n77H,80MHz Bandwidth, CP-256QAM (99% BW)


Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**3.83592 GHz**	**15.42 dBm**	Occ Bw	**77.845205741 MHz**
T1		1	3.801113 GHz	11.24 dBm	Occ Bw Centroid	3.840035179 GHz
T2		1	3.878958 GHz	11.63 dBm	Occ Bw Freq Offset	35.178713062 kHz

n77H,90MHz(99% BW)

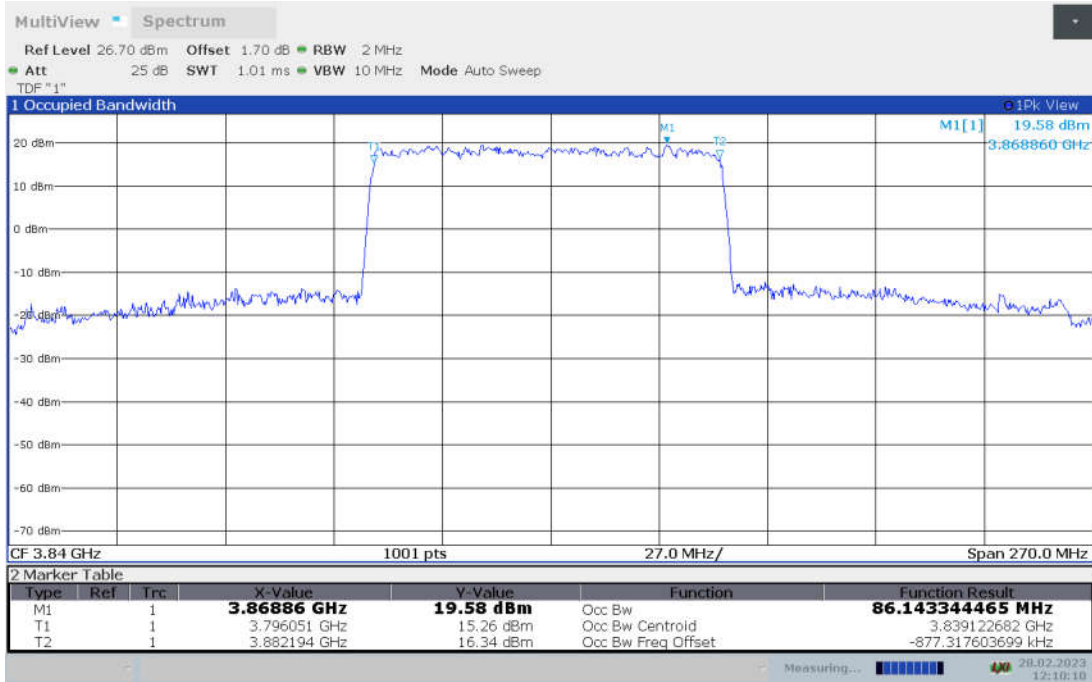| Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3840	86.048	86.236	86.143	86.095	85.935	87.899	88.021	87.837	87.706

n77H,90MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)
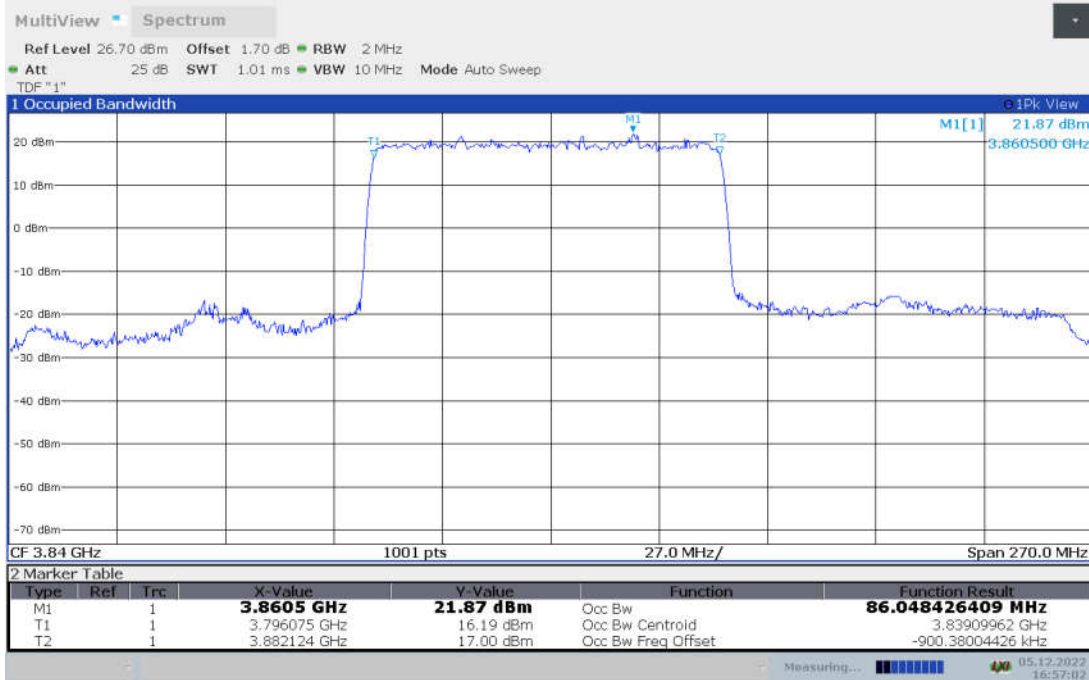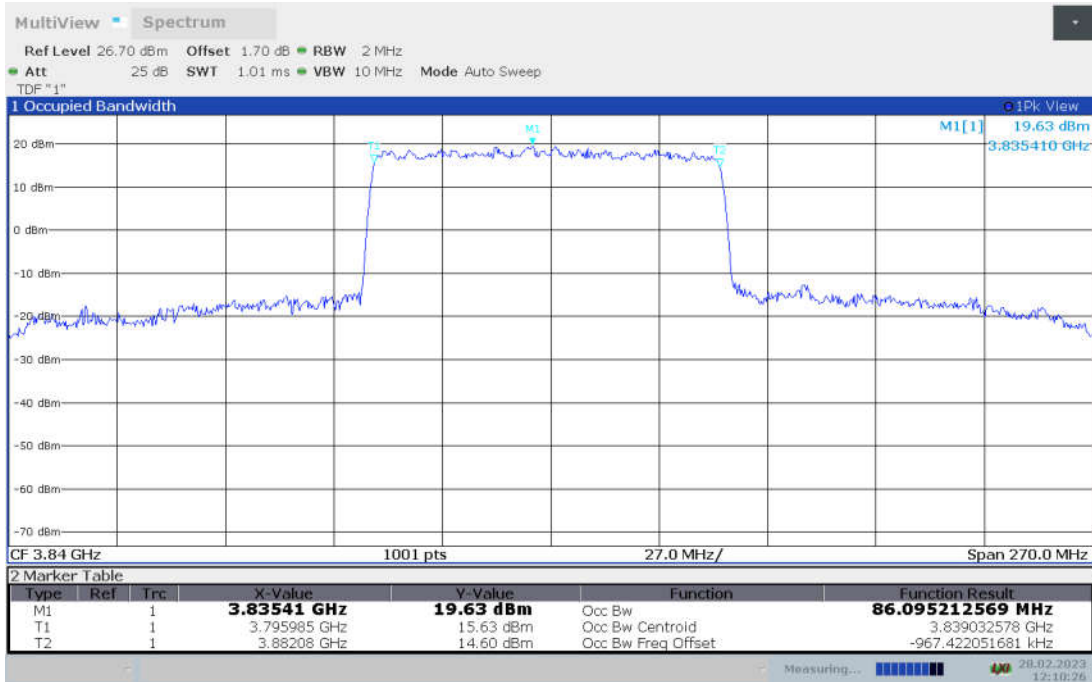

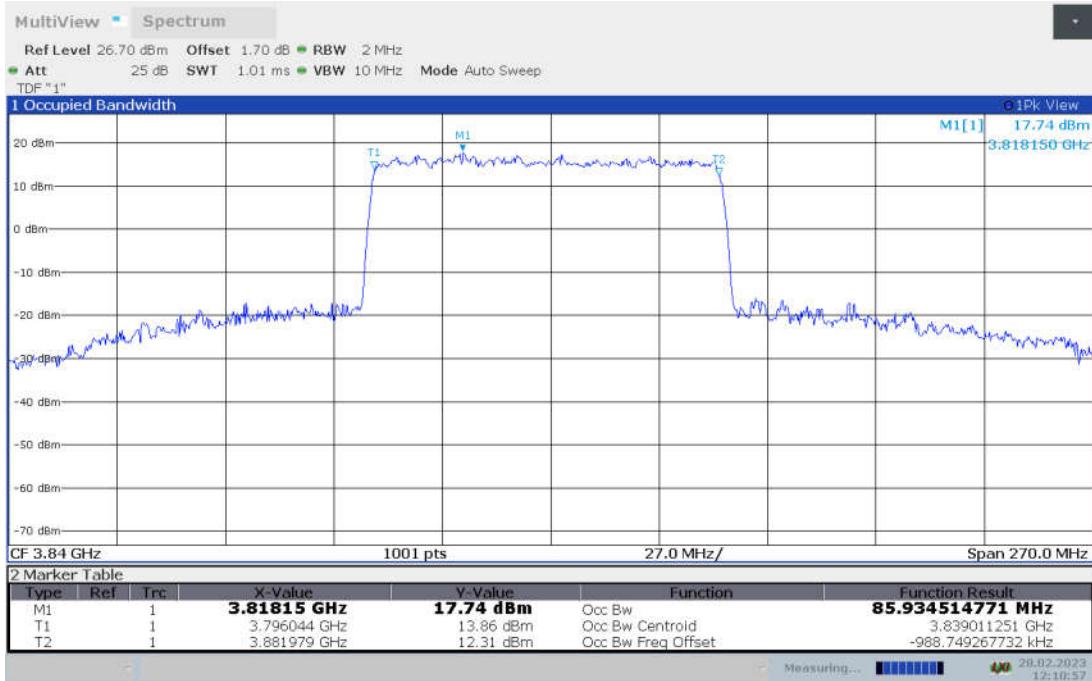### n77H,90MHz Bandwidth,DFT-s-QPSK (99% BW)
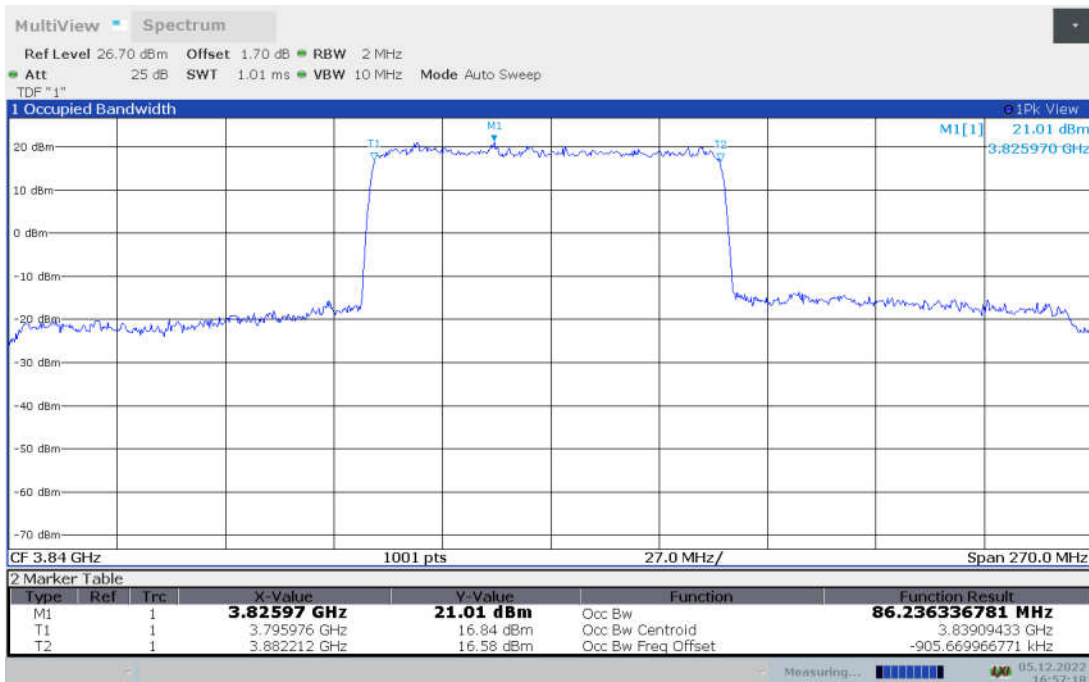
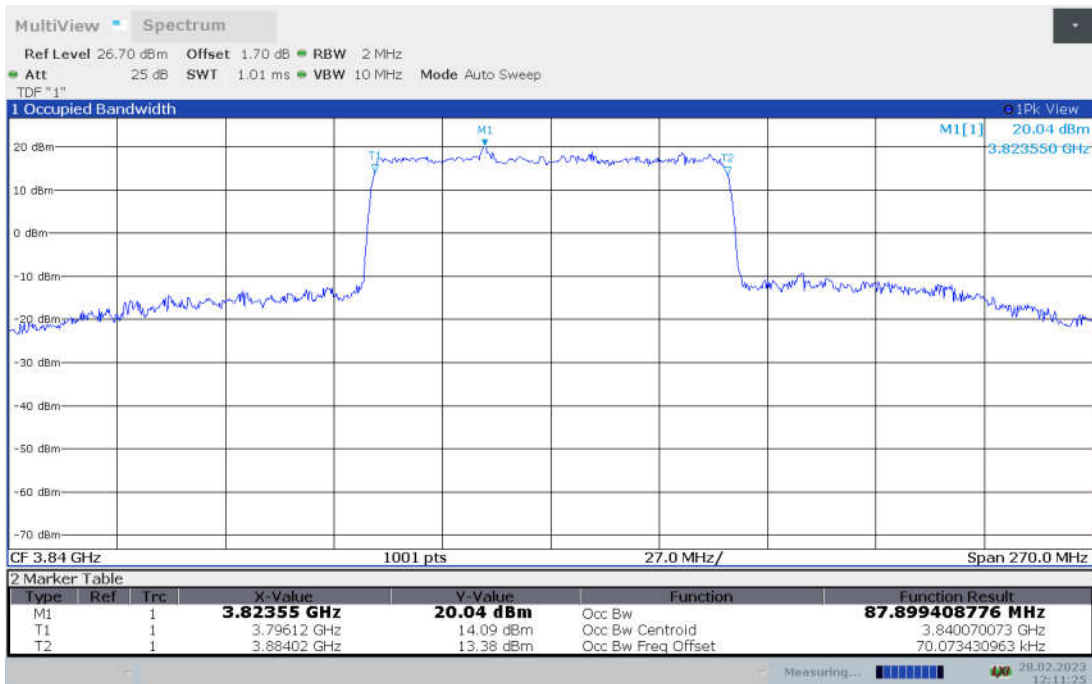**n77H,90MHz Bandwidth, DFT-s-16QAM (99% BW)**

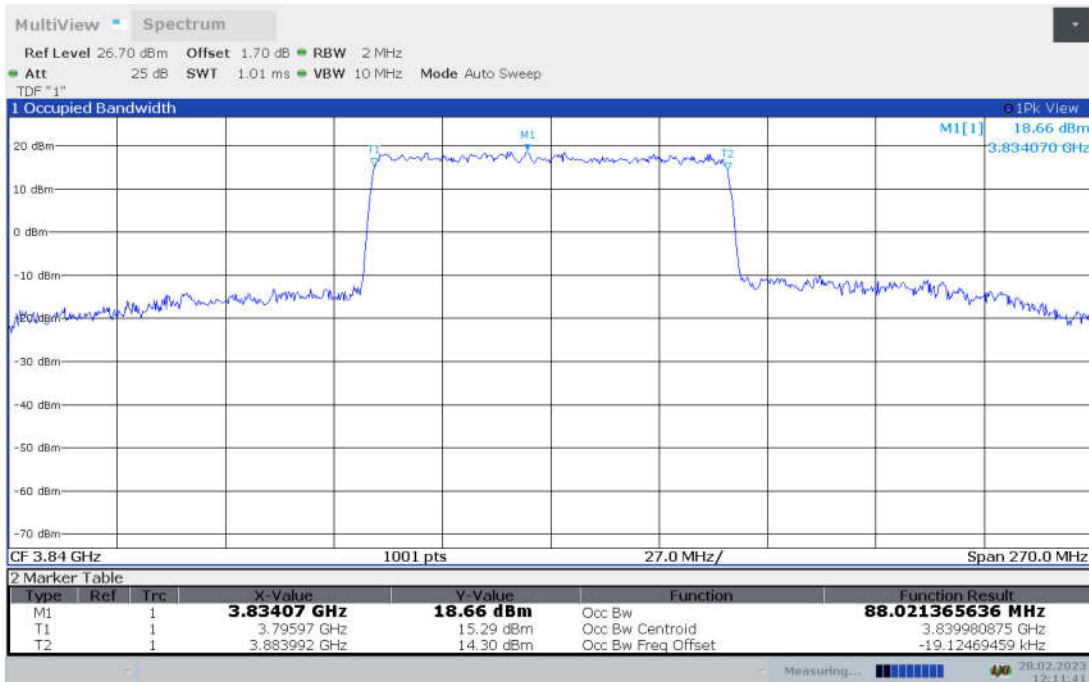**n77H,90MHz Bandwidth, DFT-s-64QAM (99% BW)**

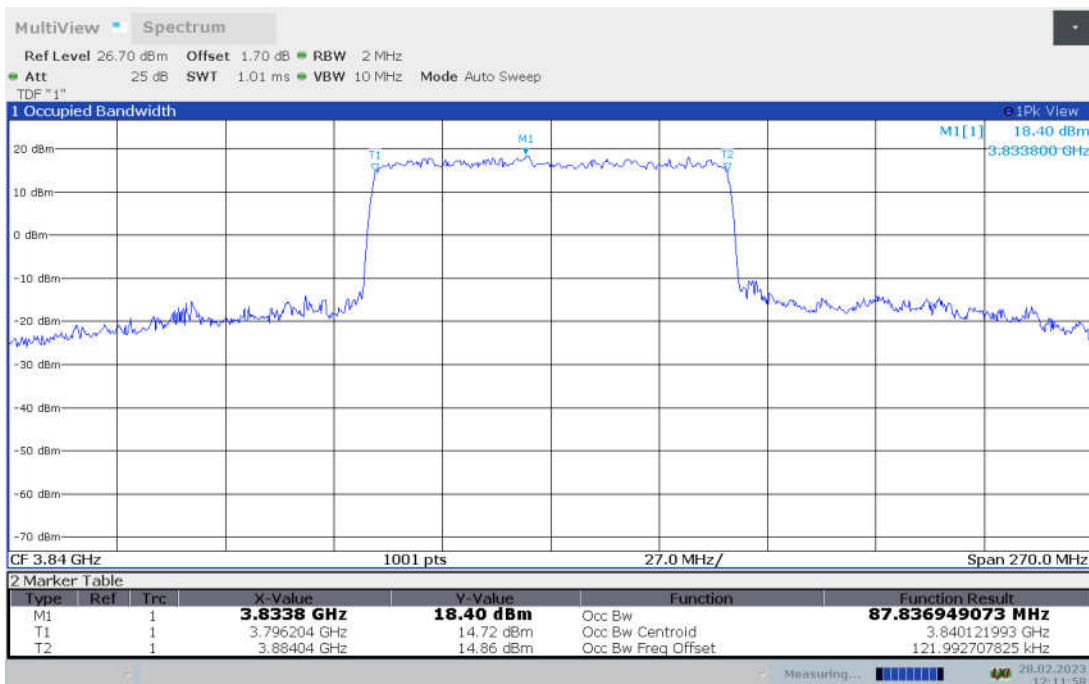### n77H,90MHz Bandwidth, DFT-s-256QAM (99% BW)

n77H,90MHz Bandwidth, CP-QPSK (99% BW)
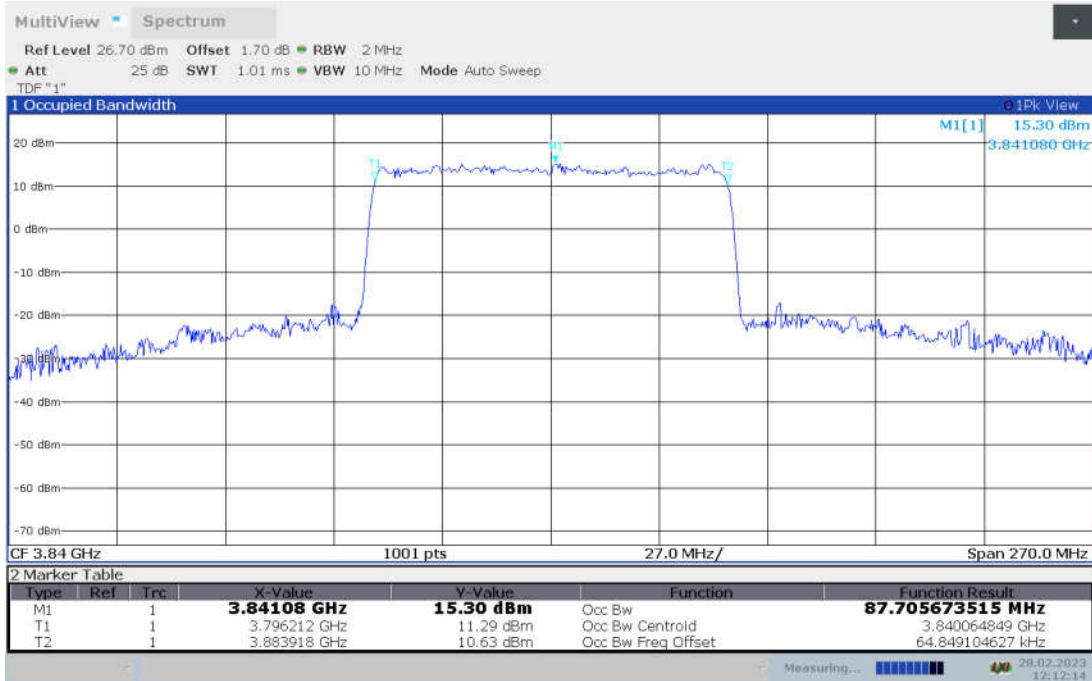
n77H,90MHz Bandwidth, CP-16QAM (99% BW)

n77H,90MHz Bandwidth, CP-64QAM (99% BW)
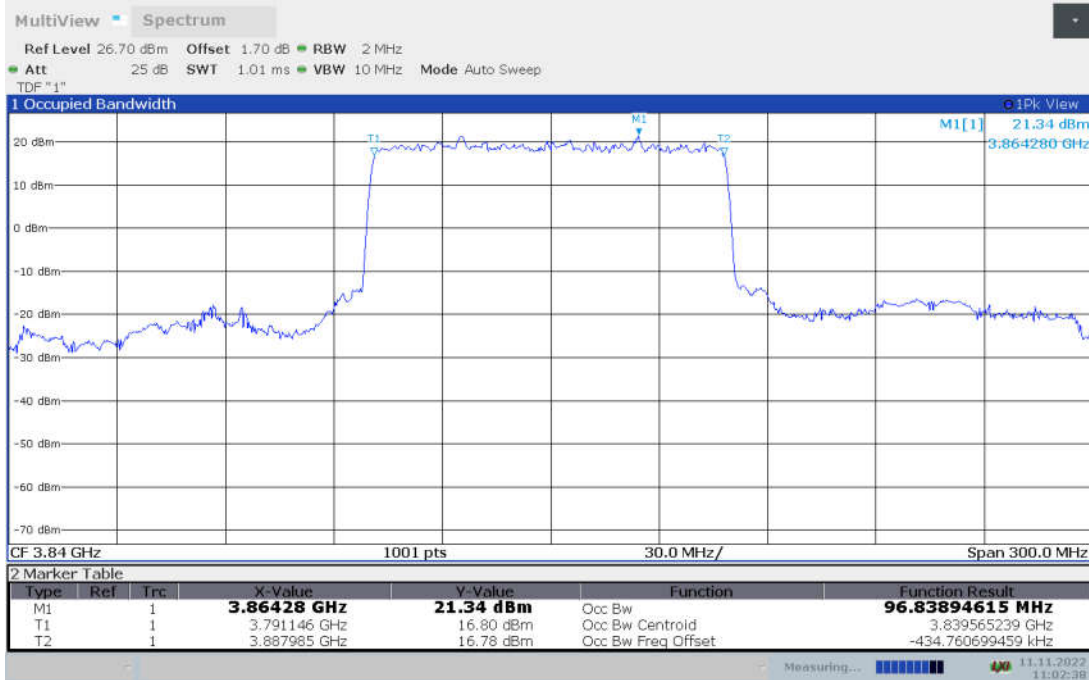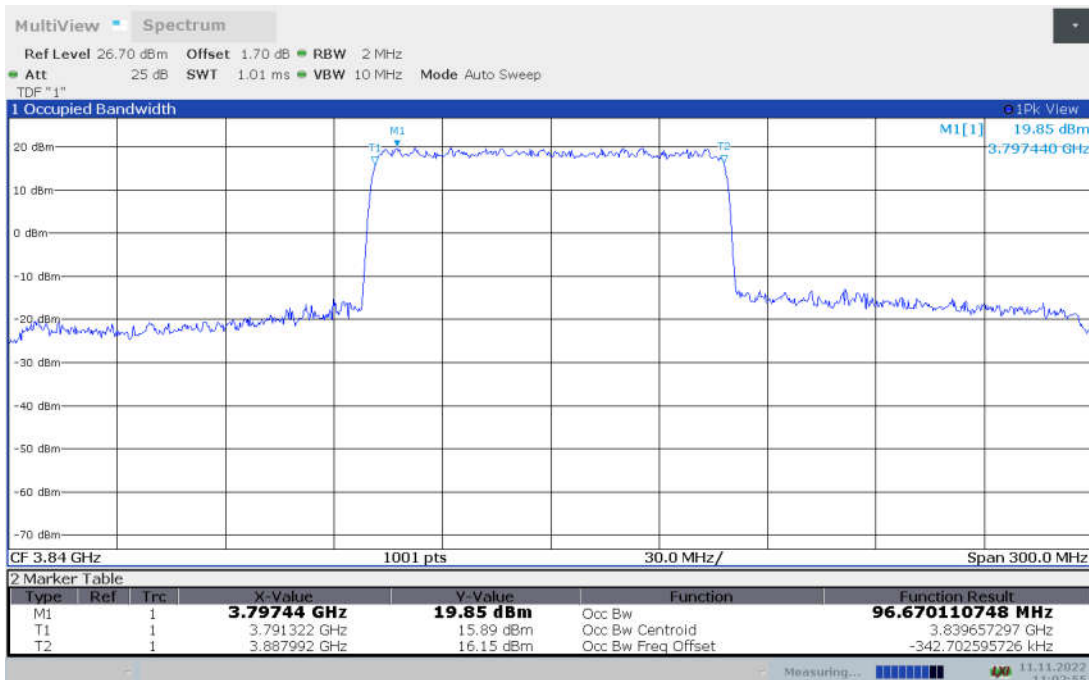
n77H,90MHz Bandwidth, CP-256QAM (99% BW)

n77H,100MHz(99% BW)

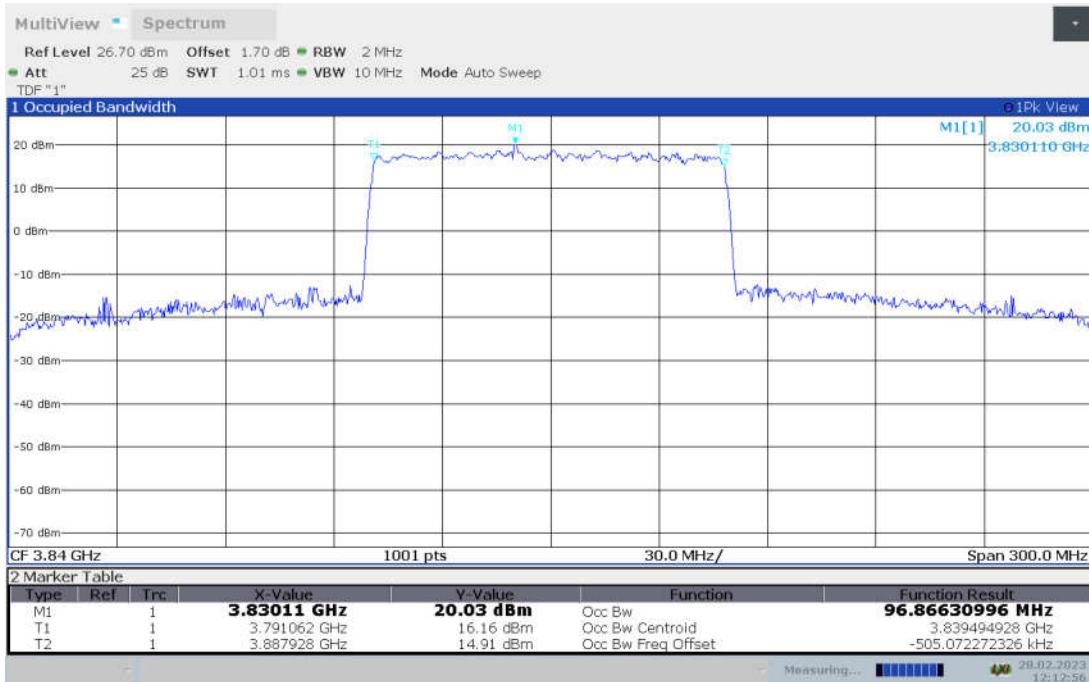| Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3840	96.839	96.670	96.866	96.942	96.682	97.922	97.929	97.584	97.678

n77H,100MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)
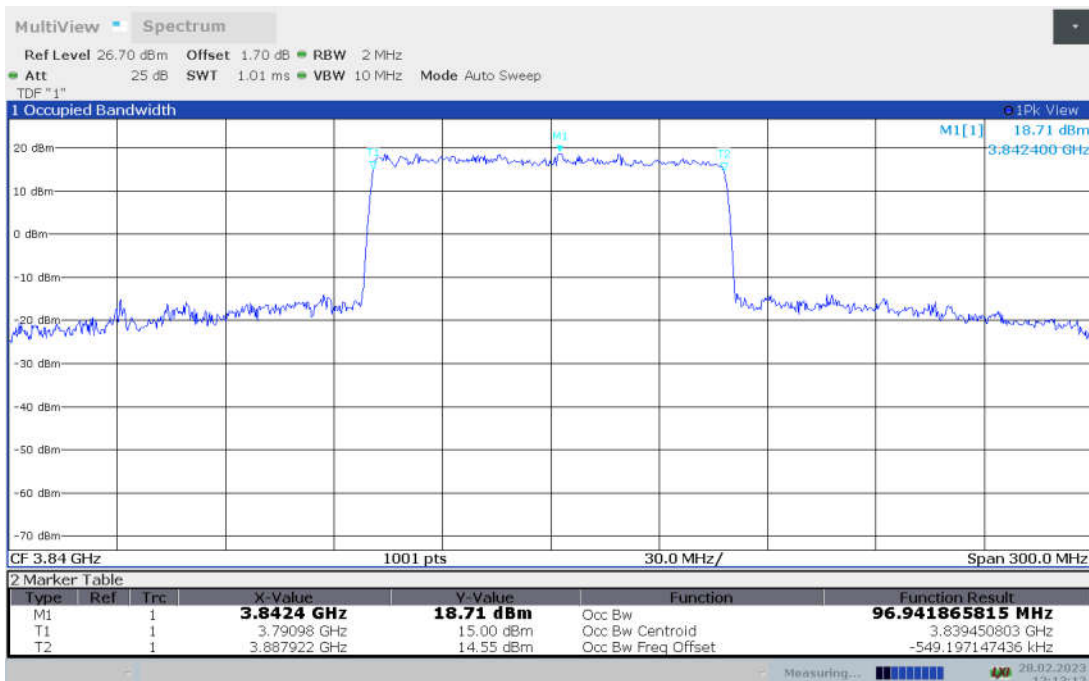

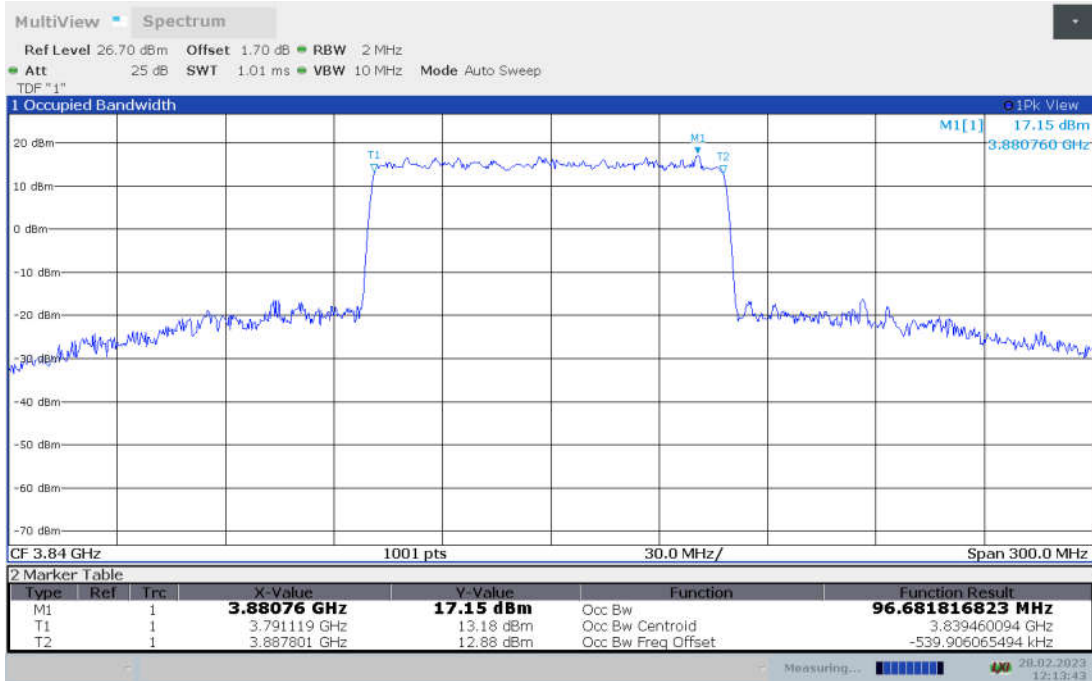### n77H,100MHz Bandwidth,DFT-s-QPSK (99% BW)
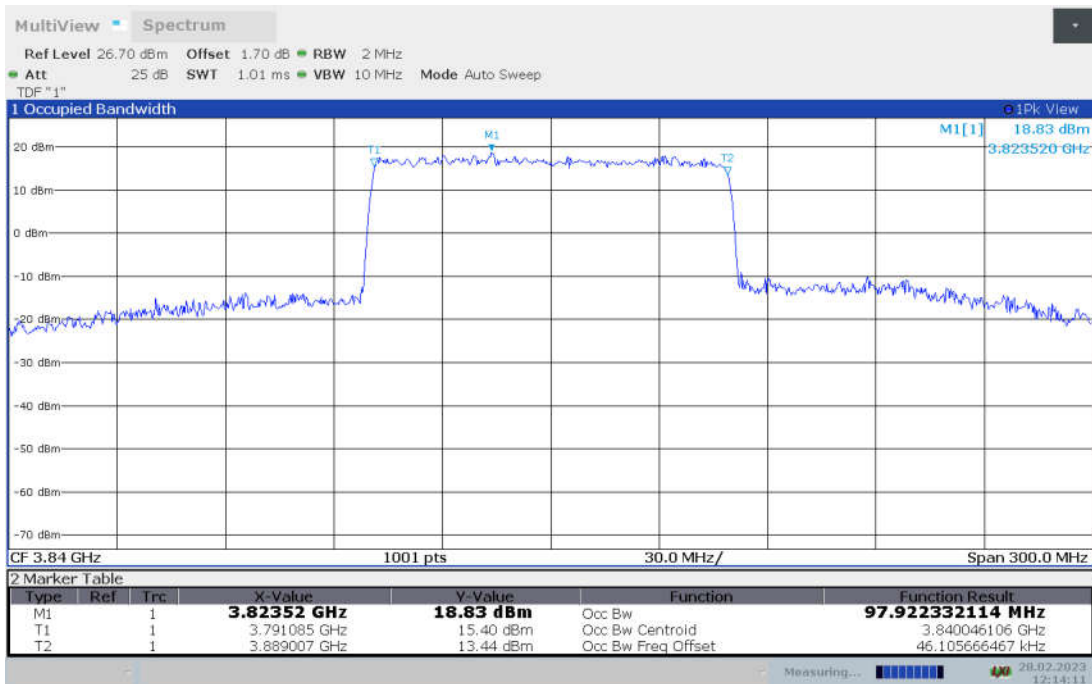
n77H,100MHz Bandwidth, DFT-s-16QAM (99% BW)

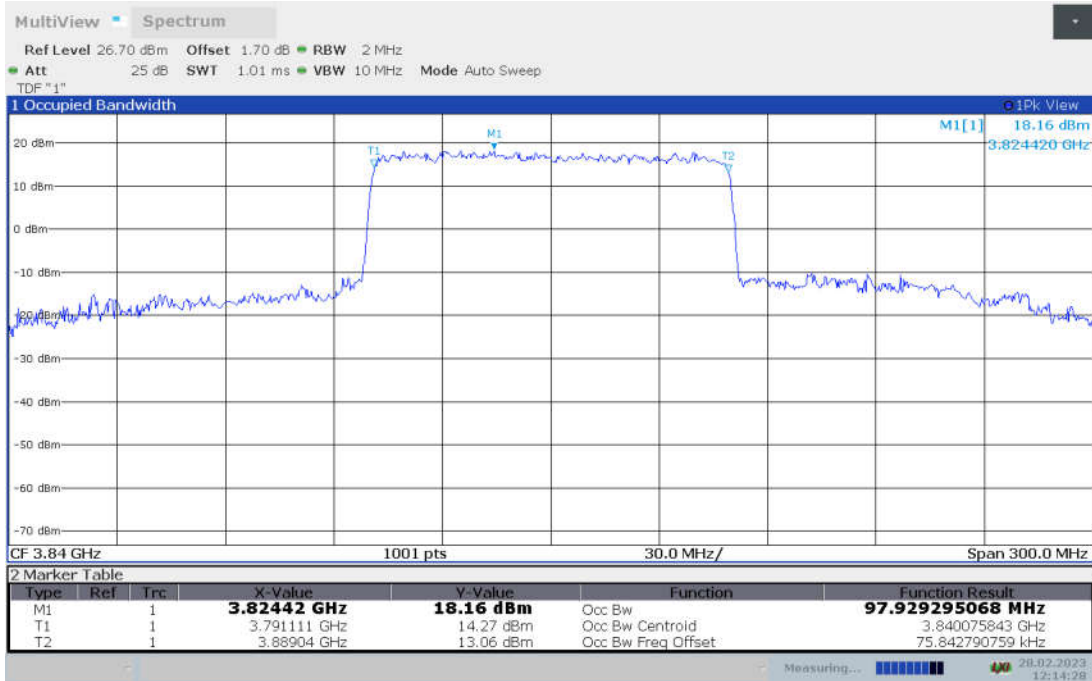**n77H,100MHz Bandwidth, DFT-s-64QAM (99% BW)**

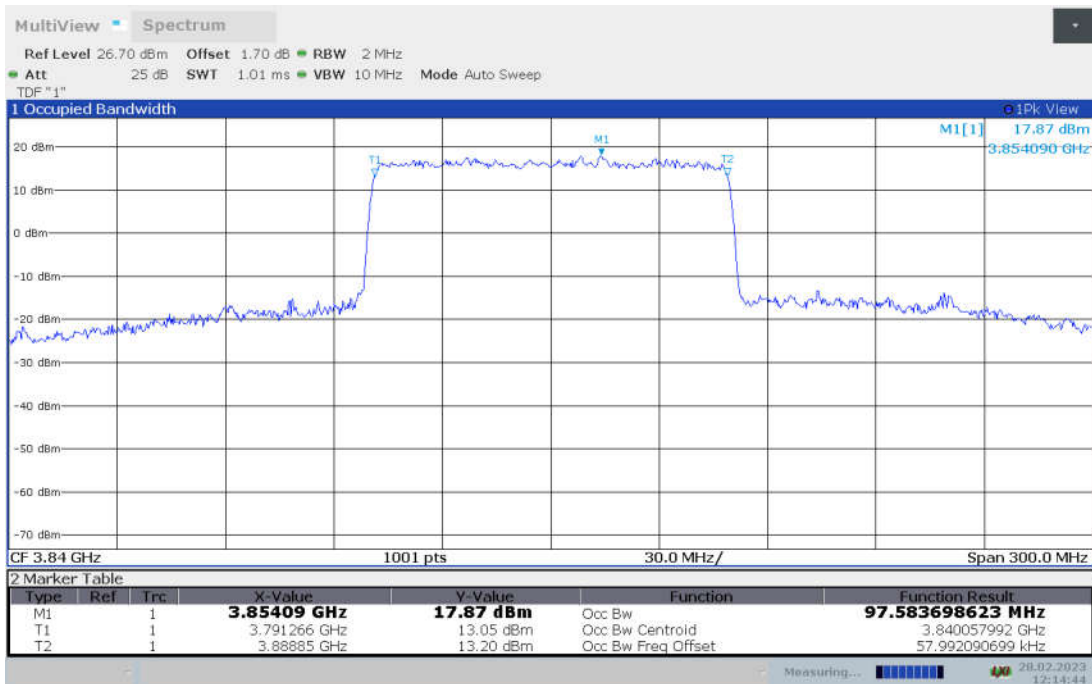**n77H,100MHz Bandwidth, DFT-s-256QAM (99% BW)**

n77H,100MHz Bandwidth, CP-QPSK (99% BW)
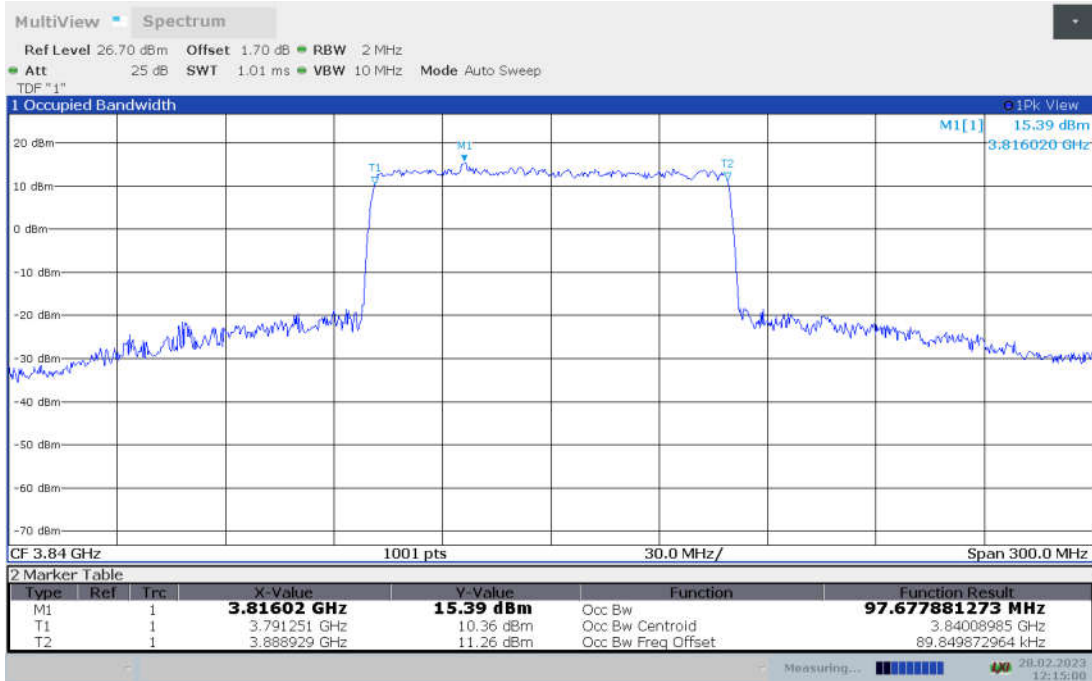
n77H,100MHz Bandwidth, CP-16QAM (99% BW)

n77H,100MHz Bandwidth, CP-64QAM (99% BW)
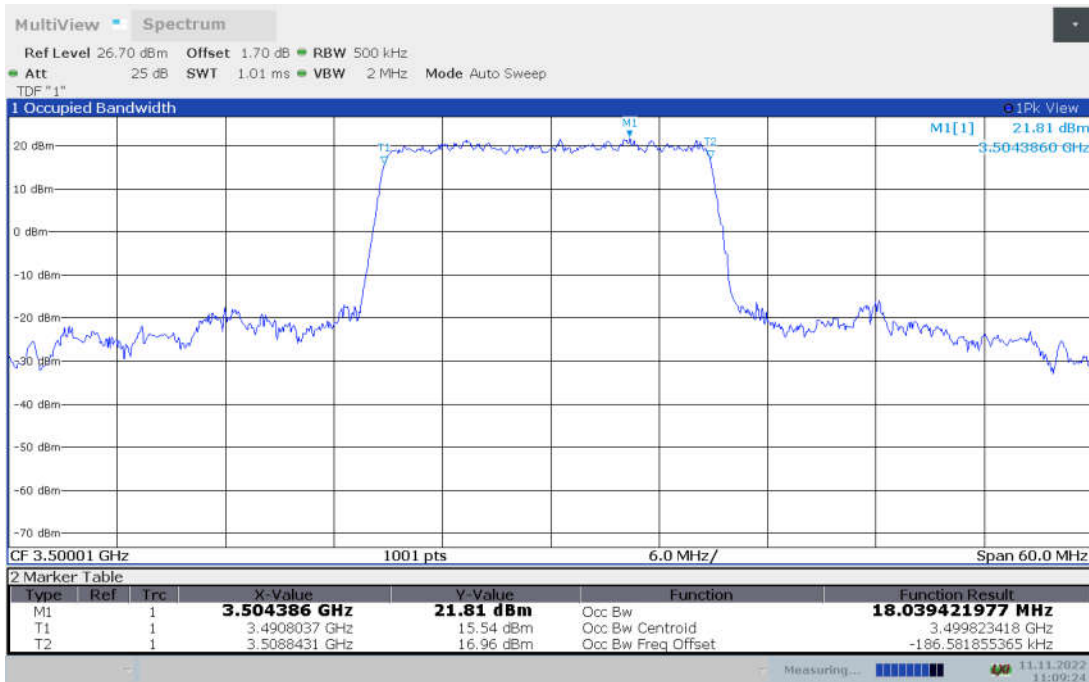
n77H,100MHz Bandwidth, CP-256QAM (99% BW)

n78L

n78L,20MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	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	18.039	18.090	18.052	17.982	18.042	18.312	18.383	18.344	18.382

n78L,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)

n78L,20MHz Bandwidth,DFT-s-QPSK (99% BW)
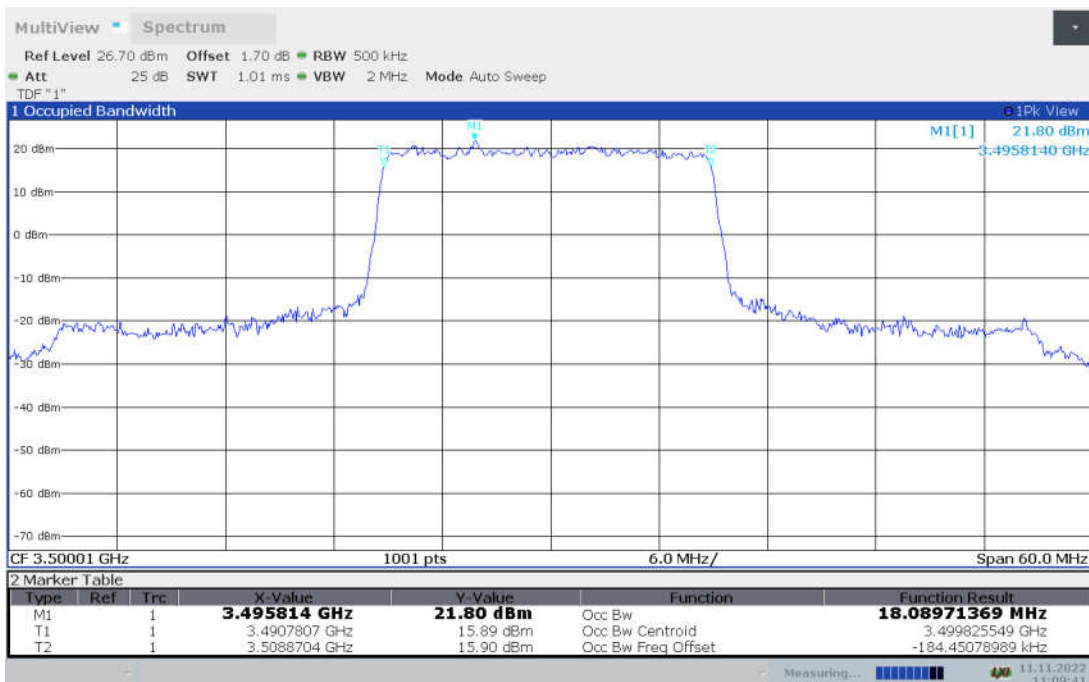
n78L,20MHz Bandwidth, DFT-s-16QAM (99% BW)

n78L,20MHz Bandwidth, DFT-s-64QAM (99% BW)
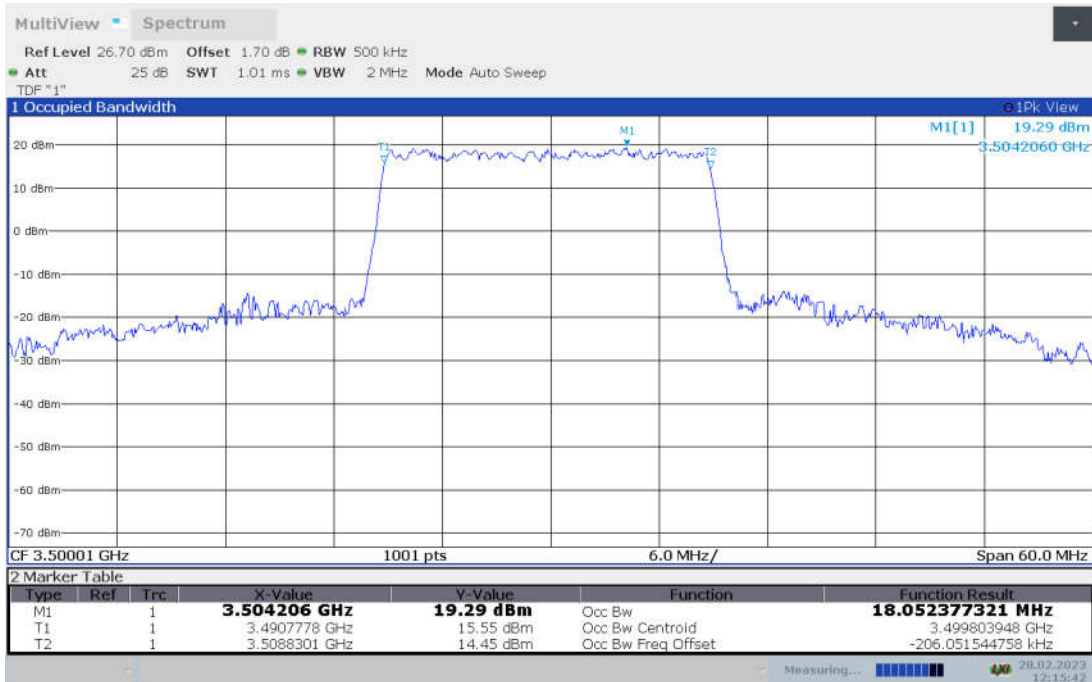
n78L,20MHz Bandwidth, DFT-s-256QAM (99% BW)

n78L,20MHz Bandwidth, CP-QPSK (99% BW)

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n78L,20MHz Bandwidth, CP-16QAM (99% BW)

n78L,20MHz Bandwidth, CP-64QAM (99% BW)

n78L,20MHz Bandwidth, CP-256QAM (99% BW)

n78L,30MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	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	26.916	26.884	26.920	26.867	26.685	27.850	27.843	27.957	27.910

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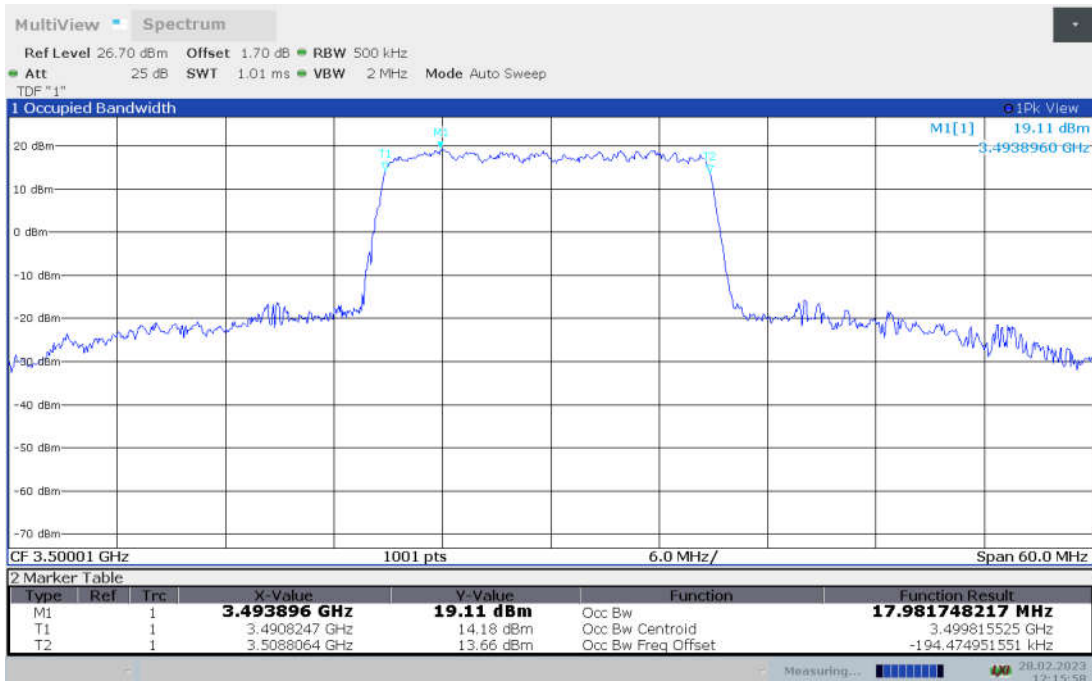

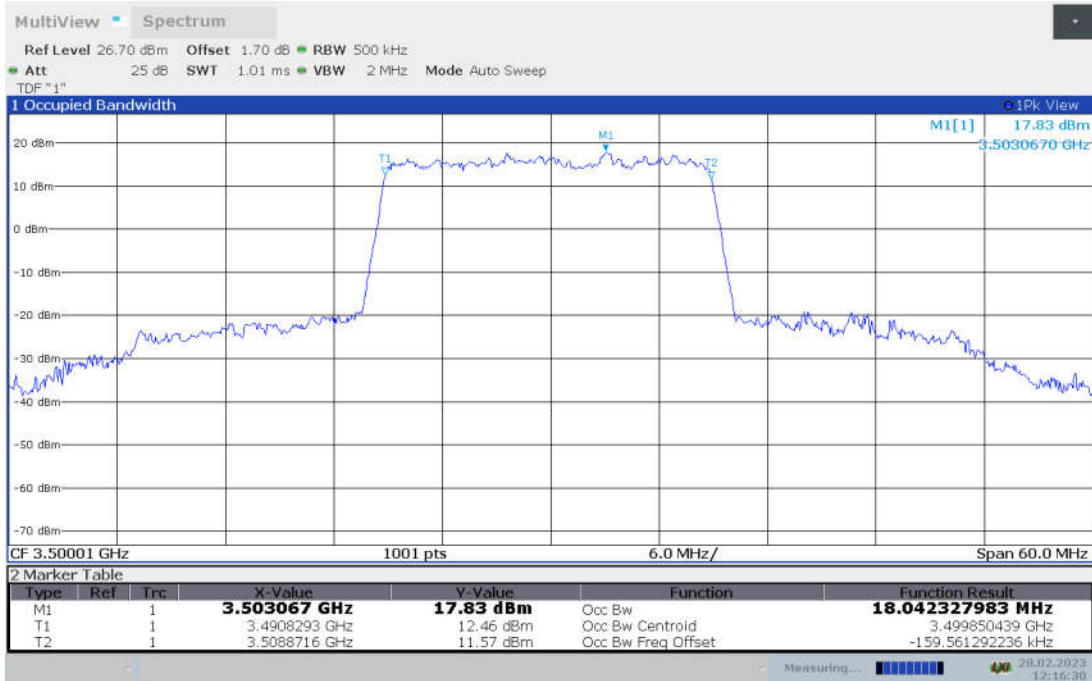**n78L,30MHz Bandwidth,DFT-s-QPSK (99% BW)**

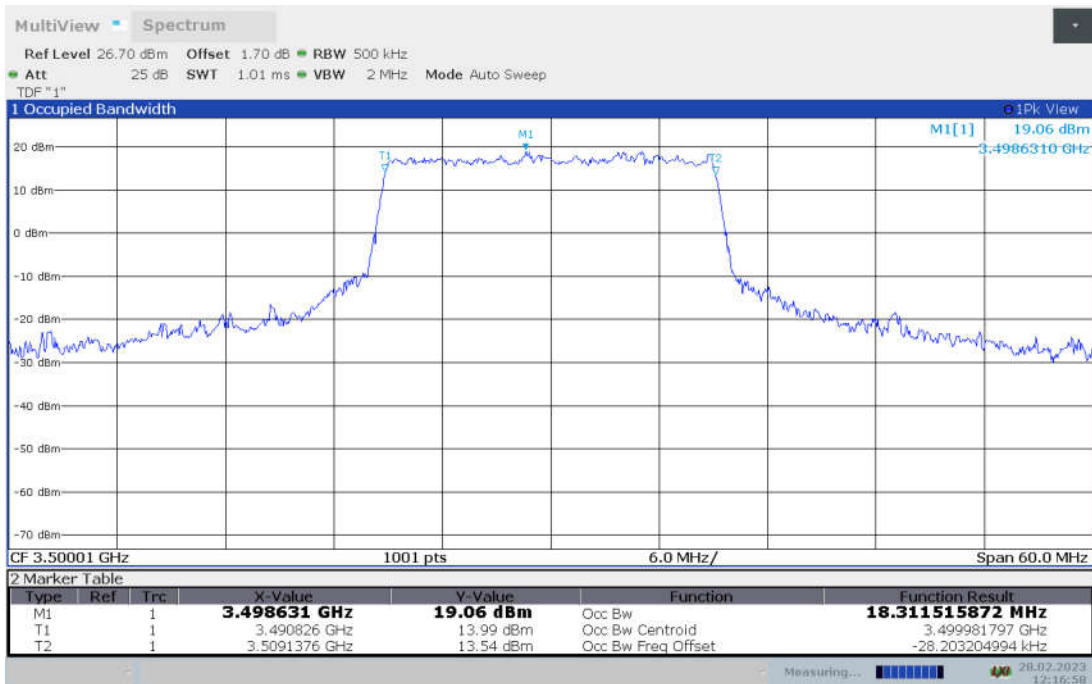**n78L,30MHz Bandwidth, DFT-s-16QAM (99% BW)**

n78L,30MHz Bandwidth, DFT-s-64QAM (99% BW)
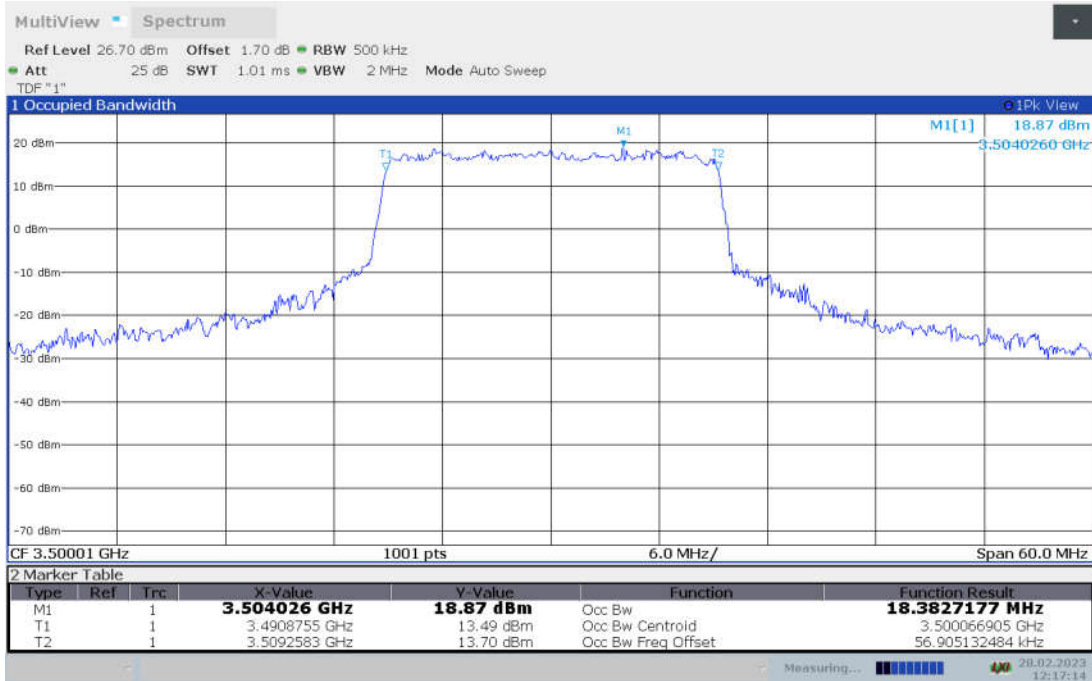
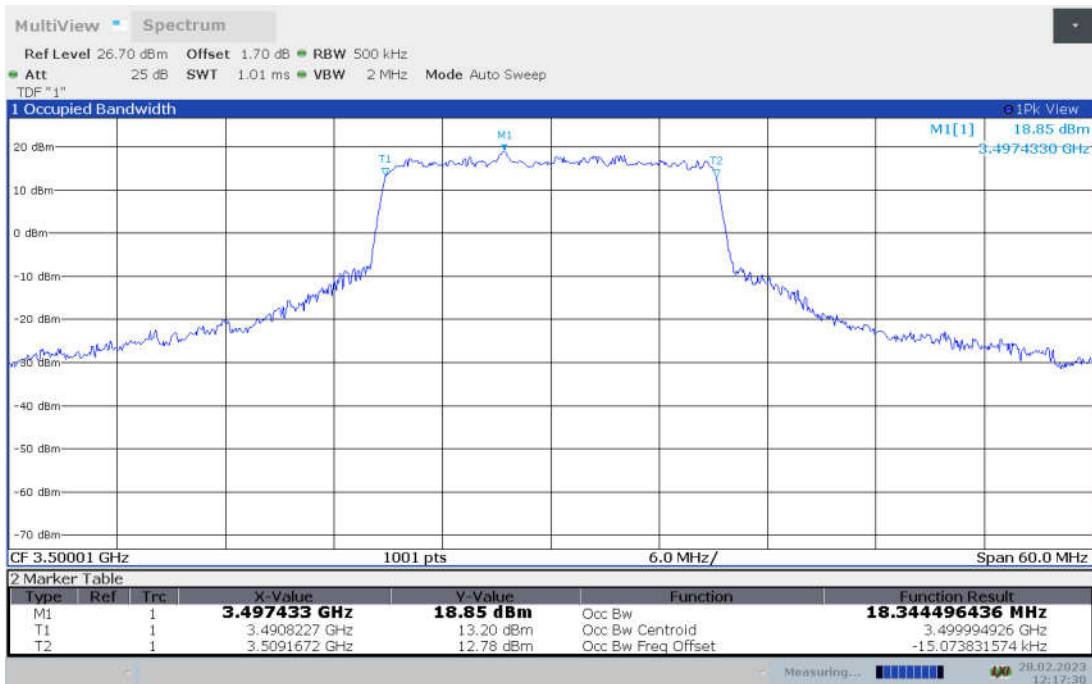### n78L,30MHz Bandwidth, DFT-s-256QAM (99% BW)

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

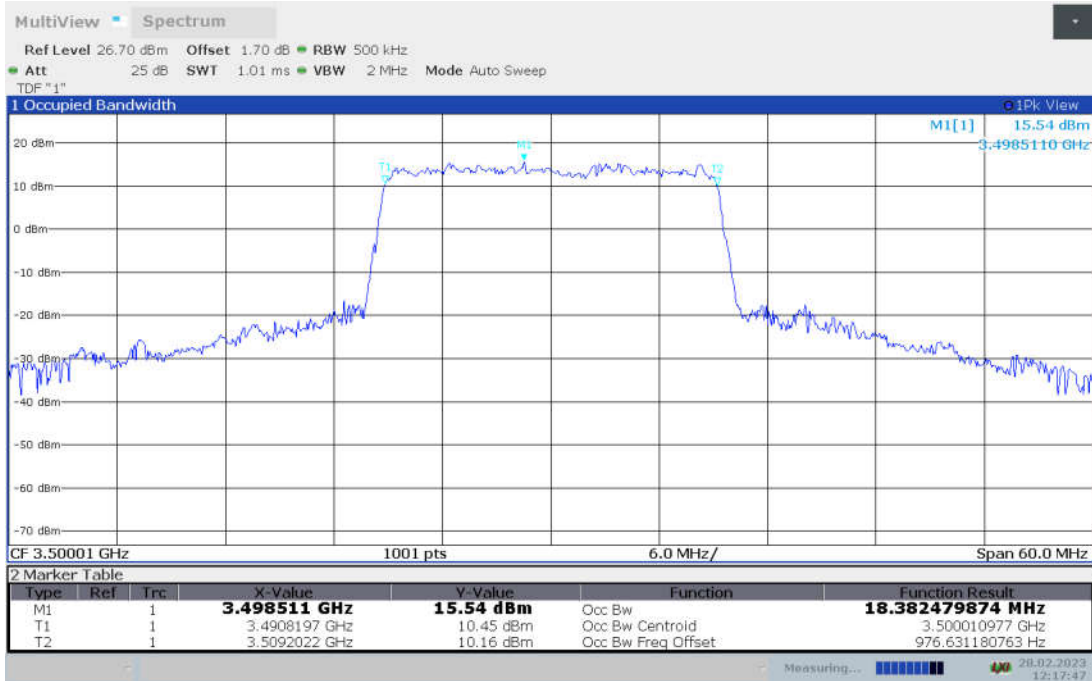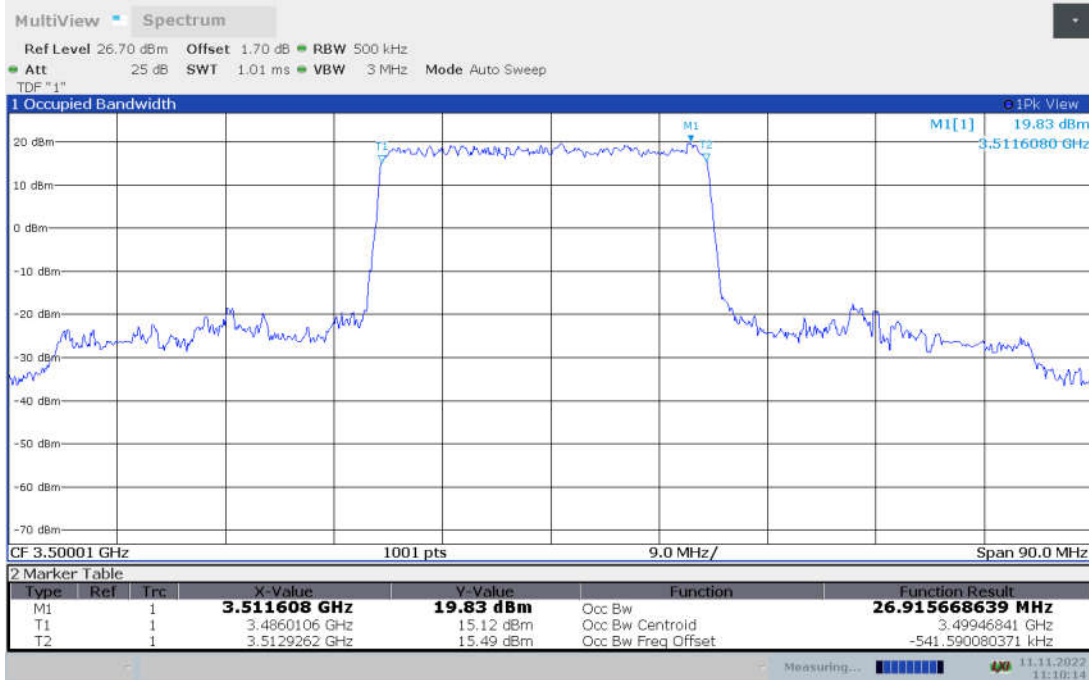**n78L,30MHz Bandwidth, CP-16QAM (99% BW)**

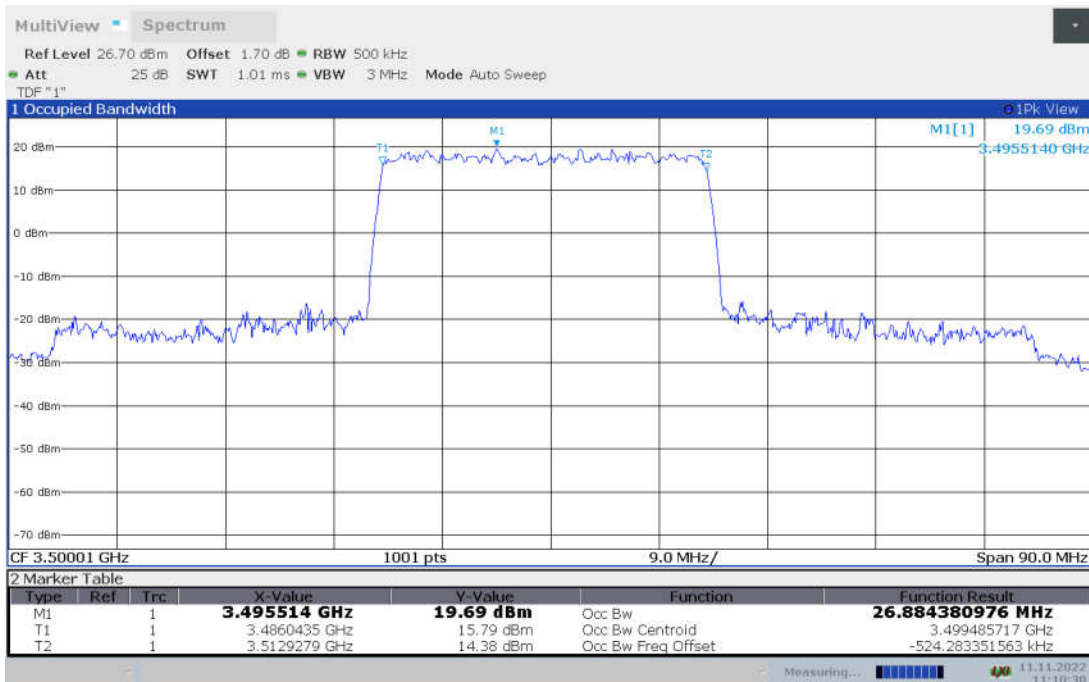**n78L,30MHz Bandwidth, CP-64QAM (99% BW)**

n78L,30MHz Bandwidth, CP-256QAM (99% BW)

n78L,40MHz(99% BW)

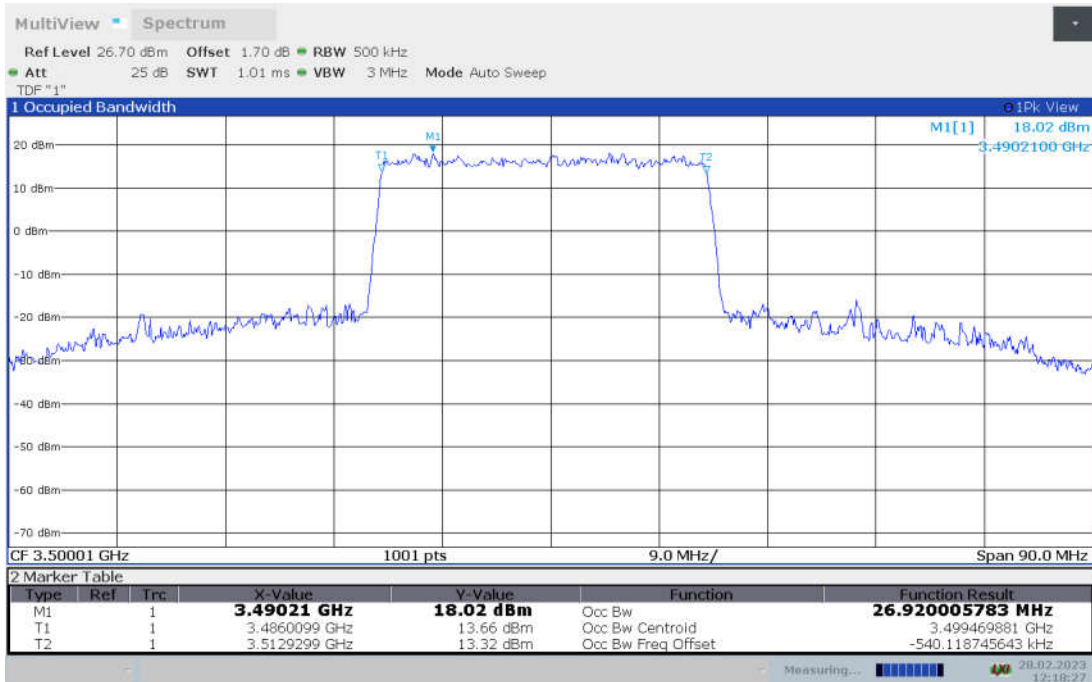| Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3500.01	36.035	36.011	36.162	35.911	35.933	38.041	38.137	38.040	37.908

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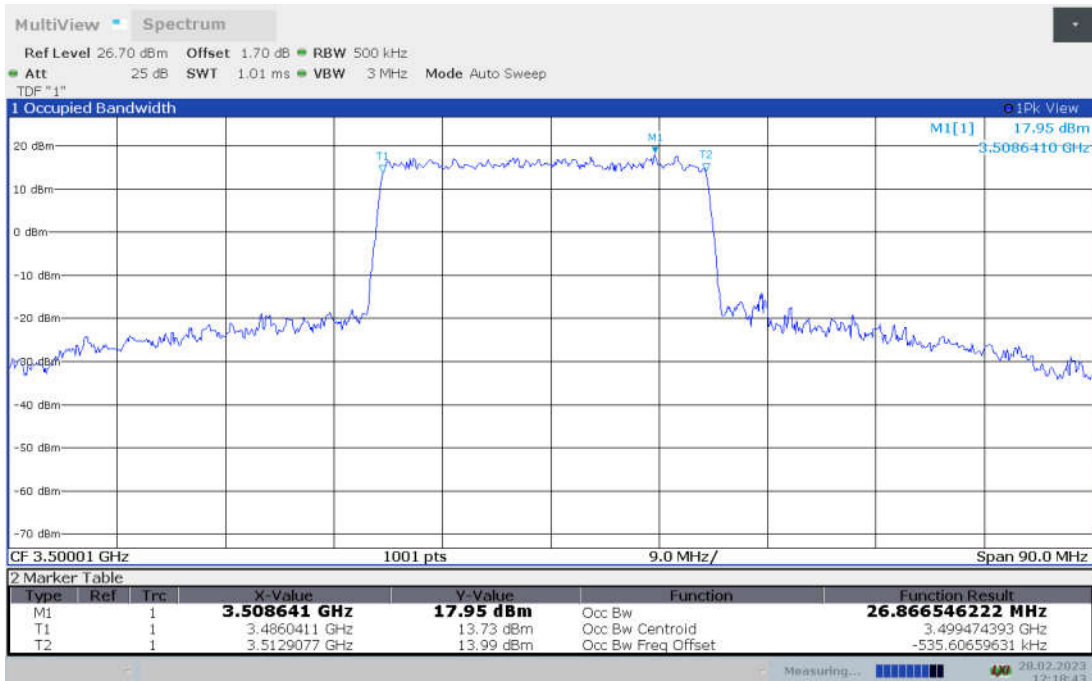

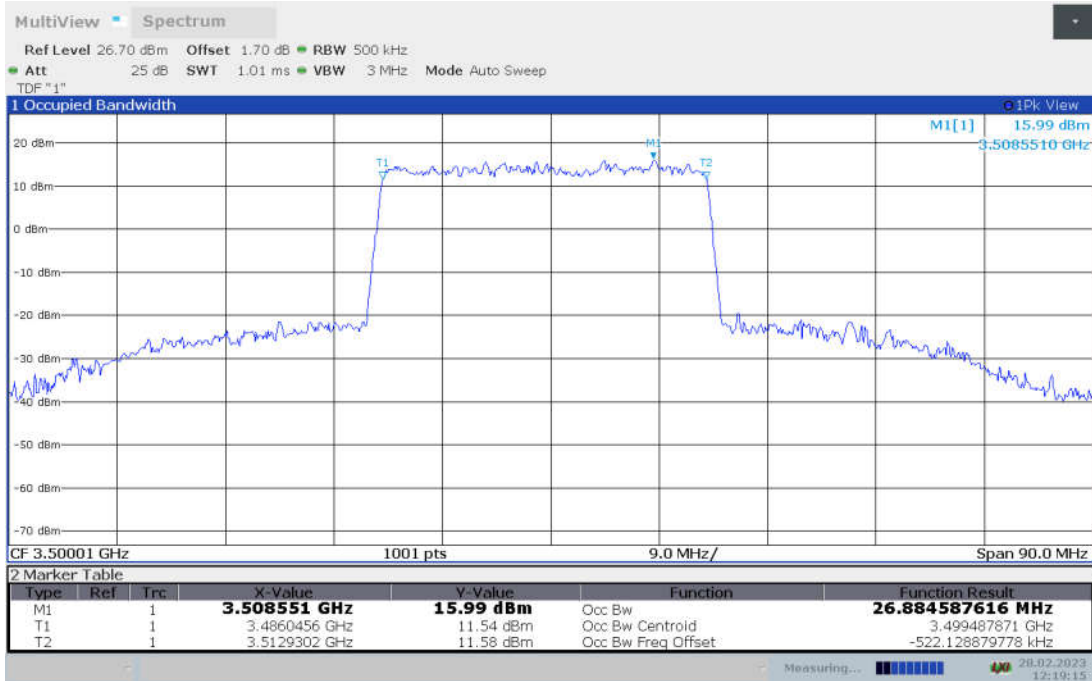### n78L,40MHz Bandwidth,DFT-s-QPSK (99% BW)

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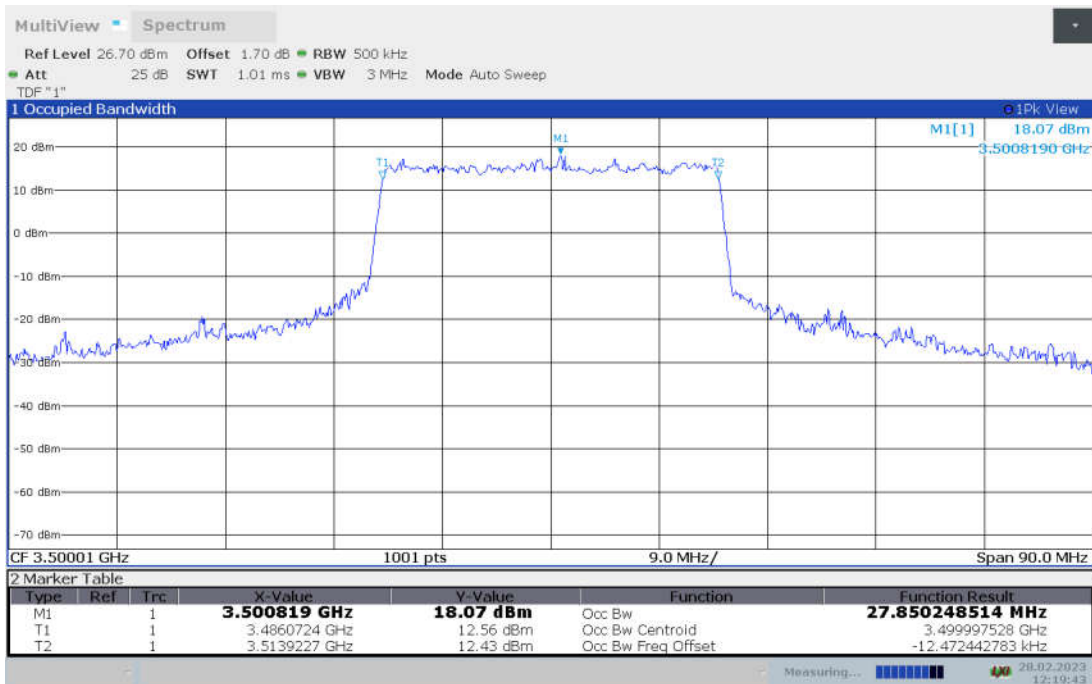

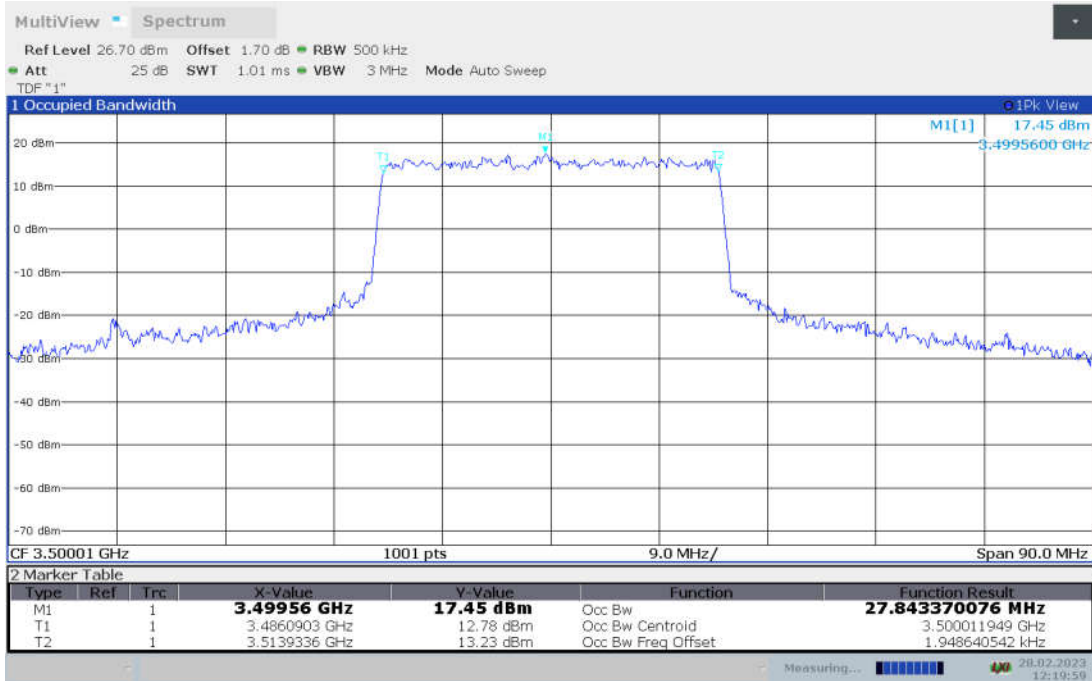**n78L,40MHz Bandwidth, DFT-s-64QAM (99% BW)**

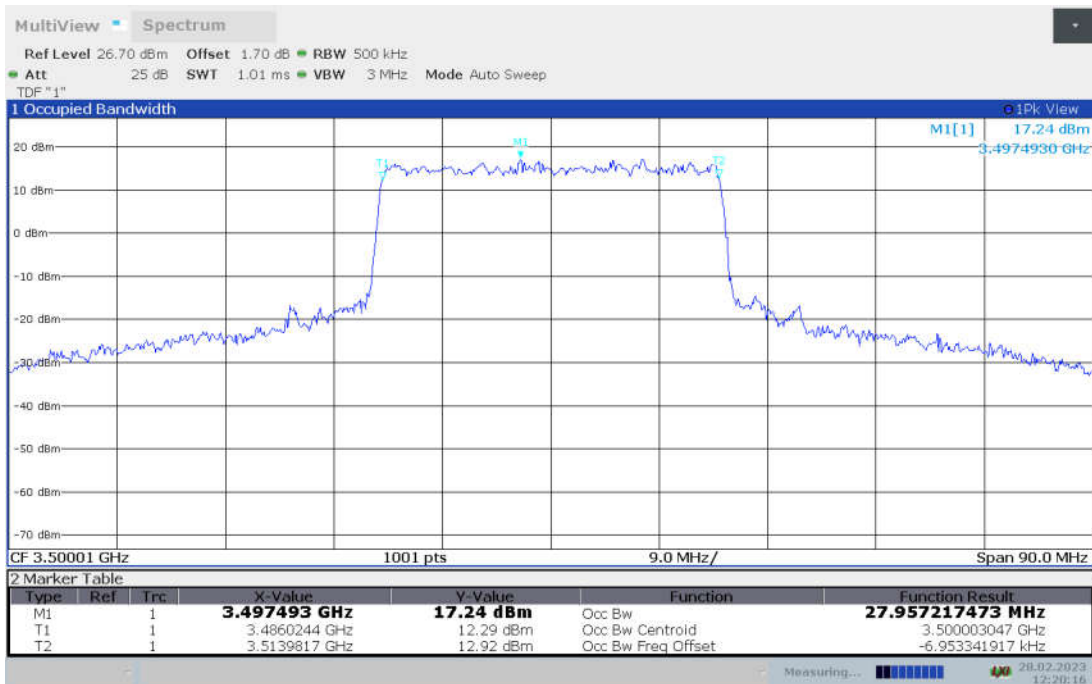### n78L,40MHz Bandwidth, DFT-s-256QAM (99% BW)

n78L,40MHz Bandwidth, CP-QPSK (99% BW)
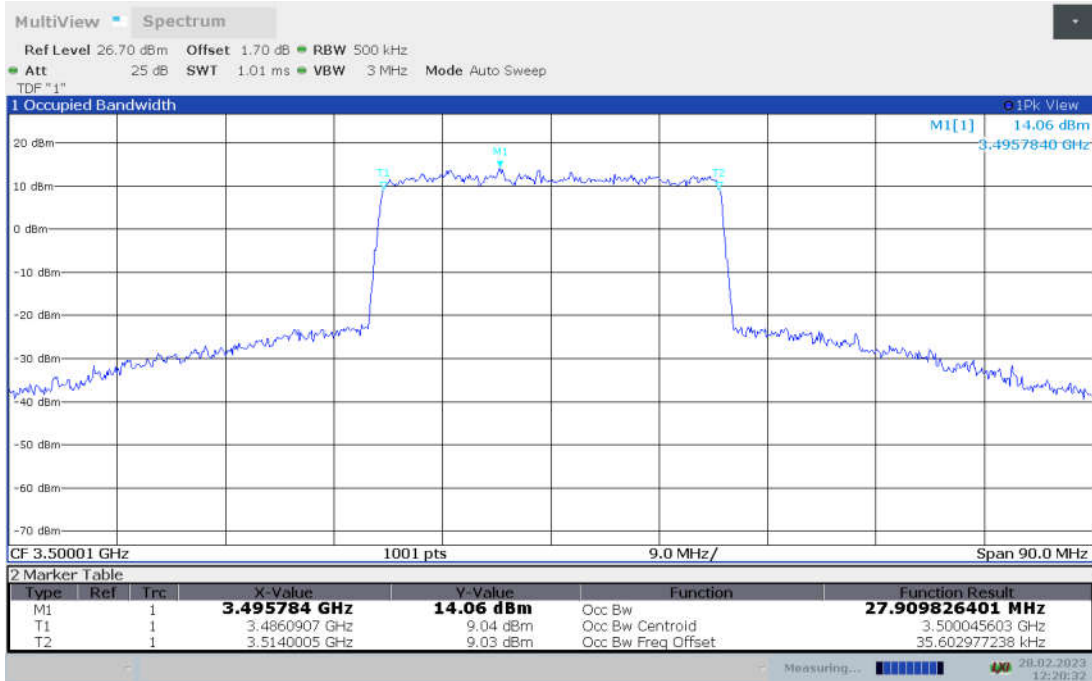
n78L,40MHz Bandwidth, CP-16QAM (99% BW)

n78L,40MHz Bandwidth, CP-64QAM (99% BW)
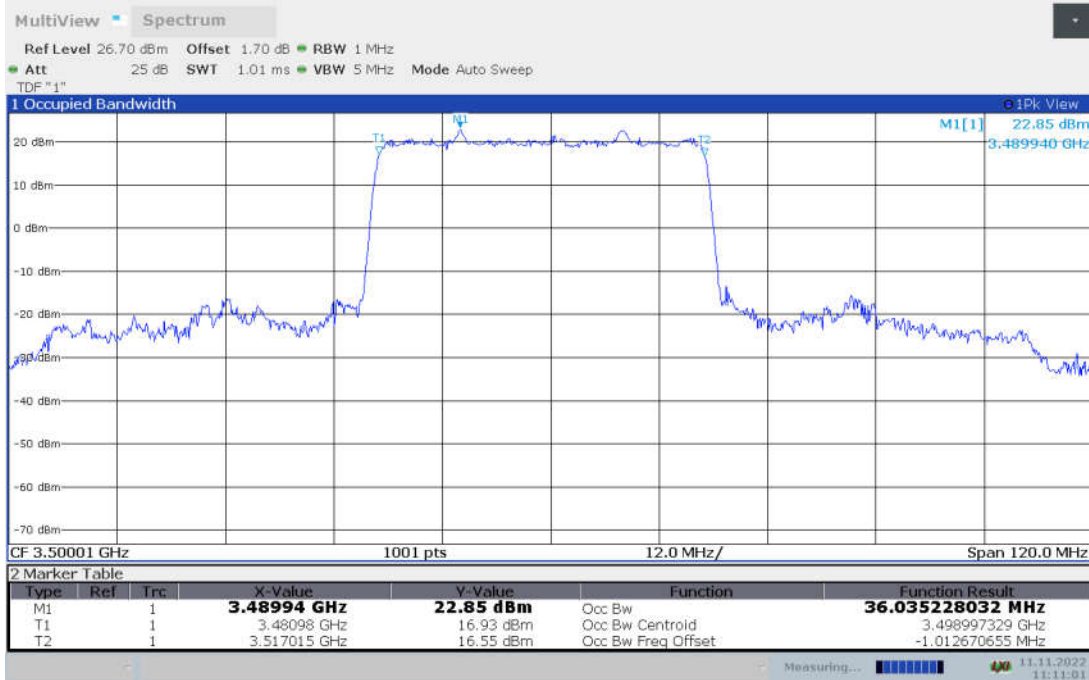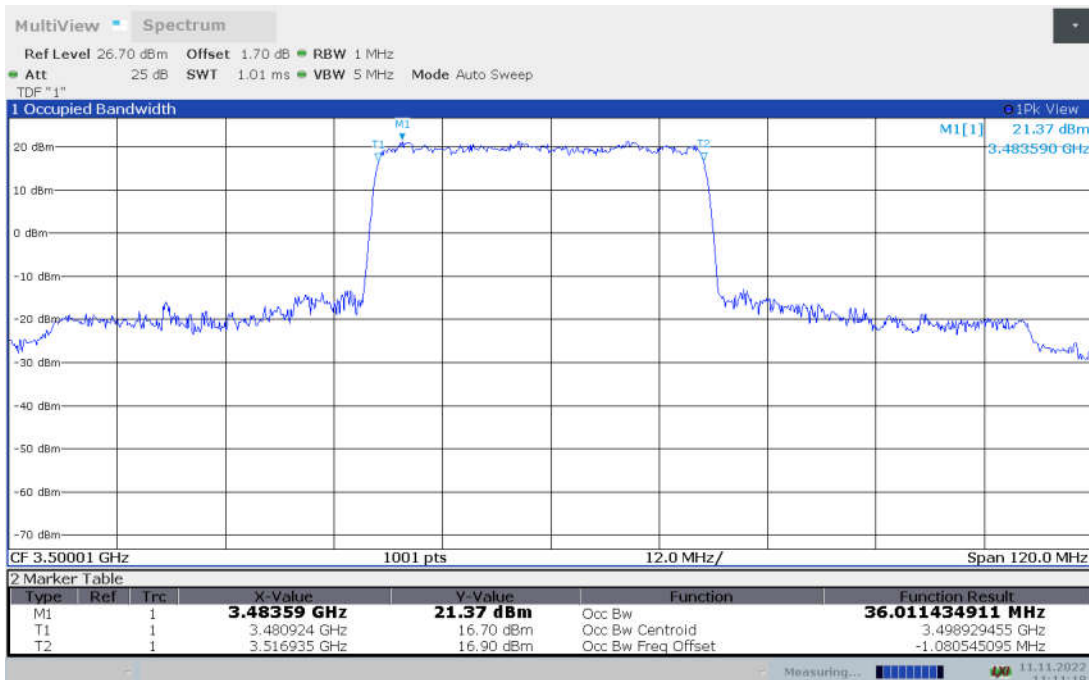
n78L,40MHz Bandwidth, CP-256QAM (99% BW)

n78L,50MHz(99% BW)

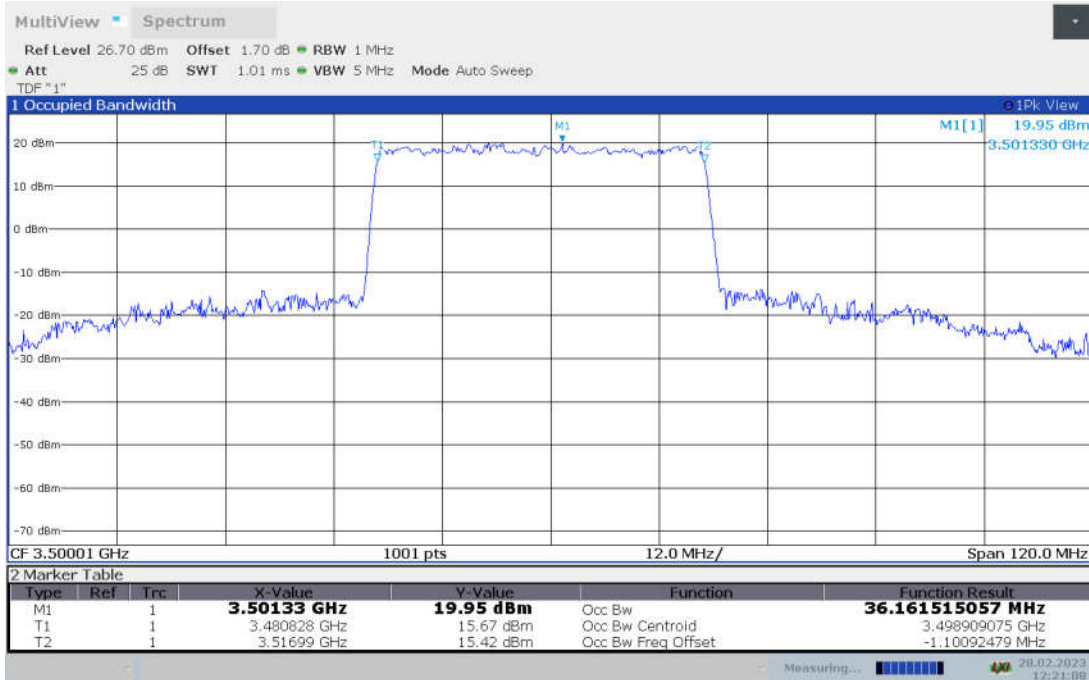| Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3500.01	45.989	46.046	45.920	45.882	46.042	47.516	47.602	47.568	47.539

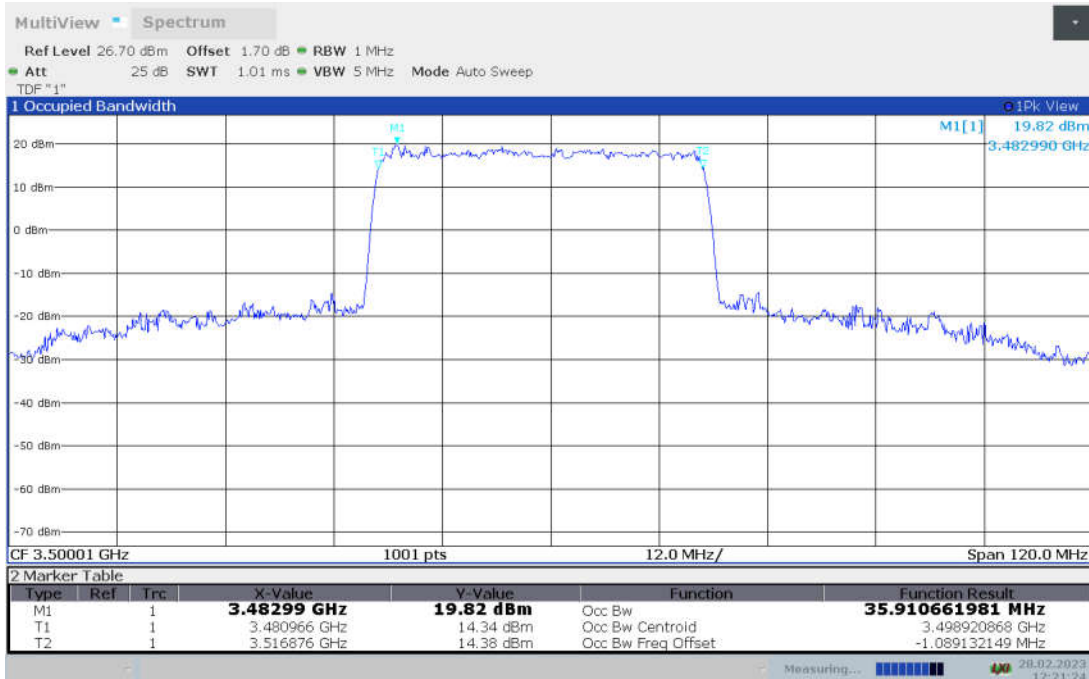**n78L,50MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)**
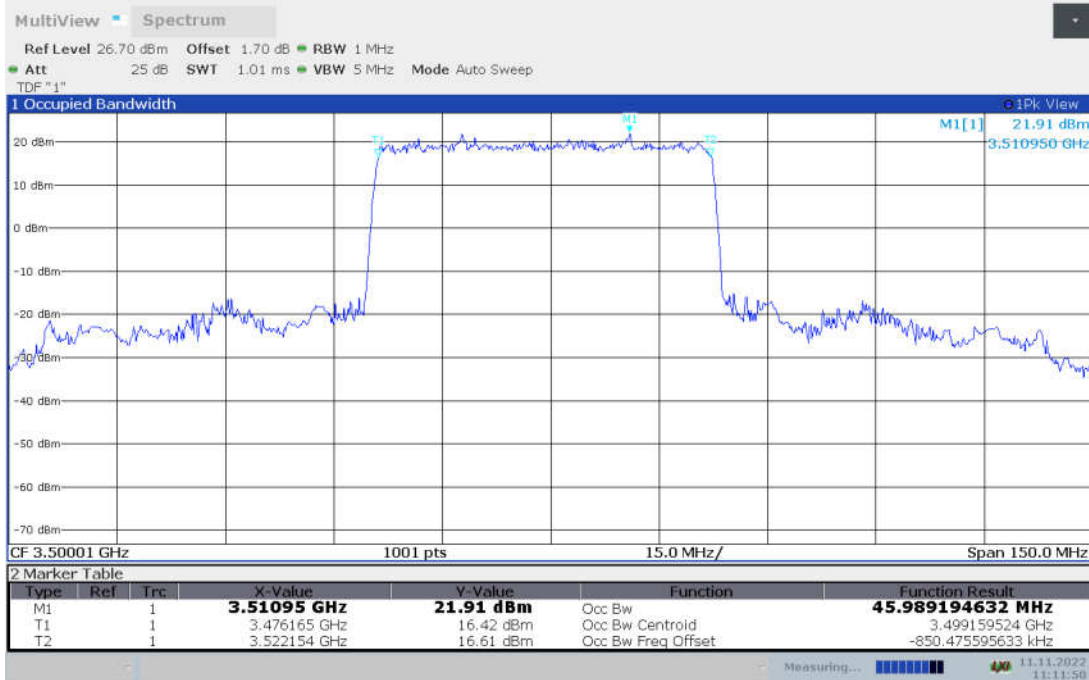
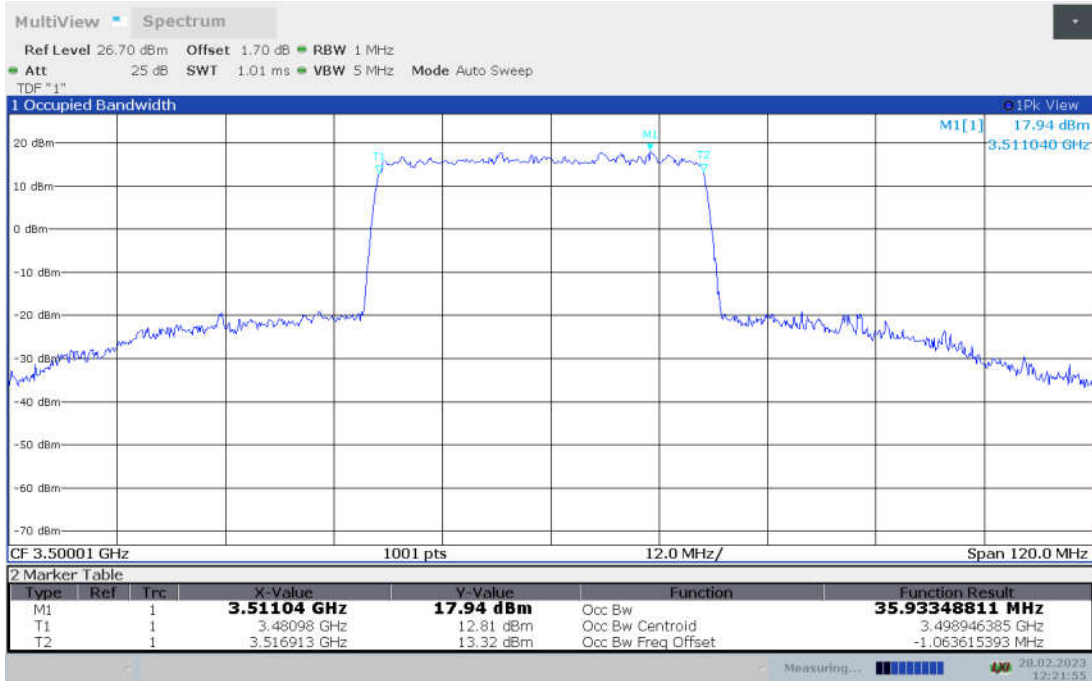**n78L,50MHz Bandwidth,DFT-s-QPSK (99% BW)**

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

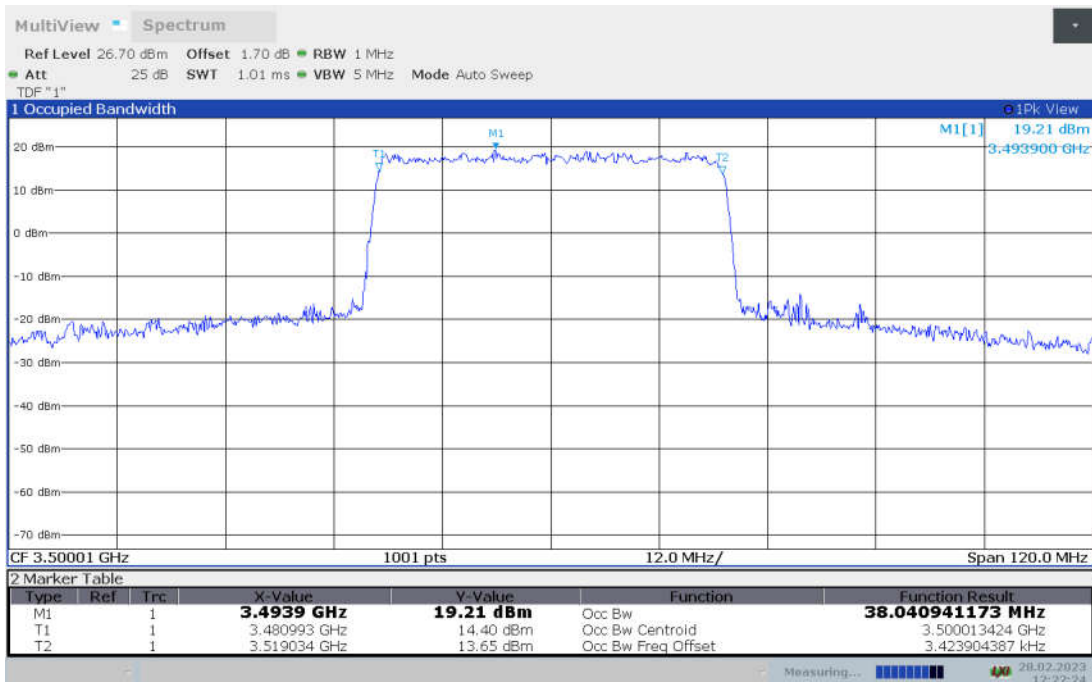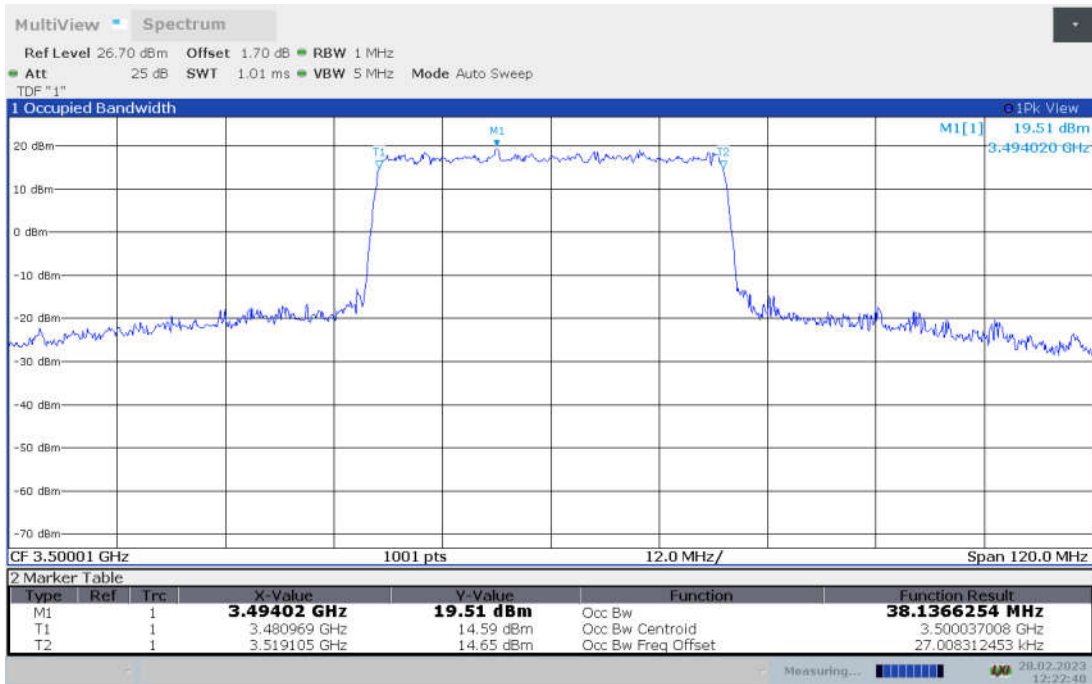**n78L,50MHz Bandwidth, DFT-s-64QAM (99% BW)**
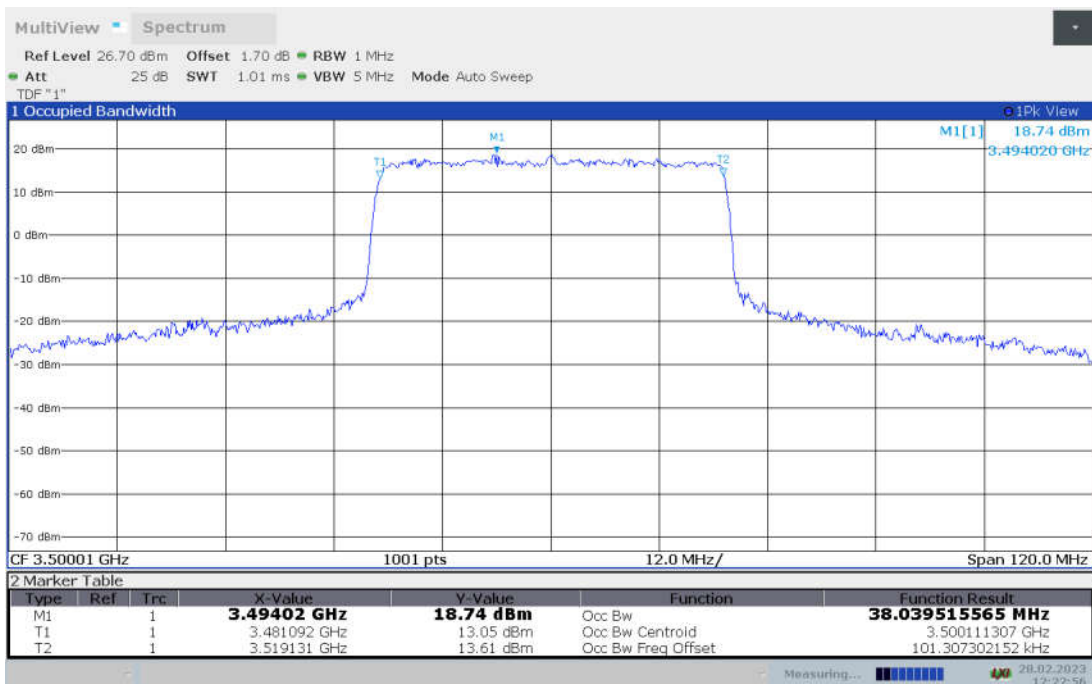
n78L,50MHz Bandwidth, DFT-s-256QAM (99% BW)

MultiView ▪ Spectrum

Ref Level 26.70 dBm   Offset 1.70 dB   RBW 1 MHz
● Att   25 dB   SWT 1.01 ms   VBW 5 MHz   Mode Auto Sweep
TDF "1"

1 Occupied Bandwidth   1Pk View

M1[1]   17.79 dBm
3.499860 GHz

20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm

CF 3.50001 GHz   1001 pts   15.0 MHz/   Span 150.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	3.49986 GHz	17.79 dBm	Occ Bw	46.042388137 MHz
T1		1	3.476256 GHz	11.76 dBm	Occ Bw Centroid	3.499277012 GHz
T2		1	3.522298 GHz	12.89 dBm	Occ Bw Freq Offset	-732.987883124 kHz

Measuring...   28.02.2023 12:24:47

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

MultiView ▪ Spectrum

Ref Level 26.70 dBm   Offset 1.70 dB   RBW 1 MHz
● Att   25 dB   SWT 1.01 ms   VBW 5 MHz   Mode Auto Sweep
TDF "1"

1 Occupied Bandwidth   1Pk View

M1[1]   18.49 dBm
3.494170 GHz

20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm

CF 3.50001 GHz   1001 pts   15.0 MHz/   Span 150.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	3.49417 GHz	18.49 dBm	Occ Bw	47.516247459 MHz
T1		1	3.476297 GHz	13.78 dBm	Occ Bw Centroid	3.500055378 GHz
T2		1	3.523814 GHz	13.23 dBm	Occ Bw Freq Offset	45.378058228 kHz

Measuring...   28.02.2023 12:25:16

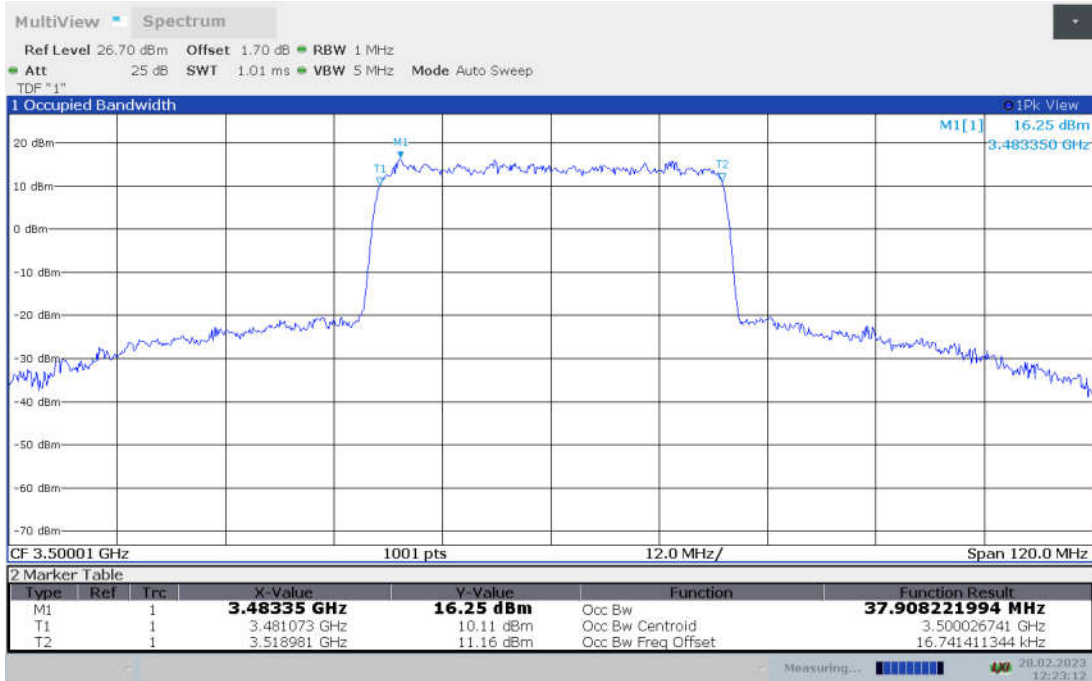**n78L,50MHz Bandwidth, CP-16QAM (99% BW)**

n78L,50MHz Bandwidth, CP-64QAM (99% BW)

n78L,50MHz Bandwidth, CP-256QAM (99% BW)

n78L,60MHz(99% BW)
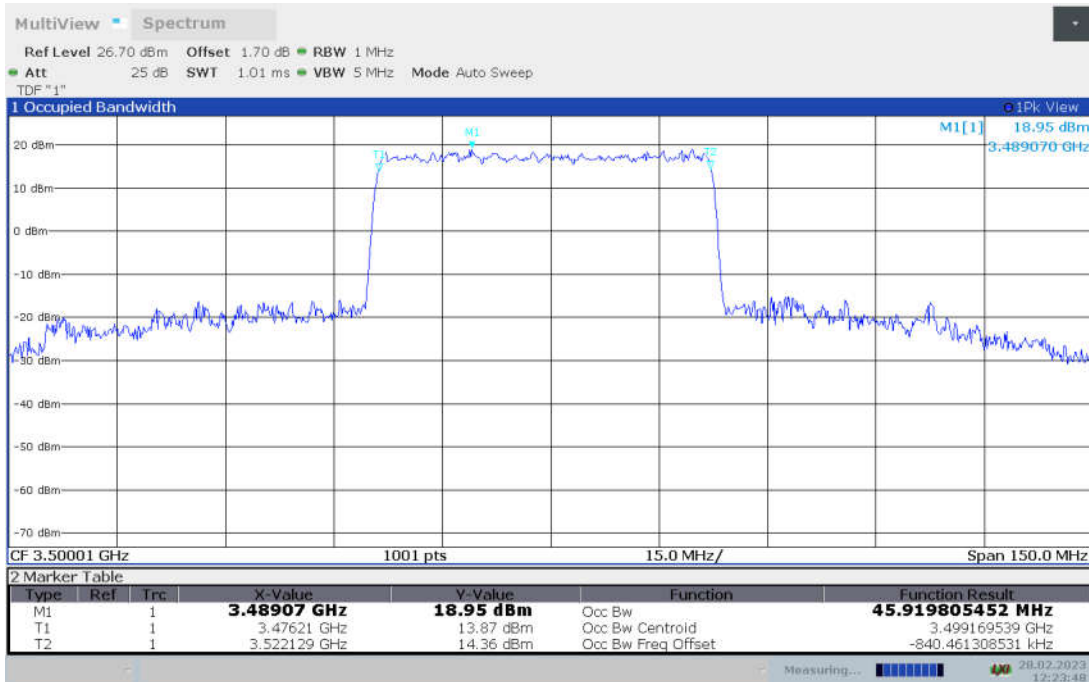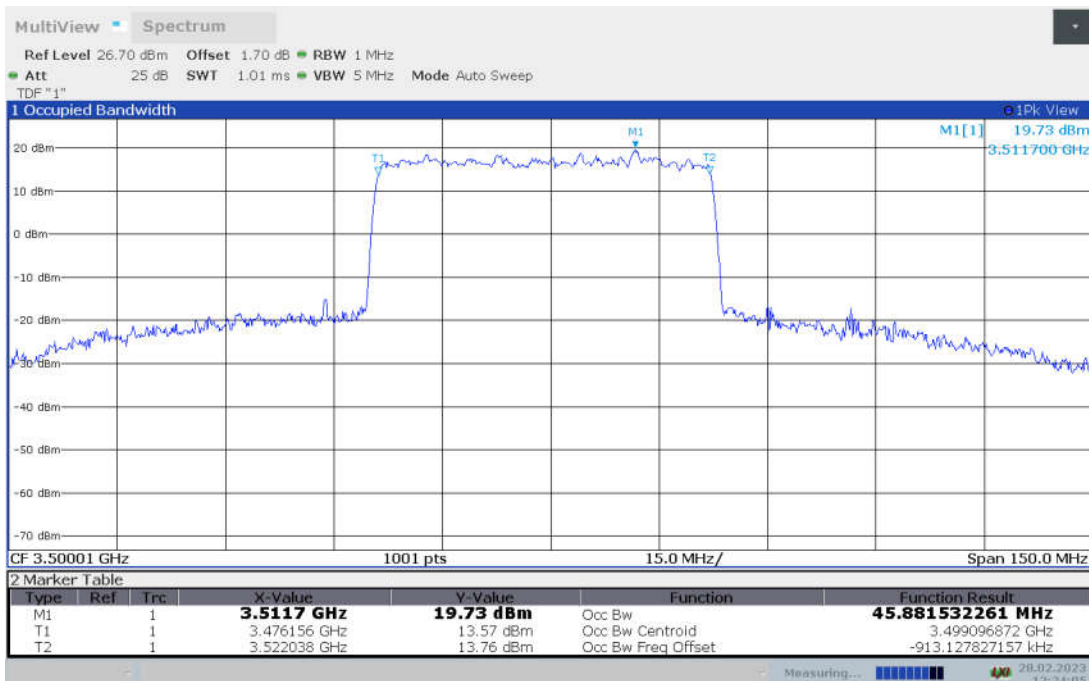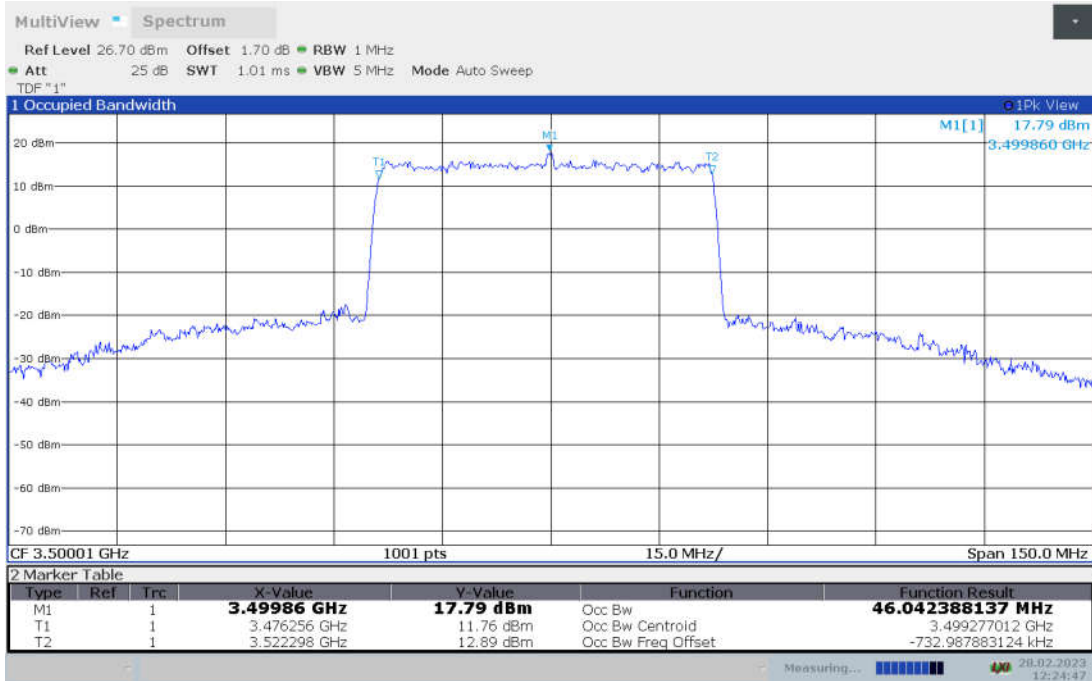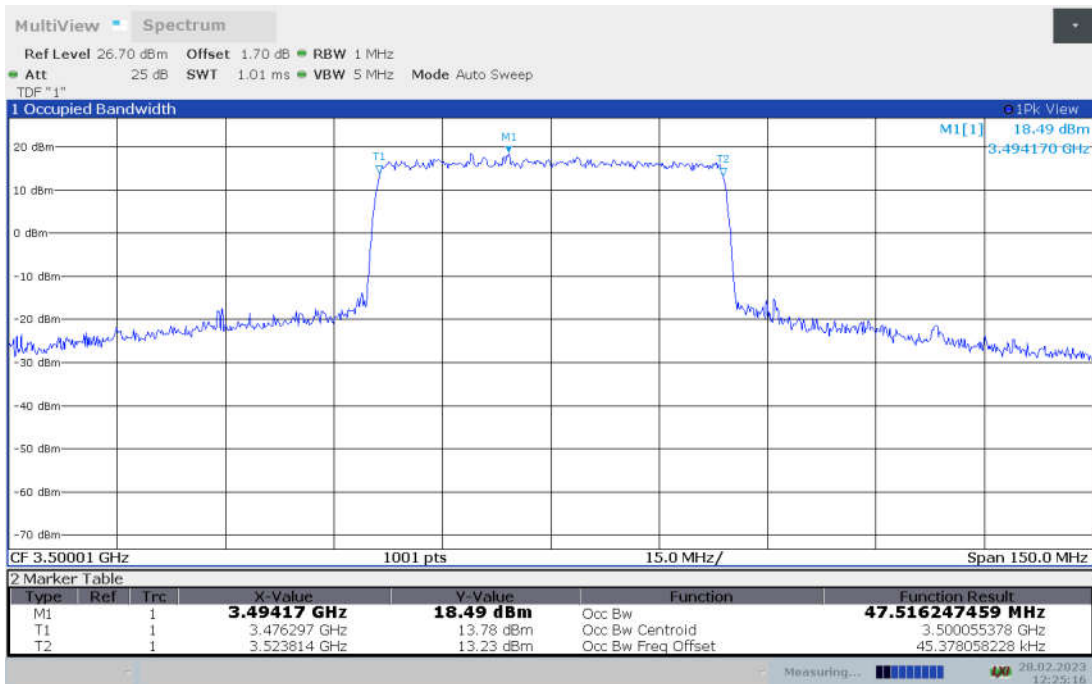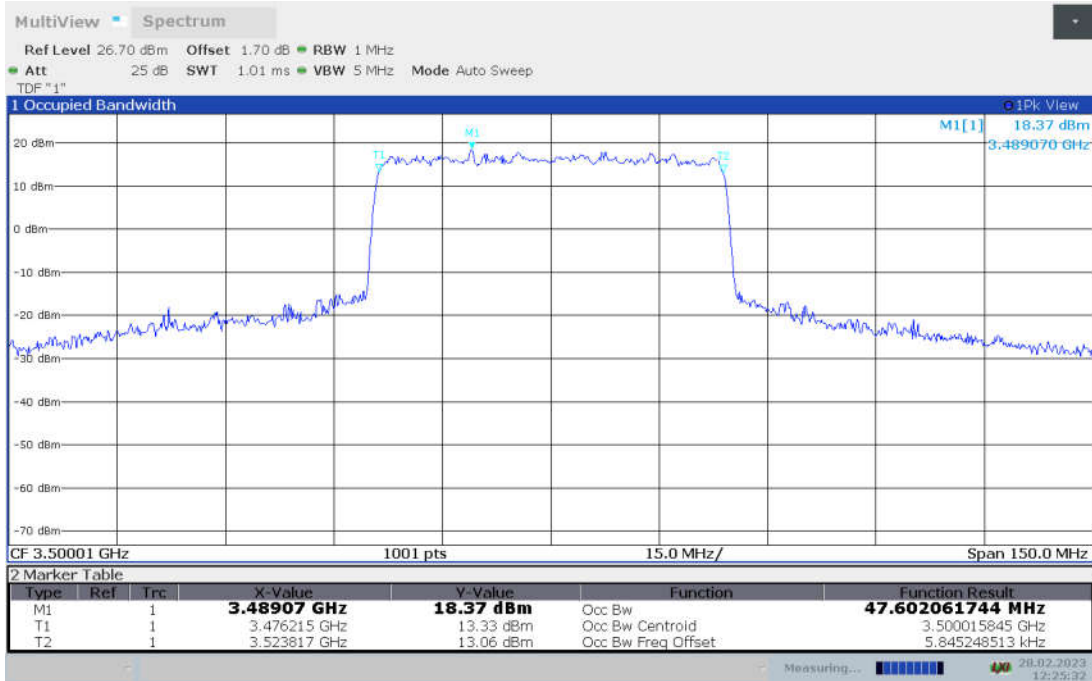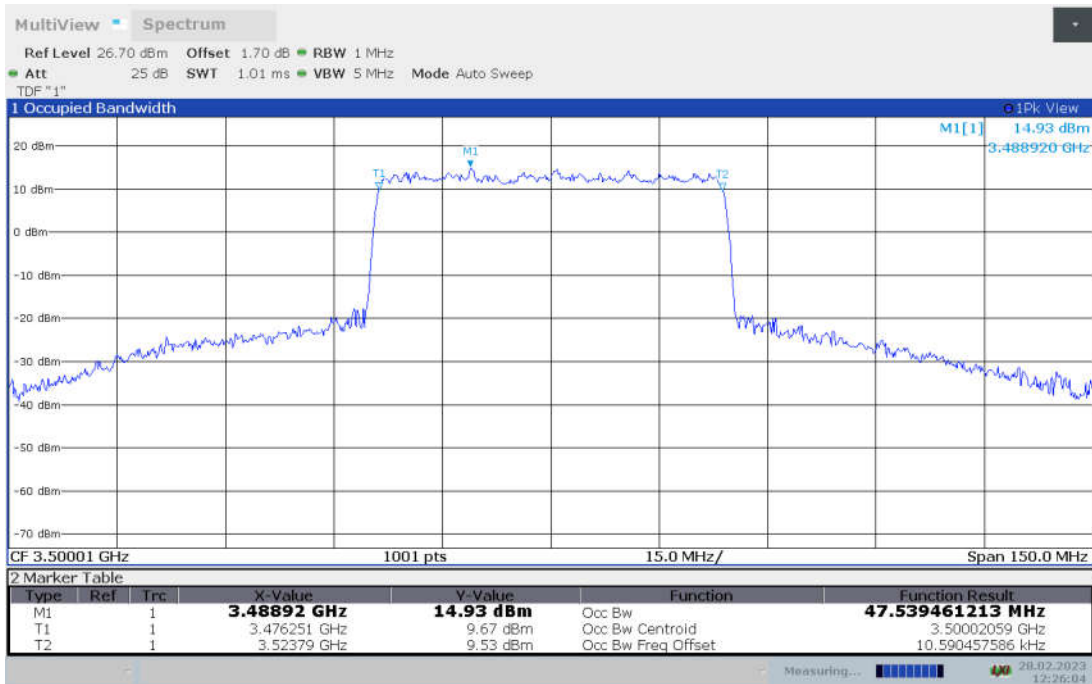
Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3500.01	57.845	57.908	58.014	57.940	57.970	57.869	57.802	57.980	58.026

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)

n78L,60MHz Bandwidth, DFT-s-64QAM (99% BW)

n78L,60MHz Bandwidth, DFT-s-256QAM (99% BW)

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

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

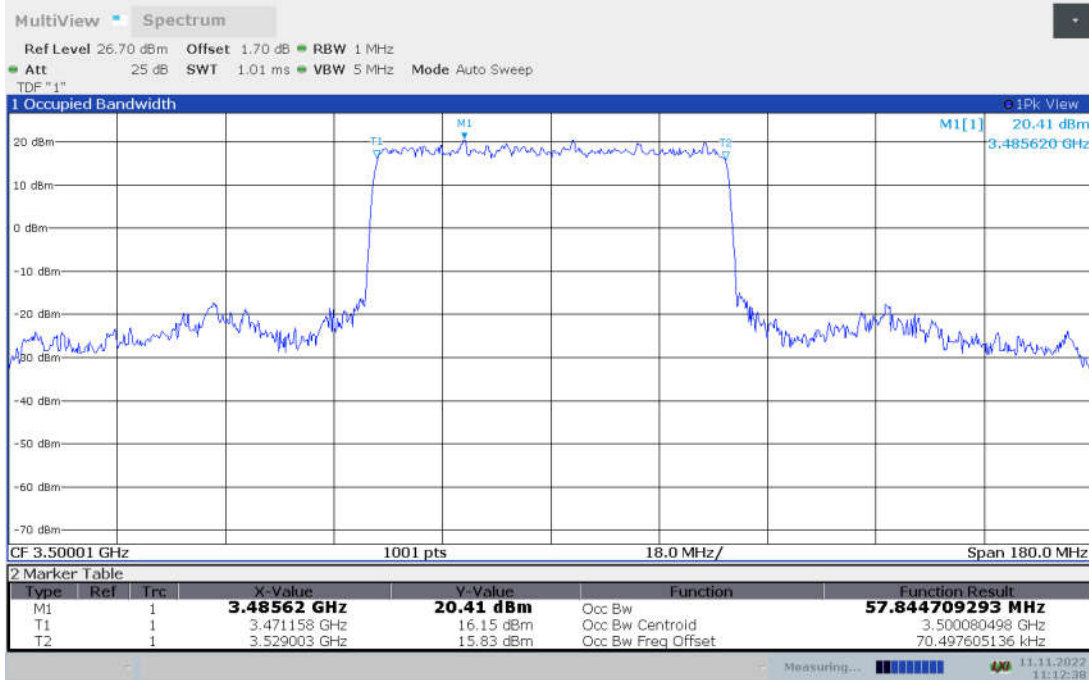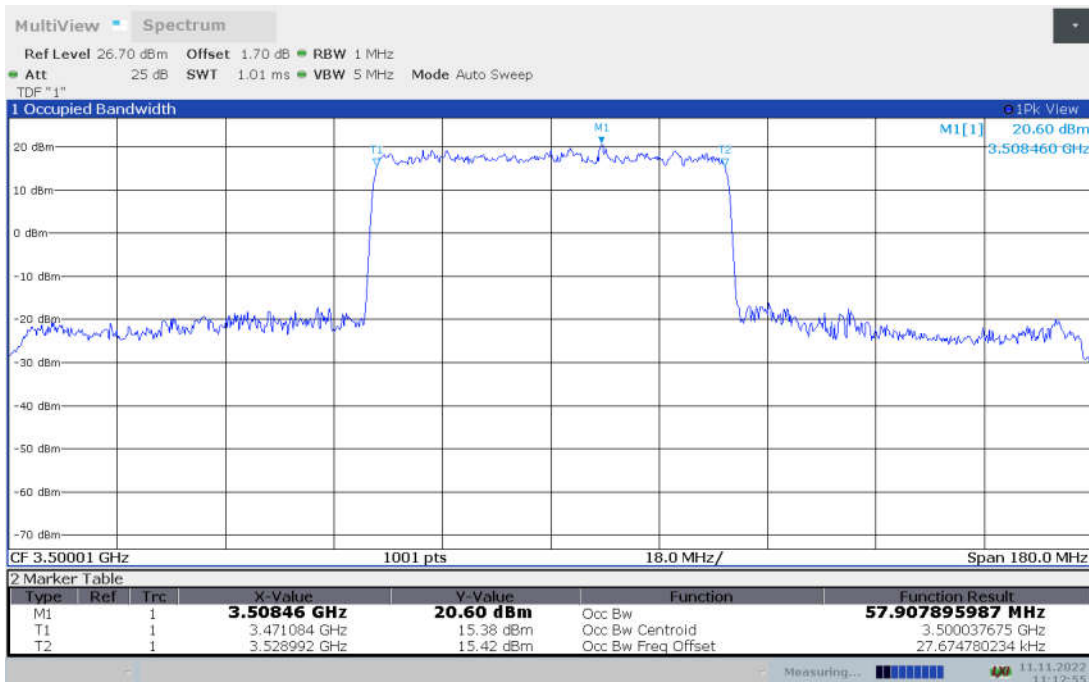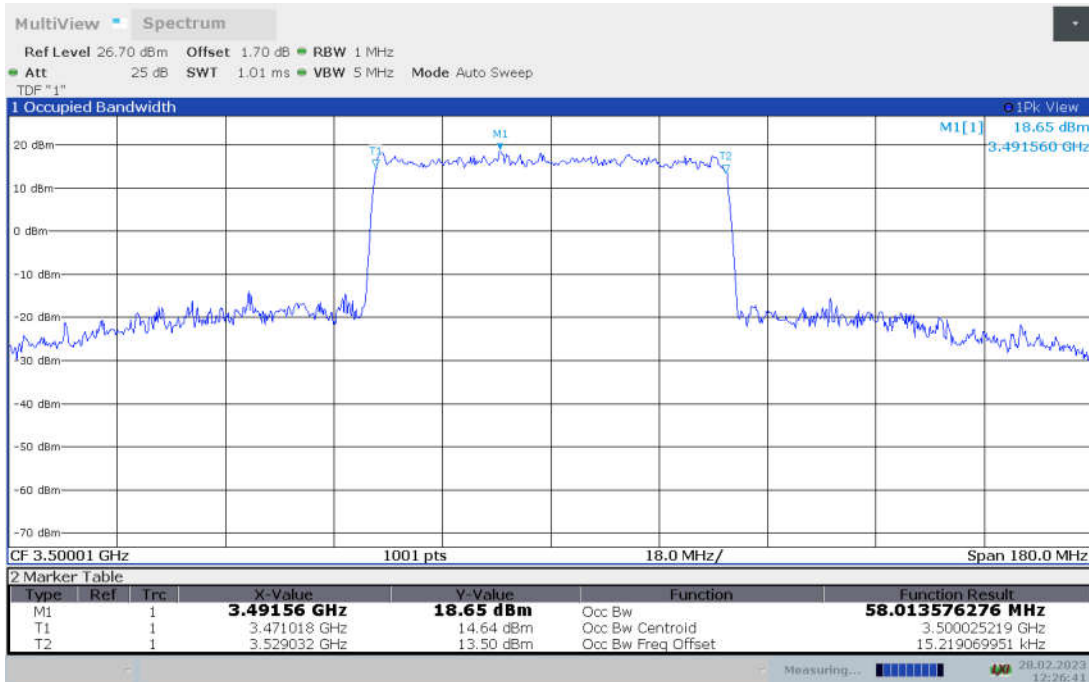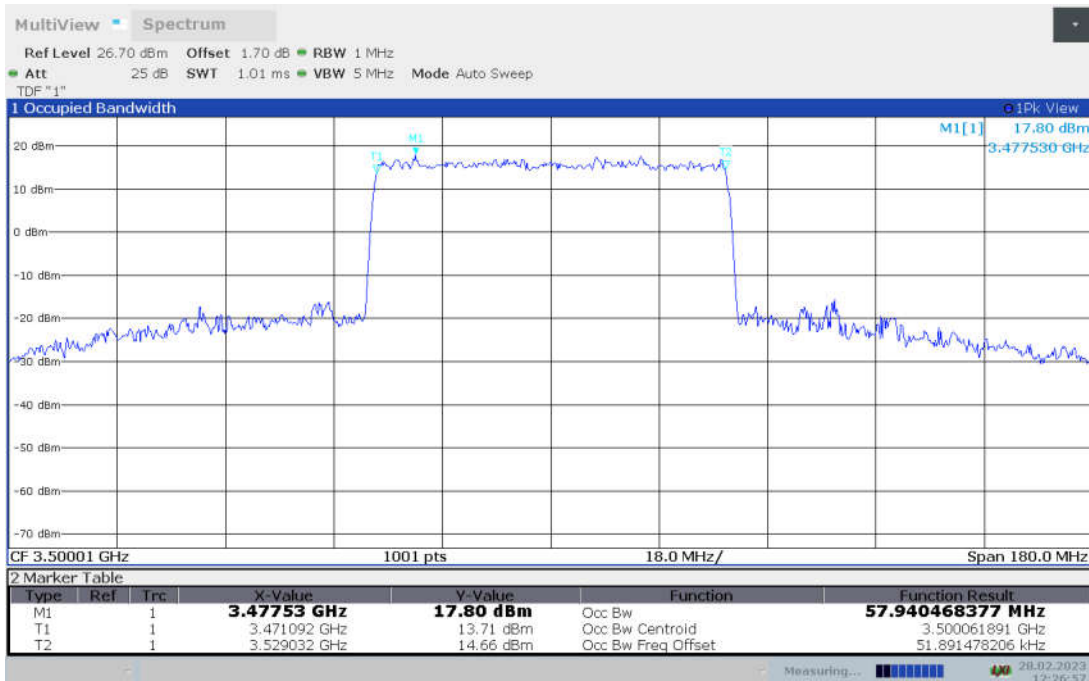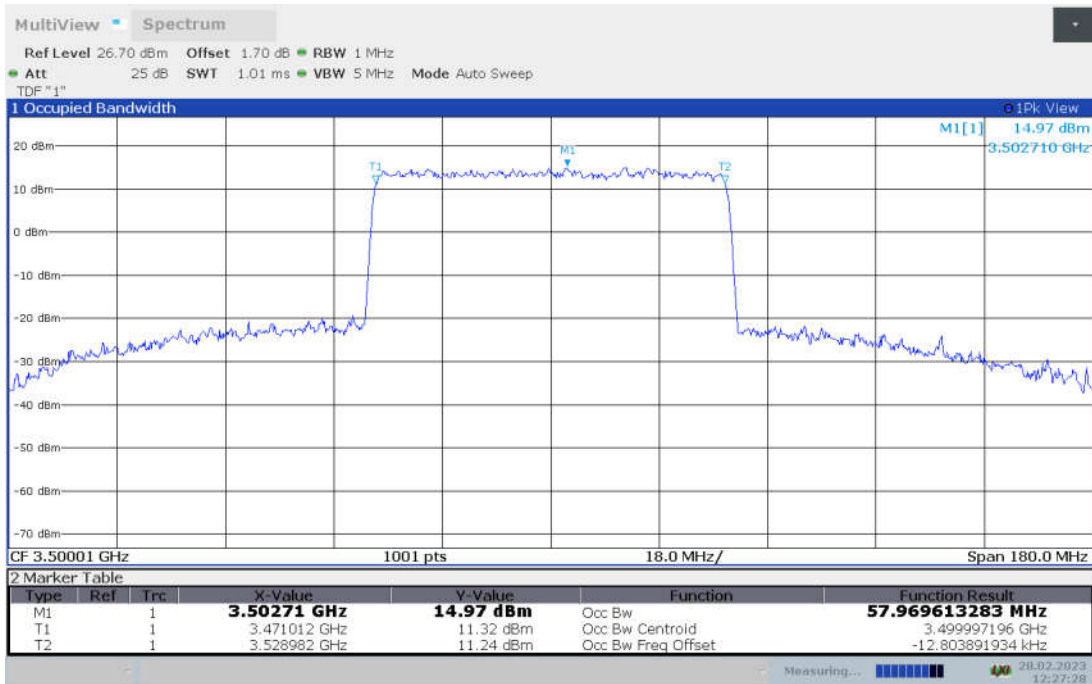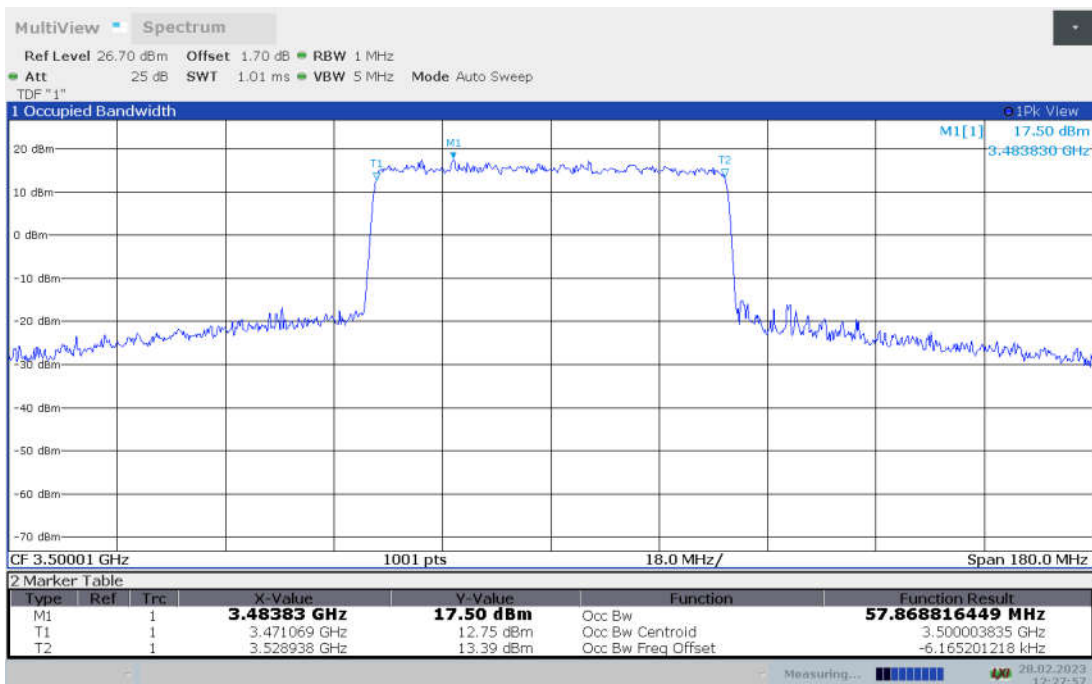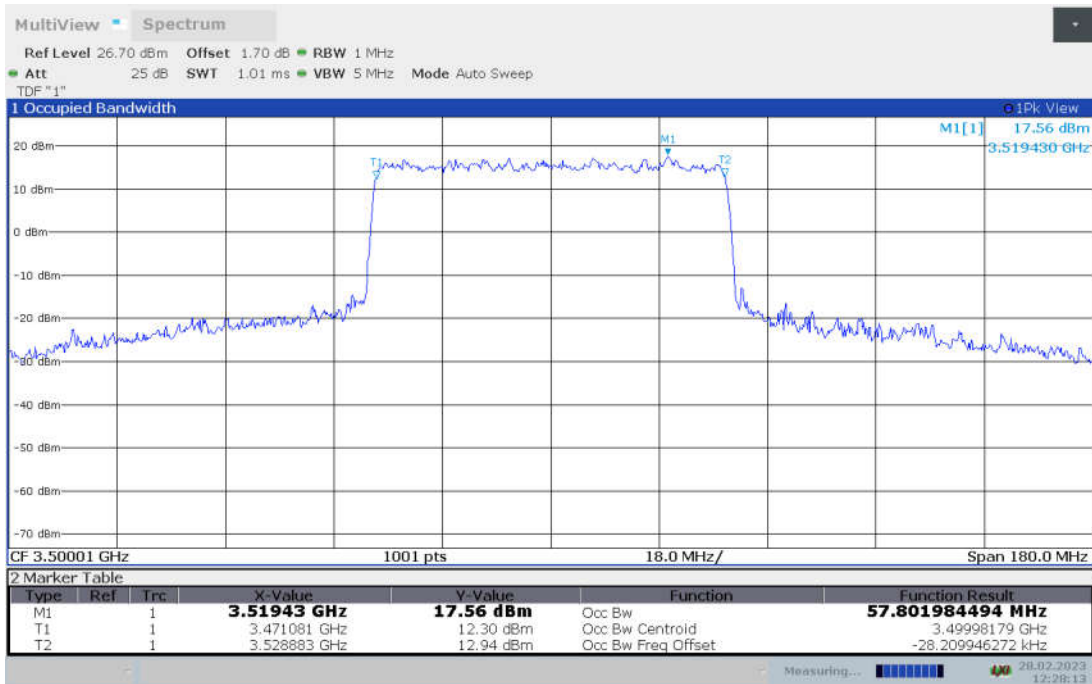**n78L,60MHz Bandwidth, CP-64QAM (99% BW)**

n78L,60MHz Bandwidth, CP-256QAM (99% BW)

n78L,70MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	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	64.516	64.520	64.253	64.440	64.227	67.466	67.583	67.496	67.598

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)

n78L,70MHz Bandwidth, DFT-s-64QAM (99% BW)

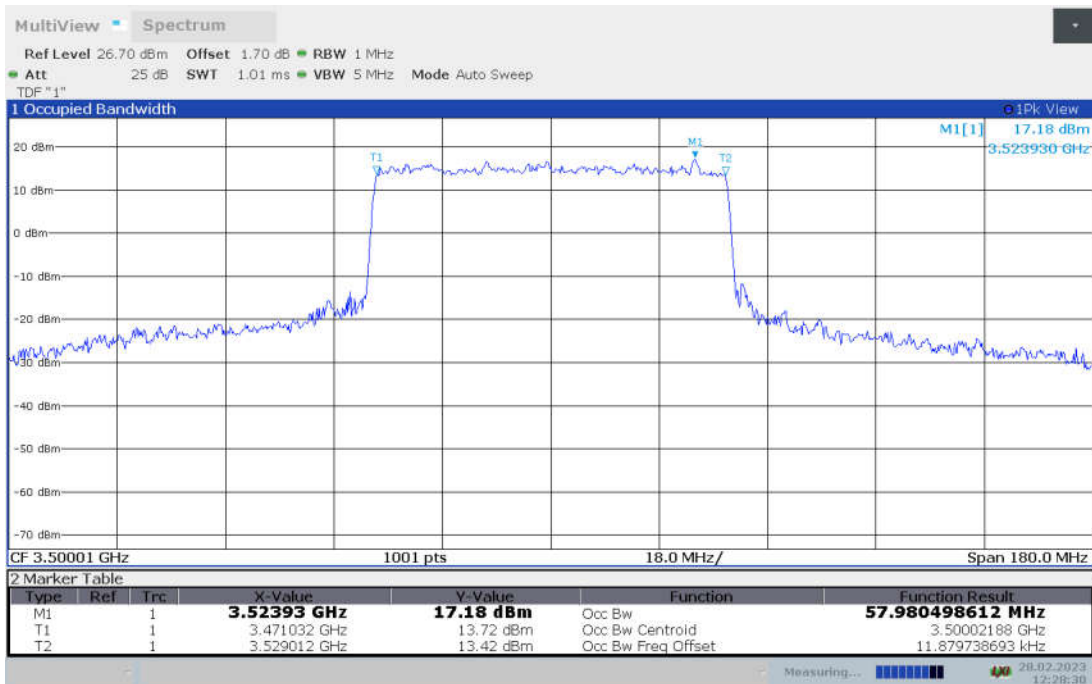**n78L,70MHz Bandwidth, DFT-s-256QAM (99% BW)**

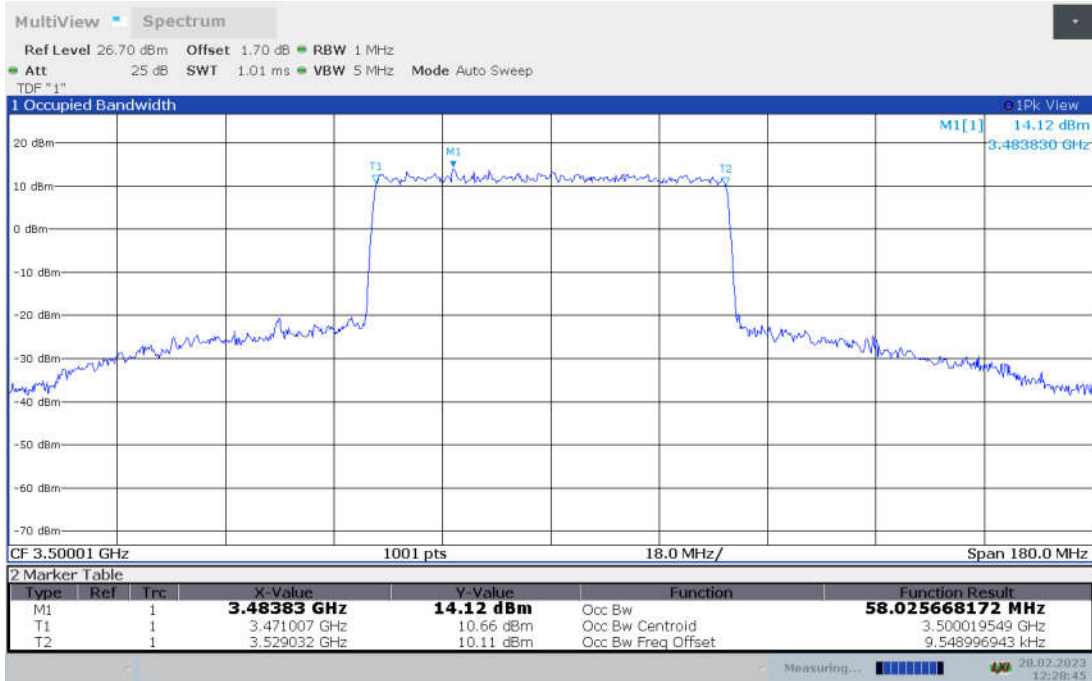**n78L,70MHz Bandwidth, CP-QPSK (99% BW)**

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

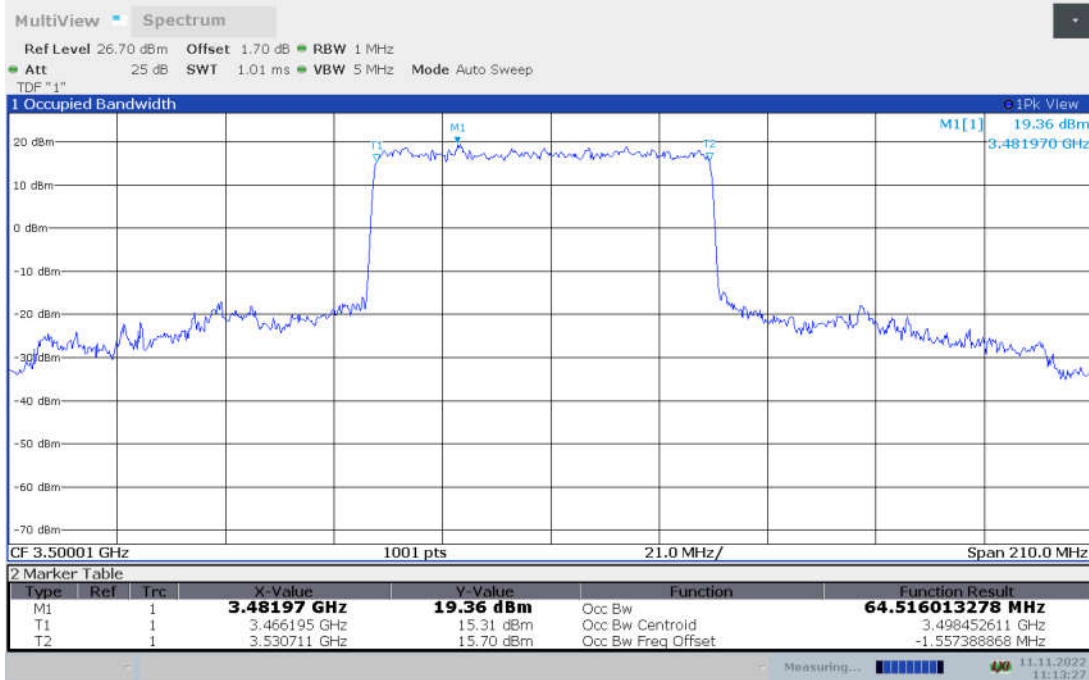**n78L,70MHz Bandwidth, CP-64QAM (99% BW)**
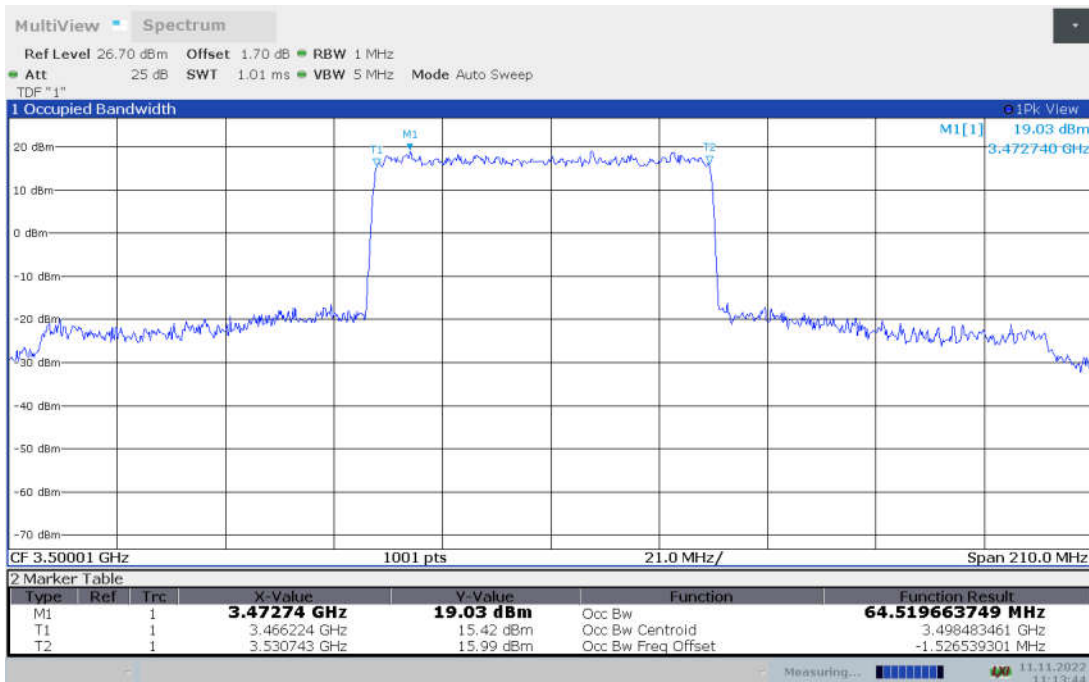
n78L,70MHz Bandwidth, CP-256QAM (99% BW)

n78L,80MHz(99% BW)

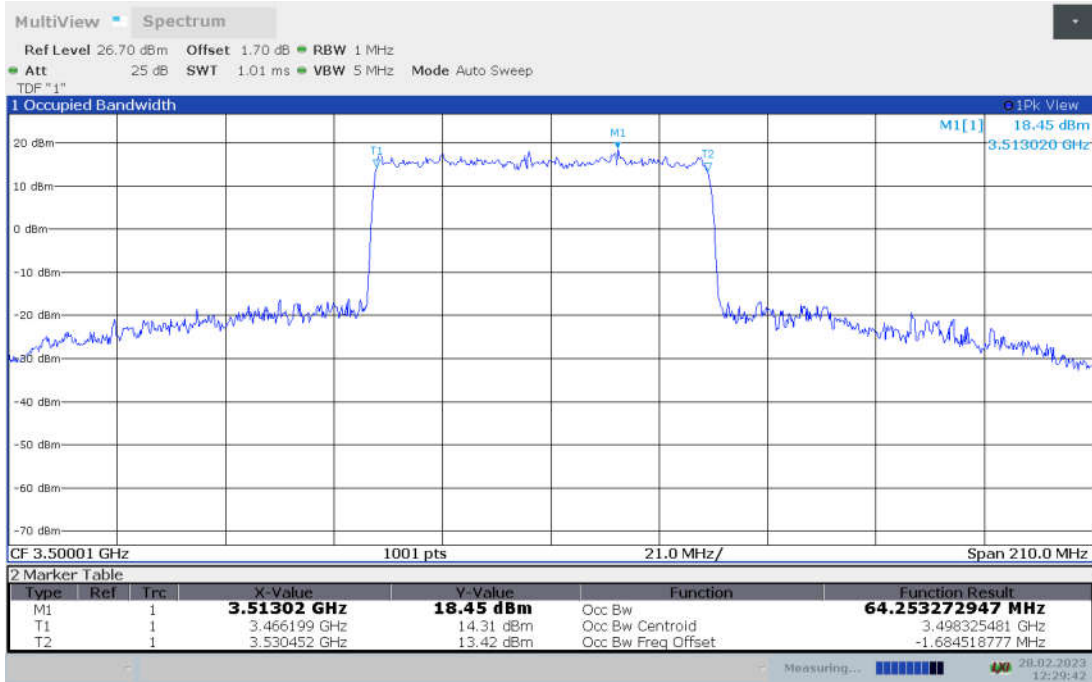| Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3500.01	77.527	77.563	77.758	77.541	77.366	78.014	77.780	77.927	78.010

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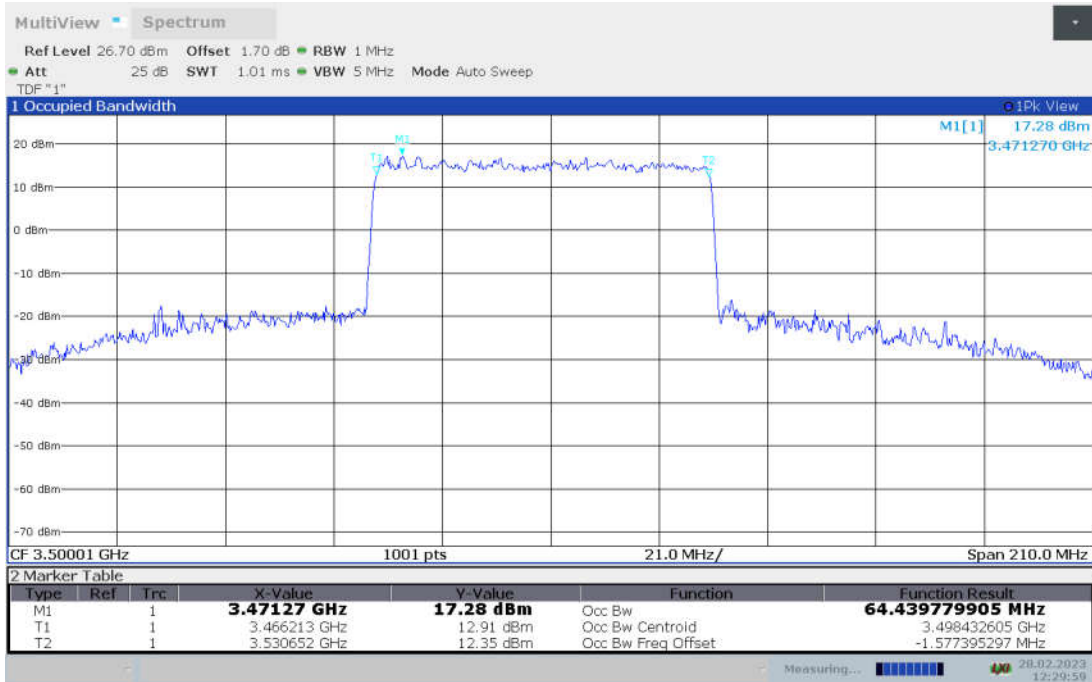

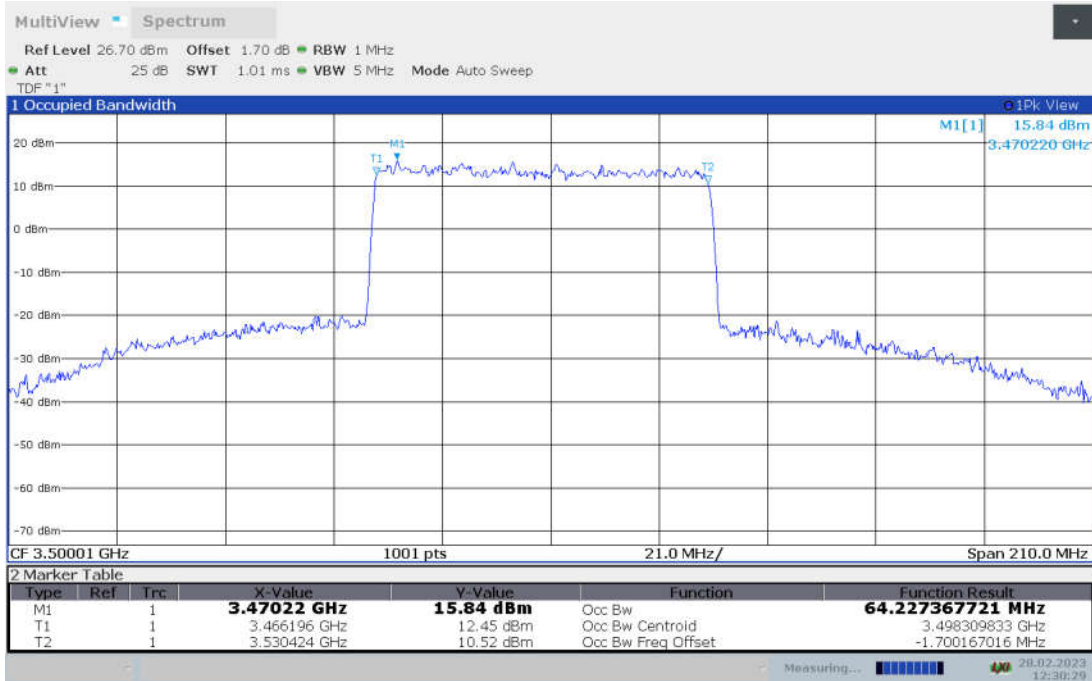**n78L,80MHz Bandwidth,DFT-s-QPSK (99% BW)**

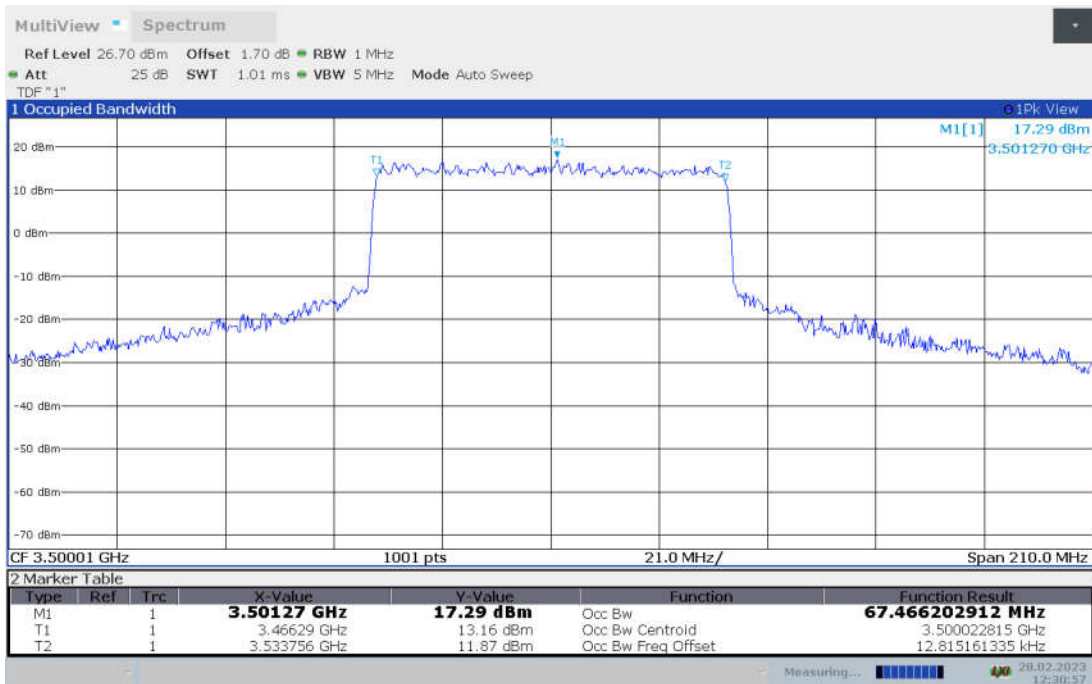**n78L,80MHz Bandwidth, DFT-s-16QAM (99% BW)**

n78L,80MHz Bandwidth, DFT-s-64QAM (99% BW)
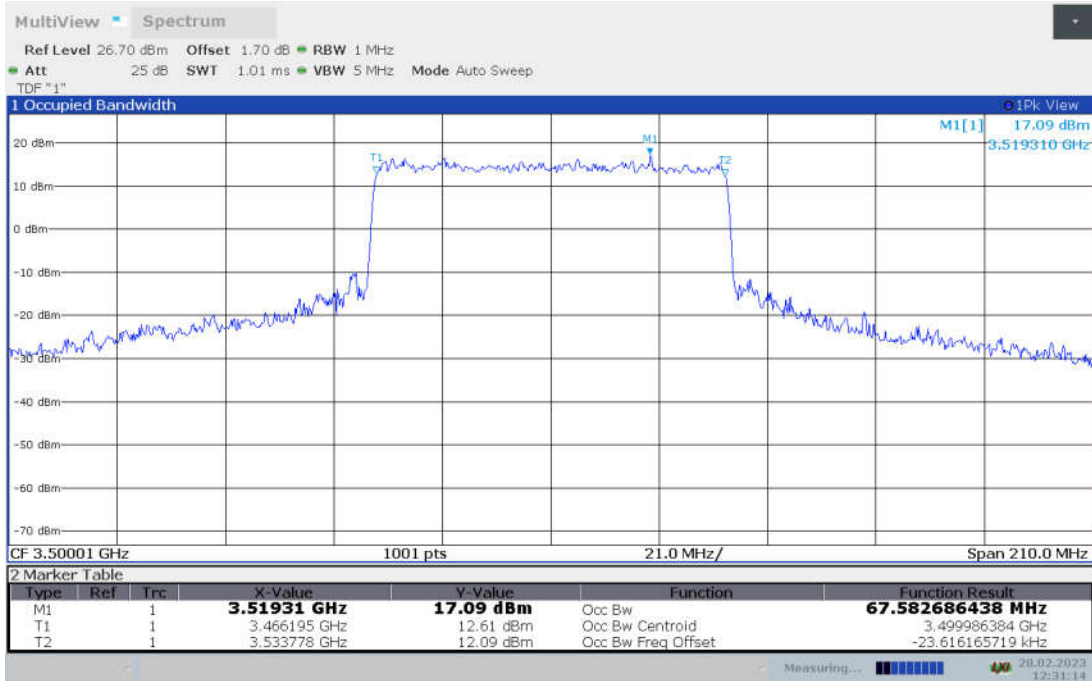
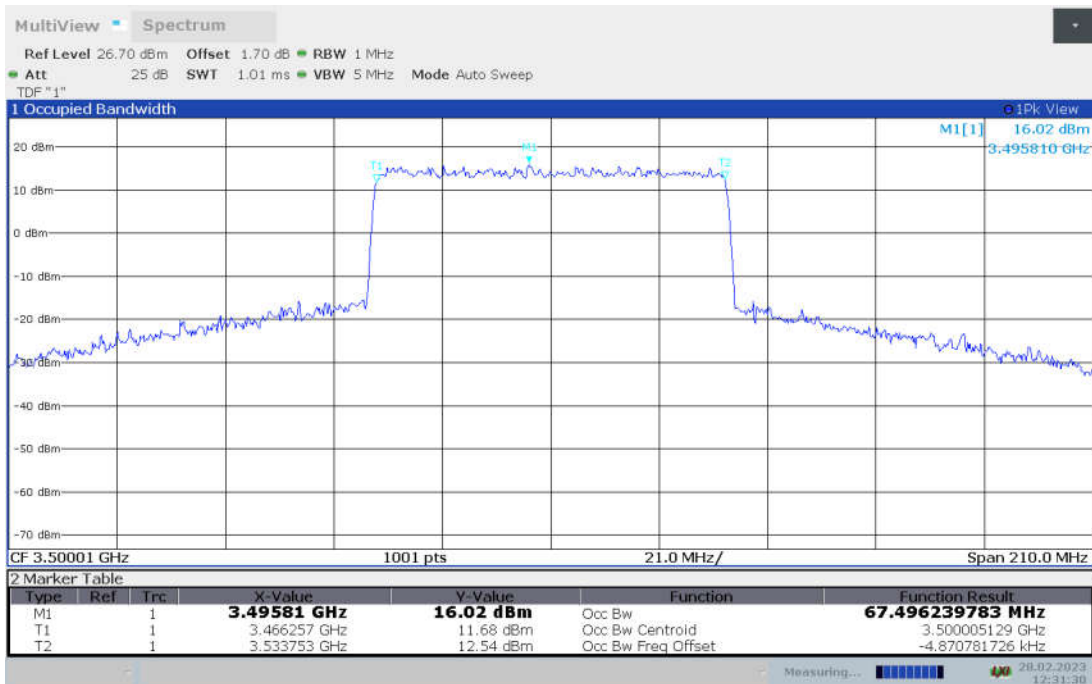**n78L,80MHz Bandwidth, DFT-s-256QAM (99% BW)**

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

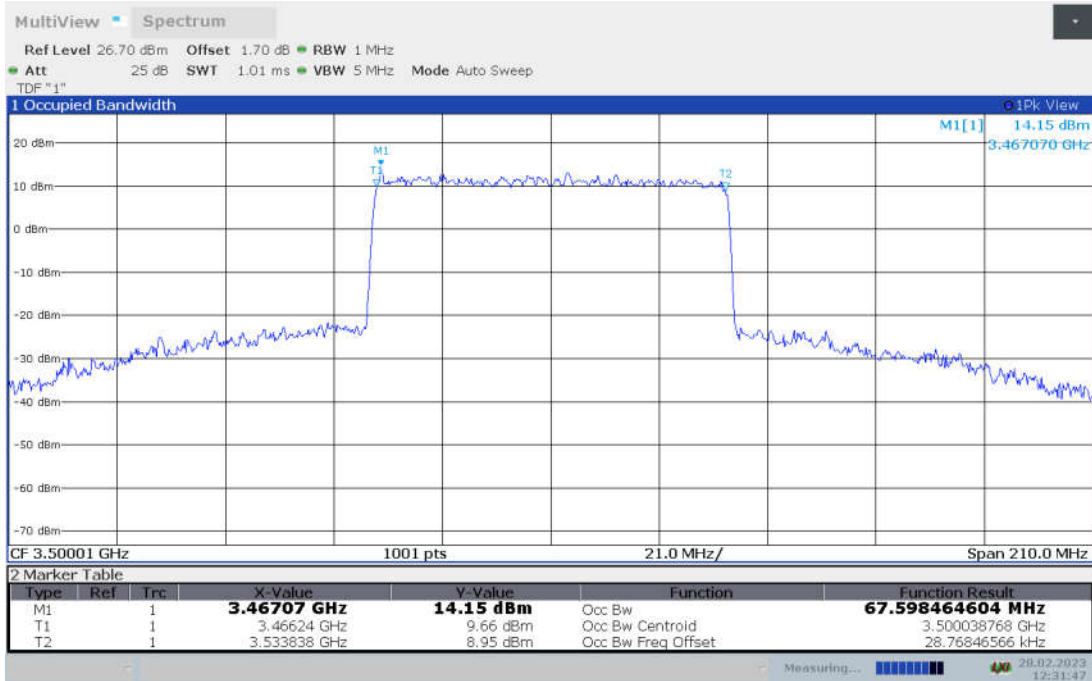**n78L,80MHz Bandwidth, CP-16QAM (99% BW)**
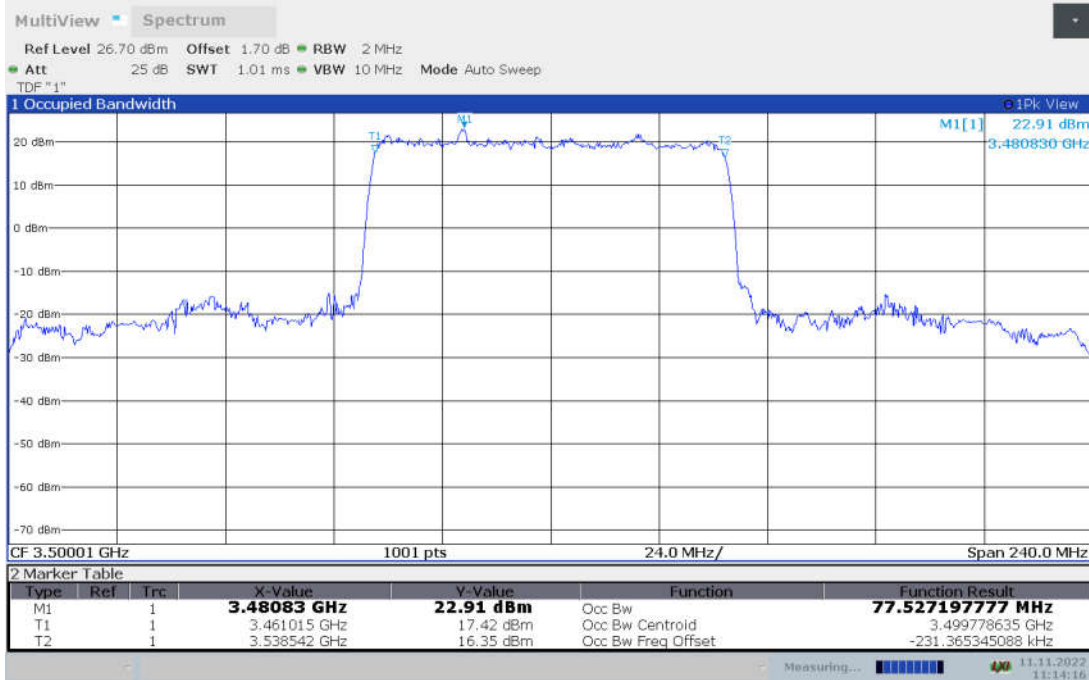

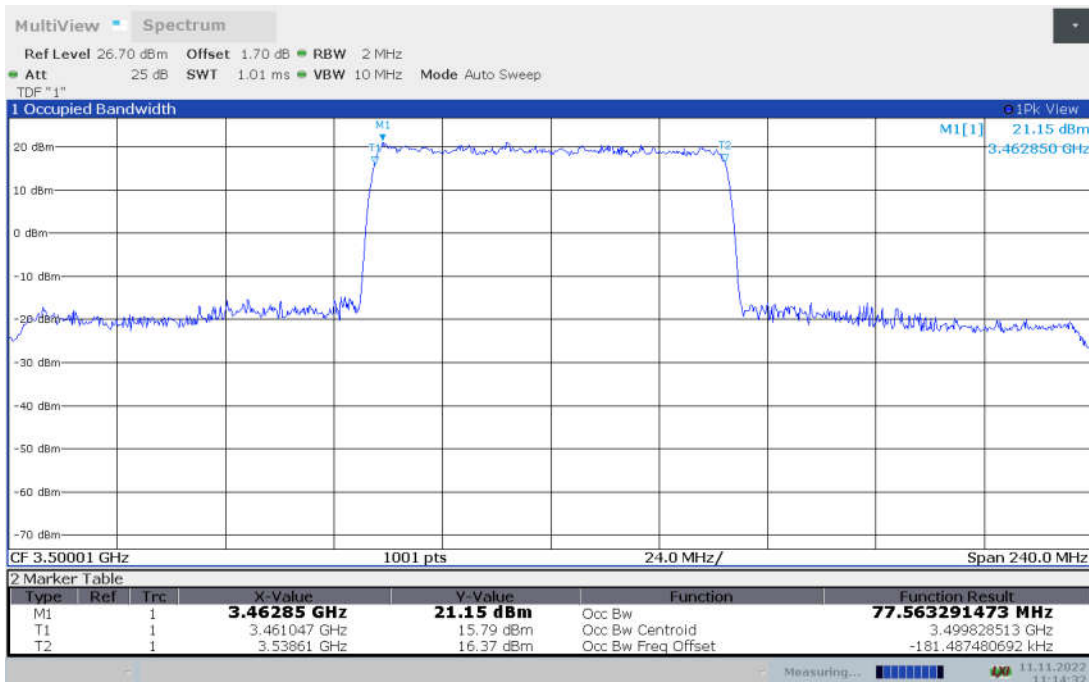**n78L,80MHz Bandwidth, CP-64QAM (99% BW)**

n78L,80MHz Bandwidth, CP-256QAM (99% BW)

n78L,90MHz(99% BW)

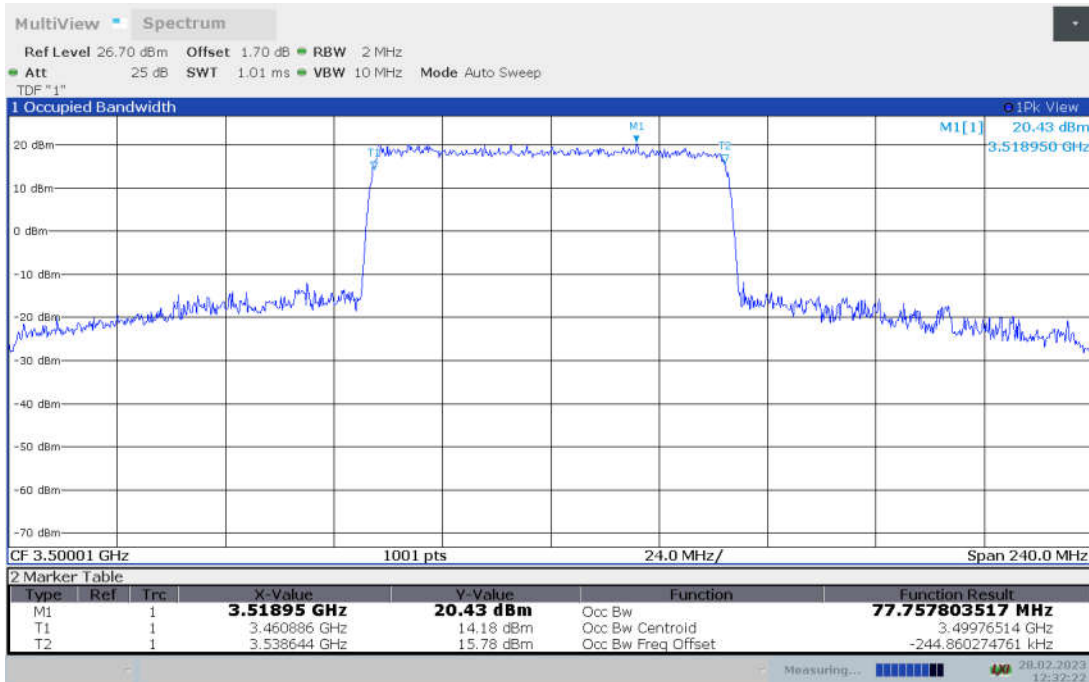| Frequency (MHz)	Occupied Bandwidth (99% BW) (MHz)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3500.01	86.015	86.199	86.190	86.135	85.964	87.811	87.819	87.866	87.803

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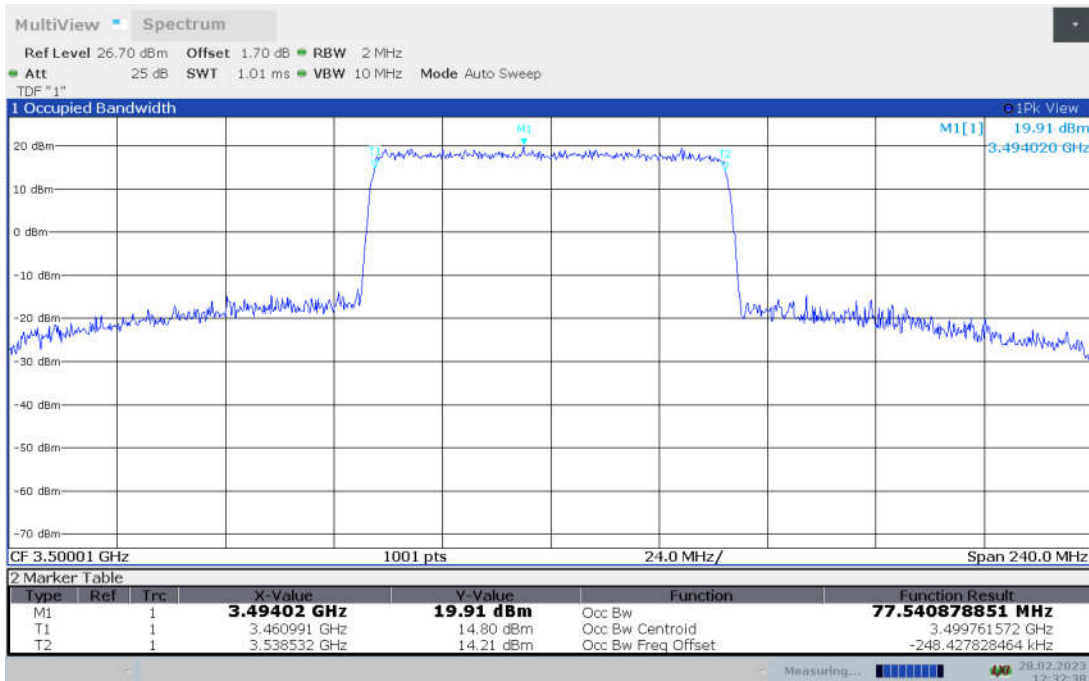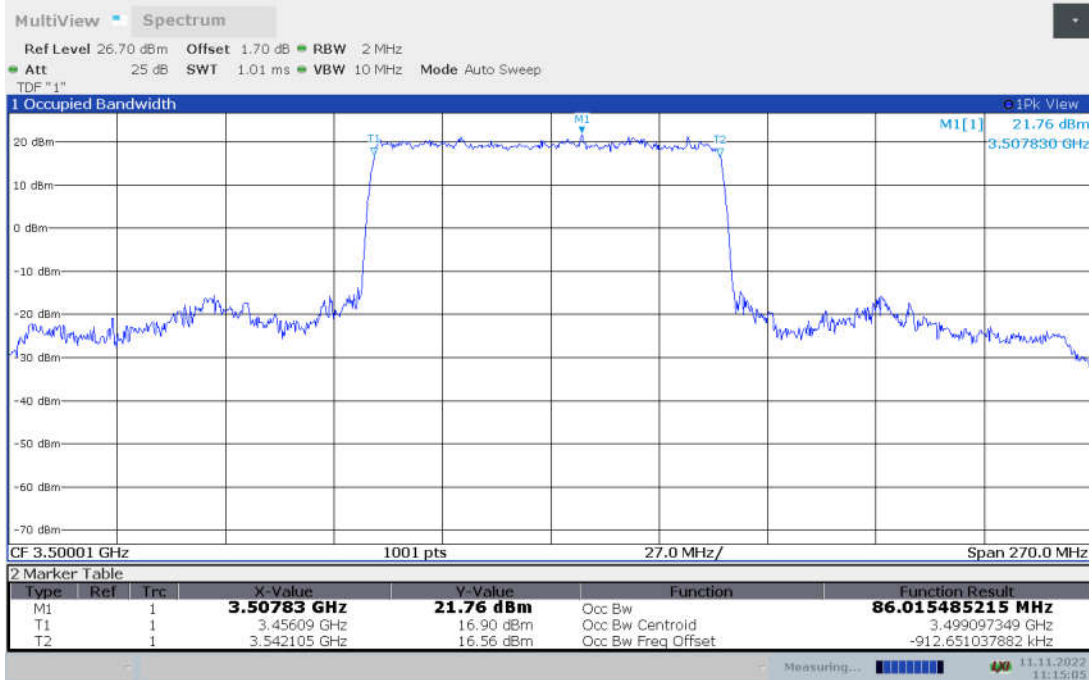

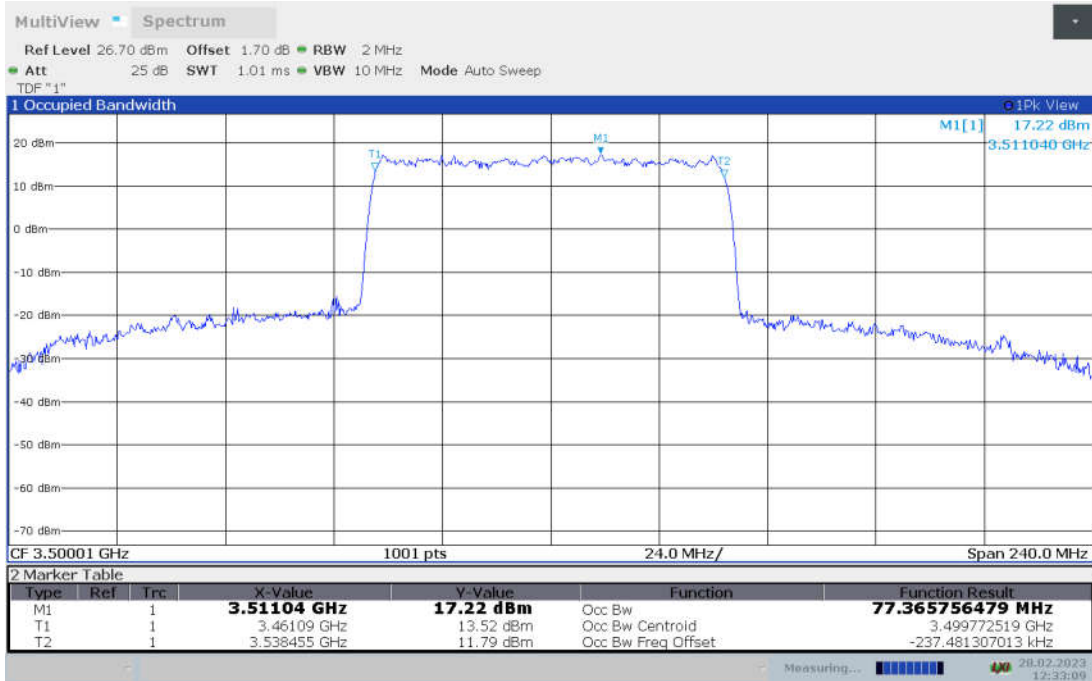### n78L,90MHz Bandwidth,DFT-s-QPSK (99% BW)
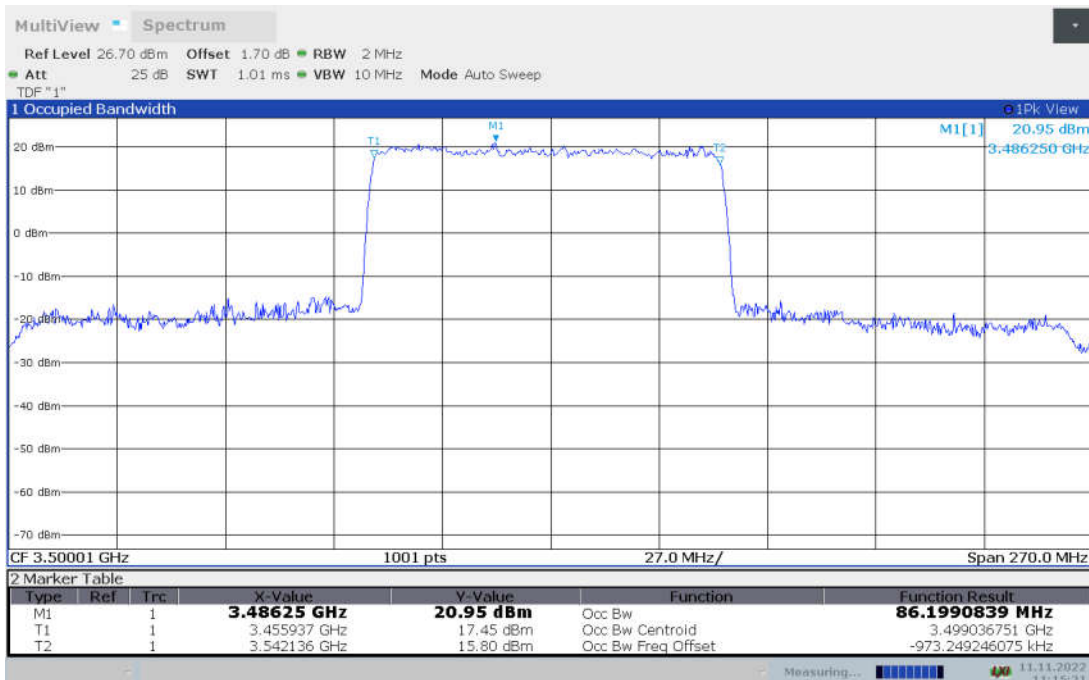
n78L,90MHz Bandwidth, DFT-s-16QAM (99% BW)
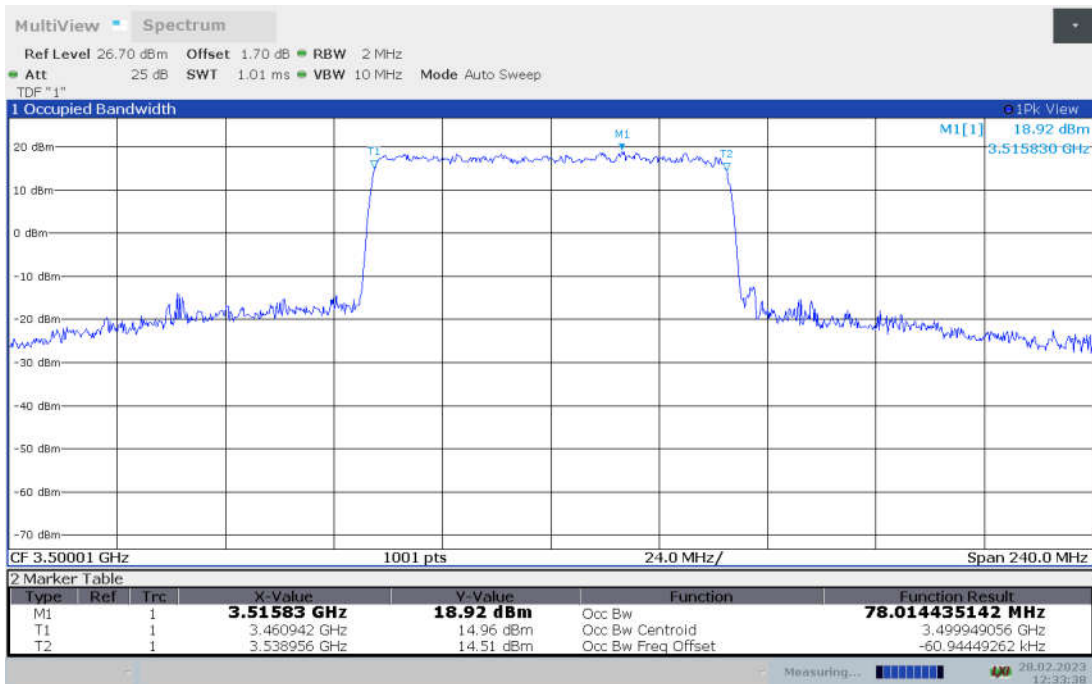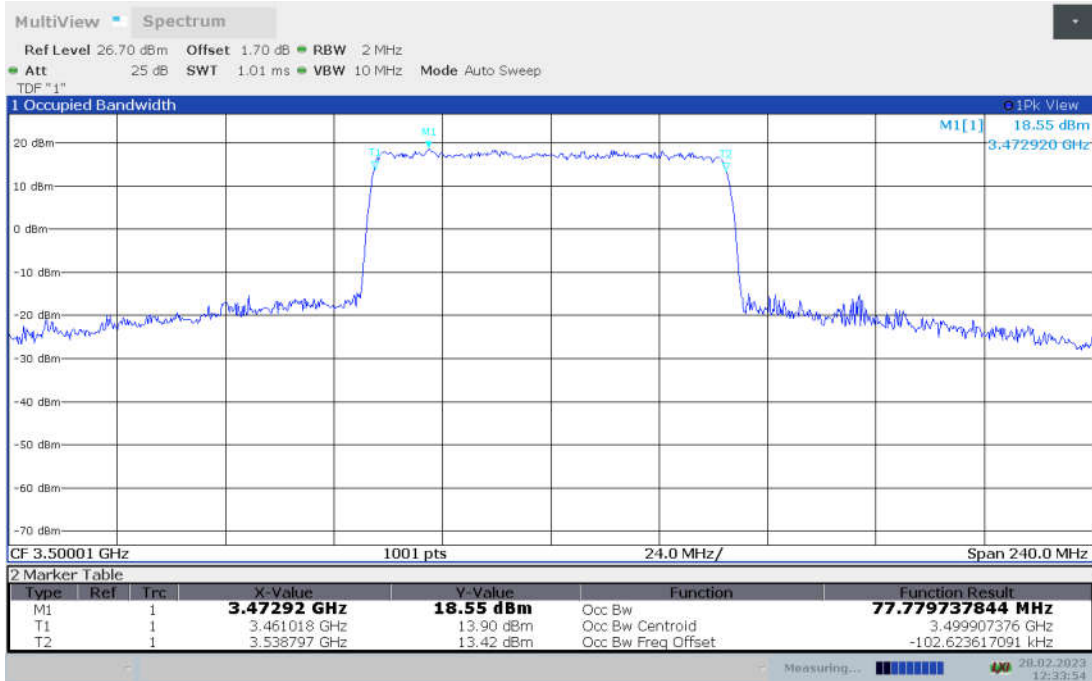

n78L,90MHz Bandwidth, DFT-s-64QAM (99% BW)

n78L,90MHz Bandwidth, DFT-s-256QAM (99% BW)

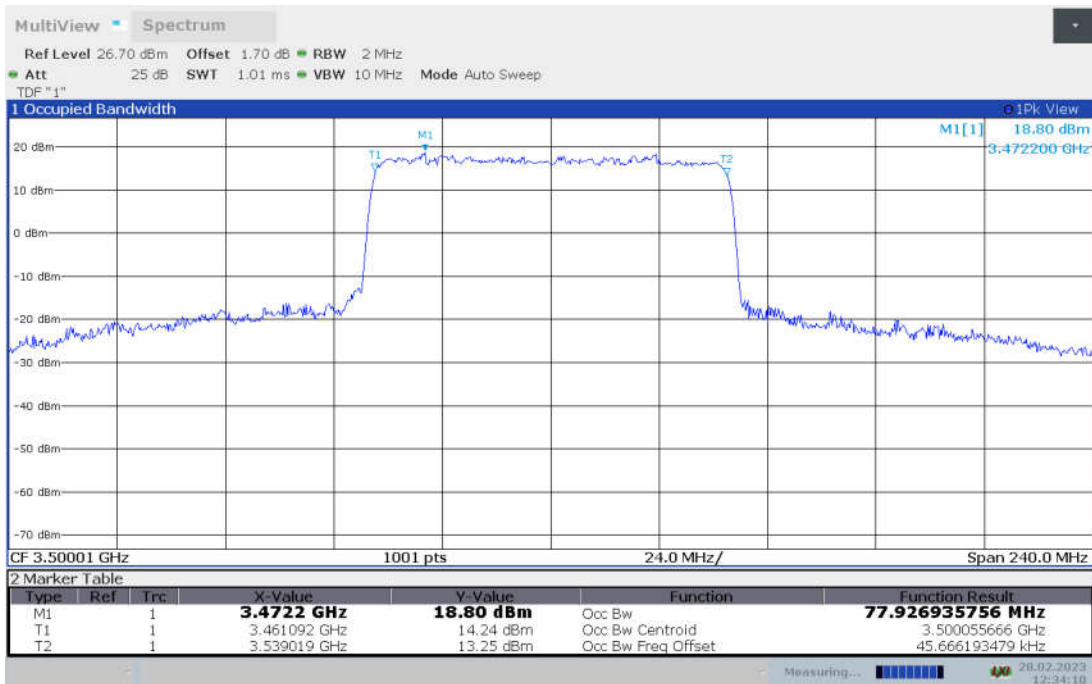## n78L,90MHz Bandwidth, CP-QPSK (99% BW)
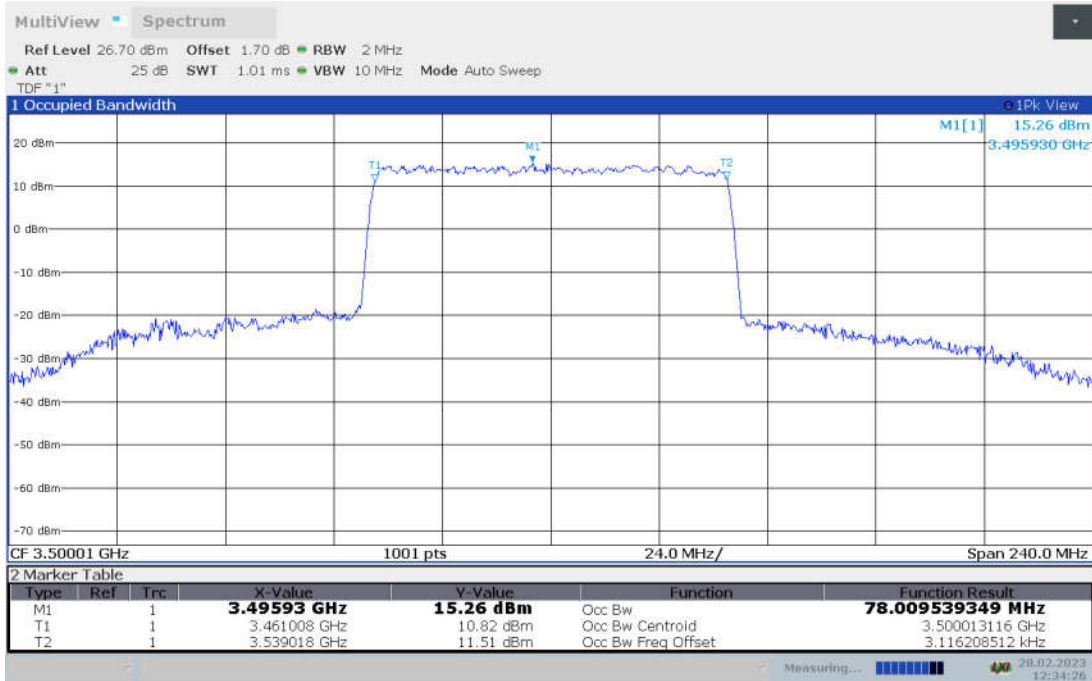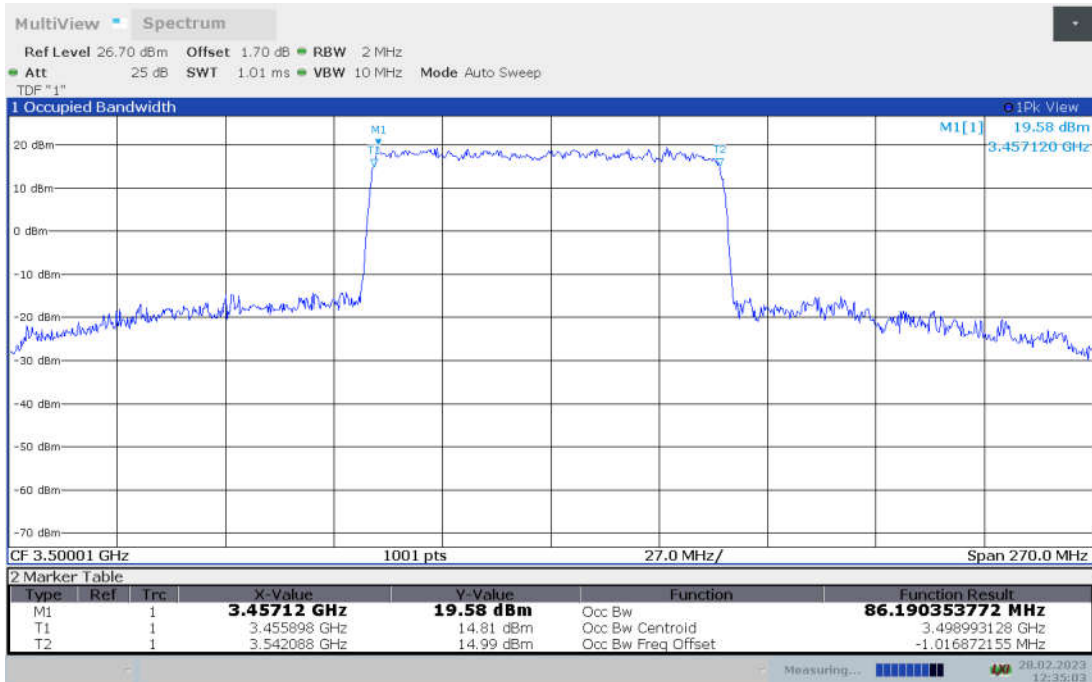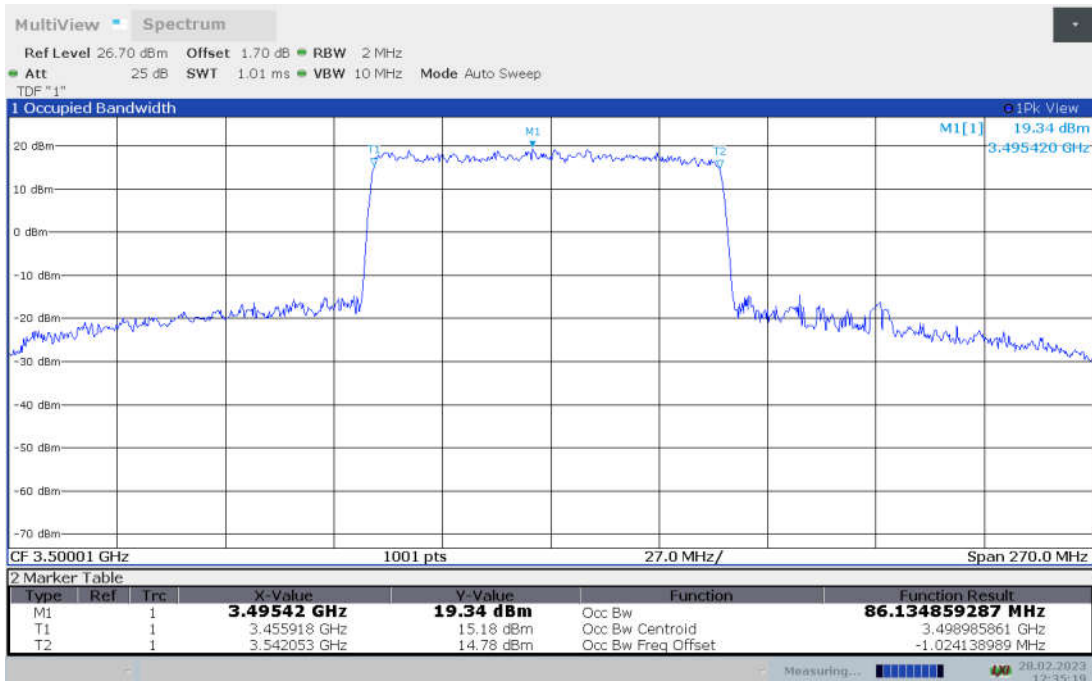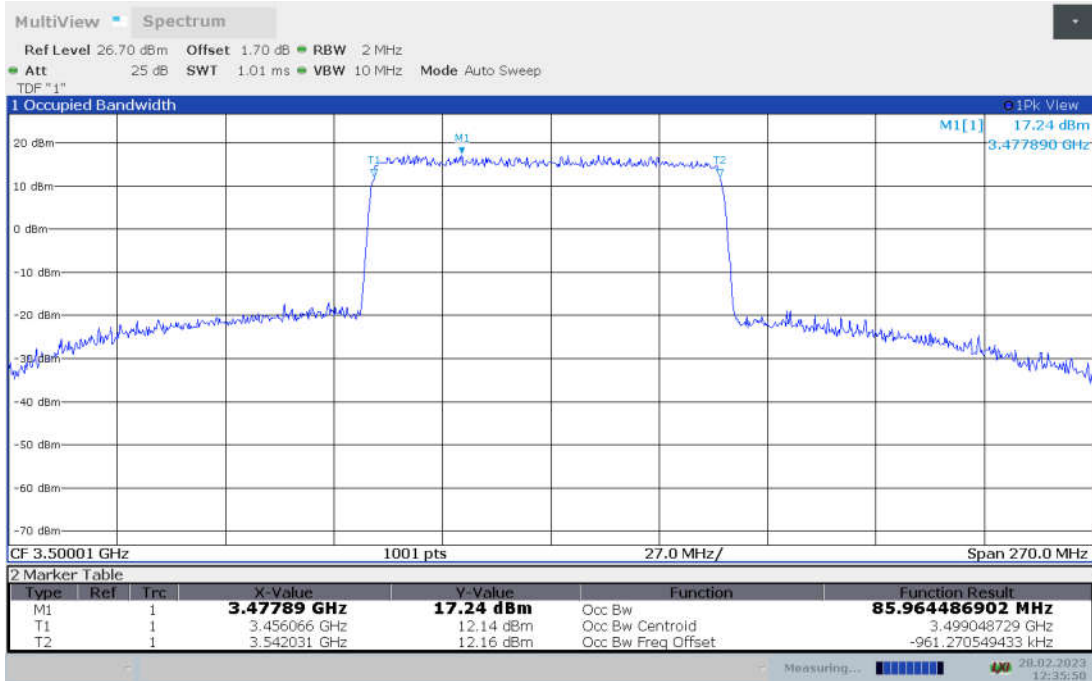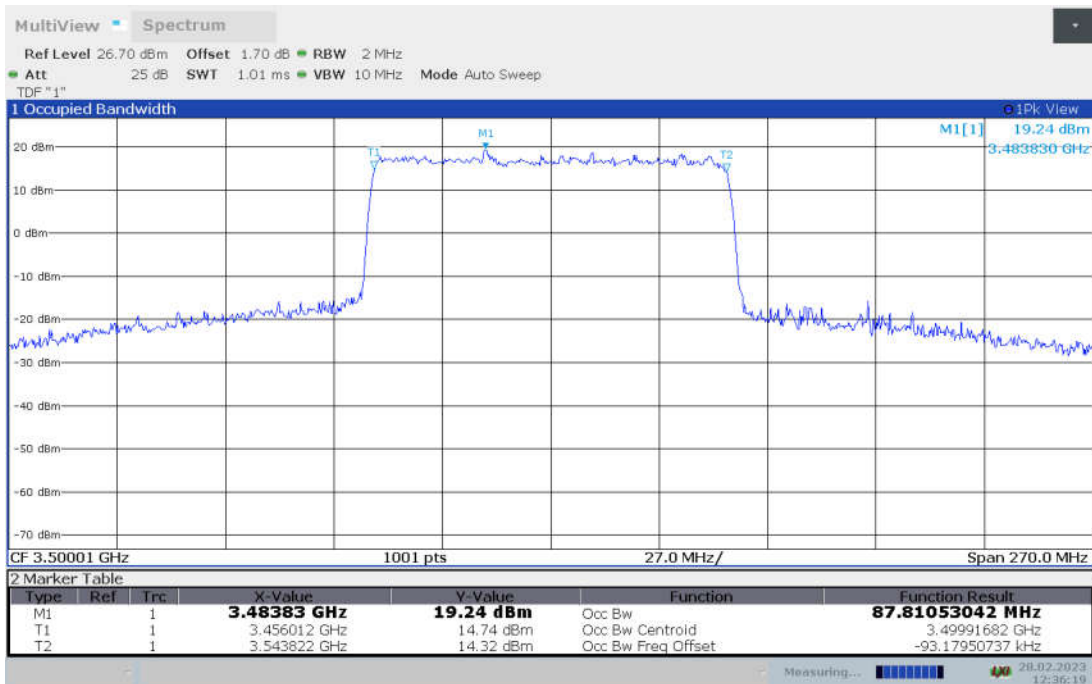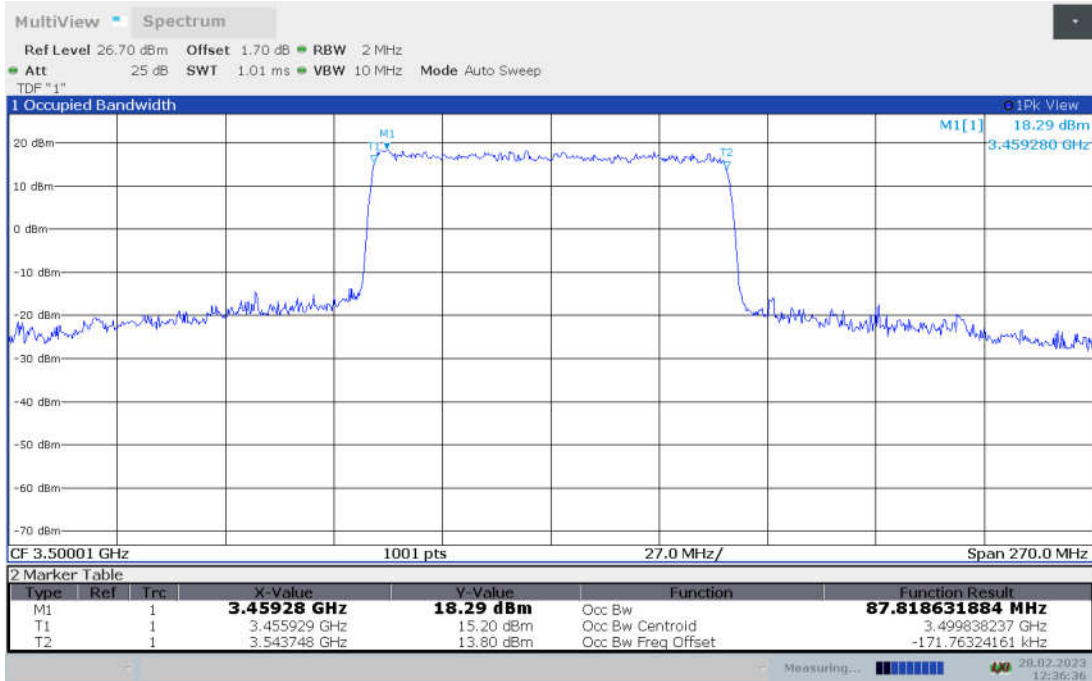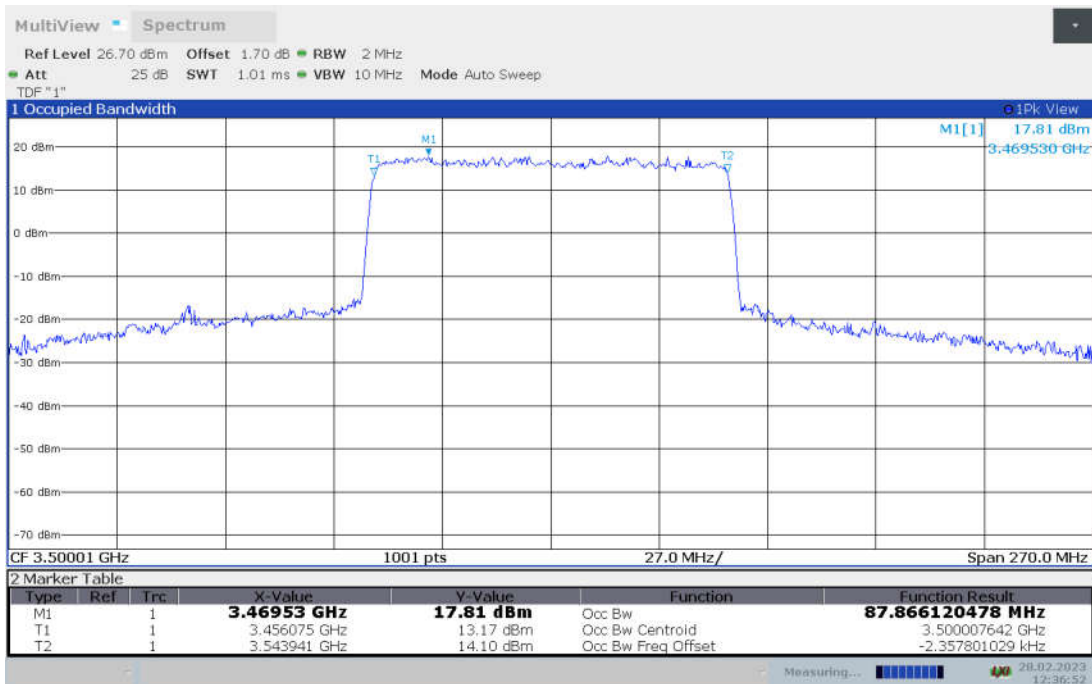
n78L,90MHz Bandwidth, CP-16QAM (99% BW)

MultiView · Spectrum

Ref Level 26.70 dBm   Offset 1.70 dB · RBW 2 MHz
· Att   25 dB   SWT 1.01 ms · VBW 10 MHz   Mode Auto Sweep
TDF "1"

1 Occupied Bandwidth   ·1Pk View

M1[1] 18.29 dBm
3.459280 GHz

CF 3.50001 GHz   1001 pts   27.0 MHz/   Span 270.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	3.45928 GHz	18.29 dBm	Occ Bw	87.818631884 MHz
T1		1	3.455929 GHz	15.20 dBm	Occ Bw Centroid	3.499838237 GHz
T2		1	3.543748 GHz	13.80 dBm	Occ Bw Freq Offset	-171.76324161 kHz

Measuring... 28.02.2023 12:36:36

n78L,90MHz Bandwidth, CP-64QAM (99% BW)

MultiView · Spectrum

Ref Level 26.70 dBm   Offset 1.70 dB · RBW 2 MHz
· Att   25 dB   SWT 1.01 ms · VBW 10 MHz   Mode Auto Sweep
TDF "1"

1 Occupied Bandwidth   ·1Pk View

M1[1] 17.81 dBm
3.469530 GHz

CF 3.50001 GHz   1001 pts   27.0 MHz/   Span 270.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	3.46953 GHz	17.81 dBm	Occ Bw	87.866120478 MHz
T1		1	3.456075 GHz	13.17 dBm	Occ Bw Centroid	3.500007642 GHz
T2		1	3.543941 GHz	14.10 dBm	Occ Bw Freq Offset	-2.357801029 kHz

Measuring... 28.02.2023 12:36:52

n78L,90MHz Bandwidth, CP-256QAM (99% BW)