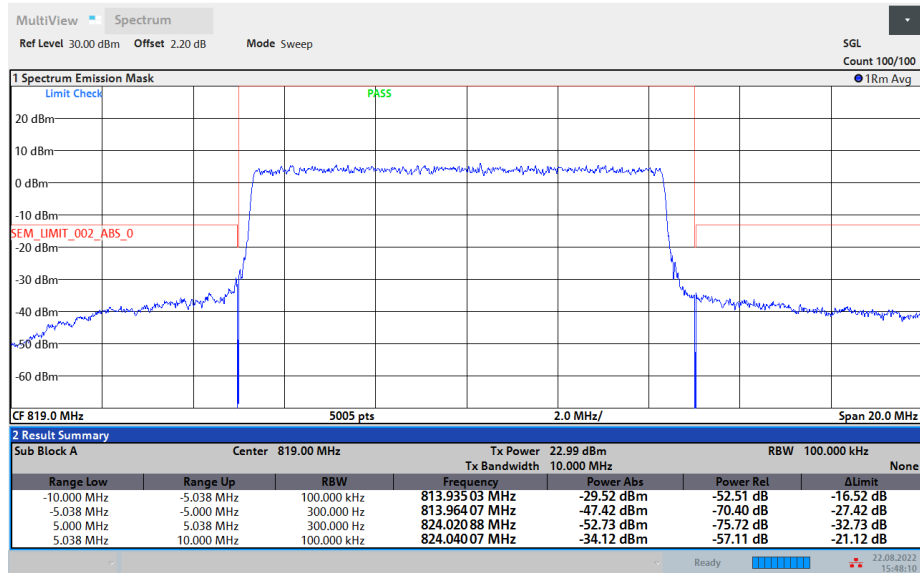




FR1 n26 / 10MHz / DFT-s-OFDM / 16QAM

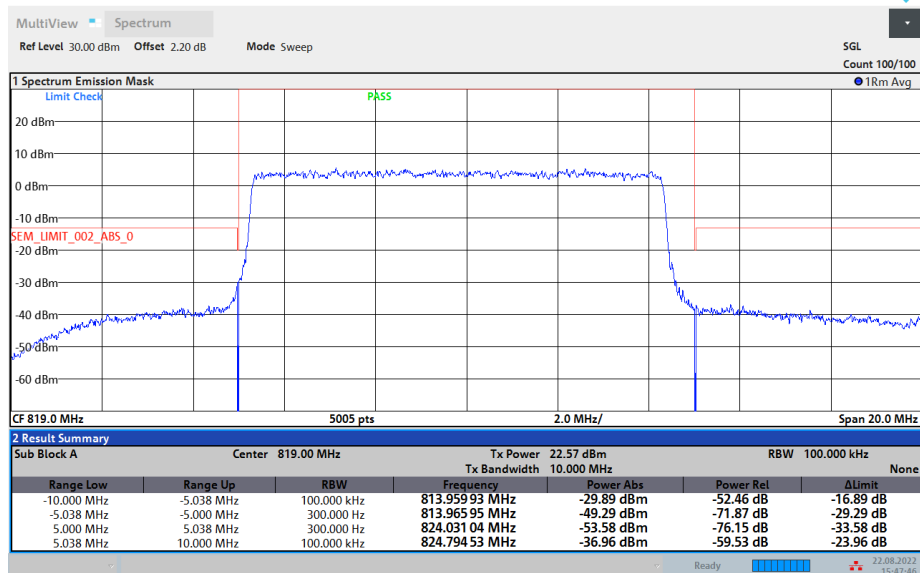
Middle MASK / Full RB



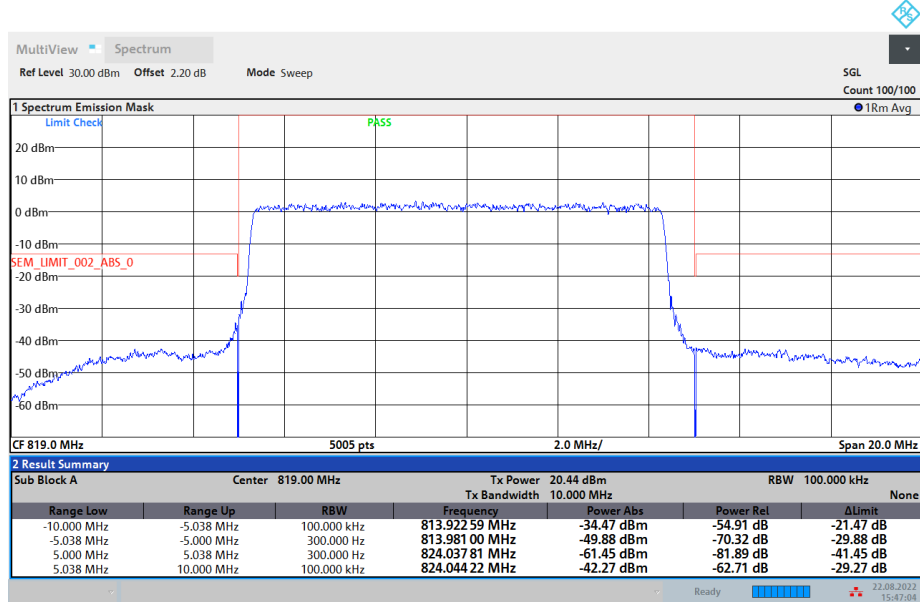
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FR1 n26 / 10MHz / DFT-s-OFDM / 64QAM

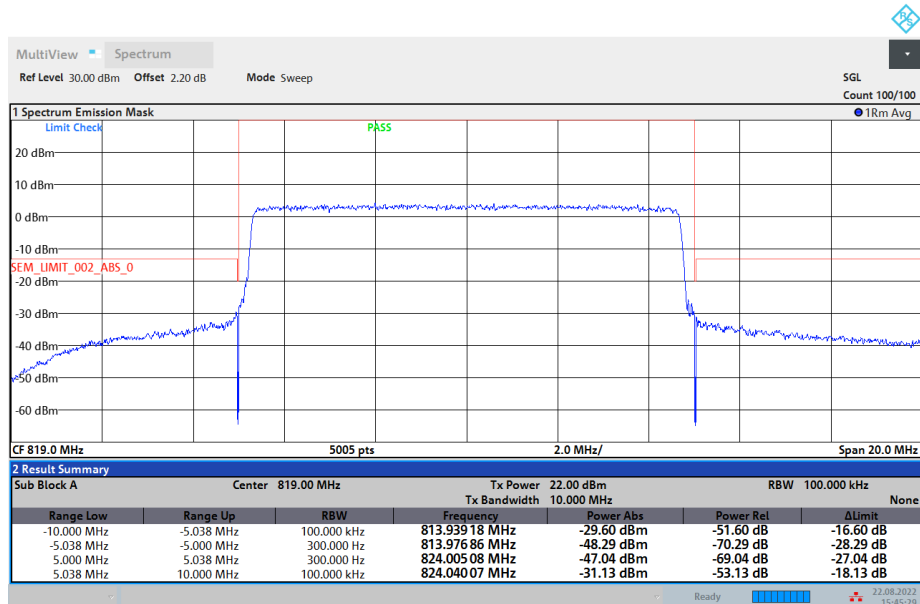
Middle MASK / Full RB



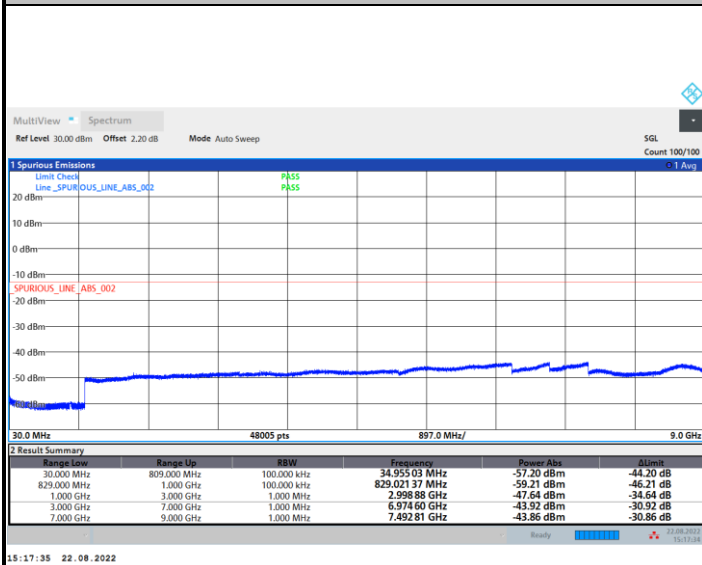
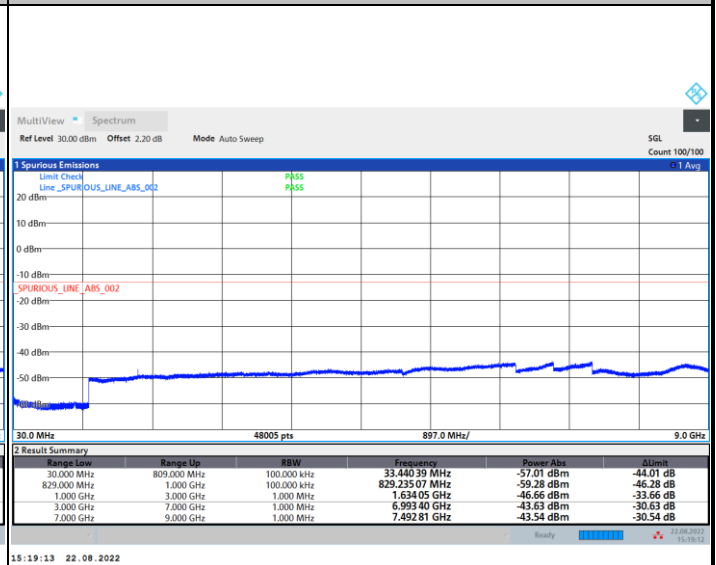
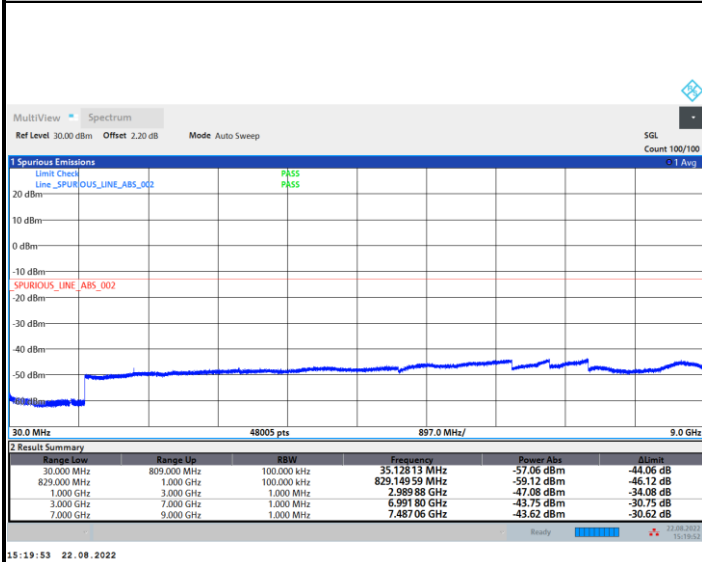
15:47:47 22.08.2022

**FR1 n26 / 10MHz / DFT-s-OFDM / 256QAM****Middle MASK / Full RB**

15:47:05 22.08.2022

FR1 n26 / 10MHz / CP OFDM / QPSK / Full RB**Middle MASK**

15:45:30 22.08.2022

**Emission masks – Out of band emissions****FR1 n26 / 5MHz / DFT-S OFDM / QPSK / 1RB1****Lowest Channel****Middle Channel****Highest Channel**

Frequency Stability

Test Conditions		FR1 n26 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0059	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0057	
0	Normal Voltage	0.0047	
-10	Normal Voltage	0.0024	
-20	Normal Voltage	0.0043	
-30	Normal Voltage	0.0025	
20	Maximum Voltage	0.0067	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0047	

Note:

1. Normal Voltage = 4.05 V. ; Battery End Point (BEP) = 3.85 V. ; Maximum Voltage = 4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

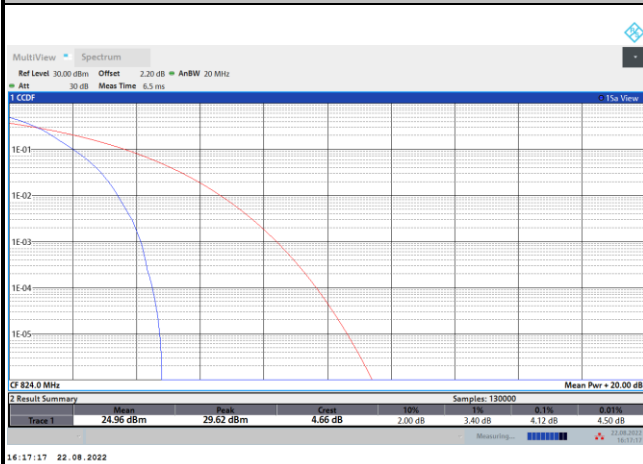
**FR1 n26_Straddle Channel****Peak-to-Average Ratio**

Mode	FR1 n26 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.12	5.00	5.98	6.14	PASS
Mode	FR1 n26 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.74				PASS

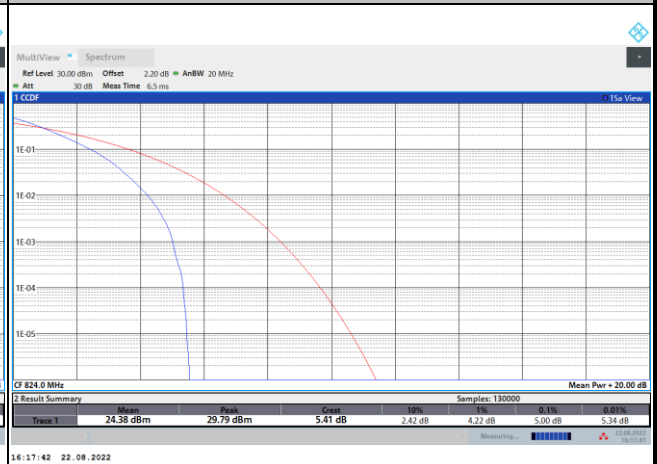


FR1 n26 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

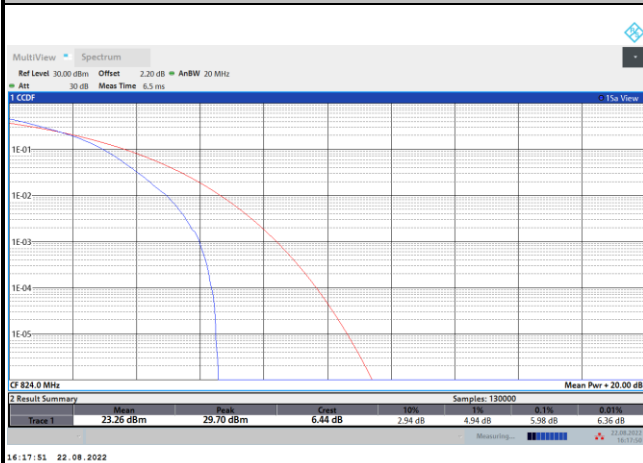
PI/2 BPSK



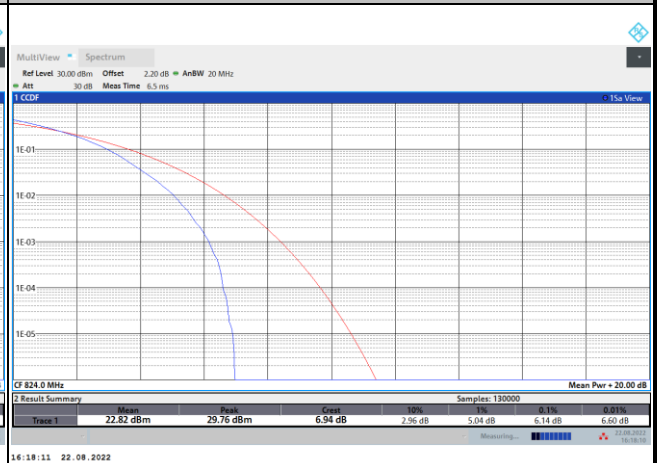
QPSK



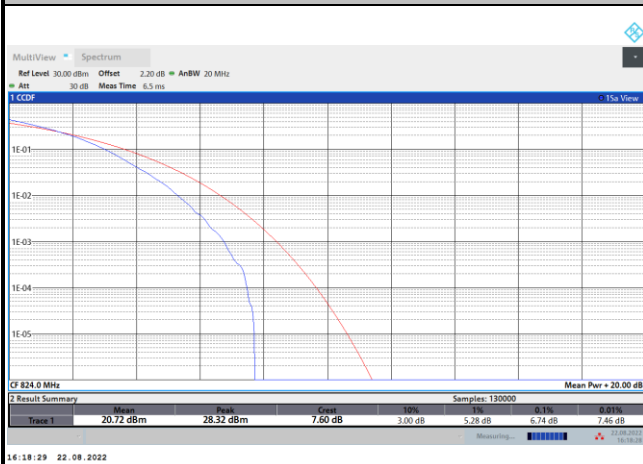
16QAM



64QAM



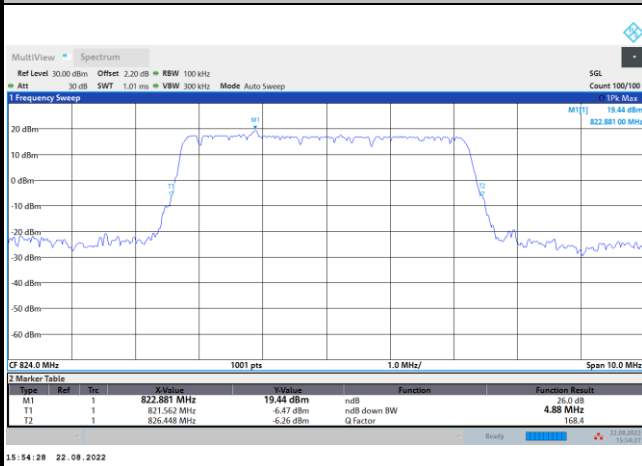
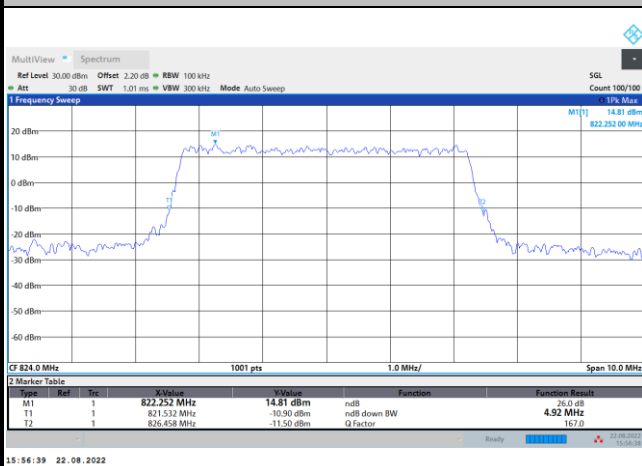
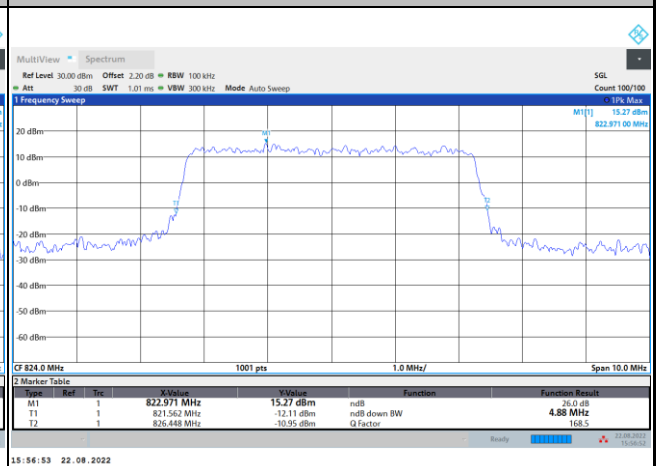
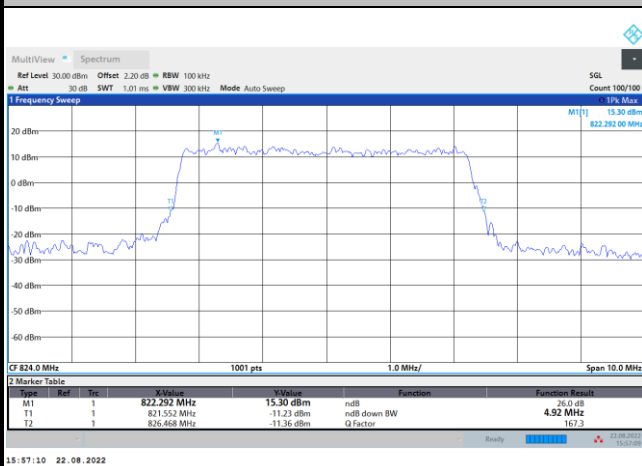
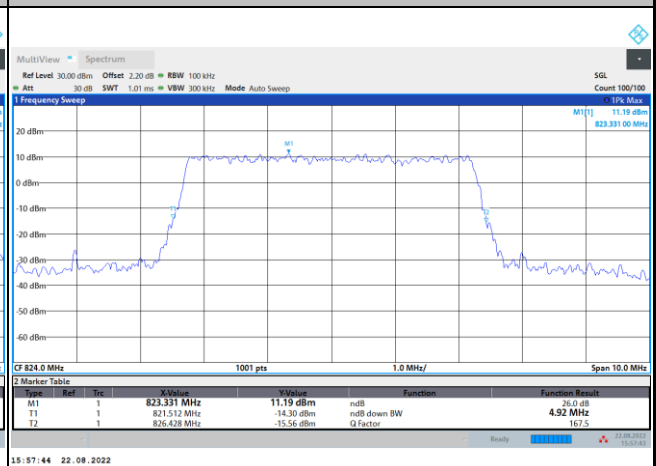
256QAM



**26dB Bandwidth**

Mode	FR1 n26 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.89		9.47		14.24		18.82	

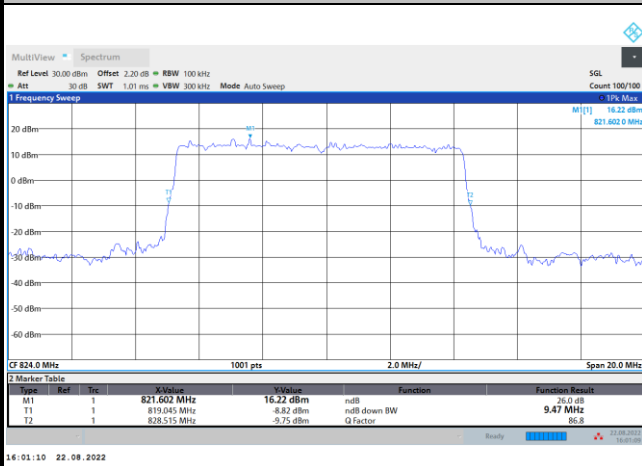
Mode	FR1 n26 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.93	4.89	9.83	9.77	14.99	14.90	19.94	19.94
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.92	4.92	9.75	9.77	14.96	14.99	19.86	19.78

FR1 n26 / 5MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n26 / 5MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM




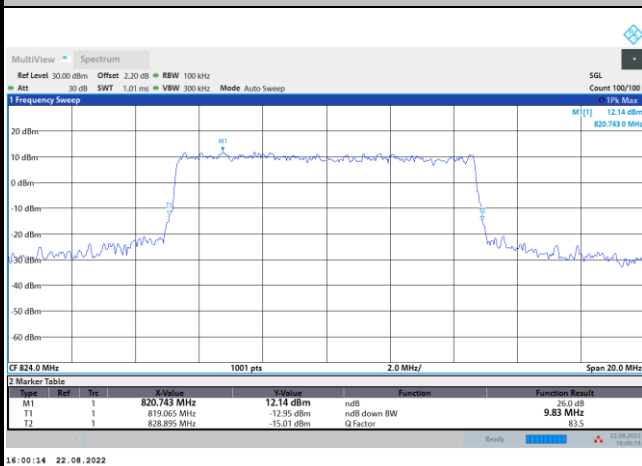
FR1 n26 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

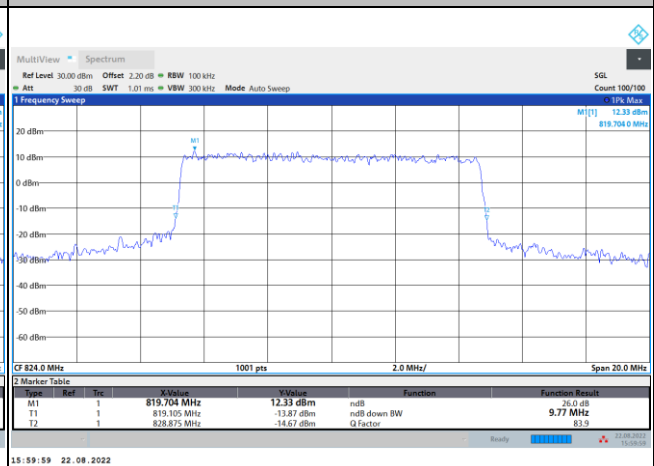


FR1 n26 / 10MHz / CP OFDM / Middle Channel / Full RB

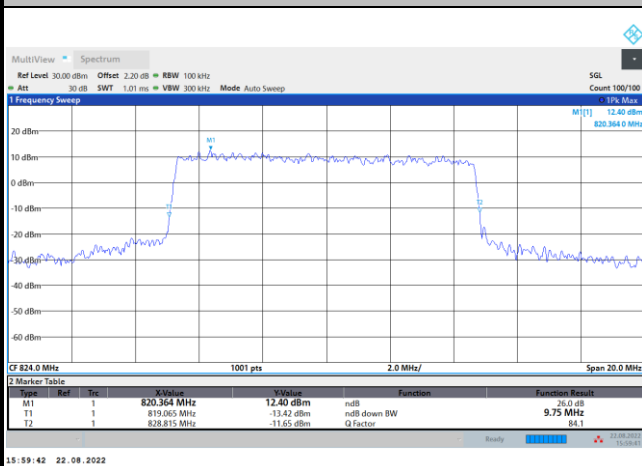
QPSK



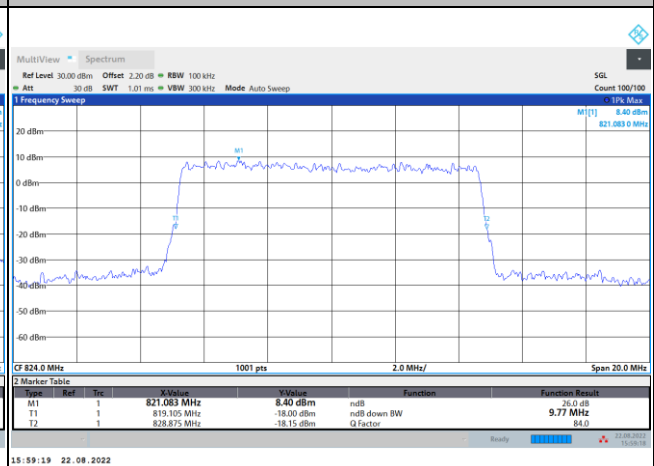
16QAM



64QAM



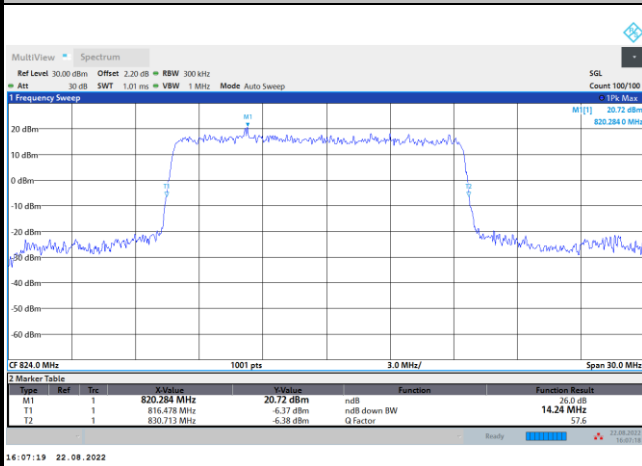
256QAM





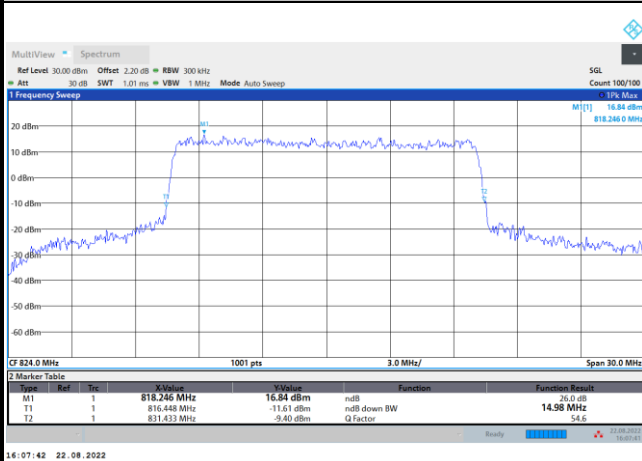
FR1 n26 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

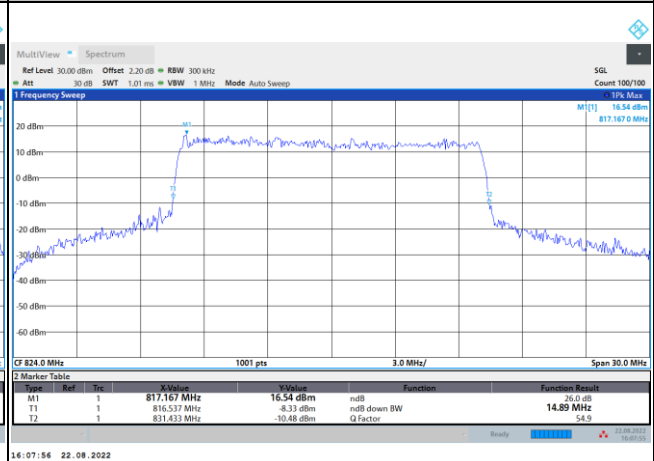


FR1 n26 / 15MHz / CP OFDM / Middle Channel / Full RB

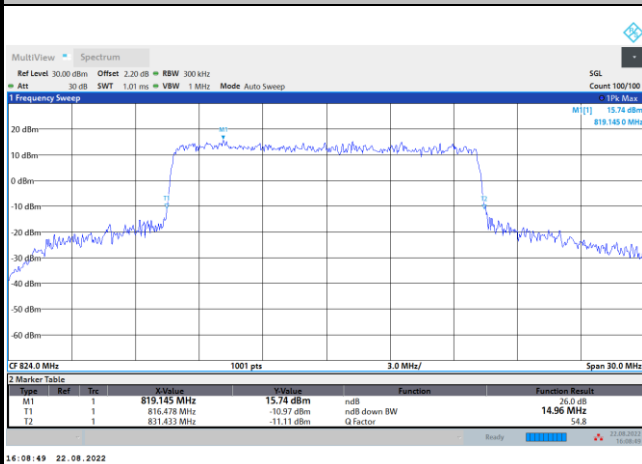
QPSK



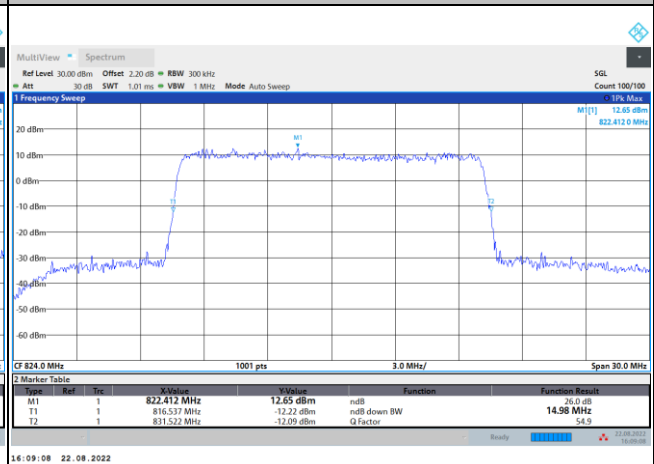
16QAM



64QAM



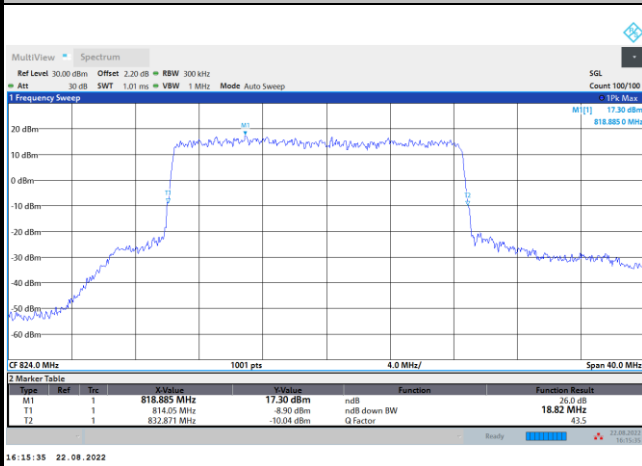
256QAM





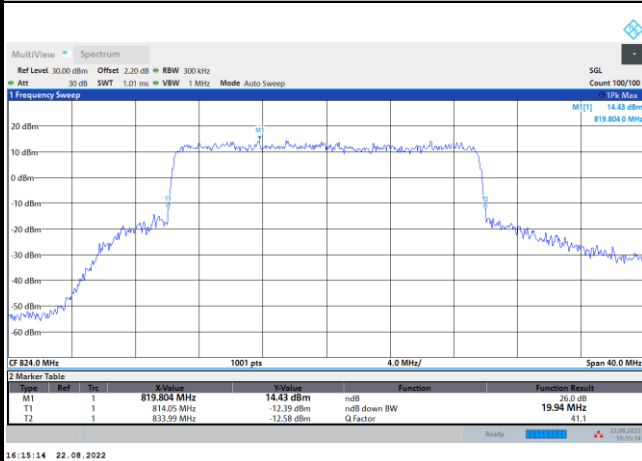
FR1 n26 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

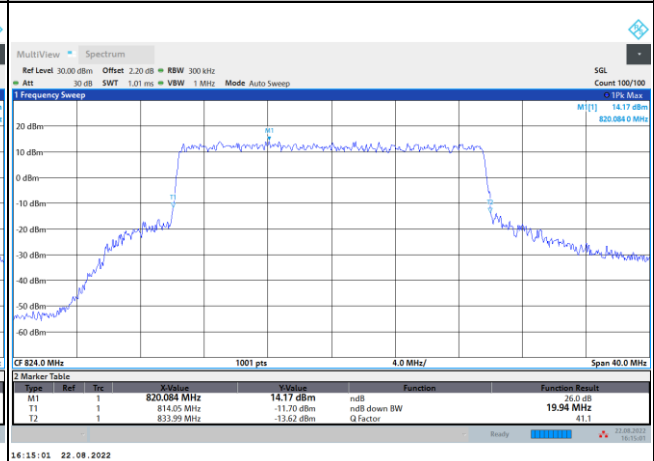


FR1 n26 / 20MHz / CP OFDM / Middle Channel / Full RB

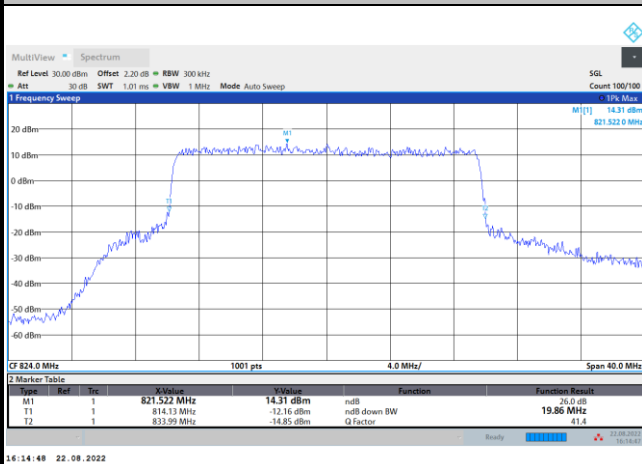
QPSK



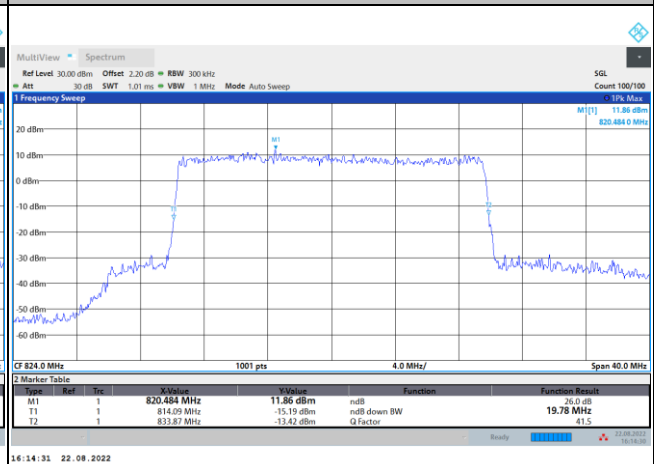
16QAM



64QAM



256QAM



**Occupied Bandwidth**

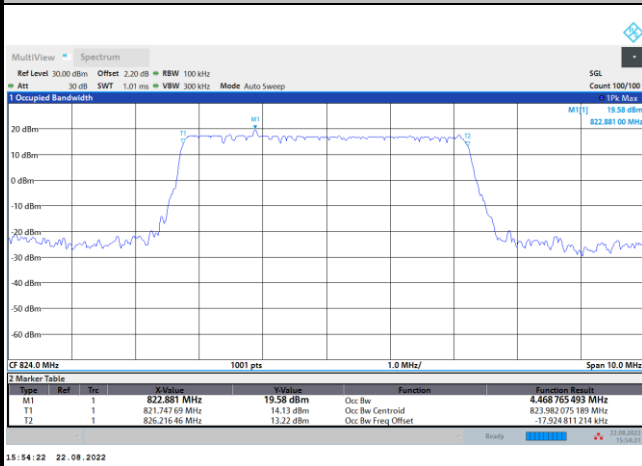
Mode	FR1 n26 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.46		8.90		13.46		17.87	

Mode	FR1 n26 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.49	4.49	9.27	9.26	14.15	14.14	18.91	18.93
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.49	4.50	9.26	9.29	14.17	14.14	18.94	18.98



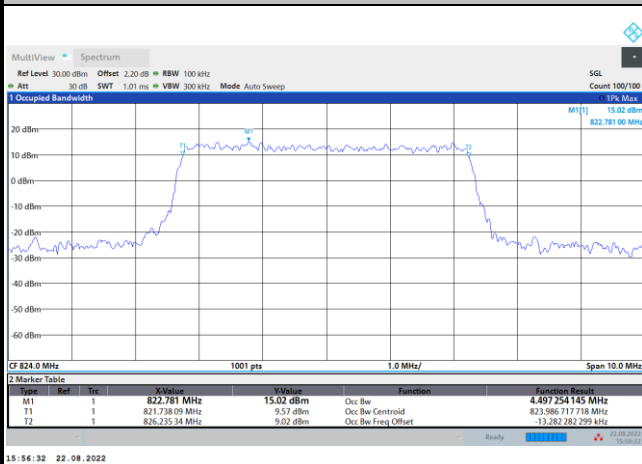
FR1 n26 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

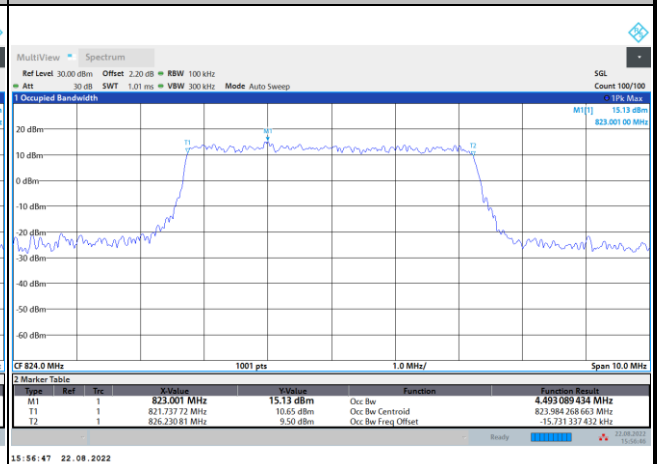


FR1 n26 / 5MHz / CP OFDM / Middle Channel / Full RB

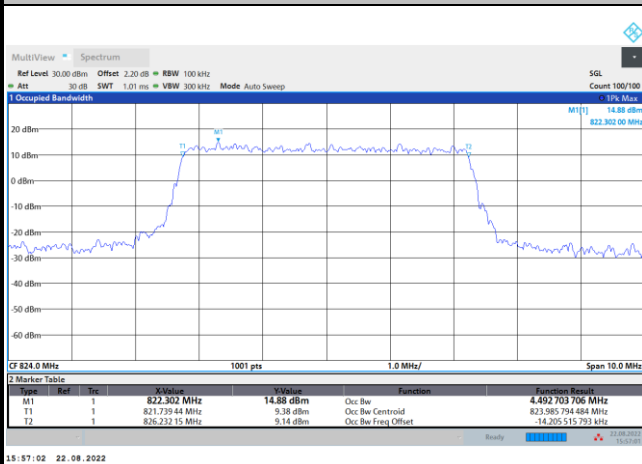
QPSK



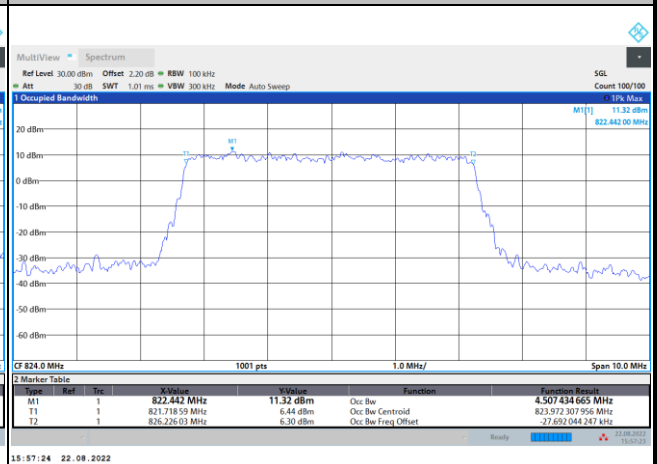
16QAM

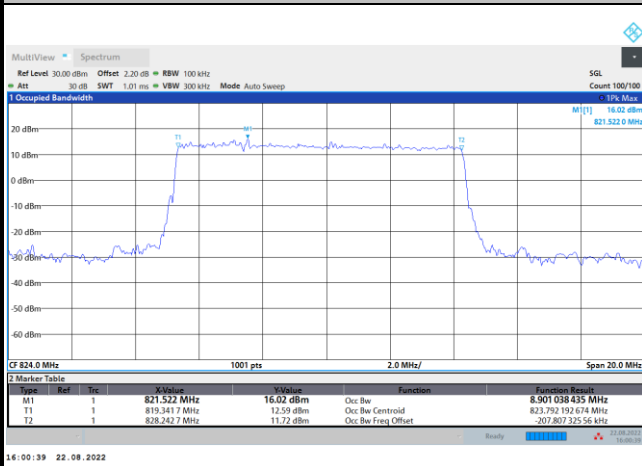
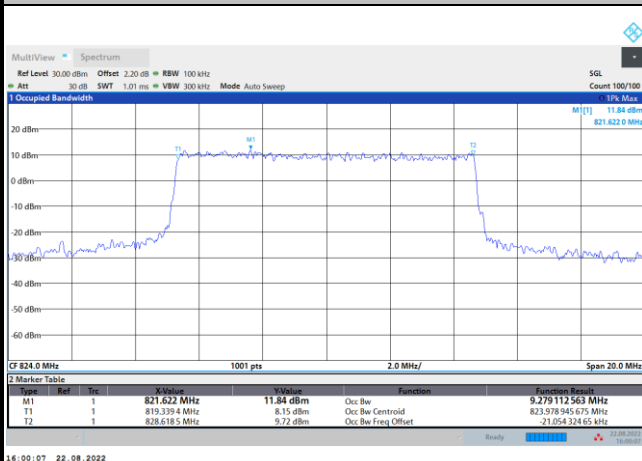
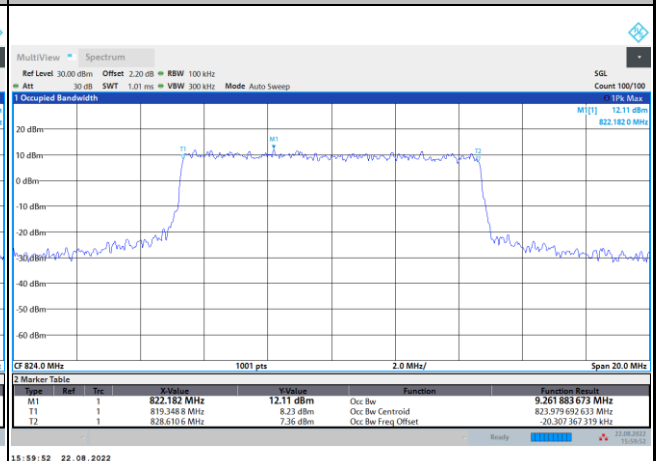
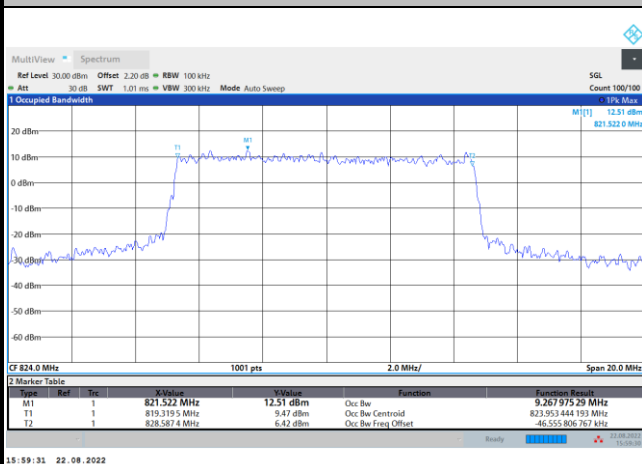
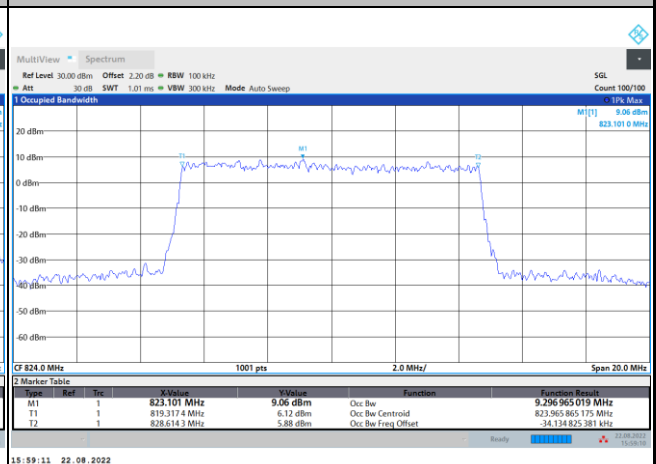


64QAM



256QAM

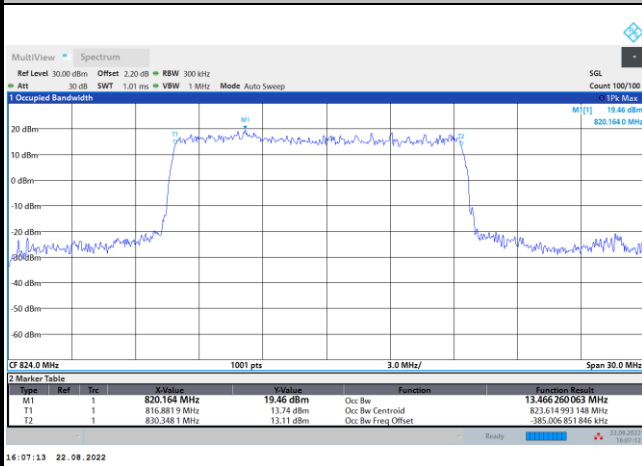


FR1 n26 / 10MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n26 / 10MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM




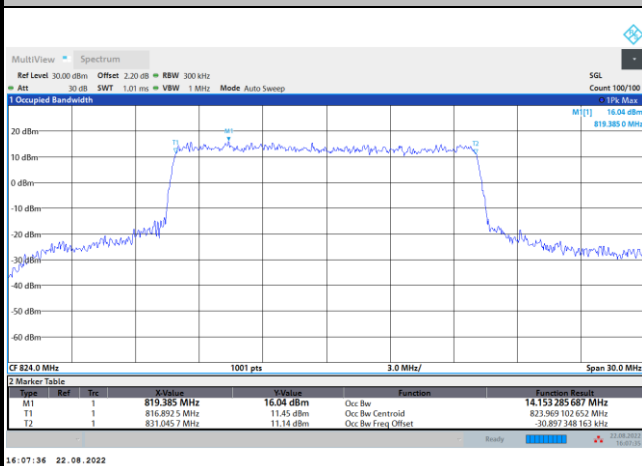
FR1 n26 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

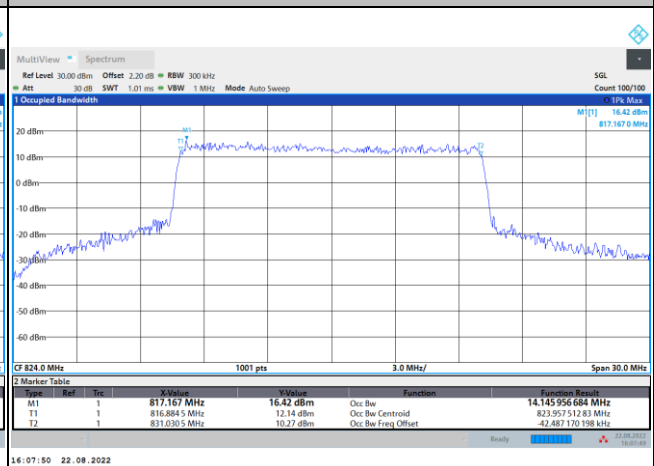


FR1 n26 / 15MHz / CP OFDM / Middle Channel / Full RB

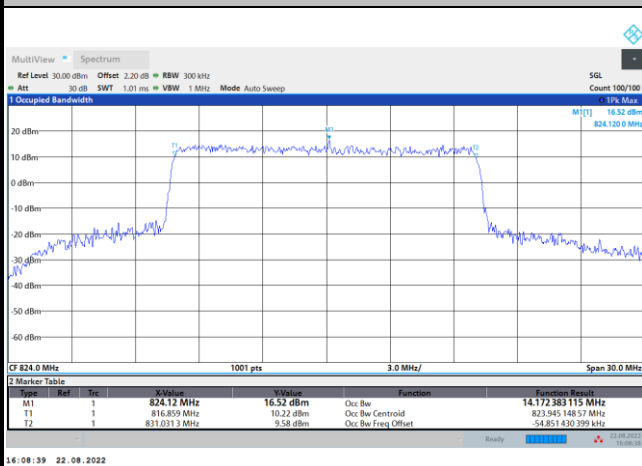
QPSK



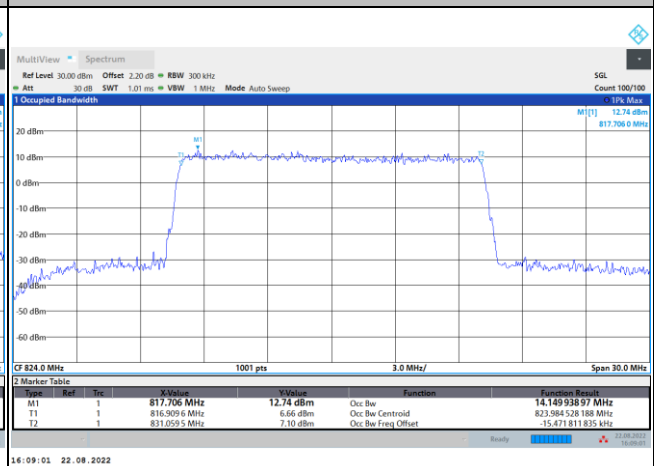
16QAM



64QAM

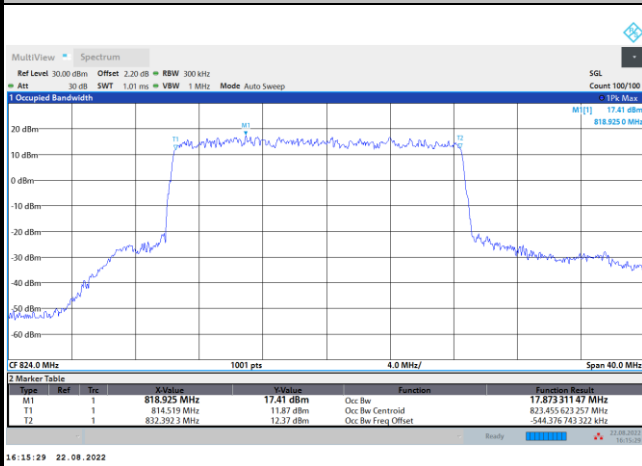


256QAM



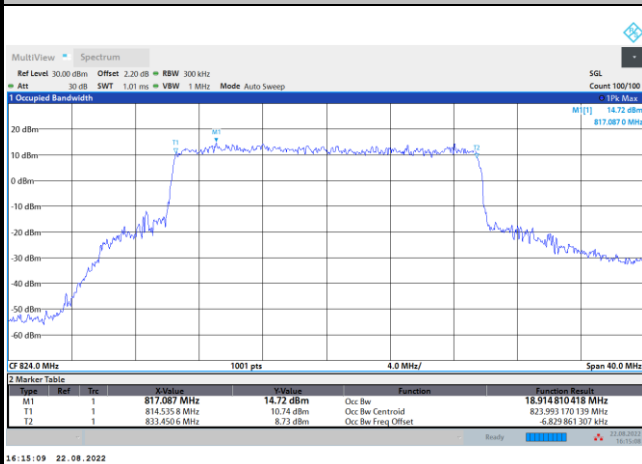
FR1 n26 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

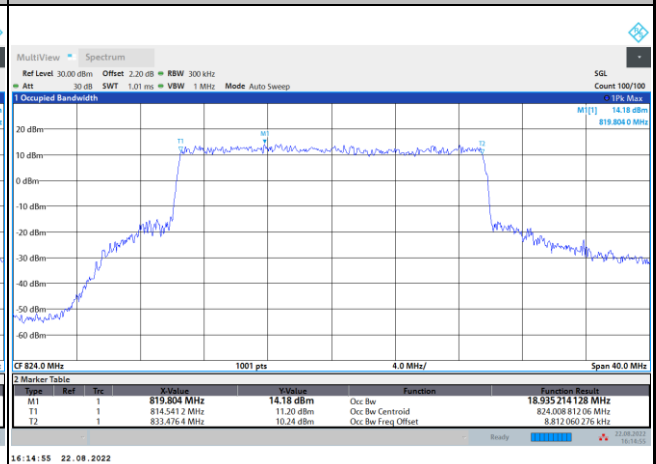


FR1 n26 / 20MHz / CP OFDM / Middle Channel / Full RB

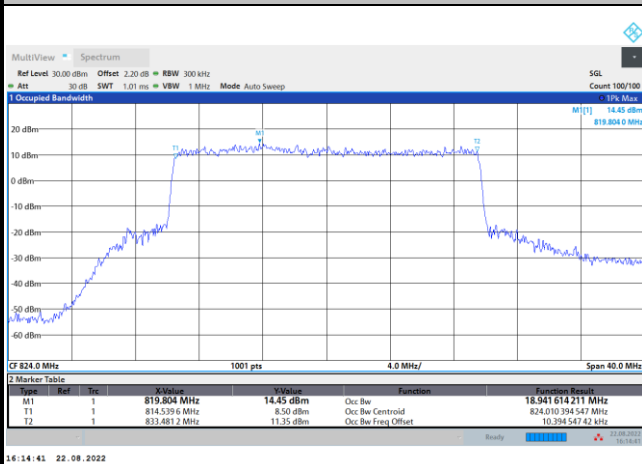
QPSK



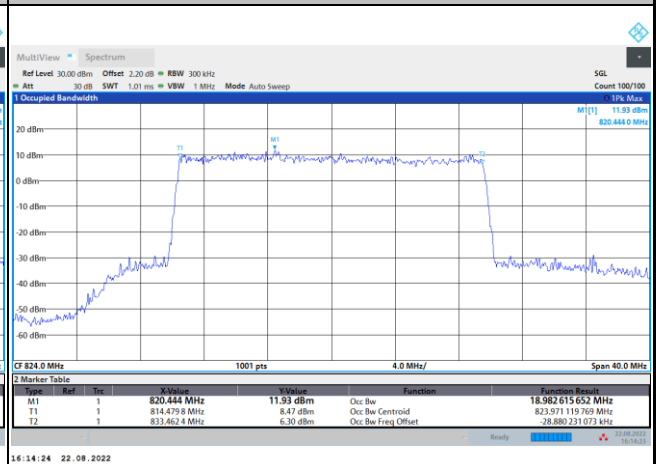
16QAM



64QAM



256QAM

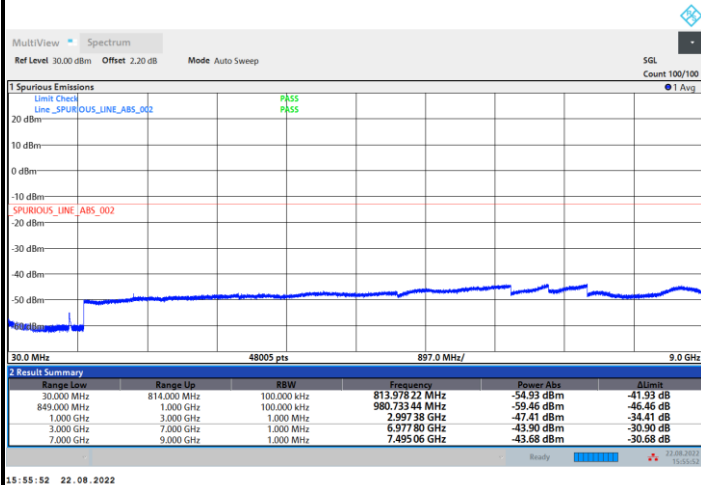




Conducted Spurious Emission

FR1 n26 / DFT-S OFDM / QPSK / 1RB1

5M



Frequency Stability

Test Conditions		FR1 n26 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0030	PASS
40	Normal Voltage	0.0071	
30	Normal Voltage	0.0056	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0031	
0	Normal Voltage	0.0050	
-10	Normal Voltage	0.0063	
-20	Normal Voltage	0.0074	
-30	Normal Voltage	0.0045	
20	Maximum Voltage	0.0081	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0049	

Note:

1. Normal Voltage = 4.05 V. ; Battery End Point (BEP) = 3.85 V. ; Maximum Voltage = 4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

5G NR n26

5G NR n26/ 5MHz / PI/2 BPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1632	-52.67	-13	-39.67	-64.36	-59.03	0.80	9.31	H
	2444	-56.28	-13	-43.28	-71.01	-63.30	1.05	10.22	H
	3258	-53.25	-13	-40.25	-71.05	-61.81	1.11	11.82	H
									H
									H
									H
	1632	-57.42	-13	-44.42	-68.99	-63.78	0.80	9.31	V
	2444	-56.10	-13	-43.10	-70.88	-63.12	1.05	10.22	V
	3258	-52.99	-13	-39.99	-71.08	-61.55	1.11	11.82	V
									V
									V
									V
Middle	1634	-56.48	-13	-43.48	-68.17	-62.84	0.81	9.32	H
	2451	-56.16	-13	-43.16	-70.9	-63.21	1.06	10.26	H
	3268	-53.22	-13	-40.22	-71.04	-61.84	1.11	11.87	H
									H
									H
									H
	1634	-54.06	-13	-41.06	-65.64	-60.42	0.81	9.32	V
	2451	-56.13	-13	-43.13	-70.92	-63.18	1.06	10.26	V
	3268	-53.11	-13	-40.11	-71.22	-61.73	1.11	11.87	V
									V
									V
									V



Highest	1639	-42.60	-13	-29.60	-54.29	-48.98	0.81	9.34	H
	2459	-55.64	-13	-42.64	-70.37	-62.72	1.06	10.30	H
	3278	-52.90	-13	-39.90	-70.73	-61.57	1.11	11.93	H
									H
									H
									H
									H
	1639	-50.86	-13	-37.86	-62.45	-57.24	0.81	9.34	V
	2459	-55.97	-13	-42.97	-70.75	-63.05	1.06	10.30	V
	3278	-52.84	-13	-39.84	-70.96	-61.51	1.11	11.93	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



5G NR n26/ 10MHz / PI/2 BPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1629	-58.01	-13	-45.01	-69.7	-64.36	0.80	9.30	H
	2444	-56.44	-13	-43.44	-71.17	-63.46	1.05	10.22	H
	3258	-53.07	-13	-40.07	-70.87	-61.63	1.11	11.82	H
									H
									H
									H
									H
	1629	-58.02	-13	-45.02	-69.59	-64.37	0.80	9.30	V
	2444	-56.23	-13	-43.23	-71.01	-63.25	1.05	10.22	V
	3258	-53.17	-13	-40.17	-71.25	-61.73	1.11	11.82	V
									V
									V
									V
									V