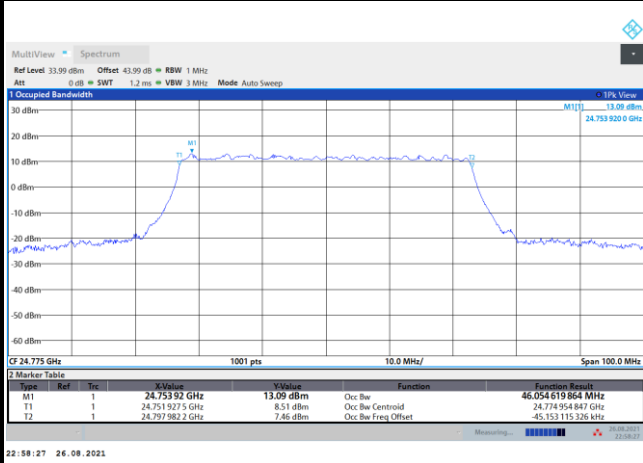




DFT-s-OFDM Module B

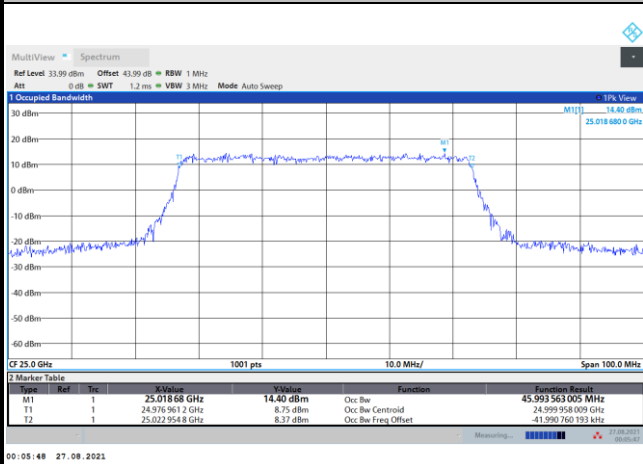
NR Band n258B

Lowest Channel / 50MHz / 64QAM



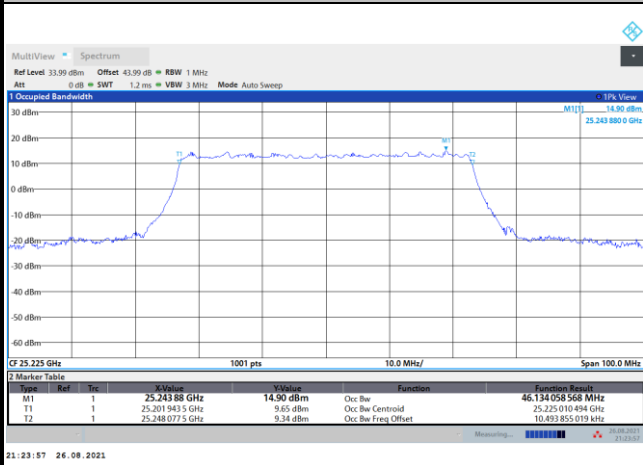
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Middle Channel / 50MHz / 64QAM



intentionally blank

Highest Channel / 50MHz / 64QAM



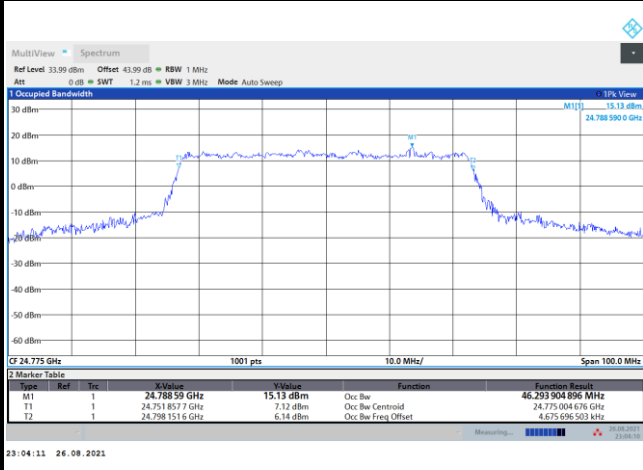
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CP-OFDM Module B

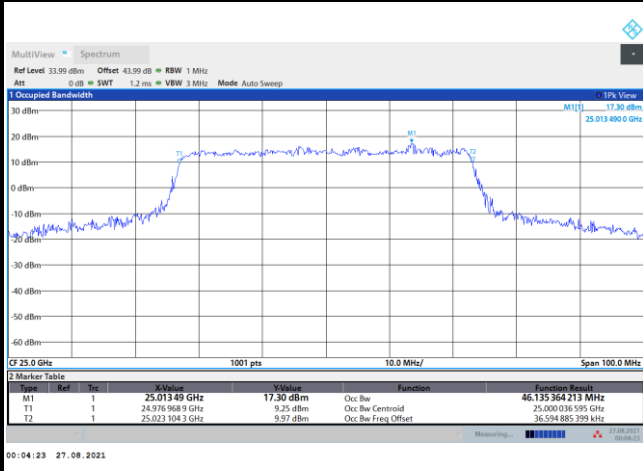
NR Band n258B

Lowest Channel / 50MHz / QPSK



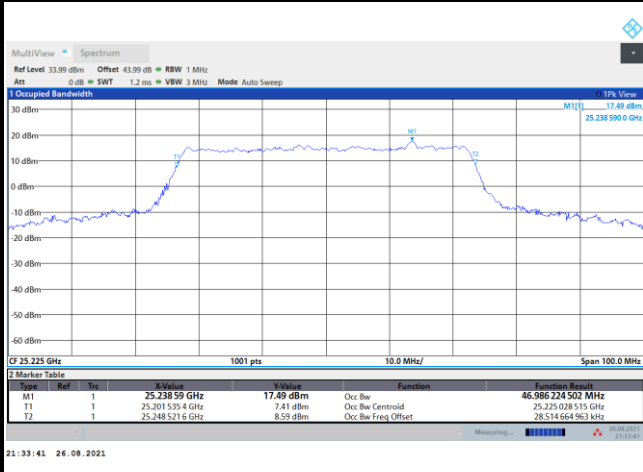
intentionally blank

Middle Channel / 50MHz / QPSK



intentionally blank

Highest Channel / 50MHz / QPSK



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	-7.52	-9.29	-12.41
	>10%OB	≤ -13	-37.54	-38.84	-39.58
HighCH	0~10%OB	≤ -5	-6.51	-8.60	-9.66
	>10%OB	≤ -13	-35.71	-36.65	-38.21
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	-10.34		
	>10%OB	≤ -13	-38.89		
High CH	0~10%OB	≤ -5	-8.31		
	>10%OB	≤ -13	-37.44		
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	-16.85	-20.25	-21.35
	>10%OB	≤ -13	-21.89	-24.71	-29.75
HighCH	0~10%OB	≤ -5	-14.74	-17.46	-19.35
	>10%OB	≤ -13	-18.29	-21.86	-27.22
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	-19.29		
	>10%OB	≤ -13	-22.66		
High CH	0~10%OB	≤ -5	-16.51		
	>10%OB	≤ -13	-19.97		
Result			Compliance		

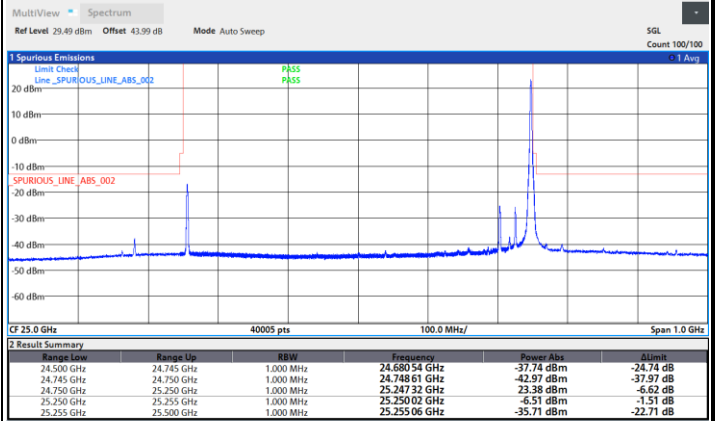
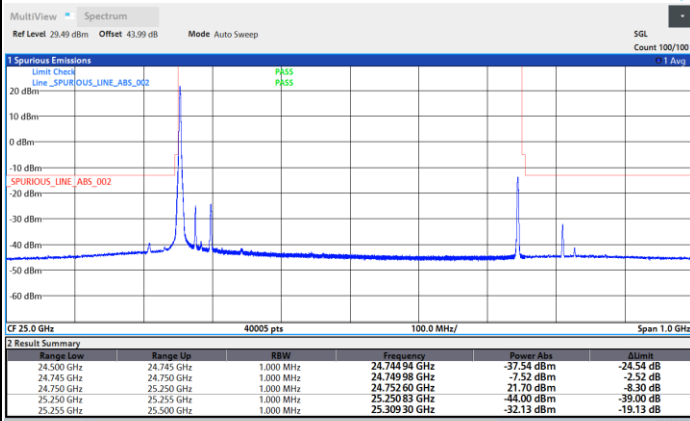


DFT-s-OFDM Module B

NR Band n258B / 50MHz / QPSK

Lowest Band Edge / 1 RB

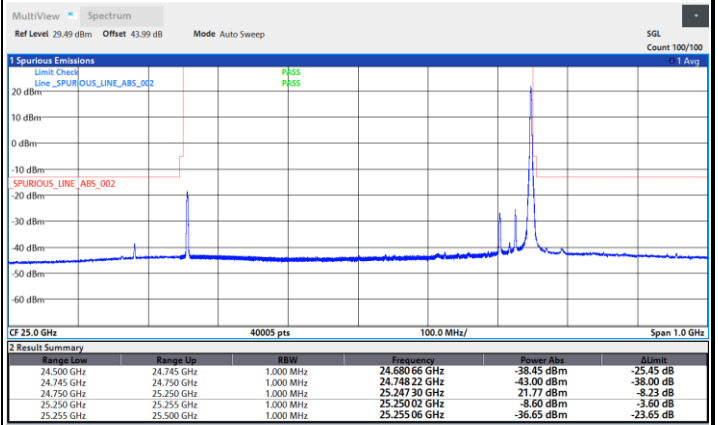
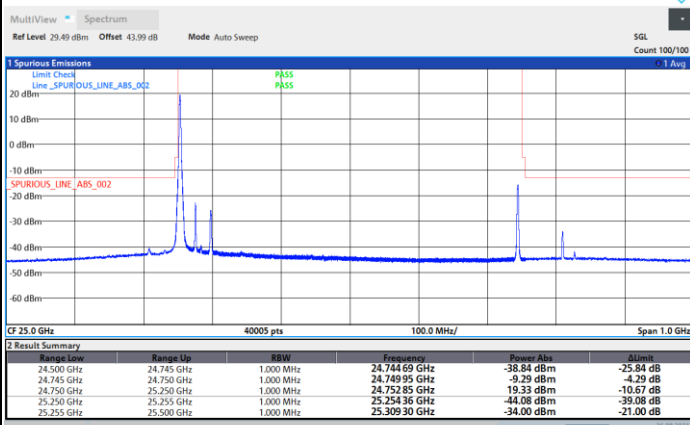
Highest Band Edge / 1 RB



NR Band n258B / 50MHz / 16QAM

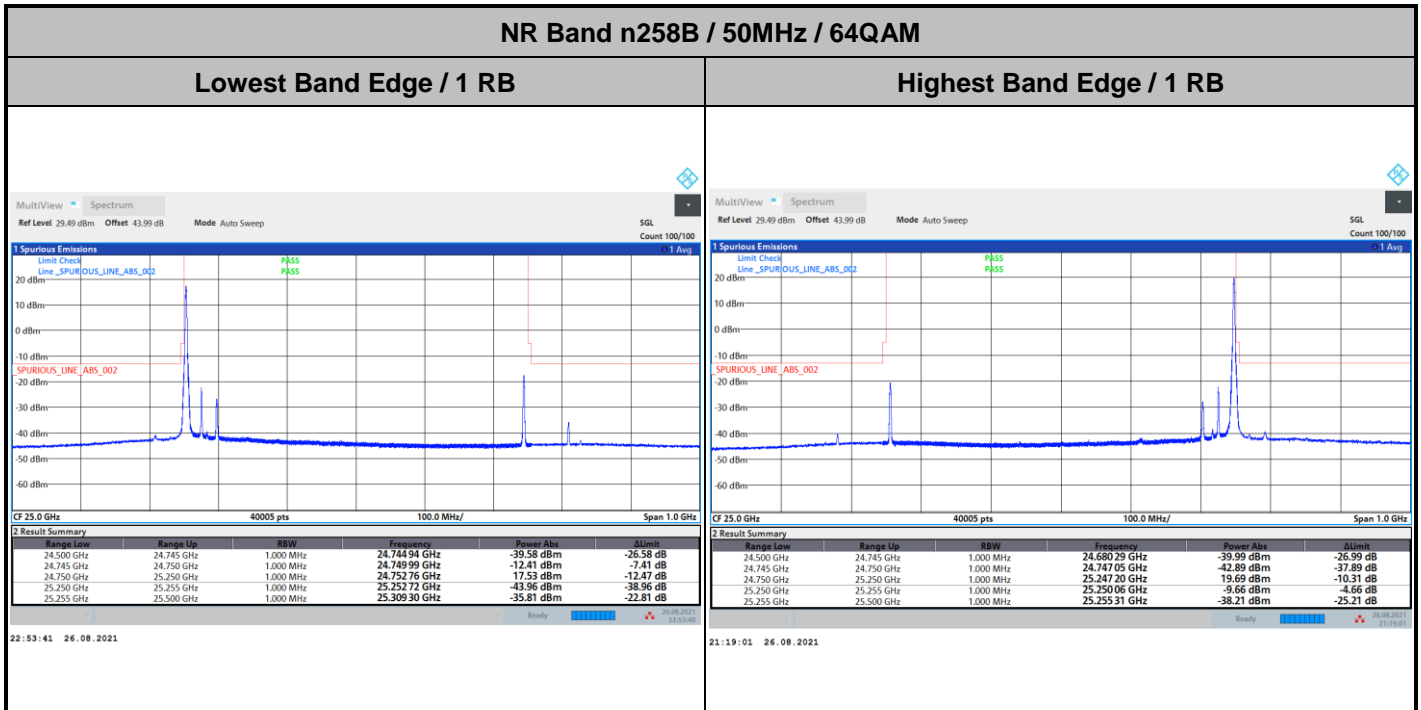
Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

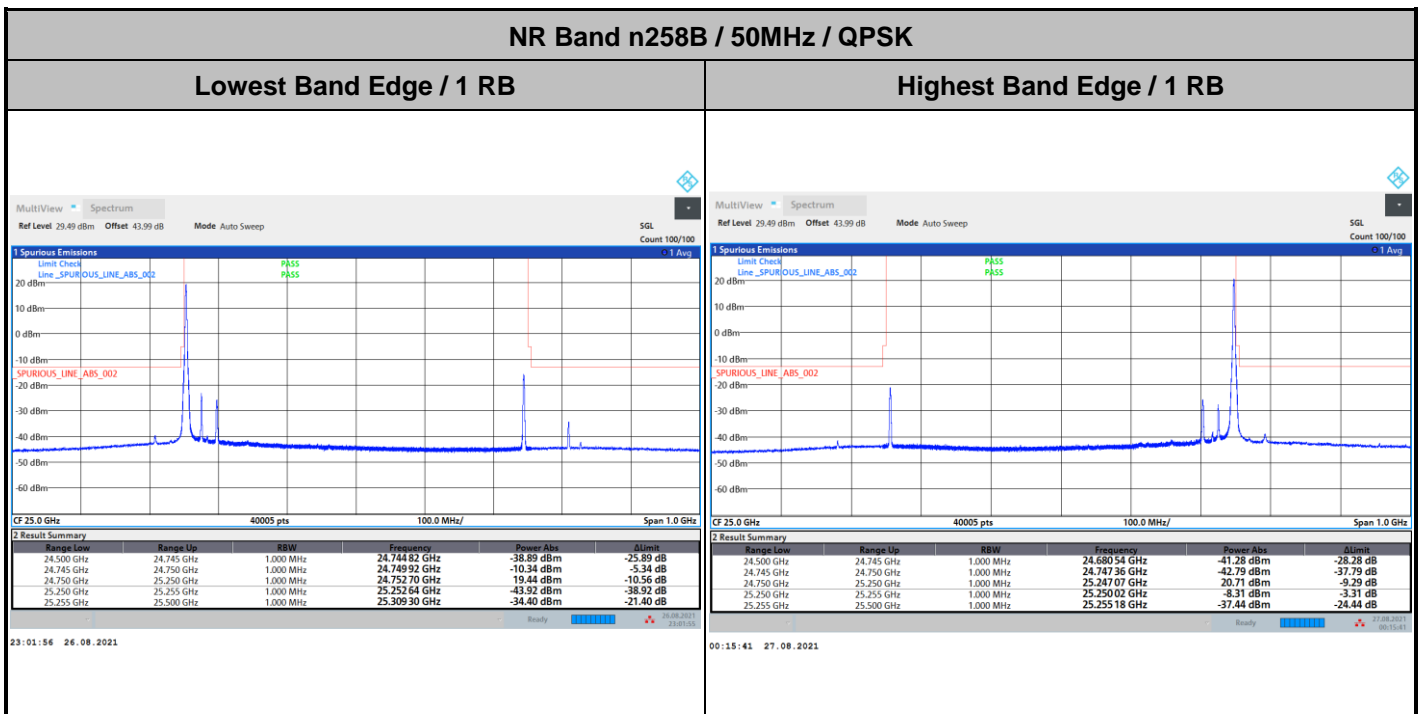




DFT-s-OFDM Module B



CP-OFDM Module B

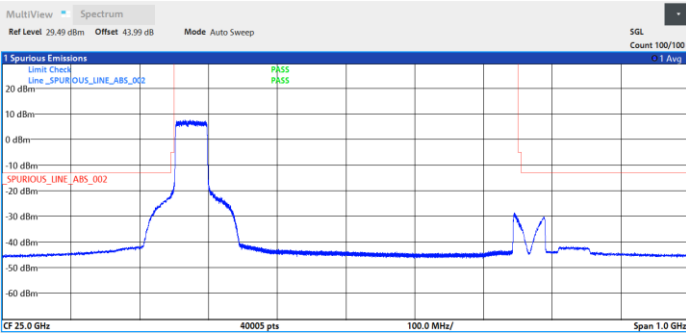




DFT-s-OFDM Module B

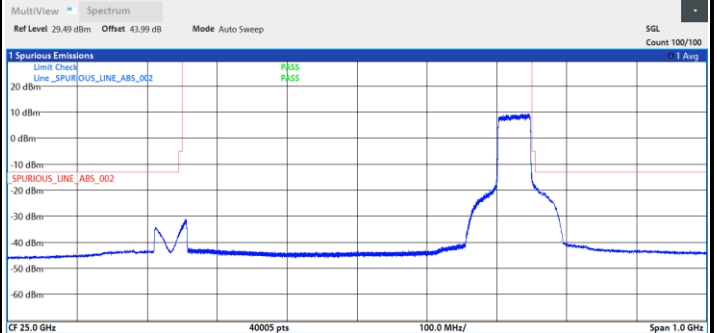
NR Band n258B / 50MHz / QPSK

Lowest Band Edge / Full RB



23:00:46 26.08.2021

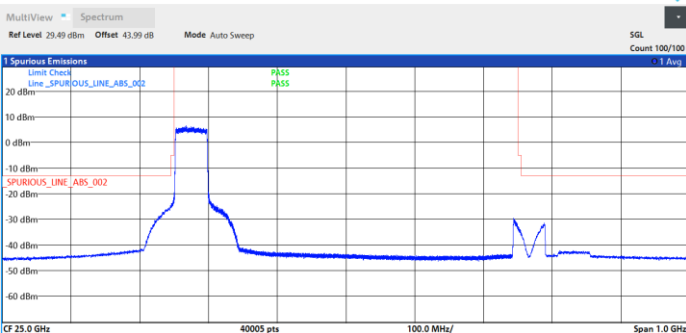
Highest Band Edge / Full RB



21:30:43 26.08.2021

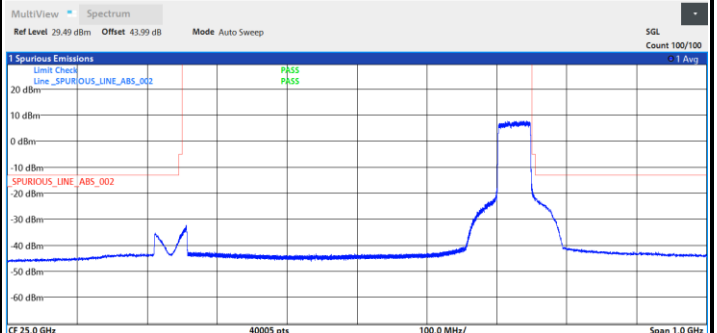
NR Band n258B / 50MHz / 16QAM

Lowest Band Edge / Full RB



22:59:04 26.08.2021

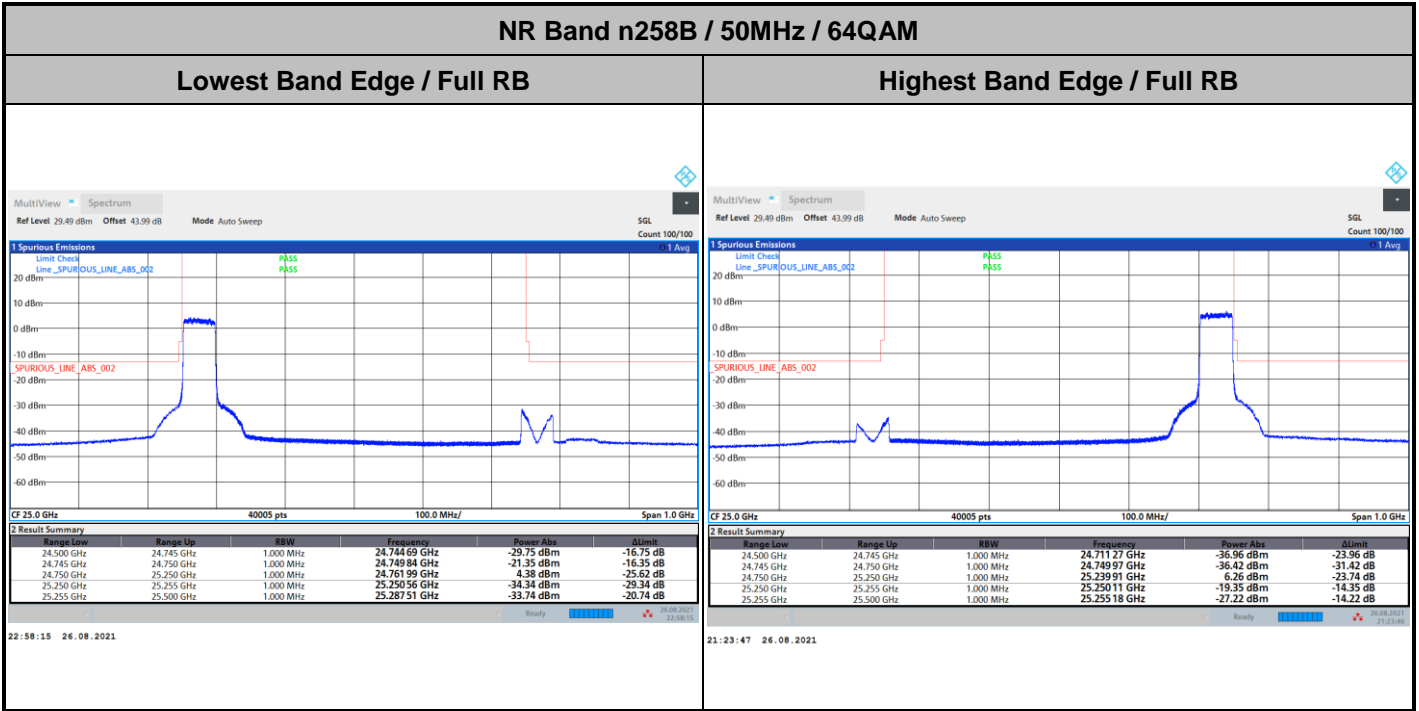
Highest Band Edge / Full RB



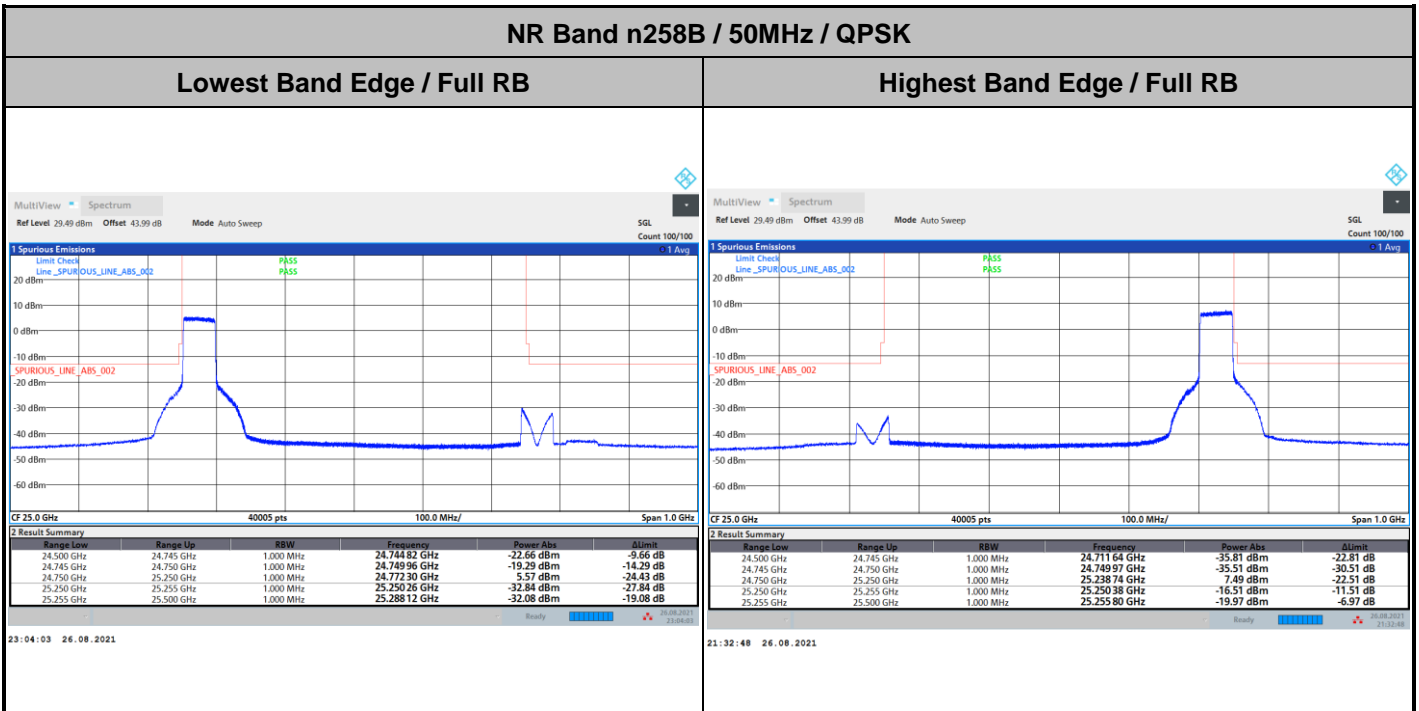
21:24:36 26.08.2021



DFT-s-OFDM Module B



CP-OFDM Module B



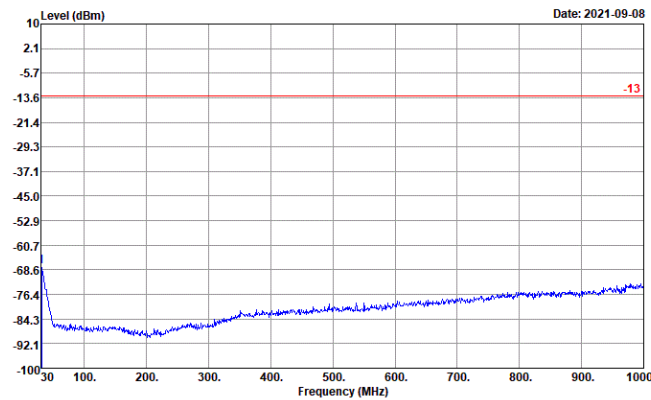


# Spurious Emission

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

## NR Band n258B (30MHz-1GHz)

### Horizontal

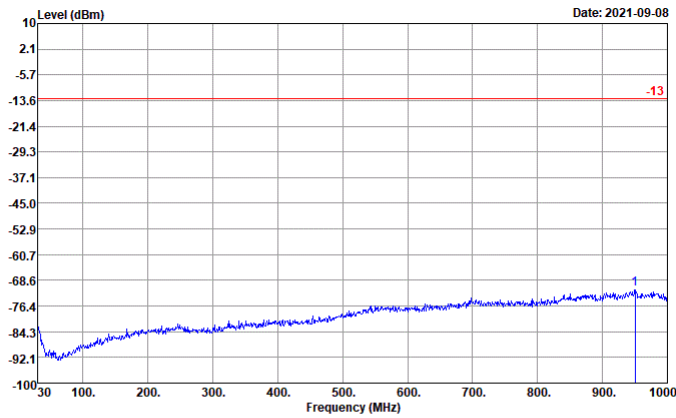


Site : 03CH19-HY  
Condition : -13 ERP EIRP\_20210305 HORIZONTAL

: n258b

Freq	Level	Over	Limit	Read	LISN	Cable	Preamp	A/Pos	T/Pos	Remark	
MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg		
1	30.94	-67.53	-54.53	-13.00	-78.44	46.64	0.00	35.73	---	---	Peak

### Vertical



Site : 03CH19-HY  
Condition : -13 ERP EIRP\_20210305 VERTICAL

: n258b

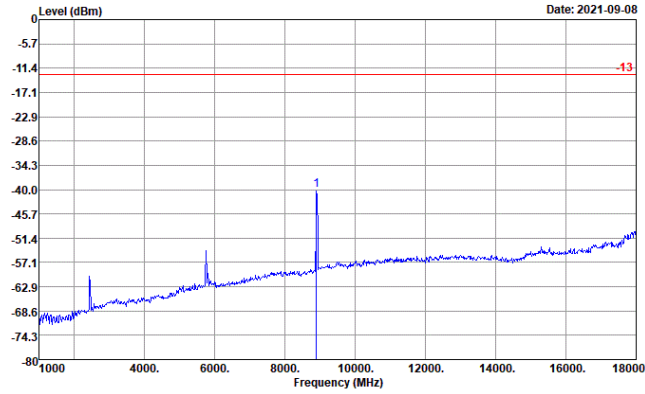
Freq	Level	Over	Limit	Read	LISN	Cable	Preamp	A/Pos	T/Pos	Remark	
MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg		
1	950.20	-71.22	-58.22	-13.00	-81.01	42.96	0.00	33.17	---	---	Peak





NR Band n258B (1GHz-18GHz)

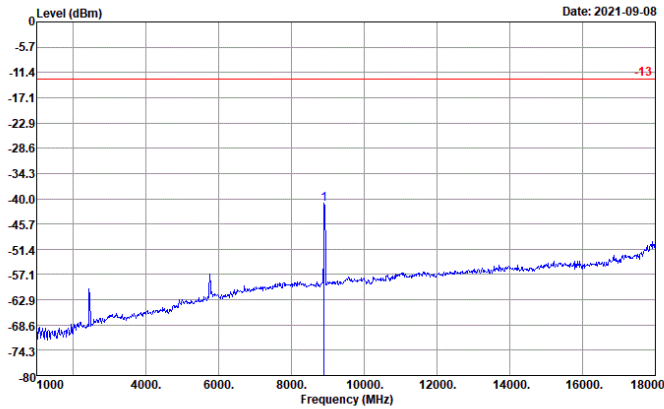
Horizontal



Site : 03CH19-HY  
 Condition : -13 ERP EIRP\_20210305 HORIZONTAL  
 Project : OD2942-04

Peak	Freq	Level	Over	Limit	Read	LISN	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1	8905.00	-40.21	-27.21	-13.00	-65.85	66.46	0.00	40.82	---	---	Peak

Vertical



Site : 03CH19-HY  
 Condition : -13 ERP EIRP\_20210305 VERTICAL

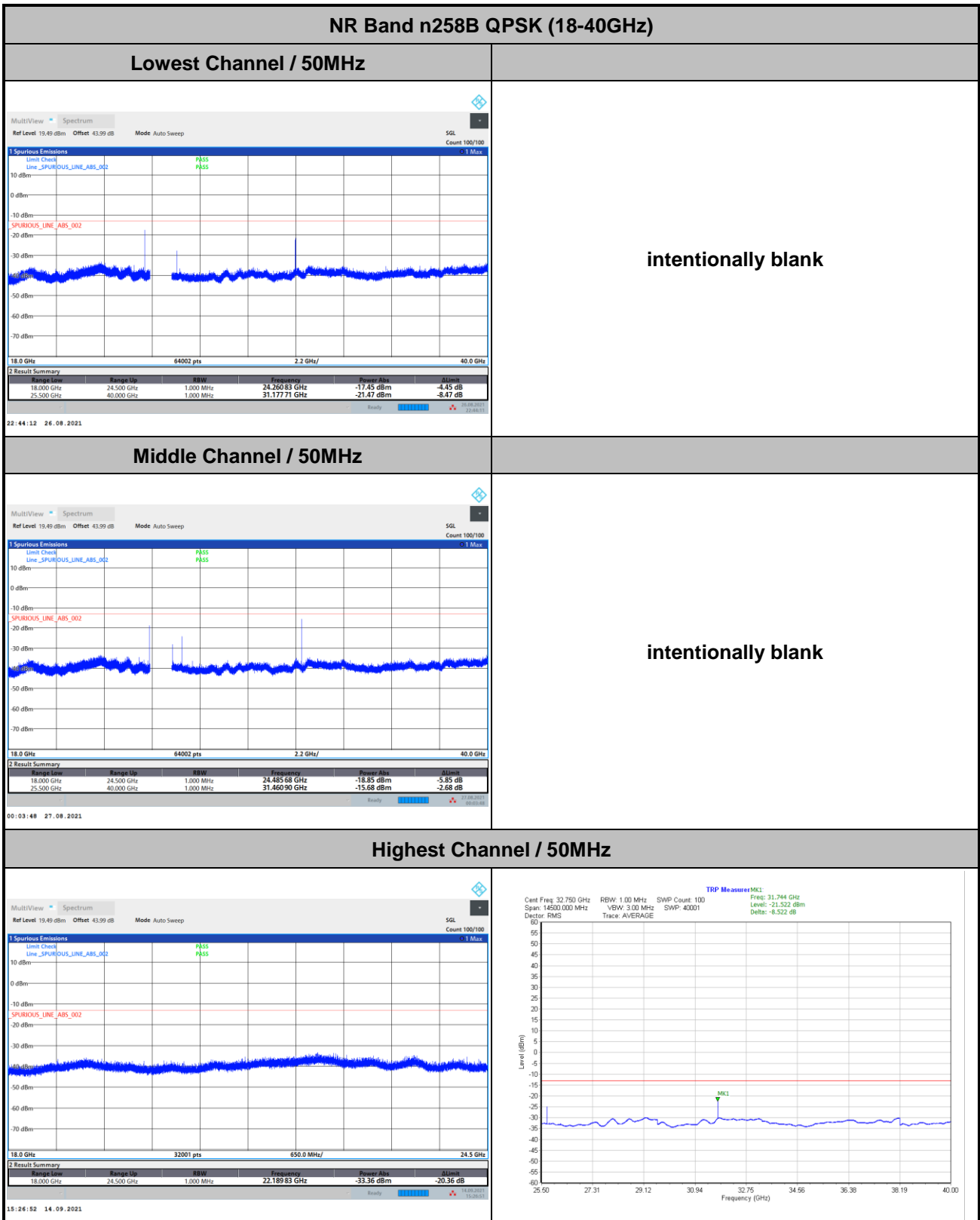
: n258b

Peak	Freq	Level	Over	Limit	Read	LISN	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1	8905.00	-41.32	-28.32	-13.00	-66.42	65.92	0.00	40.82	---	---	Peak



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

DFT-s-OFDM Module B



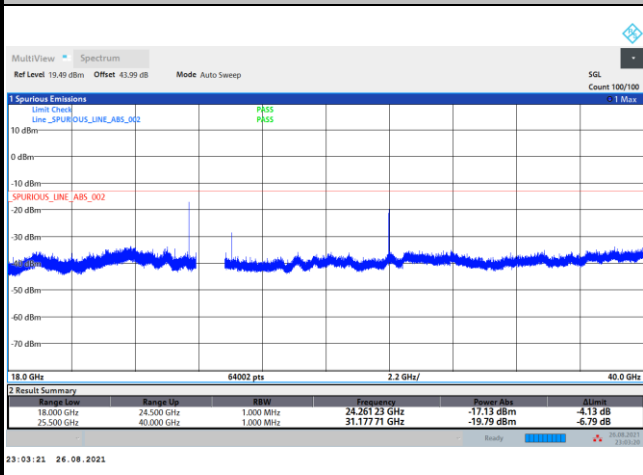
Remark: In band and out of band frequencies that has reported in previous results are omitted.



CP-OFDM Module B

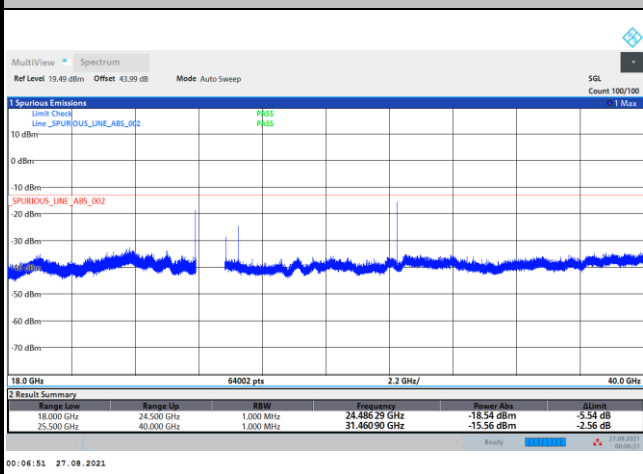
NR Band n258B QPSK (18-40GHz)

Lowest Channel / 50MHz



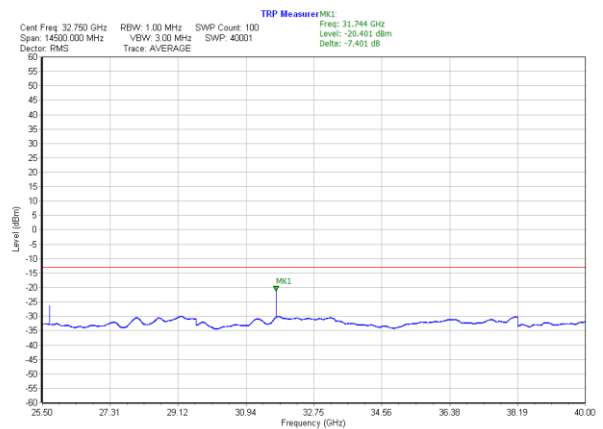
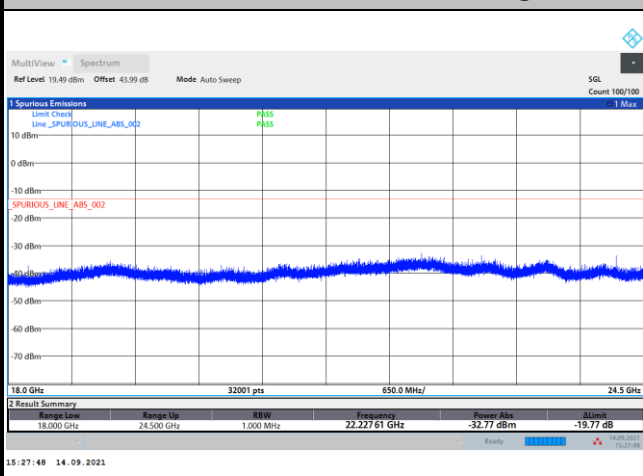
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Middle Channel / 50MHz



intentionally blank

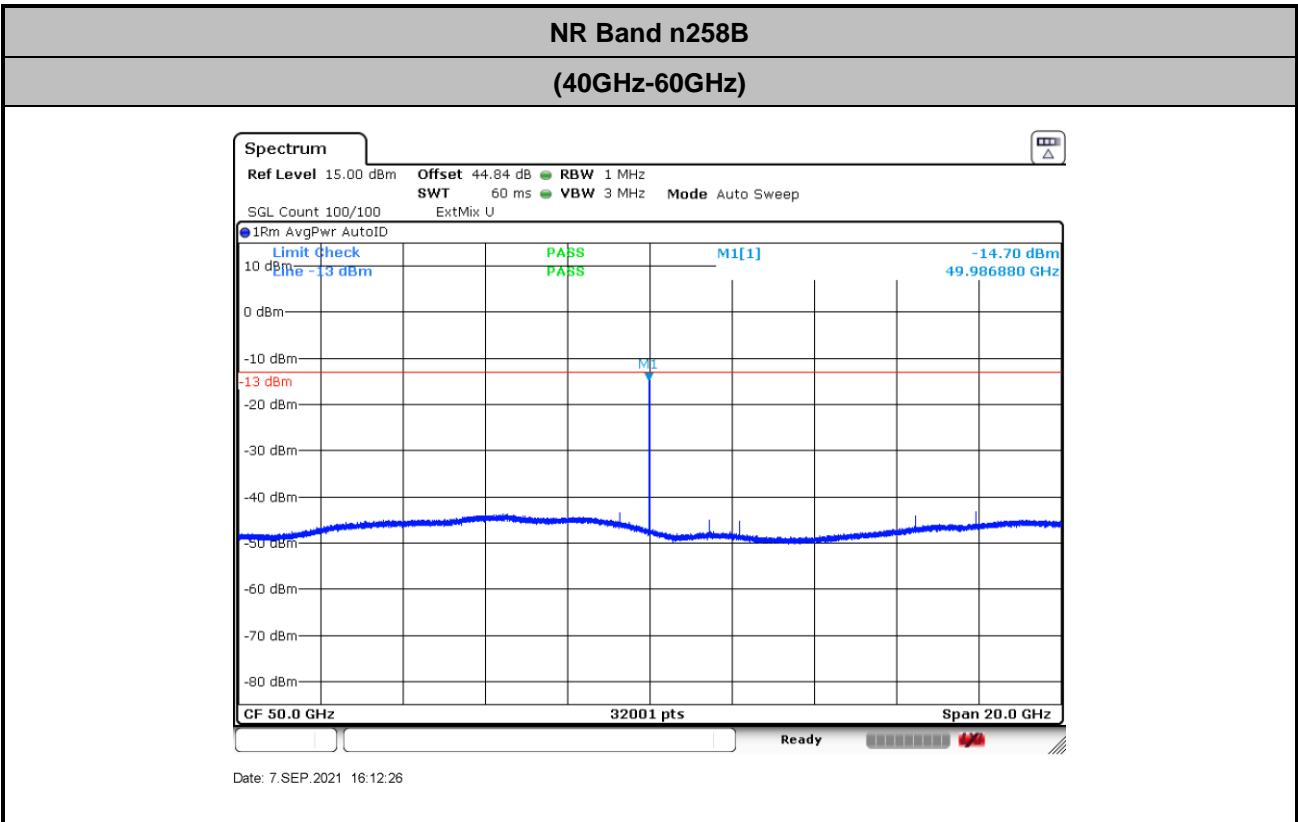
Highest Channel / 50MHz



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.

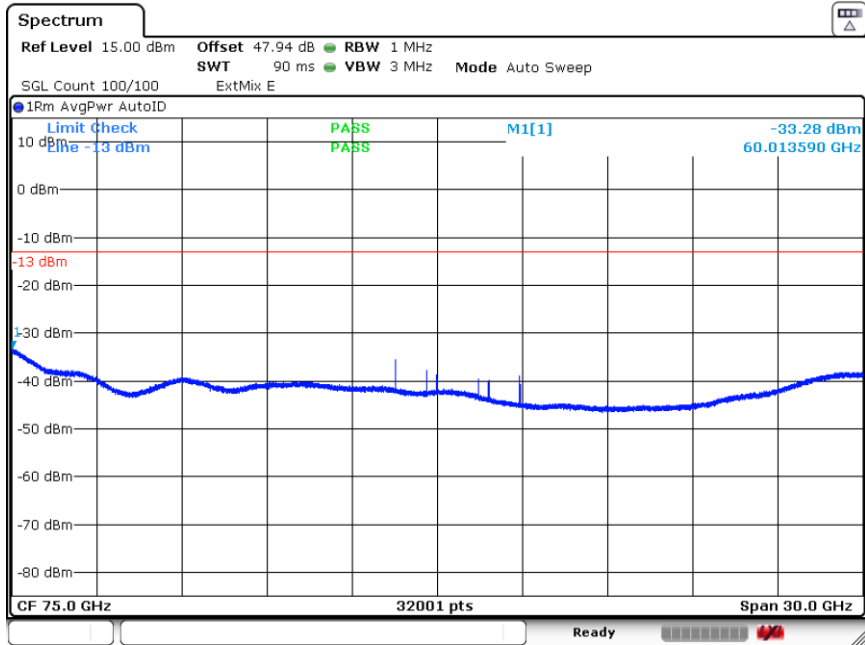


Note: Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log(D) – 104.8  
= 42.3 + 0.34 + 107 + 20log(1) – 104.8 = 44.84 (dB)



NR Band n258B

(60GHz-90GHz)



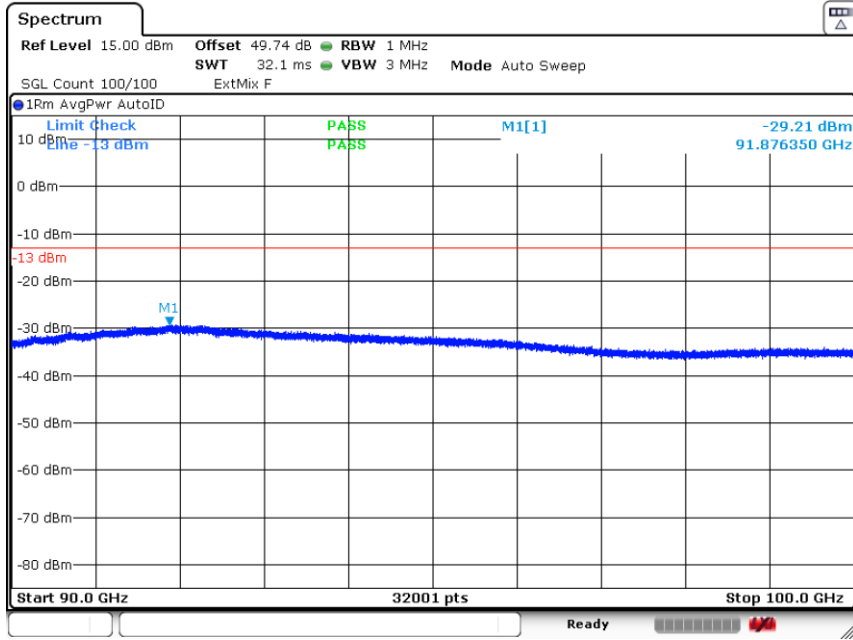
Date: 7.SEP.2021 16:14:30

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)



NR Band n258B

(90GHz-100GHz)



Date: 7.SEP.2021 16:17:02

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 n260 Module A Beam H

### Occupied Bandwidth

Mode	DFT-s-OFDM Module A NR Band n260 : 99%OBW(MHz)		
BW	50MHz		
Mod.	QPSK	16QAM	64QAM
Lowest CH	46.10	46.24	46.03
Middle CH	46.03	46.15	46.13
Highest CH	46.07	46.19	46.33

Mode	CP-OFDM Module A NR Band n260 : 99%OBW(MHz)
BW	50MHz
Mod.	QPSK
Lowest CH	46.23
Middle CH	45.98
Highest CH	46.58

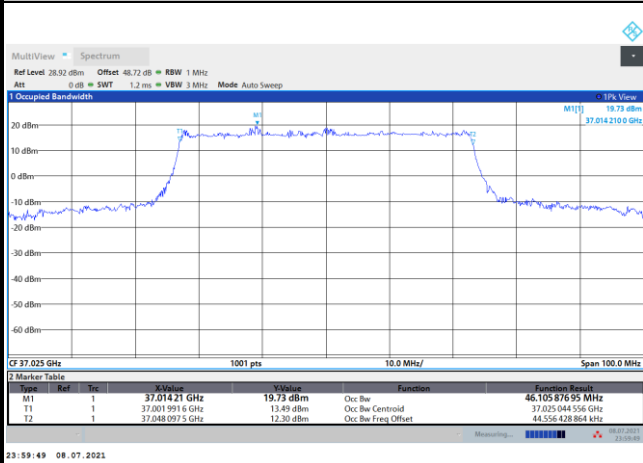




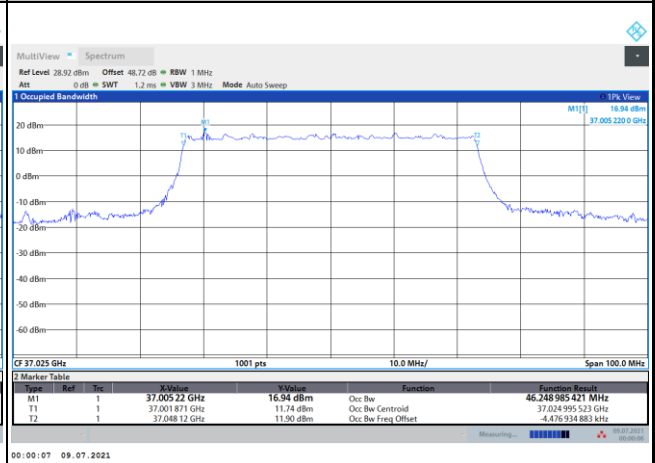
DFT-s-OFDM Module A

NR Band n260

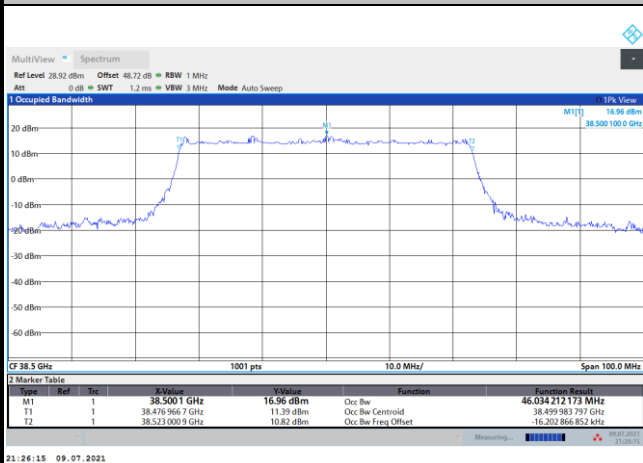
Lowest Channel / 50MHz / QPSK



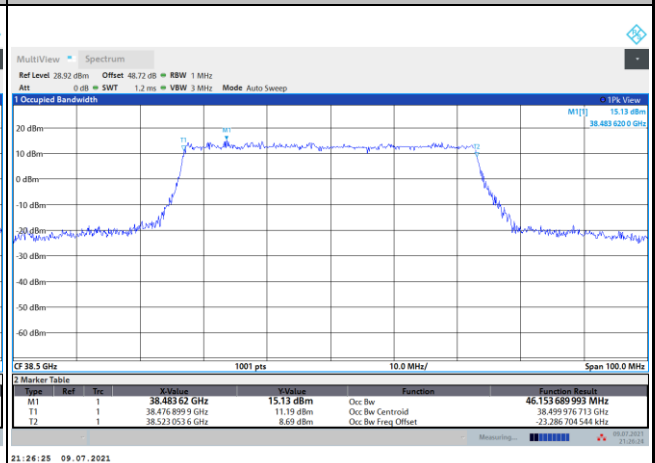
Lowest Channel / 50MHz / 16QAM



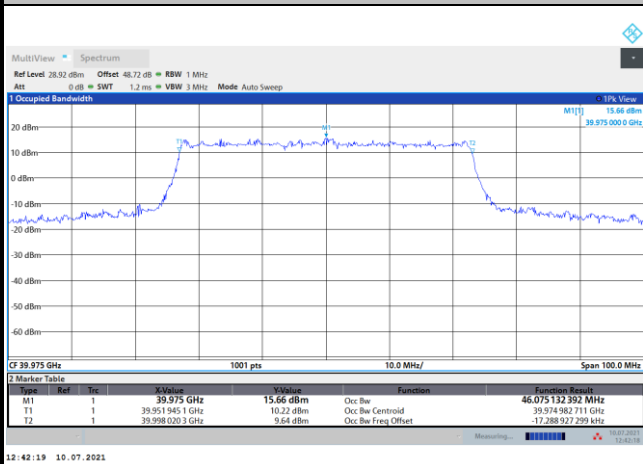
Middle Channel / 50MHz / QPSK



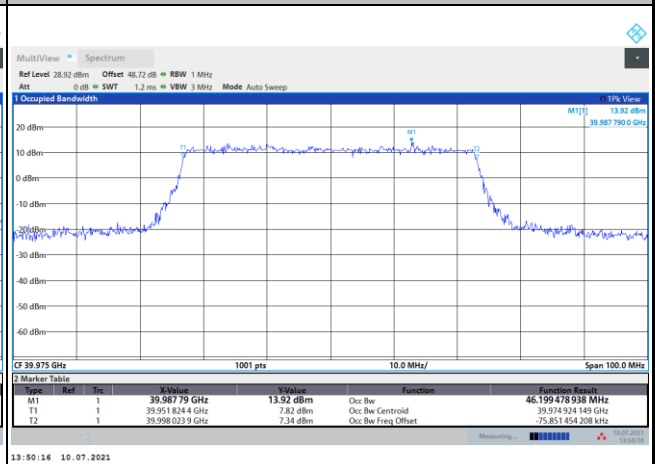
Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM

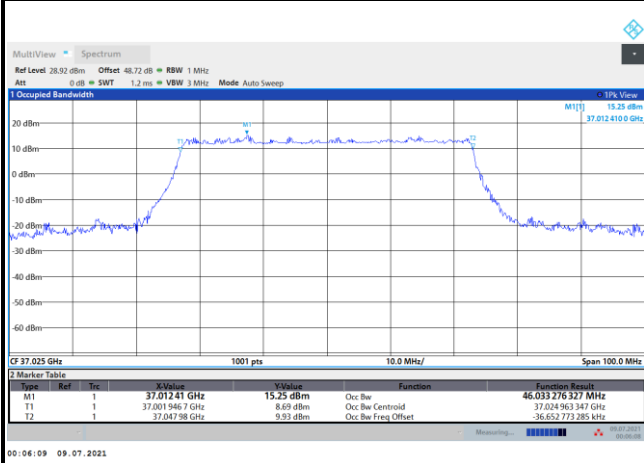




DFT-s-OFDM Module A

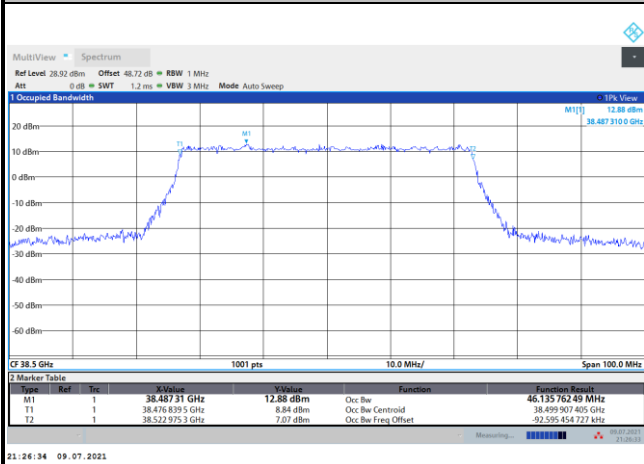
NR Band n260

Lowest Channel / 50MHz / 64QAM



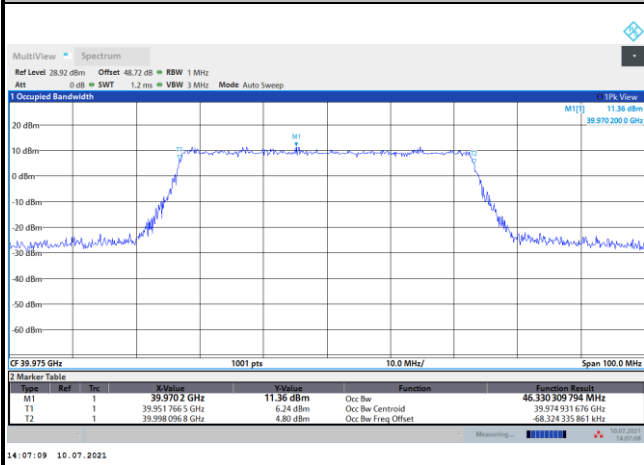
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Middle Channel / 50MHz / 64QAM



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Highest Channel / 50MHz / 64QAM



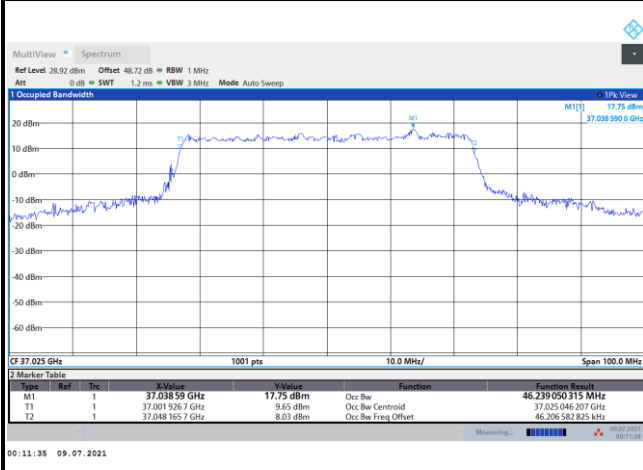
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CP-OFDM Module A

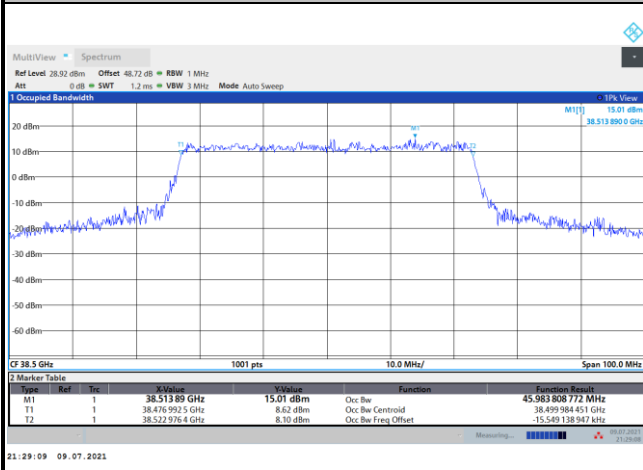
NR Band n260

Lowest Channel / 50MHz / QPSK



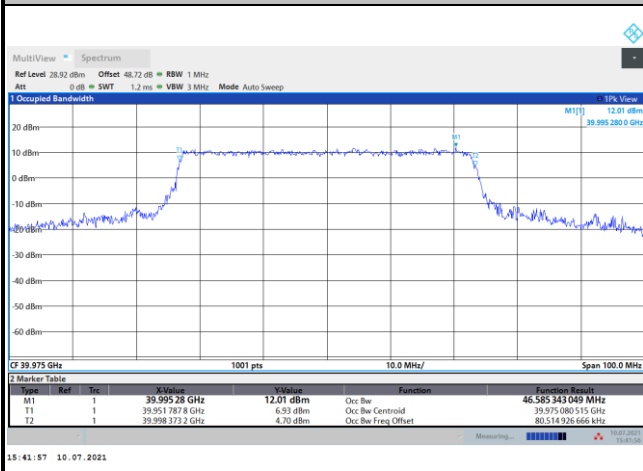
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Middle Channel / 50MHz / QPSK



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Highest Channel / 50MHz / QPSK



intentionally blank



**Radiated Out of Band Emissions**

Mode			DFT-s-OFDM Module A NR Band n260 : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-30.83	-30.80	-8.96
	>10%OB	≤ -13	-26.96	-26.33	-20.63
HighCH	0~10%OB	≤ -5	-9.58	-10.95	-13.17
	>10%OB	≤ -13	-18.48	-21.84	-24.62
Result			Compliance		

Mode			CP-OFDM Module A NR Band n260 : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK		
Low CH	0~10%OB	≤ -5	-7.32		
	>10%OB	≤ -13	-19.10		
High CH	0~10%OB	≤ -5	-10.57		
	>10%OB	≤ -13	-22.03		
Result			Compliance		

Mode			DFT-s-OFDM Module A NR Band n260 : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-15.26	-17.44	-19.34
	>10%OB	≤ -13	-20.25	-24.00	-29.56
HighCH	0~10%OB	≤ -5	-16.78	-19.78	-21.75
	>10%OB	≤ -13	-21.32	-27.00	-32.87
Result			Compliance		

Mode			CP-OFDM Module A NR Band n260 : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK		
Low CH	0~10%OB	≤ -5	-16.79		
	>10%OB	≤ -13	-21.09		
High CH	0~10%OB	≤ -5	-19.88		
	>10%OB	≤ -13	-23.69		
Result			Compliance		

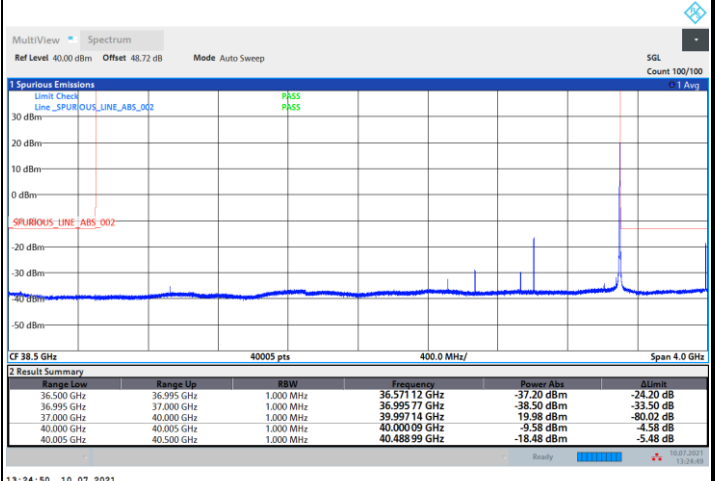
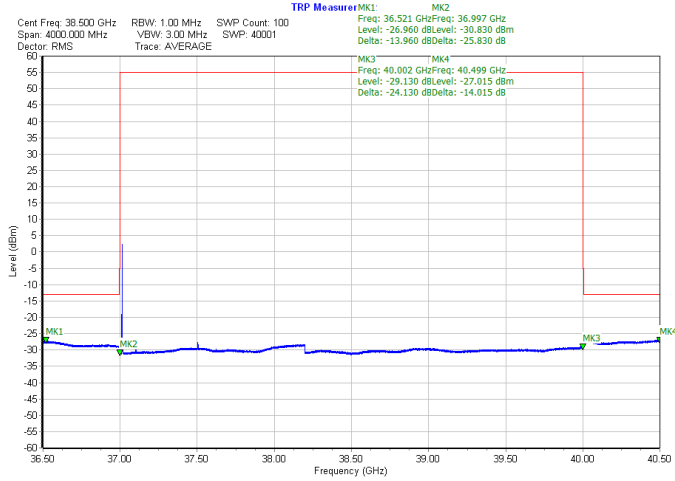


DFT-s-OFDM Module A

NR Band n260 / 50MHz / QPSK

Lowest Band Edge / 1 RB

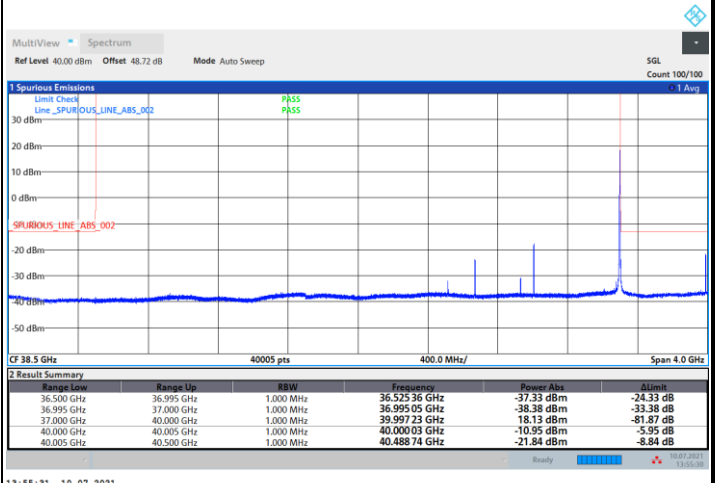
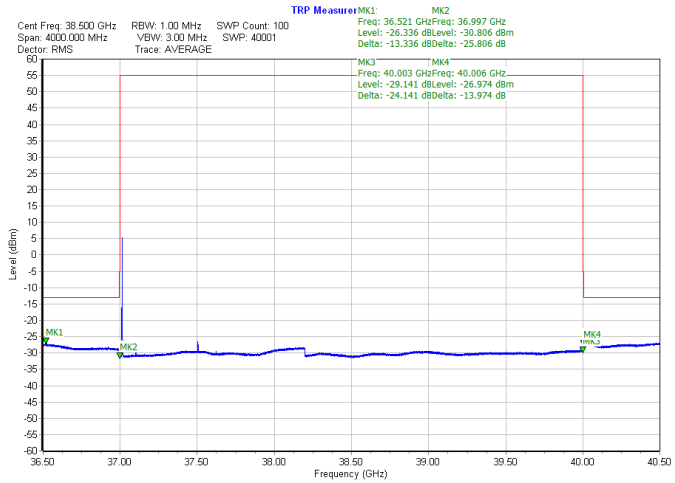
Highest Band Edge / 1 RB



NR Band n260 / 50MHz / 16QAM

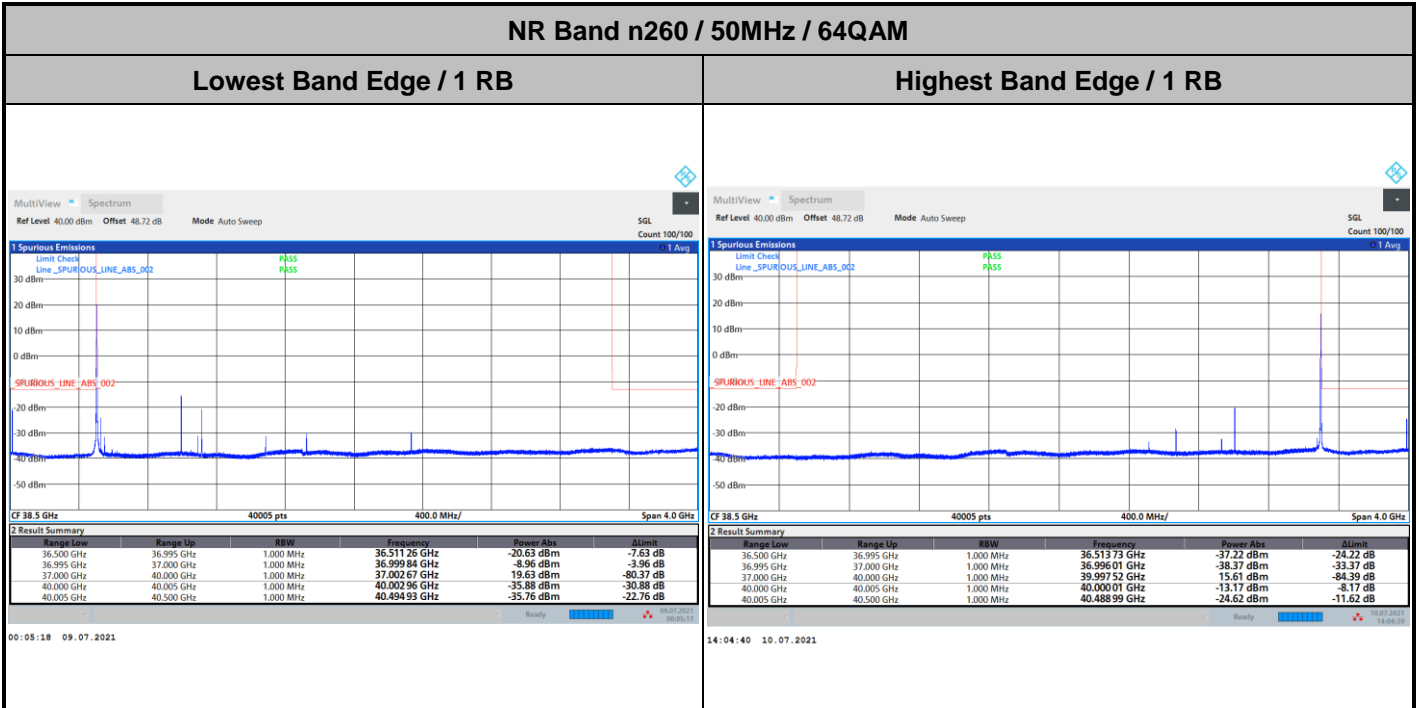
Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

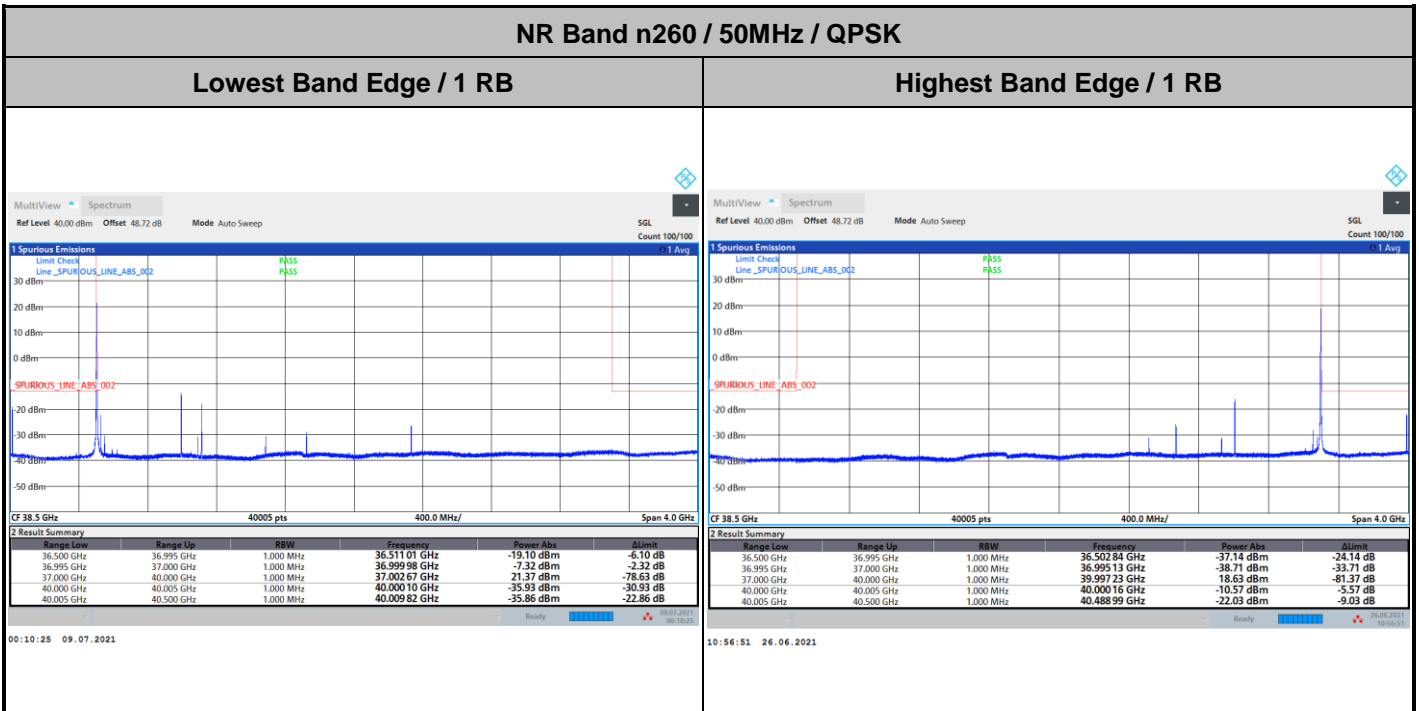




DFT-s-OFDM Module A



CP-OFDM Module A

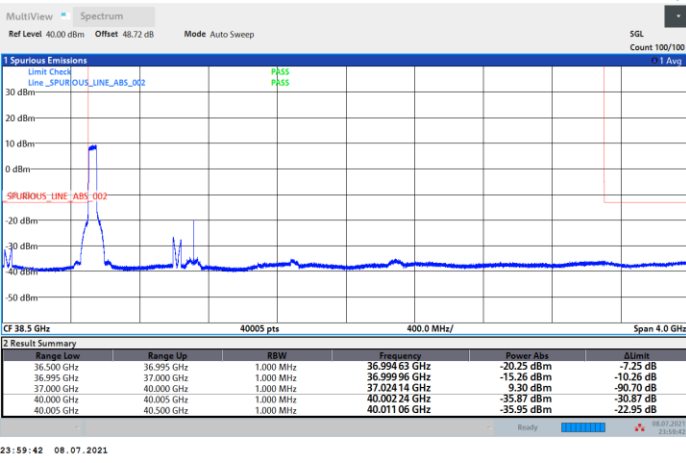




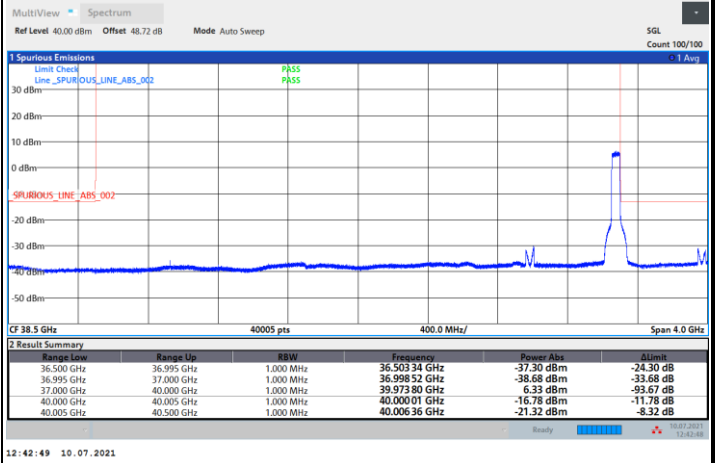
DFT-s-OFDM Module A

NR Band n260 / 50MHz / QPSK

Lowest Band Edge / Full RB

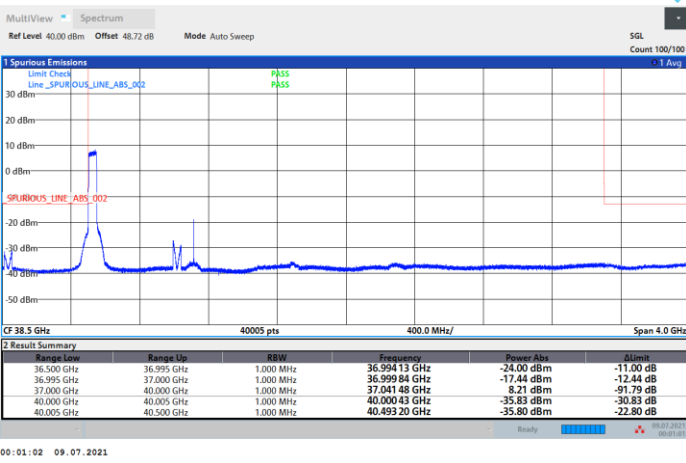


Highest Band Edge / Full RB

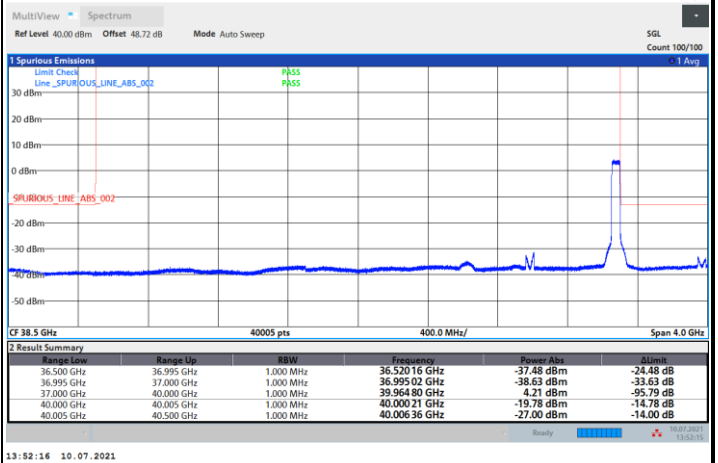


NR Band n260 / 50MHz / 16QAM

Lowest Band Edge / Full RB

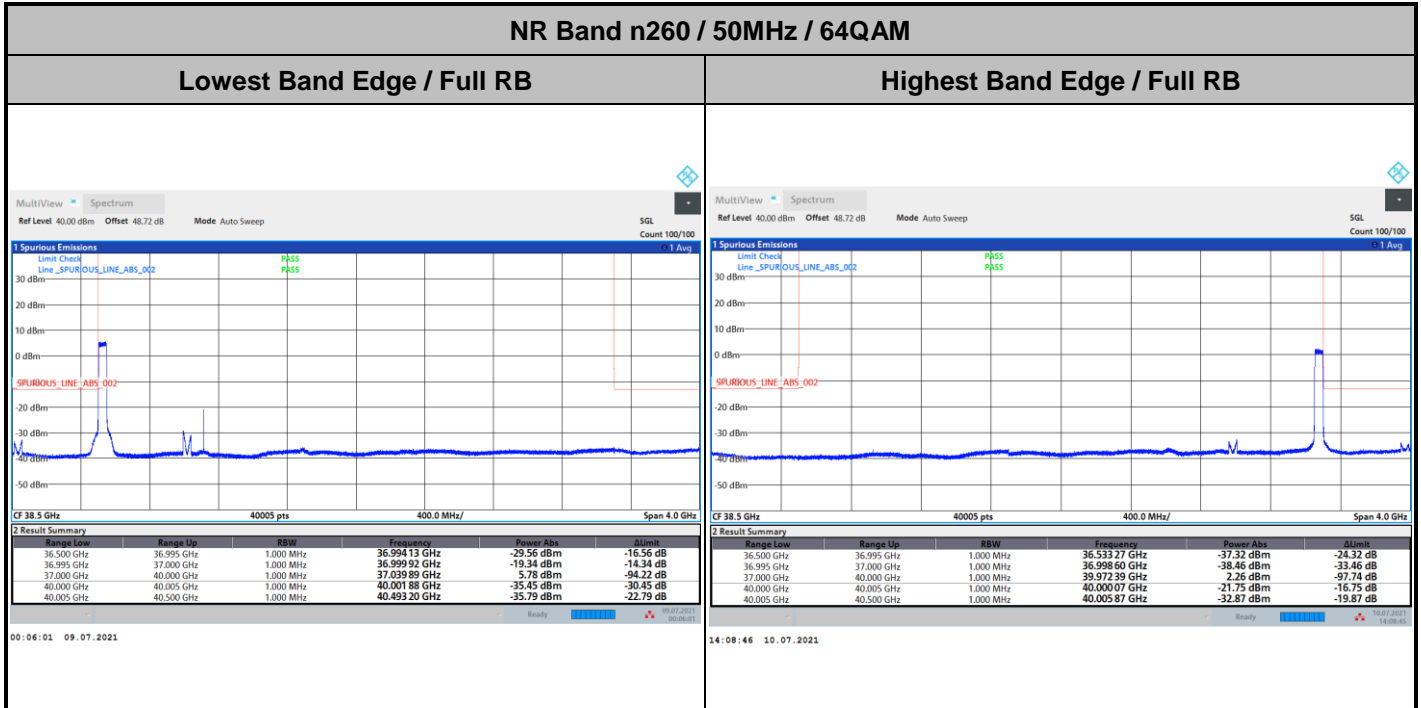


Highest Band Edge / Full RB

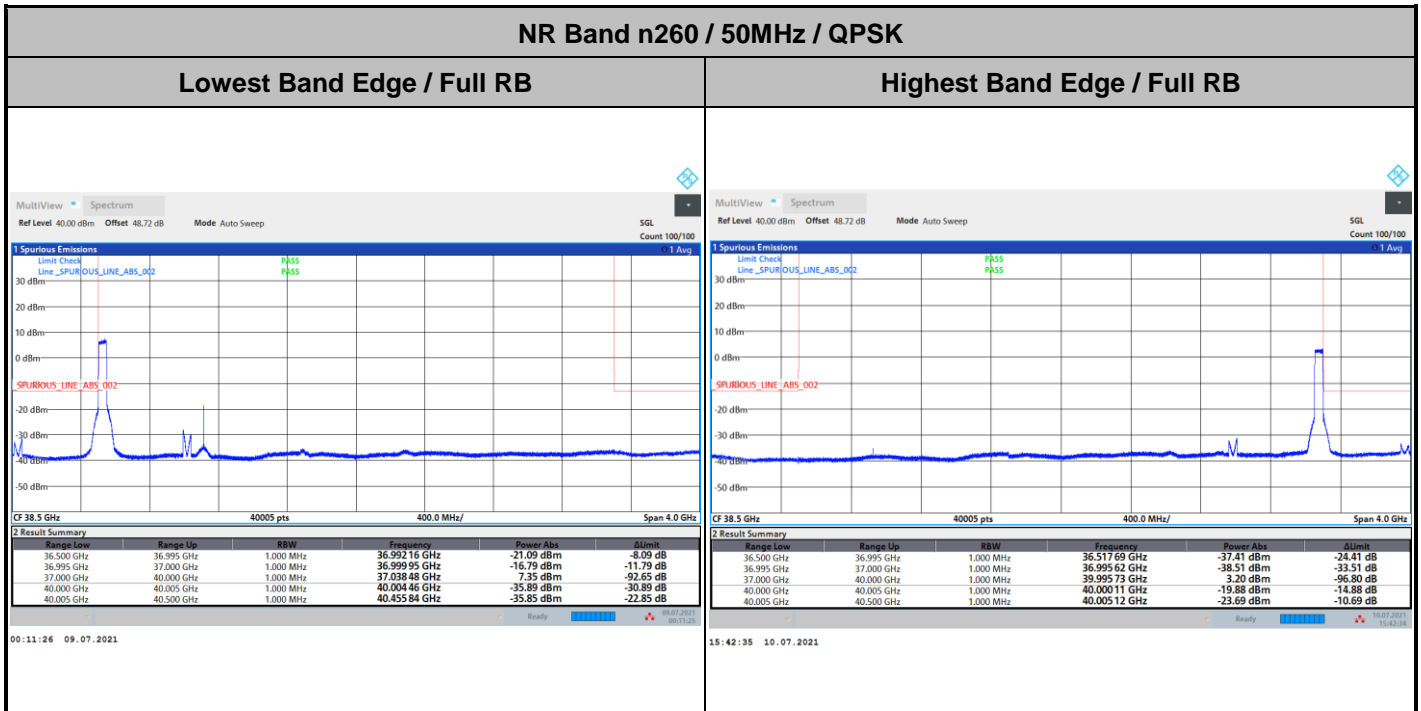




DFT-s-OFDM Module A



CP-OFDM Module A





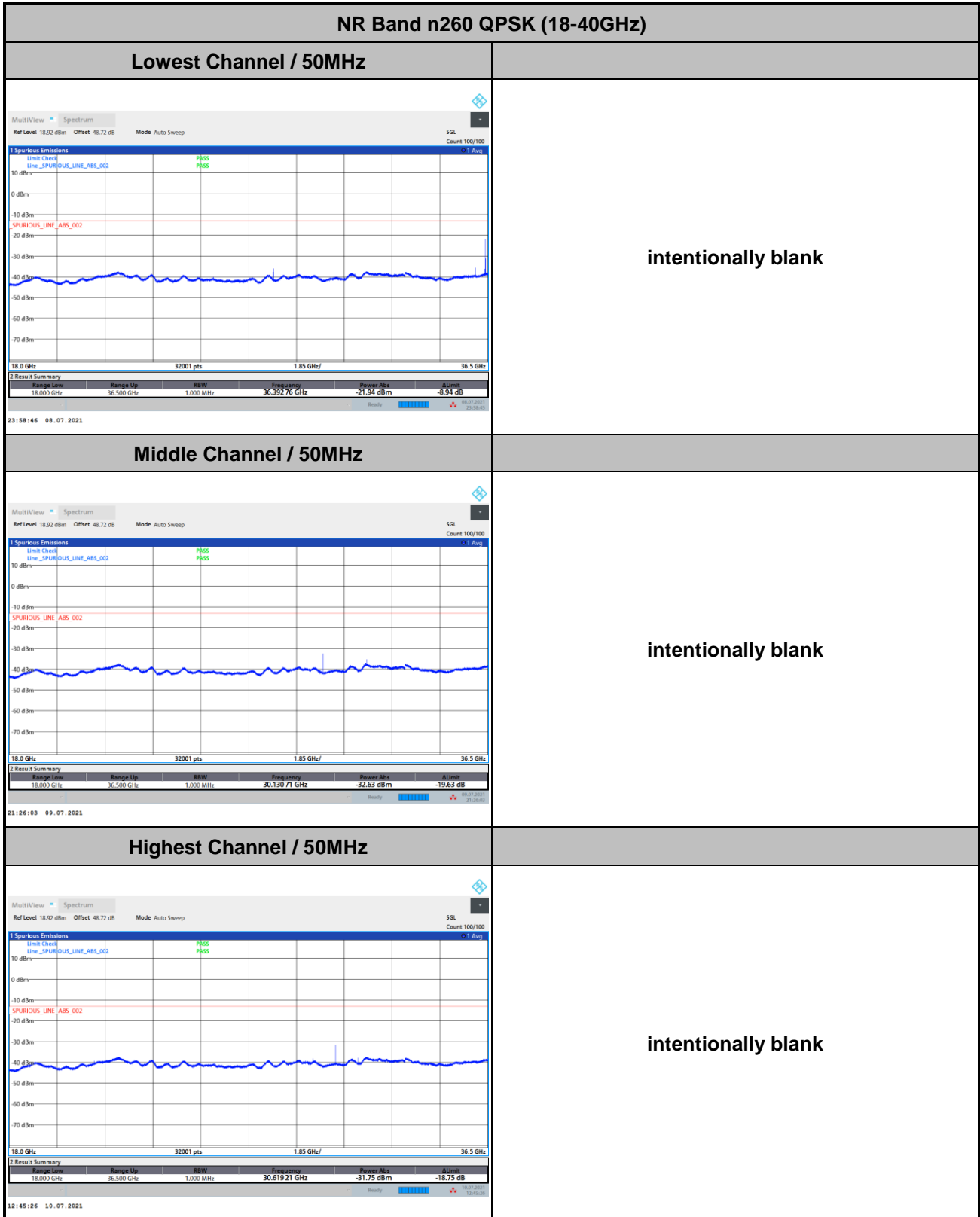


## **Spurious Emission**



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 n260 QPSK (18-40GHz)													
<p><b>Lowest Channel / 50MHz</b></p> <table border="1"><thead><tr><th>Range Low</th><th>Range Up</th><th>RBW</th><th>Frequency</th><th>Power Abs</th><th>Limit</th></tr></thead><tbody><tr><td>18.000 GHz</td><td>36.500 GHz</td><td>1.000 MHz</td><td>36.39276 GHz</td><td>-23.42 dBm</td><td>-10.42 dB</td></tr></tbody></table> <p>09:53 09.07.2021</p>	Range Low	Range Up	RBW	Frequency	Power Abs	Limit	18.000 GHz	36.500 GHz	1.000 MHz	36.39276 GHz	-23.42 dBm	-10.42 dB	<p>intentionally blank</p>
Range Low	Range Up	RBW	Frequency	Power Abs	Limit								
18.000 GHz	36.500 GHz	1.000 MHz	36.39276 GHz	-23.42 dBm	-10.42 dB								
<p><b>Middle Channel / 50MHz</b></p> <table border="1"><thead><tr><th>Range Low</th><th>Range Up</th><th>RBW</th><th>Frequency</th><th>Power Abs</th><th>Limit</th></tr></thead><tbody><tr><td>18.000 GHz</td><td>36.500 GHz</td><td>1.000 MHz</td><td>30.13071 GHz</td><td>-31.97 dBm</td><td>-18.97 dB</td></tr></tbody></table> <p>21:28:59 09.07.2021</p>	Range Low	Range Up	RBW	Frequency	Power Abs	Limit	18.000 GHz	36.500 GHz	1.000 MHz	30.13071 GHz	-31.97 dBm	-18.97 dB	<p>intentionally blank</p>
Range Low	Range Up	RBW	Frequency	Power Abs	Limit								
18.000 GHz	36.500 GHz	1.000 MHz	30.13071 GHz	-31.97 dBm	-18.97 dB								
<p><b>Highest Channel / 50MHz</b></p> <table border="1"><thead><tr><th>Range Low</th><th>Range Up</th><th>RBW</th><th>Frequency</th><th>Power Abs</th><th>Limit</th></tr></thead><tbody><tr><td>18.000 GHz</td><td>36.500 GHz</td><td>1.000 MHz</td><td>30.61921 GHz</td><td>-33.20 dBm</td><td>-20.20 dB</td></tr></tbody></table> <p>15:43:39 10.07.2021</p>	Range Low	Range Up	RBW	Frequency	Power Abs	Limit	18.000 GHz	36.500 GHz	1.000 MHz	30.61921 GHz	-33.20 dBm	-20.20 dB	<p>intentionally blank</p>
Range Low	Range Up	RBW	Frequency	Power Abs	Limit								
18.000 GHz	36.500 GHz	1.000 MHz	30.61921 GHz	-33.20 dBm	-20.20 dB								

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



## NR Band n260 Module A Beam V

### Occupied Bandwidth

Mode	DFT-s-OFDM Module A NR Band n260 : 99%OBW(MHz)		
BW	50MHz		
Mod.	QPSK	16QAM	64QAM
Lowest CH	46.27	46.37	46.03
Middle CH	45.98	46.31	46.00
Highest CH	45.98	46.25	45.99

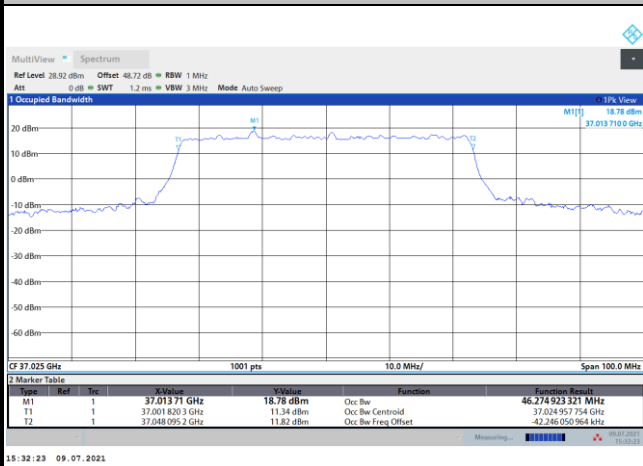
Mode	CP-OFDM Module A NR Band n260 : 99%OBW(MHz)
BW	50MHz
Mod.	QPSK
Lowest CH	46.41
Middle CH	46.00
Highest CH	46.17



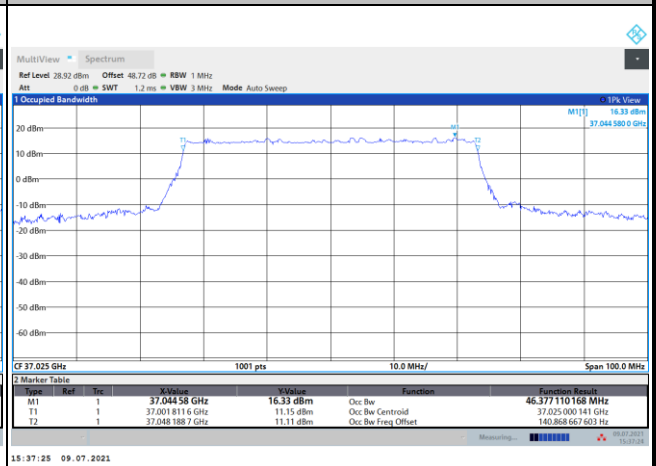
DFT-s-OFDM Module A

NR Band n260

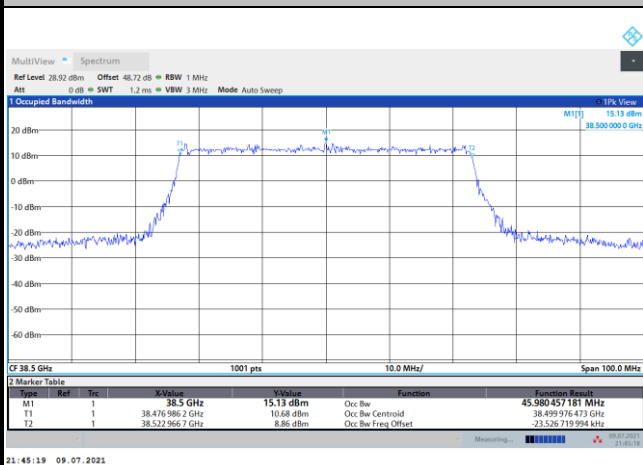
Lowest Channel / 50MHz / QPSK



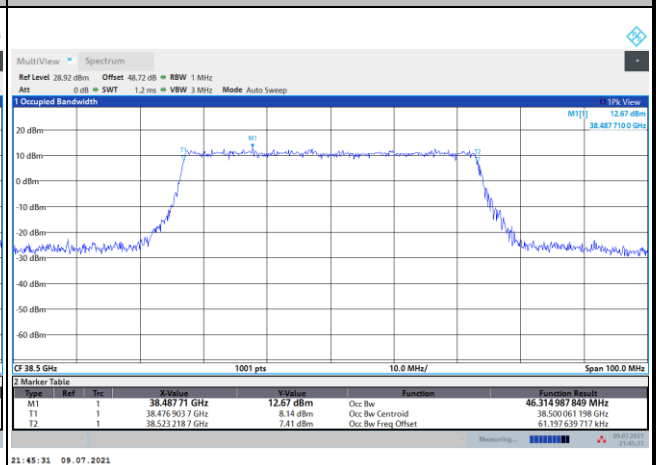
Lowest Channel / 50MHz / 16QAM



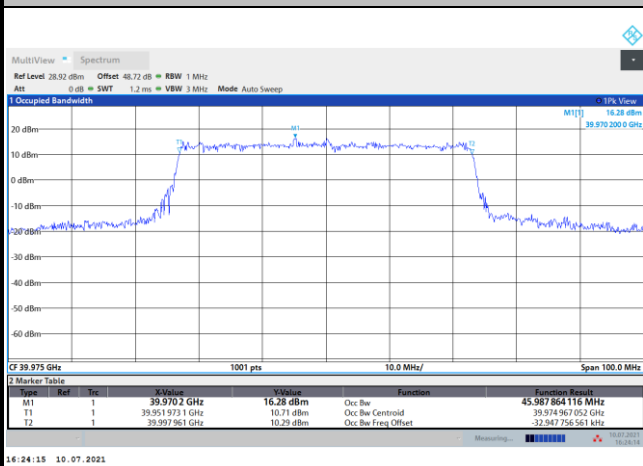
Middle Channel / 50MHz / QPSK



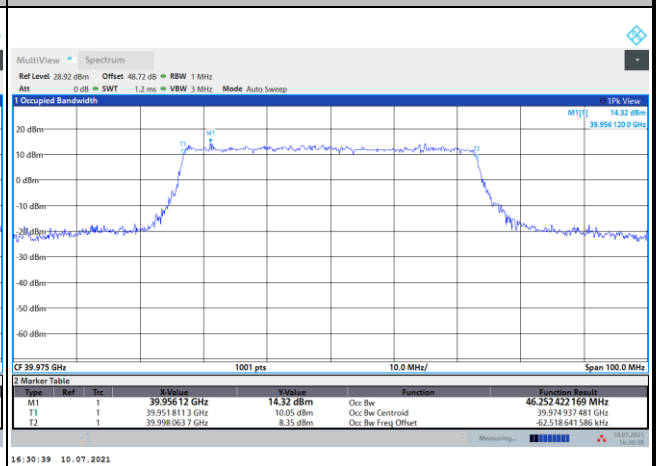
Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM

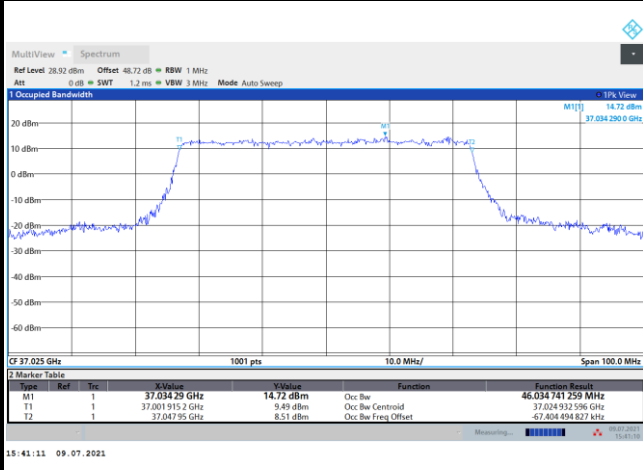




DFT-s-OFDM Module A

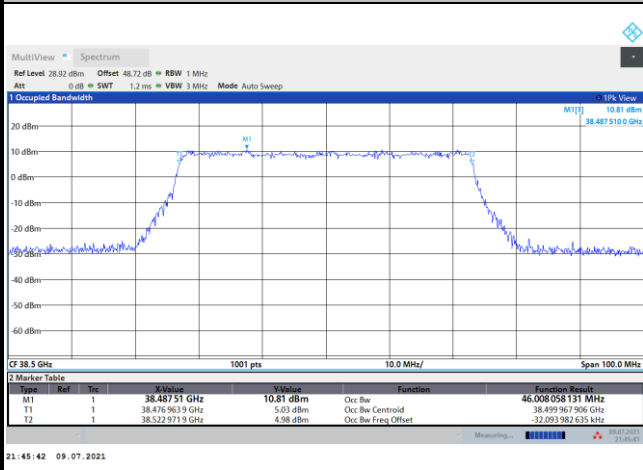
NR Band n260

Lowest Channel / 50MHz / 64QAM



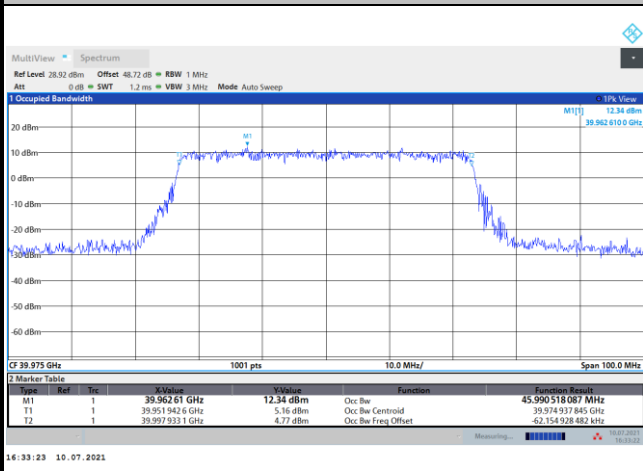
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Middle Channel / 50MHz / 64QAM



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Highest Channel / 50MHz / 64QAM



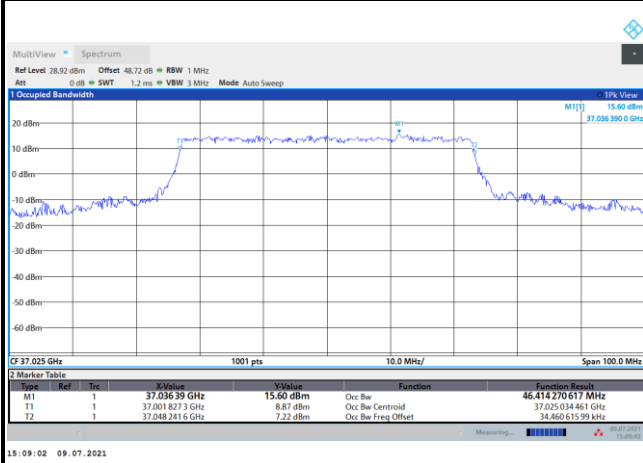
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CP-OFDM Module A

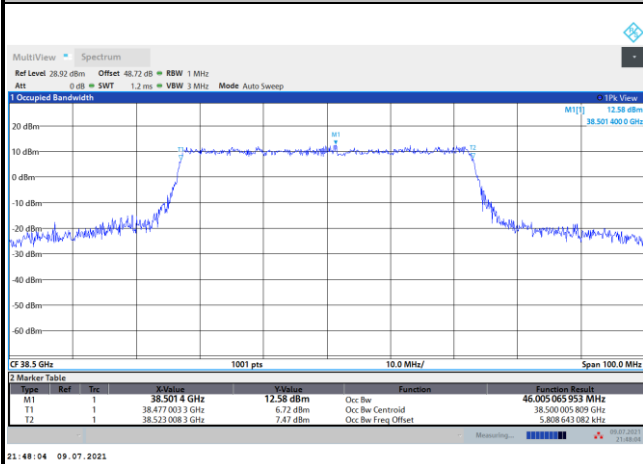
NR Band n260

Lowest Channel / 50MHz / QPSK



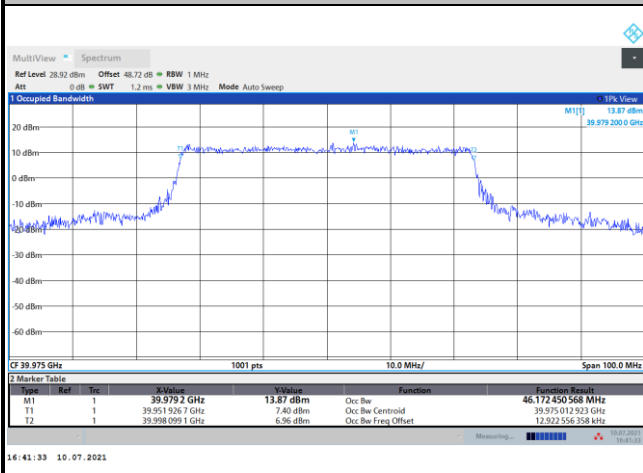
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Middle Channel / 50MHz / QPSK



intentionally blank

Highest Channel / 50MHz / QPSK



intentionally blank



**Radiated Out of Band Emissions**

Mode			DFT-s-OFDM Module A NR Band n260 : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-5.30	-15.55	-9.11
	>10%OB	≤ -13	-17.09	-21.55	-20.59
HighCH	0~10%OB	≤ -5	-9.26	-11.12	-11.56
	>10%OB	≤ -13	-19.90	-22.26	-23.42
Result			Compliance		

Mode			CP-OFDM Module A NR Band n260 : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK		
Low CH	0~10%OB	≤ -5	-7.16		
	>10%OB	≤ -13	-19.23		
High CH	0~10%OB	≤ -5	-11.12		
	>10%OB	≤ -13	-21.91		
Result			Compliance		

Mode			DFT-s-OFDM Module A NR Band n260 : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-13.12	-15.46	-20.06
	>10%OB	≤ -13	-18.18	-21.82	-28.76
HighCH	0~10%OB	≤ -5	-19.17	-19.23	-22.08
	>10%OB	≤ -13	-23.06	-26.59	-32.90
Result			Compliance		

Mode			CP-OFDM Module A NR Band n260 : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK		
Low CH	0~10%OB	≤ -5	-15.16		
	>10%OB	≤ -13	-19.20		
High CH	0~10%OB	≤ -5	-18.45		
	>10%OB	≤ -13	-22.39		
Result			Compliance		

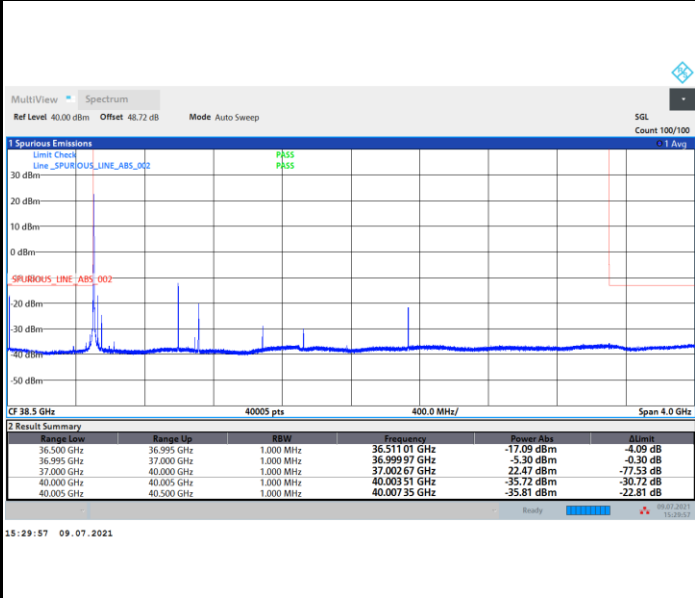




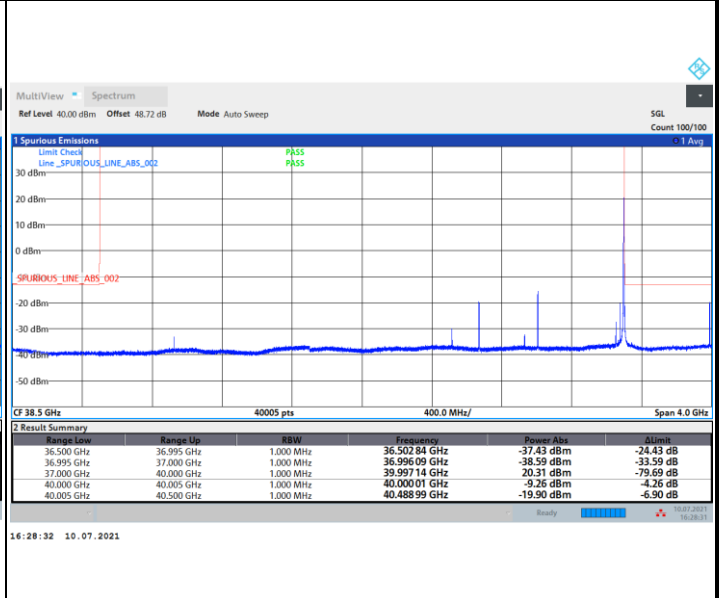
DFT-s-OFDM Module A

NR Band n260 / 50MHz / QPSK

Lowest Band Edge / 1 RB

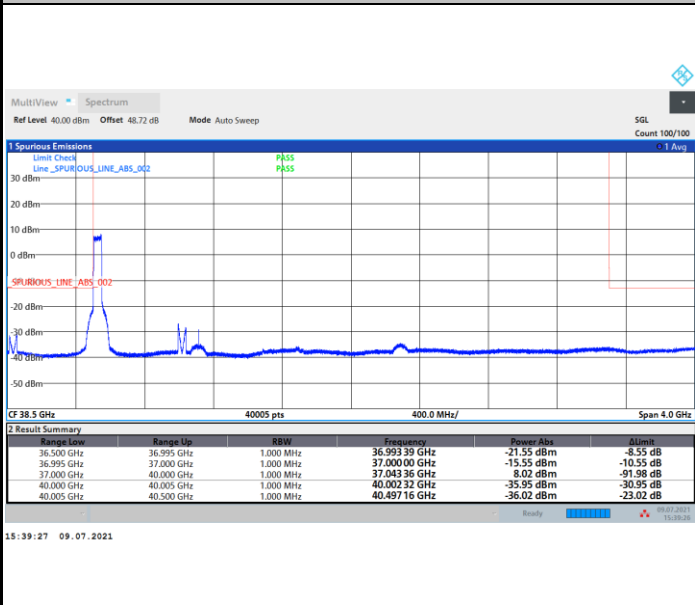


Highest Band Edge / 1 RB

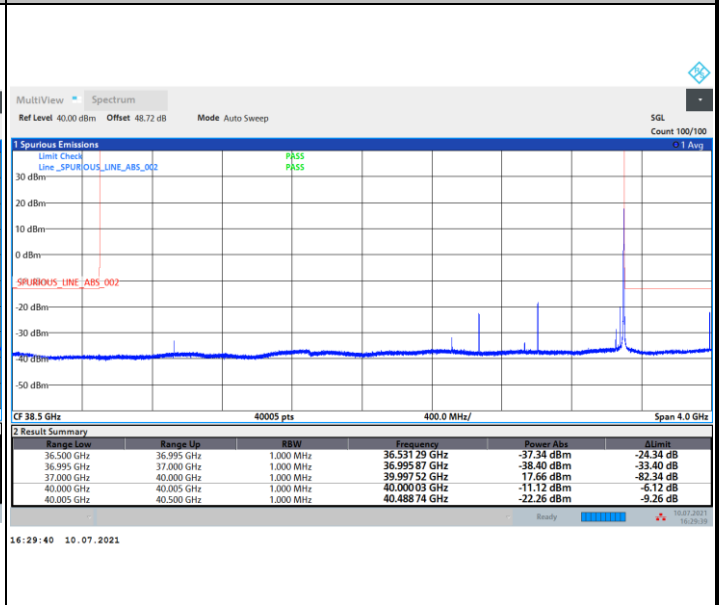


NR Band n260 / 50MHz / 16QAM

Lowest Band Edge / 1 RB

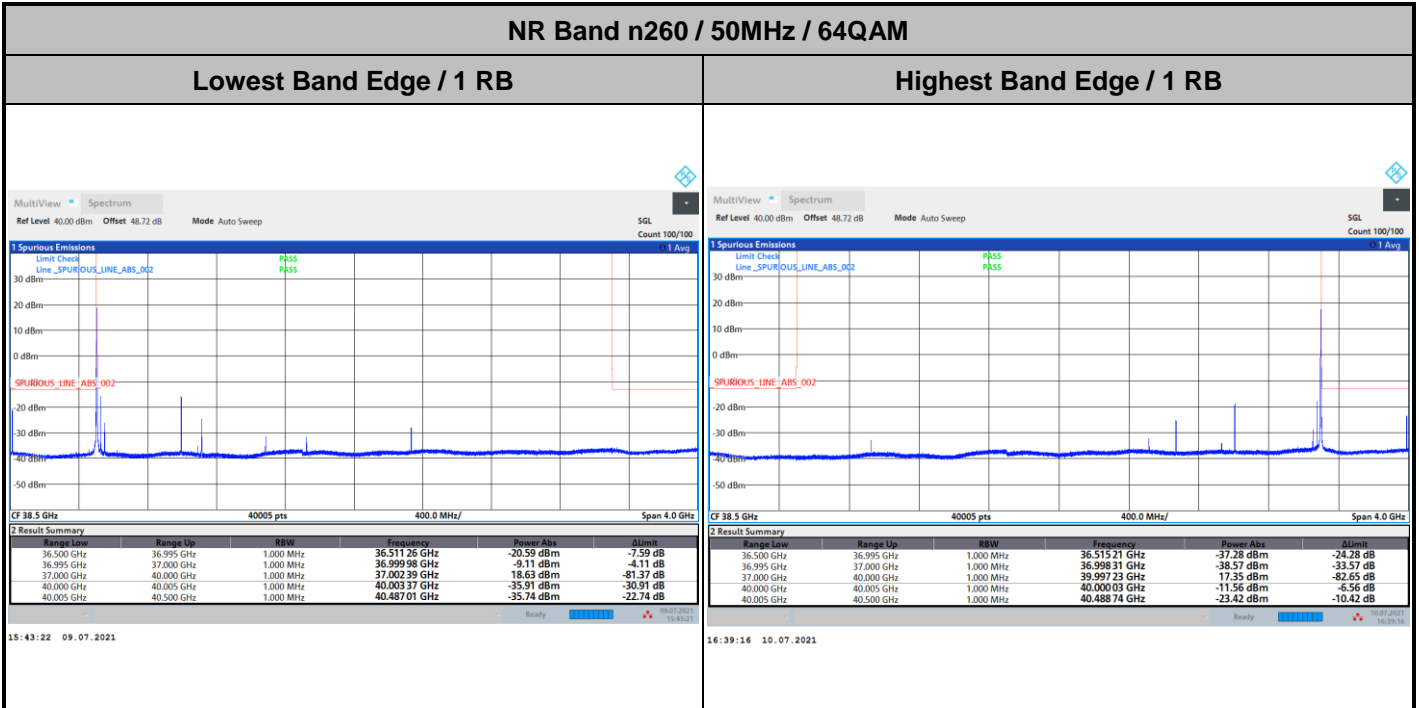


Highest Band Edge / 1 RB





DFT-s-OFDM Module A



CP-OFDM Module A

