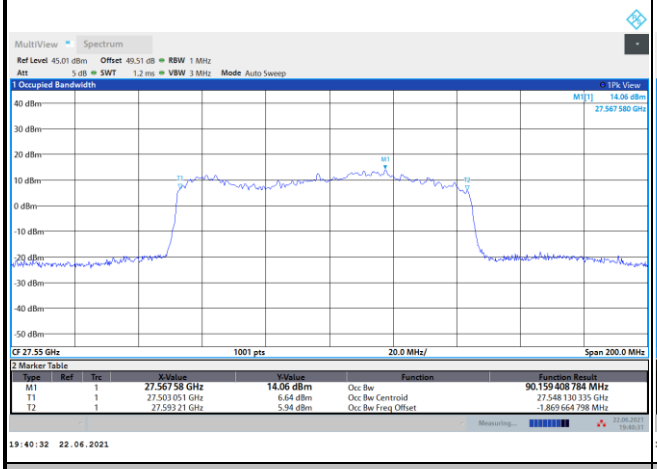
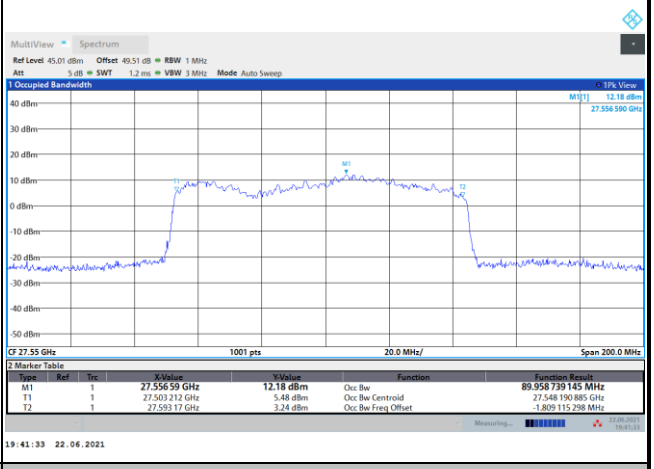
DFT-s-OFDM Module 1

NR Band n261

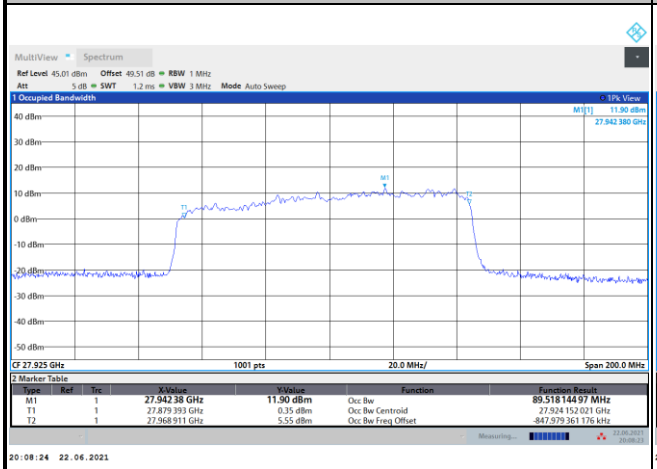
Lowest Channel / 100MHz / 16QAM



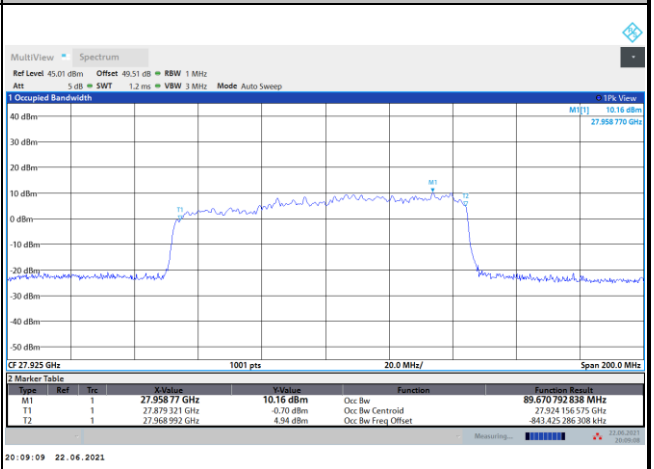
Lowest Channel / 100MHz / 64QAM



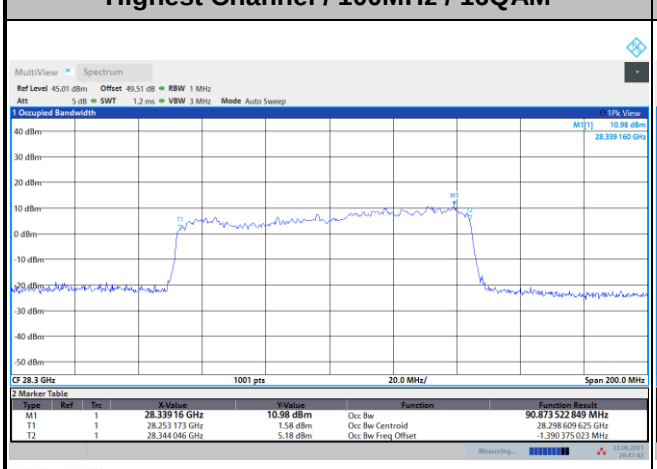
Middle Channel / 100MHz / 16QAM



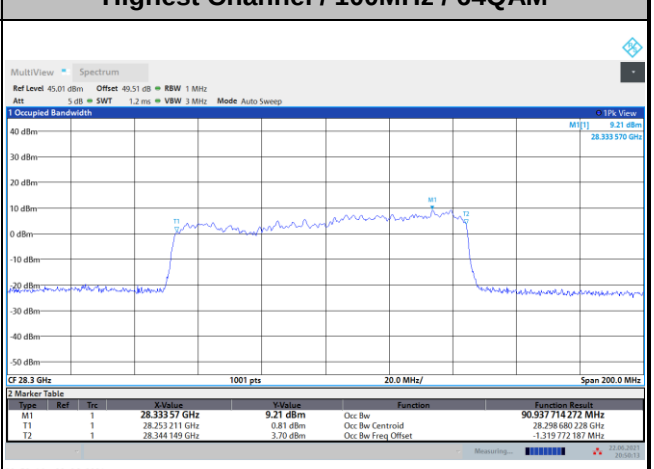
Middle Channel / 100MHz / 64QAM



Highest Channel / 100MHz / 16QAM



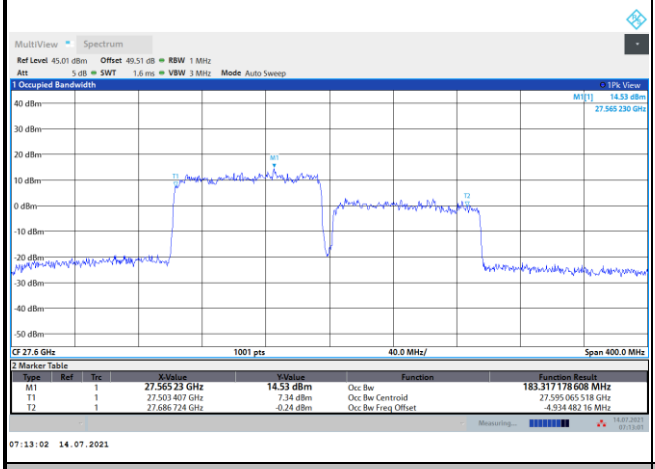
Highest Channel / 100MHz / 64QAM



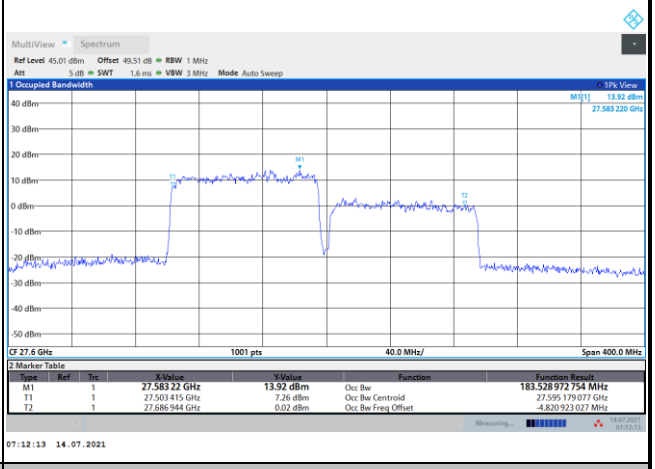
DFT-s-OFDM Module 1

NR Band n261

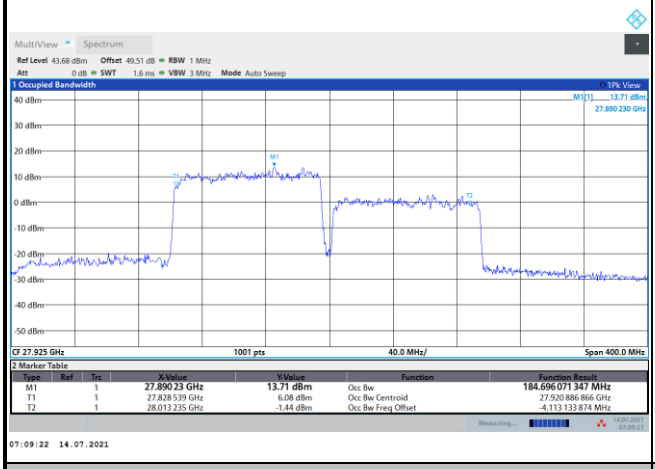
Lowest Channel / 200MHz / BPSK



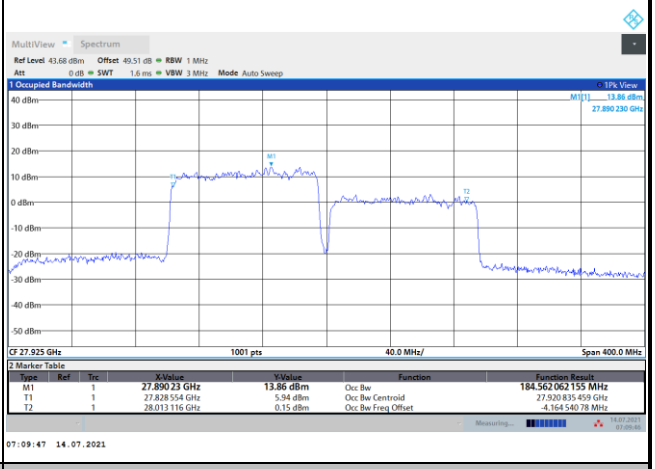
Lowest Channel / 200MHz / QPSK



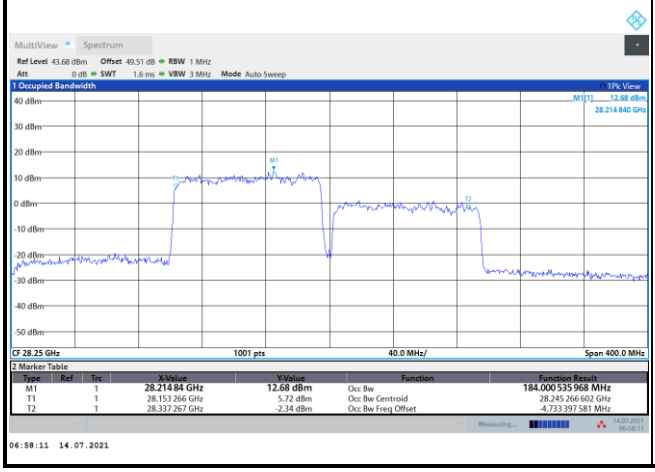
Middle Channel / 200MHz / BPSK



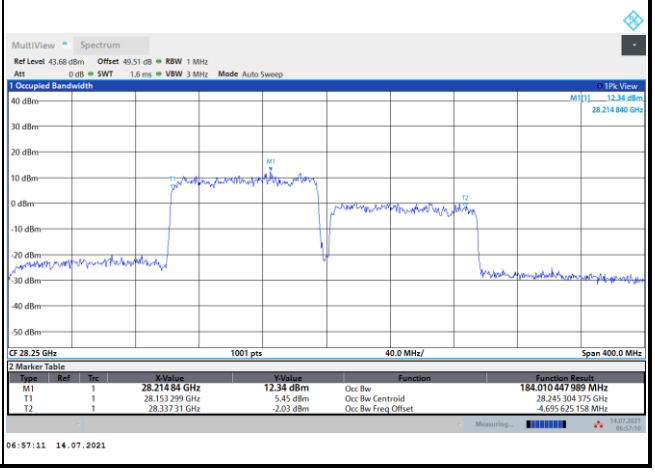
Middle Channel / 200MHz / QPSK



Highest Channel / 200MHz / BPSK



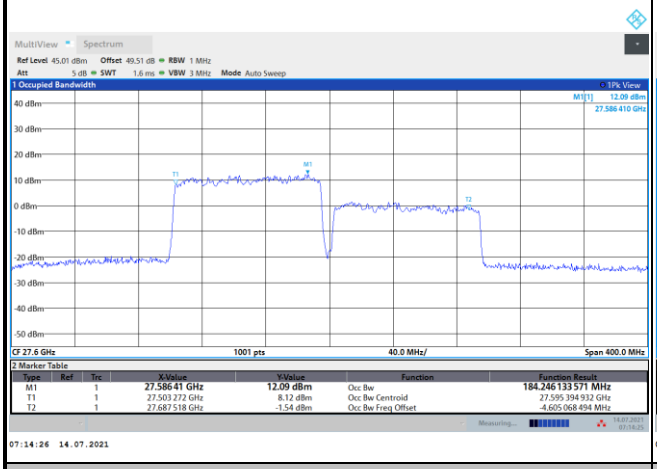
Highest Channel / 200MHz / QPSK



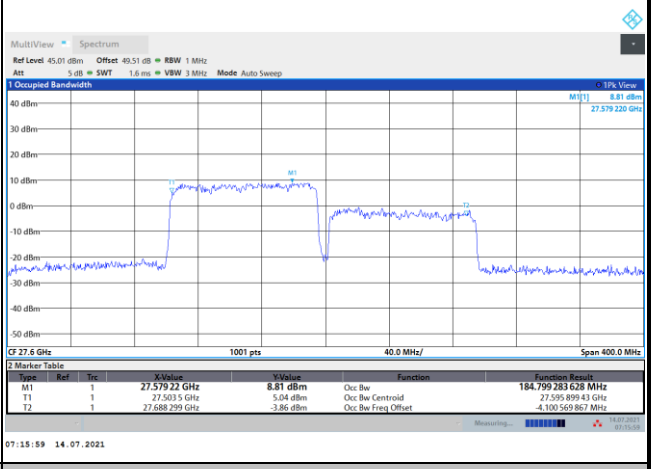
DFT-s-OFDM Module 1

NR Band n261

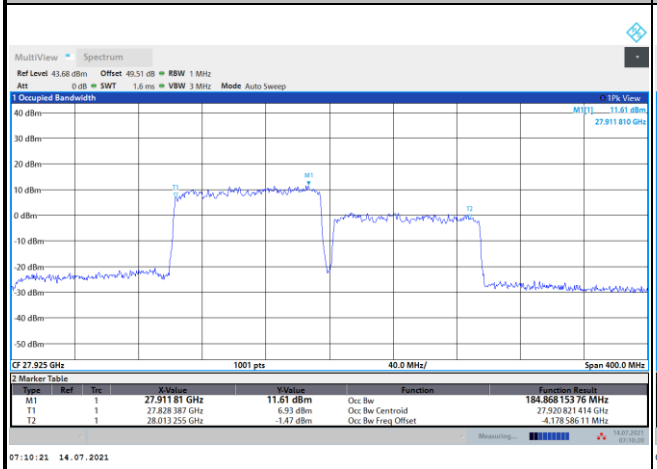
Lowest Channel / 200MHz / 16QAM



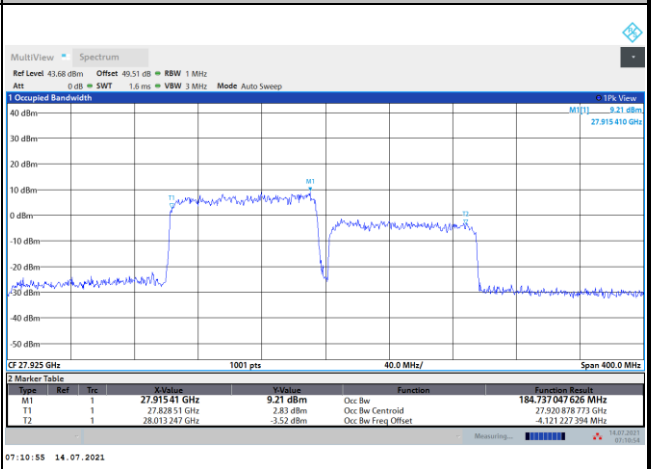
Lowest Channel / 200MHz / 64QAM



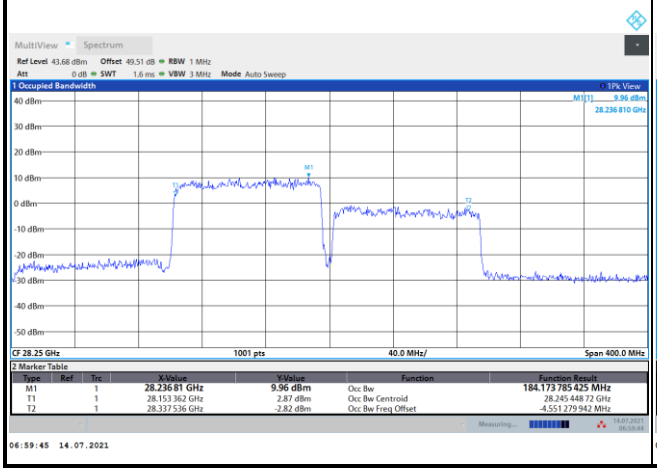
Middle Channel / 200MHz / 16QAM



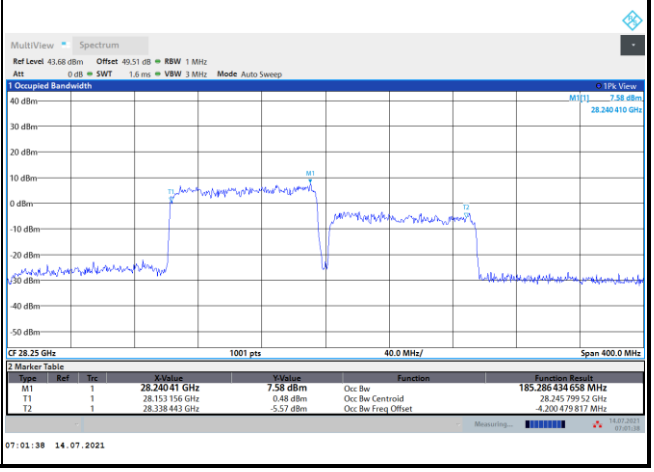
Middle Channel / 200MHz / 64QAM



Highest Channel / 200MHz / 16QAM



Highest Channel / 200MHz / 64QAM

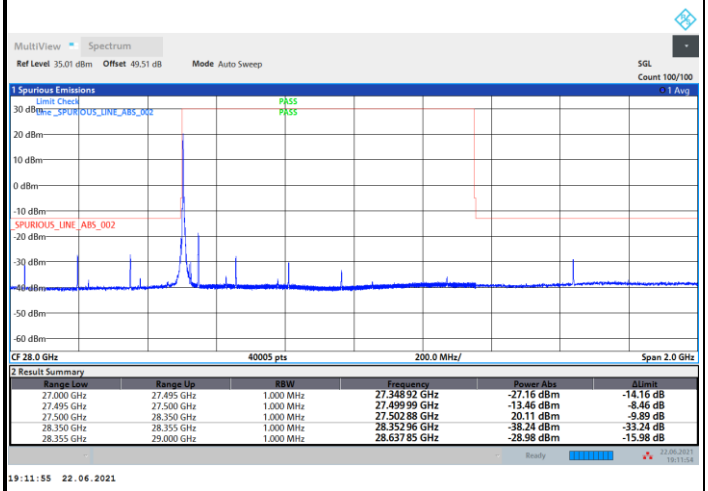
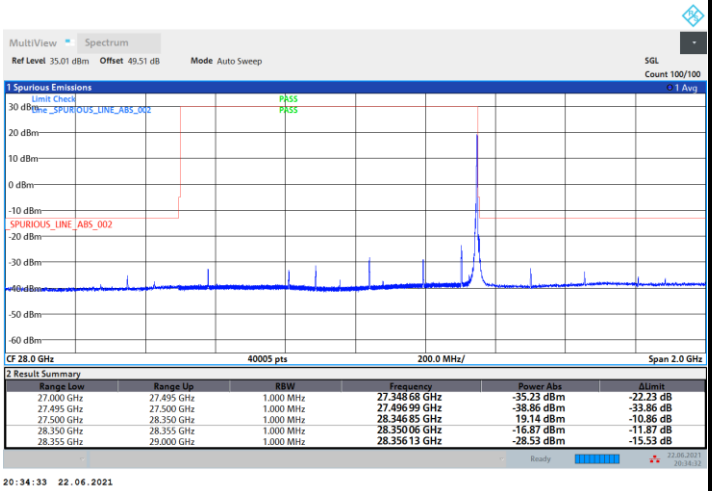


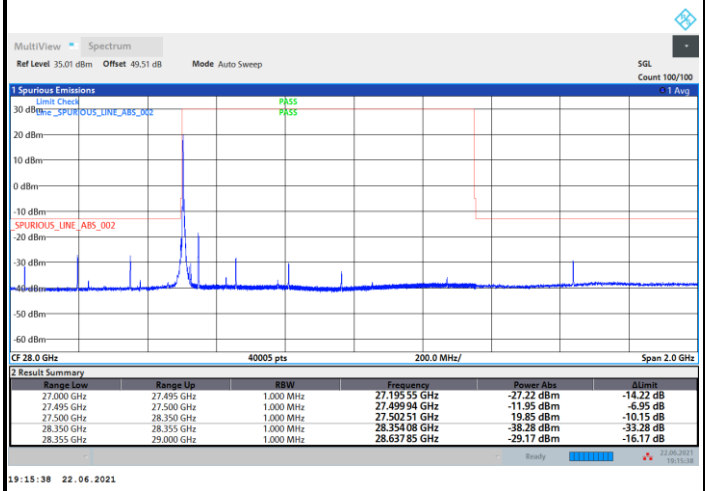
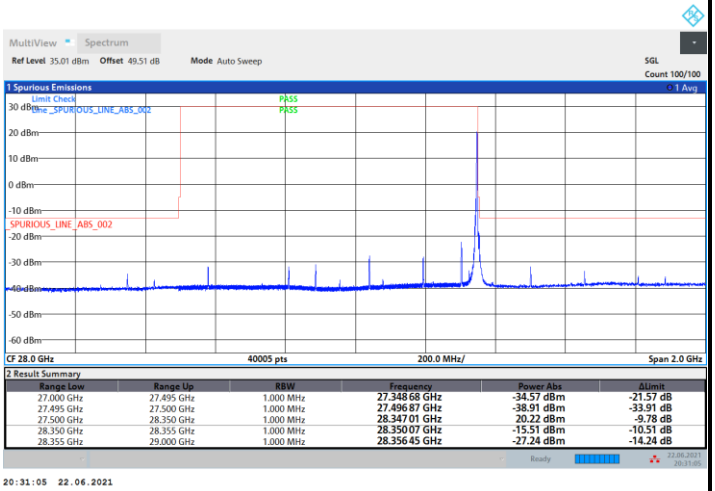
Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module 1 NR Band n261 : BE (dBm) 1 RB											
BW			50MHz				100MHz				200MHz			
Limit (dBm)			BPSK	QPSK	16QAM	64QAM	BPSK	QPSK	16QAM	64QAM	BPSK	QPSK	16QAM	64QAM
Low CH	0~10%OB	≦-5	-13.46	-11.95	-12.4	-15.89	-10.55	-9.36	-10.93	-13.84	-15.85	-16.21	-17.96	-16.74
	>10%OB	≦-13	-27.16	-27.22	-28.37	-30.14	-26.98	-26.77	-27.14	-29.49	-25.78	-25.01	-26.16	-24.86
High CH	0~10%OB	≦-5	-16.87	-15.51	-17.05	-19.44	-14.7	-13.72	-16.38	-15.76	-33.53	-33.99	-34.18	-33.07
	>10%OB	≦-13	-28.53	-27.24	-29.67	-31.29	-30.02	-30.23	-30.98	-31.49	-32.2	-32.61	-33.05	-32.64
Result			Compliance											

Mode			DFT-s-OFDM Module 1 NR Band n261 : BE (dBm) Full RB											
BW			50MHz				100MHz				200MHz			
Limit (dBm)			BPSK	QPSK	16QAM	64QAM	BPSK	QPSK	16QAM	64QAM	BPSK	QPSK	16QAM	64QAM
Low CH	0~10%OB	≦-5	-22.28	-19.92	-25.78	-28.25	-23.46	-20.57	-25.79	-27.92	-28.54	-28.44	-30.43	-31.3
	>10%OB	≦-13	-24.55	-20.37	-25.67	-29.12	-29.17	-23.78	-29.31	-30.69	-29.12	-29.6	-31.45	-32.46
High CH	0~10%OB	≦-5	-25.61	-22.88	-27.3	-30.89	-27.83	-24.17	-29.52	-30.51	-34.59	-34.66	-35.66	-36.32
	>10%OB	≦-13	-29.26	-25.88	-30.69	-33.96	-31.4	-27.5	-31.46	-32.01	-35.23	-35.26	-36.3	-36.47
Result			Compliance											

DFT-s-OFDM Module 1

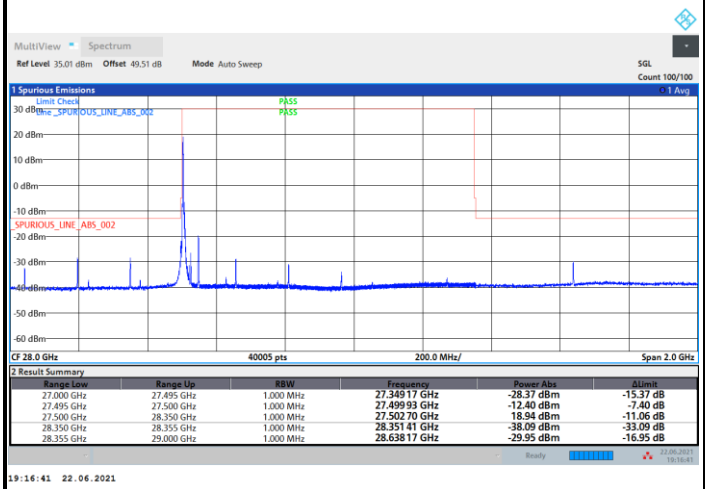
NR Band n261 / 50MHz / BPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	
19:11:55 22.06.2021	20:34:33 22.06.2021

NR Band n261 / 50MHz / QPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	
19:15:38 22.06.2021	20:31:05 22.06.2021

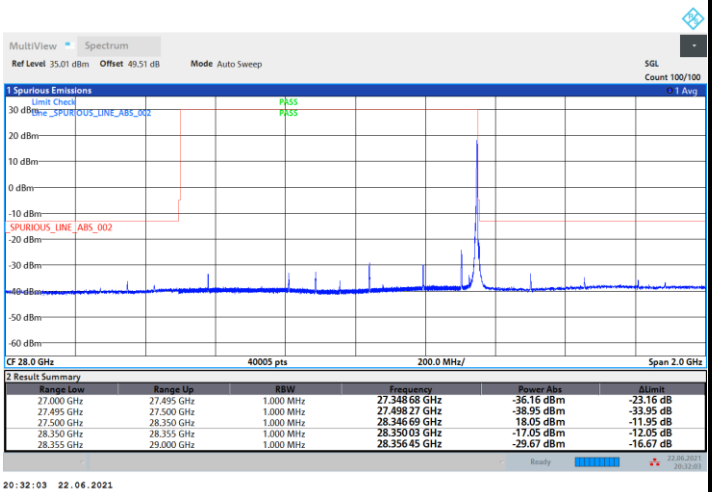
DFT-s-OFDM Module 1

NR Band n261 / 50MHz / 16QAM

Lowest Band Edge / 1 RB

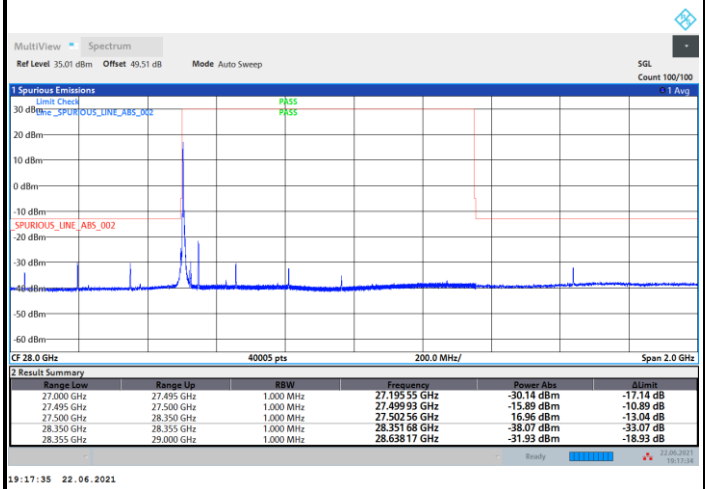


Highest Band Edge / 1 RB

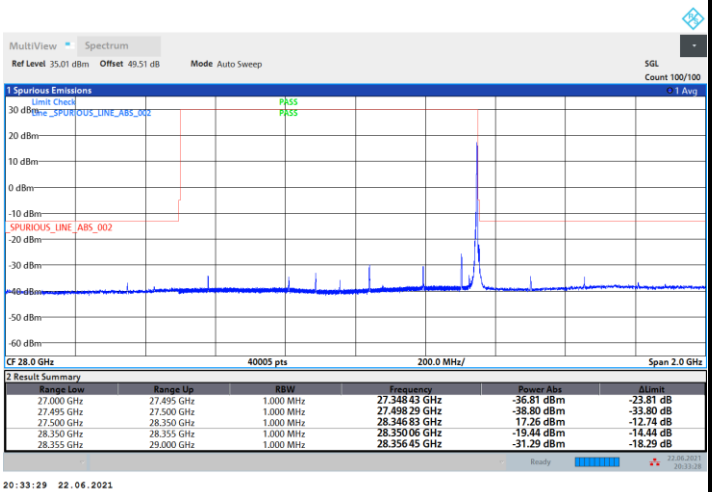


NR Band n261 / 50MHz / 64QAM

Lowest Band Edge / 1 RB

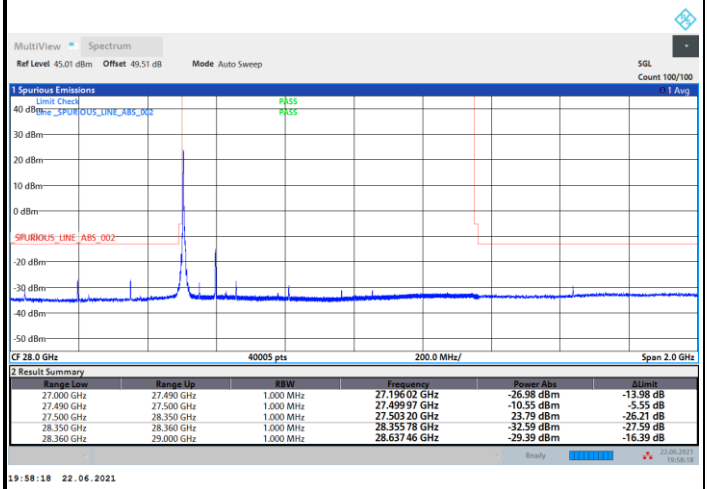
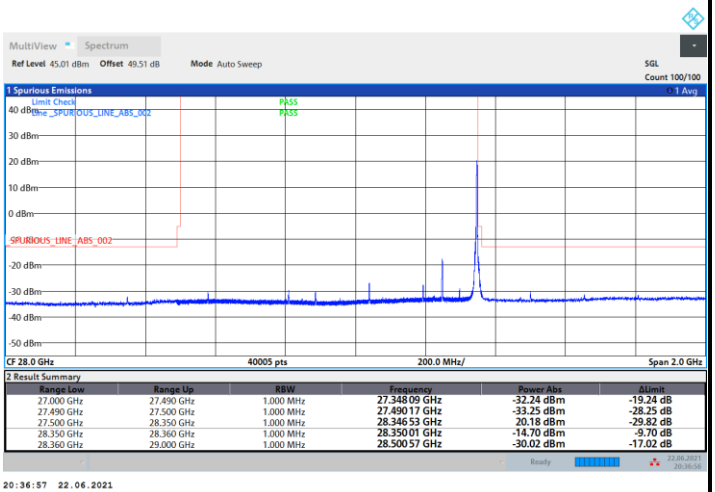


Highest Band Edge / 1 RB

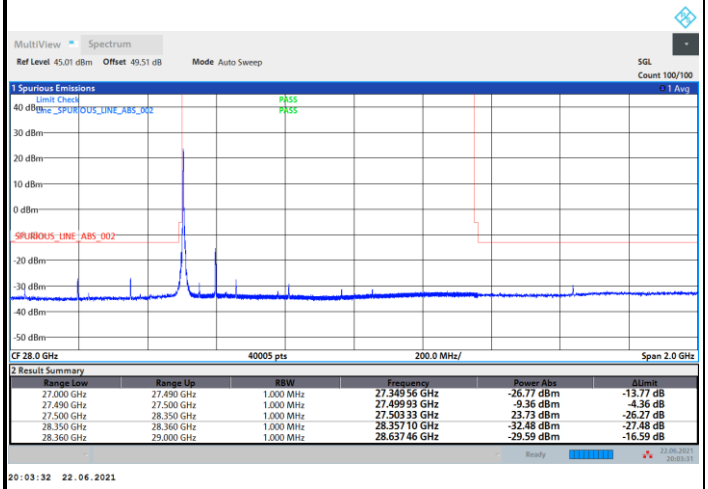
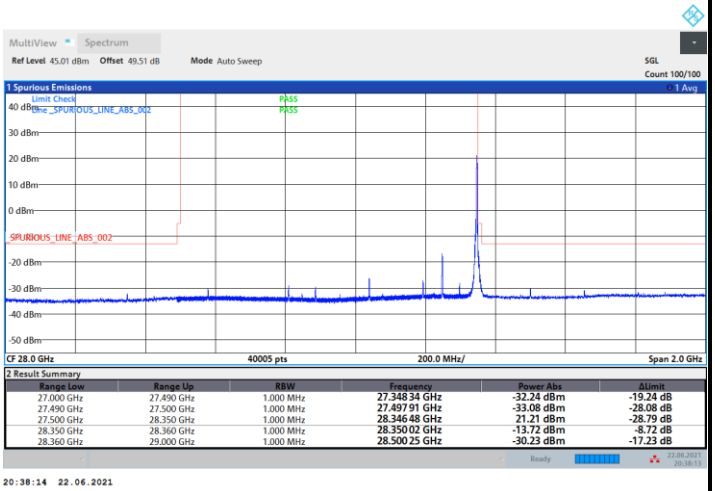


DFT-s-OFDM Module 1

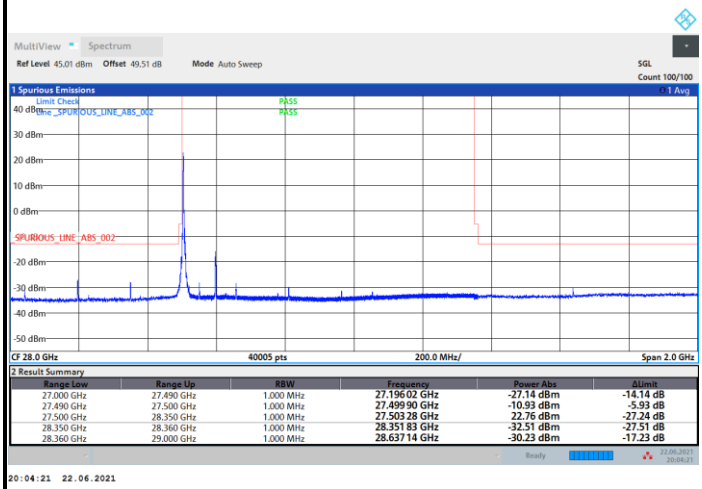
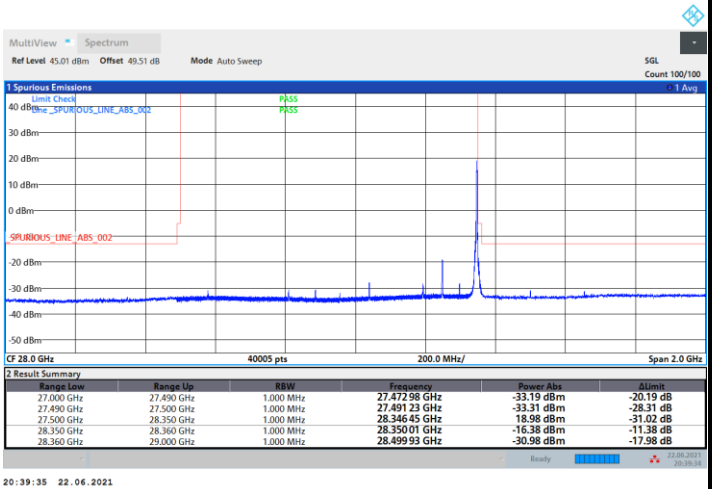
NR Band n261 / 100MHz / BPSK

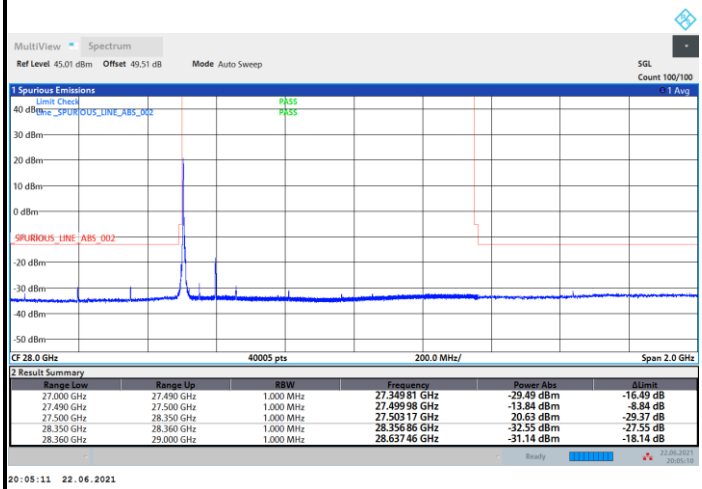
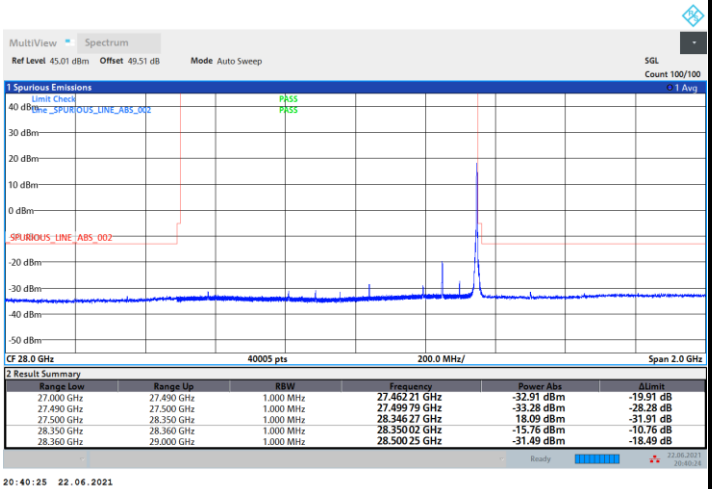
Lowest Band Edge / 1 RB	Highest Band Edge / 1 RB
	

NR Band n261 / 100MHz / QPSK

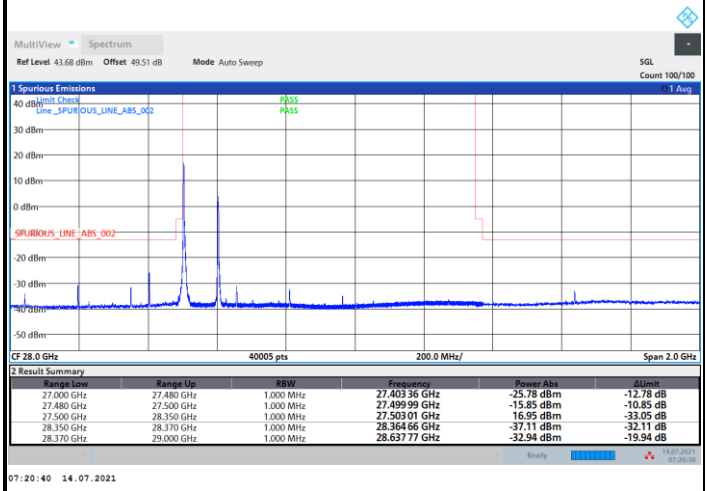
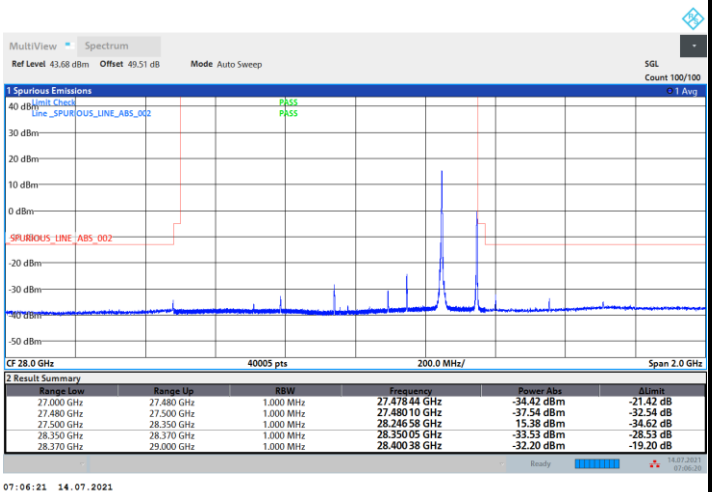
Lowest Band Edge / 1 RB	Highest Band Edge / 1 RB
	

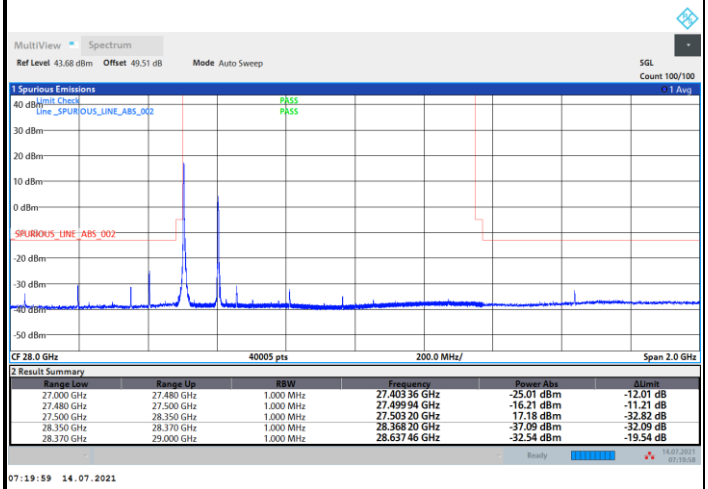
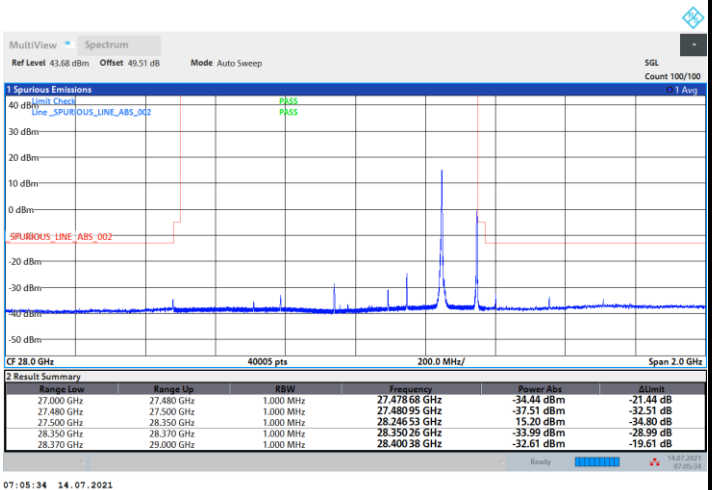
DFT-s-OFDM Module 1

NR Band n261 / 100MHz / 16QAM	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

NR Band n261 / 100MHz / 64QAM	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

DFT-s-OFDM Module 1

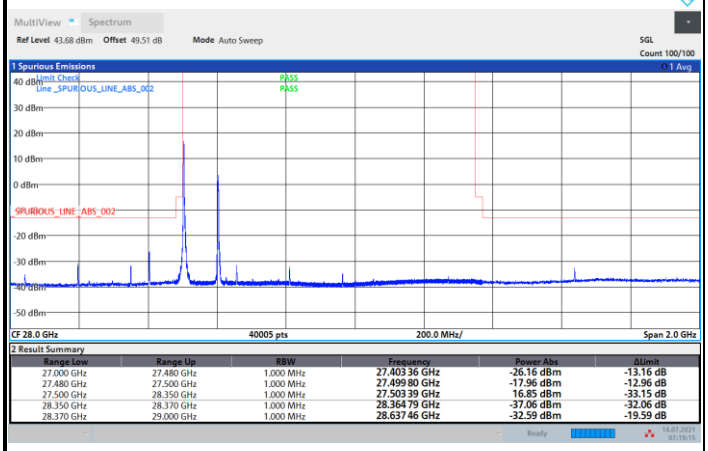
NR Band n261 / 200MHz / BPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

NR Band n261 / 200MHz / QPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

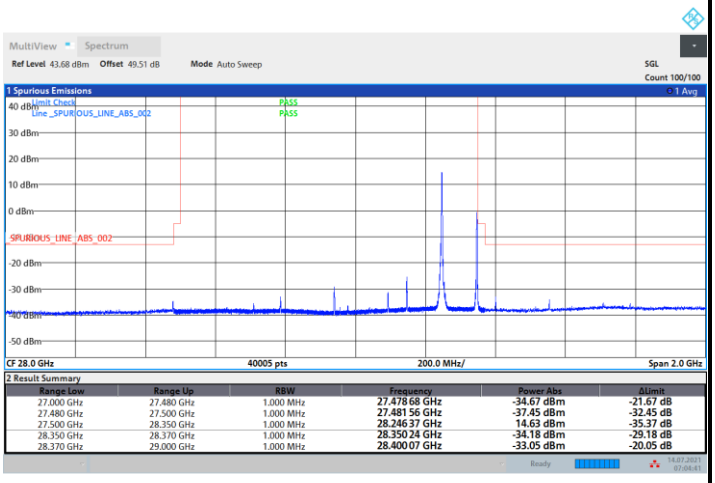
DFT-s-OFDM Module 1

NR Band n261 / 200MHz / 16QAM

Lowest Band Edge / 1 RB

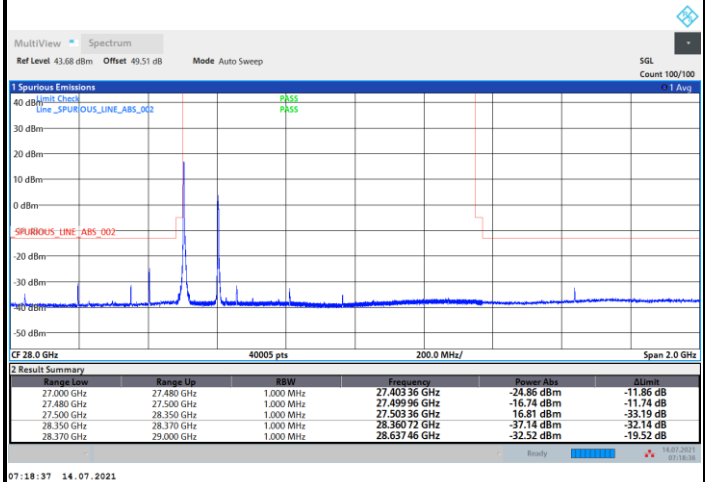


Highest Band Edge / 1 RB

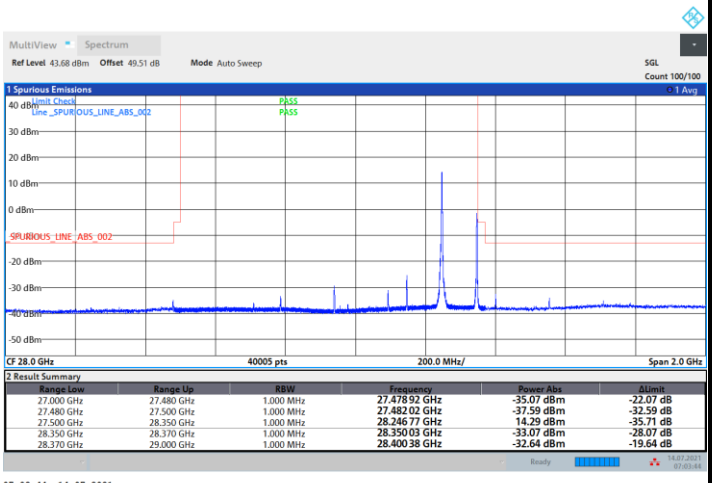


NR Band n261 / 200MHz / 64QAM

Lowest Band Edge / 1 RB



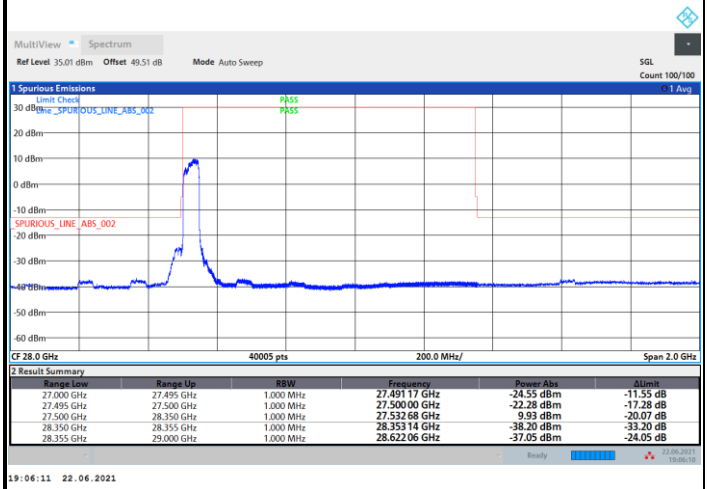
Highest Band Edge / 1 RB



DFT-s-OFDM Module 1

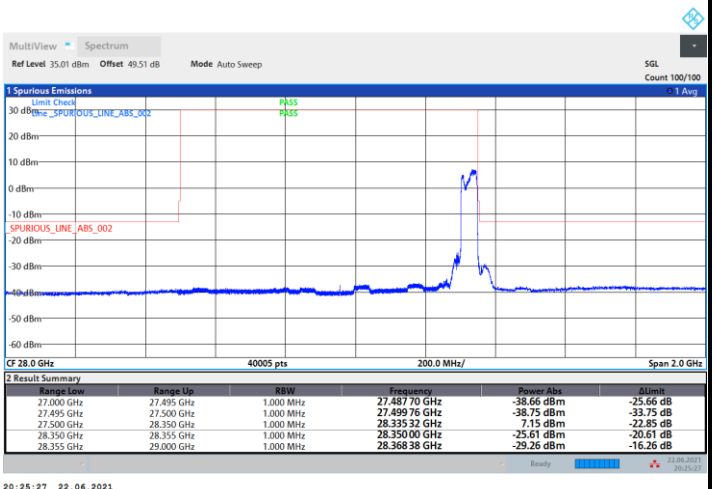
NR Band n261 / 50MHz / BPSK

Lowest Band Edge / Full RB



19:06:11 22.06.2021

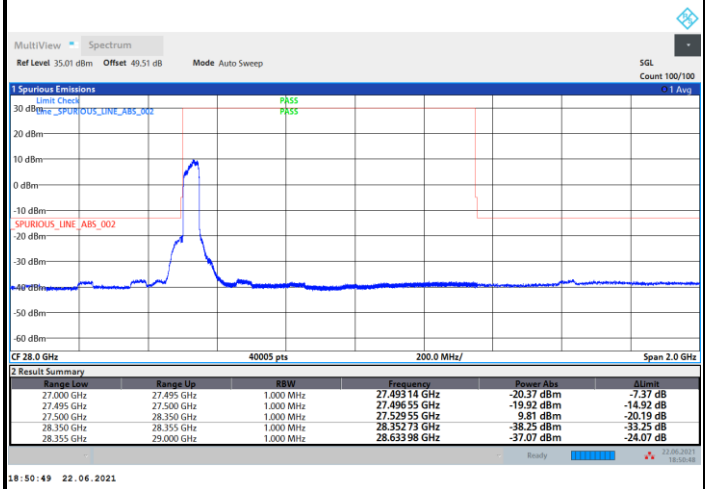
Highest Band Edge / Full RB



20:25:27 22.06.2021

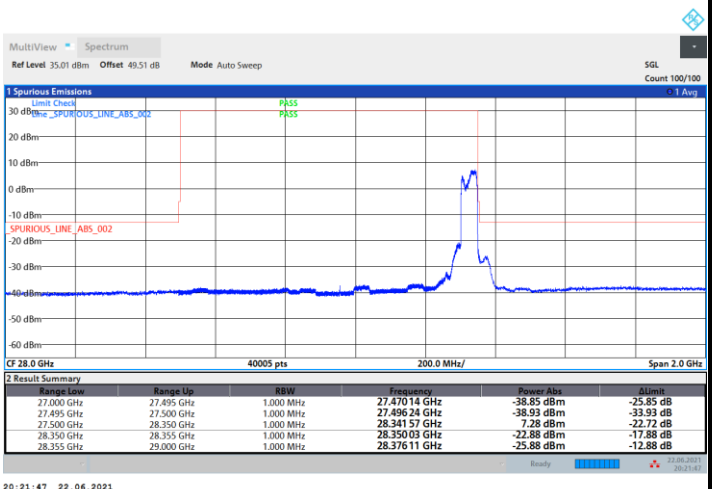
NR Band n261 / 50MHz / QPSK

Lowest Band Edge / Full RB



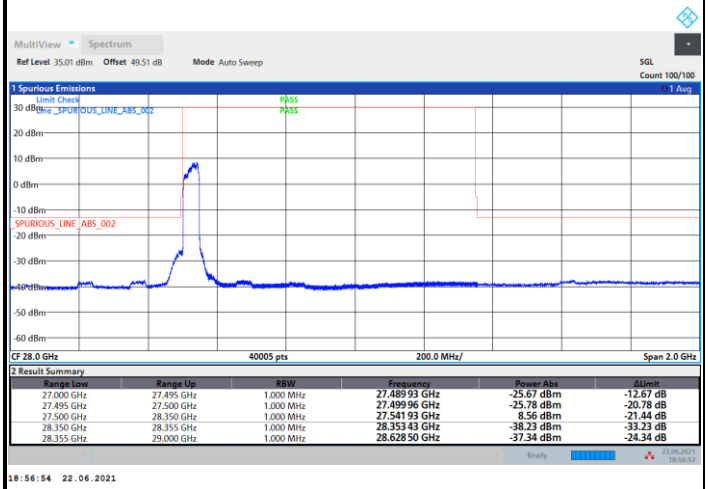
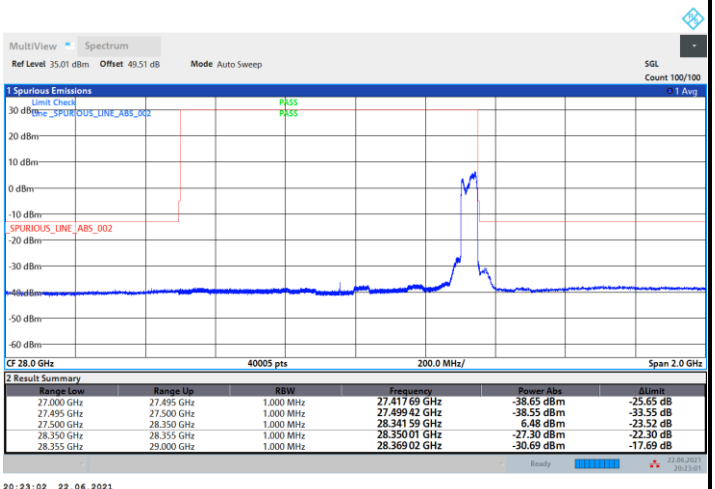
18:50:49 22.06.2021

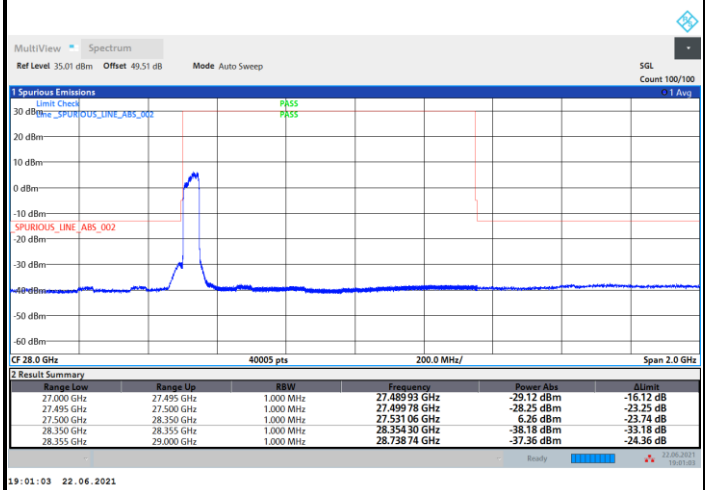
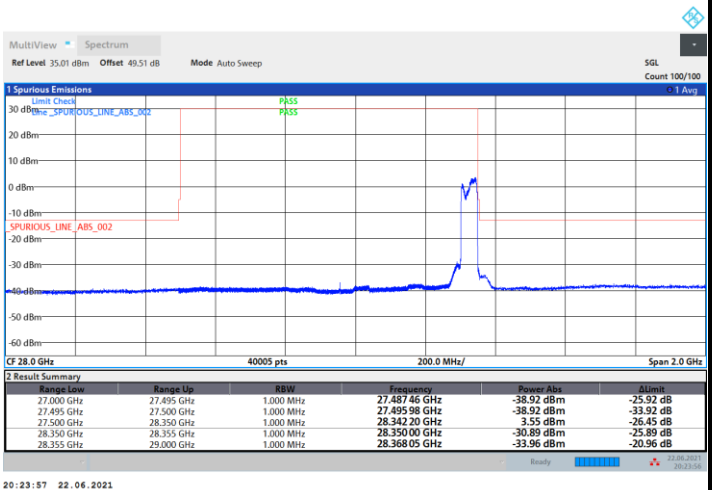
Highest Band Edge / Full RB



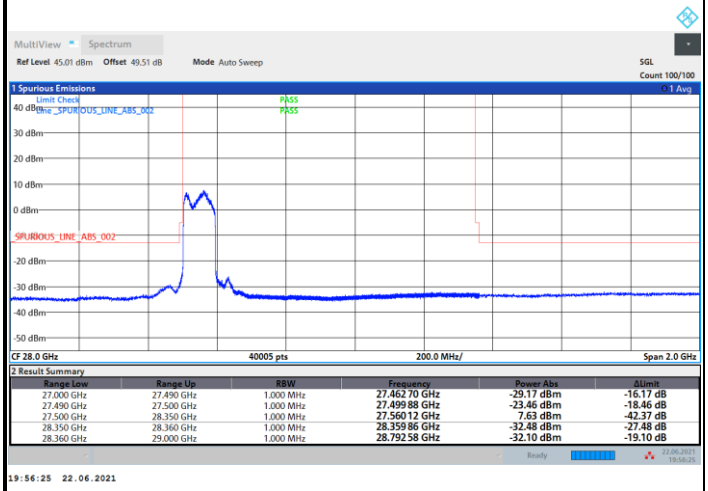
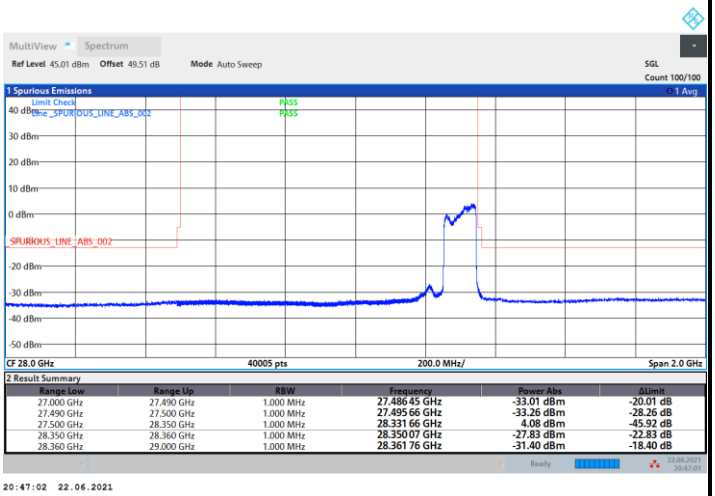
20:21:47 22.06.2021

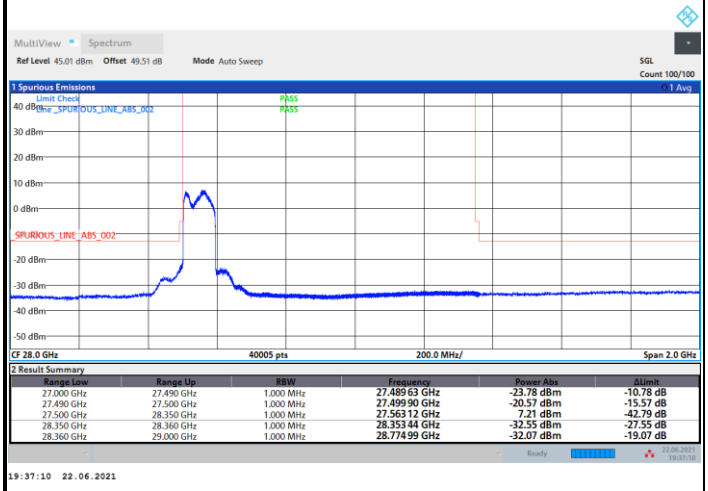
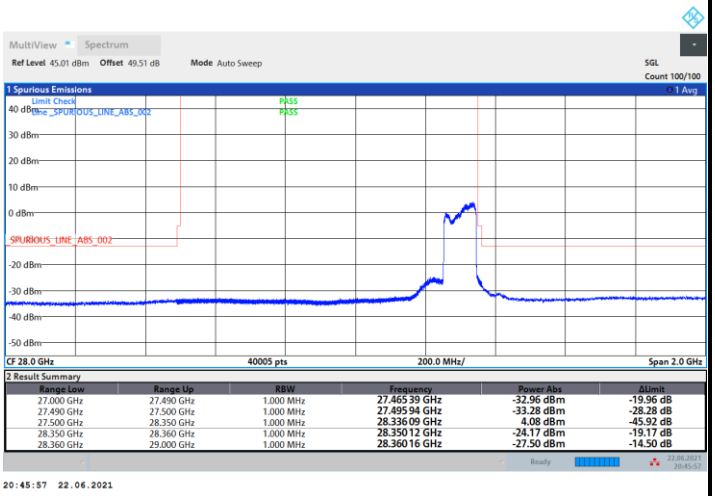
DFT-s-OFDM Module 1

NR Band n261 / 50MHz / 16QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	
18:56:54 22.06.2021	20:23:02 22.06.2021

NR Band n261 / 50MHz / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	
19:01:03 22.06.2021	20:23:57 22.06.2021

DFT-s-OFDM Module 1

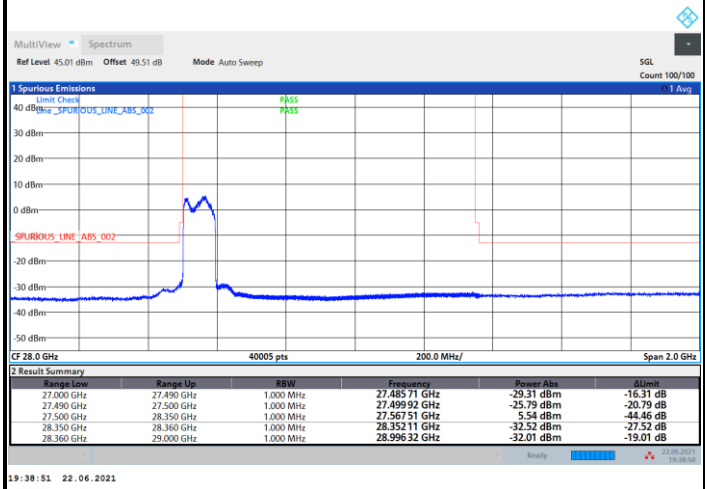
NR Band n261 / 100MHz / BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

NR Band n261 / 100MHz / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

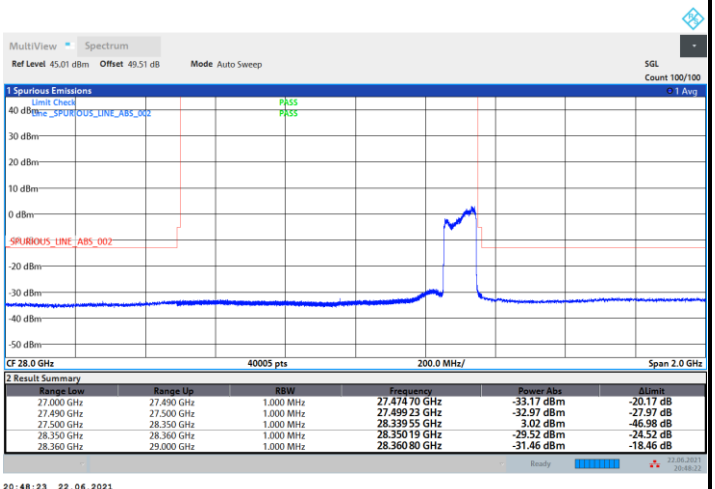
DFT-s-OFDM Module 1

NR Band n261 / 100MHz / 16QAM

Lowest Band Edge / Full RB

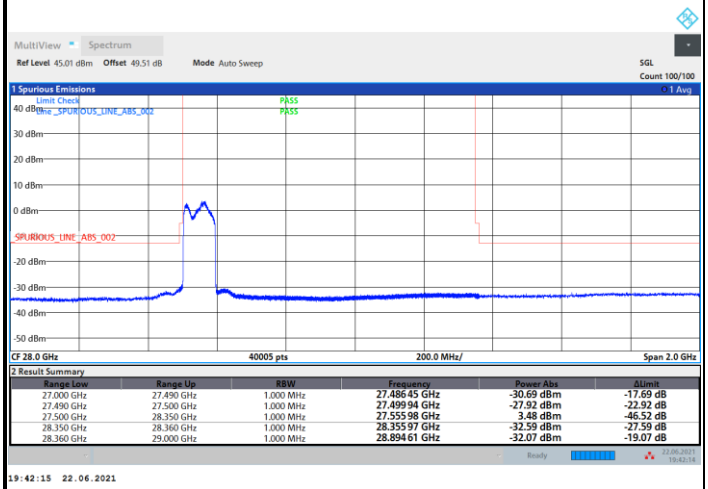


Highest Band Edge / Full RB

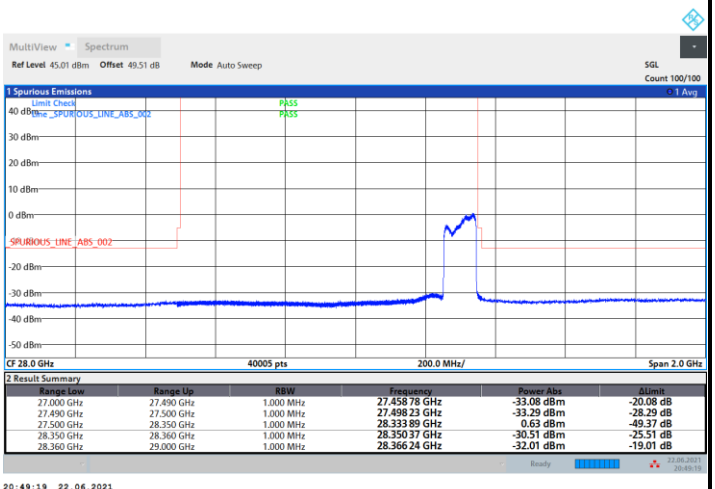


NR Band n261 / 100MHz / 64QAM

Lowest Band Edge / Full RB



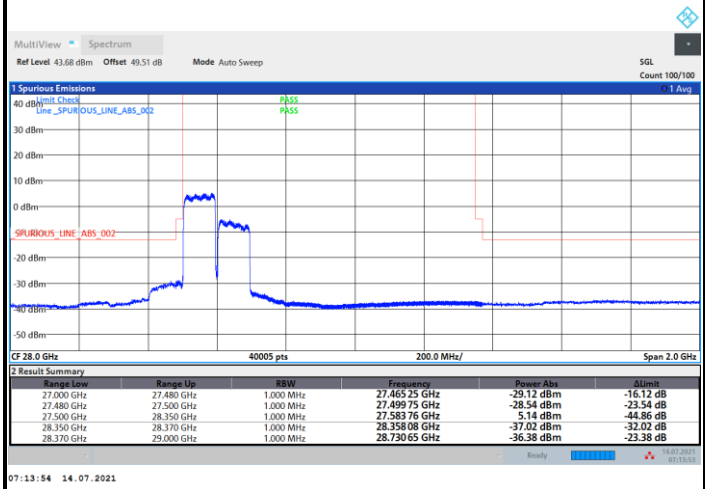
Highest Band Edge / Full RB



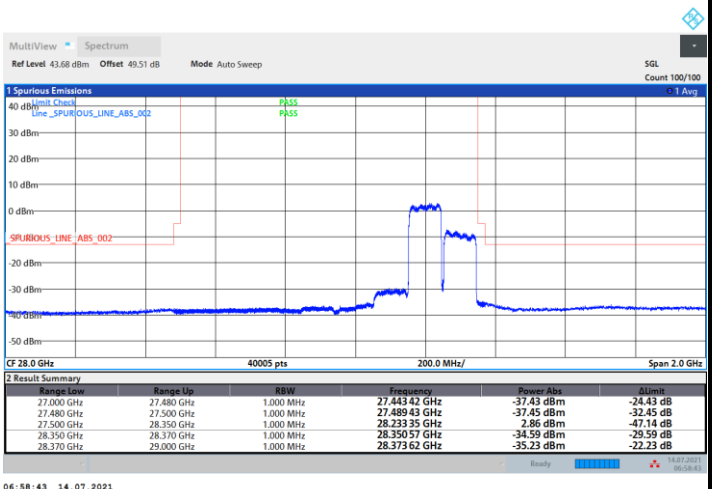
DFT-s-OFDM Module 1

NR Band n261 / 200MHz / BPSK

Lowest Band Edge / Full RB

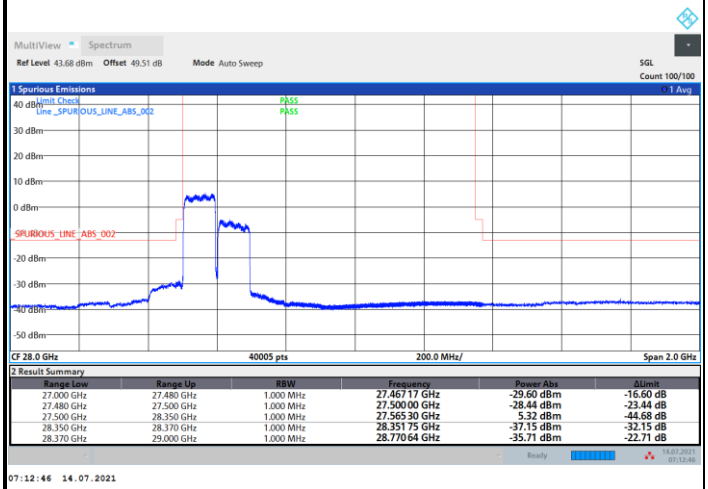


Highest Band Edge / Full RB

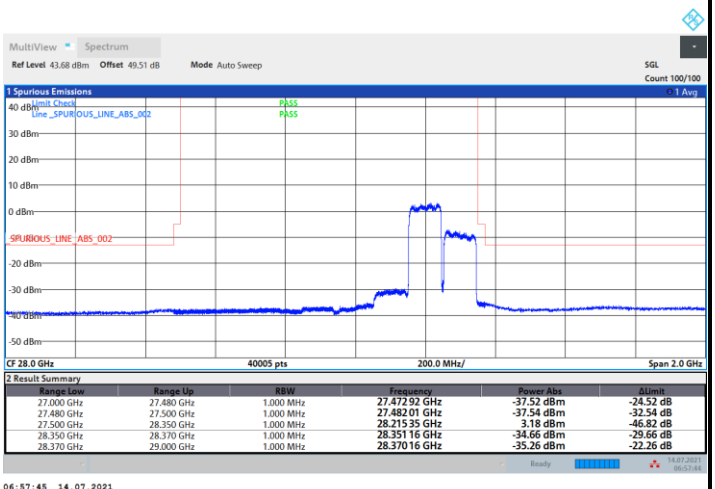


NR Band n261 / 200MHz / QPSK

Lowest Band Edge / Full RB



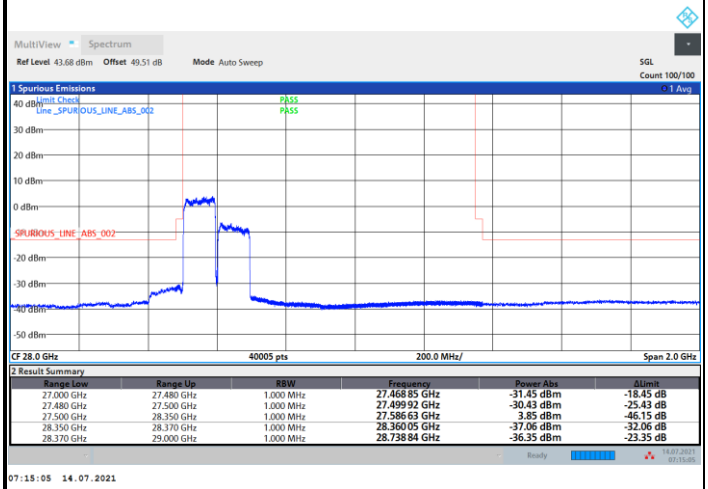
Highest Band Edge / Full RB



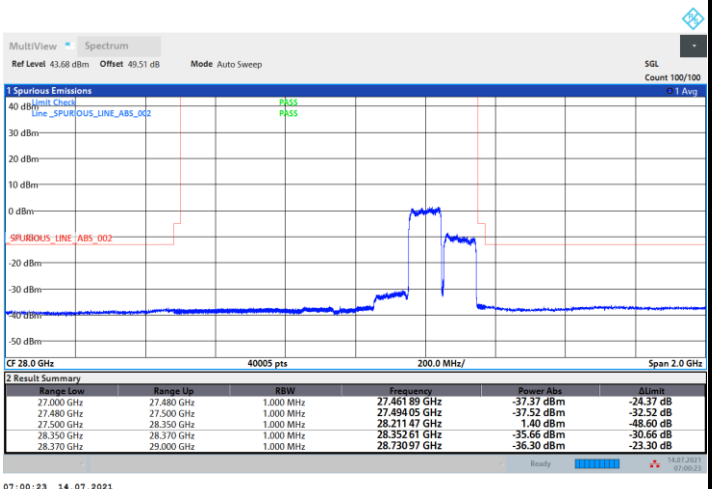
DFT-s-OFDM Module 1

NR Band n261 / 200MHz / 16QAM

Lowest Band Edge / Full RB

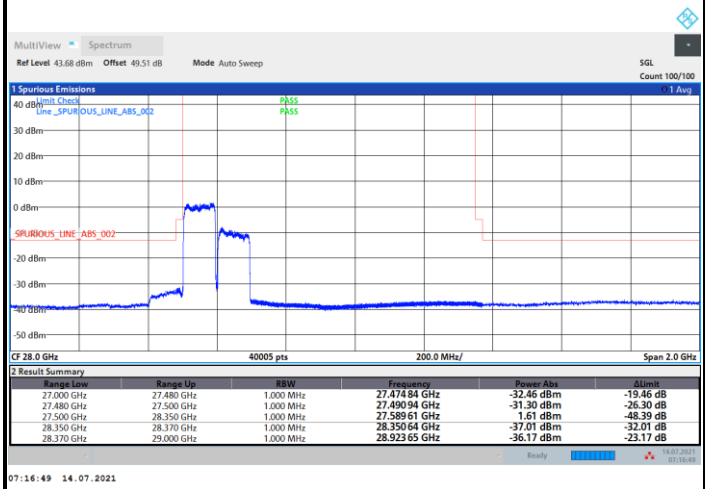


Highest Band Edge / Full RB

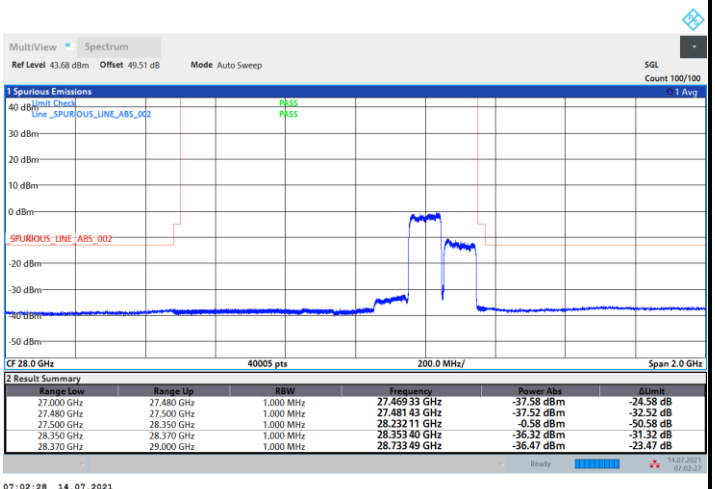


NR Band n261 / 200MHz / 64QAM

Lowest Band Edge / Full RB



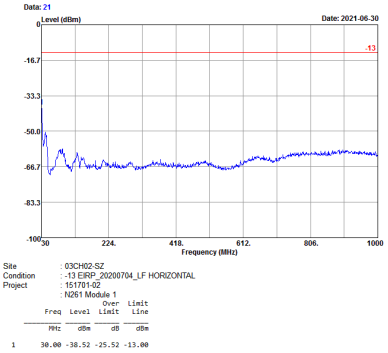
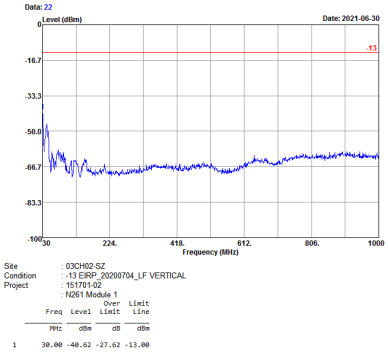
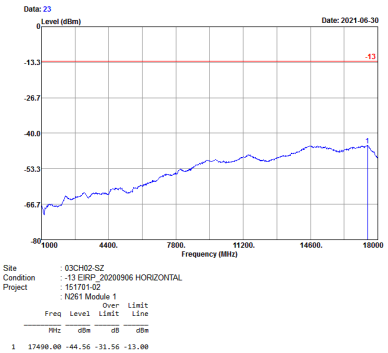
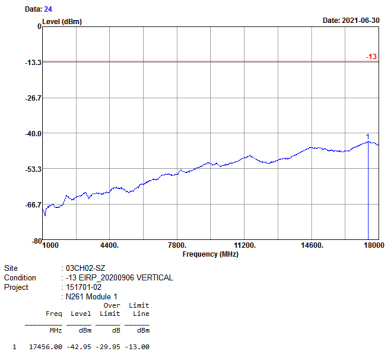
Highest Band Edge / Full RB



Spurious Emission

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

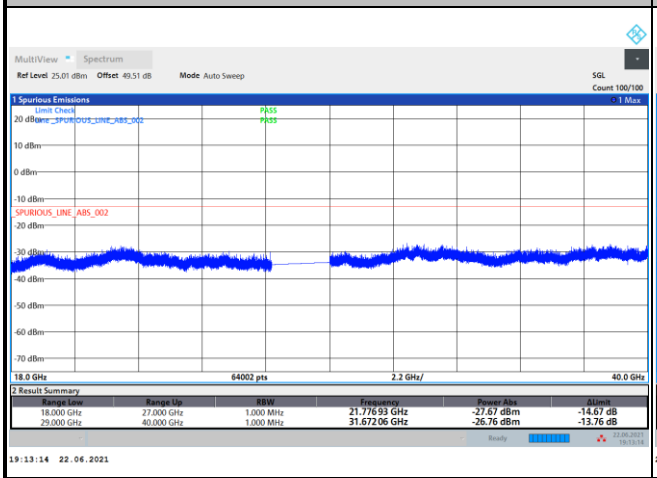
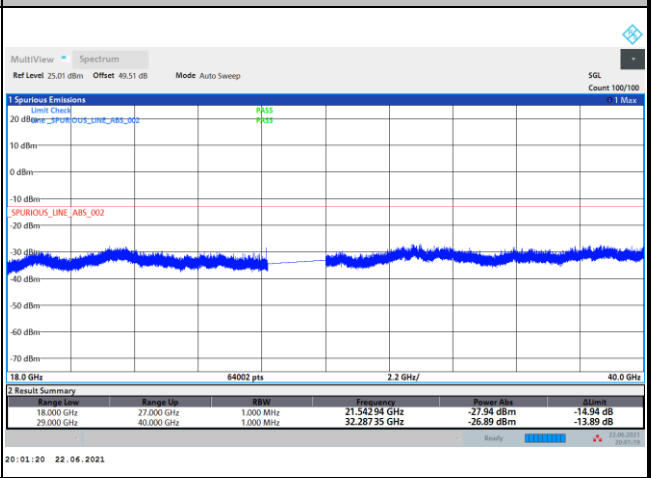
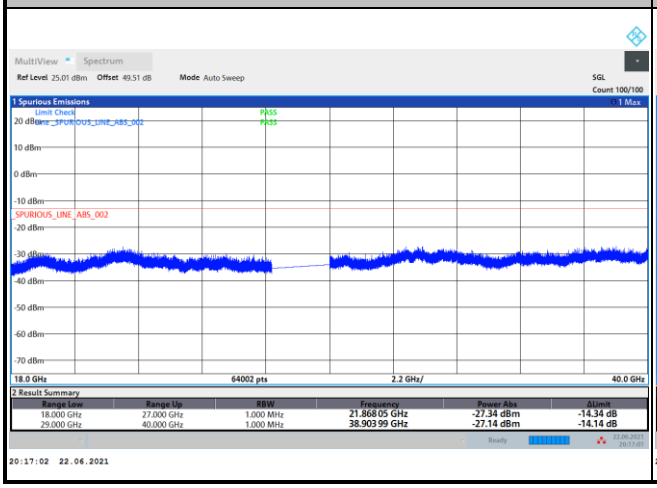
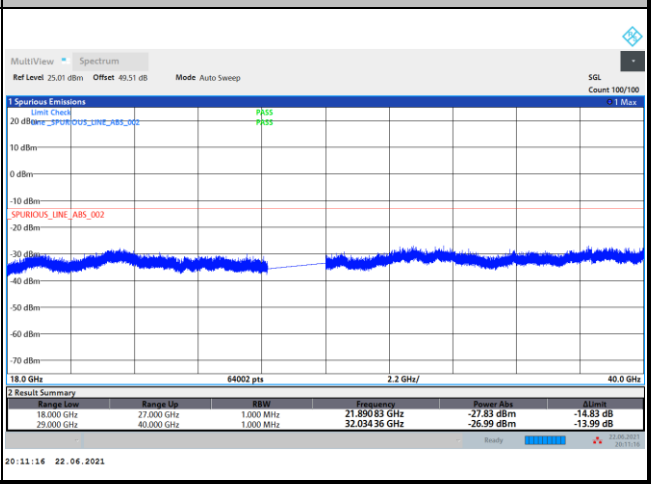
Only the noise floor is reported.

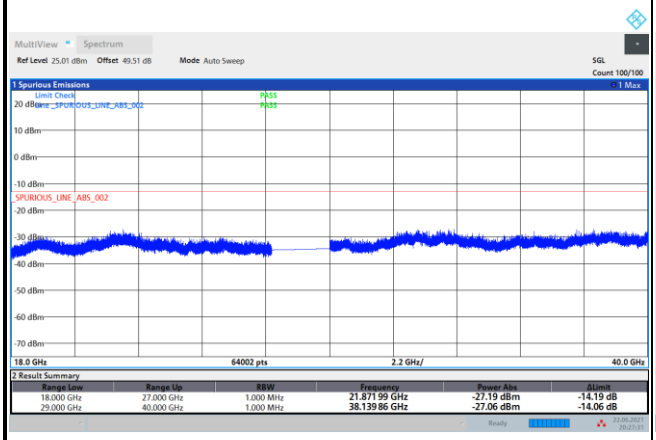
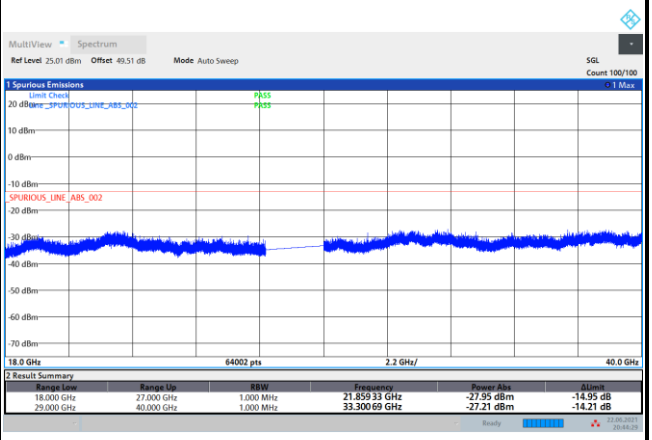
NR Band n261 (30MHz-1GHz)	
Horizontal	**Vertical**
	
NR Band n261 (1GHz-18GHz)	
Horizontal	**Vertical**
	

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

Remark: Below plots, the spurious emissions were measured from 18GHz to 27GHz and 29GHz to 40GHz. The test results within the omitted frequency 27GHz to 29GHz were measured and reported in the section of Radiated Out of Band Emission with frequency range, 27GHz to 29GHz, and all spurious comply with limits.

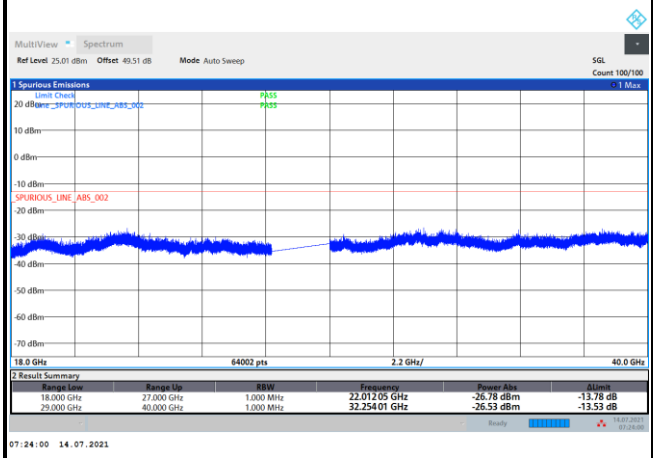
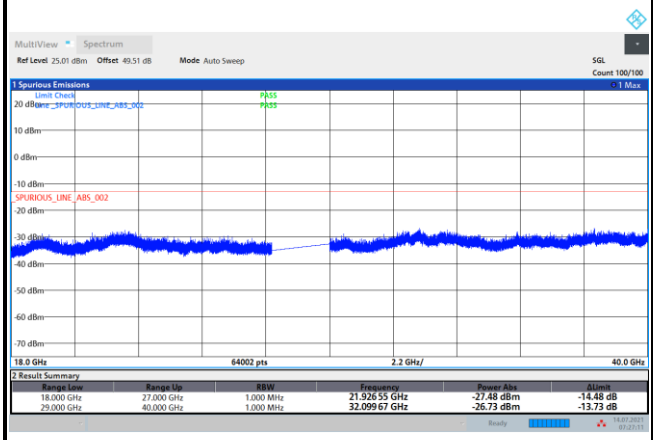
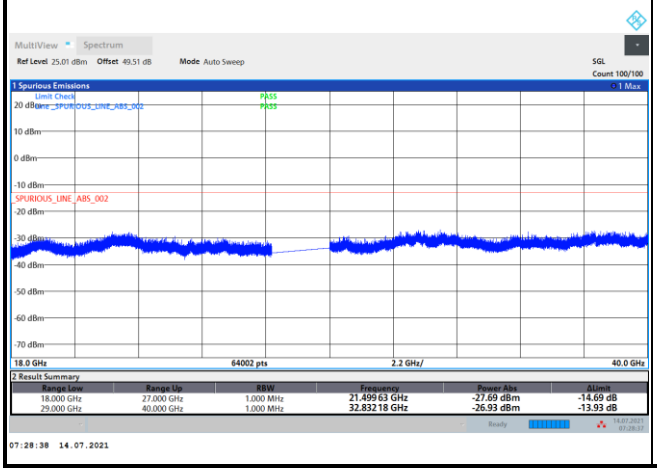
DFT-s-OFDM Module 1

NR Band n261 BPSK (18-40GHz)	
Lowest Channel / 50MHz	Lowest Channel / 100MHz
	
Middle Channel / 50MHz	Middle Channel / 100MHz
	

Highest Channel / 50MHz	Highest Channel / 100MHz
	

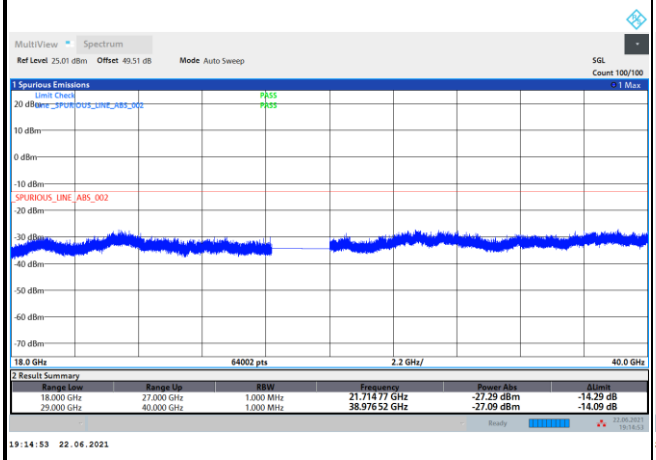
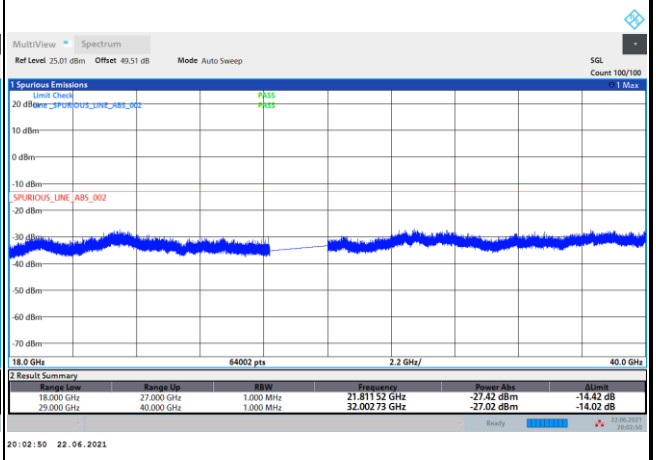
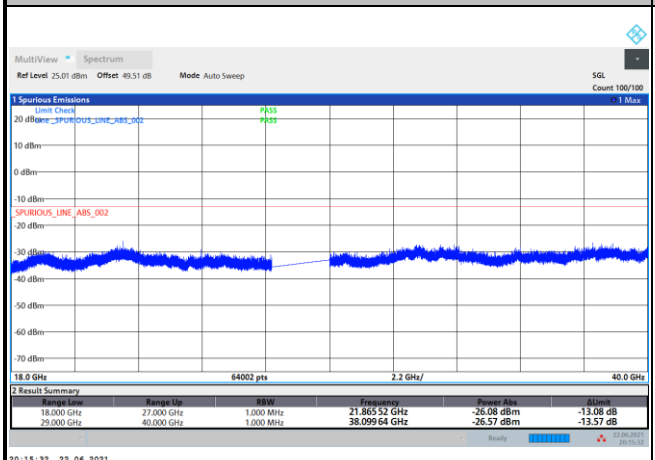
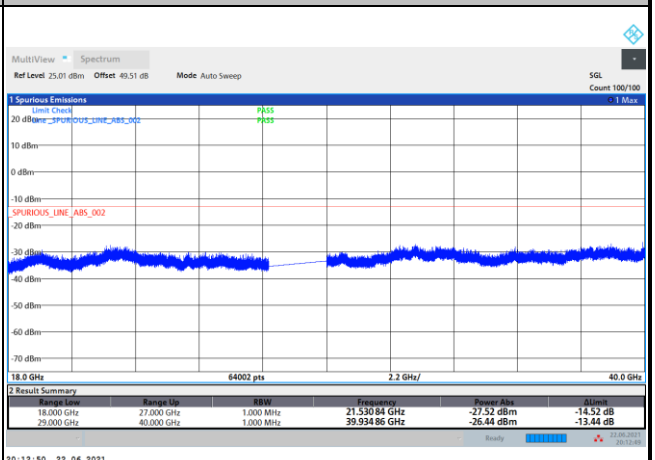
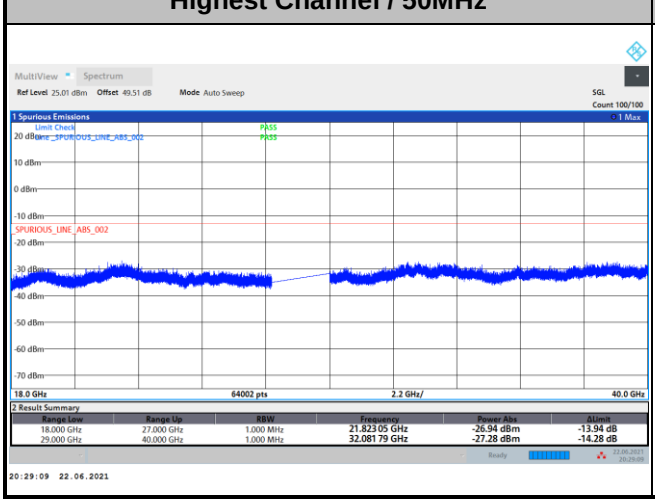
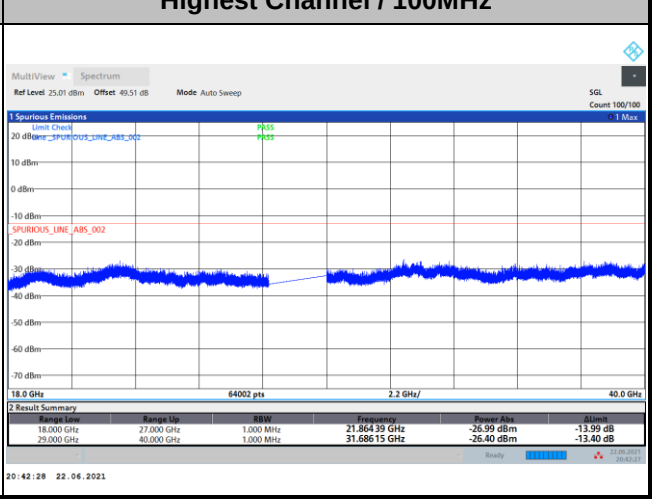
Remark: In band and out of band frequencies are omitted.

DFT-s-OFDM Module 1

NR Band n261 BPSK (18-40GHz)	
Lowest Channel / 200MHz	
	**intentionally blank**
Middle Channel / 200MHz	
	**intentionally blank**
Highest Channel / 200MHz	
	**intentionally blank**

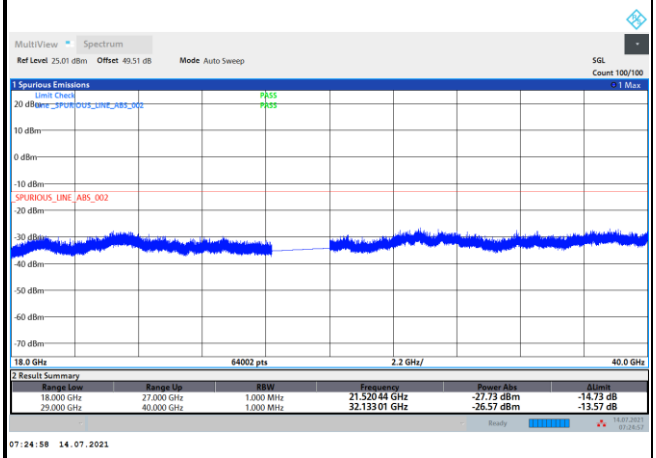
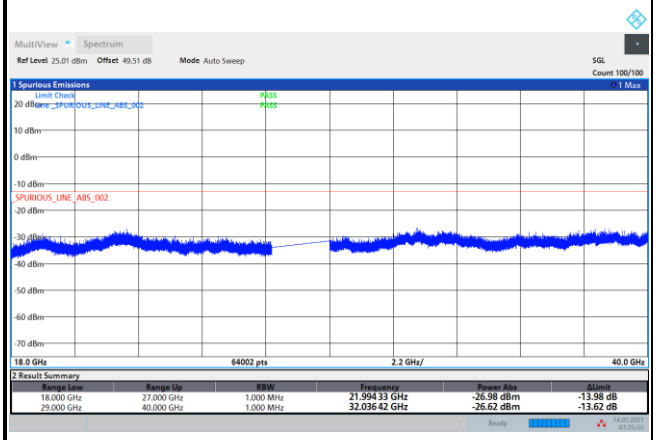
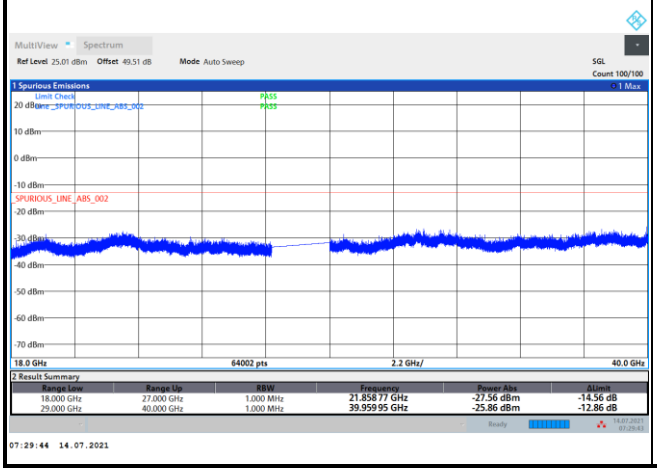
Remark: In band and out of band frequencies are omitted.

DFT-s-OFDM Module 1

NR Band n261 QPSK (18-40GHz)	
Lowest Channel / 50MHz	**Lowest Channel / 100MHz**
	
Middle Channel / 50MHz	**Middle Channel / 100MHz**
	
Highest Channel / 50MHz	**Highest Channel / 100MHz**
	

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

DFT-s-OFDM Module 1

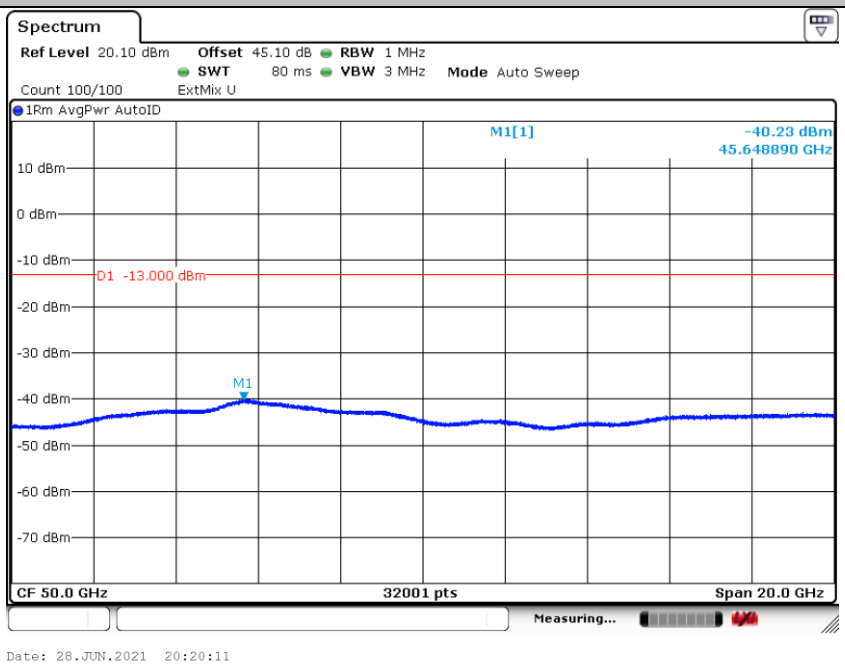
NR Band n261 QPSK (18-40GHz)	
Lowest Channel / 200MHz	
	**intentionally blank**
Middle Channel / 200MHz	
	**intentionally blank**
Highest Channel / 200MHz	
	**intentionally blank**

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

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

Only the noise floor is reported.

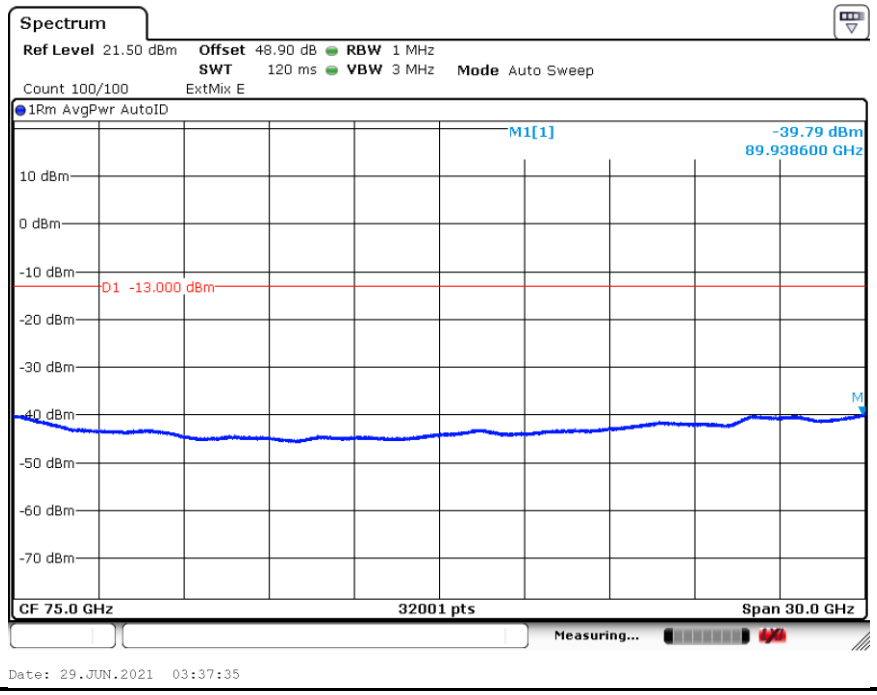
NR Band n261
(40GHz-60GHz)



Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log (D) – 104.8

= 42.5 + 0.4 + 107 + 20log(1) – 104.8 = 45.1 (dB)

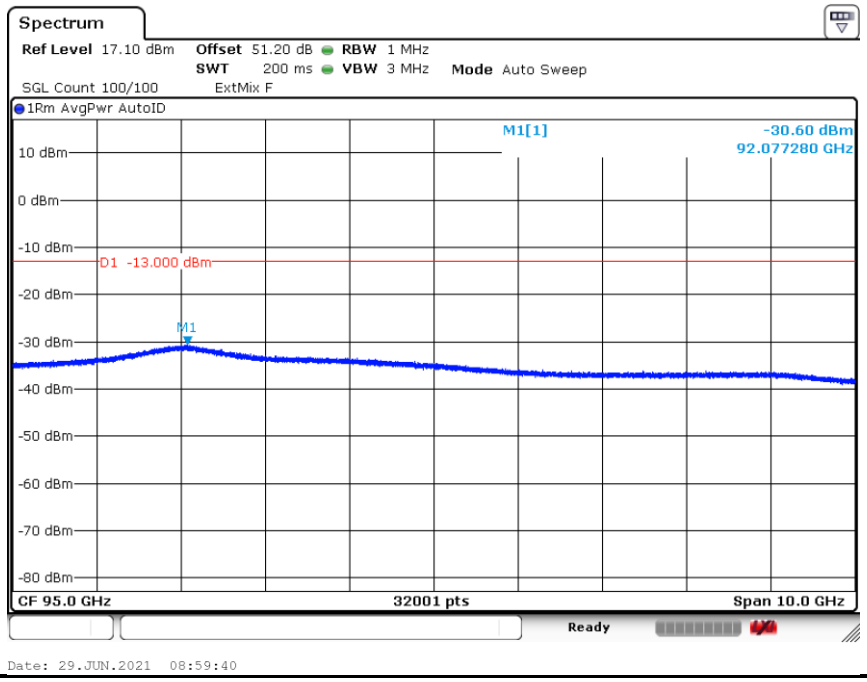
NR Band n261
(60GHz-90GHz)



Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log (D) – 104.8

= 46.3 + 0.4 + 107 + 20log(1) – 104.8 = 48.9 (dB)

NR Band n261
(90GHz-100GHz)



Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log (D) – 104.8

= 48.6 + 0.4 + 107 + 20log(1) – 104.8 = 51.2 (dB)

Frequency Stability

Test Conditions		NR Band n261 / Middle Channel			Limit
Temperature (°C)	Voltage (Volt)	CW tone			Note 2.
		Frequency (GHz)	Deviation (kHz)	Deviation (ppm)	Result
50	Normal Voltage	27.9249375	62.500	2.238	PASS
40	Normal Voltage	27.9249537	46.300	1.658	
30	Normal Voltage	27.9249884	11.600	0.415	
20(Ref.)	Normal Voltage	27.925	0.000	0.000	
10	Normal Voltage	27.9250729	-72.900	2.611	
0	Normal Voltage	27.9251389	-138.900	4.974	
-10	Normal Voltage	27.9251482	-148.200	5.307	
-20	Normal Voltage	27.9251945	-194.500	6.965	
-30	Normal Voltage	27.9252593	-259.300	9.286	
20	Maximum Voltage	27.9250362	-36.200	1.296	
20	Normal Voltage	27.925	0.000	0.000	
20	Battery End Point	27.92499855	1.450	0.052	

Note:

1. Normal Voltage =3.8 V.；Battery End Point (BEP) =3.4 V.；Maximum Voltage =4.4 V.

2. The frequency fundamental emissions stay within the operation band.

Appendix C. R&S Mixer Certificate