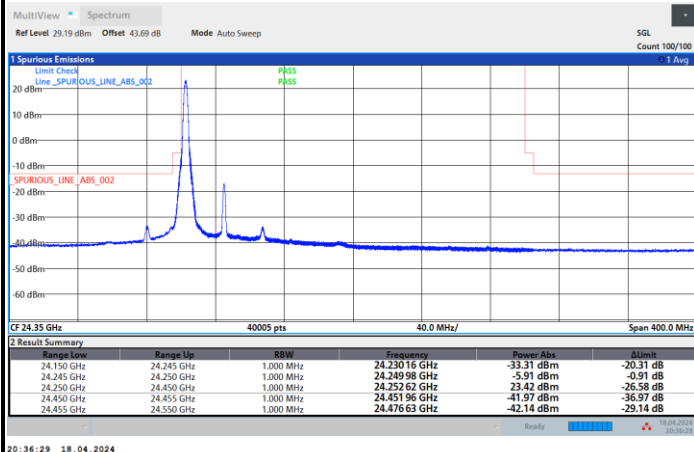




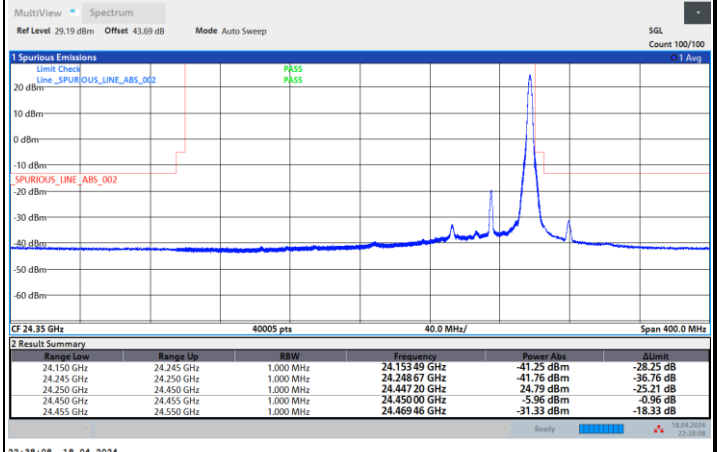
CP-OFDM Module A

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / 1 RB

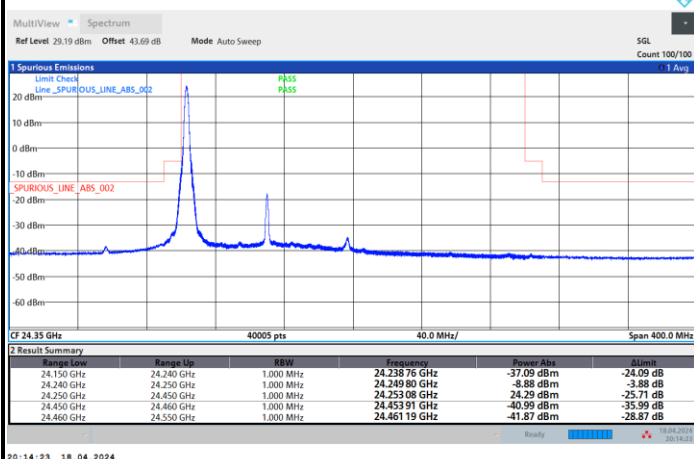


Highest Band Edge / 1 RB

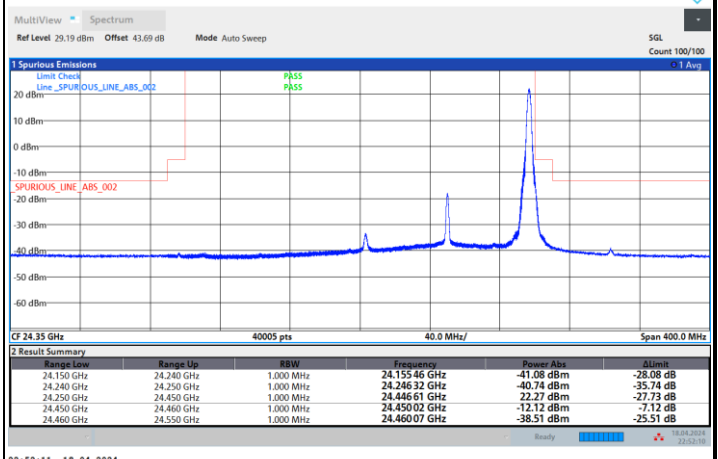


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

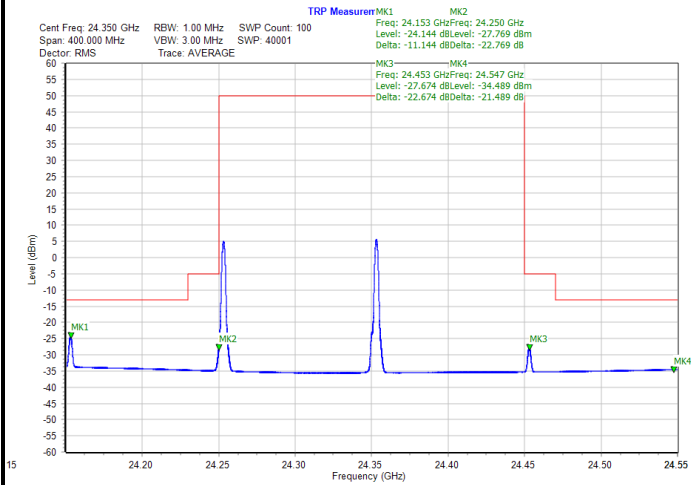




CP-OFDM Module A

NR Band n258A/ 200MHz / QPSK

Middle Band Edge / 1 RB



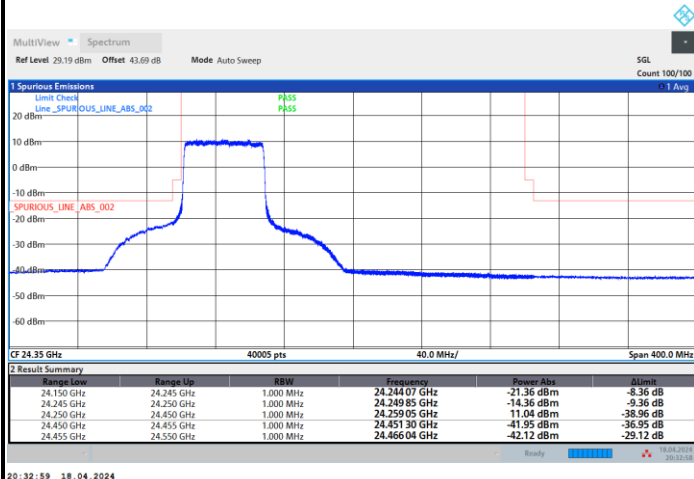
intentionally blank



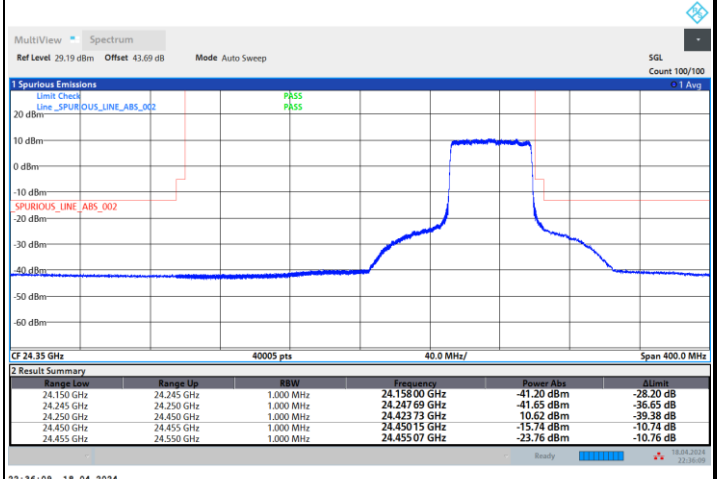
DFT-s-OFDM Module A

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / Full RB

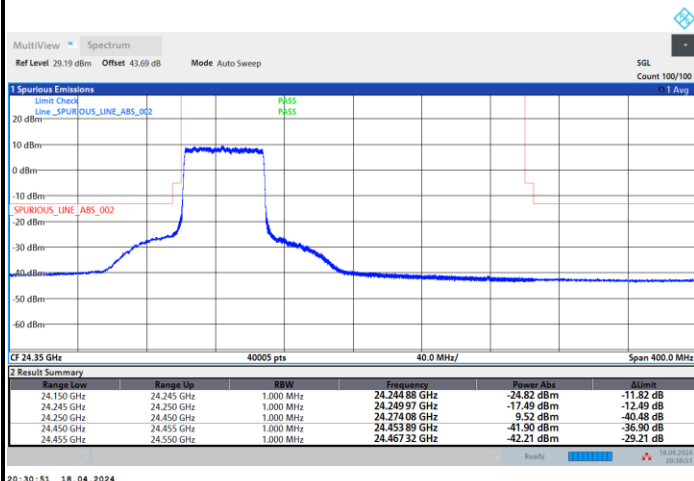


Highest Band Edge / Full RB

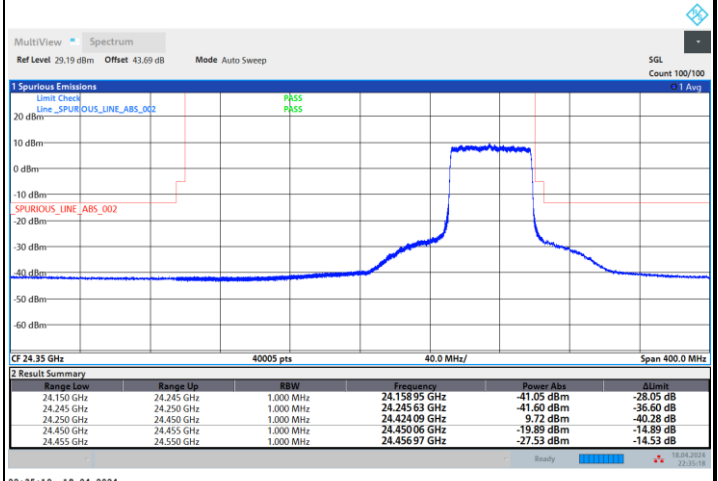


NR Band n258A/ 50MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

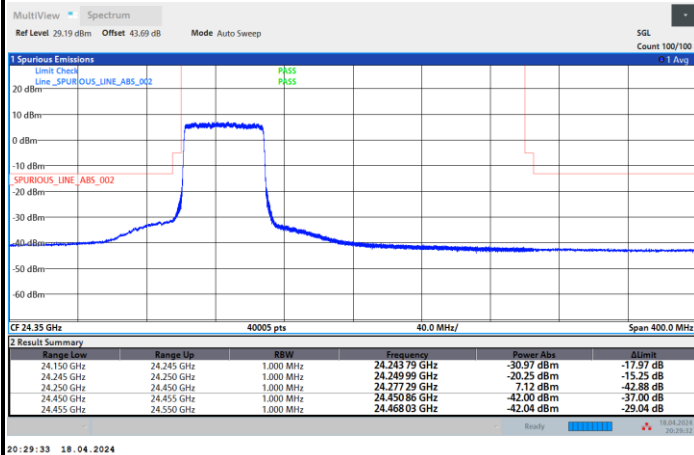




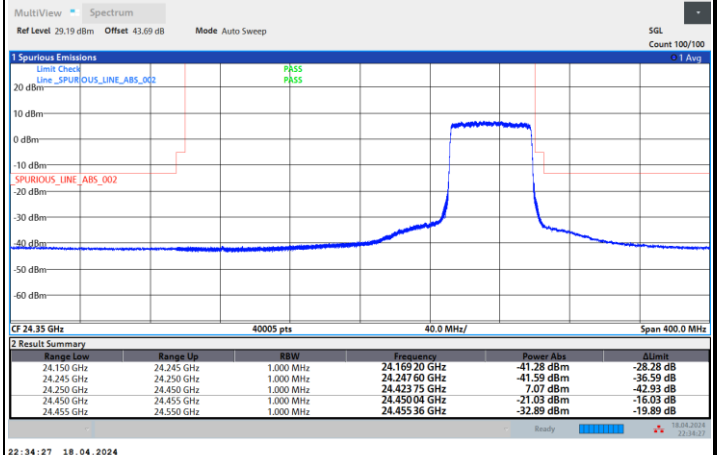
DFT-s-OFDM Module A

NR Band n258A/ 50MHz / 64QAM

Lowest Band Edge / Full RB

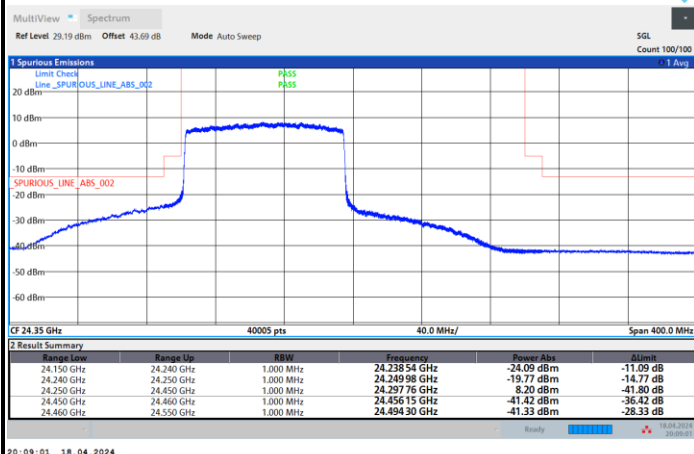


Highest Band Edge / Full RB

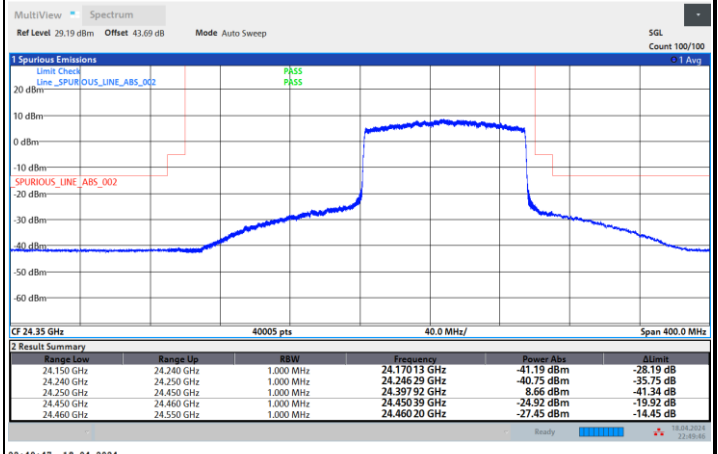


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

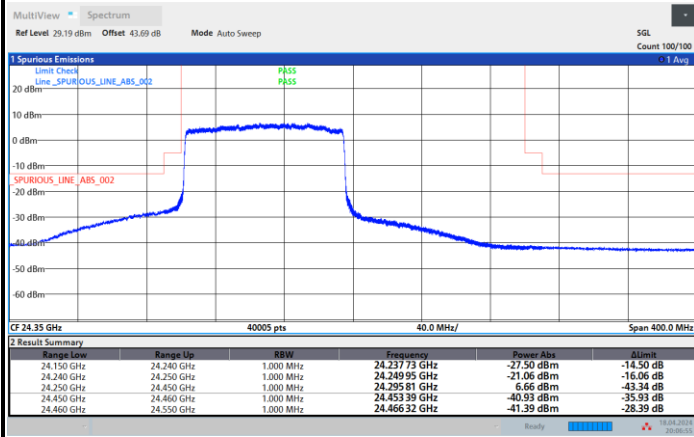




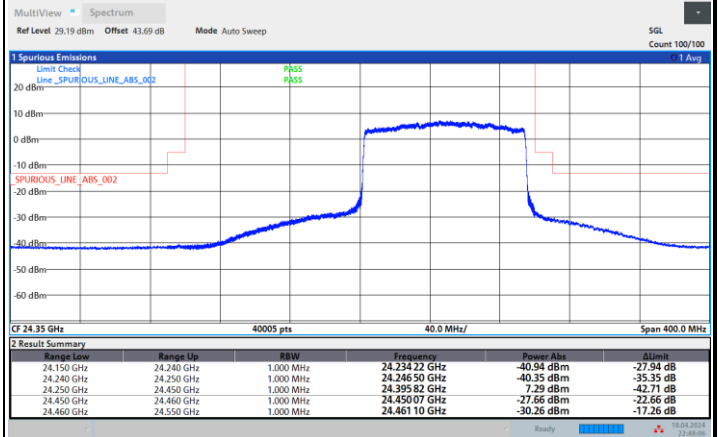
DFT-s-OFDM Module A

NR Band n258A/ 100MHz / 16QAM

Lowest Band Edge / Full RB

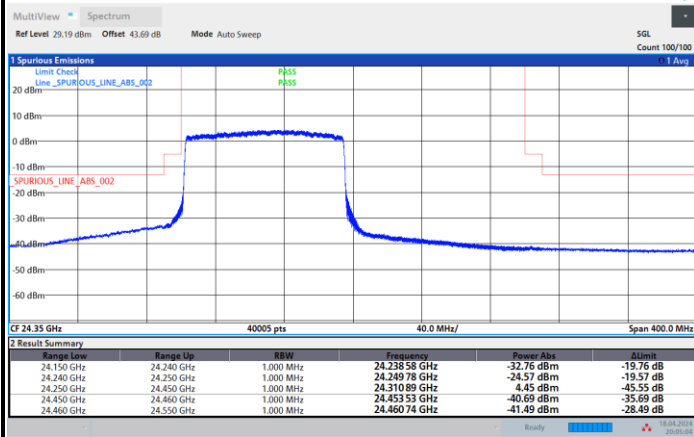


Highest Band Edge / Full RB

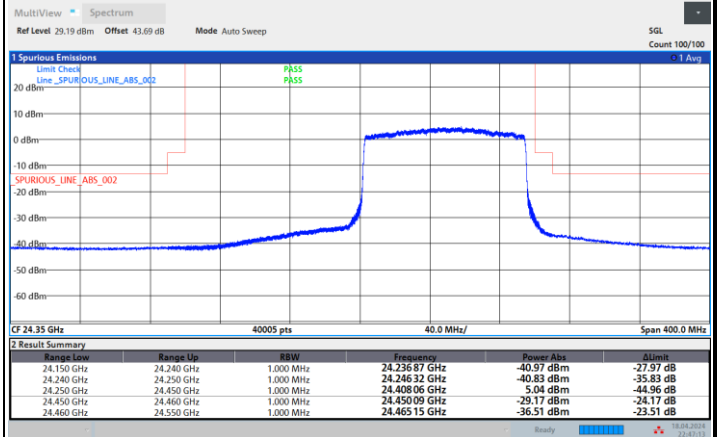


NR Band n258A/ 100MHz / 64QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

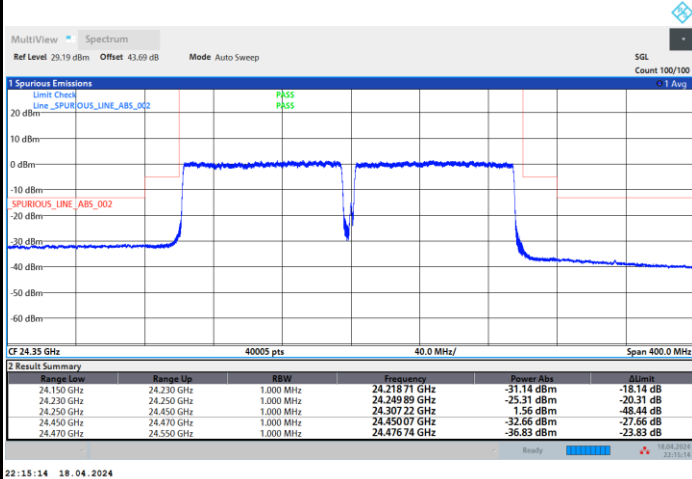




DFT-s-OFDM Module A

NR Band n258A/ 200MHz / QPSK

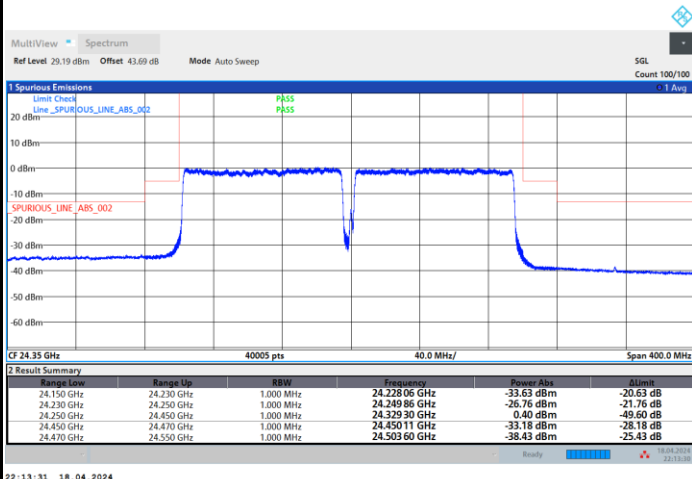
Middle Band Edge / Full RB



intentionally blank

NR Band n258A/ 200MHz / 16QAM

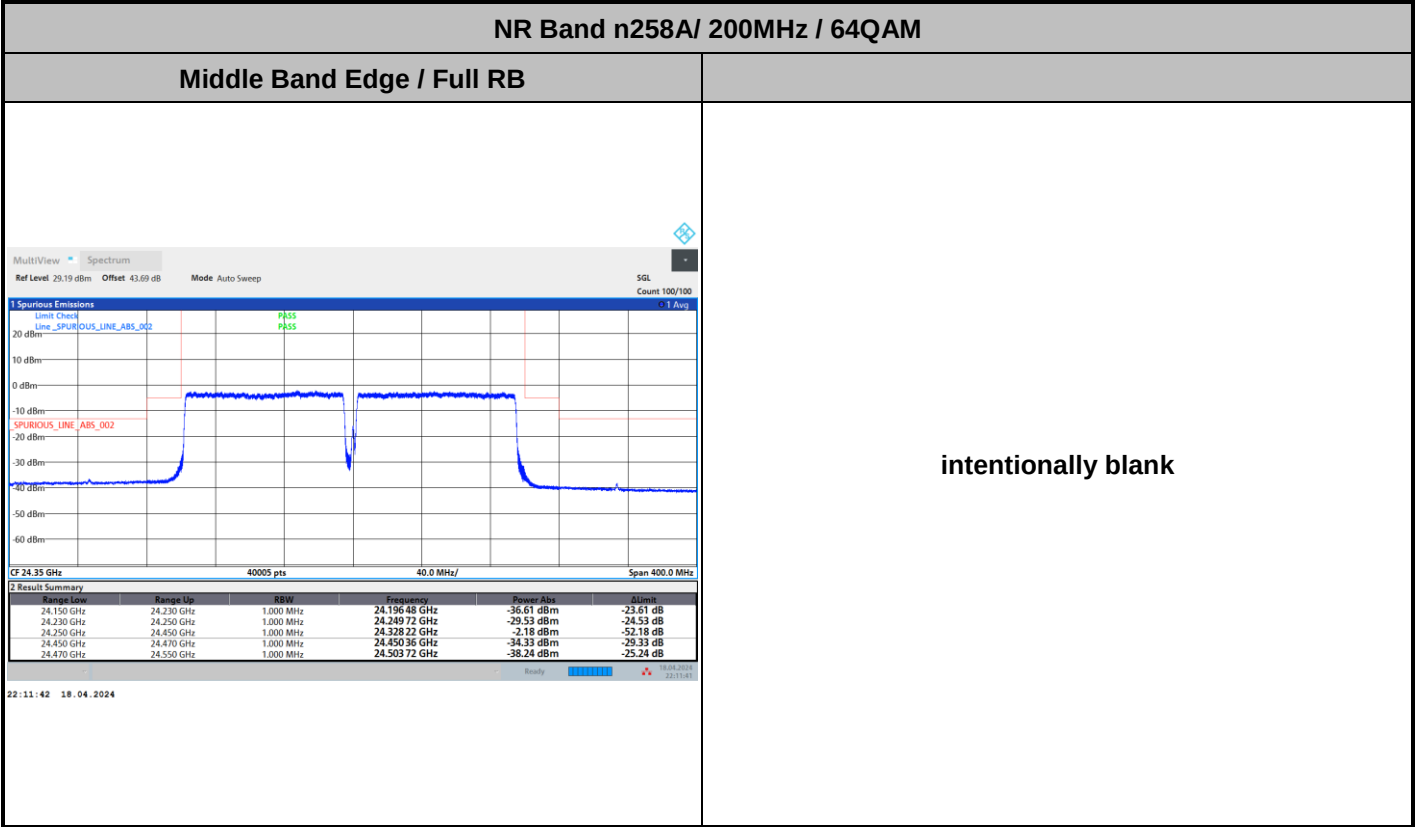
Middle Band Edge / Full RB



intentionally blank



DFT-s-OFDM Module A

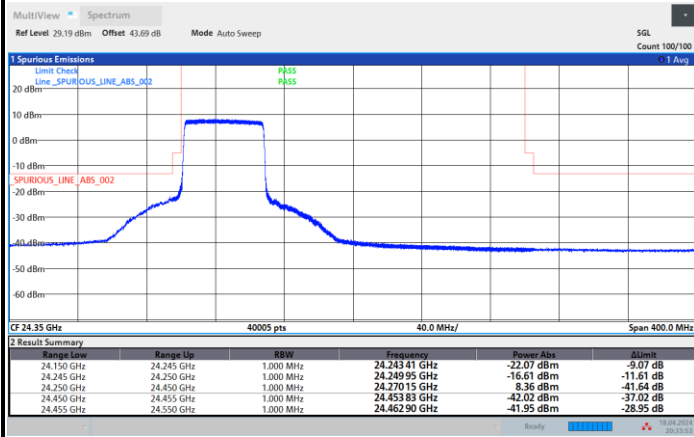




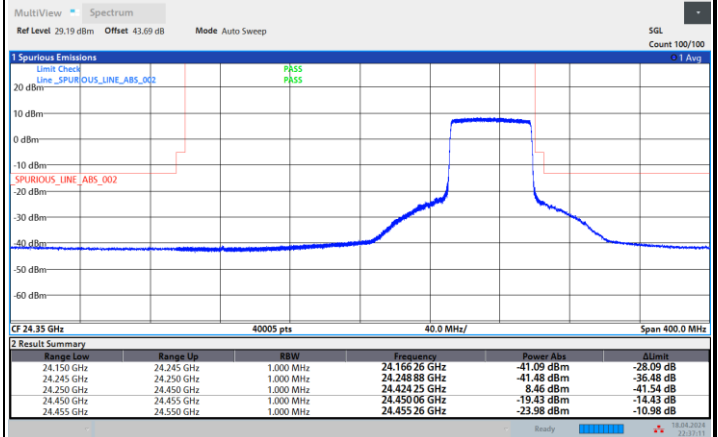
CP-OFDM Module A

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / Full RB

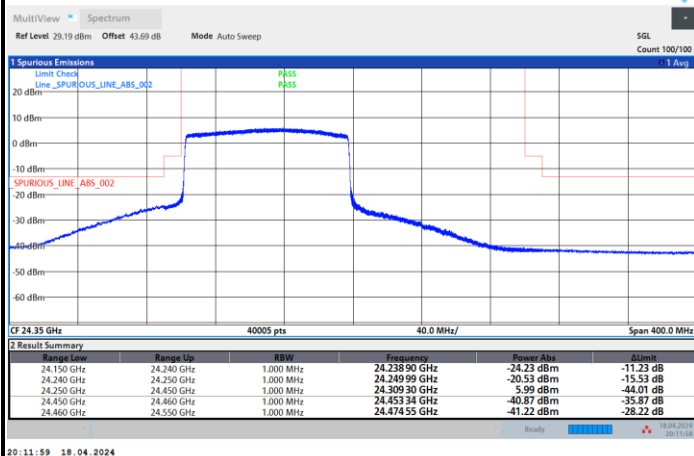


Highest Band Edge / Full RB

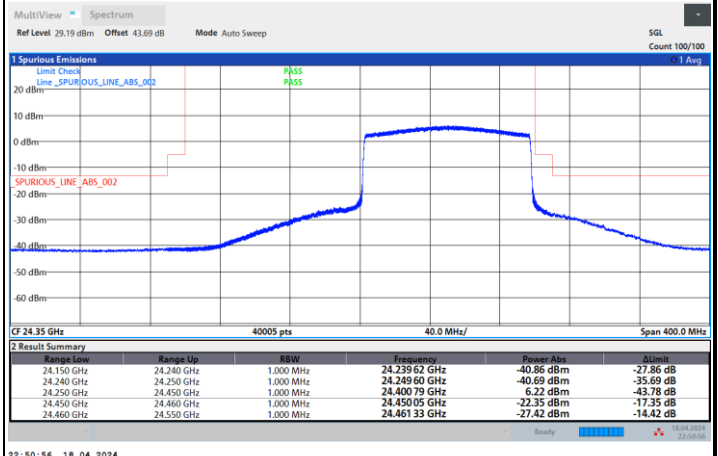


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / Full RB

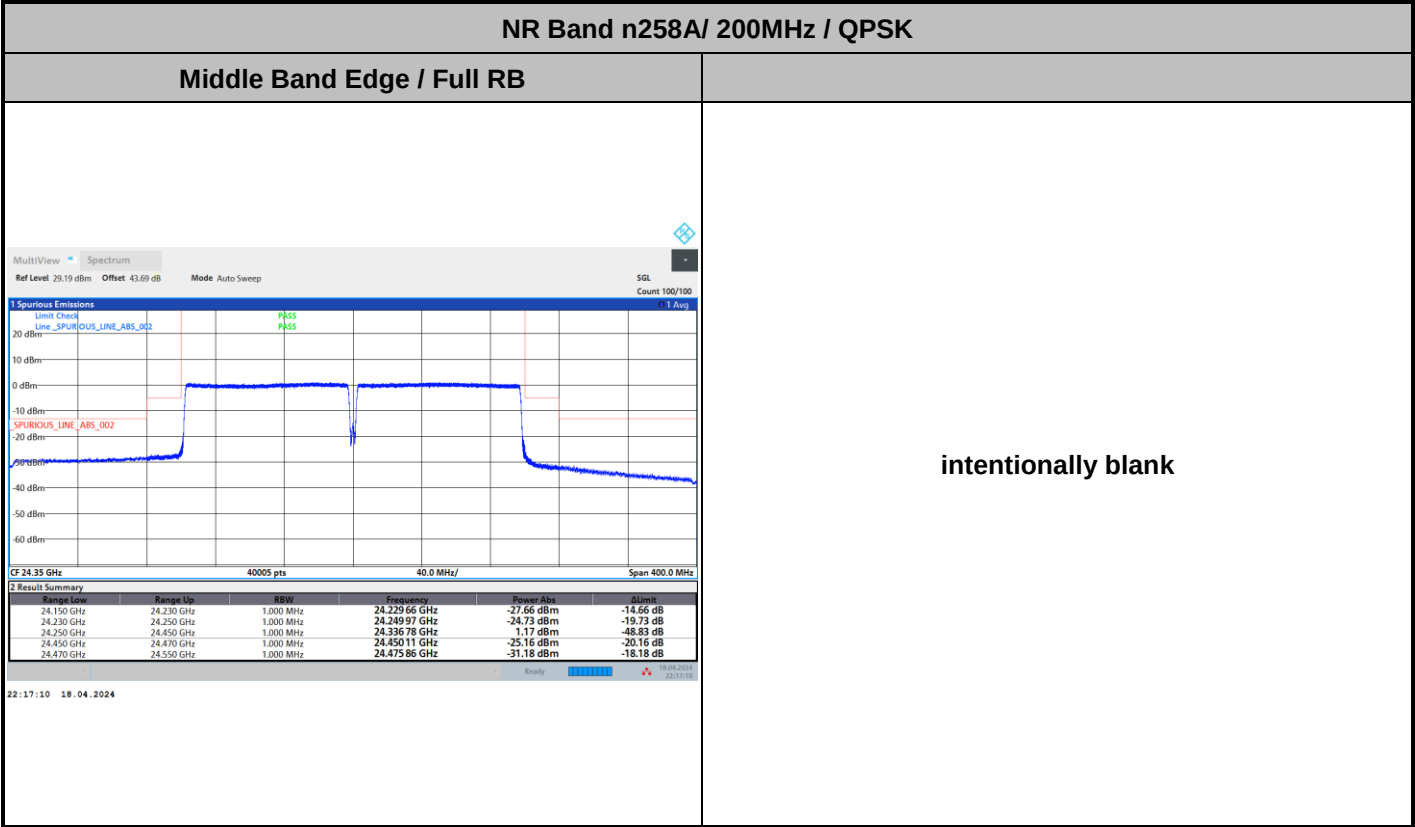


Highest Band Edge / Full RB





CP-OFDM Module A

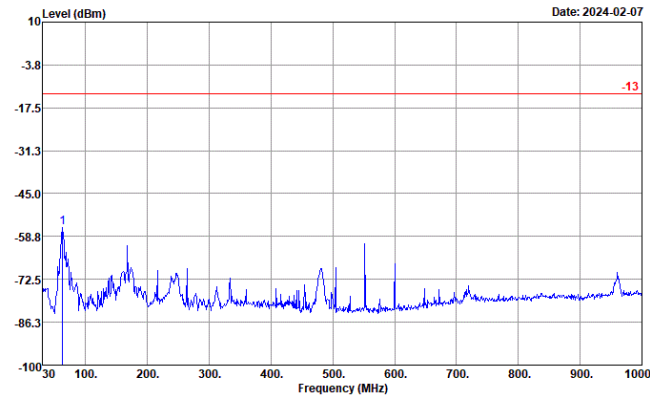




Spurious Emission

NR Band n258A (30MHz-1GHz)

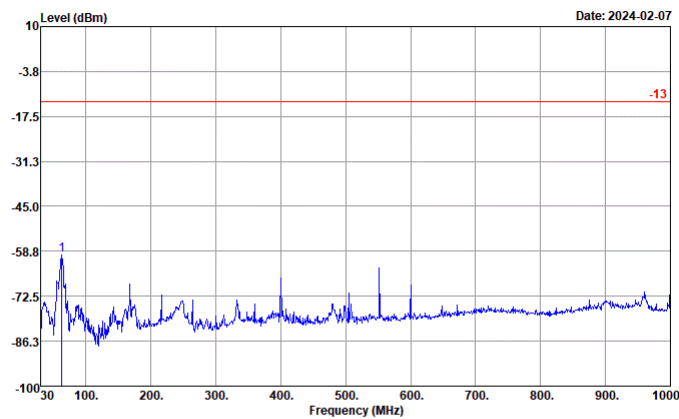
Horizontal



Site : 03CH10-HY
Condition : -13 EIRP_WO HORIZONTAL
Project : 3N2326
 : n258a MA

Freq	Level	Over	Limit
MHz	dBm	dB	dBm
1	62.98 -55.83	-42.83	-13.00

Vertical



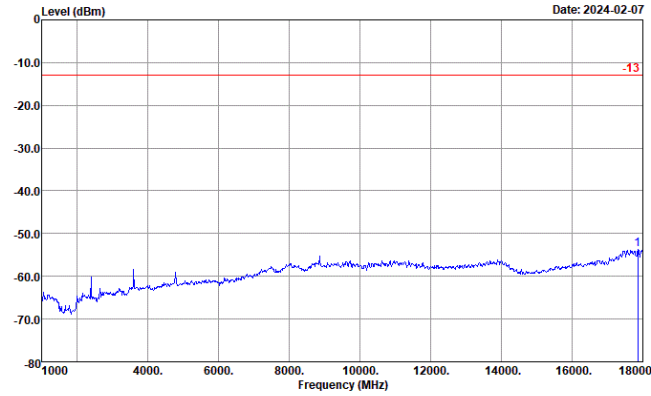
Site : 03CH10-HY
Condition : -13 EIRP_WO VERTICAL
Project : 3N2326
 : n258a MA

Freq	Level	Over	Limit
MHz	dBm	dB	dBm
1	62.98 -59.92	-46.92	-13.00



NR Band n258A (1GHz-18GHz)

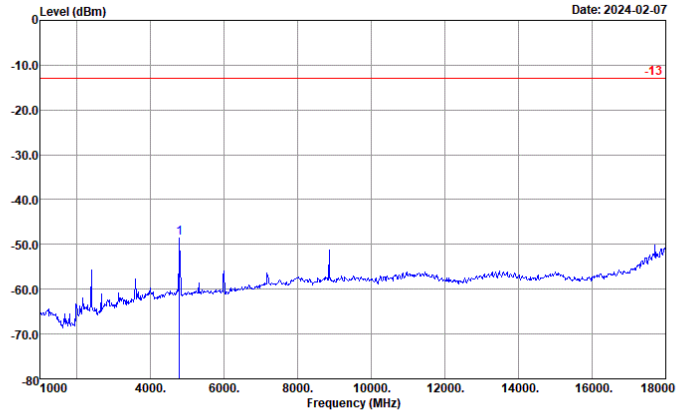
Horizontal



Site : 03CH10-HY
Condition : -13 EIRP_WO HORIZONTAL
Project : 3N2326
 : n258a MA

Freq	Level	Over	Limit
MHz	dBm	Limit	Line
1	17864.00	-53.69	-40.69 -13.00

Vertical



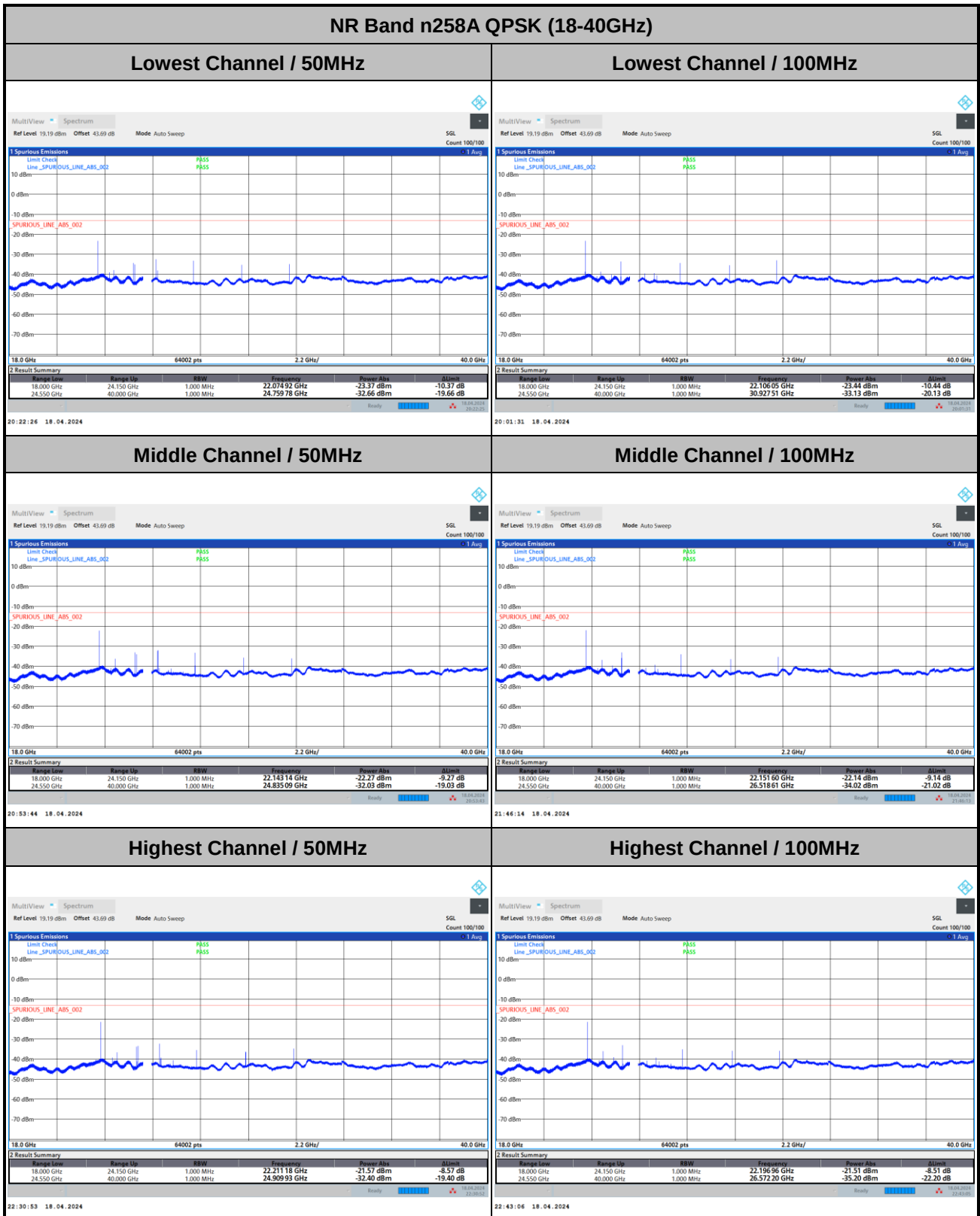
Site : 03CH10-HY
Condition : -13 EIRP_WO VERTICAL
Project : 3N2326
 : n258a MA

Freq	Level	Over	Limit
MHz	dBm	Limit	Line
1	4791.00	-48.47	-35.47 -13.00

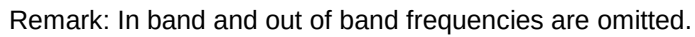


Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

DFT-s-OFDM Module A

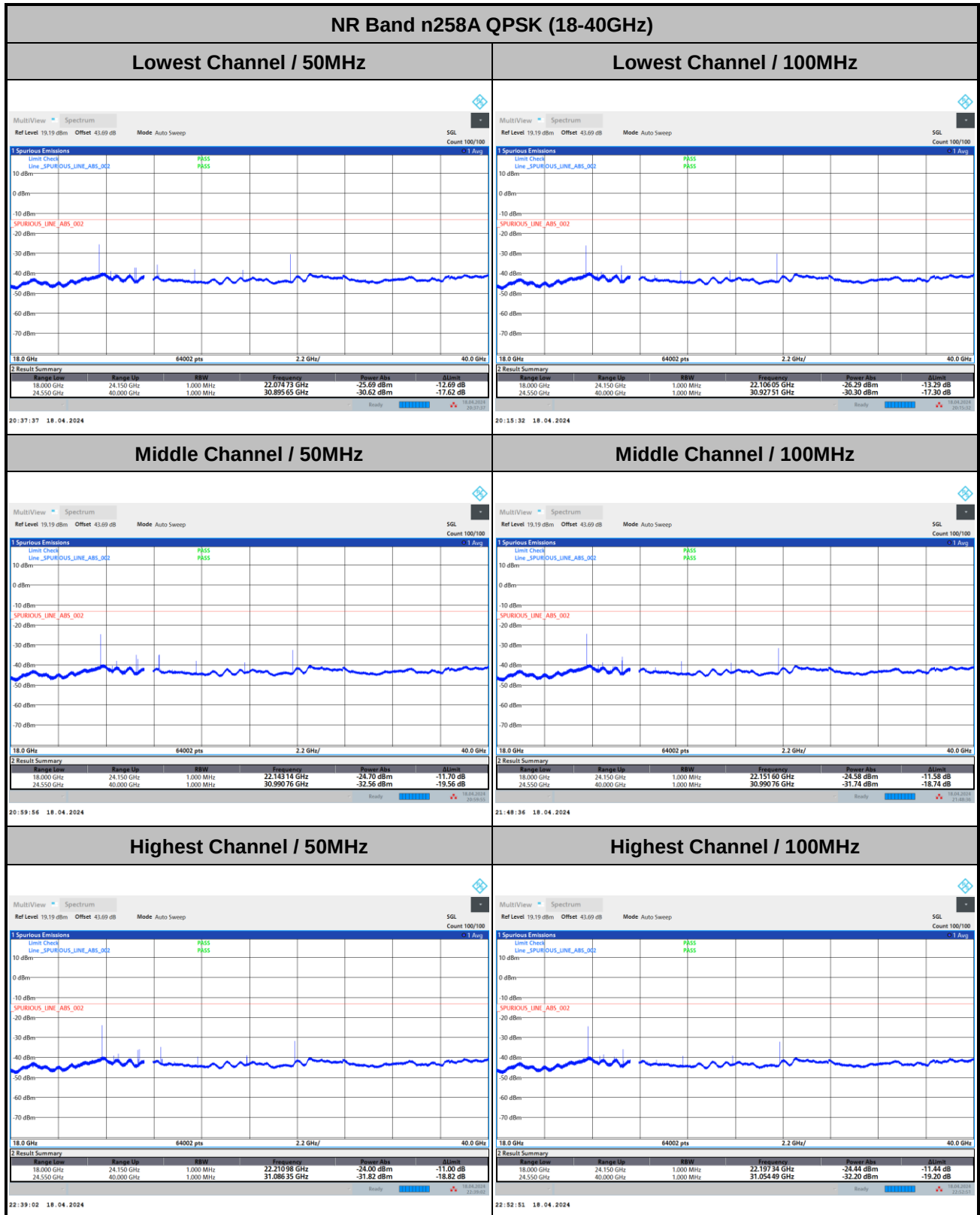


Remark: In band and out of band frequencies are omitted.





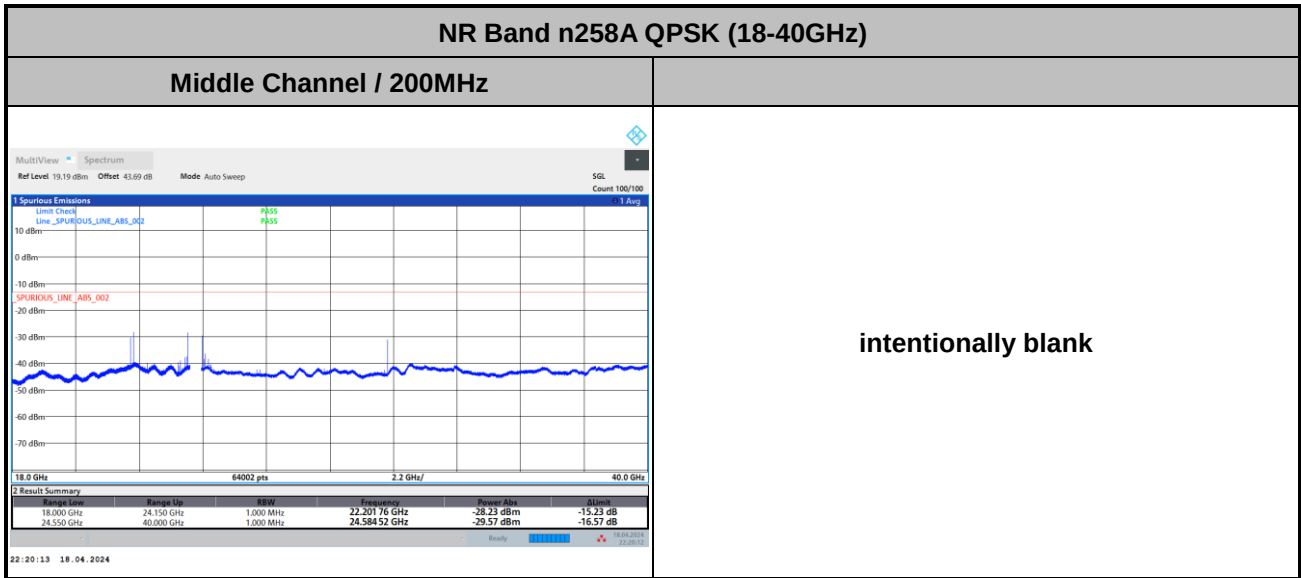
CP-OFDM Module A



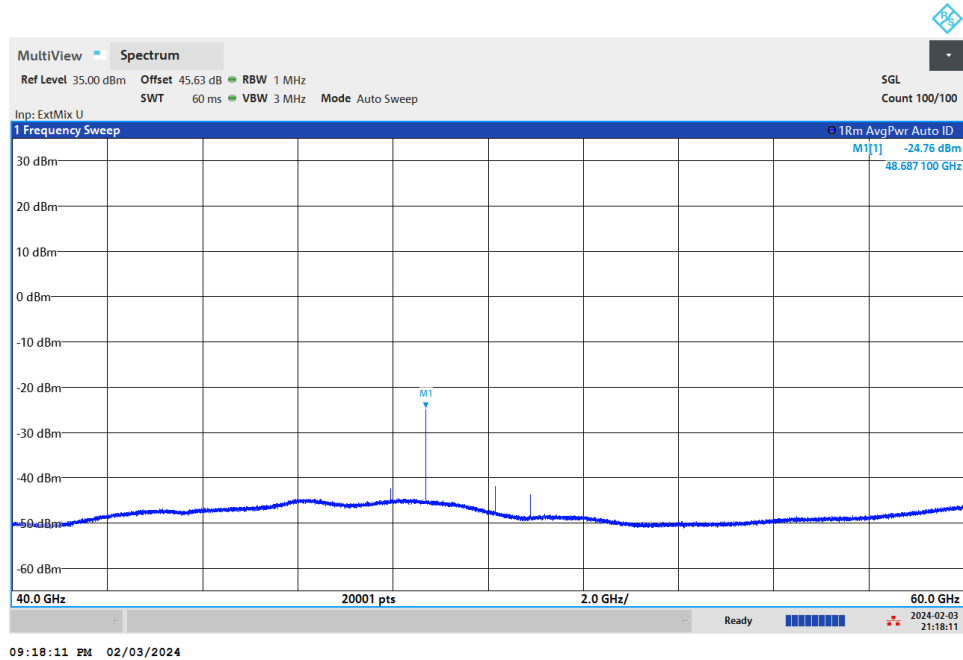
Remark: In band and out of band frequencies are omitted.



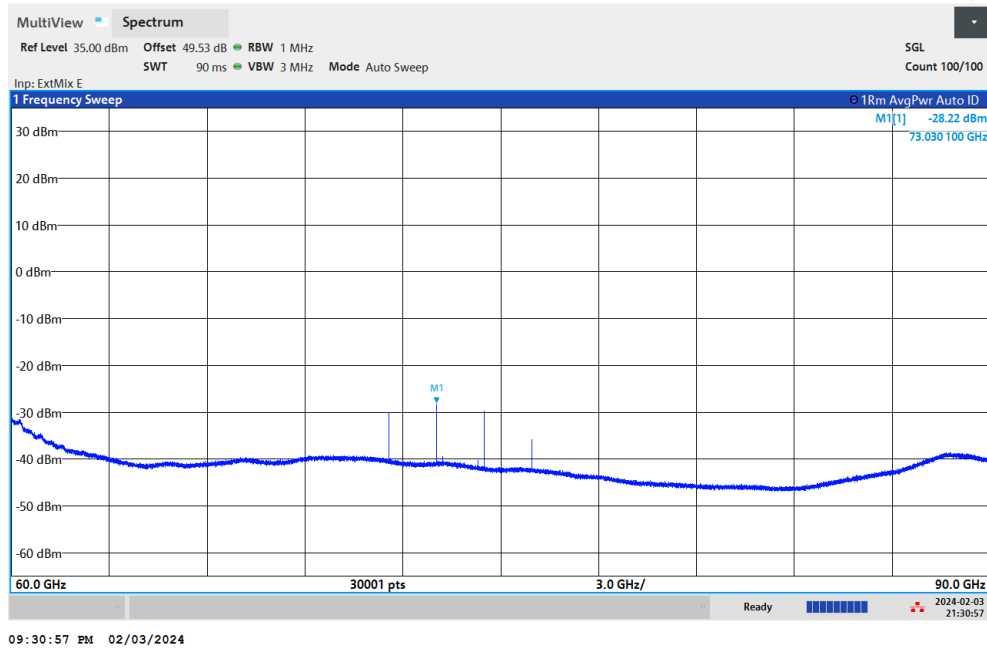
CP-OFDM Module A



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

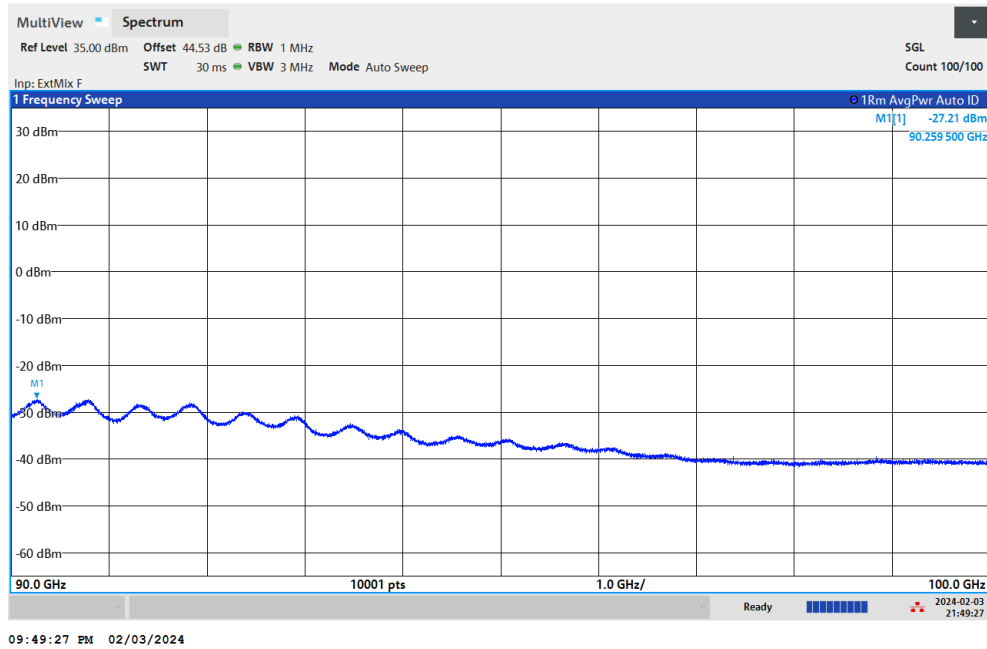
NR Band n258A
(40GHz-60GHz)


$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 43 + 0.43 + 107 + 20\log(1) - 104.8 = 45.63(\text{dB}) \end{aligned}$$

NR Band n258A
(60GHz-90GHz)


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

$$= 46.9 + 0.43 + 107 + 20\log(1) - 104.8 = 49.53 \text{ (dB)}$$

NR Band n258A
(90GHz-100GHz)


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

$$= 47.92 + 0.43 + 107 + 20\log(0.5) - 104.8 = 44.53 \text{ (dB)}$$

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	24.349983	109.900	4.513	Pass
40	Normal Voltage	24.350012	80.900	3.322	
30	Normal Voltage	24.3500669	26.000	1.068	
20(Ref.)	Normal Voltage	24.3500929	0.000	0.000	
10	Normal Voltage	24.3501399	-47.000	1.930	
0	Normal Voltage	24.3501429	-50.000	2.053	
-10	Normal Voltage	24.3501319	-39.000	1.602	
-20	Normal Voltage	24.3501259	-33.000	1.355	
-30	Normal Voltage	24.3501079	-15.000	0.616	
20	Maximum Voltage	24.3500989	-6.000	0.246	
20	Normal Voltage	24.3501079	-15.000	0.616	
20	Battery End Point	24.3501039	-11.000	0.452	

Note:

1. Normal Voltage = 3.89 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the operation band.

NR Band n258A Module B AGH+V

Occupied Bandwidth

Mode	DFT-s-OFDM Module B NR Band n258A : 99%OBW(MHz)								
BW	50MHz			100MHz			200MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	46.00	45.86	45.83	91.19	91.00	91.20	-	-	-
Middle CH	45.96	45.89	45.91	90.83	90.77	90.88	190.42	189.69	189.90
Highest CH	46.09	45.98	46.09	91.09	91.00	91.12	-	-	-

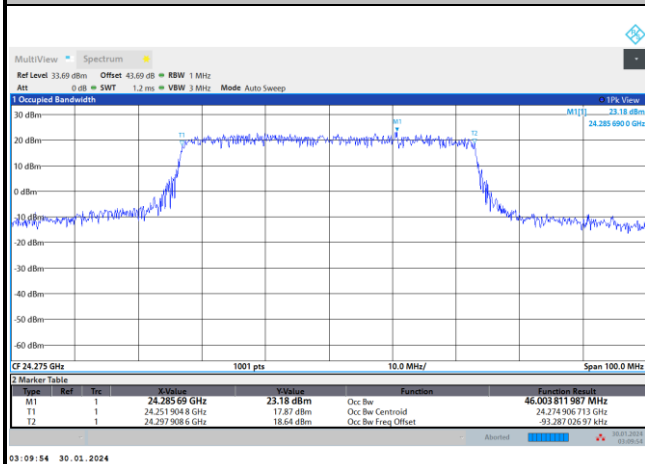
Mode	CP-OFDM Module B NR Band n258A : 99%OBW(MHz)		
BW	50MHz	100MHz	200MHz
Mod.	QPSK	QPSK	QPSK
Lowest CH	45.97	94.29	-
Middle CH	45.92	93.88	194.26
Highest CH	46.29	94.18	-



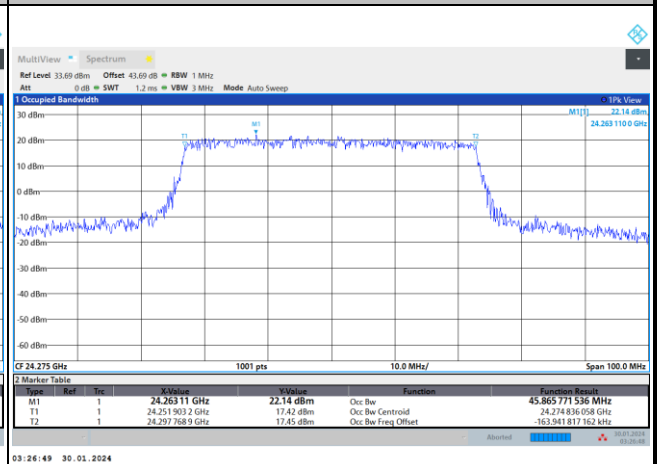
DFT-s-OFDM Module B

NR Band n258A

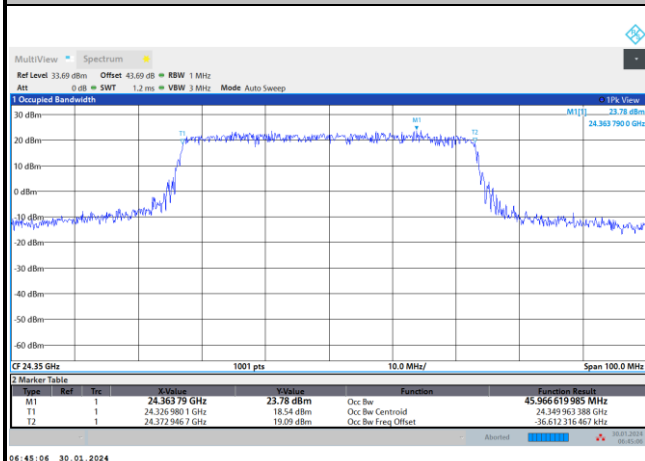
Lowest Channel / 50MHz / QPSK



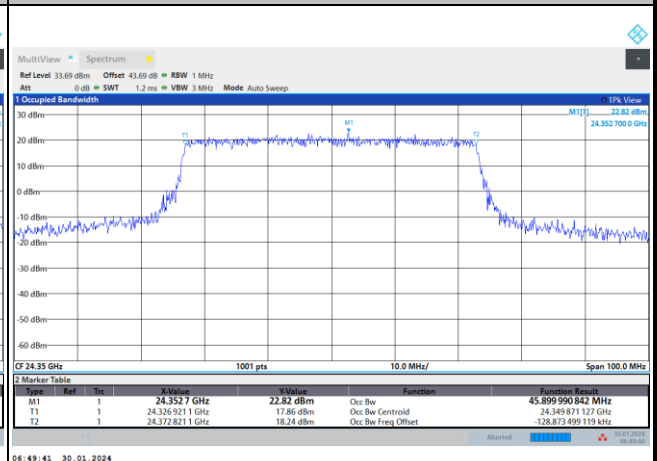
Lowest Channel / 50MHz / 16QAM



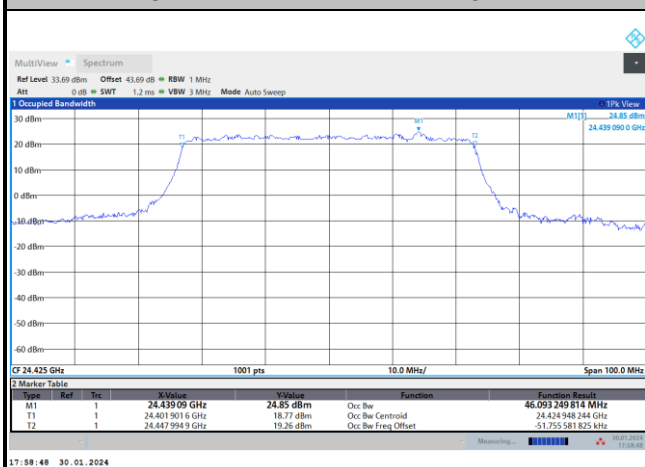
Middle Channel / 50MHz / QPSK



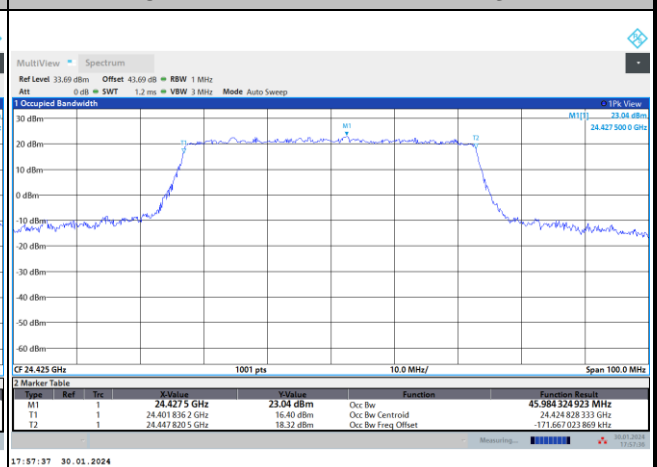
Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM

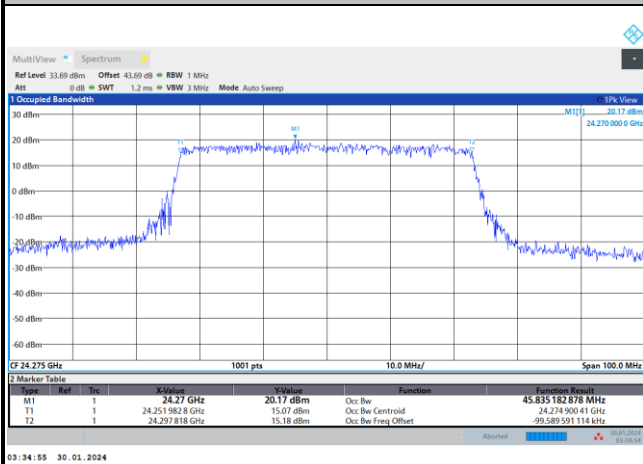




DFT-s-OFDM Module B

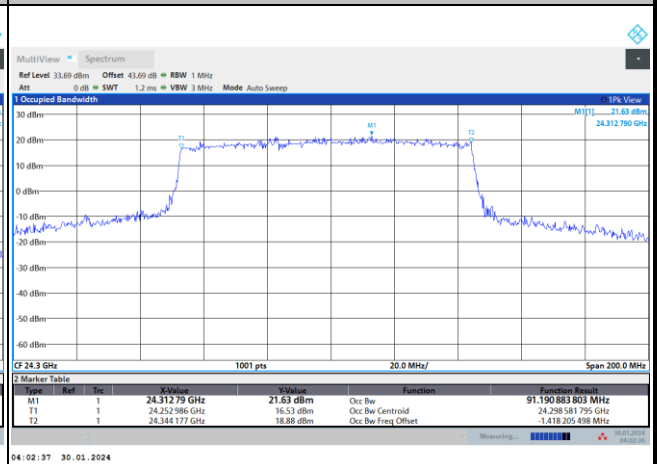
NR Band n258A

Lowest Channel / 50MHz / 64QAM



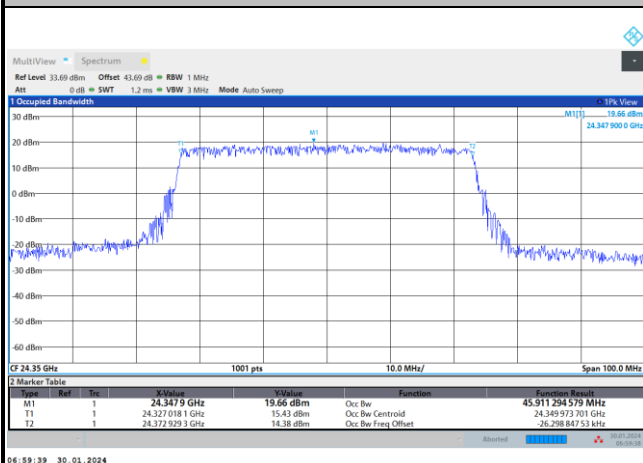
03:34:55 30.01.2024

Lowest Channel / 100MHz / QPSK



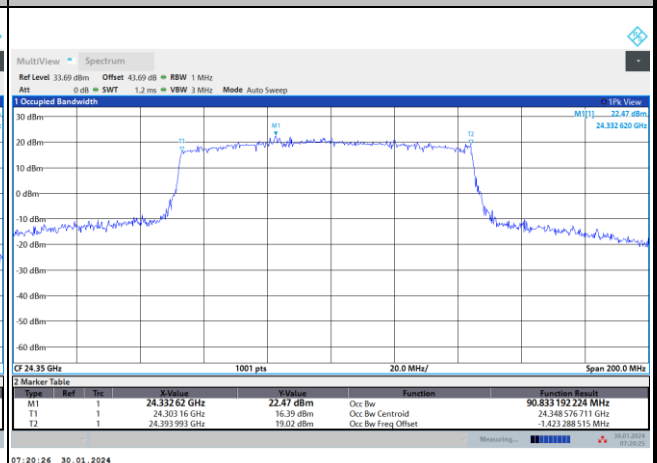
04:02:37 30.01.2024

Middle Channel / 50MHz / 64QAM



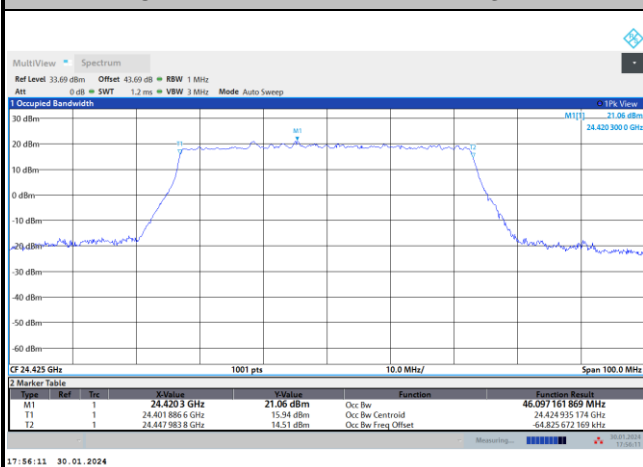
04:59:39 30.01.2024

Middle Channel / 100MHz / QPSK



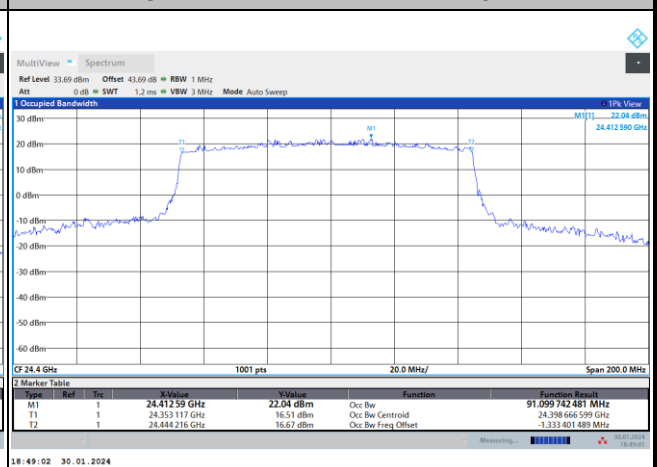
07:20:26 30.01.2024

Highest Channel / 50MHz / 64QAM



17:56:11 30.01.2024

Highest Channel / 100MHz / QPSK



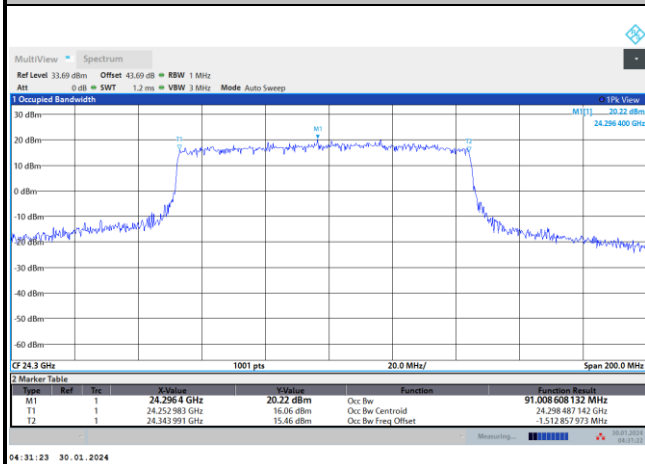
18:49:02 30.01.2024



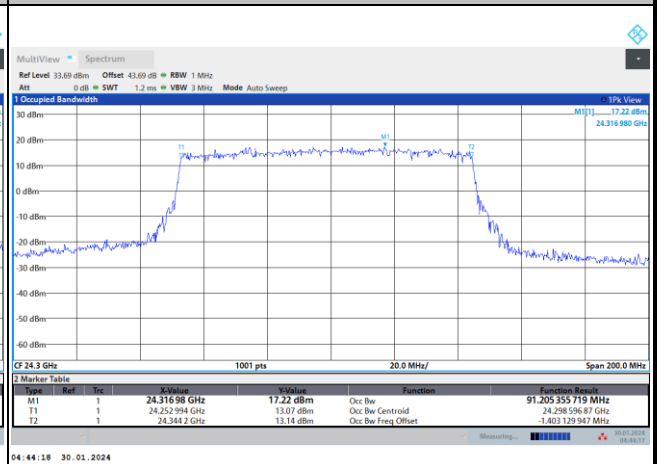
DFT-s-OFDM Module B

NR Band n258A

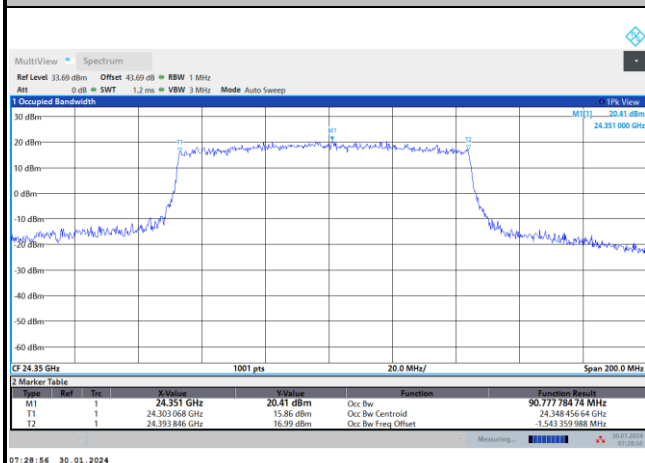
Lowest Channel / 100MHz / 16QAM



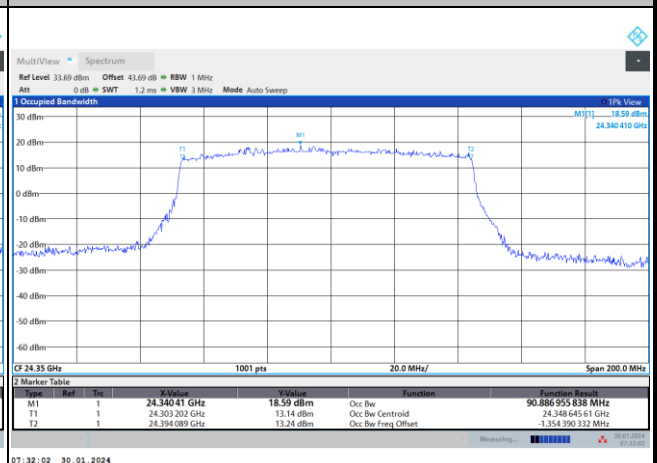
Lowest Channel / 100MHz / 64QAM



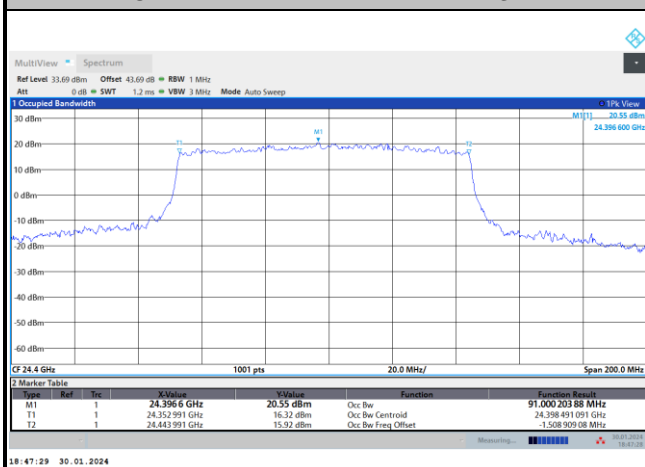
Middle Channel / 100MHz / 16QAM



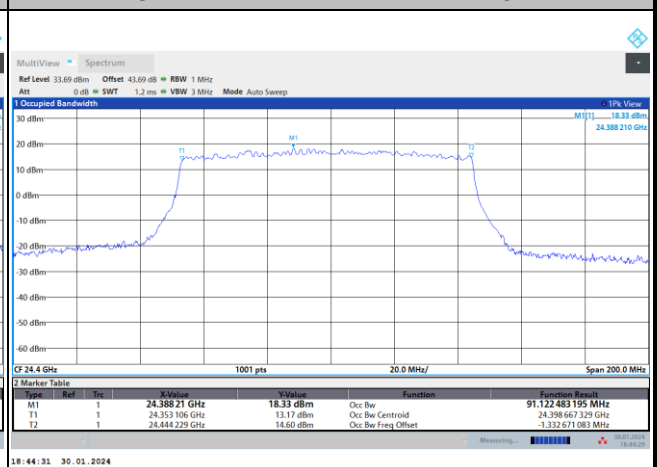
Middle Channel / 100MHz / 64QAM



Highest Channel / 100MHz / 16QAM

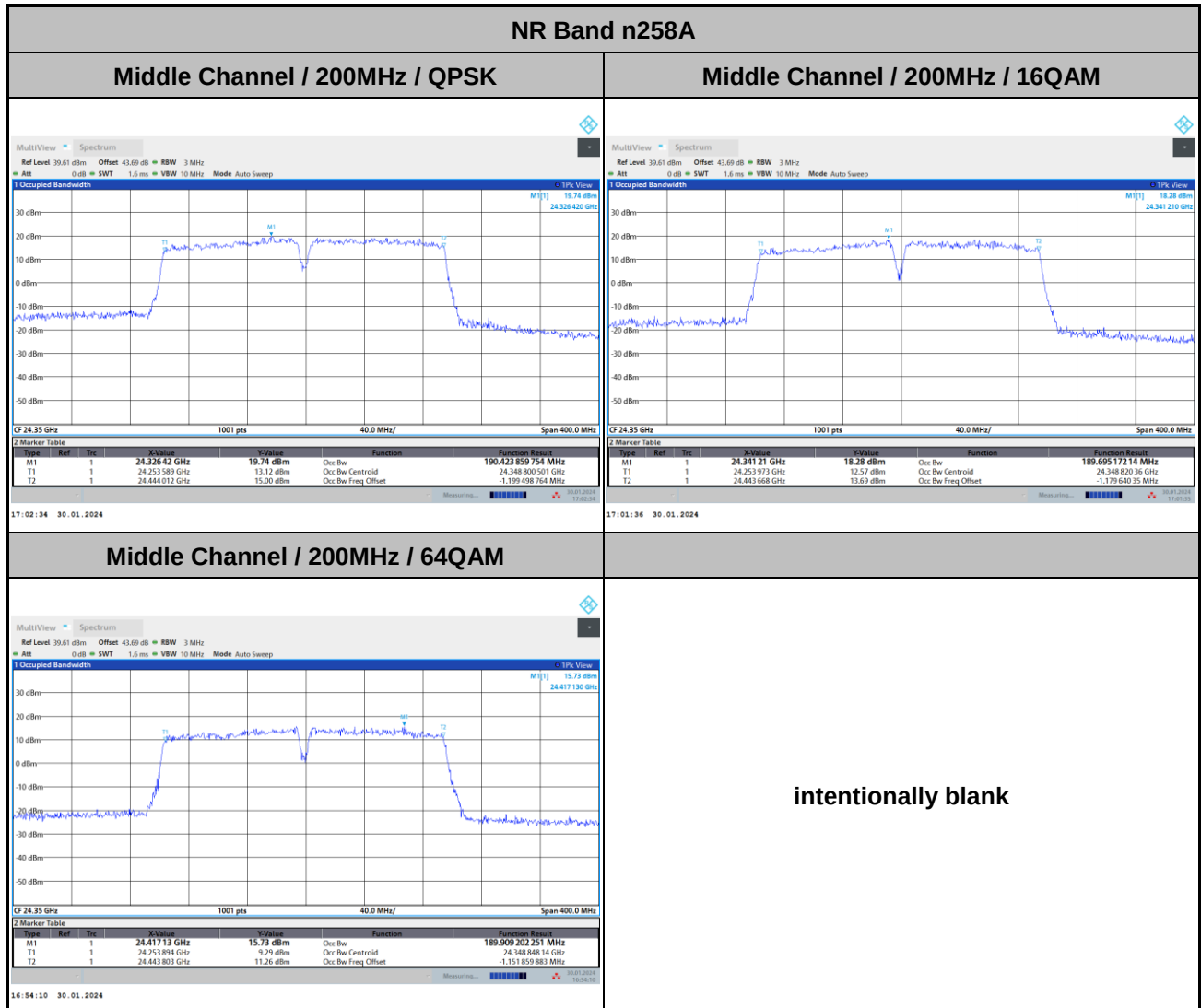


Highest Channel / 100MHz / 64QAM





DFT-s-OFDM Module B

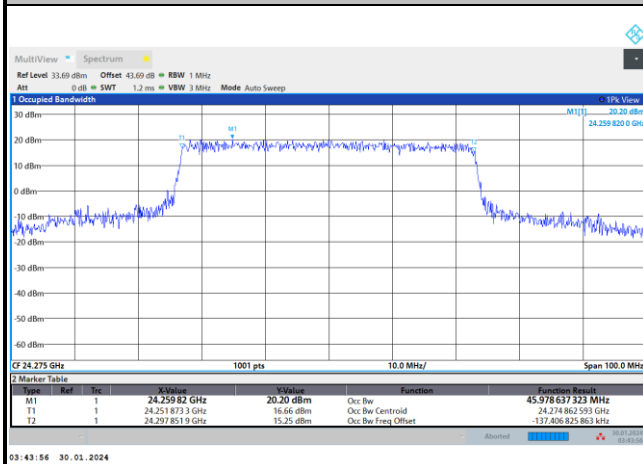




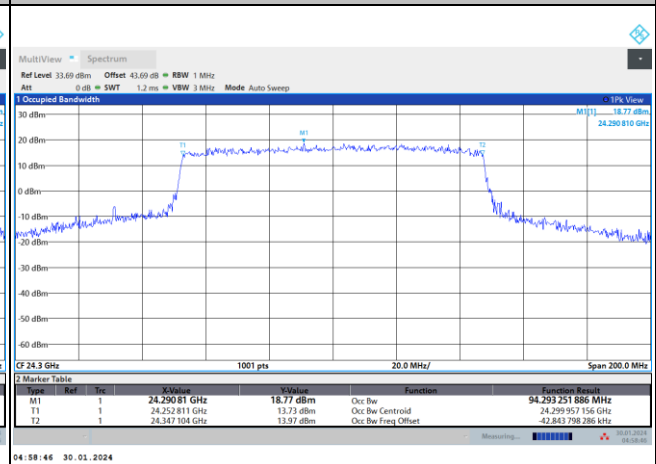
CP-OFDM Module B

NR Band n258A

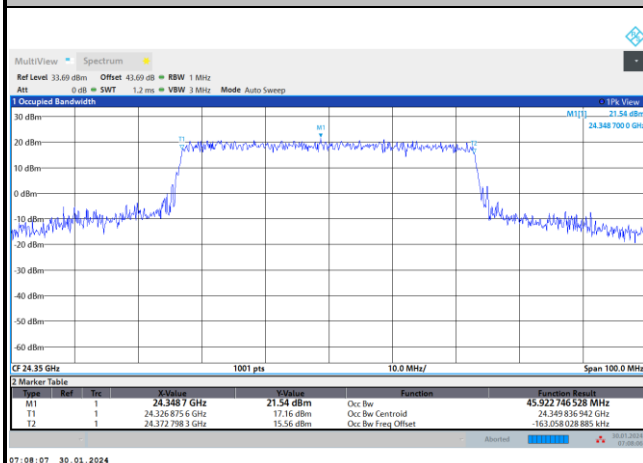
Lowest Channel / 50MHz / QPSK



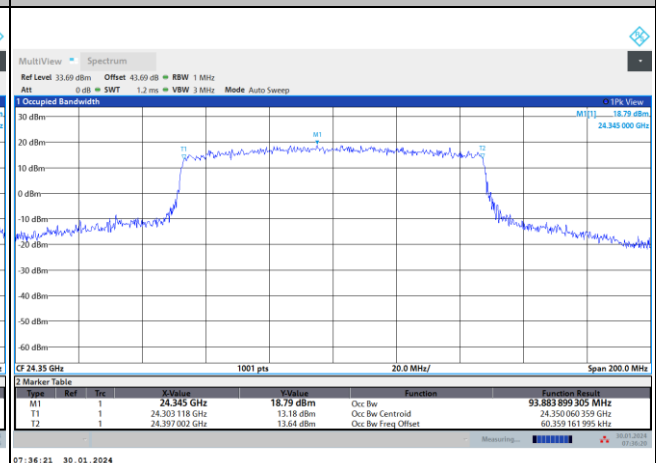
Lowest Channel / 100MHz / QPSK



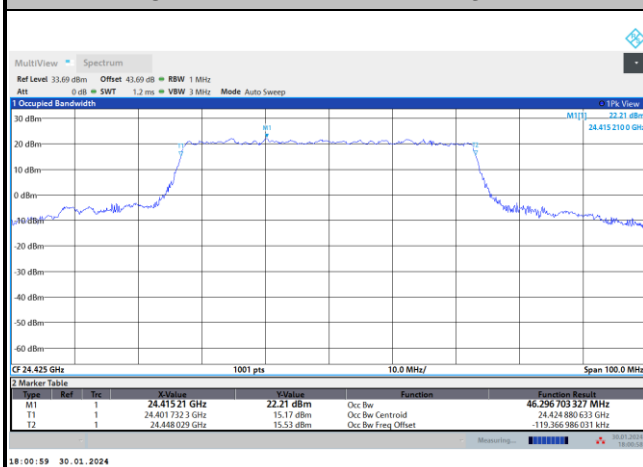
Middle Channel / 50MHz / QPSK



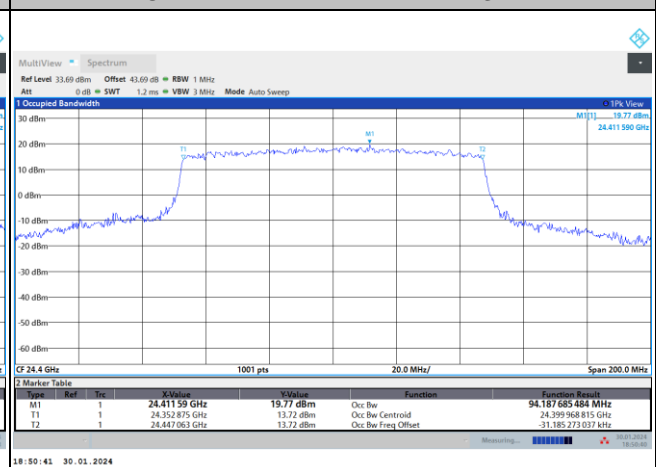
Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / QPSK

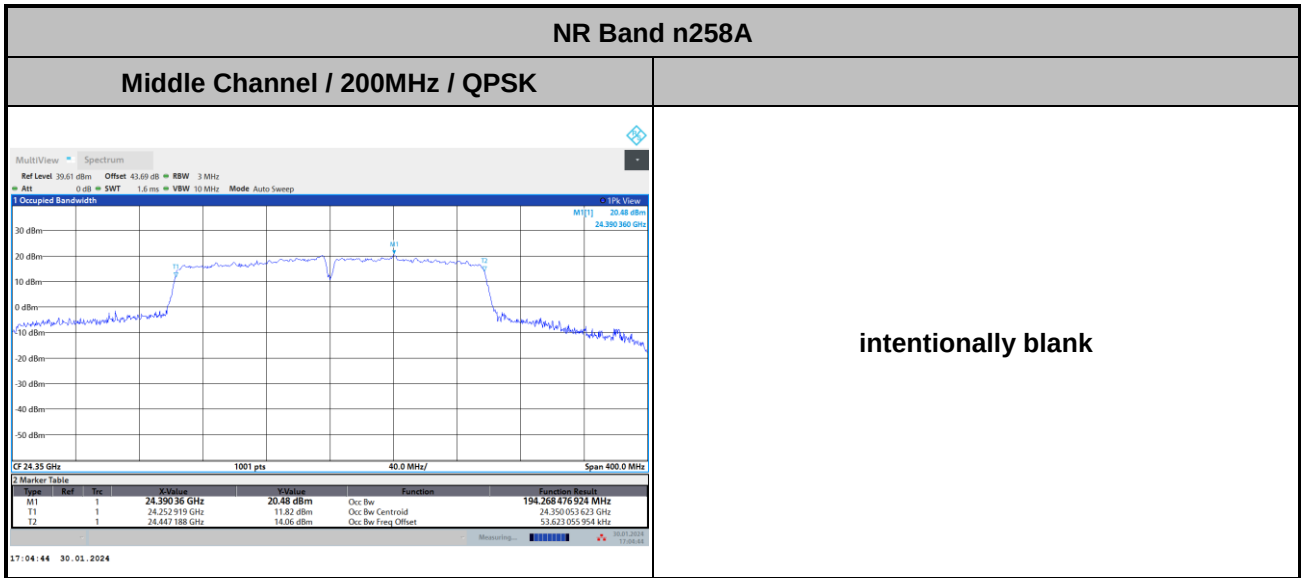


Highest Channel / 100MHz / QPSK





CP-OFDM Module B



Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module B NR Band n258A : BE (dBm) 1 RB					
BW			50MHz			100MHz		
Limit (dBm)			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Low CH	0~10%OB	≤-5	-14.372	-14.824	-18.380	-16.388	-17.600	-6.44
	>10%OB	≤-13	-33.957	-33.946	-33.878	-33.820	-33.887	-33.84
High CH	0~10%OB	≤-5	-14.208	-5.03	-6.01	-6.40	-8.80	-9.09
	>10%OB	≤-13	-33.676	-30.64	-31.40	-34.30	-34.67	-35.70
Result			Compliance					

Mode			CP-OFDM Module B NR Band n258A : BE (dBm) 1 RB	
BW			50MHz	100MHz
Limit (dBm)			QPSK	QPSK
Low CH	0~10%OB	≤-5	-14.885	-18.107
	>10%OB	≤-13	-33.566	-33.428
High CH	0~10%OB	≤-5	-17.264	-8.32
	>10%OB	≤-13	-33.961	-34.57
Result			Compliance	

Mode			DFT-s-OFDM Module B NR Band n258A : BE (dBm) 1 RB		
BW			200MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Mid CH	0~10%OB	≤-5	-25.939	-15.03	-15.83
	>10%OB	≤-13	-23.785	-14.56	-20.13

Mode			CP-OFDM Module B NR Band n258A : BE (dBm) 1 RB	
BW			200MHz	
Limit (dBm)			QPSK	
Mid CH	0~10%OB	≤-5	-22.985	
	>10%OB	≤-13	-20.470	

Mode			DFT-s-OFDM Module B NR Band n258A : BE (dBm) Full RB					
BW			50MHz			100MHz		
Limit (dBm)			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Low CH	0~10%OB	≤-5	-8.80	-12.32	-15.93	-12.97	-16.25	-19.60
	>10%OB	≤-13	-14.42	-18.43	-26.05	-16.72	-20.54	-27.52
High CH	0~10%OB	≤-5	-10.53	-14.22	-16.85	-18.12	-22.06	-25.33
	>10%OB	≤-13	-16.09	-19.76	-28.88	-20.17	-24.62	-32.33
Result			Compliance					

Mode			CP-OFDM Module B NR Band n258A : BE (dBm) Full RB	
BW			50MHz	100MHz
Limit (dBm)			QPSK	QPSK
Low CH	0~10%OB	≤-5	-11.87	-14.98
	>10%OB	≤-13	-15.68	-17.31
High CH	0~10%OB	≤-5	-13.47	-16.08
	>10%OB	≤-13	-16.62	-20.85
Result			Compliance	

Mode			DFT-s-OFDM Module B NR Band n258A : BE (dBm) Full RB		
BW			200MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Mid CH	0~10%OB	≤-5	-21.51	-23.24	-26.50
	>10%OB	≤-13	-25.14	-28.94	-33.39

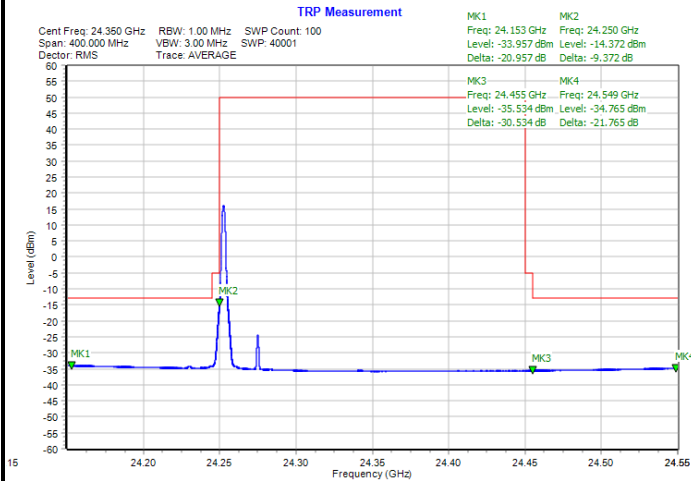
Mode			CP-OFDM Module B NR Band n258A : BE (dBm) Full RB	
BW			200MHz	
Limit (dBm)			QPSK	
Mid CH	0~10%OB	≤-5	-20.05	
	>10%OB	≤-13	-21.30	



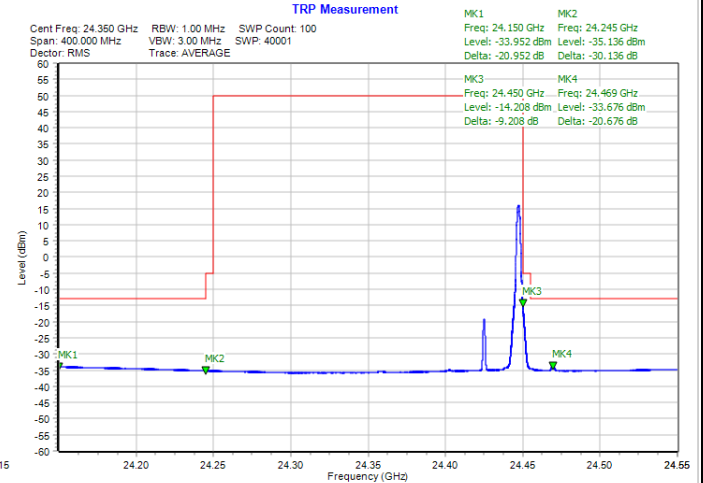
DFT-s-OFDM Module B

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / 1 RB

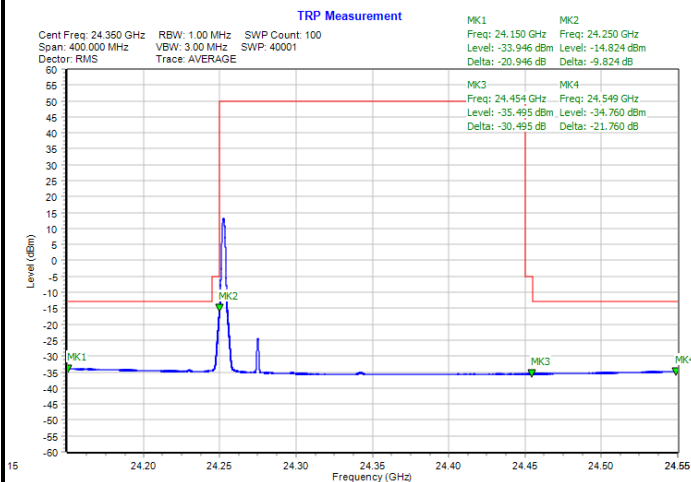


Highest Band Edge / 1 RB

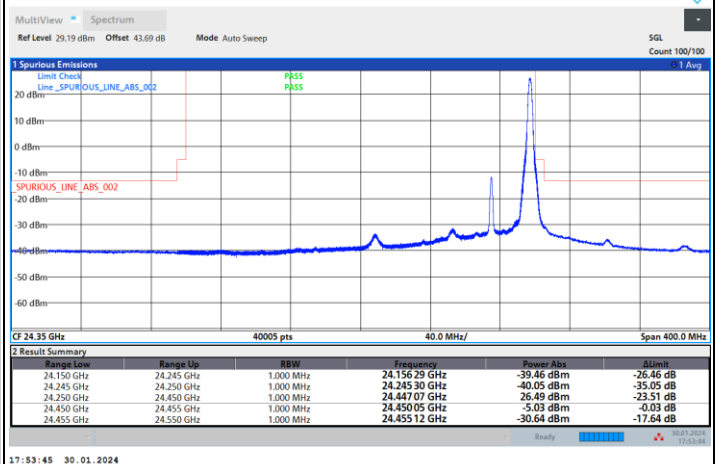


NR Band n258A/ 50MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

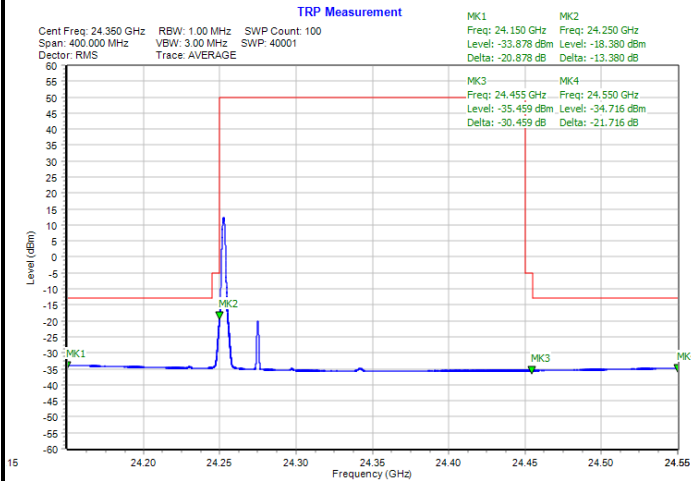




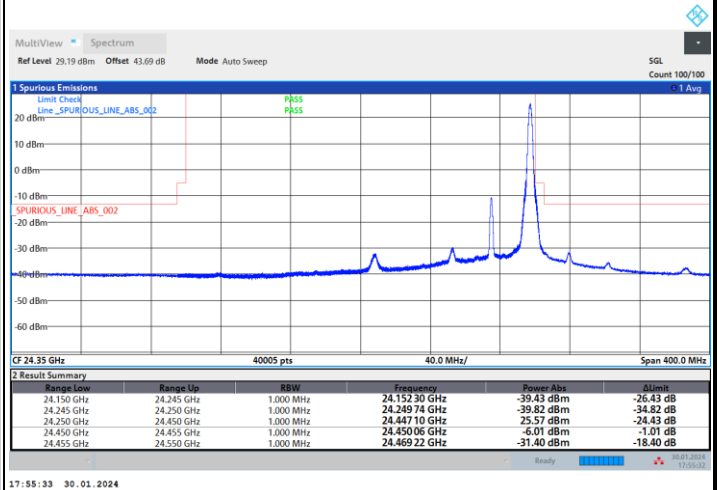
DFT-s-OFDM Module B

NR Band n258A/ 50MHz / 64QAM

Lowest Band Edge / 1 RB

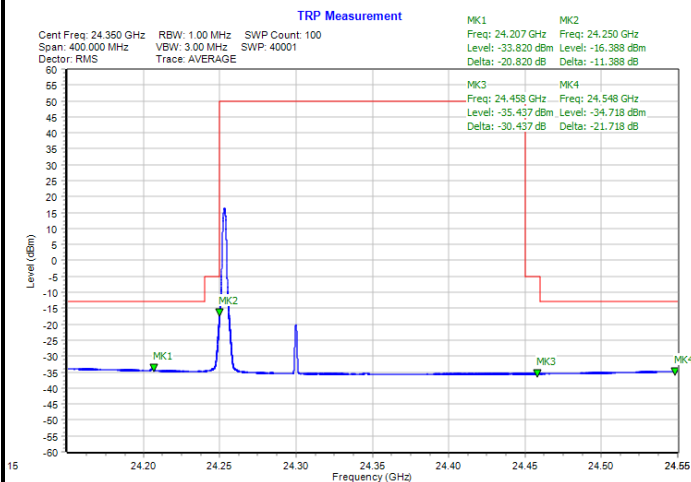


Highest Band Edge / 1 RB

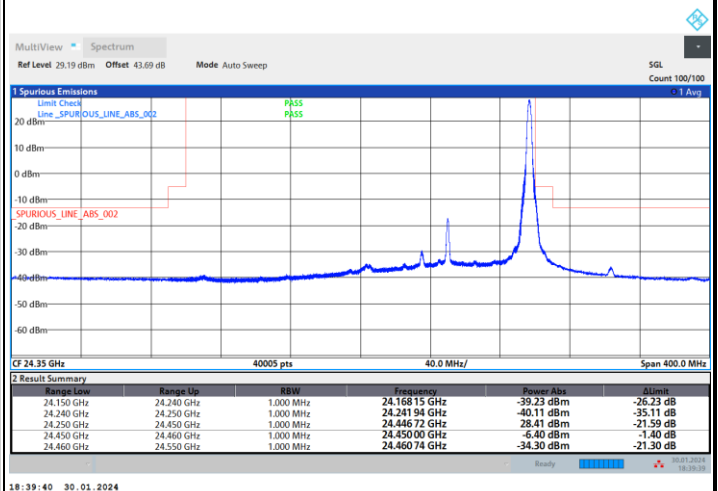


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

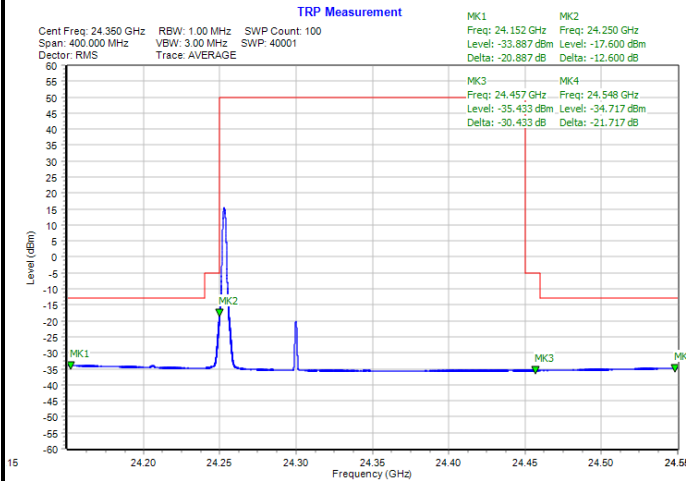




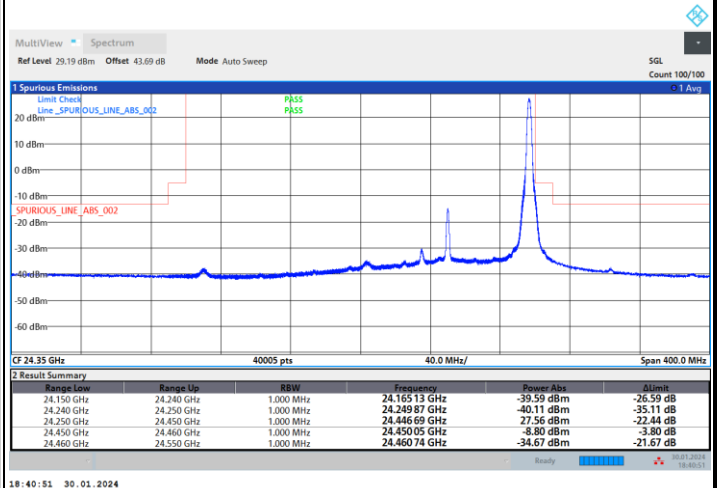
DFT-s-OFDM Module B

NR Band n258A/ 100MHz / 16QAM

Lowest Band Edge / 1 RB

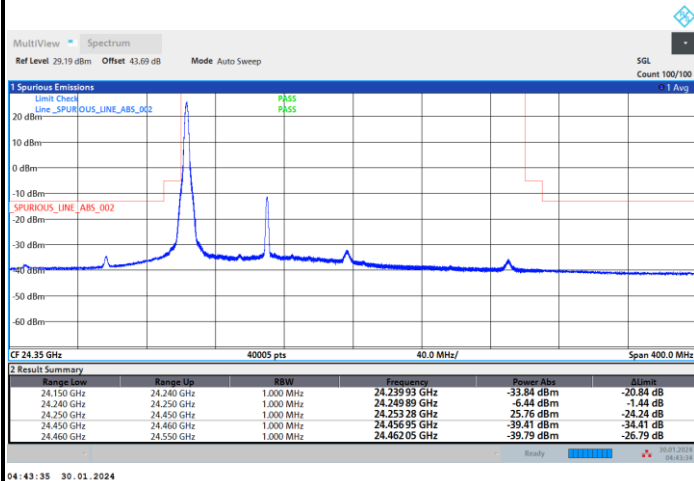


Highest Band Edge / 1 RB

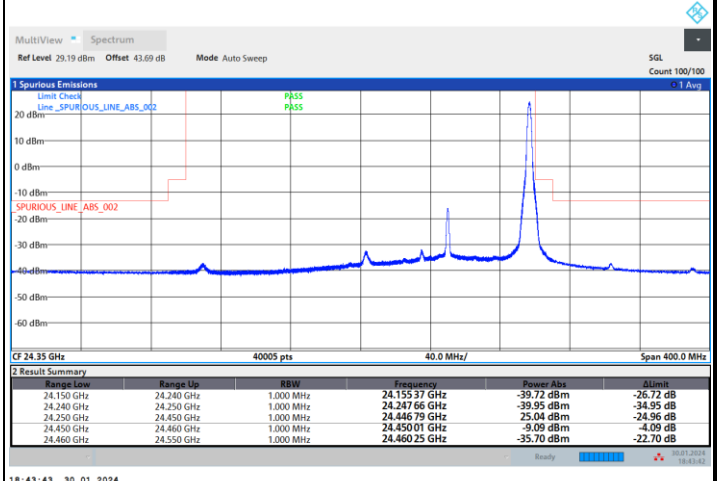


NR Band n258A/ 100MHz / 64QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

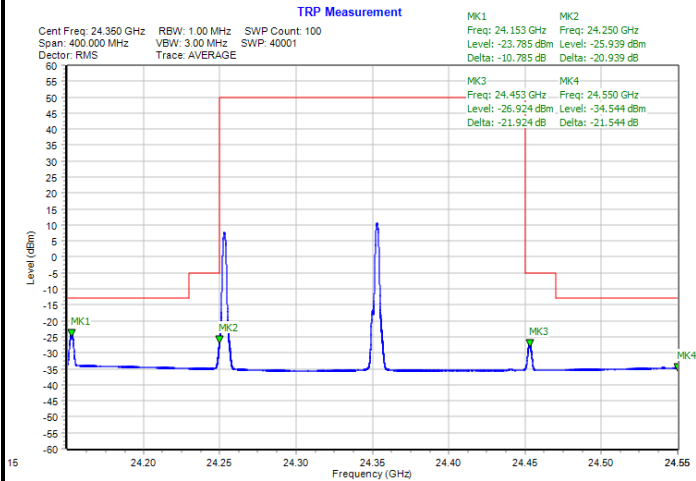




DFT-s-OFDM Module B

NR Band n258A/ 200MHz / QPSK

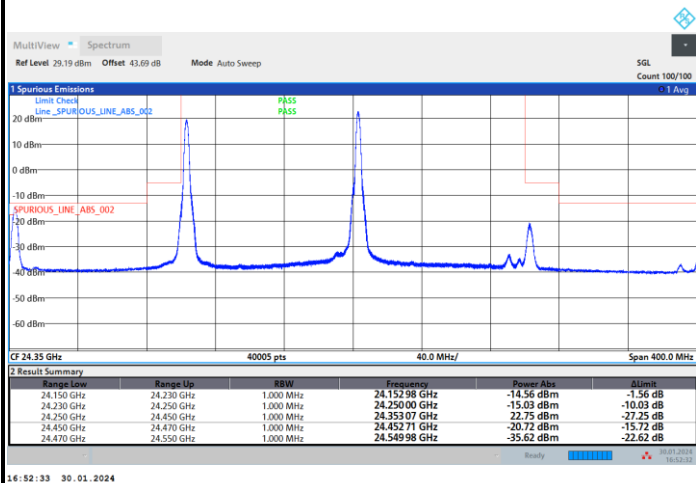
Middle Band Edge / 1 RB



intentionally blank

NR Band n258A/ 200MHz / 16QAM

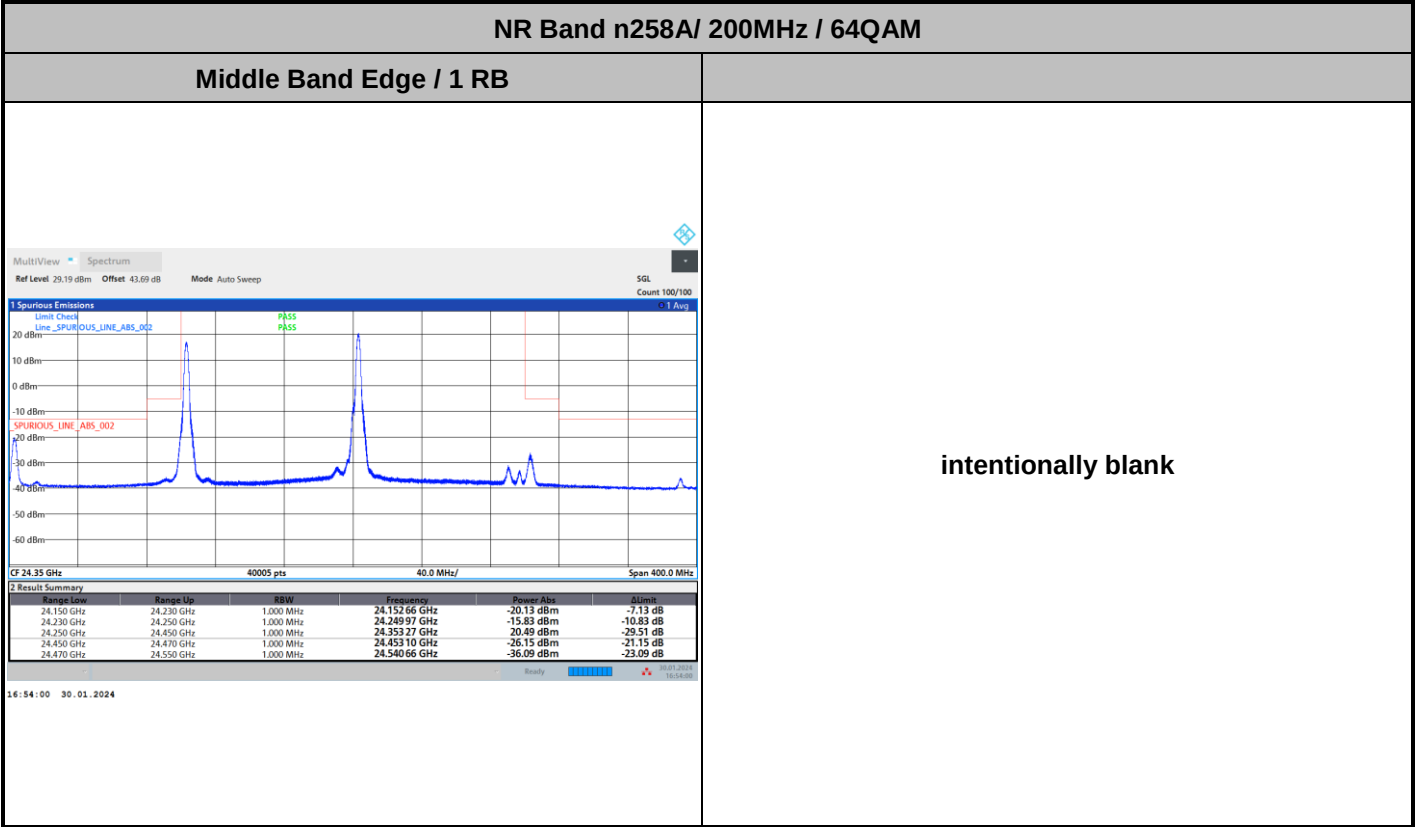
Middle Band Edge / 1 RB



intentionally blank



DFT-s-OFDM Module B

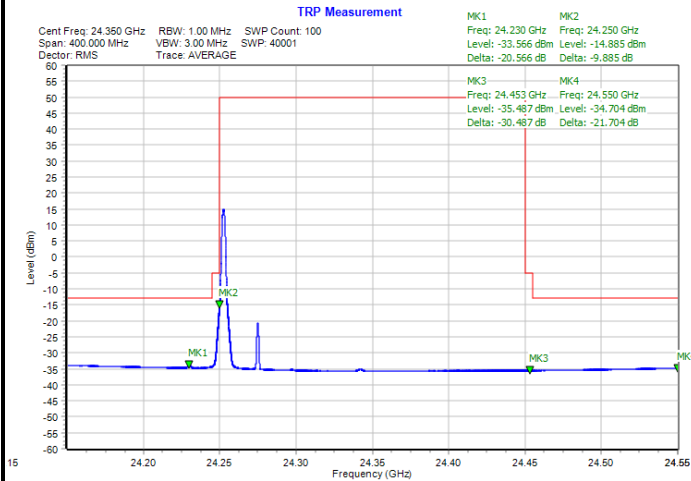




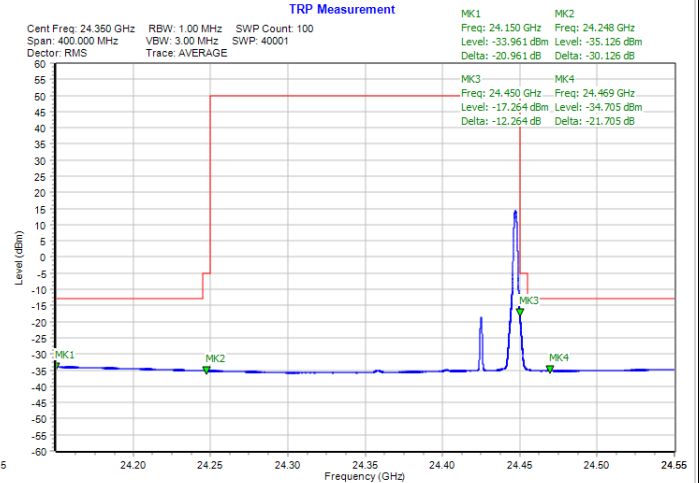
CP-OFDM Module B

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / 1 RB

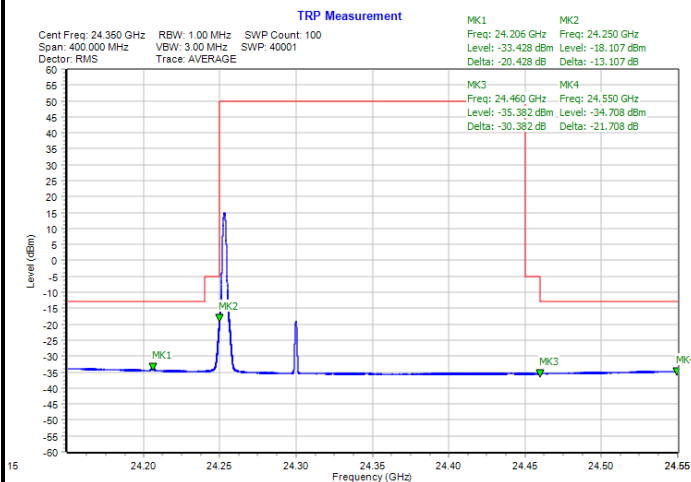


Highest Band Edge / 1 RB

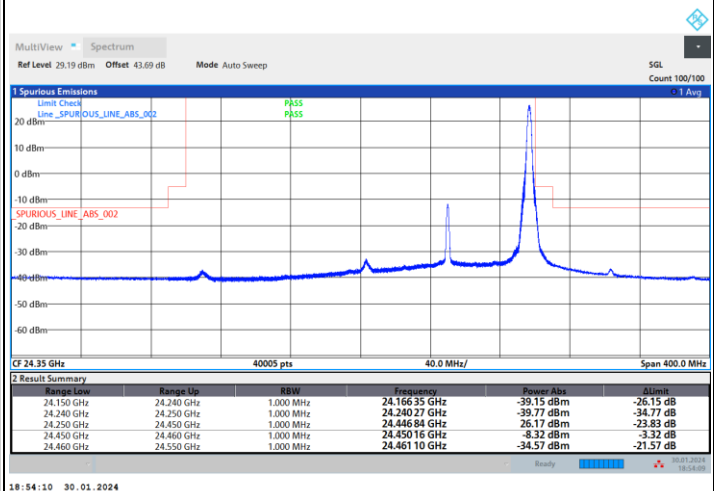


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

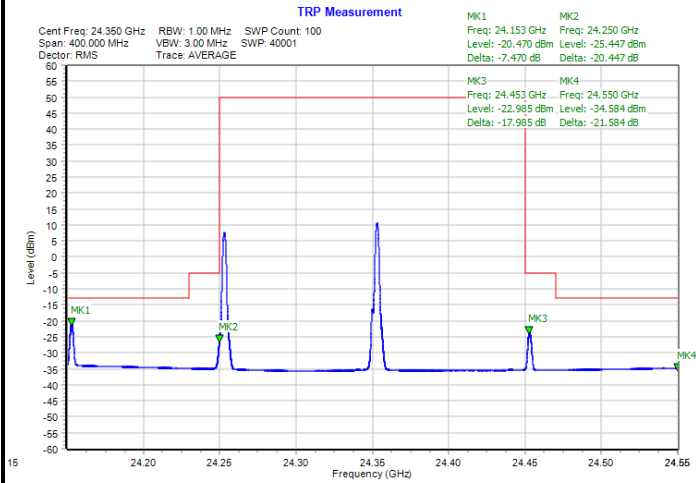




CP-OFDM Module B

NR Band n258A/ 200MHz / QPSK

Middle Band Edge / 1 RB



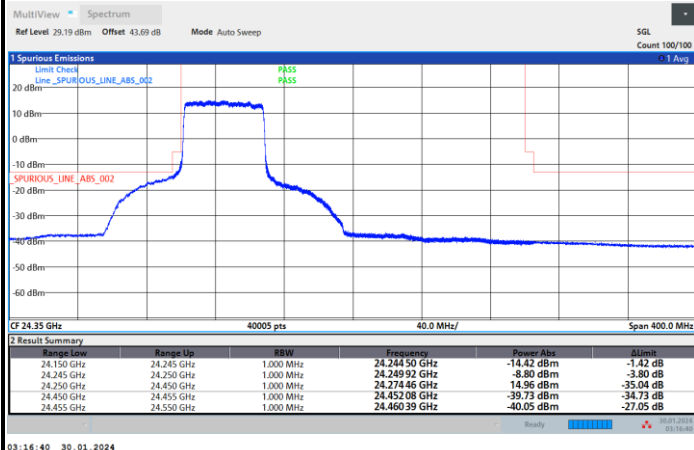
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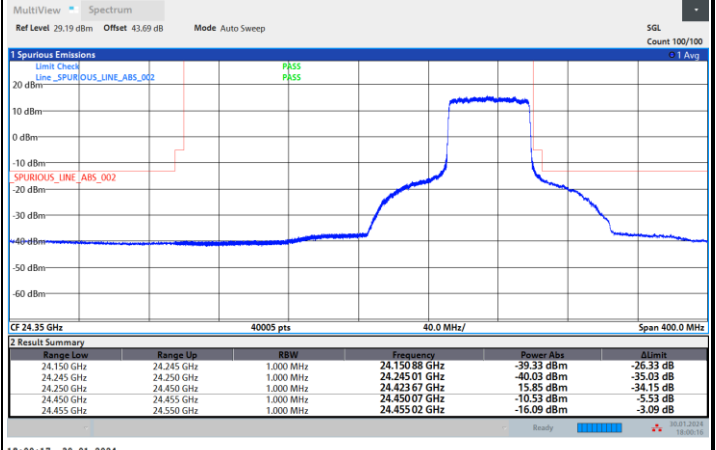
DFT-s-OFDM Module B

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / Full RB

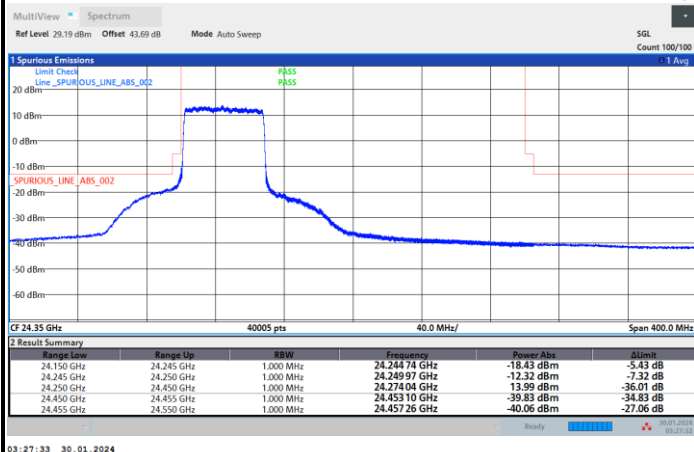


Highest Band Edge / Full RB



NR Band n258A/ 50MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

