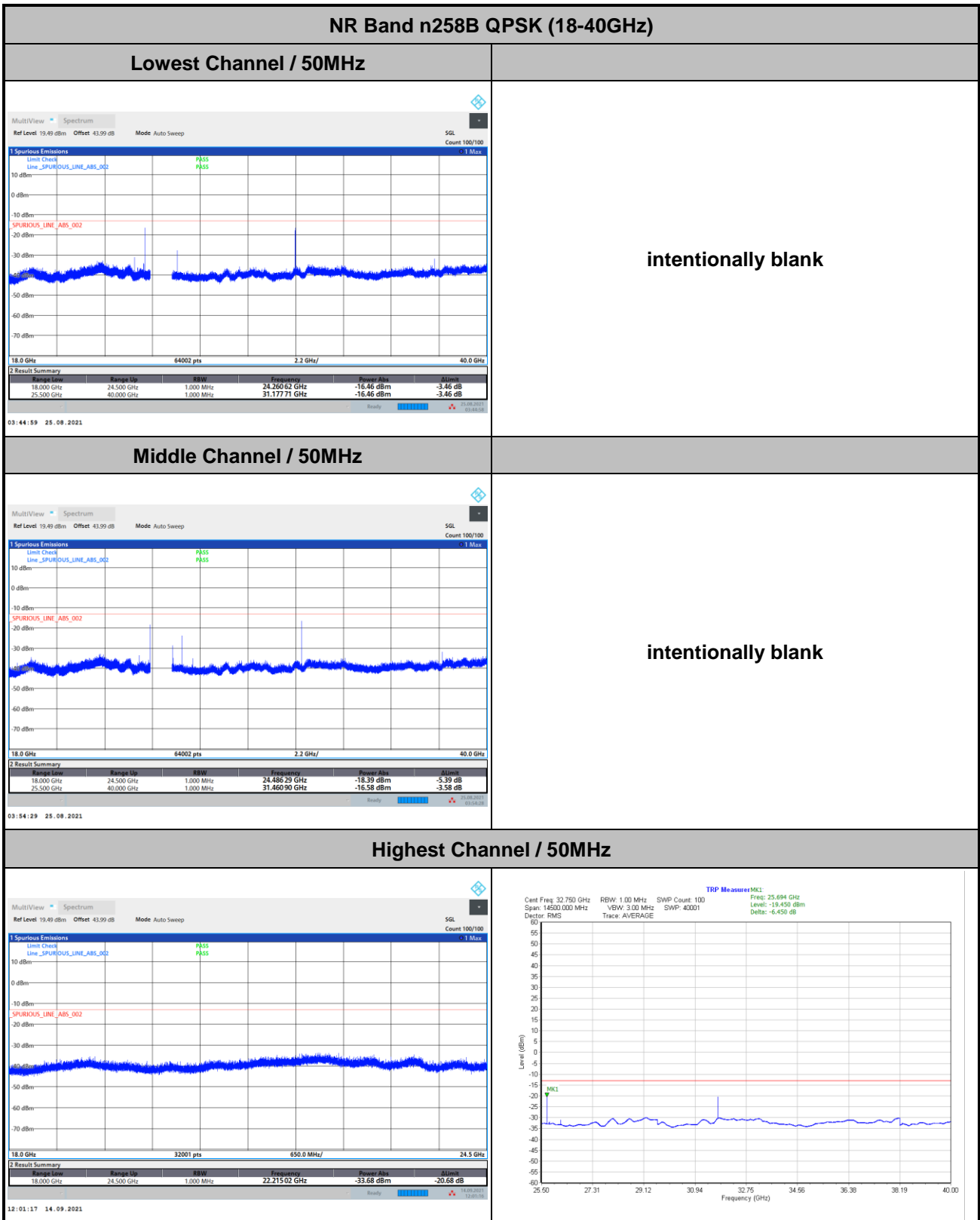




Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

DFT-s-OFDM Module A



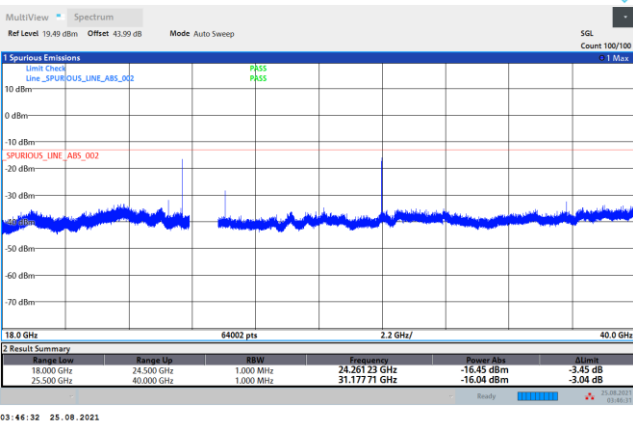
Remark: In band and out of band frequencies that has reported in previous results are omitted.



CP-OFDM Module A

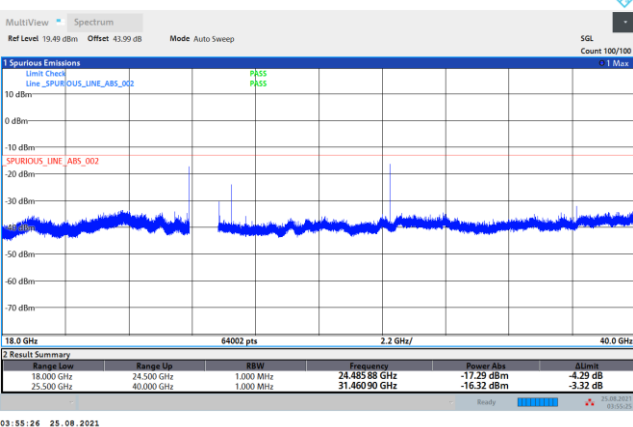
NR Band n258B QPSK (18-40GHz)

Lowest Channel / 50MHz



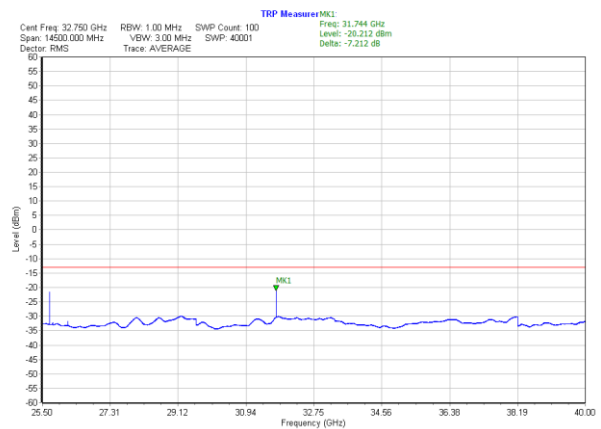
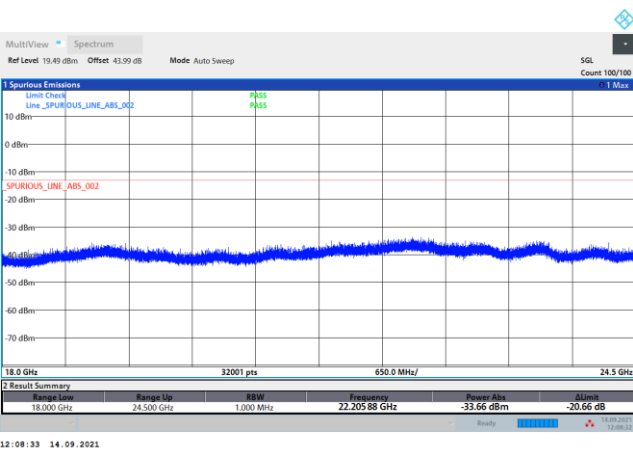
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Middle Channel / 50MHz



intentionally blank

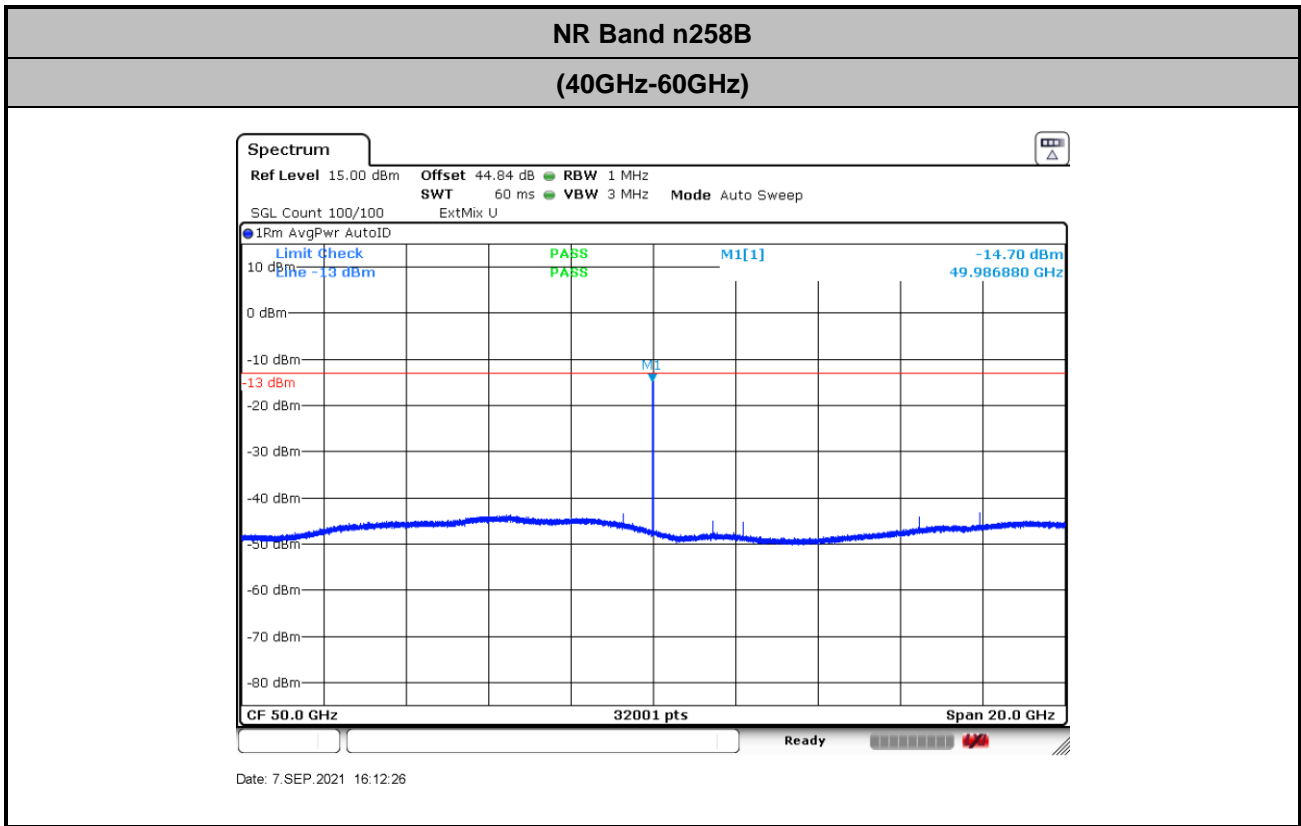
Highest Channel / 50MHz



Remark: In band and out of band frequencies that has reported in previous results are omitted.



There is no significant spurious emission signal found for frequency started from 40GHz up to 100GHz.

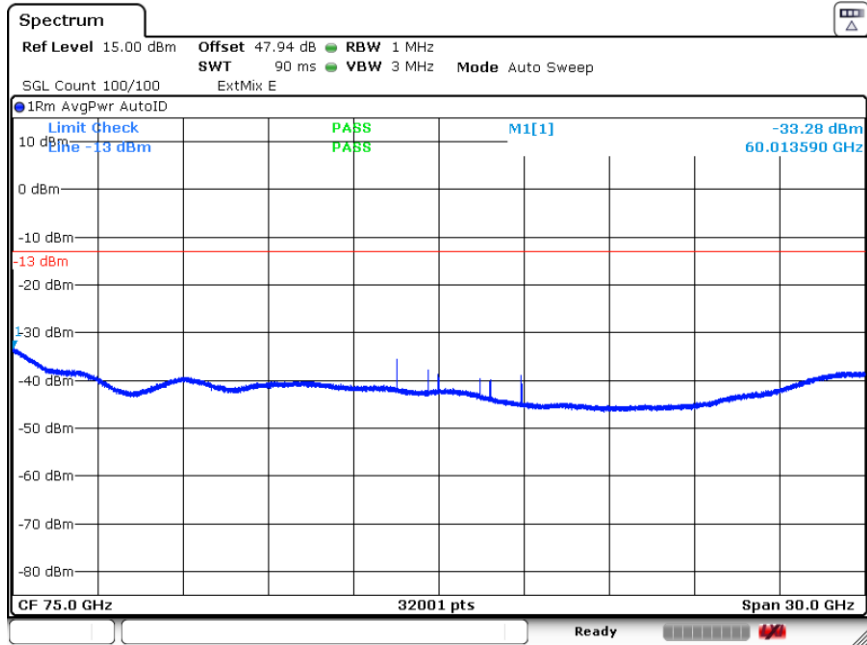


Note: Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log(D) – 104.8
= 42.3 + 0.34 + 107 + 20log(1) – 104.8 = 44.84 (dB)



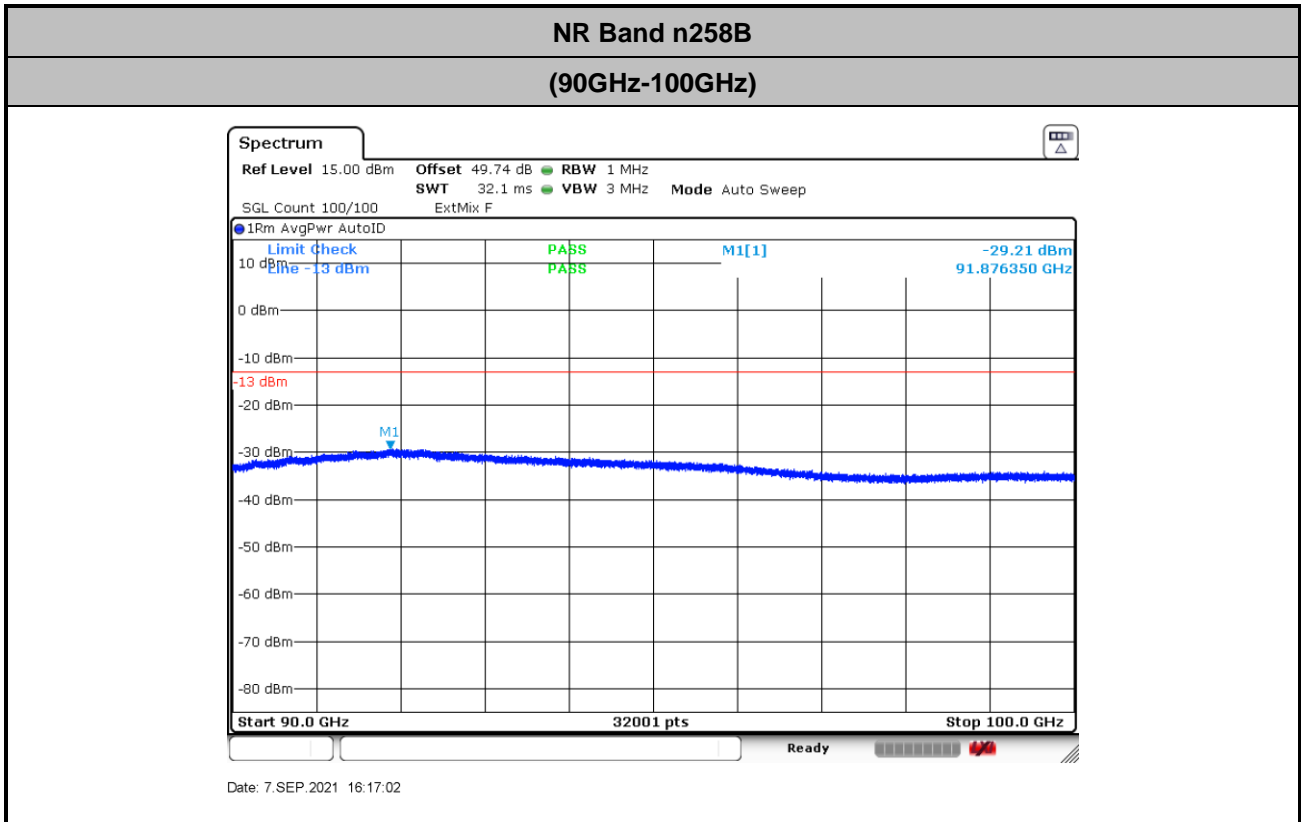
NR Band n258B

(60GHz-90GHz)



Date: 7.SEP.2021 16:14:30

Note: Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log(D) – 104.8
= 45.4 + 0.34 + 107 + 20log(1) – 104.8 = 47.94 (dB)



Note: Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log(D) – 104.8
= 47.2 + 0.34 + 107 + 20log(1) – 104.8 = 49.74 (dB)



Frequency Stability

Test Conditions		NR Band n258B / Middle Channel			Limit
Temperature (°C)	Voltage (Volt)	CW tone			Note 2.
		Frequency (GHz)	Deviation (kHz)	Deviation (ppm)	Result
50	Normal Voltage	25.001033	-0.300	0.012	Pass
40	Normal Voltage	25.001033	-0.300	0.012	
30	Normal Voltage	25.001033	-0.300	0.012	
20(Ref.)	Normal Voltage	25.0010327	0.000	0.000	
10	Normal Voltage	25.001033	-0.300	0.012	
0	Normal Voltage	25.001033	-0.300	0.012	
-10	Normal Voltage	25.001033	-0.300	0.012	
-20	Normal Voltage	25.001033	-0.300	0.012	
-30	Normal Voltage	25.001033	-0.300	0.012	
20	Maximum Voltage	25.0010327	0.000	0.000	
20	Normal Voltage	25.0010327	0.000	0.000	
20	Battery End Point	25.0010327	0.000	0.000	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.60 V. ; Maximum Voltage =4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



NR Band n258B Module B Beam H

Occupied Bandwidth

Mode	DFT-s-OFDM Module B NR Band n258B : 99%OBW(MHz)		
BW	50MHz		
Mod.	QPSK	16QAM	64QAM
Lowest CH	45.93	46.29	46.10
Middle CH	45.99	46.34	46.09
Highest CH	46.06	46.44	46.13

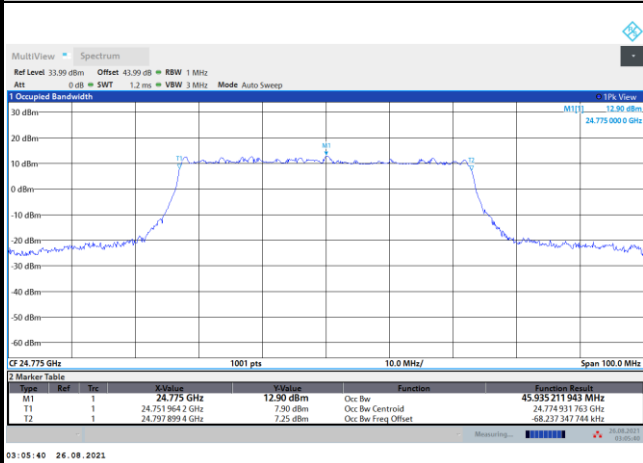
Mode	CP-OFDM Module B NR Band n258B : 99%OBW(MHz)	
BW	50MHz	
Mod.	QPSK	
Lowest CH	46.26	
Middle CH	46.28	
Highest CH	46.36	



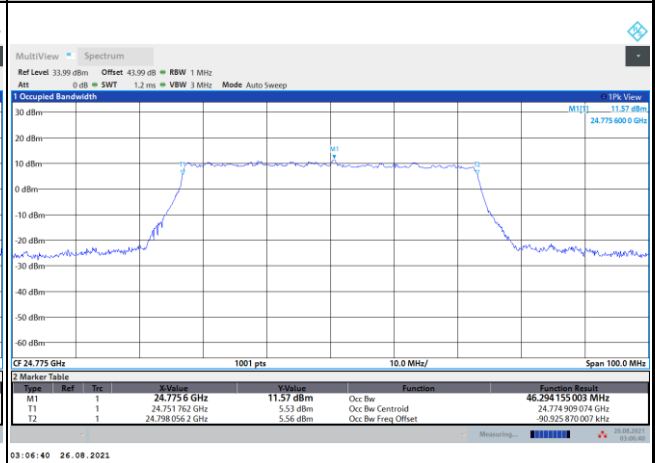
DFT-s-OFDM Module B

NR Band n258B

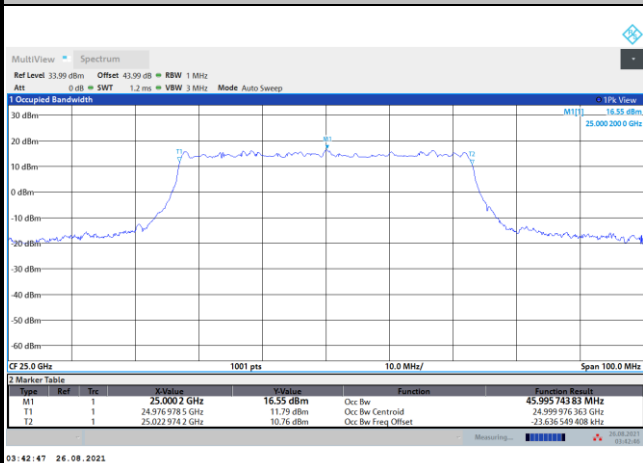
Lowest Channel / 50MHz / QPSK



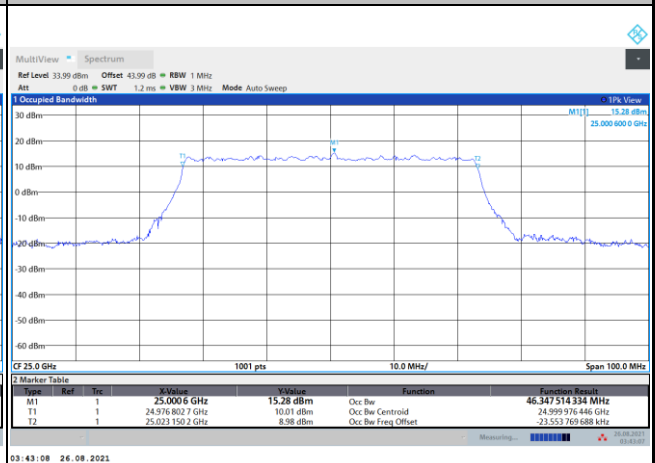
Lowest Channel / 50MHz / 16QAM



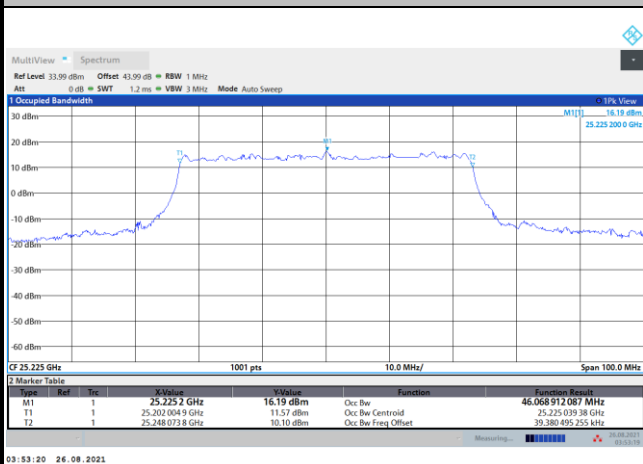
Middle Channel / 50MHz / QPSK



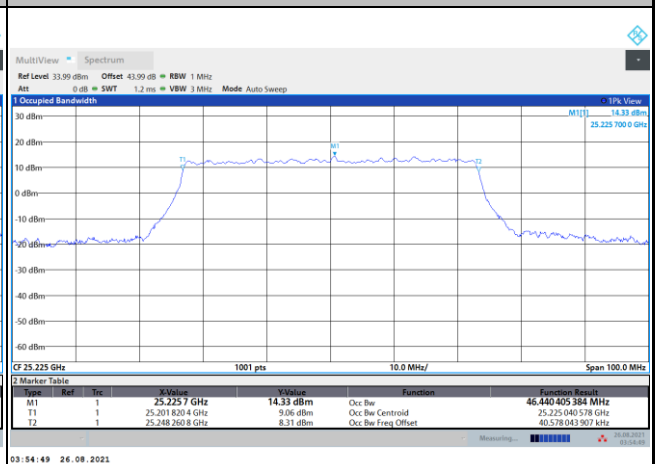
Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM

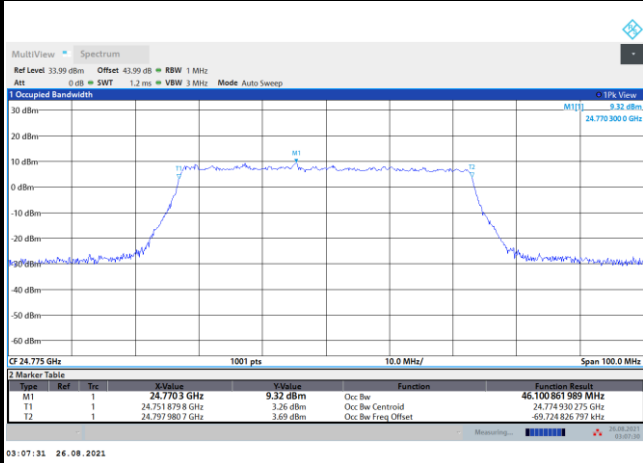




DFT-s-OFDM Module B

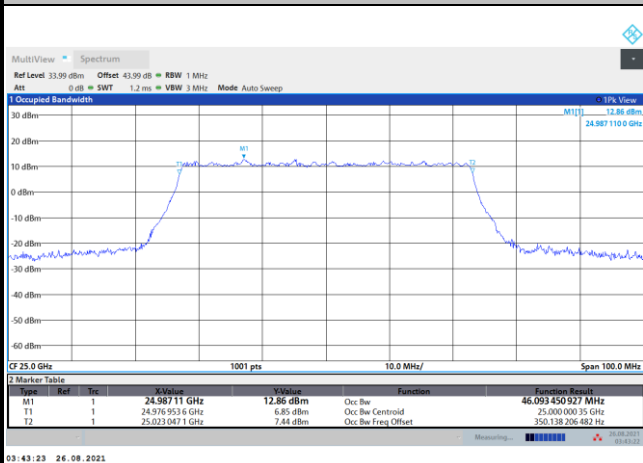
NR Band n258B

Lowest Channel / 50MHz / 64QAM



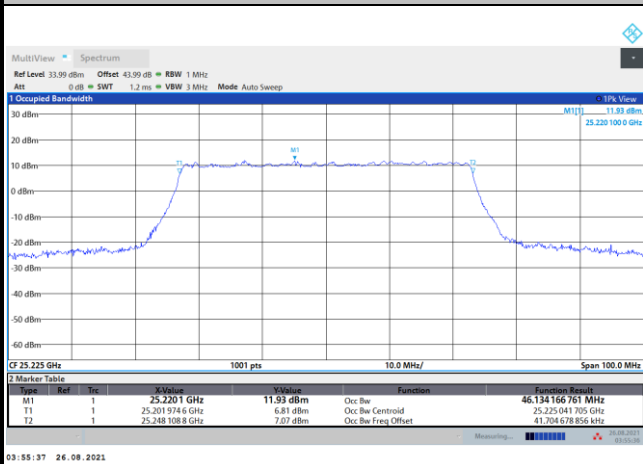
intentionally blank

Middle Channel / 50MHz / 64QAM



intentionally blank

Highest Channel / 50MHz / 64QAM



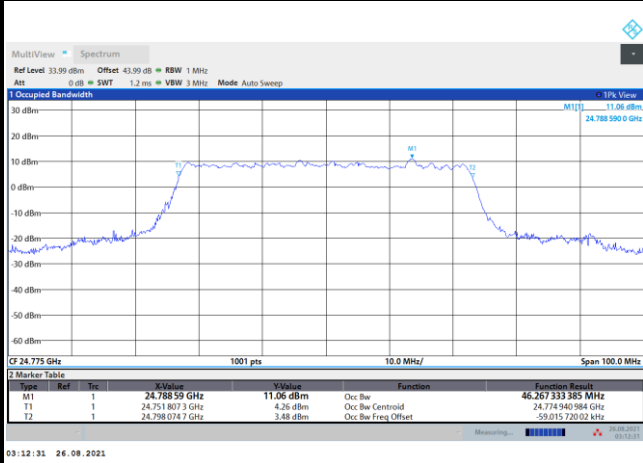
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CP-OFDM Module B

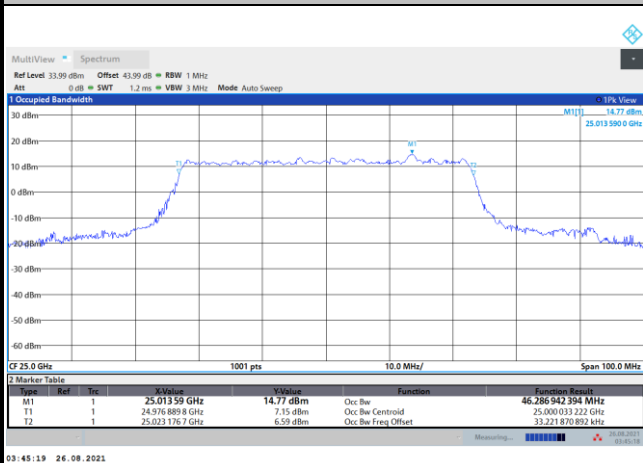
NR Band n258B

Lowest Channel / 50MHz / QPSK



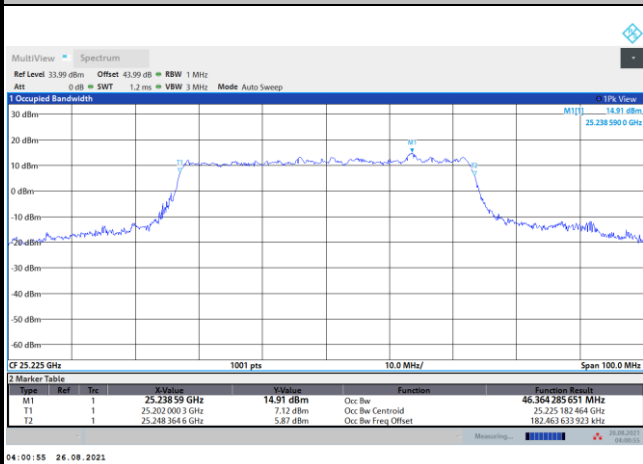
intentionally blank

Middle Channel / 50MHz / QPSK



intentionally blank

Highest Channel / 50MHz / QPSK



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Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module B NR Band n258B : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-12.53	-11.60	-15.62
	>10%OB	≤ -13	-39.01	-39.14	-39.75
HighCH	0~10%OB	≤ -5	-9.85	-10.02	-12.74
	>10%OB	≤ -13	-37.07	-36.98	-37.38
Result			Compliance		

Mode			CP-OFDM Module B NR Band n258B : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK		
Low CH	0~10%OB	≤ -5	-14.93		
	>10%OB	≤ -13	-39.56		
High CH	0~10%OB	≤ -5	-10.48		
	>10%OB	≤ -13	-38.05		
Result			Compliance		

Mode			DFT-s-OFDM Module B NR Band n258B : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-21.74	-22.81	-25.34
	>10%OB	≤ -13	-29.58	-32.17	-35.65
HighCH	0~10%OB	≤ -5	-16.81	-19.60	-21.95
	>10%OB	≤ -13	-20.95	-24.76	-29.44
Result			Compliance		

Mode			CP-OFDM Module B NR Band n258B : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK		
Low CH	0~10%OB	≤ -5	-23.50		
	>10%OB	≤ -13	-30.16		
High CH	0~10%OB	≤ -5	-19.22		
	>10%OB	≤ -13	-22.03		
Result			Compliance		

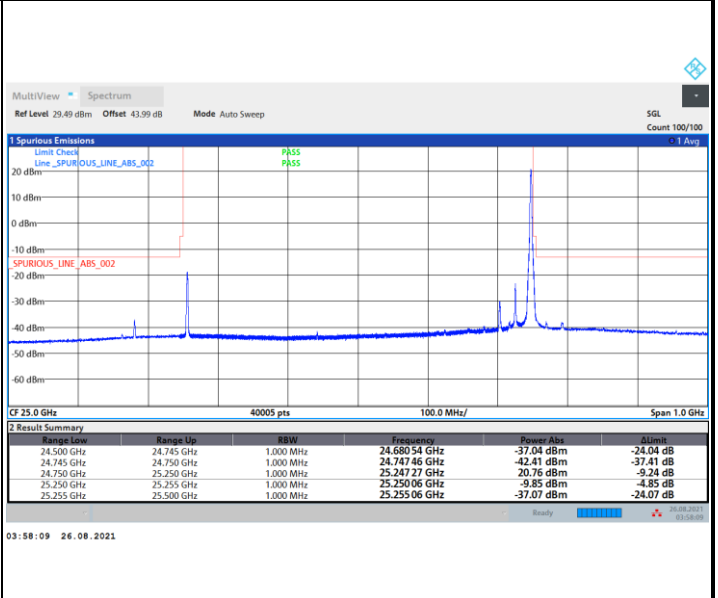
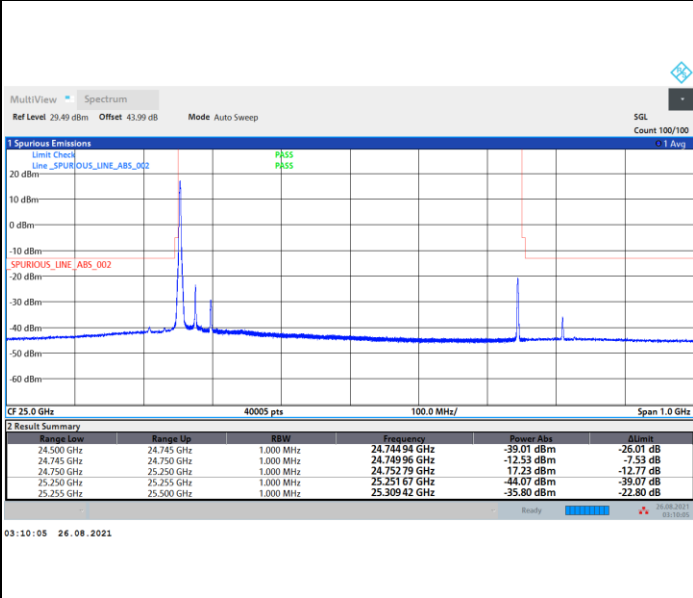


DFT-s-OFDM Module B

NR Band n258B / 50MHz / QPSK

Lowest Band Edge / 1 RB

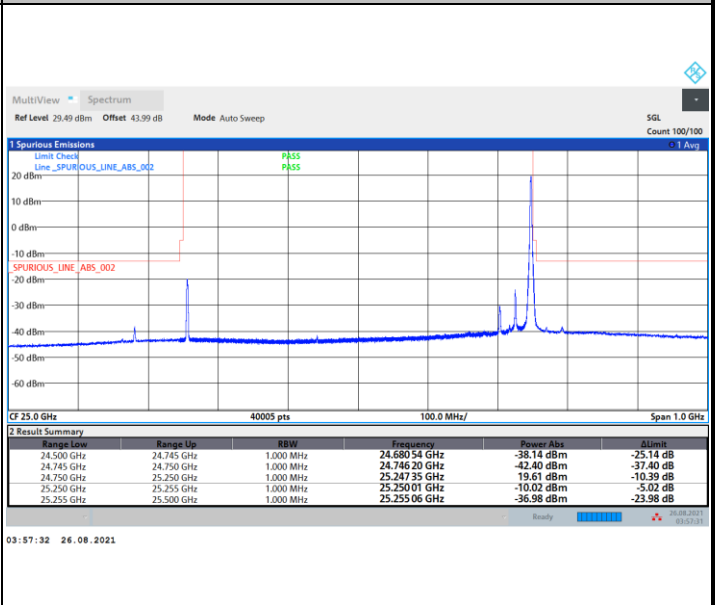
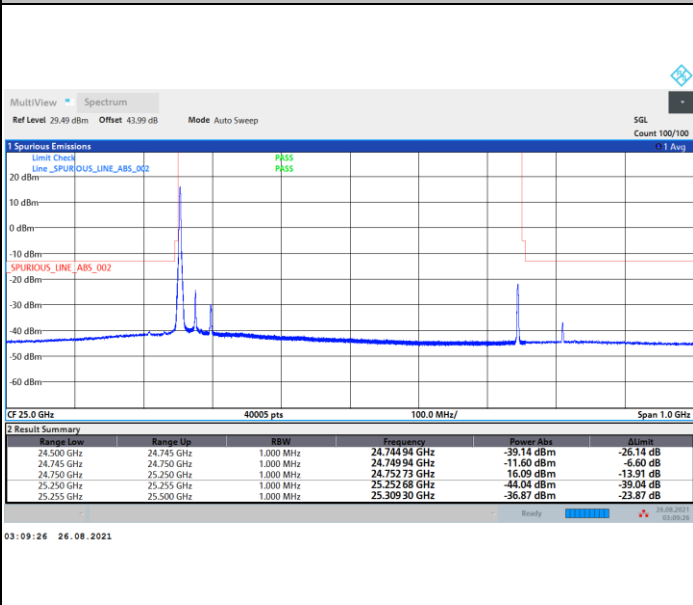
Highest Band Edge / 1 RB



NR Band n258B / 50MHz / 16QAM

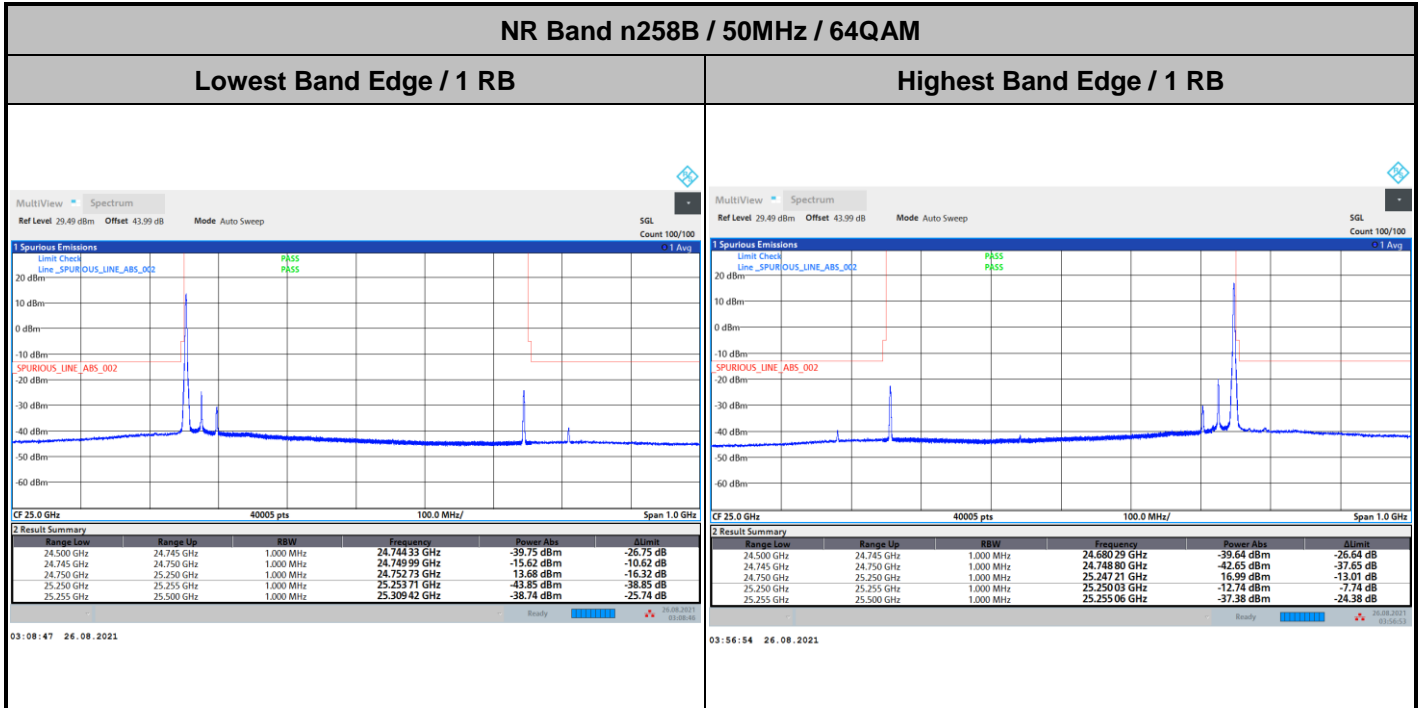
Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

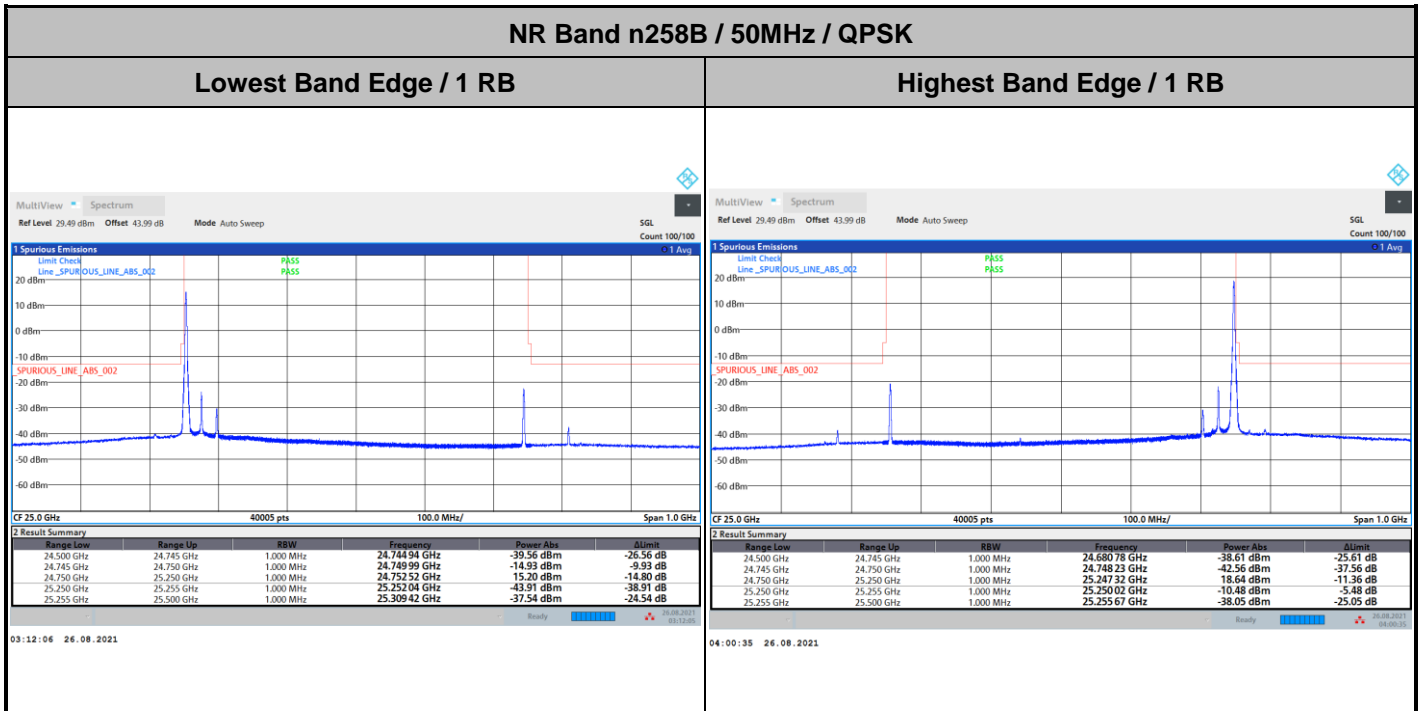




DFT-s-OFDM Module B



CP-OFDM Module B



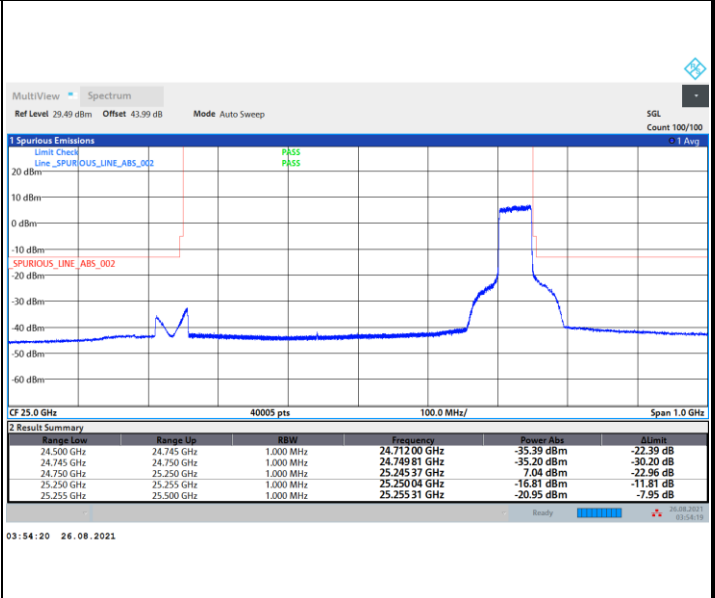
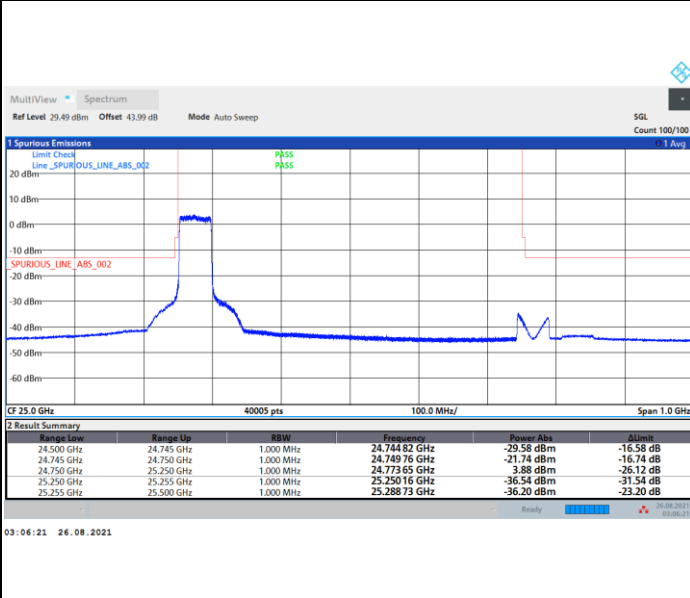


DFT-s-OFDM Module B

NR Band n258B / 50MHz / QPSK

Lowest Band Edge / Full RB

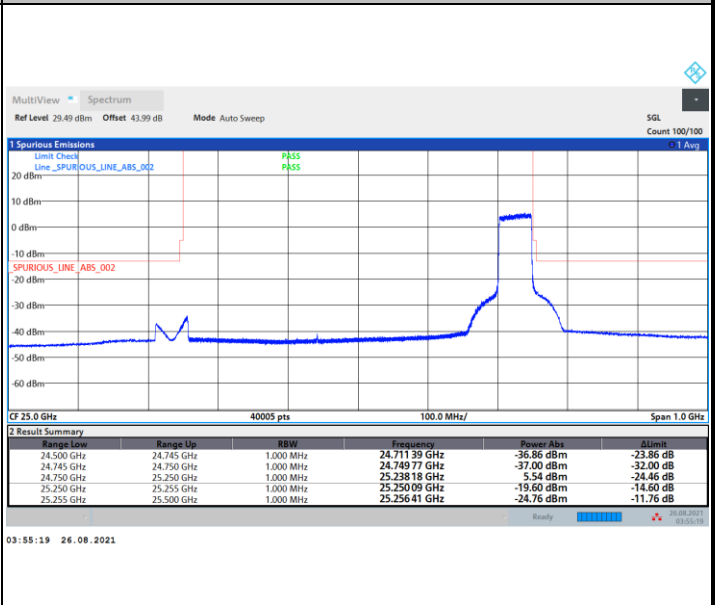
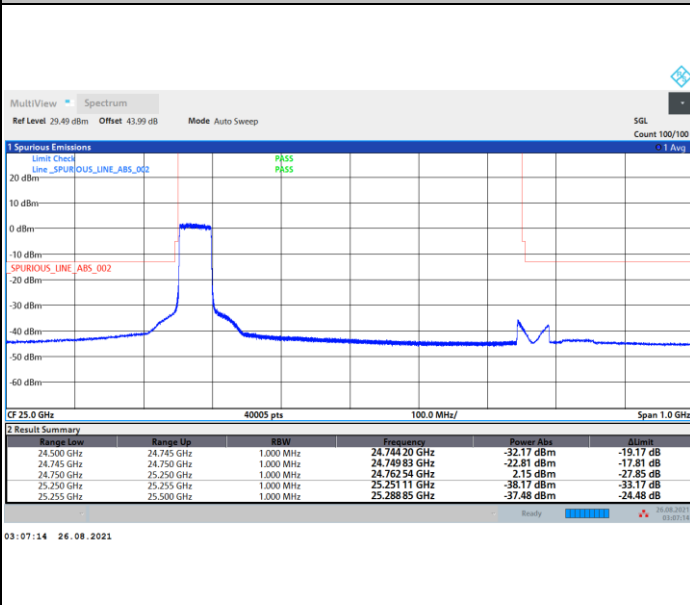
Highest Band Edge / Full RB



NR Band n258B / 50MHz / 16QAM

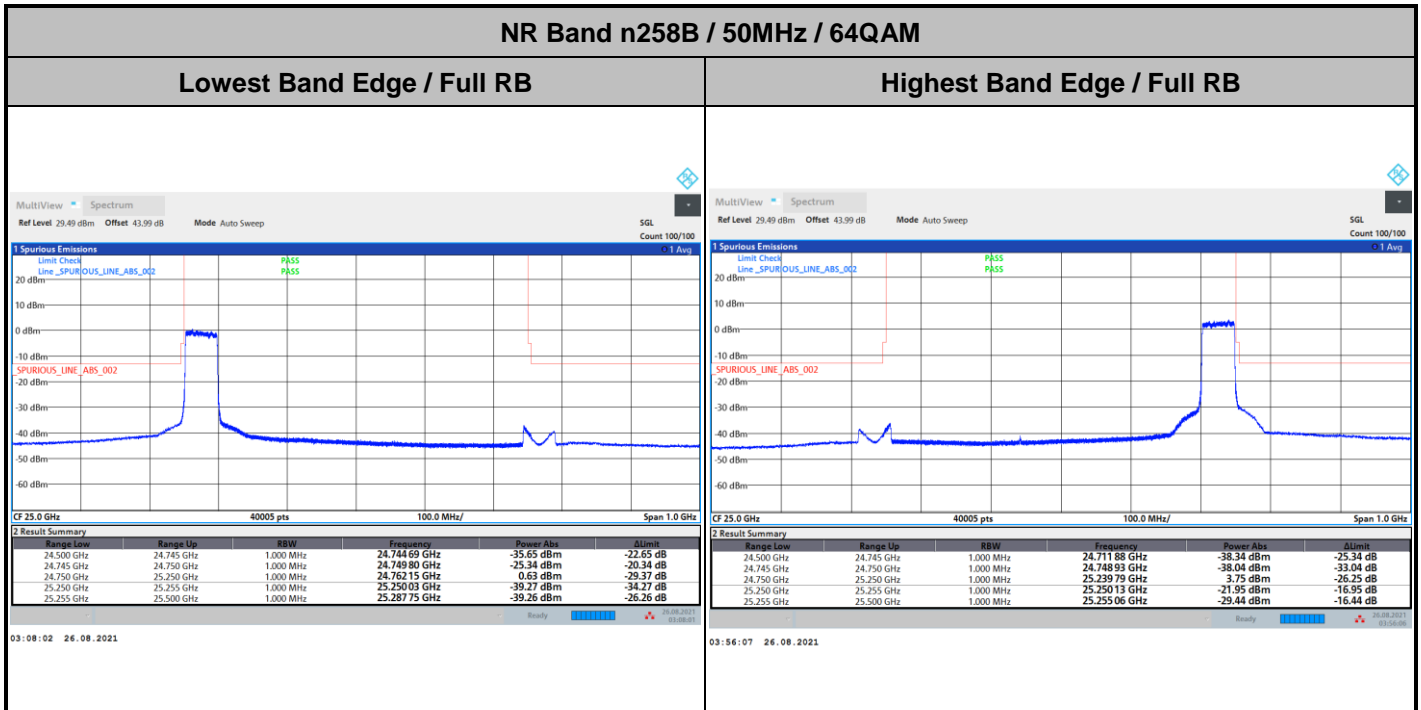
Lowest Band Edge / Full RB

Highest Band Edge / Full RB

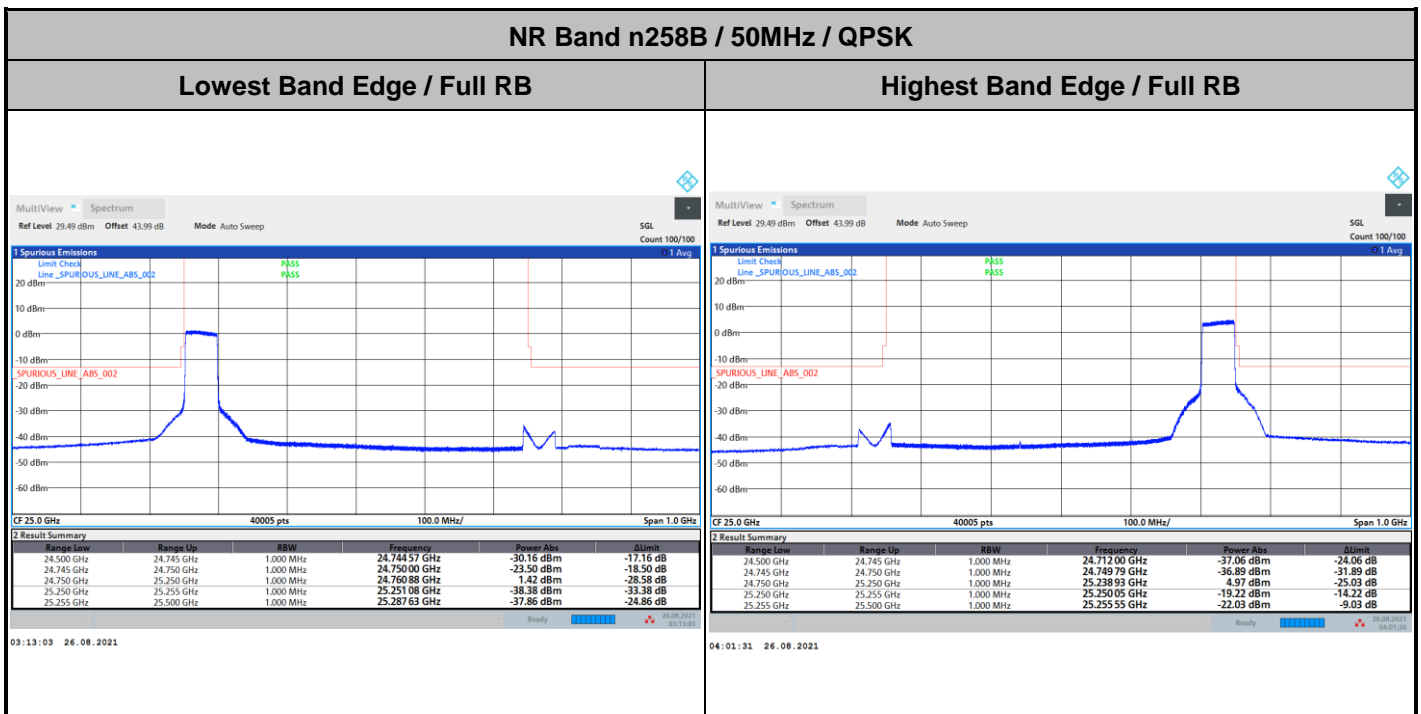




DFT-s-OFDM Module B



CP-OFDM Module B



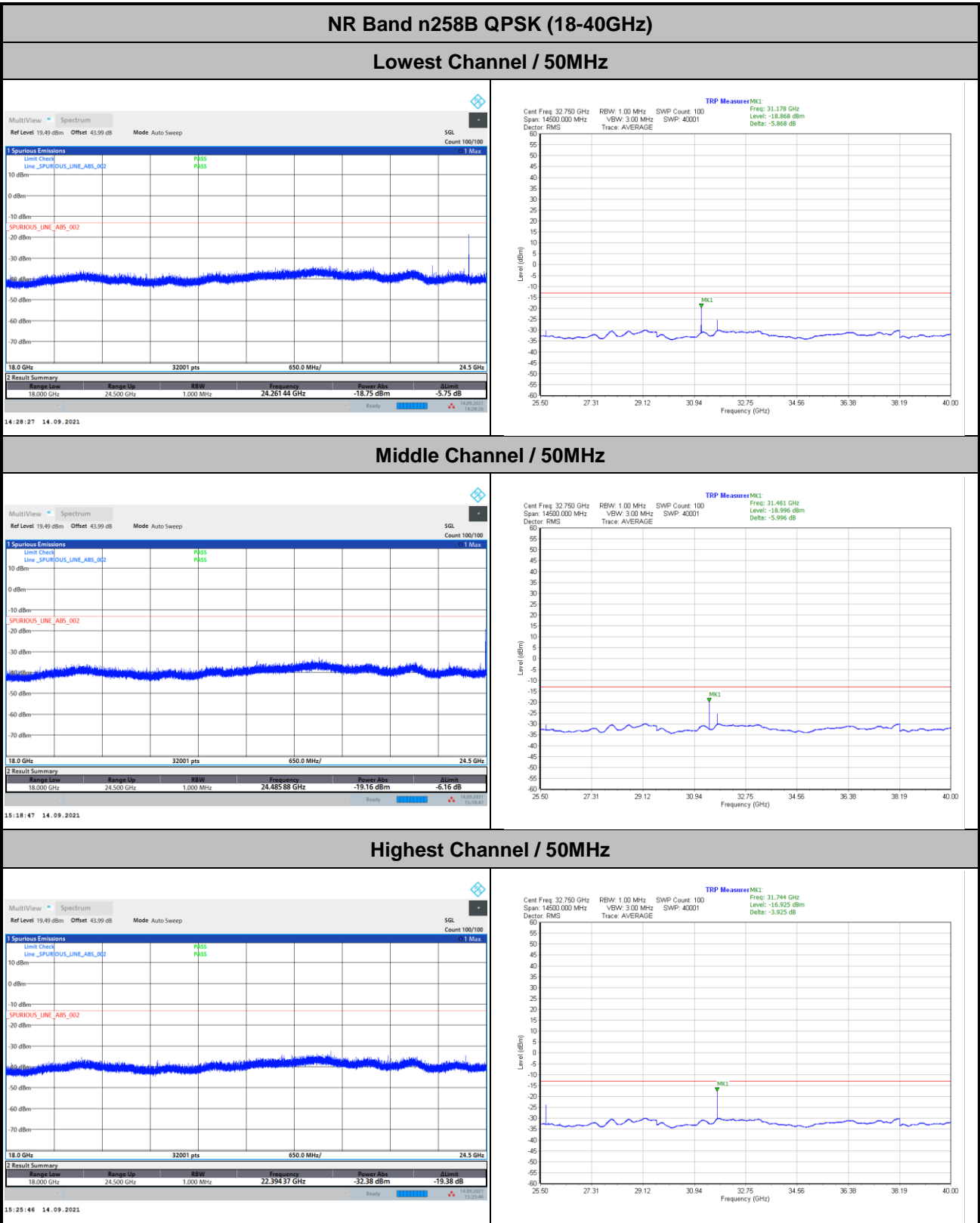


Spurious Emission



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

DFT-s-OFDM Module B



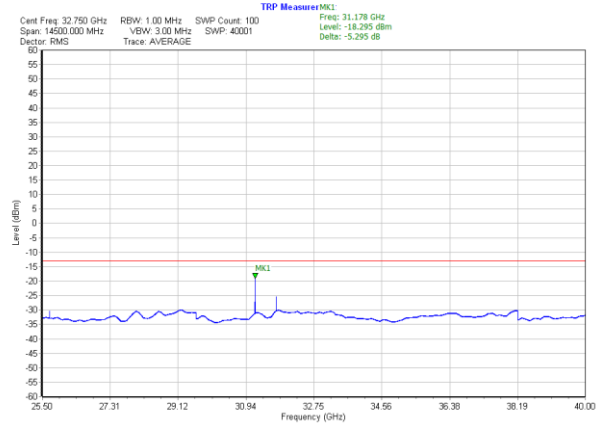
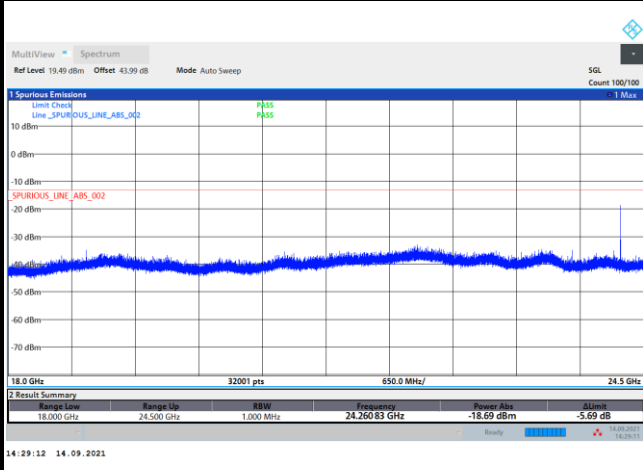
Remark: In band and out of band frequencies that has reported in previous results are omitted.



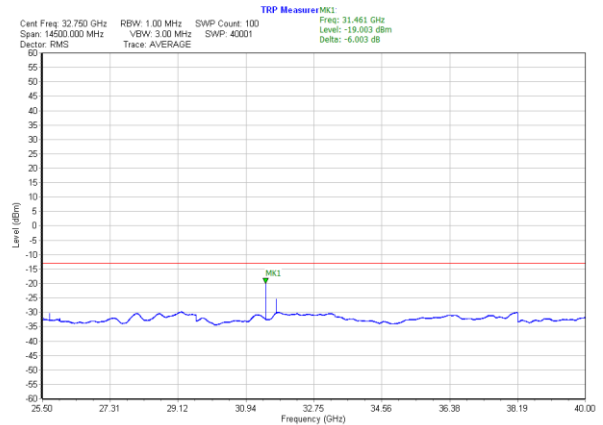
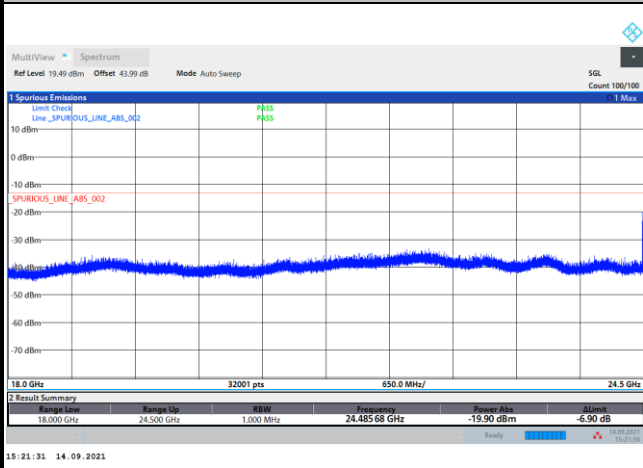
CP-OFDM Module B

NR Band n258B QPSK (18-40GHz)

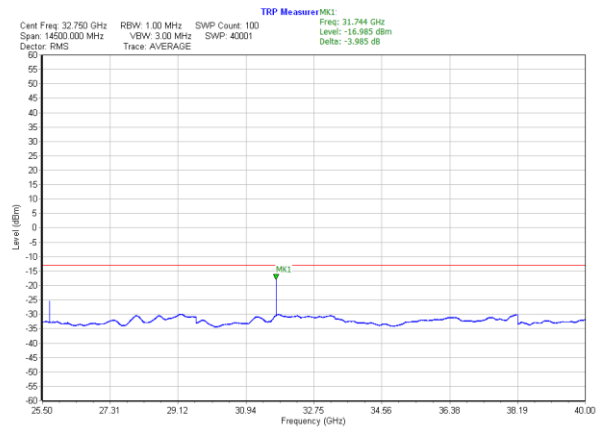
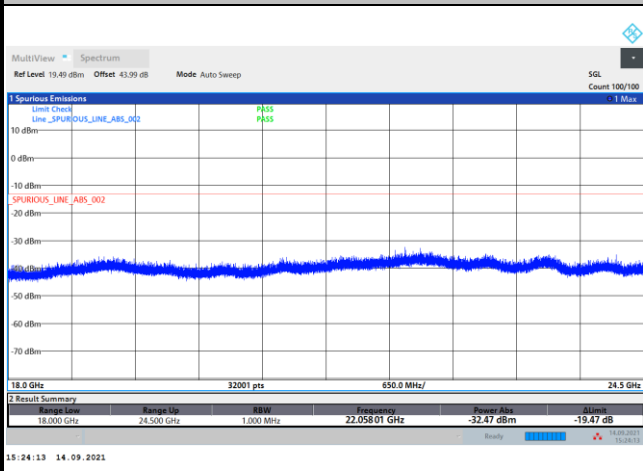
Lowest Channel / 50MHz



Middle Channel / 50MHz



Highest Channel / 50MHz



Remark: In band and out of band frequencies that has reported in previous results are omitted.



NR Band n258B Module B Beam V

Occupied Bandwidth

Mode	DFT-s-OFDM Module B NR Band n258B : 99%OBW(MHz)		
BW	50MHz		
Mod.	QPSK	16QAM	64QAM
Lowest CH	45.96	46.34	46.14
Middle CH	45.96	46.38	46.08
Highest CH	45.97	46.37	46.14

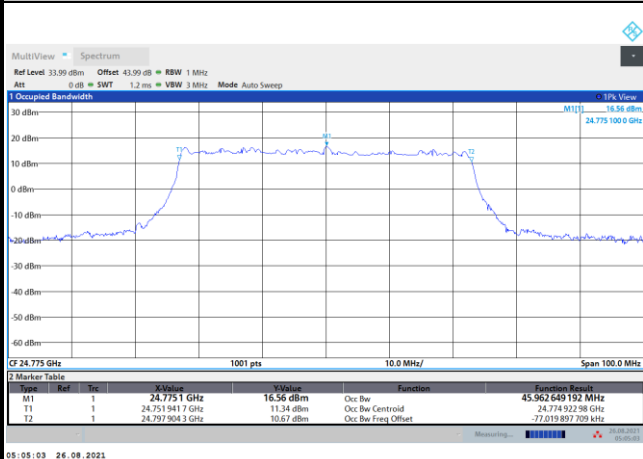
Mode	CP-OFDM Module B NR Band n258B : 99%OBW(MHz)
BW	50MHz
Mod.	QPSK
Lowest CH	46.14
Middle CH	46.28
Highest CH	46.36



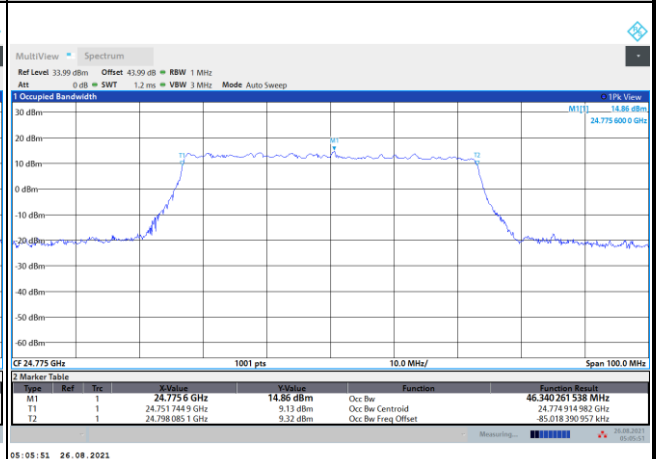
DFT-s-OFDM Module B

NR Band n258B

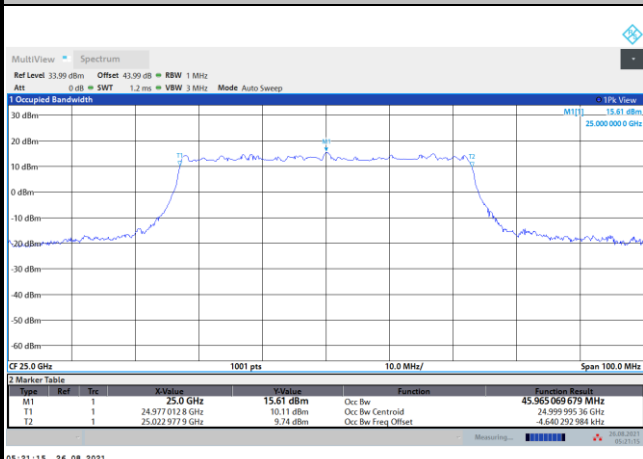
Lowest Channel / 50MHz / QPSK



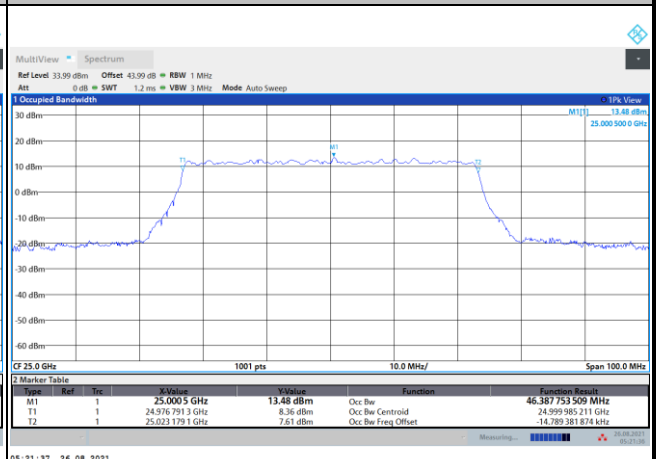
Lowest Channel / 50MHz / 16QAM



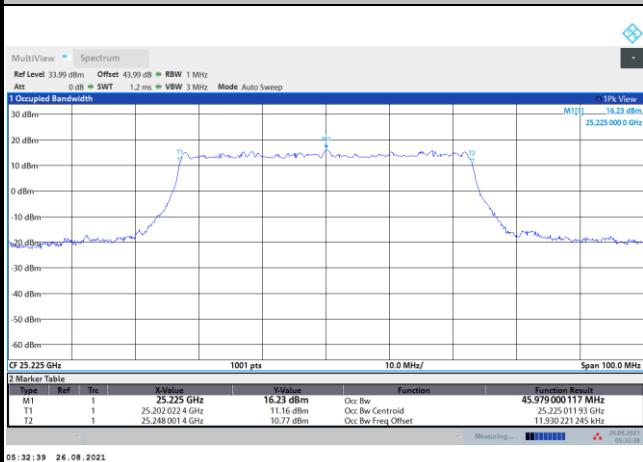
Middle Channel / 50MHz / QPSK



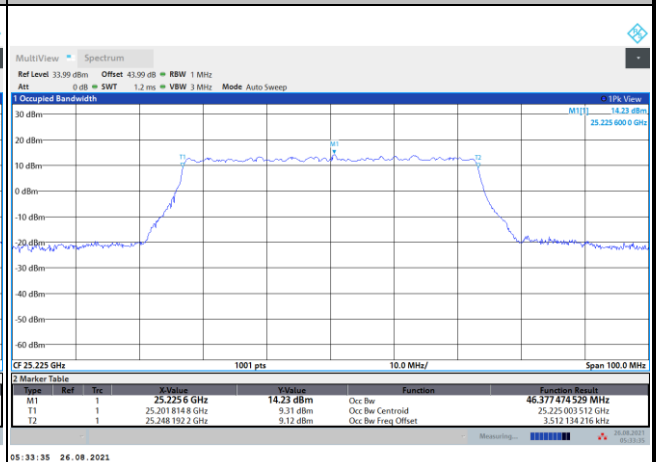
Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM

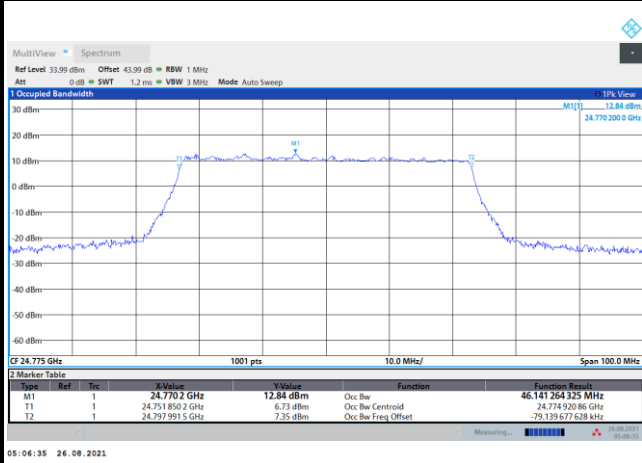




DFT-s-OFDM Module B

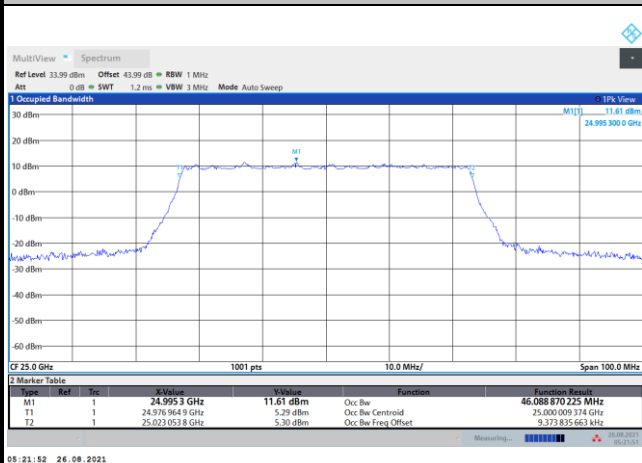
NR Band n258B

Lowest Channel / 50MHz / 64QAM



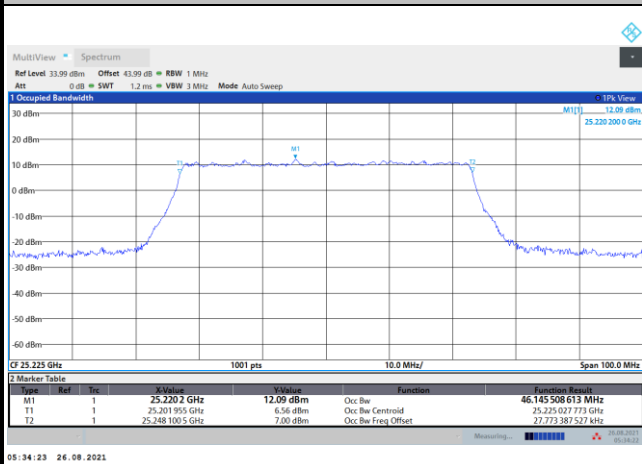
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Middle Channel / 50MHz / 64QAM



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Highest Channel / 50MHz / 64QAM



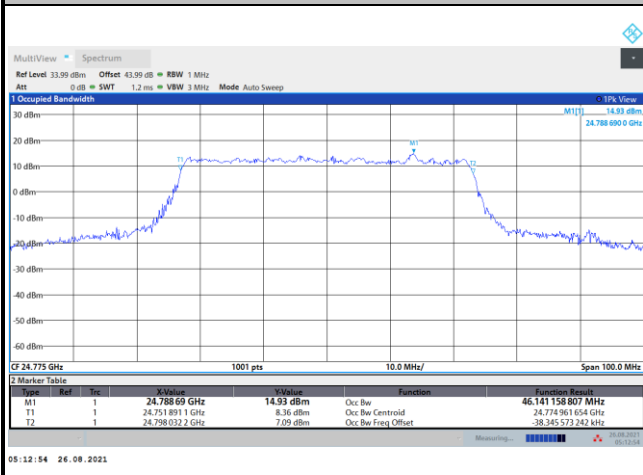
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CP-OFDM Module B

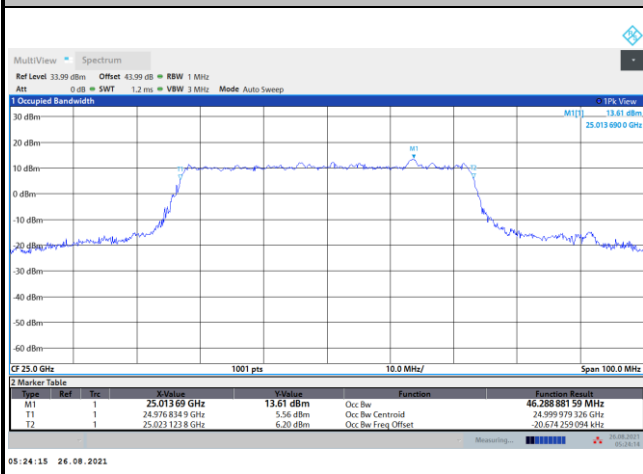
NR Band n258B

Lowest Channel / 50MHz / QPSK



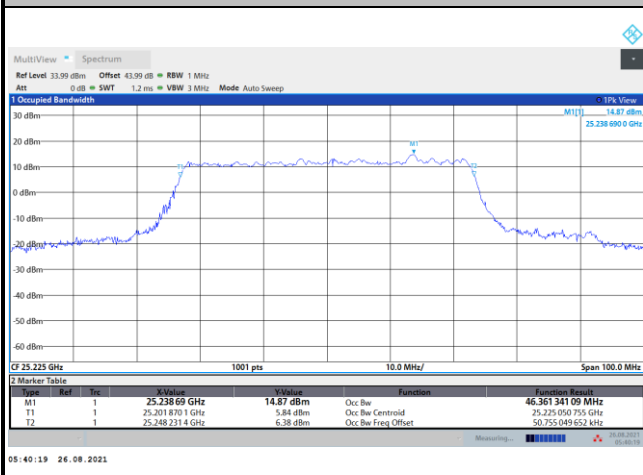
intentionally blank

Middle Channel / 50MHz / QPSK



intentionally blank

Highest Channel / 50MHz / QPSK



intentionally blank



Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module B NR Band n258B : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-9.10	-10.36	-12.29
	>10%OB	≤ -13	-35.63	-34.47	-34.16
HighCH	0~10%OB	≤ -5	-9.37	-11.42	-12.07
	>10%OB	≤ -13	-34.74	-33.84	-33.37
Result			Compliance		

Mode			CP-OFDM Module B NR Band n258B : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK		
Low CH	0~10%OB	≤ -5	-10.07		
	>10%OB	≤ -13	-34.68		
High CH	0~10%OB	≤ -5	-10.92		
	>10%OB	≤ -13	-34.25		
Result			Compliance		

Mode			DFT-s-OFDM Module B NR Band n258B : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-18.98	-19.61	-21.92
	>10%OB	≤ -13	-25.40	-27.07	-30.21
HighCH	0~10%OB	≤ -5	-19.26	-20.86	-22.21
	>10%OB	≤ -13	-25.11	-27.74	-31.14
Result			Compliance		

Mode			CP-OFDM Module B NR Band n258B : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK		
Low CH	0~10%OB	≤ -5	-20.40		
	>10%OB	≤ -13	-25.66		
High CH	0~10%OB	≤ -5	-20.84		
	>10%OB	≤ -13	-25.81		
Result			Compliance		

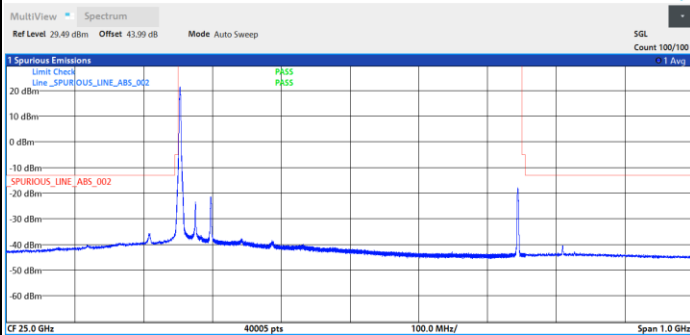


DFT-s-OFDM Module B

NR Band n258B / 50MHz / QPSK

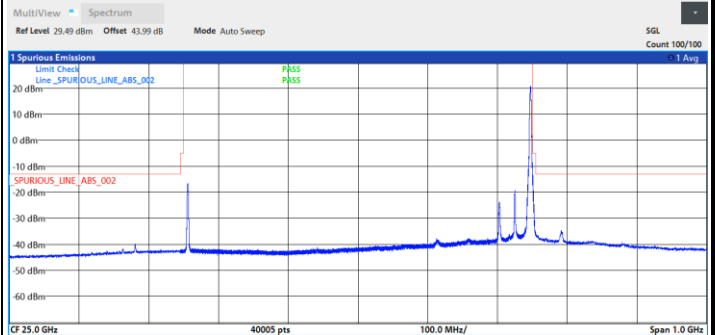
Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



Range Low	Range Up	RBW	Frequency	Power Abs	Limit
24.500 GHz	24.745 GHz	1.000 MHz	24.70735 GHz	-35.63 dBm	-22.63 dB
24.745 GHz	24.750 GHz	1.000 MHz	24.74996 GHz	-9.10 dBm	-4.10 dB
24.750 GHz	25.250 GHz	1.000 MHz	24.75266 GHz	21.47 dBm	-8.53 dB
25.250 GHz	25.255 GHz	1.000 MHz	25.25205 GHz	-43.37 dBm	-38.37 dB
25.255 GHz	25.500 GHz	1.000 MHz	25.30942 GHz	-40.40 dBm	-27.40 dB

05:10:07 26.08.2021



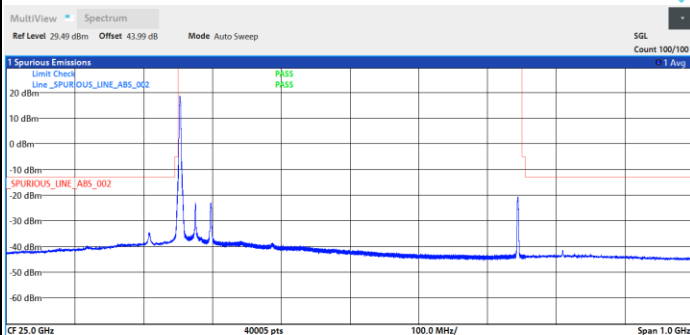
Range Low	Range Up	RBW	Frequency	Power Abs	Limit
24.500 GHz	24.745 GHz	1.000 MHz	24.68041 GHz	-59.91 dBm	-26.91 dB
24.745 GHz	24.750 GHz	1.000 MHz	24.74567 GHz	-41.89 dBm	-36.89 dB
24.750 GHz	25.250 GHz	1.000 MHz	25.24734 GHz	20.92 dBm	-9.08 dB
25.250 GHz	25.255 GHz	1.000 MHz	25.25004 GHz	-9.37 dBm	-4.37 dB
25.255 GHz	25.500 GHz	1.000 MHz	25.29155 GHz	-34.74 dBm	-21.74 dB

05:13:07 26.08.2021

NR Band n258B / 50MHz / 16QAM

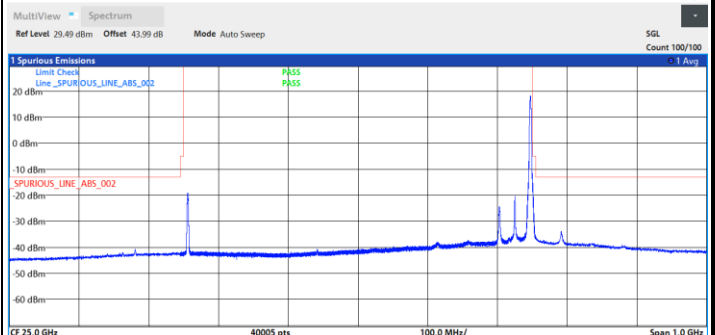
Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



Range Low	Range Up	RBW	Frequency	Power Abs	Limit
24.500 GHz	24.745 GHz	1.000 MHz	24.70723 GHz	-34.47 dBm	-21.47 dB
24.745 GHz	24.750 GHz	1.000 MHz	24.74998 GHz	-10.36 dBm	-5.36 dB
24.750 GHz	25.250 GHz	1.000 MHz	24.75251 GHz	18.71 dBm	-11.29 dB
25.250 GHz	25.255 GHz	1.000 MHz	25.25034 GHz	-43.16 dBm	-38.16 dB
25.255 GHz	25.500 GHz	1.000 MHz	25.30955 GHz	-41.60 dBm	-28.60 dB

05:08:24 26.08.2021

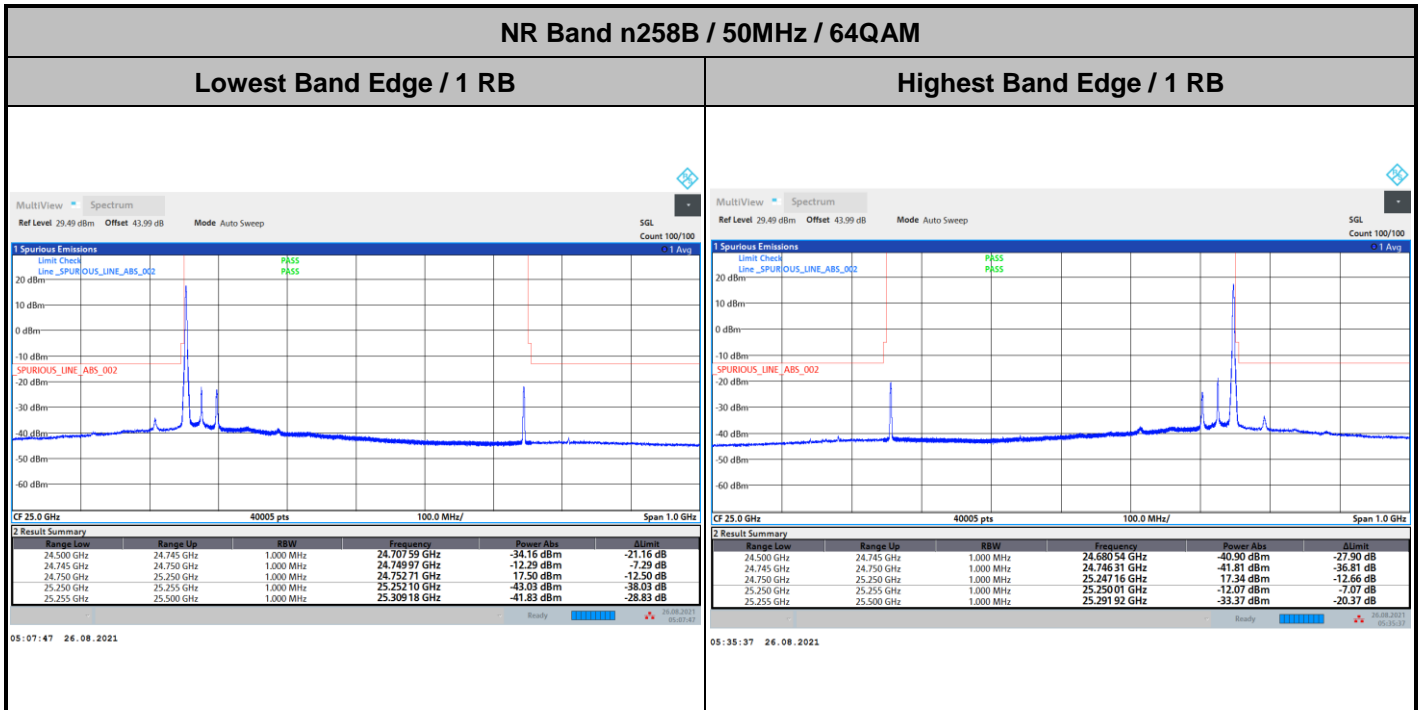


Range Low	Range Up	RBW	Frequency	Power Abs	Limit
24.500 GHz	24.745 GHz	1.000 MHz	24.68066 GHz	-40.79 dBm	-27.79 dB
24.745 GHz	24.750 GHz	1.000 MHz	24.74679 GHz	-41.65 dBm	-36.65 dB
24.750 GHz	25.250 GHz	1.000 MHz	25.24718 GHz	18.29 dBm	-11.71 dB
25.250 GHz	25.255 GHz	1.000 MHz	25.25010 GHz	-11.42 dBm	-6.42 dB
25.255 GHz	25.500 GHz	1.000 MHz	25.29167 GHz	-33.84 dBm	-20.84 dB

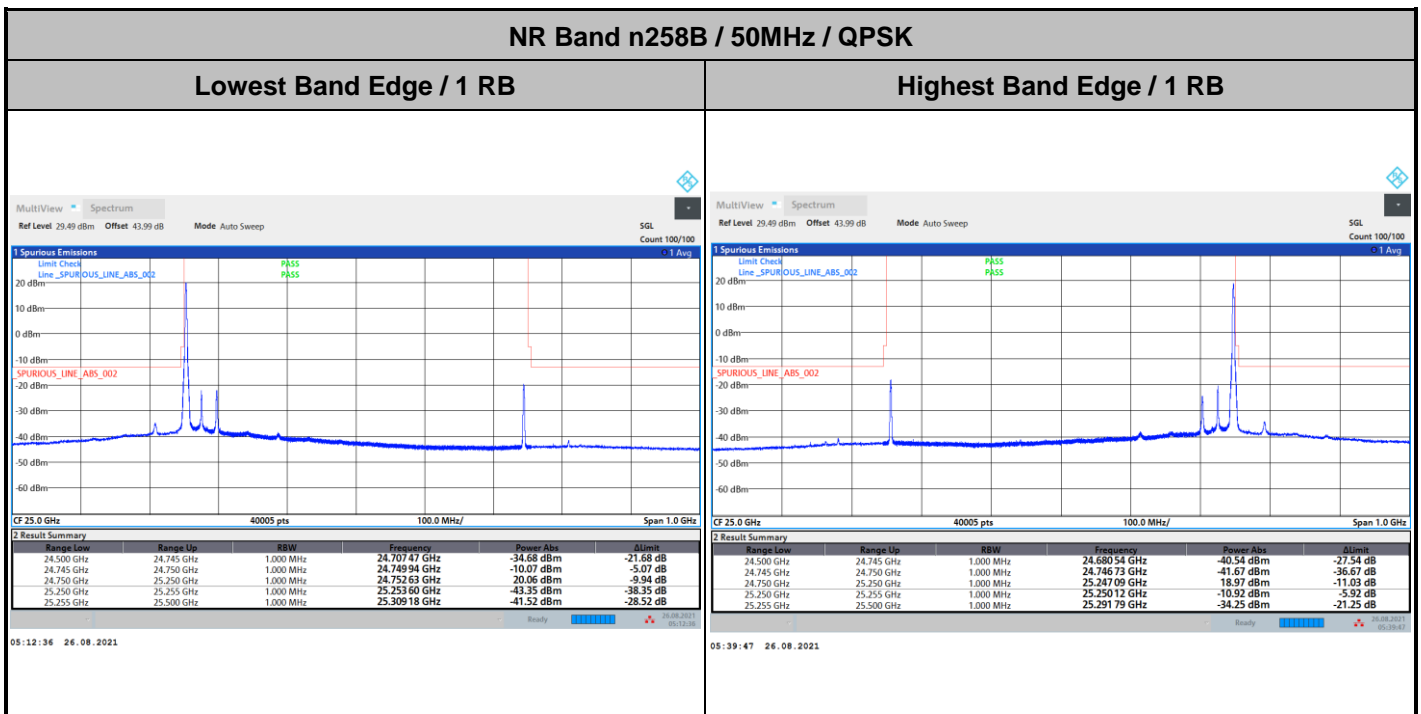
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DFT-s-OFDM Module B



CP-OFDM Module B

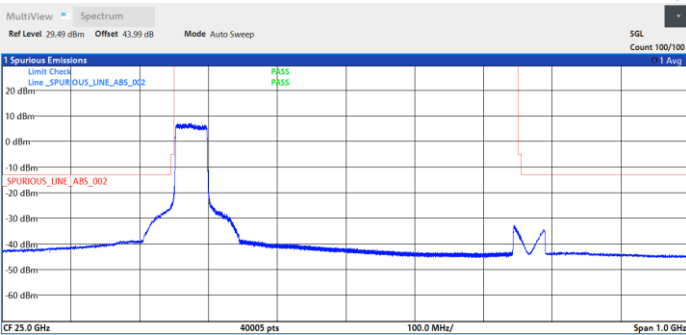




DFT-s-OFDM Module B

NR Band n258B / 50MHz / QPSK

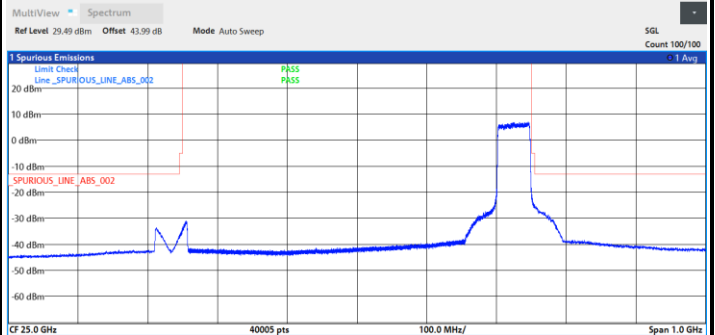
Lowest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	Limit
24.500 GHz	24.745 GHz	1.000 MHz	24.744 69 GHz	-25.40 dBm	-12.40 dB
24.745 GHz	24.750 GHz	1.000 MHz	24.749 98 GHz	-18.98 dBm	-13.98 dB
24.750 GHz	25.250 GHz	1.000 MHz	24.775 29 GHz	7.25 dBm	-22.75 dB
25.250 GHz	25.255 GHz	1.000 MHz	25.250 39 GHz	-34.97 dBm	-29.97 dB
25.255 GHz	25.500 GHz	1.000 MHz	25.286 90 GHz	-34.41 dBm	-21.41 dB

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Highest Band Edge / Full RB

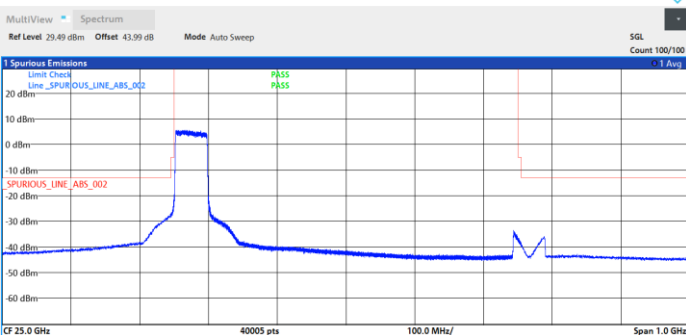


Range Low	Range Up	RBW	Frequency	Power Abs	Limit
24.500 GHz	24.745 GHz	1.000 MHz	24.712 37 GHz	-33.59 dBm	-20.59 dB
24.745 GHz	24.750 GHz	1.000 MHz	24.749 84 GHz	-33.51 dBm	-28.51 dB
24.750 GHz	25.250 GHz	1.000 MHz	25.245 34 GHz	7.06 dBm	-22.94 dB
25.250 GHz	25.255 GHz	1.000 MHz	25.250 09 GHz	-19.26 dBm	-14.26 dB
25.255 GHz	25.500 GHz	1.000 MHz	25.253 18 GHz	-25.11 dBm	-12.11 dB

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NR Band n258B / 50MHz / 16QAM

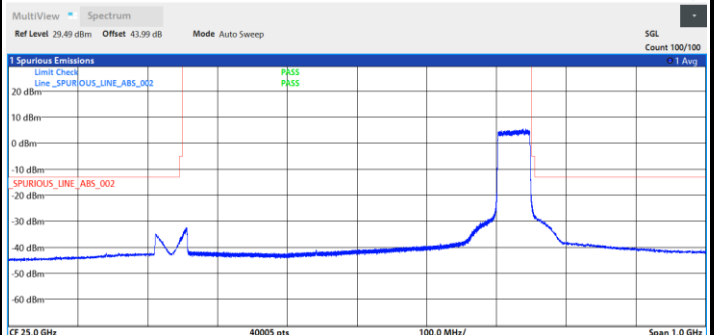
Lowest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	Limit
24.500 GHz	24.745 GHz	1.000 MHz	24.744 20 GHz	-27.07 dBm	-14.07 dB
24.745 GHz	24.750 GHz	1.000 MHz	24.749 90 GHz	-19.61 dBm	-14.61 dB
24.750 GHz	25.250 GHz	1.000 MHz	24.771 66 GHz	5.68 dBm	-24.32 dB
25.250 GHz	25.255 GHz	1.000 MHz	25.250 19 GHz	-36.43 dBm	-31.43 dB
25.255 GHz	25.500 GHz	1.000 MHz	25.288 61 GHz	-35.90 dBm	-22.90 dB

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Highest Band Edge / Full RB

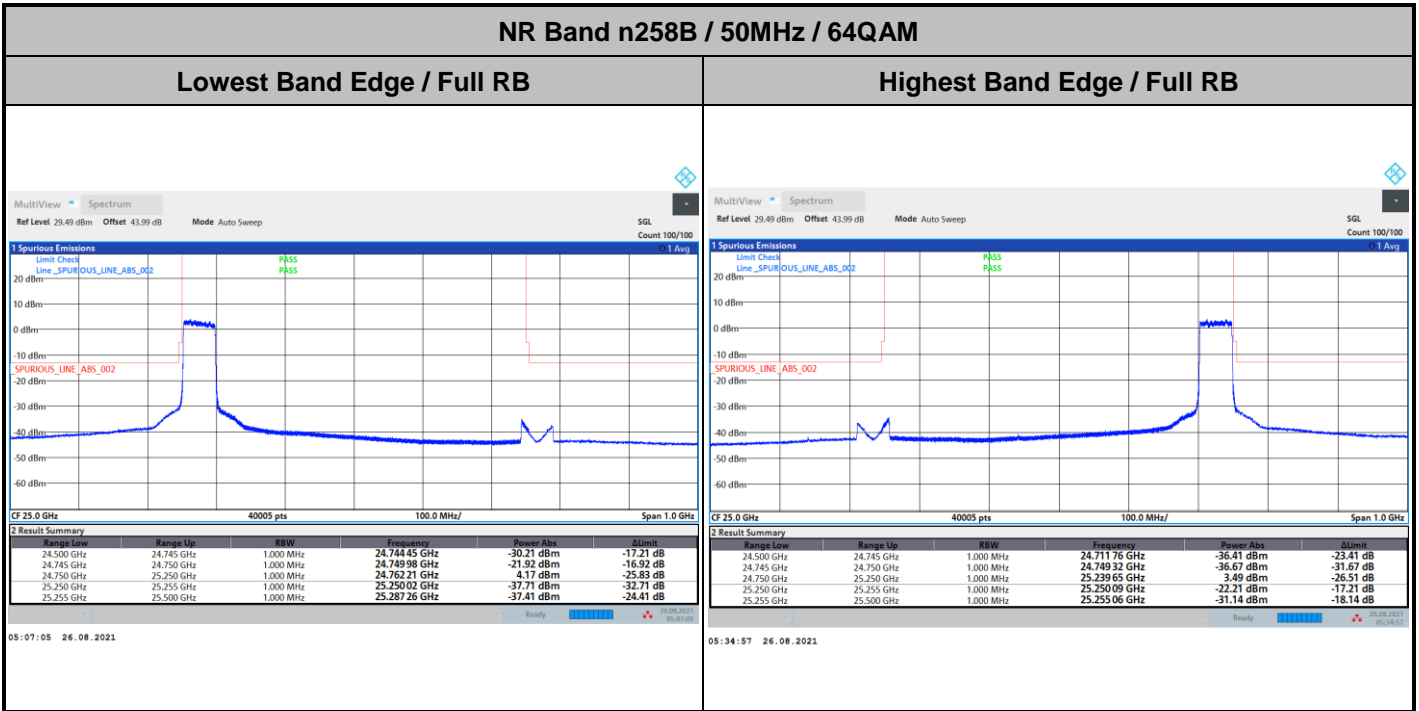


Range Low	Range Up	RBW	Frequency	Power Abs	Limit
24.500 GHz	24.745 GHz	1.000 MHz	24.711 15 GHz	-34.68 dBm	-21.68 dB
24.745 GHz	24.750 GHz	1.000 MHz	24.749 99 GHz	-35.24 dBm	-30.24 dB
24.750 GHz	25.250 GHz	1.000 MHz	25.238 46 GHz	5.58 dBm	-24.42 dB
25.250 GHz	25.255 GHz	1.000 MHz	25.250 04 GHz	-20.86 dBm	-15.86 dB
25.255 GHz	25.500 GHz	1.000 MHz	25.253 31 GHz	-27.74 dBm	-14.74 dB

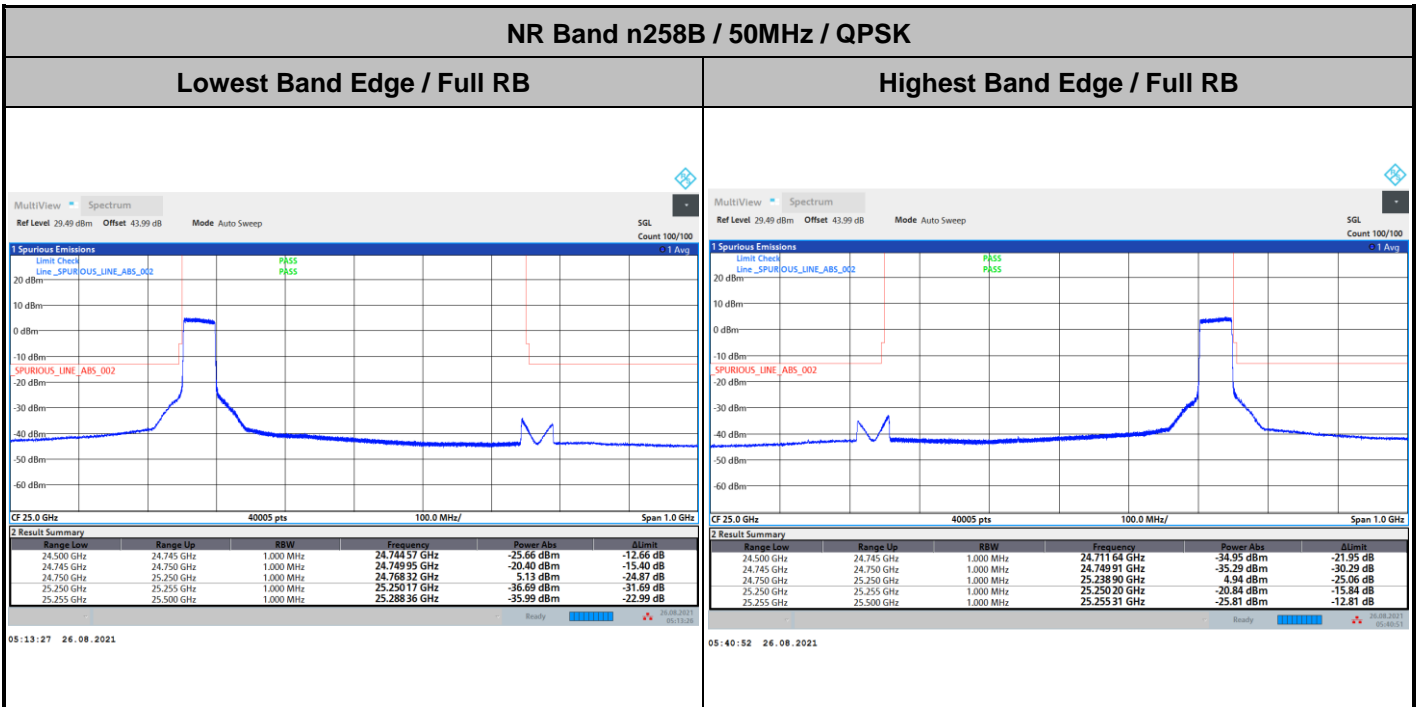
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DFT-s-OFDM Module B



CP-OFDM Module B



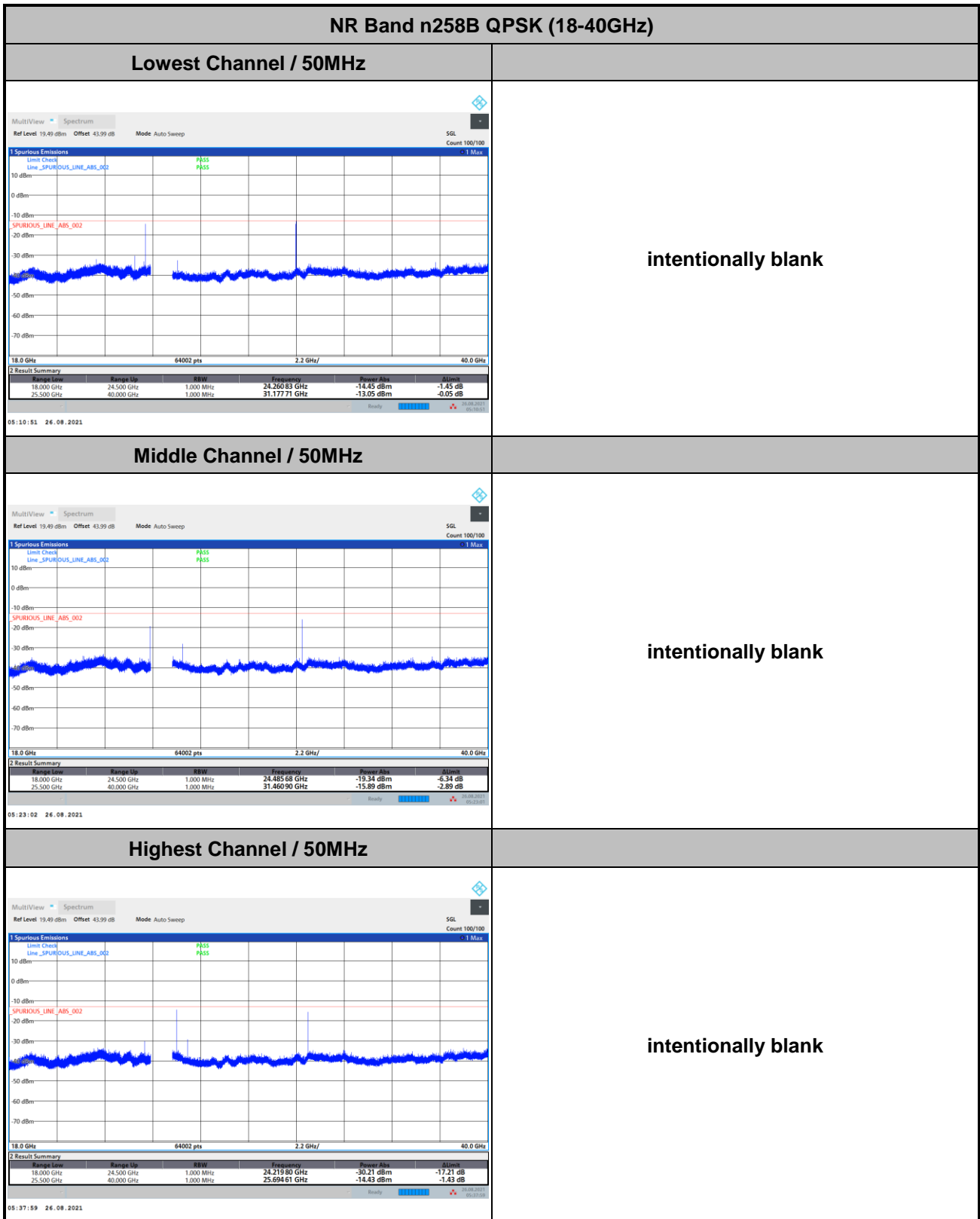


Spurious Emission



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

DFT-s-OFDM Module B



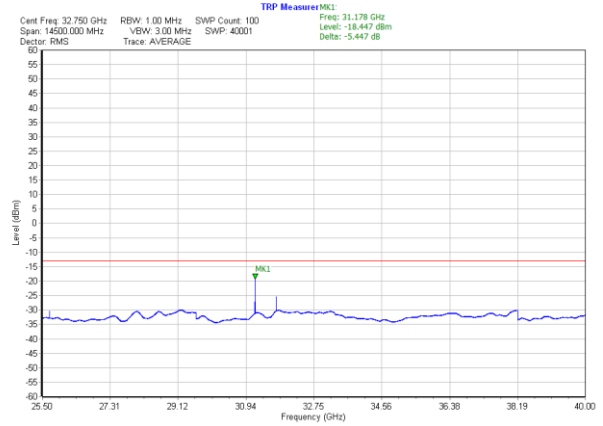
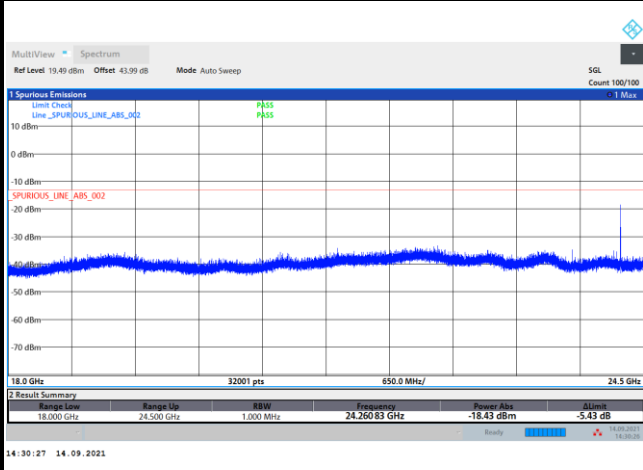
Remark: In band and out of band frequencies that has reported in previous results are omitted.



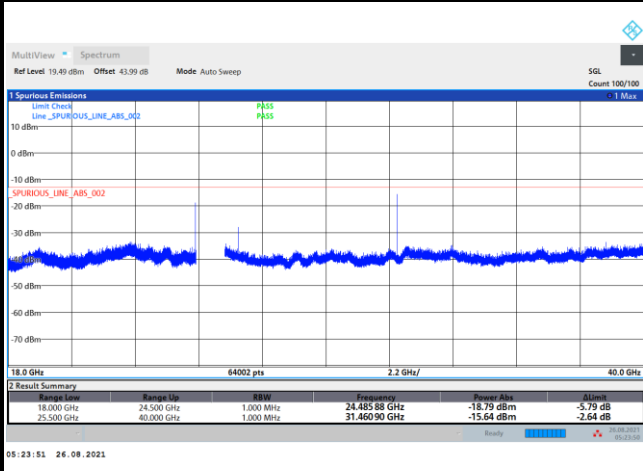
CP-OFDM Module B

NR Band n258B QPSK (18-40GHz)

Lowest Channel / 50MHz

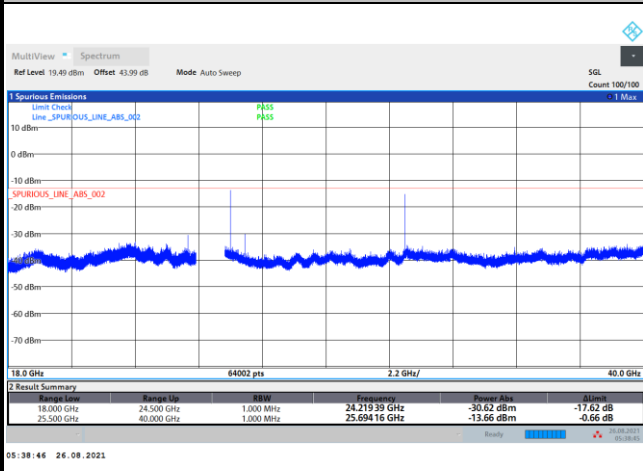


Middle Channel / 50MHz



intentionally blank

Highest Channel / 50MHz



intentionally blank

Remark: In band and out of band frequencies that has reported in previous results are omitted.



NR Band n258B Module B Beam H+V

Occupied Bandwidth

Mode	DFT-s-OFDM Module B NR Band n258B : 99%OBW(MHz)		
BW	50MHz		
Mod.	QPSK	16QAM	64QAM
Lowest CH	45.97	46.24	46.05
Middle CH	45.96	46.39	45.99
Highest CH	46.00	46.40	46.13

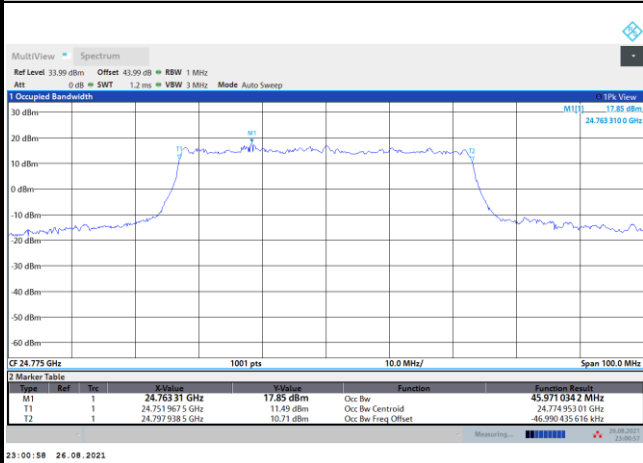
Mode	CP-OFDM Module B NR Band n258B : 99%OBW(MHz)	
BW	50MHz	
Mod.	QPSK	
Lowest CH	46.29	
Middle CH	46.13	
Highest CH	46.98	



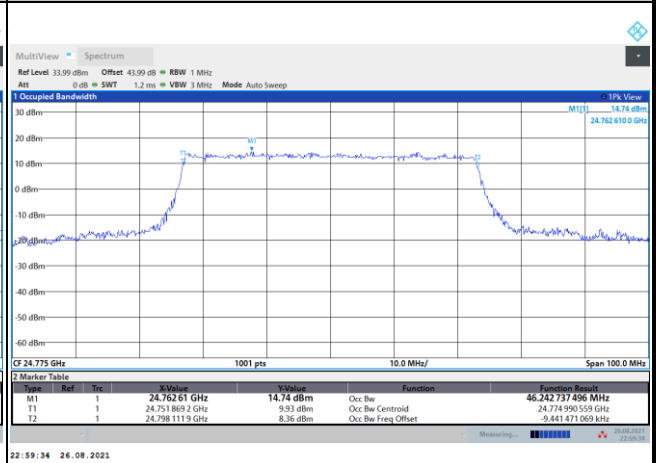
DFT-s-OFDM Module B

NR Band n258B

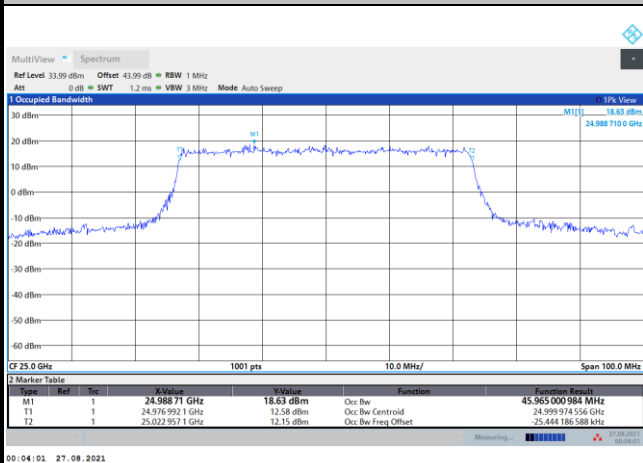
Lowest Channel / 50MHz / QPSK



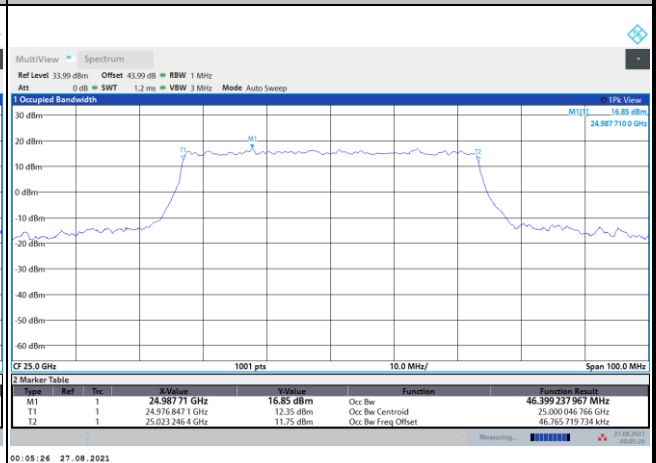
Lowest Channel / 50MHz / 16QAM



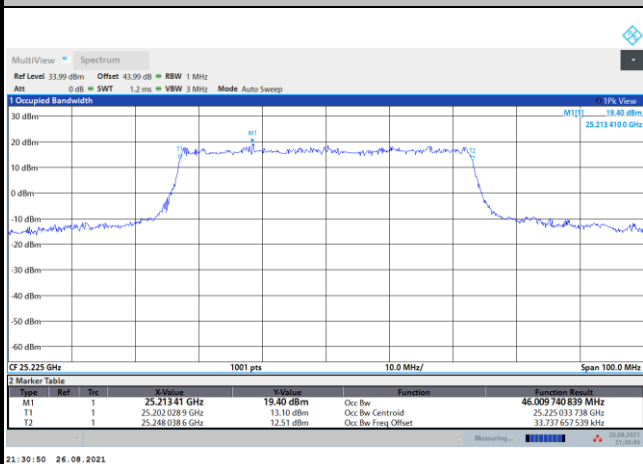
Middle Channel / 50MHz / QPSK



Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM

