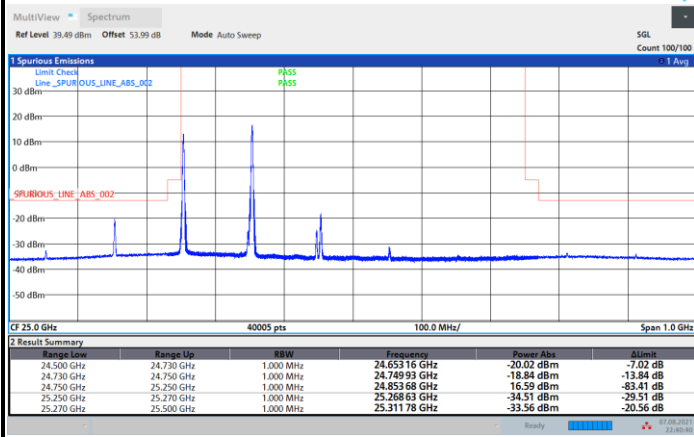




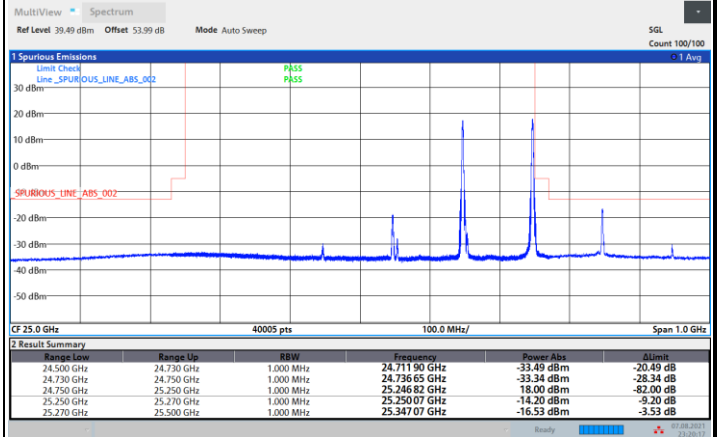
DFT-s-OFDM Module A

NR Band n258B / 200MHz / 16QAM

Lowest Band Edge / 1 RB

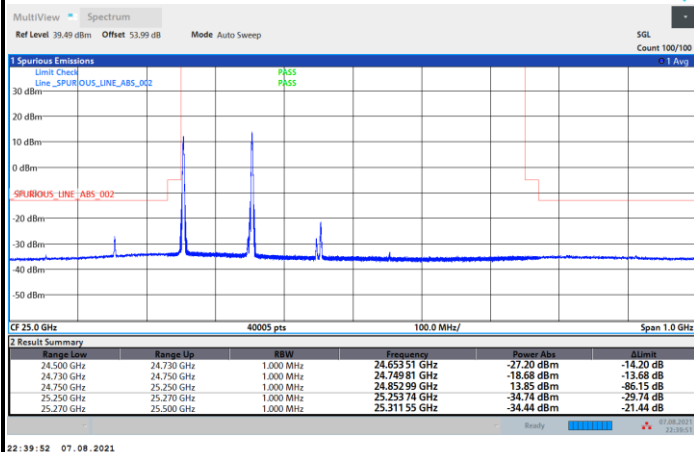


Highest Band Edge / 1 RB

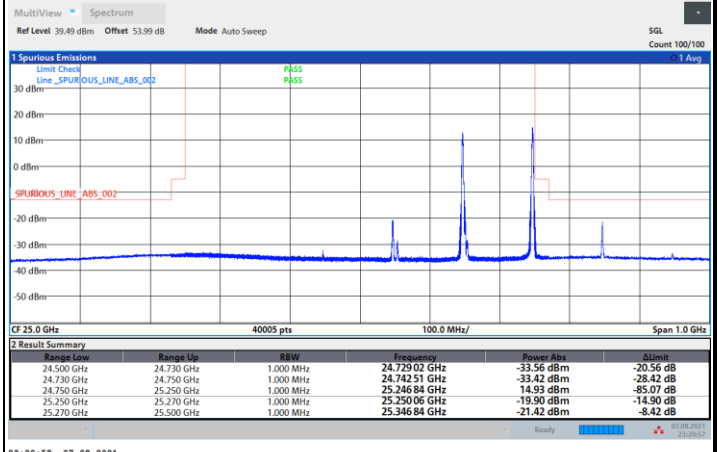


NR Band n258B / 200MHz / 64QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

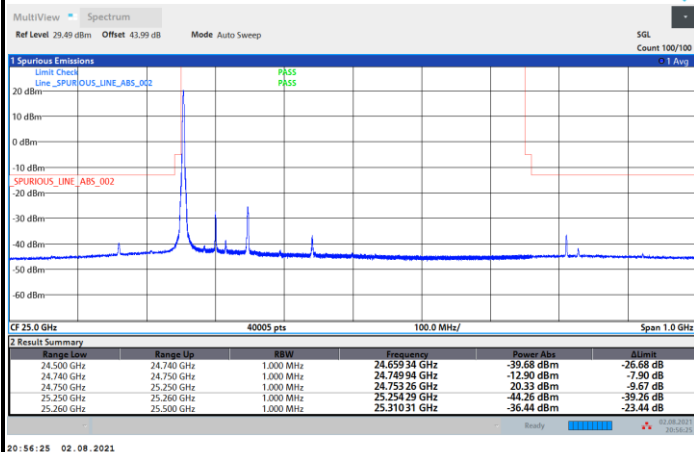




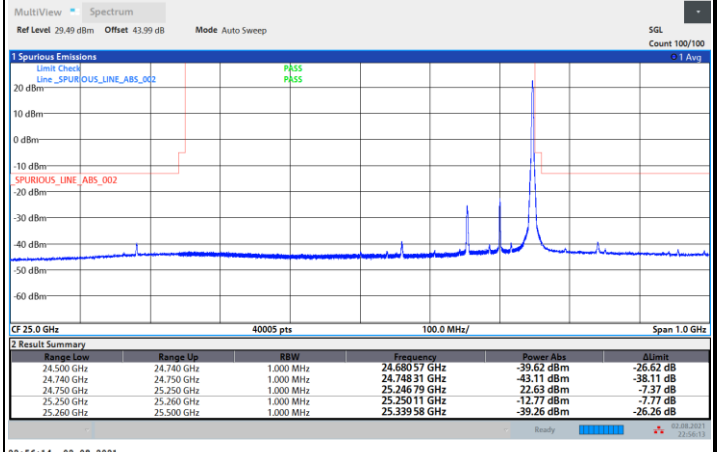
CP-OFDM Module A

NR Band n258B / 100MHz / QPSK

Lowest Band Edge / 1 RB

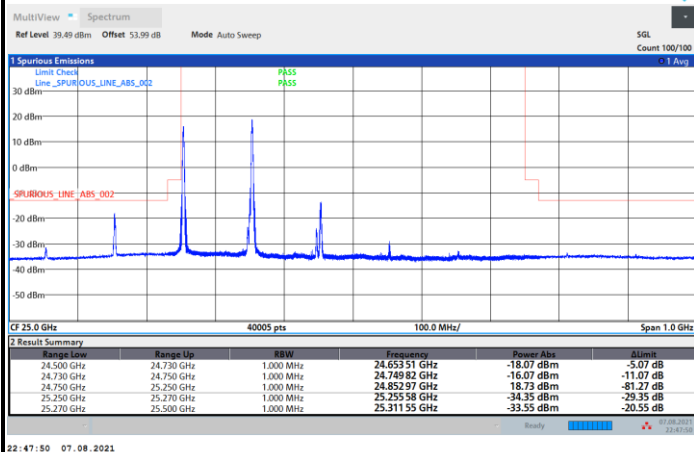


Highest Band Edge / 1 RB

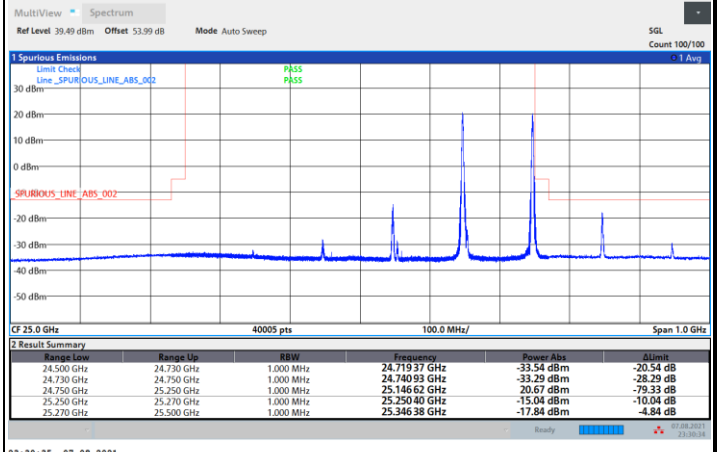


NR Band n258B / 200MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

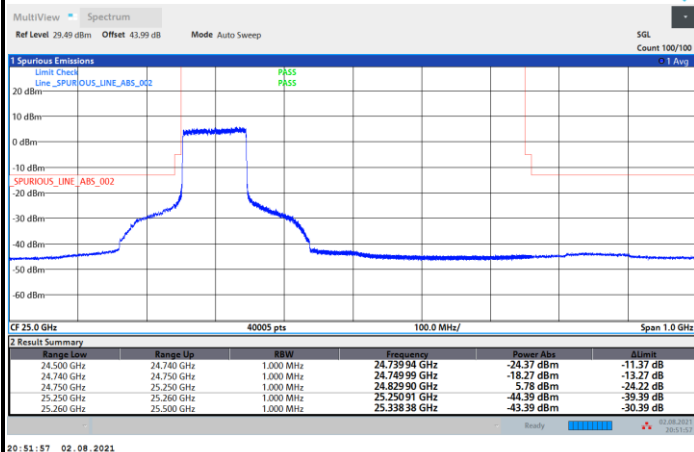




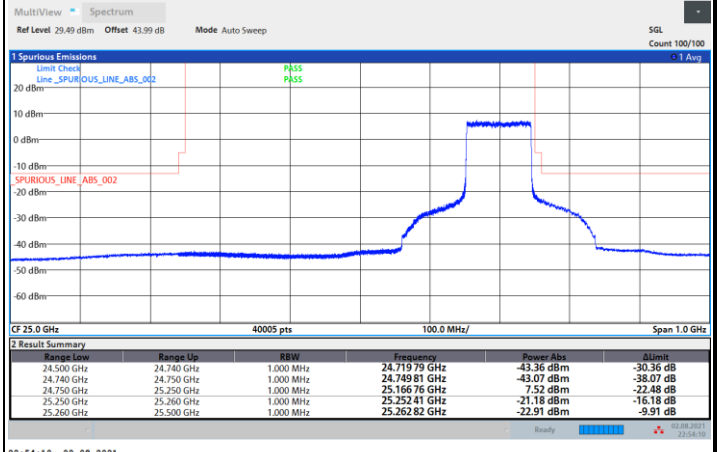
DFT-s-OFDM Module A

NR Band n258B / 100MHz / QPSK

Lowest Band Edge / Full RB

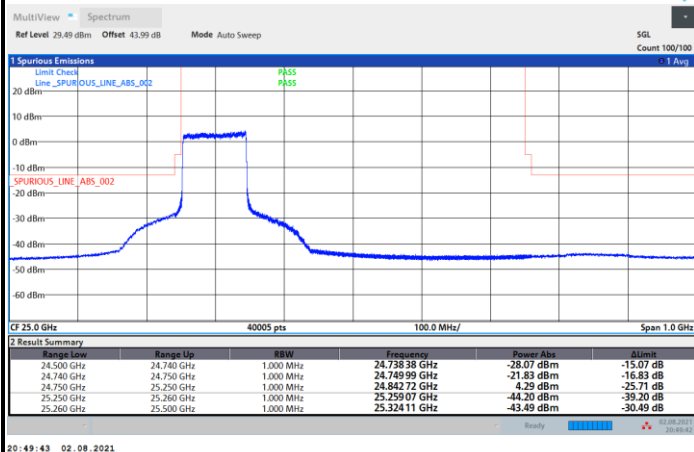


Highest Band Edge / Full RB

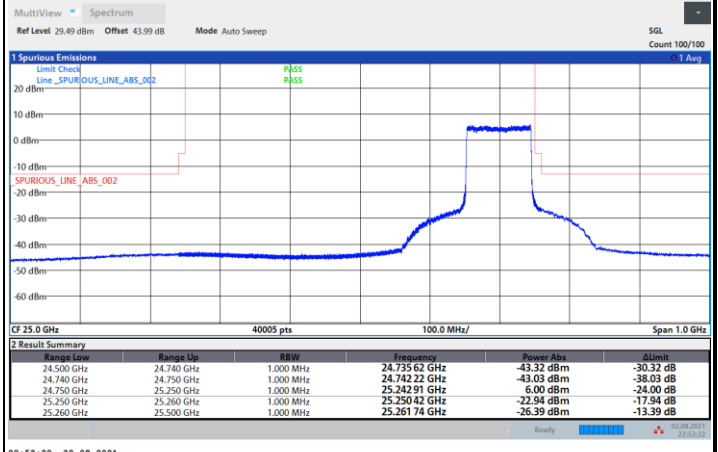


NR Band n258B / 100MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

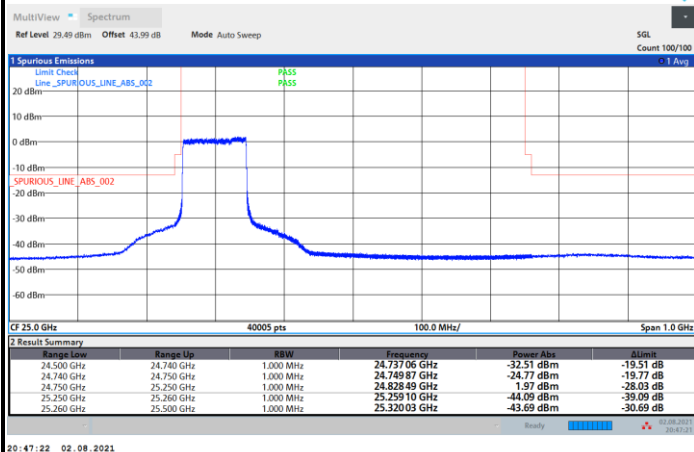




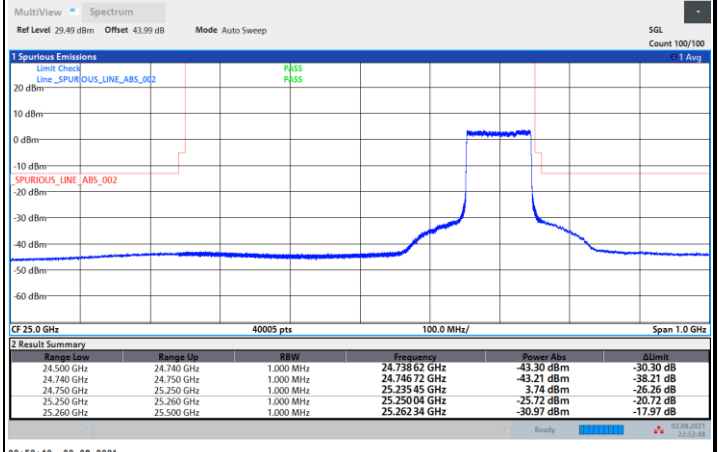
DFT-s-OFDM Module A

NR Band n258B / 100MHz / 64QAM

Lowest Band Edge / Full RB

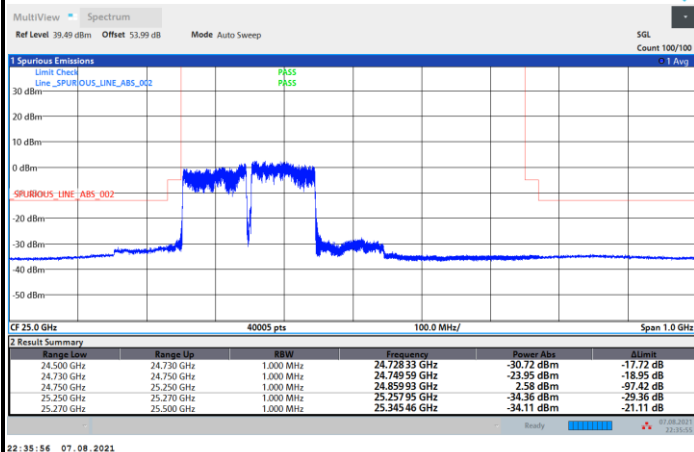


Highest Band Edge / Full RB

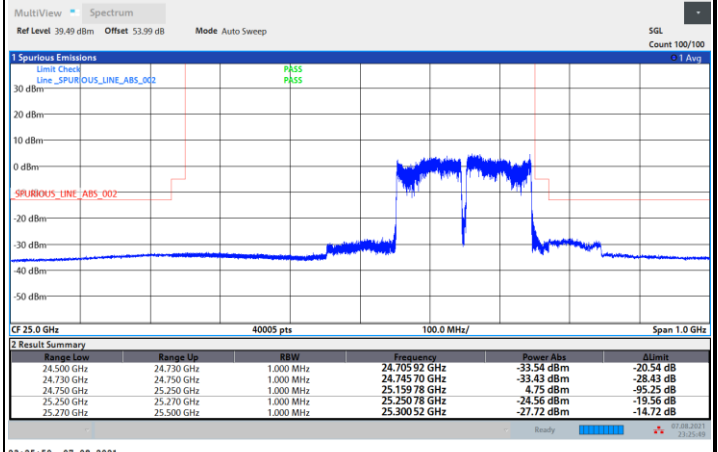


NR Band n258B / 200MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

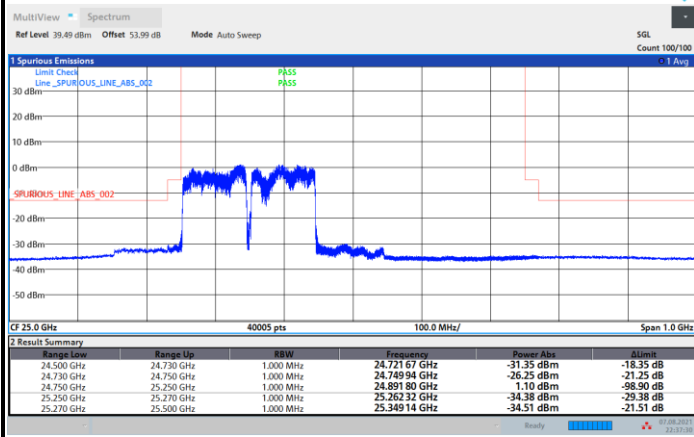




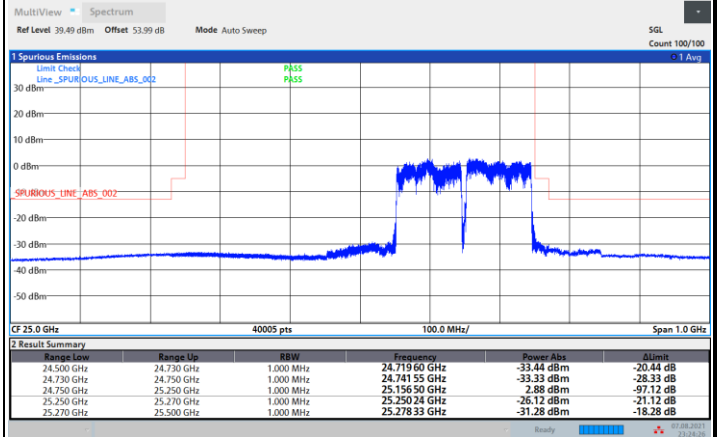
DFT-s-OFDM Module A

NR Band n258B / 200MHz / 16QAM

Lowest Band Edge / Full RB

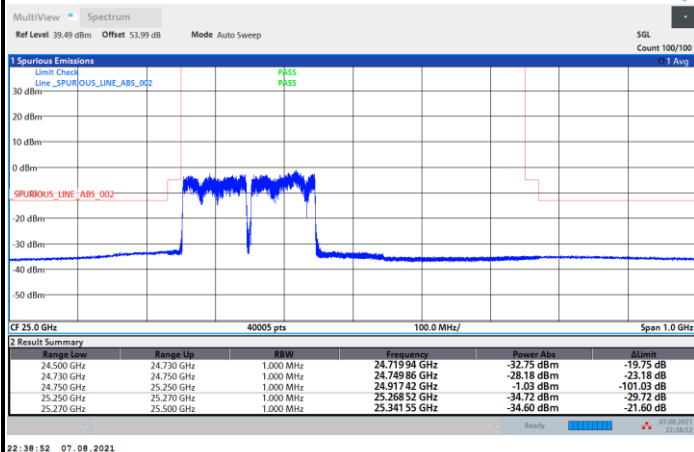


Highest Band Edge / Full RB

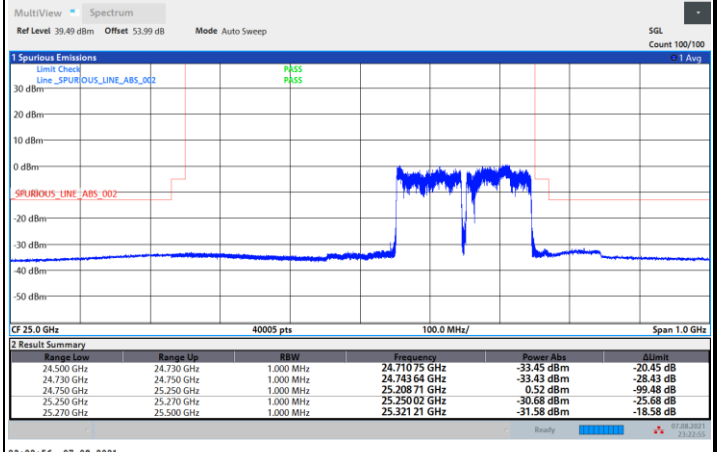


NR Band n258B / 200MHz / 64QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

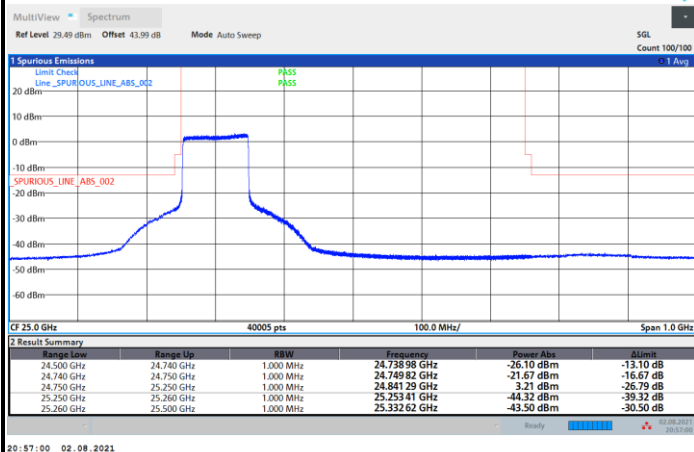




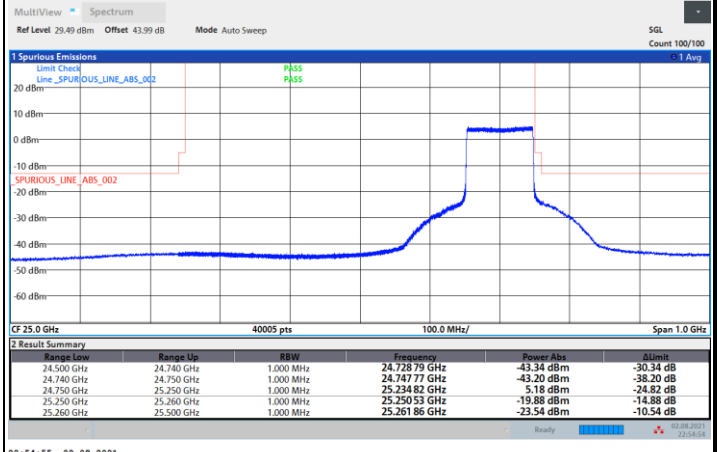
CP-OFDM Module A

NR Band n258B / 100MHz / QPSK

Lowest Band Edge / Full RB

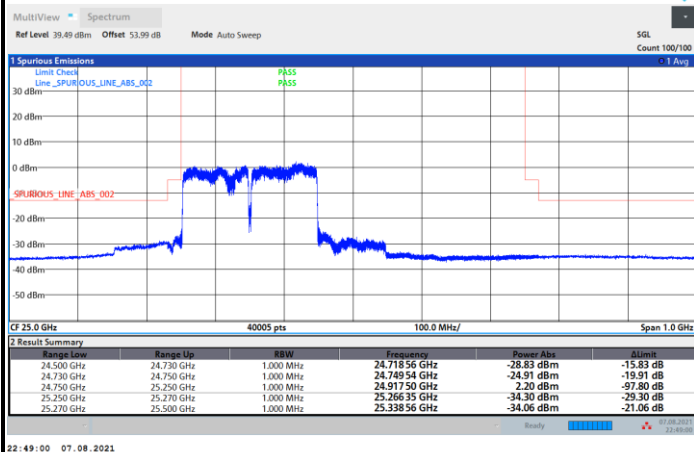


Highest Band Edge / Full RB

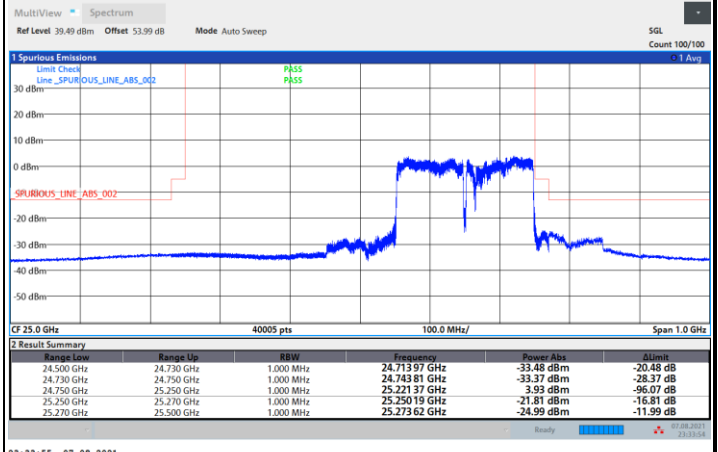


NR Band n258B / 200MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB





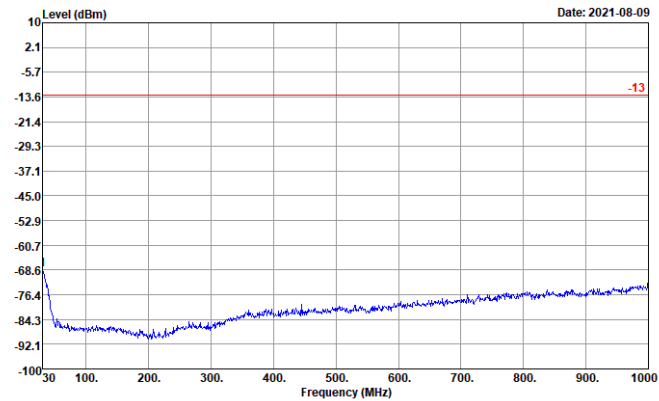
Spurious Emission

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

Only the noise floor is reported.

NR Band n258B (30MHz-1GHz)

Horizontal

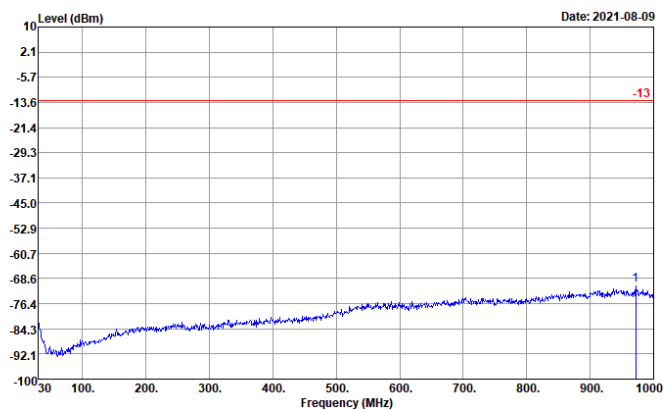


Site : 03CH19-HY
Condition : -13 ERP EIRP_20210305 HORIZONTAL

: n258b MA

	Over	Limit	Read	LISN	Cable	Preamp	A/Pos	T/Pos	Remark
Freq	Level	Limit	Line	Level	Factor	Loss	Factor		
MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg
1	30.22	-68.51	-55.51	-13.00	-80.03	47.25	0.00	35.73	--- Peak

Vertical



Site : 03CH19-HY
Condition : -13 ERP EIRP_20210305 VERTICAL

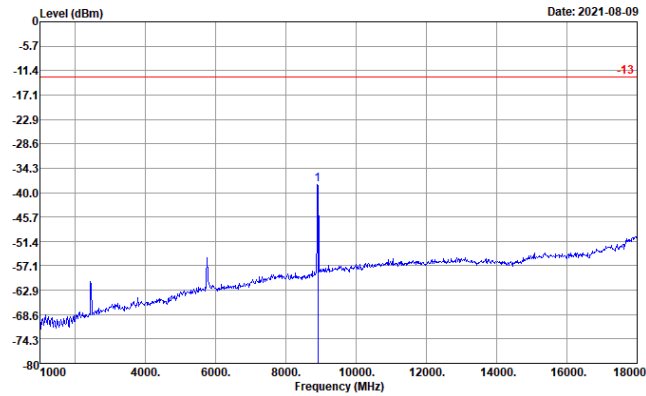
: n258b MA

	Over	Limit	Read	LISN	Cable	Preamp	A/Pos	T/Pos	Remark
Freq	Level	Limit	Line	Level	Factor	Loss	Factor		
MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg
1	971.58	-70.50	-57.50	-13.00	-80.03	42.61	0.00	33.08	--- Peak



NR Band n258B (1GHz-18GHz)

Horizontal

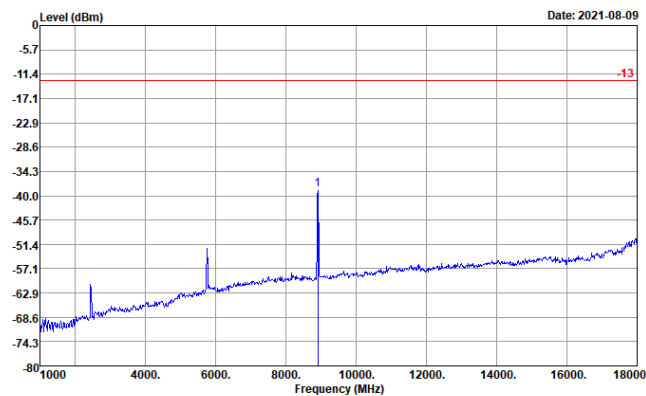


Site : 03CH19-HY
Condition : -13 ERP EIRP_20210305 HORIZONTAL

: n258b MA

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1	8906.00	-38.21	-25.21	-13.00	-63.85	66.46	0.00	40.82	---	---	Peak

Vertical



Site : 03CH19-HY
Condition : -13 ERP EIRP_20210305 VERTICAL

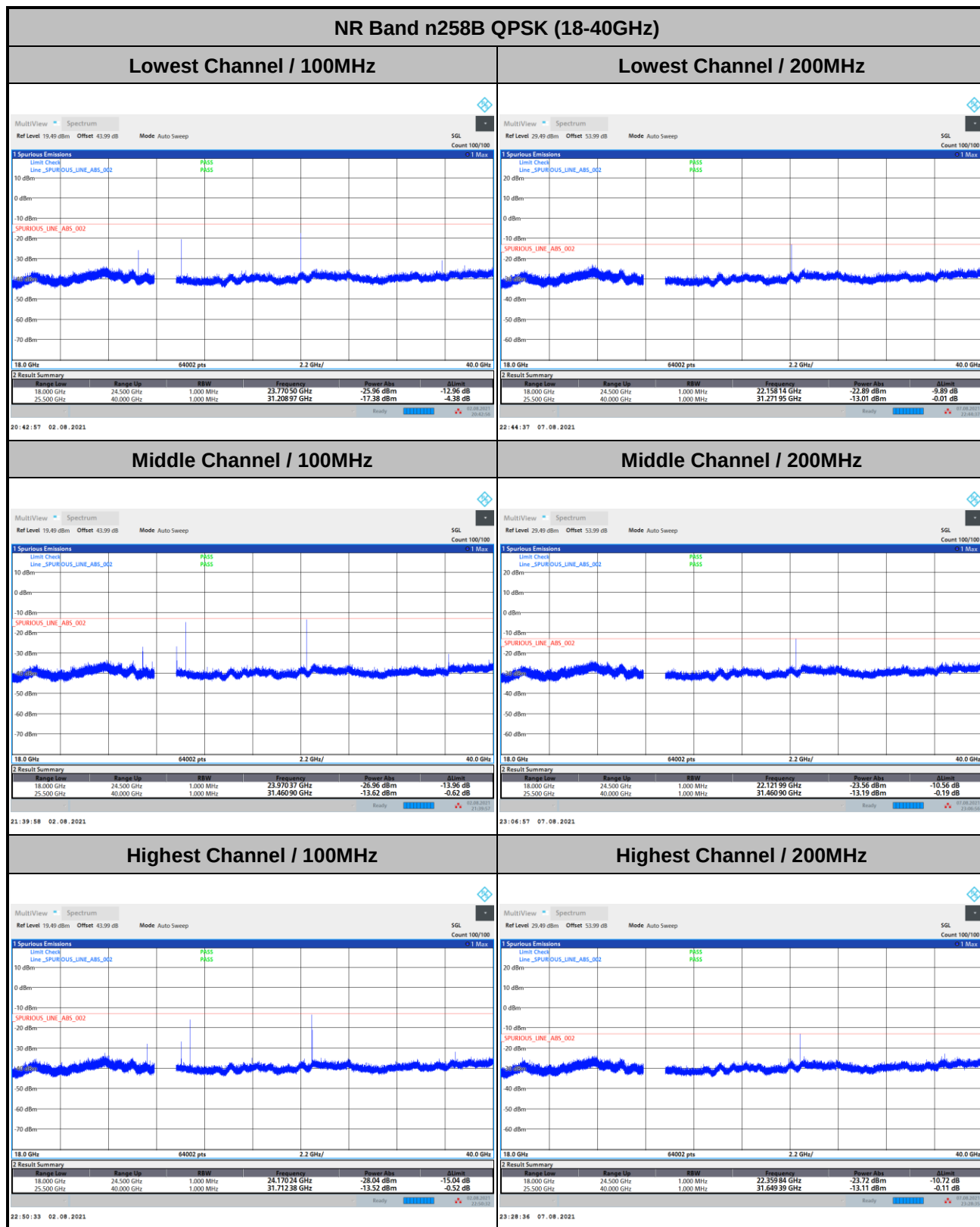
: n258b MA

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1	8906.00	-38.54	-25.54	-13.00	-63.64	65.92	0.00	40.82	---	---	Peak



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

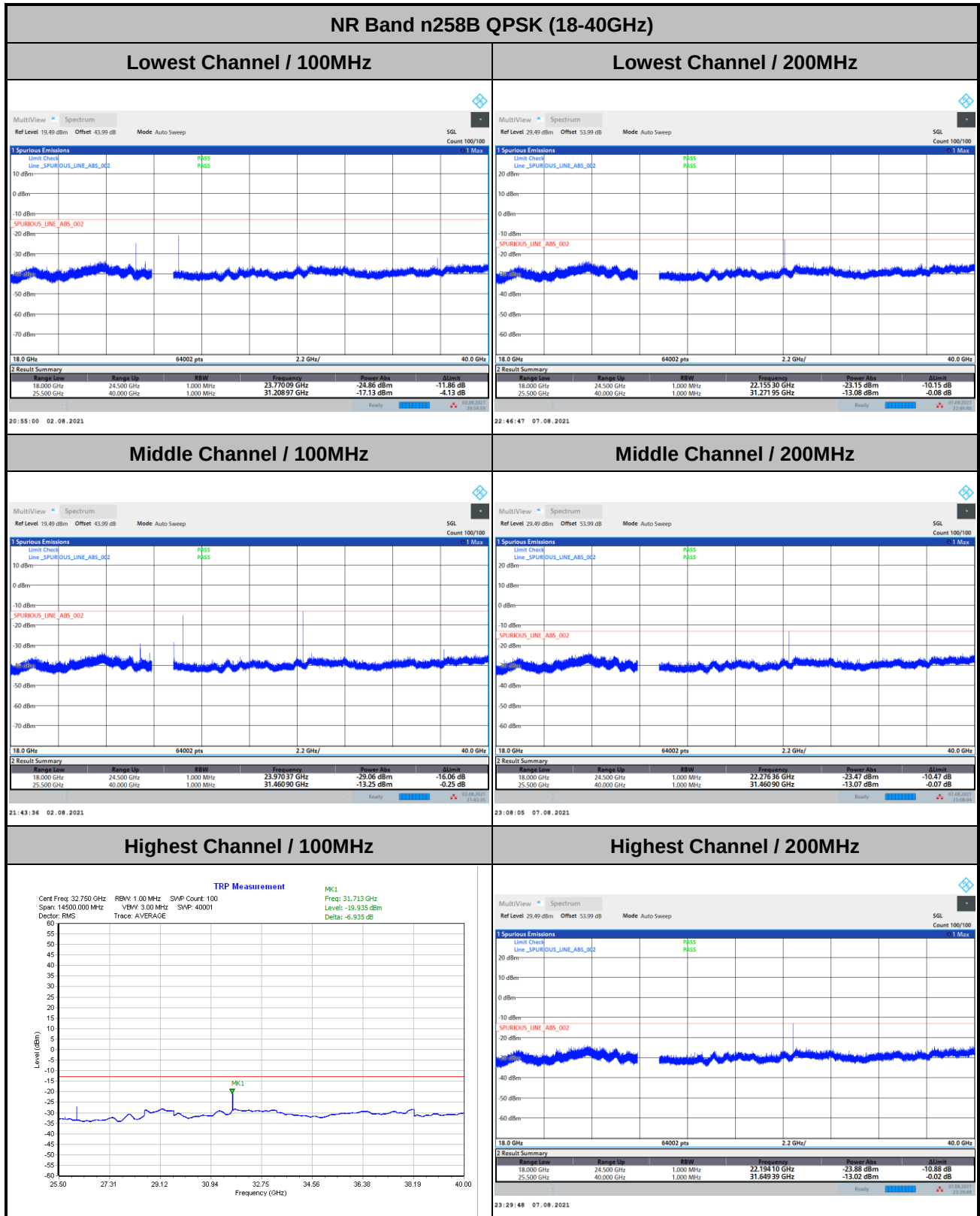
DFT-s-OFDM Module A



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



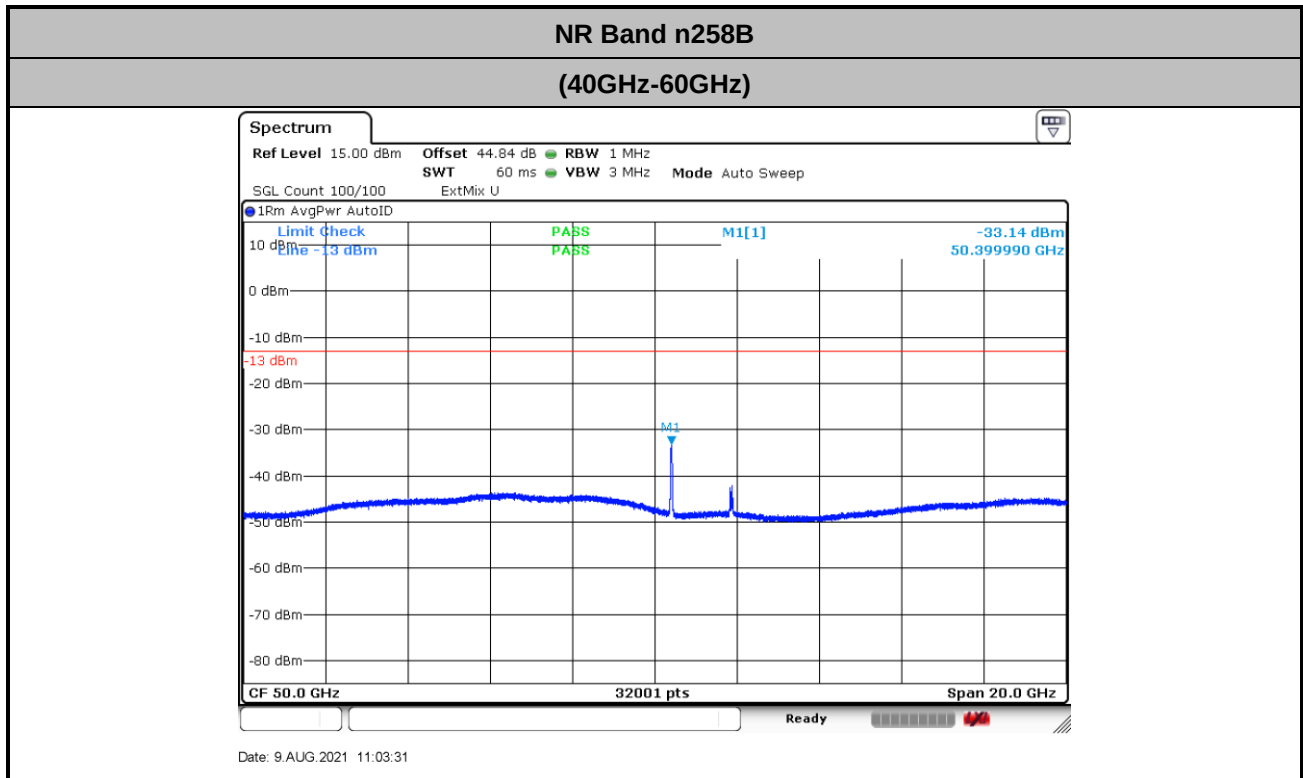
CP-OFDM Module A

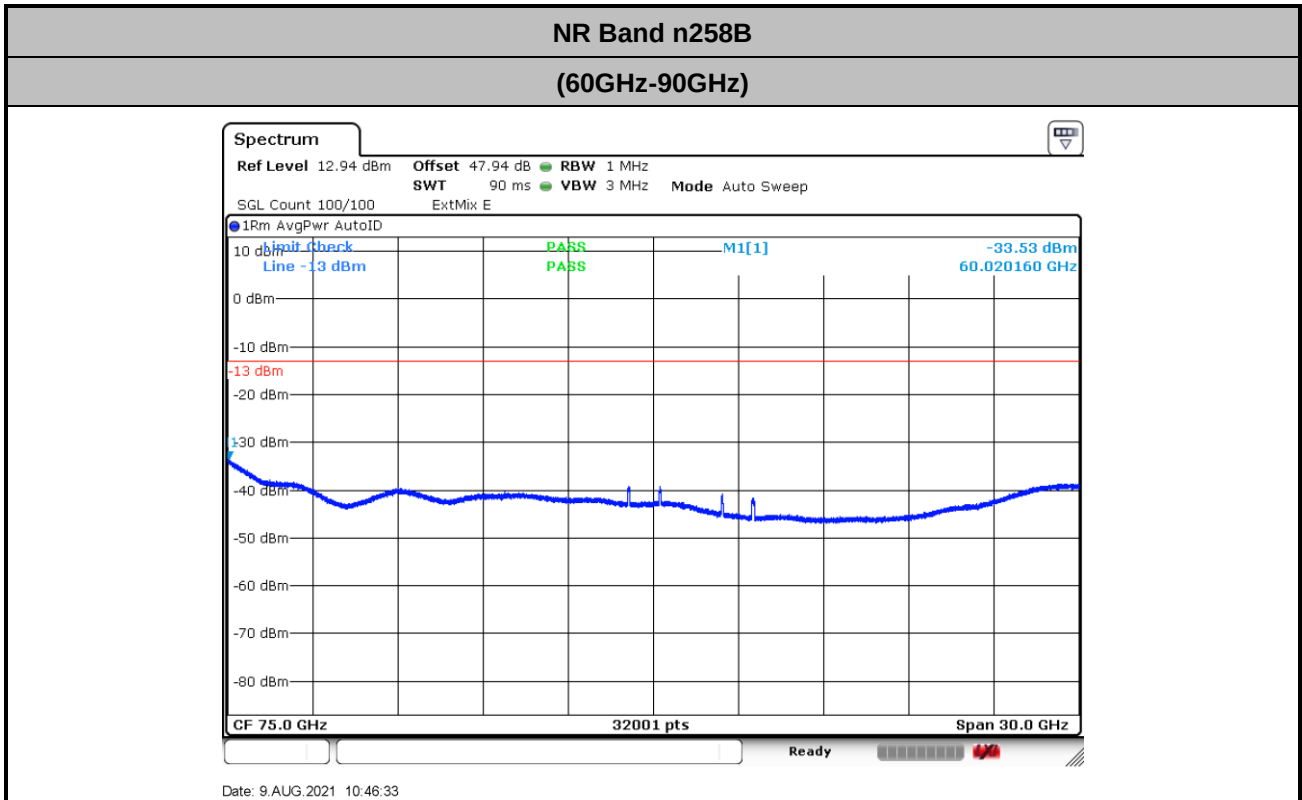


Remark: In band and out of band frequencies that has reported in previous results are omitted.

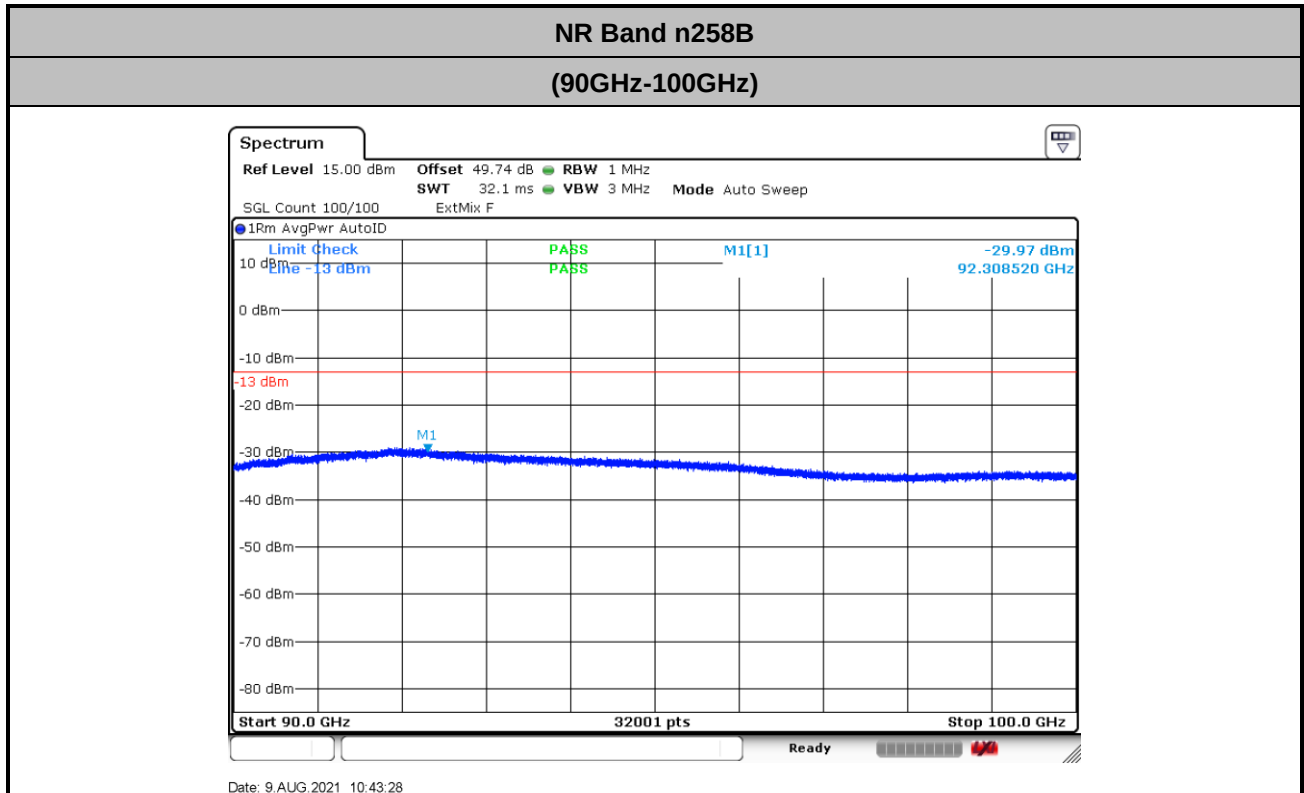


There is no significant spurious emission signal found for frequency started from 40GHz up to 100GHz.
Only the noise floor is reported.





$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 45.4 + 0.34 + 107 + 20\log(1) - 104.8 = 47.94 \text{ (dB)} \end{aligned}$$



$$\begin{aligned}\text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 47.2 + 0.34 + 107 + 20\log(1) - 104.8 = 49.74 \text{ (dB)}\end{aligned}$$

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	100MHz			200MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	91.77	91.73	91.58	190.45	190.40	190.42
Middle CH	91.72	91.80	91.50	190.31	190.41	190.48
Highest CH	91.66	92.10	91.51	190.41	190.61	190.63

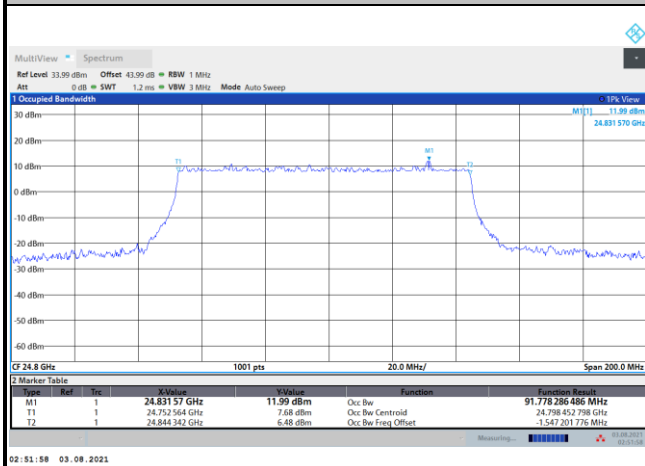
Mode	CP-OFDM Module B NR Band n258B : 99%OBW(MHz)	
BW	100MHz	200MHz
Mod.	QPSK	QPSK
Lowest CH	94.66	193.82
Middle CH	94.67	193.33
Highest CH	94.65	193.55



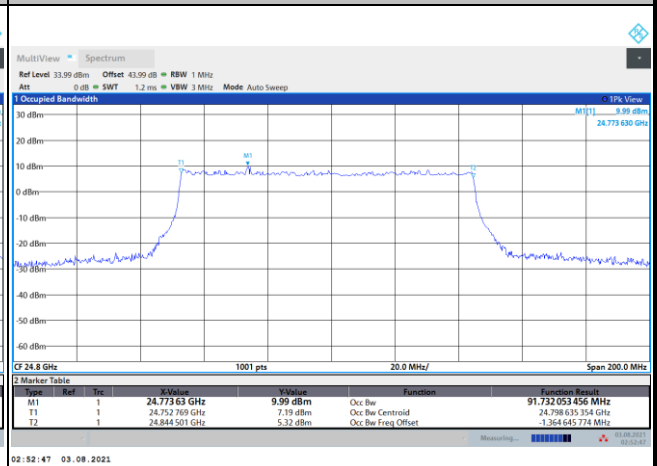
DFT-s-OFDM Module B

NR Band n258B

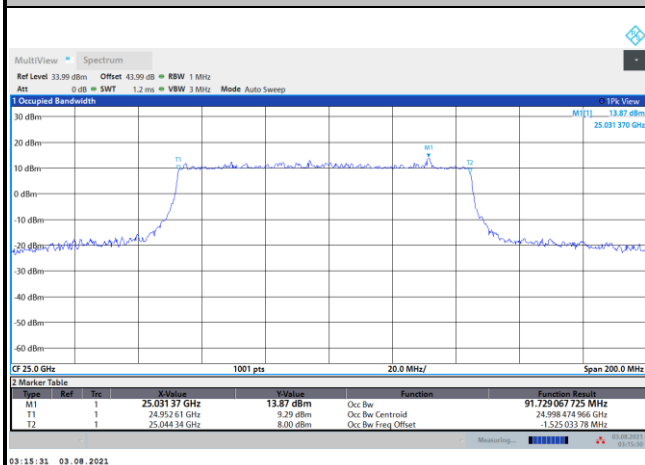
Lowest Channel / 100MHz / QPSK



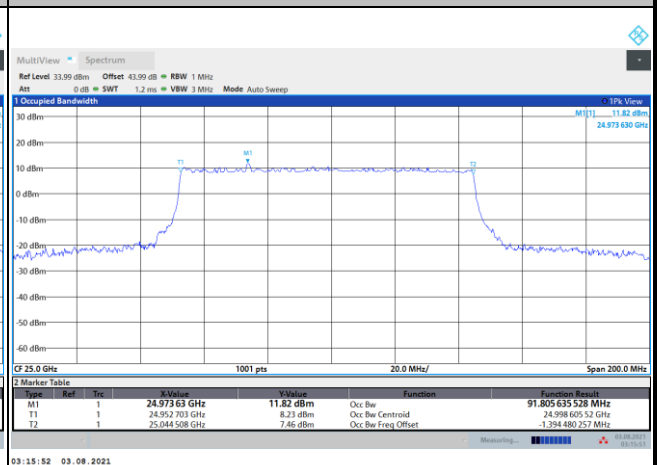
Lowest Channel / 100MHz / 16QAM



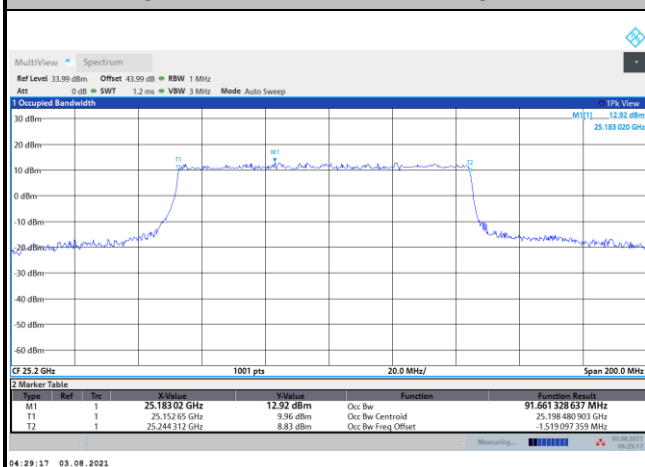
Middle Channel / 100MHz / QPSK



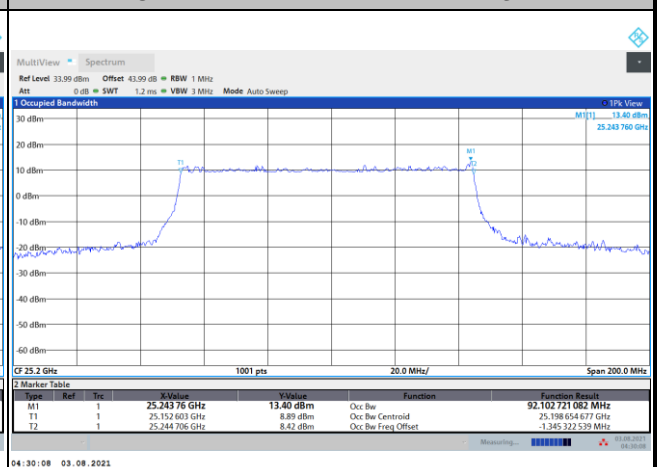
Middle Channel / 100MHz / 16QAM



Highest Channel / 100MHz / QPSK



Highest Channel / 100MHz / 16QAM

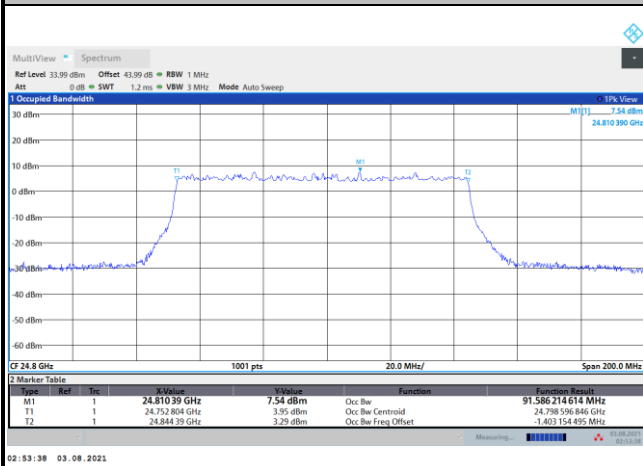




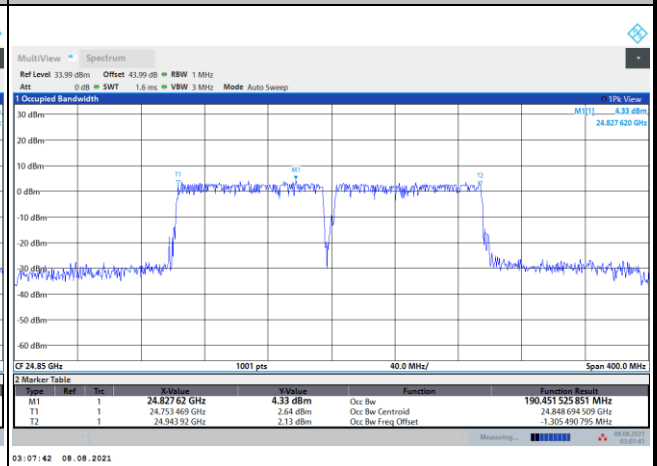
DFT-s-OFDM Module B

NR Band n258B

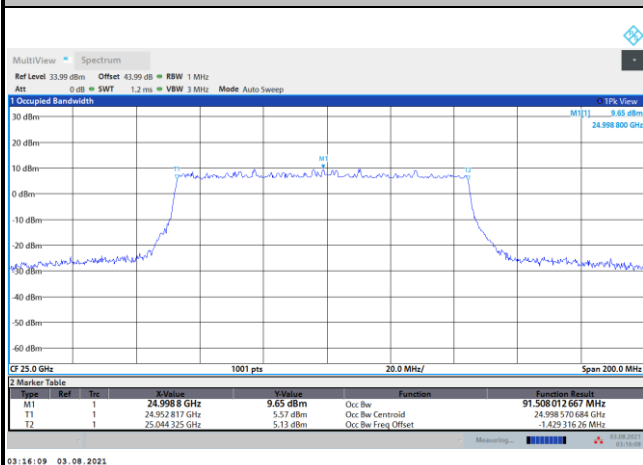
Lowest Channel / 100MHz / 64QAM



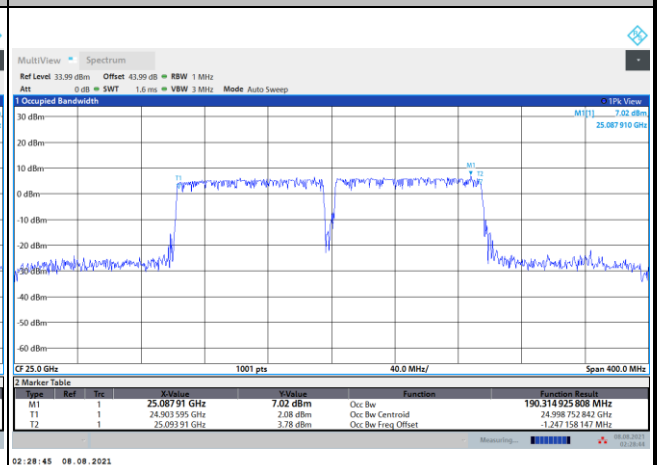
Lowest Channel / 200MHz / QPSK



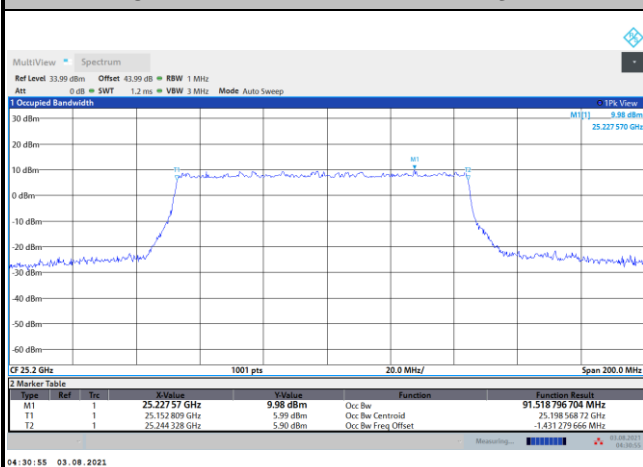
Middle Channel / 100MHz / 64QAM



Middle Channel / 200MHz / QPSK



Highest Channel / 100MHz / 64QAM



Highest Channel / 200MHz / QPSK

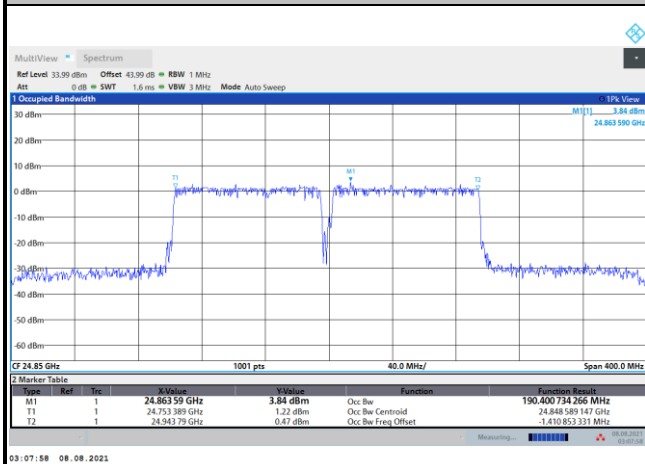




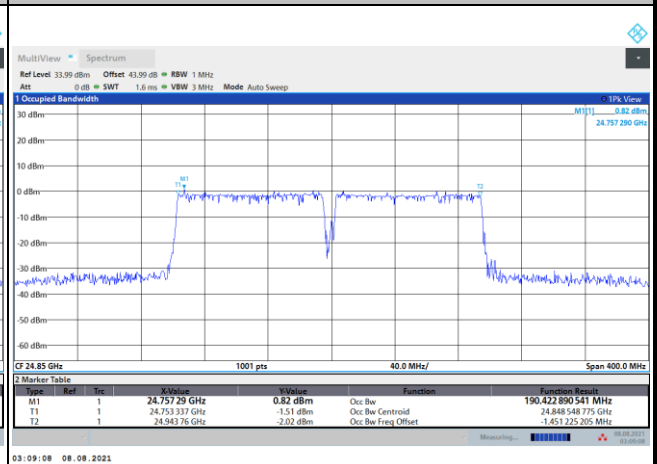
DFT-s-OFDM Module B

NR Band n258B

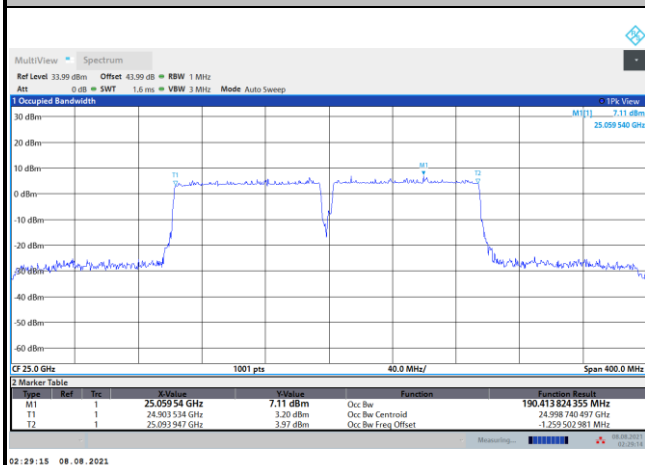
Lowest Channel / 200MHz / 16QAM



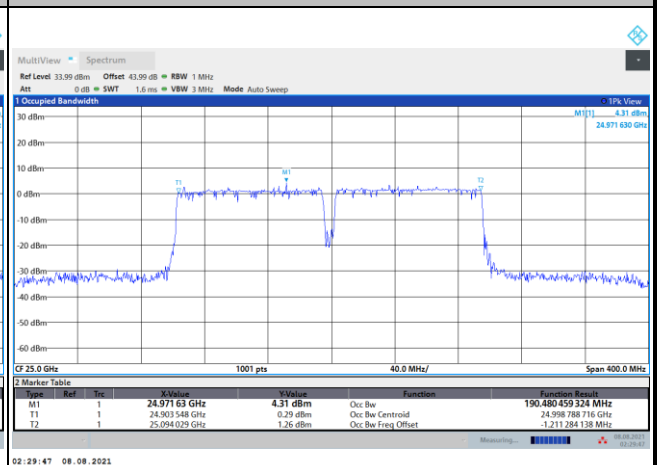
Lowest Channel / 200MHz / 64QAM



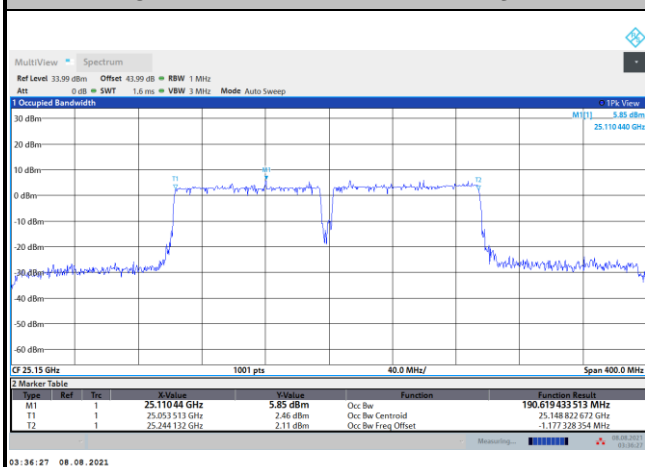
Middle Channel / 200MHz / 16QAM



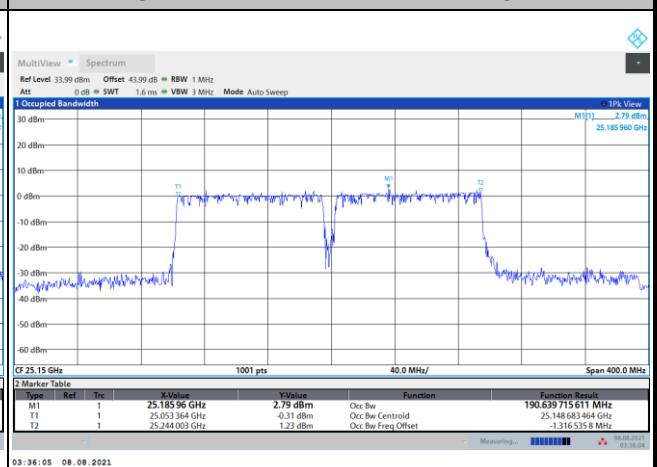
Middle Channel / 200MHz / 64QAM



Highest Channel / 200MHz / 16QAM



Highest Channel / 200MHz / 64QAM

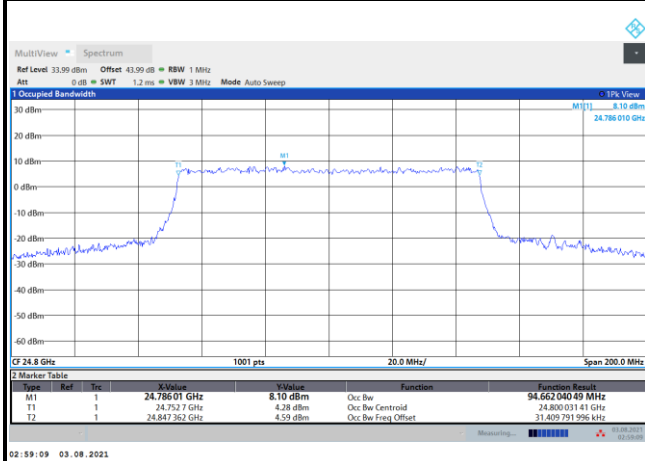




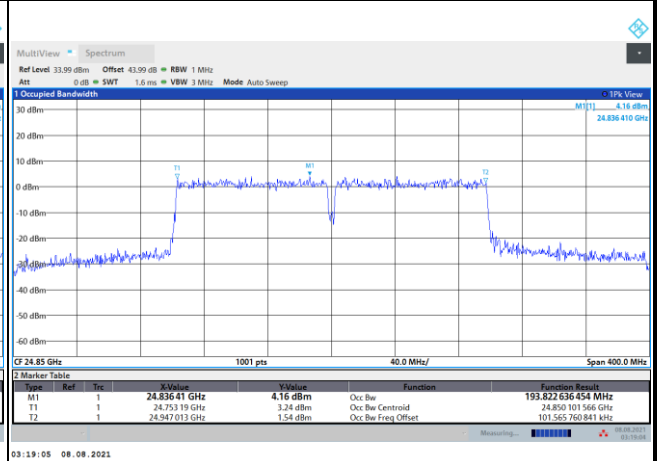
CP-OFDM Module B

NR Band n258B

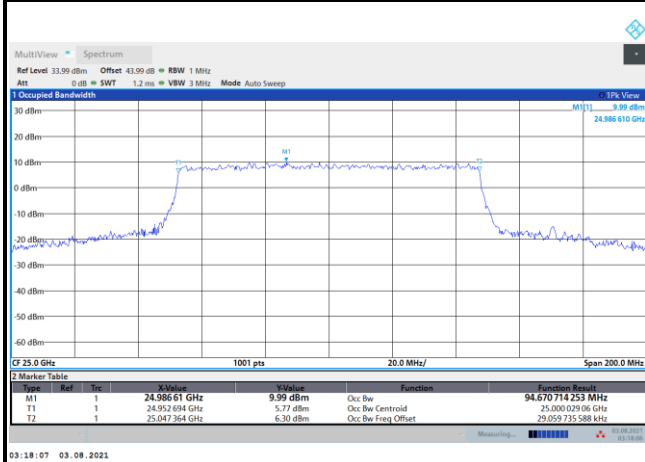
Lowest Channel / 100MHz / QPSK



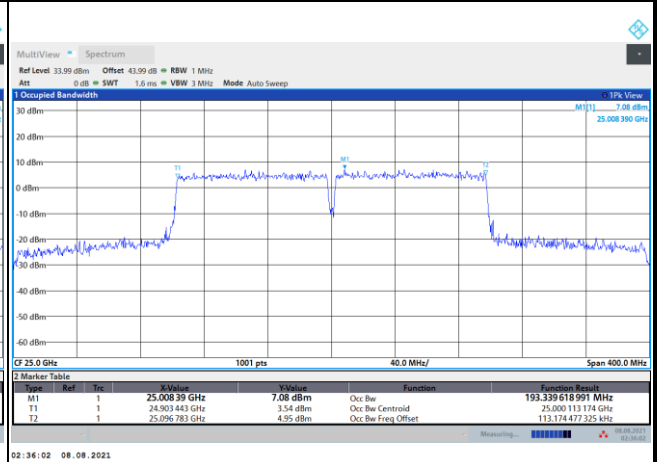
Lowest Channel / 200MHz / QPSK



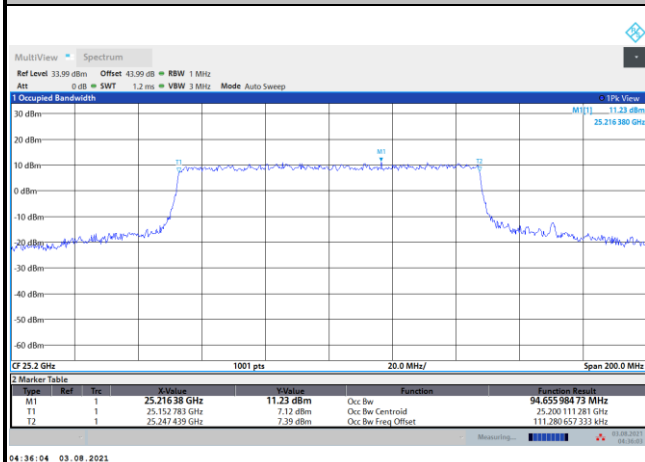
Middle Channel / 100MHz / QPSK



Middle Channel / 200MHz / QPSK



Highest Channel / 100MHz / QPSK



Highest Channel / 200MHz / QPSK



Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module B NR Band n258B : BE (dBm) 1 RB					
BW			100MHz			200MHz		
Limit (dBm)			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Low CH	0~10%OB	≤-5	-16.21	-14.29	-19.33	-20.48	-23.39	-23.44
	>10%OB	≤-13	-38.71	-39.83	-40.65	-26.97	-25.68	-29.19
High CH	0~10%OB	≤-5	-11.98	-13.23	-18.04	-17.46	-16.67	-22.77
	>10%OB	≤-13	-33.65	-35.18	-37.71	-17.90	-19.16	-23.85
Result			Compliance					

Mode			CP-OFDM Module B NR Band n258B : BE (dBm) 1 RB	
BW			100MHz	200MHz
Limit (dBm)			QPSK	QPSK
Low CH	0~10%OB	≤-5	-17.57	-22.47
	>10%OB	≤-13	-39.44	-22.08
High CH	0~10%OB	≤-5	-15.89	-18.13
	>10%OB	≤-13	-36.08	-14.14
Result			Compliance	

Mode			DFT-s-OFDM Module B NR Band n258B : BE (dBm) Full RB					
BW			100MHz			200MHz		
Limit (dBm)			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Low CH	0~10%OB	≤-5	-22.97	-27.28	-29.66	-27.97	-28.76	-30.98
	>10%OB	≤-13	-31.44	-34.37	-37.68	-32.00	-32.83	-33.35
High CH	0~10%OB	≤-5	-22.66	-24.88	-28.63	-27.28	-29.71	-31.59
	>10%OB	≤-13	-24.27	-27.00	-32.23	-28.99	-31.16	-33.32
Result			Compliance					

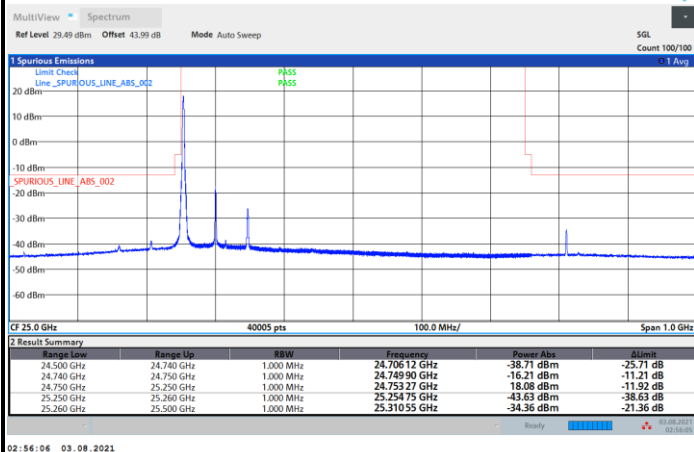
Mode			CP-OFDM Module B NR Band n258B : BE (dBm) Full RB	
BW			100MHz	200MHz
Limit (dBm)			QPSK	QPSK
Low CH	0~10%OB	≤-5	-25.72	-26.54
	>10%OB	≤-13	-32.19	-30.29
High CH	0~10%OB	≤-5	-21.53	-22.22
	>10%OB	≤-13	-24.59	-25.04
Result			Compliance	



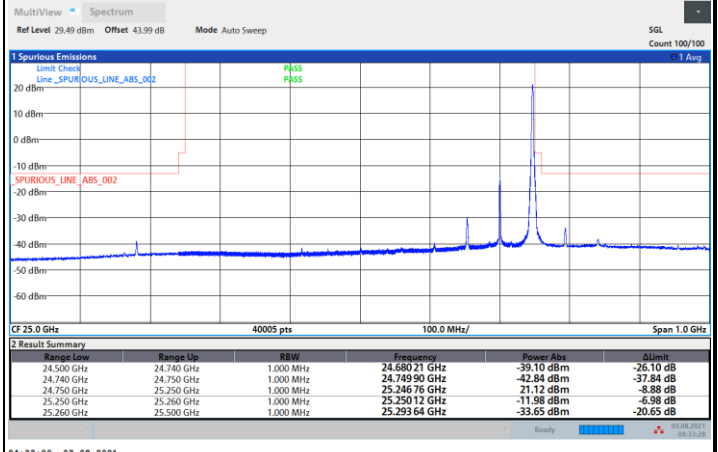
DFT-s-OFDM Module B

NR Band n258B / 100MHz / QPSK

Lowest Band Edge / 1 RB

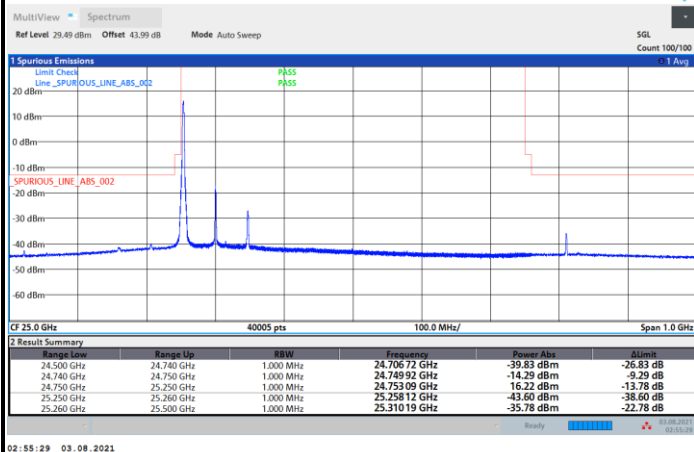


Highest Band Edge / 1 RB

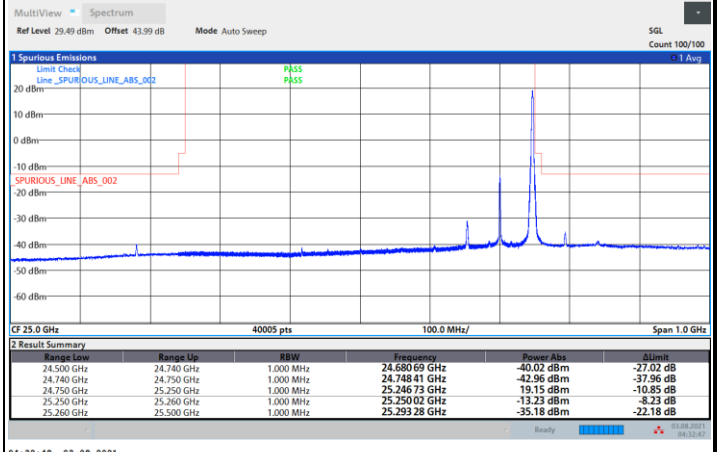


NR Band n258B / 100MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

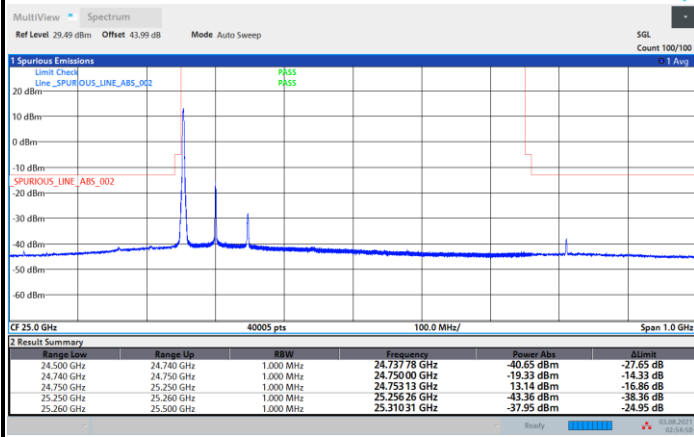




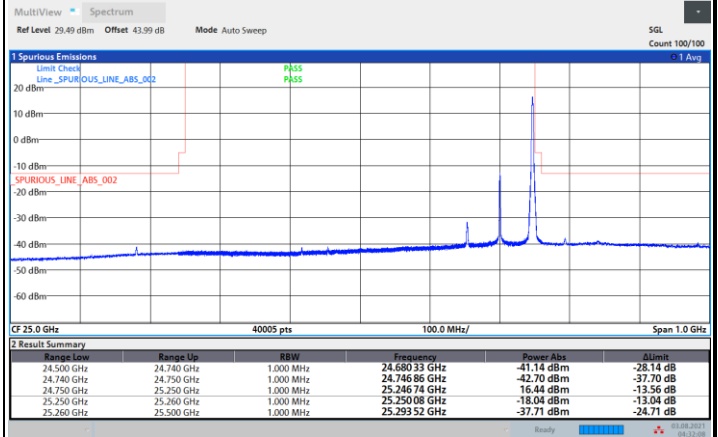
DFT-s-OFDM Module B

NR Band n258B / 100MHz / 64QAM

Lowest Band Edge / 1 RB

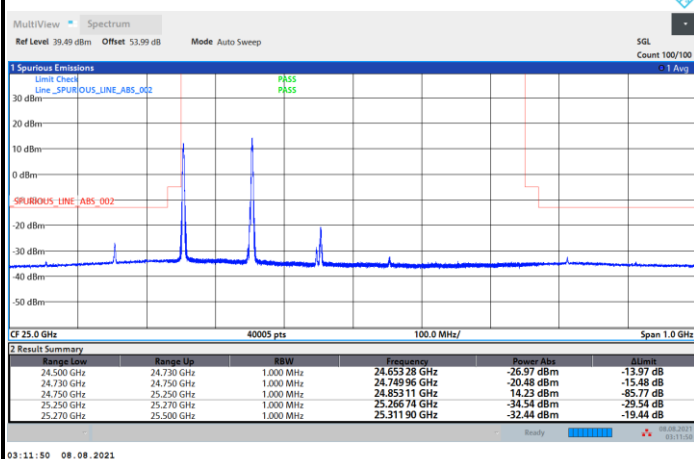


Highest Band Edge / 1 RB

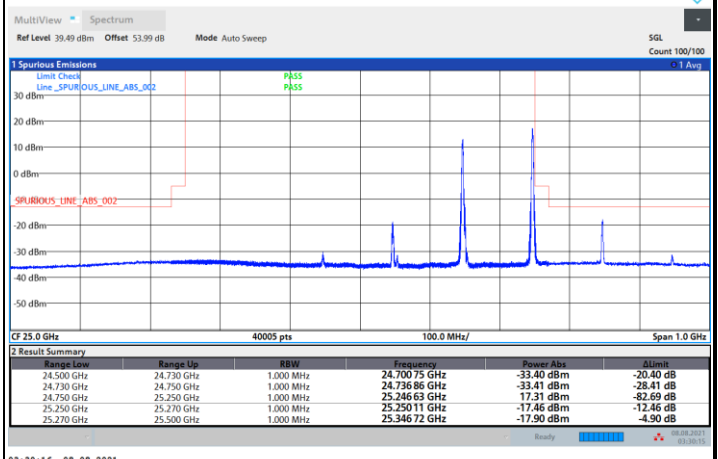


NR Band n258B / 200MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

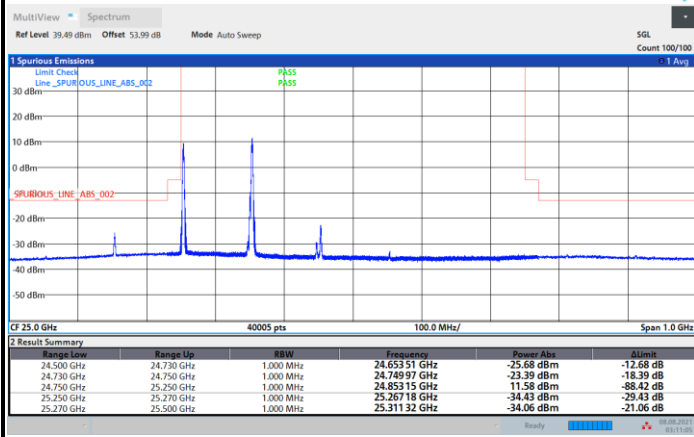




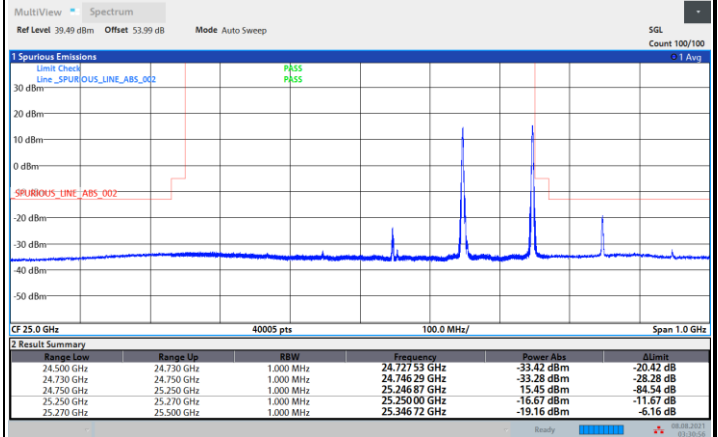
DFT-s-OFDM Module B

NR Band n258B / 200MHz / 16QAM

Lowest Band Edge / 1 RB

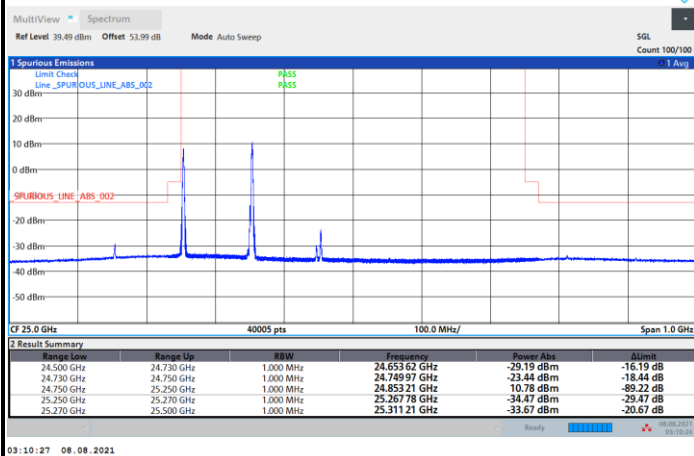


Highest Band Edge / 1 RB

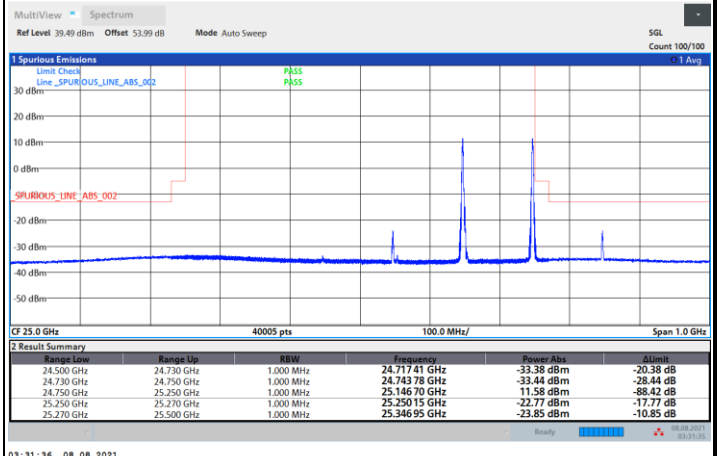


NR Band n258B / 200MHz / 64QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

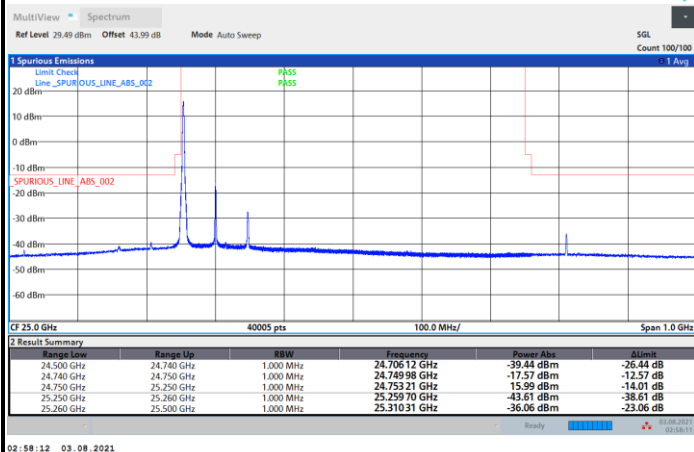




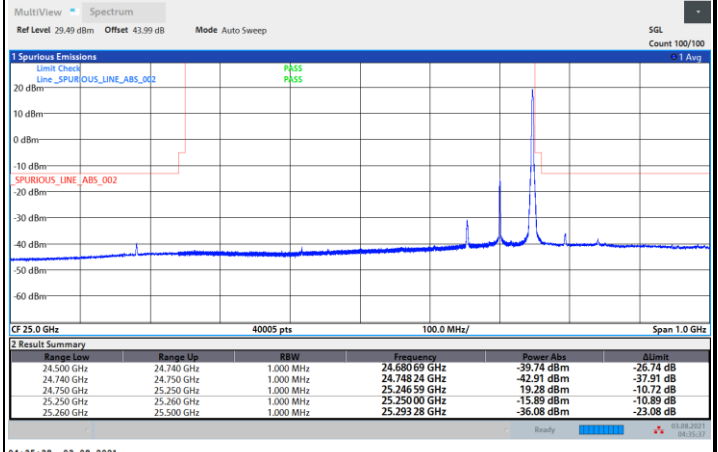
CP-OFDM Module B

NR Band n258B / 100MHz / QPSK

Lowest Band Edge / 1 RB

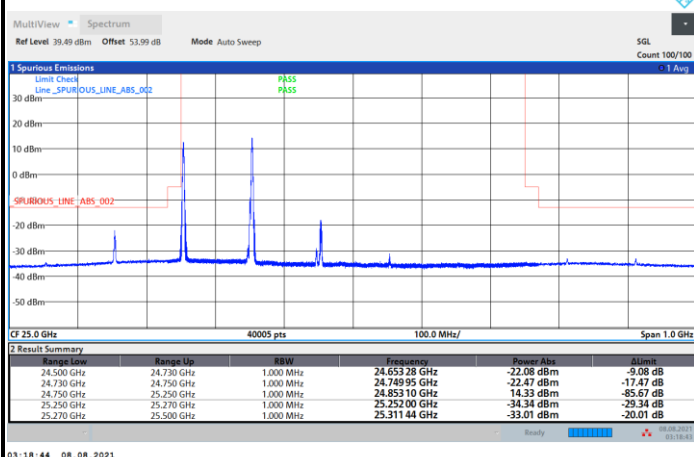


Highest Band Edge / 1 RB

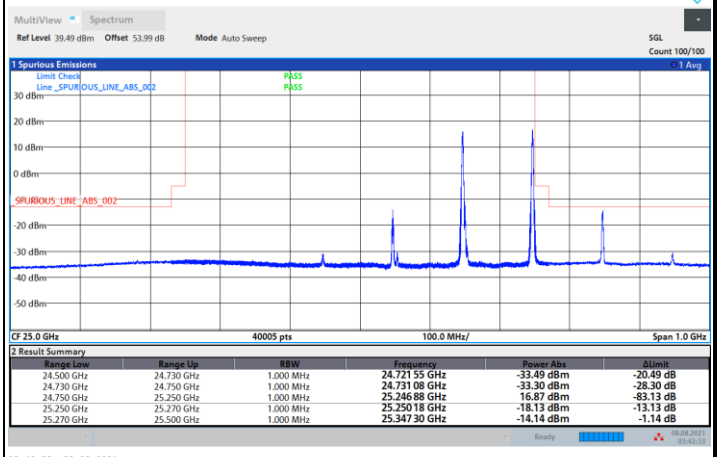


NR Band n258B / 200MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

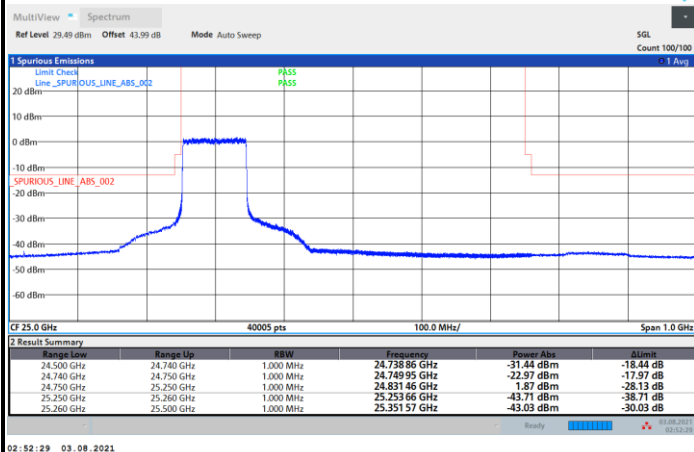




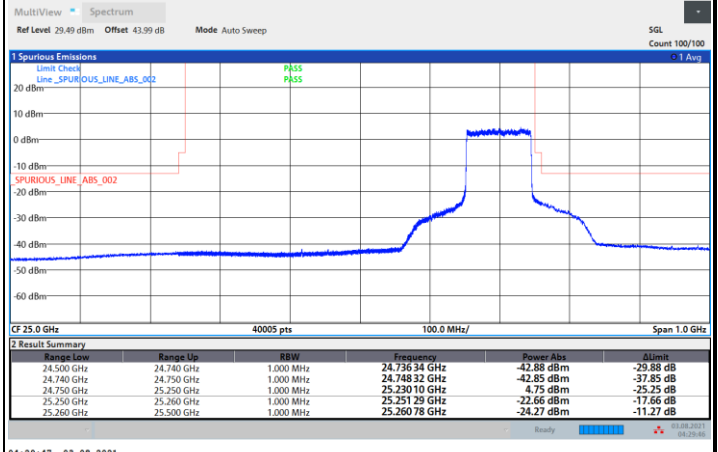
DFT-s-OFDM Module B

NR Band n258B / 100MHz / QPSK

Lowest Band Edge / Full RB

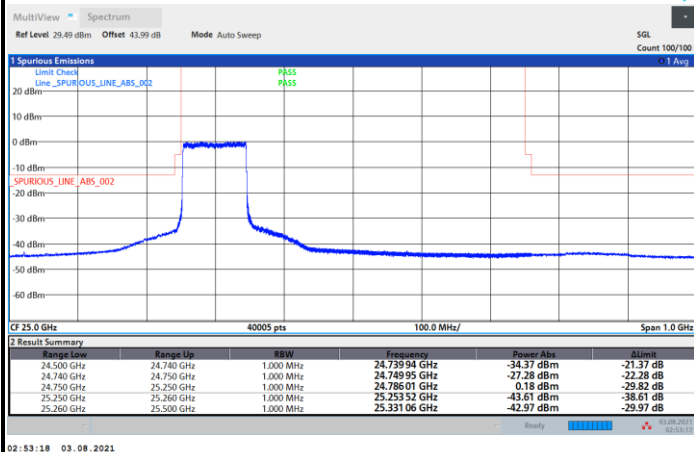


Highest Band Edge / Full RB

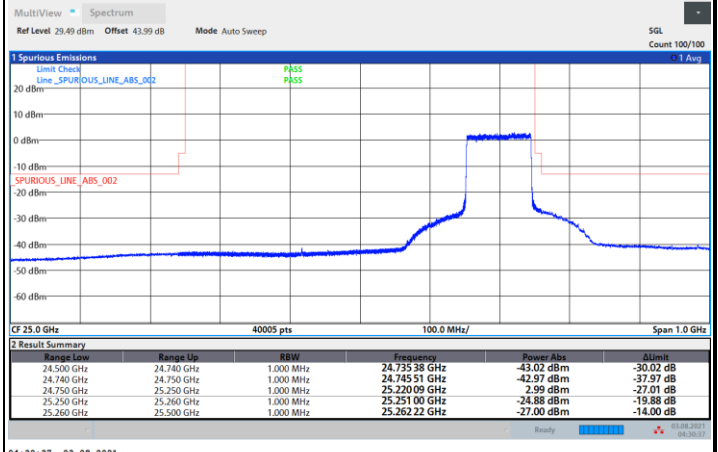


NR Band n258B / 100MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

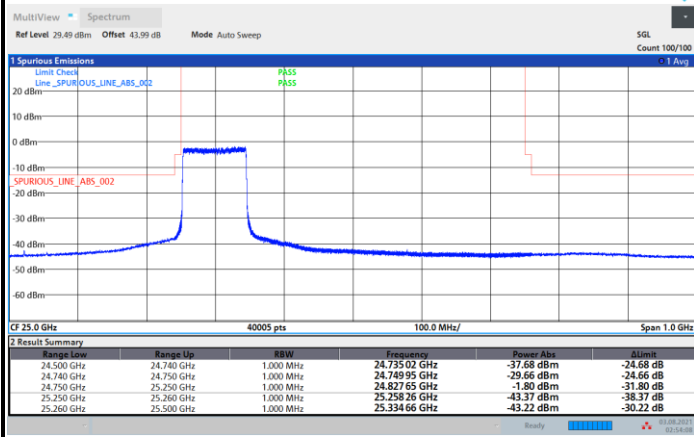




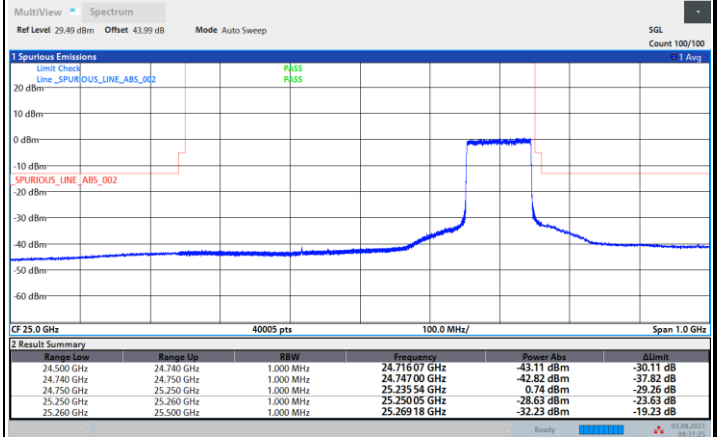
DFT-s-OFDM Module B

NR Band n258B / 100MHz / 64QAM

Lowest Band Edge / Full RB

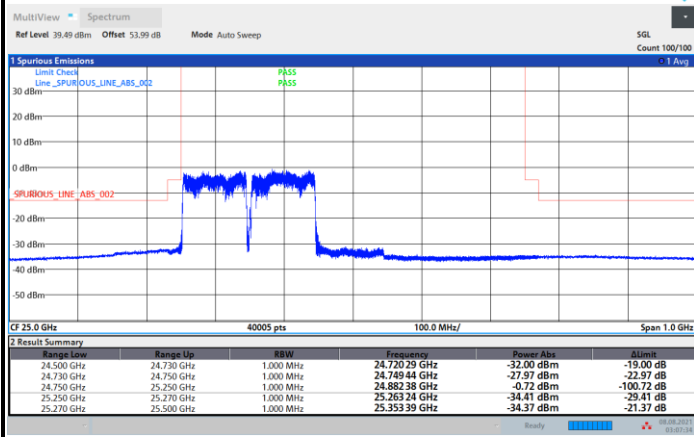


Highest Band Edge / Full RB



NR Band n258B / 200MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

