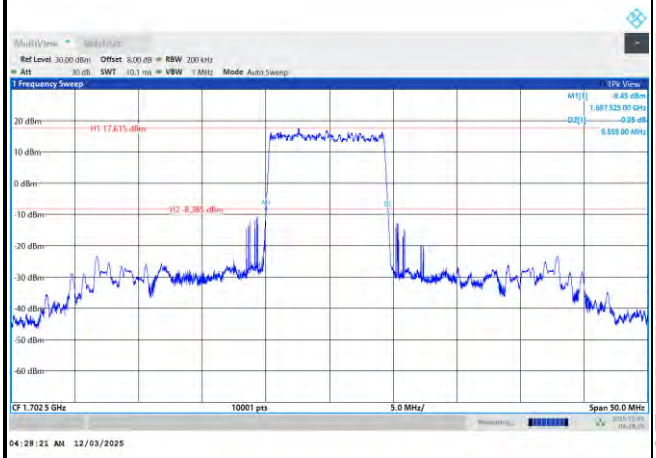
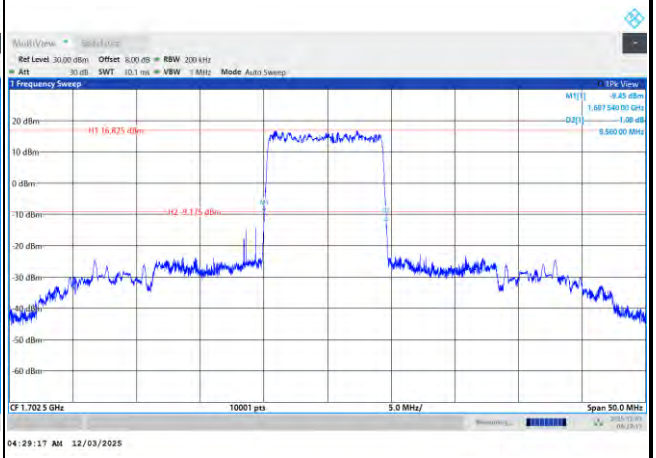
FR1 n70 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
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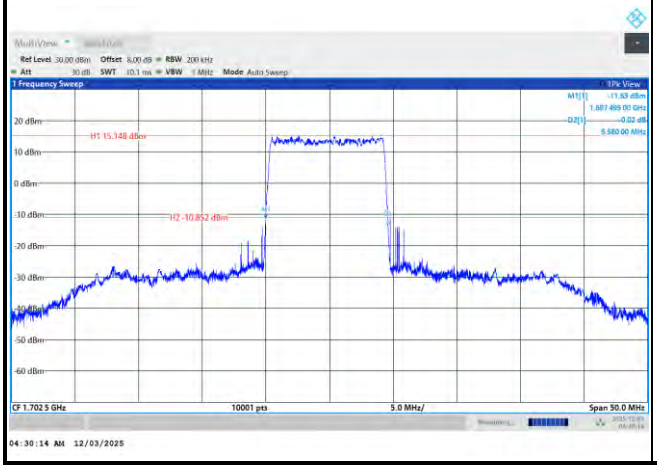
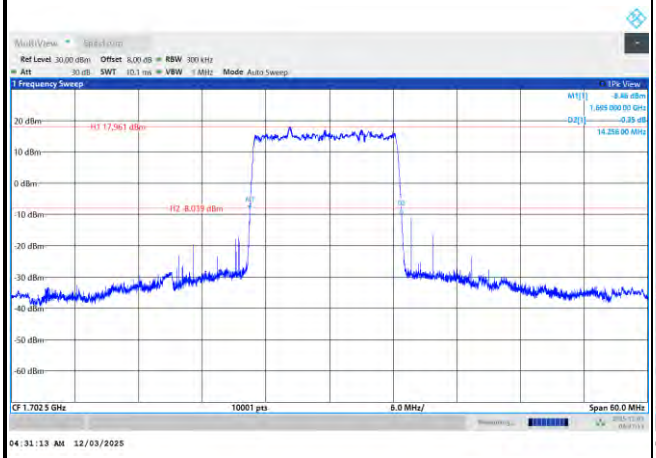
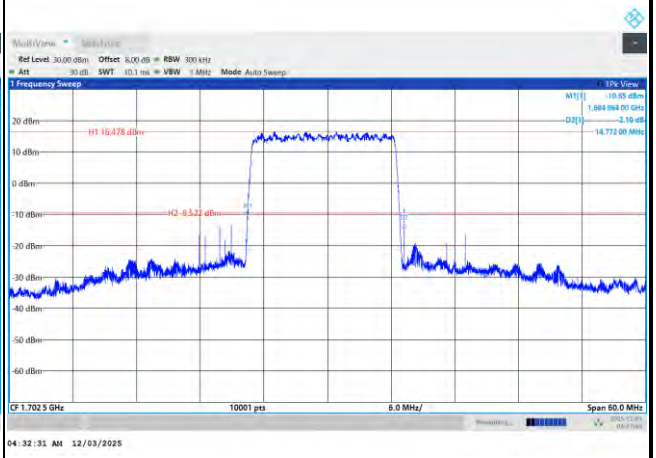
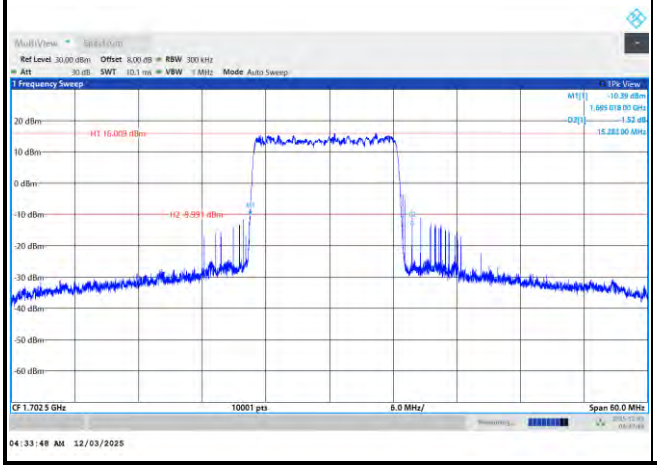
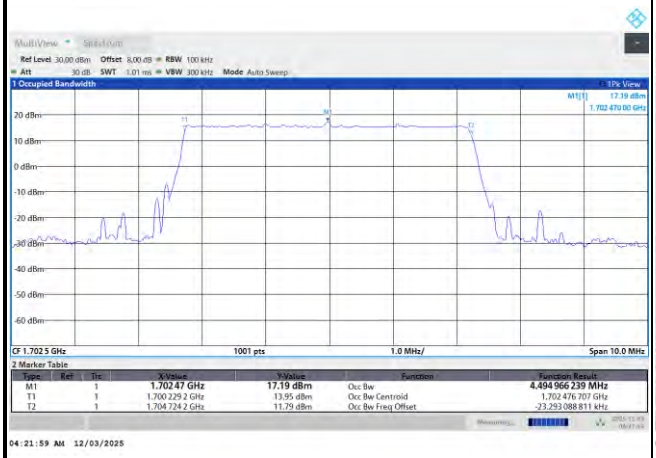
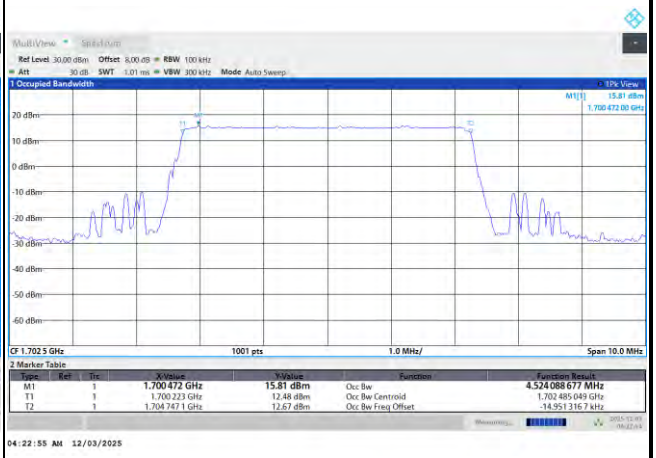
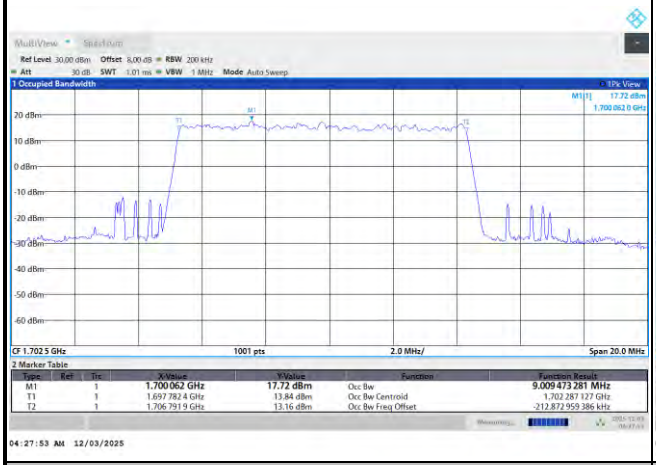
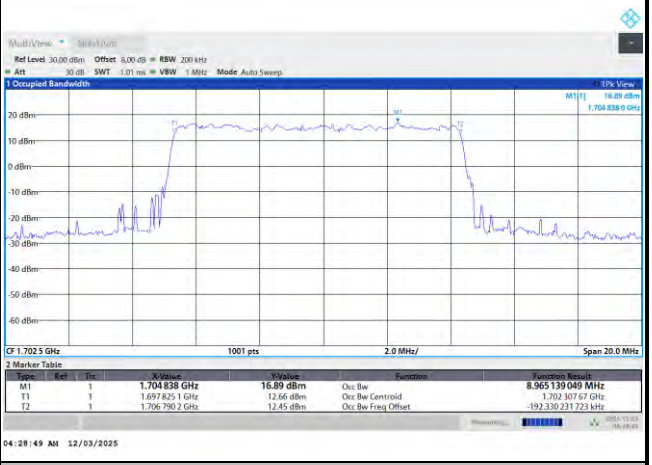
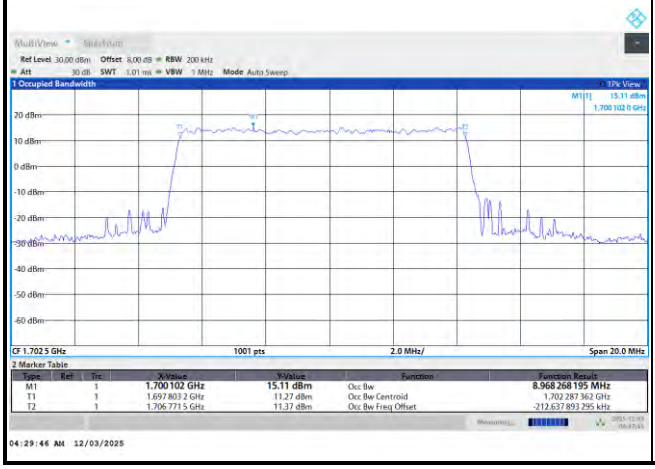
	

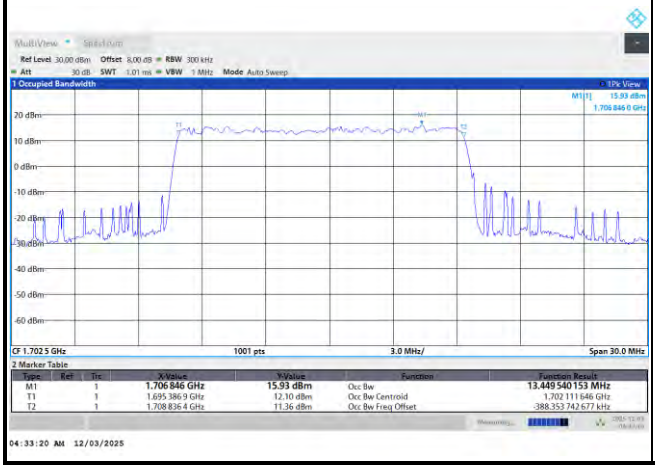
FR1 n70 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

Occupied Bandwidth

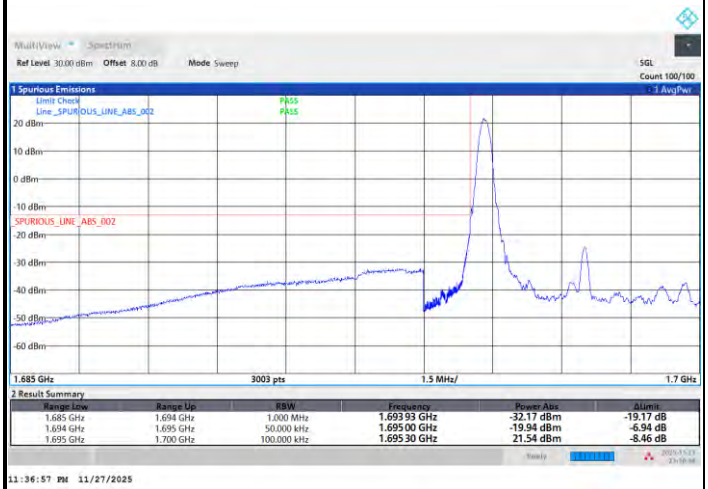
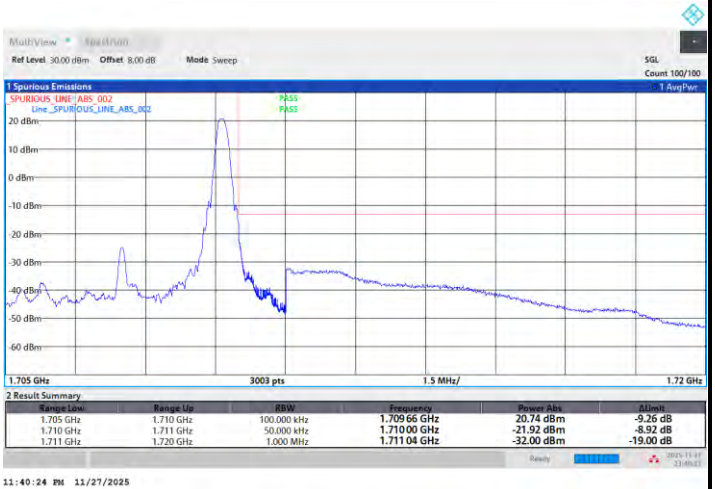
Mode	FR1 n70 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz			
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK		
Middle CH	4.49	4.52	9.00	8.96	13.47	13.46		
Mod.	16QAM		16QAM		16QAM			
Middle CH	4.49		8.96		13.44			

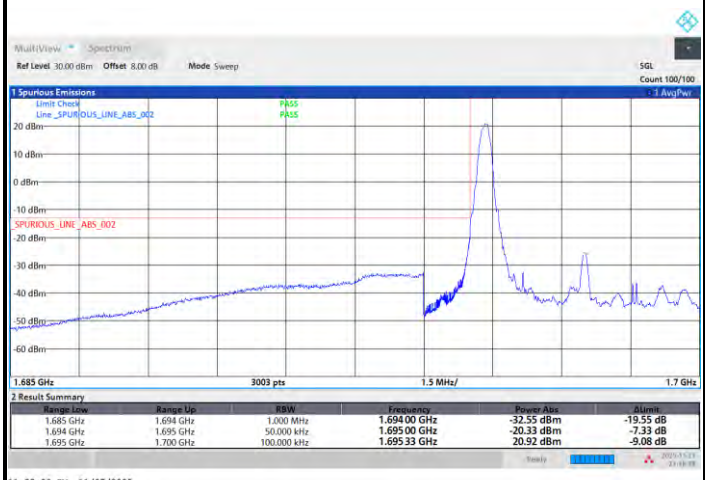
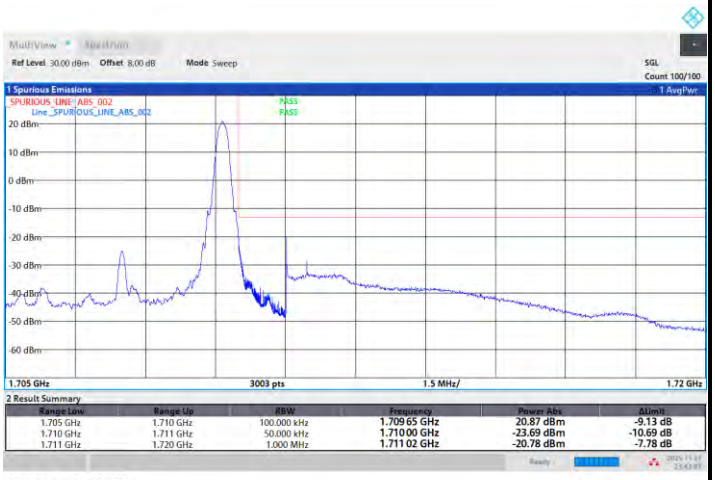
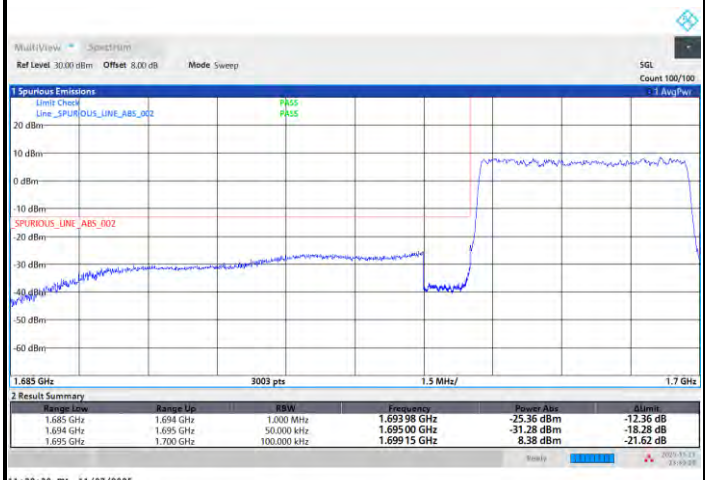
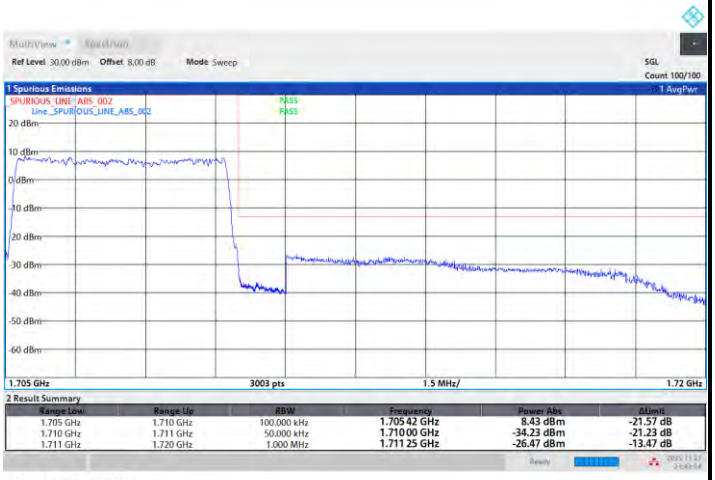
FR1 n70 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	

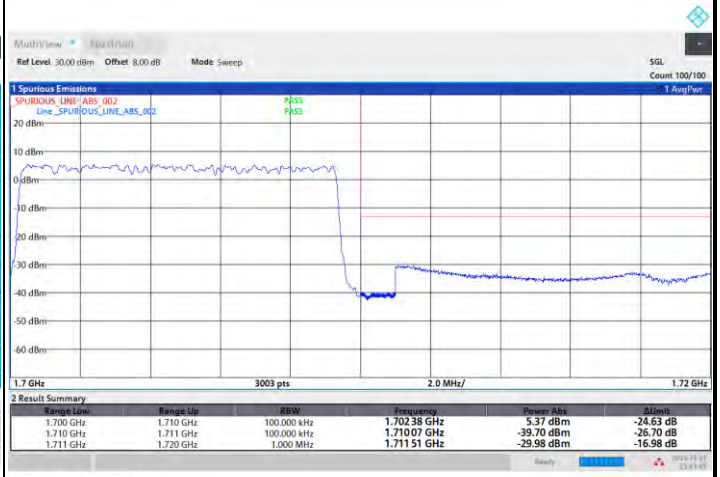
FR1 n70 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n70 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
16QAM	
	

Conducted Band Edge

FR1 n70 / 5MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n70 / 5MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

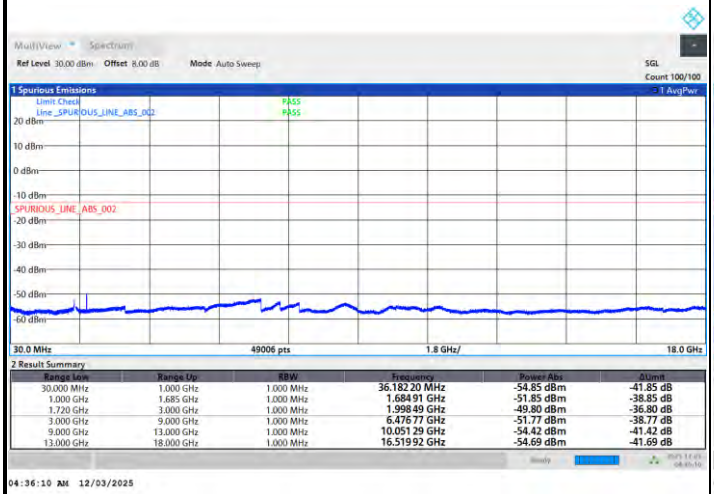
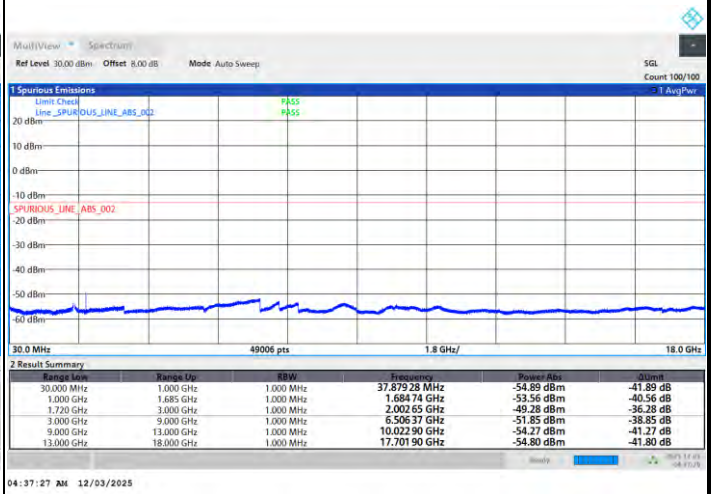
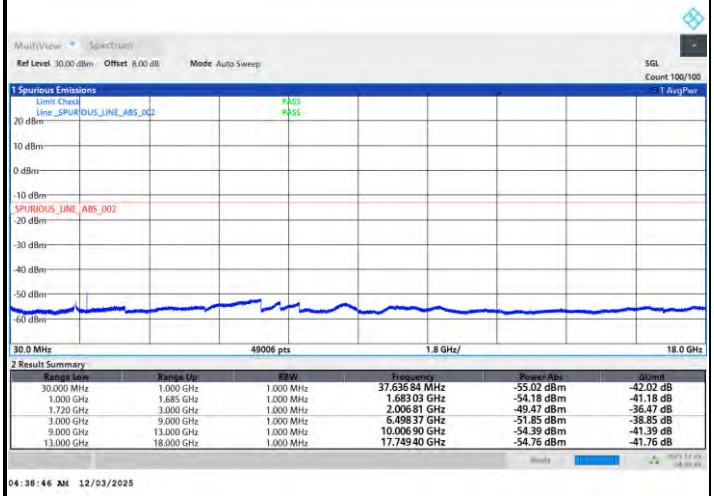
FR1 n70 / 10MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n70 / 10MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n70 / 15MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n70 / 15MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

Conducted Spurious Emission

FR1 n70 / 5MHz / DFT-S OFDM / QPSK / 1RB1	
Lowest Channel	**Middle Channel**
	
Highest Channel	
	

Frequency Stability

Test Conditions		FR1 n70 (BPSK) / Middle Channel 10M			
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Frequency Offset (△f) (Hz)	Within Authorized Frequency Block(Hz)	Result
50	Normal Voltage	0.0014	2.3	Yes	PASS
40	Normal Voltage	0.0006	1.1	Yes	
30	Normal Voltage	0.0018	3	Yes	
20(Ref.)	Normal Voltage	0.0000	0	Yes	
10	Normal Voltage	0.0087	14.8	Yes	
0	Normal Voltage	0.0017	2.9	Yes	
-10	Normal Voltage	0.0087	14.8	Yes	
-20	Normal Voltage	0.0002	0.3	Yes	
-30	Normal Voltage	0.0039	6.7	Yes	
20	Maximum Voltage	0.0058	9.9	Yes	
20	Normal Voltage	0.0094	16	Yes	
20	Minimum Voltage	0.0058	9.8	Yes	

Note:

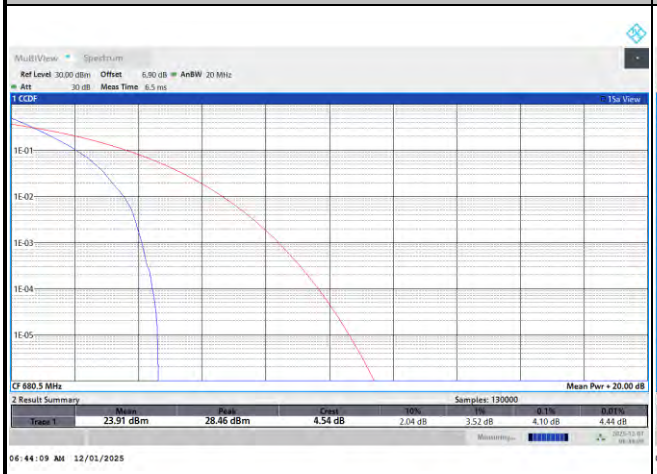
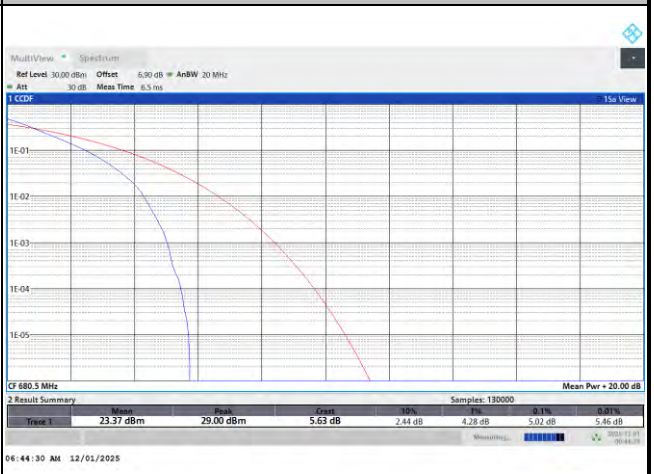
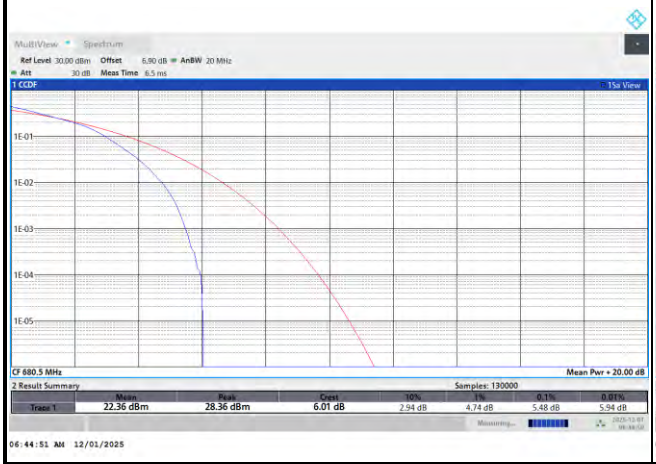
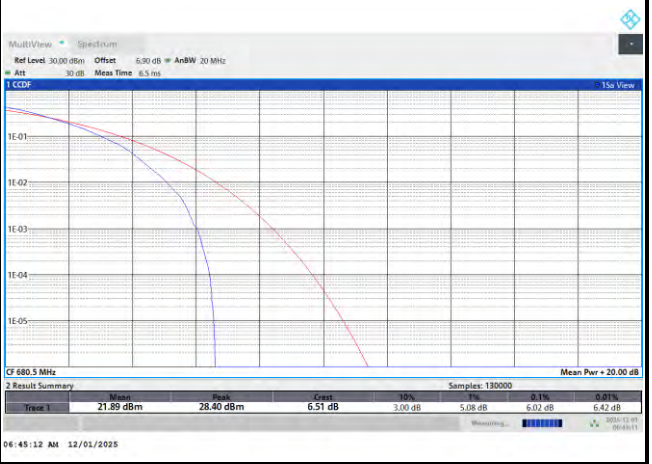
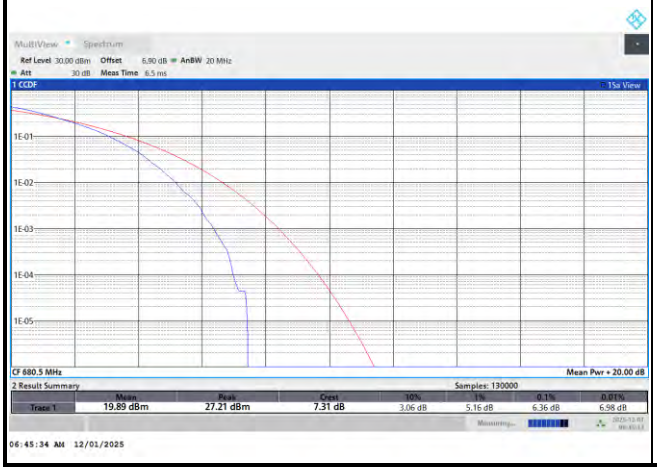
1. Normal Voltage = 3.9 V.；Minimum Voltage = 3.6 V.；Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.

FR1 n71

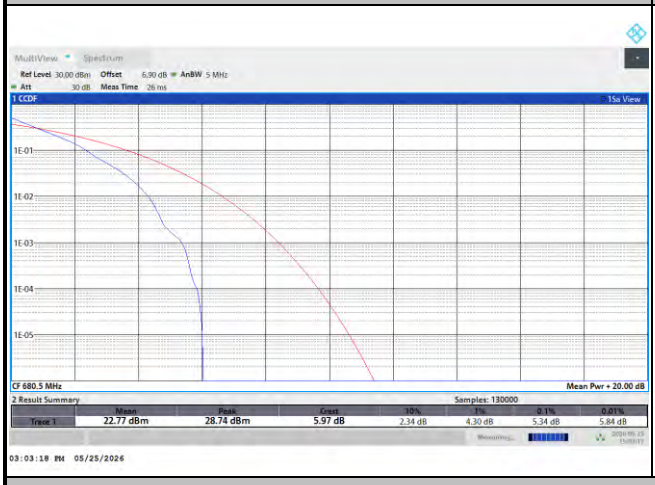
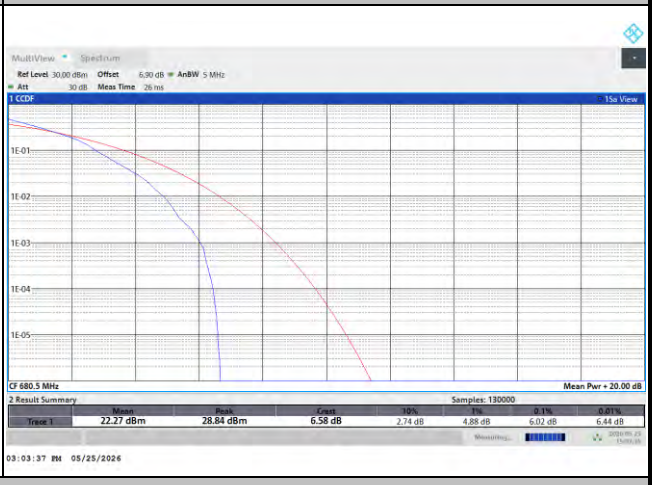
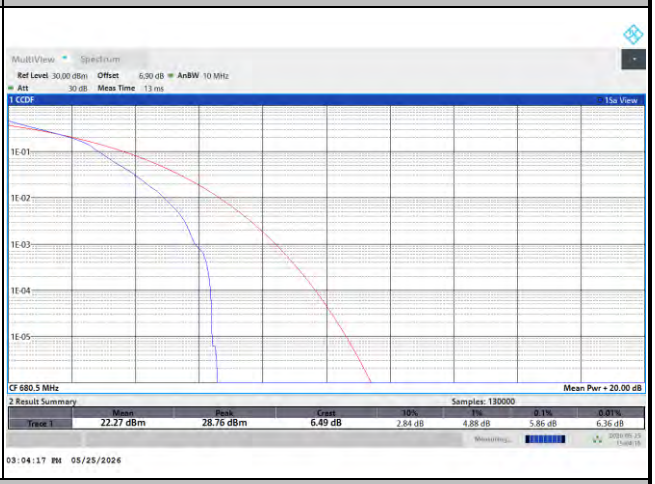
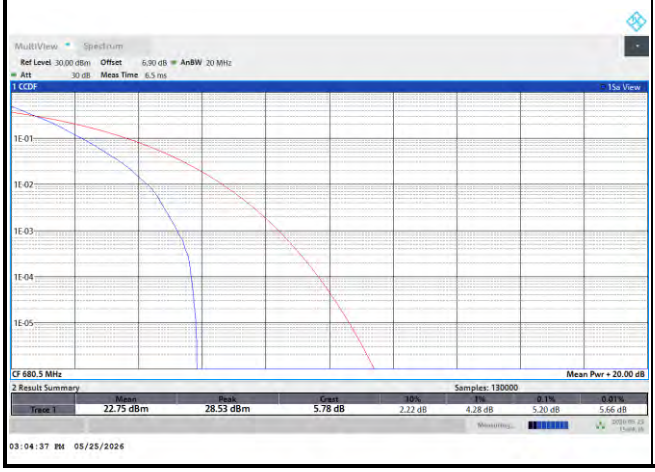
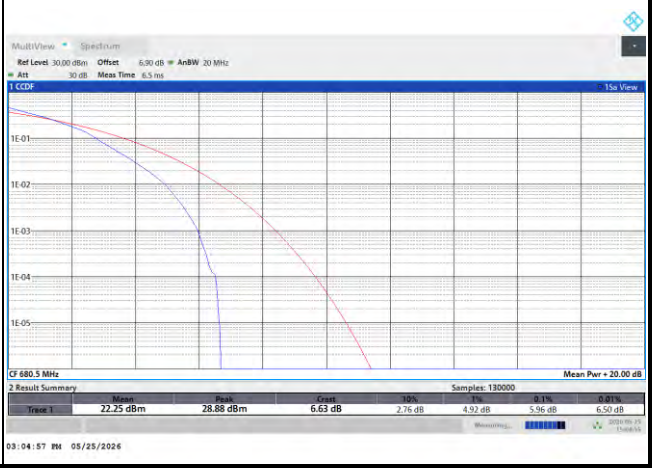
<SISO Mode>

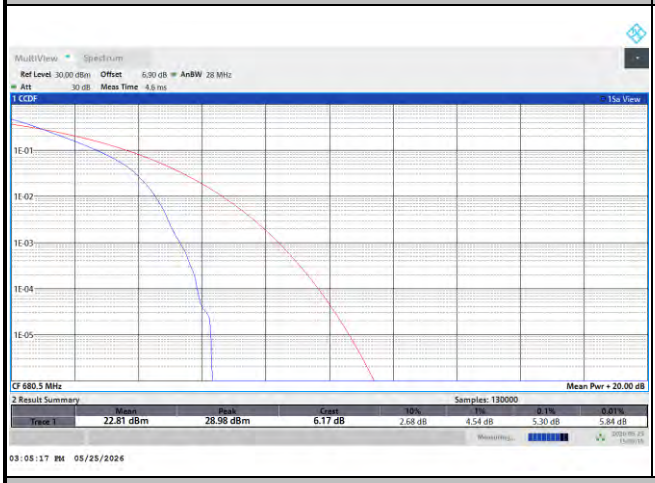
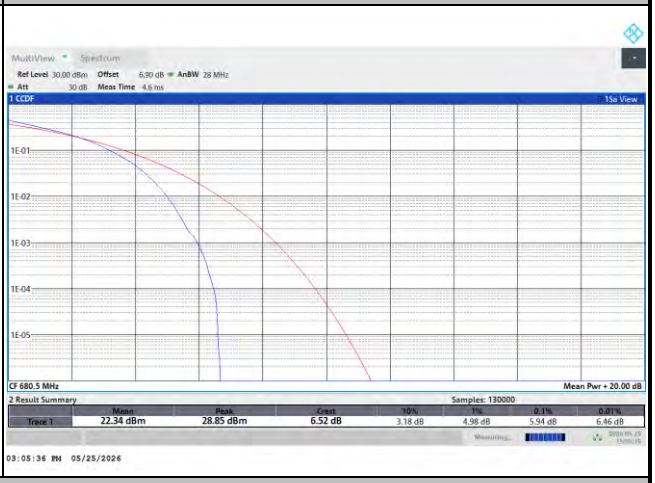
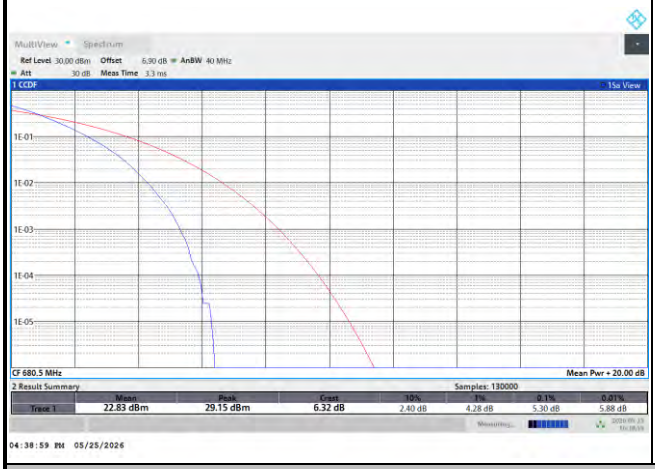
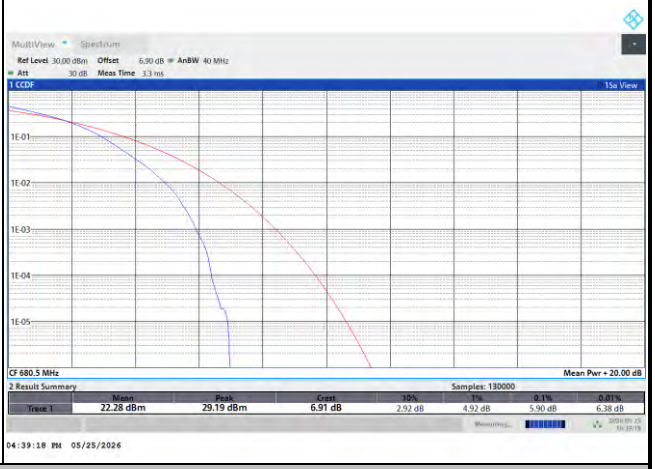
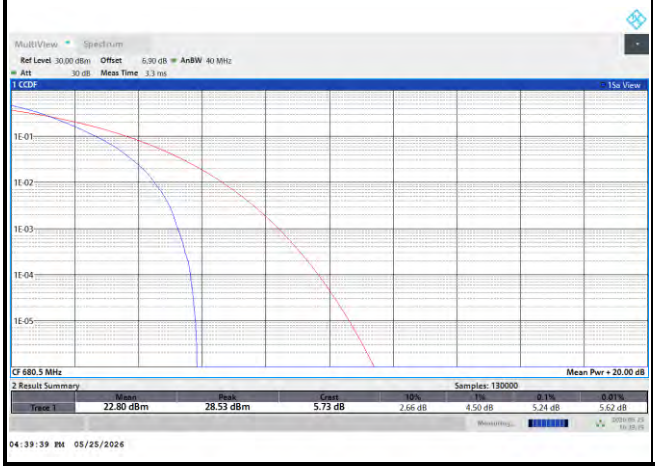
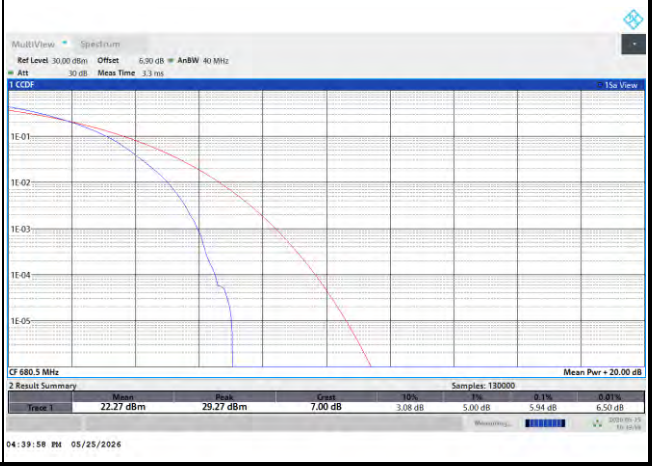
Peak-to-Average Ratio

Mode	FR1 n71 / 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	4.10	5.02	5.48	6.02	PASS
Mode	FR1 n71 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.36				PASS

FR1 n71 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	64QAM
	
256QAM	
	

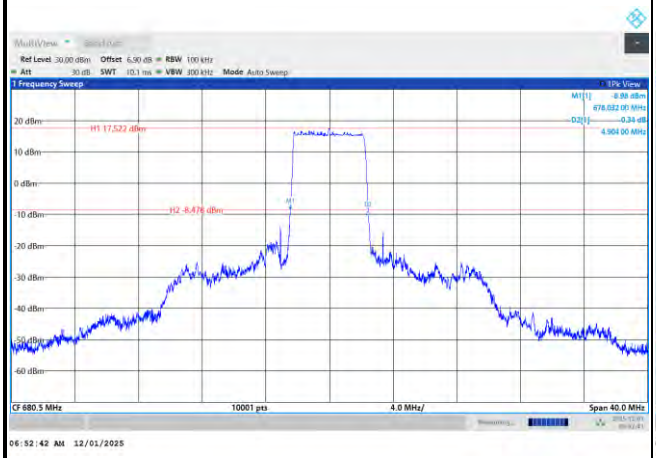
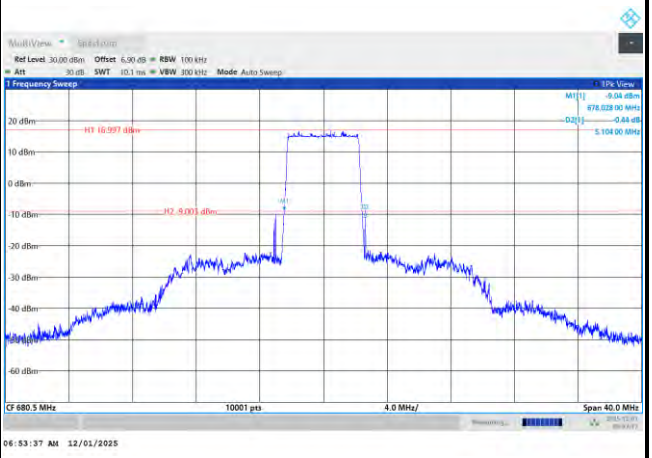
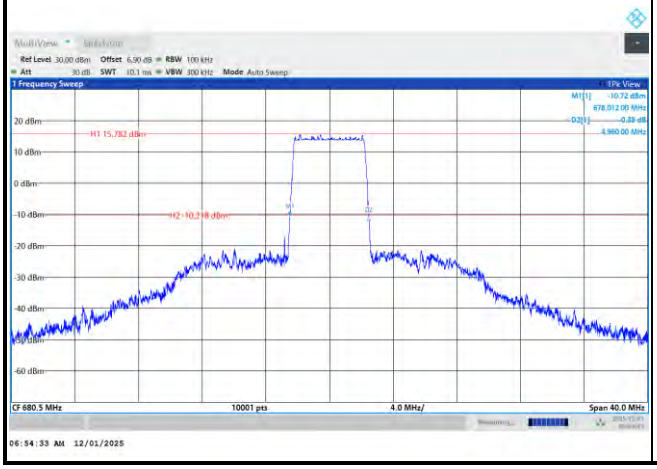
Mode	FR1 n71 / 5MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.34	6.02	PASS
Mode	FR1 n71 / 10MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.18	5.86	PASS
Mode	FR1 n71 / 15MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.20	5.96	PASS
Mode	FR1 n71 / 25MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.30	5.94	PASS
Mode	FR1 n71 / 30MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.30	5.90	PASS
Mode	FR1 n71 / 35MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.24	5.94	PASS

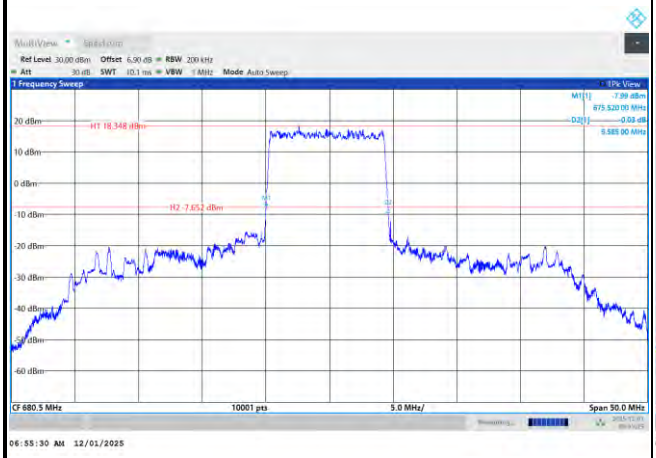
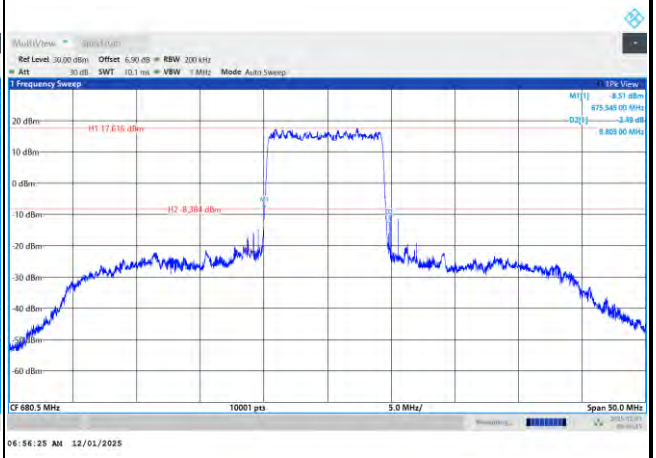
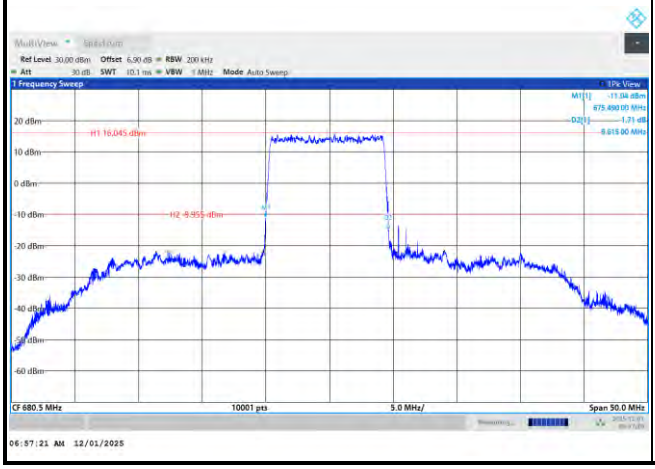
FR1 n71 / 5MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
FR1 n71 / 10MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
FR1 n71 / 15MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	

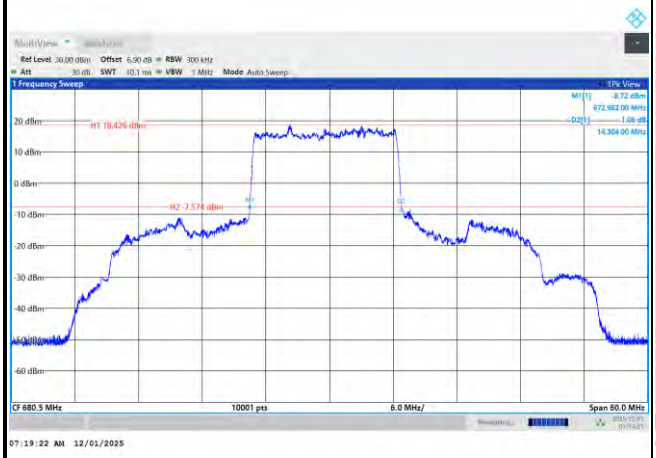
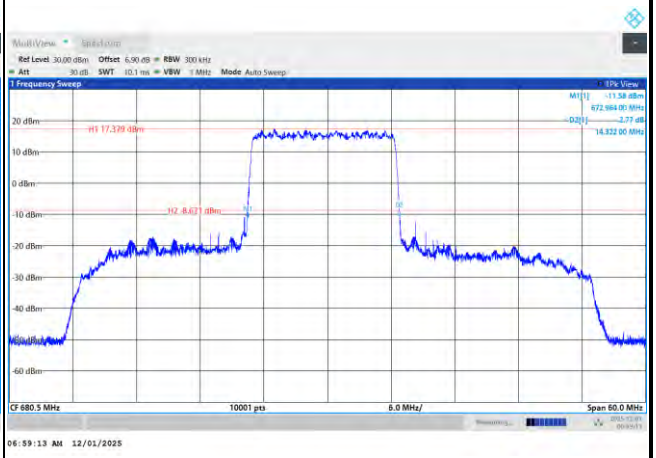
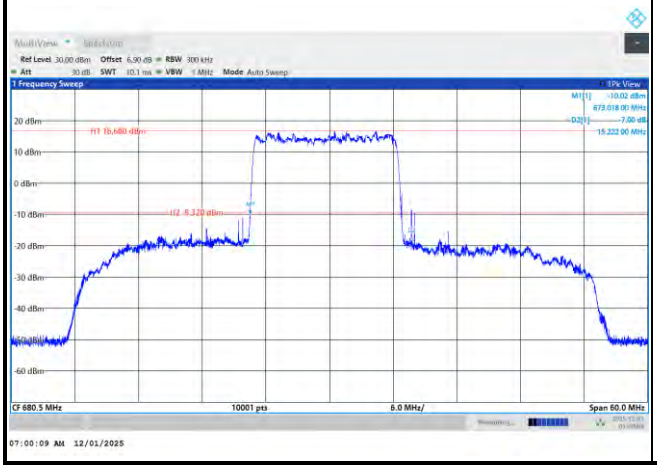
FR1 n71 / 25MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
FR1 n71 / 30MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
FR1 n71 / 35MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	

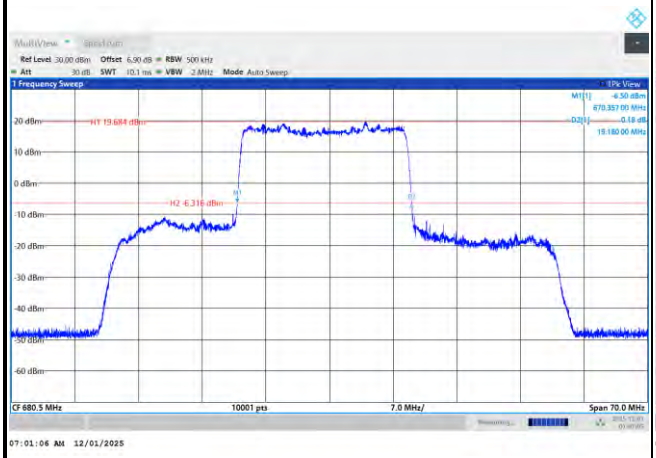
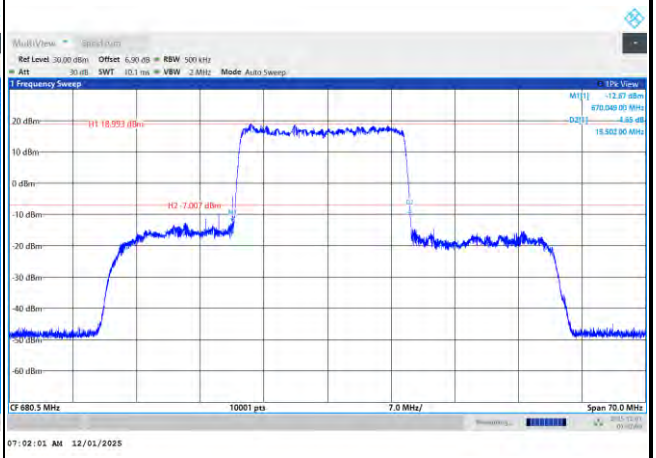
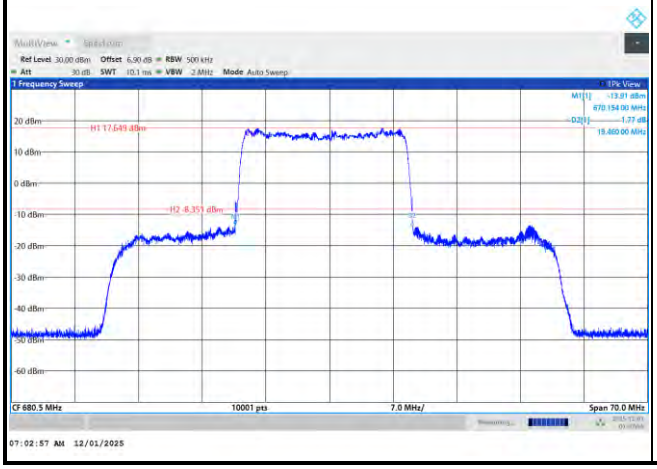
26dB Bandwidth

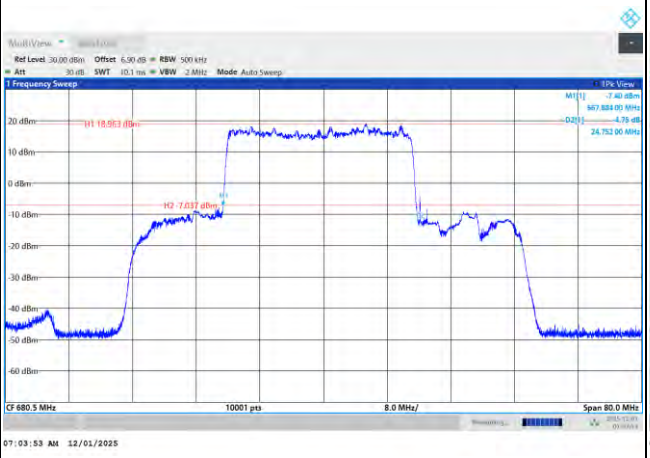
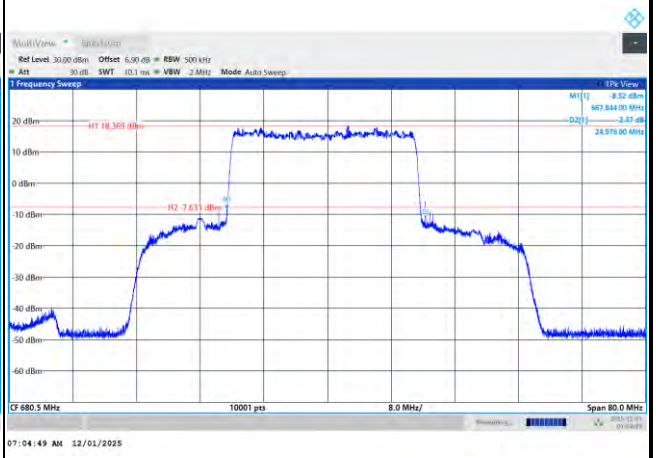
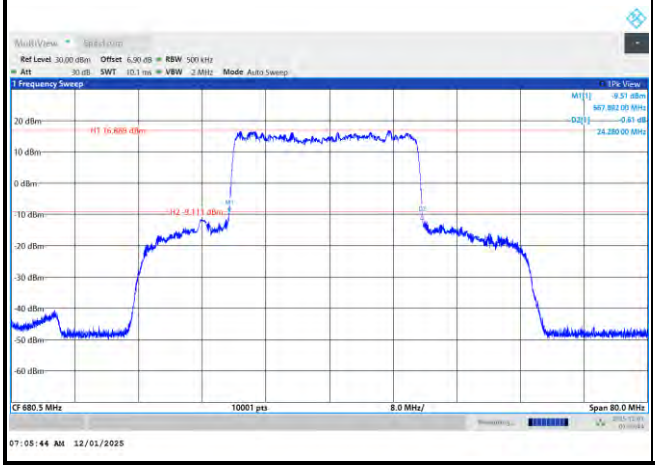
Mode	FR1 n71 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	4.90	5.10	9.58	9.80	14.30	14.32	19.18	19.50
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	4.96		9.61		15.22		19.46	
BW	25MHz		30MHz		35MHz			
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK		
Middle CH	24.75	24.97	32.29	31.55	42.63	42.90		
Mod.	16QAM		16QAM		16QAM			
Middle CH	24.28		35.17		44.73			

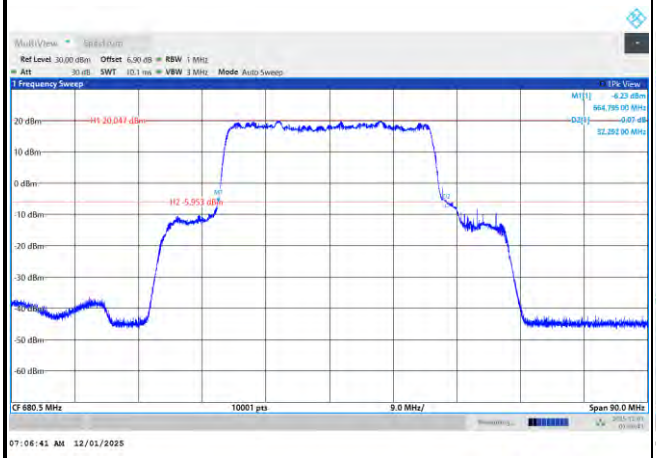
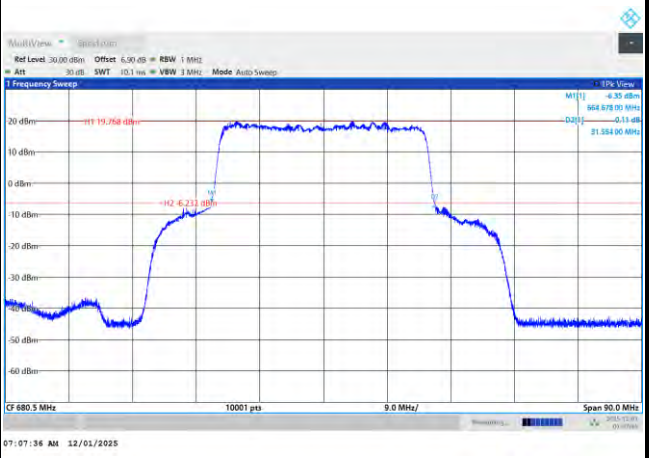
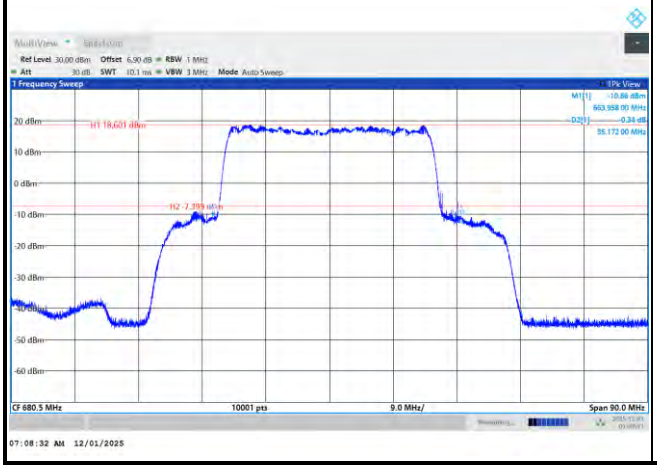
FR1 n71 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

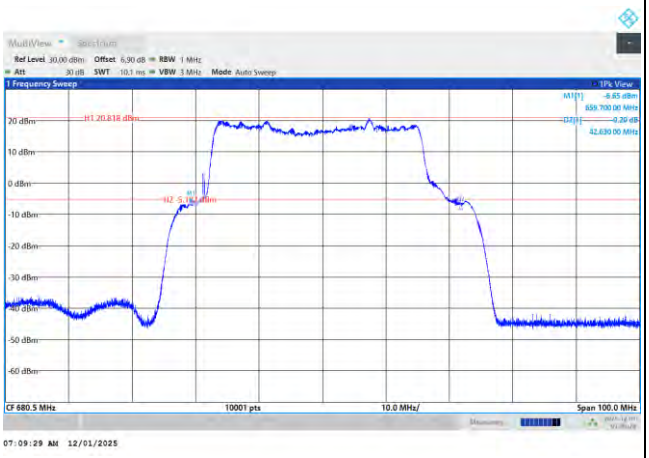
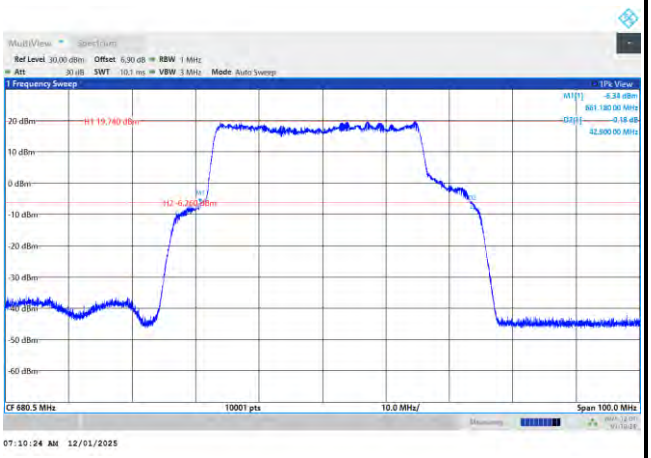
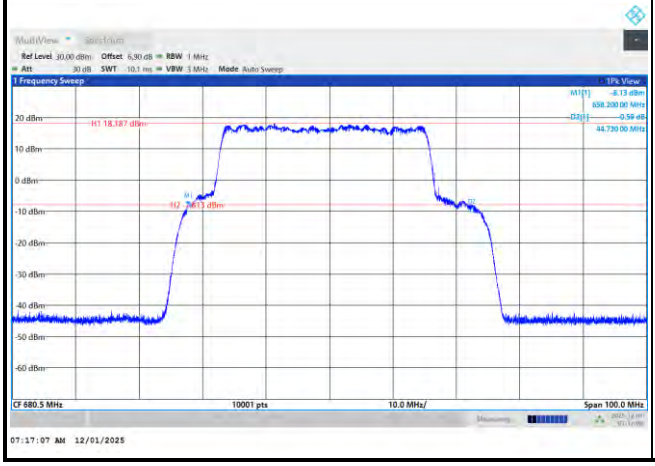
FR1 n71 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n71 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n71 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

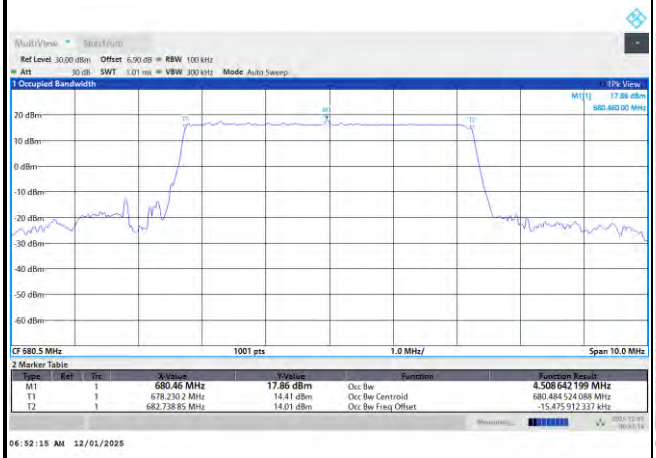
FR1 n71 / 25MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

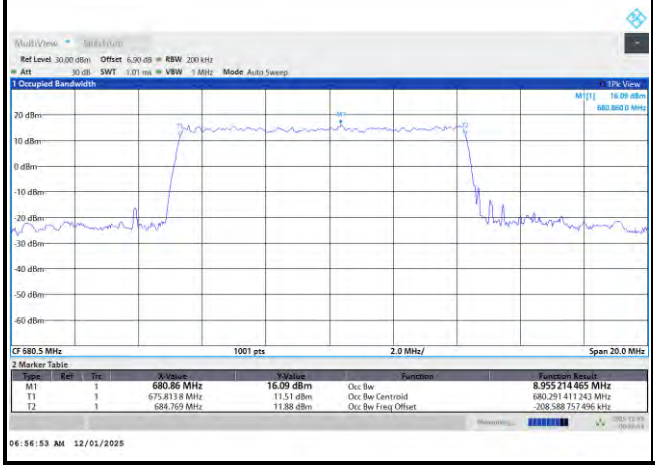
FR1 n71 / 30MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

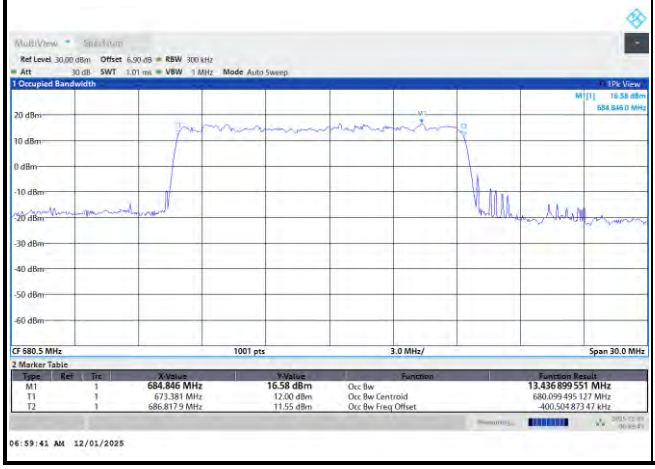
FR1 n71 / 35MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

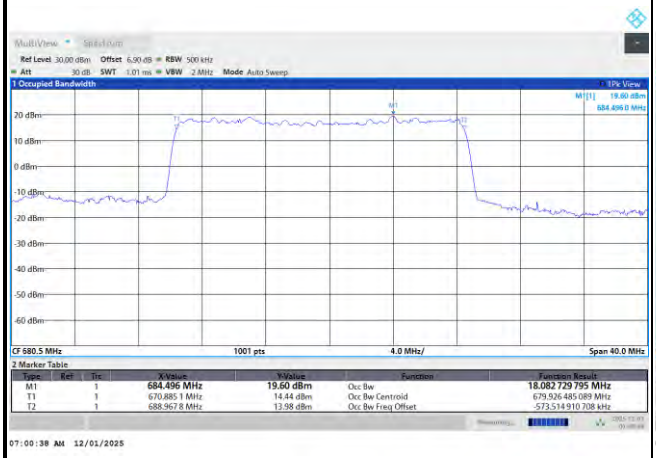
Occupied Bandwidth

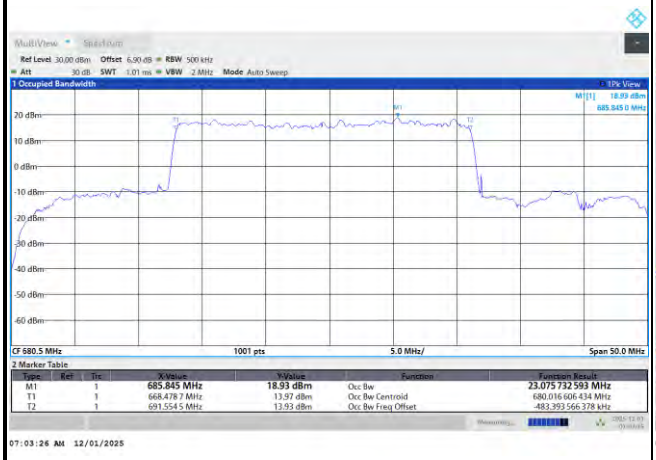
Mode	FR1 n71 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	4.50	4.49	9.01	8.96	13.51	13.45	18.08	18.03
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	4.49		8.95		13.43		18.01	
BW	25MHz		30MHz		35MHz			
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK		
Middle CH	23.07	22.99	29.09	29.01	32.93	32.97		
Mod.	16QAM		16QAM		16QAM			
Middle CH	22.97		28.93		33.07			

FR1 n71 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	

FR1 n71 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
16QAM	
	

FR1 n71 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
16QAM	
	

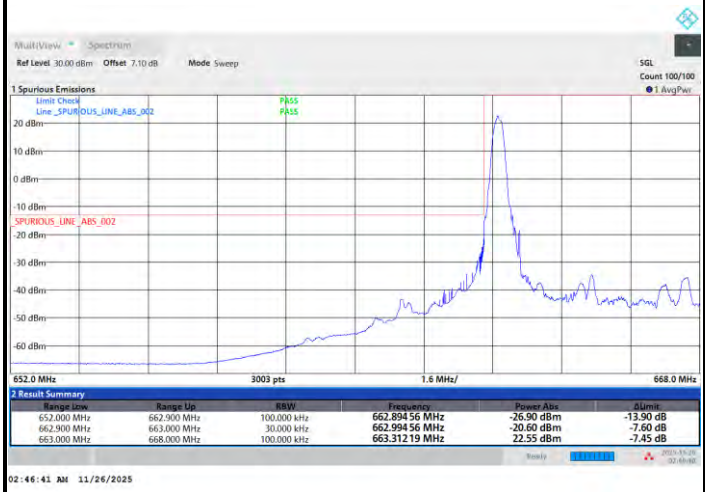
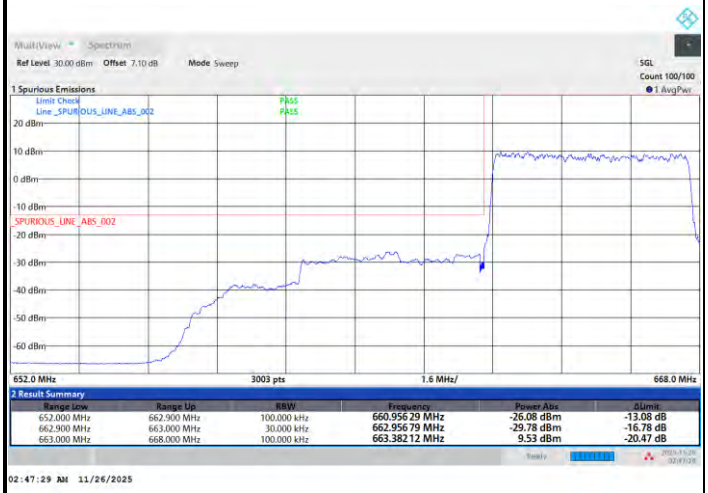
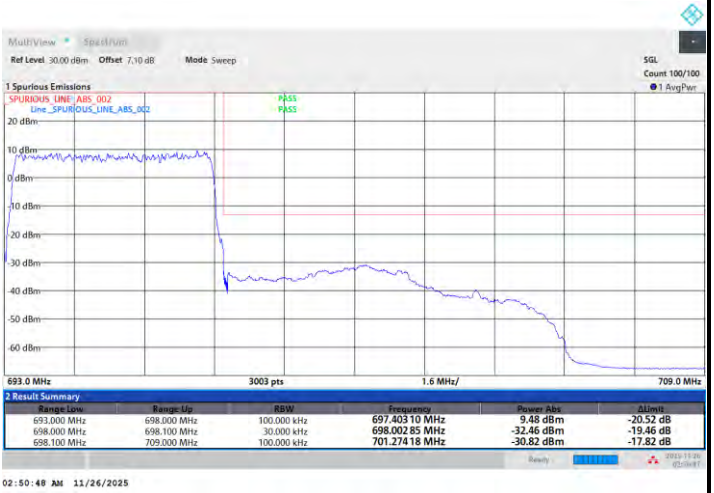
FR1 n71 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	

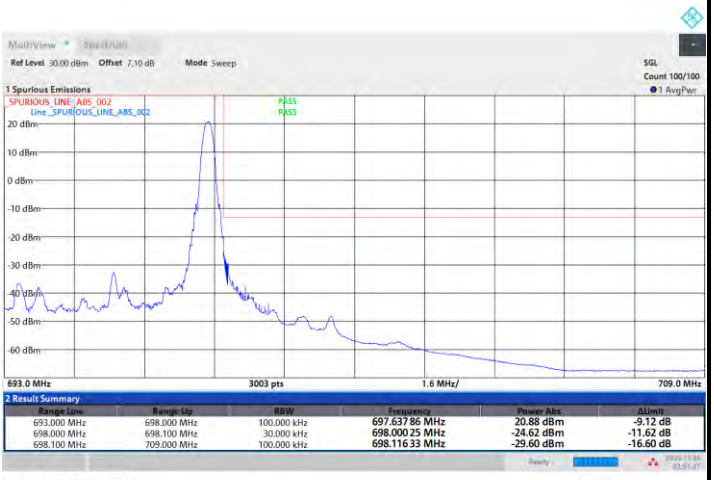
FR1 n71 / 25MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	

FR1 n71 / 30MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
16QAM	

FR1 n71 / 35MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
16QAM	

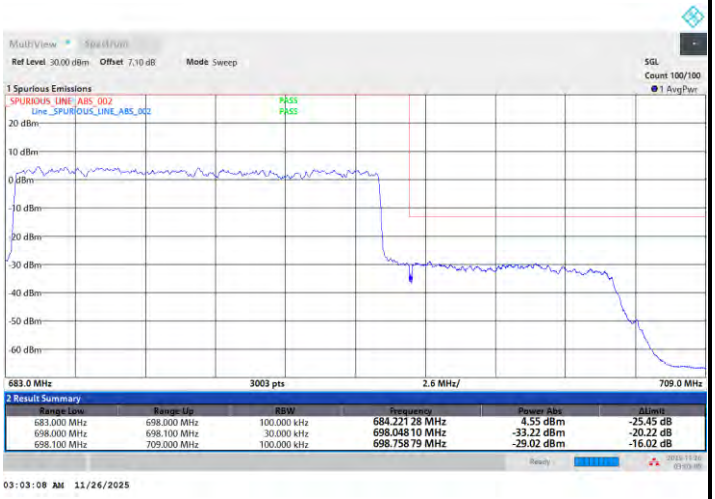
Conducted Band Edge

FR1 n71 / 5MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

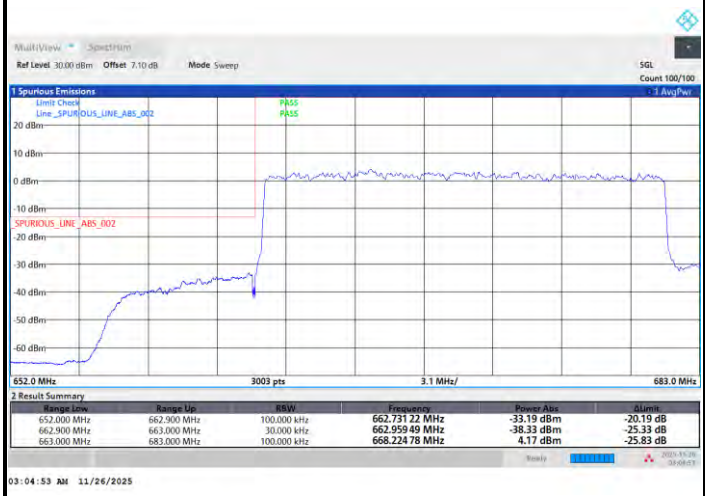
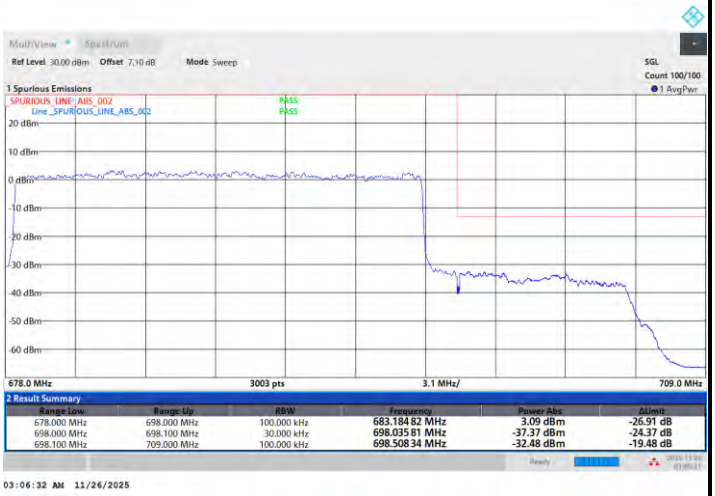
FR1 n71 / 5MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

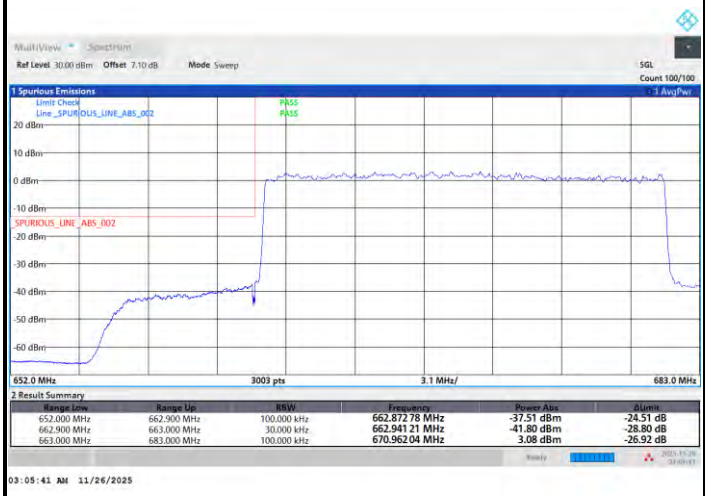
FR1 n71 / 10MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n71 / 10MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n71 / 15MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

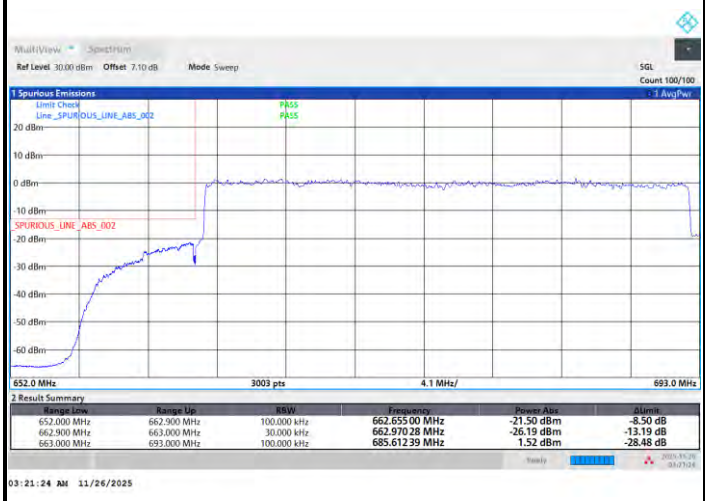
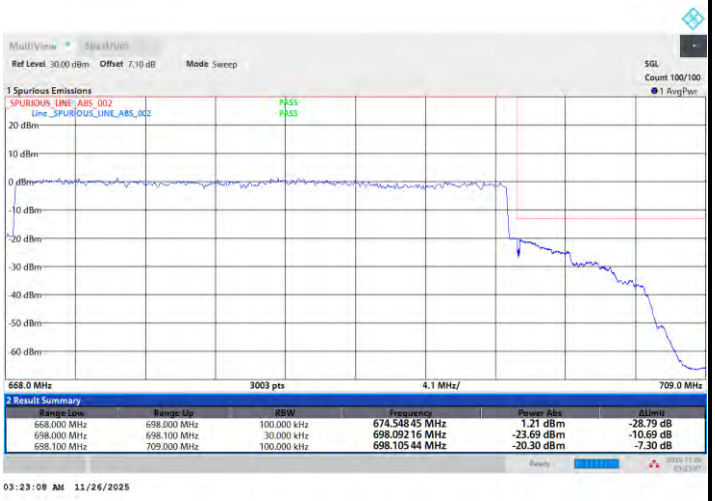
FR1 n71 / 15MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

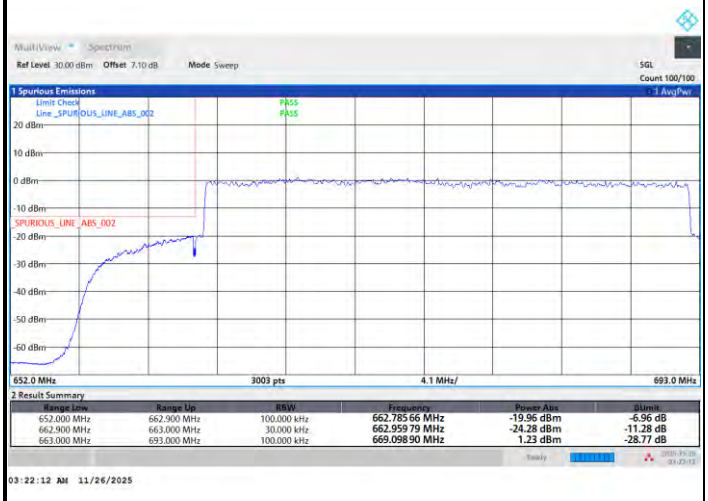
FR1 n71 / 20MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

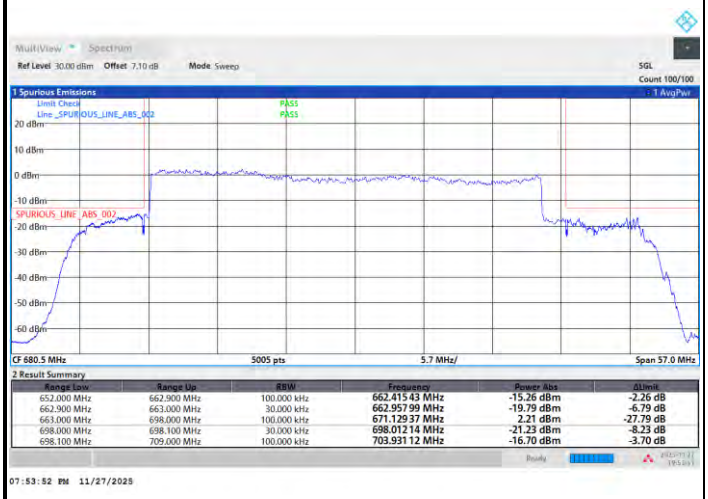
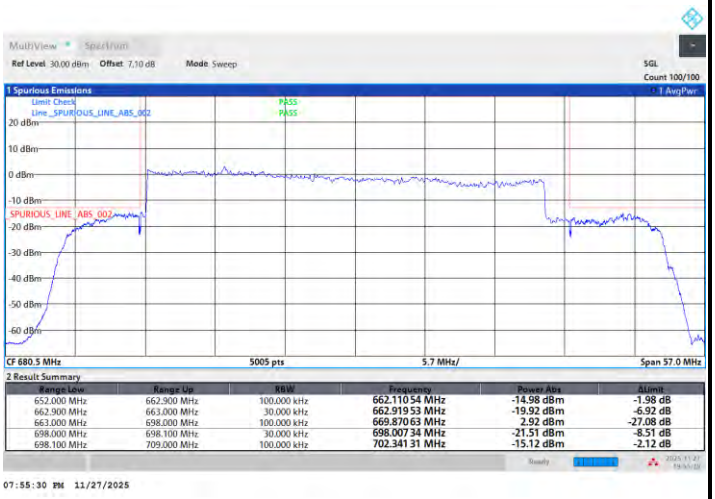
FR1 n71 / 20MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n71 / 25MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

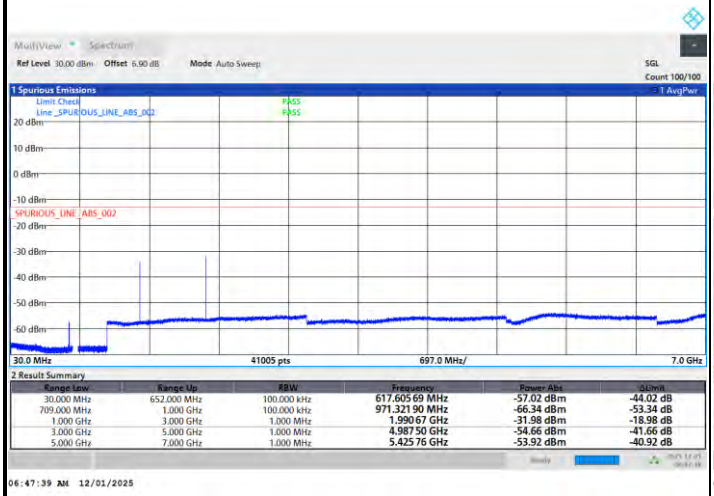
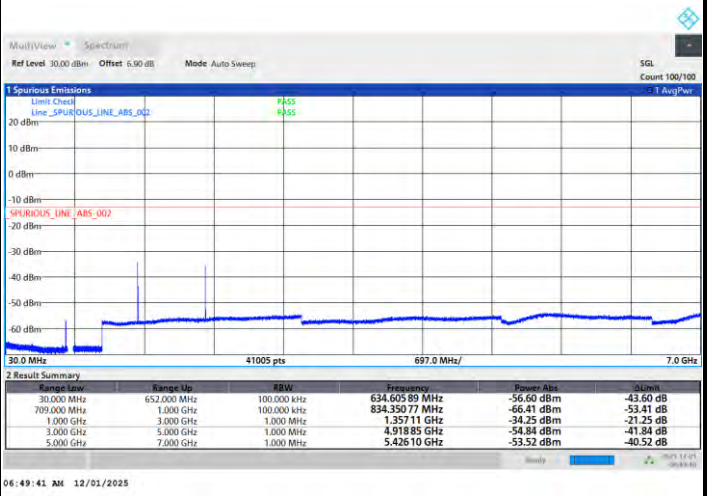
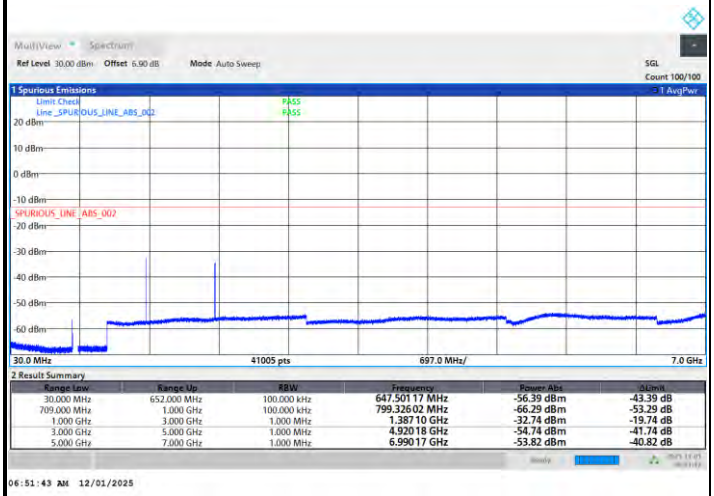
FR1 n71 / 25MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n71 / 30MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	Highest Band Edge / Full RB
	

FR1 n71 / 30MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / Full RB	Highest Band Edge / Full RB
	

FR1 n71 / 35MHz / DFT-S OFDM	
Middle Band Edge / Full RB / PI/2 BPSK	**Middle Band Edge / Full RB / QPSK**
	

Conducted Spurious Emission

FR1 n71 / 5MHz / DFT-S OFDM / QPSK / 1RB1	
Lowest Channel	**Middle Channel**
	
Highest Channel	
	

Frequency Stability

Test Conditions		FR1 n71 (BPSK) / Middle Channel 10M			
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Frequency Offset (△f) (Hz)	Within Authorized Frequency Block(Hz)	Result
50	Normal Voltage	0.0166	-11.3	Yes	PASS
40	Normal Voltage	0.0110	-7.5	Yes	
30	Normal Voltage	0.0200	-13.6	Yes	
20(Ref.)	Normal Voltage	0.0000	0	Yes	
10	Normal Voltage	0.0181	-12.3	Yes	
0	Normal Voltage	0.0043	2.9	Yes	
-10	Normal Voltage	0.0048	3.3	Yes	
-20	Normal Voltage	0.0066	-4.5	Yes	
-30	Normal Voltage	0.0160	-10.9	Yes	
20	Maximum Voltage	0.0051	3.5	Yes	
20	Normal Voltage	0.0015	1	Yes	
20	Minimum Voltage	0.0040	2.7	Yes	

Note:

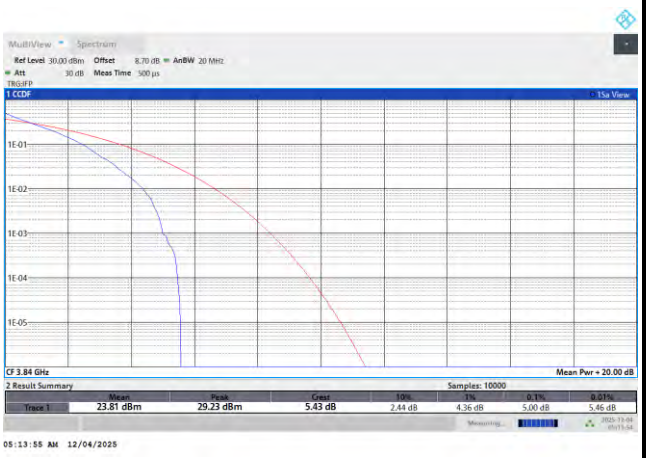
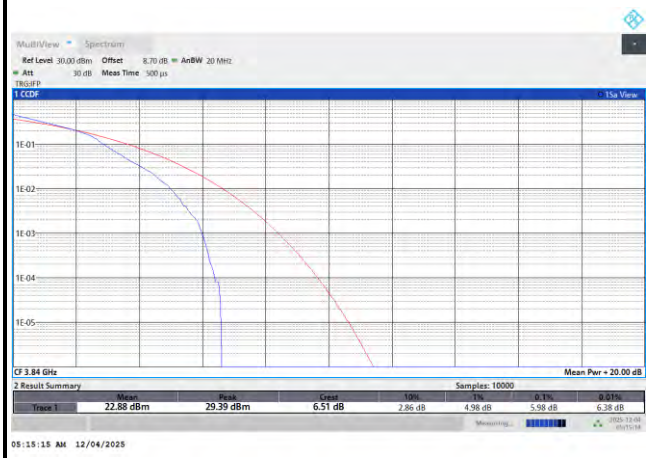
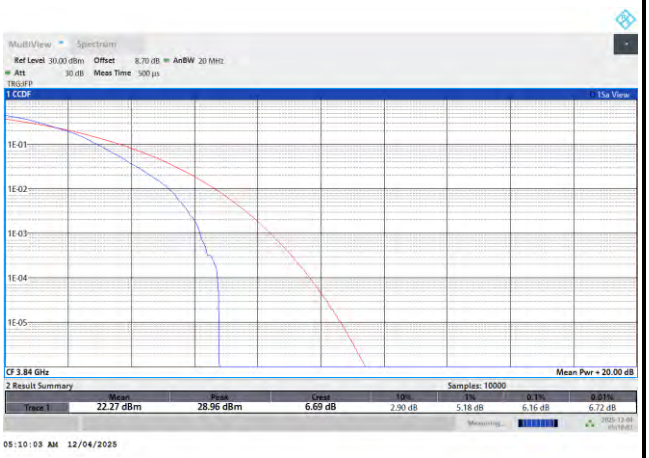
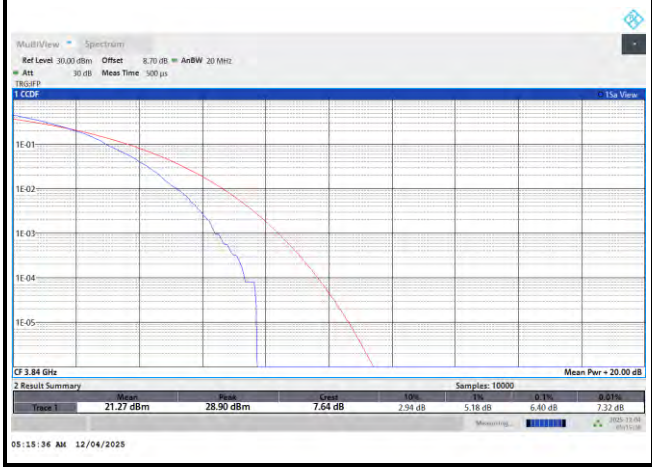
1. Normal Voltage = 3.9 V.；Minimum Voltage = 3.6 V.；Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.

FR1 n77_Part27O

<SISO Mode>

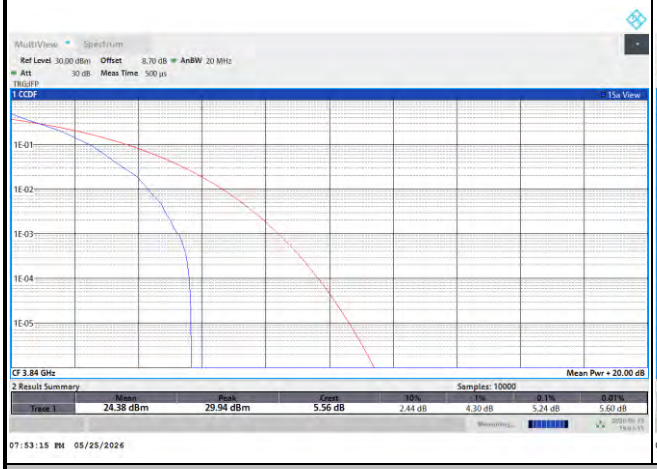
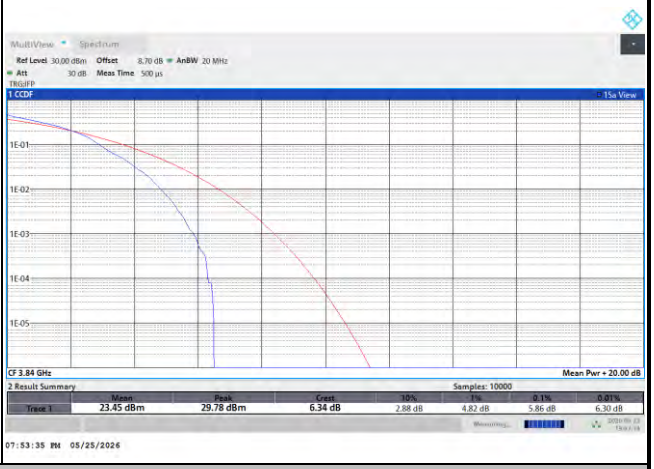
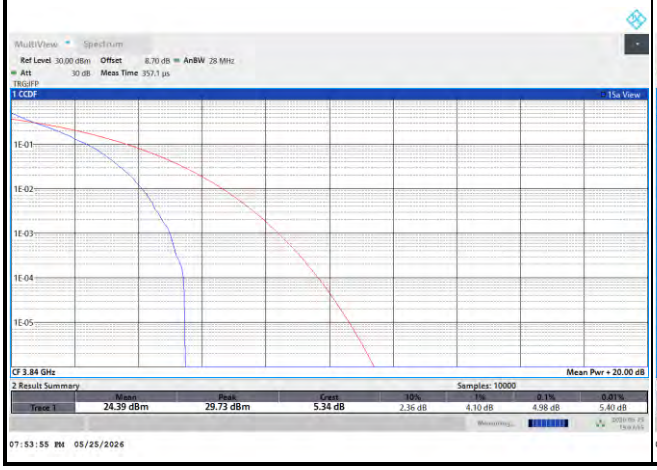
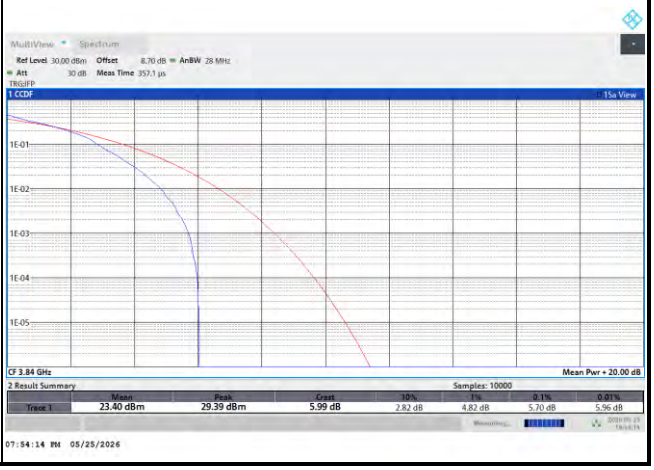
Peak-to-Average Ratio

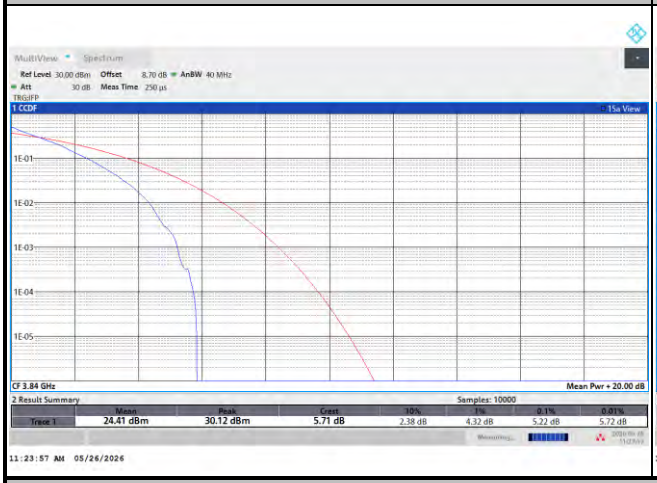
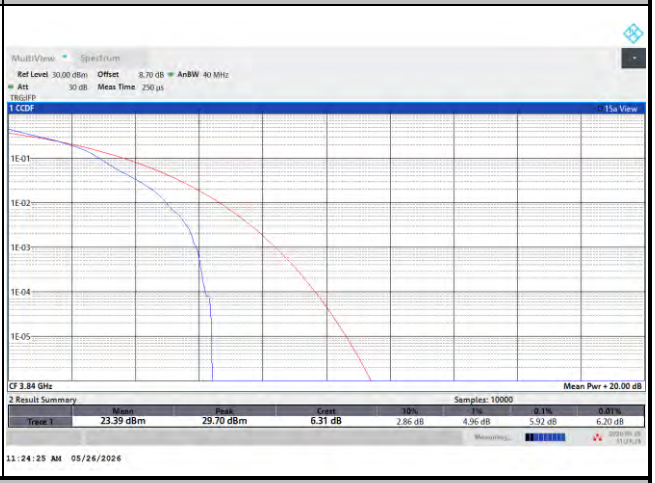
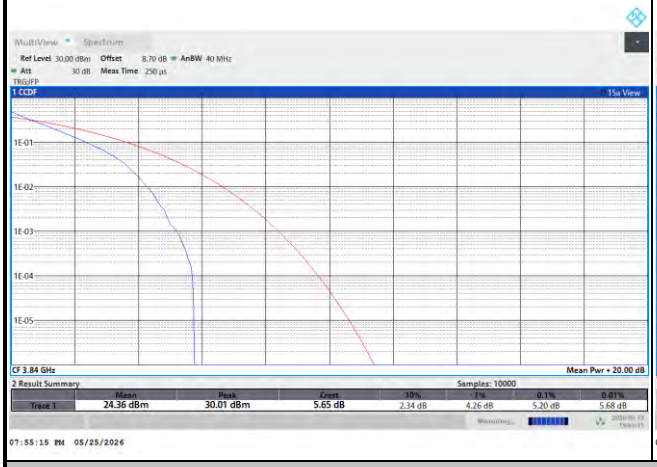
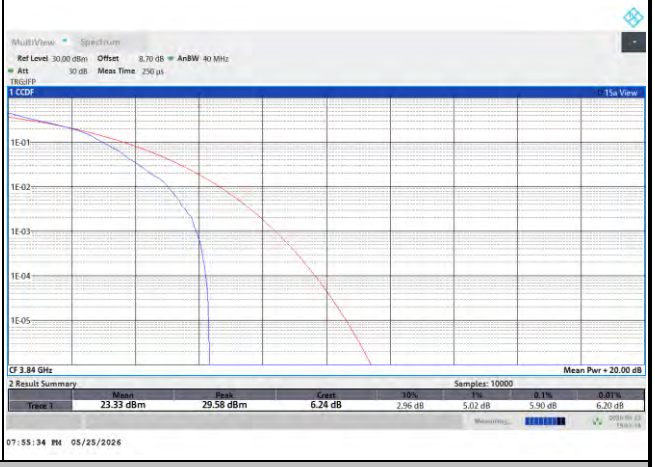
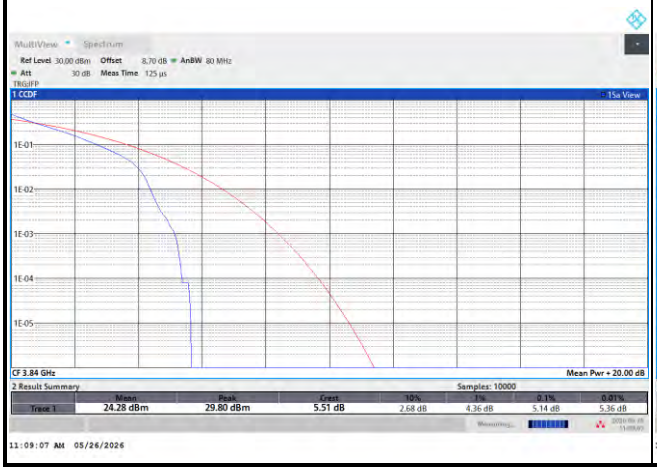
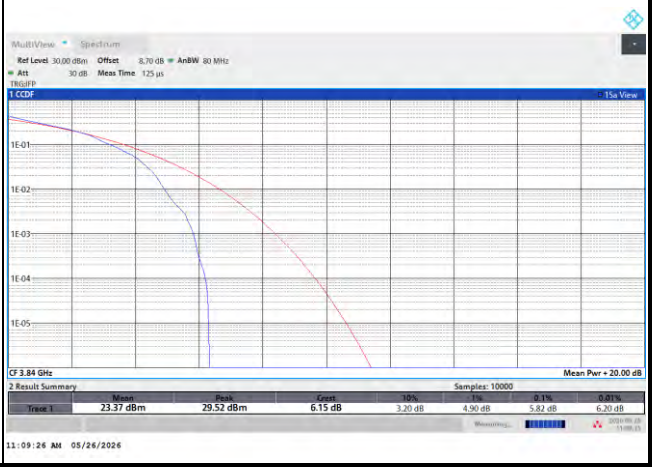
Mode	FR1 n77 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.06	5.00	5.98	6.16	PASS
Mode	FR1 n77 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.40				PASS

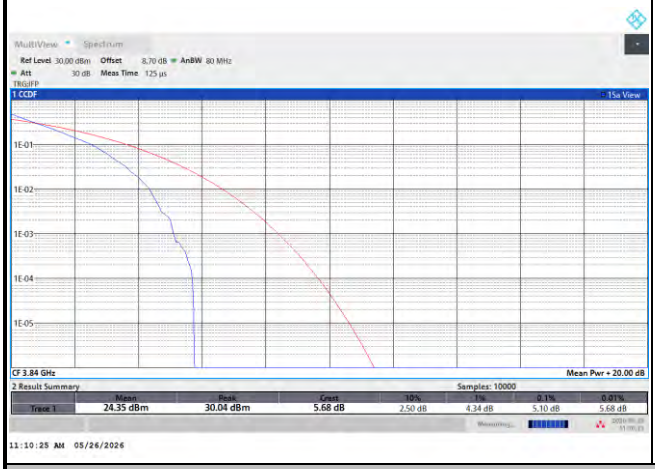
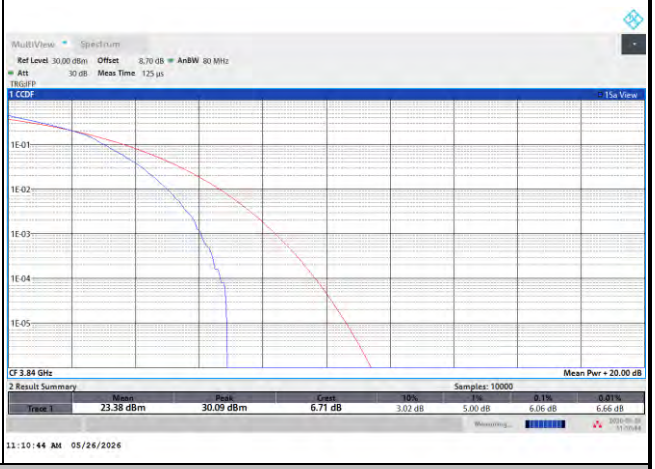
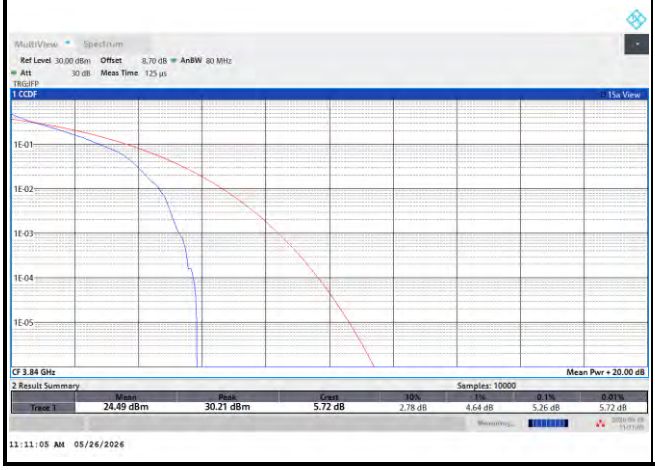
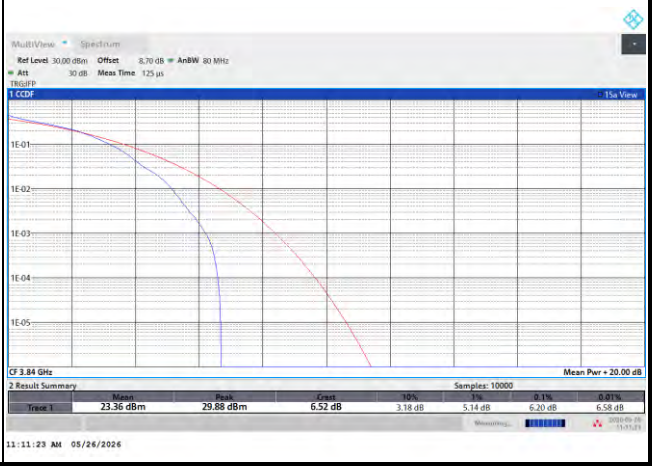
FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	64QAM
	
256QAM	
	

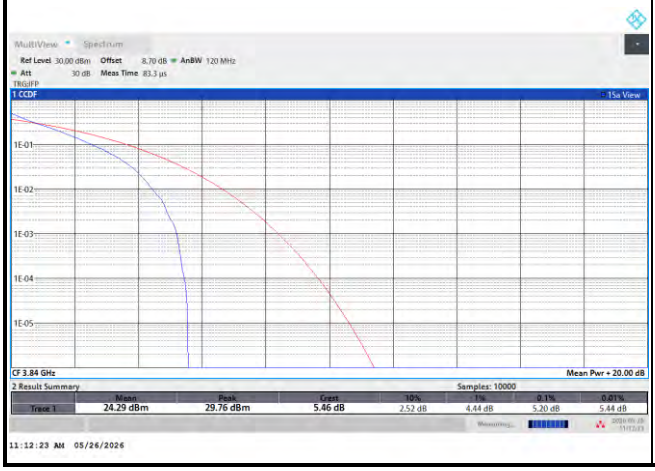
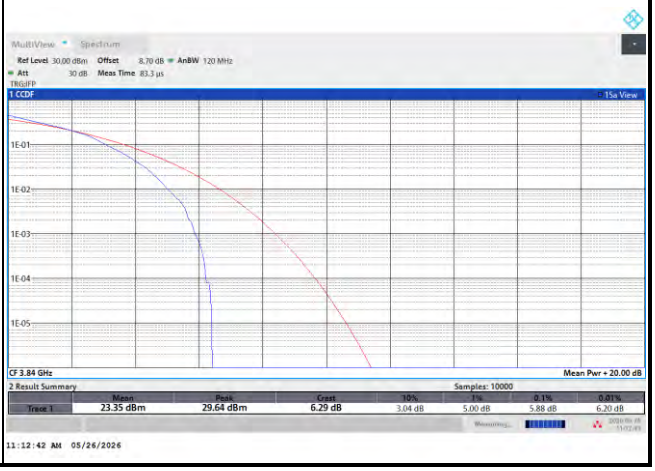
Mode	FR1 n77 / 10MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.24	5.84	PASS
Mode	FR1 n77 / 15MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.24	5.86	PASS
Mode	FR1 n77 / 25MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.98	5.70	PASS
Mode	FR1 n77 / 30MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.22	5.92	PASS
Mode	FR1 n77 / 40MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.20	5.90	PASS
Mode	FR1 n77 / 50MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.14	5.82	PASS
Mode	FR1 n77 / 60MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.10	5.76	PASS
Mode	FR1 n77 / 70MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.10	6.06	PASS
Mode	FR1 n77 / 80MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.26	6.20	PASS

Mode	FR1 n77 / 90MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.30	6.02	PASS
Mode	FR1 n77 / 100MHz / DFT-S OFDM		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.20	5.88	PASS

FR1 n77 / 10MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
FR1 n77 / 15MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
FR1 n77 / 25MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	

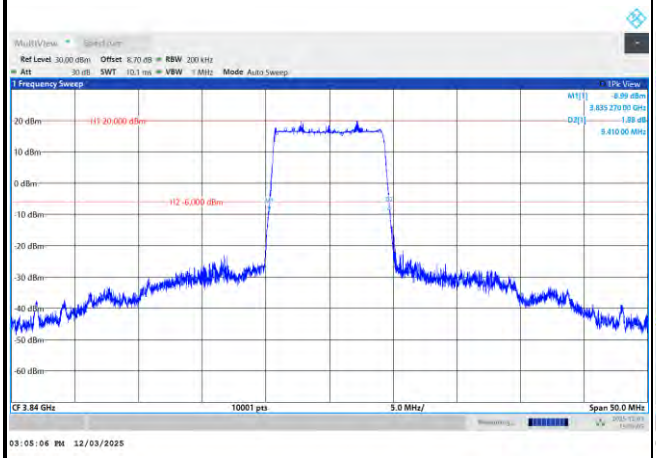
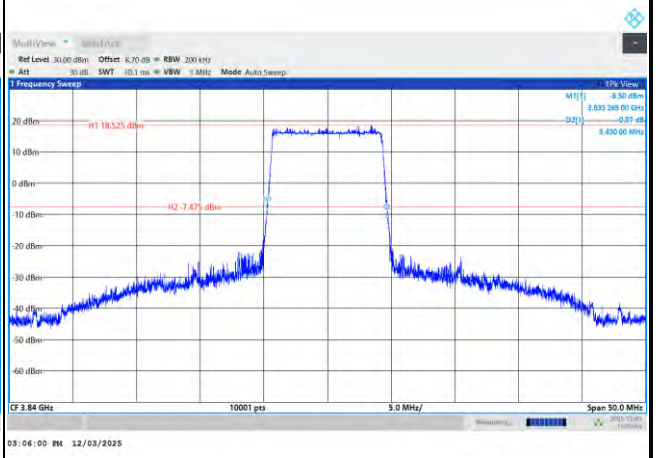
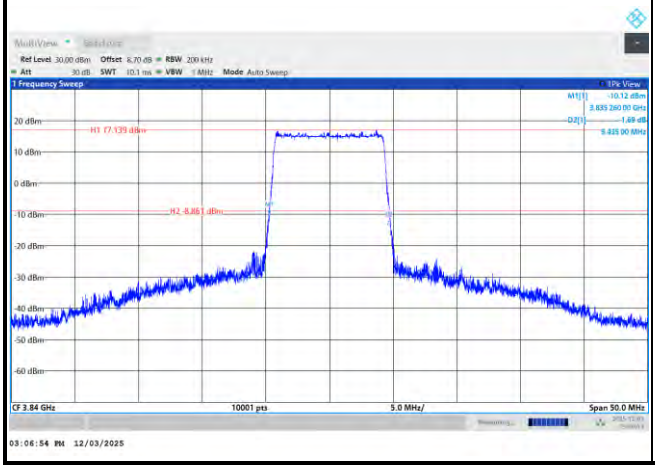
FR1 n77 / 30MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
FR1 n77 / 40MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
FR1 n77 / 50MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	

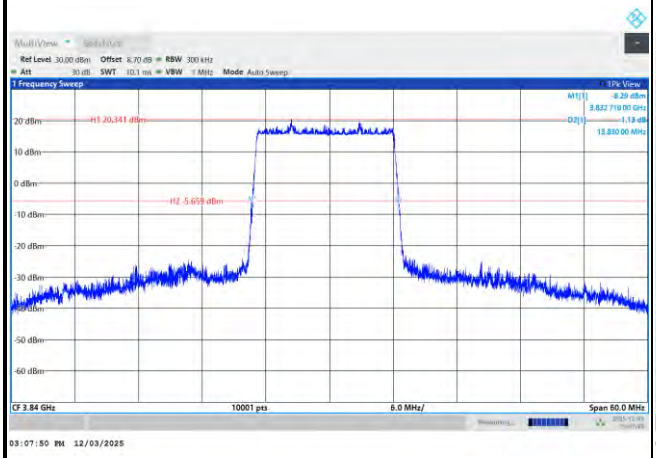
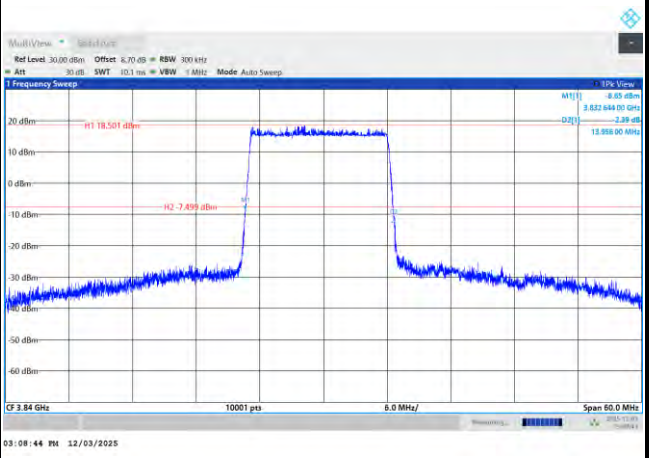
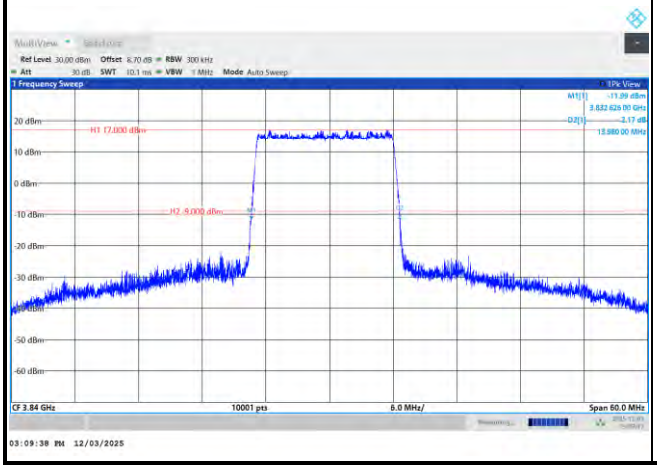
FR1 n77 / 60MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
FR1 n77 / 70MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
FR1 n77 / 80MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	

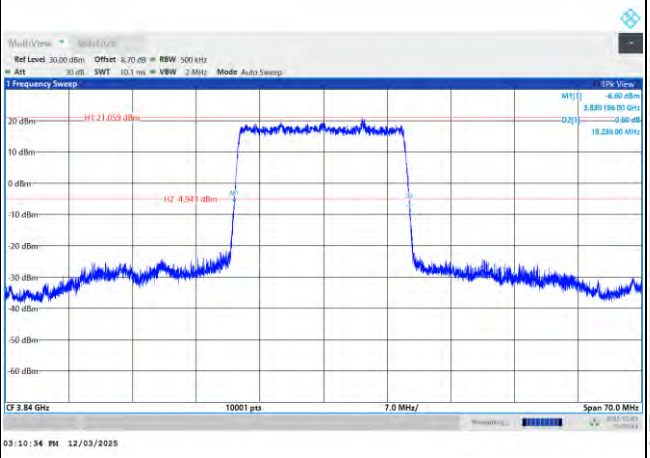
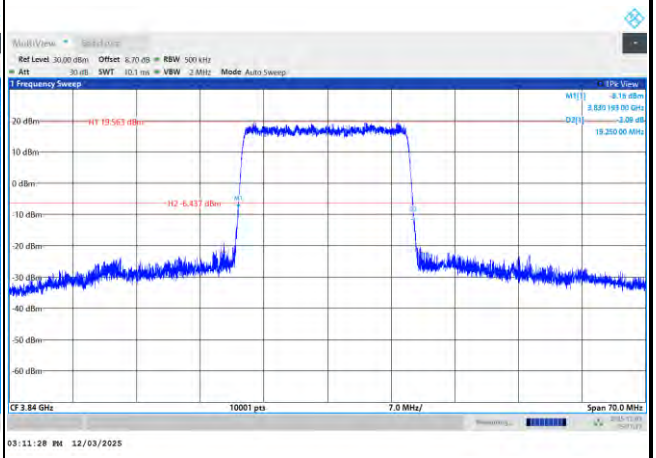
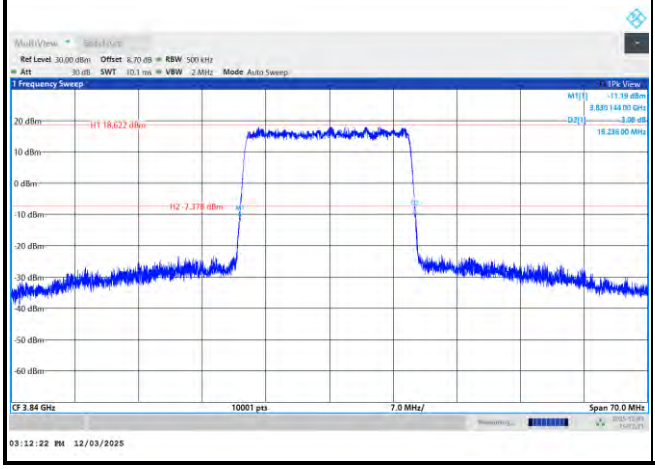
FR1 n77 / 90MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
FR1 n77 / 100MHz / DFTs OFDM / Middle Channel / Full RB	
QPSK	16QAM
	

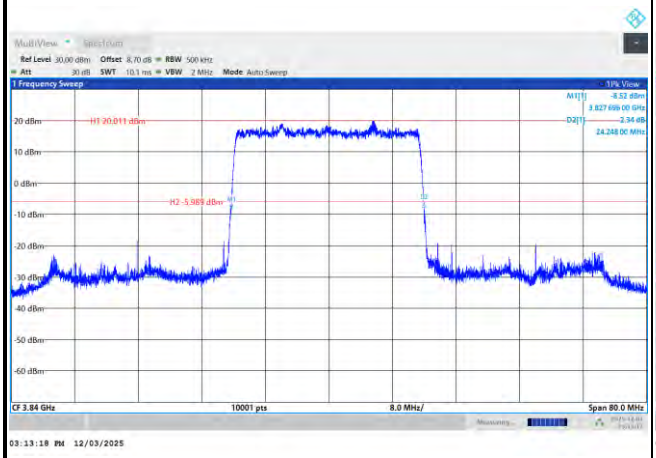
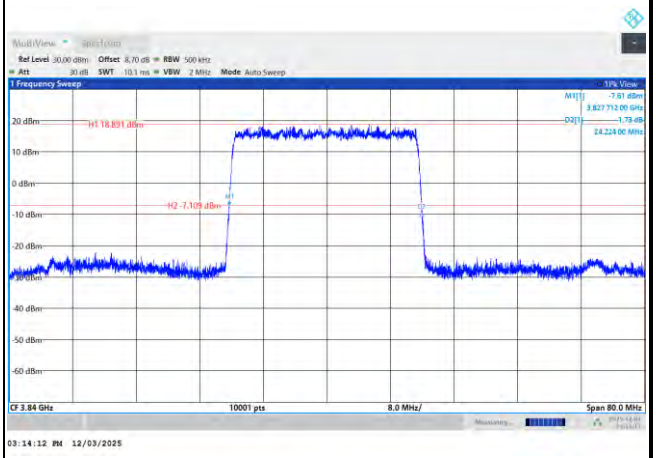
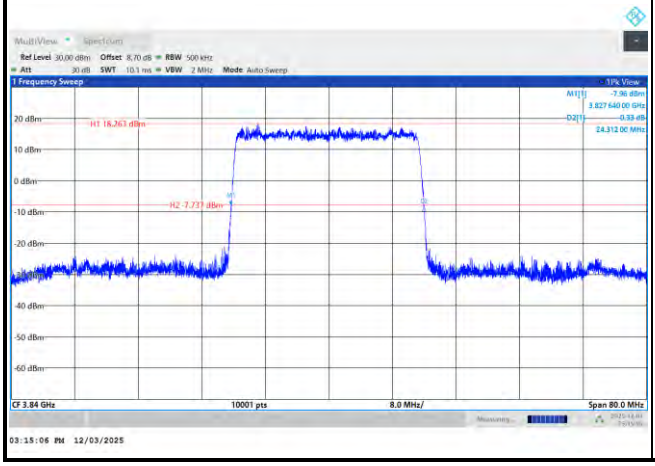
26dB Bandwidth

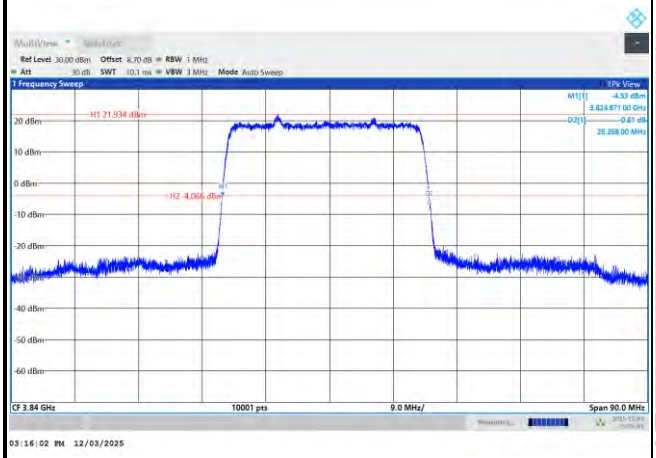
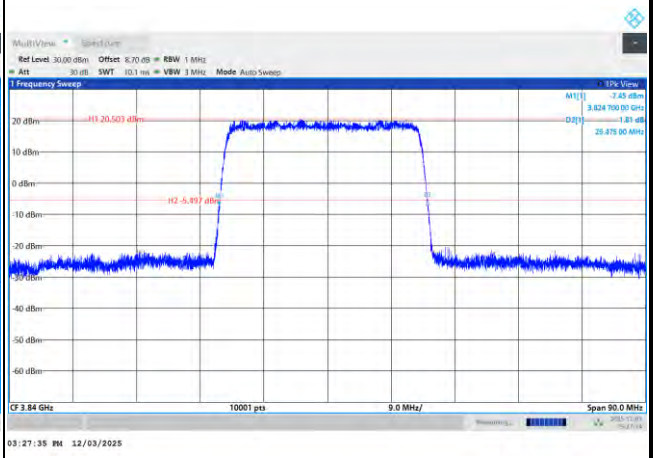
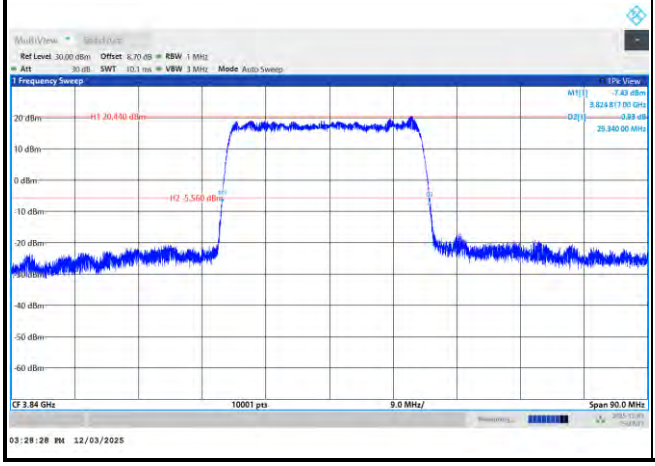
Mode	FR1 n77 : 26dB BW(MHz) / DFT-S OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	9.41	9.43	13.83	13.95	19.23	19.25	24.24	24.22
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	9.43		13.98		19.23		24.31	
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	29.26	29.47	38.24	38.31	48.29	48.24	62.89	62.89
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	29.34		38.25		48.36		62.64	
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK		
Middle CH	69.34	69.42	82.15	82.27	91.98	91.89	101.56	101.61
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	69.44		82.15		91.79		101.45	

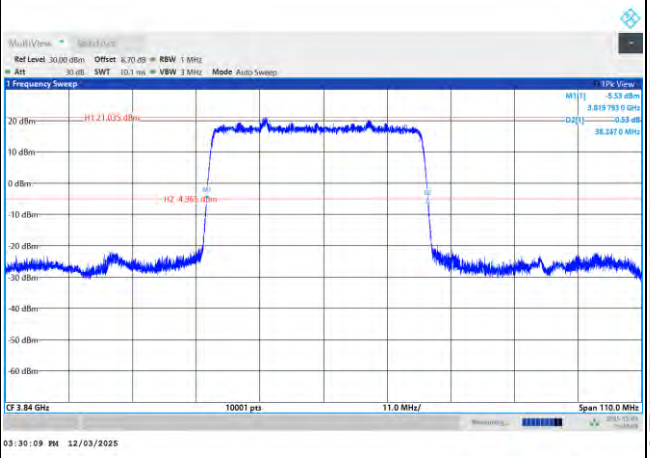
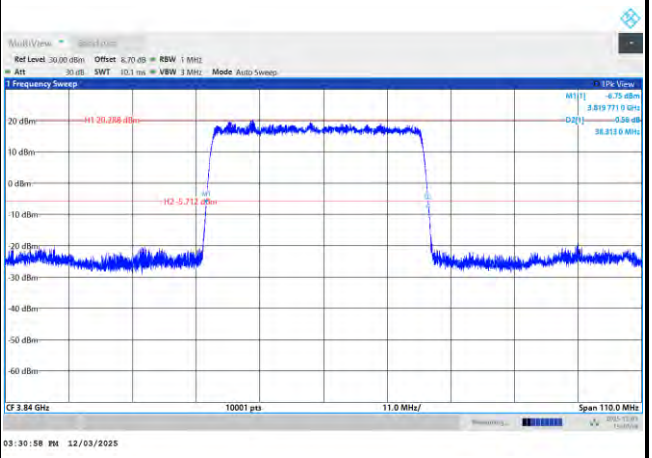
FR1 n77 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n77 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n77 / 25MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n77 / 30MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n77 / 40MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
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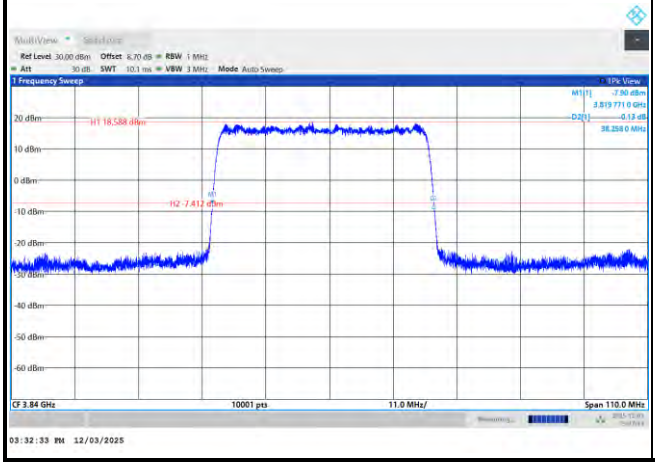
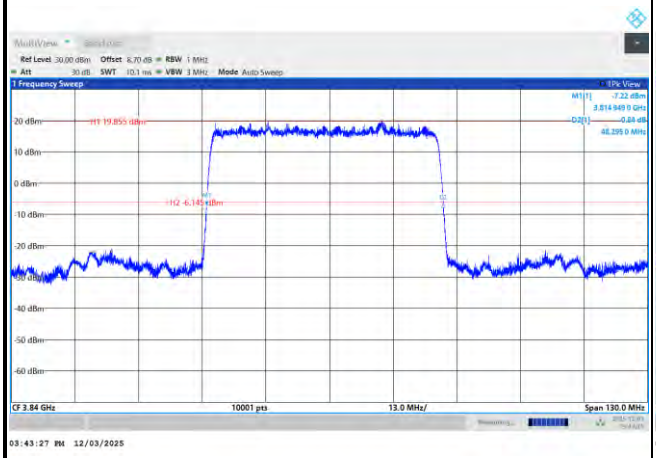
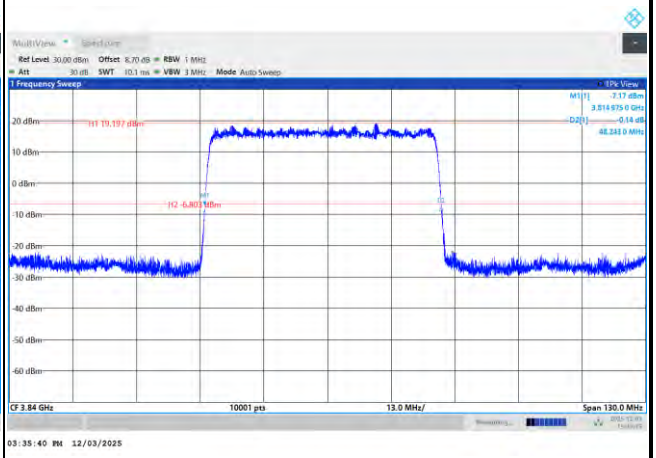
	

FR1 n77 / 50MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
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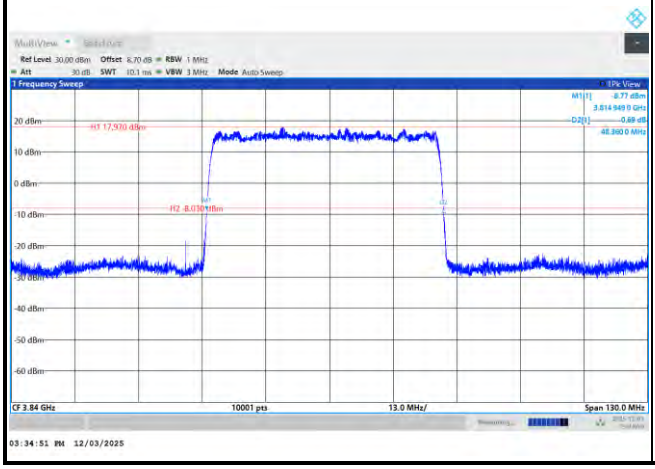
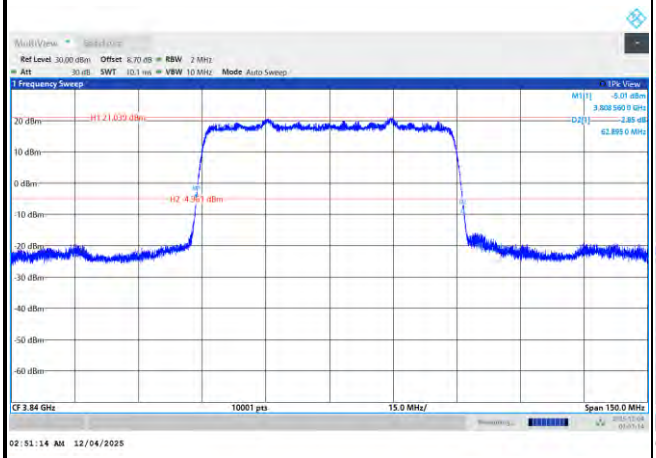
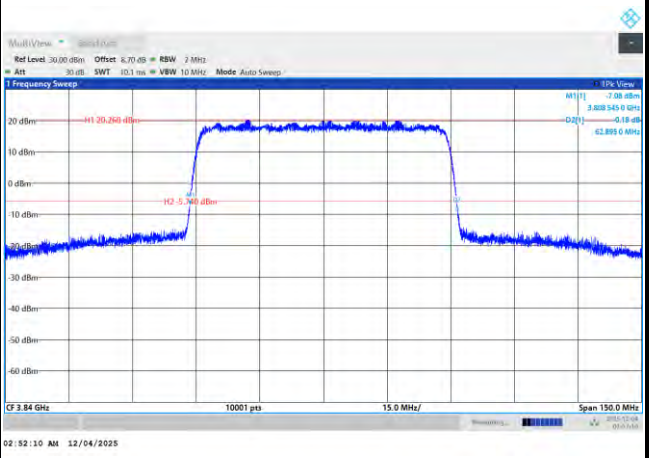
	

FR1 n77 / 60MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
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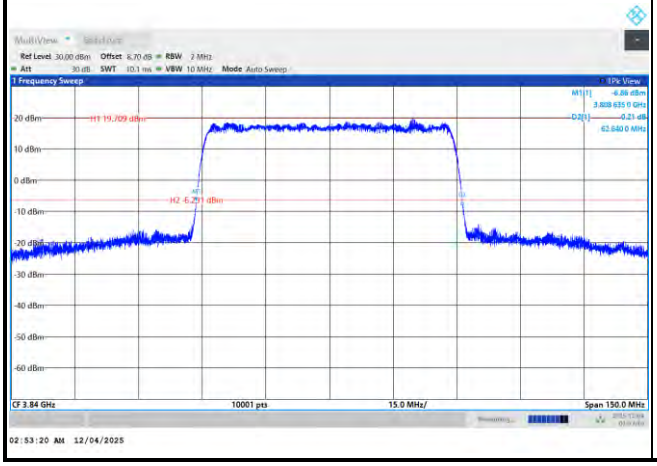
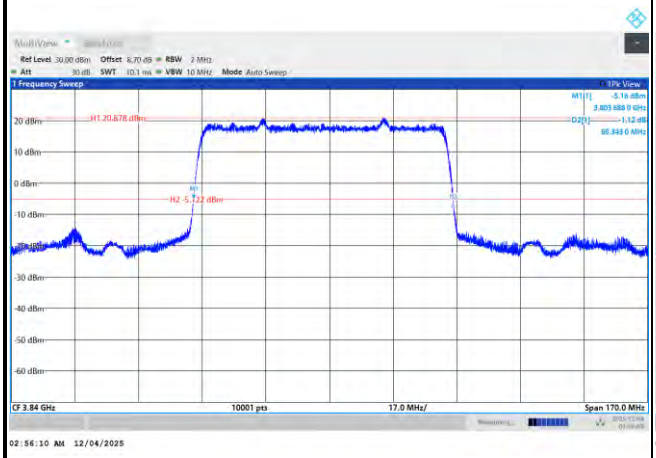
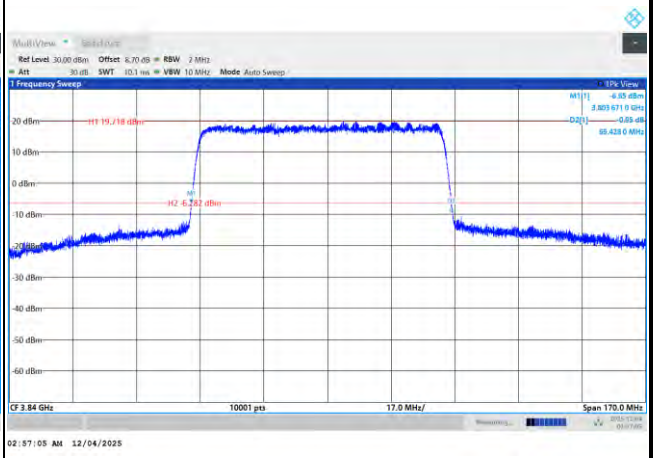
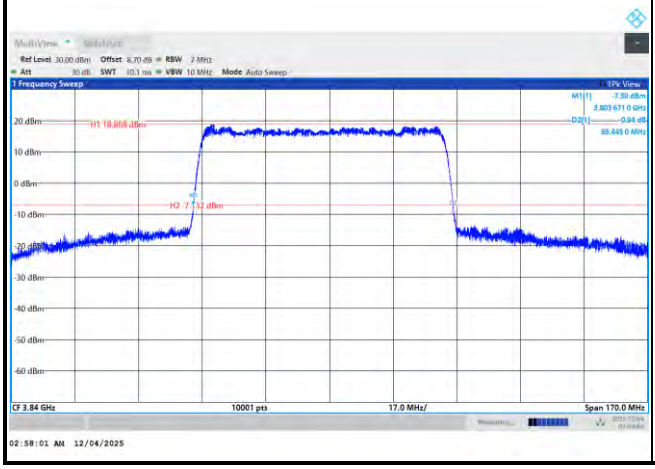
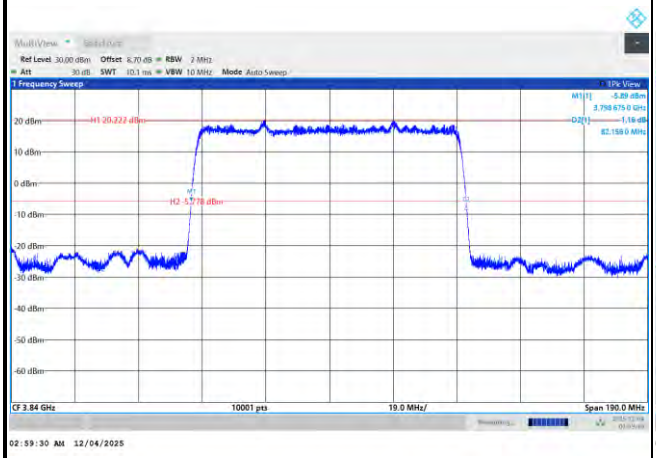
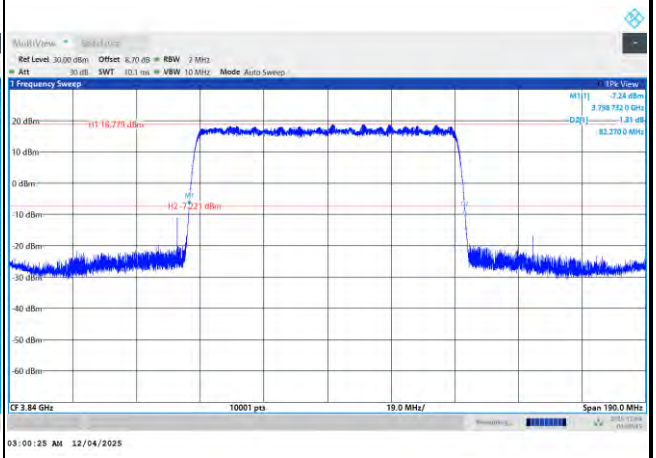
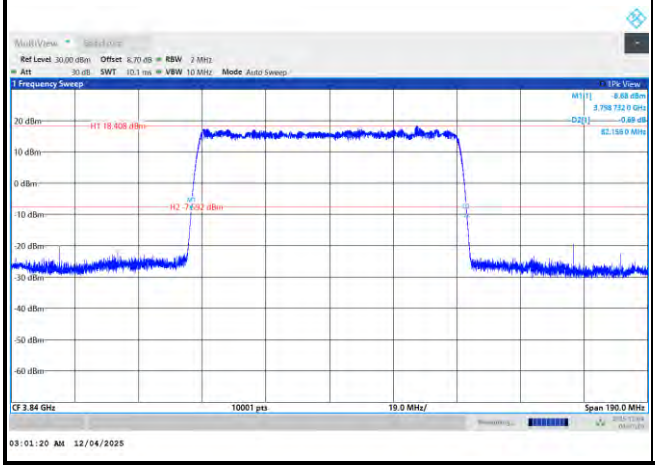
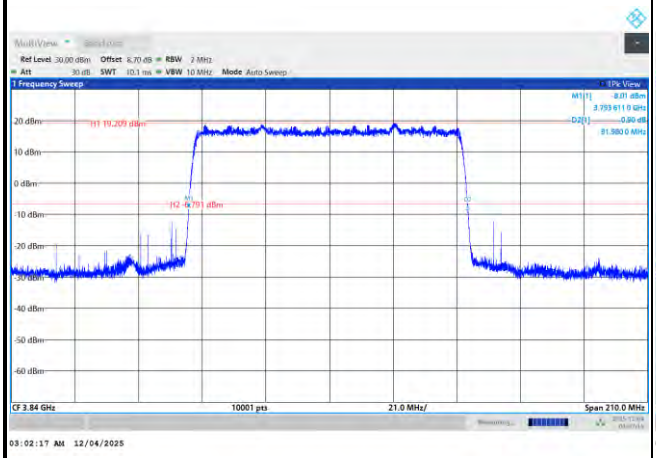
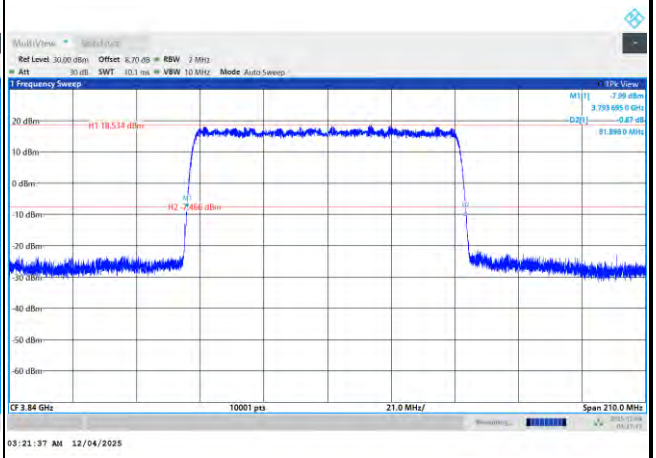
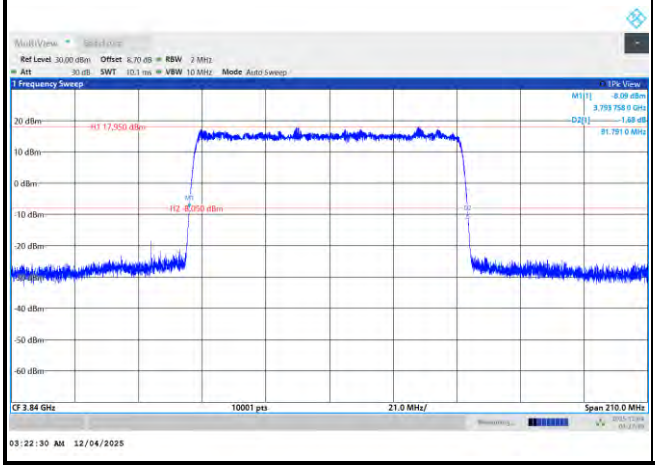
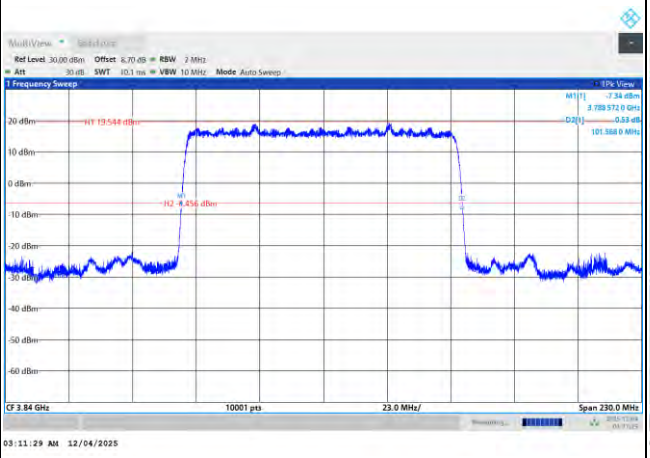
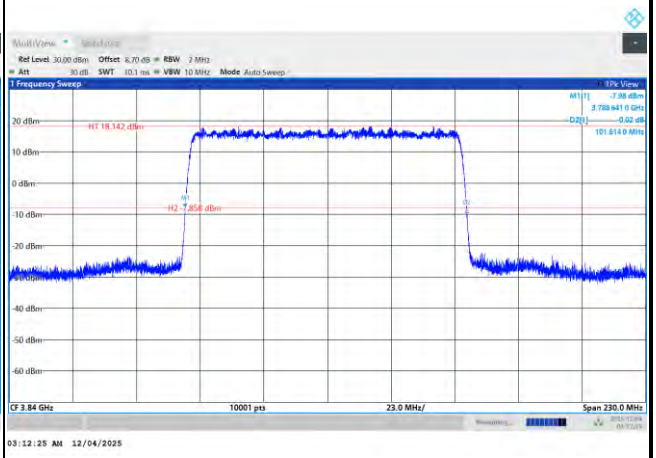
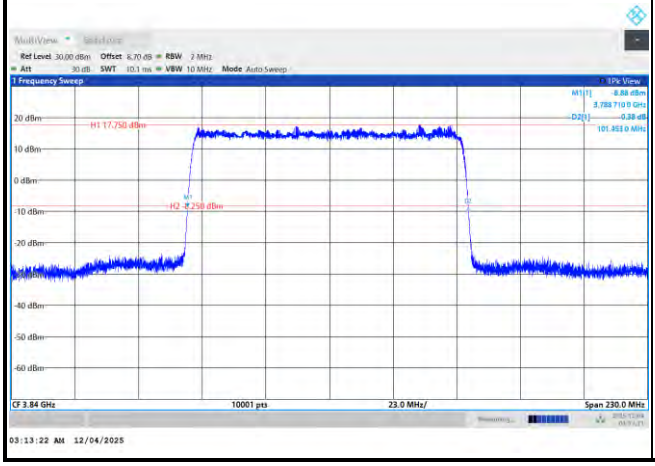
	

FR1 n77 / 70MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

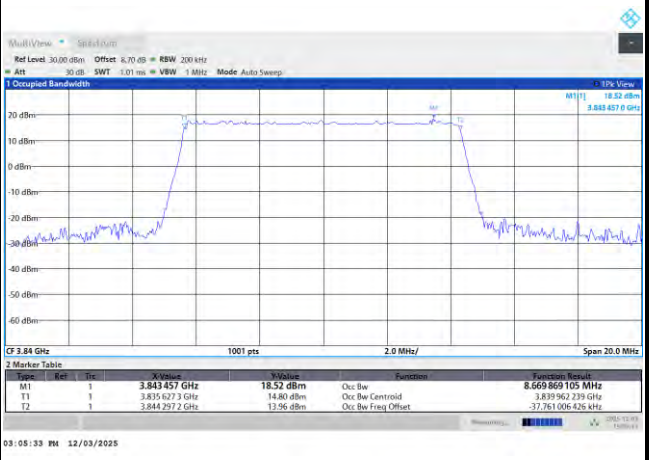
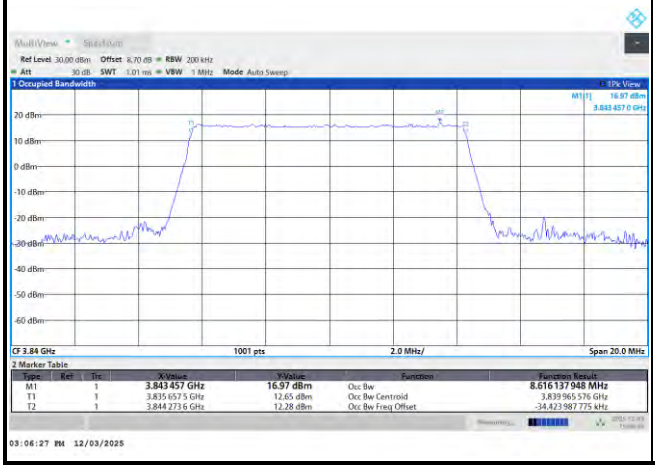
FR1 n77 / 80MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

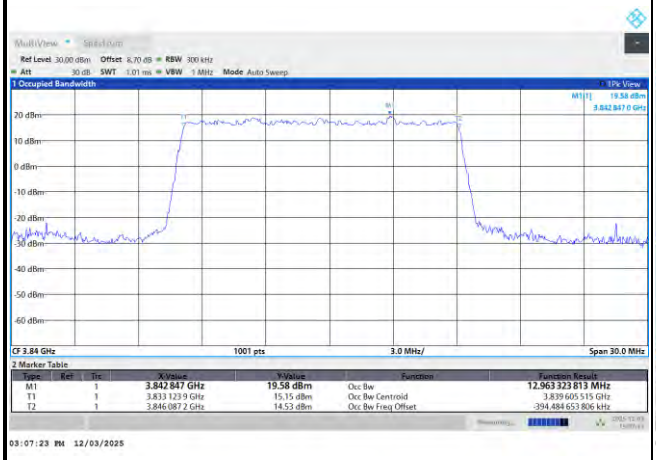
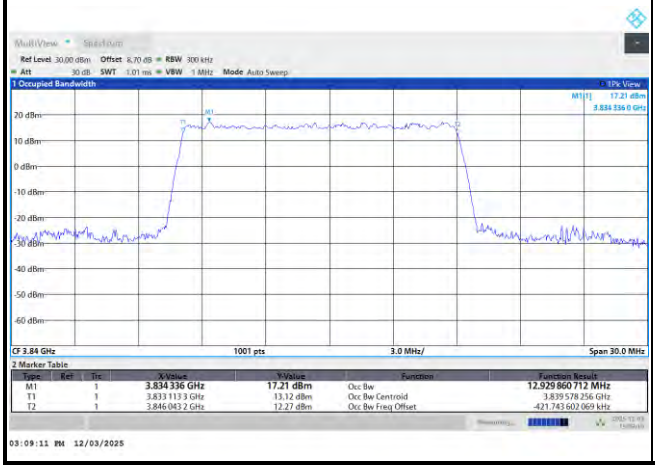
FR1 n77 / 90MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

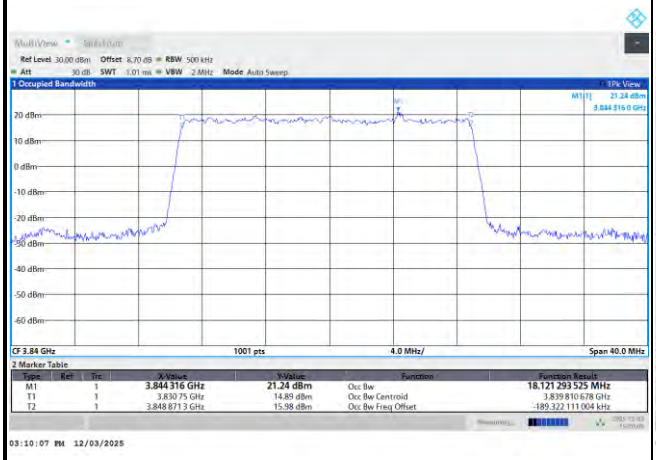
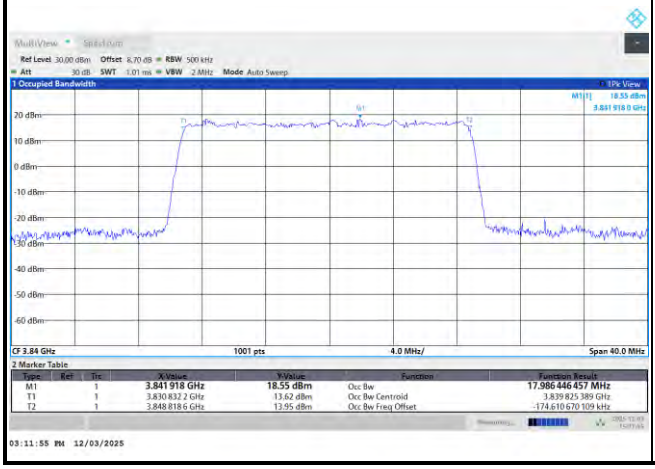
FR1 n77 / 100MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

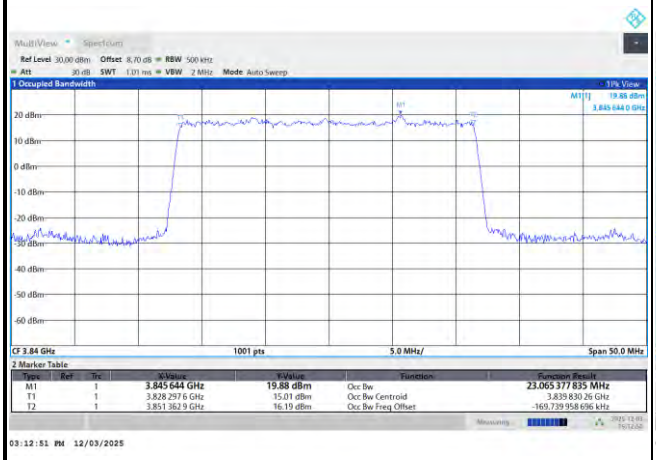
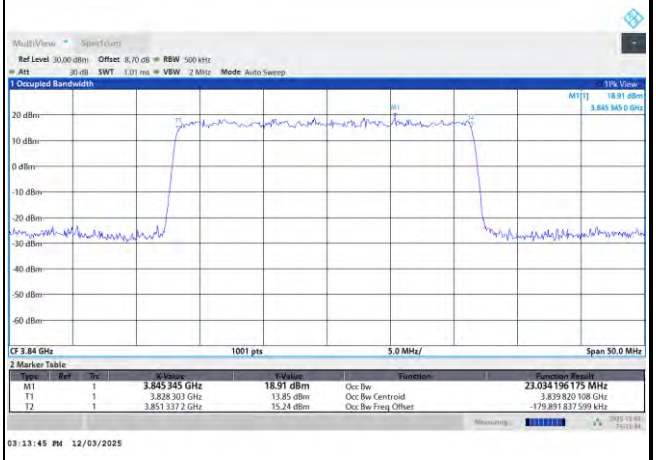
Occupied Bandwidth

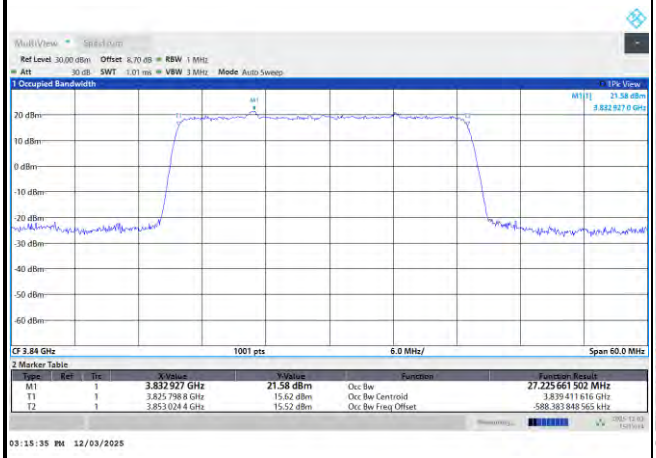
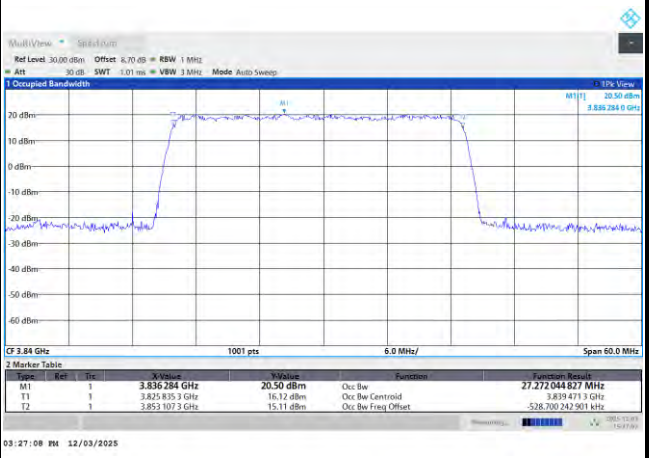
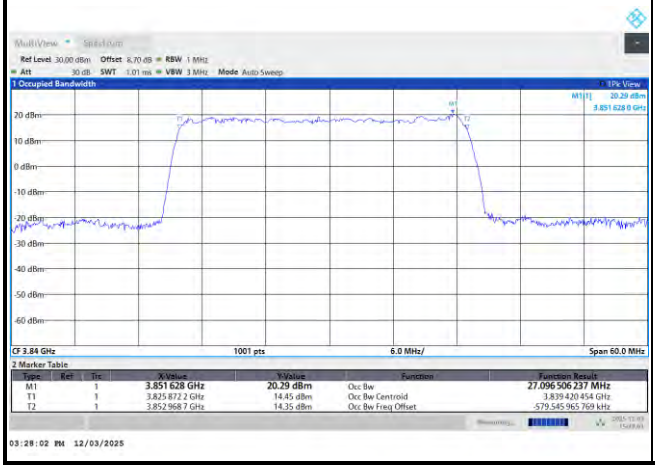
Mode	FR1 n77 : 99%OBW(MHz) / DFT-S OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	8.65	8.66	12.96	12.99	18.12	18.02	23.06	23.03
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	8.61		12.92		17.98		22.90	
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	27.22	27.27	36.09	36.02	45.85	45.82	58.53	58.49
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	27.09		35.92		45.91		58.34	
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	65.15	64.86	77.64	77.50	87.23	86.98	96.73	96.46
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	64.84		77.45		86.93		96.54	

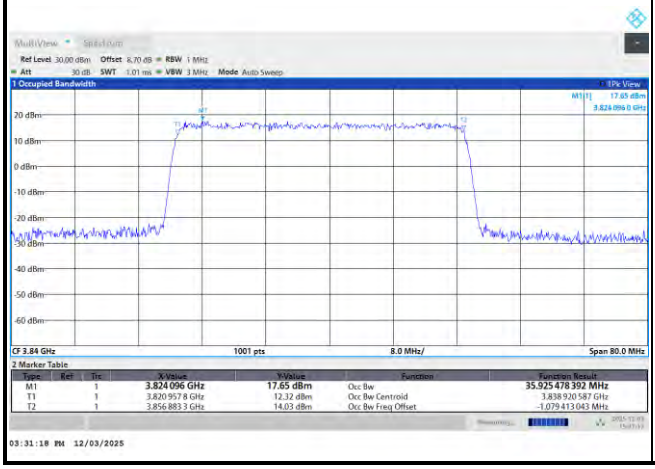
FR1 n77 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

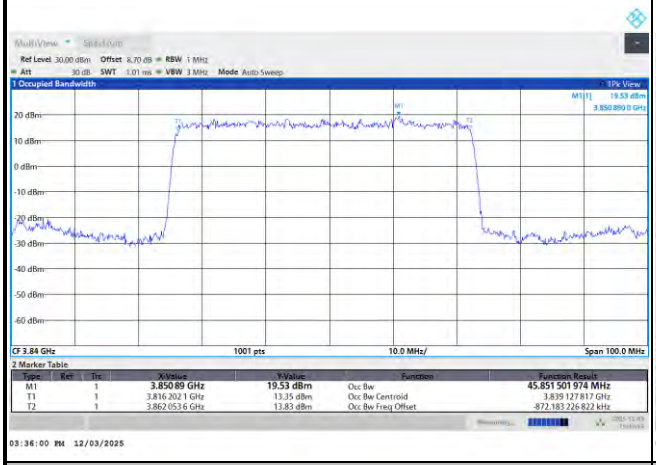
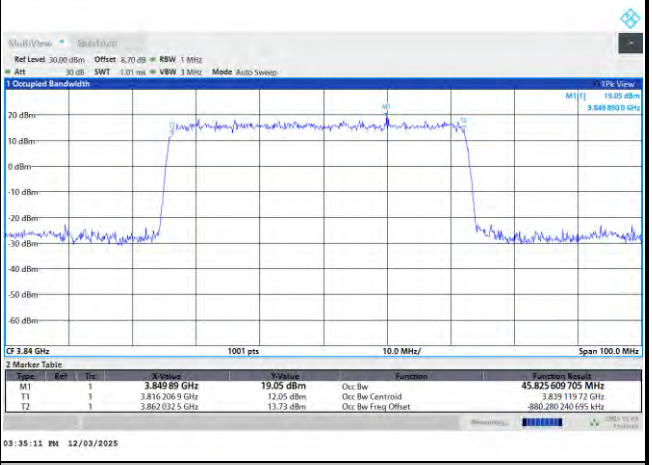
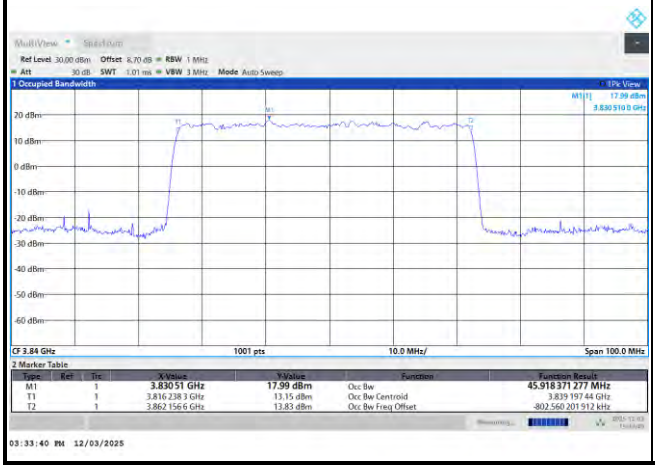
FR1 n77 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

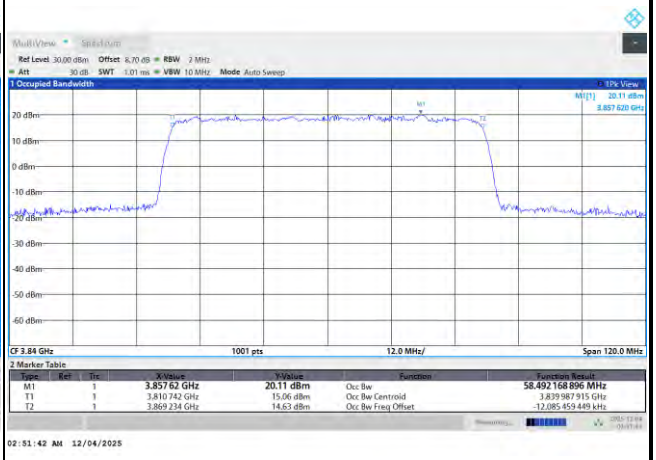
FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

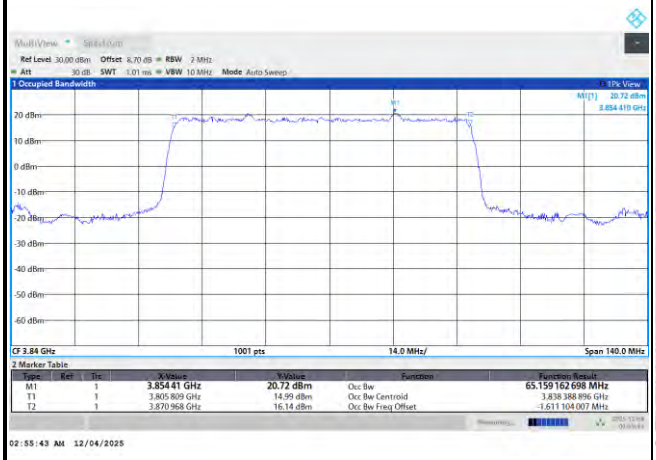
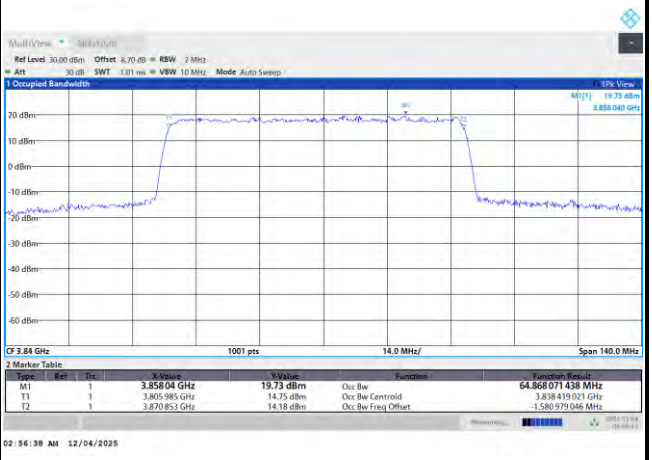
FR1 n77 / 25MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	

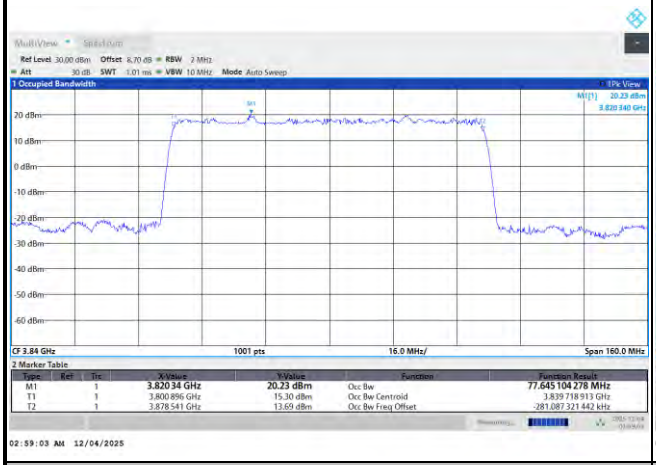
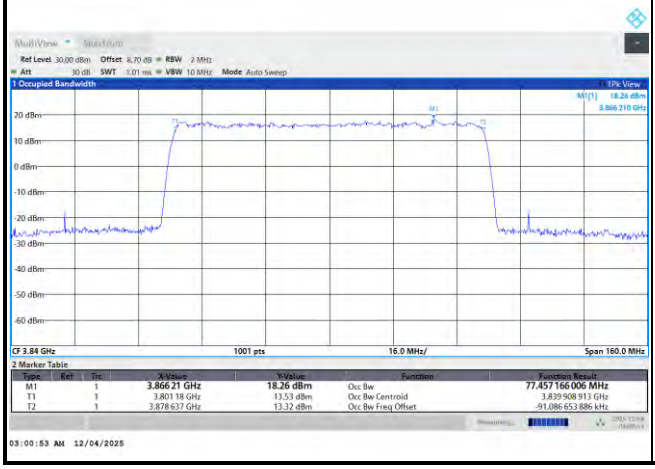
FR1 n77 / 30MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n77 / 40MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
16QAM	
	

FR1 n77 / 50MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n77 / 60MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	

FR1 n77 / 70MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	

FR1 n77 / 80MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n77 / 90MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
16QAM	

FR1 n77 / 100MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
16QAM	