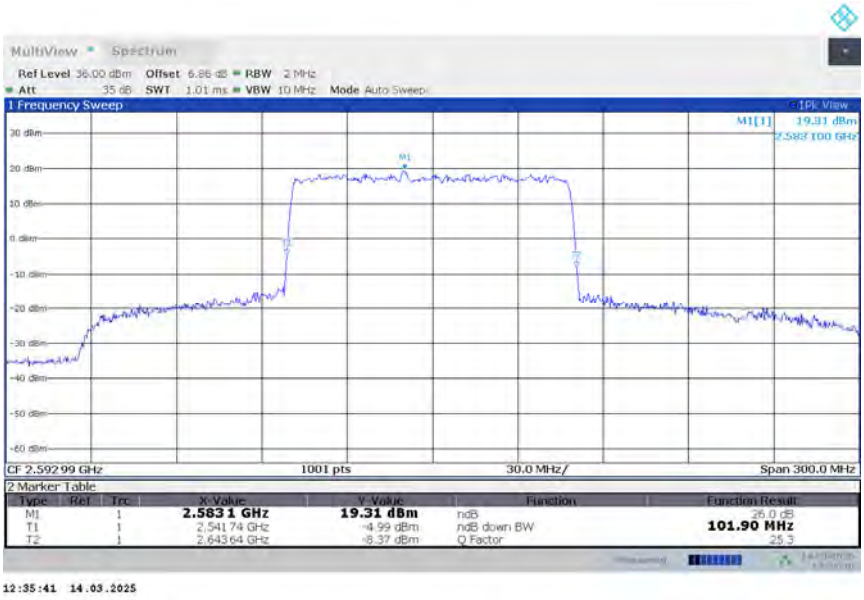

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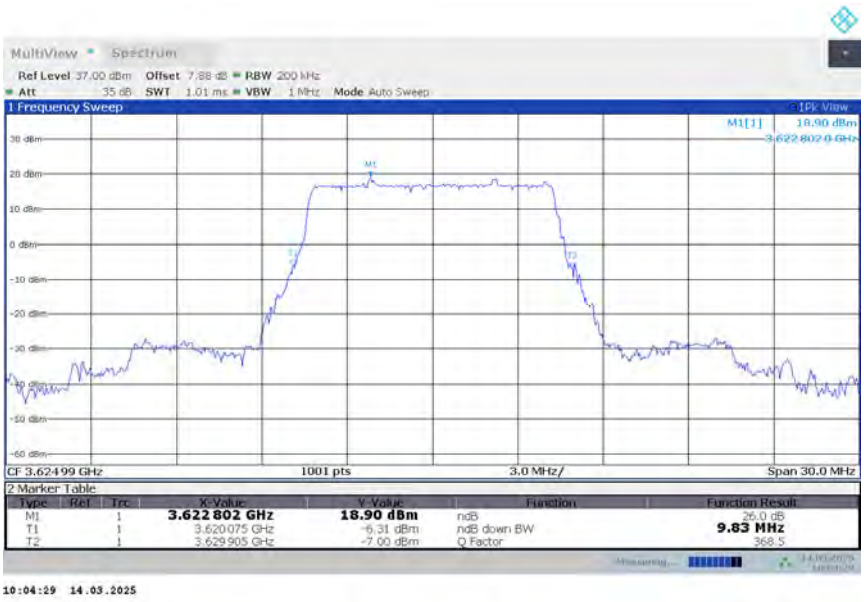
n48

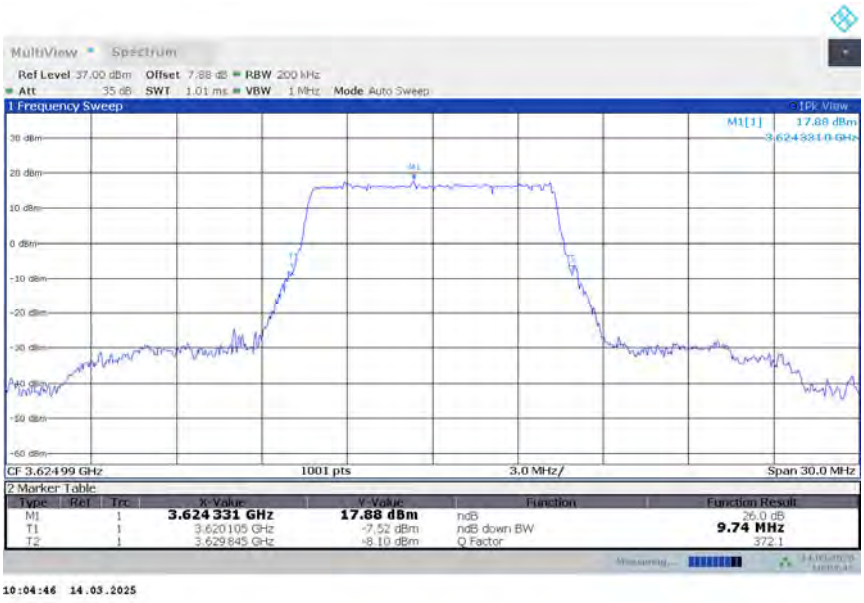
n48,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3624.99	9.830	9.740	10.040

n48,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n48,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n48,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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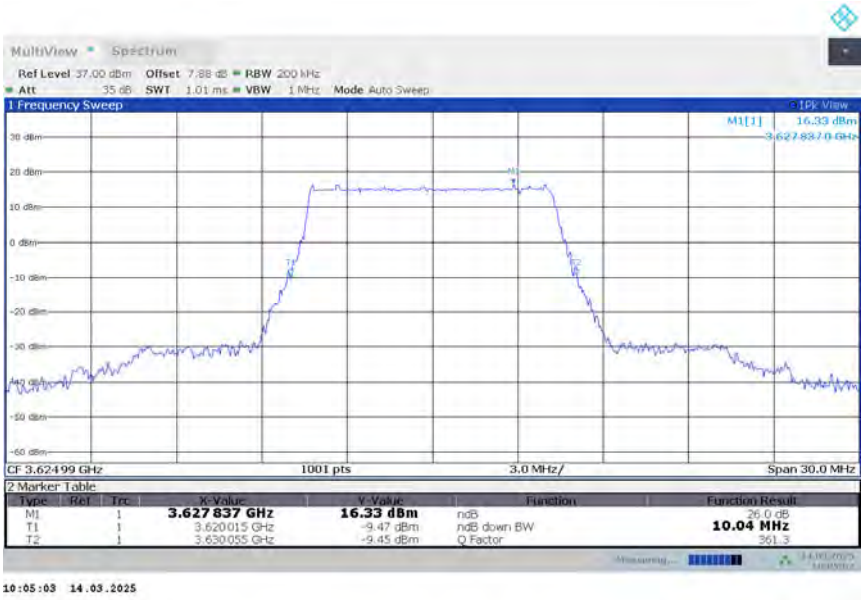

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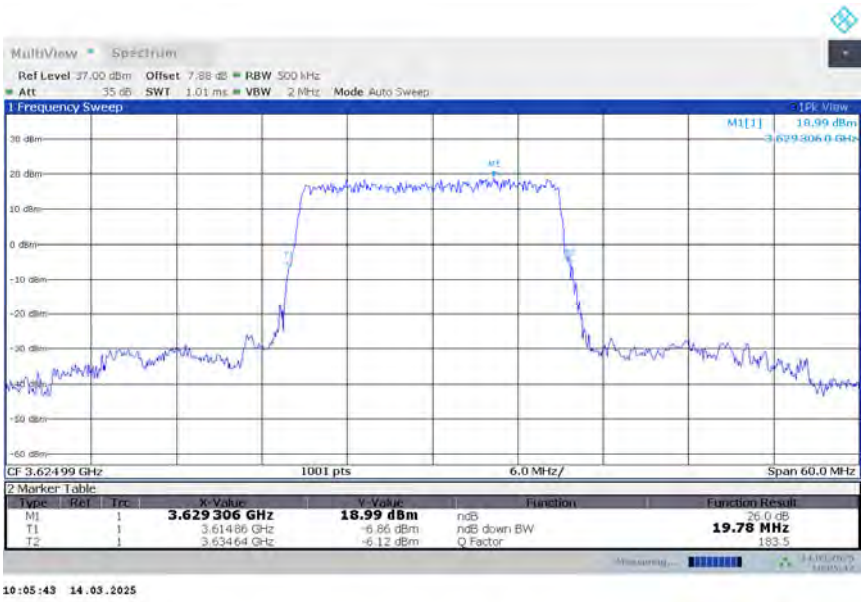
n48

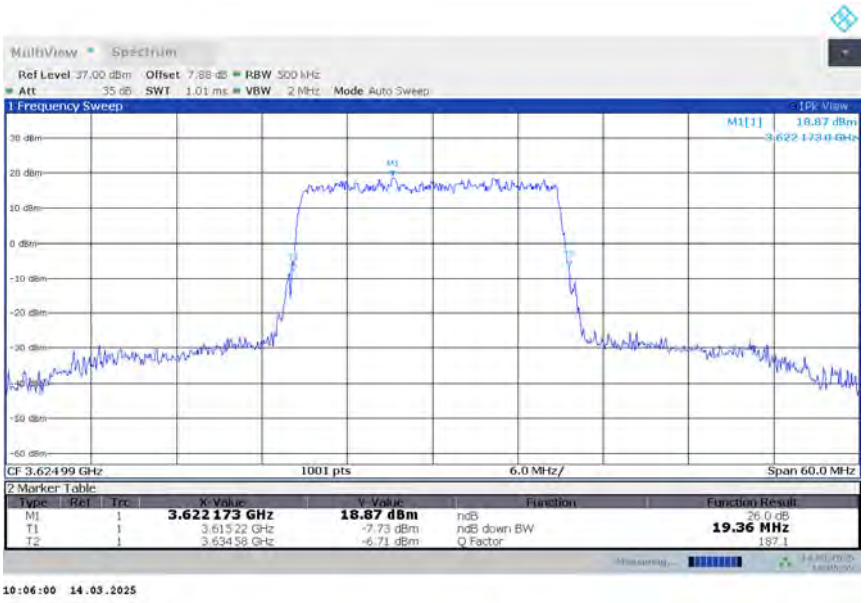
n48,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3624.99	19.780	19.361	19.540

n48,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n48,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n48,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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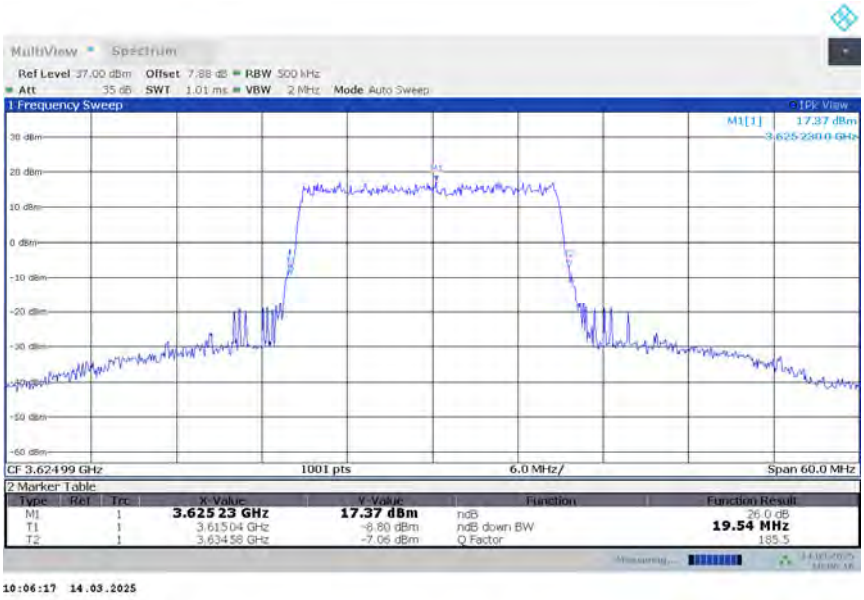

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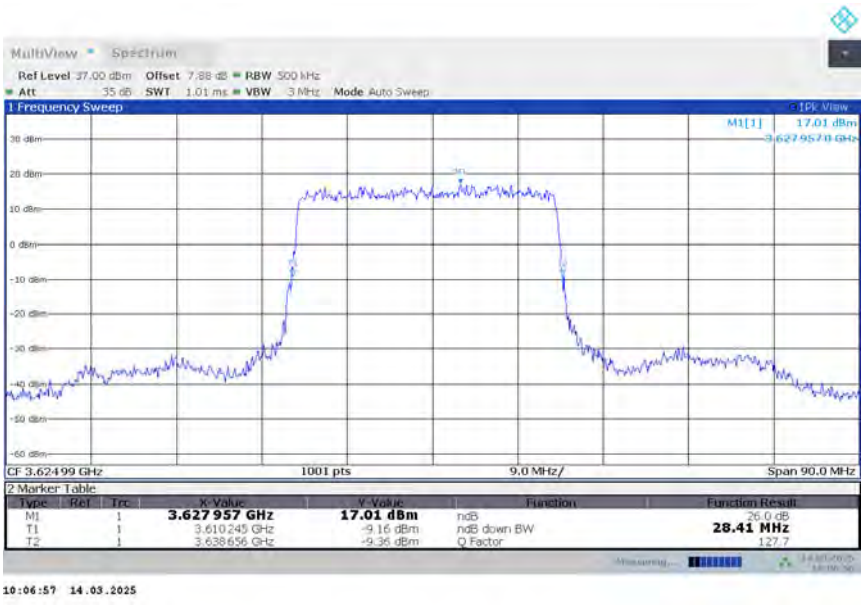
n48

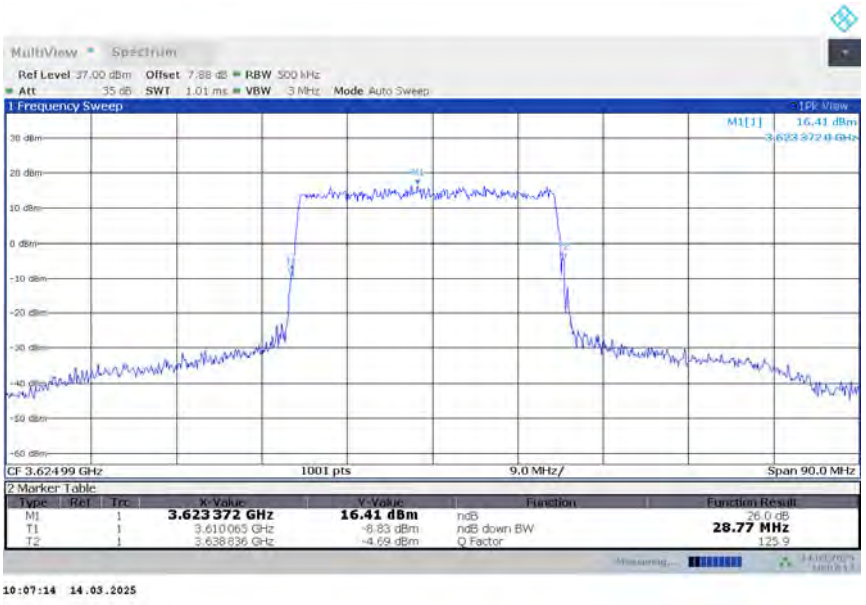
n48,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3624.99	28.412	28.771	28.771

n48,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n48,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n48,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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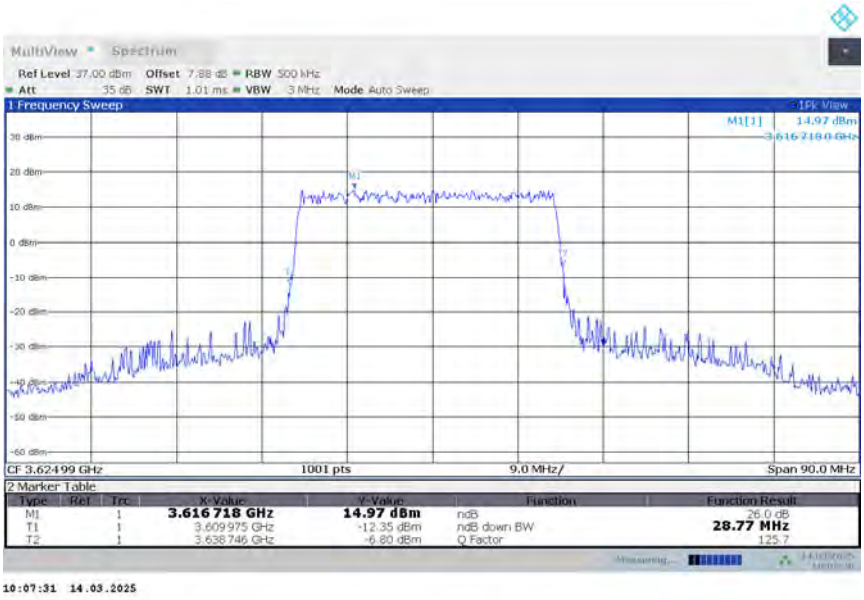

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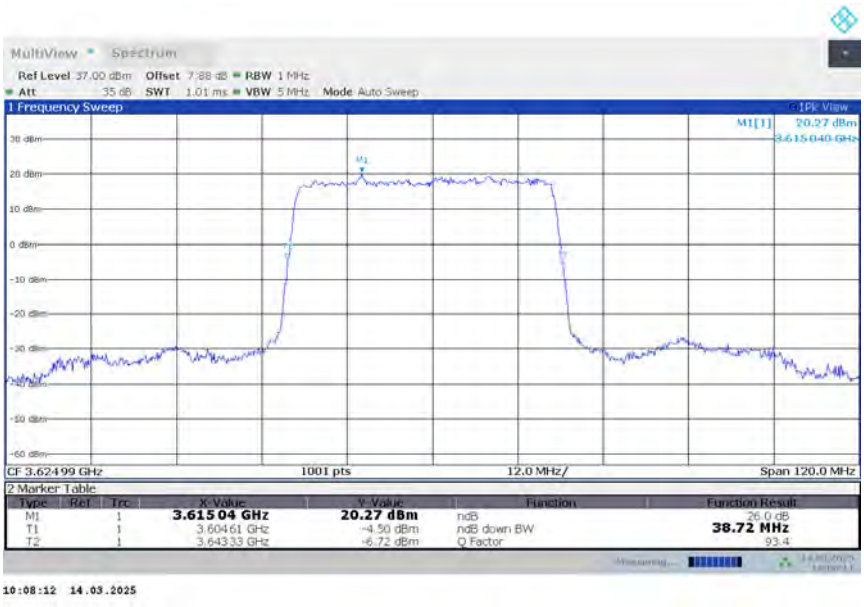
n48

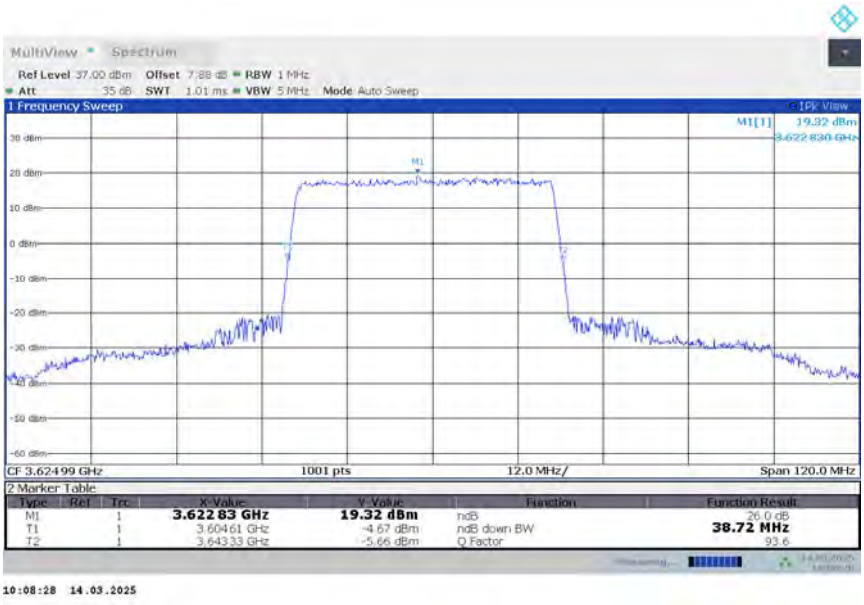
n48,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3624.99	38.720	38.720	38.960

n48,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n48,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n48,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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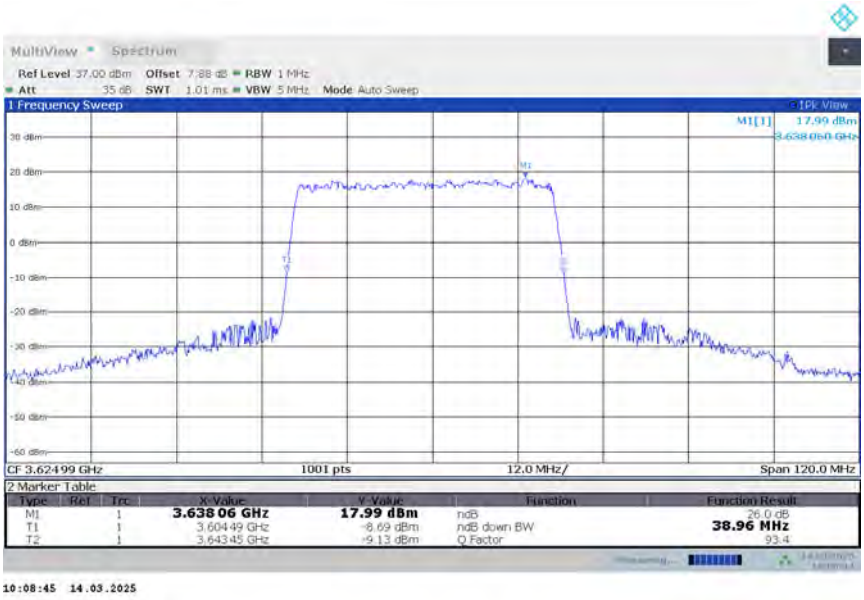

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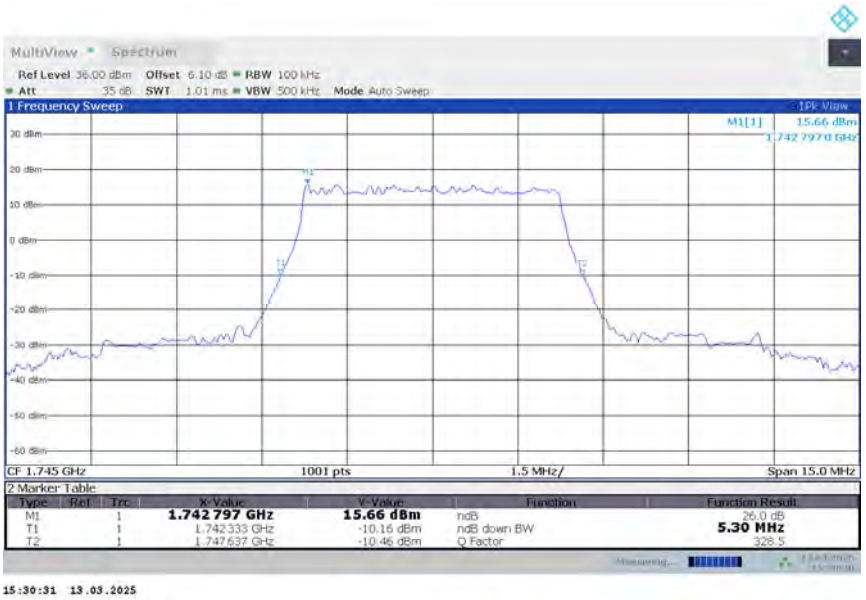
n66

n66,5MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	5.140	5.305	5.185

n66,5MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n66,5MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,5MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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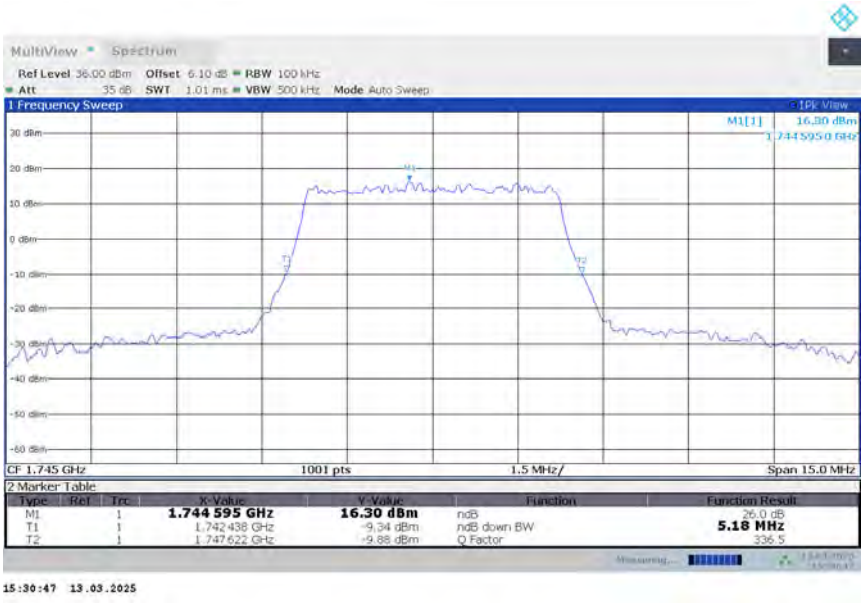

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n66

n66,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	9.950	9.890	9.890

n66,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n66,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

n66,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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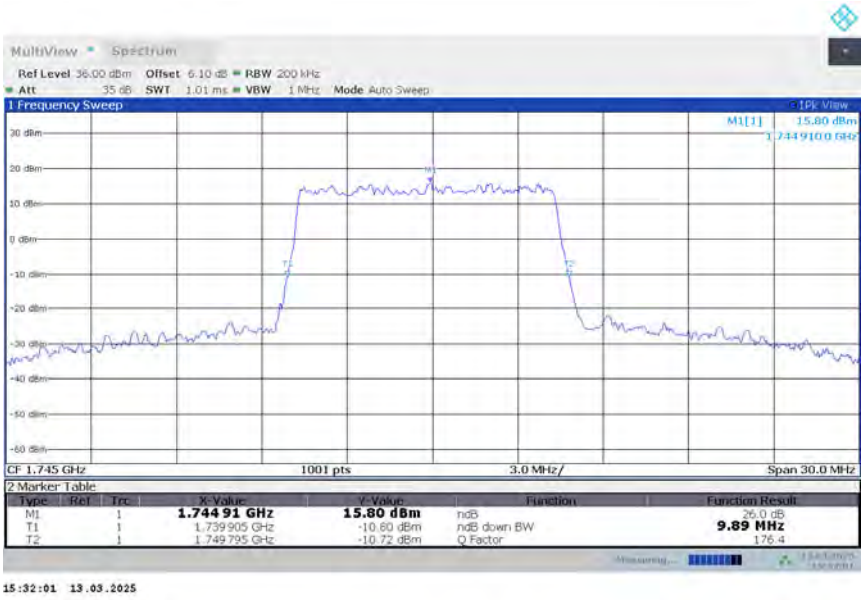

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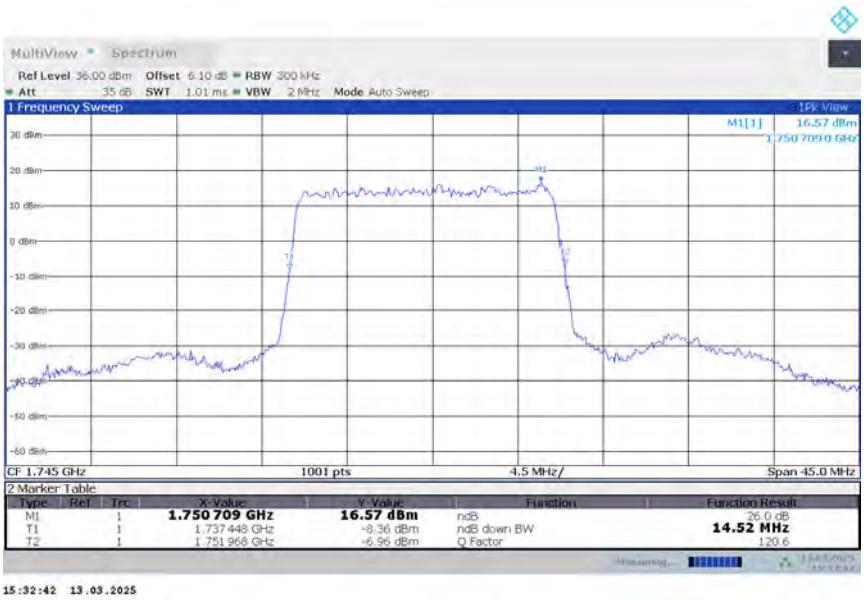
n66

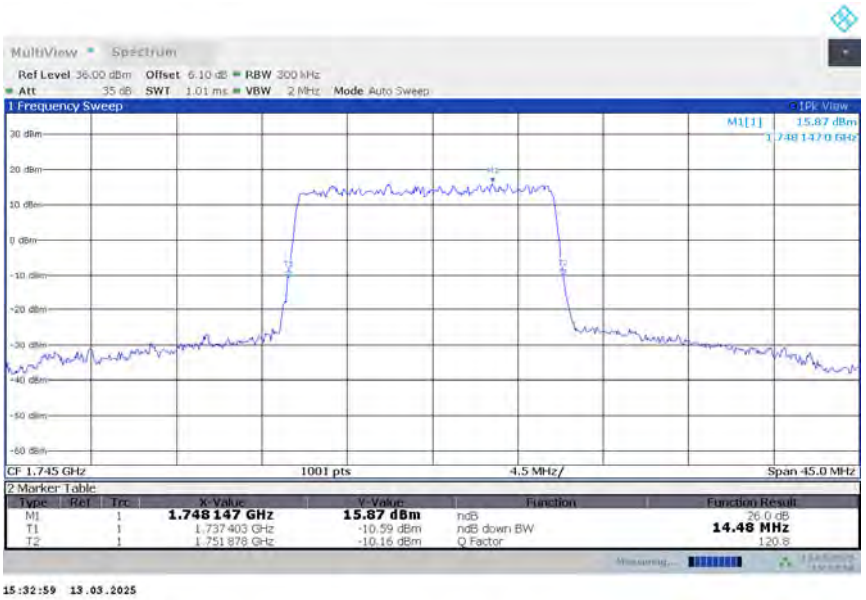
n66,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	14.520	14.476	14.610

n66,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,15MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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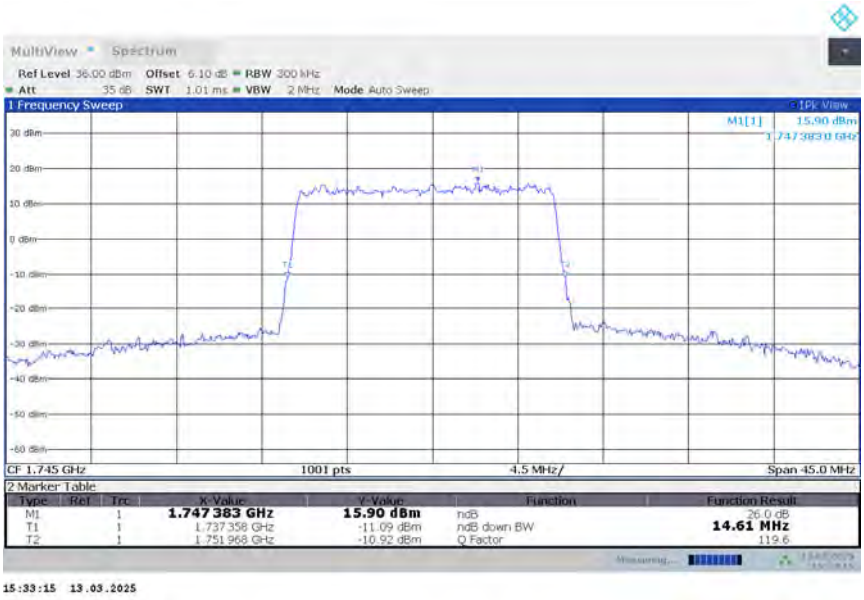

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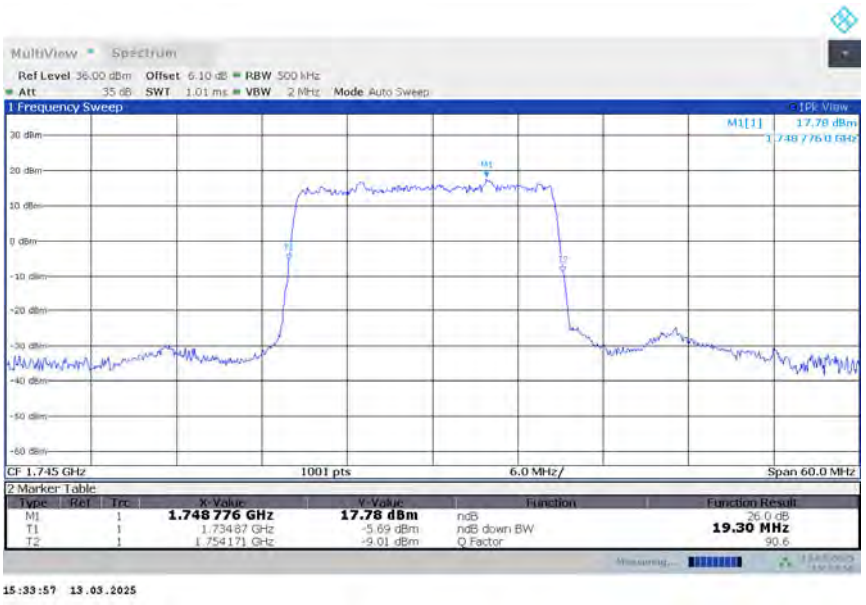
n66

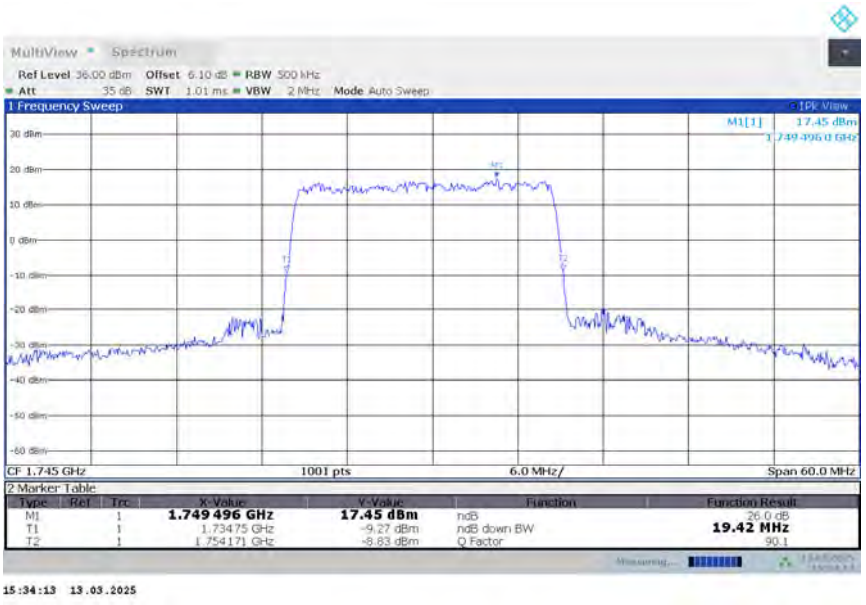
n66,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	19.301	19.421	19.421

n66,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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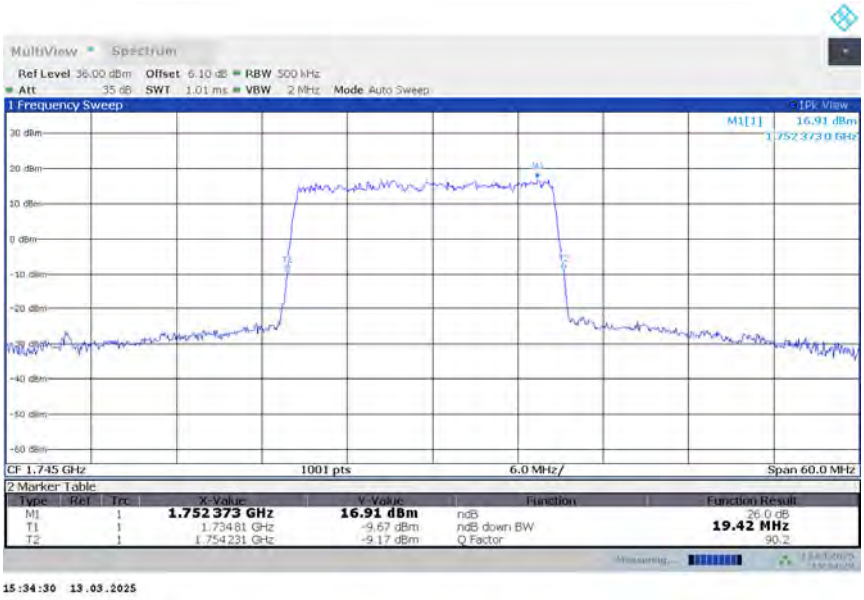

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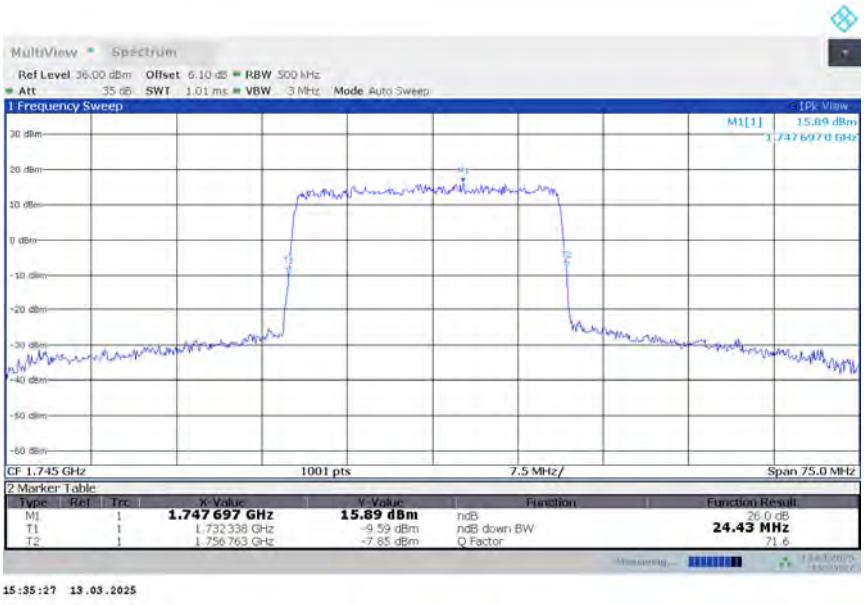
n66

n66,25MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	24.276	24.426	24.276

n66,25MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n66,25MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,25MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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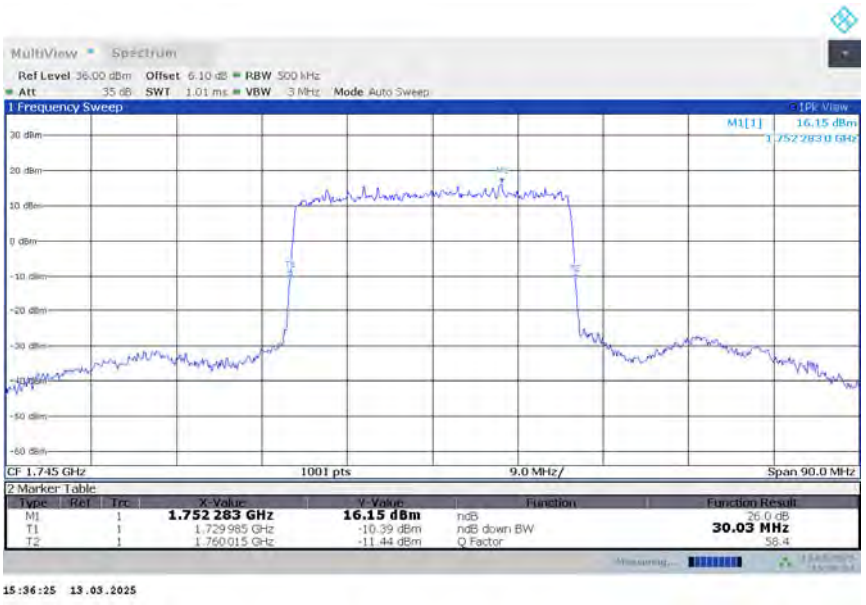
n66

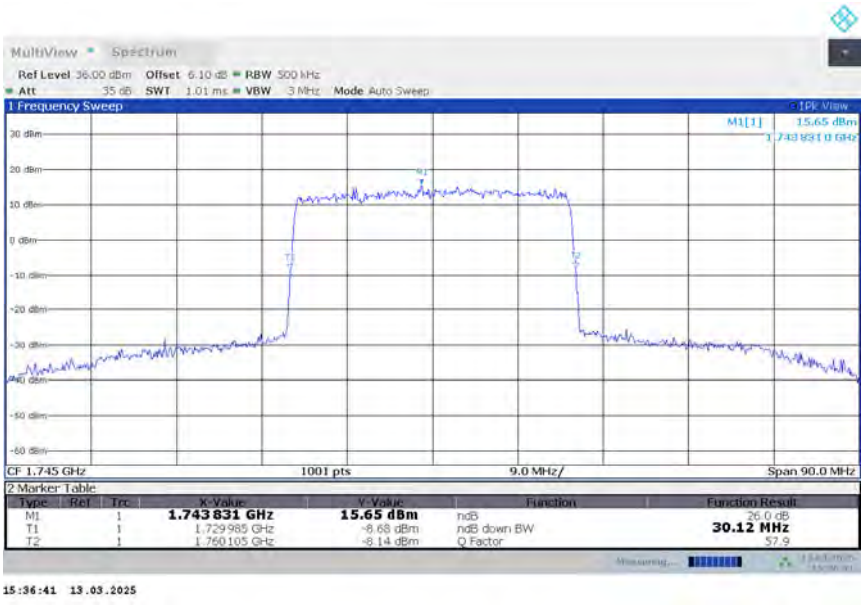
n66,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	30.030	30.120	30.030

n66,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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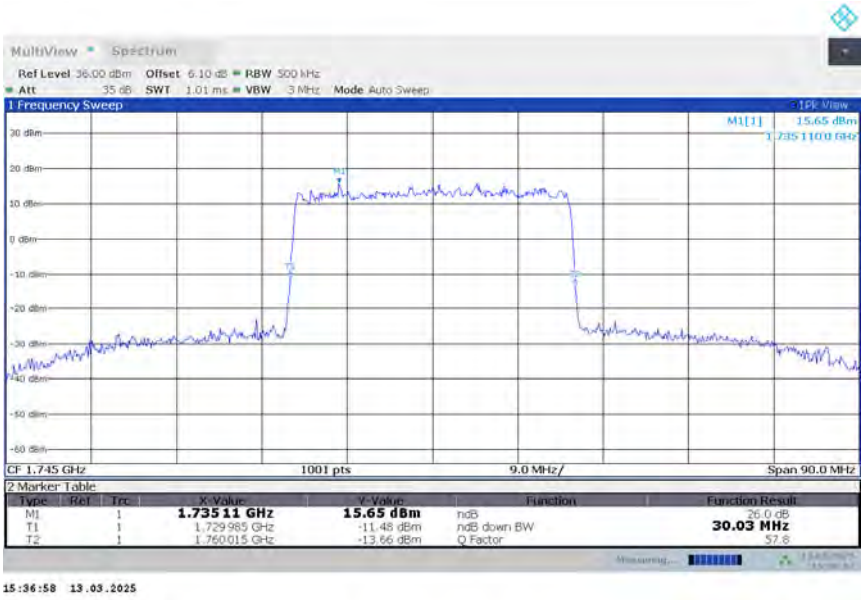

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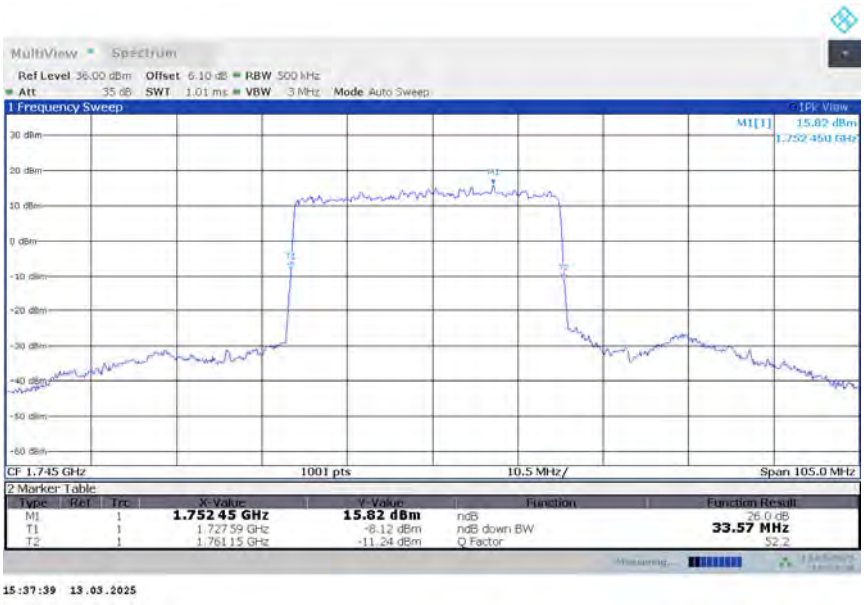
n66

n66,35MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	33.570	33.670	33.670

n66,35MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,35MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

n66,35MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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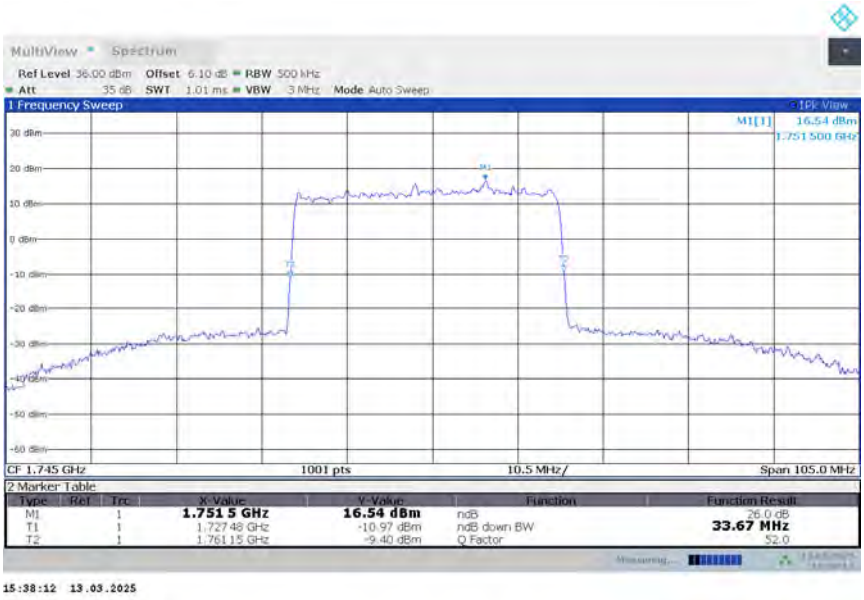

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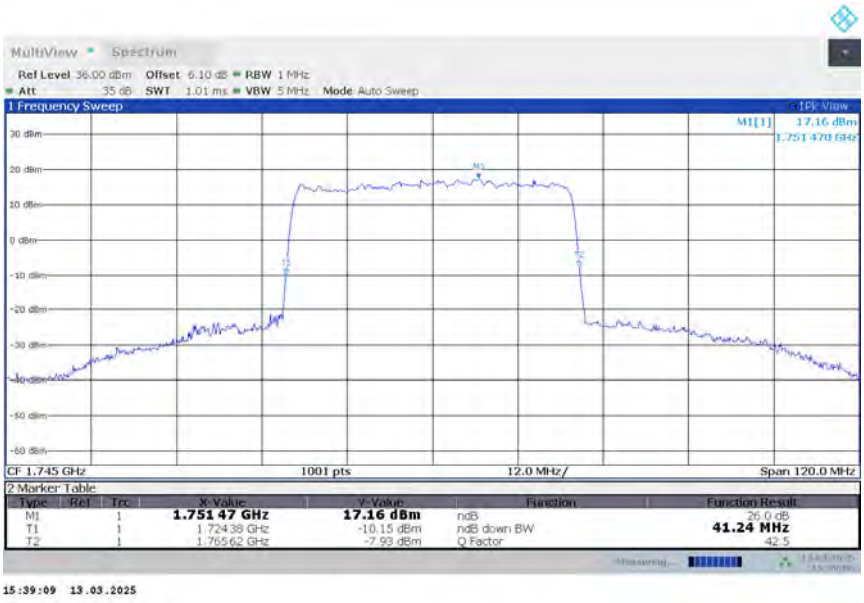
n66

n66,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	41.120	41.240	41.240

n66,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n66,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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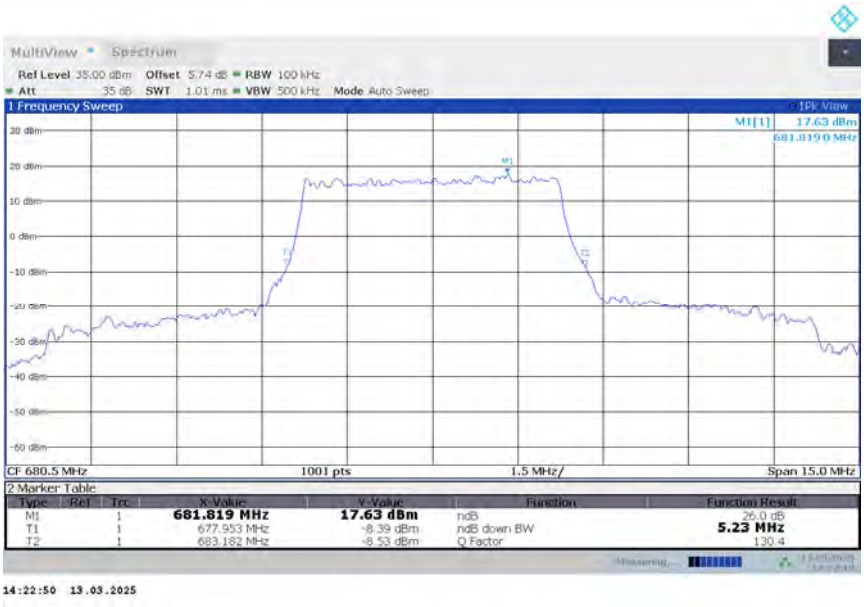
n71

n71,5MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
680.5	5.260	5.230	5.245

n71,5MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n71,5MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n71,5MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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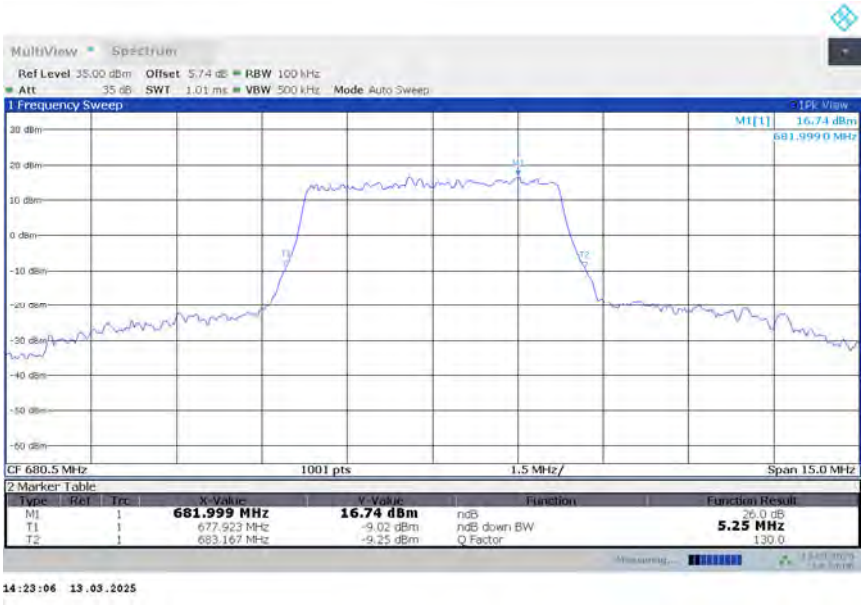

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n71

n71,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
680.5	9.860	9.950	9.860

n71,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n71,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

n71,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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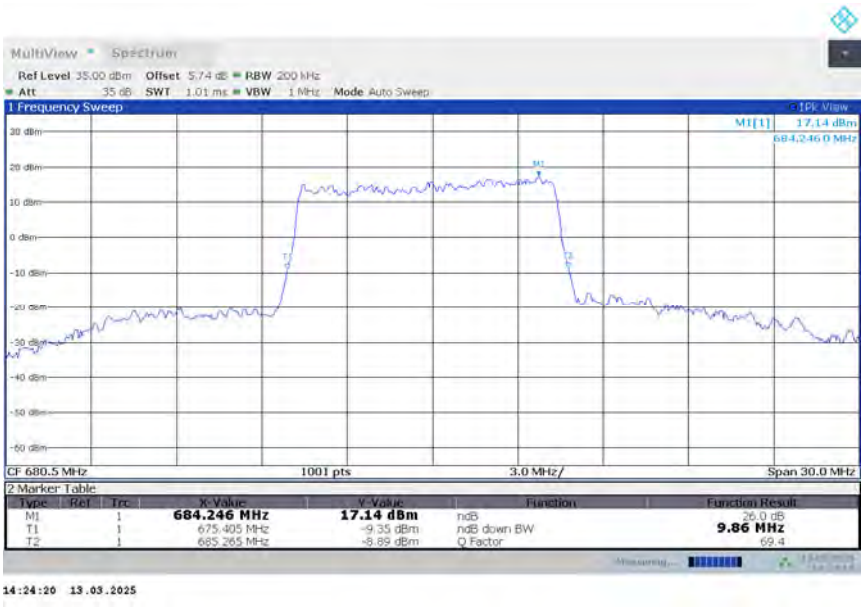

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n71

n71,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
680.5	14.431	14.700	14.565

n71,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n71,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

n71,15MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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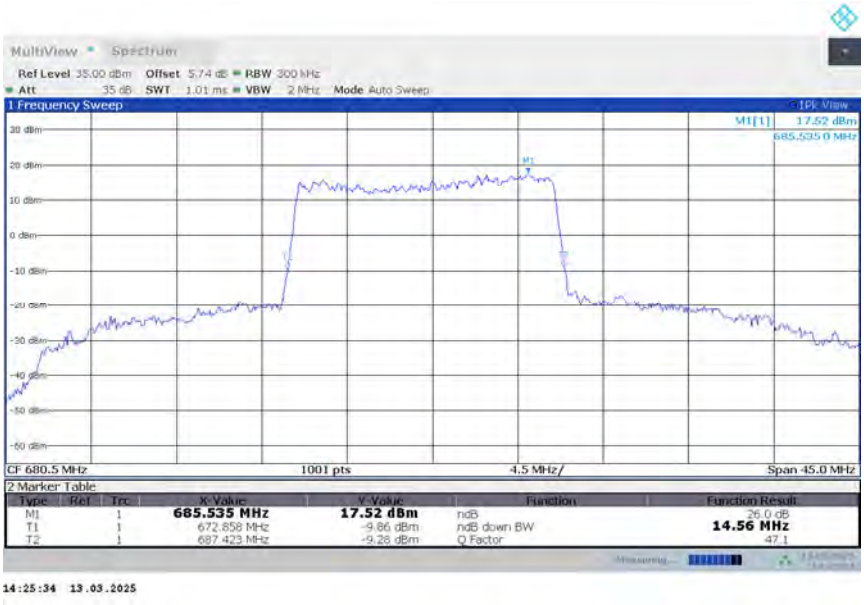

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n71

n71,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
680.5	19.301	19.301	19.361

n71,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n71,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

n71,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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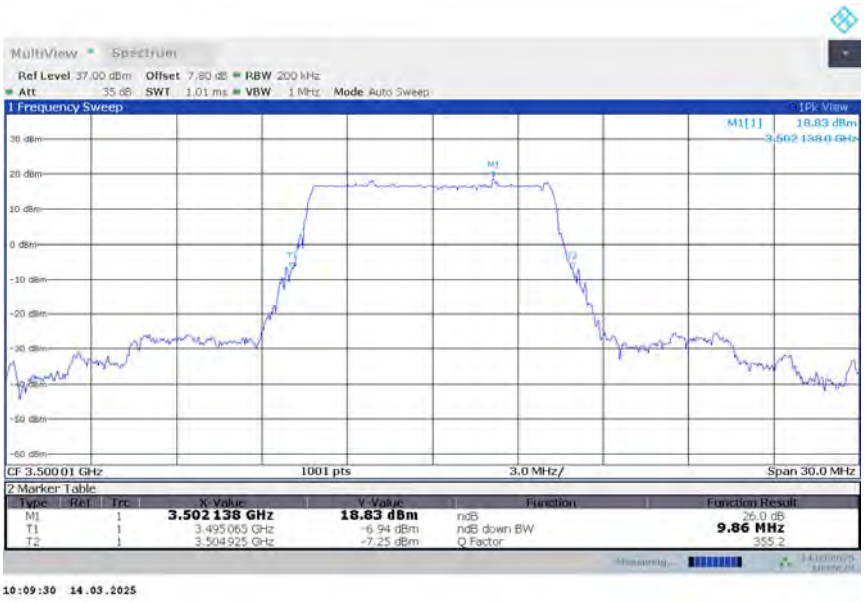
n78L

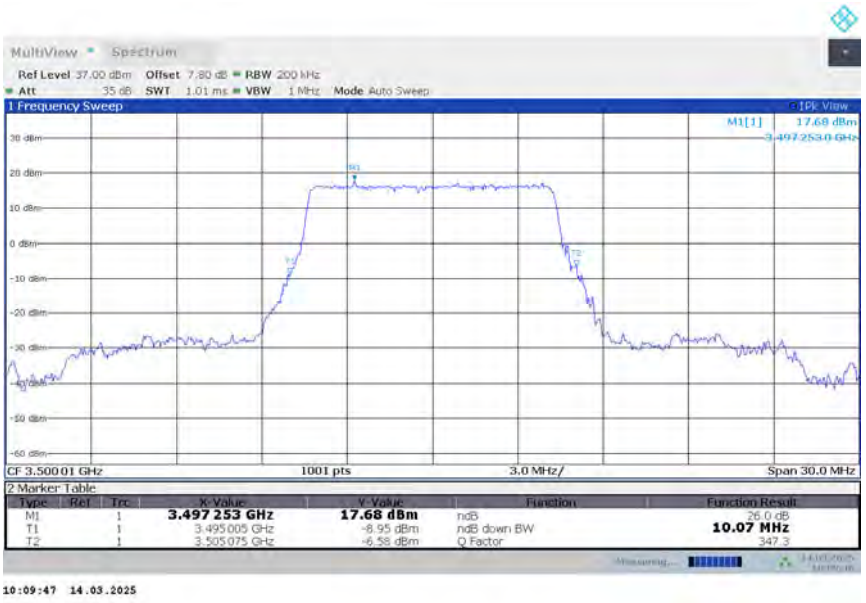
n78L,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	9.860	10.070	10.160

n78L,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78L,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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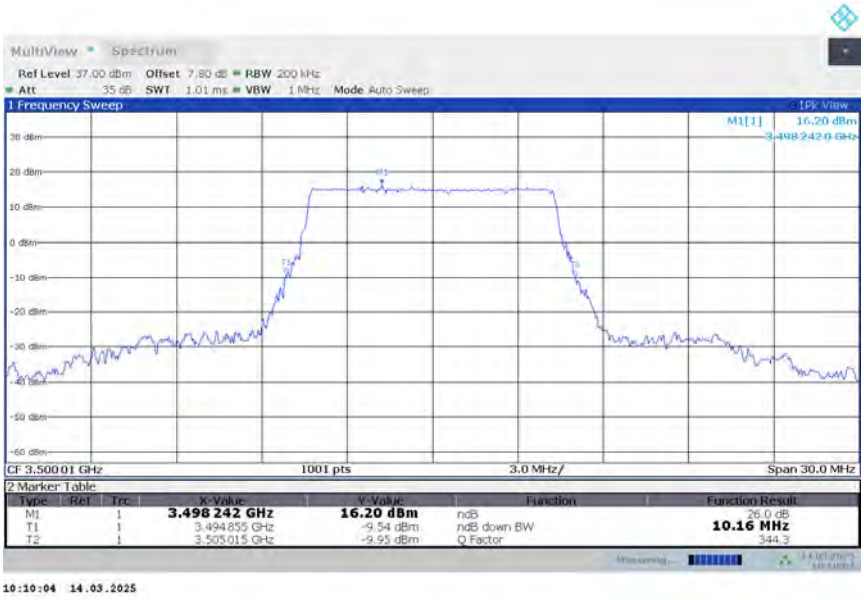

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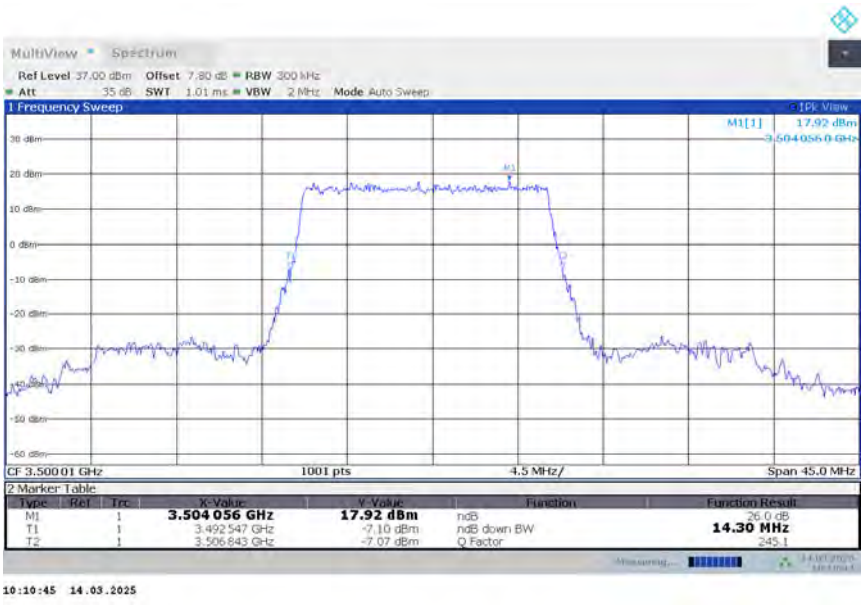
n78L

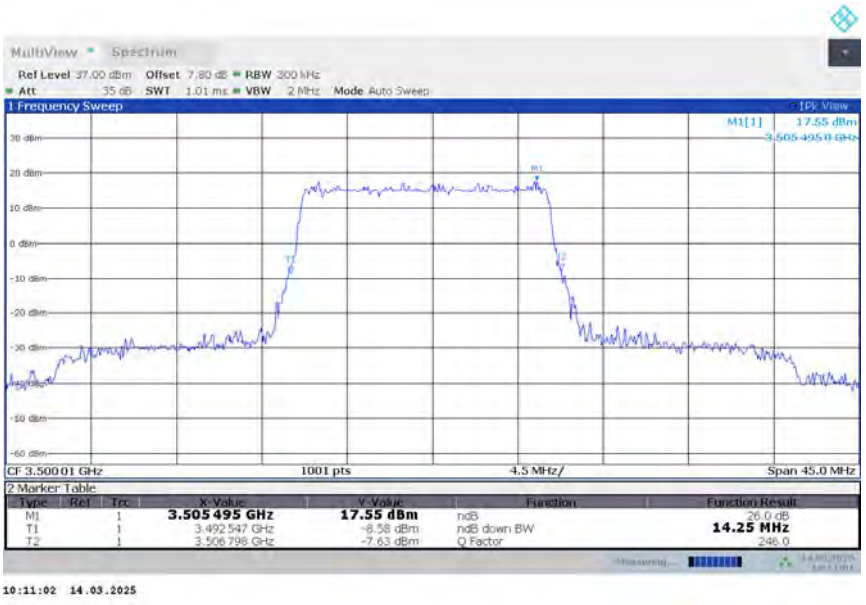
n78L,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	14.296	14.251	14.341

n78L,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78L,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,15MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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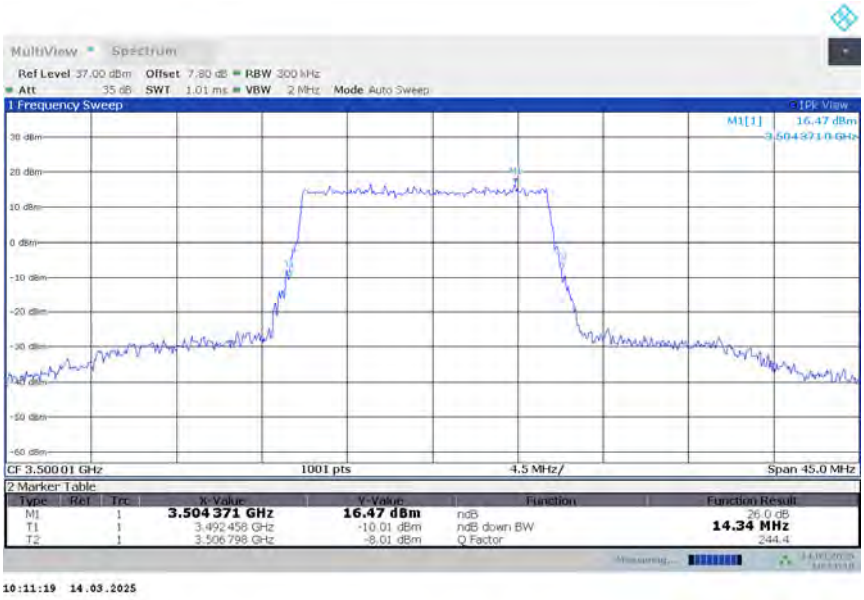

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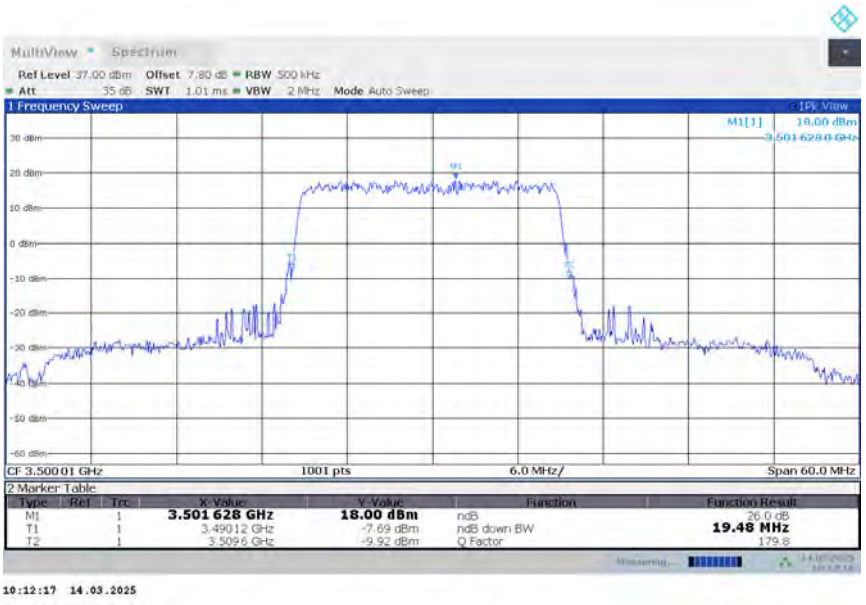
n78L

n78L,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	19.600	19.481	19.421

n78L,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n78L,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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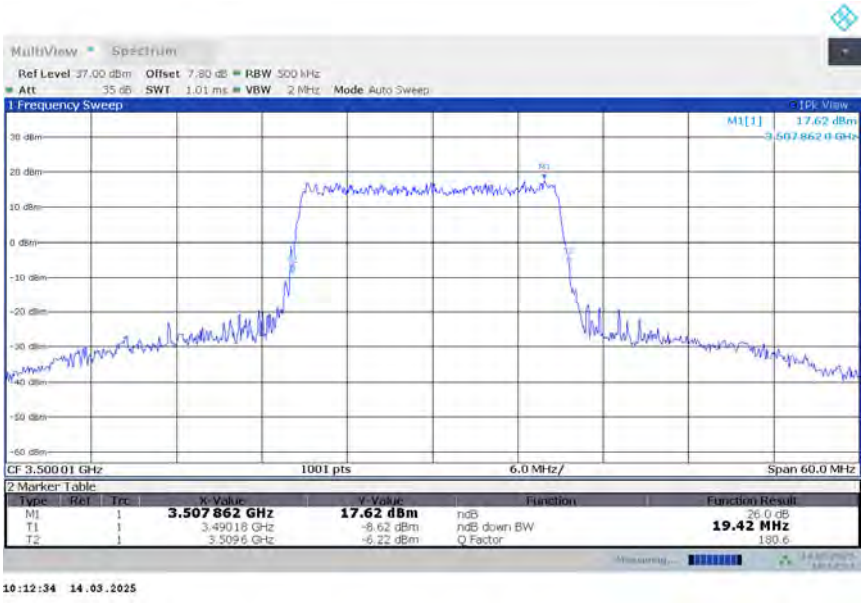

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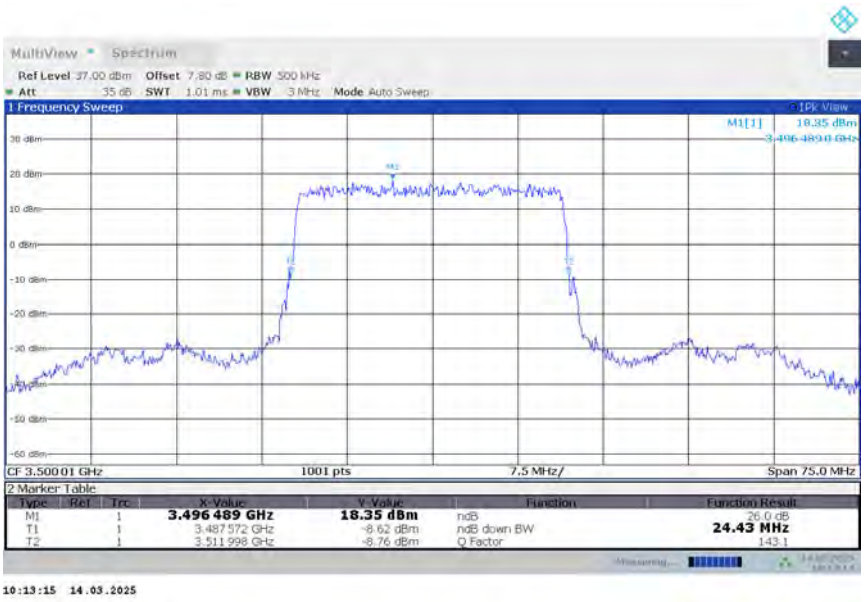
n78L

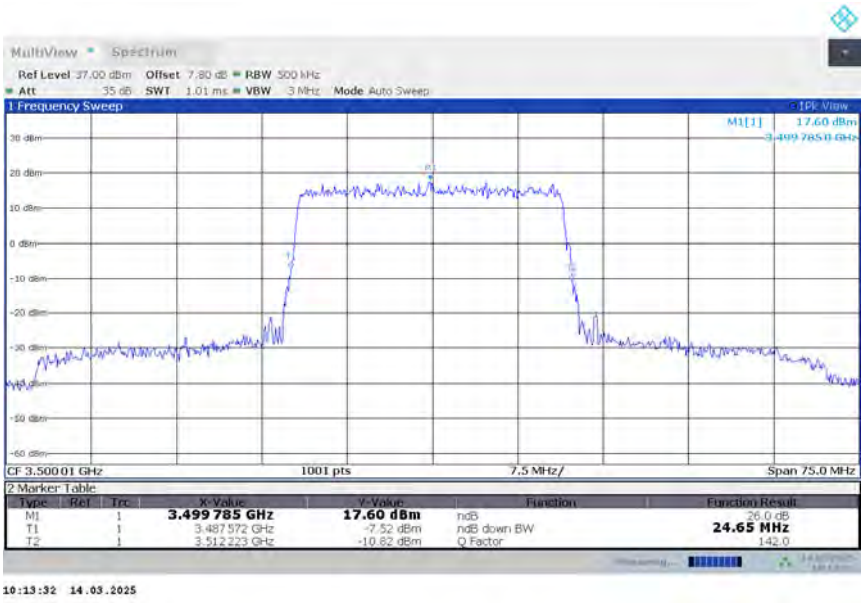
n78L,25MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	24.426	24.650	24.575

n78L,25MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78L,25MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,25MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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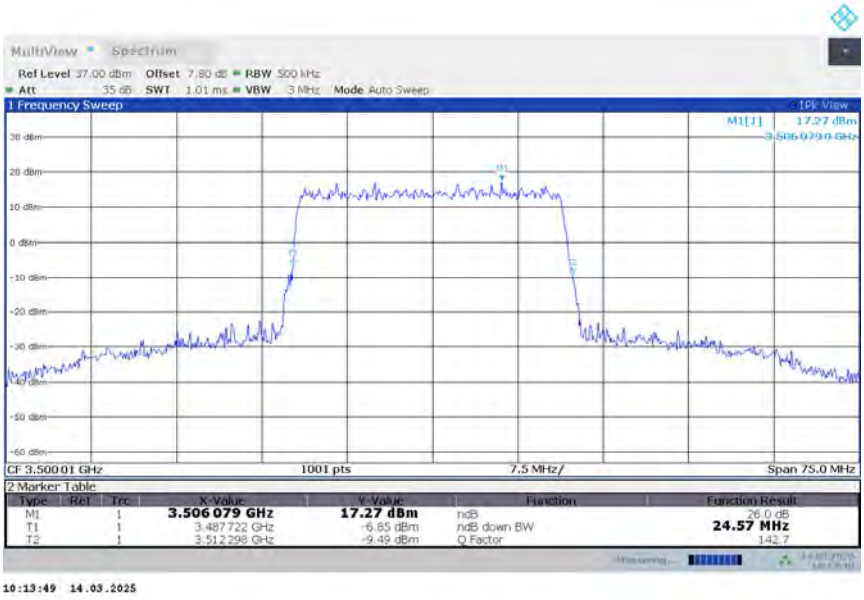

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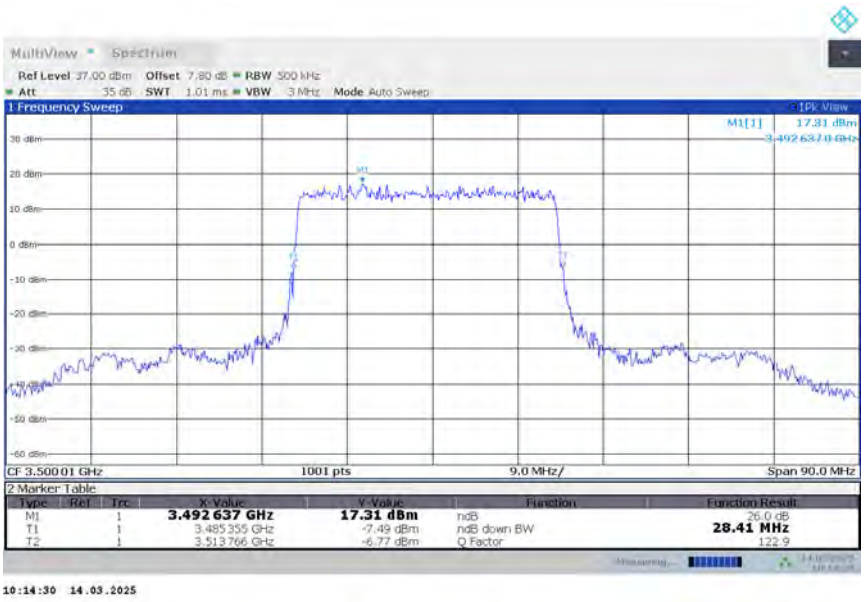
n78L

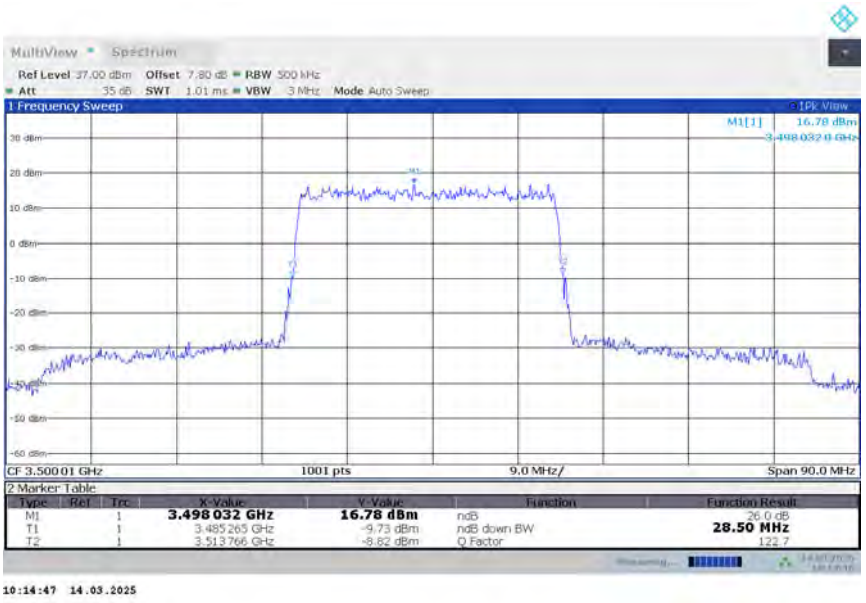
n78L,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	28.412	28.501	28.861

n78L,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78L,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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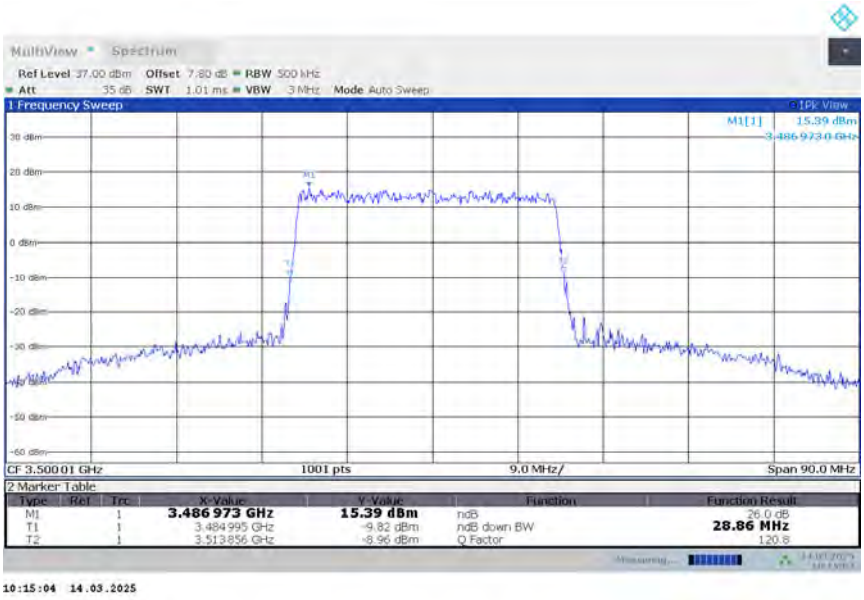

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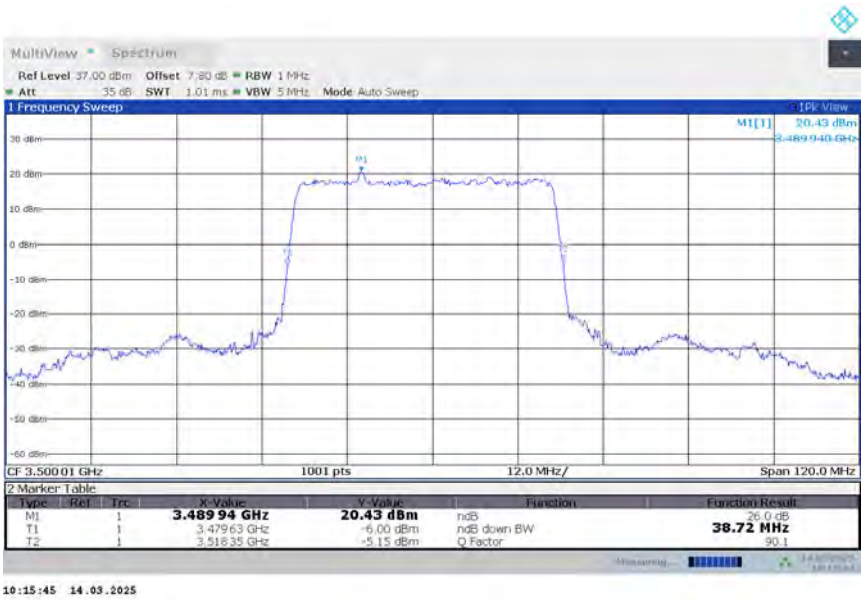
n78L

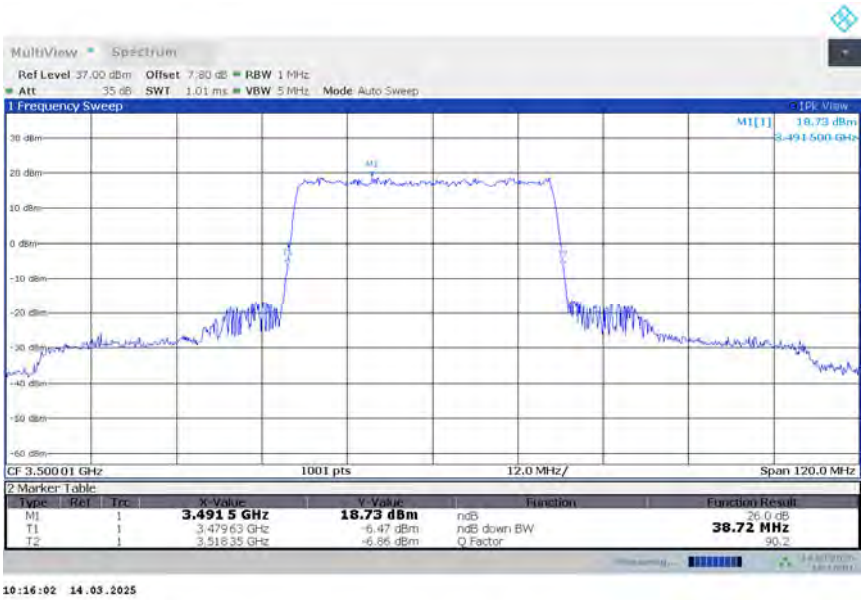
n78L,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	38.720	38.720	38.840

n78L,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78L,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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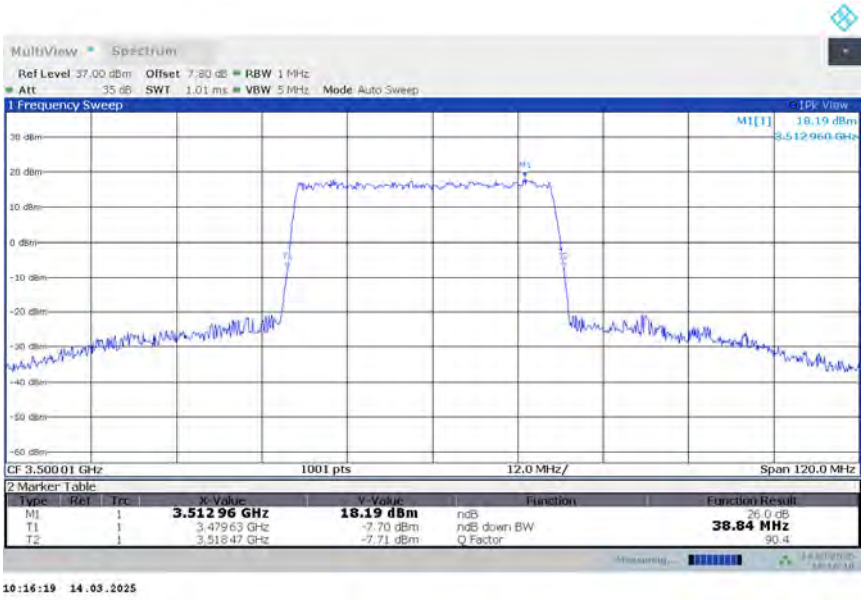

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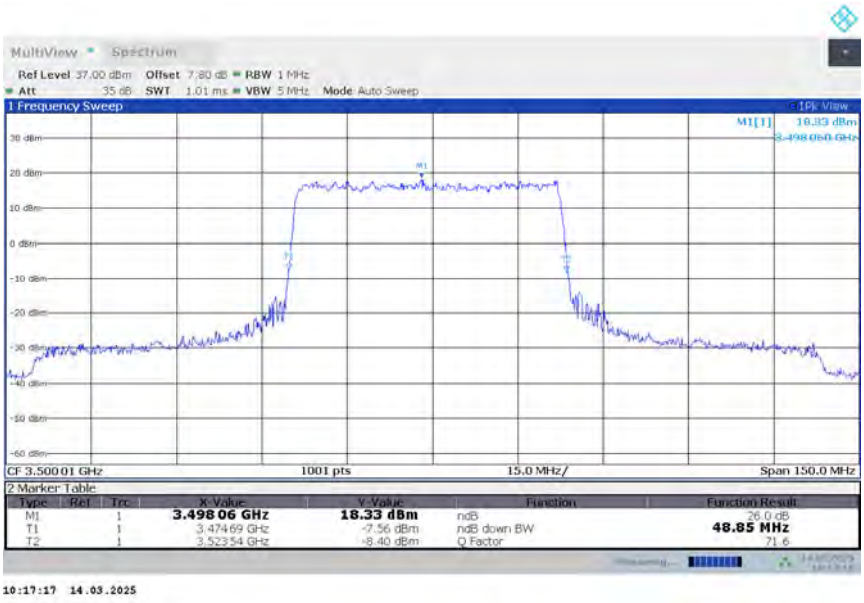
n78L

n78L,50MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	48.850	48.850	48.700

n78L,50MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n78L,50MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,50MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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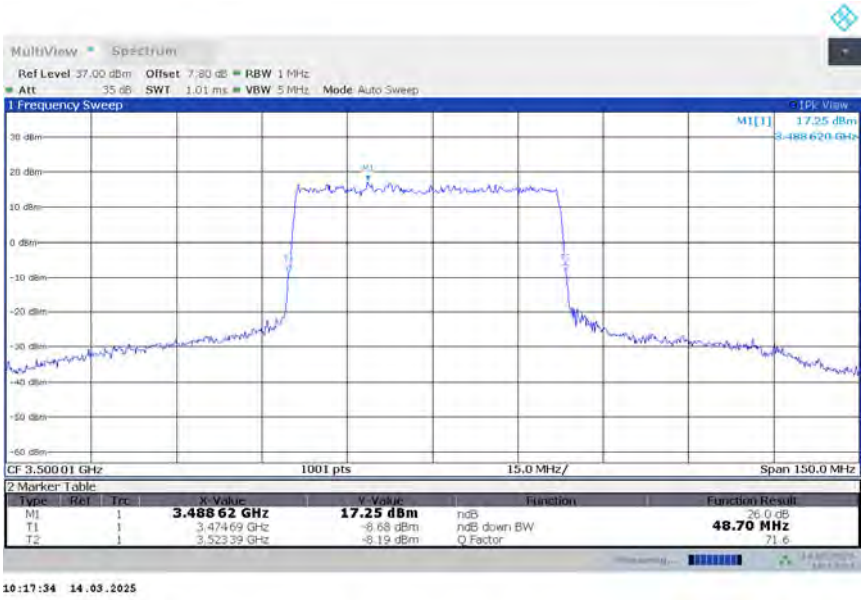

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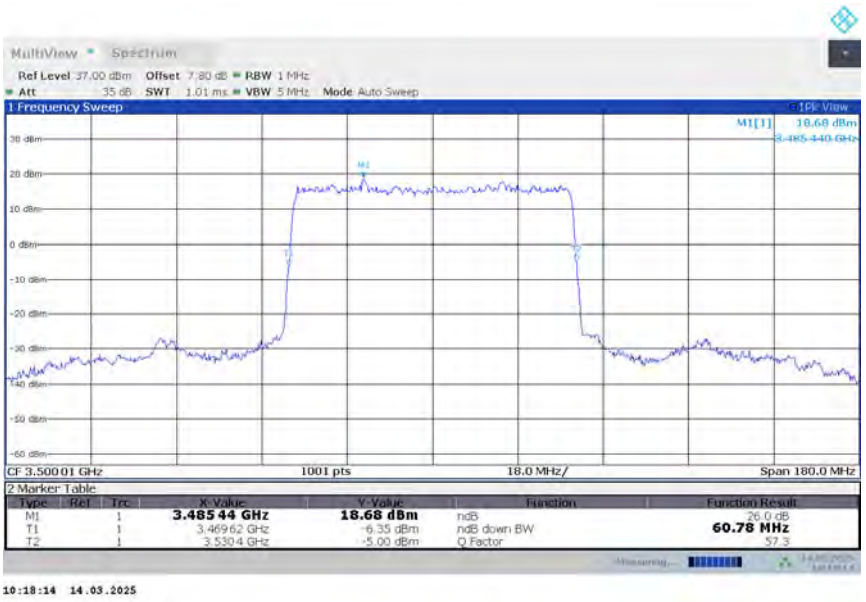
n78L

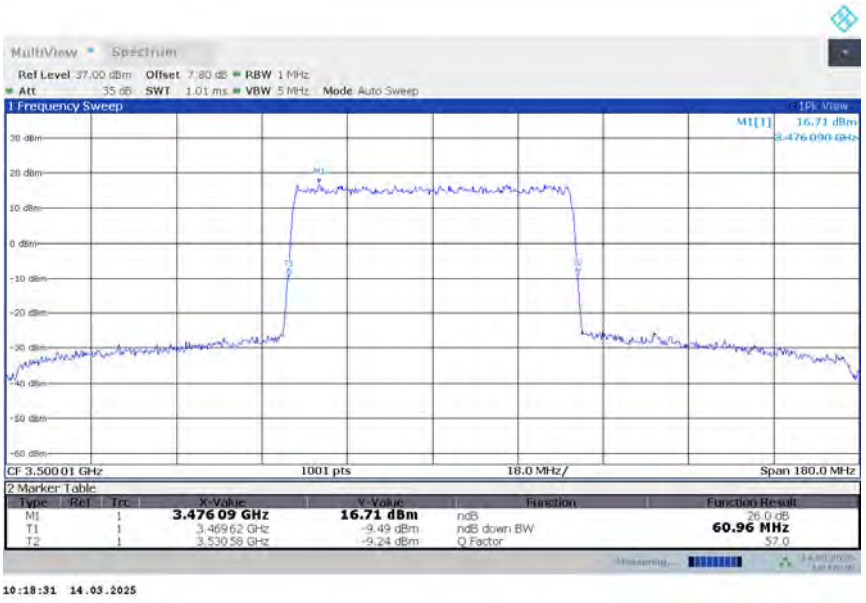
n78L,60MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	60.780	60.960	61.140

n78L,60MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78L,60MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,60MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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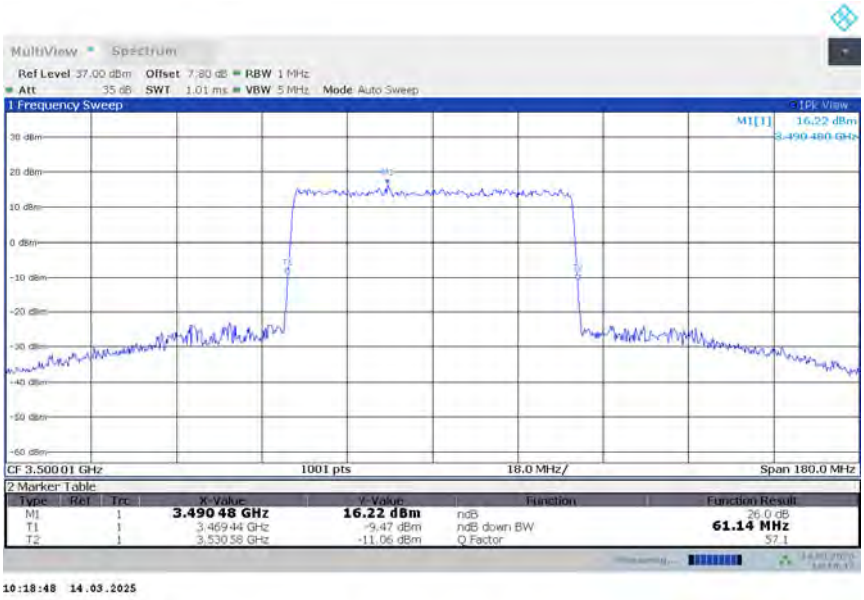

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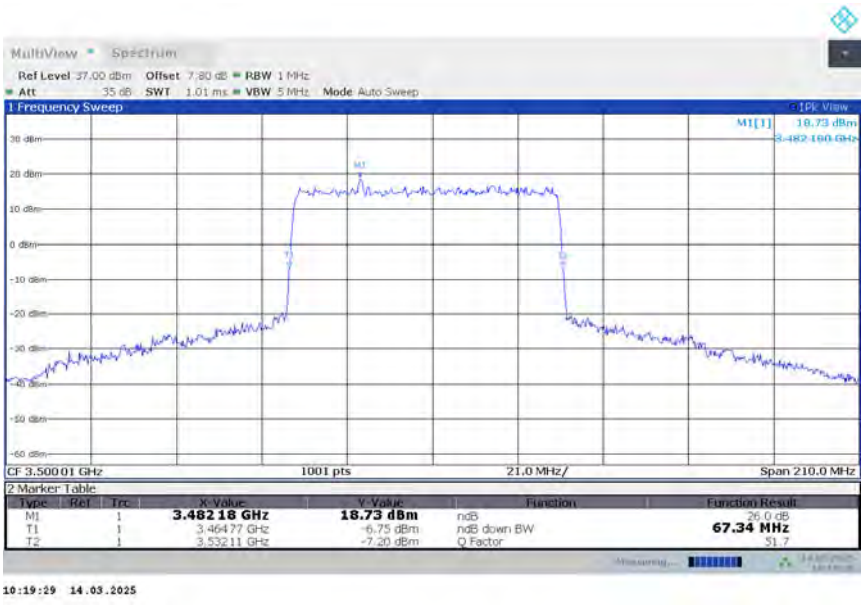
n78L

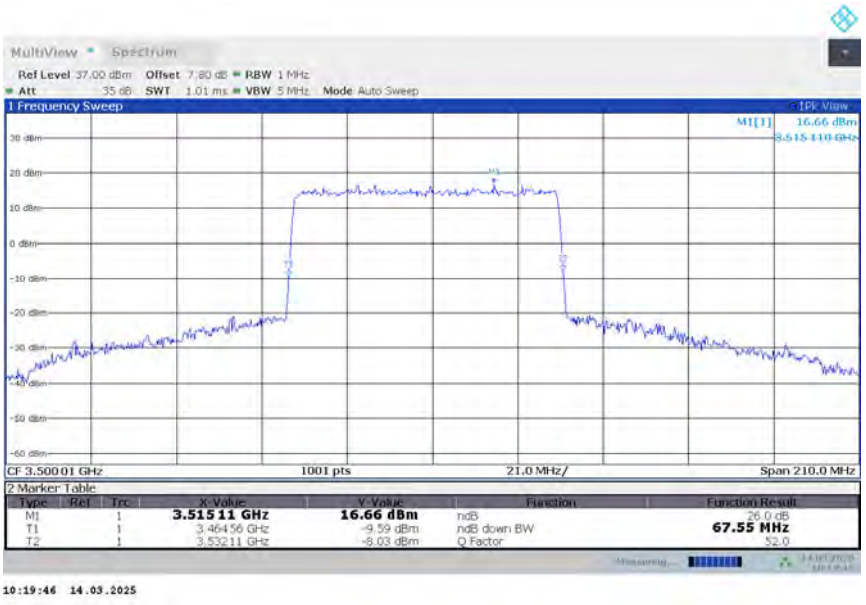
n78L,70MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	67.340	67.550	67.340

n78L,70MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78L,70MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,70MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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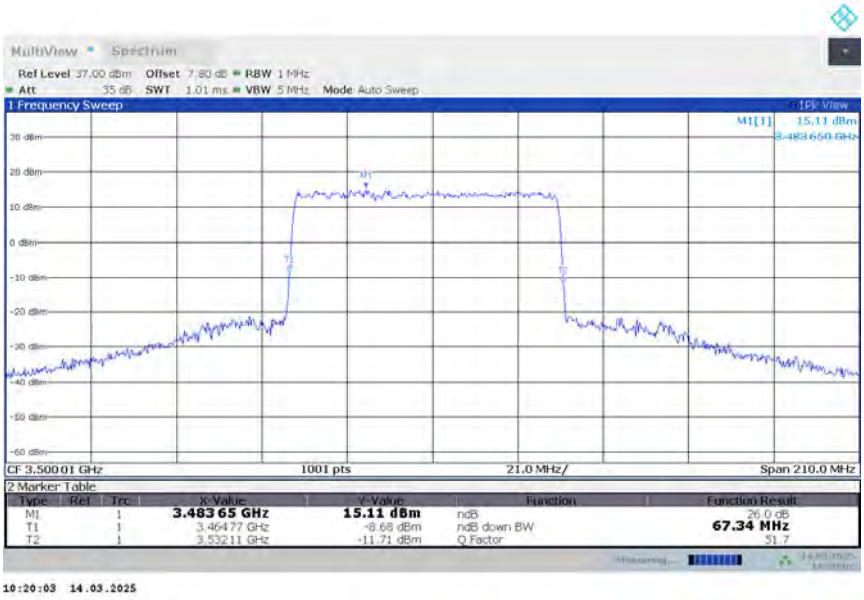

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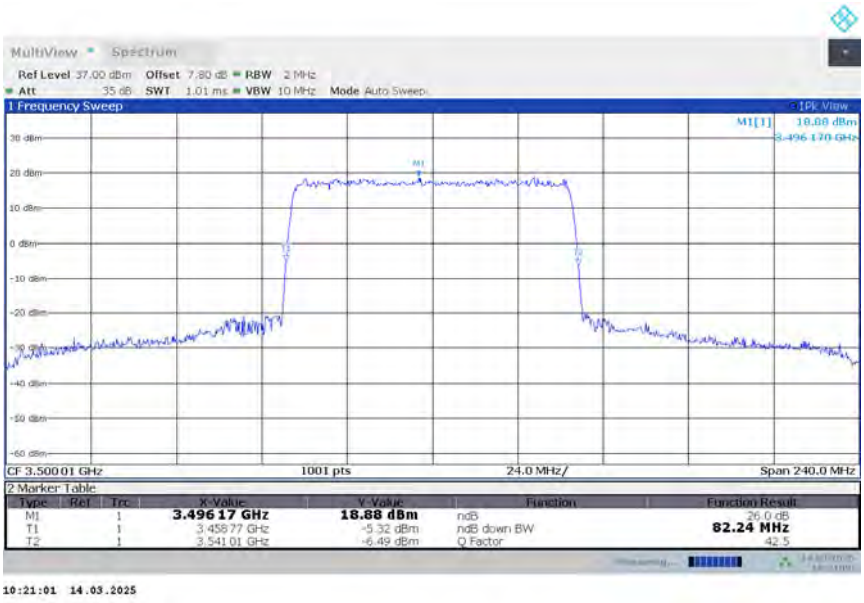
n78L

n78L,80MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	82.240	82.240	82.240

n78L,80MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n78L,80MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,80MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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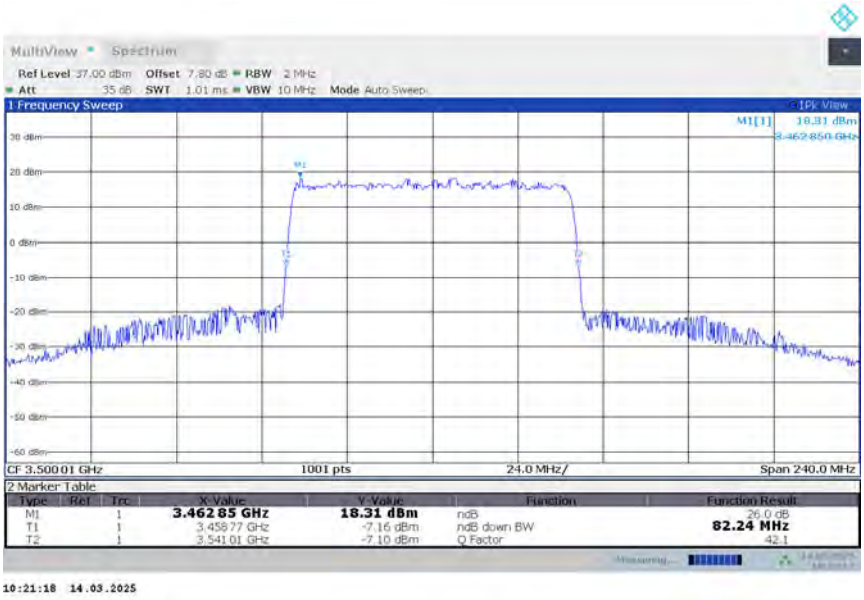

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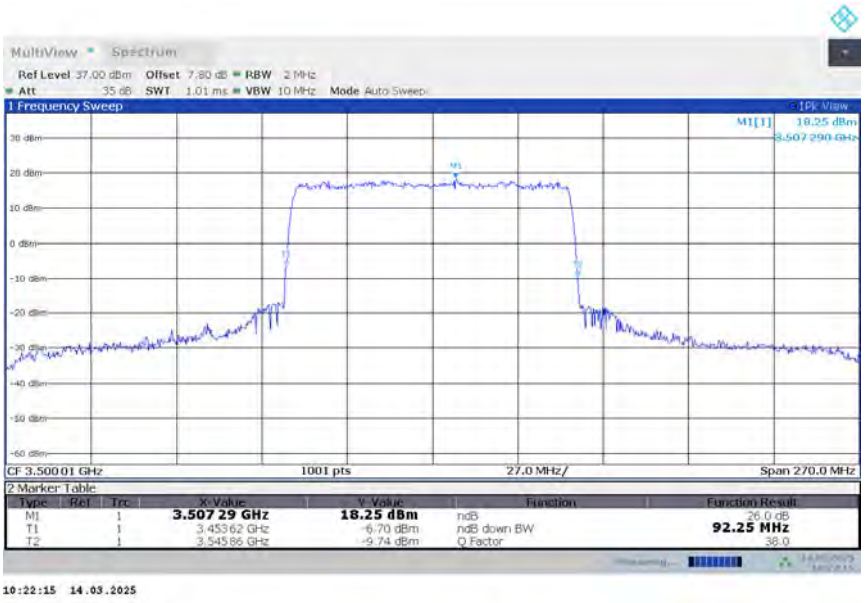
n78L

n78L,90MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	91.980	92.250	92.250

n78L,90MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n78L,90MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,90MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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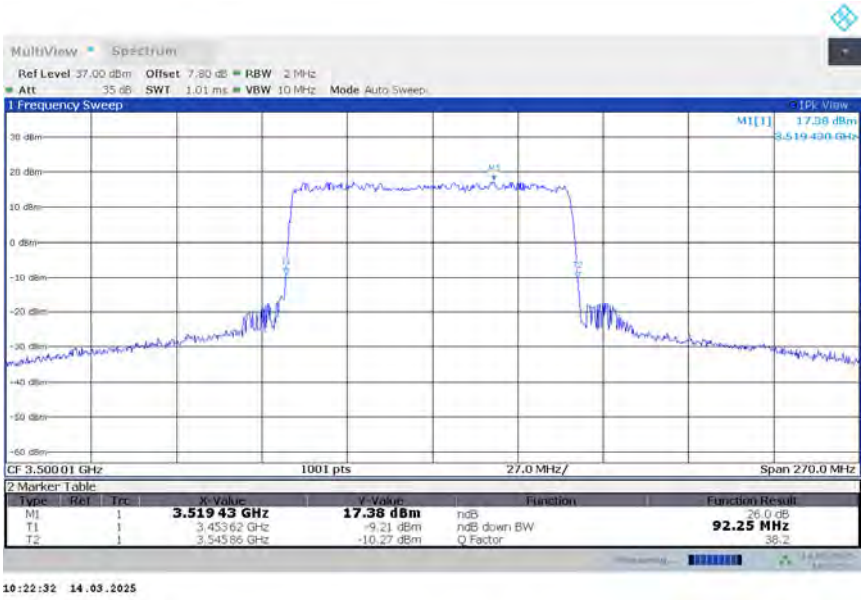

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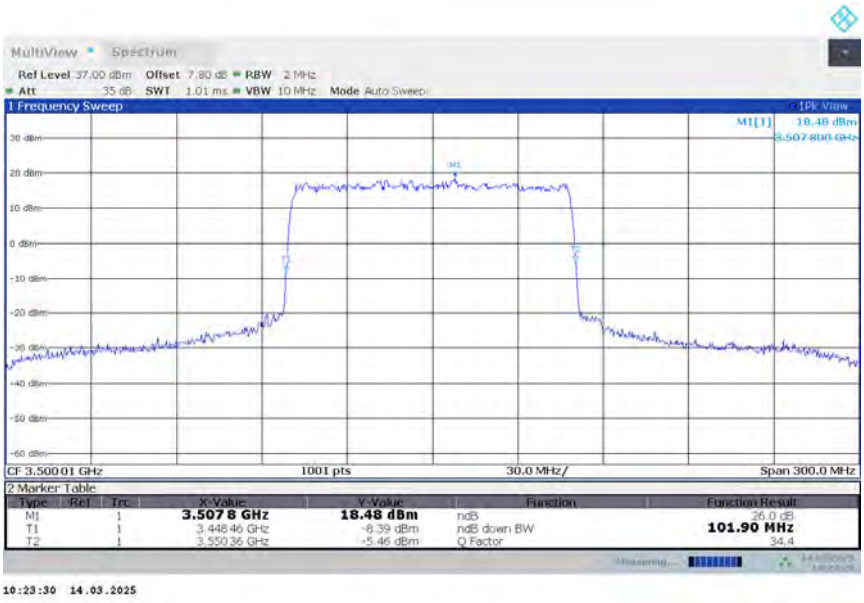
n78L

n78L,100MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3500.01	101.900	101.900	101.600

n78L,100MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

n78L,100MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n78L,100MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

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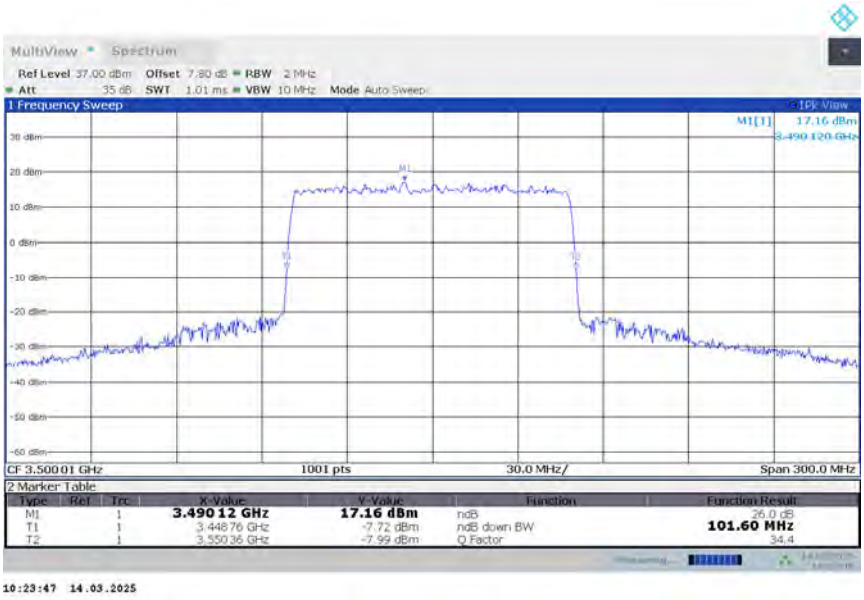

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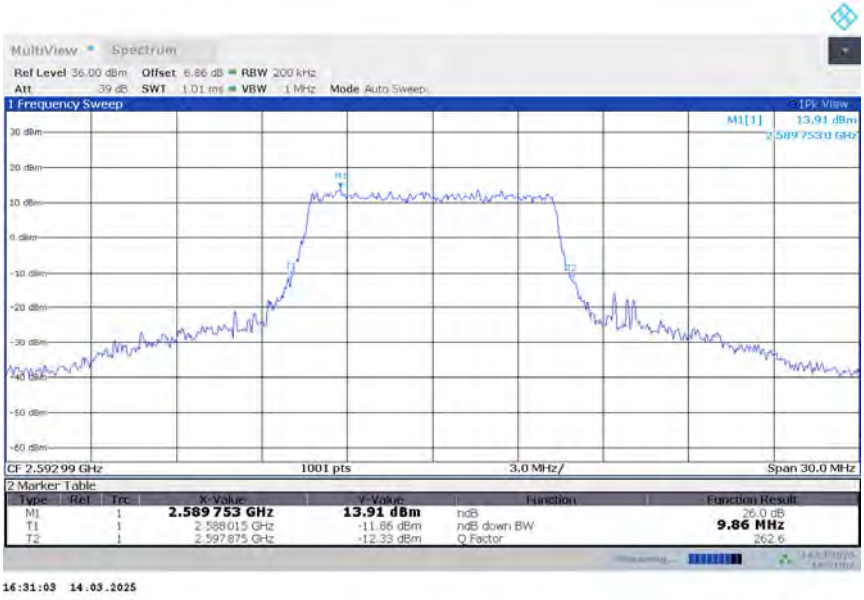
n41-MIMO

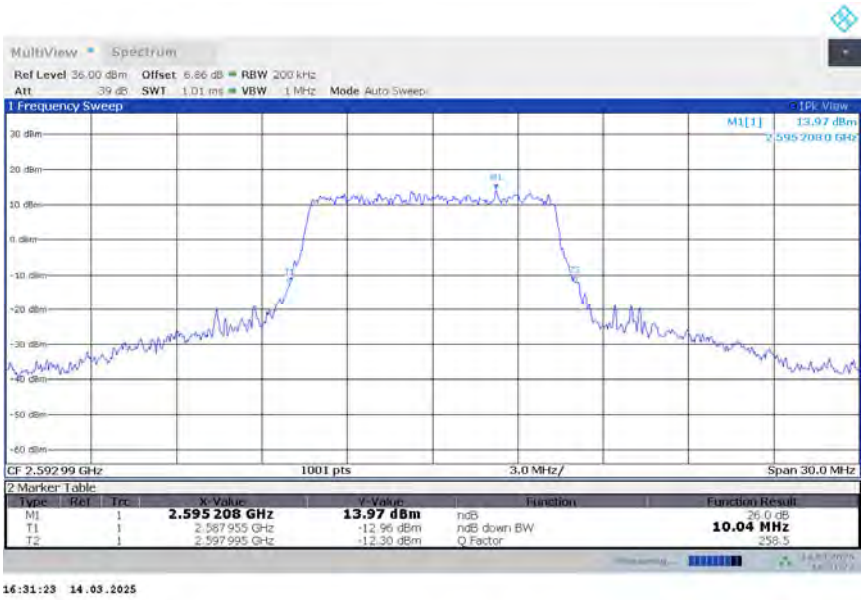
n41-MIMO,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	9.860	10.040

n41,10MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,10MHz Bandwidth,CP-16QAM (-26dBc BW)



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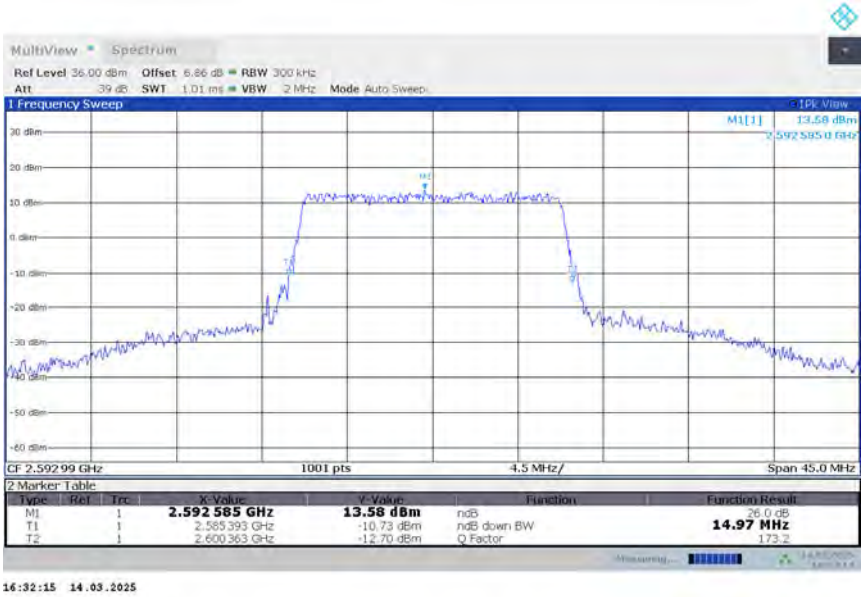
n41-MIMO

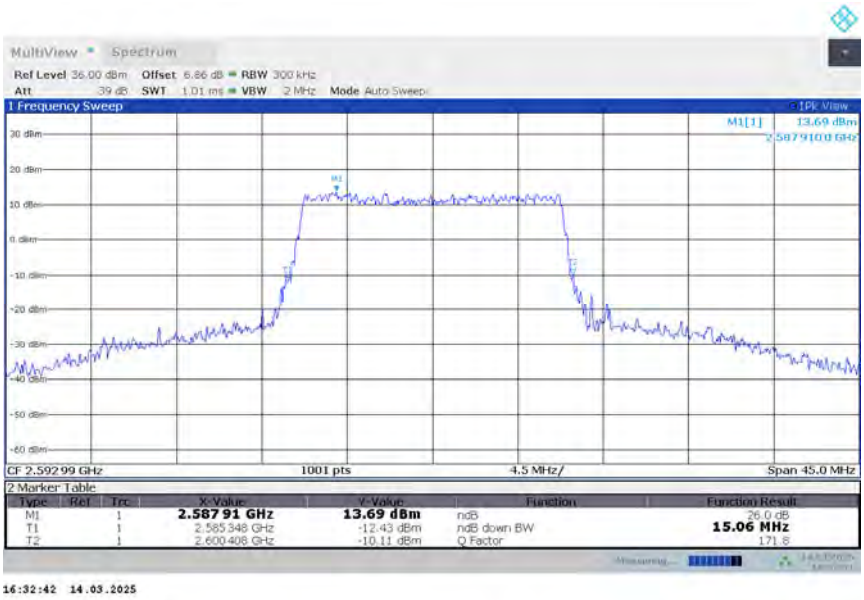
n41-MIMO,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	14.970	15.060

n41,15MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,15MHz Bandwidth,CP-16QAM (-26dBc BW)



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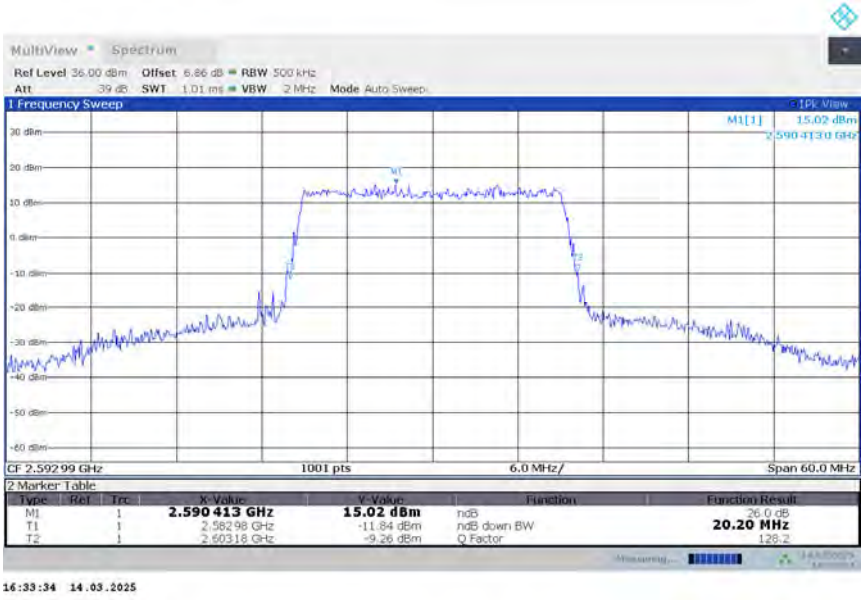
n41-MIMO

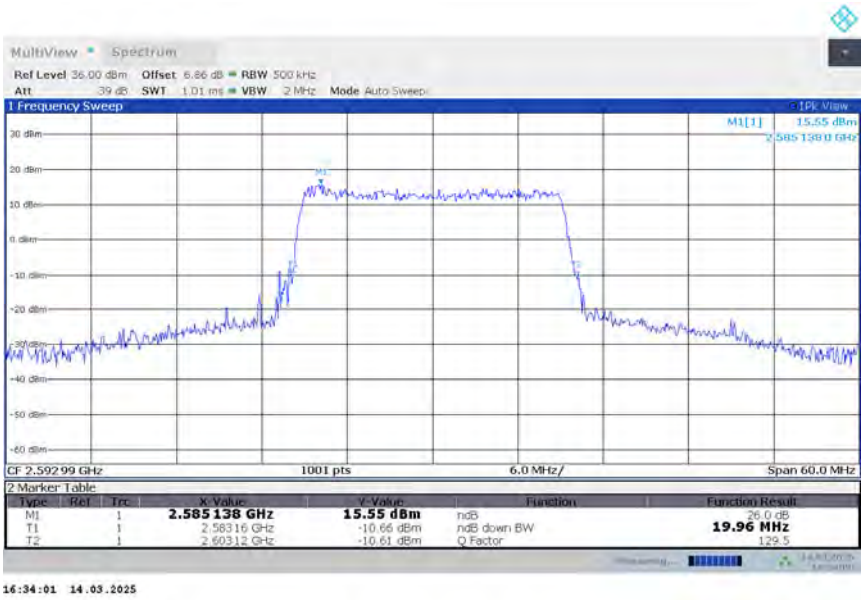
n41-MIMO,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	20.200	19.960

n41,20MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,20MHz Bandwidth,CP-16QAM (-26dBc BW)



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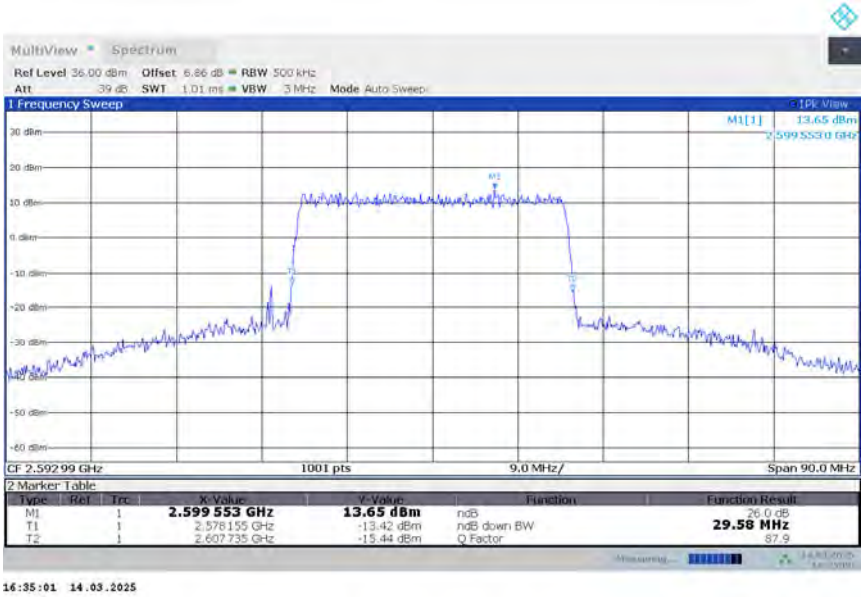
n41-MIMO

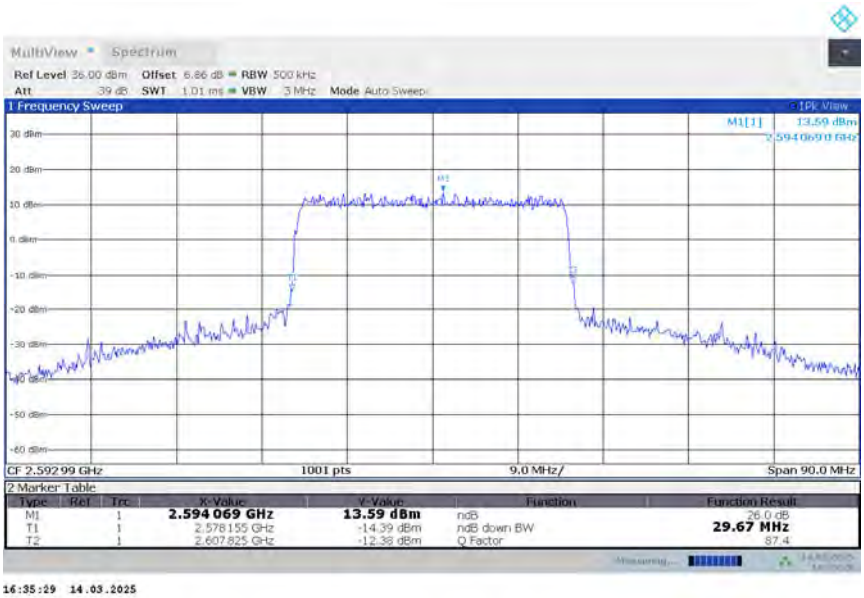
n41-MIMO,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	29.580	29.670

n41,30MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,30MHz Bandwidth,CP-16QAM (-26dBc BW)



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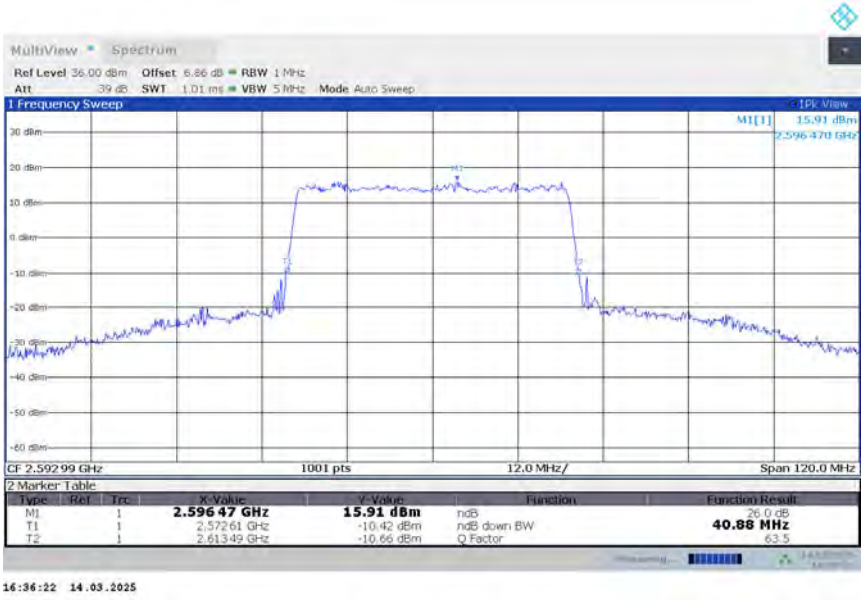
n41-MIMO

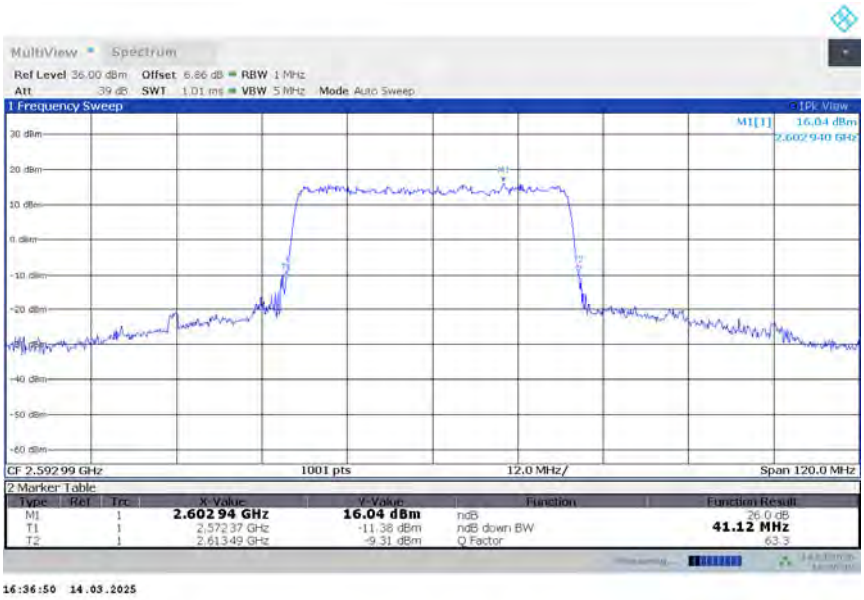
n41-MIMO,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	40.880	41.120

n41,40MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,40MHz Bandwidth,CP-16QAM (-26dBc BW)



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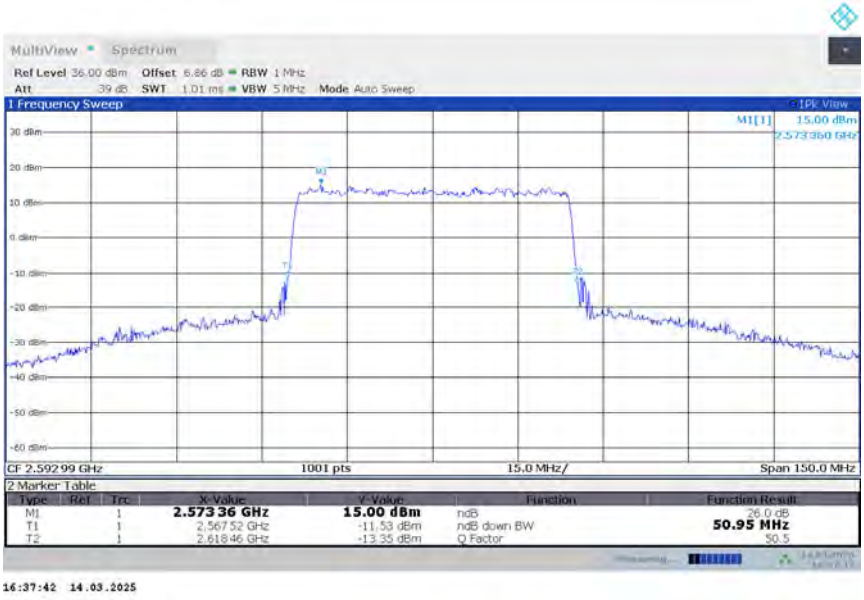
n41-MIMO

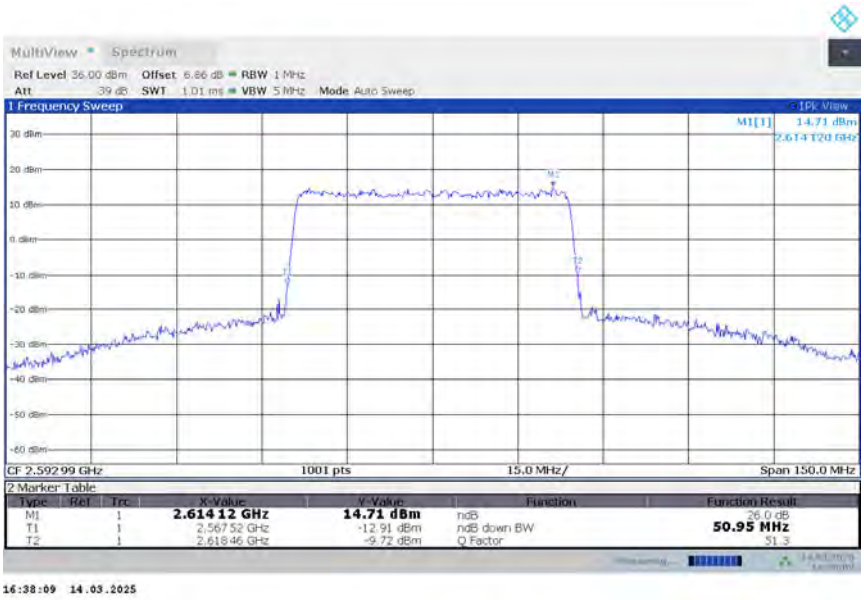
n41-MIMO,50MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	50.950	50.950

n41,50MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,50MHz Bandwidth,CP-16QAM (-26dBc BW)



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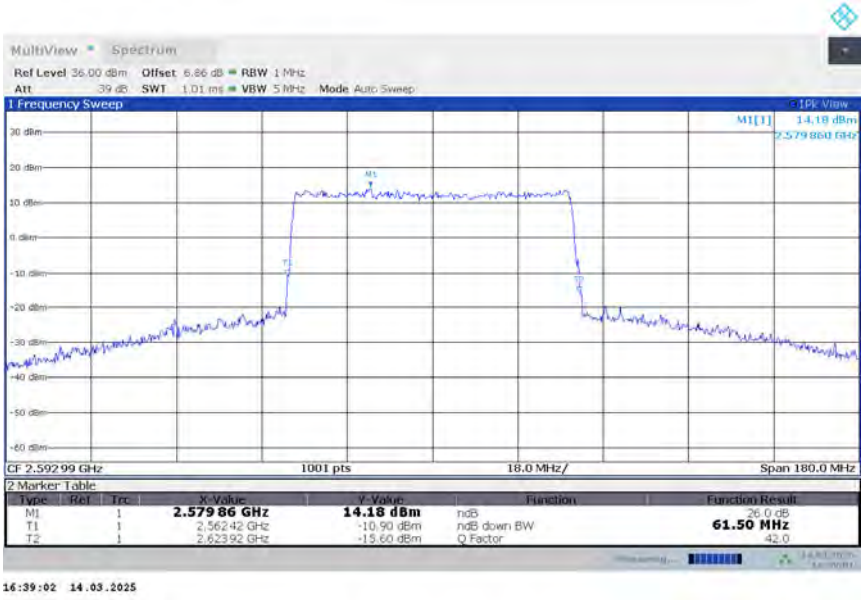
n41-MIMO

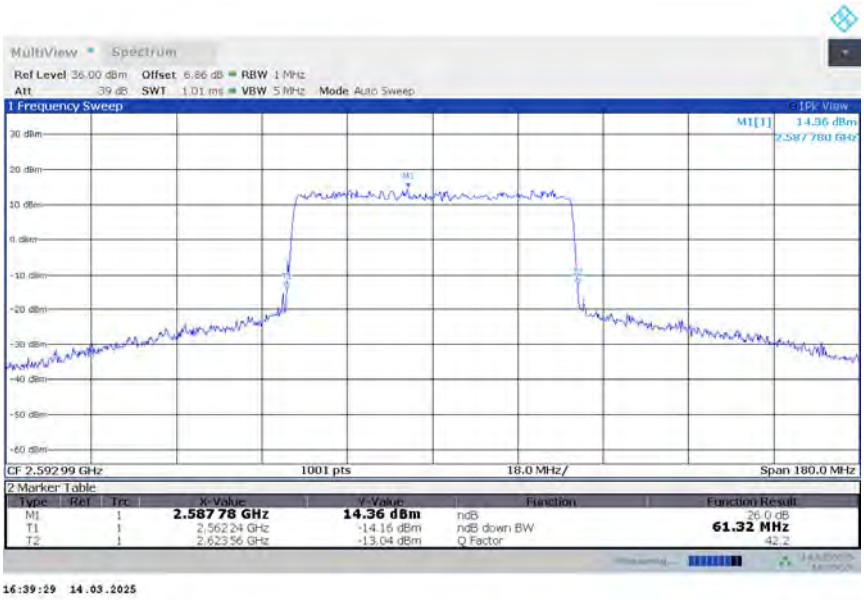
n41-MIMO,60MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	61.500	61.320

n41,60MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,60MHz Bandwidth,CP-16QAM (-26dBc BW)



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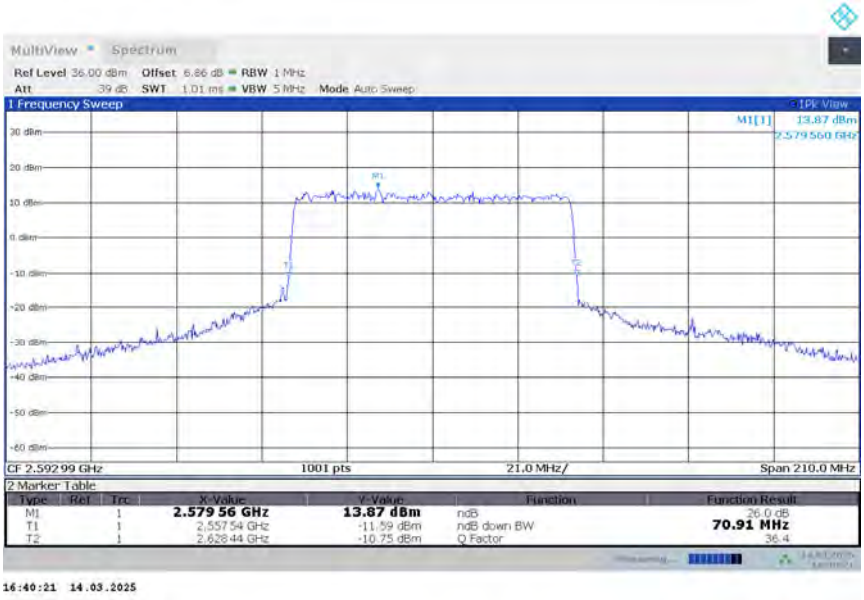
n41-MIMO

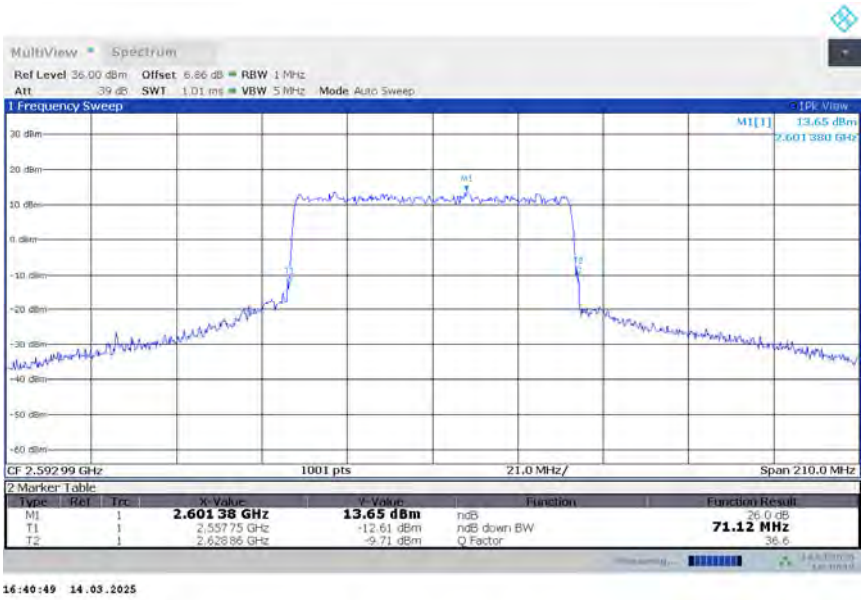
n41-MIMO,70MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	70.910	71.120

n41,70MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,70MHz Bandwidth,CP-16QAM (-26dBc BW)



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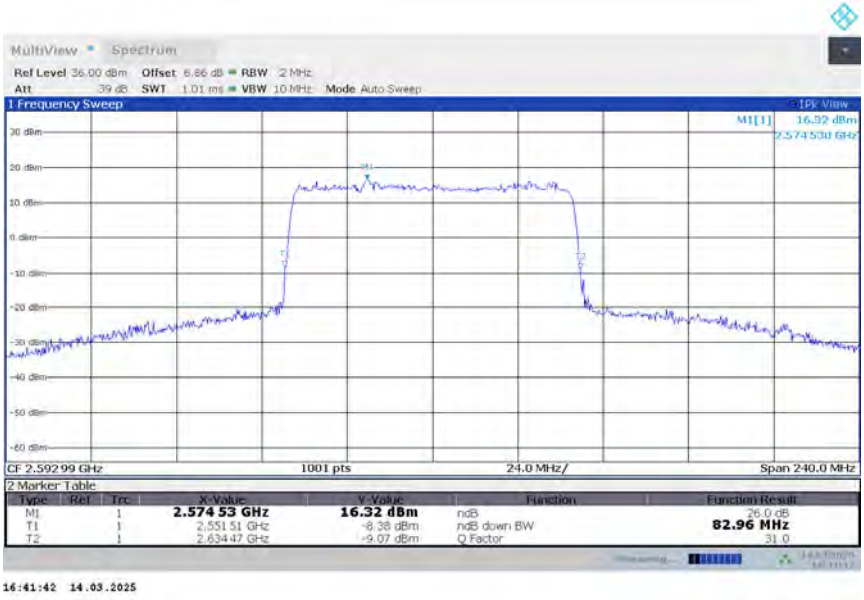
n41-MIMO

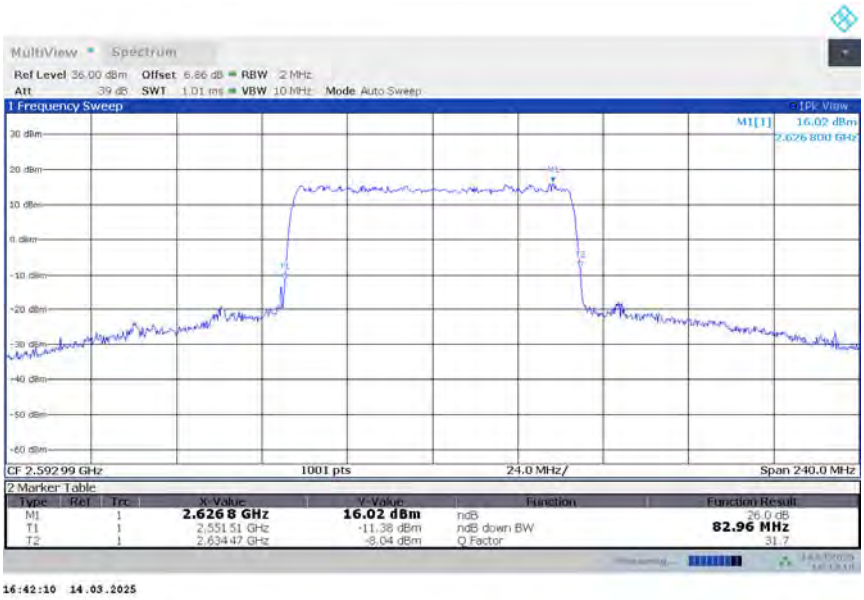
n41-MIMO,80MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	82.960	82.960

n41,80MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,80MHz Bandwidth,CP-16QAM (-26dBc BW)



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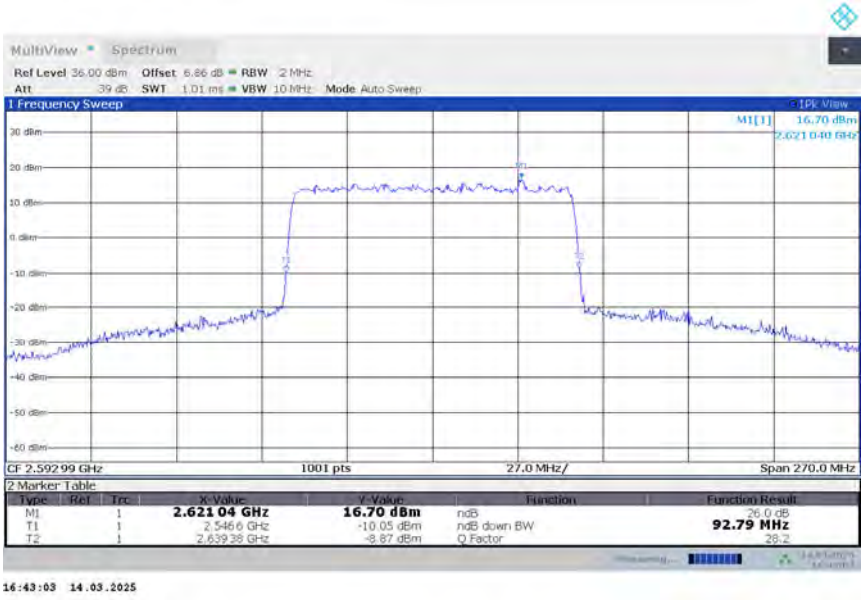
n41-MIMO

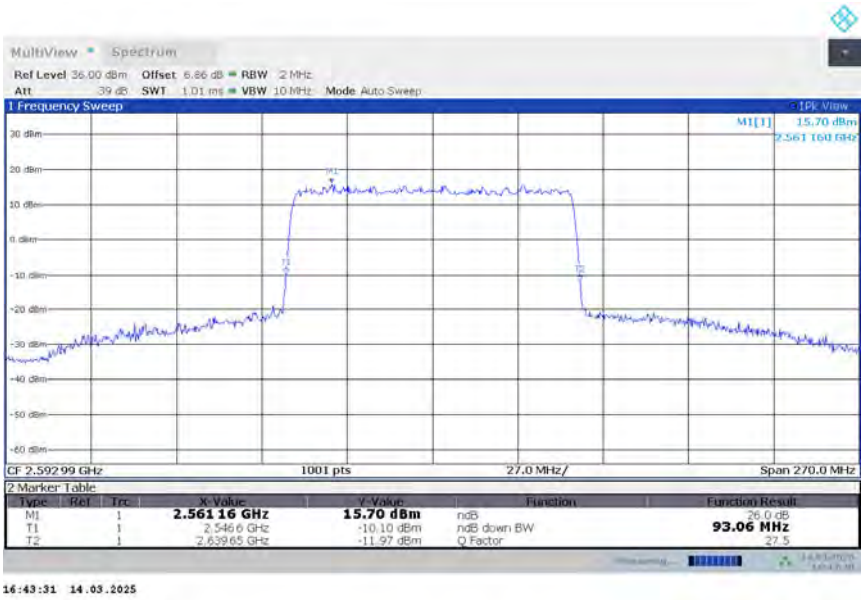
n41-MIMO,90MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	92.790	93.060

n41,90MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,90MHz Bandwidth,CP-16QAM (-26dBc BW)



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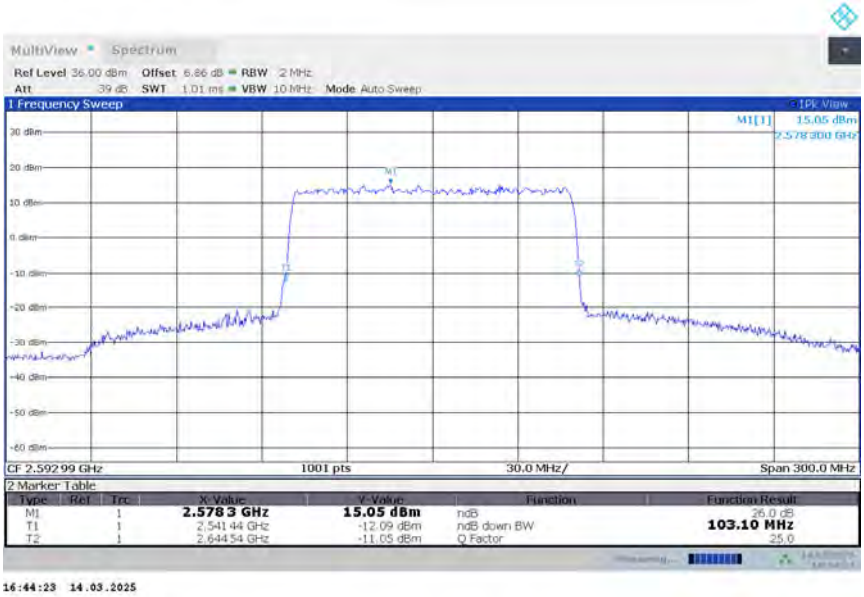
n41-MIMO

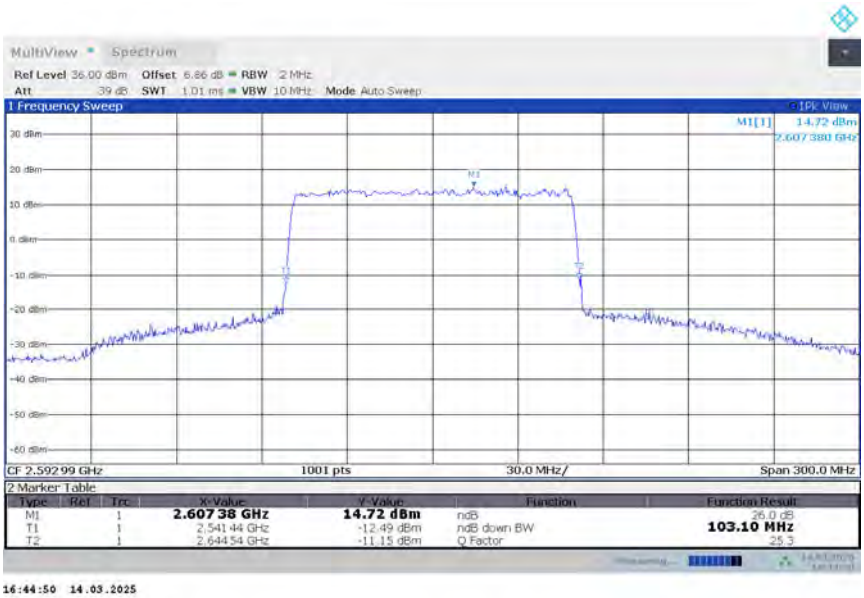
n41-MIMO,100MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	CP-QPSK	CP-16QAM
2592.99	103.100	103.100

n41,100MHz Bandwidth,CP-QPSK (-26dBc BW)



n41,100MHz Bandwidth,CP-16QAM (-26dBc BW)



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A.6 Band Edge Compliance

A.6.1 Measurement limit

Part 24.238 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Part 27.53(n) states for mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

Part 96.41(e) states for channel and frequency assignments made by a CBSD to End User Devices, the conducted power of any End User Device emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed −13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B megahertz below the lower CBSD-assigned channel edge. At all frequencies greater than B megahertz above the upper CBSD assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device emission shall not exceed −25 dBm/MHz. Notwithstanding the emission limits in this paragraph, the Adjacent Channel Leakage Ratio for End User Devices shall be at least 30 dB. The conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed -25dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz.

The spectrum analyzer readings are corrected by [10 log (1/duty cycle)] for the non-continuous transmitting scenario.

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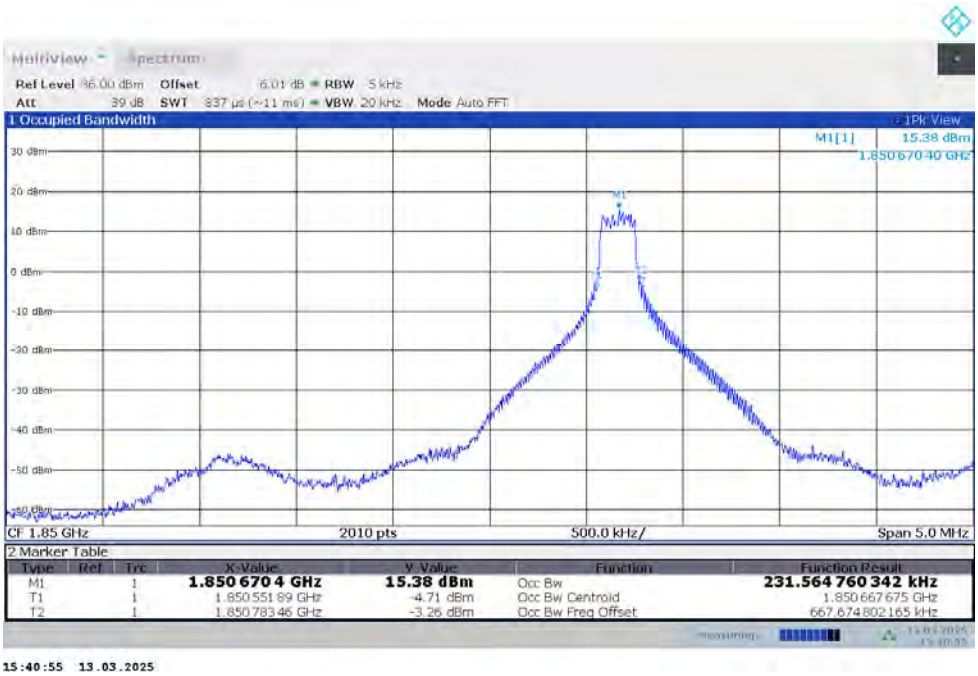
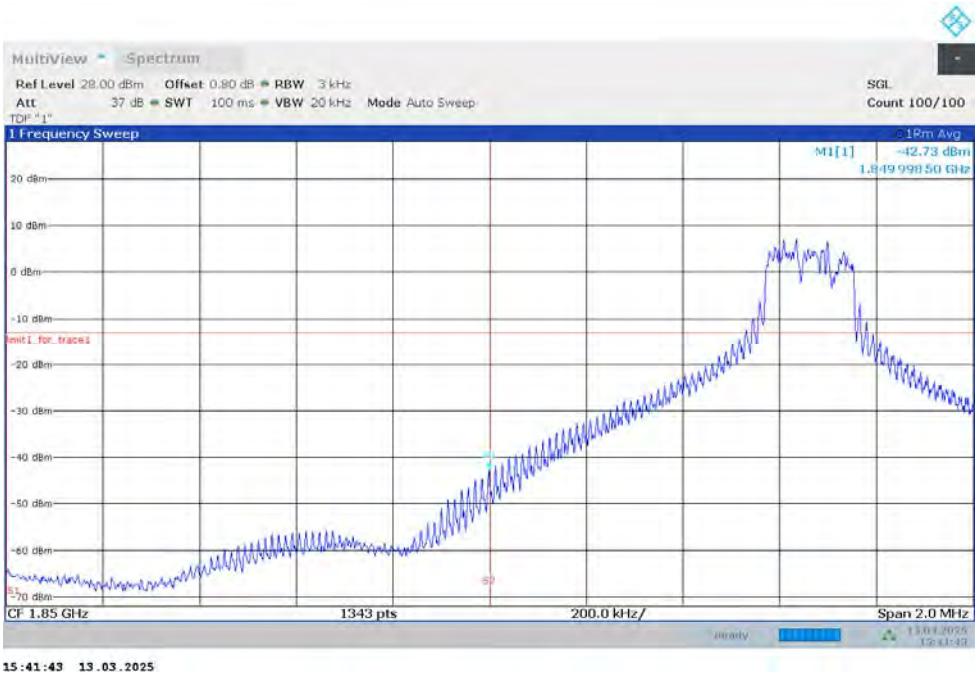
A.6.2 Measurement result

NR n25

OBW: 1RB-LOW_offset



LOW BAND EDGE BLOCK-1RB-LOW_offset



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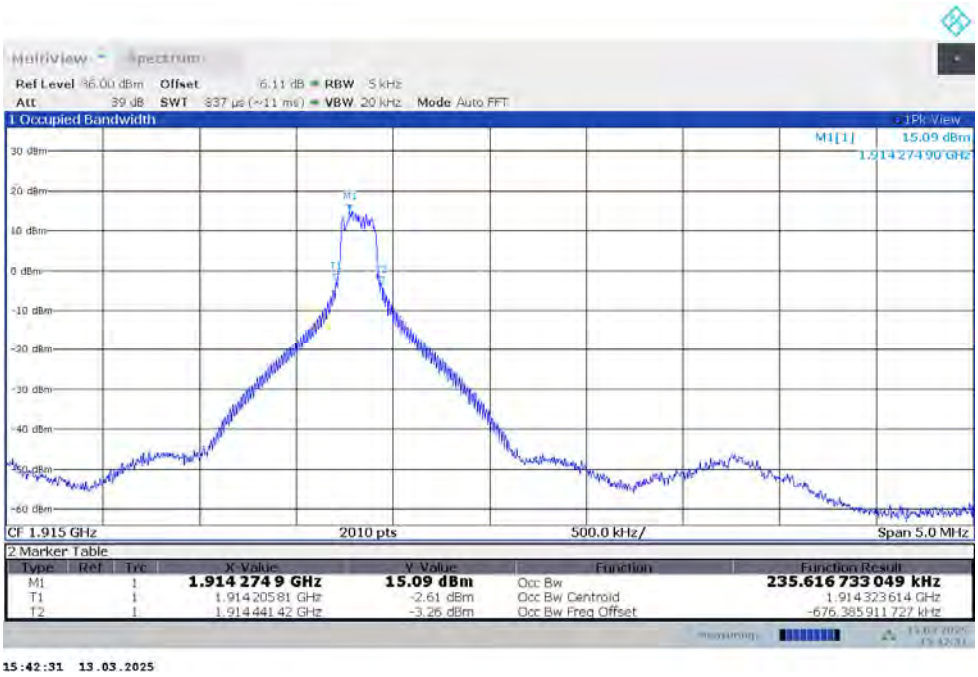
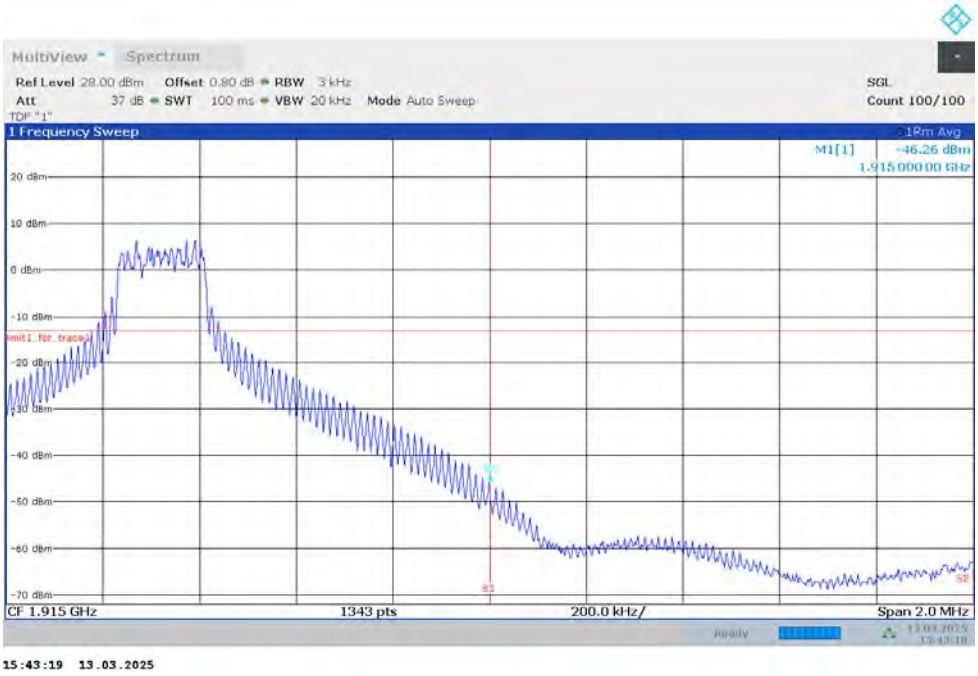
OBW: 1RB-HIGH_offset



HIGH BAND EDGE BLOCK-1RB-HIGH_offset



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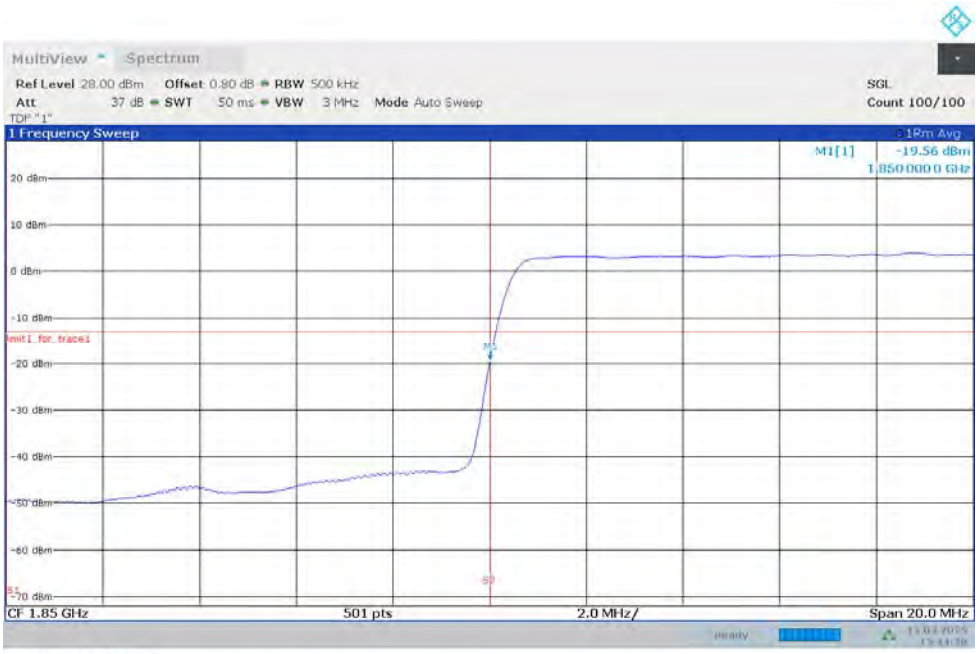
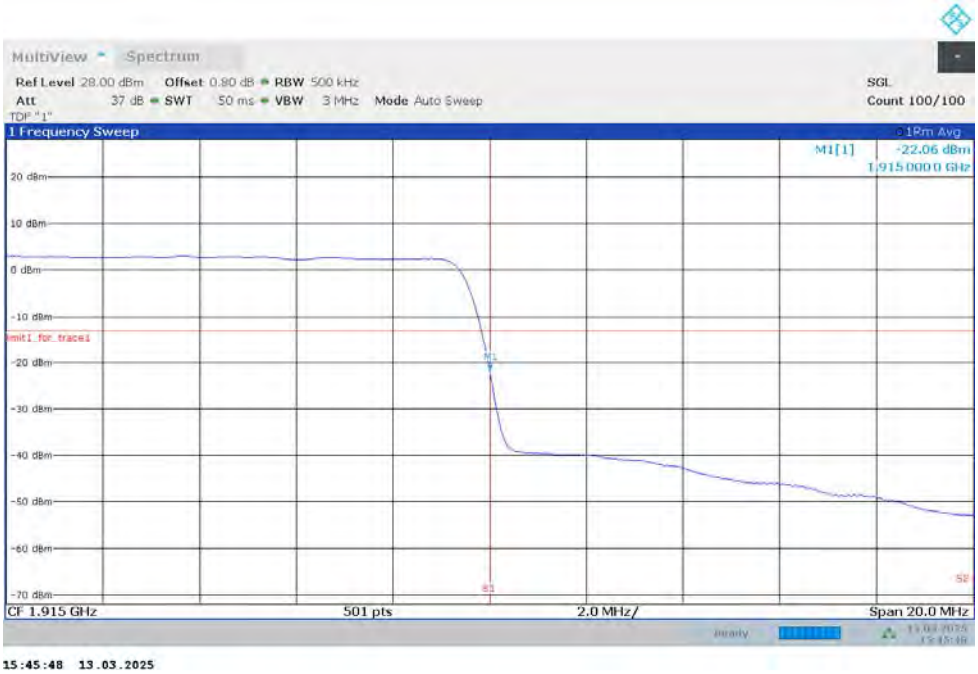
LOW BAND EDGE BLOCK-40MHz-100%RB



HIGH BAND EDGE BLOCK-40MHz-100%RB



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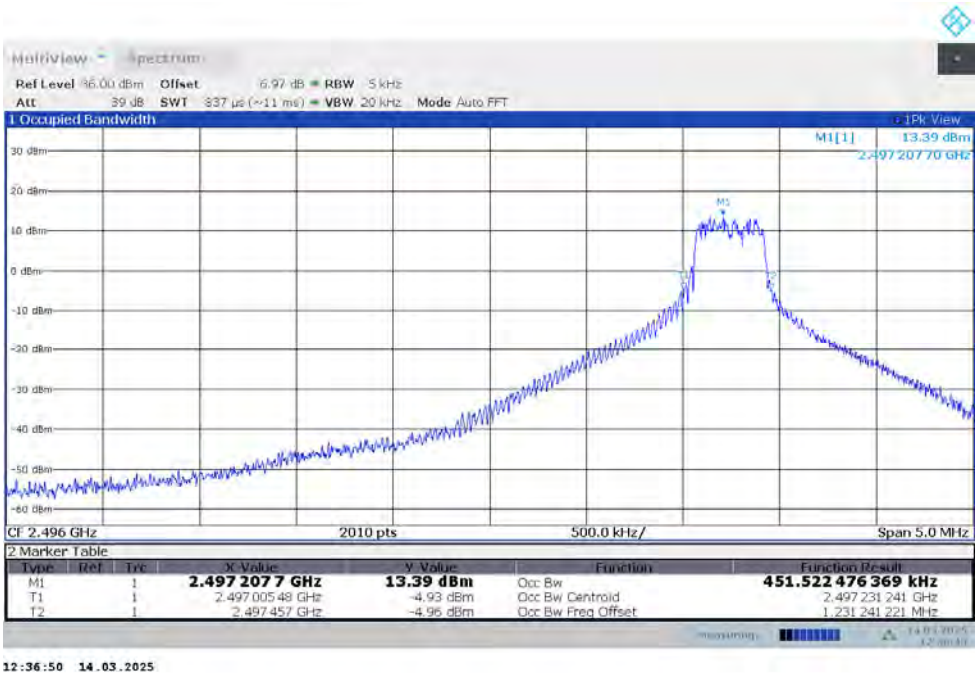
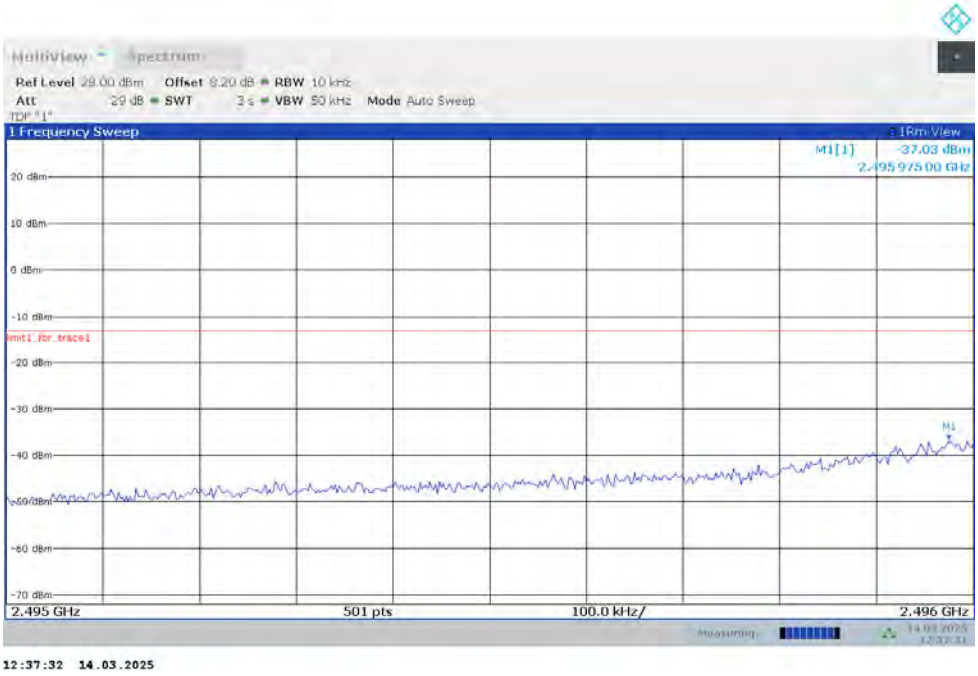
NR n41

OBW: 1RB-LOW_offset



LOW BAND EDGE BLOCK-1RB-LOW_offset



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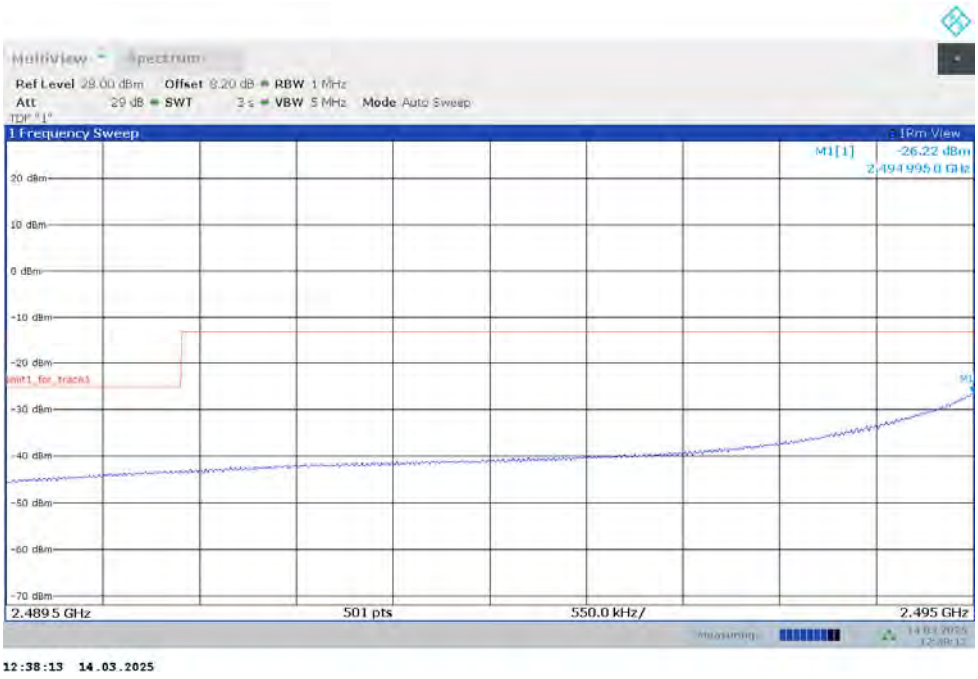
LOW BAND EDGE BLOCK-1RB-LOW_offset



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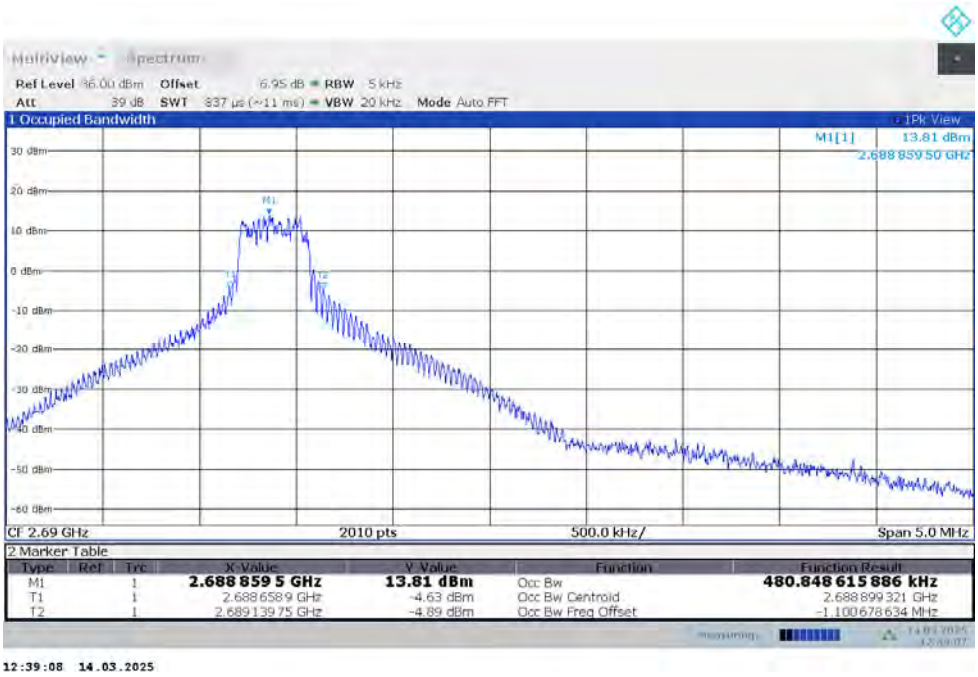
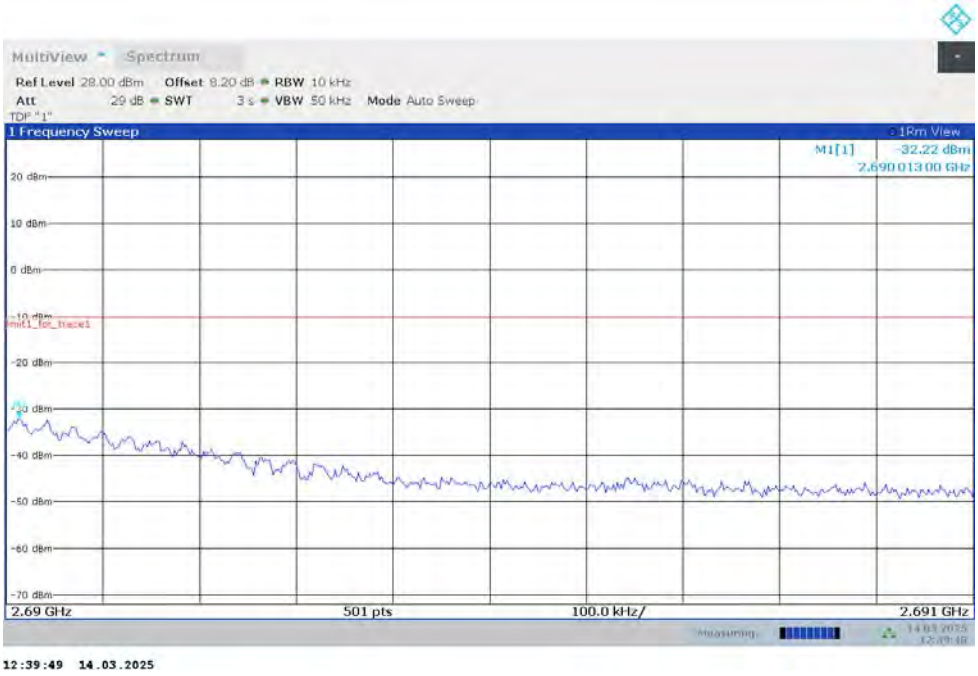
OBW: 1RB-HIGH_offset



HIGH BAND EDGE BLOCK-1RB-HIGH_offset



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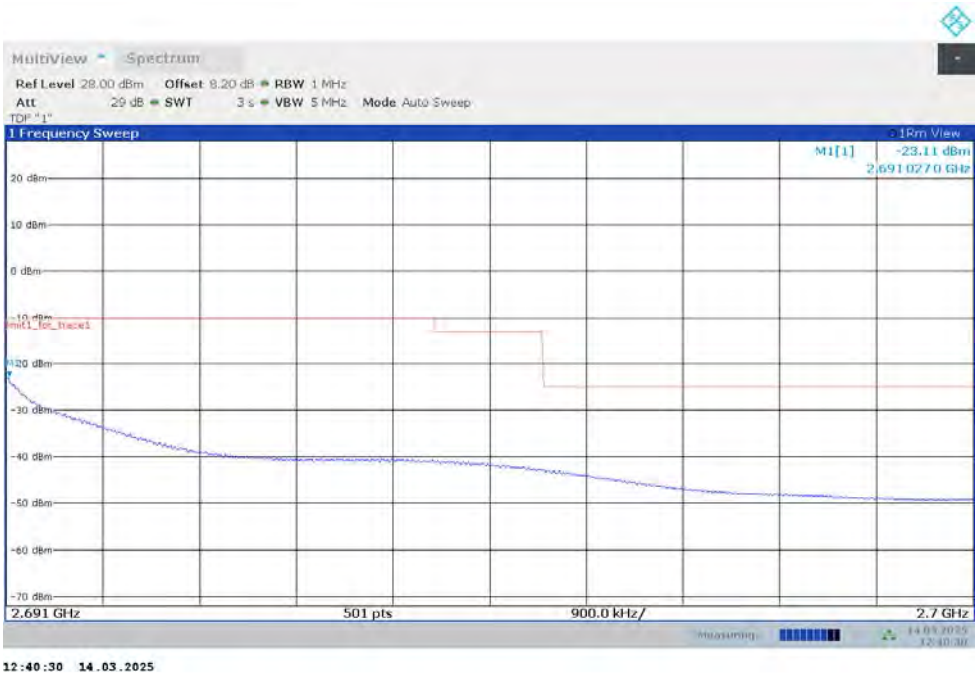
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



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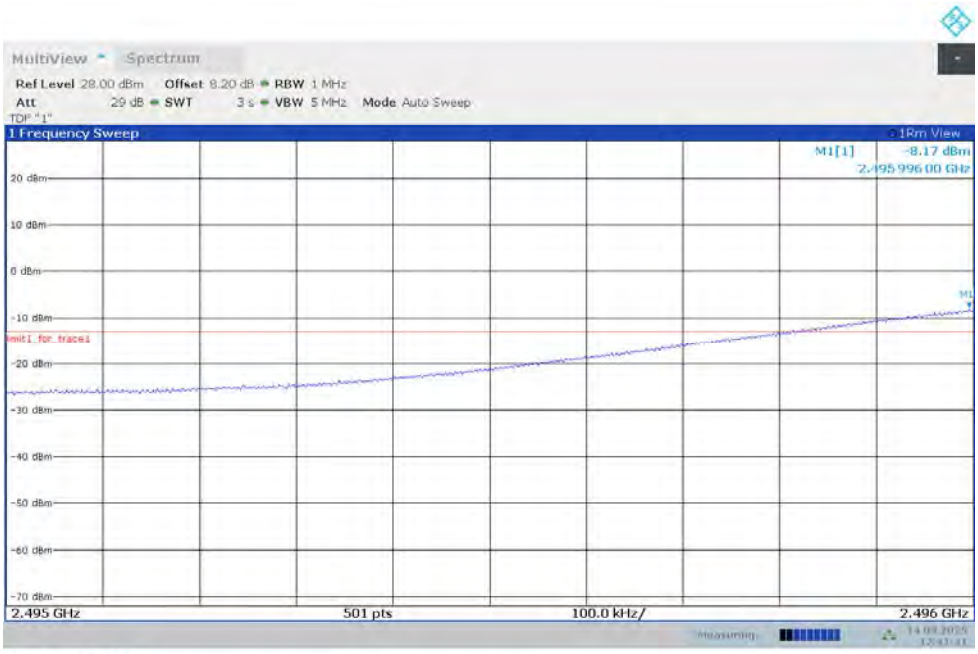
LOW BAND EDGE BLOCK-100MHz-100%RB



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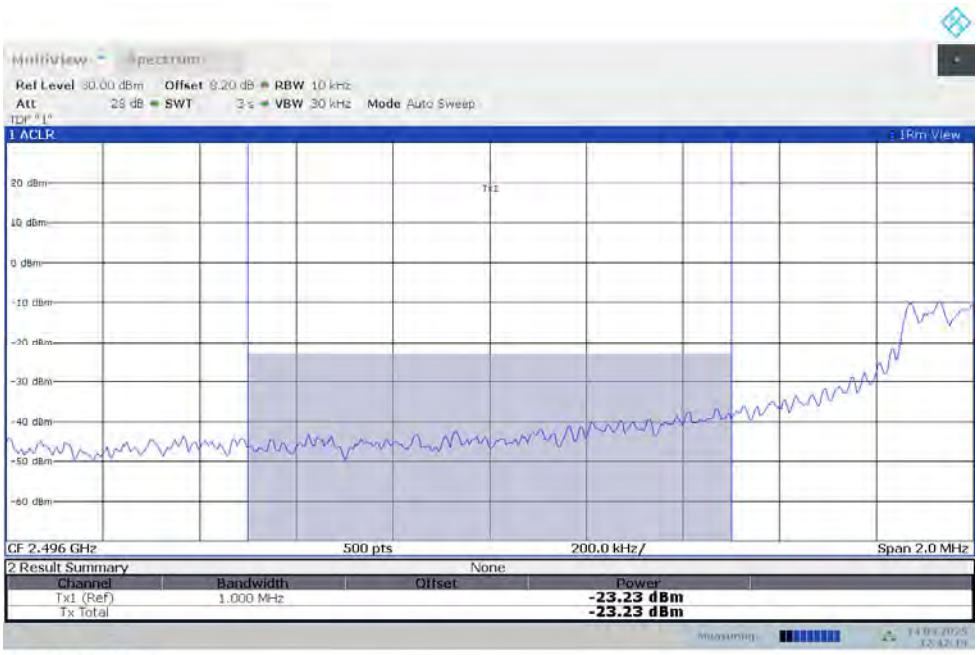
Channel power



12:42:20 14.03.2025

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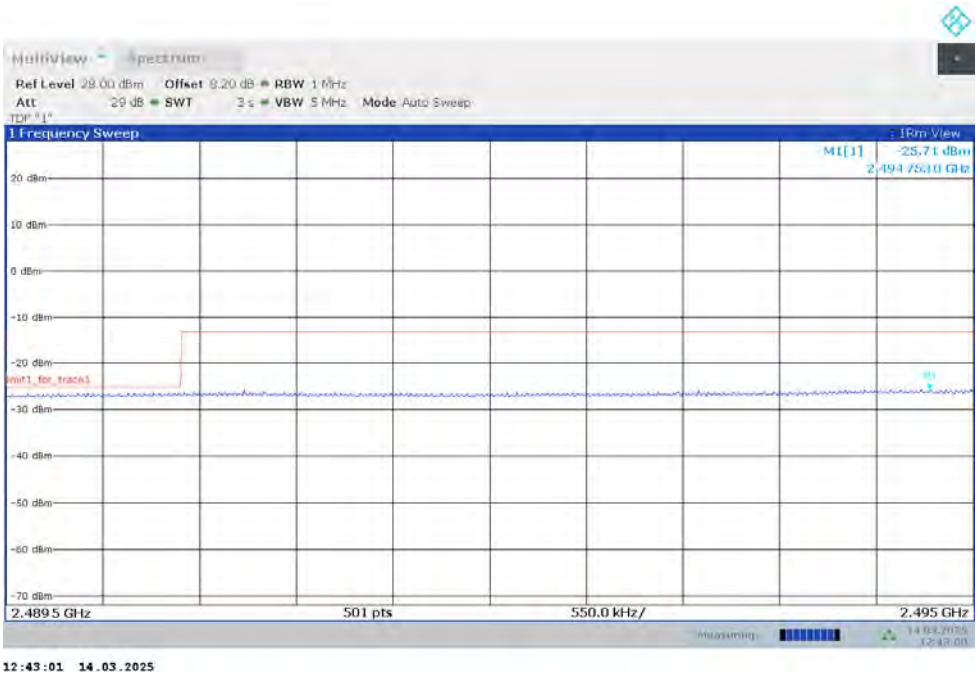
LOW BAND EDGE BLOCK-100MHz-100%RB



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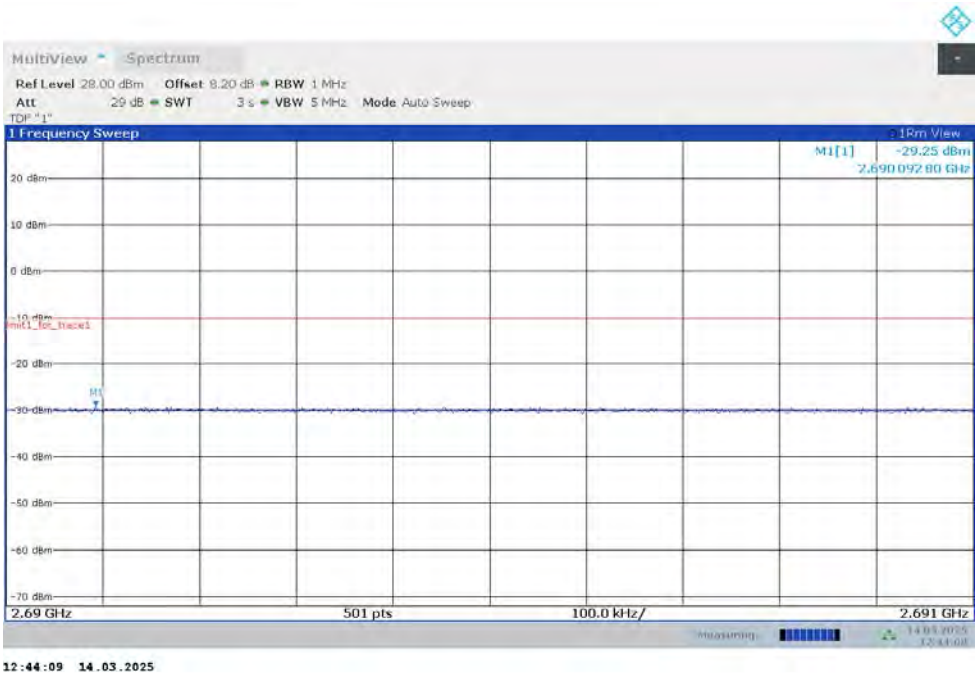
HIGH BAND EDGE BLOCK-100MHz-100%RB



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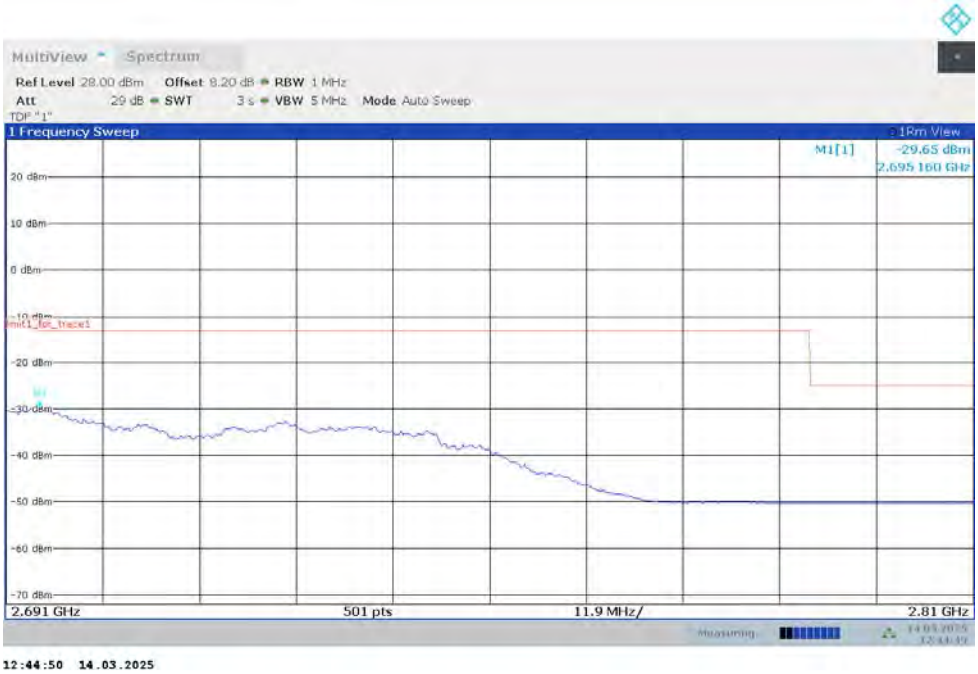
HIGH BAND EDGE BLOCK-100MHz-100%RB



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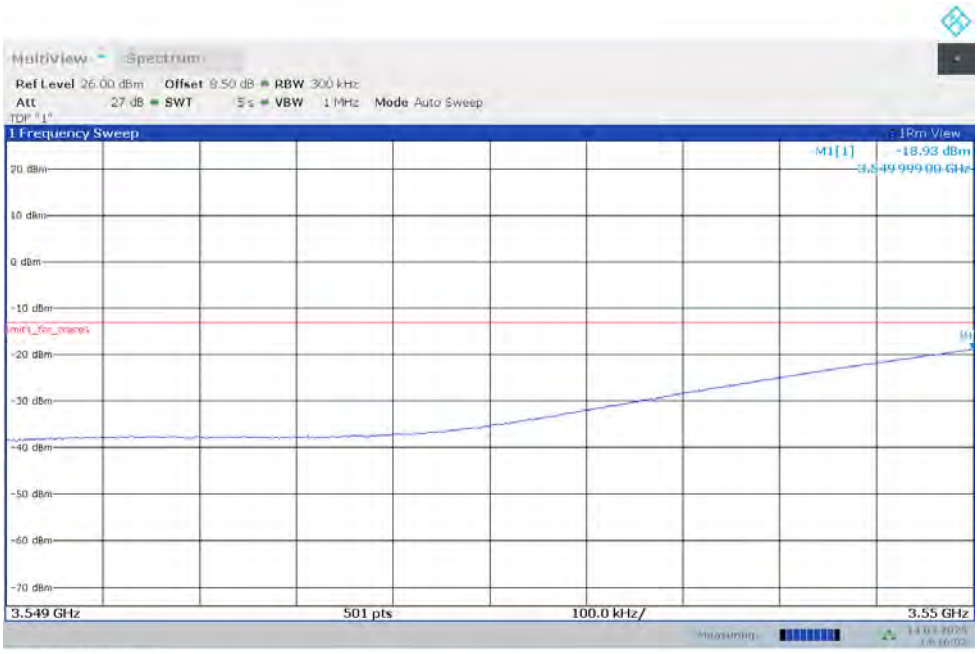
NR n48

LOW BAND EDGE BLOCK-1RB-LOW_offset



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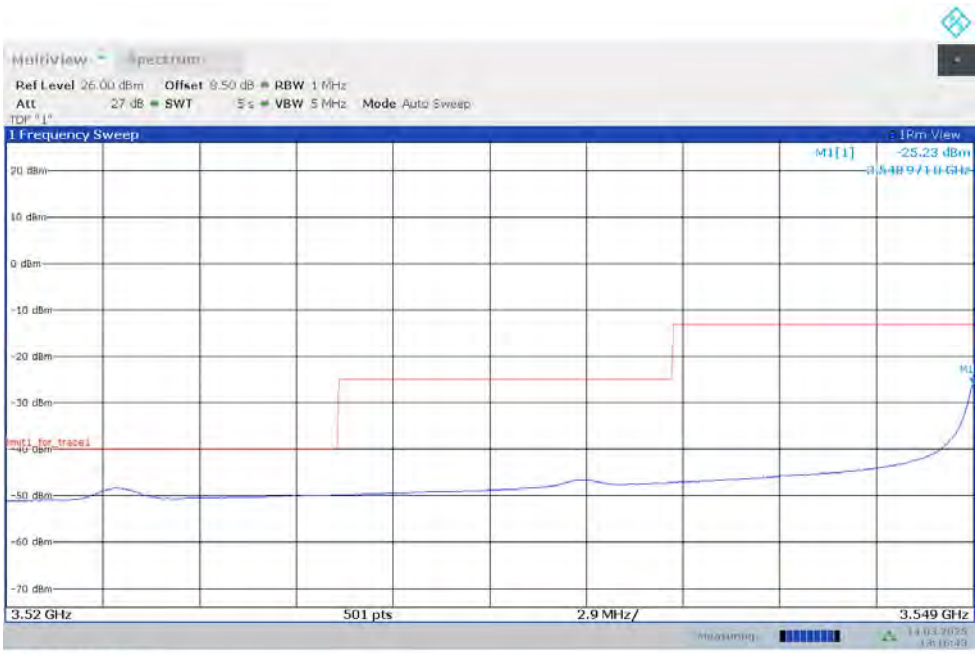

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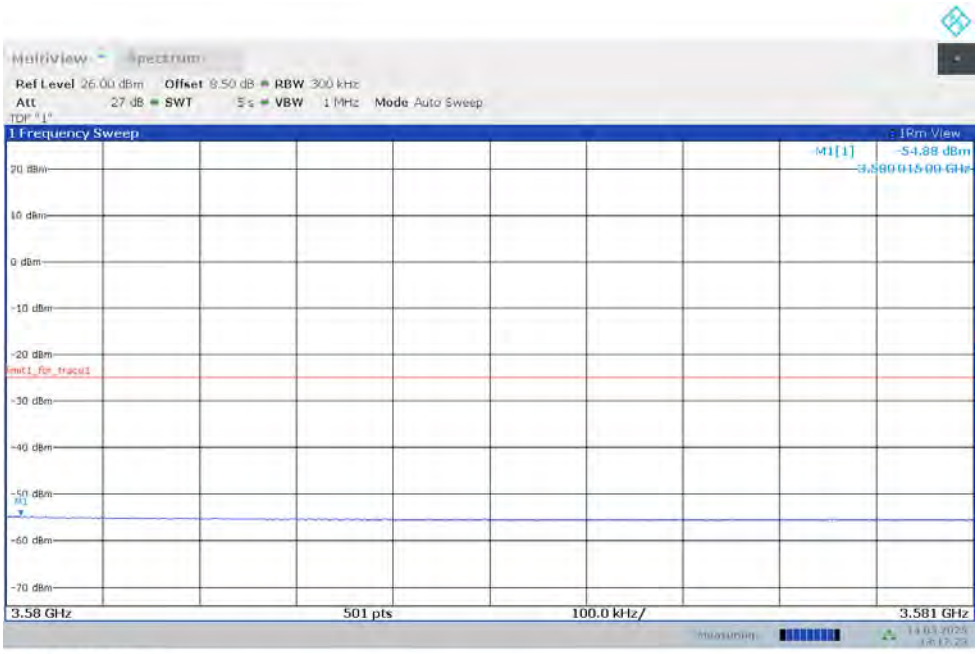

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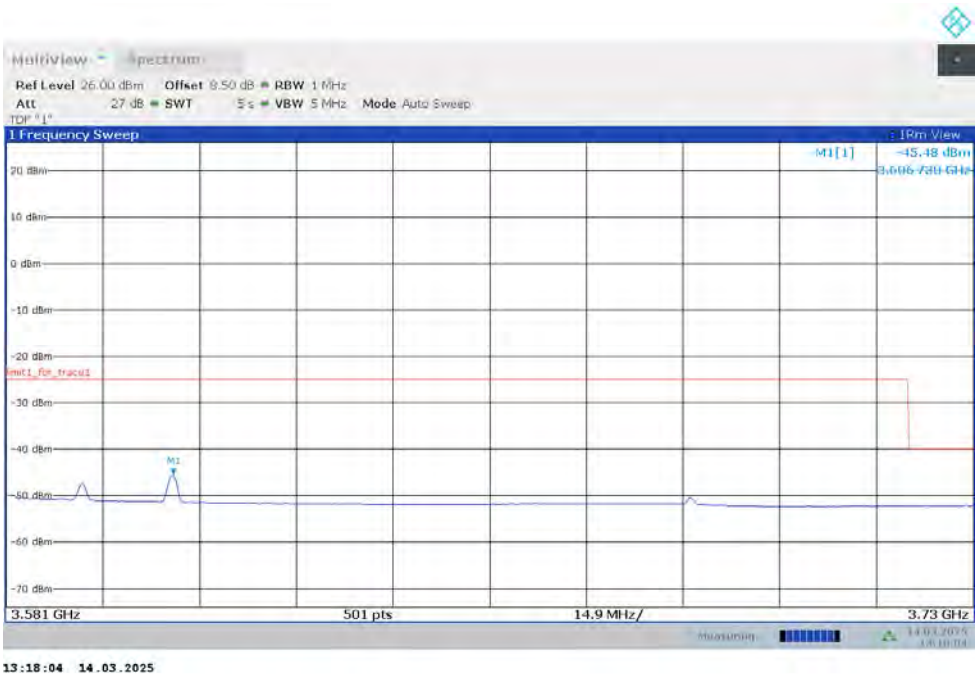

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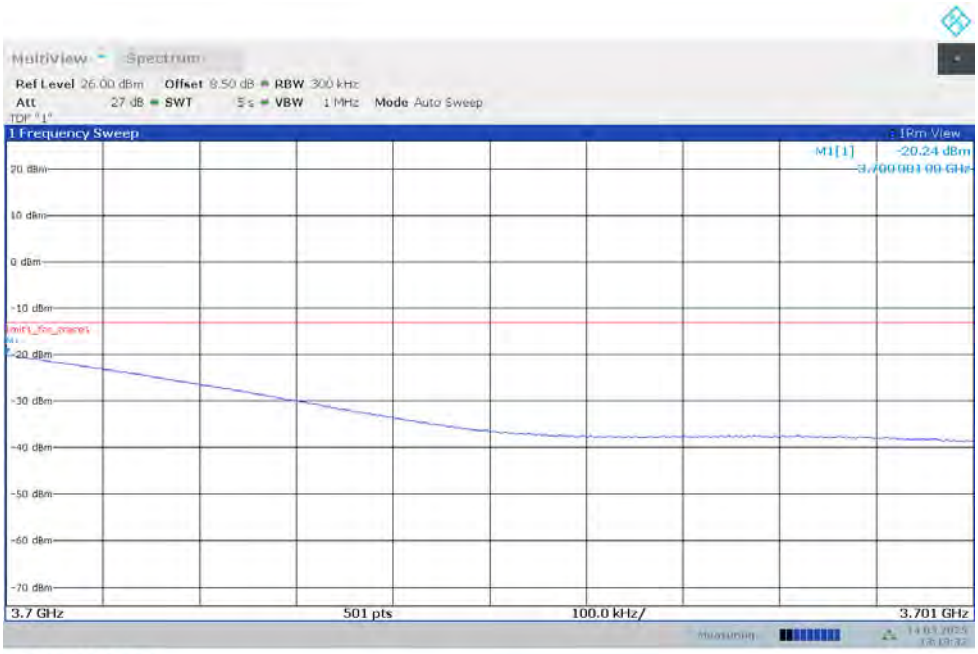

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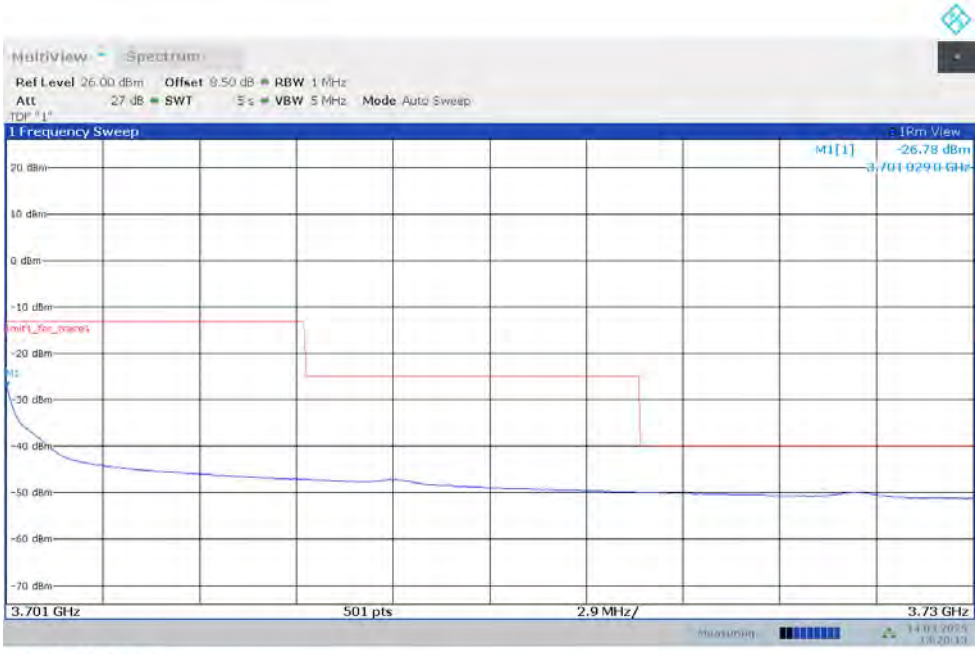

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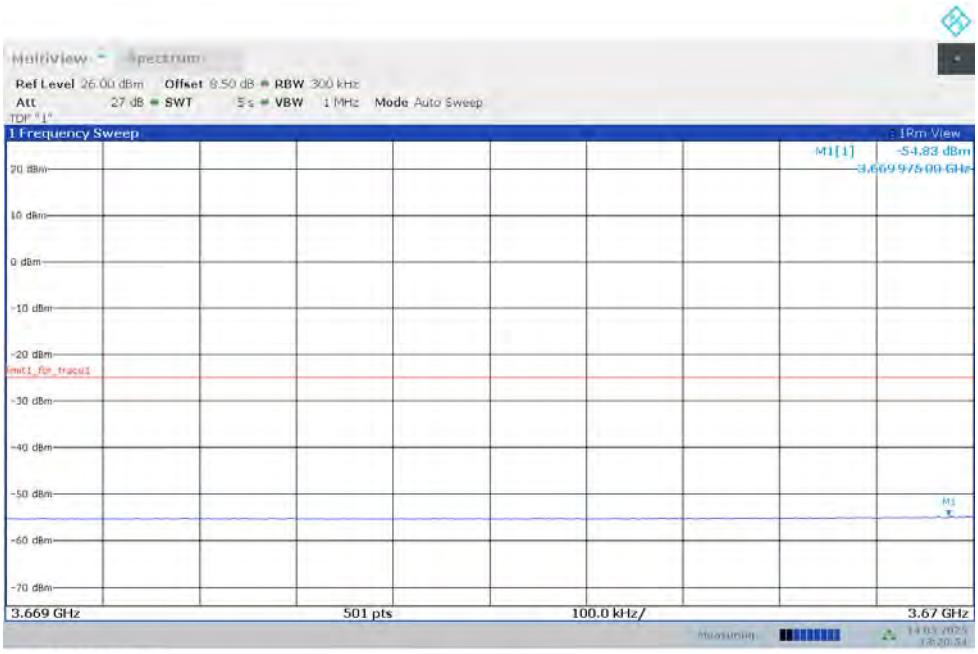

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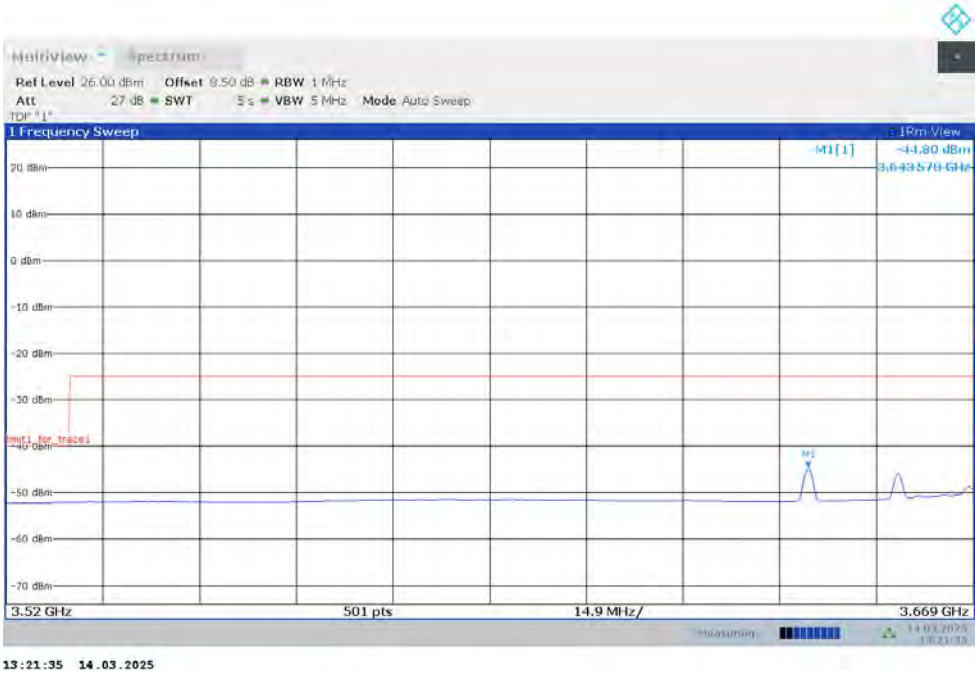

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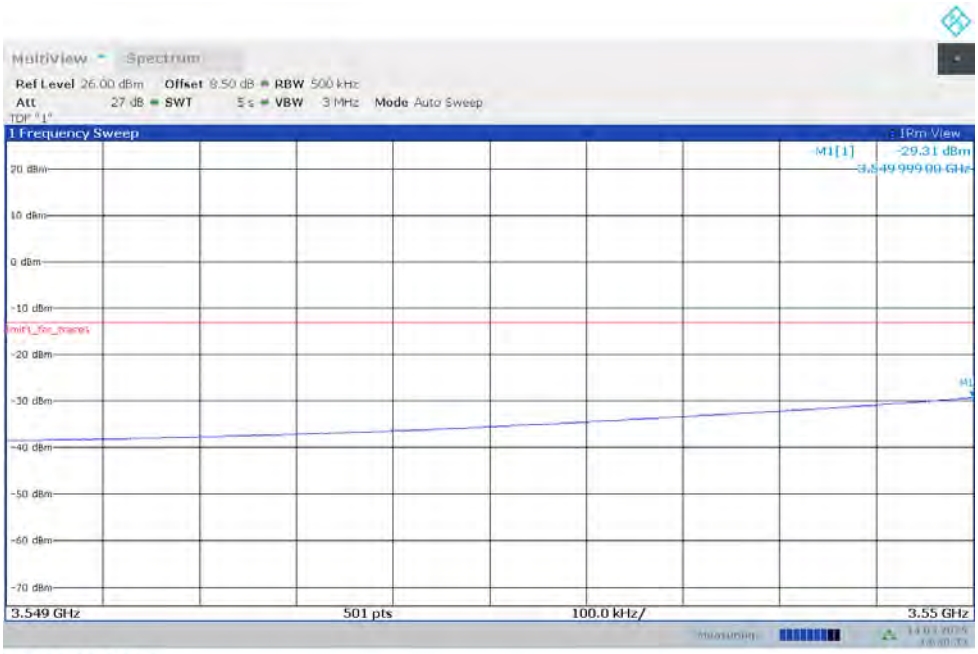
LOW BAND EDGE BLOCK-40MHz-100%RB



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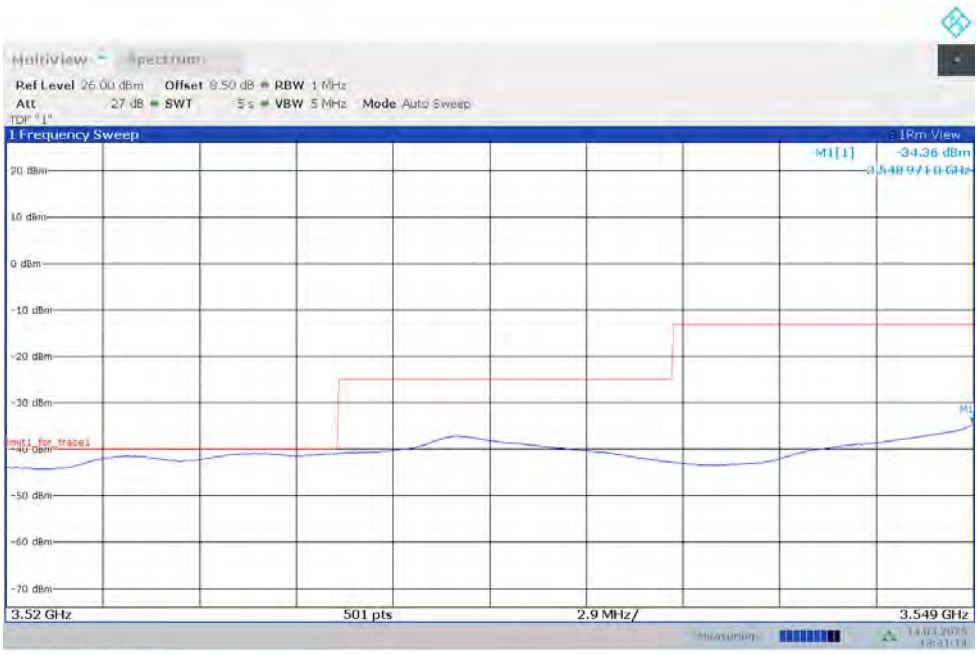

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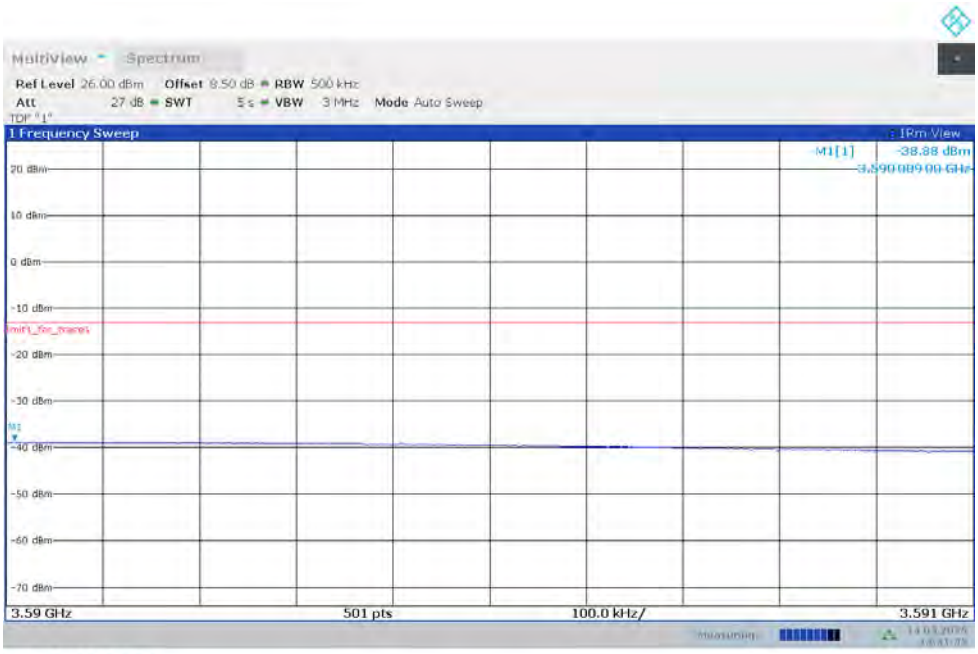

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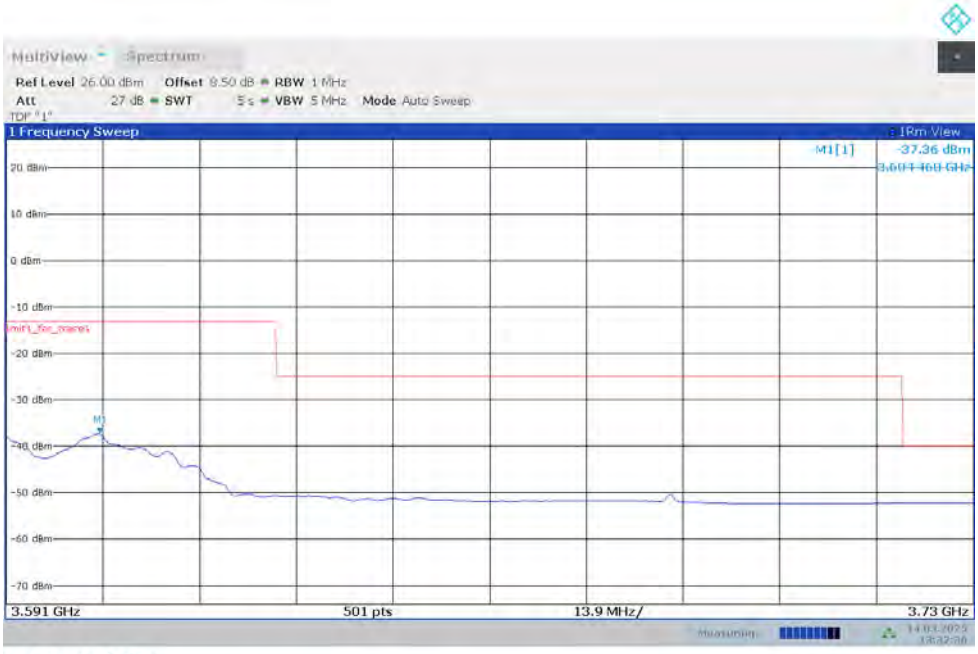

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ACLR

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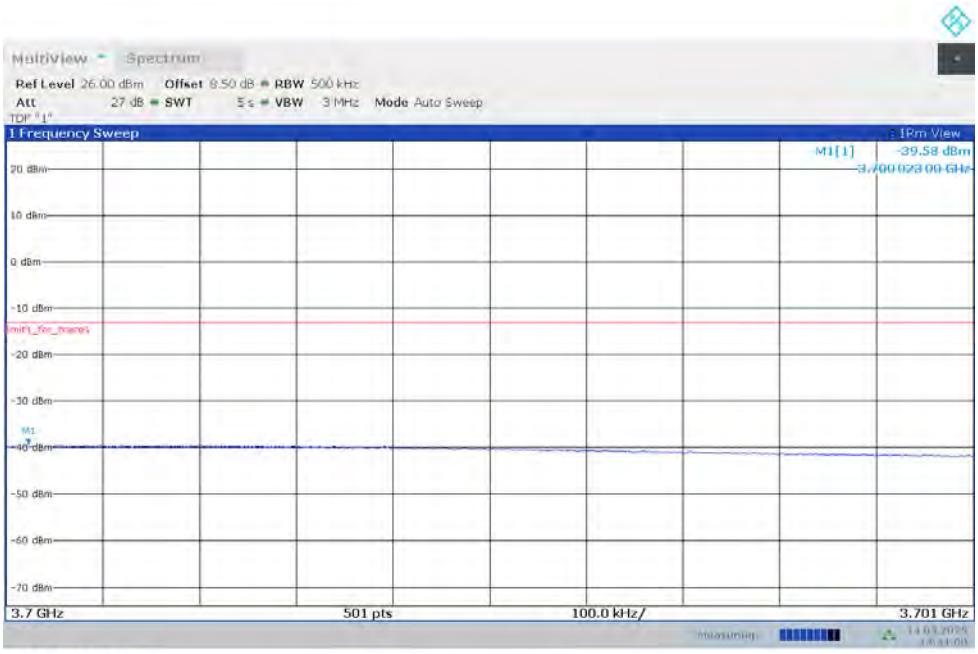

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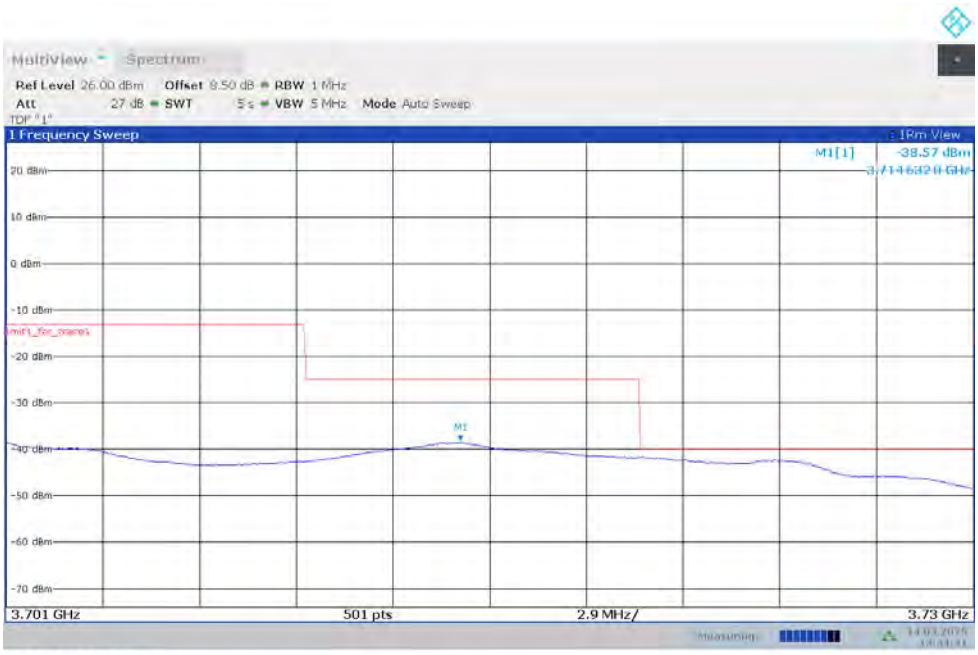

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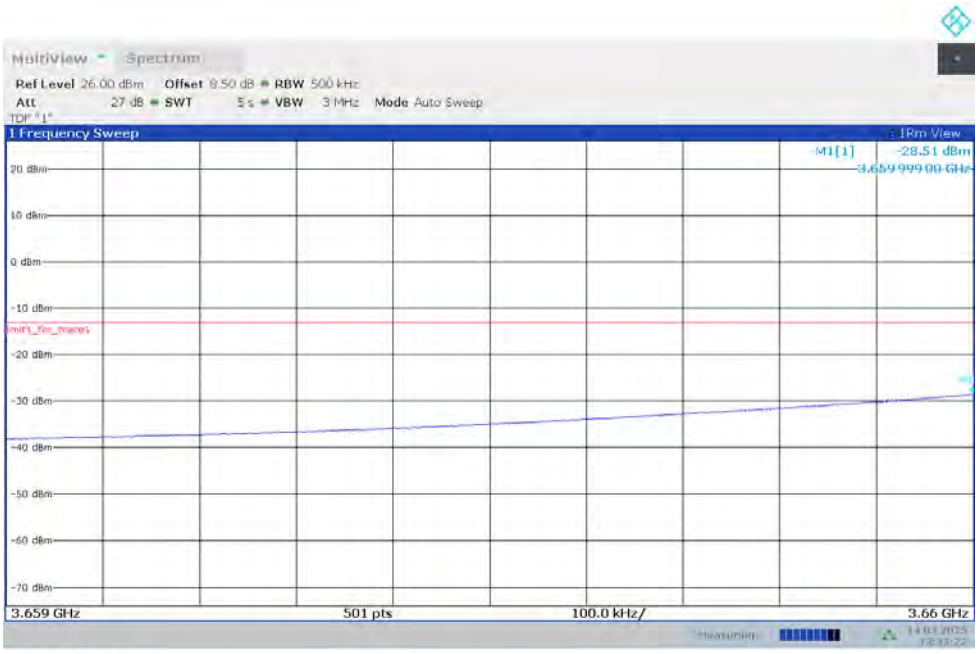

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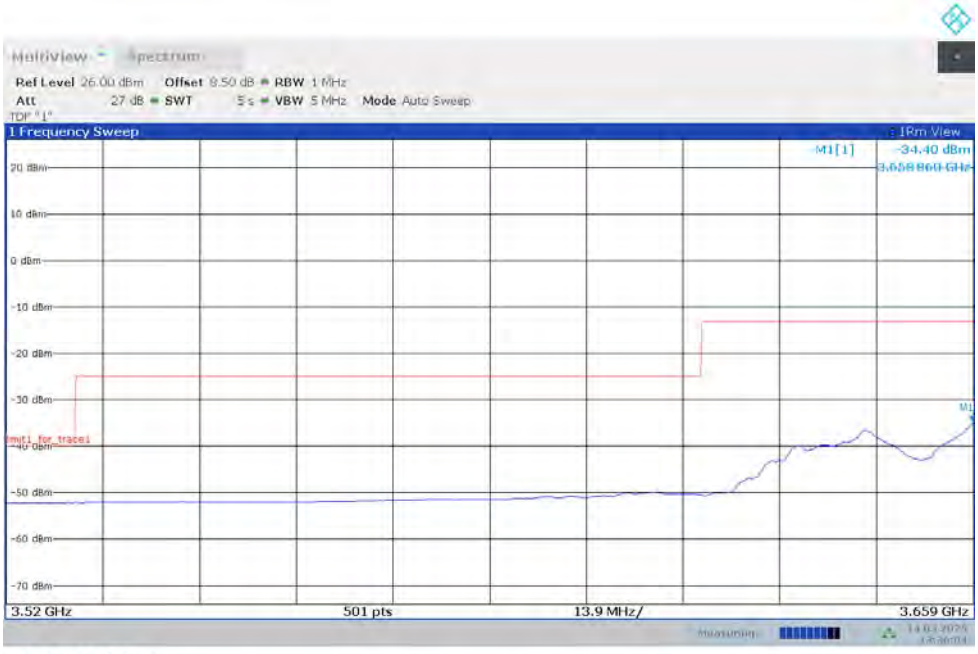

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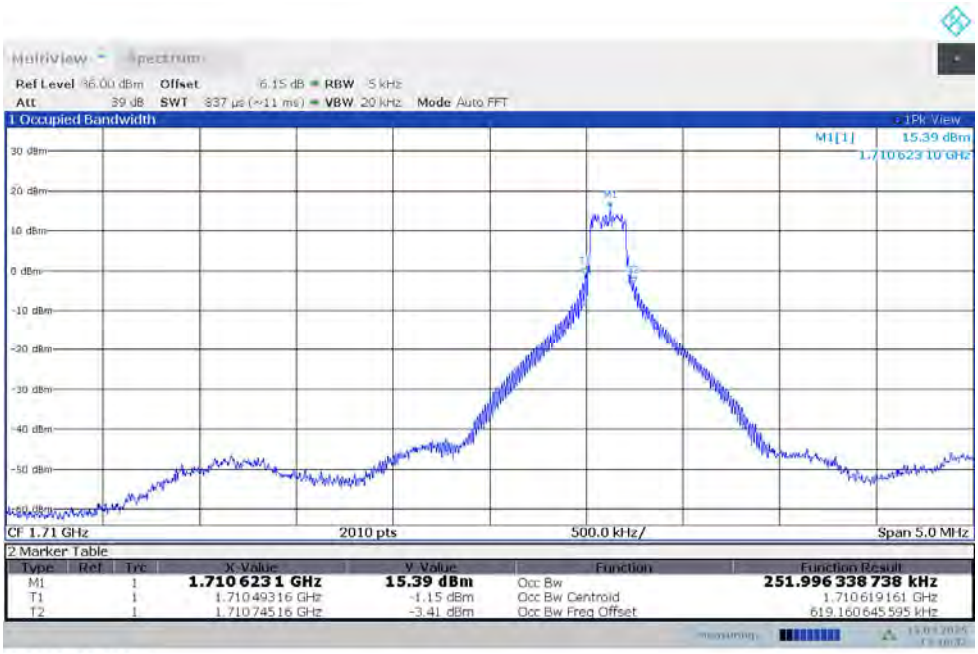
NR n66

OBW: 1RB-LOW_offset



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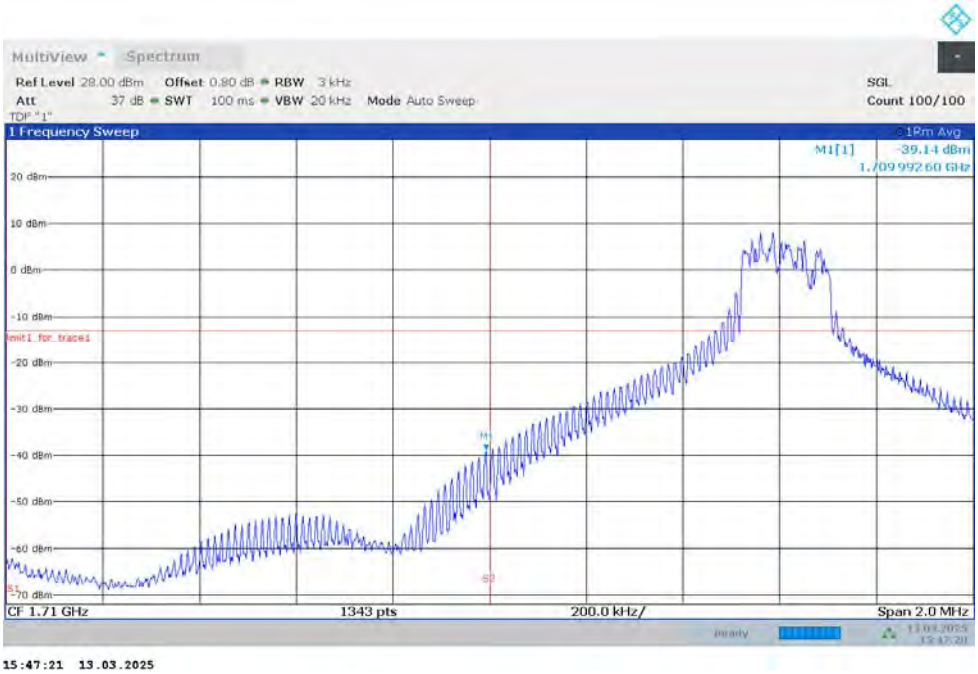

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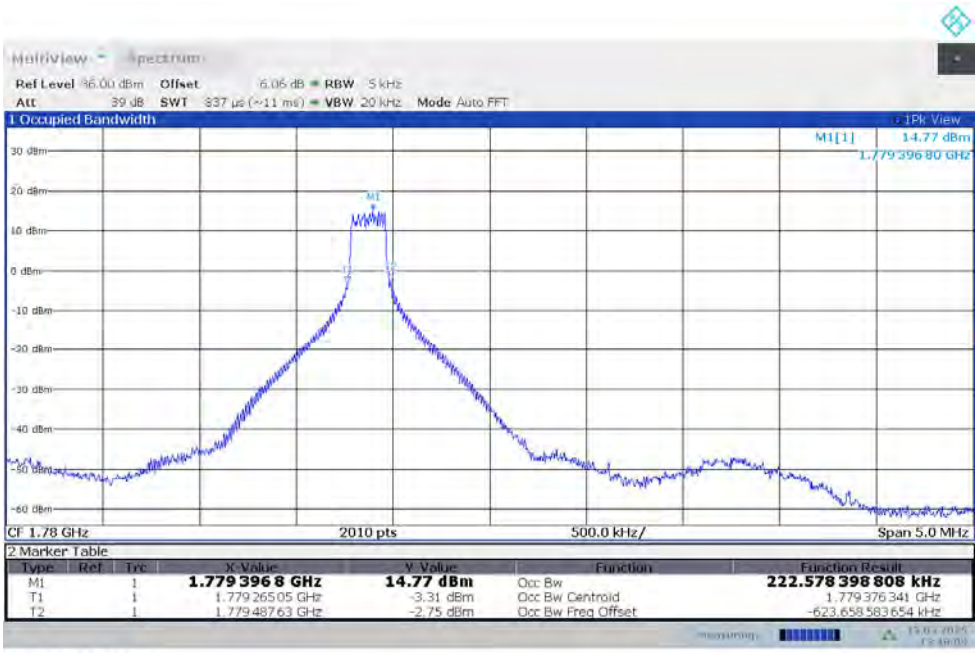

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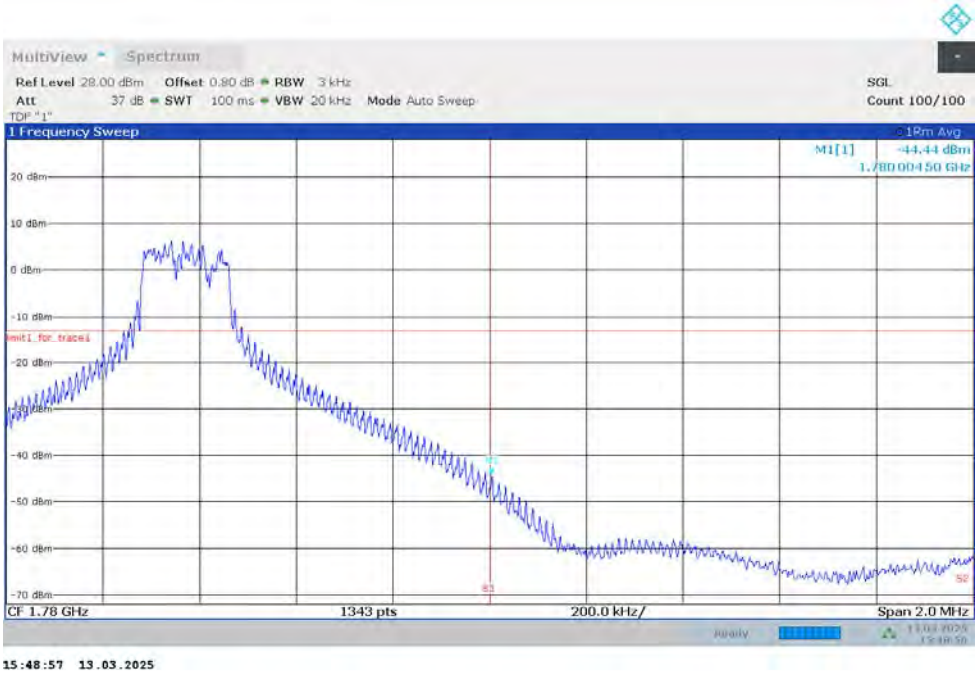

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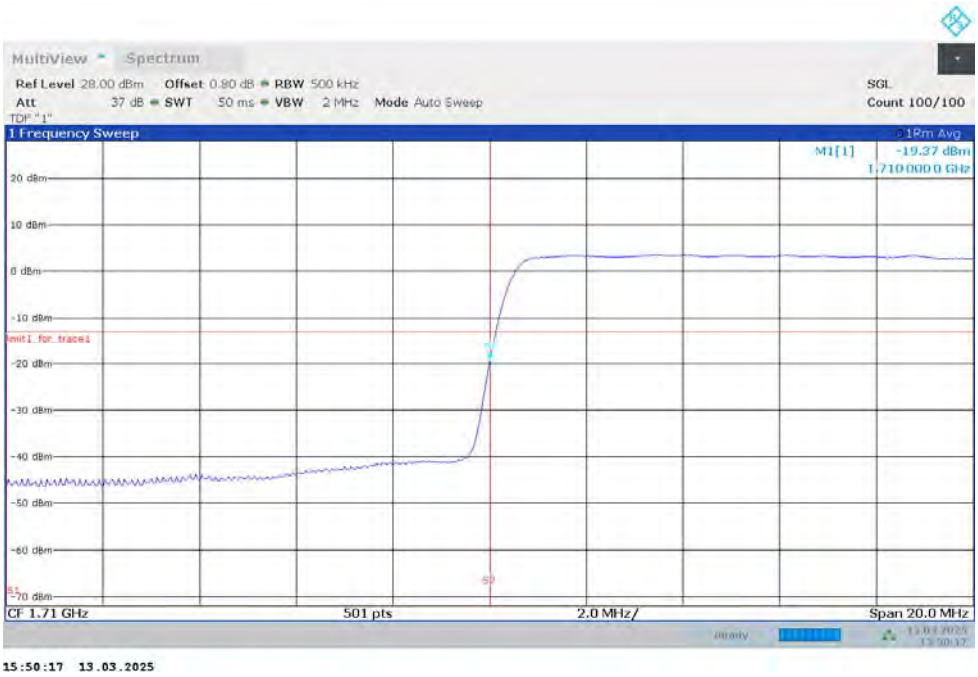
LOW BAND EDGE BLOCK-40MHz-100%RB



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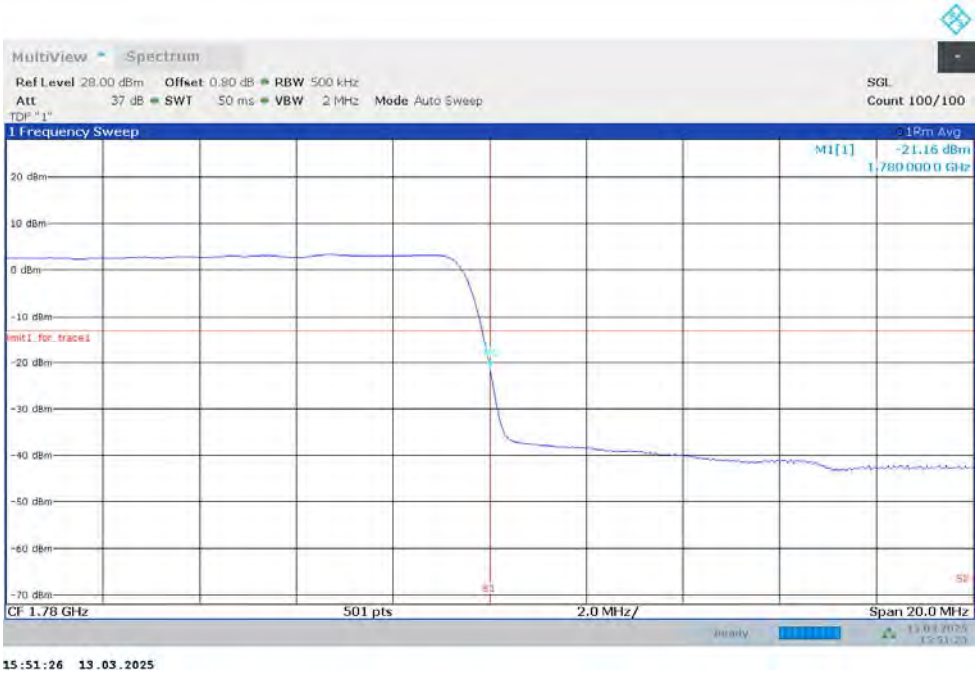

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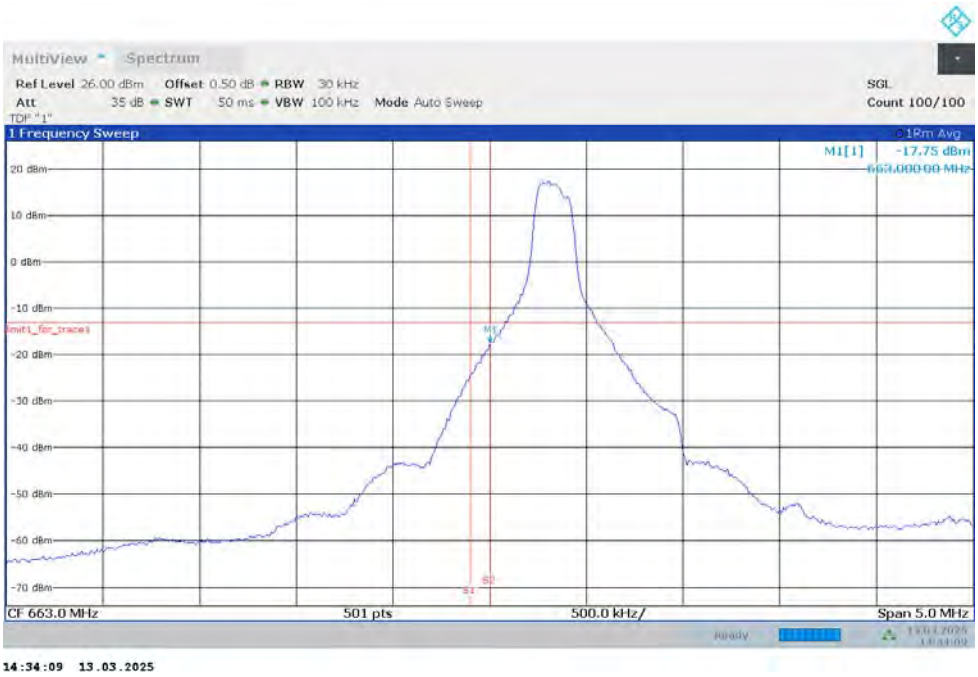
NR n71

LOW BAND EDGE BLOCK-1RB-LOW_offset



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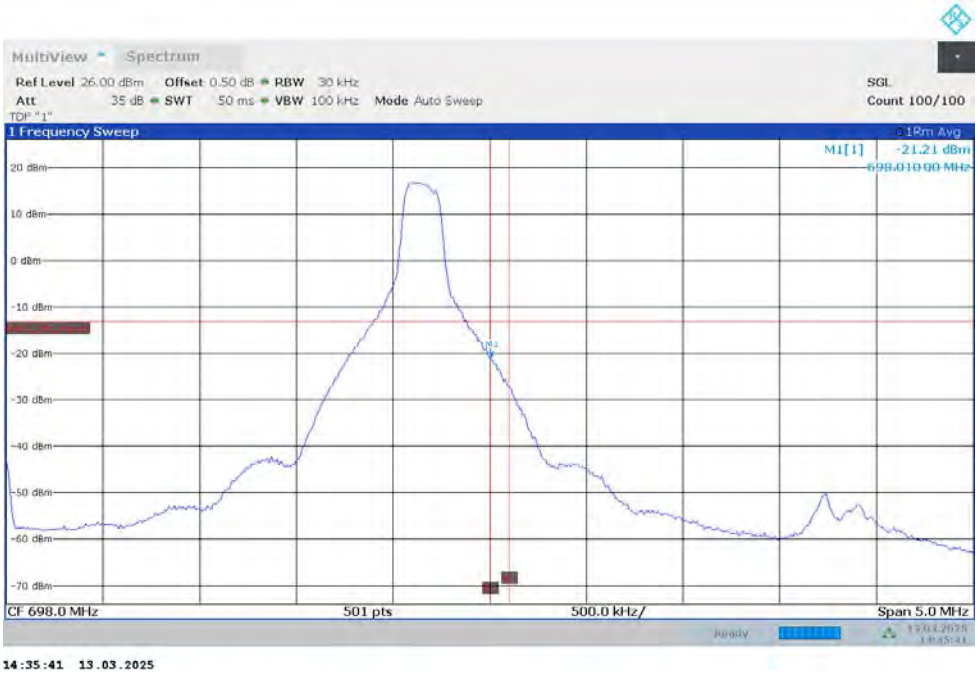

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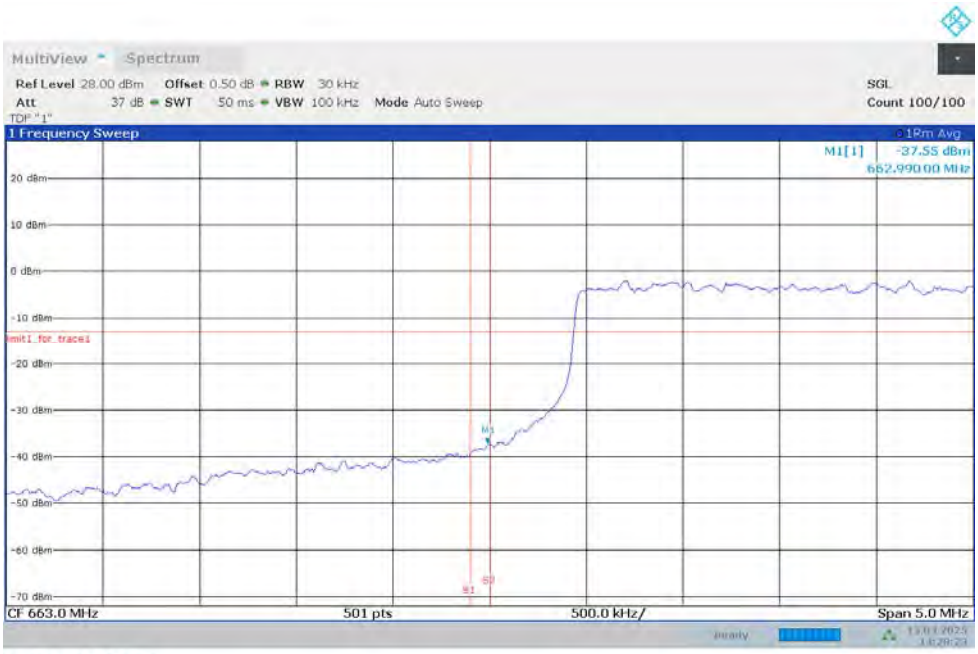
LOW BAND EDGE BLOCK-20MHz-100%RB



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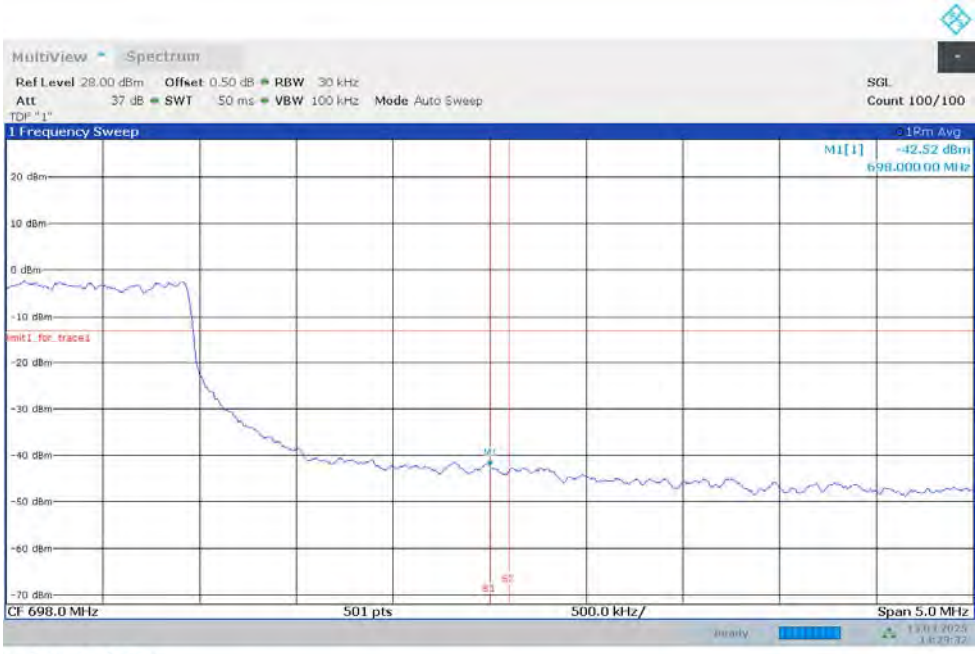
HIGH BAND EDGE BLOCK-20MHz-100%RB



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NR n78L

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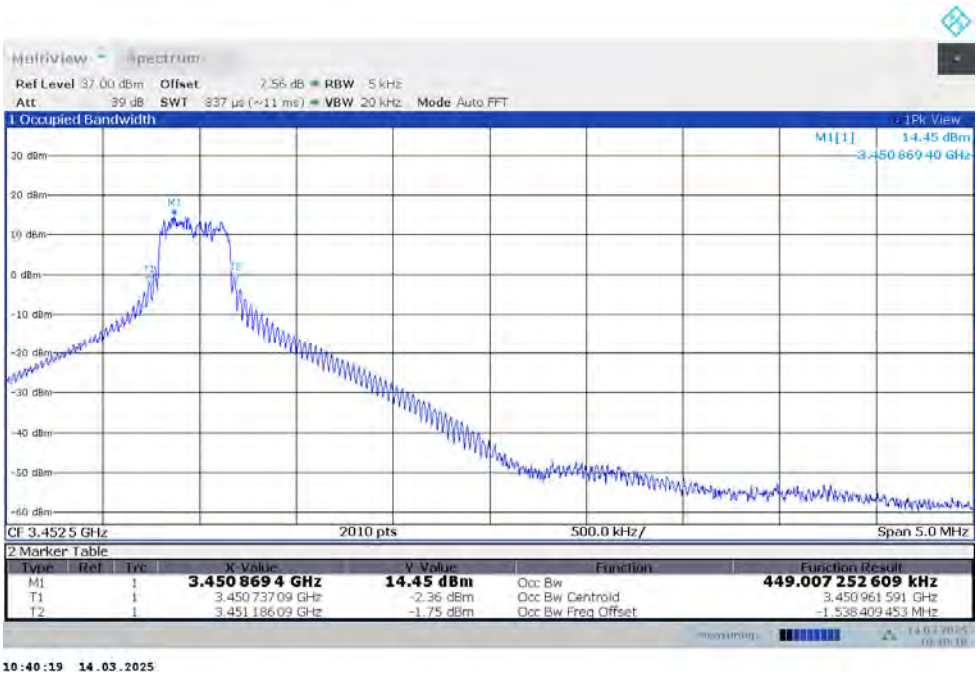

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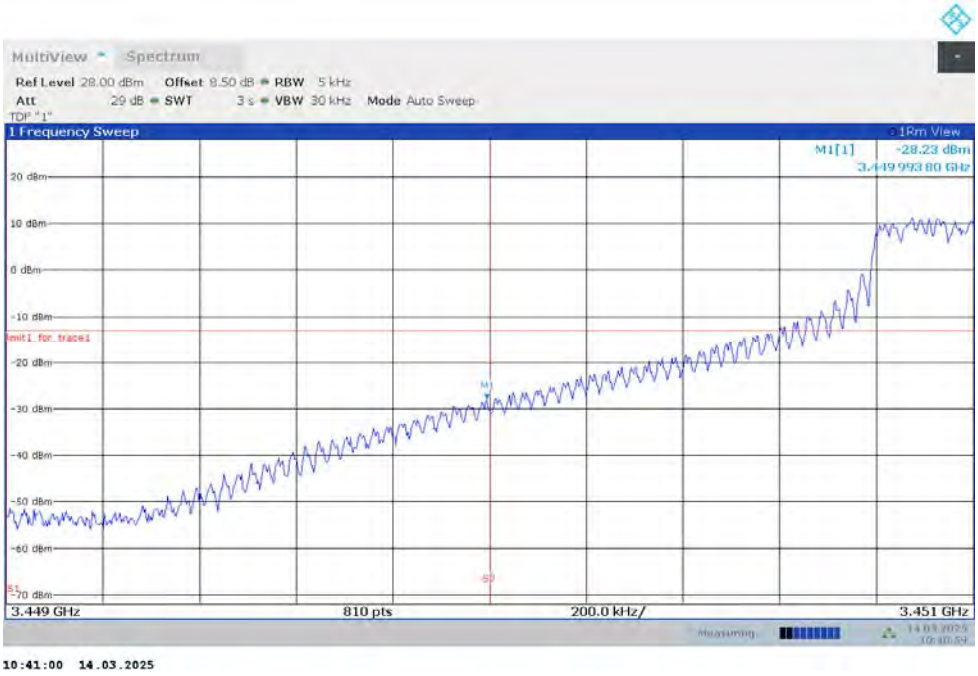

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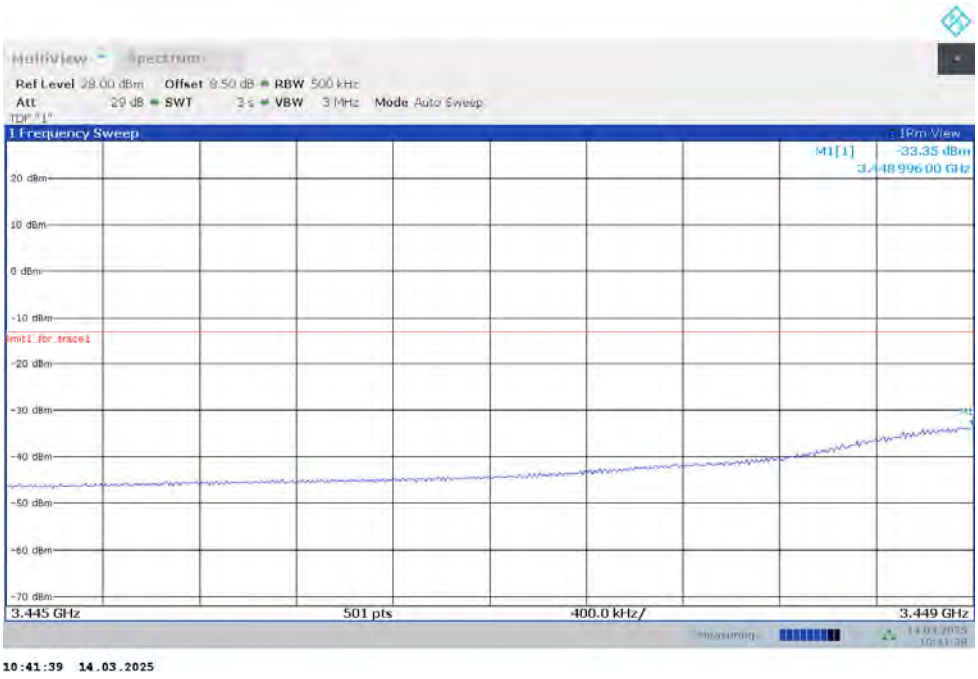

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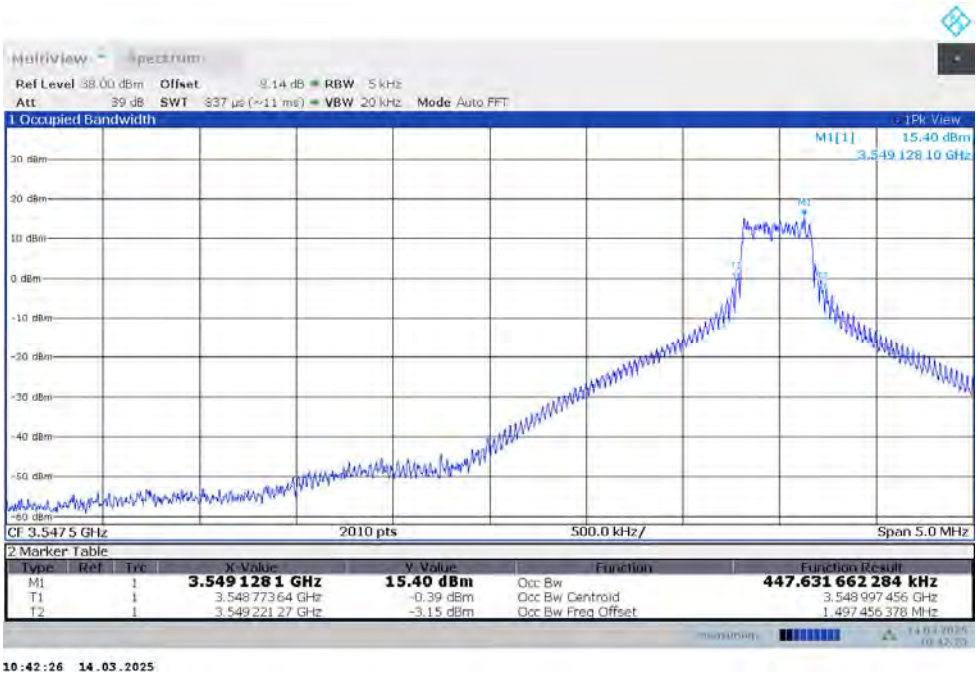

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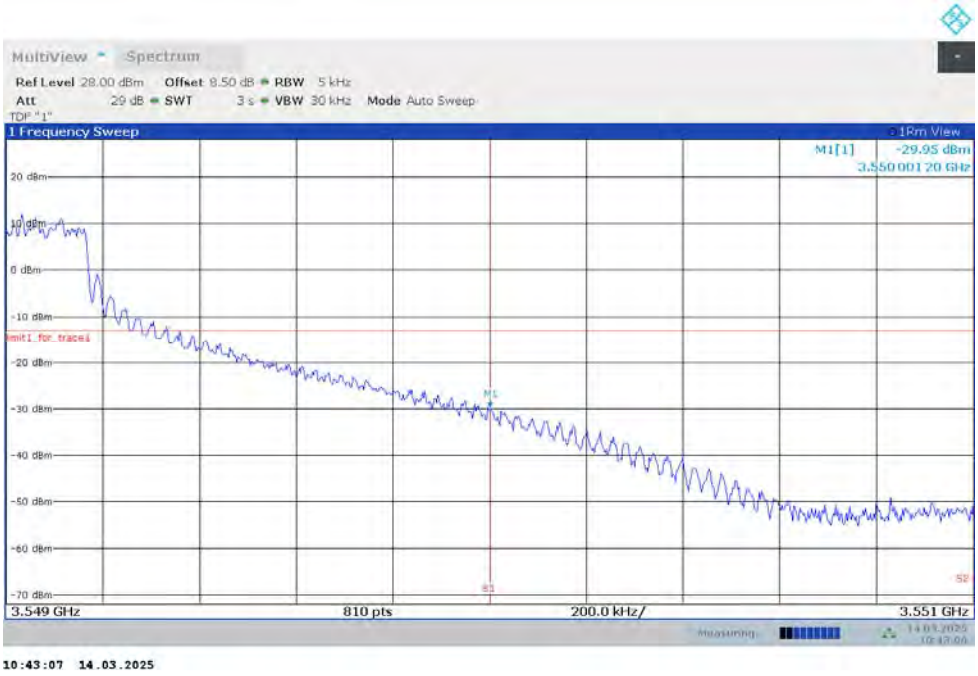

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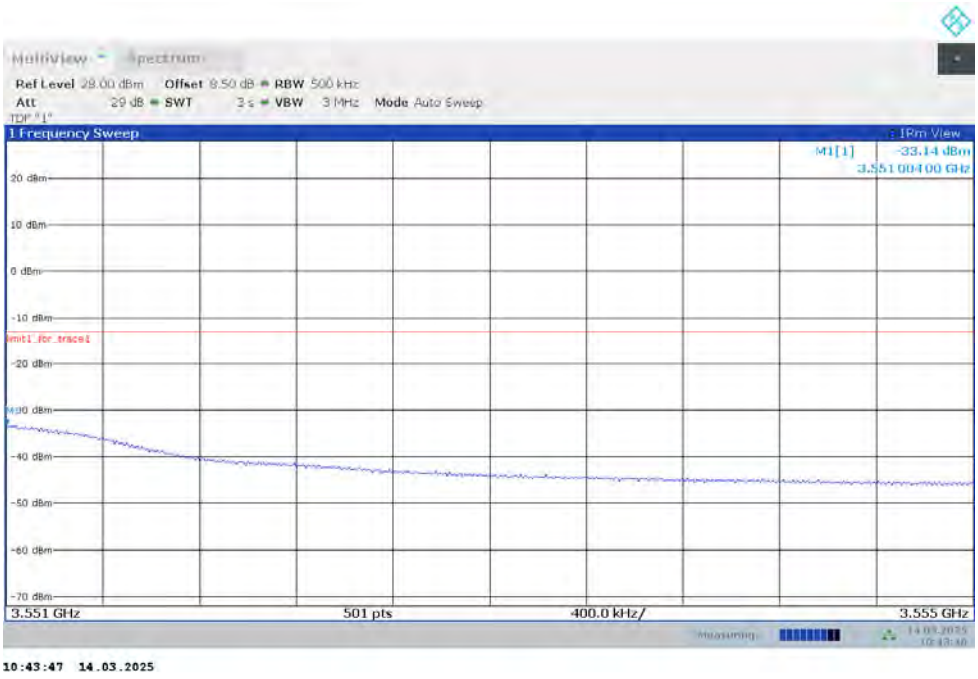

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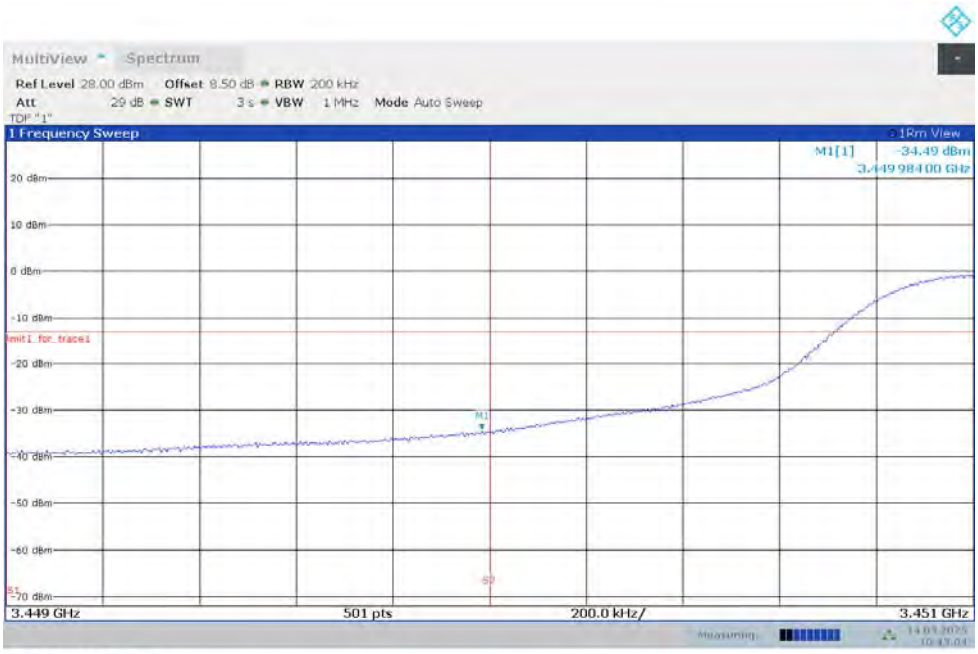
LOW BAND EDGE BLOCK-100MHz-100%RB



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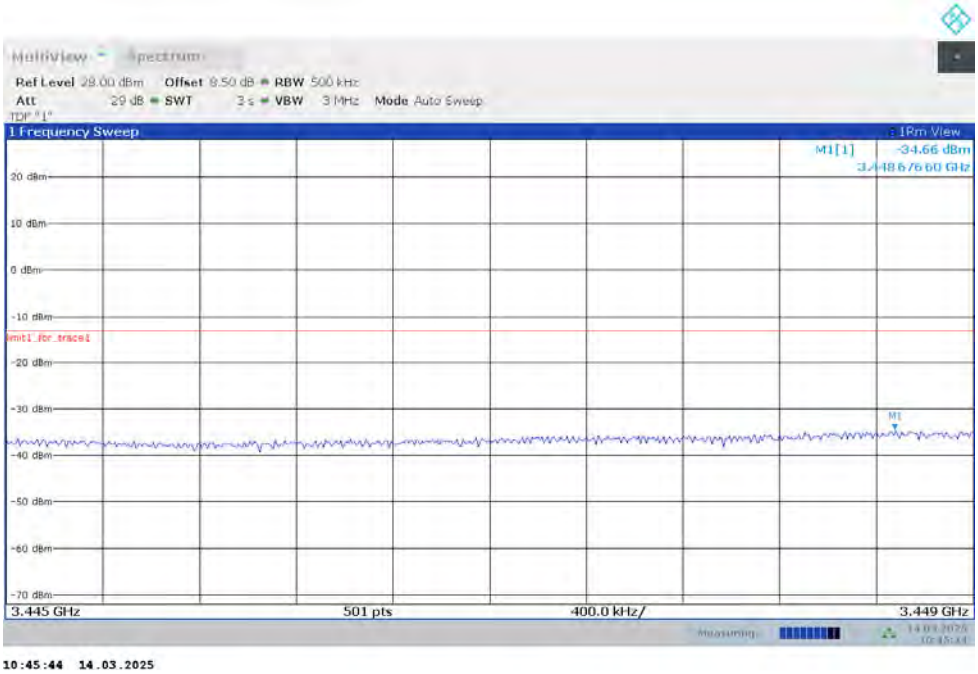

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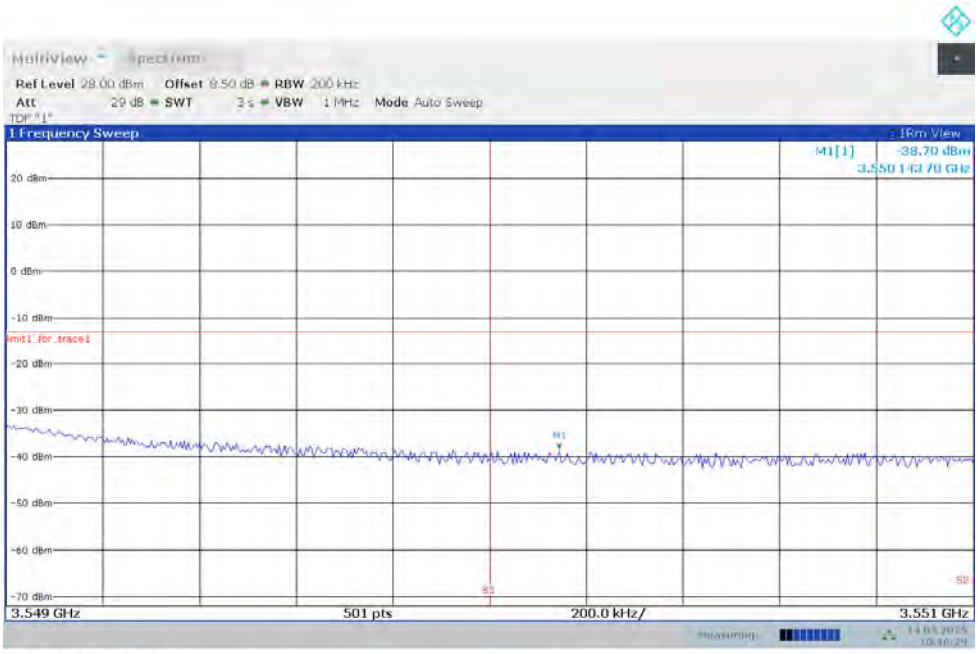
HIGH BAND EDGE BLOCK-100MHz-100%RB



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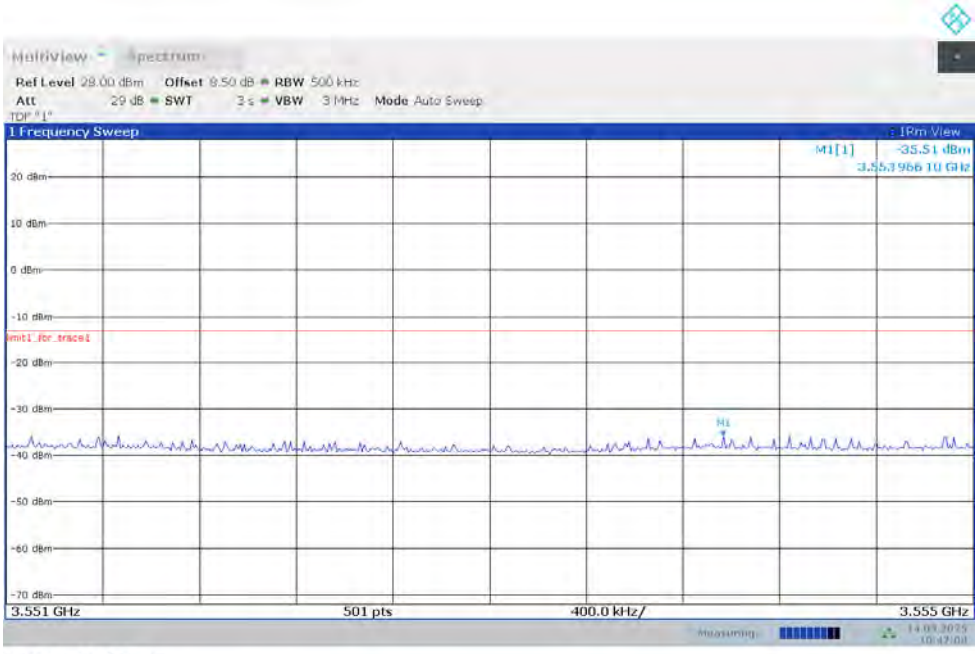

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NR n41-MIMO

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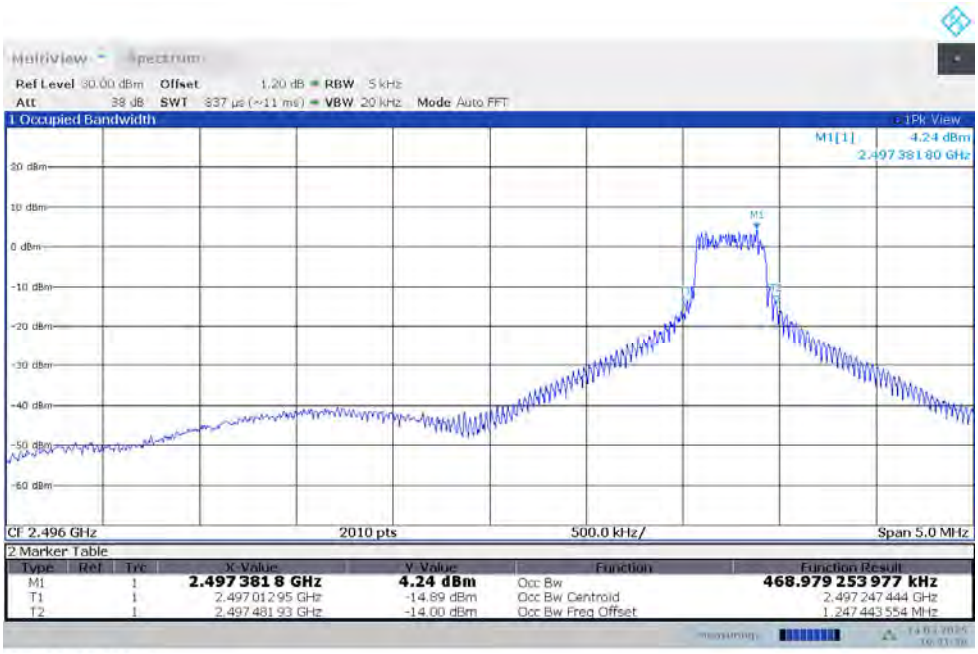

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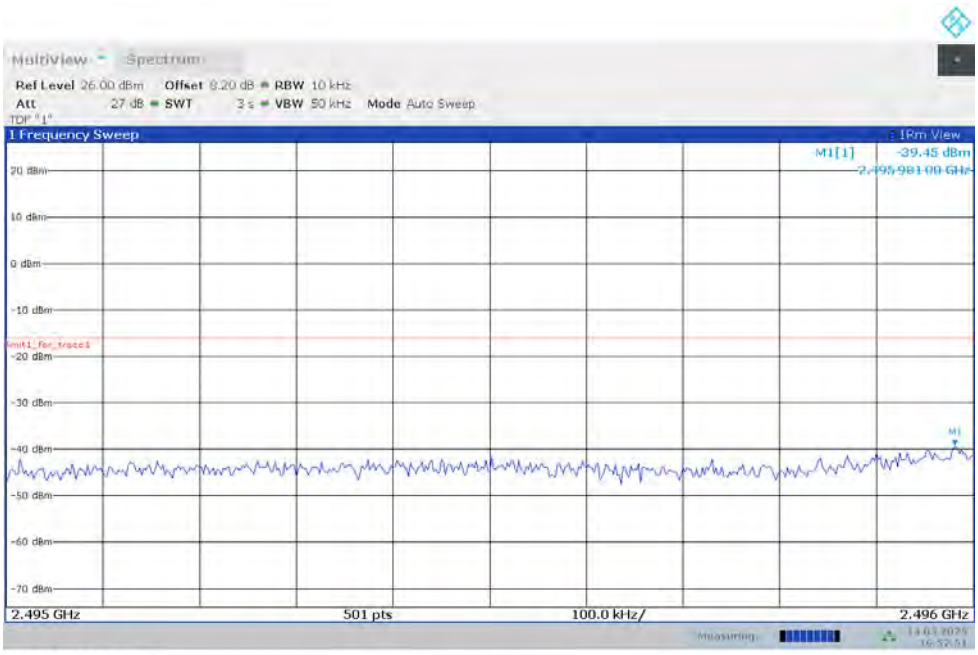

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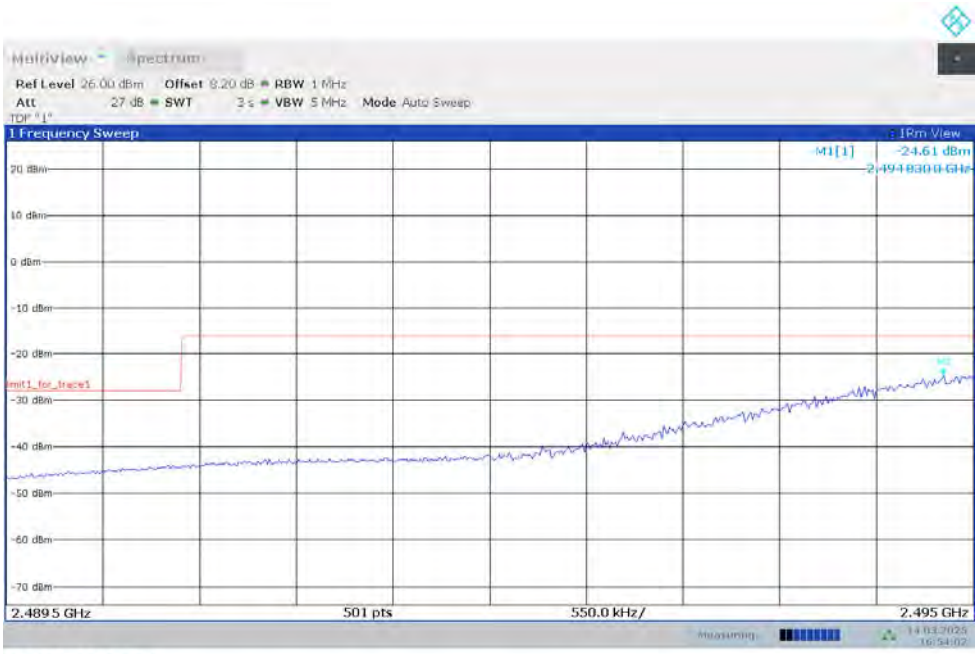

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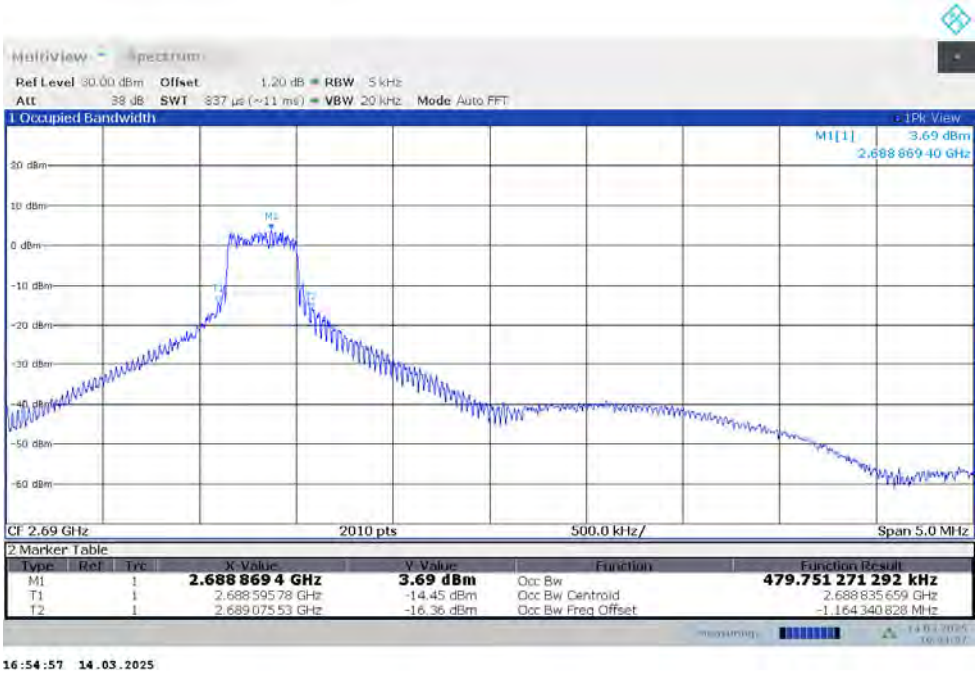

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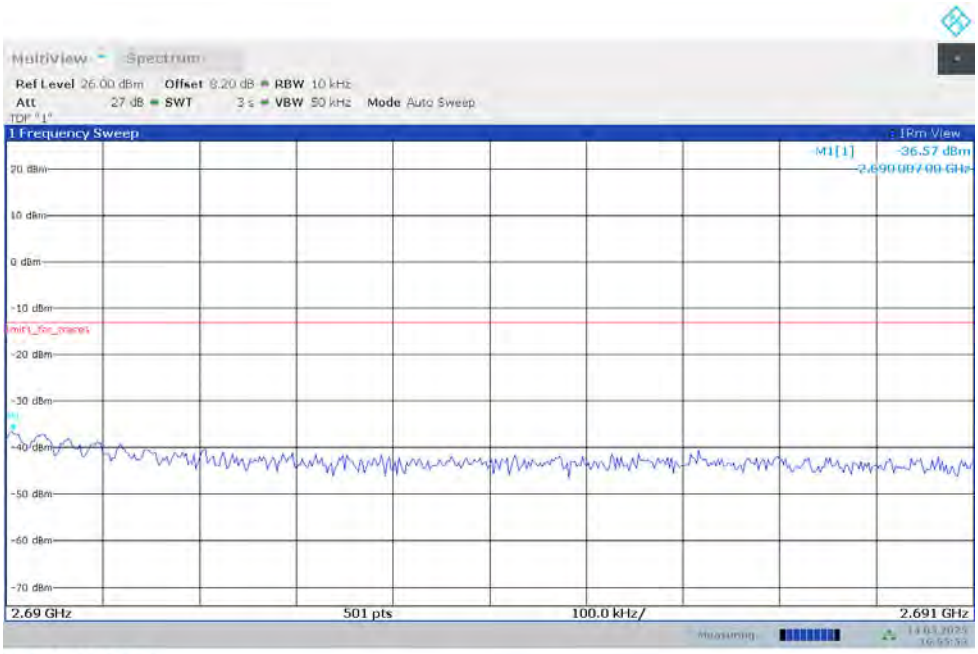
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



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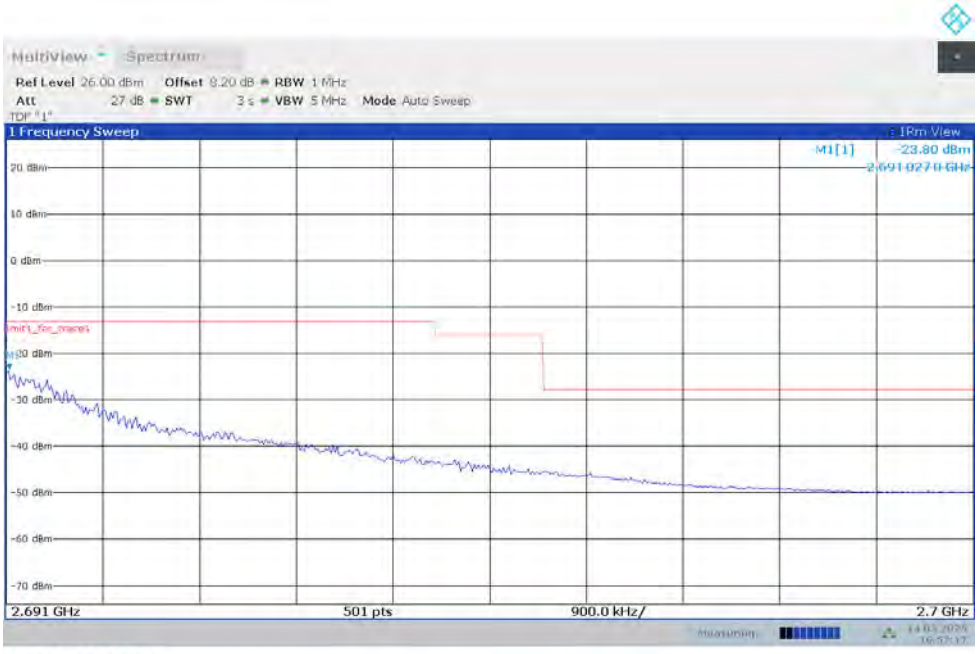

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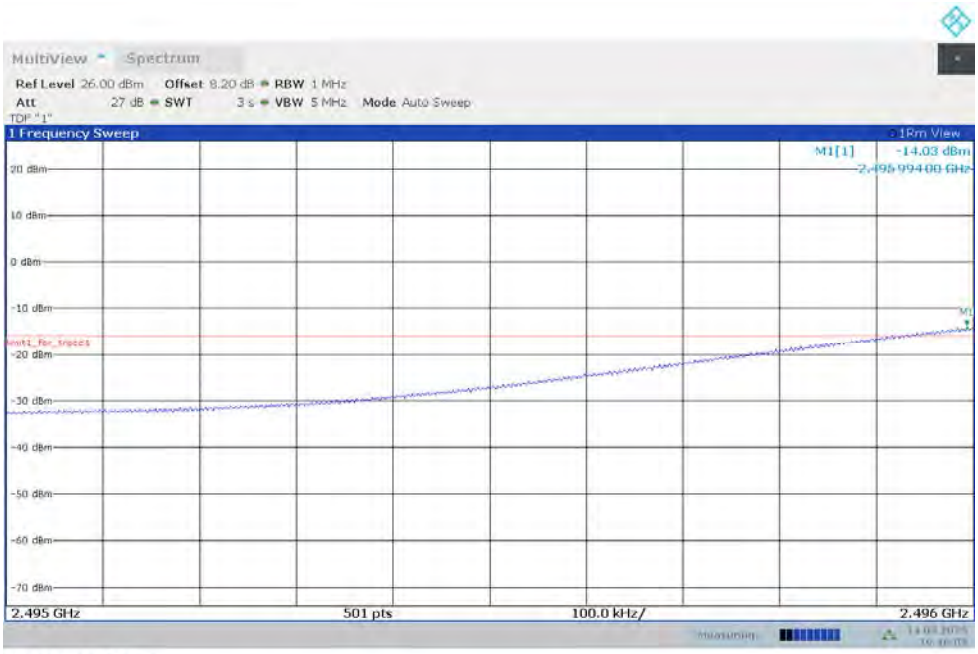
LOW BAND EDGE BLOCK-100MHz-100%RB



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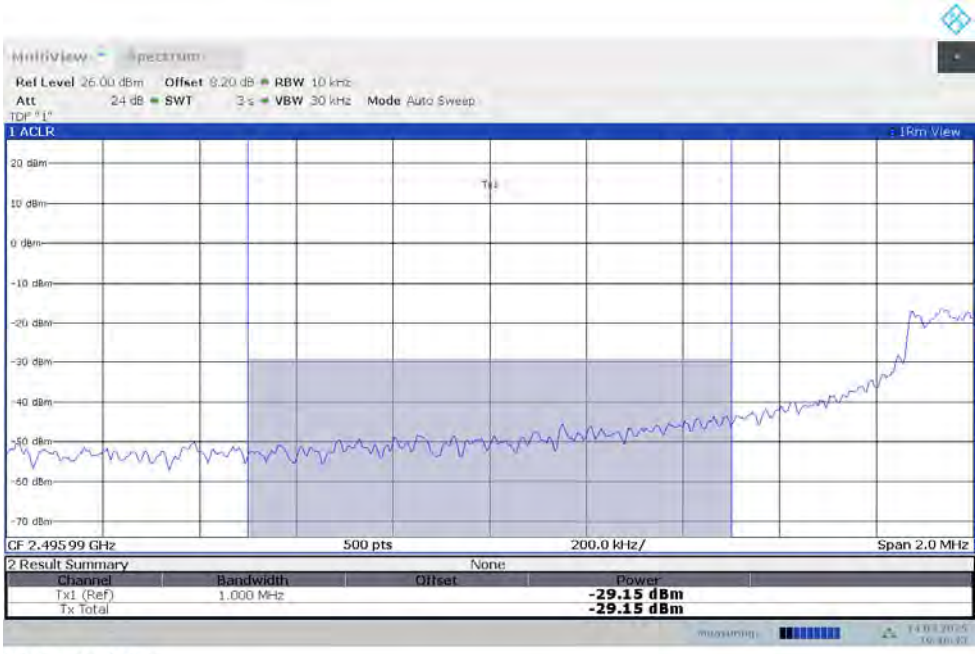
Channel power



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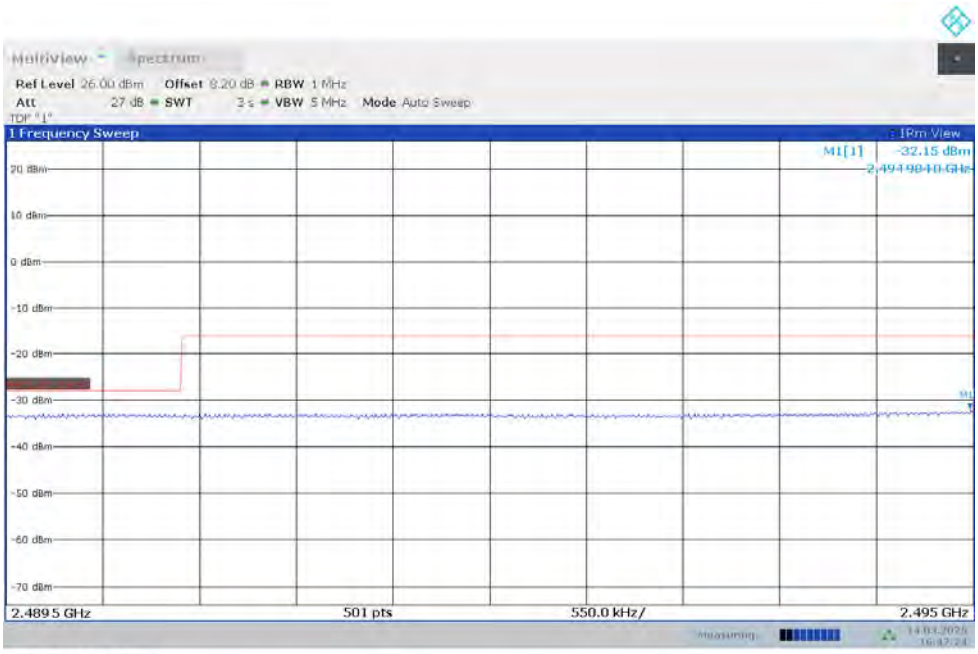
LOW BAND EDGE BLOCK-100MHz-100%RB



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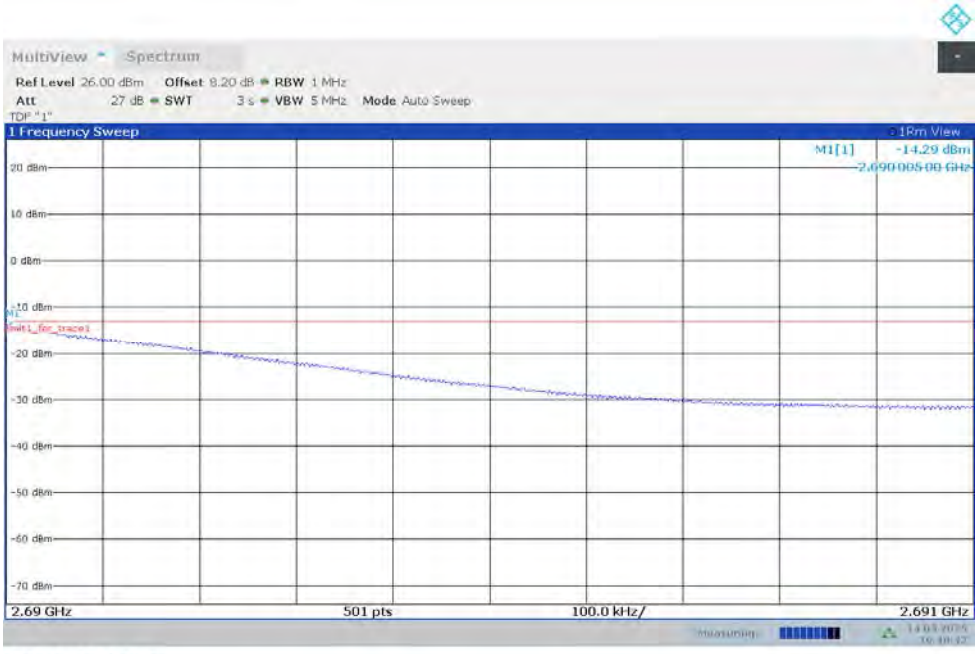

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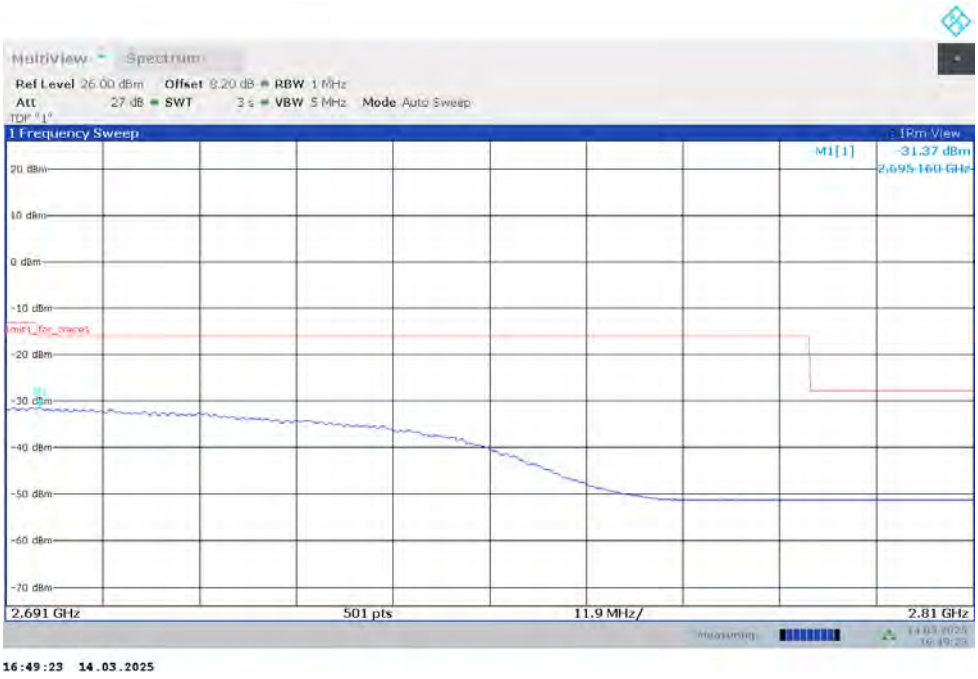
HIGH BAND EDGE BLOCK-100MHz-100%RB



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A.7 Conducted Spurious Emission

A.7.1 Measurement Method

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. In measuring unwanted emissions, the spectrum shall be investigated from 30 MHz or the lowest radio frequency signal generated in the equipment, whichever is lower, without going below 9 kHz, up to at least the frequency given below:
   (a) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
   (b) If the equipment operates at or above 10 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.
3. The number of sweep points of spectrum analyzer is greater than 2×span/RBW.

A. 7.2 Measurement Limit

Part 24.238 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Part 27.53(n) states for mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.

Part 96.41(e) states for channel and frequency assignments made by a CBSD to End User Devices, the conducted power of any End User Device emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed −13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B megahertz below the lower CBSD-assigned channel edge. At all frequencies greater than B megahertz above the upper CBSD assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device

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emission shall not exceed −25 dBm/MHz. The conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed -25dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz.

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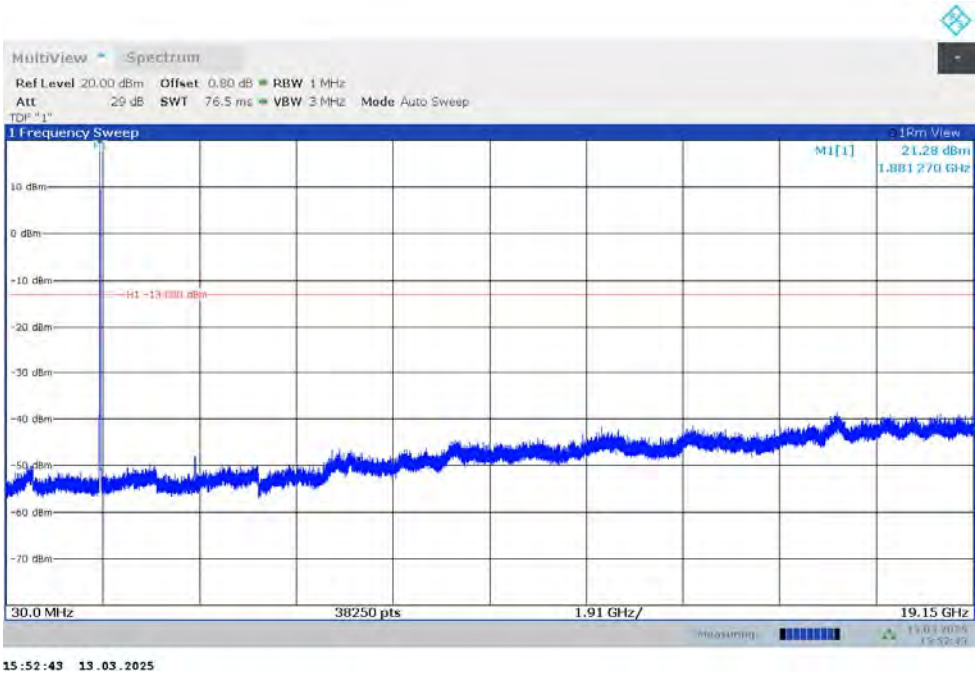
A.7.3 Measurement result

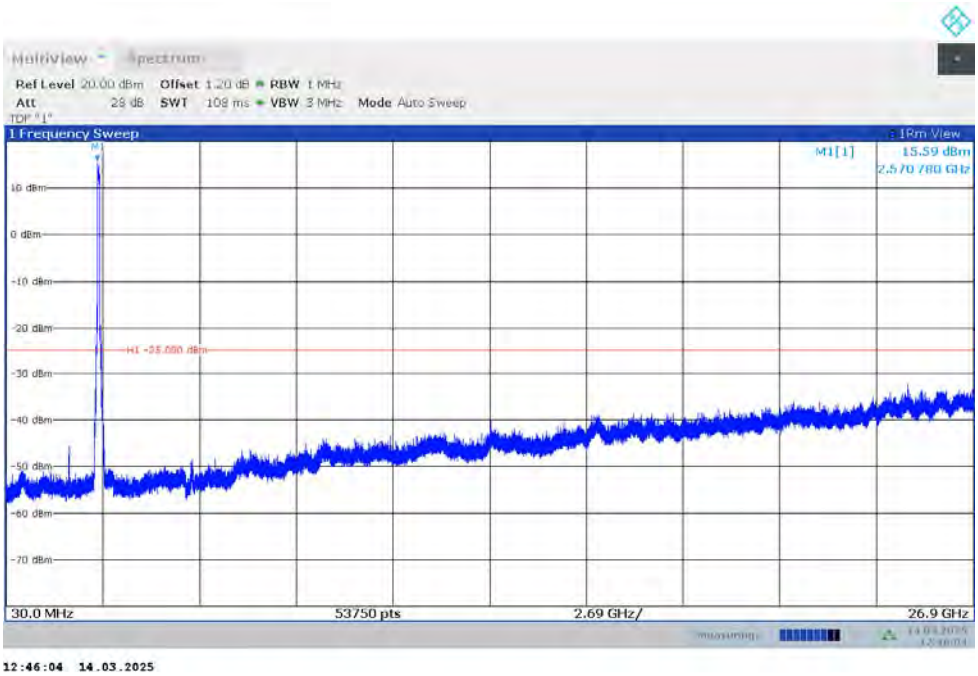
n25

NOTE: peak above the limit line is the carrier frequency.



n41

NOTE: peak above the limit line is the carrier frequency.



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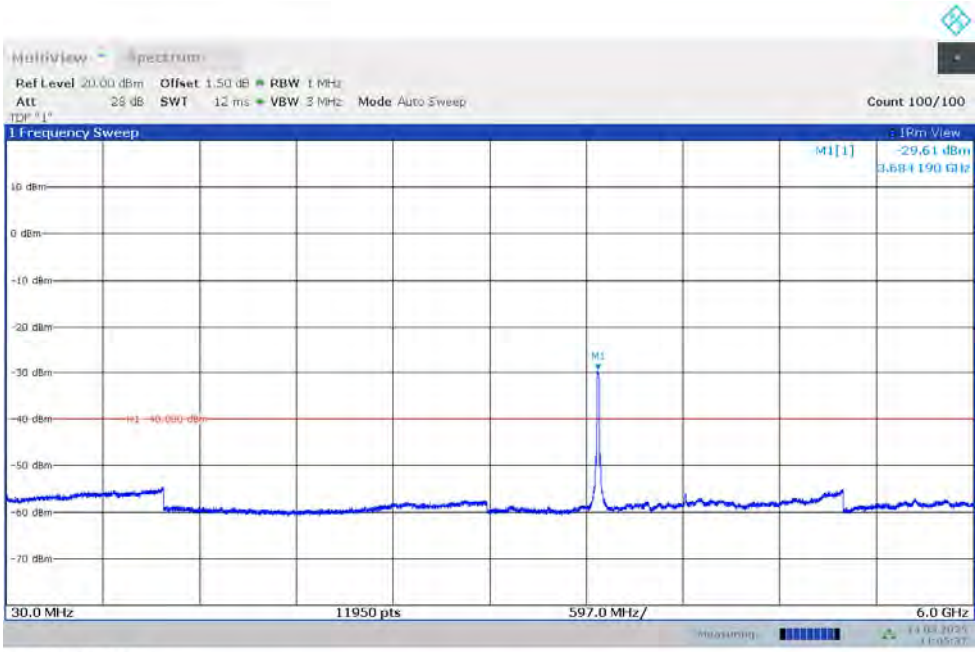
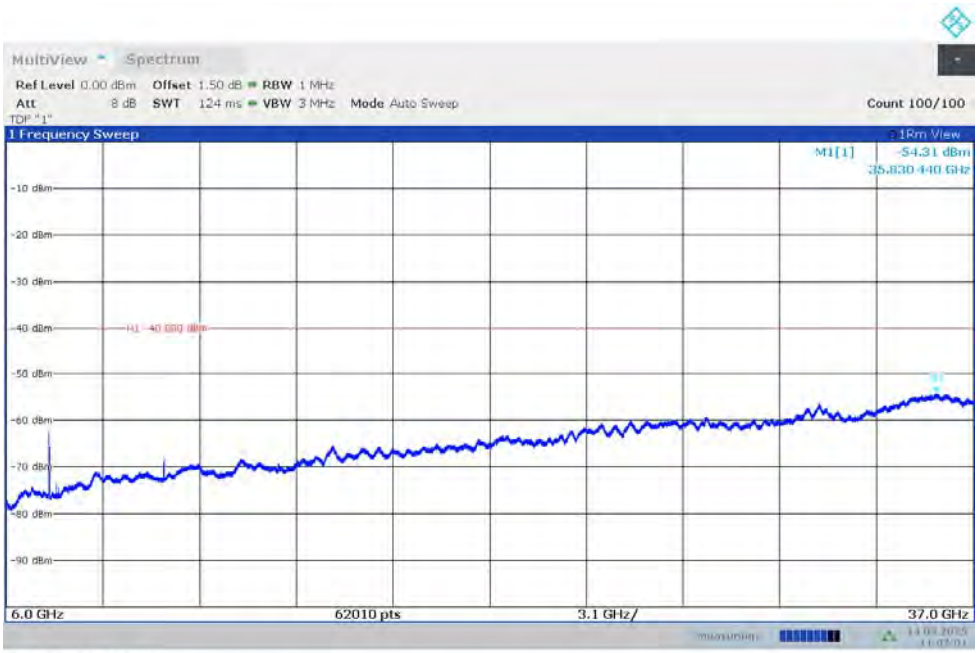
n48

NOTE: peak above the limit line is the carrier frequency.



11:05:38 14.03.2025



11:07:01 14.03.2025

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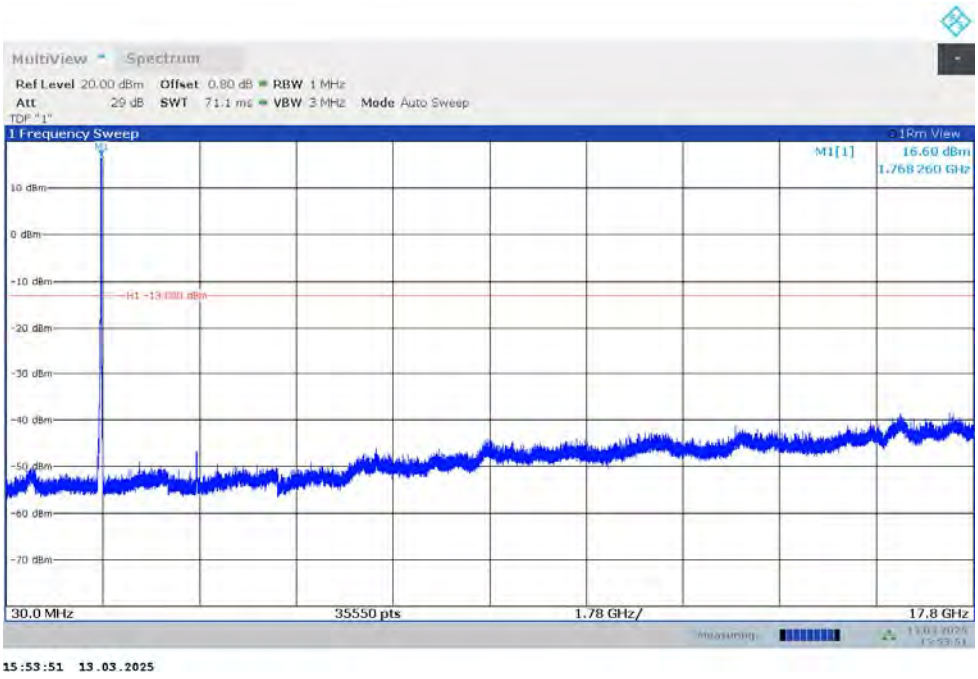
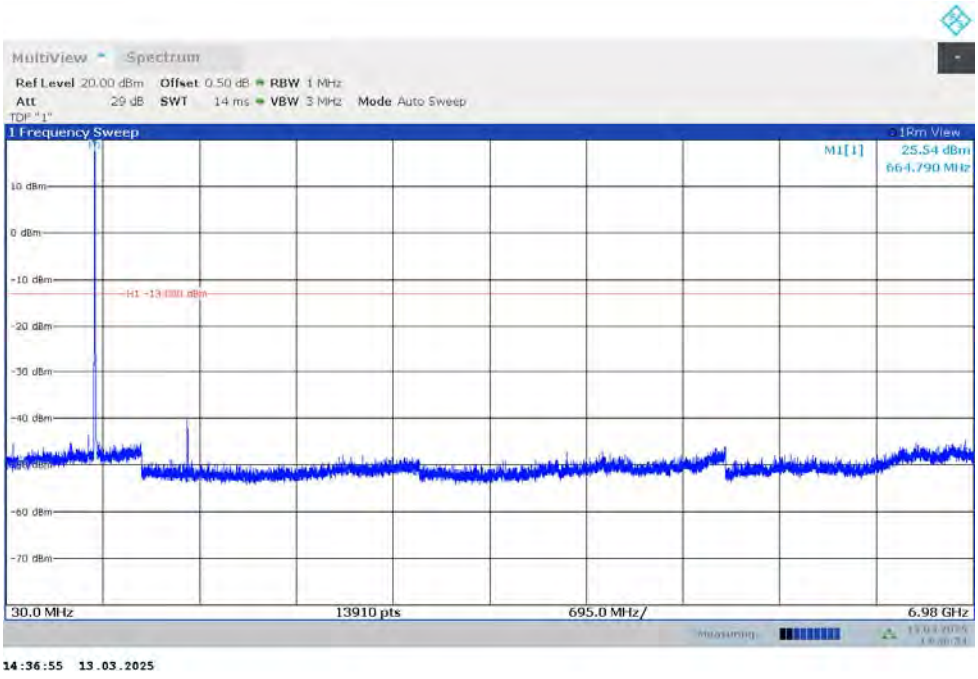
n66

NOTE: peak above the limit line is the carrier frequency.



n71

NOTE: peak above the limit line is the carrier frequency.



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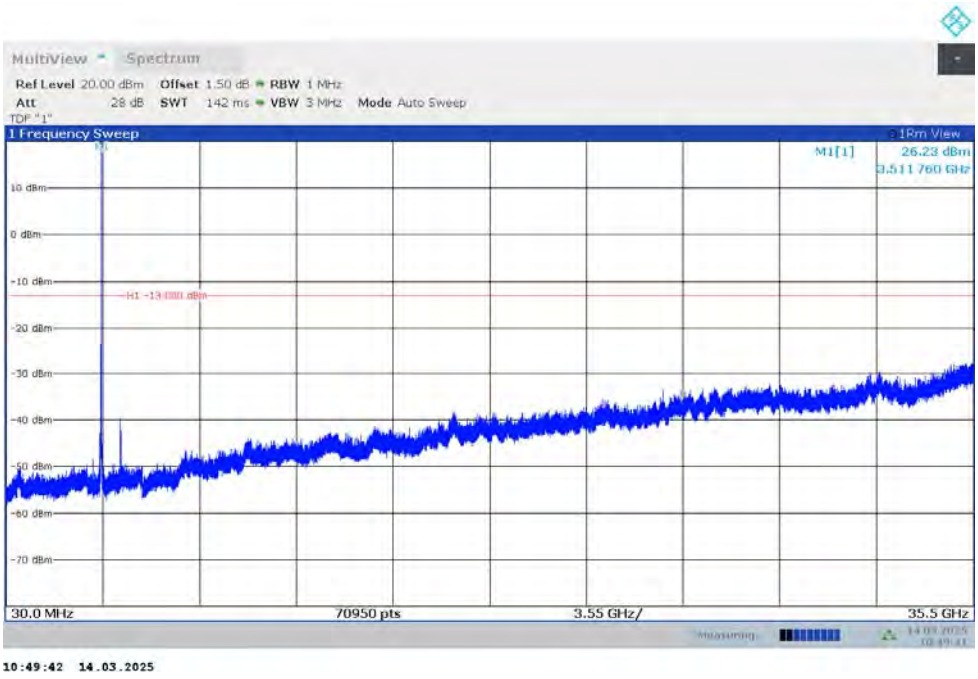
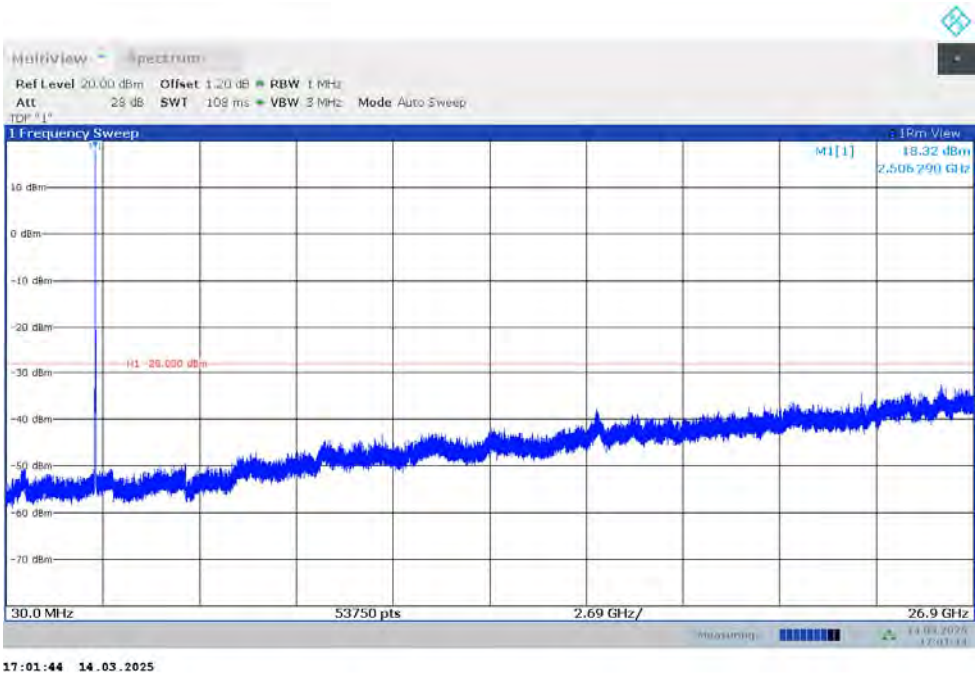
n78L

NOTE: peak above the limit line is the carrier frequency.



n41-MIMO

NOTE: peak above the limit line is the carrier frequency.



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A.8 Peak-to-Average Power Ratio

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB

a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;

b) Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;

c) Set the number of counts to a value that stabilizes the measured CCDF curve;

d) Record the maximum PAPR level associated with a probability of 0.1%.

Measurement results

n25,40MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
1882.5	4.26	5.65	6.32	6.59	6.72	7.23	7.29	7.69	8.53

n41,100MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
2592.99	3.86	4.95	5.82	6.15	6.65	7.02	7.03	7.77	8.44

n48,40MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3624.99	4.15	5.56	6.39	6.49	6.48	7.18	7.67	7.35	8.48

n66,40MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
1745	4.22	5.52	6.44	6.66	6.84	7.50	7.55	7.48	8.81

n71,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
680.5	4.88	5.76	6.56	6.50	6.84	7.38	7.40	7.82	8.44

n78L,100MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3500.01	4.45	5.35	6.22	6.48	6.46	7.54	7.42	7.31	8.11

n41-MIMO,100MHz

Frequency (MHz)	PAPR (dB)			
	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
2592.99	7.72	7.80	7.81	8.69

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Annex B: Accreditation Certificate

Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 23rd day of July 2024.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2026

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

*****END OF REPORT*****

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