



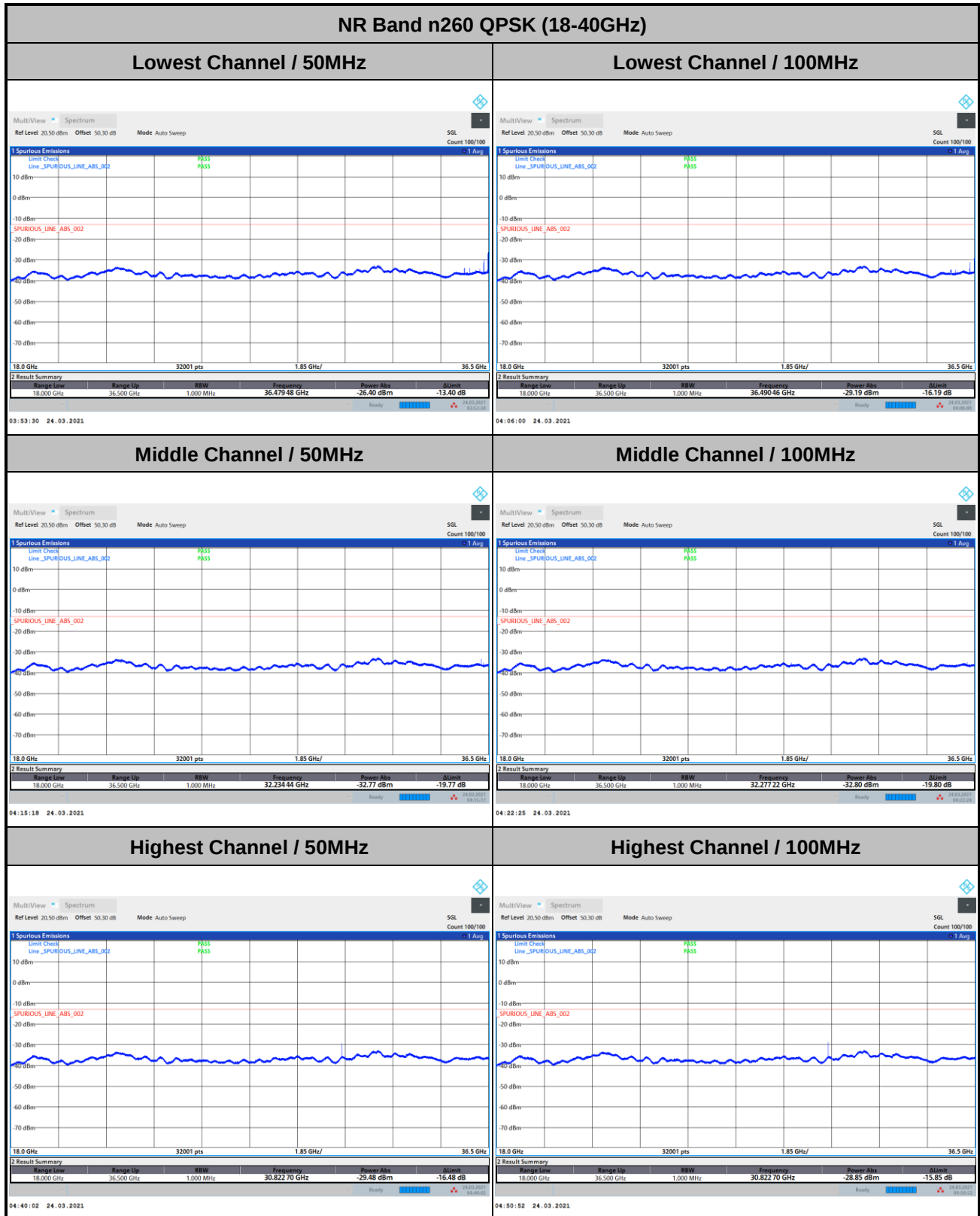
Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

DFT-s-OFDM

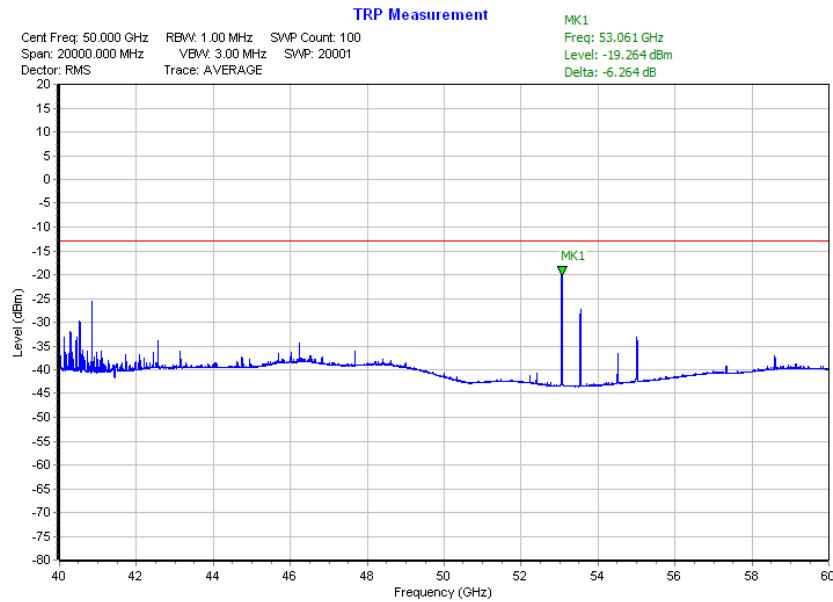
Remark: In band and out of band frequencies are omitted.



CP-OFDM



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

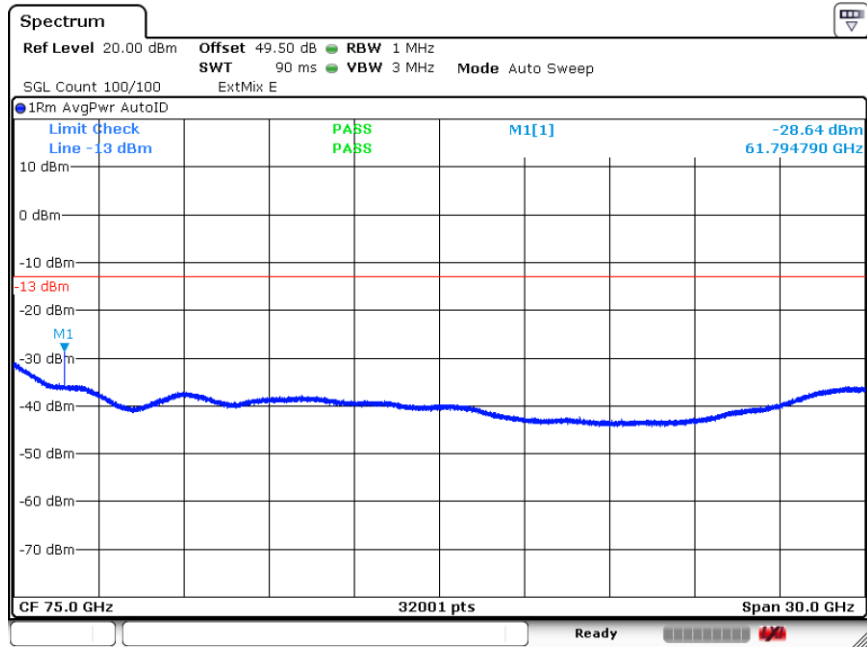
NR Band n260
(40GHz-60GHz)


$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 42.3 + 0.34 + 107 + 20\log(1.2) - 104.8 = 46.4 \text{ (dB)} \end{aligned}$$



NR Band n260

(60GHz-90GHz)

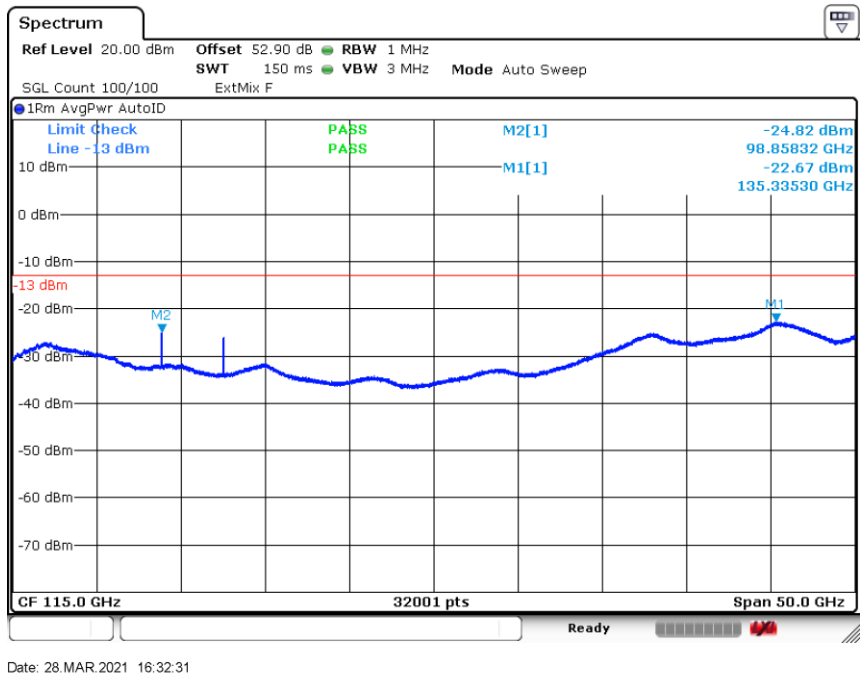


$$\begin{aligned}\text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 45.4 + 0.34 + 107 + 20\log(1.2) - 104.8 = 49.5 \text{ (dB)}\end{aligned}$$



NR Band n260

(90GHz-140GHz)

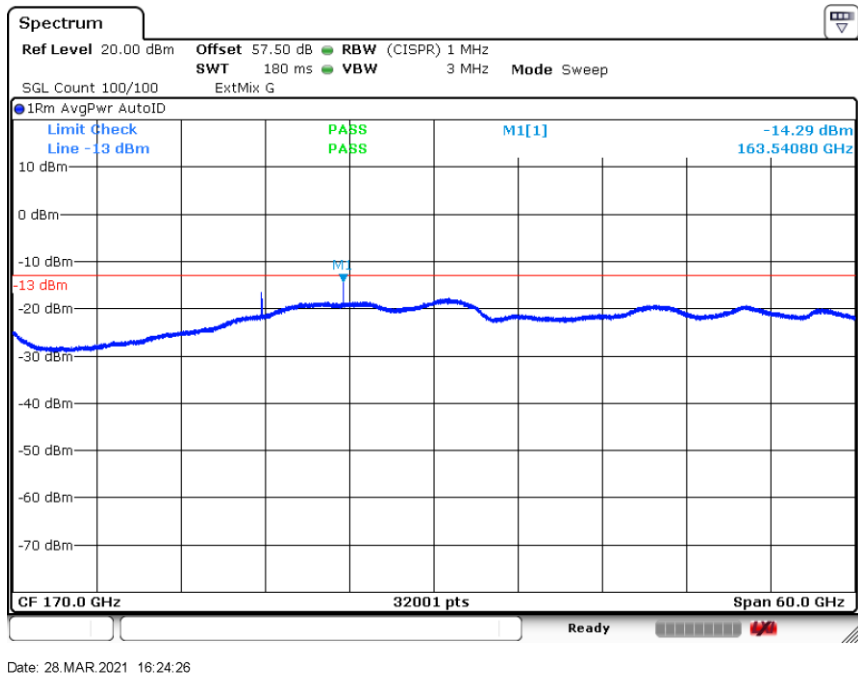


$$\begin{aligned}\text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 48.8 + 0.34 + 107 + 20\log(1.2) - 104.8 = 52.9 \text{ (dB)}\end{aligned}$$



NR Band n260

(140GHz-200GHz)



$$\begin{aligned}\text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 53.4 + 0.34 + 107 + 20\log(1.2) - 104.8 = 57.5 \text{ (dB)}\end{aligned}$$

**Frequency Stability**

Test Conditions		NR Band n260 / Middle Channel			Limit
Temperature (°C)	Voltage (Volt)	CW tone			Note.
		Frequency (GHz)	Deviation (kHz)	Deviation (ppm)	Result
50	120	38.4998971	102.900	2.673	PASS
40	120	38.500024	-24.000	0.623	
30	120	38.5001219	-121.900	3.166	
20(Ref.)	120	38.5	0.000	0.000	
10	120	38.5001179	-117.900	3.062	
0	120	38.5002338	-233.800	6.073	
-10	120	38.5002408	-240.800	6.255	
-20	120	38.5002727	-272.700	7.083	
-30	120	38.5002757	-275.700	7.161	
20	102	38.500012	-12.000	0.312	
20	120	38.500005	-5.000	0.130	
20	138	38.500008	-8.000	0.208	

Note: The frequency fundamental emissions stay within the operation band.

Appendix B.3 Radiated Test NR Band n260 (Beam ID: 319)

Occupied Bandwidth

Mode	DFT-s-OFDM NR Band n260 : 99%OBW(MHz)	
BW	50MHz	100MHz
Mod.	QPSK	QPSK
Lowest CH	45.25	90.31
Middle CH	45.43	90.39
Highest CH	45.25	90.28

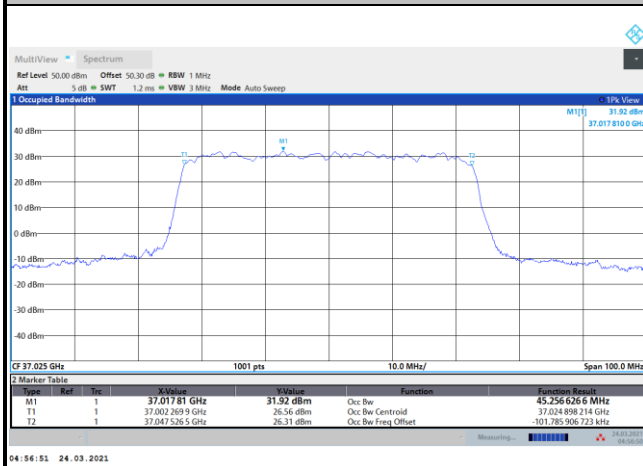
Mode	CP-OFDM NR Band n260 : 99%OBW(MHz)	
BW	50MHz	100MHz
Mod.	QPSK	QPSK
Lowest CH	45.07	92.63
Middle CH	45.43	92.68
Highest CH	45.08	92.64



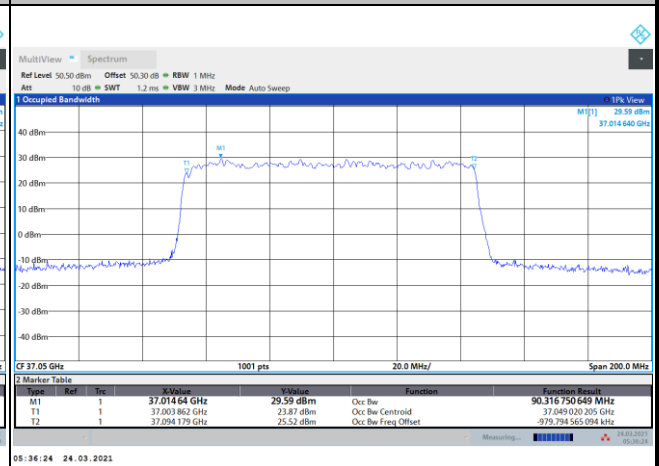
DFT-s-OFDM

NR Band n260

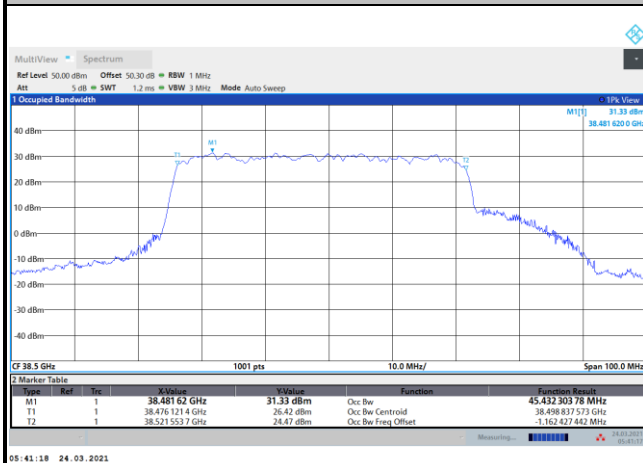
Lowest Channel / 50MHz / QPSK



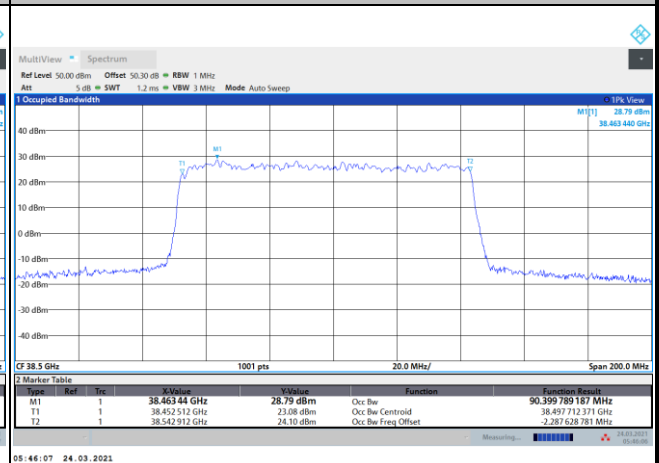
Lowest Channel / 100MHz / QPSK



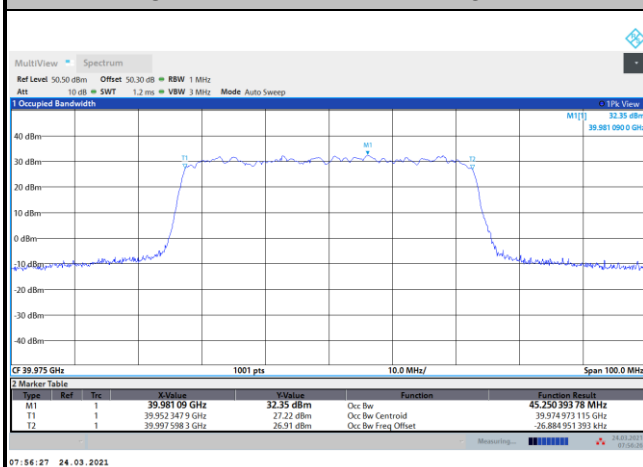
Middle Channel / 50MHz / QPSK



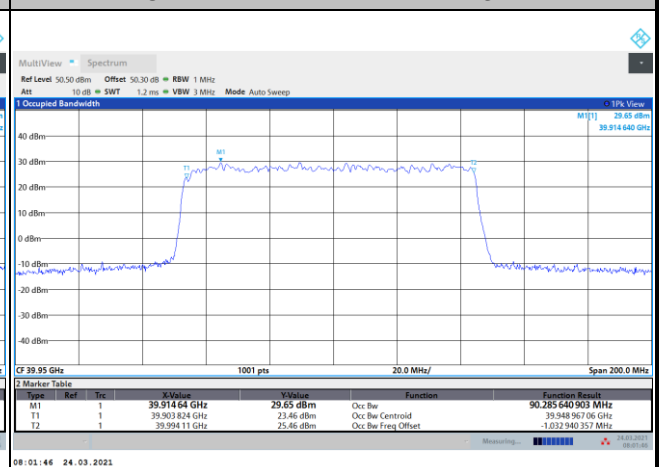
Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / QPSK



Highest Channel / 100MHz / QPSK

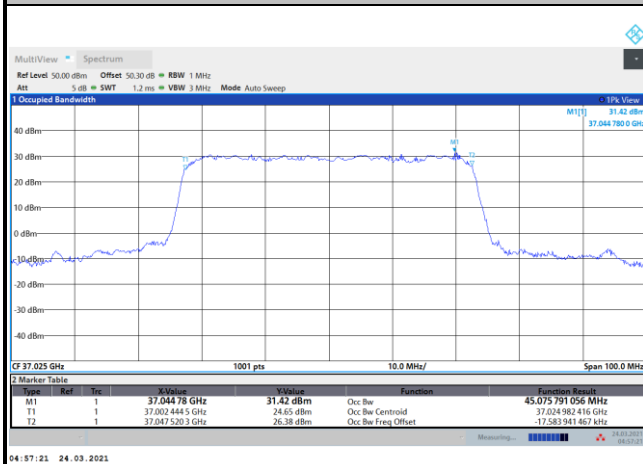




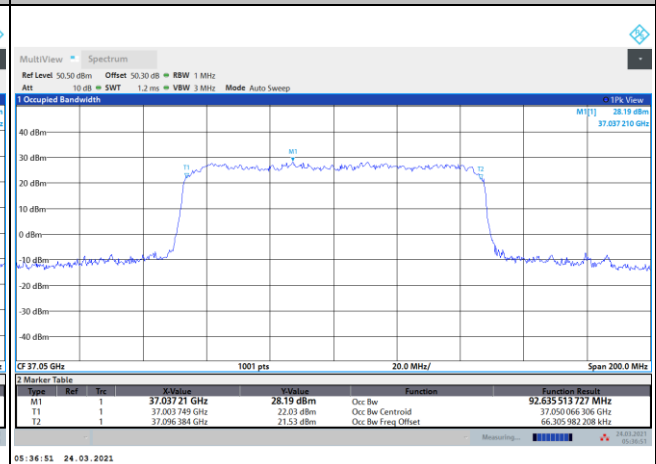
CP-OFDM

NR Band n260

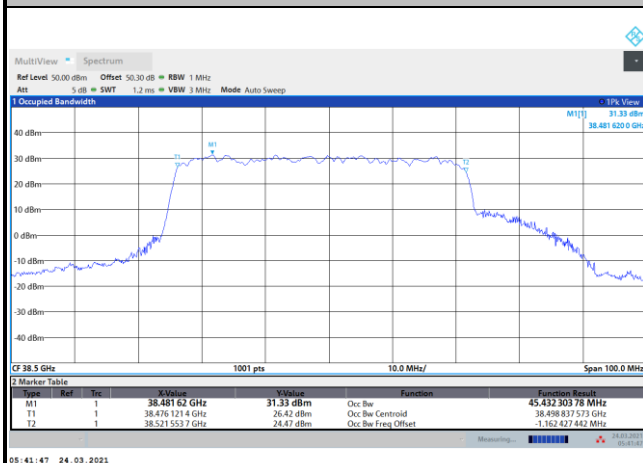
Lowest Channel / 50MHz / QPSK



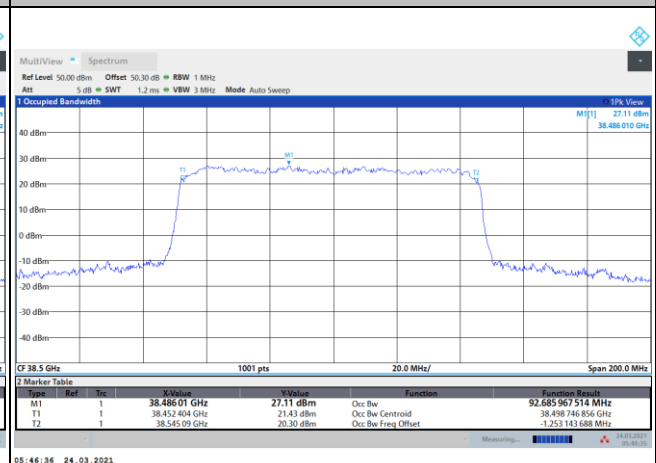
Lowest Channel / 100MHz / QPSK



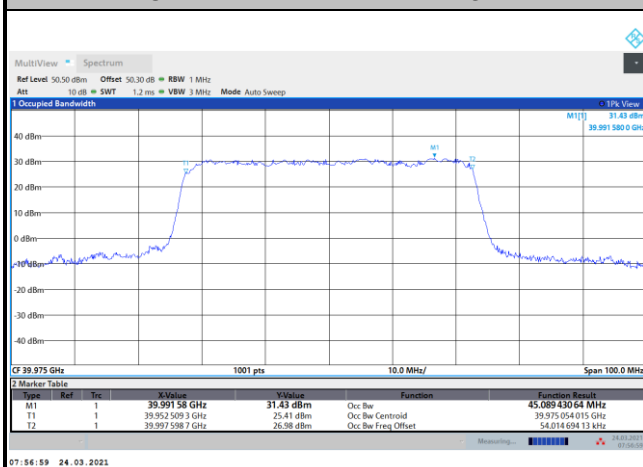
Middle Channel / 50MHz / QPSK



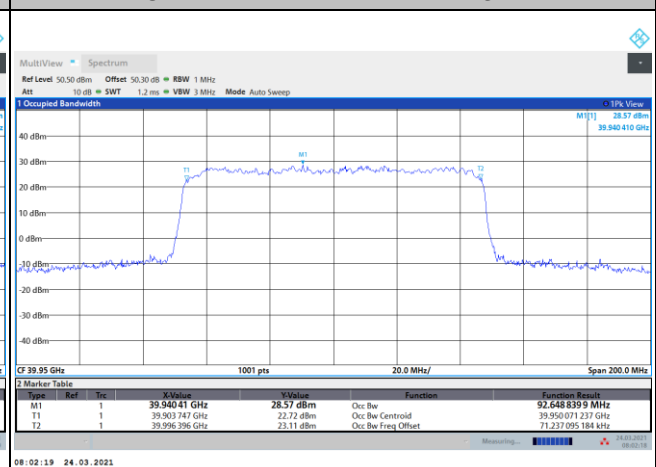
Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / QPSK



Highest Channel / 100MHz / QPSK



**Radiated Out of Band Emissions****Test Result:**

Mode		DFT-s-OFDM NR Band n260							
Channel	BW (MHz)	Modulation	RB Size/ allocation	0 ~ 10 %OB Limit (dBm/MHz)	0 ~ 10 %OB PSD (dBm/MHz)	Result	>10%OB Limit (dBm/MHz)	>10%OB PSD (dBm/MHz)	Result
Low	50	QPSK	32/0	-5	-7.13	Pass	-13	-13.58	Pass
Low	50	BPSK	32/0	-5	-7.89	Pass	-13	-14.35	Pass
Low	50	QPSK	8/0	-5	-22.99	Pass	-13	-22.07	Pass
Low	50	QPSK	10/11	-5	-25.01	Pass	-13	-21.78	Pass
Low	50	BPSK	10/11	-5	-13.99	Pass	-13	-13.72	Pass
High	50	QPSK	32/0	-5	-6.97	Pass	-13	-14.11	Pass
High	50	BPSK	32/0	-5	-6.29	Pass	-13	-15.05	Pass
High	50	QPSK	8/24	-5	-21.06	Pass	-13	-19.85	Pass
High	50	QPSK	10/11	-5	-13.08	Pass	-13	-13.23	Pass
High	50	BPSK	10/11	-5	-12.75	Pass	-13	-13.25	Pass
Low	100	QPSK	64/0	-5	-13.54	Pass	-13	-16.69	Pass
Low	100	BPSK	64/0	-5	-11.52	Pass	-13	-16.51	Pass
Low	100	QPSK	8/0	-5	-5.11	Pass	-13	-15.74	Pass
Low	100	QPSK	20/22	-5	-15.49	Pass	-13	-16.21	Pass
Low	100	BPSK	20/22	-5	-18.42	Pass	-13	-15.82	Pass
High	100	QPSK	64/0	-5	-14.52	Pass	-13	-16.37	Pass
High	100	BPSK	64/0	-5	-14.23	Pass	-13	-18.62	Pass
High	100	QPSK	8/58	-5	-21.16	Pass	-13	-19.92	Pass
High	100	QPSK	20/22	-5	-15.46	Pass	-13	-16.65	Pass
High	100	BPSK	20/22	-5	-17.29	Pass	-13	-16.48	Pass

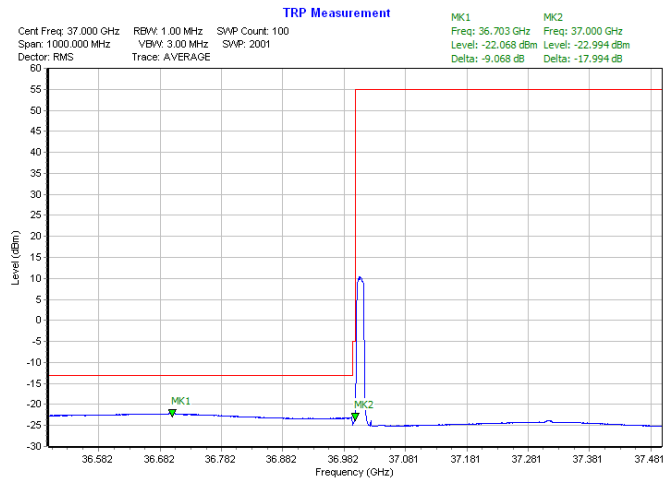
Note: Both DFT-s-OFDM and CP-OFDM waveforms are evaluated, and the DFT-s-OFDM is the worst case.



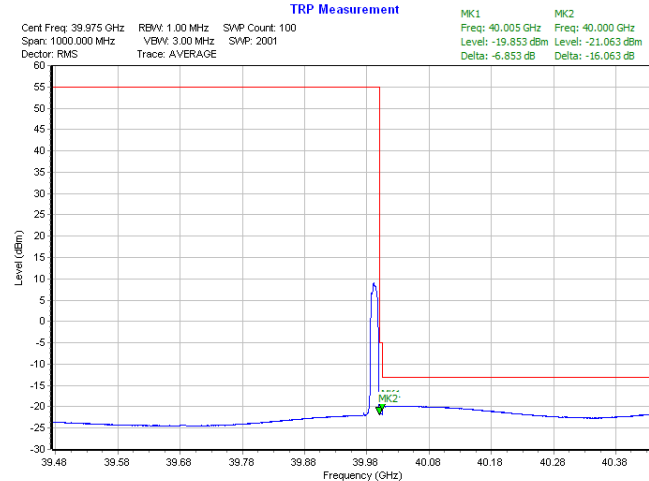
DFT-s-OFDM

NR Band n260 / 50MHz / QPSK

Lowest Band Edge / 8 RB (8/0)

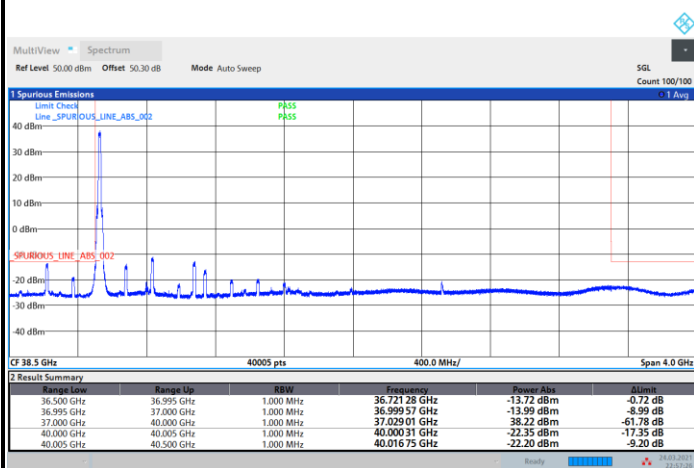


Highest Band Edge / 8 RB (8/24)

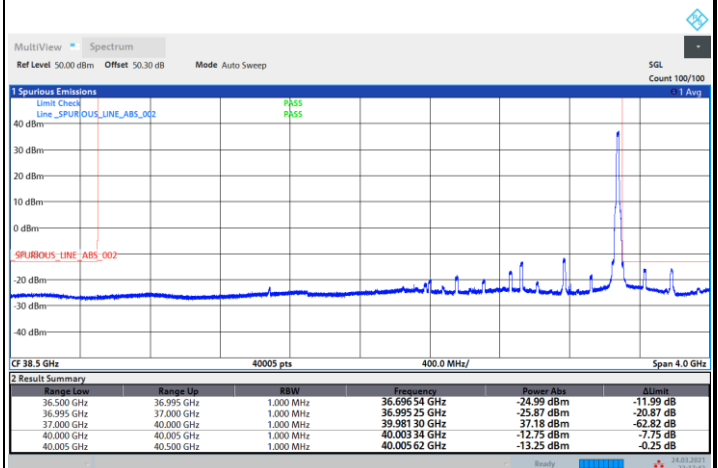


NR Band n260 / 50MHz / BPSK

Lowest Band Edge / Full RB (10/11)



Highest Band Edge / Full RB (10/11)



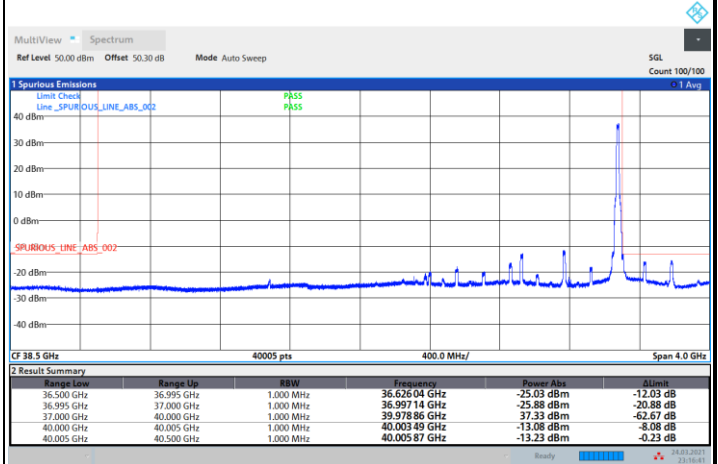
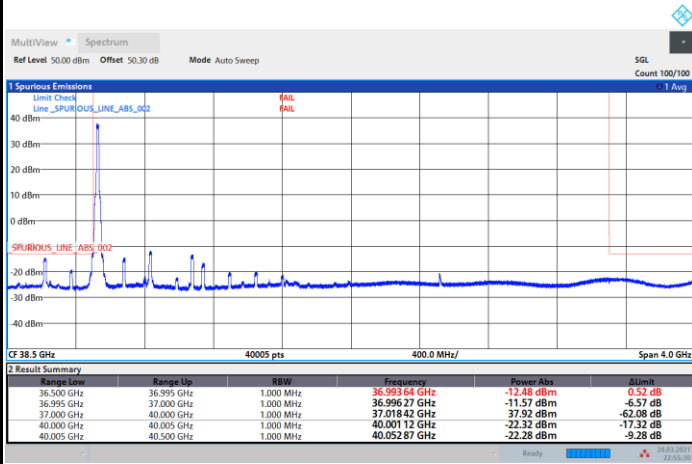


DFT-s-OFDM

NR Band n260 / 50MHz / QPSK

Lowest Band Edge / Full RB (10/11)

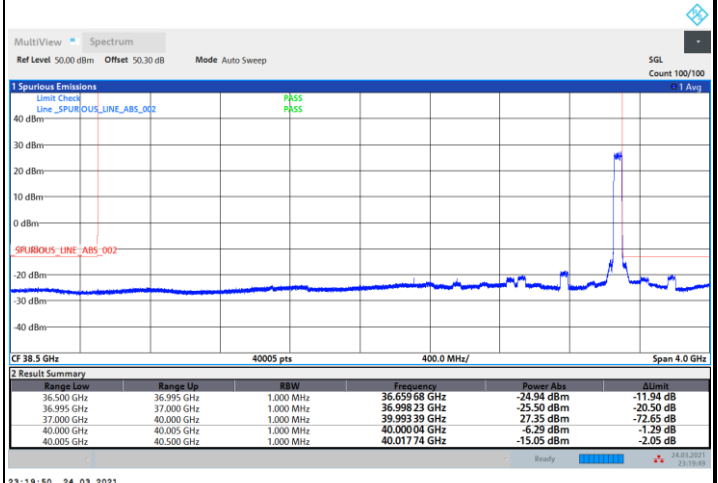
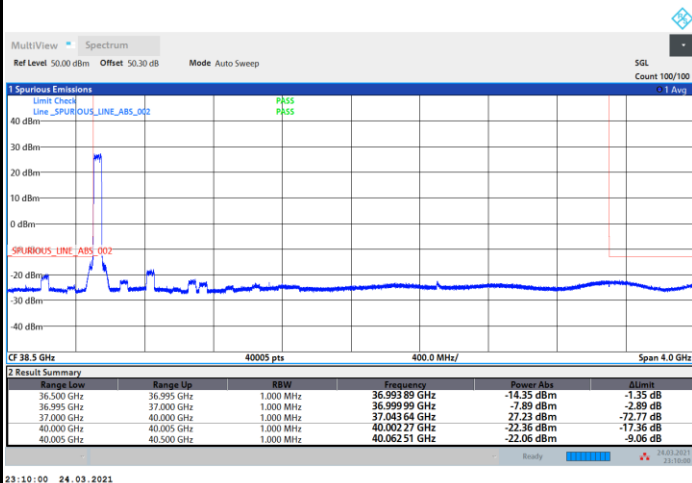
Highest Band Edge / Full RB (10/11)



NR Band n260 / 50MHz / BPSK

Lowest Band Edge / Full RB (32/0)

Highest Band Edge / Full RB (32/0)



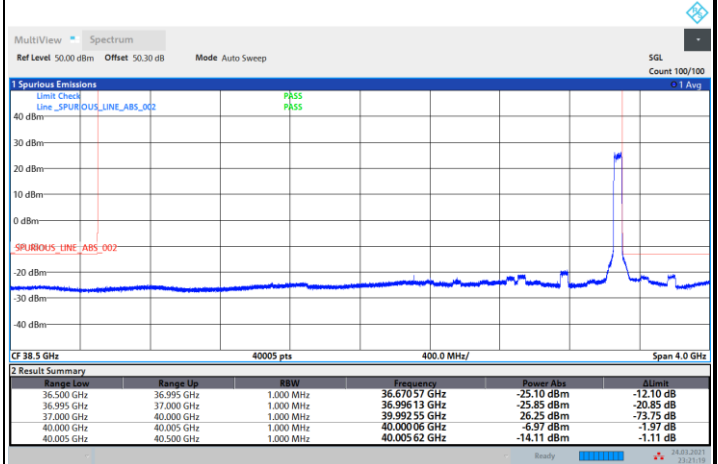
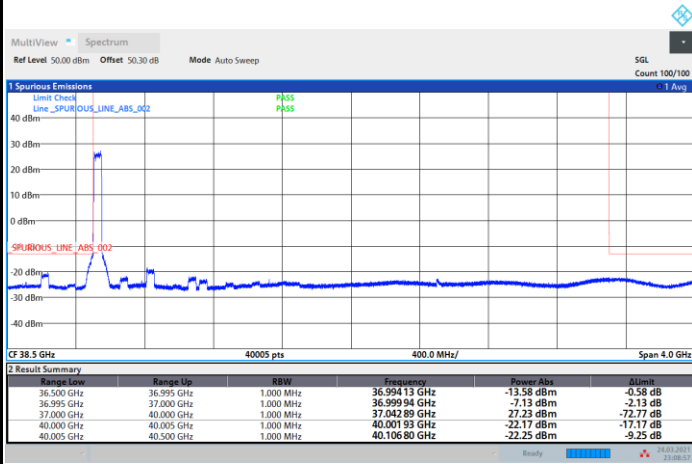


DFT-s-OFDM

NR Band n260 / 50MHz / QPSK

Lowest Band Edge / Full RB (32/0)

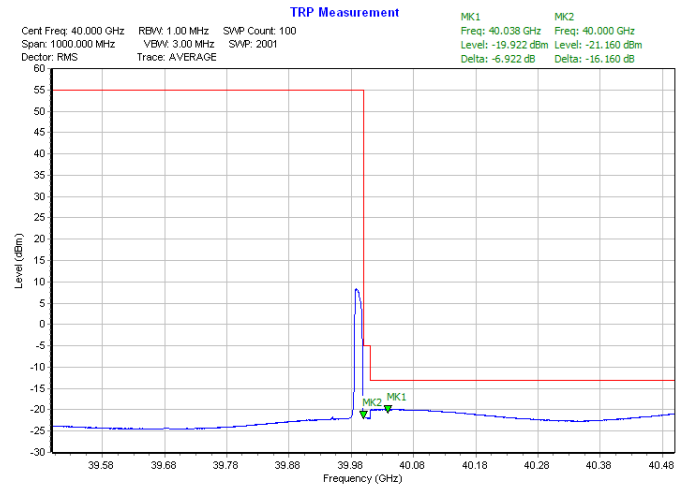
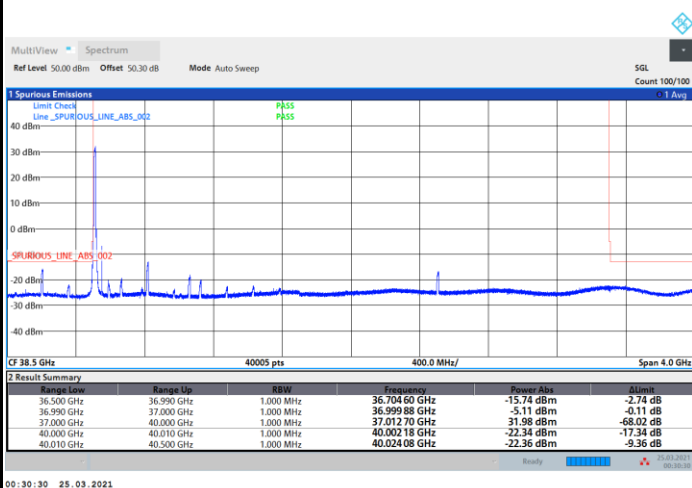
Highest Band Edge / Full RB (32/0)



NR Band n260 / 100MHz / QPSK

Lowest Band Edge / 8 RB (8/0)

Highest Band Edge / 8 RB (8/58)



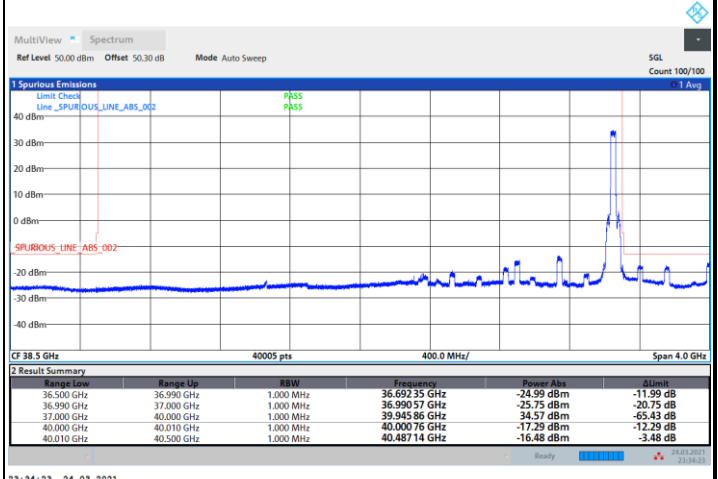
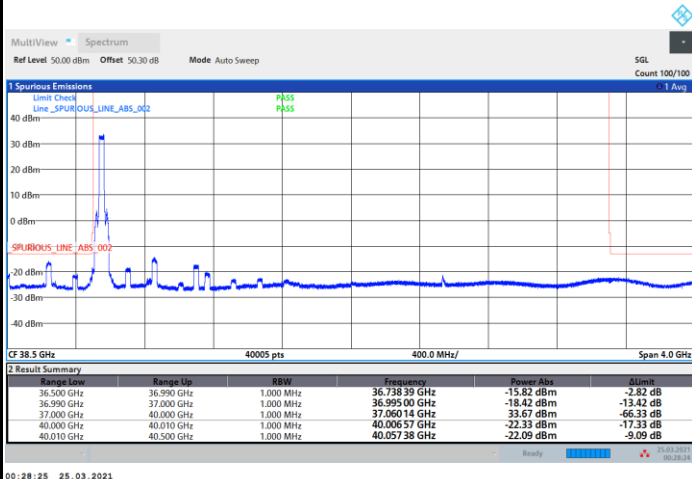


DFT-s-OFDM

NR Band n260 / 100MHz / BPSK

Lowest Band Edge / Full RB (20/22)

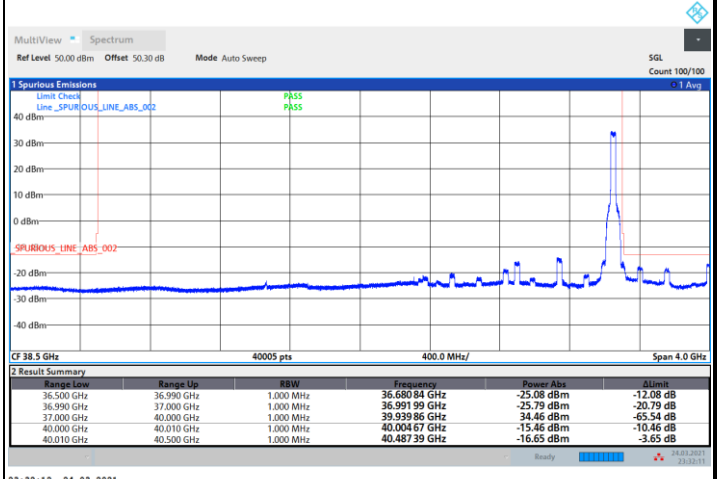
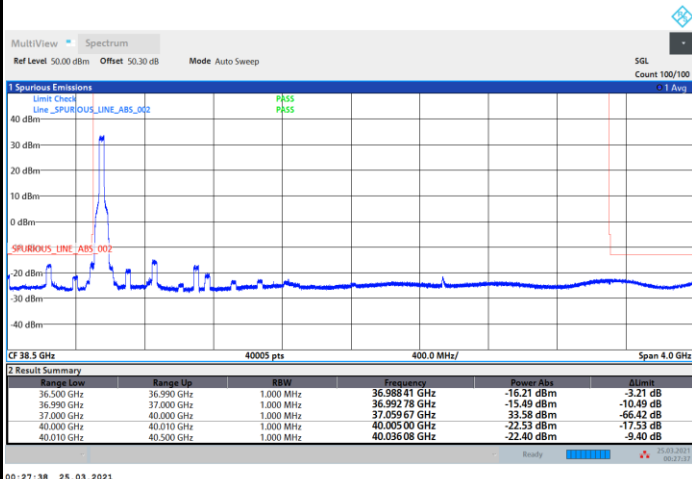
Highest Band Edge / Full RB (20/22)



NR Band n260 / 100MHz / QPSK

Lowest Band Edge / Full RB (20/22)

Highest Band Edge / Full RB (20/22)



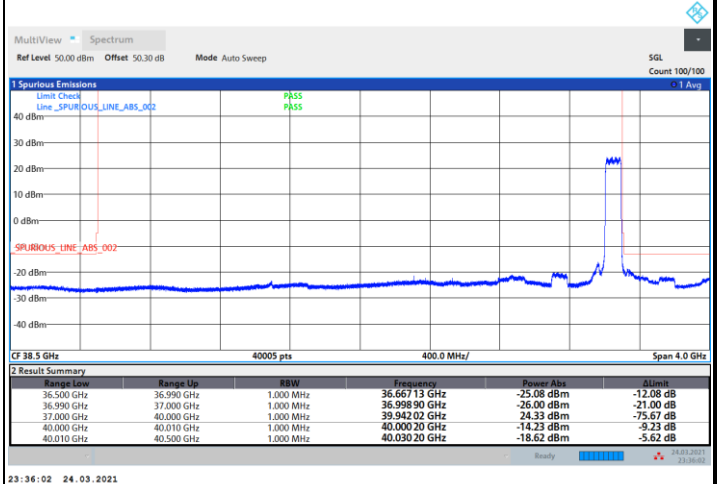
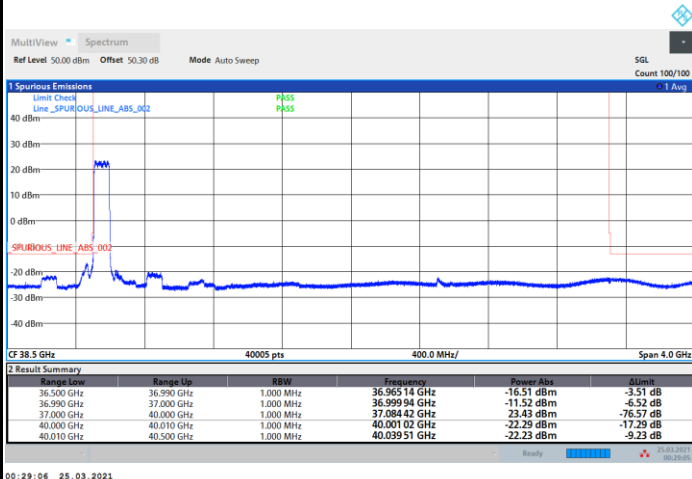


DFT-s-OFDM

NR Band n260 / 100MHz / BPSK

Lowest Band Edge / Full RB (64/0)

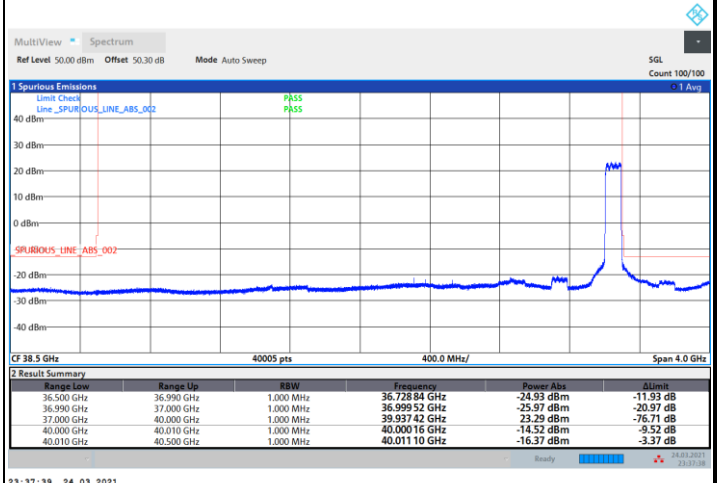
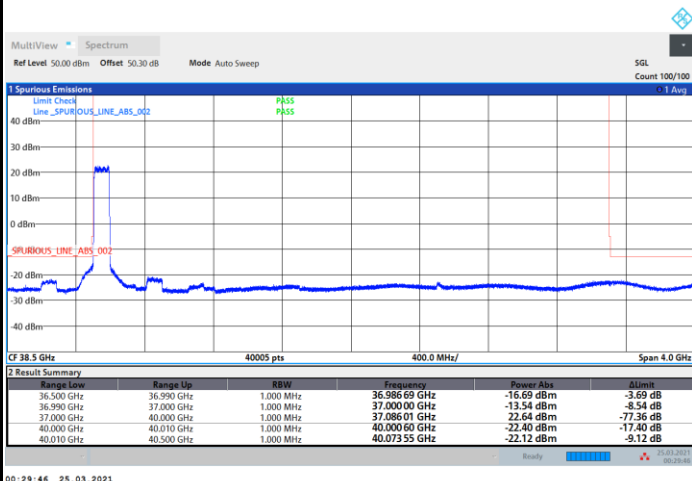
Lowest Band Edge / Full RB (64/0)



NR Band n260 / 100MHz / QPSK

Lowest Band Edge / Full RB (64/0)

Lowest Band Edge / Full RB (64/0)





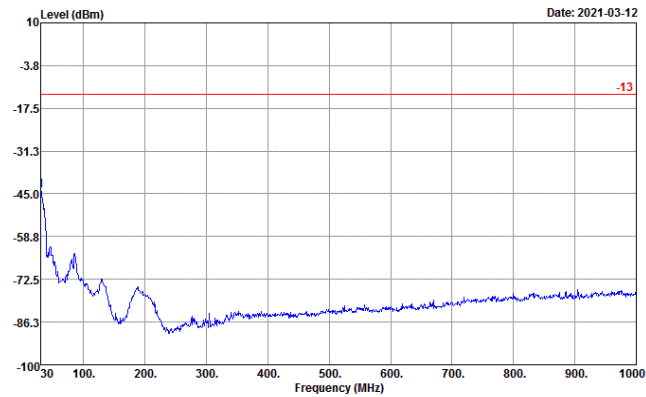
Spurious Emission

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

Only the noise floor is reported.

NR Band n260 (30MHz-1GHz)

Horizontal

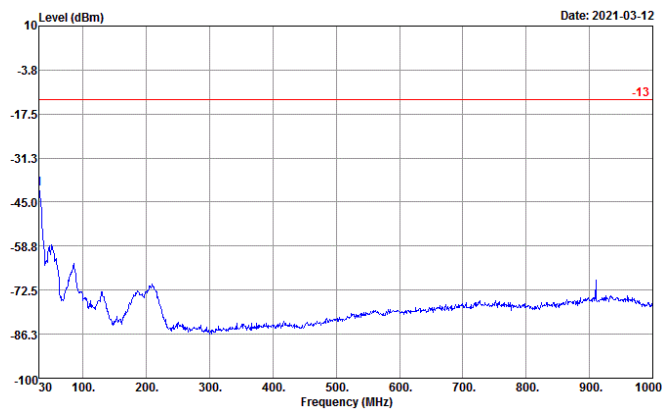


Site : 03CH10-HY
Condition : -13 EIRP_WO HORIZONTAL
Project : 130414
: n260 4 Module 1CC

Freq	Level	Over	Limit
MHz	dBm	dB	dBm

1	30.00	-44.03	-31.03 -13.00
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Vertical



Site : 03CH10-HY
Condition : -13 EIRP_WO VERTICAL
Project : 130414
: n260 4 Module 1CC

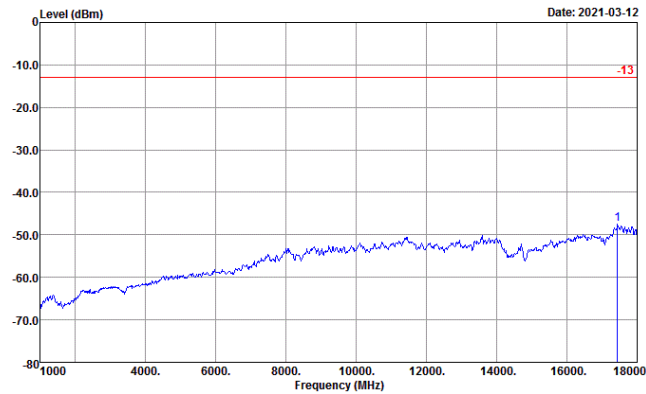
Freq	Level	Over	Limit
MHz	dBm	dB	dBm

1	30.00	-40.91	-27.91 -13.00
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NR Band n260 (1GHz-18GHz)

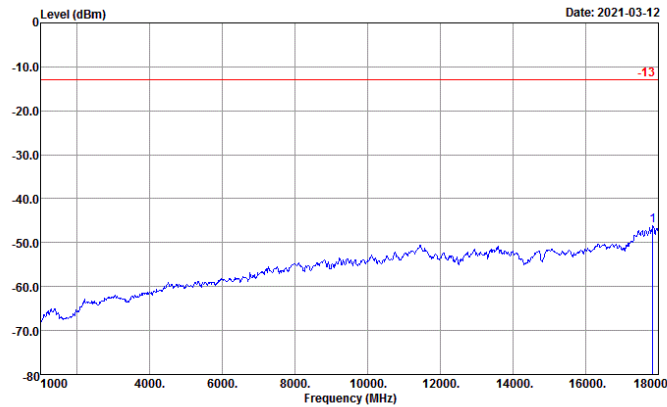
Horizontal



Site : 03CH10-HY
Condition : -13 EIRP_WO HORIZONTAL
Project : 130414

: n260 4 Module 1CC				
Freq	Level	Over	Limit	
MHz	dBm	Limit	Line	
		dB	dBm	
1	17439.00	-47.49	-34.49	-13.00

Vertical

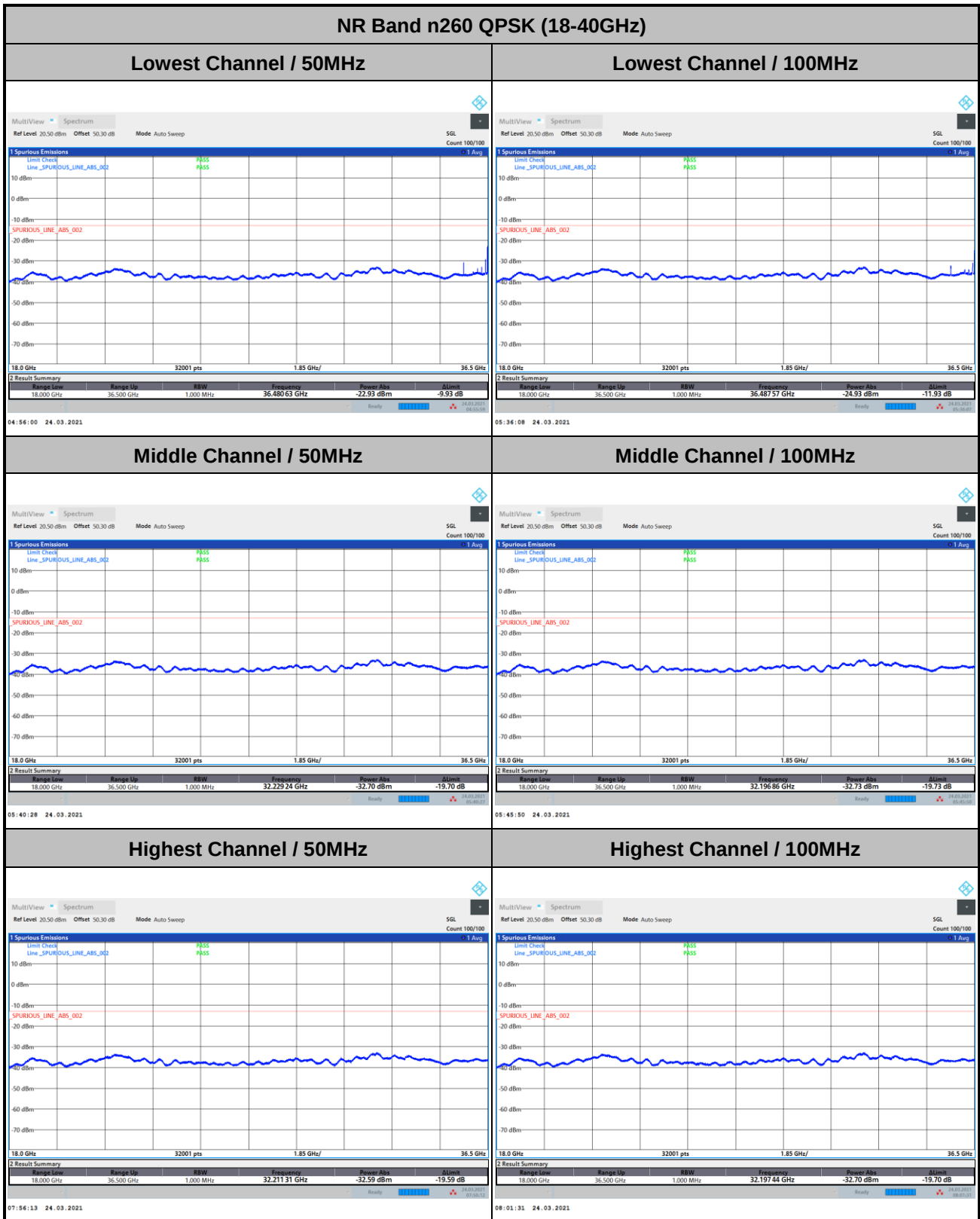


Site : 03CH10-HY
Condition : -13 EIRP_WO VERTICAL
Project : 130414

: n260 4 Module 1CC				
Freq	Level	Over	Limit	
MHz	dBm	Limit	Line	
		dB	dBm	
1	17847.00	-46.12	-33.12	-13.00



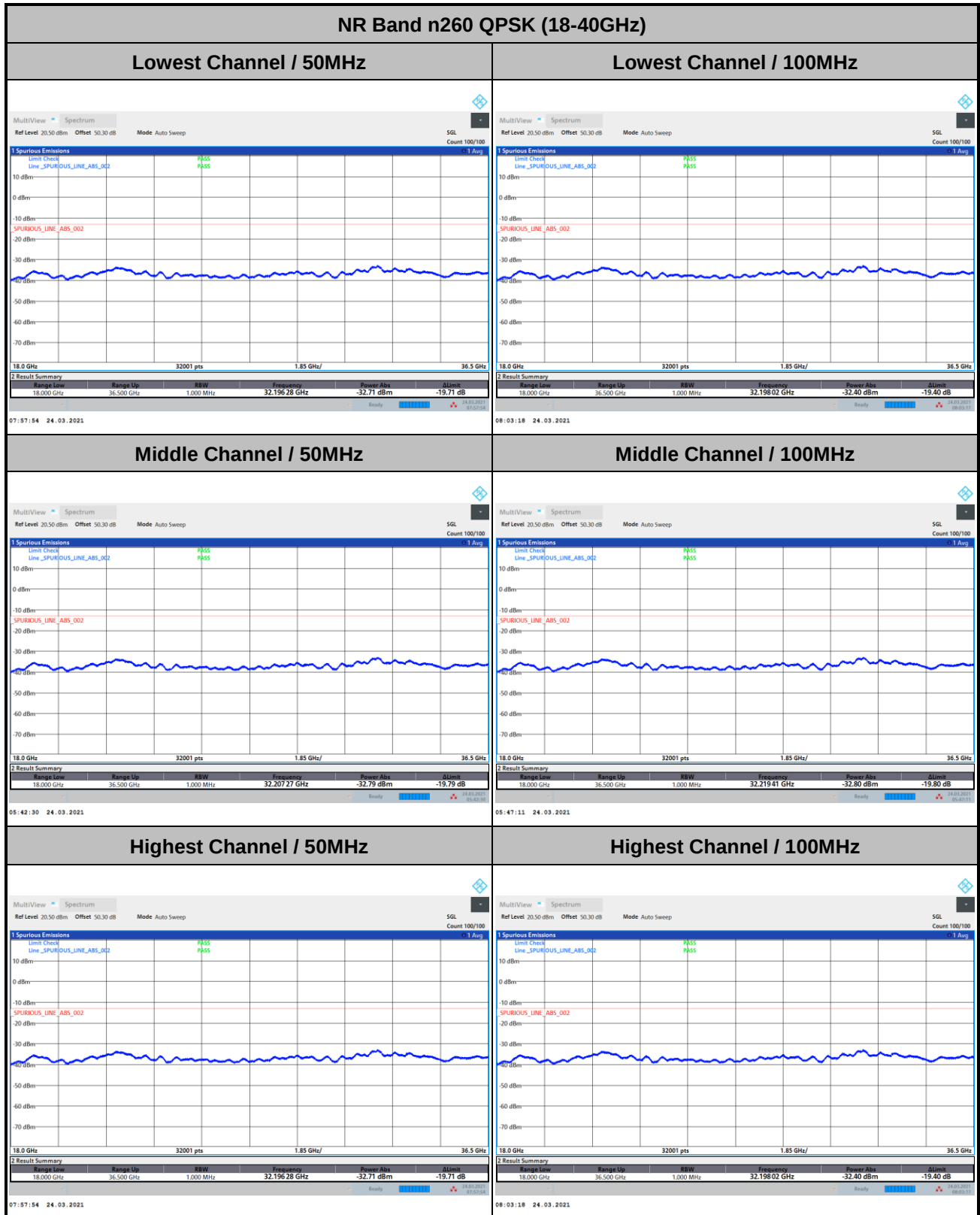
Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

DFT-s-OFDM

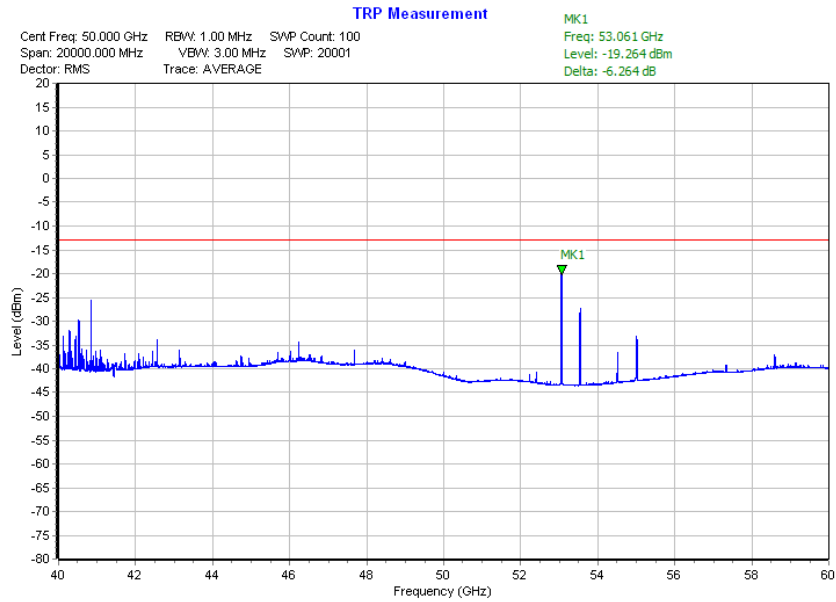
Remark: In band and out of band frequencies are omitted.



CP-OFDM

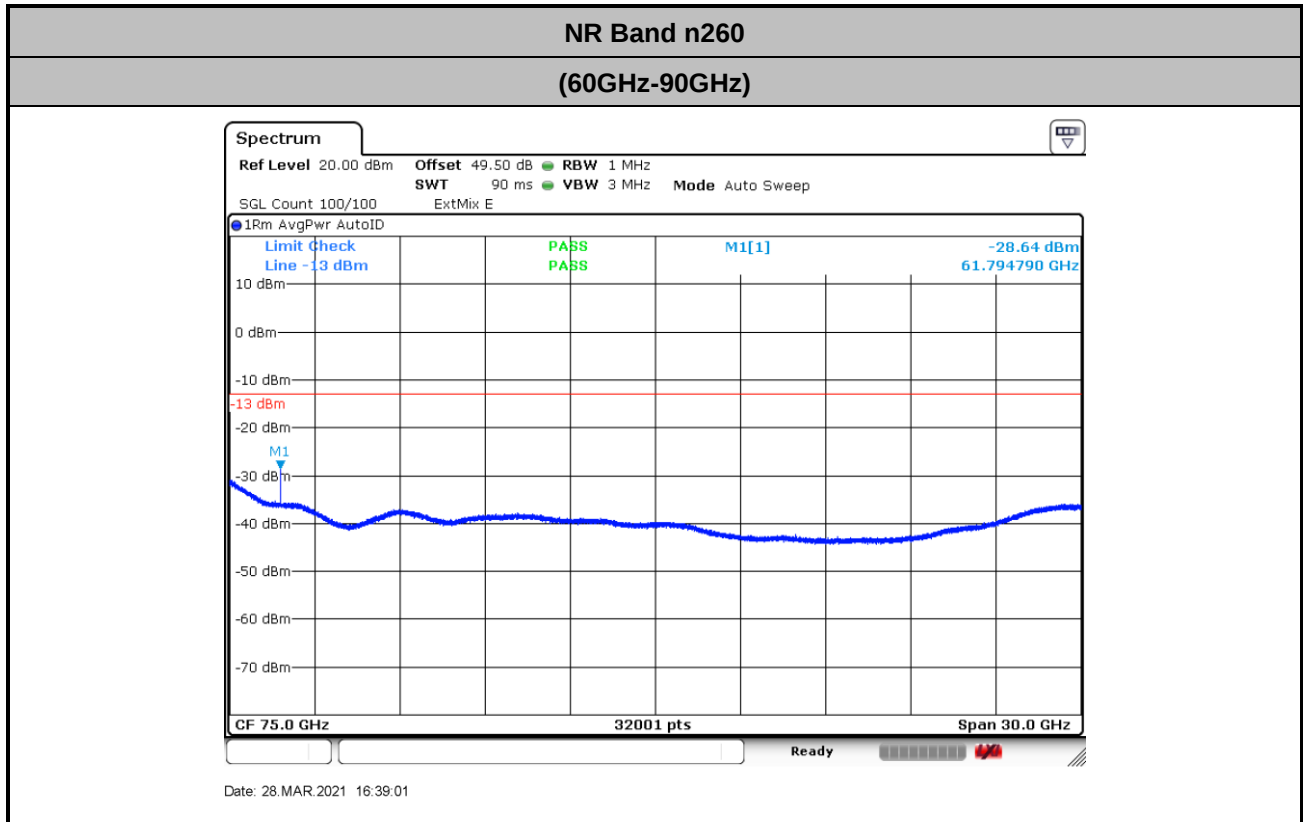


Remark: In band and out of band frequencies are omitted.

NR Band n260
(40GHz-60GHz)


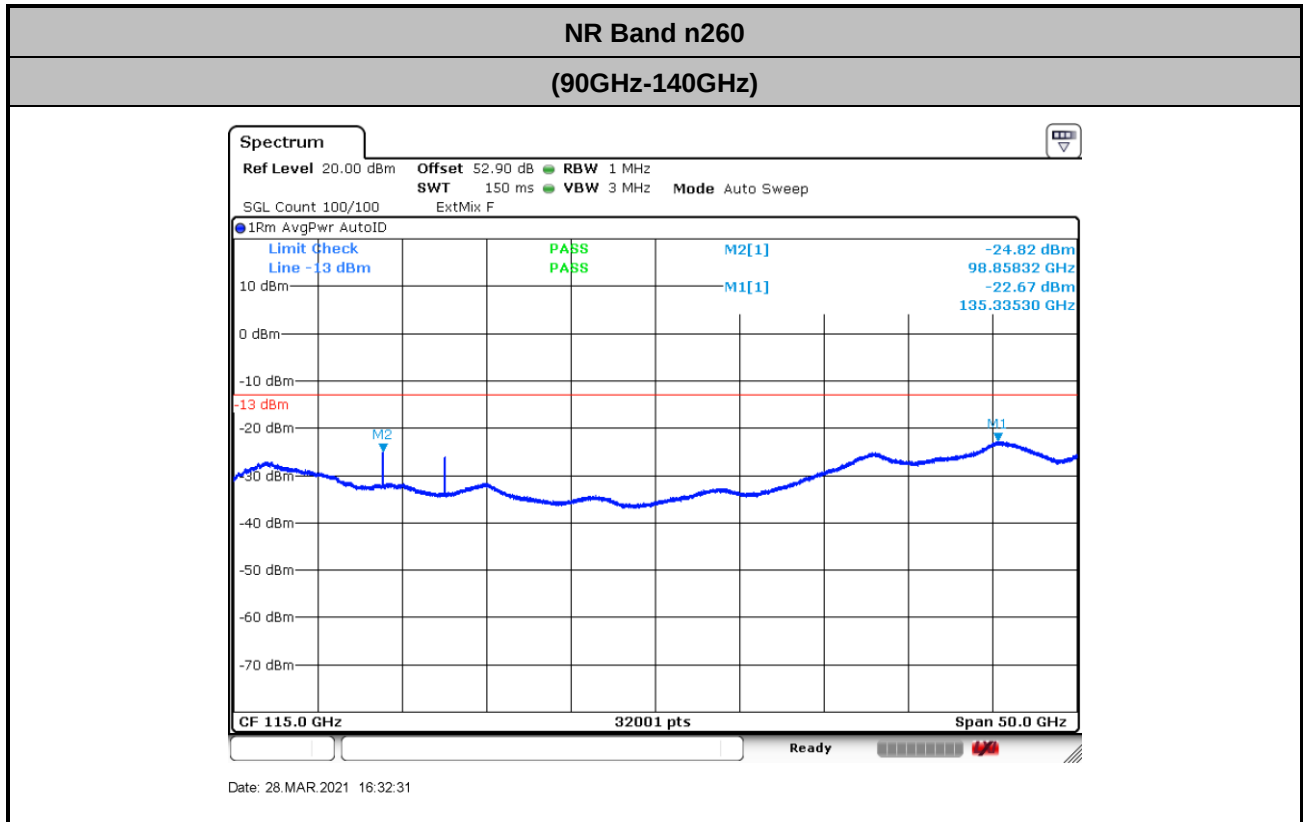
$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$

$$= 42.3 + 0.34 + 107 + 20\log(1.2) - 104.8 = 46.4 \text{ (dB)}$$



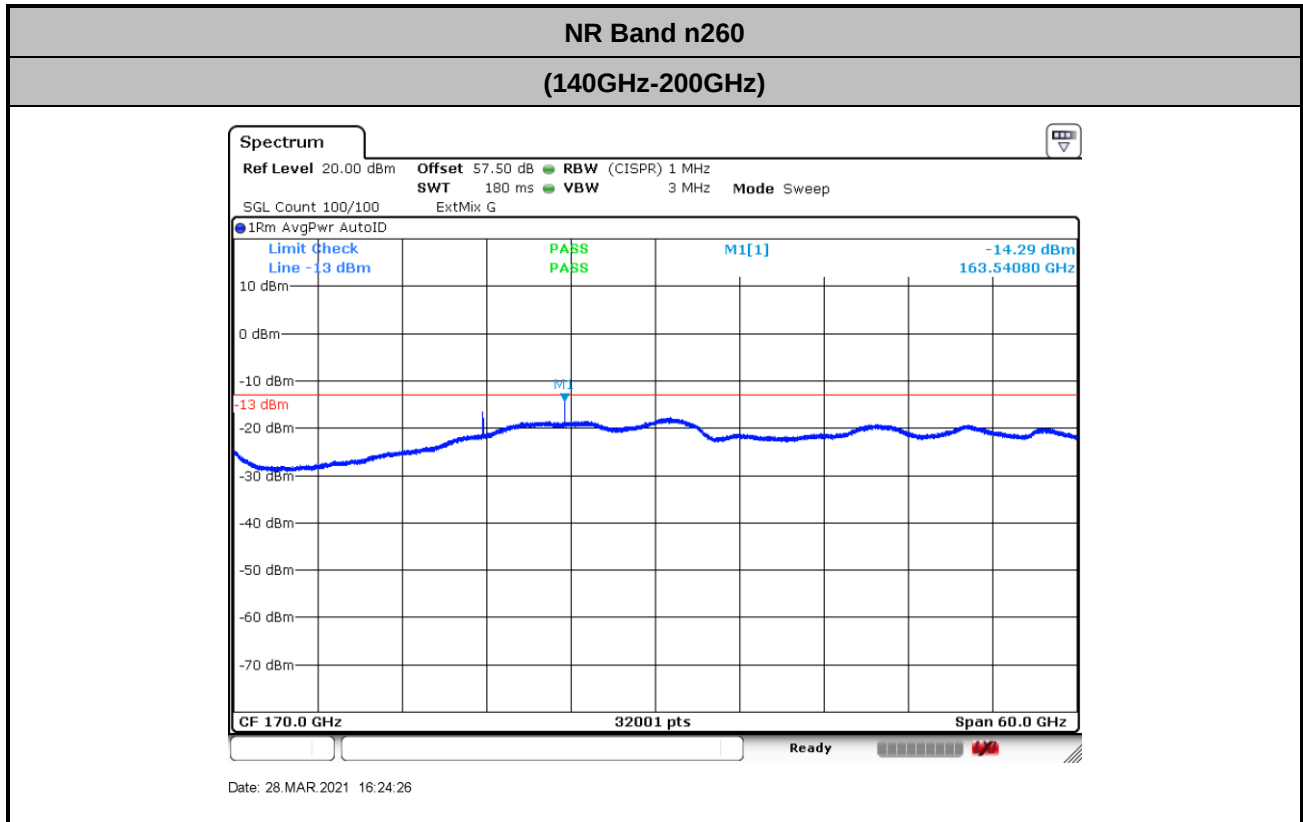
$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$

$$= 45.4 + 0.34 + 107 + 20\log(1.2) - 104.8 = 49.5 \text{ (dB)}$$



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

$$= 48.8 + 0.34 + 107 + 20\log(1.2) - 104.8 = 52.9 \text{ (dB)}$$



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

$$= 53.4 + 0.34 + 107 + 20\log(1.2) - 104.8 = 57.5 \text{ (dB)}$$

**Frequency Stability**

Test Conditions		NR Band n260 / Middle Channel			Limit
Temperature (°C)	Voltage (Volt)	CW tone			Note.
		Frequency (GHz)	Deviation (kHz)	Deviation (ppm)	Result
50	120	38.4998971	102.900	2.673	PASS
40	120	38.500024	-24.000	0.623	
30	120	38.5001219	-121.900	3.166	
20(Ref.)	120	38.5	0.000	0.000	
10	120	38.5001179	-117.900	3.062	
0	120	38.5002338	-233.800	6.073	
-10	120	38.5002408	-240.800	6.255	
-20	120	38.5002727	-272.700	7.083	
-30	120	38.5002757	-275.700	7.161	
20	102	38.500012	-12.000	0.312	
20	120	38.500005	-5.000	0.130	
20	138	38.500008	-8.000	0.208	

Note: The frequency fundamental emissions stay within the operation band.

Appendix B.4 Radiated Test: NR Band n261 (Beam ID: 63+319)

Occupied Bandwidth

Mode	DFT-s-OFDM 4 Modules NR Band n261 : 99%OBW(MHz)							
BW	50MHz				100MHz			
Mod.	BPSK	QPSK	16QAM	64QAM	BPSK	QPSK	16QAM	64QAM
Lowest CH	-	45.11	-	-	-	90.19	-	-
Middle CH	-	45.41	-	-	-	90.47	-	-
Highest CH	45.27	45.27	45.06	45.19	87.77	90.44	88.4	87.94

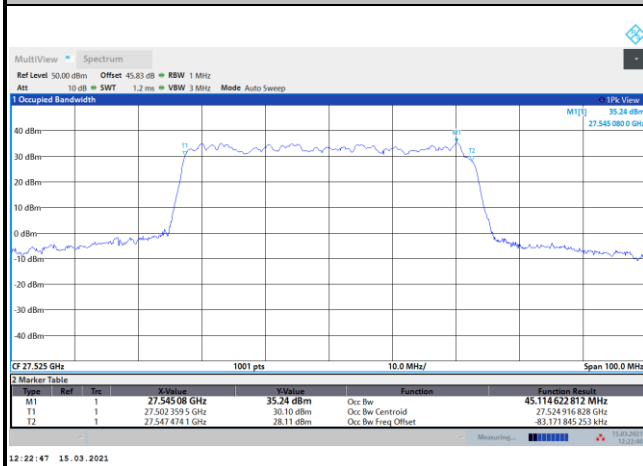
Mode	CP-OFDM 4 Modules NR Band n261 : 99%OBW(MHz)					
BW	50MHz			100MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	-	45.10	-	-	92.57	-
Middle CH	-	45.18	-	-	92.55	-
Highest CH	45.30	45.25	45.20	92.7	92.91	92.39



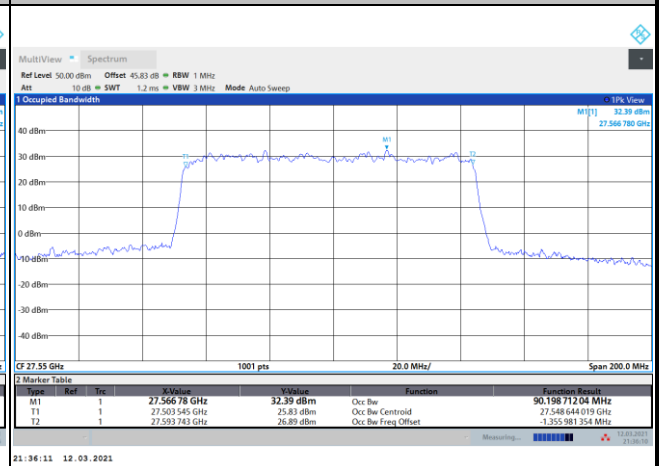
DFT-s-OFDM

NR Band n261

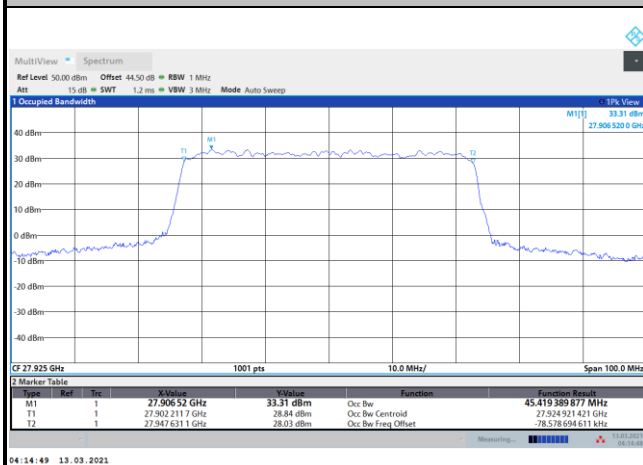
Lowest Channel / 50MHz / QPSK



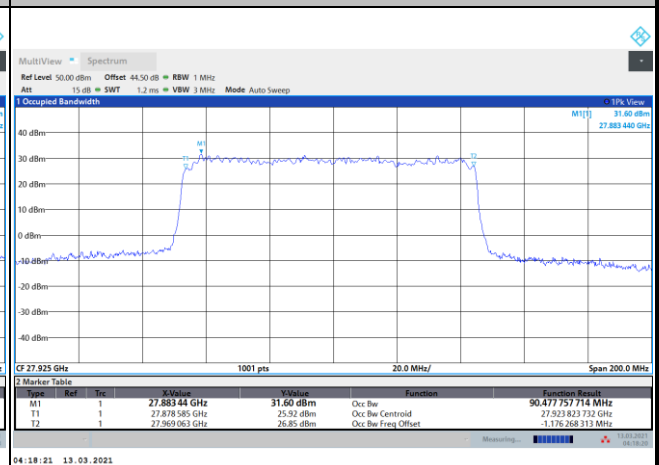
Lowest Channel / 100MHz / QPSK



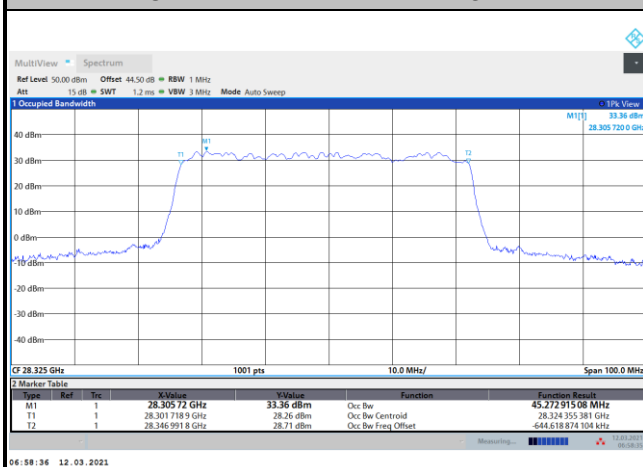
Middle Channel / 50MHz / QPSK



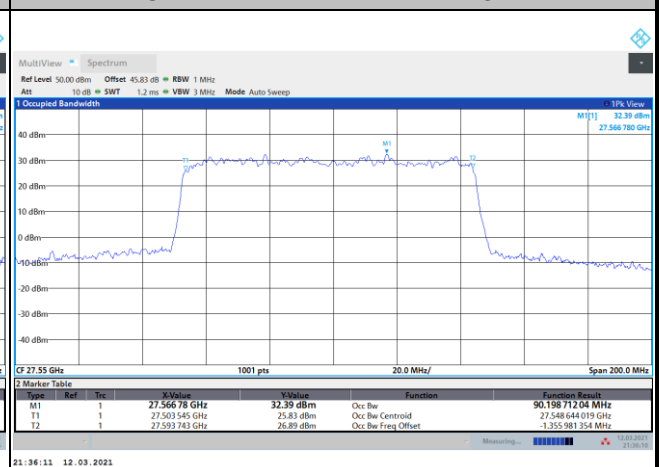
Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / QPSK



Highest Channel / 100MHz / QPSK

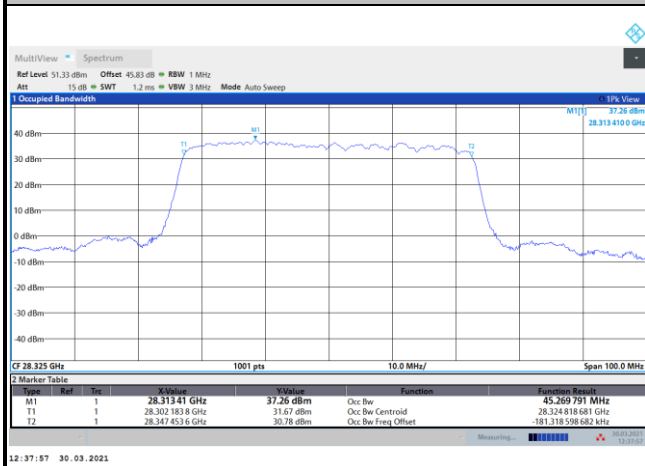




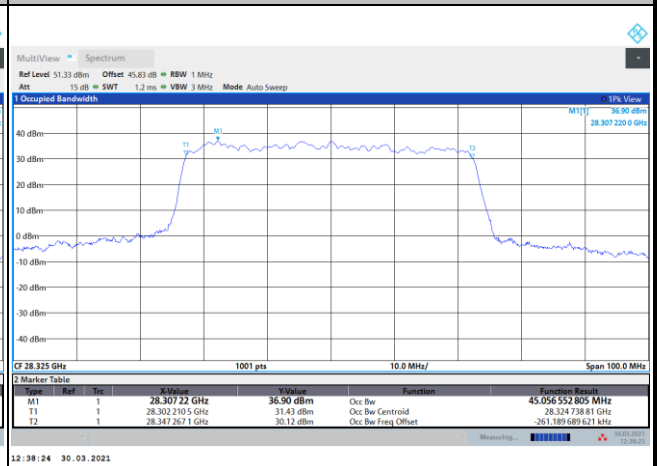
DFT-s-OFDM

NR Band n261

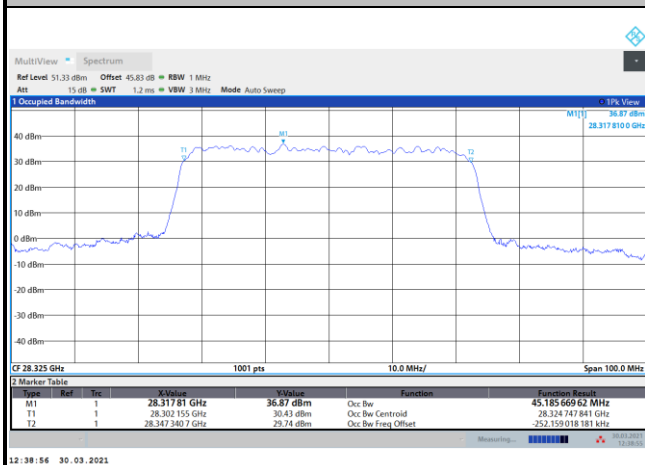
Highest Channel / 50MHz / BPSK



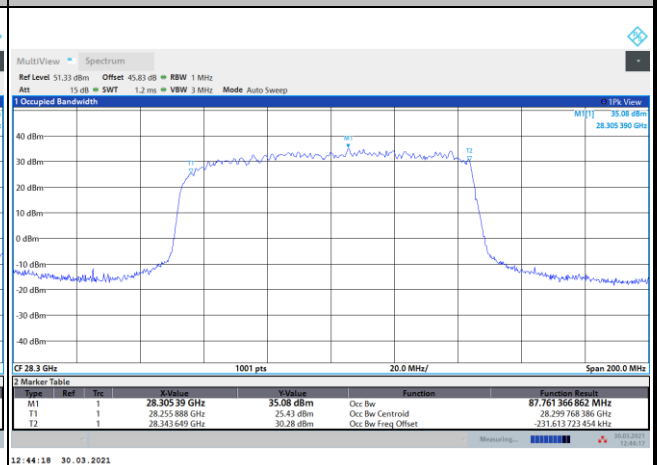
Highest Channel / 50MHz / 16QAM



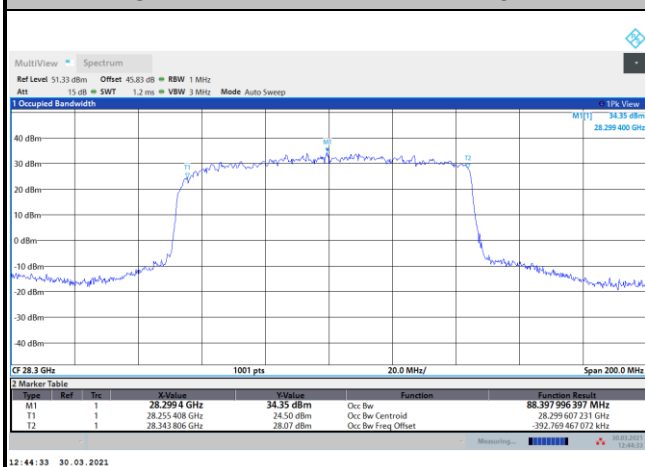
Highest Channel / 50MHz / 64QAM



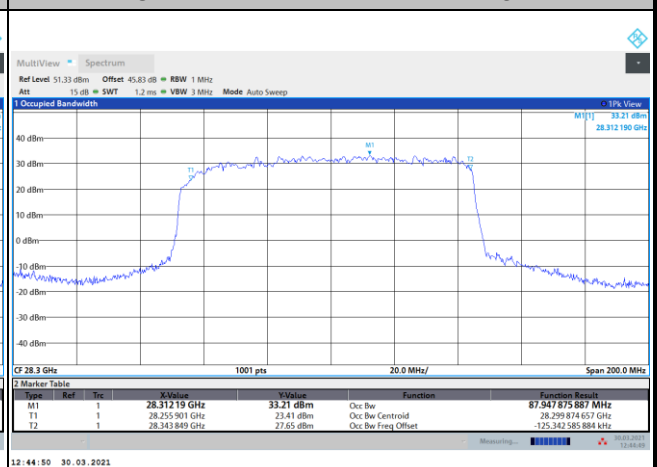
Highest Channel / 100MHz / BPSK



Highest Channel / 100MHz / 16QAM



Highest Channel / 100MHz / 64QAM

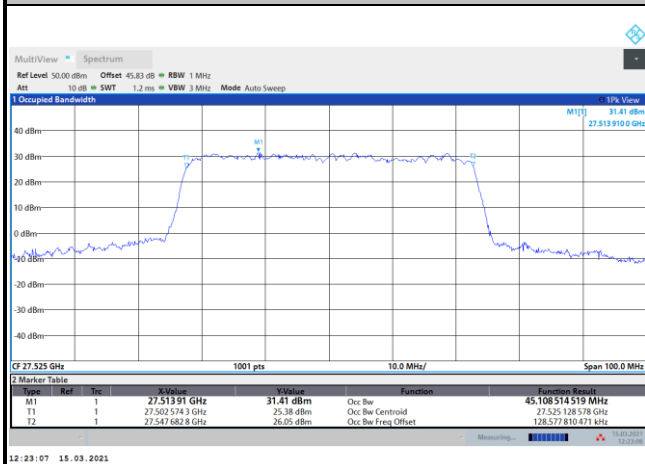




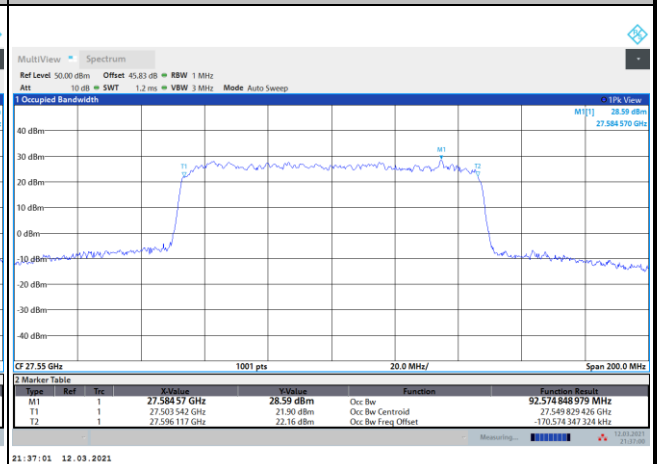
CP-OFDM

NR Band n261

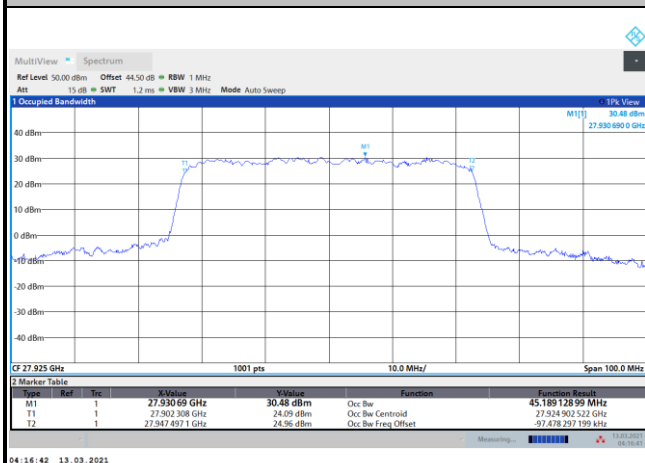
Lowest Channel / 50MHz / QPSK



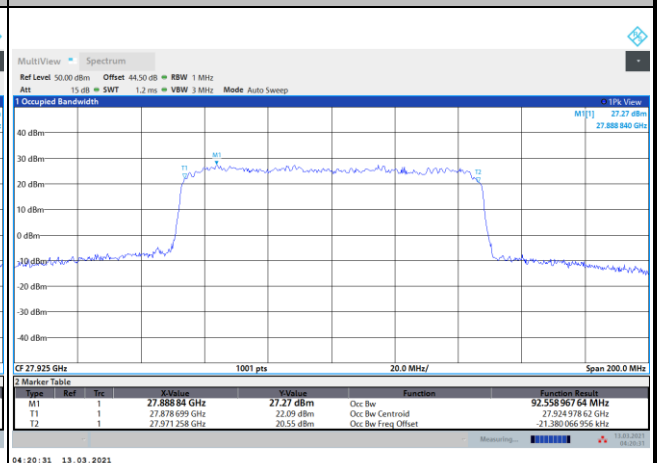
Lowest Channel / 100MHz / QPSK



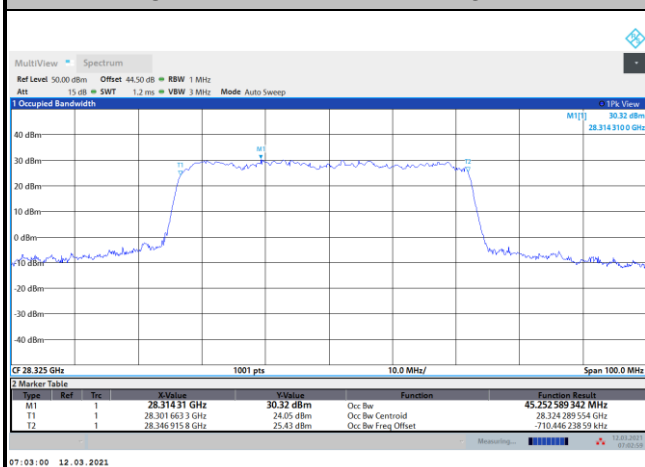
Middle Channel / 50MHz / QPSK



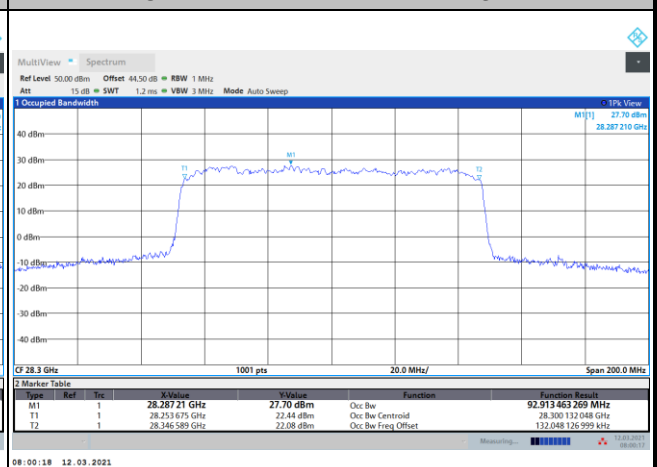
Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / QPSK

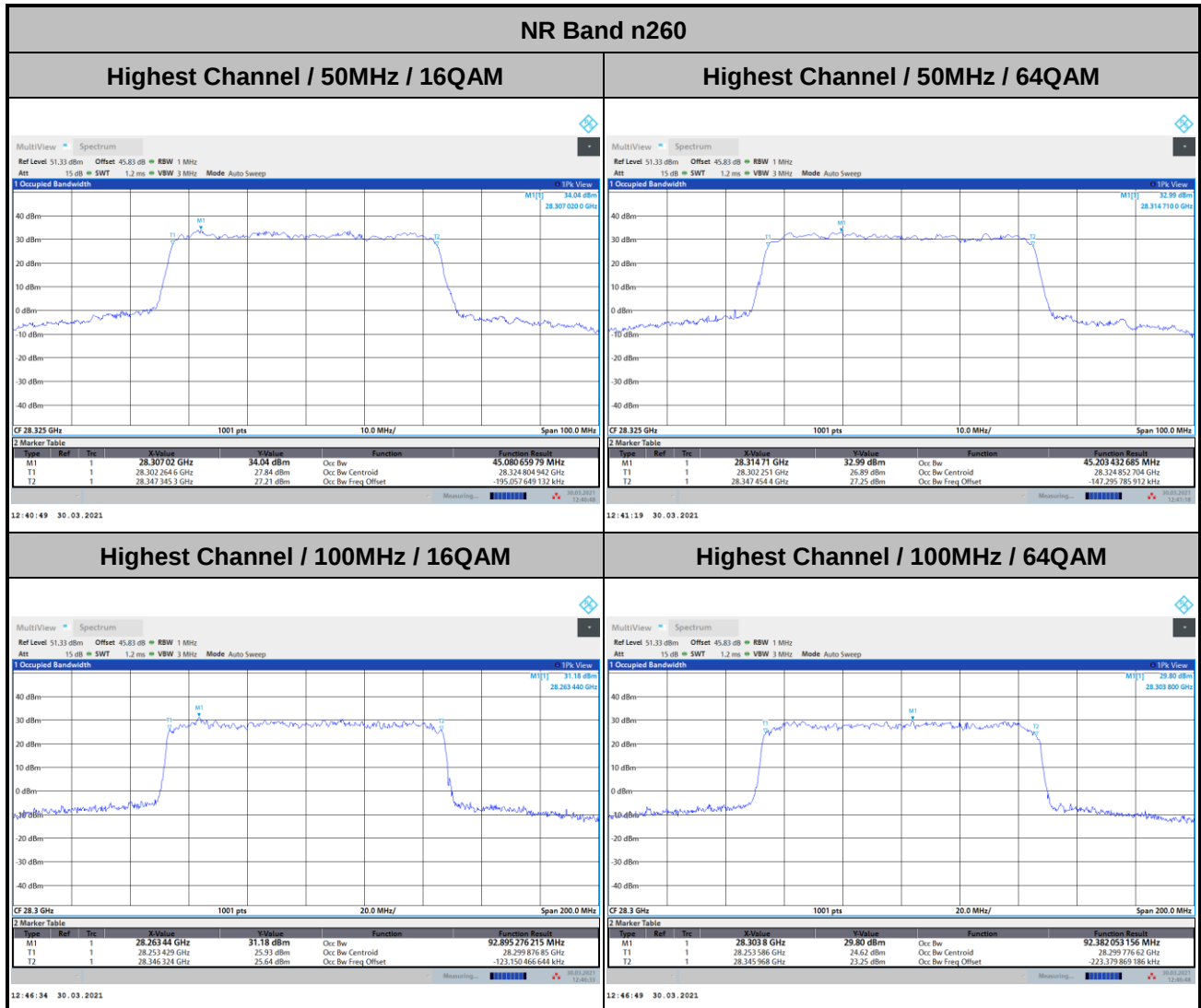


Highest Channel / 100MHz / QPSK





CP-OFDM



**Radiated Out of Band Emissions****Test Result:**

Mode		DFT-s-OFDM NR Band n261							
Channel	BW (MHz)	Modulation	RB Size/ allocation	0 ~ 10 %OB Limit (dBm/MHz)	0 ~ 10 %OB PSD (dBm/MHz)	Result	>10%OB Limit (dBm/MHz)	>10%OB PSD (dBm/MHz)	Result
Low	50	QPSK	32/0	-5	-20.30	Pass	-13	-19.04	Pass
Low	50	BPSK	32/0	-5	-7.21	Pass	-13	-13.44	Pass
Low	50	QPSK	8/0	-5	-17.68	Pass	-13	-18.95	Pass
Low	50	QPSK	10/11	-5	-12.41	Pass	-13	-14.86	Pass
Low	50	BPSK	10/11	-5	-13.86	Pass	-13	-17.25	Pass
High	50	QPSK	32/0	-5	-9.45	Pass	-13	-13.45	Pass
High	50	BPSK	32/0	-5	-9.21	Pass	-13	-14.46	Pass
High	50	QPSK	8/24	-5	-15.34	Pass	-13	-17.52	Pass
High	50	QPSK	10/11	-5	-14.68	Pass	-13	-16.64	Pass
High	50	BPSK	10/11	-5	-16.90	Pass	-13	-19.34	Pass
Low	100	QPSK	64/0	-5	-11.71	Pass	-13	-14.68	Pass
Low	100	BPSK	64/0	-5	-11.06	Pass	-13	-16.11	Pass
Low	100	QPSK	8/0	-5	-19.38	Pass	-13	-19.11	Pass
Low	100	QPSK	20/22	-5	-16.01	Pass	-13	-17.94	Pass
Low	100	BPSK	20/22	-5	-18.47	Pass	-13	-20.55	Pass
High	100	QPSK	64/0	-5	-15.55	Pass	-13	-16.63	Pass
High	100	BPSK	64/0	-5	-15.49	Pass	-13	-18.98	Pass
High	100	QPSK	8/58	-5	-6.80	Pass	-13	-20.78	Pass
High	100	QPSK	20/22	-5	-18.06	Pass	-13	-19.50	Pass
High	100	BPSK	20/22	-5	-19.82	Pass	-13	-21.83	Pass

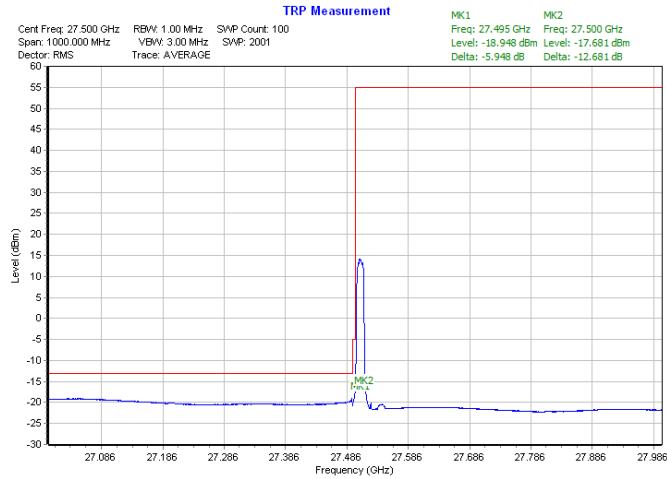
Note: Both DFT-s-OFDM and CP-OFDM waveforms are evaluated, and the DFT-s-OFDM is the worst case.



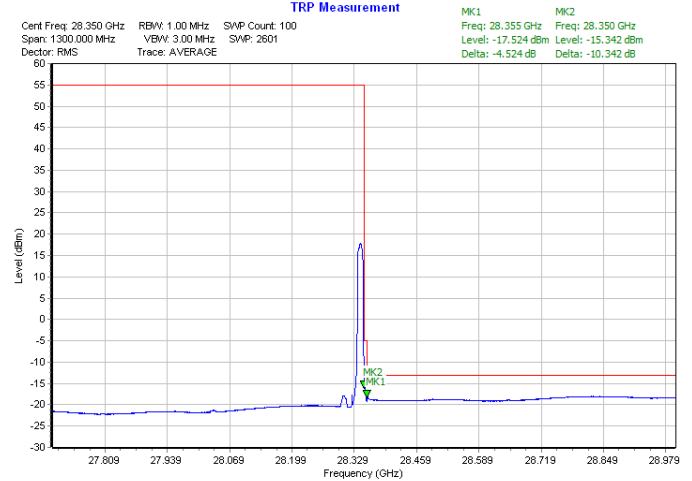
DFT-s-OFDM

NR Band n261 / 50MHz / QPSK

Lowest Band Edge / 8 RB (8/0)

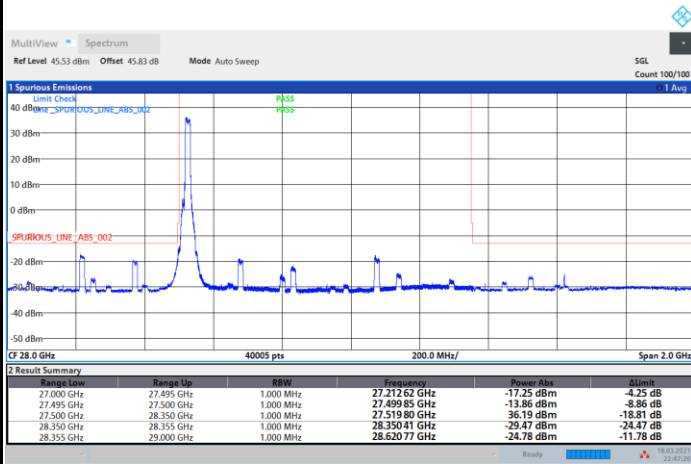


Highest Band Edge / 8 RB (8/24)



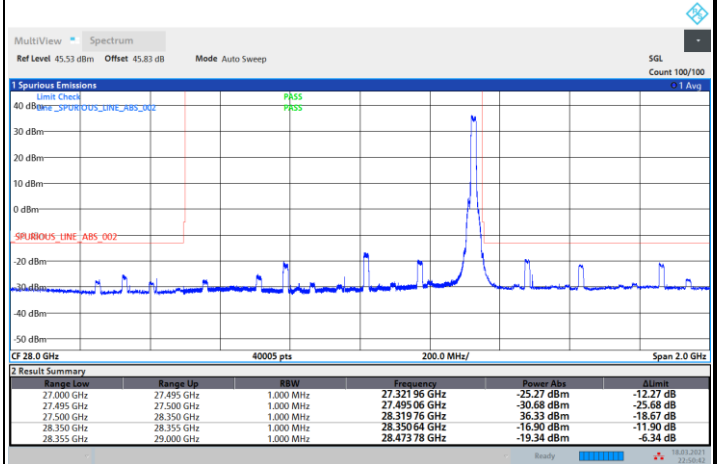
NR Band n261 / 50MHz / BPSK

Lowest Band Edge / Full RB (10/11)



22:47:21 18.03.2021

Highest Band Edge / Full RB (10/11)



22:50:42 18.03.2021

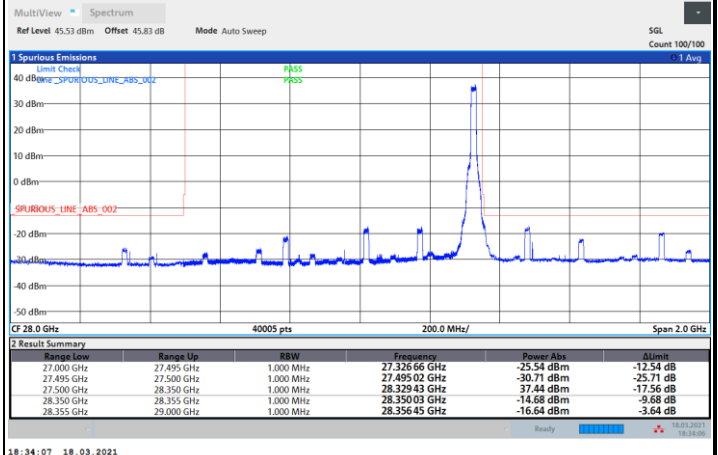
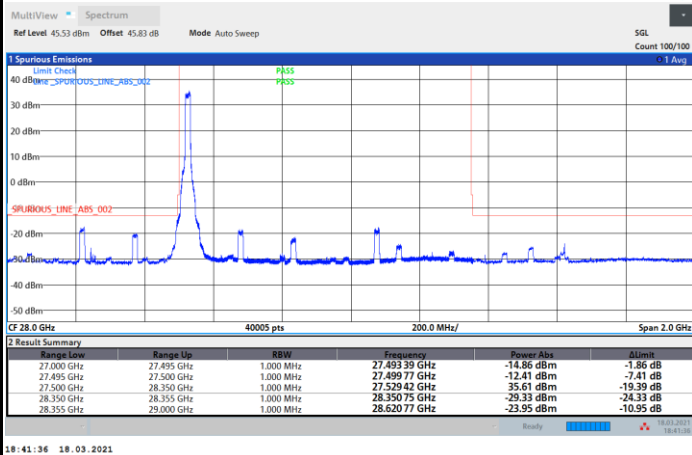


DFT-s-OFDM

NR Band n261 / 50MHz / QPSK

Lowest Band Edge / Full RB (10/11)

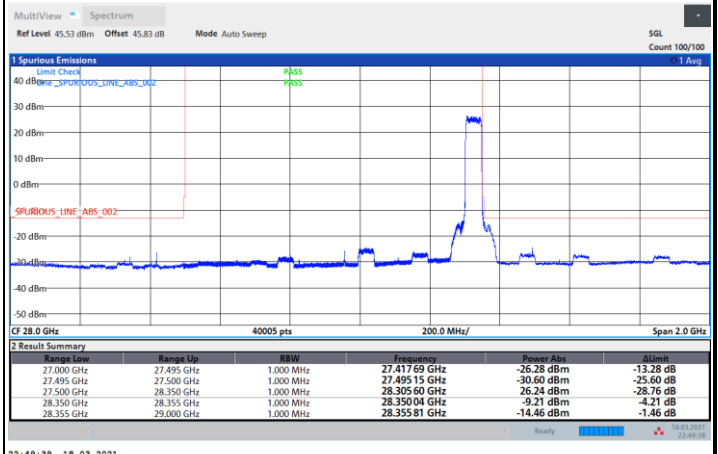
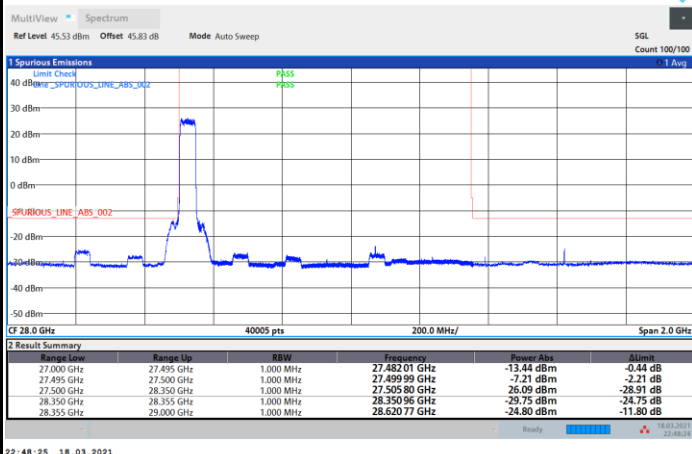
Highest Band Edge / Full RB (10/11)



NR Band n261 / 50MHz / BPSK

Lowest Band Edge / Full RB (32/0)

Highest Band Edge / Full RB (32/0)

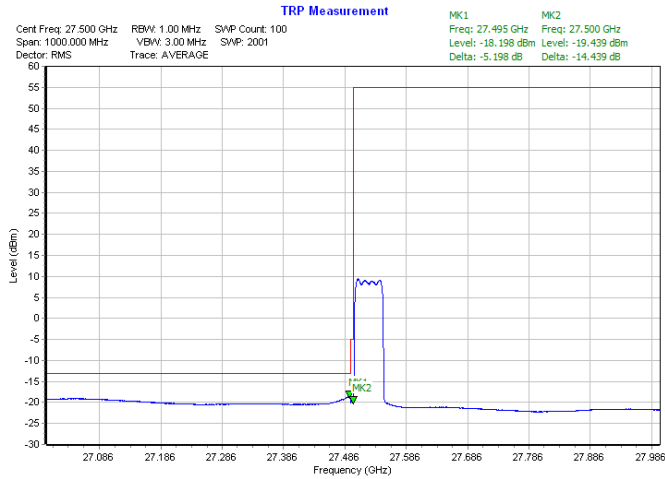




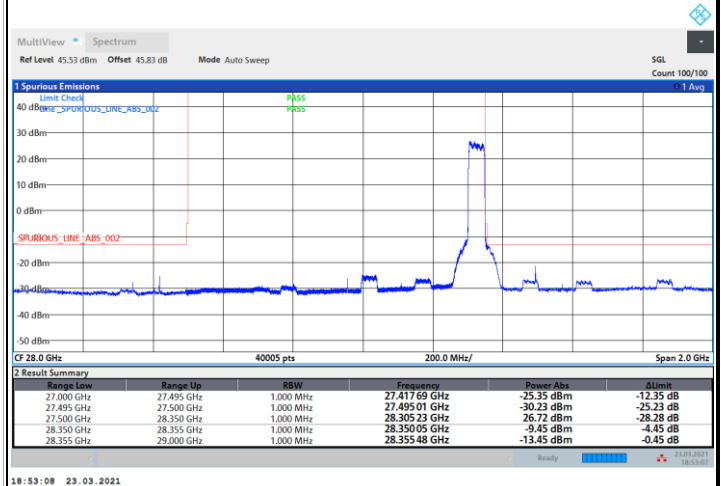
DFT-s-OFDM

NR Band n261 / 50MHz / QPSK

Lowest Band Edge / Full RB (32/0)

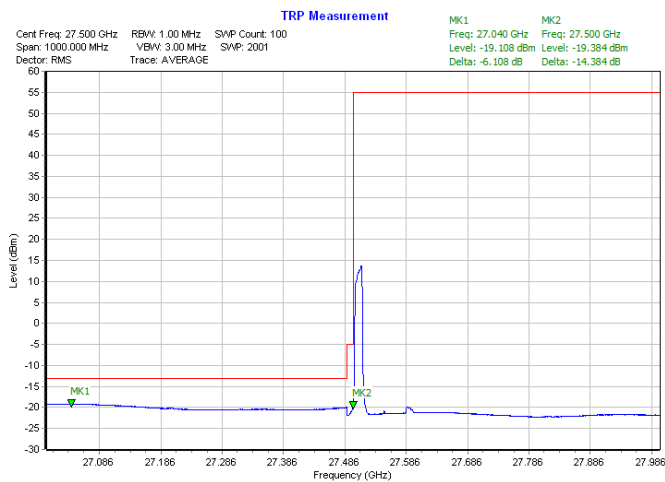


Highest Band Edge / Full RB (32/0)

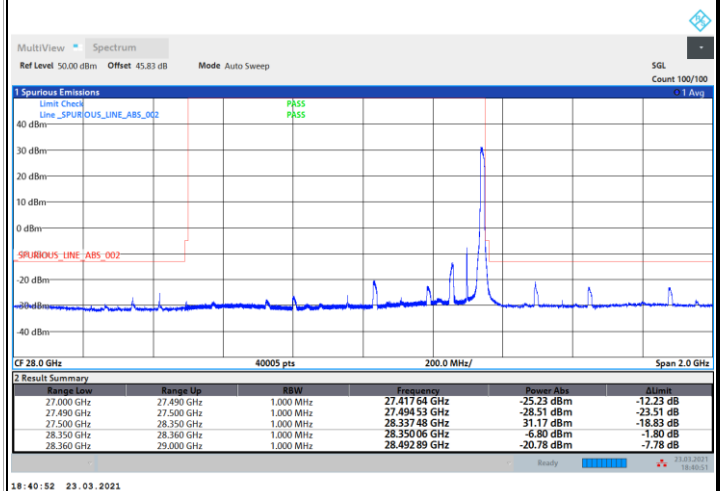


NR Band n261 / 100MHz / QPSK

Lowest Band Edge / 8 RB (8/0)



Highest Band Edge / 8 RB (8/58)



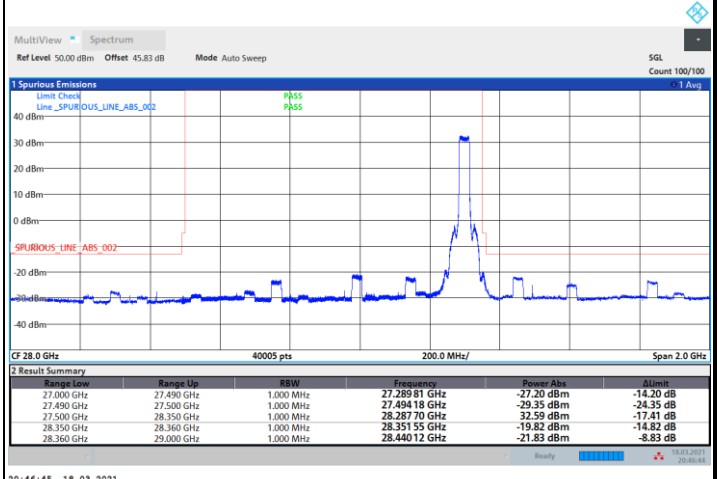
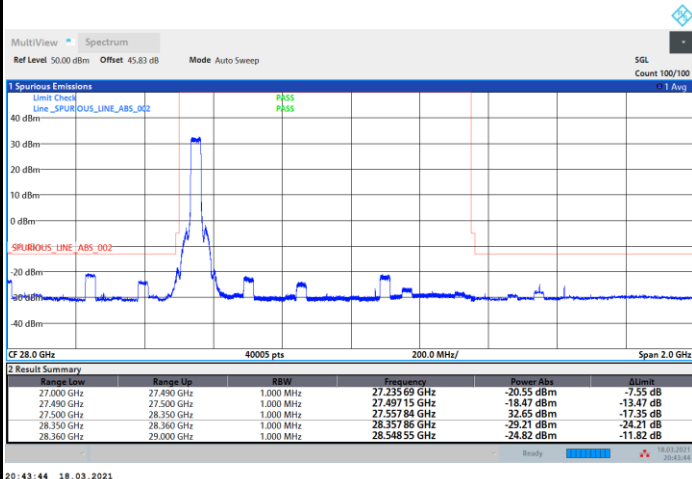


DFT-s-OFDM

NR Band n261 / 100MHz / BPSK

Lowest Band Edge / Full RB (20/22)

Highest Band Edge / Full RB (20/22)



NR Band n261 / 100MHz / QPSK

Lowest Band Edge / Full RB (20/22)

Highest Band Edge / Full RB (20/22)

