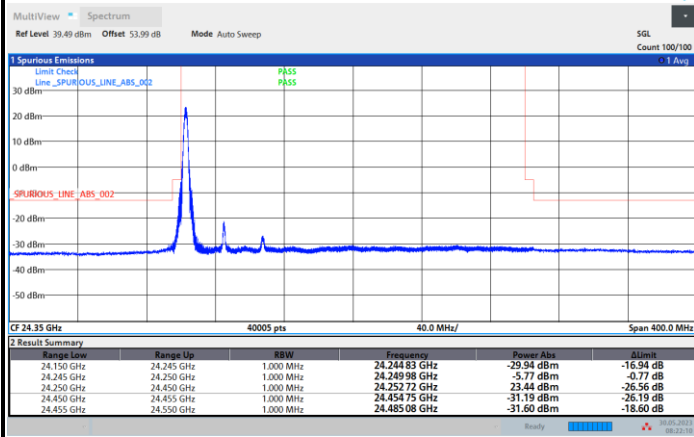




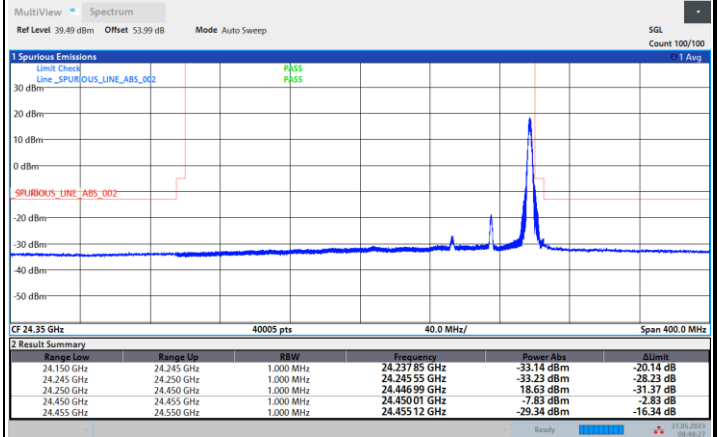
CP-OFDM Module A

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / 1 RB

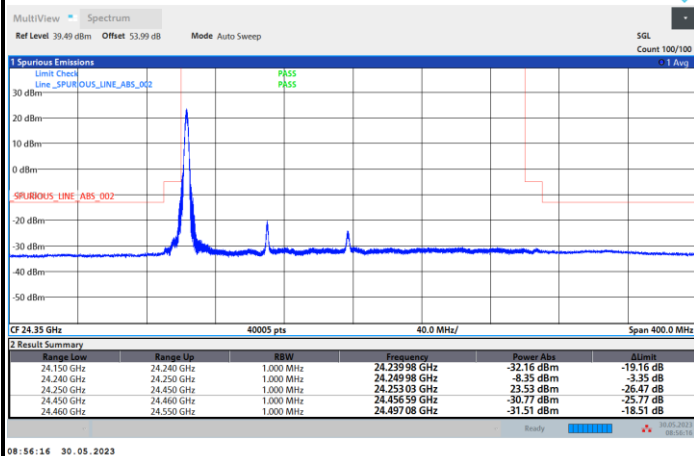


Highest Band Edge / 1 RB

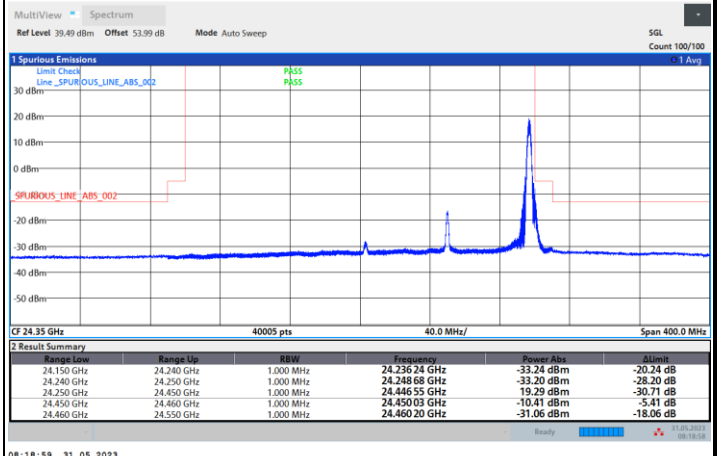


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

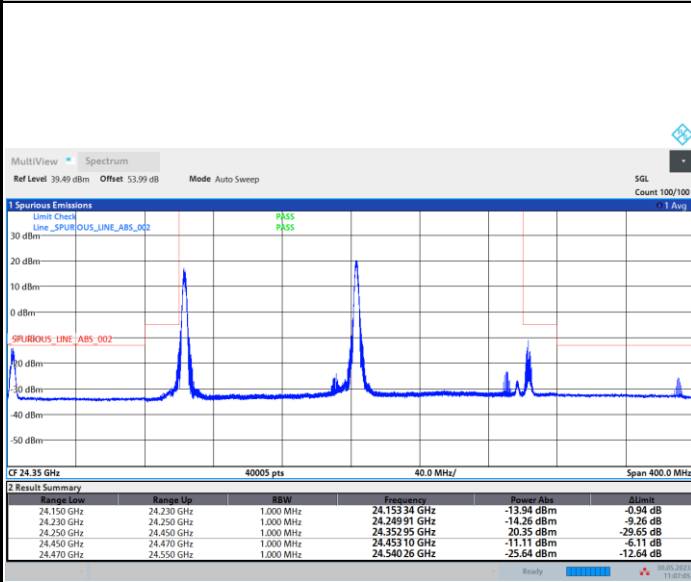




CP-OFDM Module A

NR Band n258A/ 200MHz / QPSK

Middle Band Edge / 1 RB



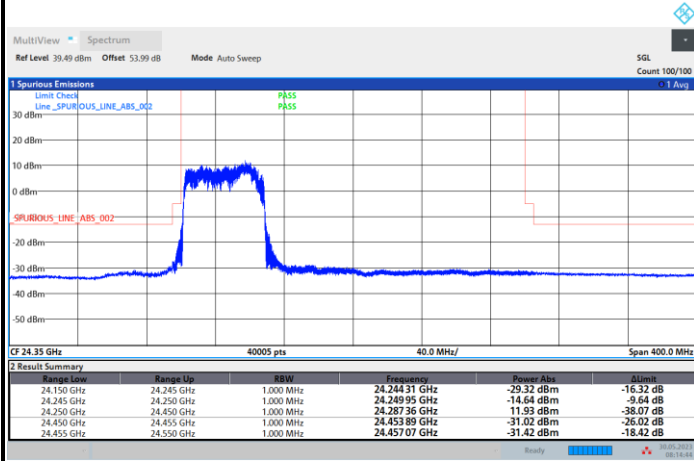
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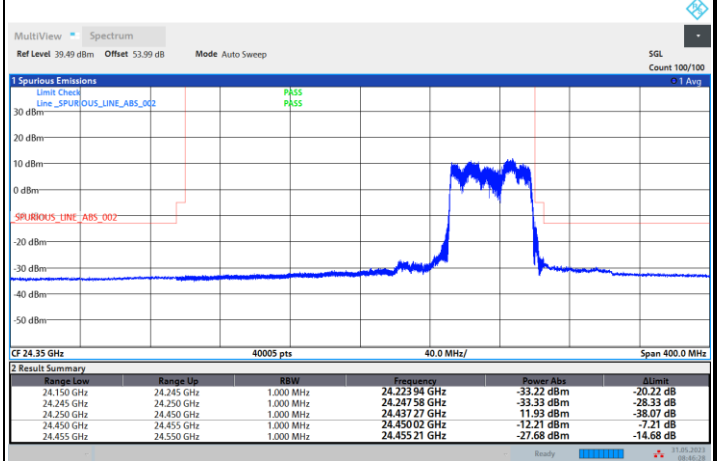
DFT-s-OFDM Module A

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / Full RB

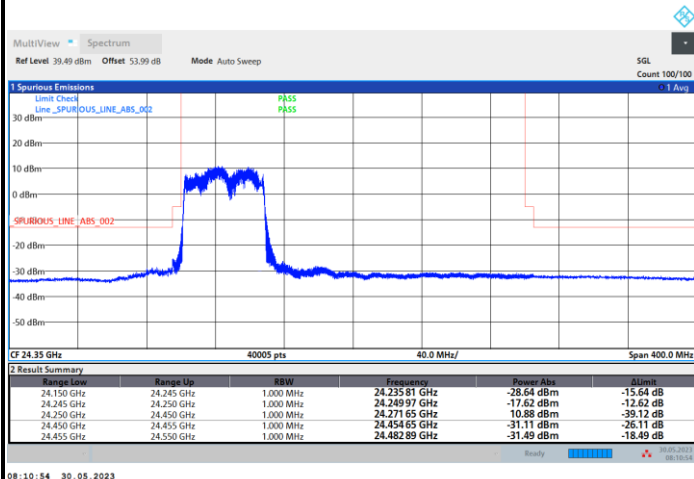


Highest Band Edge / Full RB

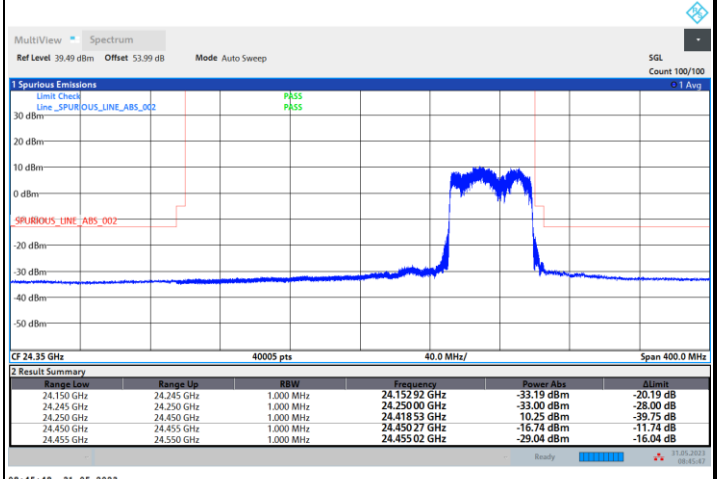


NR Band n258A/ 50MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

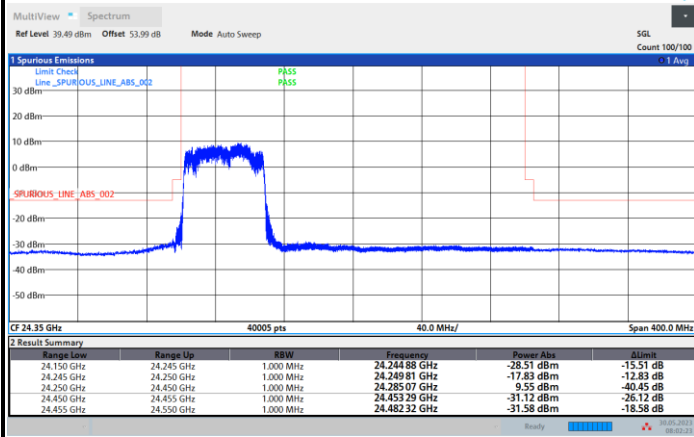




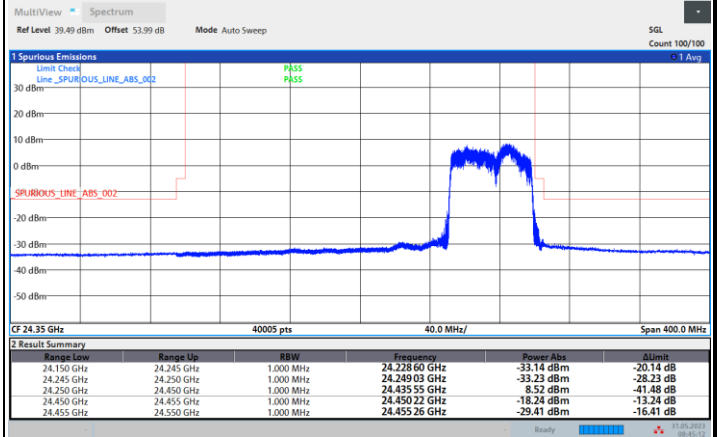
DFT-s-OFDM Module A

NR Band n258A/ 50MHz / 64QAM

Lowest Band Edge / Full RB

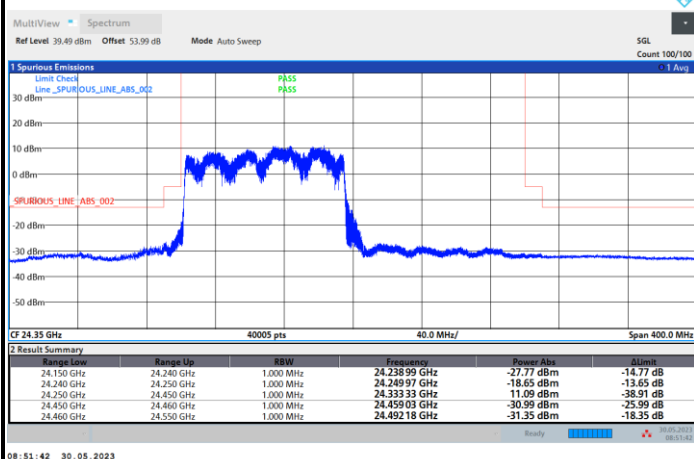


Highest Band Edge / Full RB

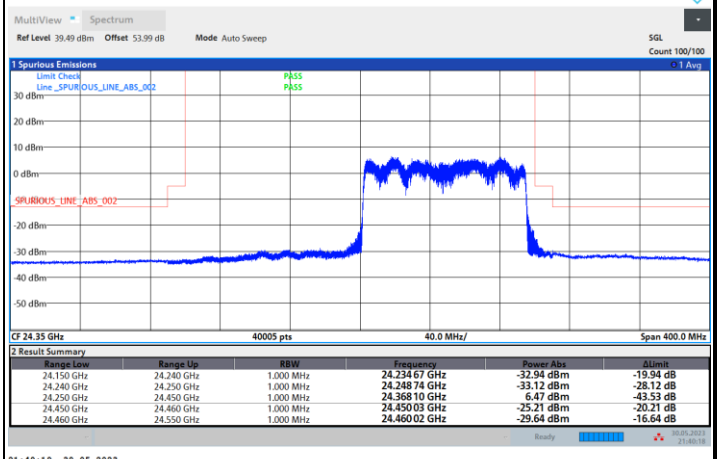


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

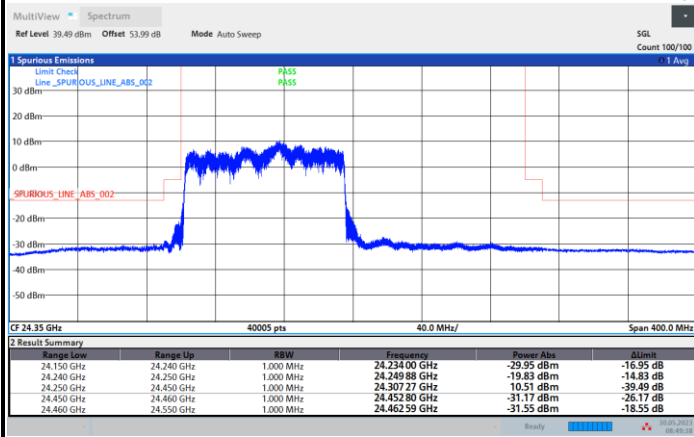




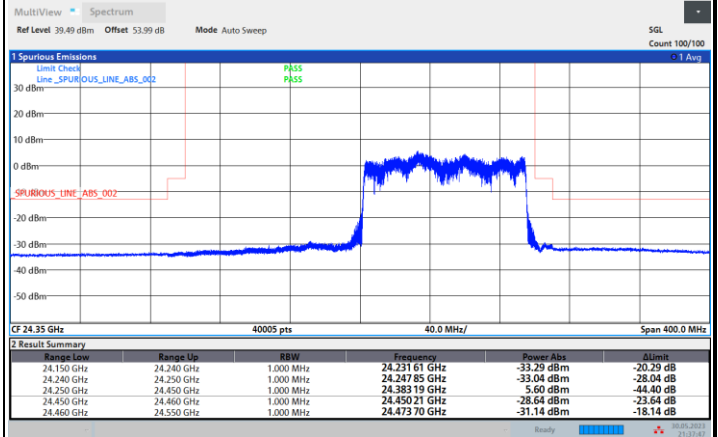
DFT-s-OFDM Module A

NR Band n258A/ 100MHz / 16QAM

Lowest Band Edge / Full RB

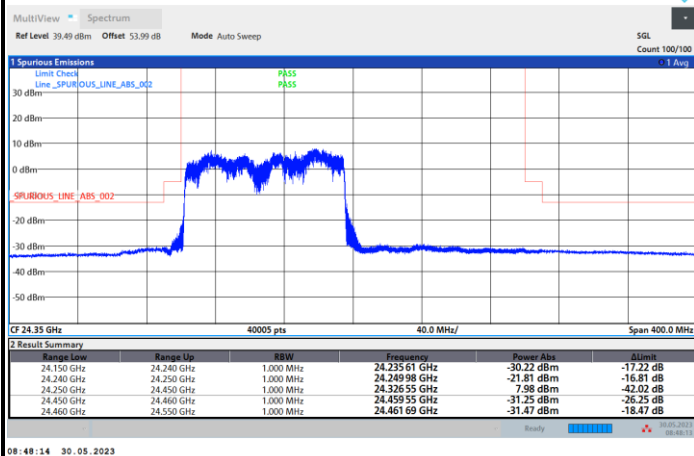


Highest Band Edge / Full RB

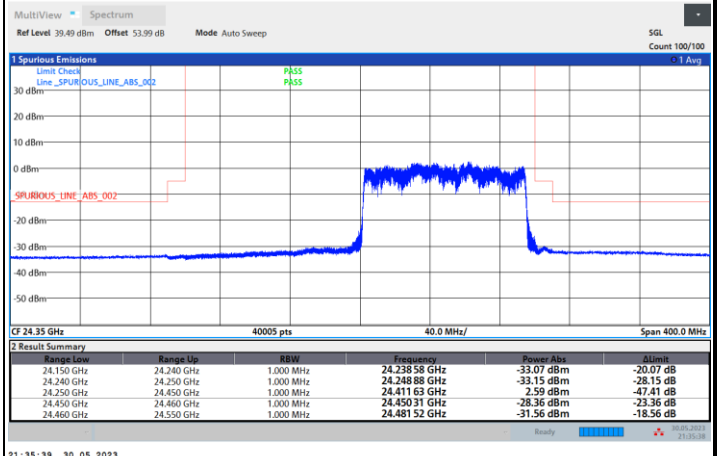


NR Band n258A/ 100MHz / 64QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

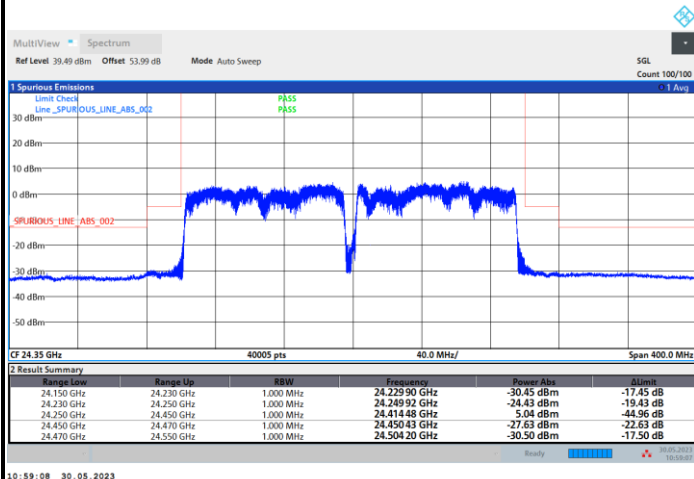




DFT-s-OFDM Module A

NR Band n258A/ 200MHz / QPSK

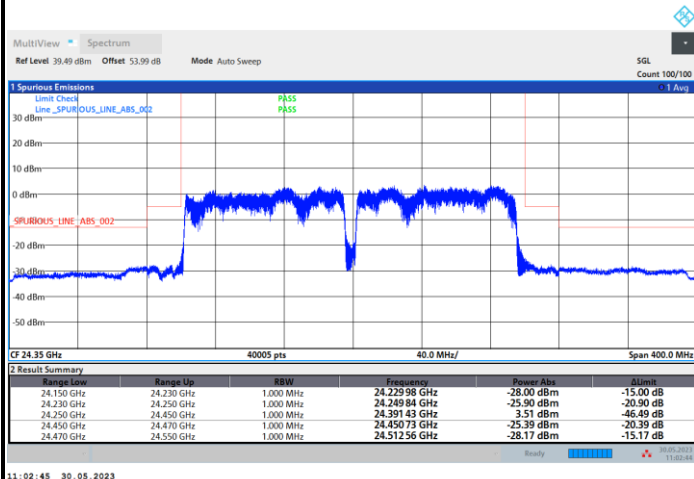
Middle Band Edge / Full RB



intentionally blank

NR Band n258A/ 200MHz / 16QAM

Middle Band Edge / Full RB



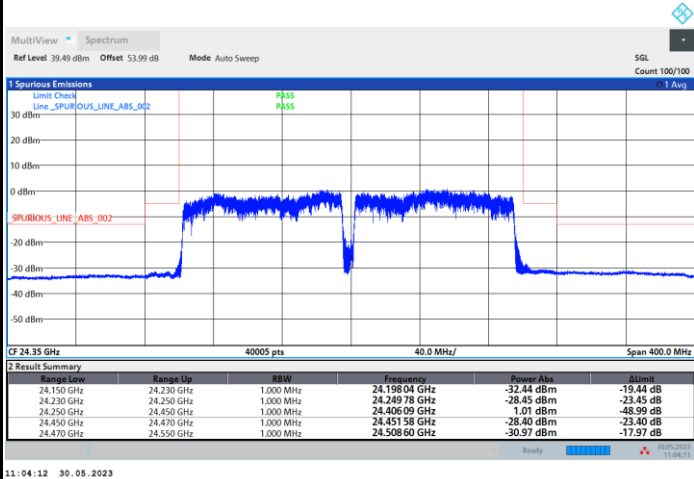
intentionally blank



DFT-s-OFDM Module A

NR Band n258A/ 200MHz / 64QAM

Middle Band Edge / Full RB



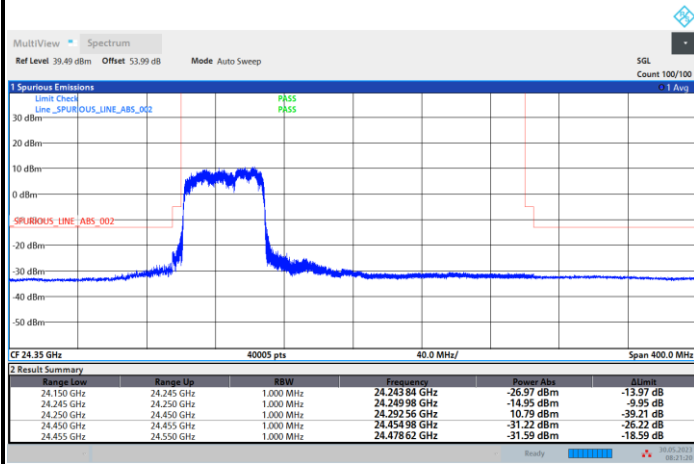
intentionally blank



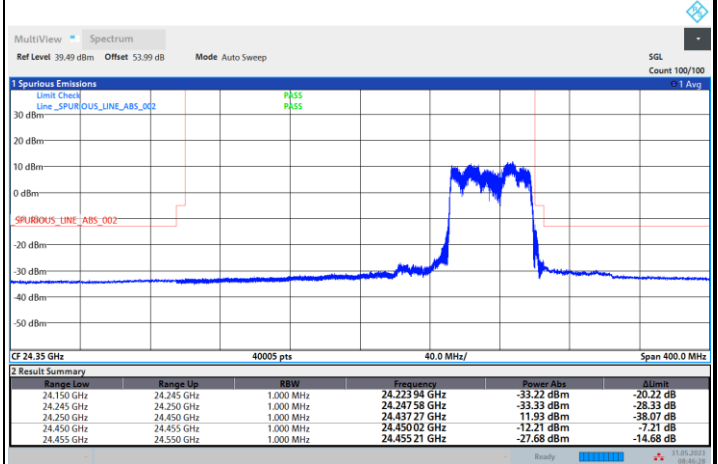
CP-OFDM Module A

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / Full RB

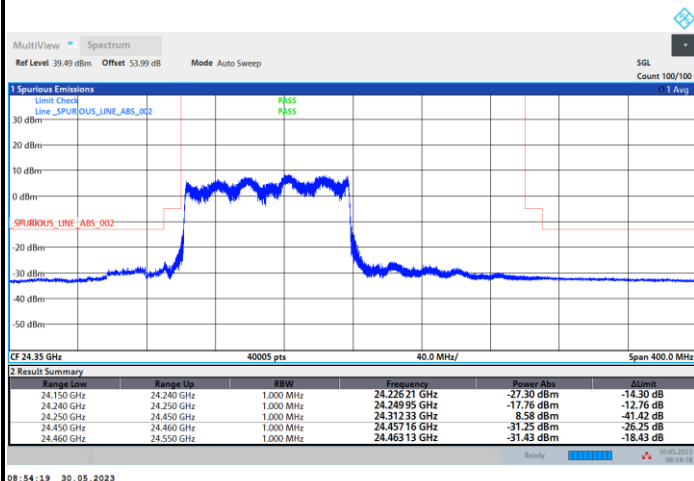


Highest Band Edge / Full RB

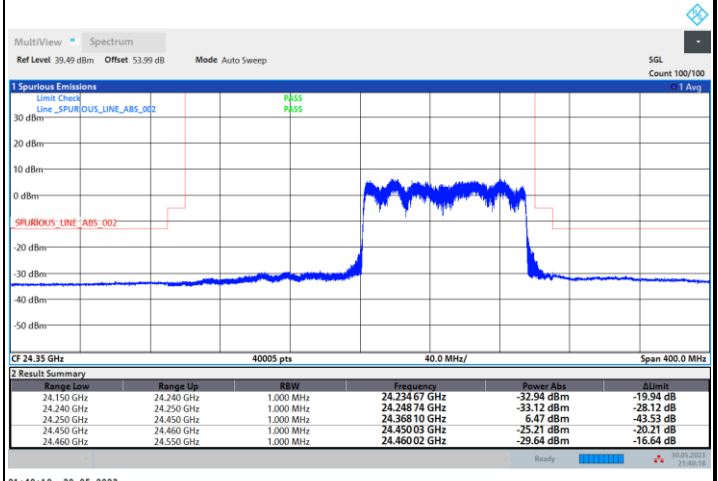


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

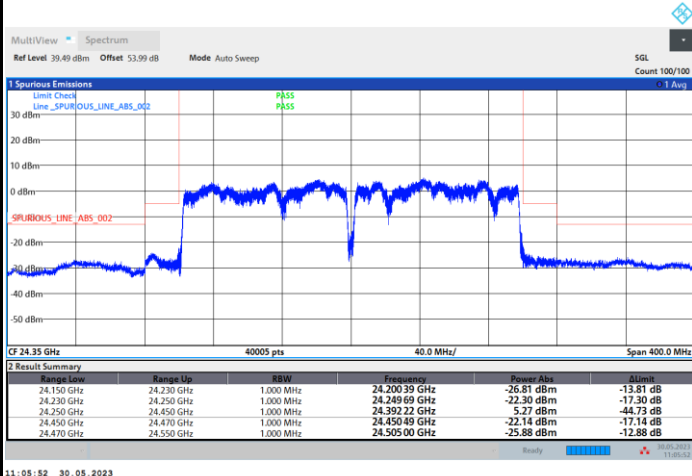




CP-OFDM Module A

NR Band n258A/ 200MHz / QPSK

Middle Band Edge / Full RB



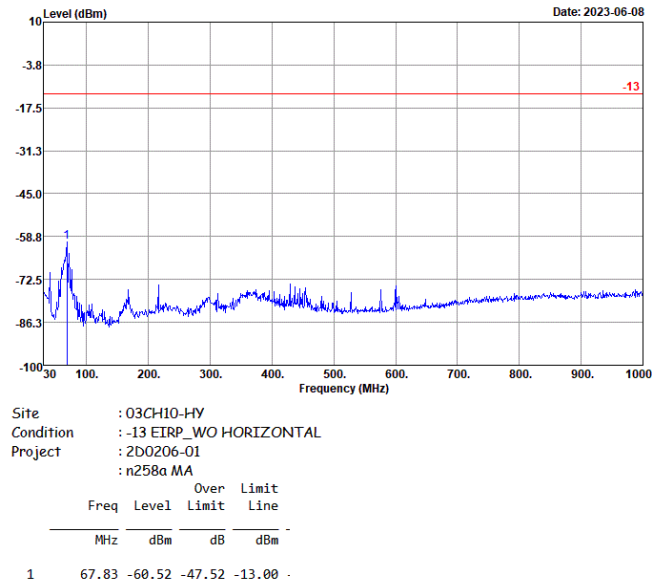
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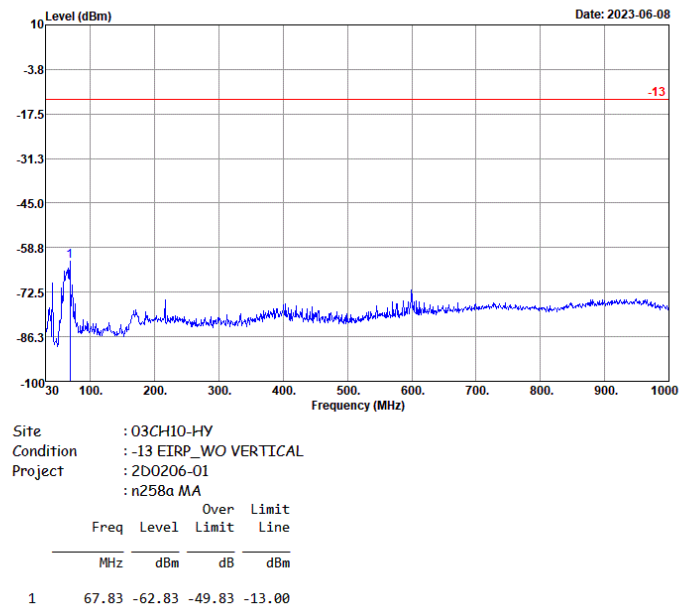
Spurious Emission

NR Band n258A (30MHz-1GHz)

Horizontal



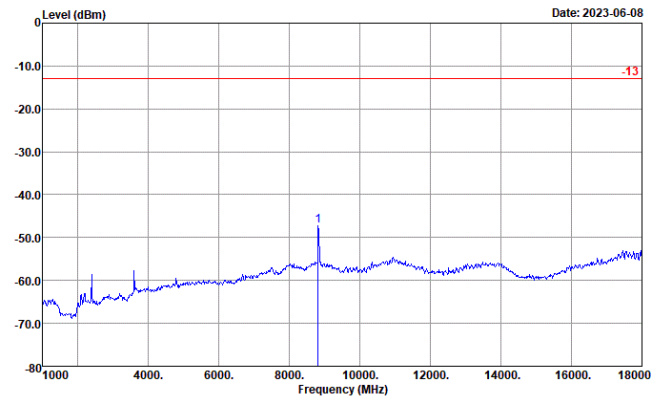
Vertical





NR Band n258A (1GHz-18GHz)

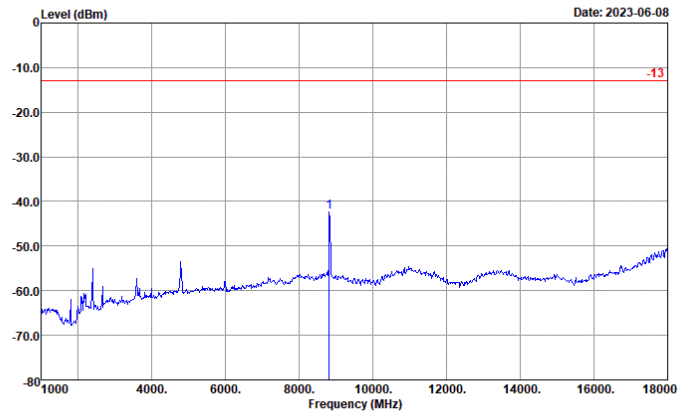
Horizontal



Site : 03CH10-HY
Condition : -13 EIRP_WO HORIZONTAL
Project : 2D0206-01
 : n258a MA

	Freq	Level	Over	Limit
	MHz	dBm	Limit	Line
			dB	dBm
1	8820.00	-47.24	-34.24	-13.00

Vertical



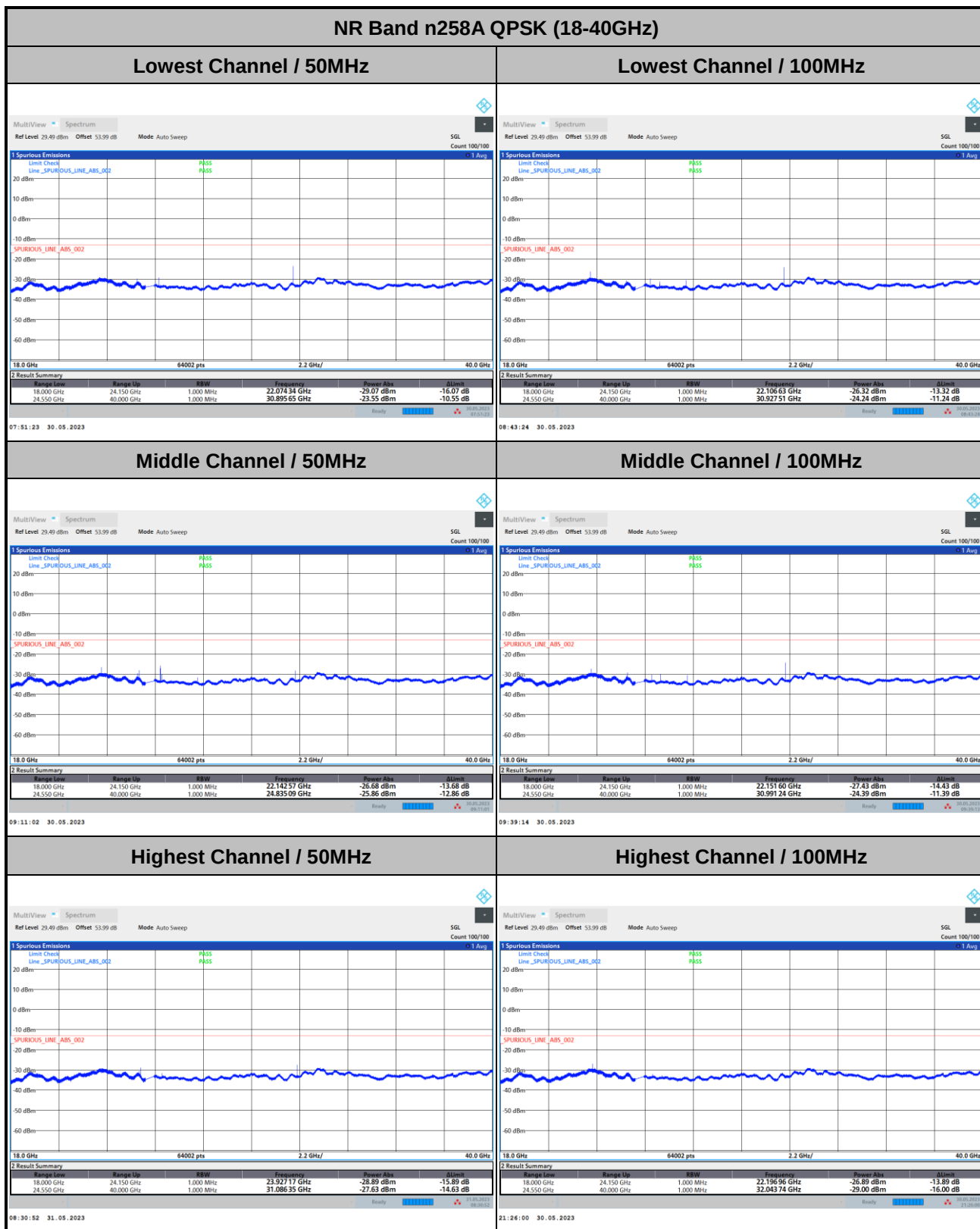
Site : 03CH10-HY
Condition : -13 EIRP_WO VERTICAL
Project : 2D0206-01
 : n258a MA

	Freq	Level	Over	Limit
	MHz	dBm	Limit	Line
			dB	dBm
1	8820.00	-42.35	-29.35	-13.00



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

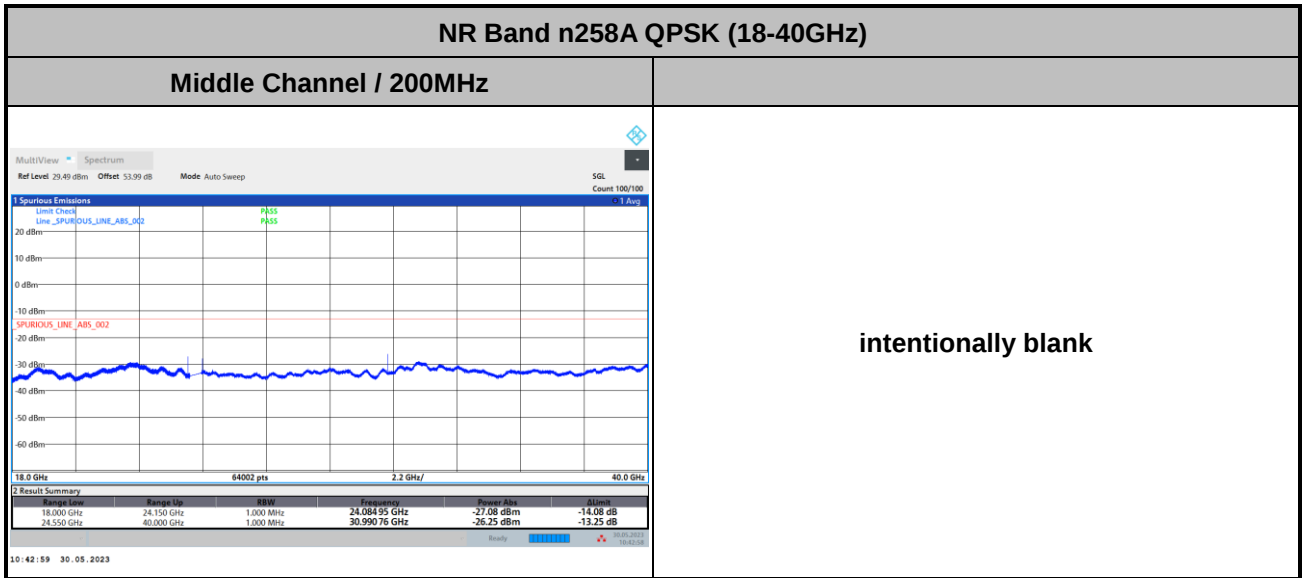
DFT-s-OFDM Module A



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



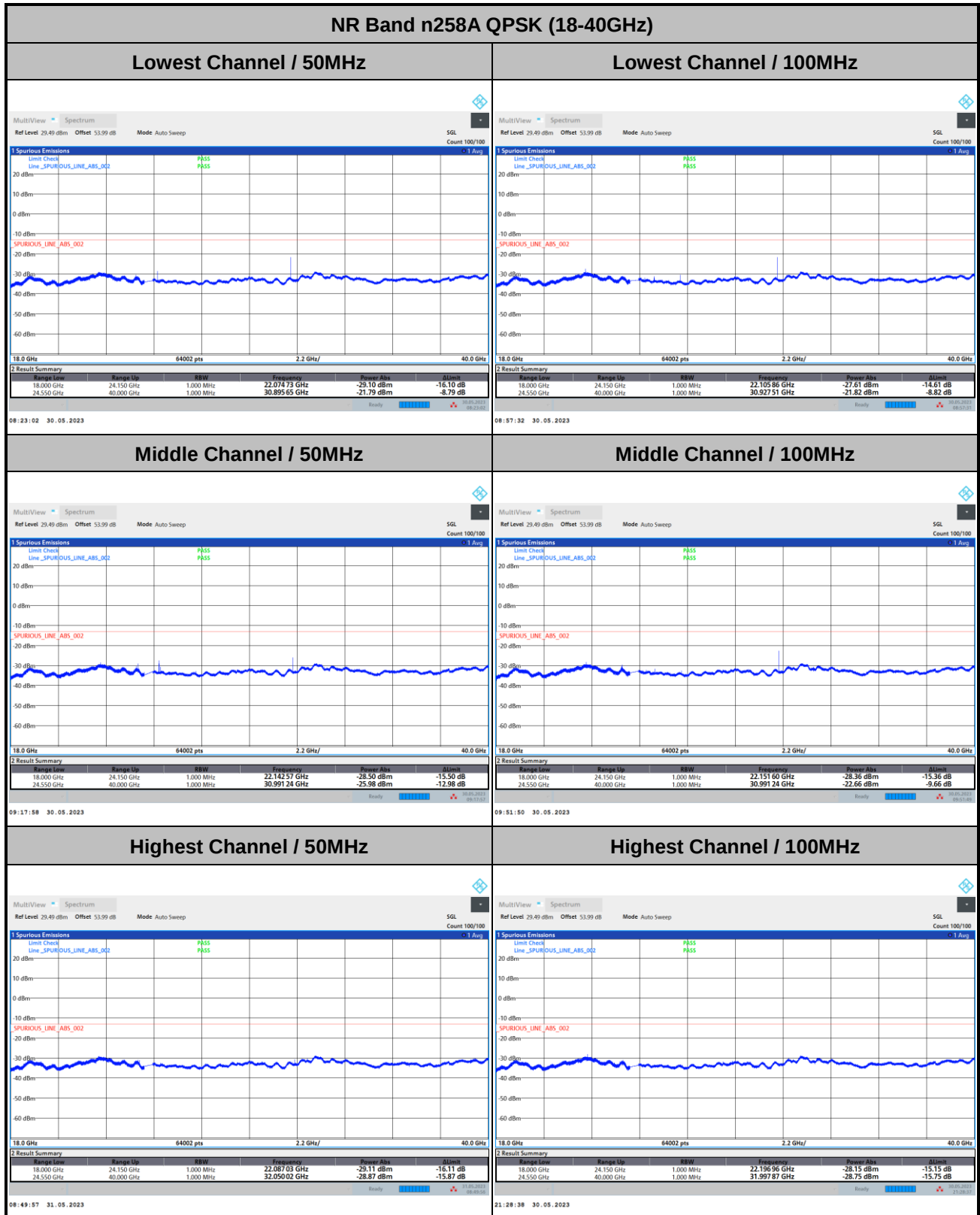
DFT-s-OFDM Module A



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



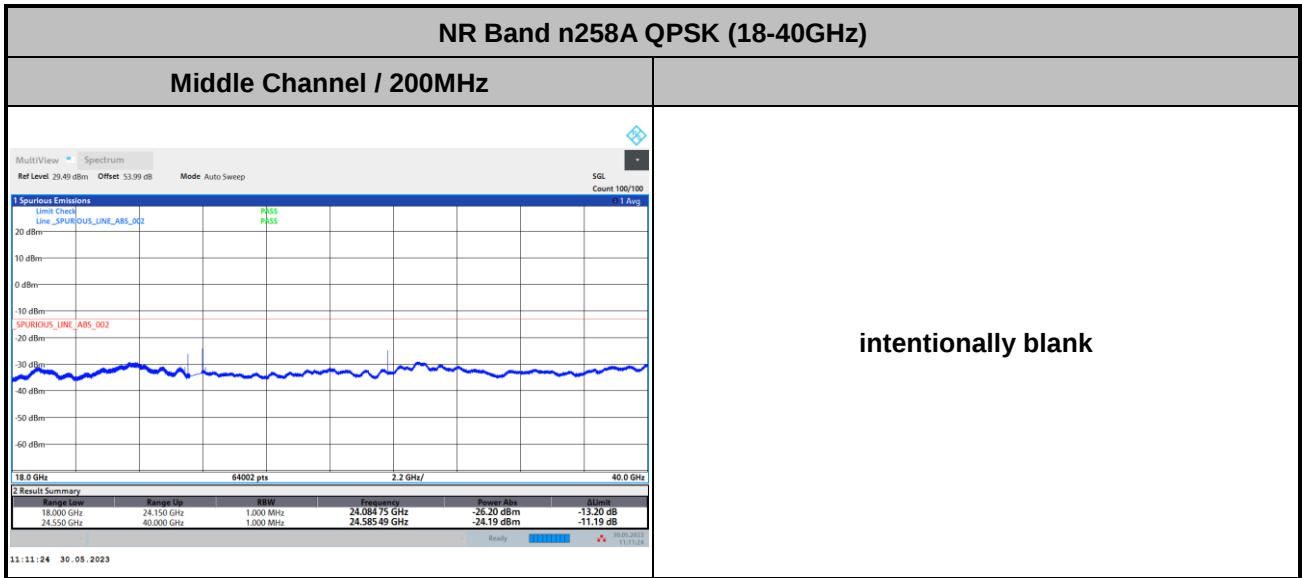
CP-OFDM Module A



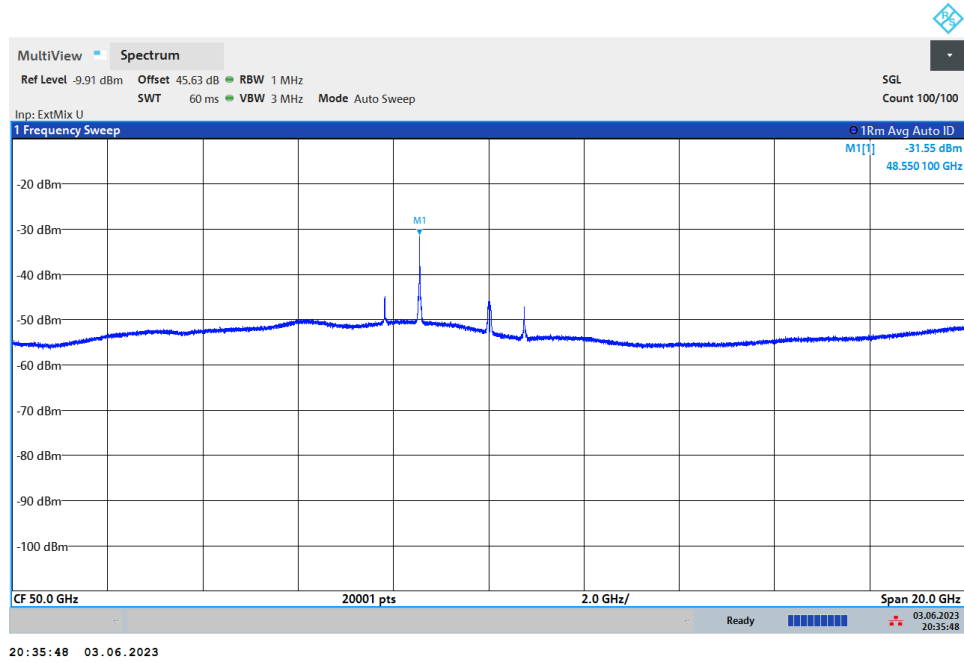
Remark: In band and out of band frequencies are omitted.



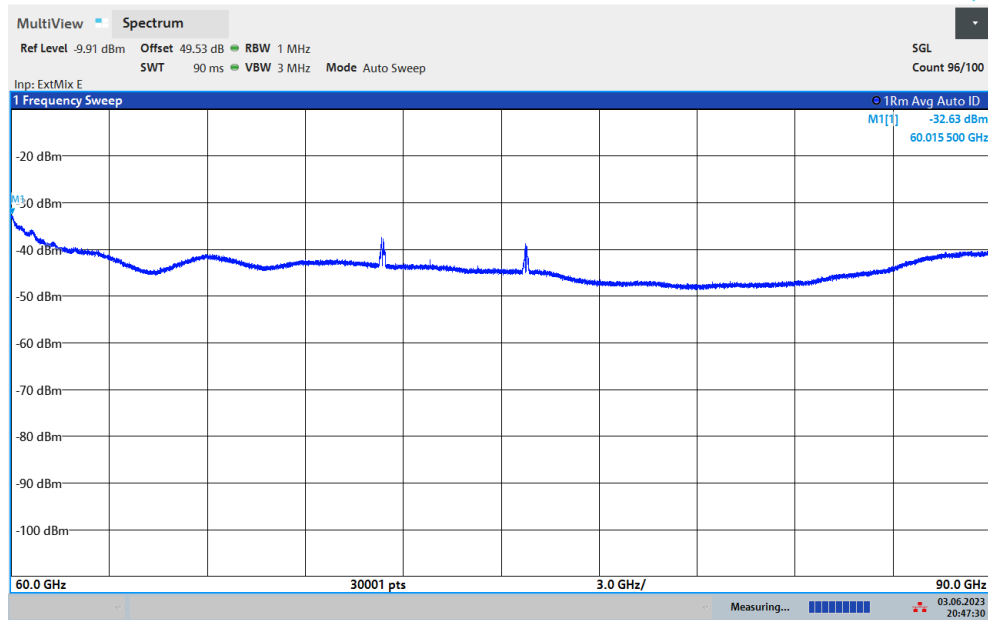
CP-OFDM Module A



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

NR Band n258A
(40GHz-60GHz)


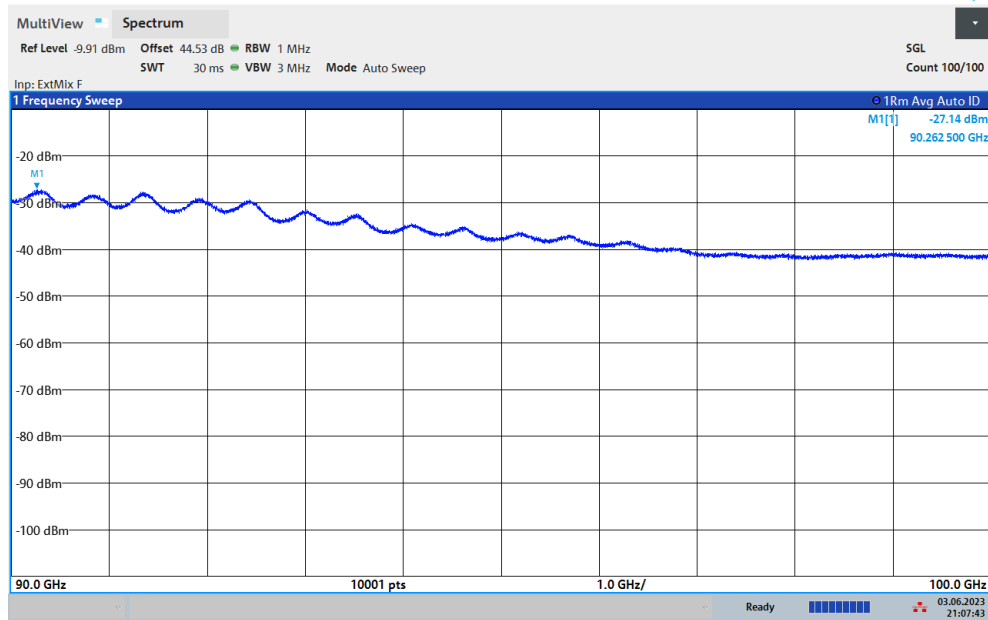
$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 + \text{Duty Factor} \\ &= 43 + 0.43 + 107 + 20\log(1) - 104.8 = 45.63(\text{dB}) \end{aligned}$$

NR Band n258A
(60GHz-90GHz)


20:47:31 03.06.2023

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

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

NR Band n258A
(90GHz-100GHz)


21:07:43 03.06.2023

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

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

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	24.350004	-4.000	0.143	Pass
40	Normal Voltage	24.349995	5.000	0.179	
30	Normal Voltage	24.350016	-16.000	0.573	
20(Ref.)	Normal Voltage	24.35	0.000	0.000	
10	Normal Voltage	24.3500669	-66.900	2.396	
0	Normal Voltage	24.3501219	-121.900	4.365	
-10	Normal Voltage	24.3501409	-140.900	5.046	
-20	Normal Voltage	24.3501399	-139.900	5.010	
-30	Normal Voltage	24.3501109	-110.900	3.971	
20	Maximum Voltage	24.350007	-7.000	0.251	
20	Normal Voltage	24.350039	-39.000	1.397	
20	Battery End Point	24.350023	-23.000	0.824	

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	45.99	45.95	45.95	91.62	91.36	91.23	-	-	-
Middle CH	46.21	46.03	46.00	91.35	91.39	91.34	190.17	190.46	190.11
Highest CH	46.01	46.15	46.02	91.49	91.26	91.34	-	-	-

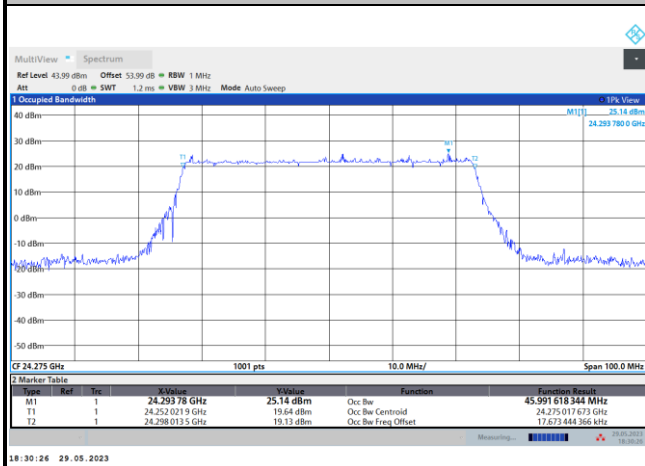
Mode	CP-OFDM Module B NR Band n258A : 99%OBW(MHz)		
BW	50MHz	100MHz	200MHz
Mod.	QPSK	QPSK	QPSK
Lowest CH	46.02	94.32	-
Middle CH	46.01	94.13	193.29
Highest CH	45.91	94.27	-



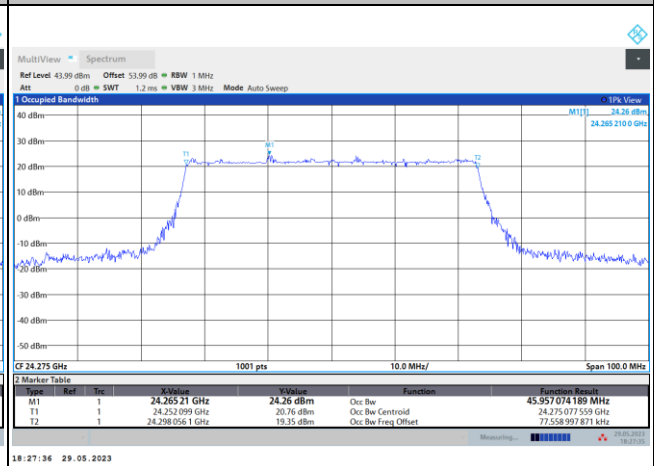
DFT-s-OFDM Module B

NR Band n258A

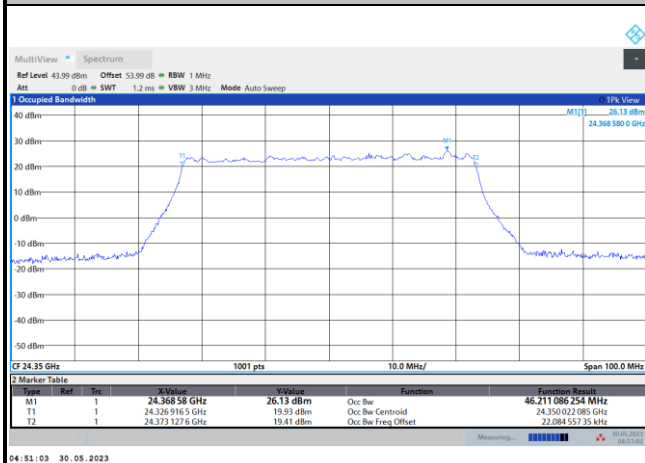
Lowest Channel / 50MHz / QPSK



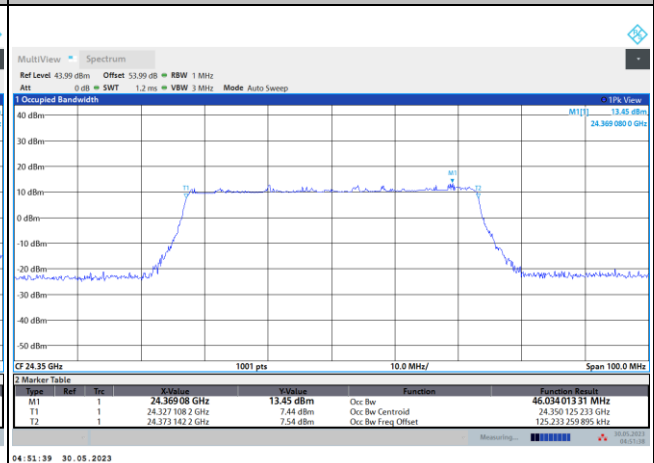
Lowest Channel / 50MHz / 16QAM



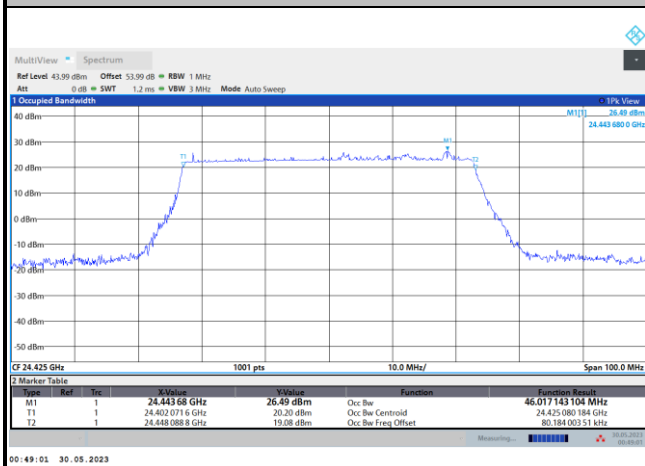
Middle Channel / 50MHz / QPSK



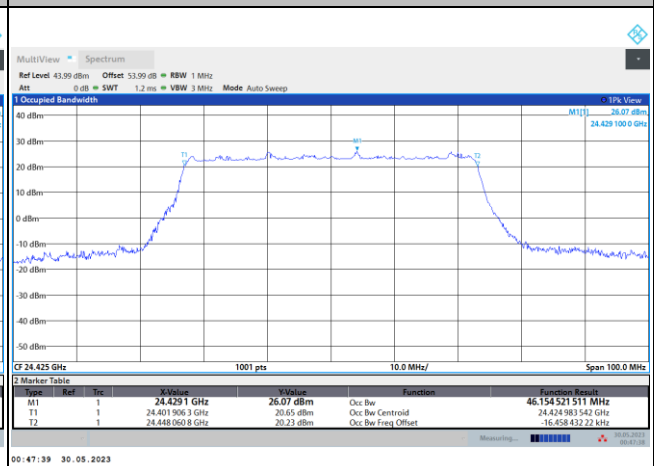
Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM

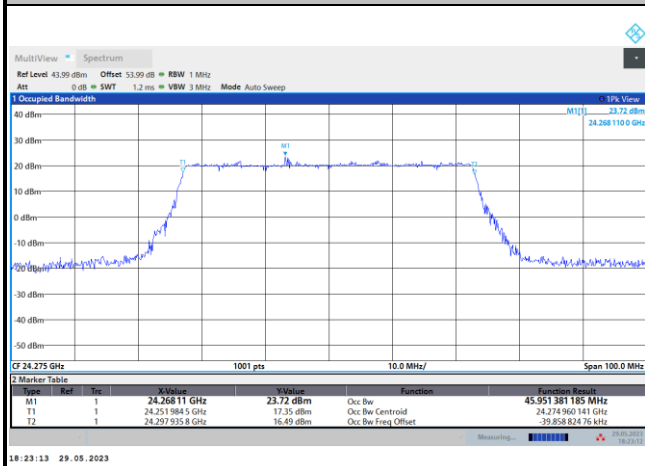




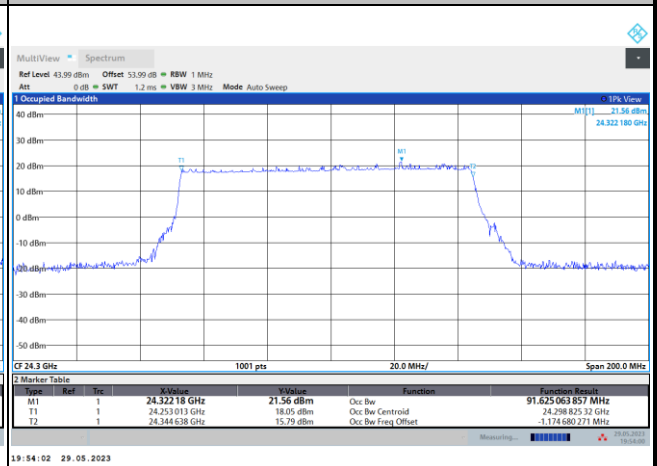
DFT-s-OFDM Module B

NR Band n258A

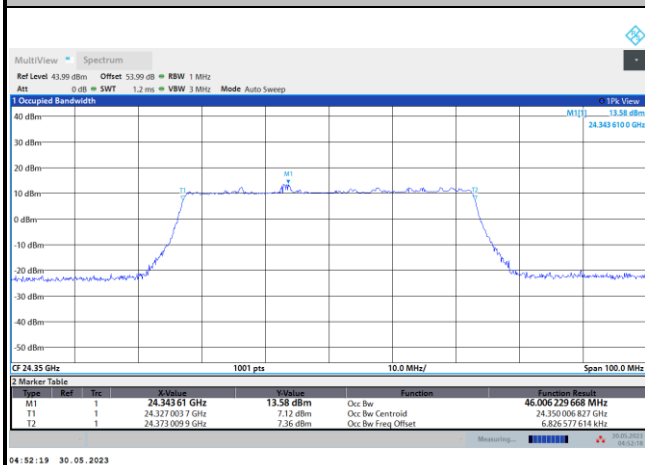
Lowest Channel / 50MHz / 64QAM



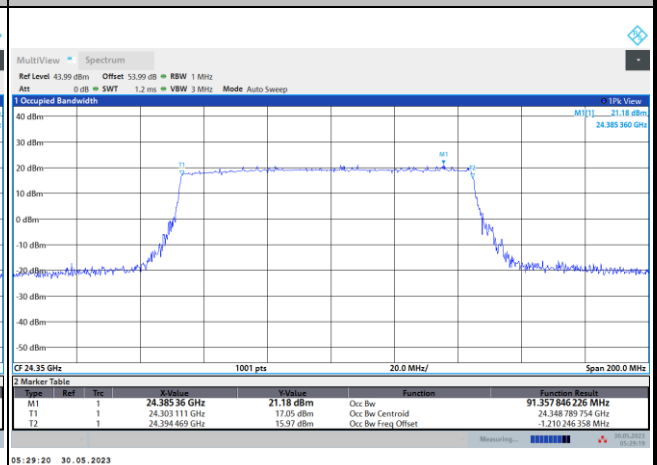
Lowest Channel / 100MHz / QPSK



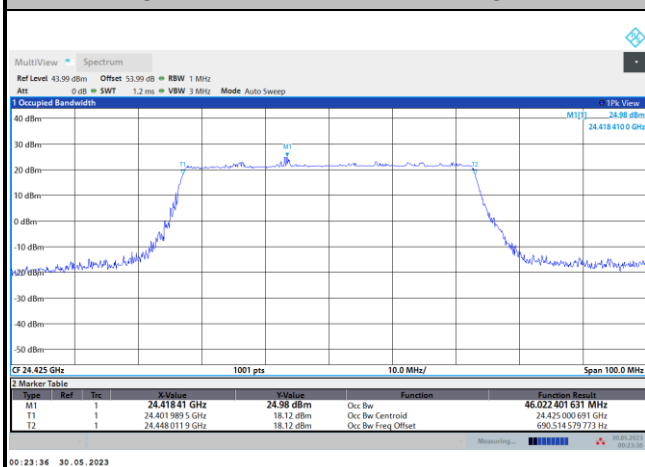
Middle Channel / 50MHz / 64QAM



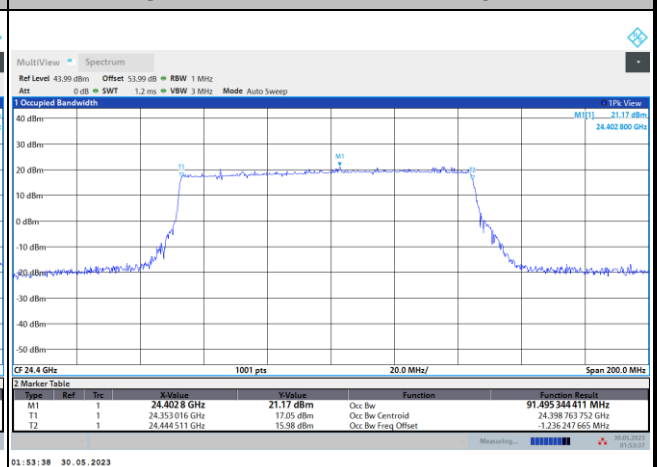
Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / 64QAM



Highest Channel / 100MHz / QPSK

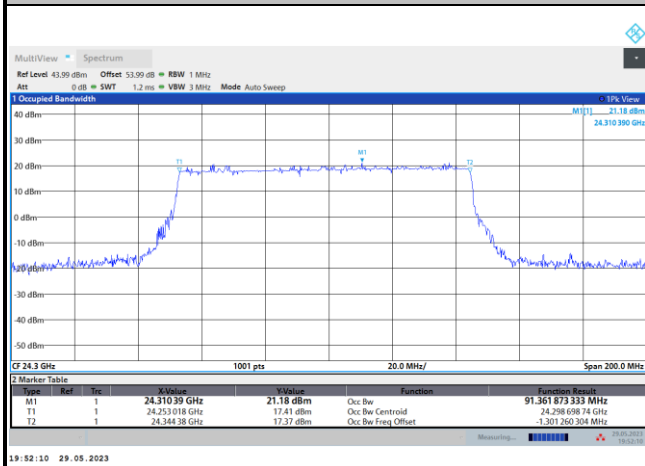




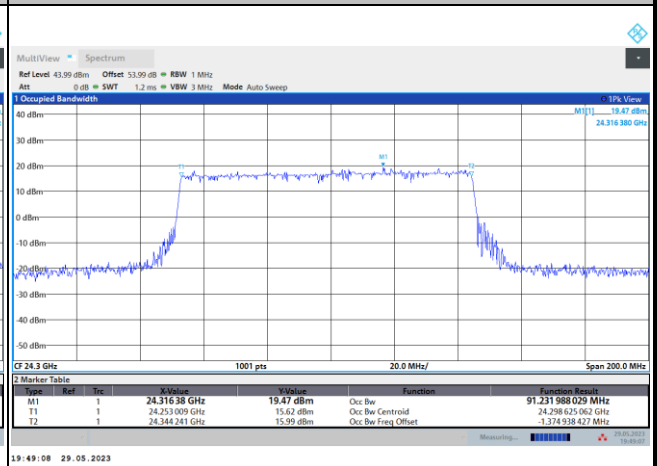
DFT-s-OFDM Module B

NR Band n258A

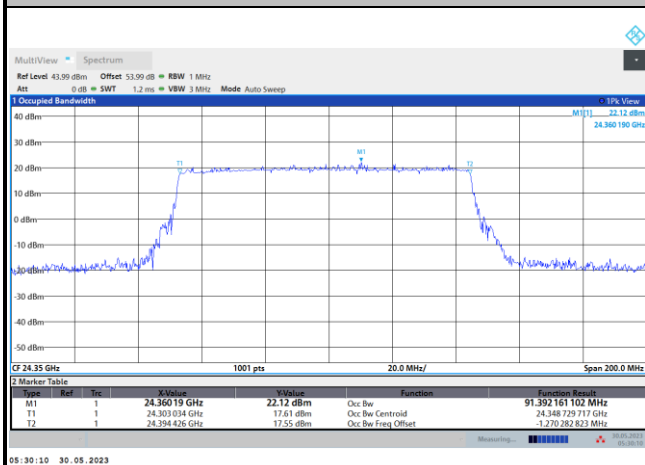
Lowest Channel / 100MHz / 16QAM



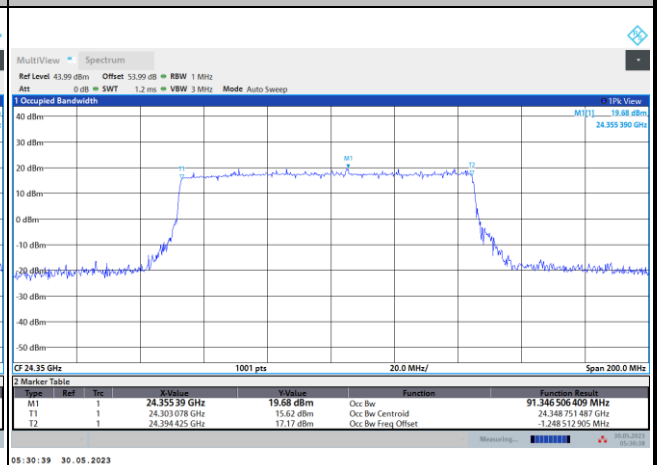
Lowest Channel / 100MHz / 64QAM



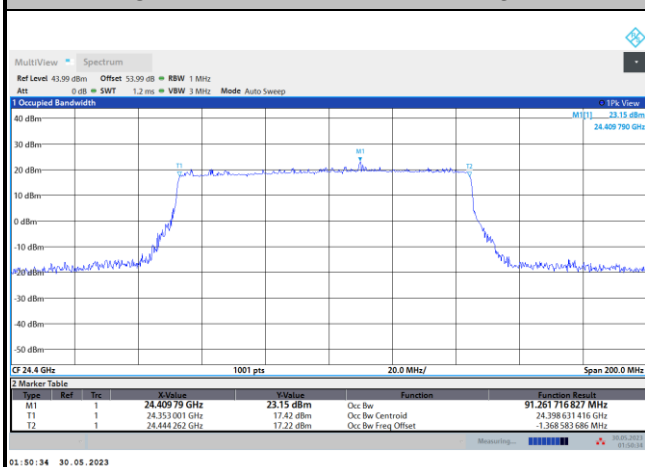
Middle Channel / 100MHz / 16QAM



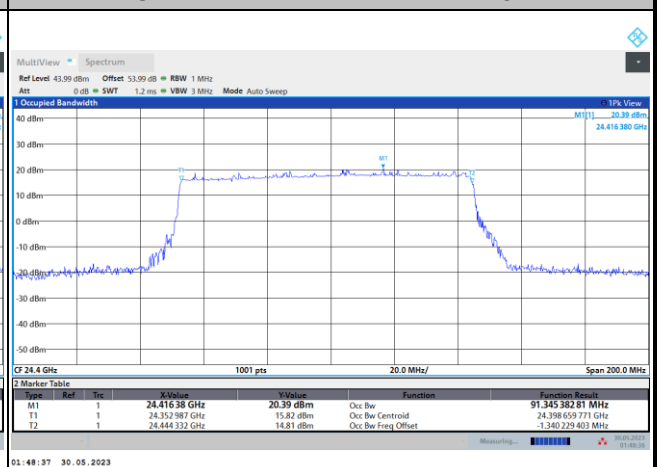
Middle Channel / 100MHz / 64QAM



Highest Channel / 100MHz / 16QAM

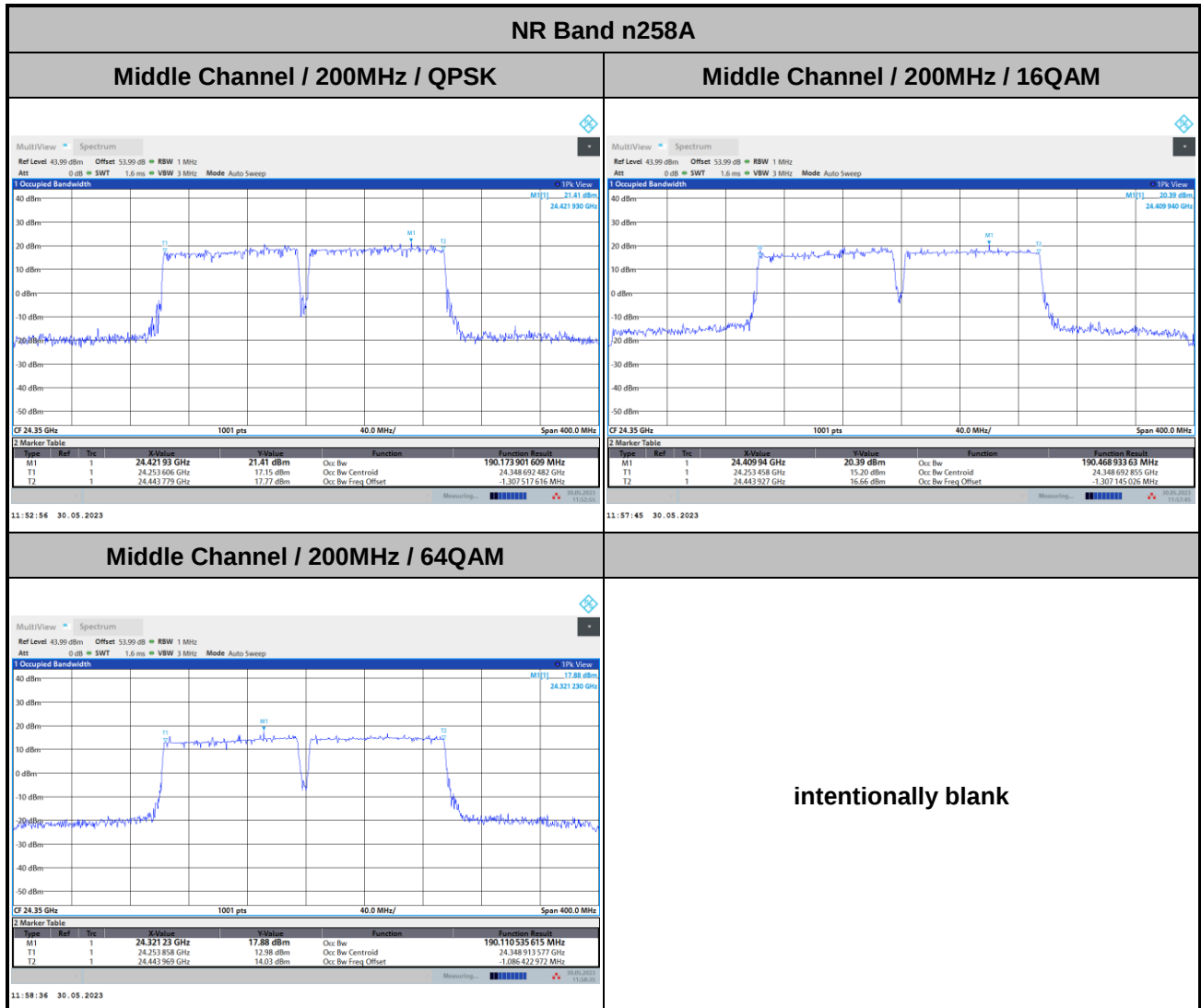


Highest Channel / 100MHz / 64QAM





DFT-s-OFDM Module B

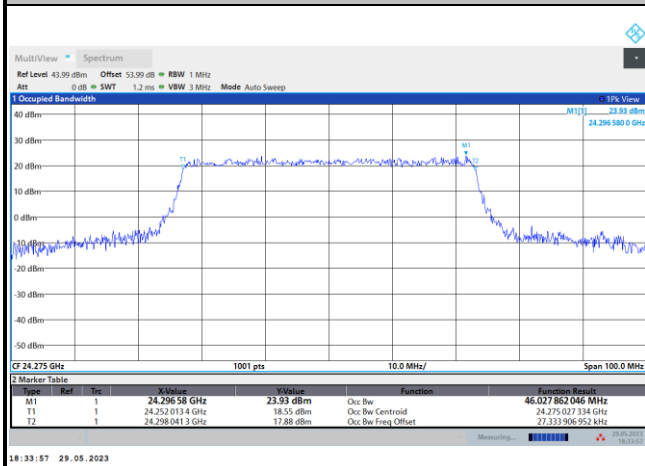




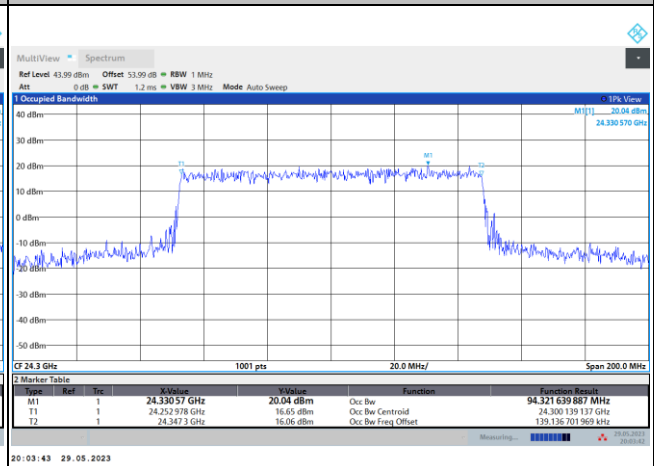
CP-OFDM Module B

NR Band n258A

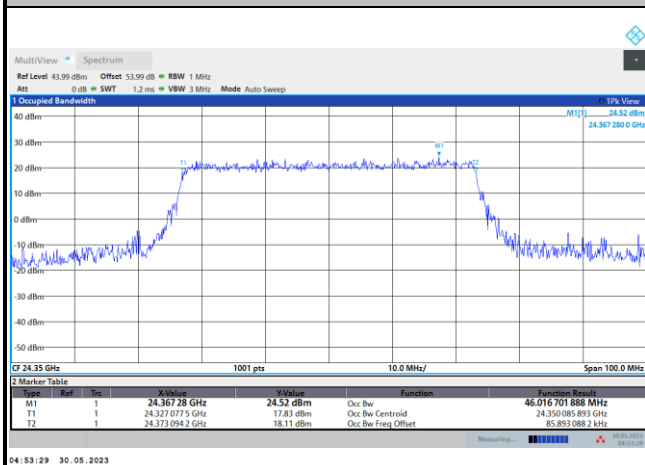
Lowest Channel / 50MHz / QPSK



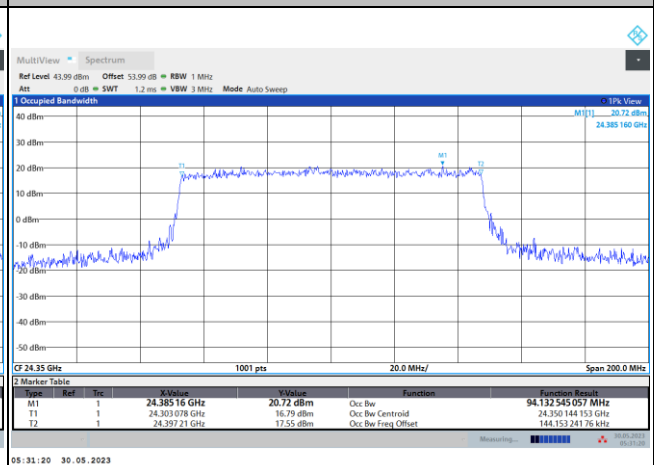
Lowest Channel / 100MHz / QPSK



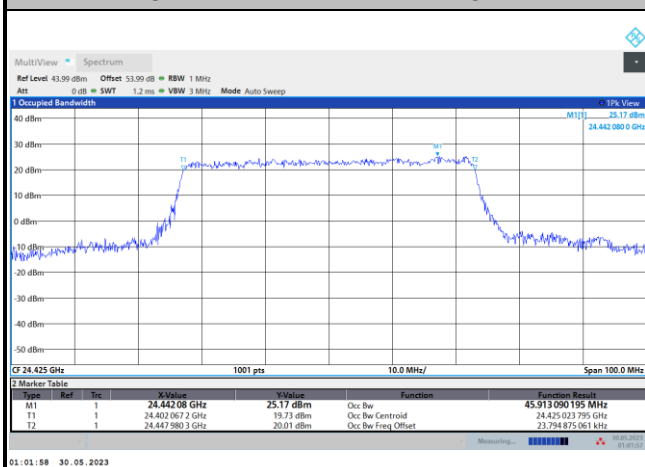
Middle Channel / 50MHz / QPSK



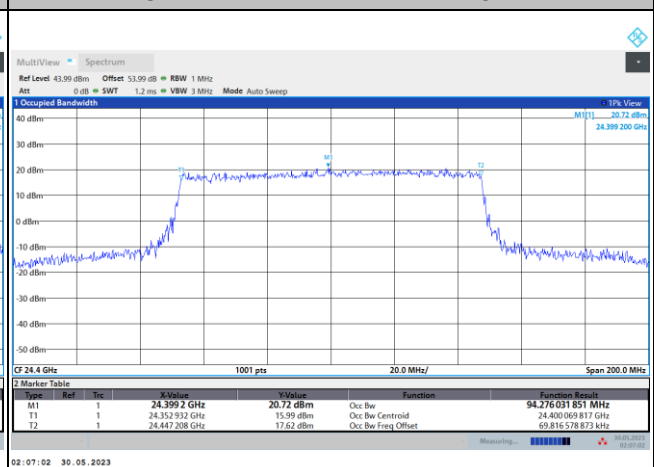
Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / QPSK

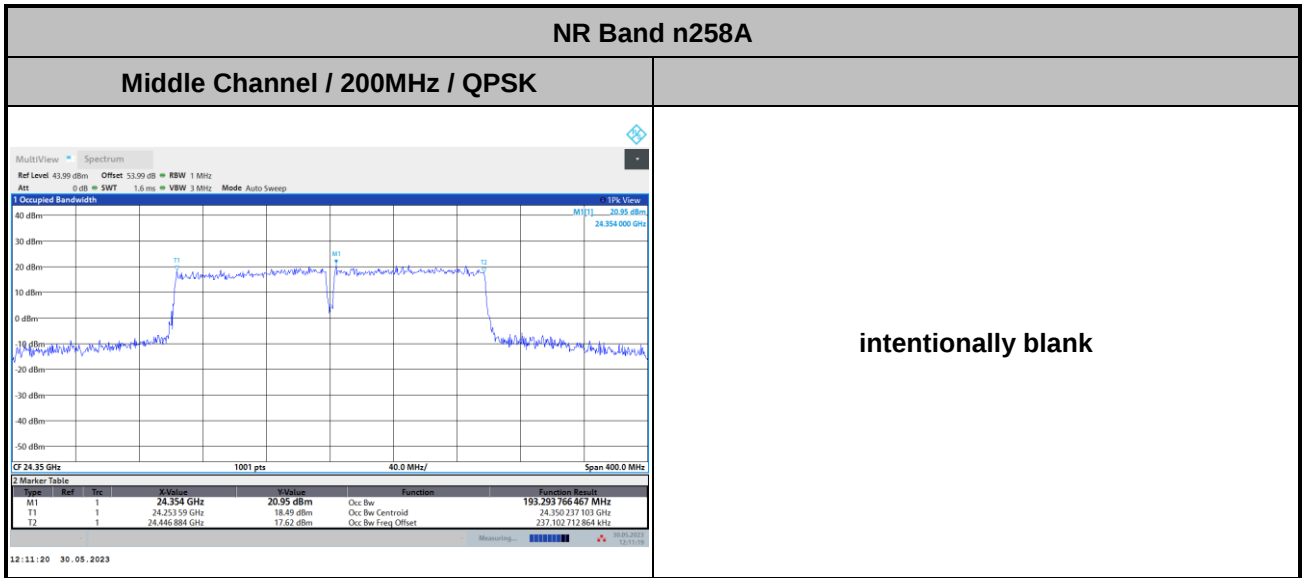


Highest Channel / 100MHz / QPSK





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	-6.34	-5.63	-7.16	-11.72	-9.42	-11.06
	>10%OB	≤ -13	-28.50	-29.10	-31.62	-31.65	-31.92	-33.05
High CH	0~10%OB	≤ -5	-10.06	-11.97	-14.05	-10.82	-12.51	-14.30
	>10%OB	≤ -13	-29.78	-28.42	-29.58	-31.70	-31.57	-31.08
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	-6.18		-8.10
	>10%OB	≤ -13	-29.15		-31.98
High CH	0~10%OB	≤ -5	-10.10		-10.32
	>10%OB	≤ -13	-29.09		-31.10
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	-13.56	-17.31	-18.60
	>10%OB	≤ -13	-18.39	-20.94	-17.45

Mode			CP-OFDM Module B NR Band n258A : BE (dBm) 1 RB		
BW			200MHz		
Limit (dBm)			QPSK		
Mid CH	0~10%OB	≤ -5	-15.21		
	>10%OB	≤ -13	-14.22		

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	-15.89	-17.33	-18.62	-22.55	-21.03	-22.74
	>10%OB	≤-13	-30.17	-27.83	-28.25	-30.67	-29.00	-31.23
High CH	0~10%OB	≤-5	-16.46	-18.41	-19.96	-24.70	-25.45	-26.65
	>10%OB	≤-13	-27.74	-28.85	-30.05	-30.18	-29.73	-30.31
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	-14.84	-19.46
	>10%OB	≤-13	-25.81	-26.17
High CH	0~10%OB	≤-5	-19.10	-21.76
	>10%OB	≤-13	-24.78	-27.19
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	-22.40	-25.72	-28.78
	>10%OB	≤-13	-31.21	-31.16	-32.07

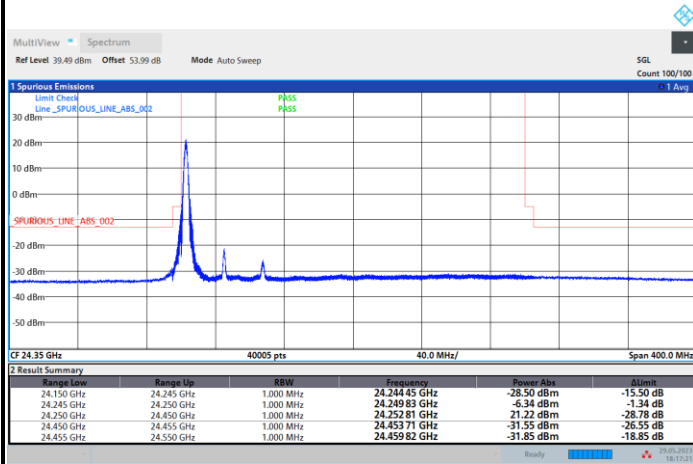
Mode			CP-OFDM Module B NR Band n258A : BE (dBm) Full RB	
BW			200MHz	
Limit (dBm)			QPSK	
Mid CH	0~10%OB	≤-5	-20.19	
	>10%OB	≤-13	-26.04	



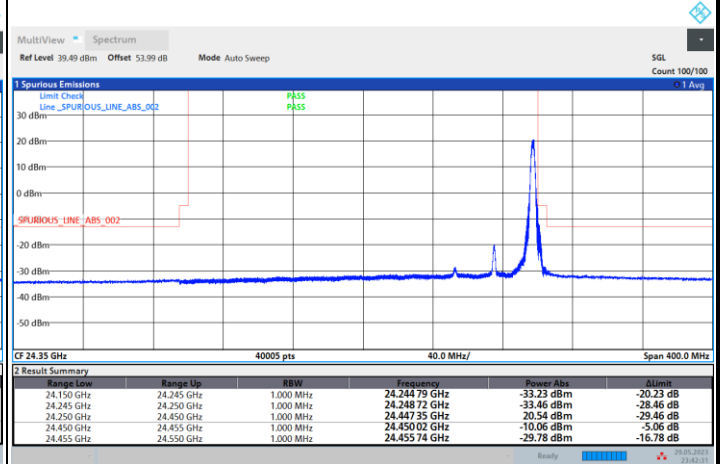
DFT-s-OFDM Module B

NR Band n258A/ 50MHz / QPSK

Lowest Band Edge / 1 RB

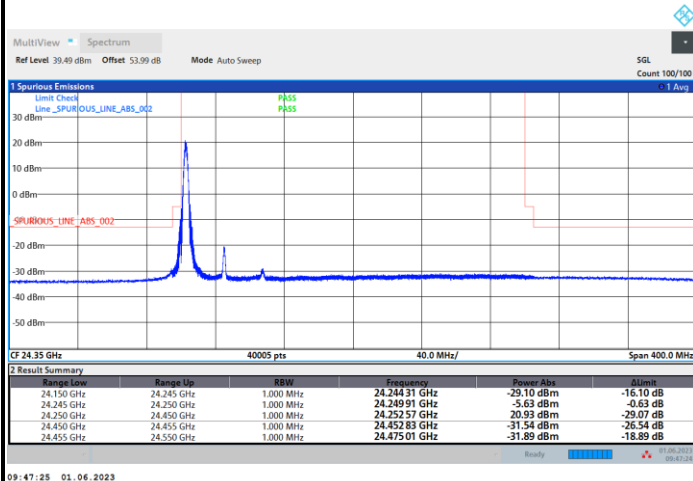


Highest Band Edge / 1 RB

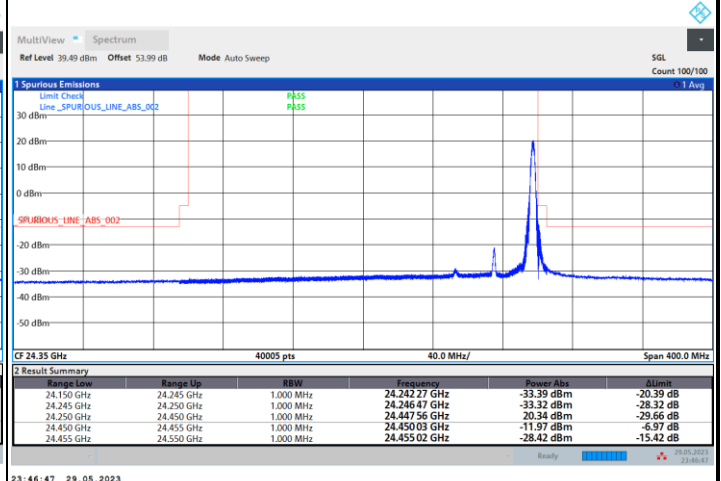


NR Band n258A/ 50MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

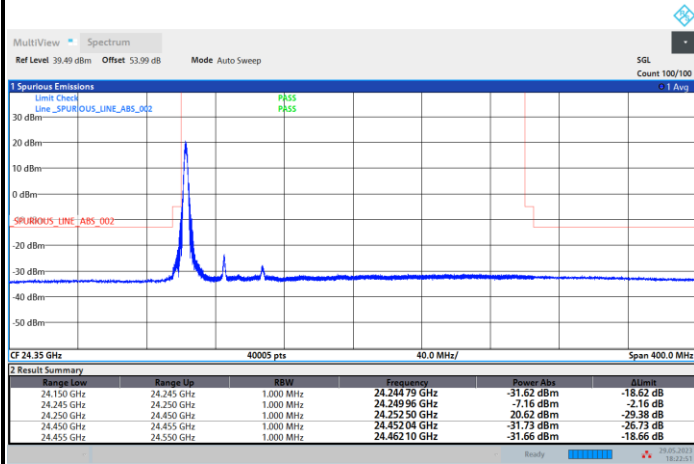




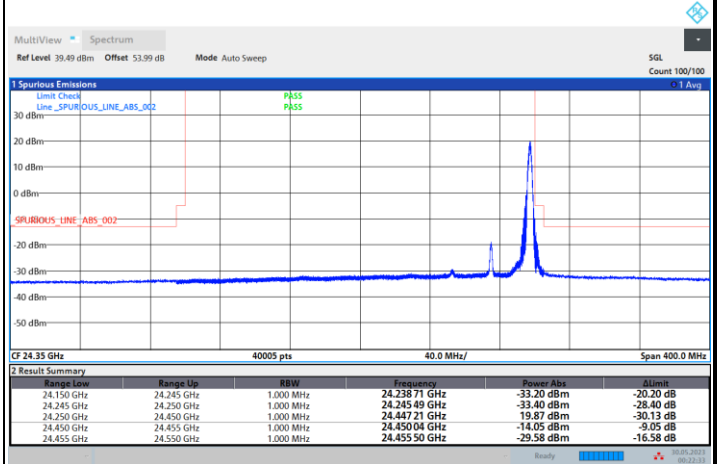
DFT-s-OFDM Module B

NR Band n258A/ 50MHz / 64QAM

Lowest Band Edge / 1 RB

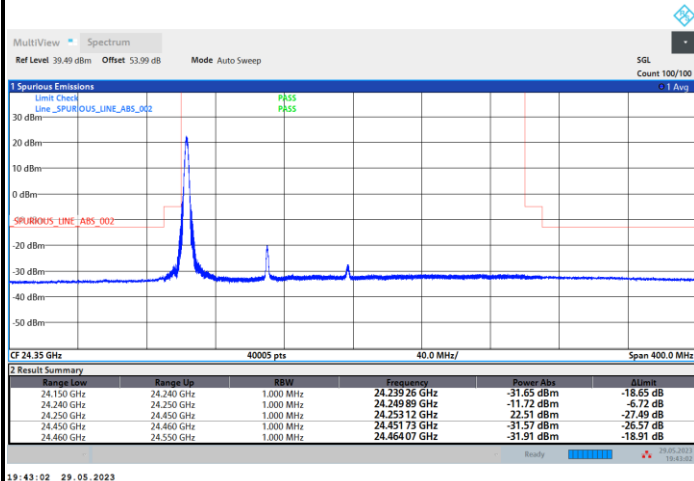


Highest Band Edge / 1 RB

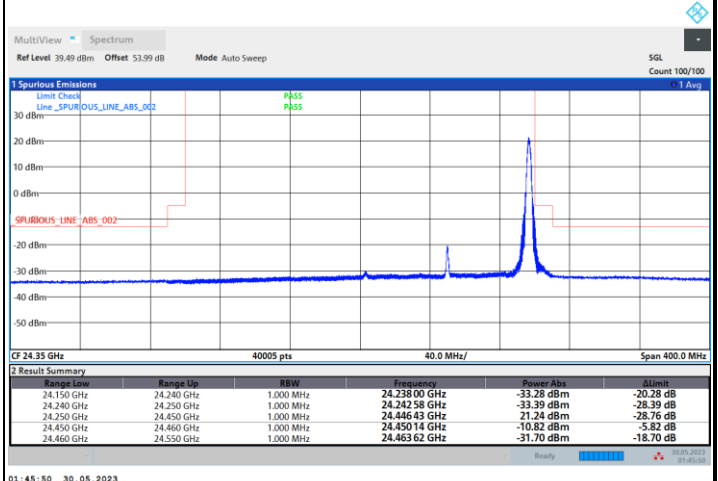


NR Band n258A/ 100MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

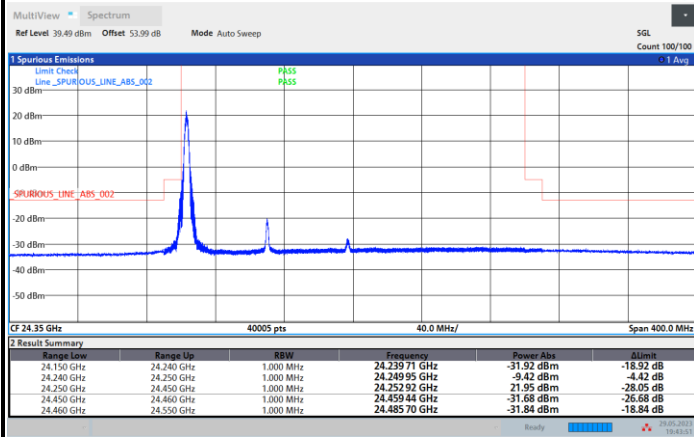




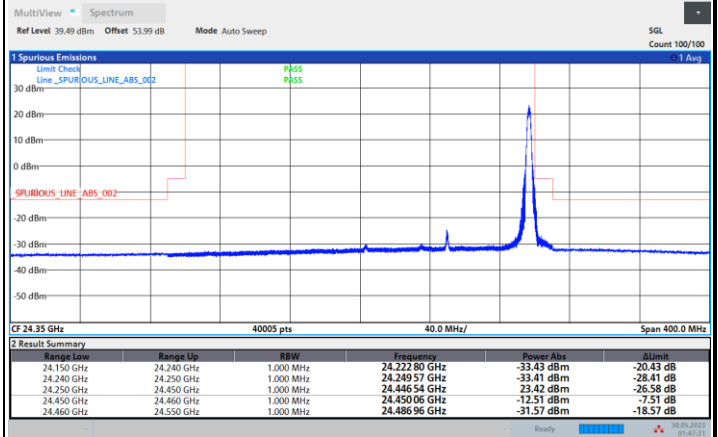
DFT-s-OFDM Module B

NR Band n258A/ 100MHz / 16QAM

Lowest Band Edge / 1 RB

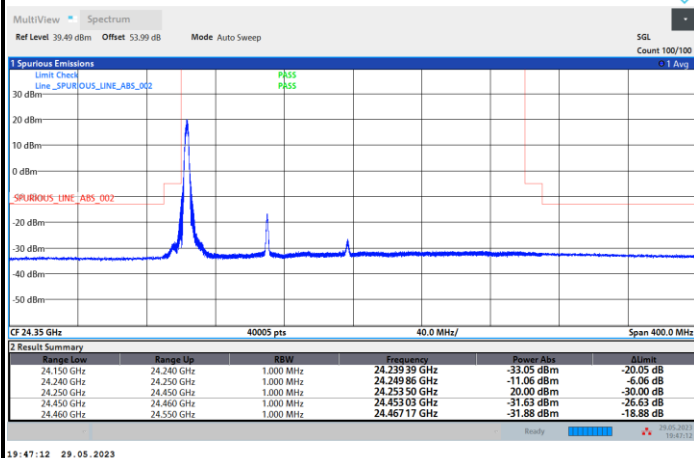


Highest Band Edge / 1 RB

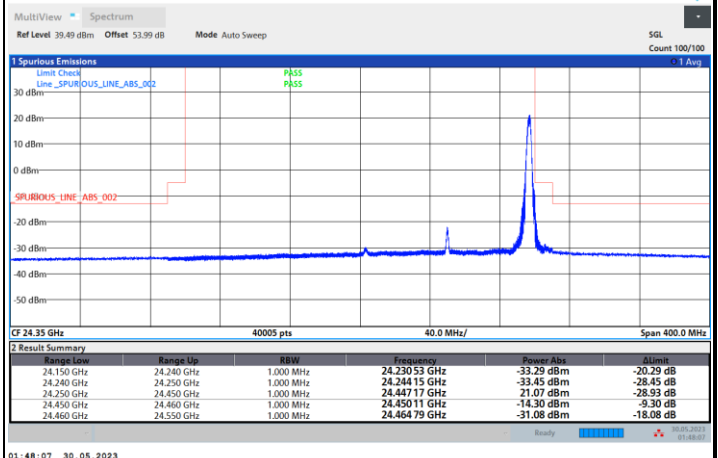


NR Band n258A/ 100MHz / 64QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

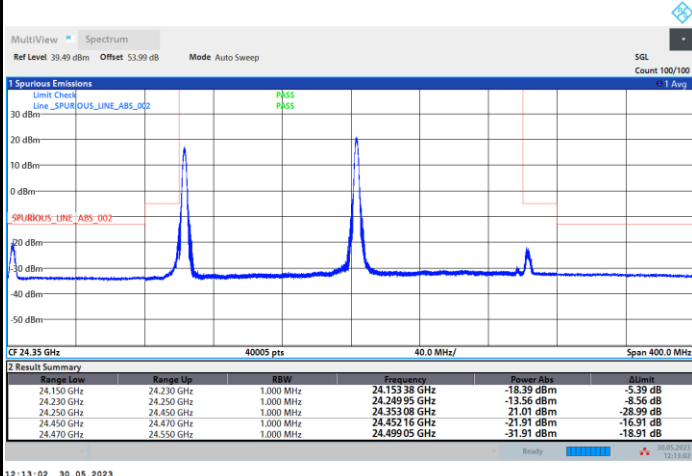




DFT-s-OFDM Module B

NR Band n258A/ 200MHz / QPSK

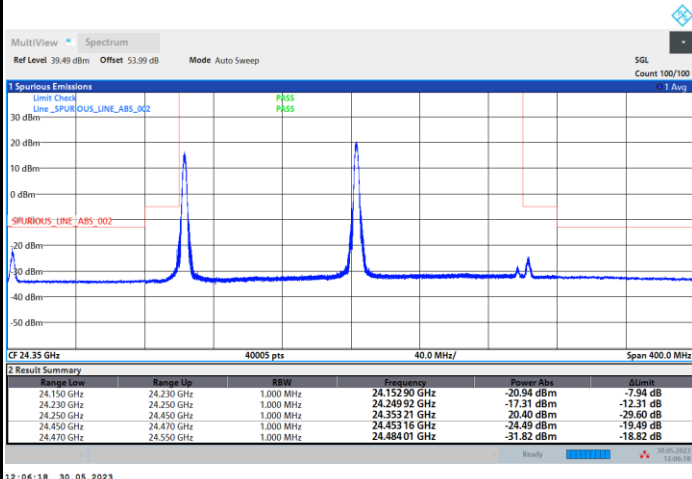
Middle Band Edge / 1 RB



intentionally blank

NR Band n258A/ 200MHz / 16QAM

Middle Band Edge / 1 RB



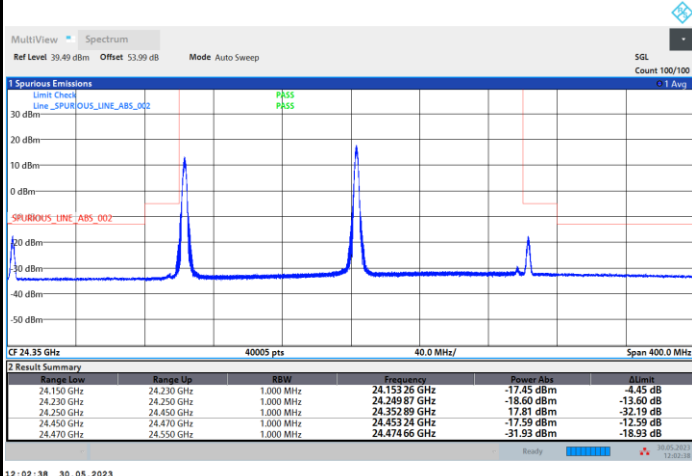
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DFT-s-OFDM Module B

NR Band n258A/ 200MHz / 64QAM

Middle Band Edge / 1 RB



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