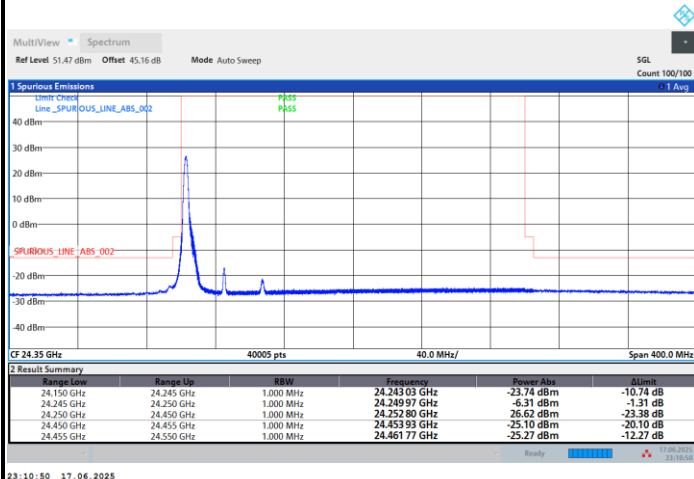




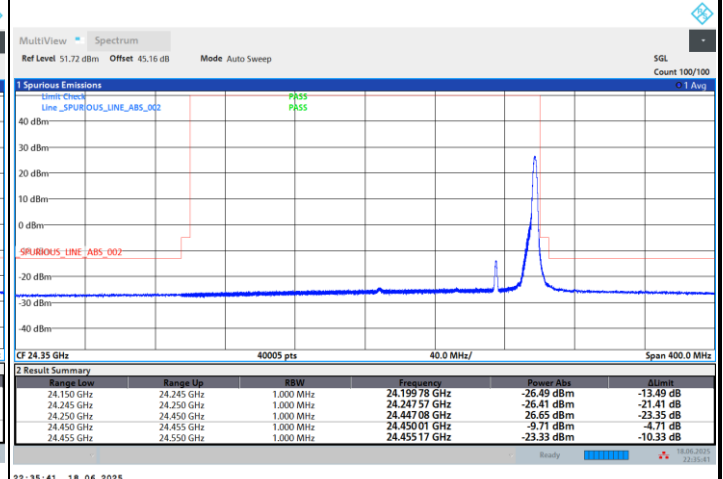
DFT-s-OFDM Module 1

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / 1 RB

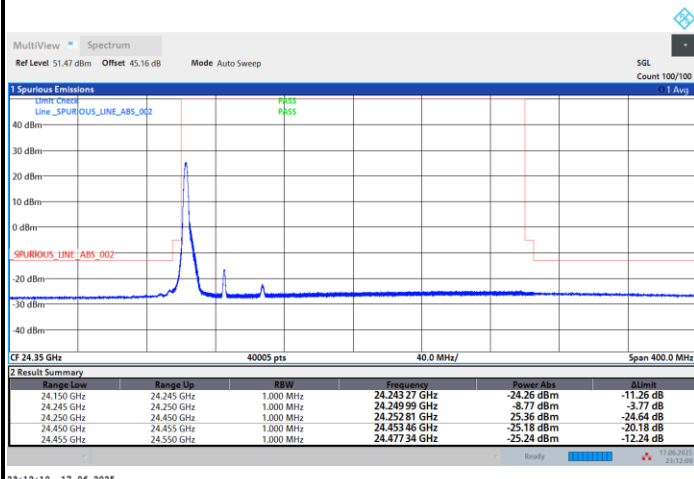


Highest Band Edge / 1 RB

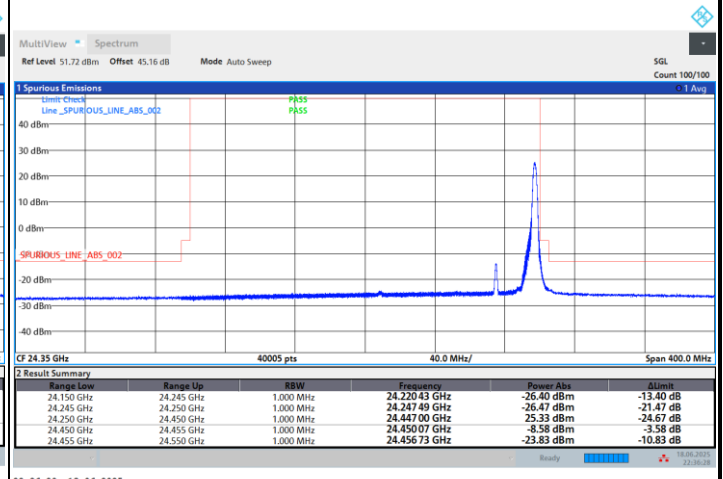


NR Band n258A/ 50MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

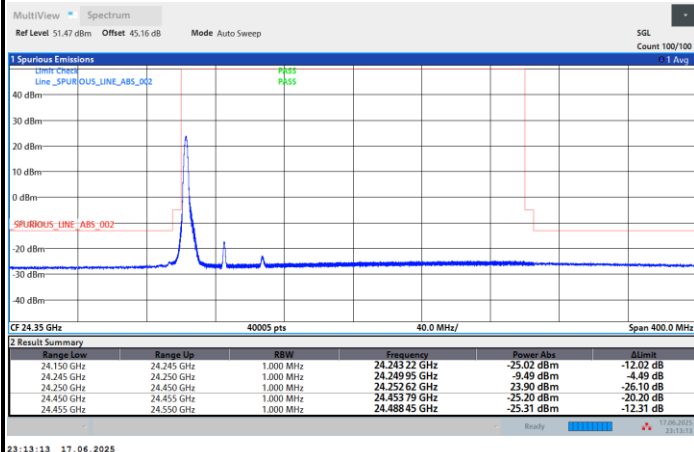




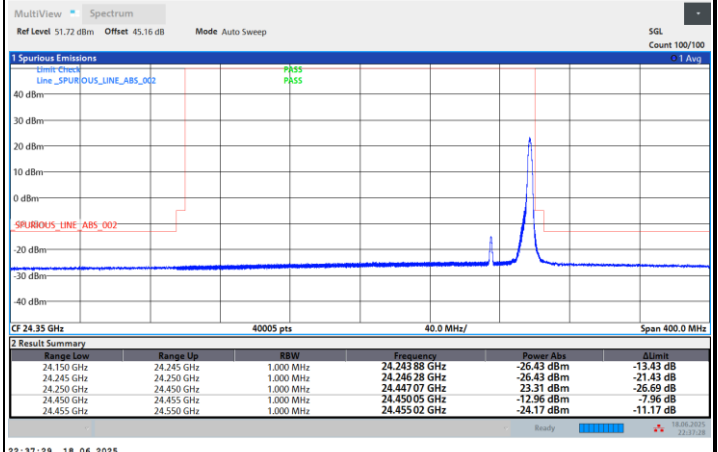
DFT-s-OFDM Module 1

NR Band n258A/ 50MHz / 64QAM

Lowest Band Edge / 1 RB

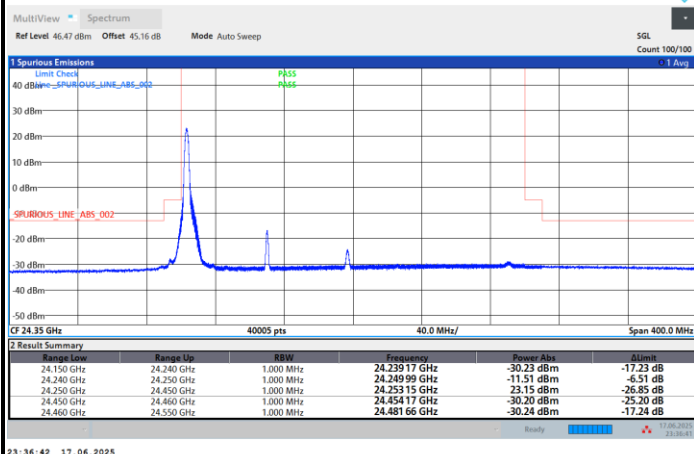


Highest Band Edge / 1 RB

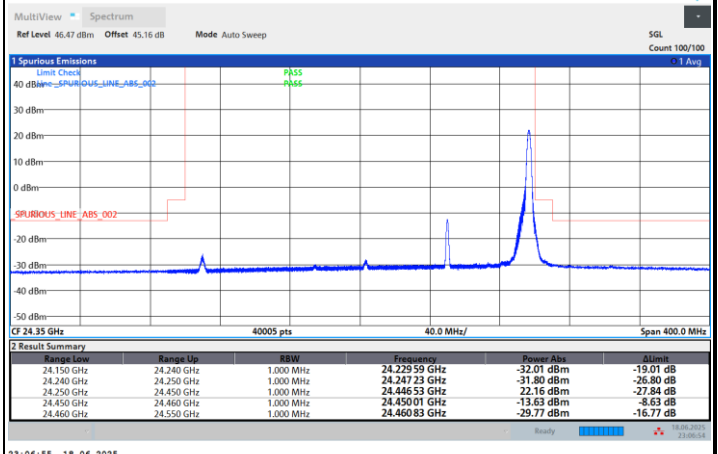


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

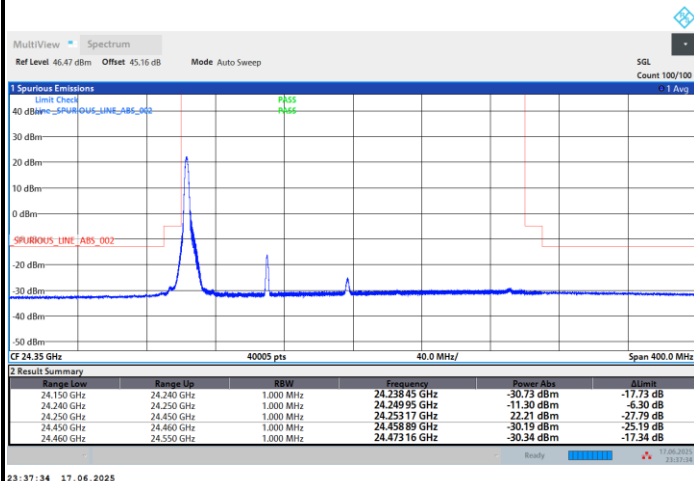




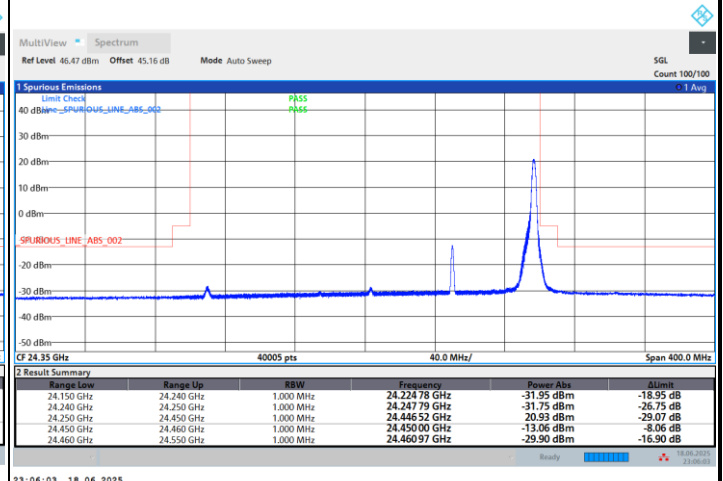
DFT-s-OFDM Module 1

NR Band n258A/ 100MHz / 16QAM

Lowest Band Edge / 1 RB

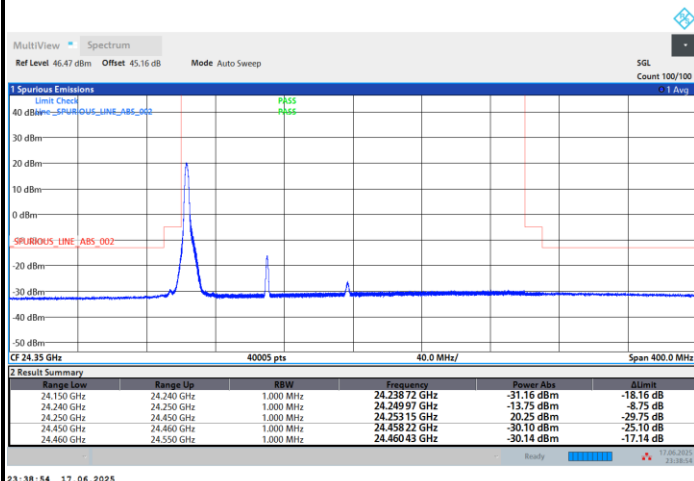


Highest Band Edge / 1 RB

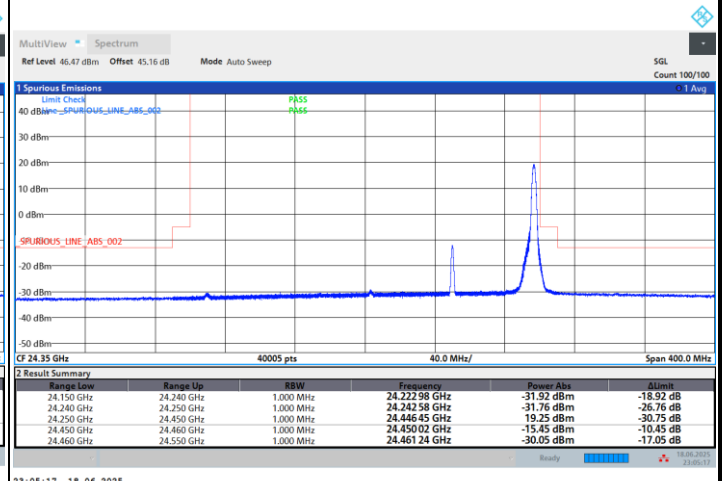


NR Band n258A/ 100MHz / 64QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

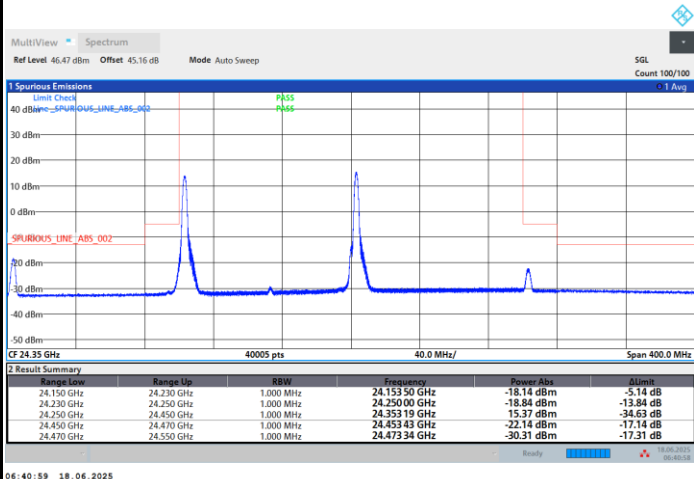




DFT-s-OFDM Module 1

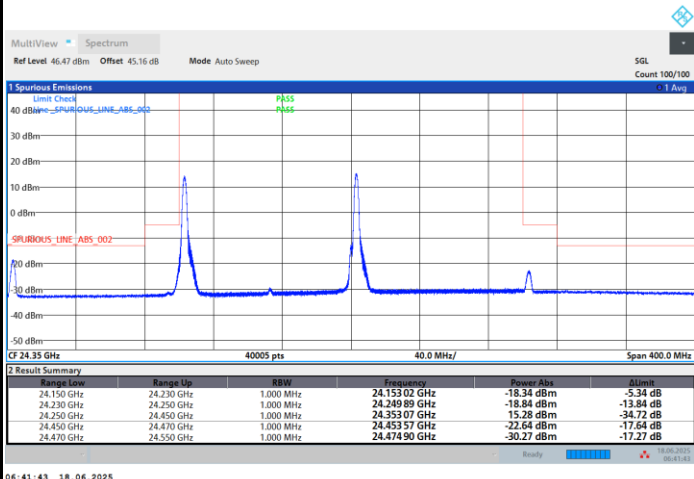
NR Band n258A/ 200MHz / QPSK

Middle Band Edge / 1 RB



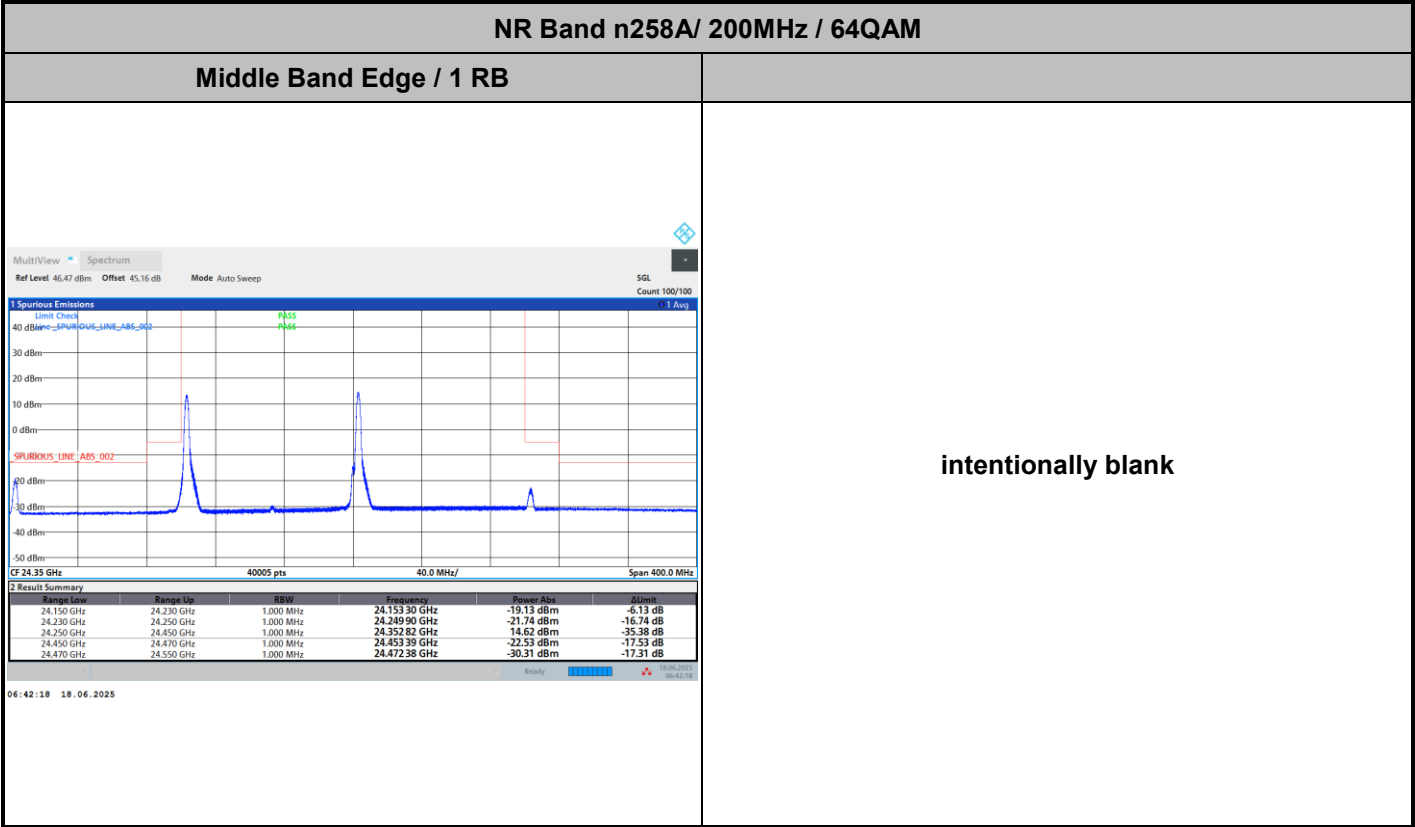
NR Band n258A/ 200MHz / 16QAM

Middle Band Edge / 1 RB





DFT-s-OFDM Module 1

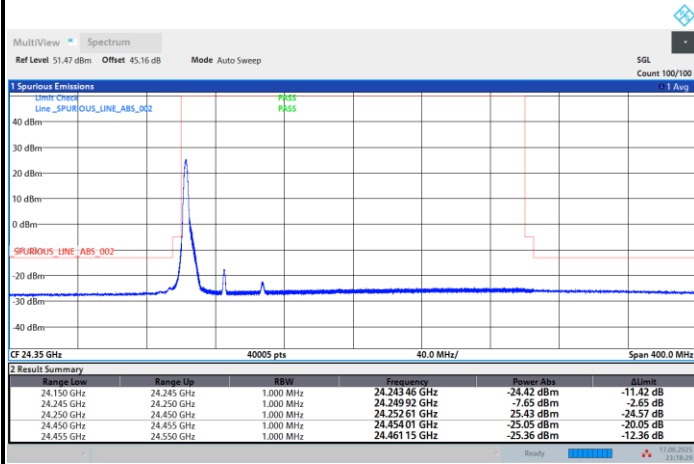




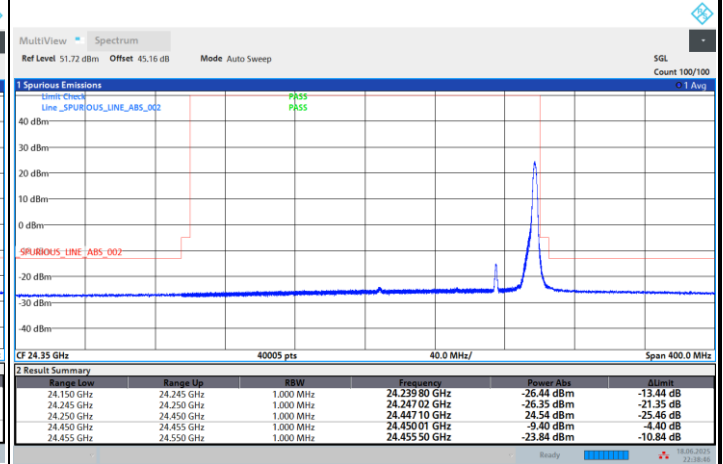
CP-OFDM Module 1

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / 1 RB

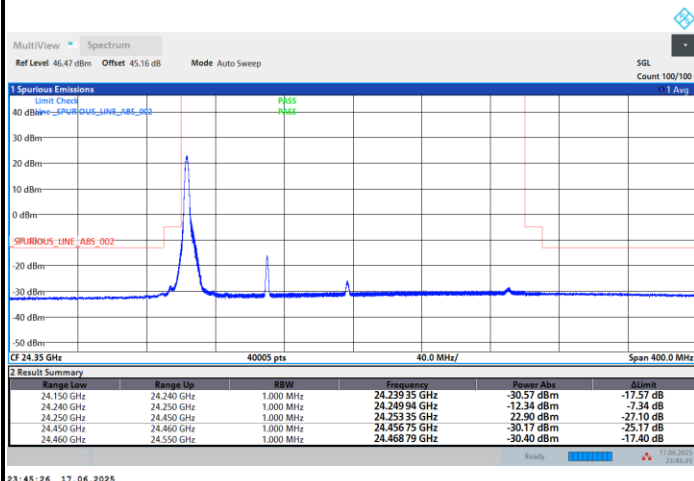


Highest Band Edge / 1 RB

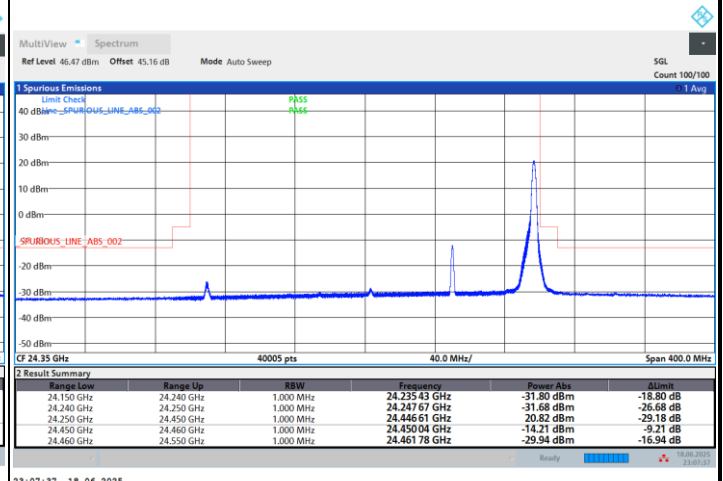


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

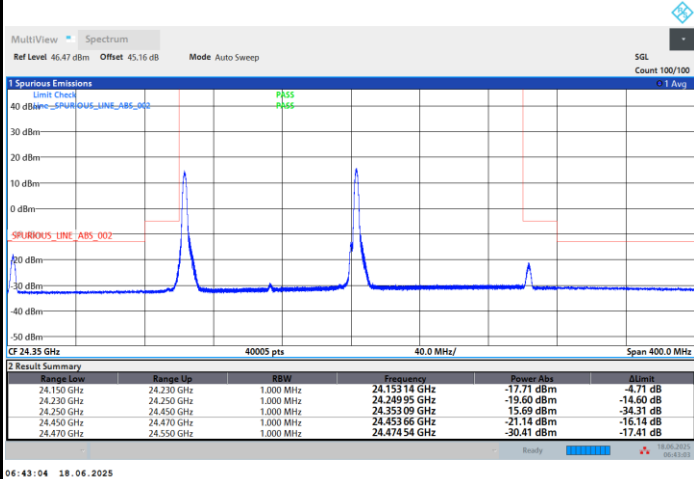




CP-OFDM Module 1

NR Band n258A/ 200MHz / QPSK

Middle Band Edge / 1 RB



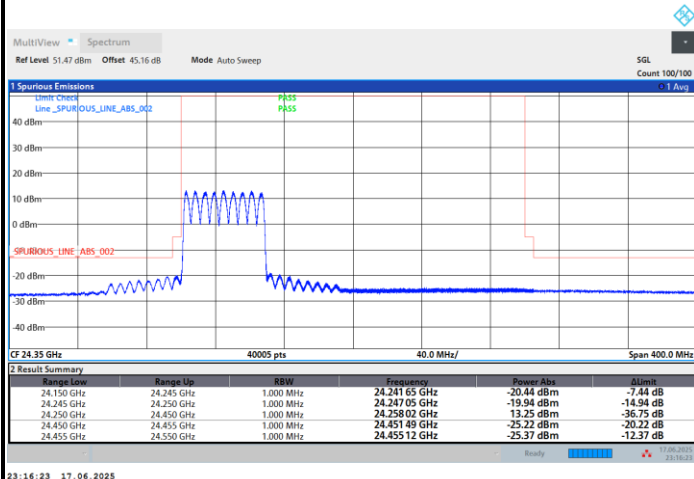
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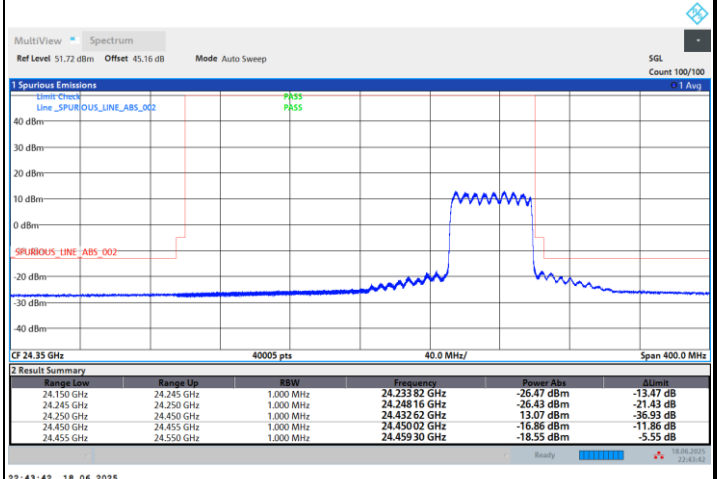
DFT-s-OFDM Module 1

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / Full RB

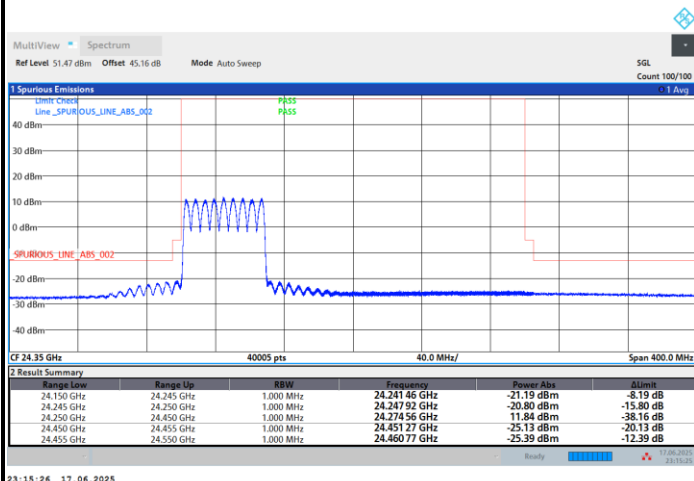


Highest Band Edge / Full RB

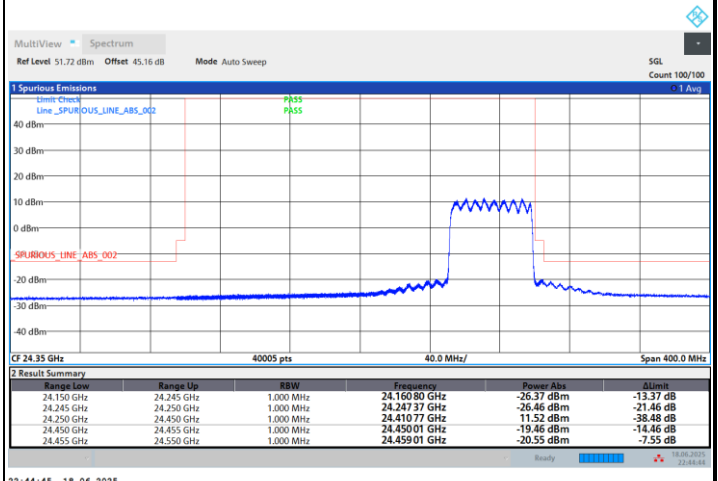


NR Band n258A/ 50MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

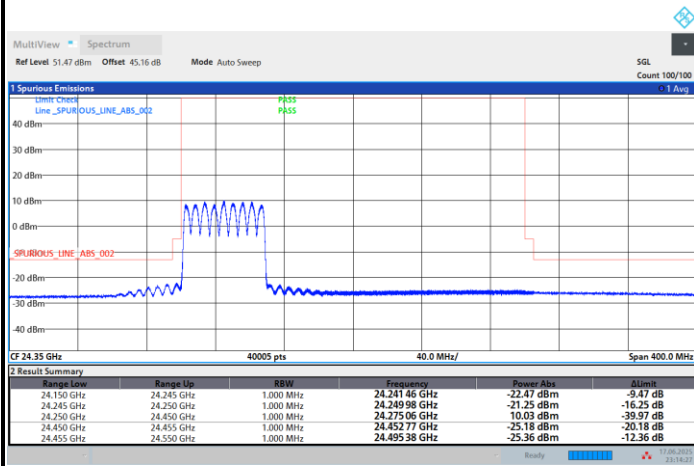




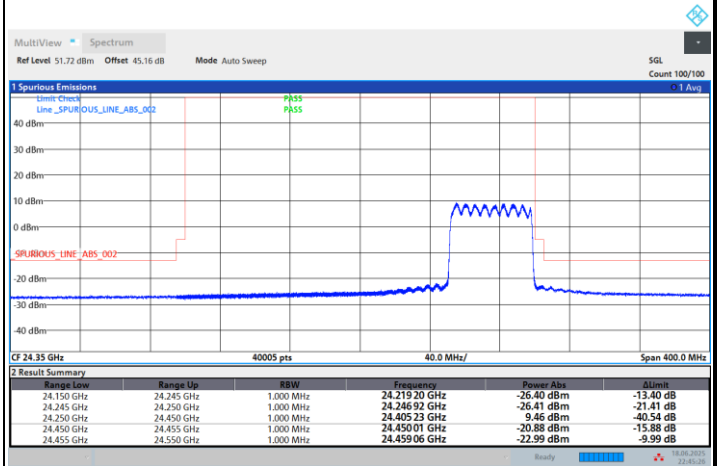
DFT-s-OFDM Module 1

NR Band n258A/ 50MHz / 64QAM

Lowest Band Edge / Full RB

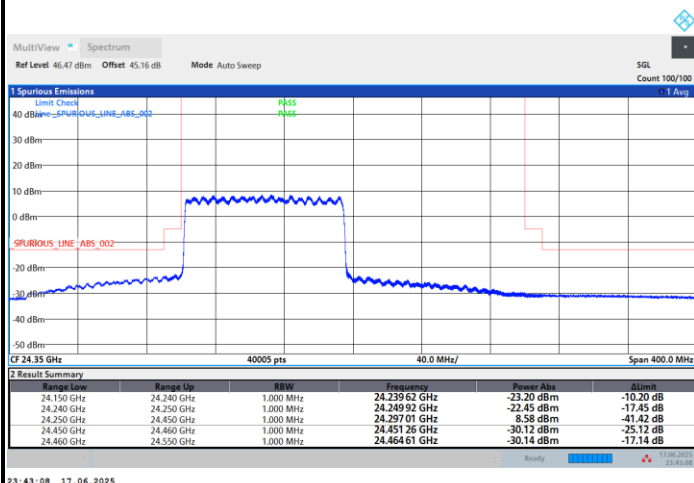


Highest Band Edge / Full RB

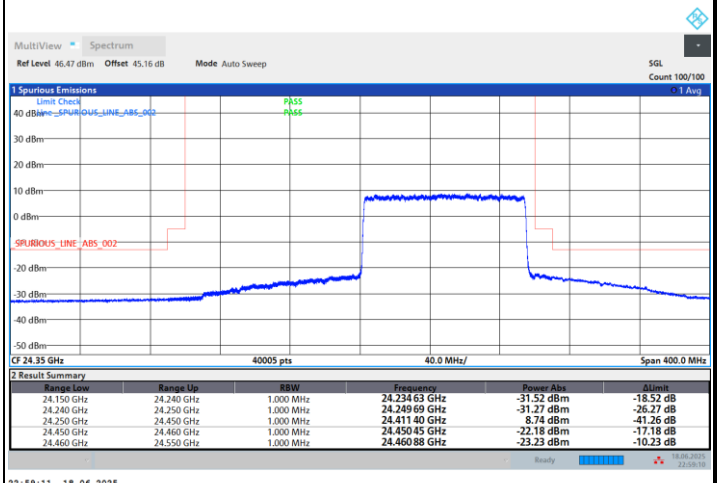


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

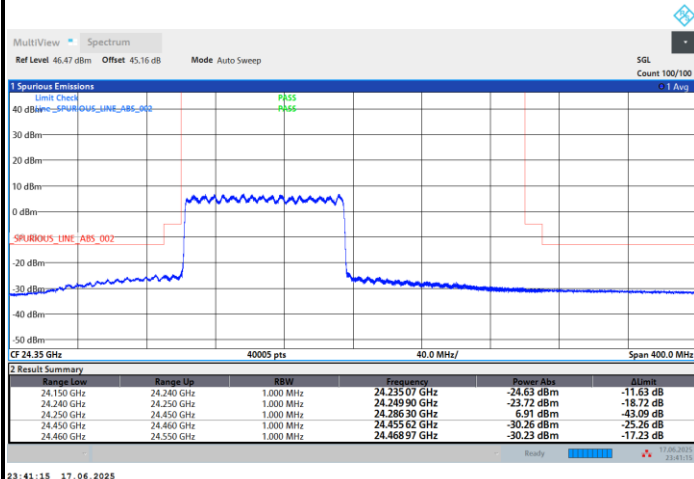




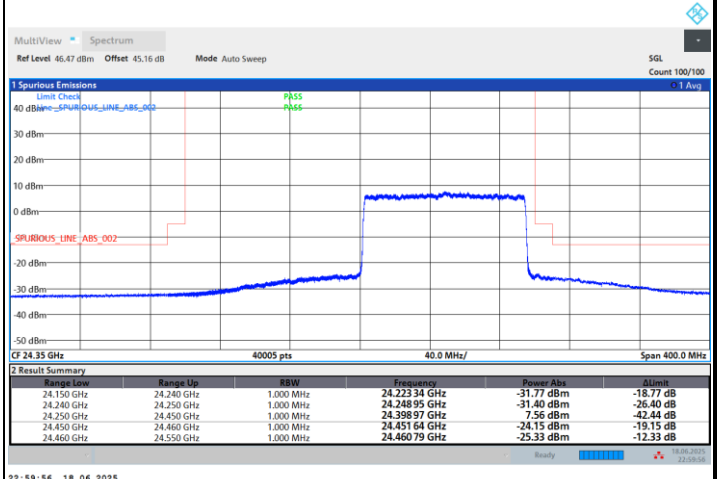
DFT-s-OFDM Module 1

NR Band n258A/ 100MHz / 16QAM

Lowest Band Edge / Full RB

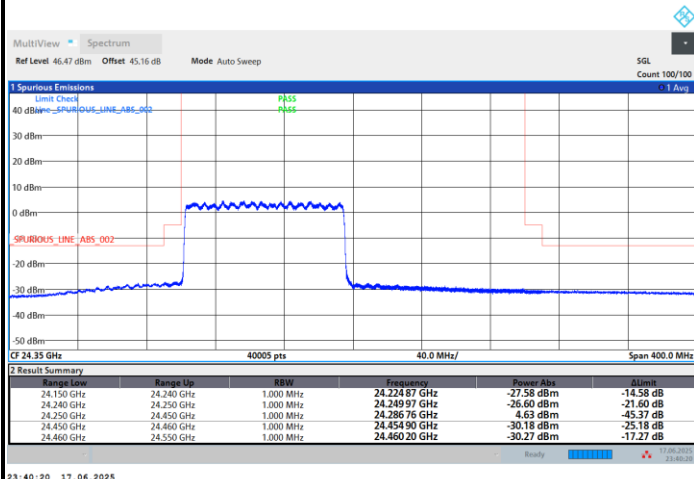


Highest Band Edge / Full RB

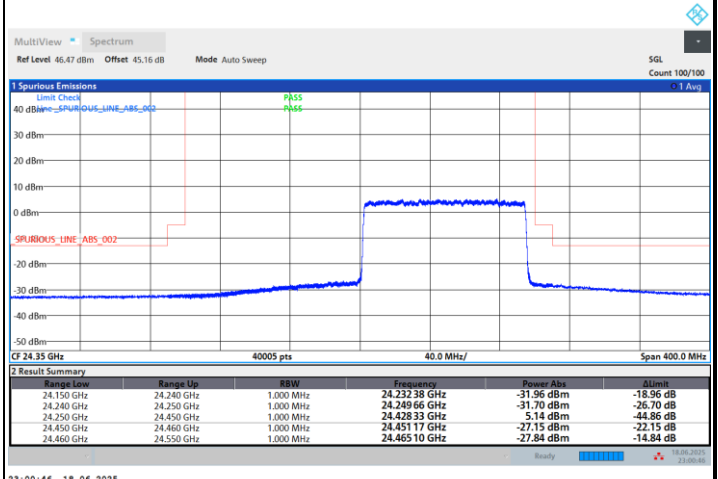


NR Band n258A/ 100MHz / 64QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

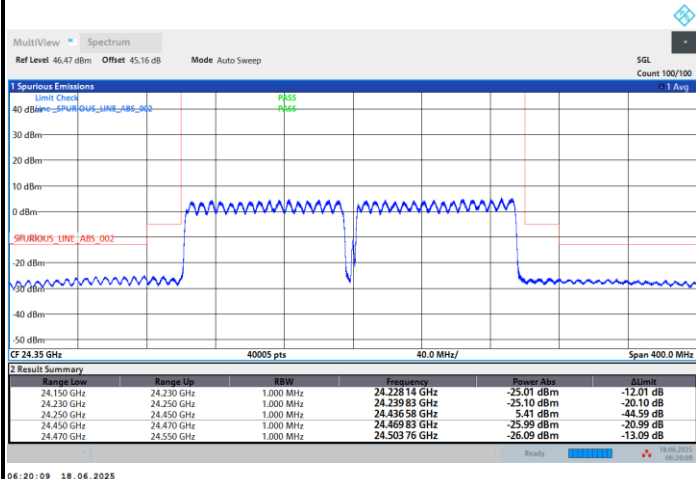




DFT-s-OFDM Module 1

NR Band n258A/ 200MHz / QPSK

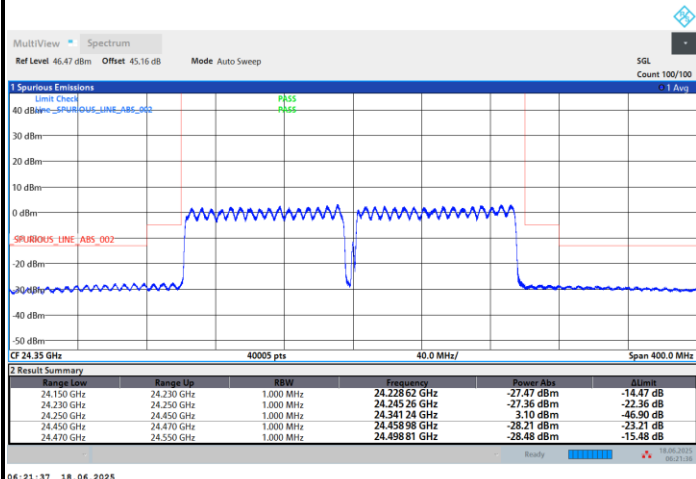
Middle Band Edge / Full RB



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NR Band n258A/ 200MHz / 16QAM

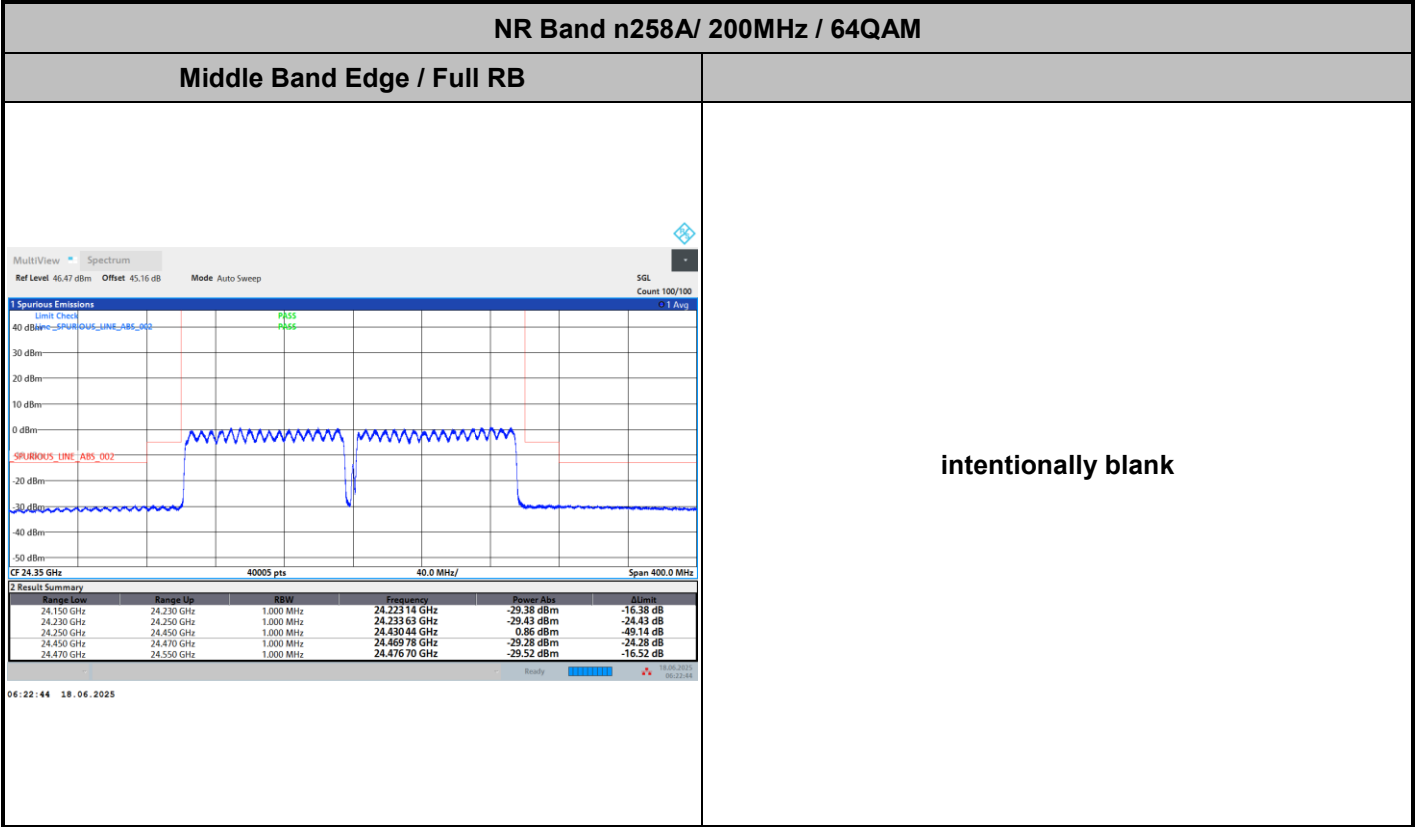
Middle Band Edge / Full RB



intentionally blank



DFT-s-OFDM Module 1

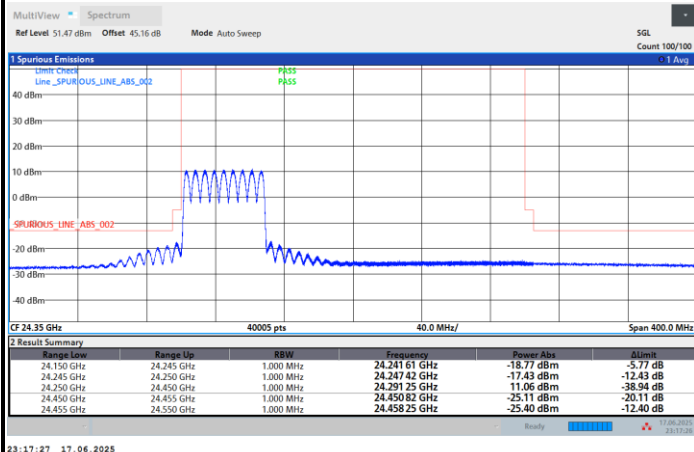




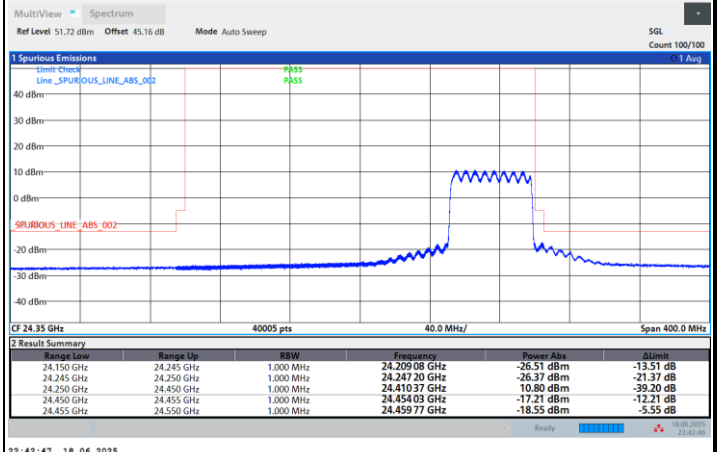
CP-OFDM Module 1

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / Full RB

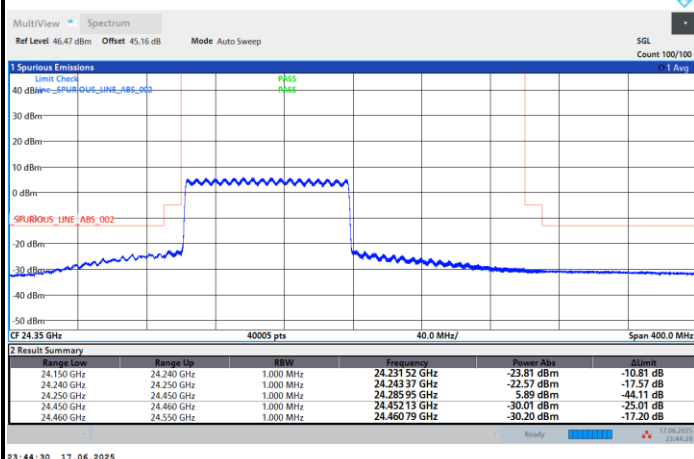


Highest Band Edge / Full RB

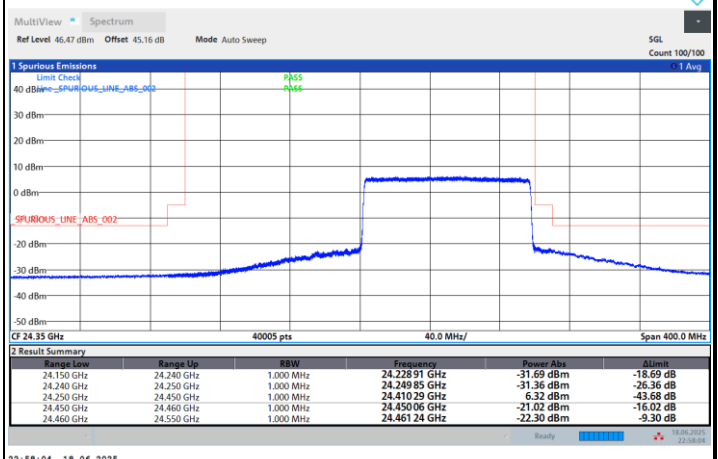


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

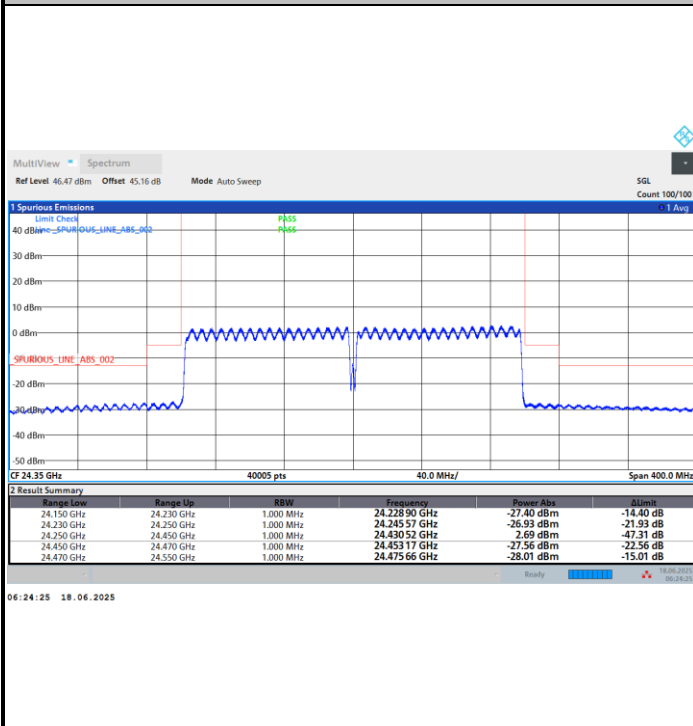




CP-OFDM Module 1

NR Band n258A/ 200MHz / QPSK

Middle Band Edge / Full RB



intentionally blank



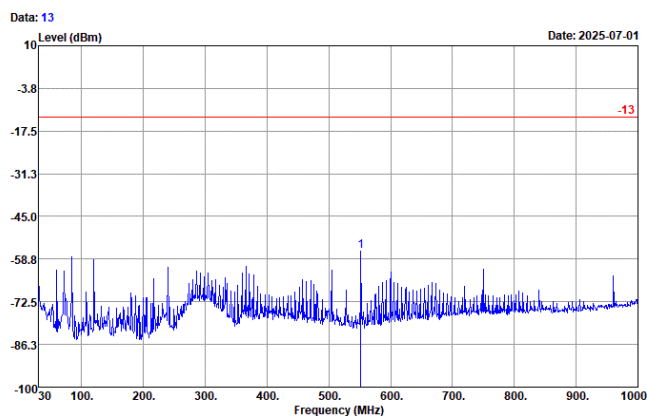
Spurious Emission

There is no significant spurious emission signal found for frequency started from 30MHz up to 18GHz.

Only the noise floor is reported.

NR Band n258A (30MHz-1GHz)

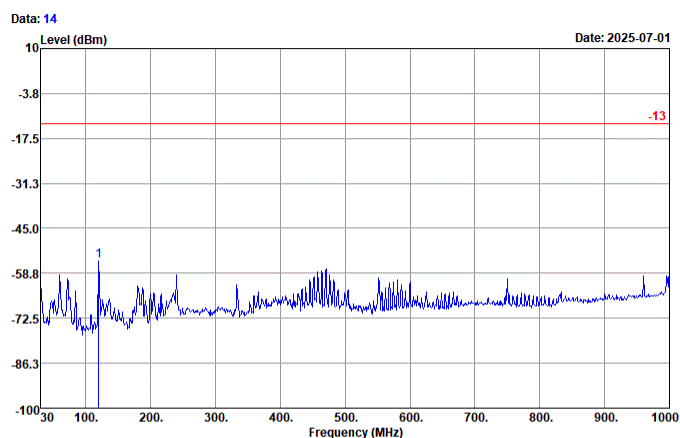
Horizontal



Site : 03CH23-HY
Condition : -13 ERP_20241229 HORIZONTAL
Project : 550909
: M1 n258a

Freq	Level	Over	Limit
MHz	dBm	dB	dBm
1	551.86	-56.09	-43.09 -13.00

Vertical



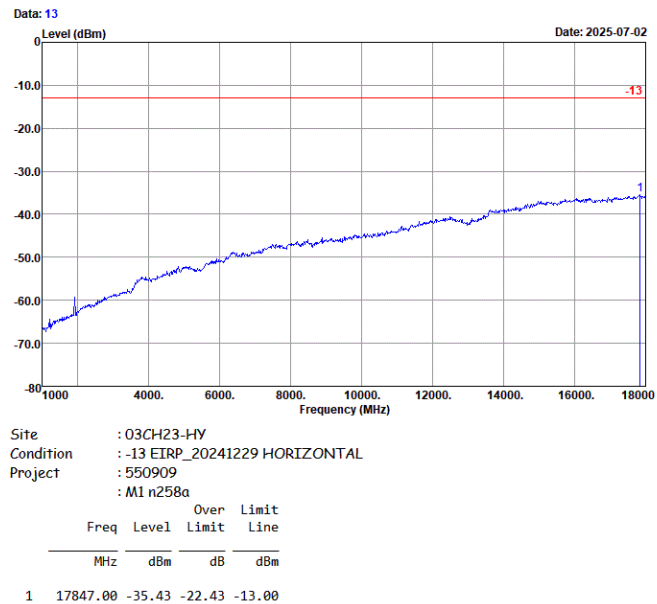
Site : 03CH23-HY
Condition : -13 ERP_20241229 VERTICAL
Project : 550909
: M1 n258a

Freq	Level	Over	Limit
MHz	dBm	dB	dBm
1	120.21	-55.02	-42.02 -13.00

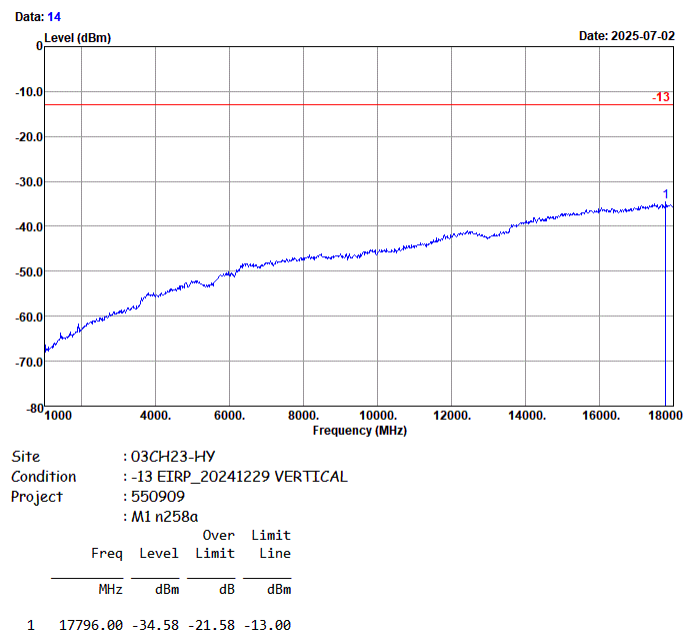


NR Band n258A (1GHz-18GHz)

Horizontal



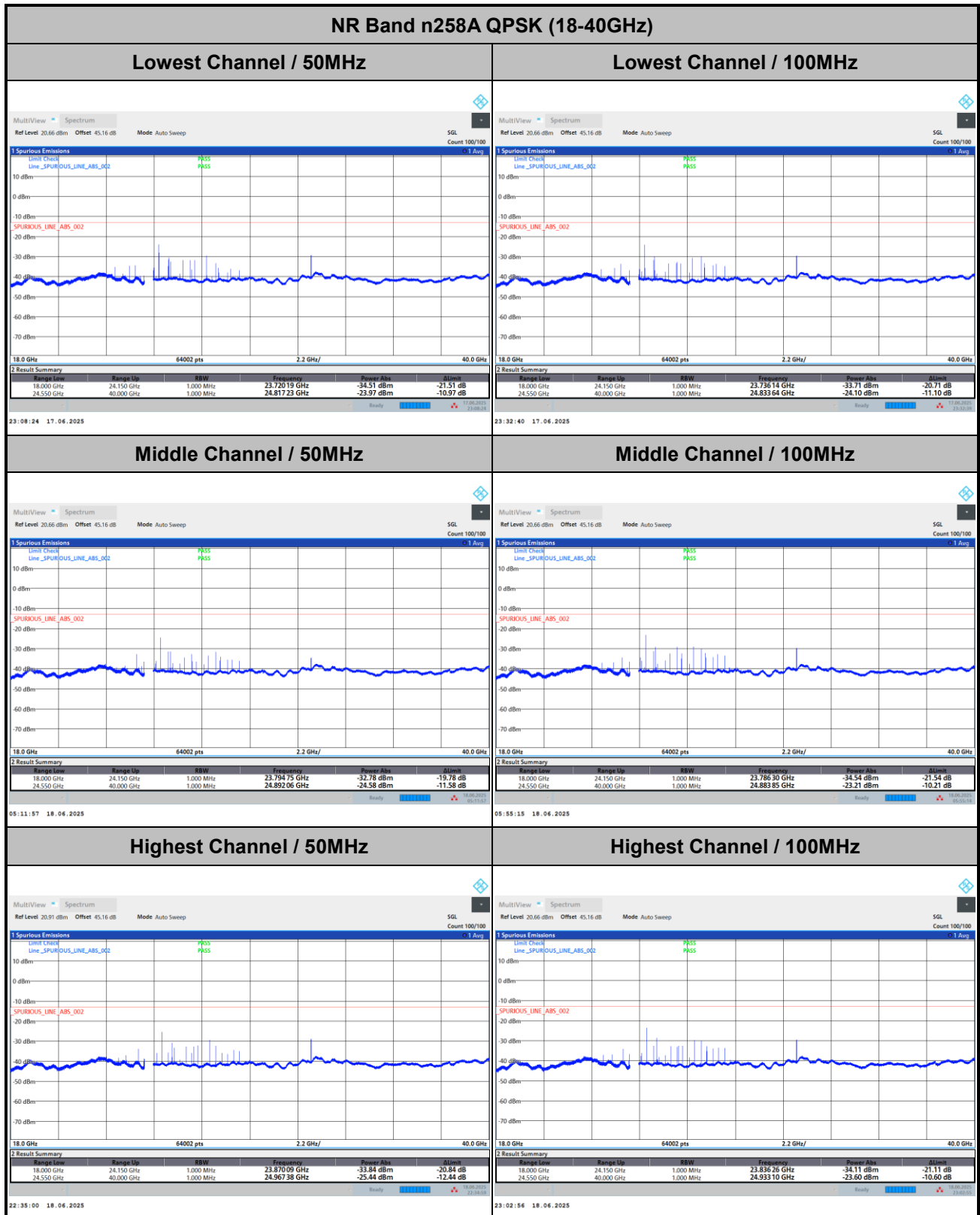
Vertical





Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

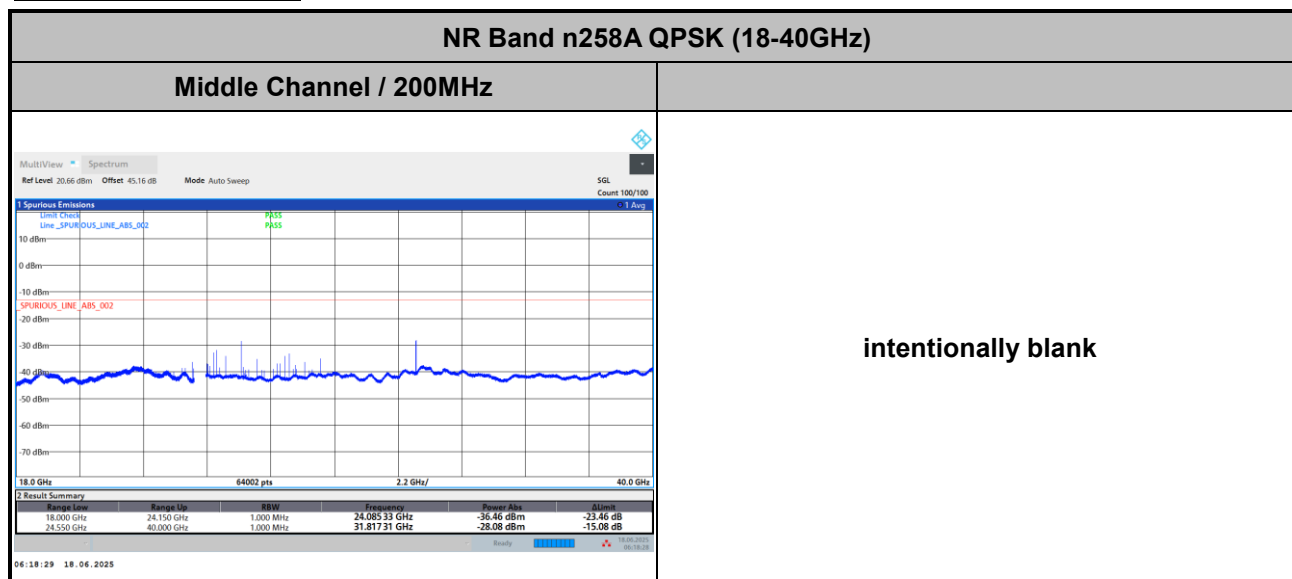
DFT-s-OFDM Module 1



Remark: In band and out of band frequencies are omitted.



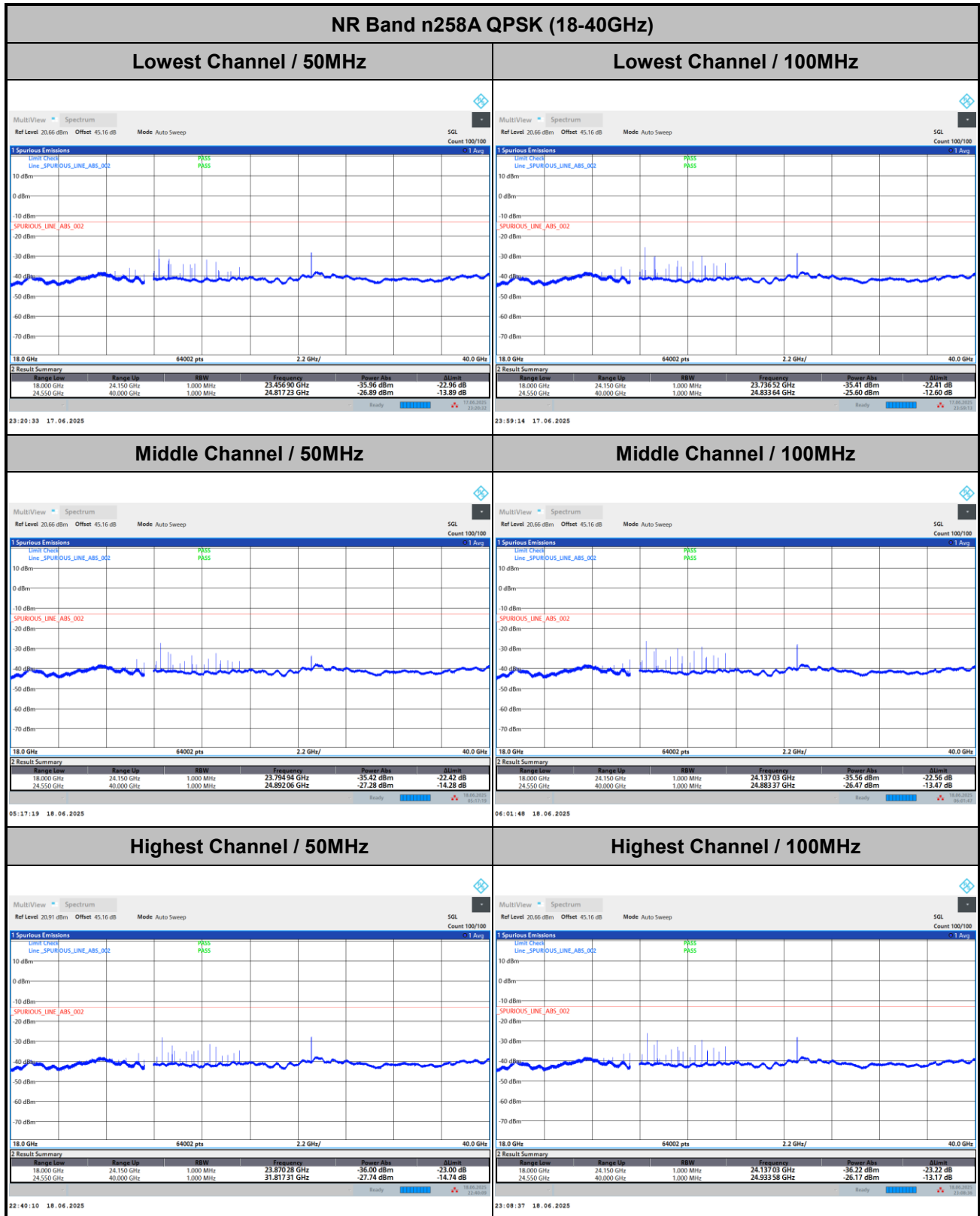
DFT-s-OFDM Module 1



Remark: In band and out of band frequencies are omitted.



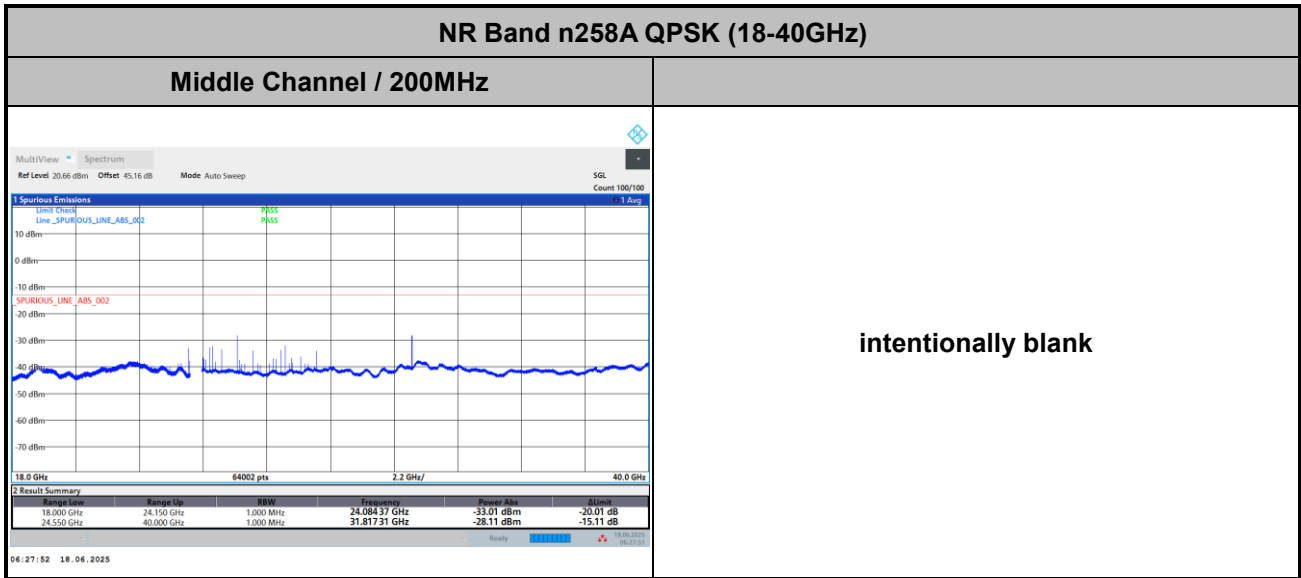
CP-OFDM Module 1



Remark: In band and out of band frequencies are omitted.



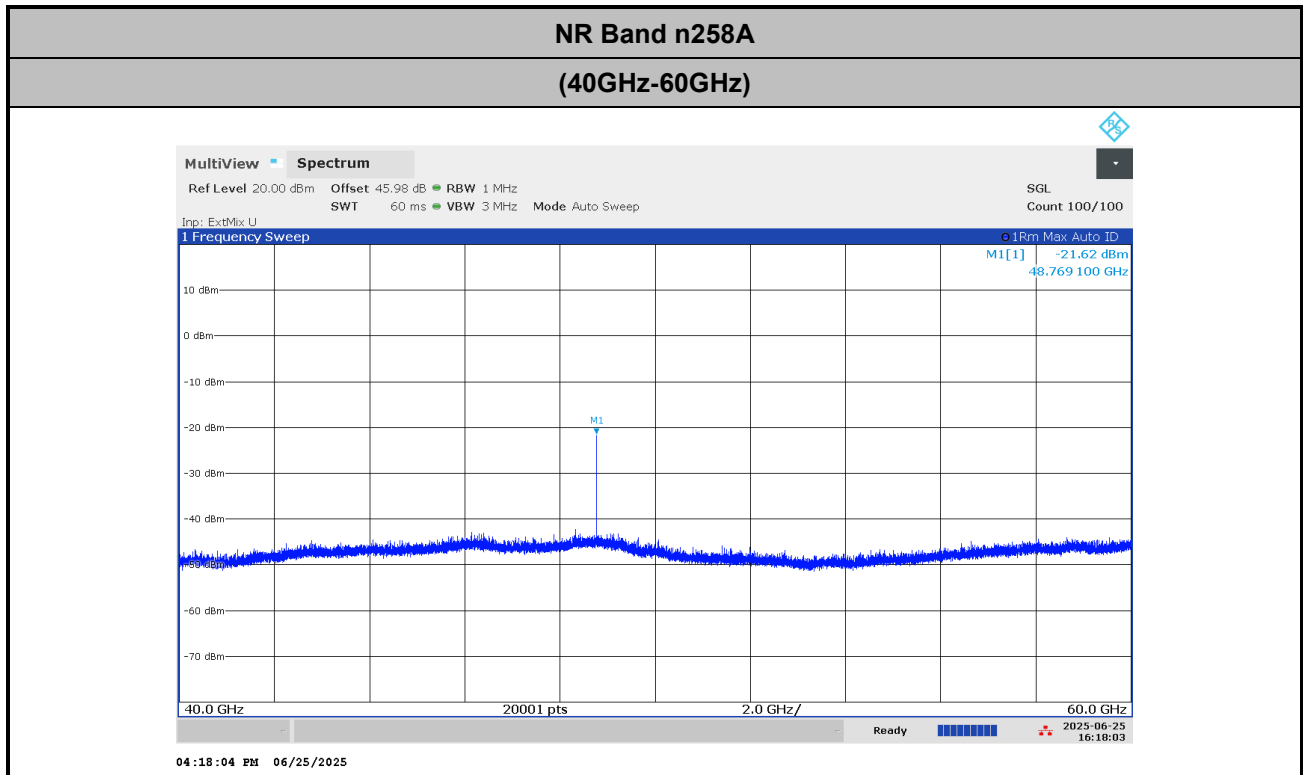
CP-OFDM Module 1



Remark: In band and out of band frequencies are omitted.



There is no significant spurious emission signal found for frequency started from 40GHz up to 100GHz.
Only the noise floor is reported.

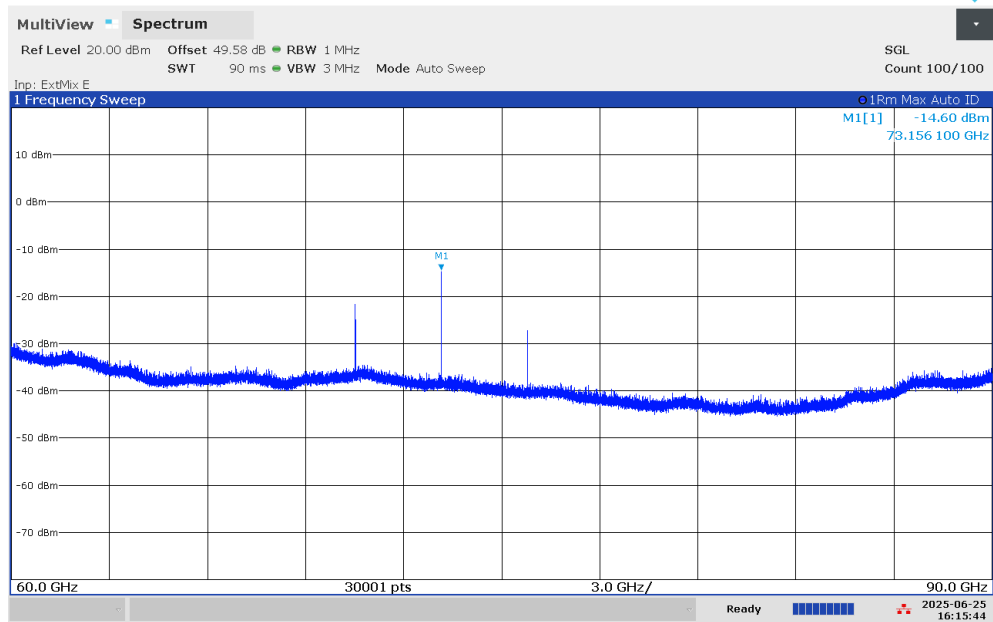


$$\begin{aligned}\text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 42.6 + 1.18 + 107 + 20\log(1) - 104.8 = 45.98(\text{dB})\end{aligned}$$



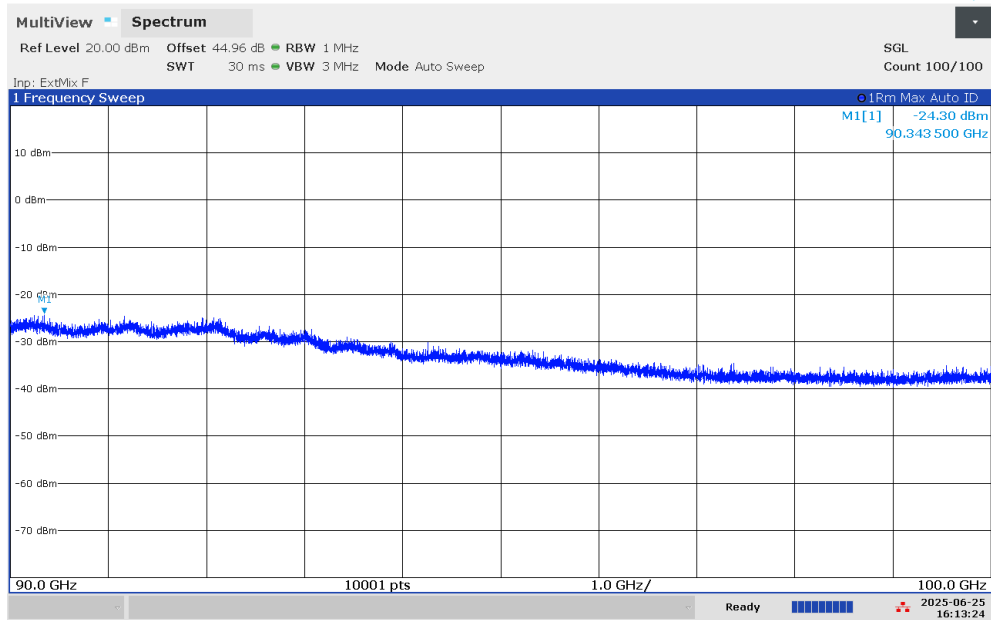
NR Band n258A

(60GHz-90GHz)



04:15:45 PM 06/25/2025

$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$
$$= 46.2 + 1.18 + 107 + 20\log(1) - 104.8 = 49.58 \text{ (dB)}$$

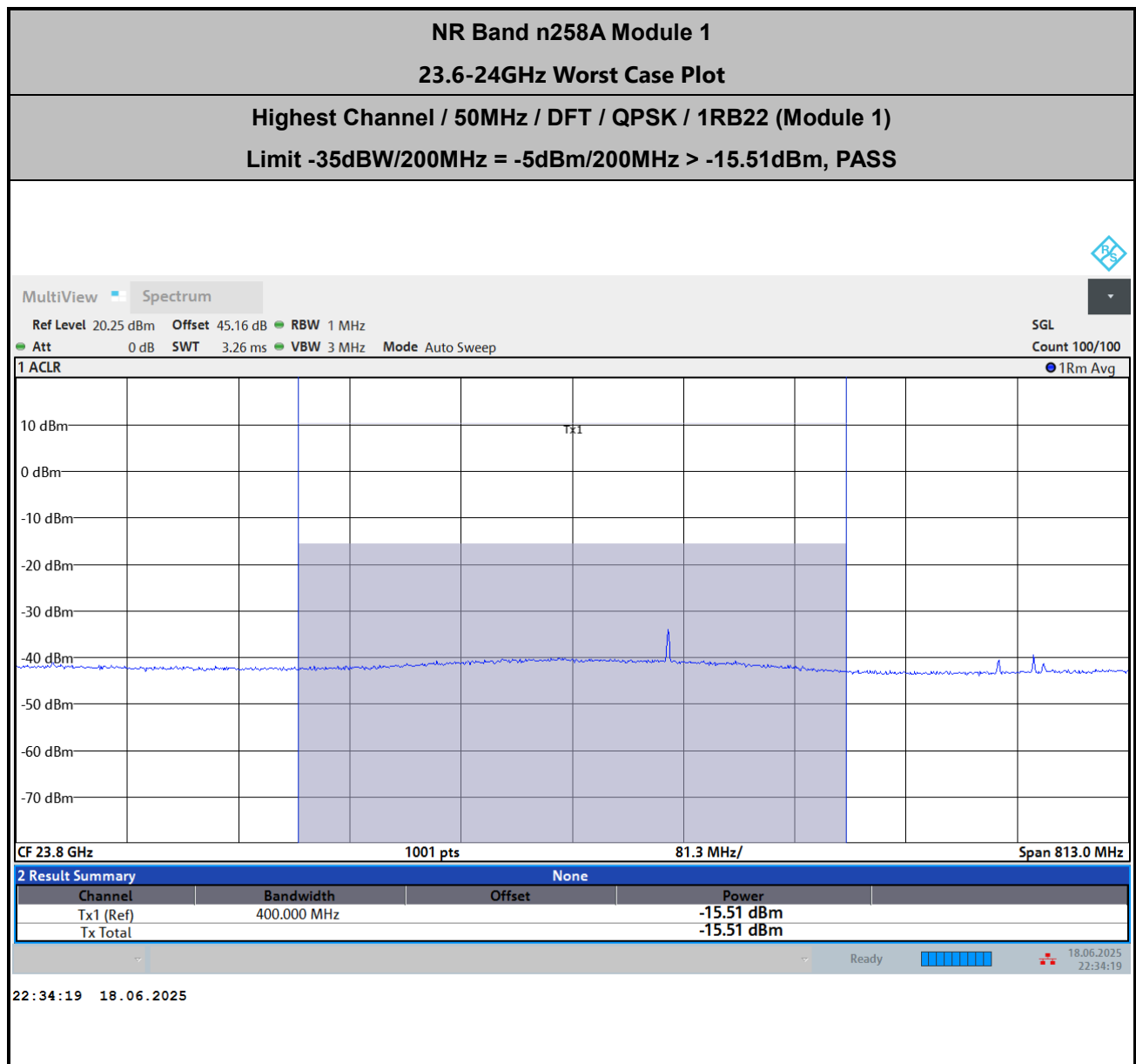
NR Band n258A
(90GHz-100GHz)


$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$

$$= 47.6 + 1.18 + 107 + 20\log(0.5) - 104.8 = 44.96 \text{ (dB)}$$

Additional requirement for 24GHz bands: Limits of 47 CFR 30.203(d)(2) is applied.

For mobile equipment brought into use after September 1, 2027, the maximum conducted output power or the total radiated power of emissions in any 200 MHz of the 23.6-24.0 GHz band shall not exceed -39 dBW (for base stations) or -35 dBW (for mobile stations).



$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$

$$= 39.5 + 3.46 + 107 + 20\log(1) - 104.8 = 45.16(\text{dB})$$

Note: Channel power integration method is used to measure total power over 400MHz from 23.6GHz to 24GHz in order to show compliance against limit within any 200MHz interval.



Frequency Stability

Test Conditions		NR Band n258A / Middle Channel			Limit
Temperature (°C)	Voltage (Volt)	CW tone			Note 2.
		Frequency (GHz)	Deviation (kHz)	Deviation (ppm)	Result
50	Normal Voltage	24.3599132	50.900	2.090	Pass
40	Normal Voltage	24.3599411	23.000	0.945	
30	Normal Voltage	24.3599541	10.000	0.411	
20(Ref.)	Normal Voltage	24.3599641	0.000	0.000	
10	Normal Voltage	24.3599801	-16.000	0.657	
0	Normal Voltage	24.360024	-59.900	2.460	
-10	Normal Voltage	24.360044	-79.900	3.281	
-20	Normal Voltage	24.360095	-130.900	5.376	
-30	Normal Voltage	24.360099	-134.900	5.540	
20	Maximum Voltage	24.3599611	3.000	0.123	
20	Normal Voltage	24.3599631	1.000	0.041	
20	Battery End Point	24.3599601	4.000	0.164	

Note:

1. The frequency fundamental emissions stay within the operation band.

End

NR Band n258b

Occupied Bandwidth

Mode	DFT-s-OFDM Module 1 NR Band n258b : 99%OBW(MHz)								
BW	50MHz			100MHz			200MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	46.16	46.42	46.28	91.34	91.24	91.40	191.37	191.92	191.23
Middle CH	46.15	46.27	46.38	90.20	90.22	90.42	190.83	190.72	190.77
Highest CH	46.04	46.22	46.15	91.24	91.59	91.38	191.75	191.33	191.64

Mode	DFT-s-OFDM Module 1 NR Band n258b : 99%OBW(MHz)					
BW	300MHz			400MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	289.92	289.26	289.39	389.21	389.51	389.22
Middle CH	289.18	289.69	289.64	390.72	390.12	390.06
Highest CH	291.09	291.07	290.97	391.54	390.88	391.19

Mode	CP-OFDM Module 1 NR Band n258b : 99%OBW(MHz)		
BW	50MHz	100MHz	200MHz
Mod.	QPSK	QPSK	QPSK
Lowest CH	46.37	94.09	193.83
Middle CH	46.45	92.87	193.17
Highest CH	46.09	94.34	194.74

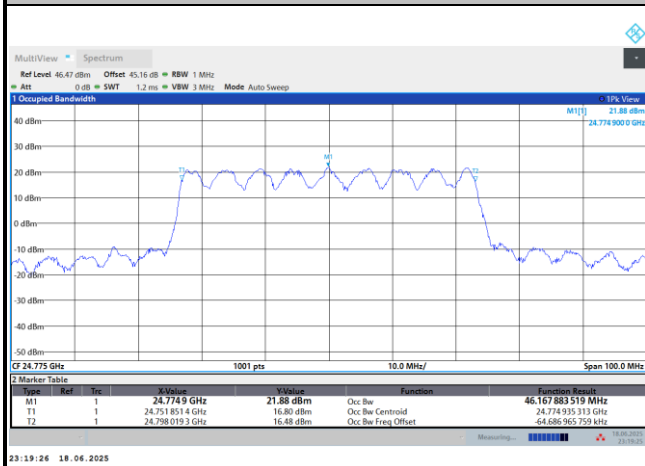
Mode	CP-OFDM Module 1 NR Band n258b : 99%OBW(MHz)	
BW	300MHz	400MHz
Mod.	QPSK	QPSK
Lowest CH	292.98	393.06
Middle CH	291.92	391.52
Highest CH	293.04	392.66



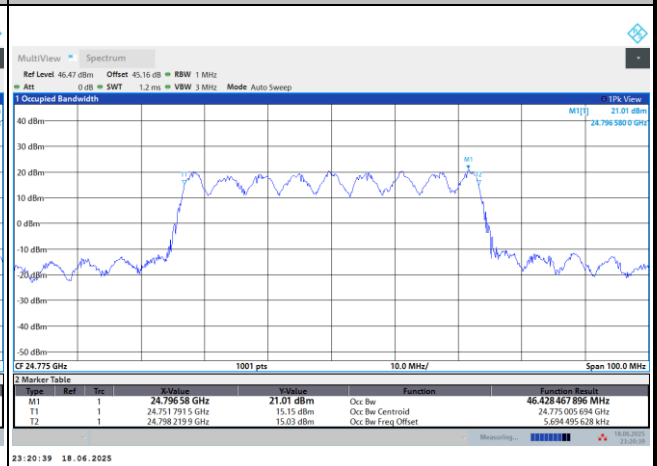
DFT-s-OFDM Module 1

NR Band n258b

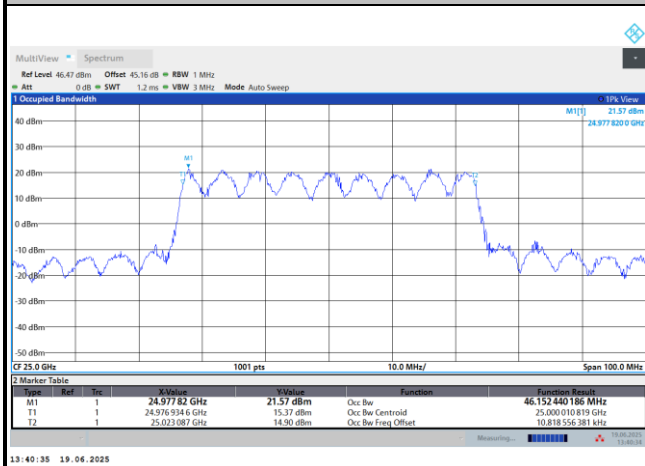
Lowest Channel / 50MHz / QPSK



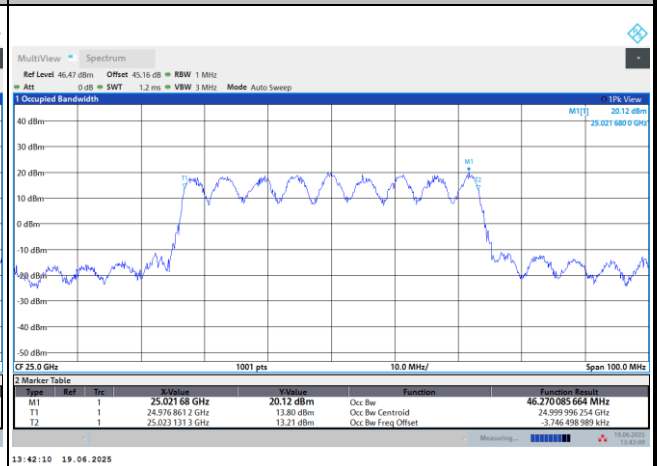
Lowest Channel / 50MHz / 16QAM



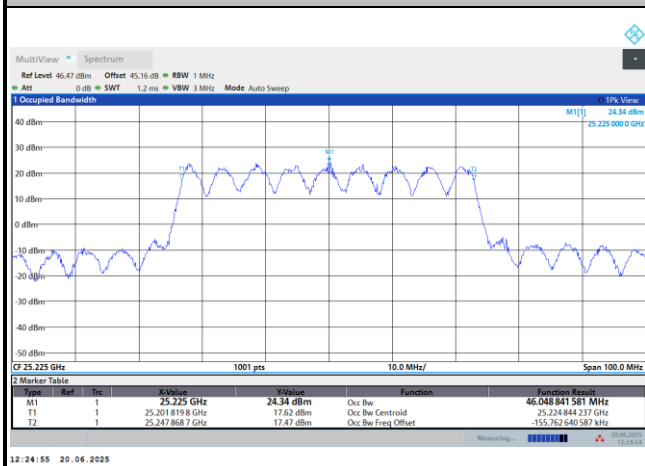
Middle Channel / 50MHz / QPSK



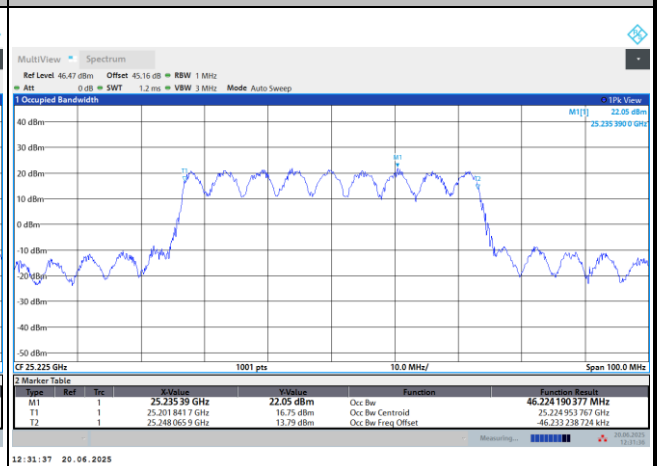
Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK

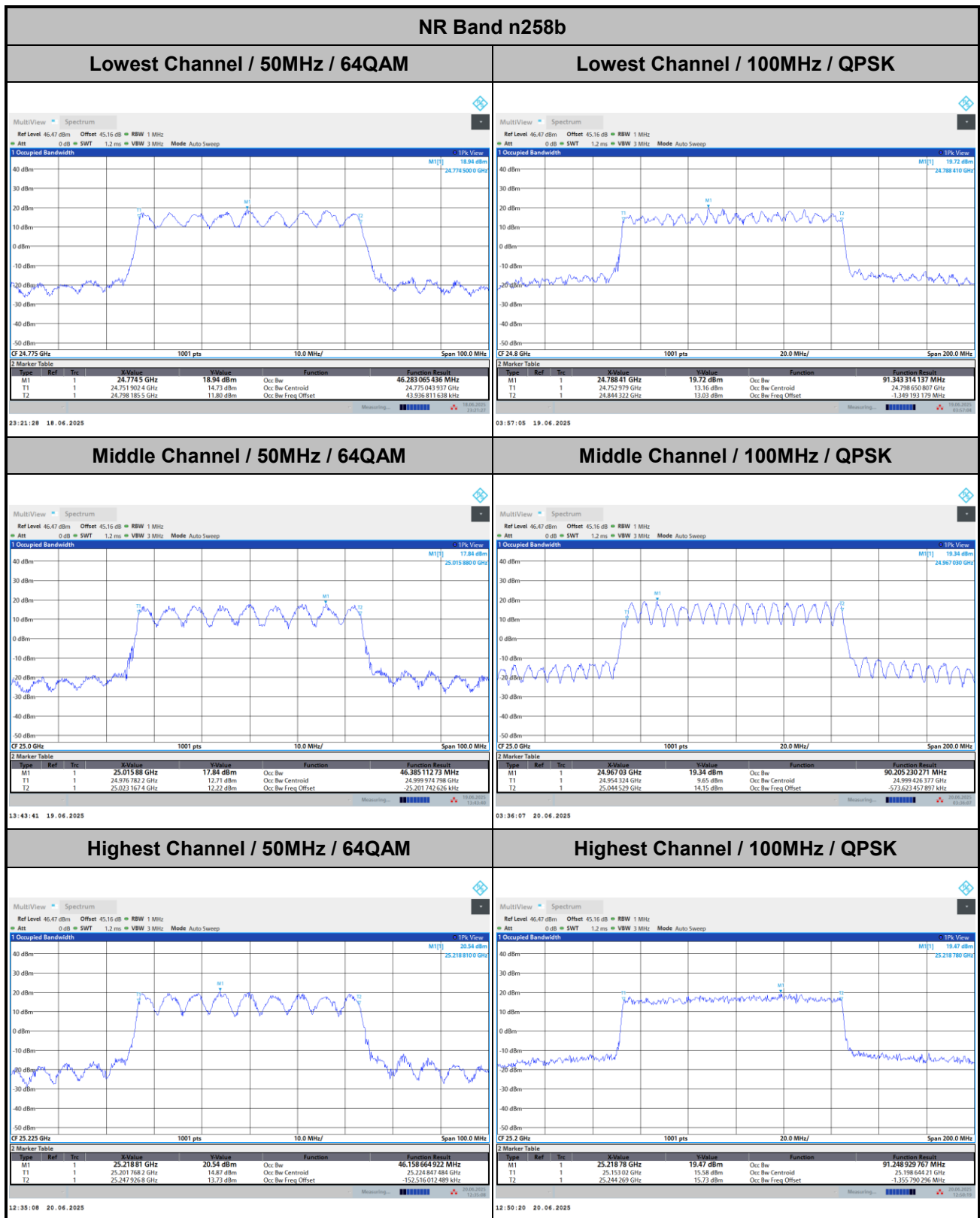


Highest Channel / 50MHz / 16QAM





DFT-s-OFDM Module 1

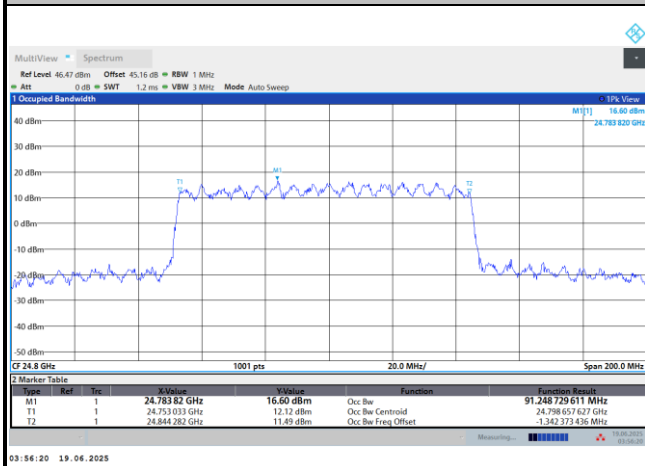




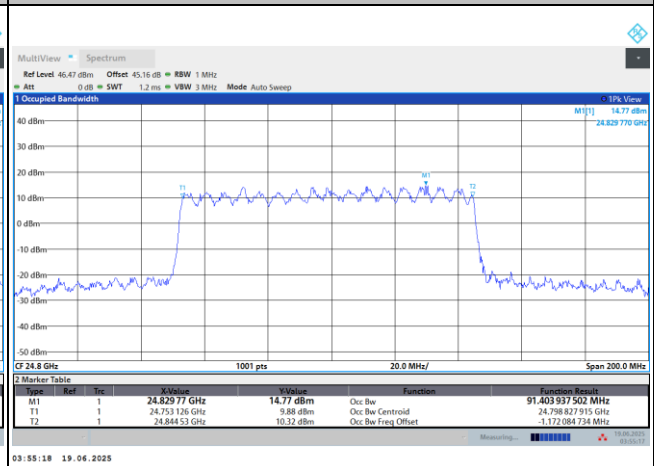
DFT-s-OFDM Module 1

NR Band n258b

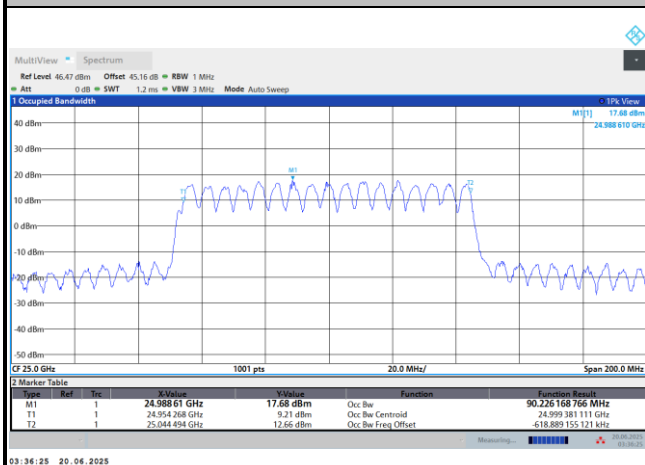
Lowest Channel / 100MHz / 16QAM



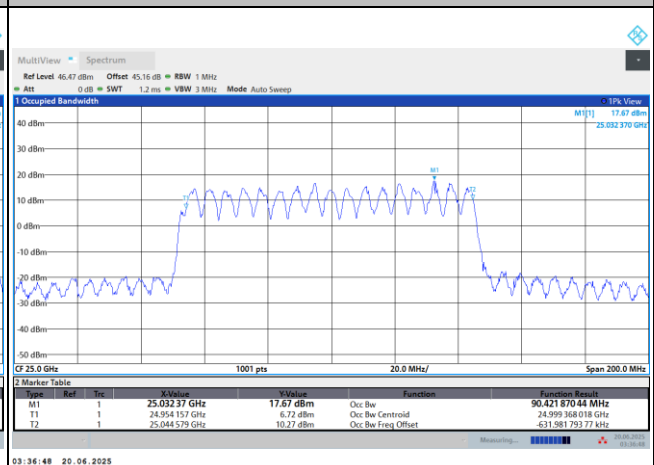
Lowest Channel / 100MHz / 64QAM



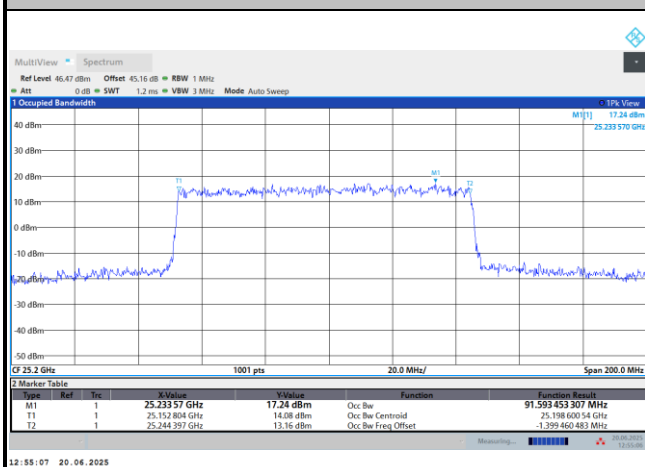
Middle Channel / 100MHz / 16QAM



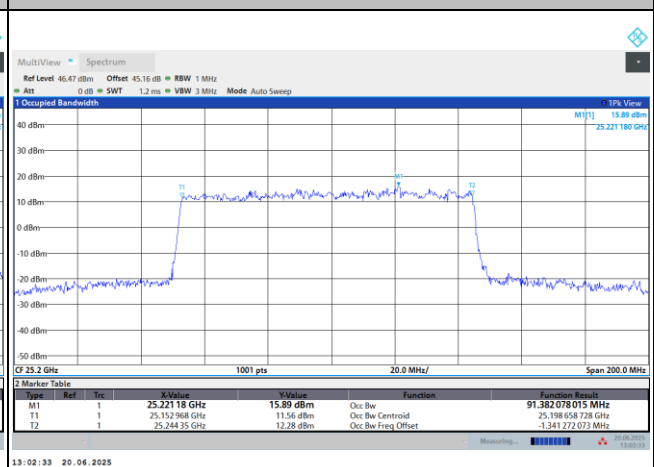
Middle Channel / 100MHz / 64QAM



Highest Channel / 100MHz / 16QAM



Highest Channel / 100MHz / 64QAM

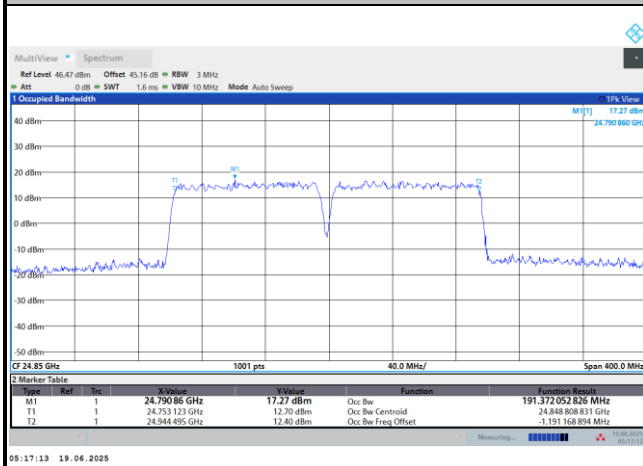




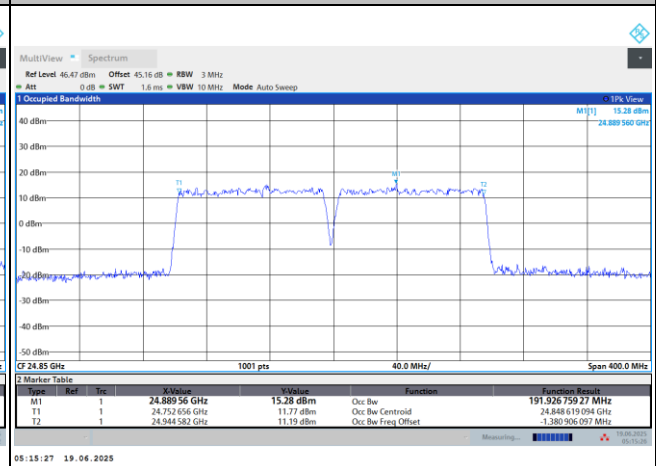
DFT-s-OFDM Module 1

NR Band n258b

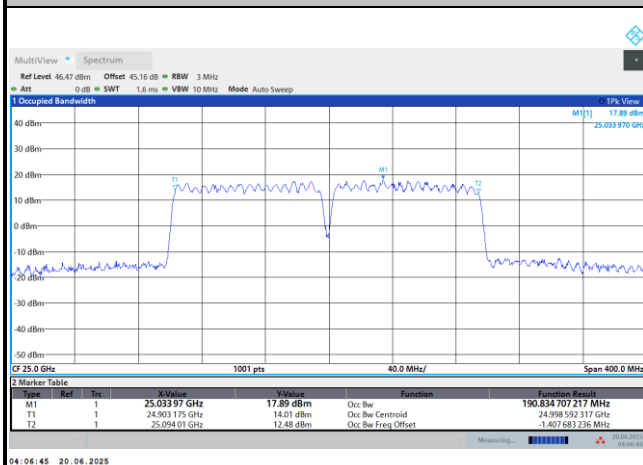
Lowest Channel / 200MHz / QPSK



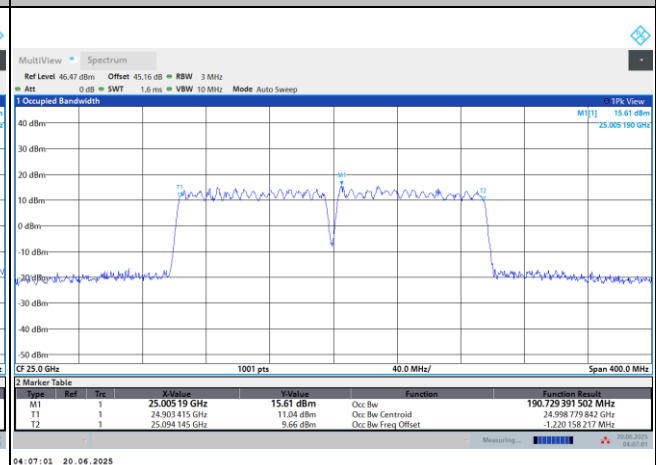
Lowest Channel / 200MHz / 16QAM



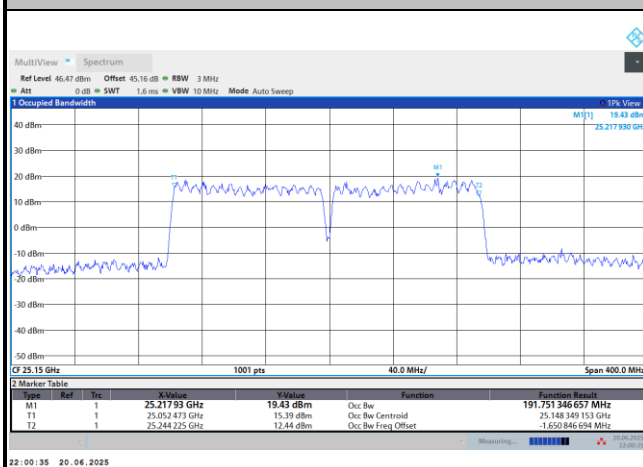
Middle Channel / 200MHz / QPSK



Middle Channel / 200MHz / 16QAM



Highest Channel / 200MHz / QPSK



Highest Channel / 200MHz / 16QAM

