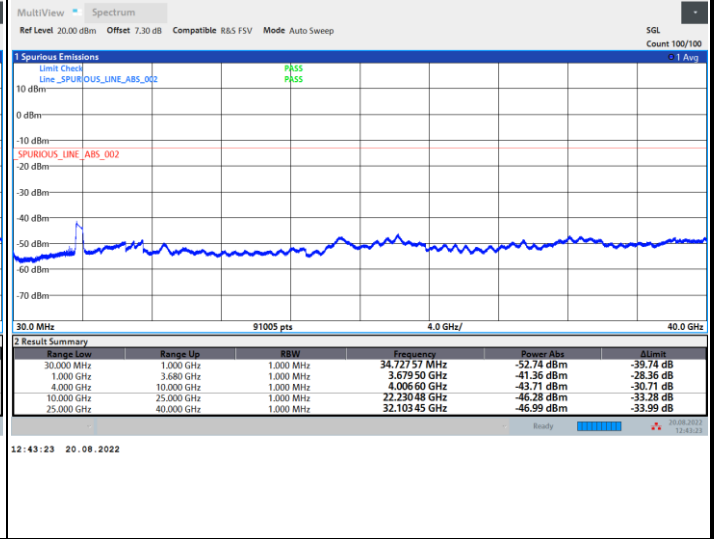
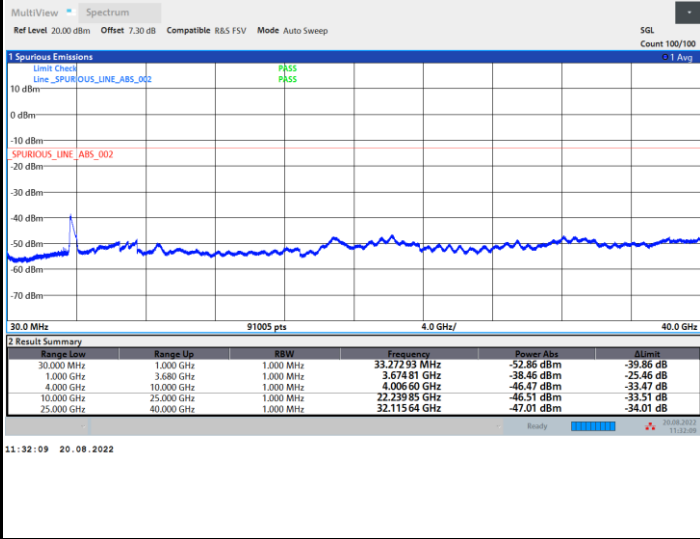




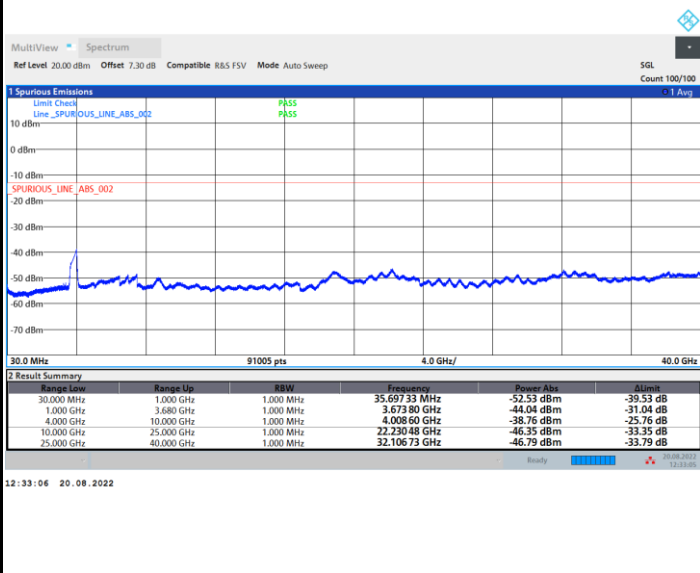
FR1 n77 / 100MHz / QPSK / CSE Emission Limit

Lowest Channel

Middle Channel



Highest Channel





Frequency Stability

Test Conditions		FR1 n77 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 40MHz	Note 2.
		Frequency offset (ppm)	Result
50	Normal Voltage	0.0056	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0042	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0069	
0	Normal Voltage	0.0029	
-10	Normal Voltage	0.0051	
-20	Normal Voltage	0.0046	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0050	
20	Normal Voltage	0.0003	
20	Minimum Voltage	0.0006	

Note:

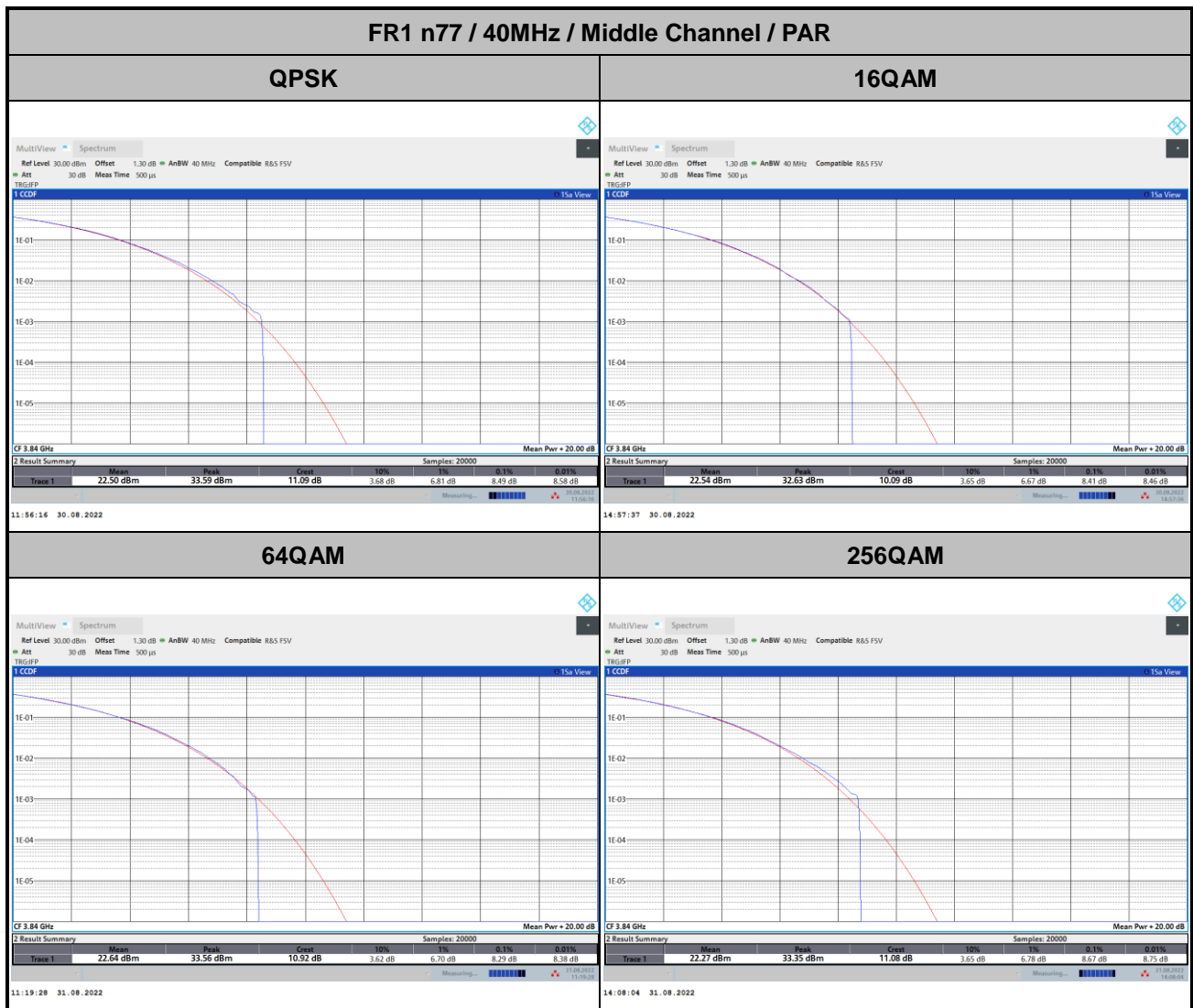
- 1. Normal Voltage = 48 V. ; Minimum Voltage = 36 V. ; Maximum Voltage = 60 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



<MIMO ANT 2>

Peak-to-Average Ratio

Mode	FR1 n77 / 40MHz / PAR (dB)				Limit: 13dB
Mod.	QPSK	16QAM	64QAM	256QAM	Result
Middle CH	8.49	8.41	8.29	8.67	PASS

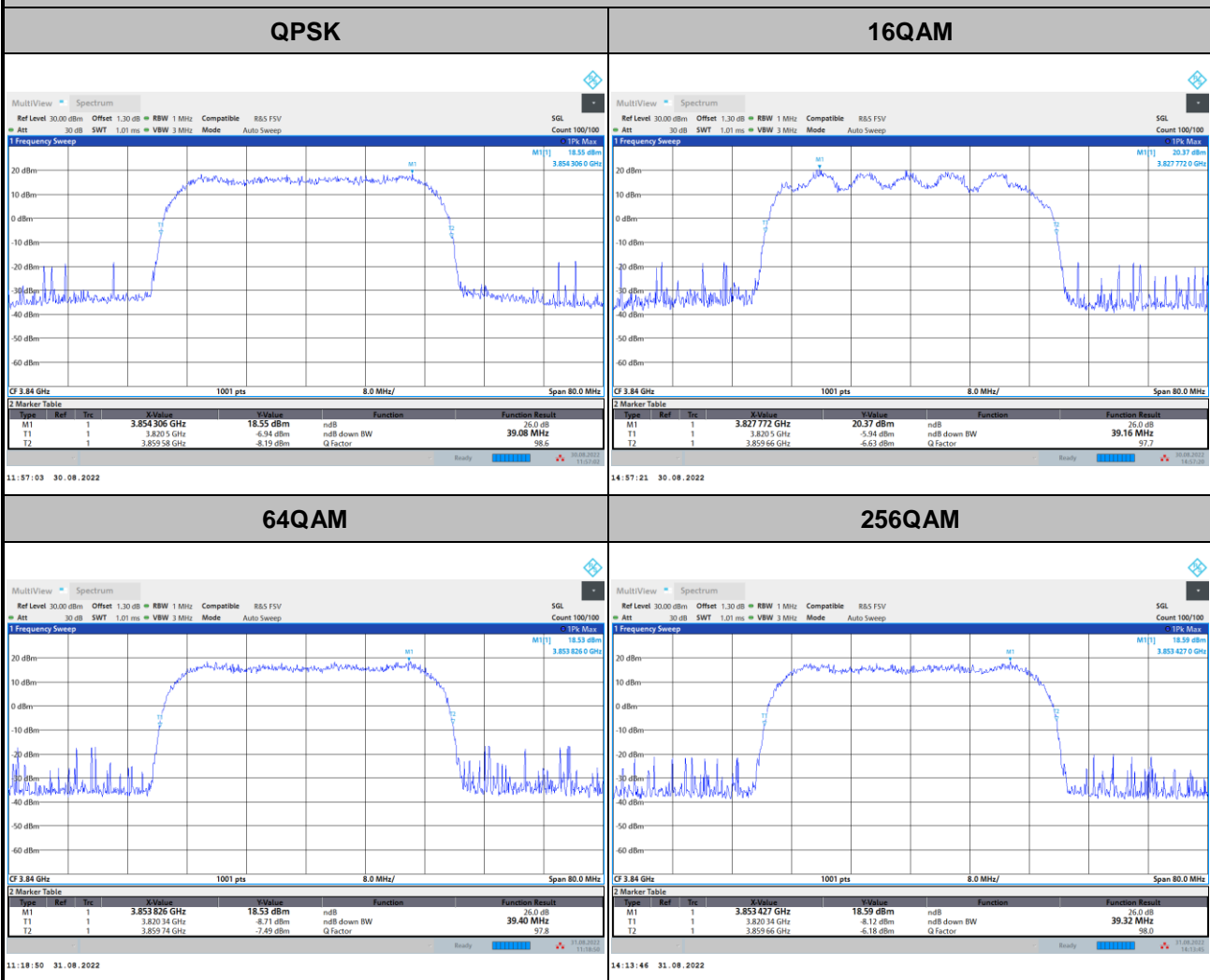




26dB Bandwidth

Mode	FR1 n77 : 26dB BW(MHz)					
BW	40MHz		60MHz		80MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	39.08	39.16	59.34	59.34	79.60	79.44
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	39.40	39.32	59.34	59.46	79.60	79.60
BW	100MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	99.50	99.50				
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	99.50	99.50				

FR1 n77 / 40MHz / Middle Channel / 26dB BW

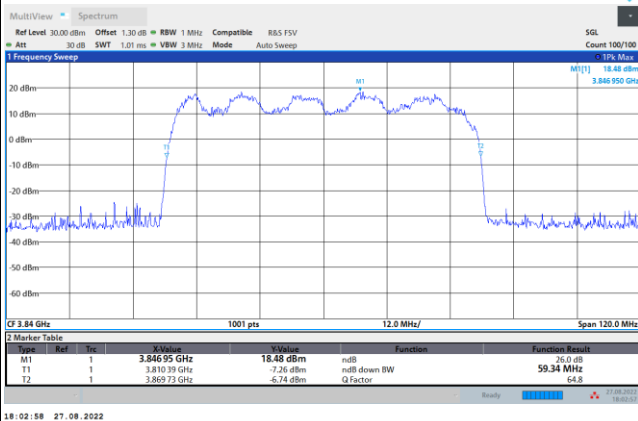
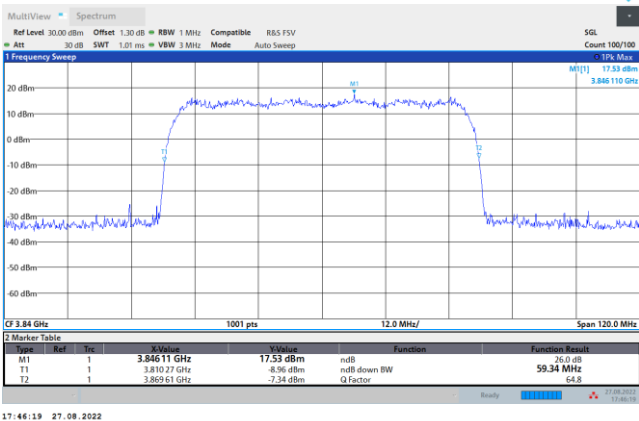




FR1 n77 / 60MHz / Middle Channel / 26dB BW

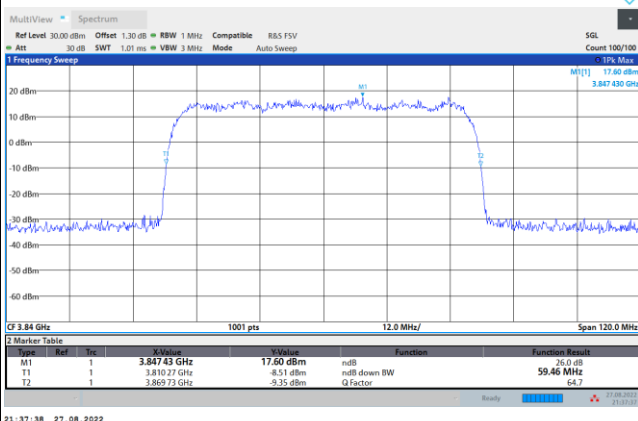
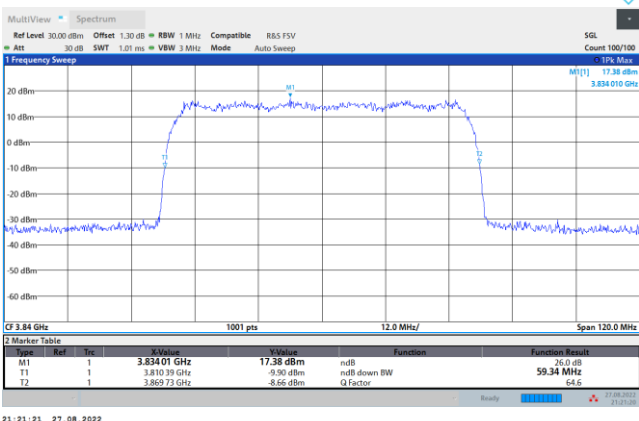
QPSK

16QAM



64QAM

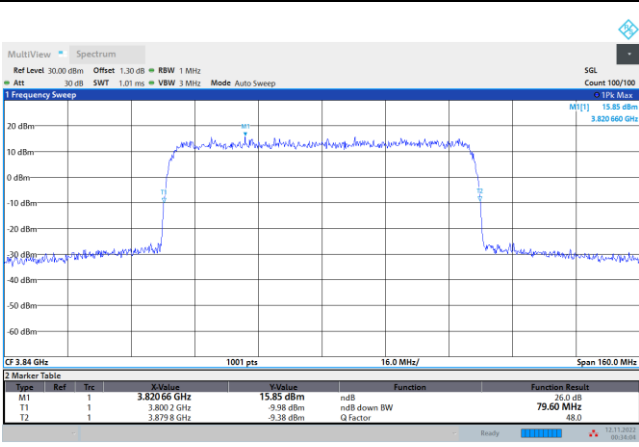
256QAM



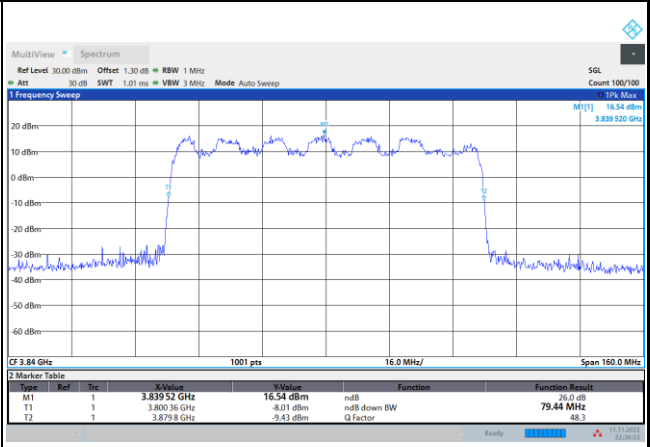


FR1 n77 / 80MHz / Middle Channel / 26dB BW

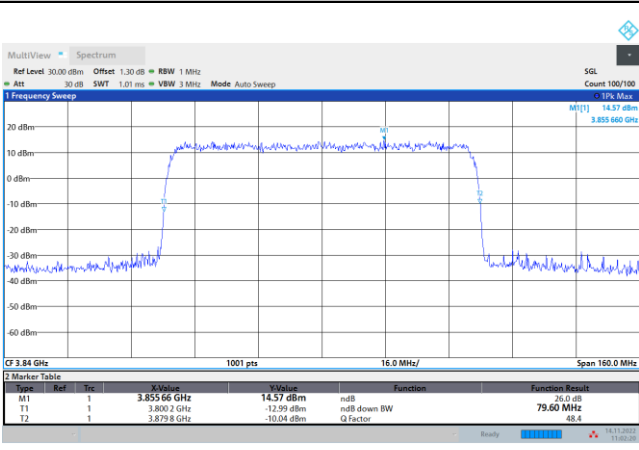
QPSK



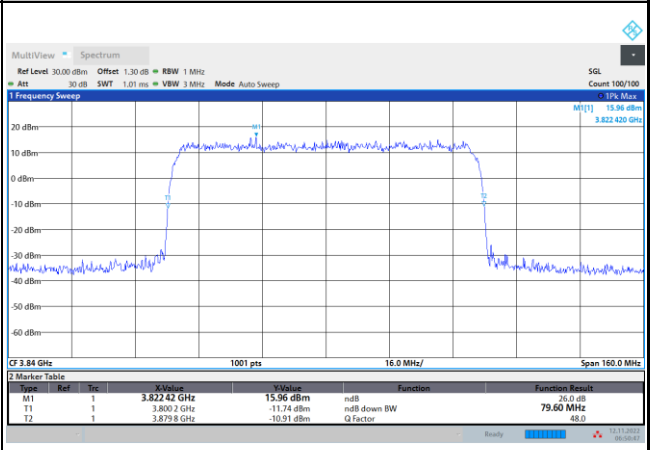
16QAM



64QAM



256QAM

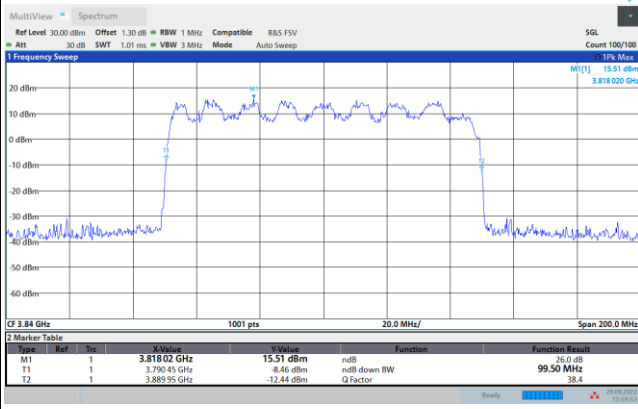
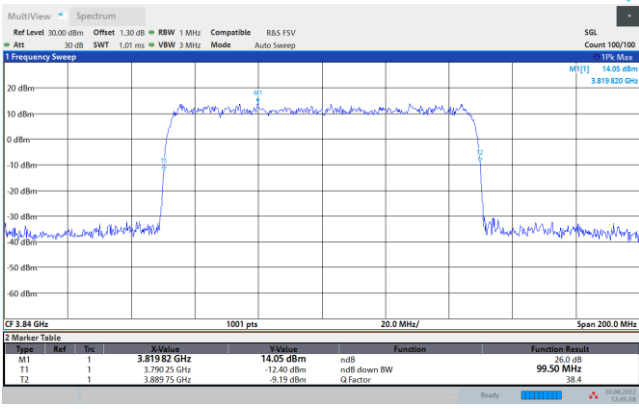




FR1 n77 / 100MHz / Middle Channel / 26dB BW

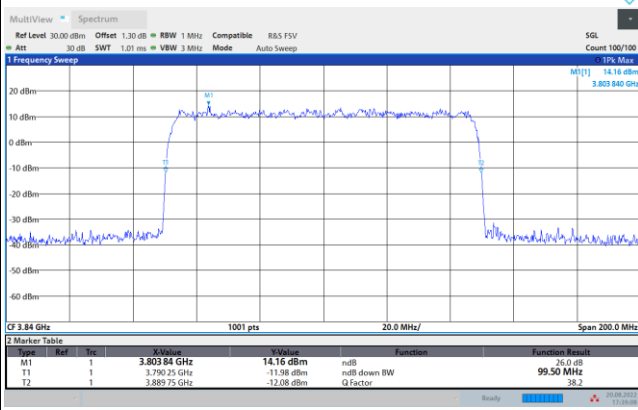
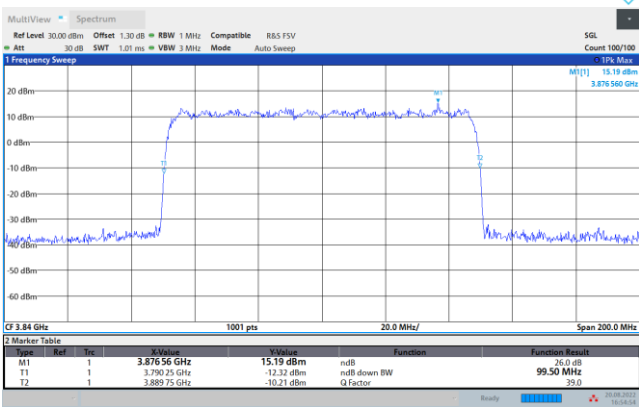
QPSK

16QAM



64QAM

256QAM

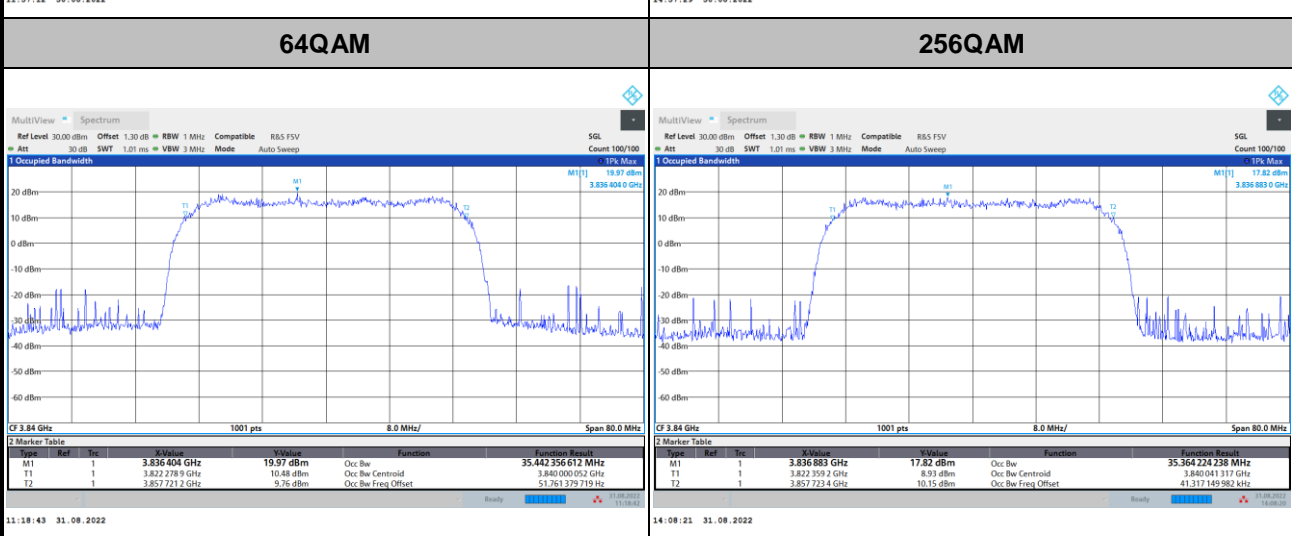
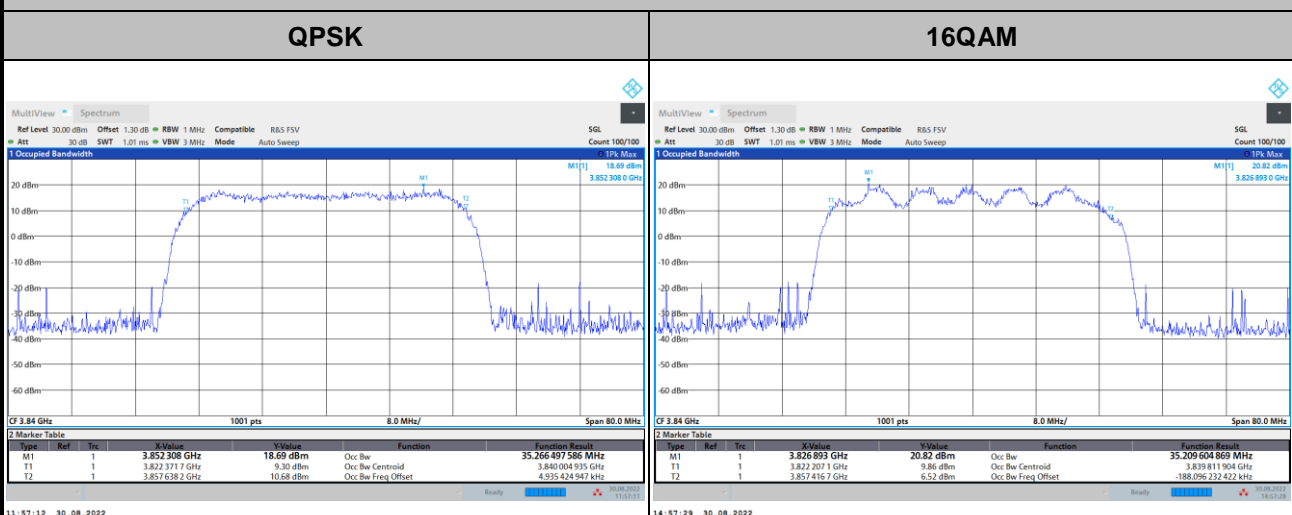




Occupied Bandwidth

Mode	FR1 n77 : 99%OBW (MHz)					
	40MHz		60MHz		80MHz	
BW						
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	35.26	35.20	54.94	54.89	75.00	75.47
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	35.44	35.36	54.95	55.00	75.17	75.13
BW	100MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	94.40	93.87				
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	94.24	94.19				

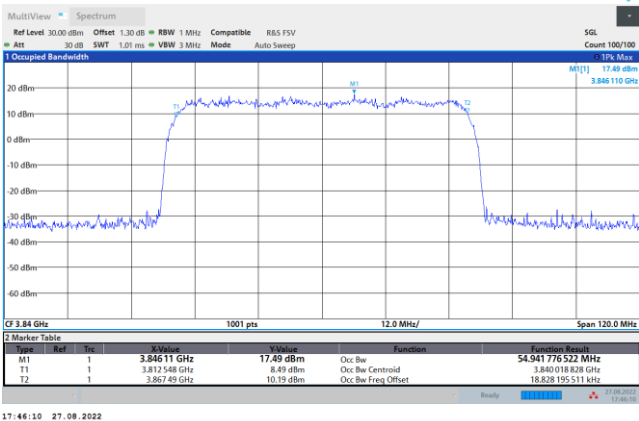
FR1 n77 / 40MHz / Middle Channel / 99%OBW



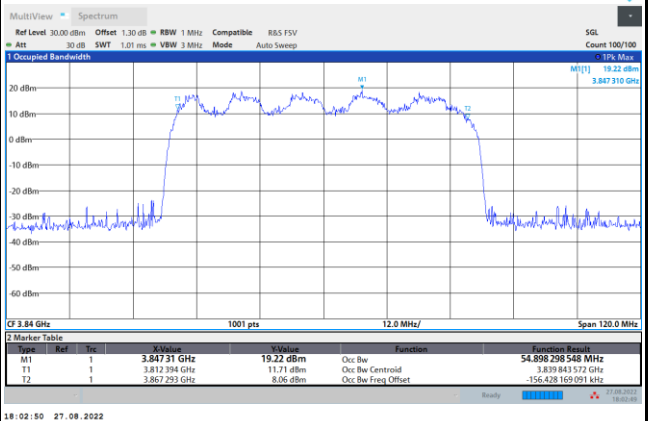


FR1 n77 / 60MHz / Middle Channel / 99%OBW

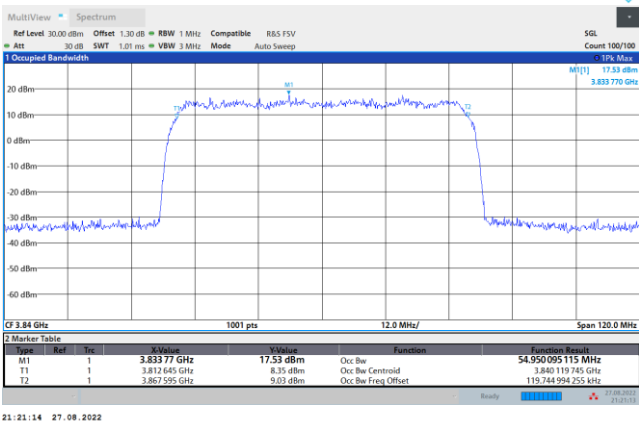
QPSK



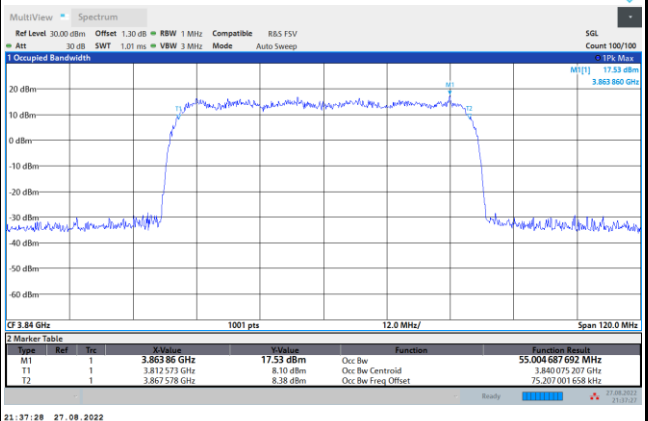
16QAM



64QAM



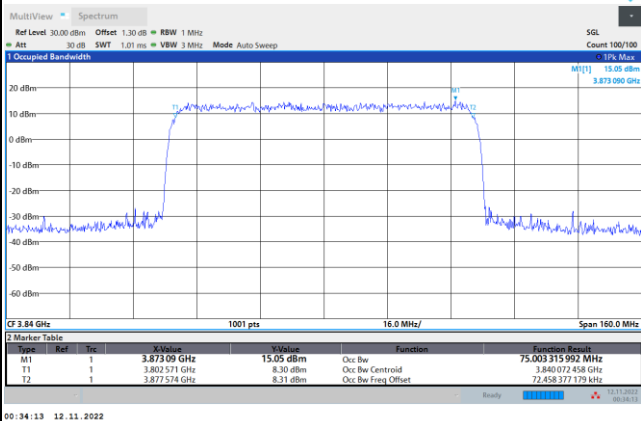
256QAM



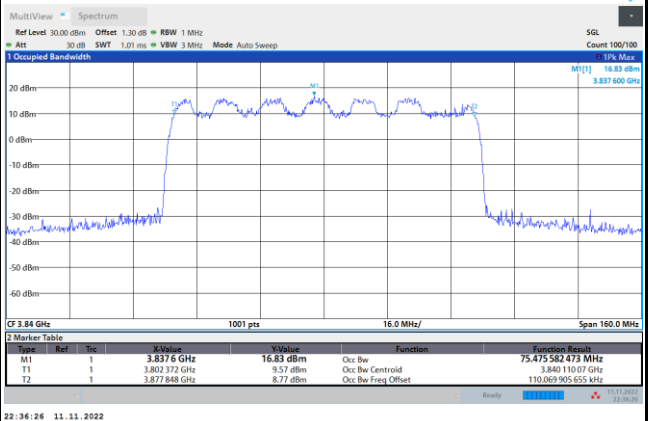


FR1 n77 / 80MHz / Middle Channel / 99%OBW

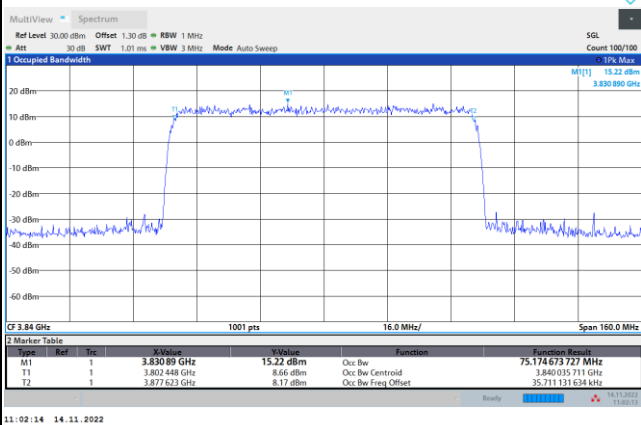
QPSK



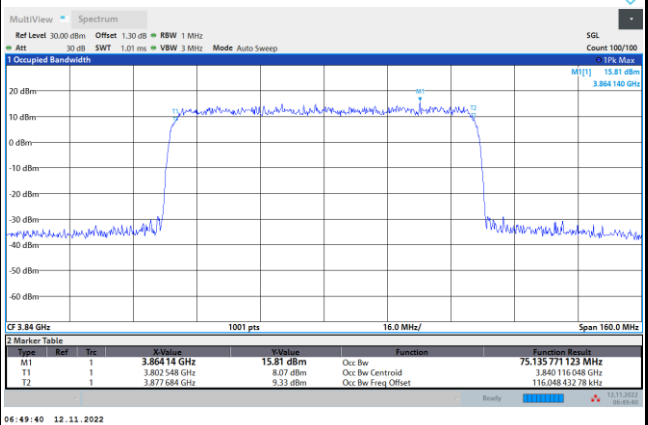
16QAM



64QAM



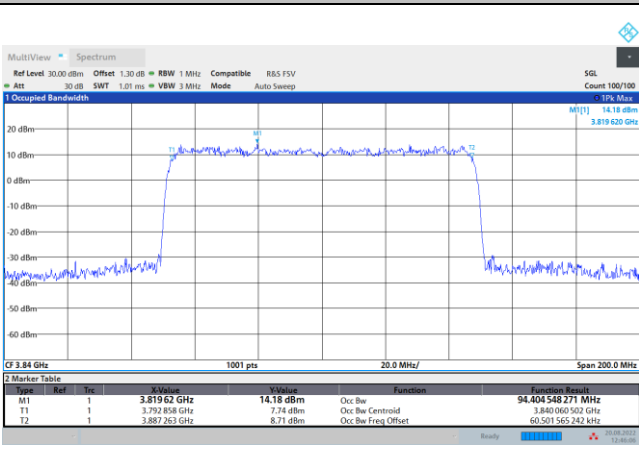
256QAM



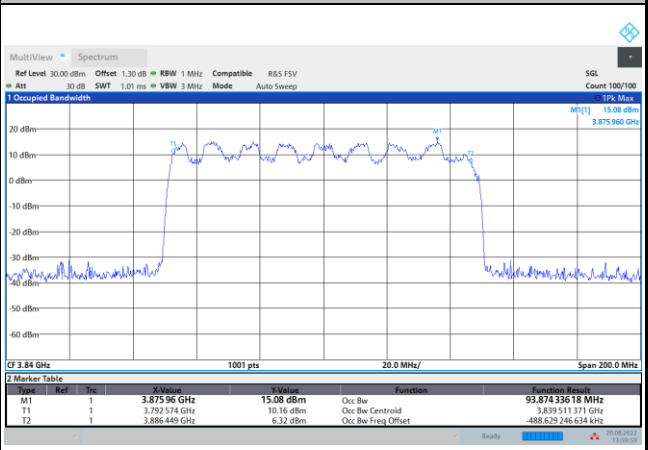


FR1 n77 / 100MHz / Middle Channel / 99%OBW

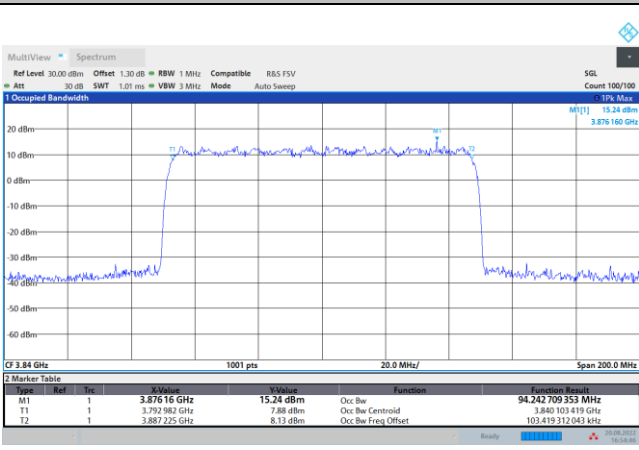
QPSK



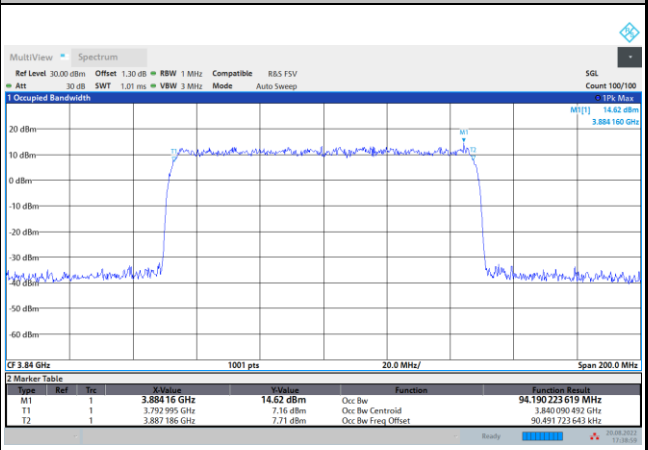
16QAM



64QAM



256QAM

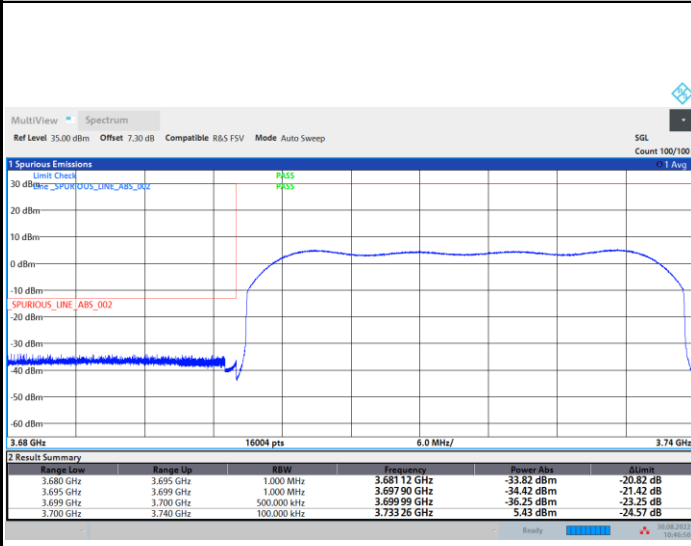




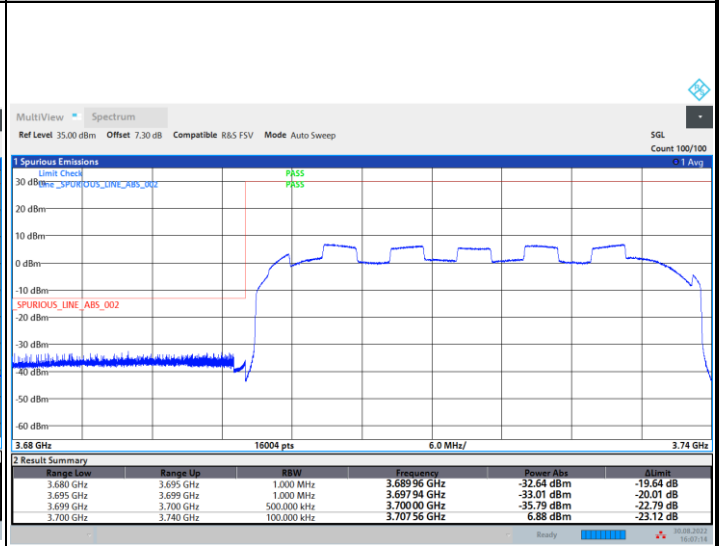
Conducted Band Edge

FR1 n77 / 40MHz / Lowest Band Edge / Full RB

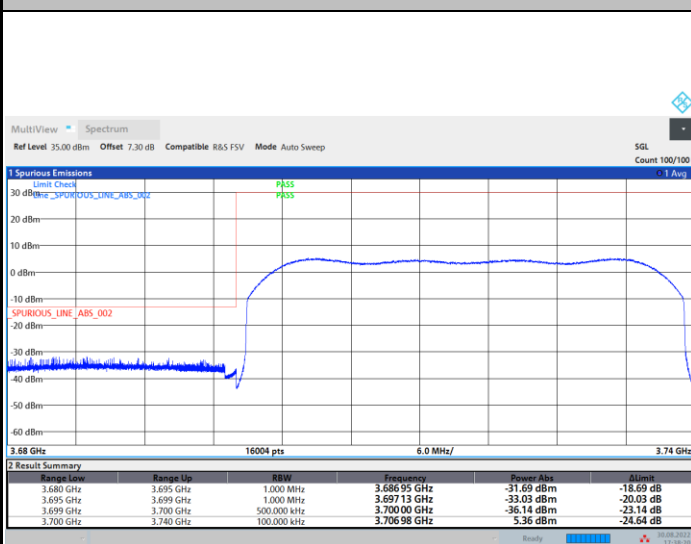
QPSK



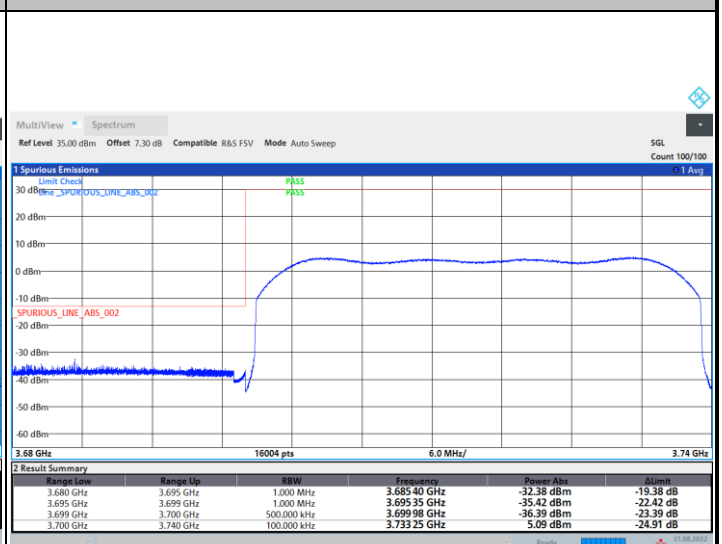
16QAM



64QAM



256QAM

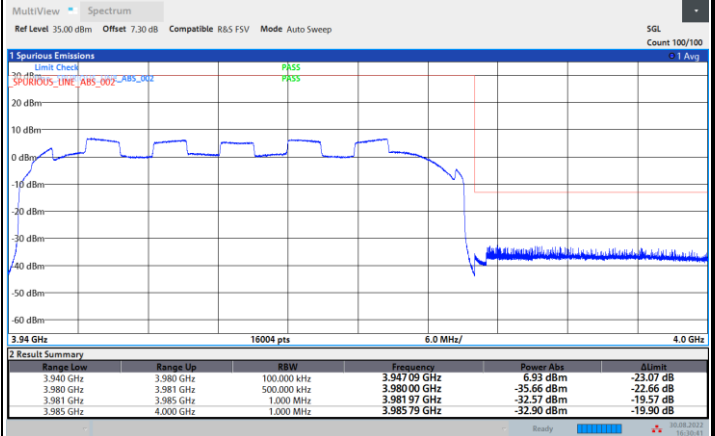
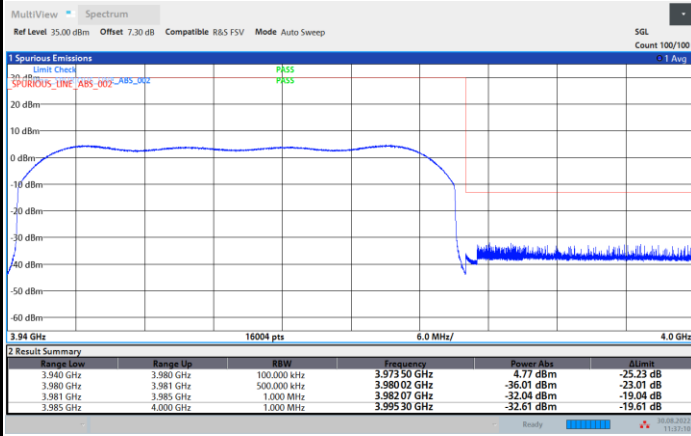




FR1 n77 / 40MHz / Highest Band Edge / Full RB

QPSK

16QAM

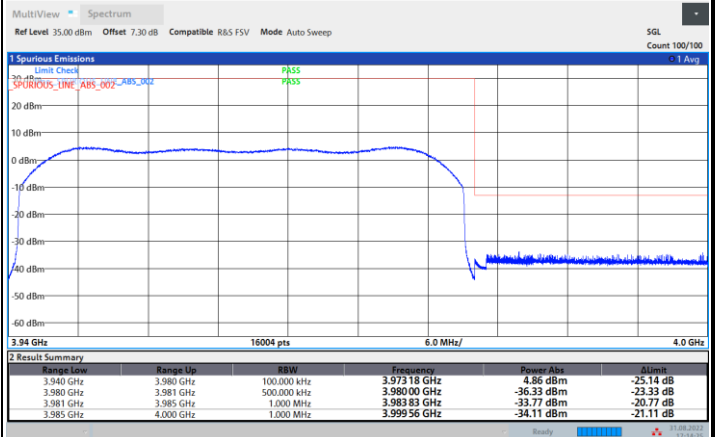
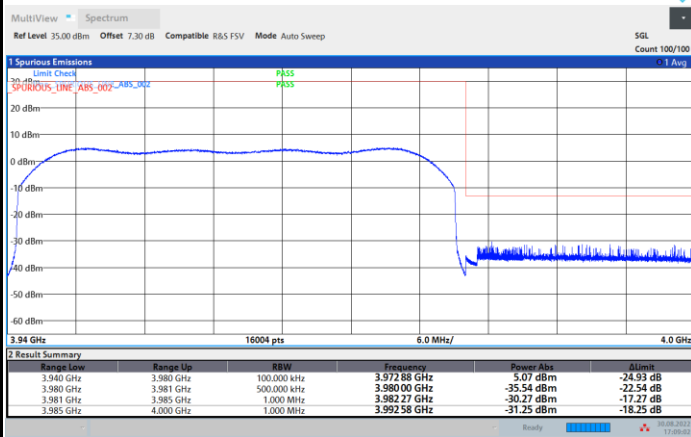


11:37:11 30.08.2022

16:30:41 30.08.2022

64QAM

256QAM



17:09:03 30.08.2022

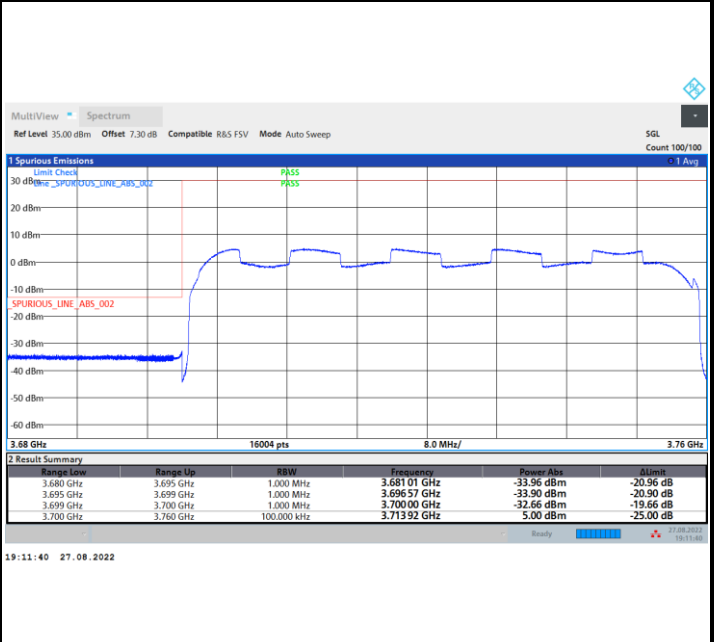
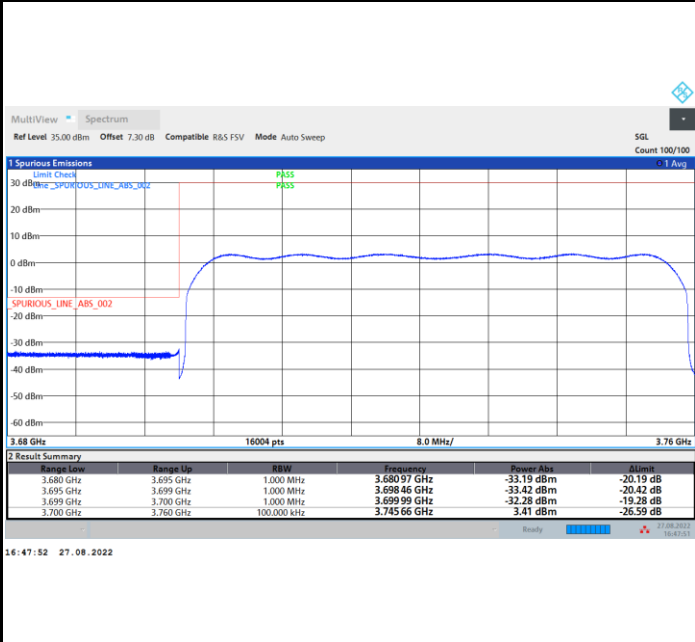
17:14:26 31.08.2022



FR1 n77 / 60MHz / Lowest Band Edge / Full RB

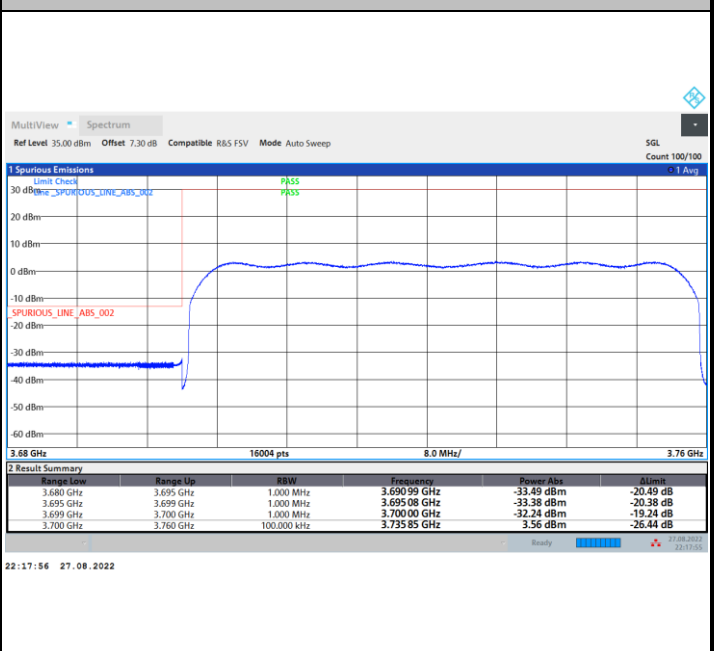
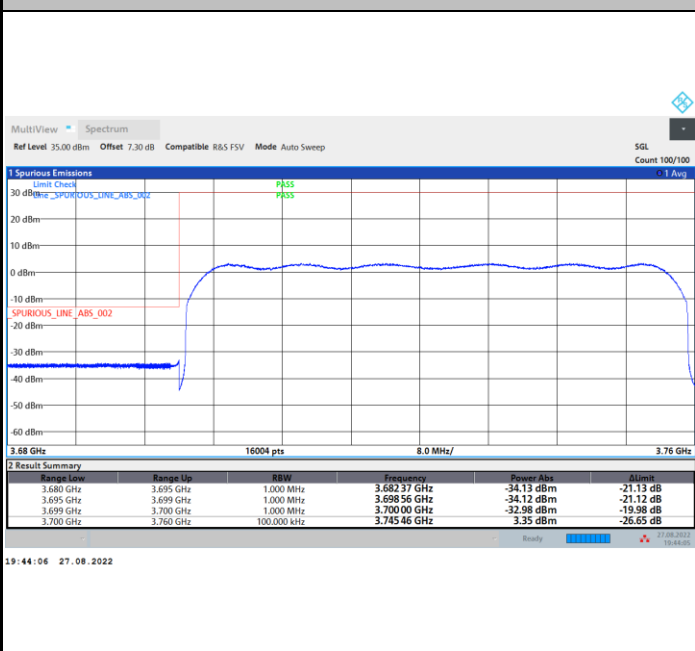
QPSK

16QAM



64QAM

256QAM

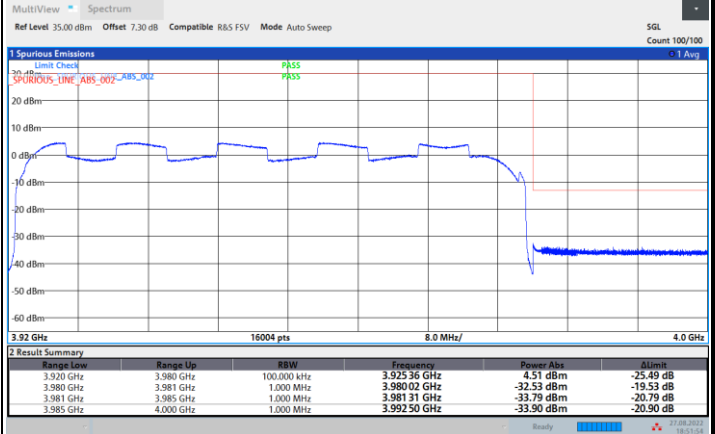
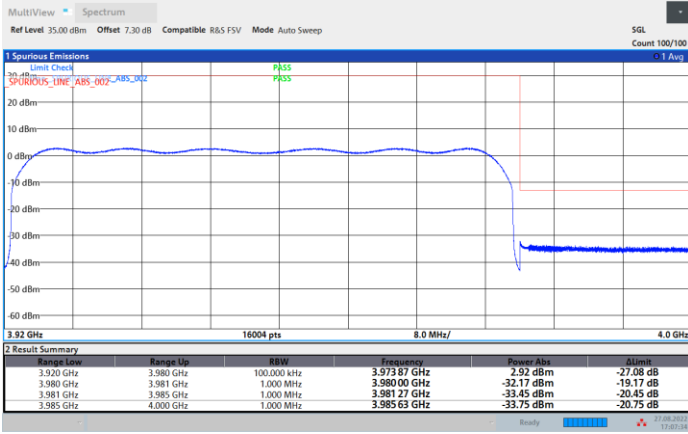




FR1 n77 / 60MHz / Highest Band Edge / Full RB

QPSK

16QAM

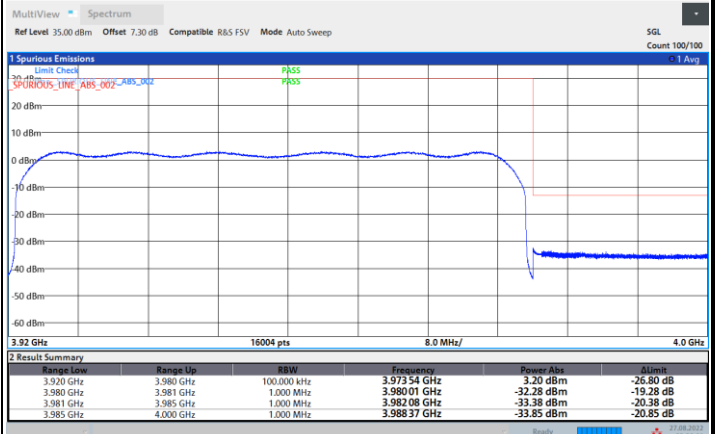
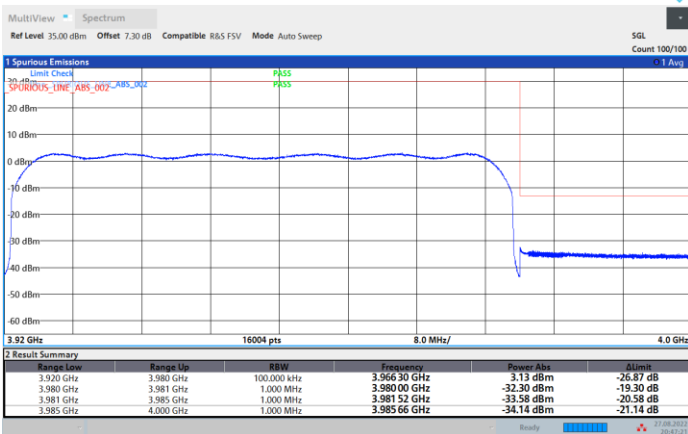


17:07:35 27.08.2022

18:51:54 27.08.2022

64QAM

256QAM



20:47:21 27.08.2022

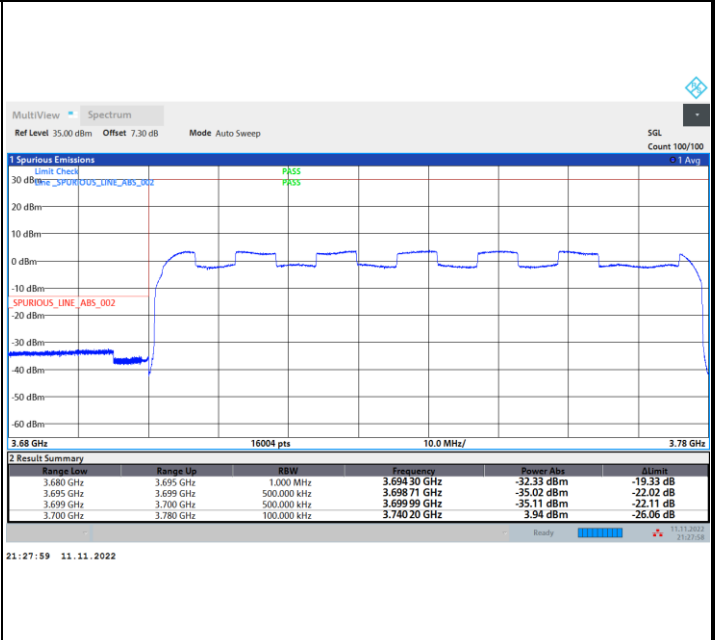
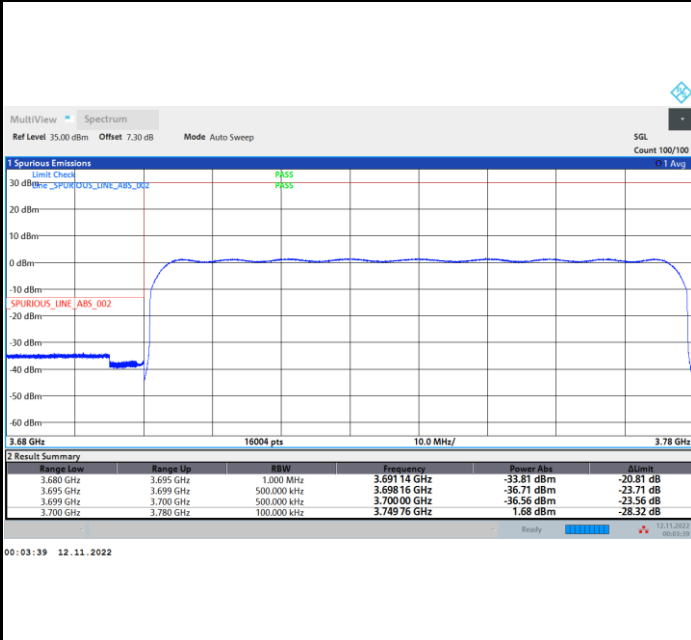
22:38:02 27.08.2022



FR1 n77 / 80MHz / Lowest Band Edge / Full RB

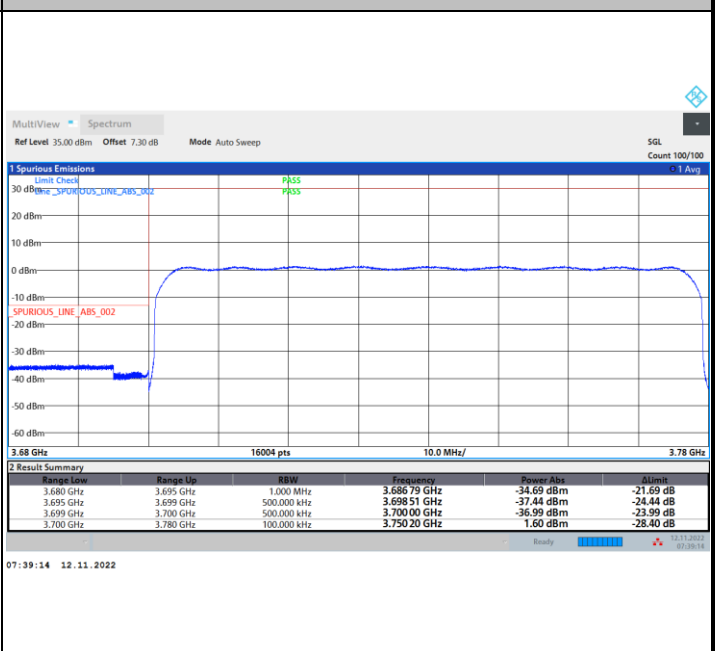
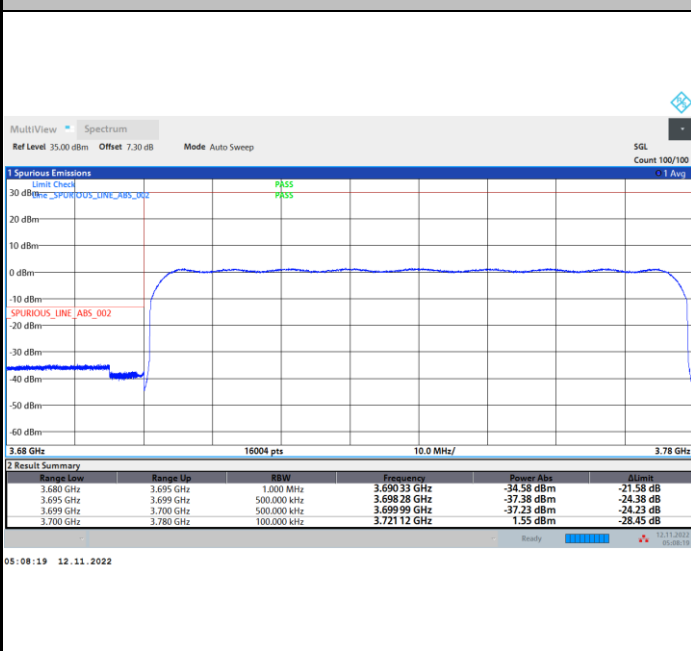
QPSK

16QAM



64QAM

256QAM

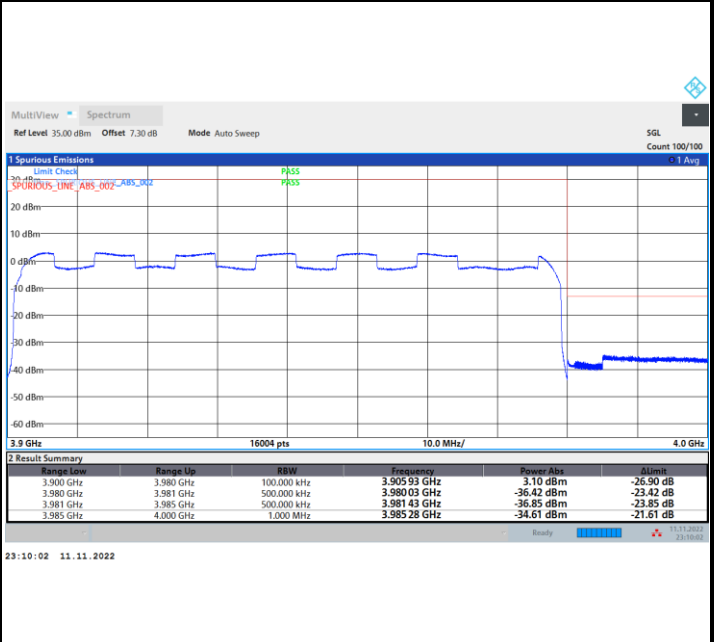
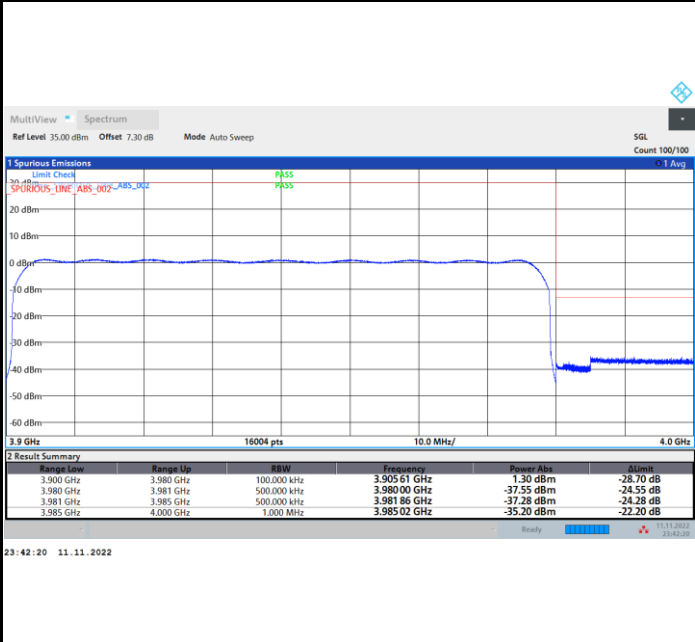




FR1 n77 / 80MHz / Highest Band Edge / Full RB

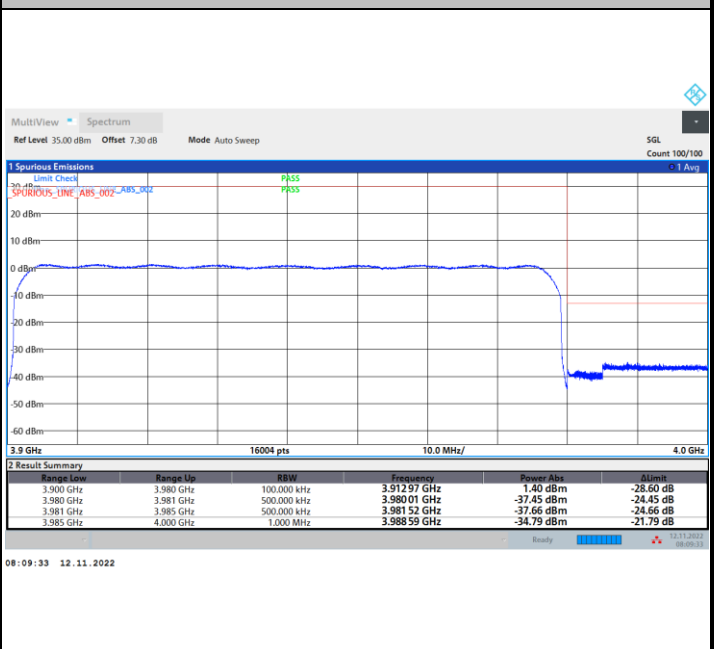
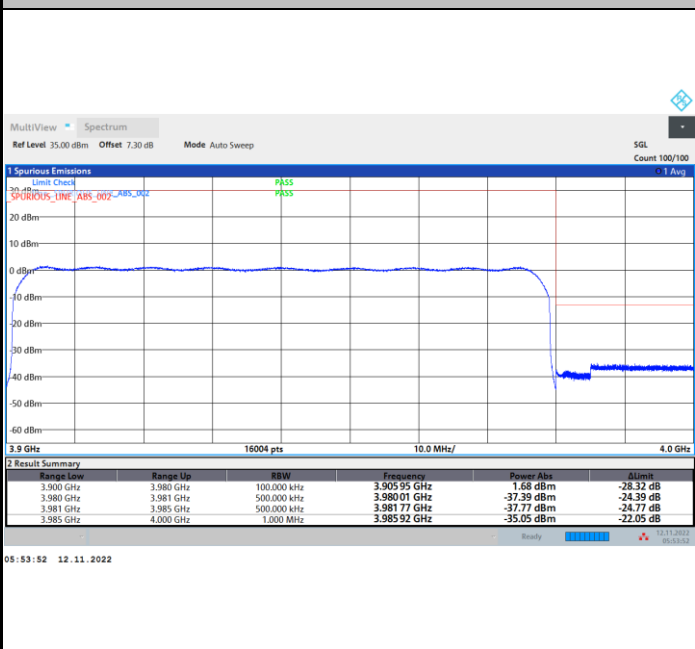
QPSK

16QAM



64QAM

256QAM

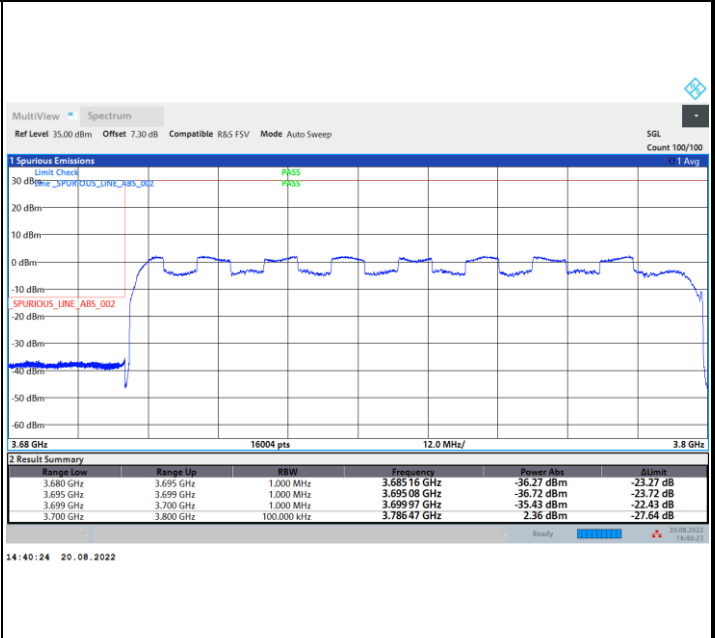
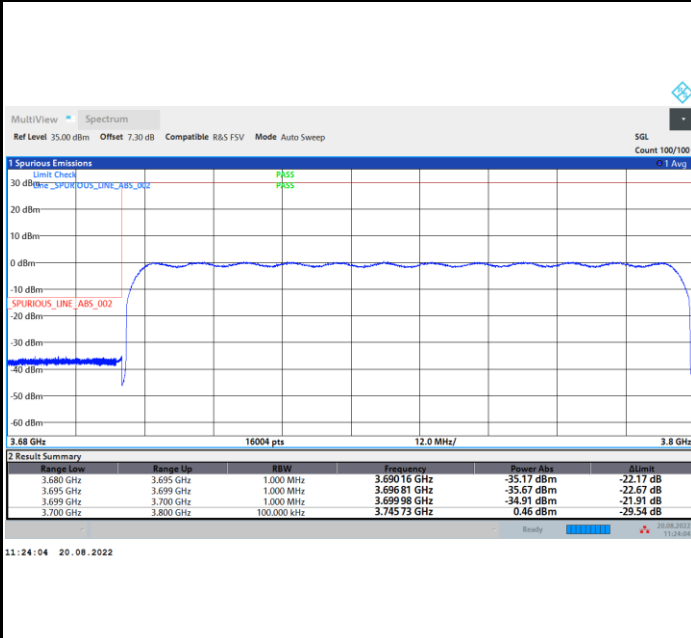




FR1 n77 / 100MHz / Lowest Band Edge / Full RB

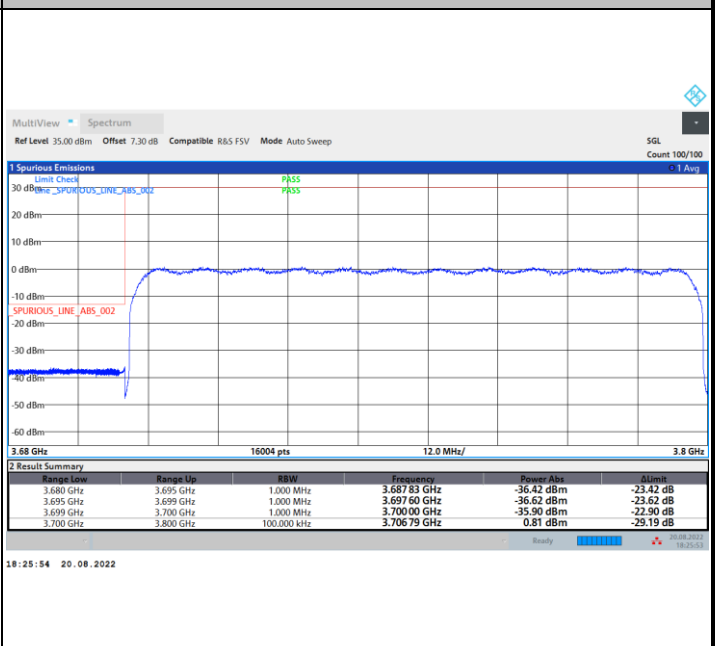
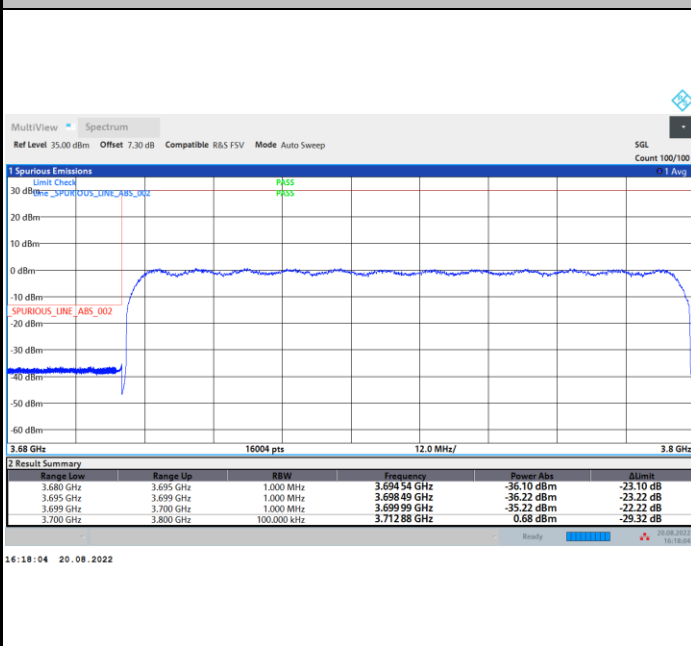
QPSK

16QAM



64QAM

256QAM

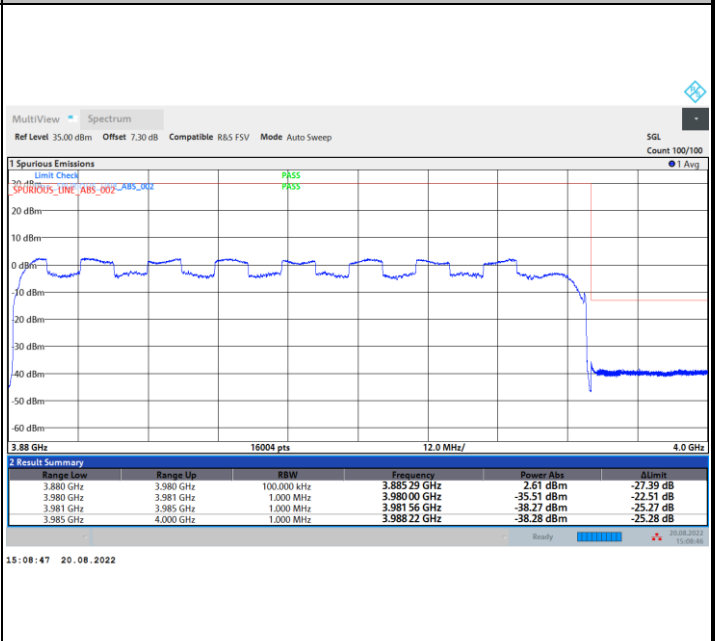
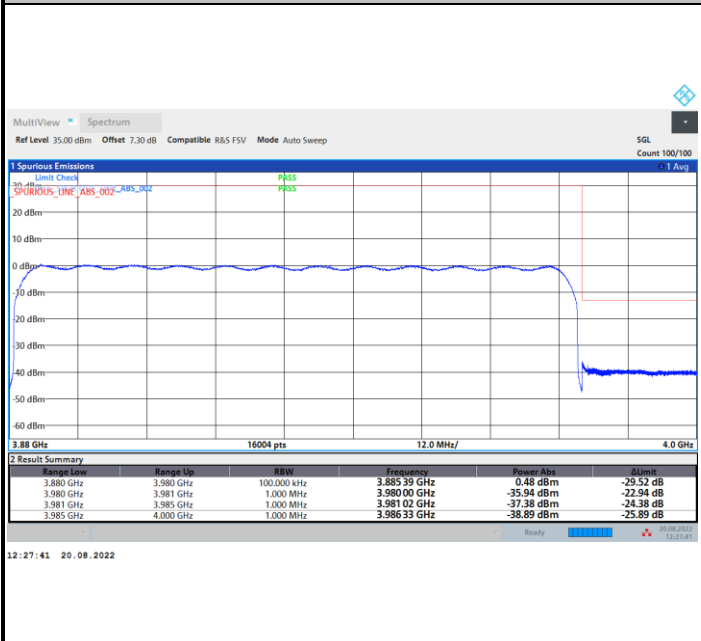




FR1 n77 / 100MHz / Highest Band Edge / Full RB

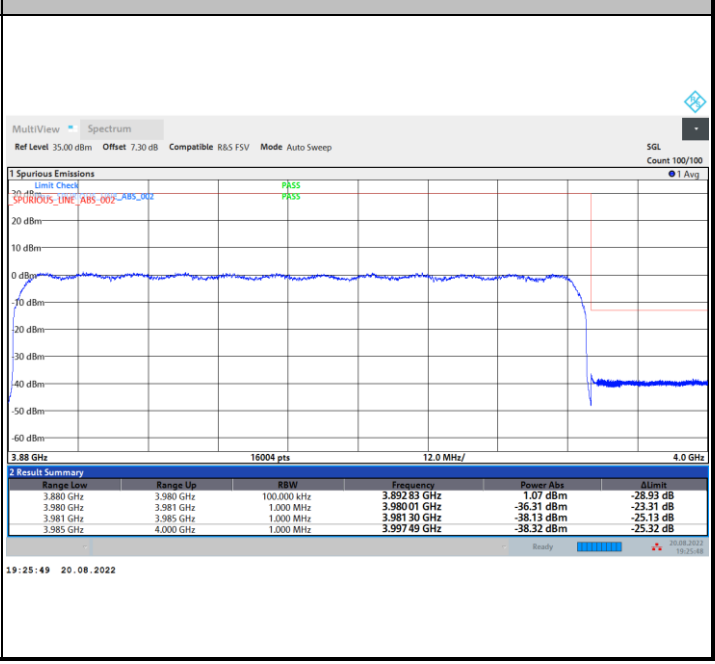
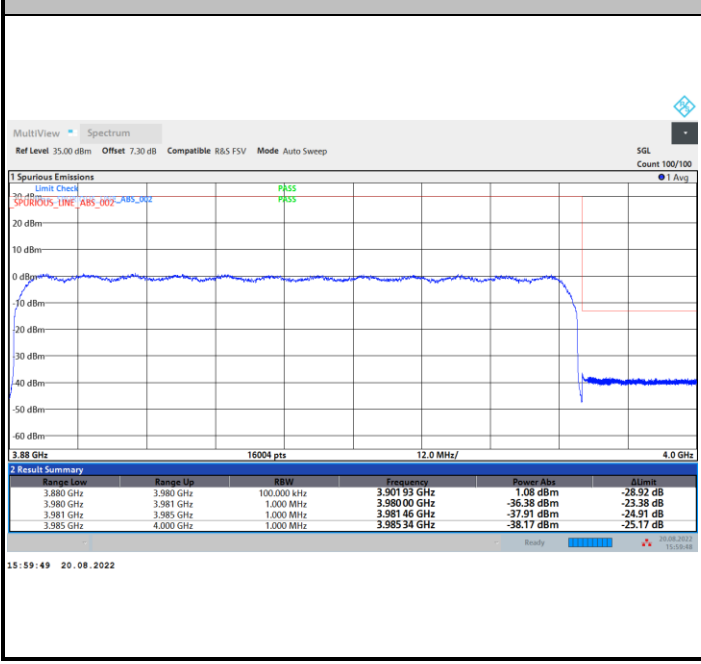
QPSK

16QAM



64QAM

256QAM



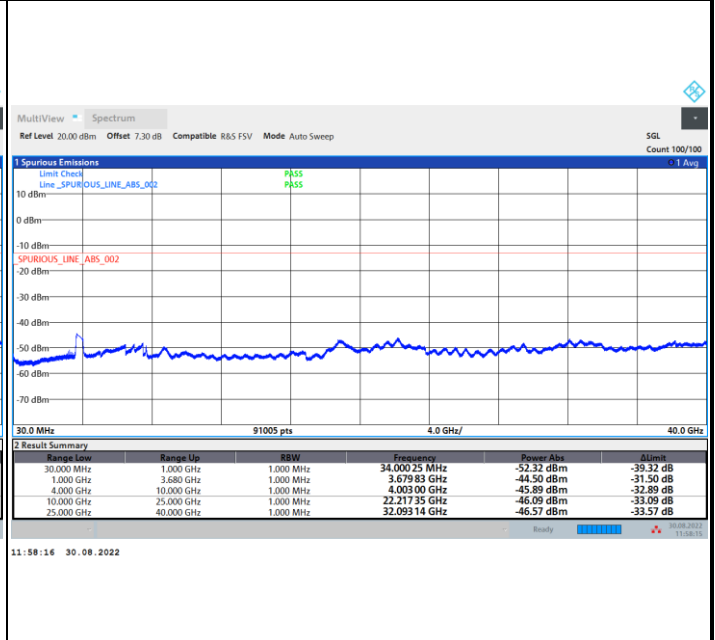
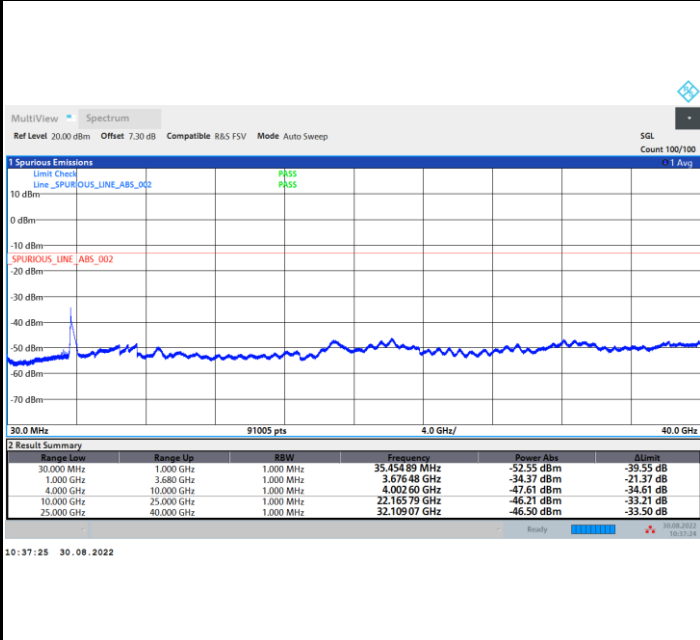


Emission Limit

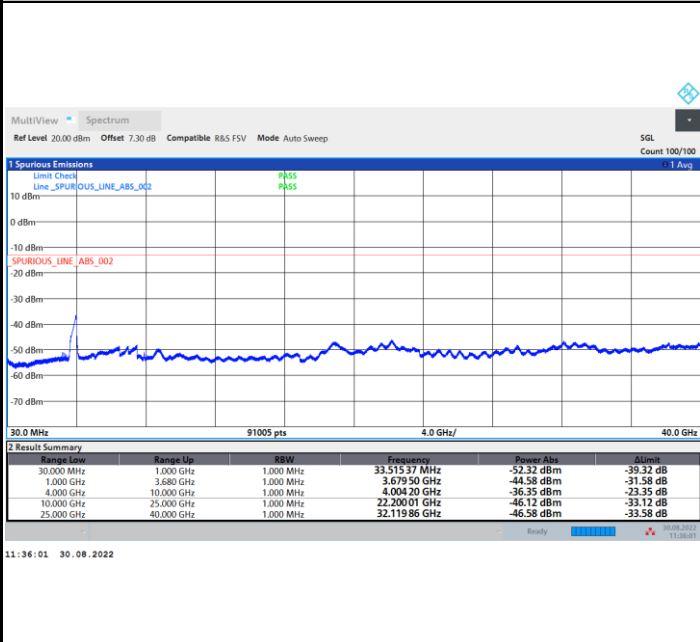
FR1 n77 / 40MHz / QPSK / CSE Emission Limit

Lowest Channel

Middle Channel



Highest Channel

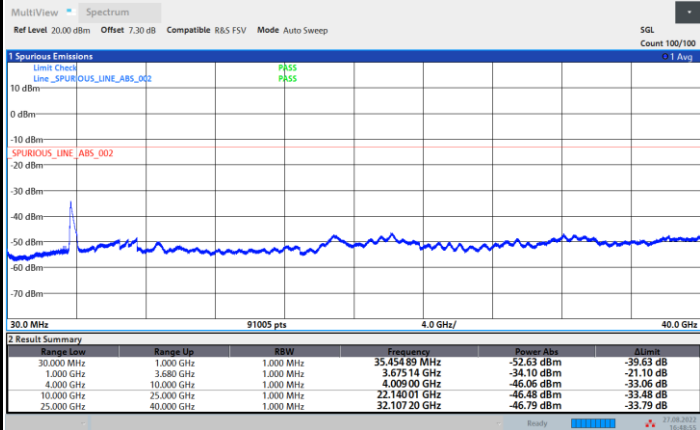




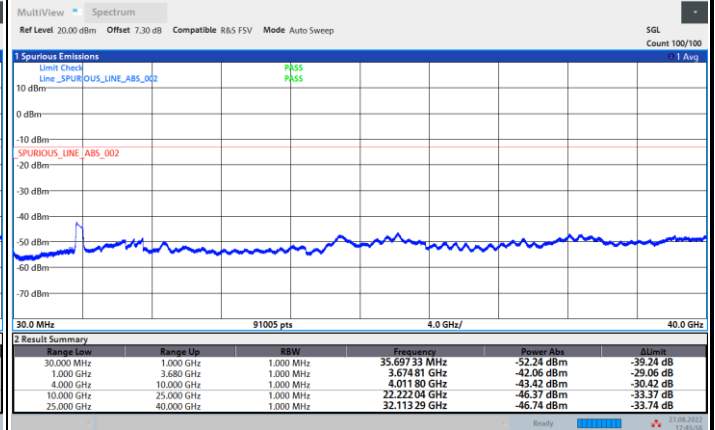
FR1 n77 / 60MHz / QPSK / CSE Emission Limit

Lowest Channel

Middle Channel

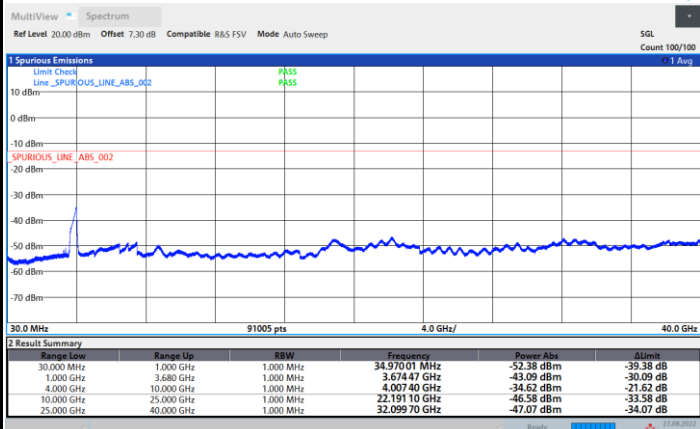


16:48:55 27.08.2022



17:45:57 27.08.2022

Highest Channel



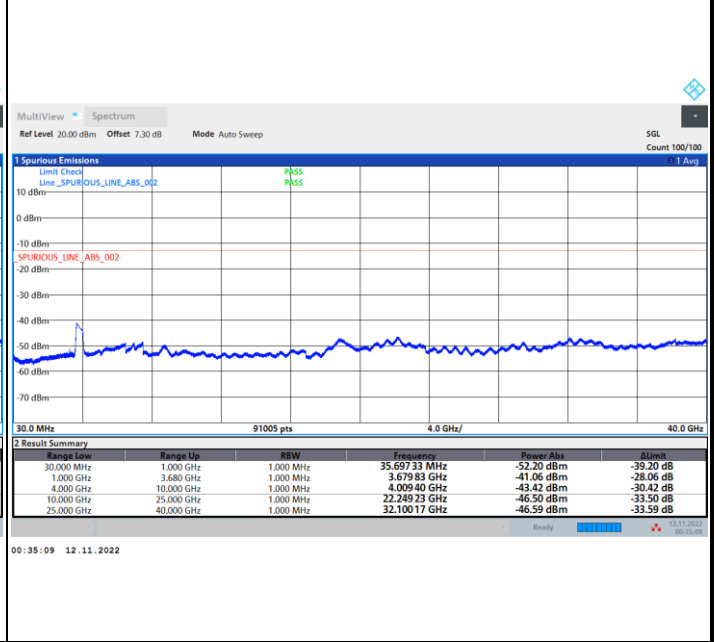
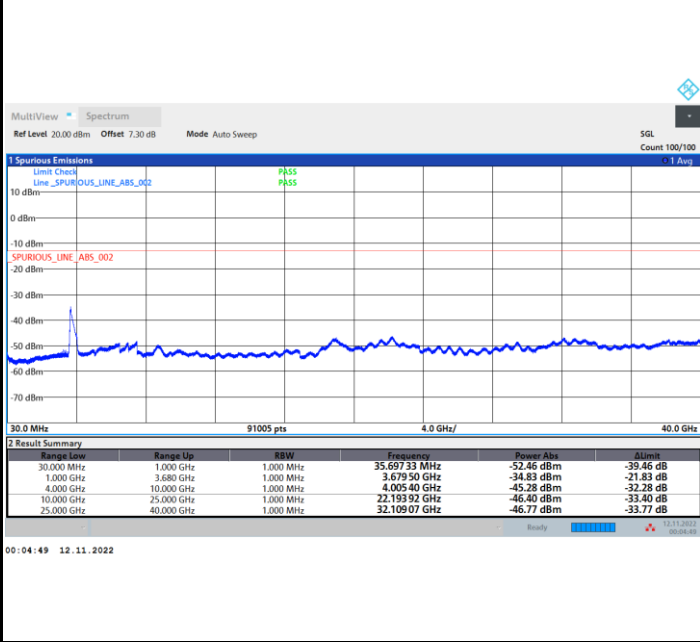
17:06:49 27.08.2022



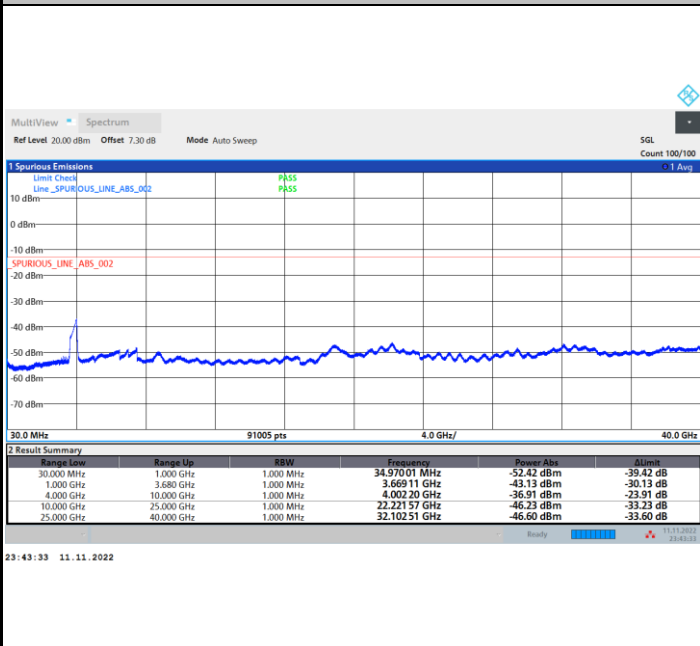
FR1 n77 / 80MHz / QPSK / Emission Limit

Lowest Channel

Middle Channel



Highest Channel

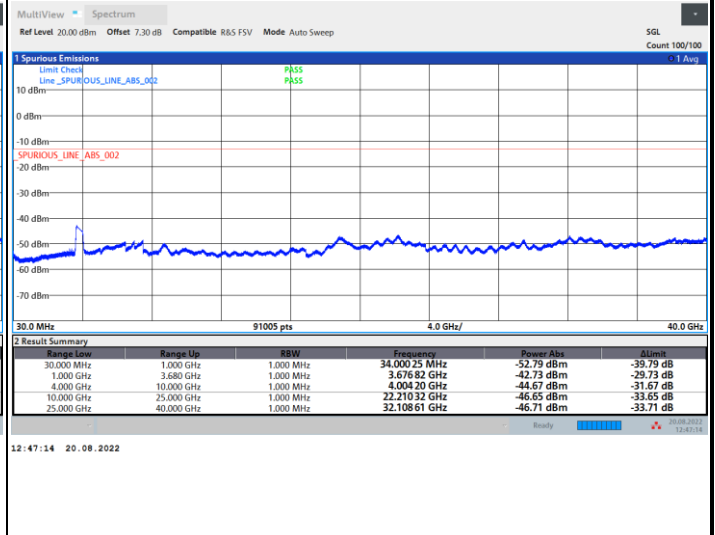
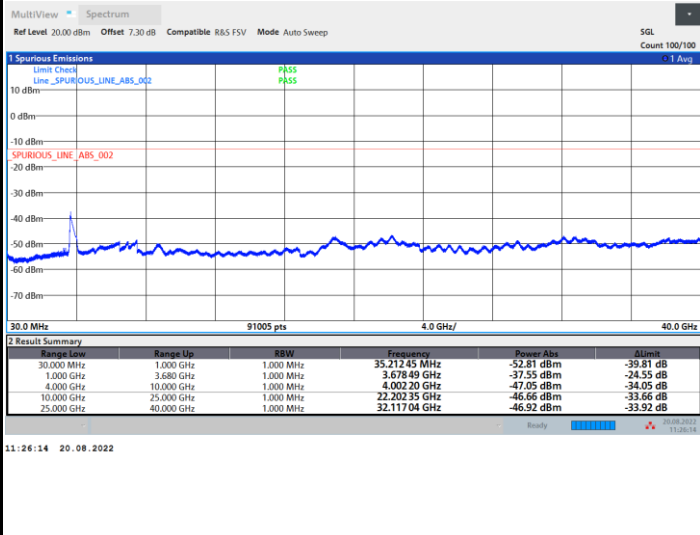




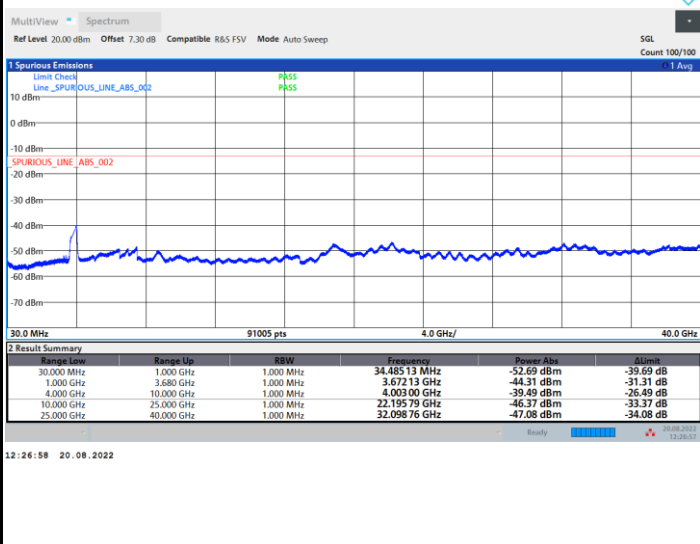
FR1 n77 / 100MHz / QPSK / CSE Emission Limit

Lowest Channel

Middle Channel



Highest Channel





Frequency Stability

Test Conditions		FR1 n77 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 40MHz	Note 2.
		Frequency offset (ppm)	Result
50	Normal Voltage	0.0037	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0056	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0031	
-20	Normal Voltage	0.0045	
-30	Normal Voltage	0.0040	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0014	
20	Minimum Voltage	0.0004	

Note:

- 1. Normal Voltage = 48 V. ; Minimum Voltage = 36 V. ; Maximum Voltage = 60 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



<MIMO ANT 3>

Peak-to-Average Ratio

Mode	FR1 n77 / 40MHz / PAR (dB)				Limit: 13dB
Mod.	QPSK	16QAM	64QAM	256QAM	Result
Middle CH	7.97	7.88	7.80	6.70	PASS

