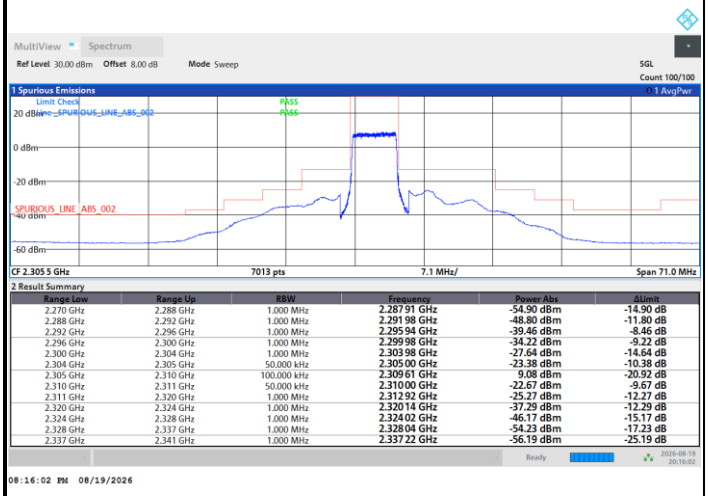
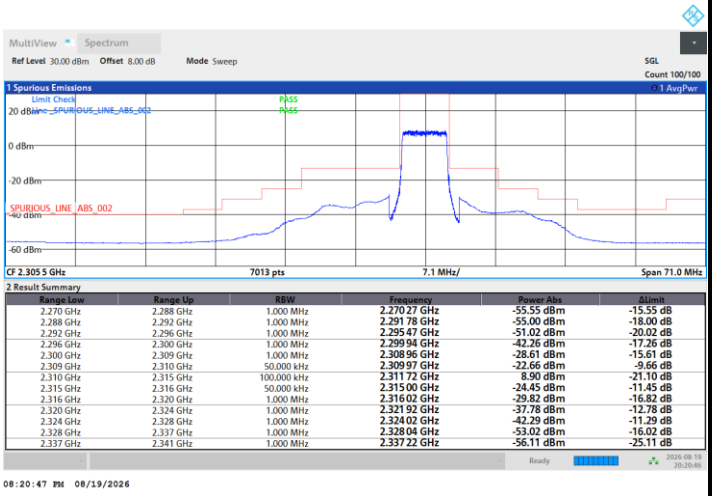
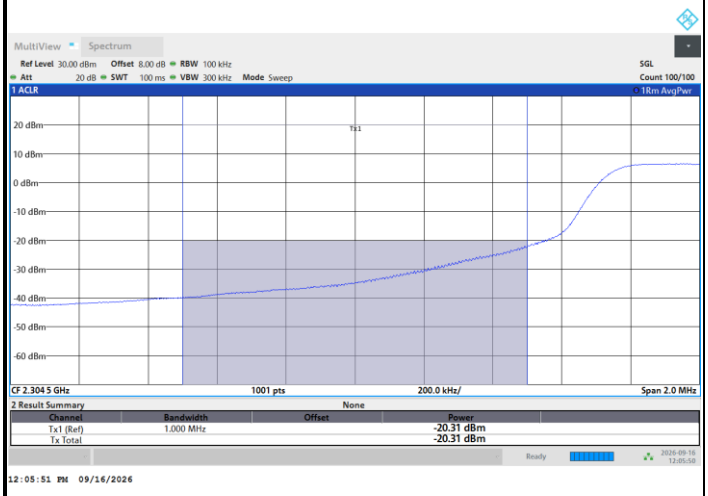
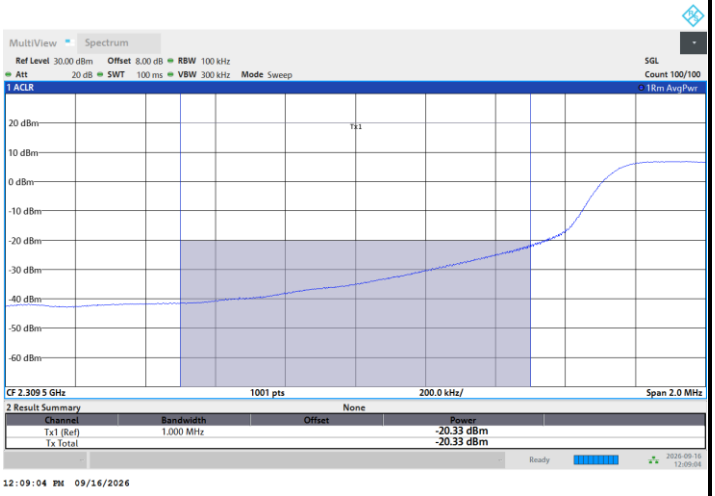
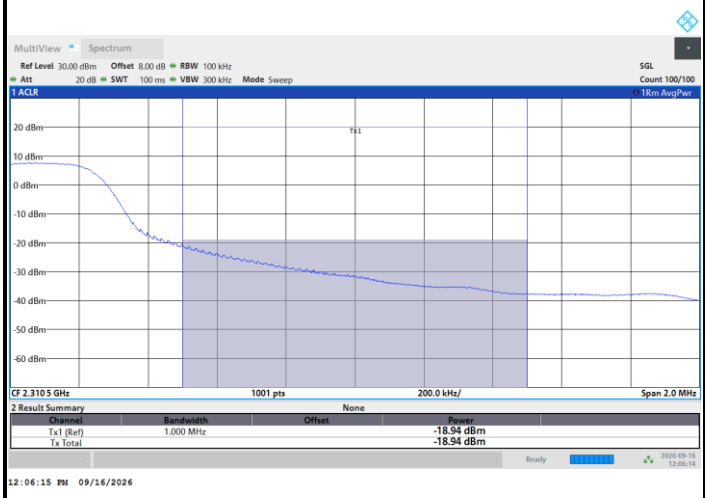
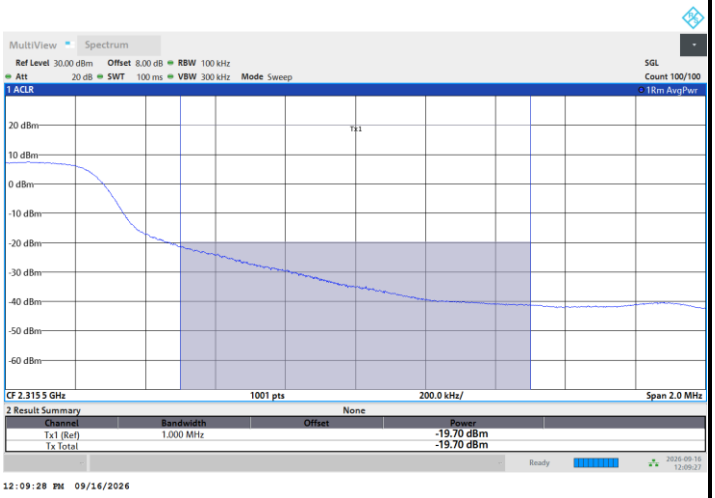
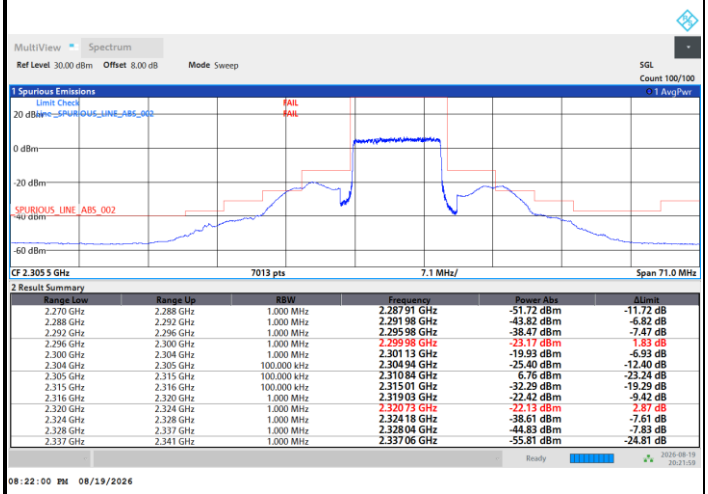
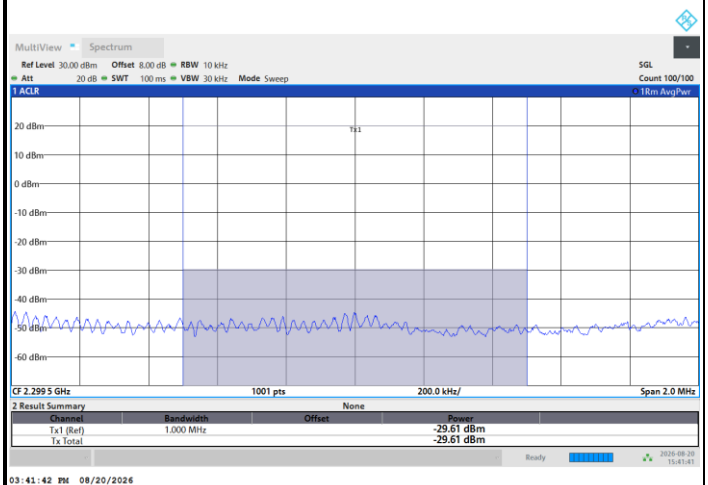
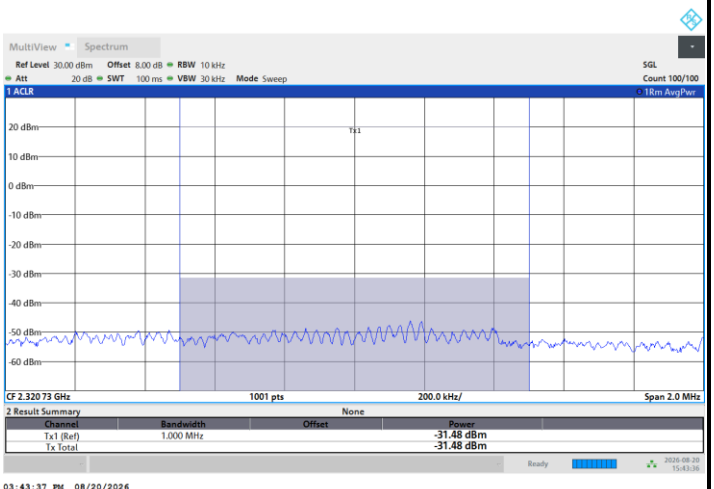
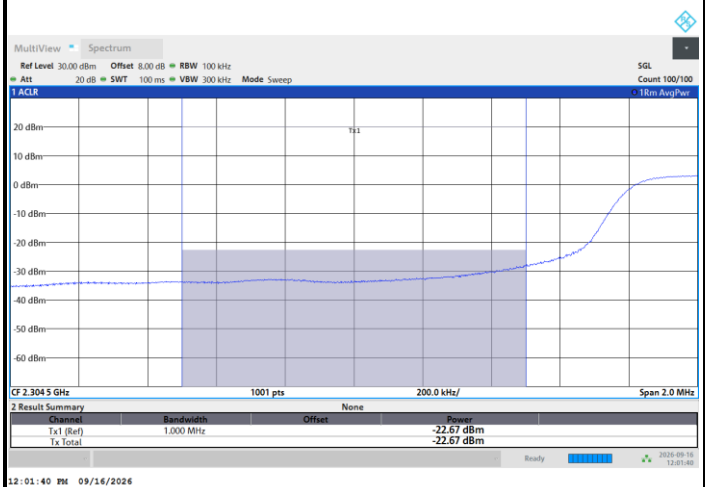
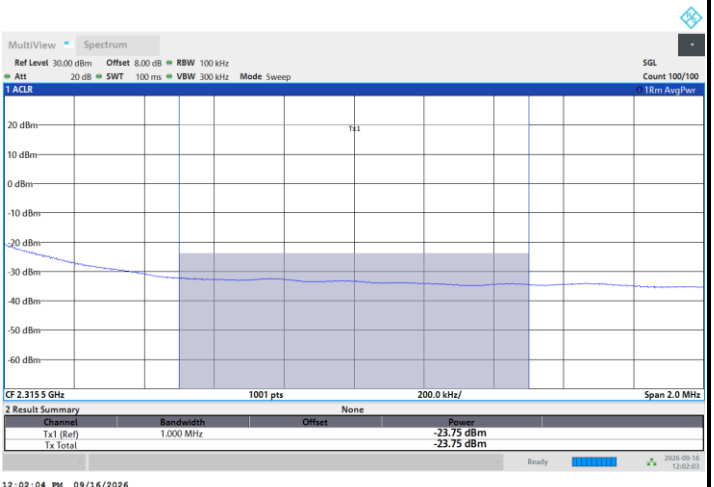
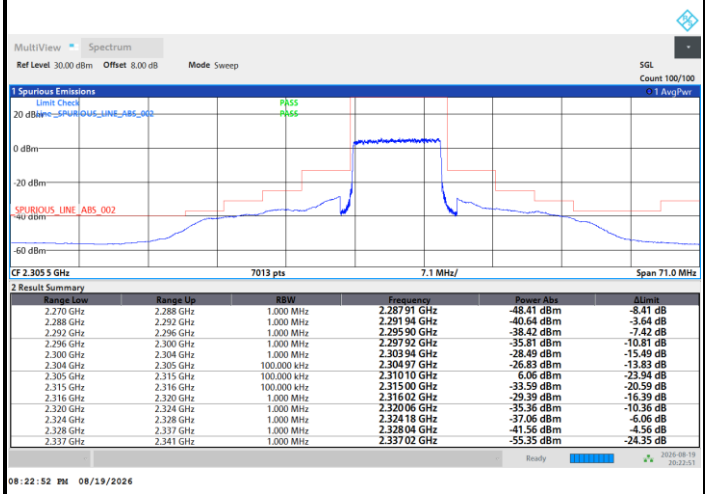
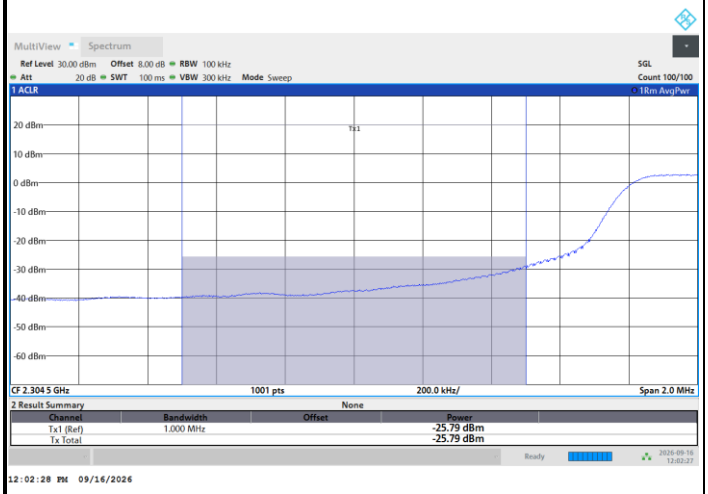
Lowest Band Edge / Full RB	Highest Band Edge / Full RB
	
Lowest Band Edge / Full RB / Lower zoom in	**Highest Band Edge / Full RB / Lower zoom in**
	

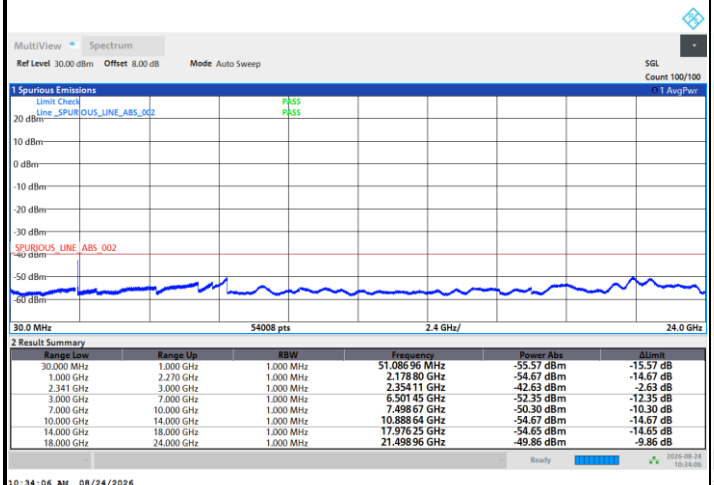
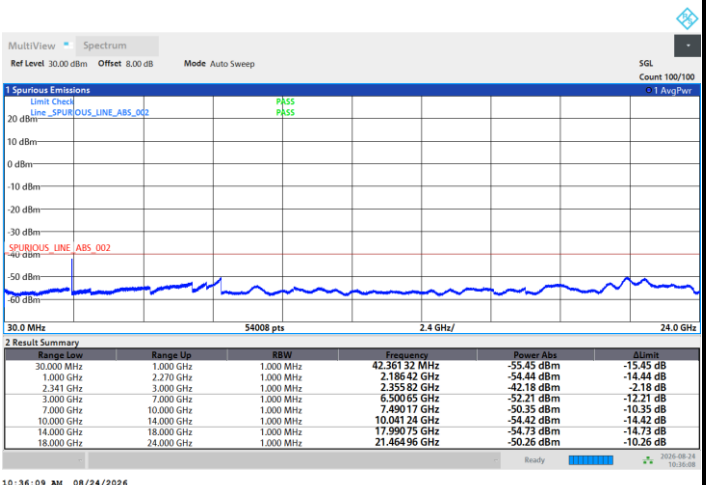
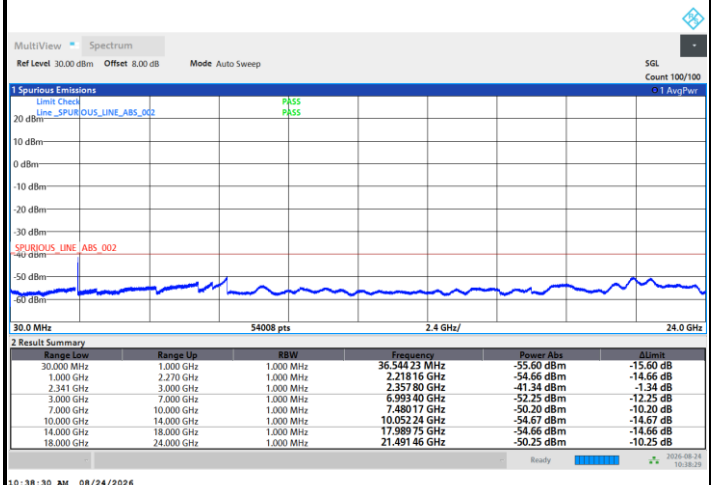
Lowest Band Edge / Full RB / Upper zoom in	Highest Band Edge / Full RB / Upper zoom in
	

FR1 n30 / 10MHz / DFT-s-OFDM / PI/2 BPSK	
Middle Band Edge / Full RB	
	
Channel Power -29.61 dBm < -25 limit (PASS)	**Channel Power -31.48 dBm < -25 limit (PASS)**
	

Middle Band Edge / Full RB / Lower zoom in	Middle Band Edge / Full RB / Upper zoom in
	

FR1 n30 / 10MHz / DFT-s-OFDM / QPSK	
Middle Band Edge / Full RB	
	
Middle Band Edge / Full RB / Lower zoom in	**Middle Band Edge / Full RB / Upper zoom in**
	

Conducted Spurious Emission

FR1 n30 / 5MHz / DFT-S OFDM / QPSK / 1RB1	
Lowest Channel	**Middle Channel**
	
Highest Channel	
	

Frequency Stability

Test Conditions		FR1 n30 (BPSK) / Middle Channel 10M			
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Frequency Offset (△f) (Hz)	Within Authorized Frequency Block(Hz)	Result
50	Normal Voltage	0.0006	1.5	Yes	PASS
40	Normal Voltage	0.0019	-4.5	Yes	
30	Normal Voltage	0.0031	7.1	Yes	
20(Ref.)	Normal Voltage	0.0000	0	Yes	
10	Normal Voltage	0.0012	2.7	Yes	
0	Normal Voltage	0.0032	-7.5	Yes	
-10	Normal Voltage	0.0029	6.6	Yes	
-20	Normal Voltage	0.0023	-5.4	Yes	
-30	Normal Voltage	0.0021	-4.9	Yes	
20	Maximum Voltage	0.0024	-5.6	Yes	
20	Normal Voltage	0.0000	0	Yes	
20	Minimum Voltage	0.0010	-2.3	Yes	

Note:

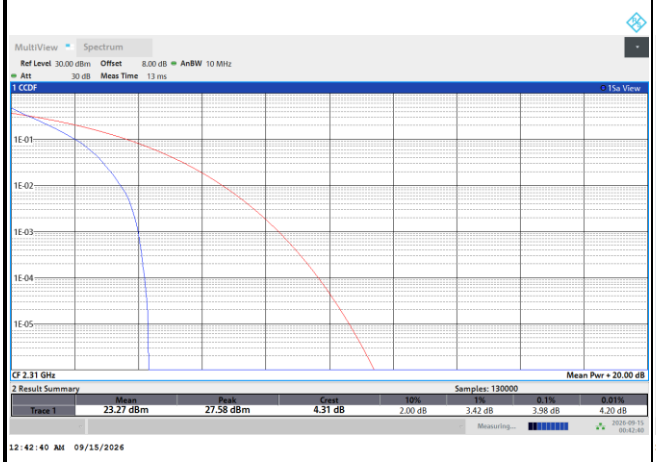
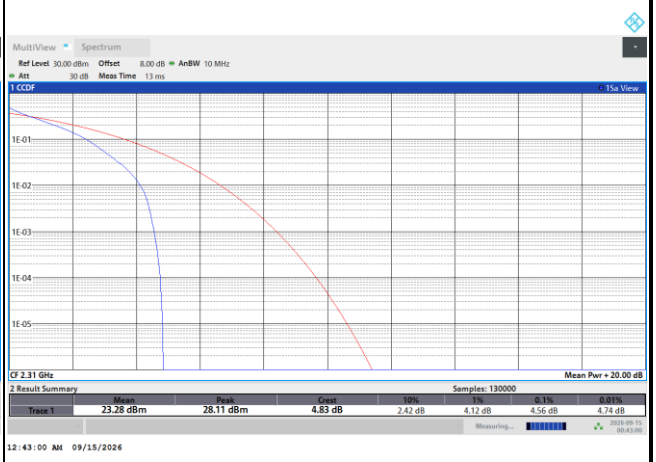
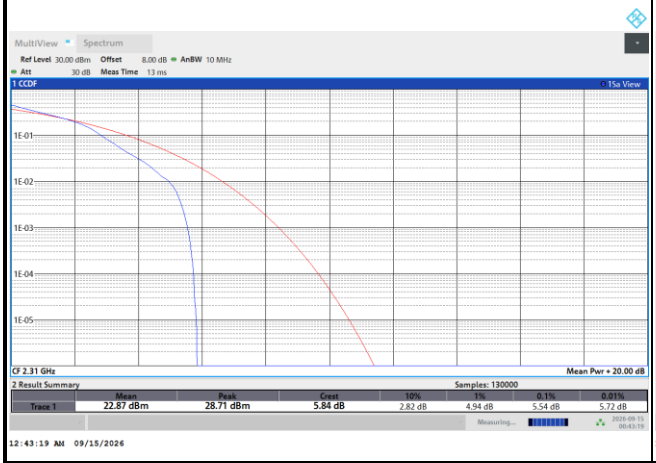
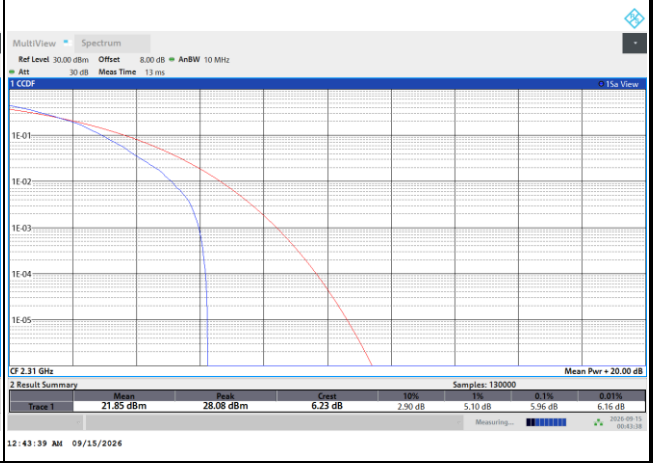
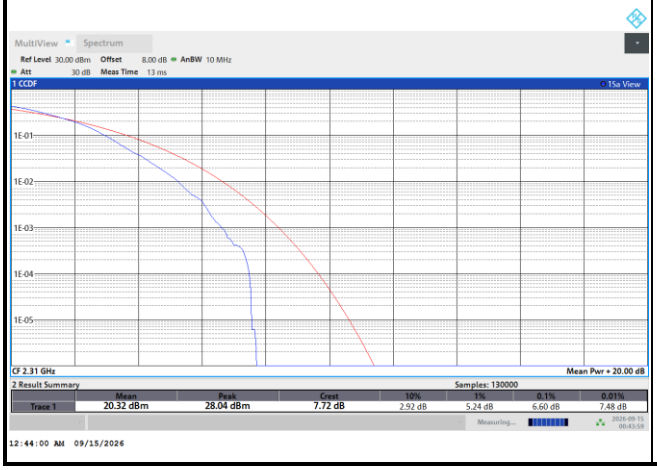
1. Normal Voltage = 3.75 V. ; Minimum Voltage = 3.5 V. ; Maximum Voltage = 4.57 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.

FR1 n30 for PA Reference Designator—ANT2

<SISO Mode>

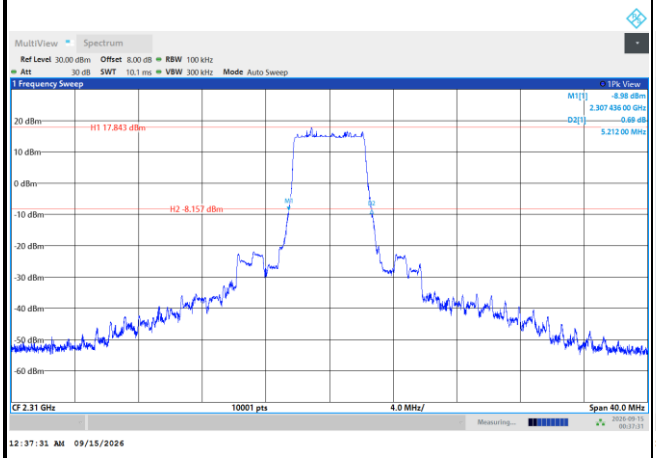
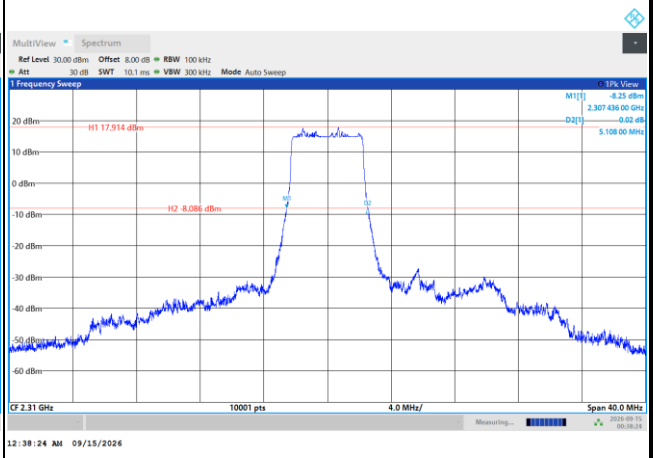
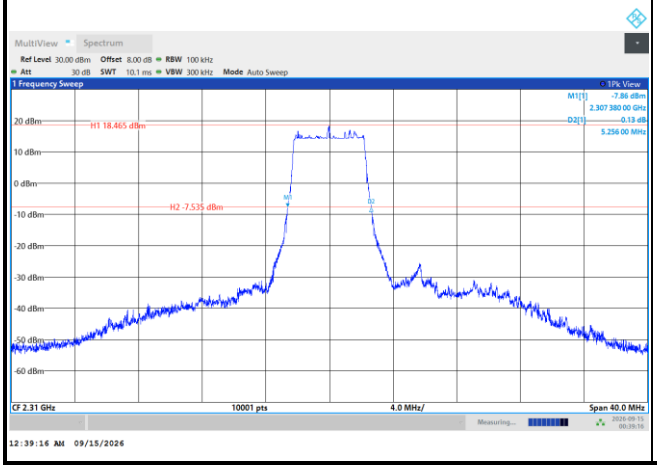
Peak-to-Average Ratio

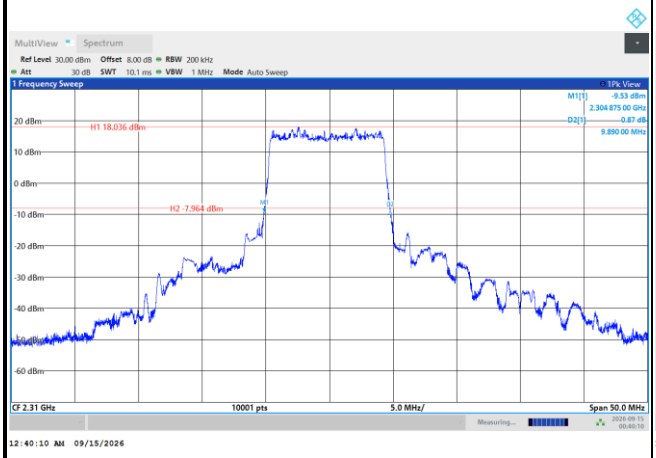
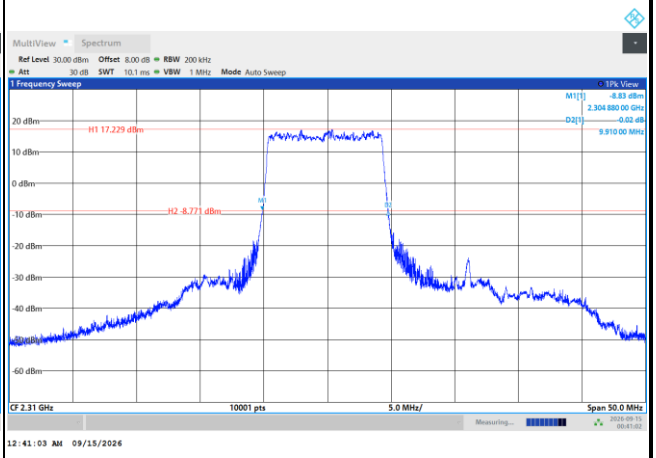
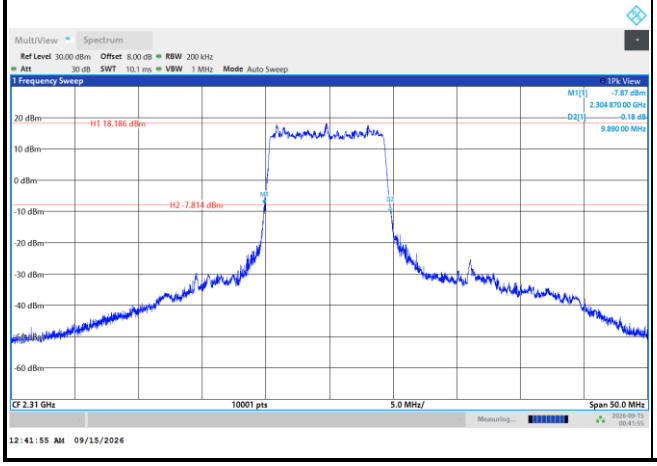
Mode	FR1 n30 / 10MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.98	4.56	5.54	5.96	PASS
Mode	FR1 n30 / 10MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.60				PASS

FR1 n30 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	64QAM
	
256QAM	
	

26dB Bandwidth

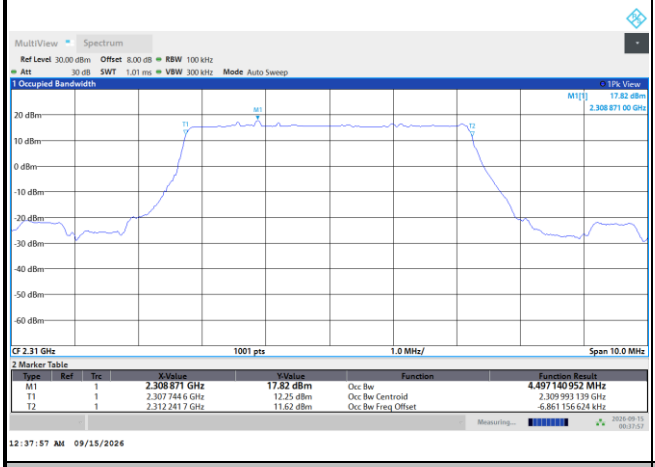
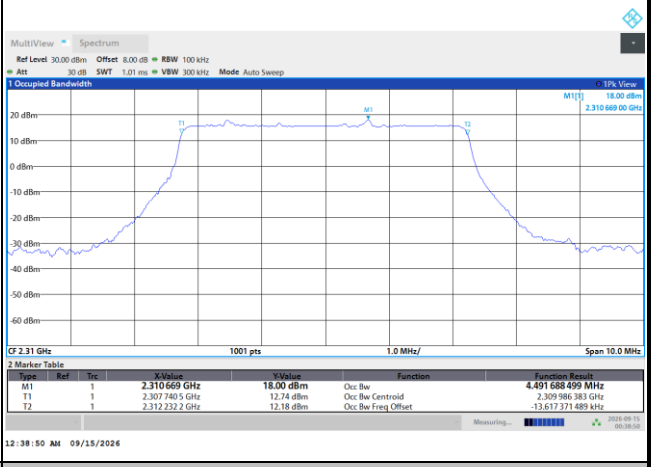
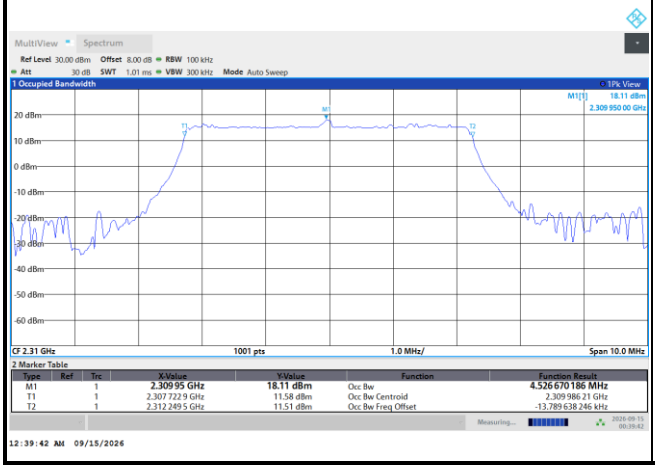
Mode	FR1 n30 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz					
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK				
Middle CH	5.21	5.10	9.89	9.91				
Mod.	16QAM		16QAM					
Middle CH	5.25		9.89					

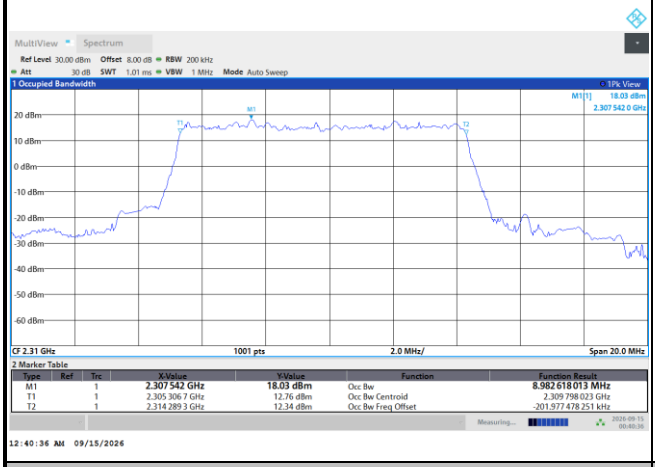
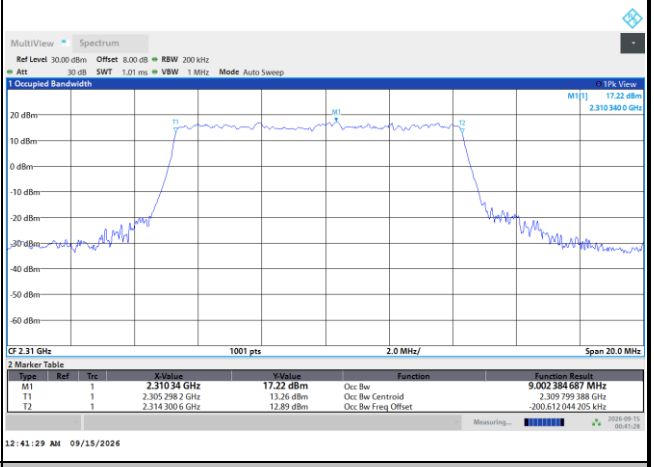
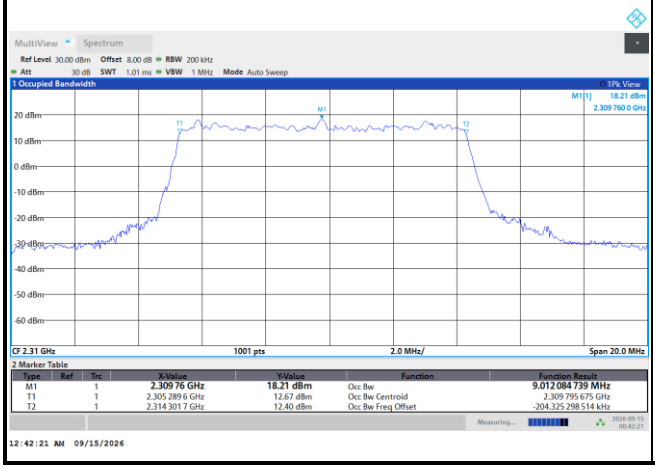
FR1 n30 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n30 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

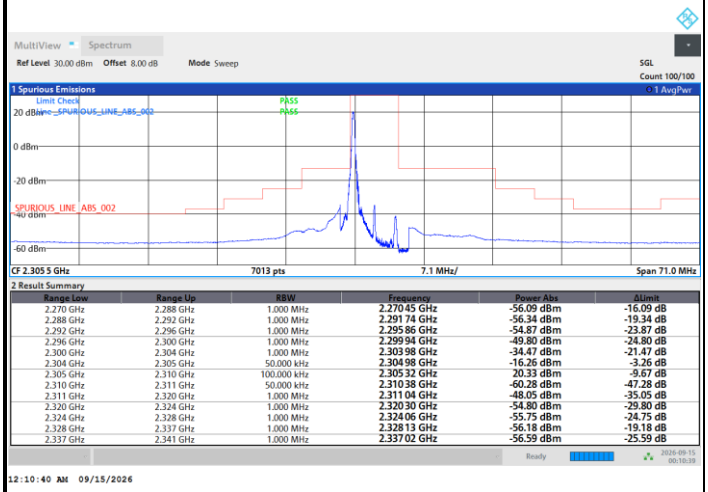
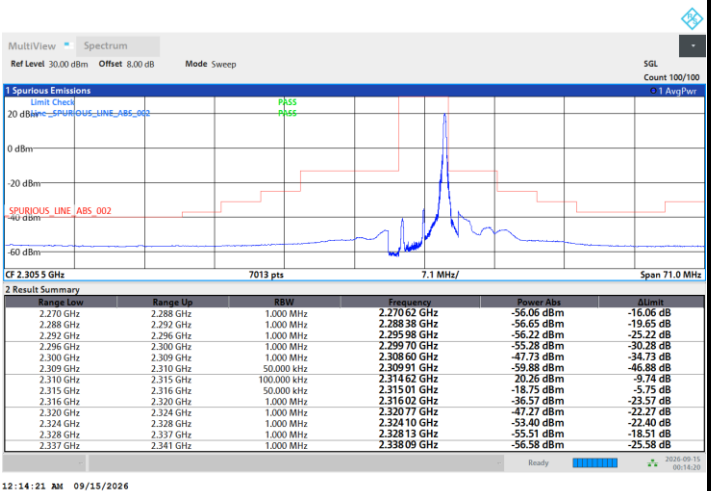
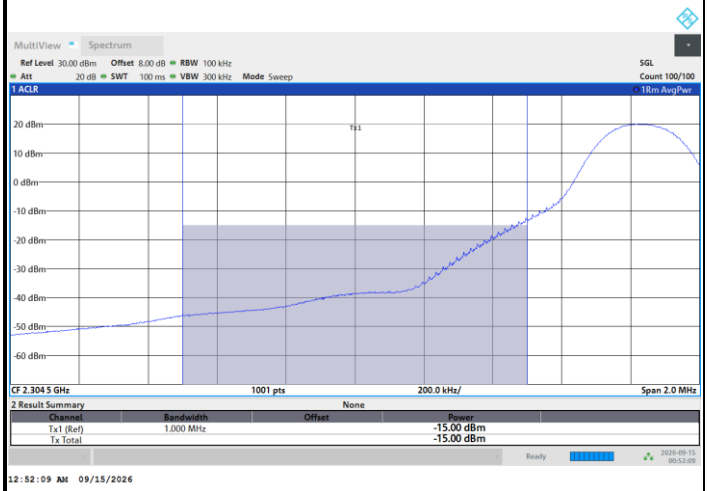
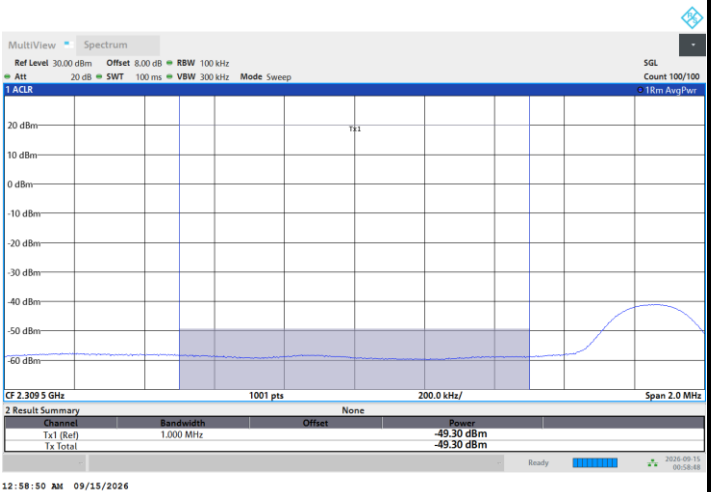
Occupied Bandwidth

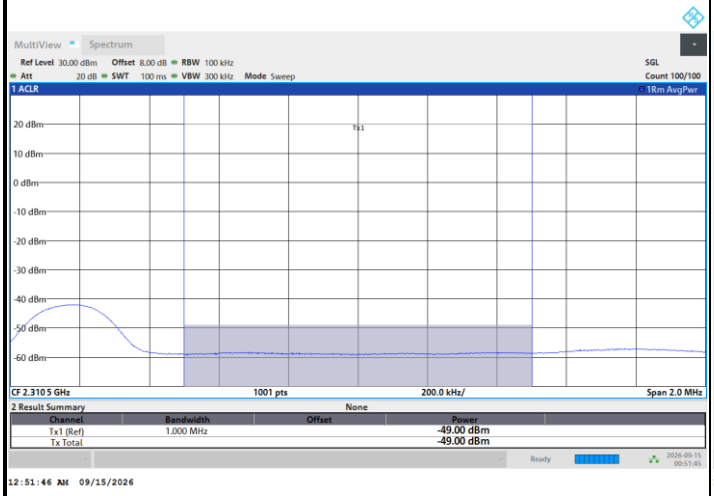
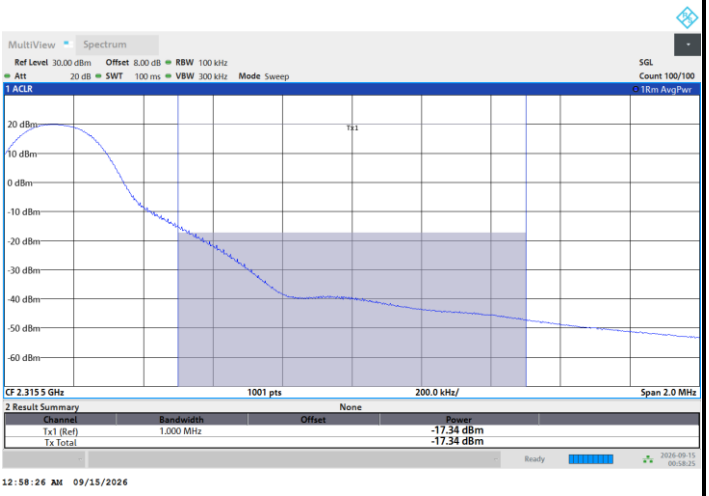
Mode	FR1 n30 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz					
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK				
Middle CH	4.49	4.49	8.98	9.00				
Mod.	16QAM		16QAM					
Middle CH	4.52		9.01					

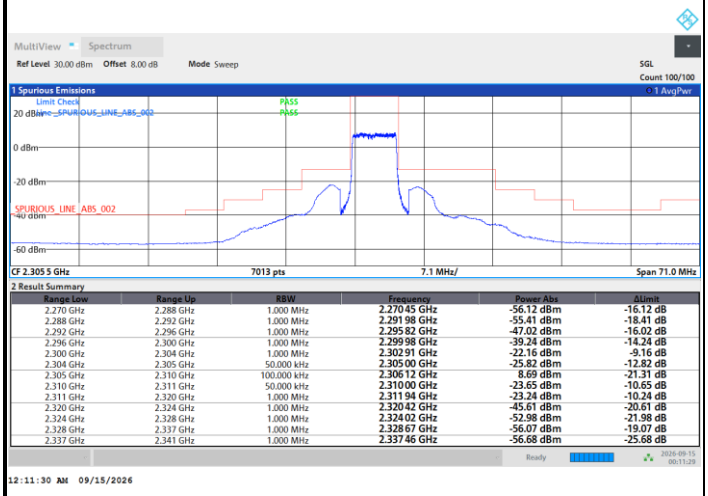
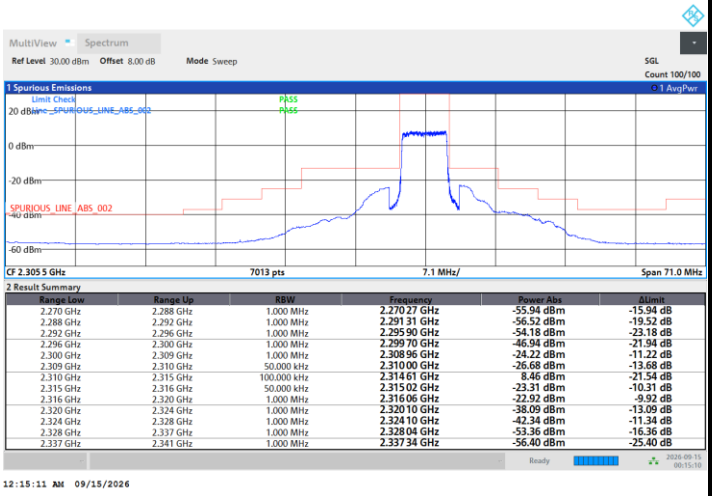
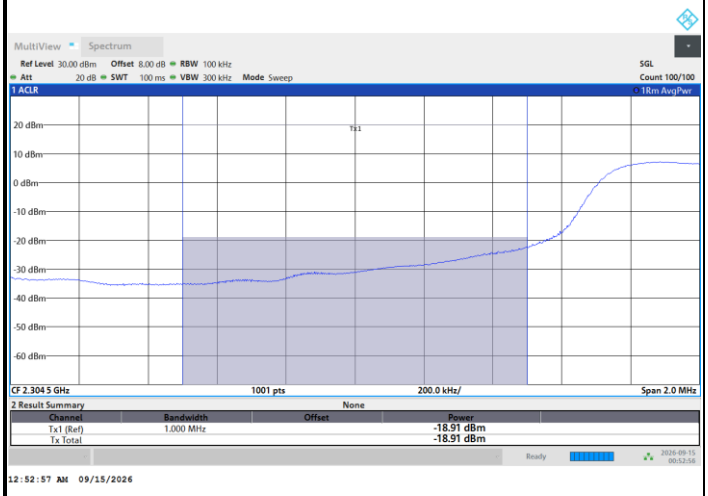
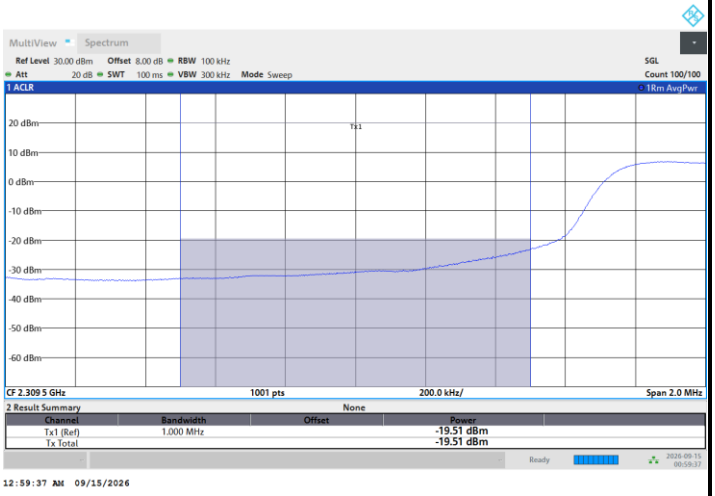
FR1 n30 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

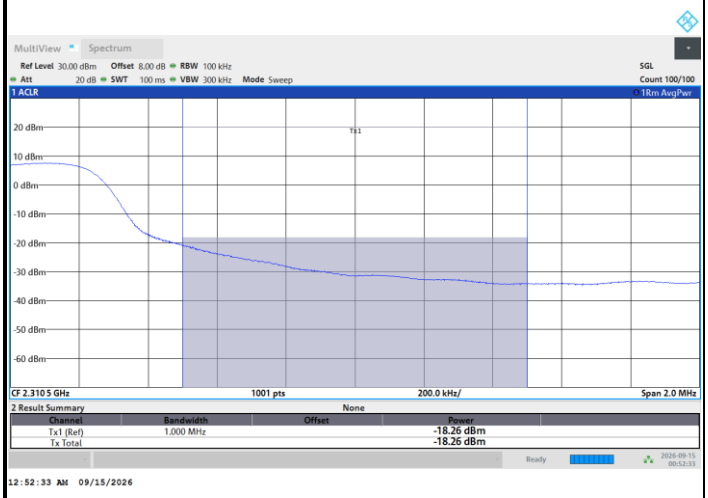
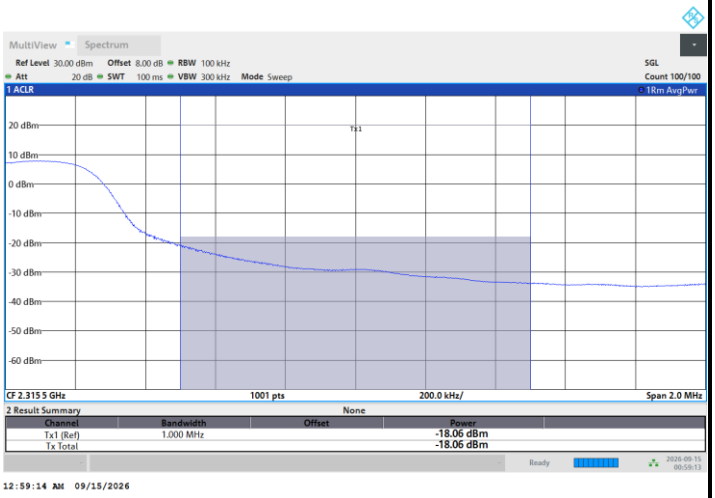
FR1 n30 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

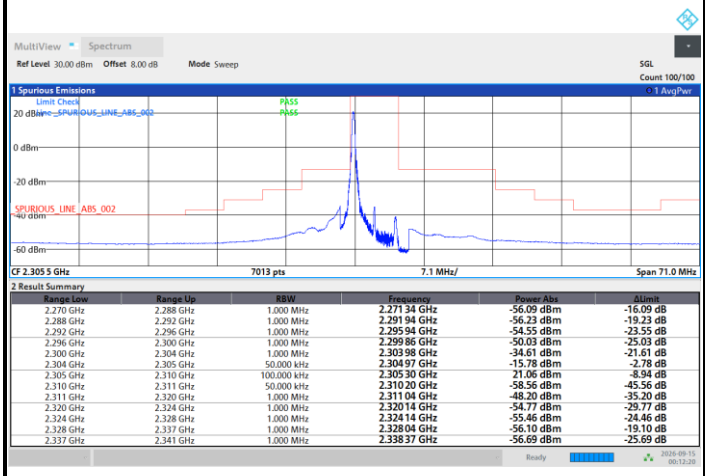
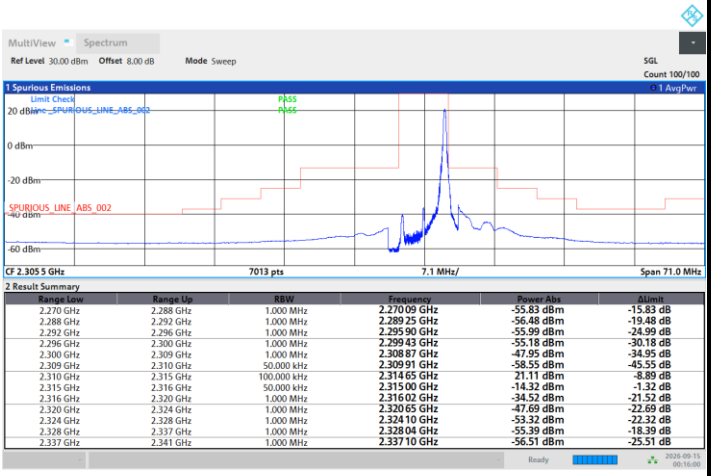
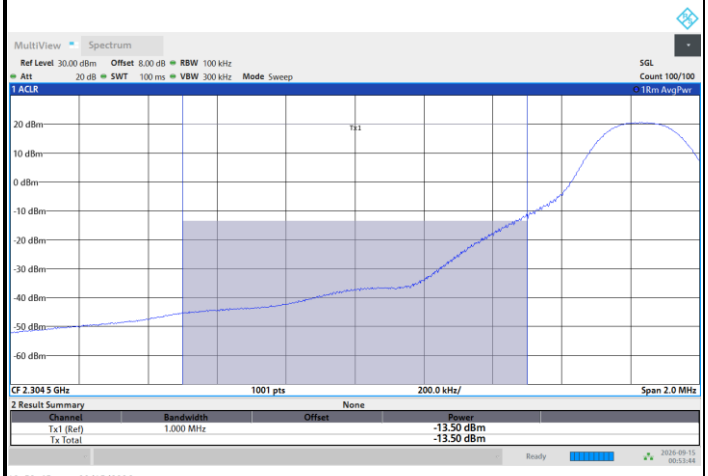
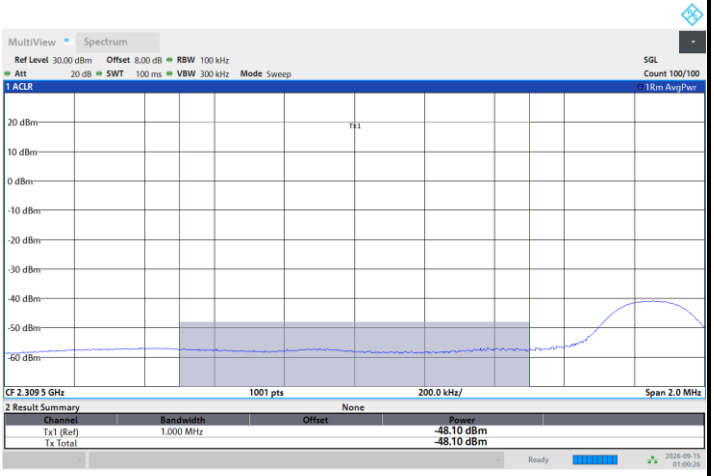
Conducted Band Edge

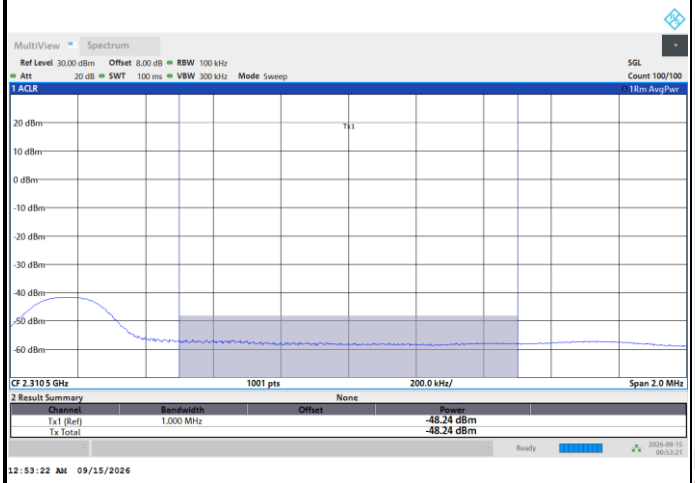
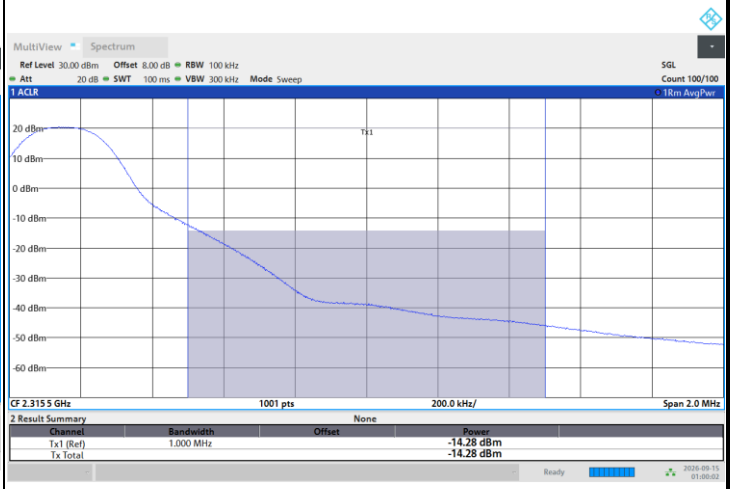
FR1 n30 / 5MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / 1 RB / Lower zoom in	**Highest Band Edge / 1 RB / Lower zoom in**
	

Lowest Band Edge / 1 RB / Upper zoom in	Highest Band Edge / 1 RB / Upper zoom in
	

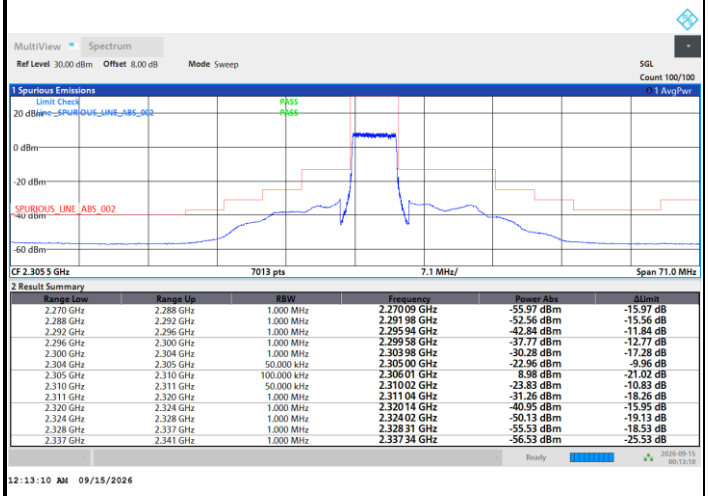
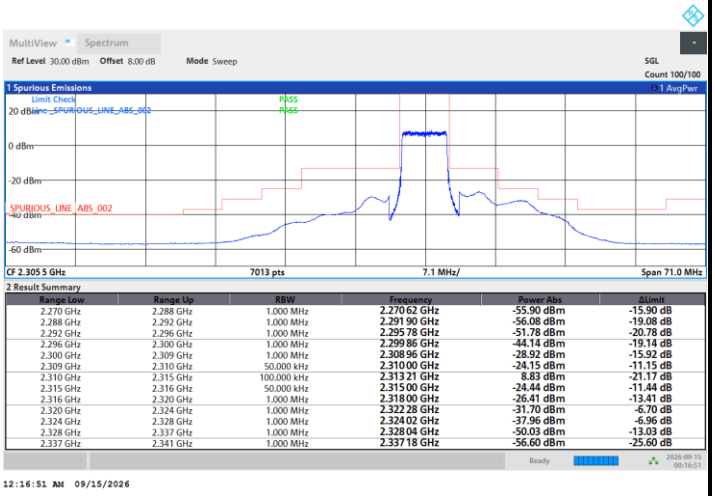
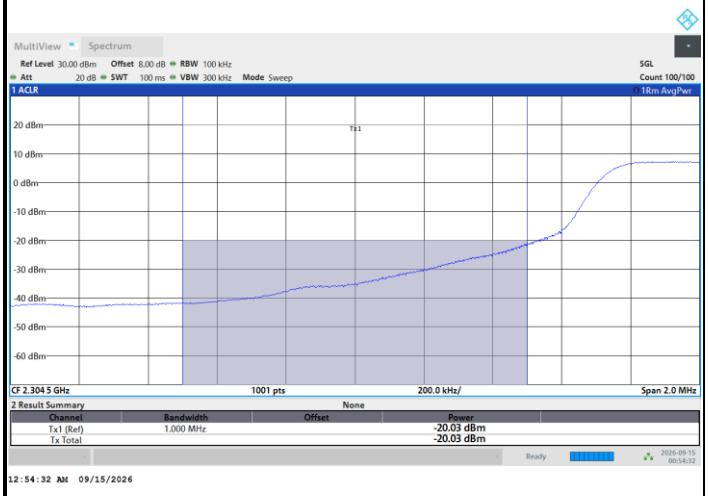
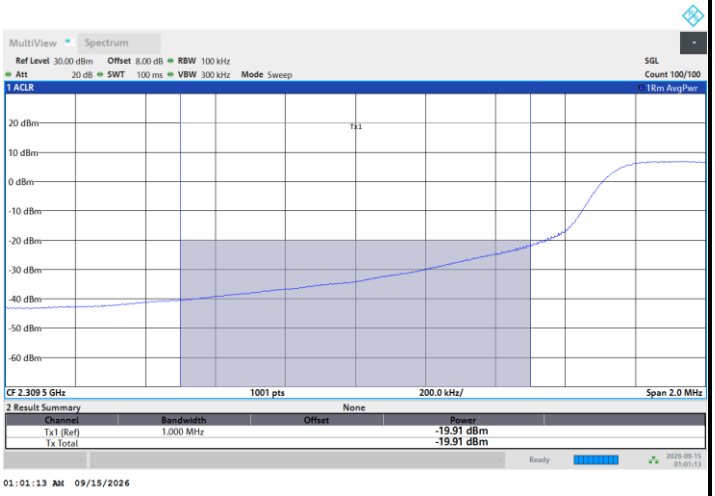
Lowest Band Edge / Full RB	Highest Band Edge / Full RB
	
Lowest Band Edge / Full RB / Lower zoom in	**Highest Band Edge / Full RB / Lower zoom in**
	

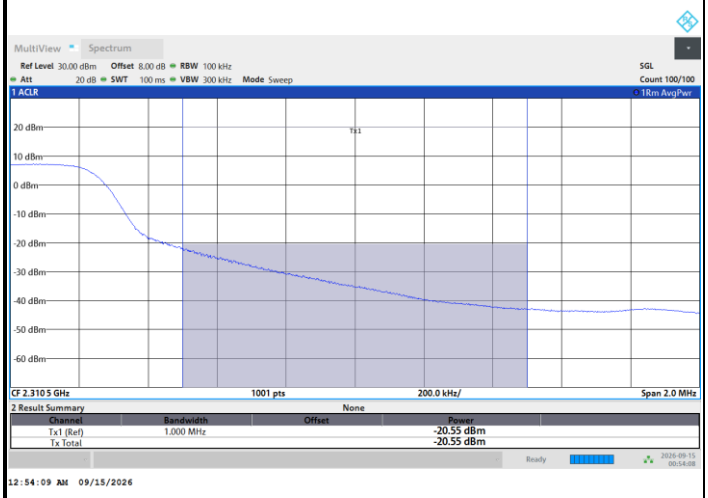
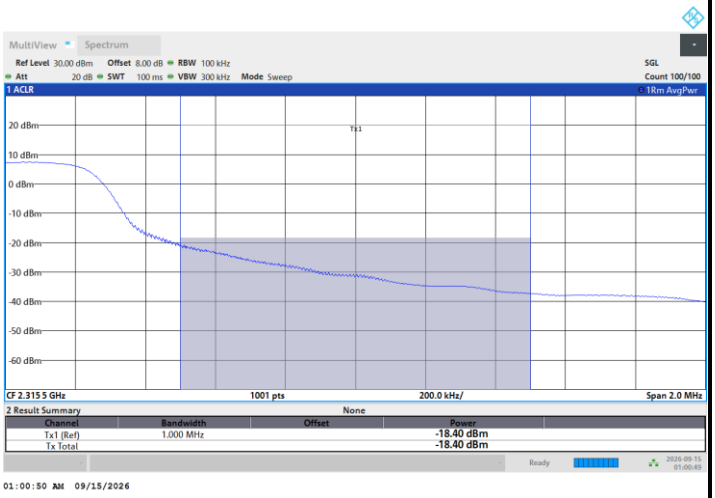
Lowest Band Edge / Full RB / Upper zoom in	Highest Band Edge / Full RB / Upper zoom in
	

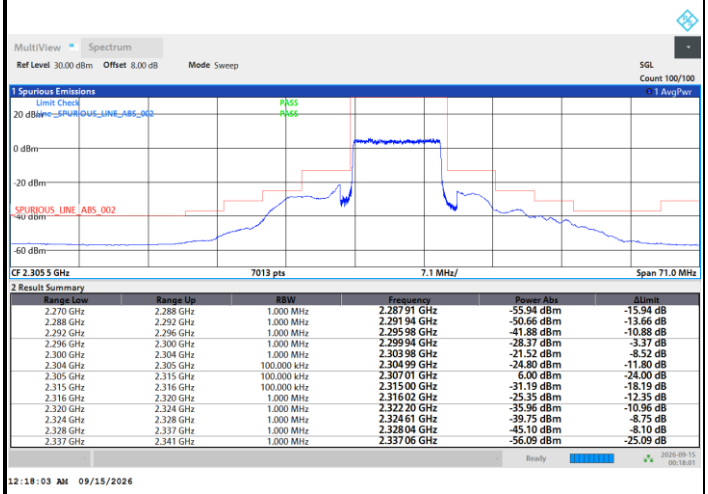
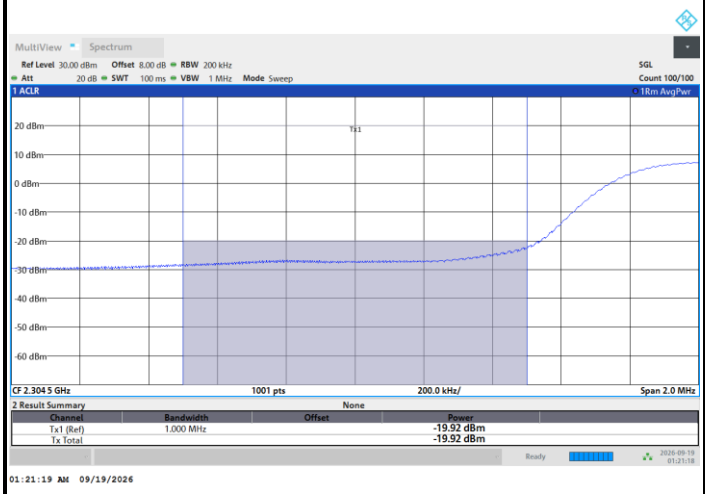
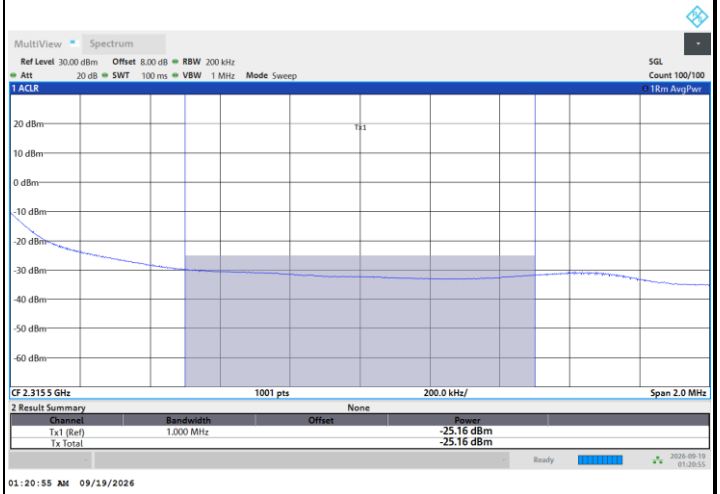
FR1 n30 / 5MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / 1 RB / Lower zoom in	**Highest Band Edge / 1 RB / Lower zoom in**
	

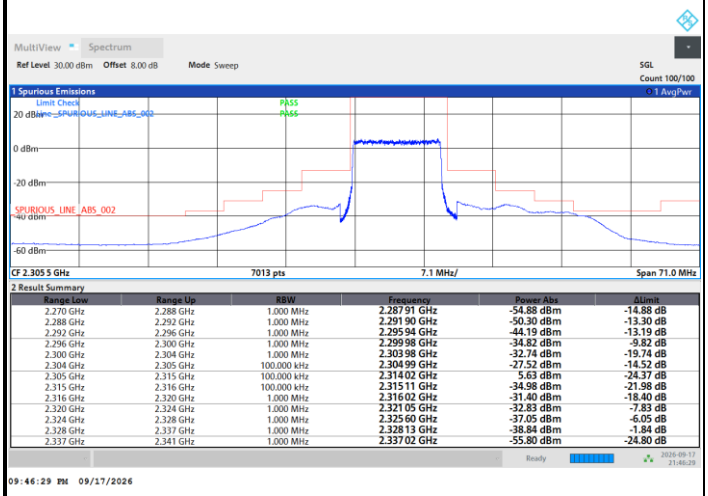
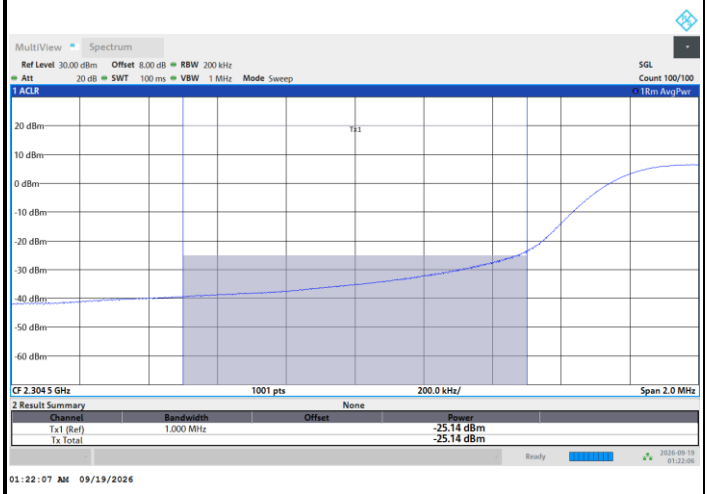
Lowest Band Edge / 1 RB / Upper zoom in	Highest Band Edge / 1 RB / Upper zoom in
	

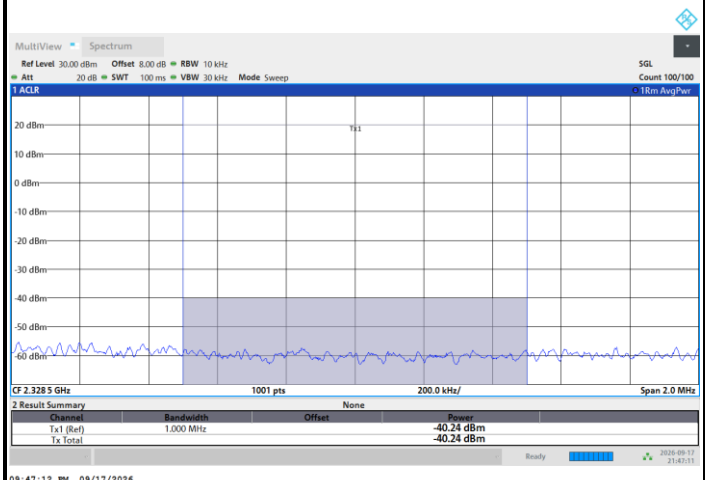
FR1 n30 / 5MHz / DFT-S OFDM / QPSK	
NA	Channel Power -17.85 dBm < -13 limit (PASS)
NA	

Lowest Band Edge / Full RB	Highest Band Edge / Full RB
	
Lowest Band Edge / Full RB / Lower zoom in	**Highest Band Edge / Full RB / Lower zoom in**
	

Lowest Band Edge / Full RB / Upper zoom in	Highest Band Edge / Full RB / Upper zoom in
	

FR1 n30 / 10MHz / DFT-s-OFDM / PI/2 BPSK	
Middle Band Edge / Full RB	
	
Middle Band Edge / Full RB / Lower zoom in	**Middle Band Edge / Full RB / Upper zoom in**
	

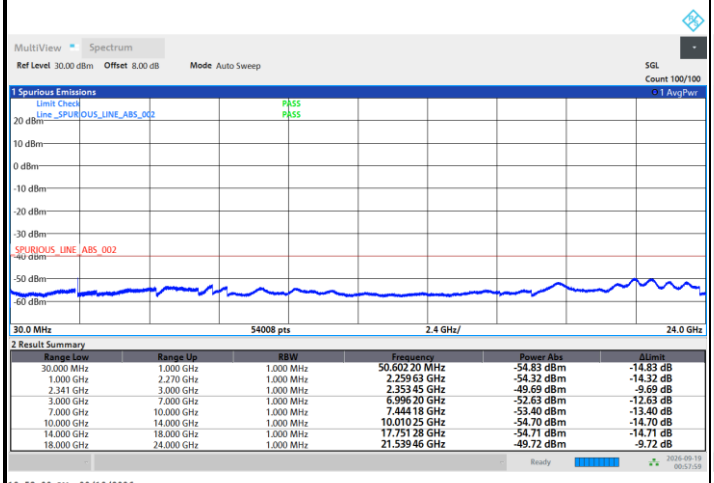
FR1 n30 / 10MHz / DFT-s-OFDM / QPSK	
Middle Band Edge / Full RB	
	
Middle Band Edge / Full RB / Lower zoom in	**Middle Band Edge / Full RB / Upper zoom in**
	

FR1 n30 / 10MHz / DFT-s-OFDM / QPSK	
Channel Power -40.24 dBm < -37 limit (PASS)	NA
	NA

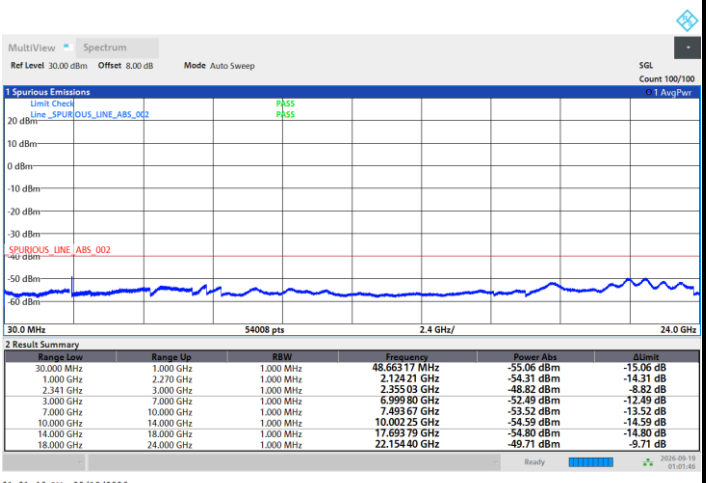
Conducted Spurious Emission

FR1 n30 / 5MHz / DFT-S OFDM / QPSK / 1RB1

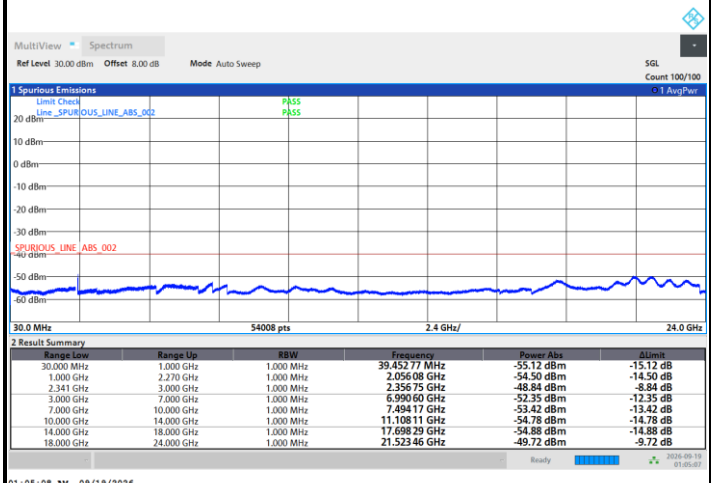
Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n30 (BPSK) / Middle Channel 10M			
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Frequency Offset (△f) (Hz)	Within Authorized Frequency Block(Hz)	Result
50	Normal Voltage	0.0057	-13.1	Yes	PASS
40	Normal Voltage	0.0008	-1.8	Yes	
30	Normal Voltage	0.0051	-11.7	Yes	
20(Ref.)	Normal Voltage	0.0000	0	Yes	
10	Normal Voltage	0.0057	-13.2	Yes	
0	Normal Voltage	0.0032	-7.4	Yes	
-10	Normal Voltage	0.0035	-8	Yes	
-20	Normal Voltage	0.0057	-13.2	Yes	
-30	Normal Voltage	0.0007	-1.7	Yes	
20	Maximum Voltage	0.0066	-15.3	Yes	
20	Normal Voltage	0.0000	0	Yes	
20	Minimum Voltage	0.0023	-5.3	Yes	

Note:

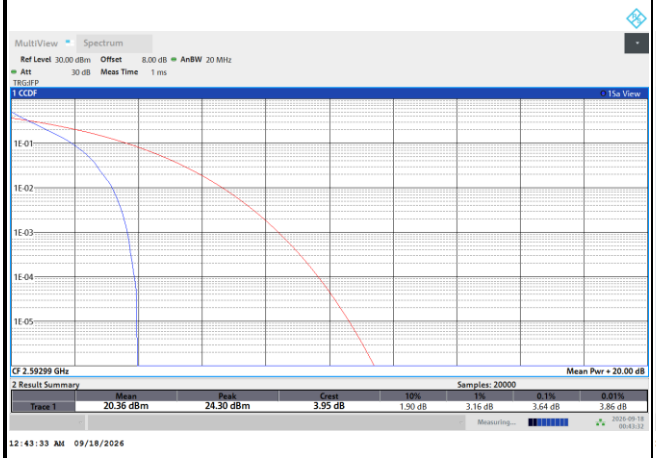
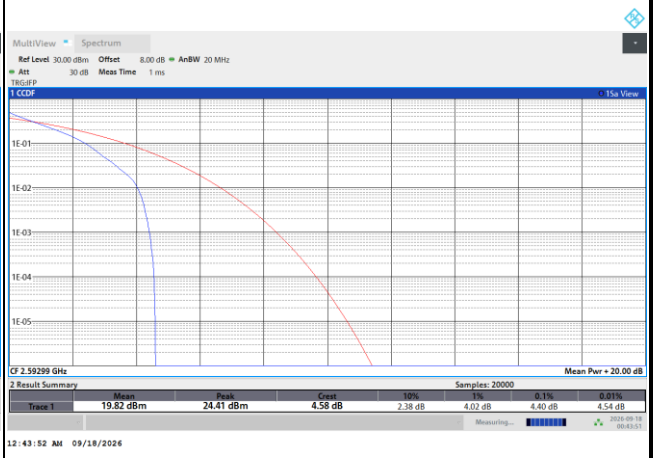
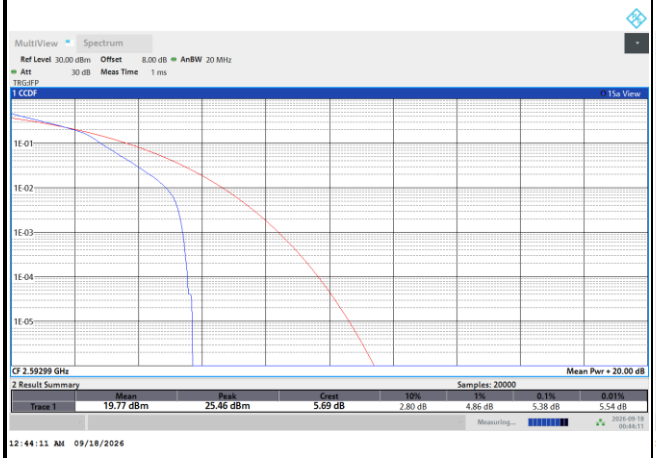
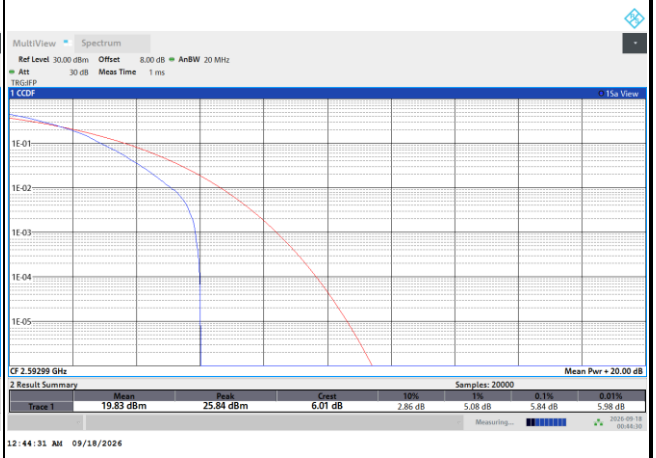
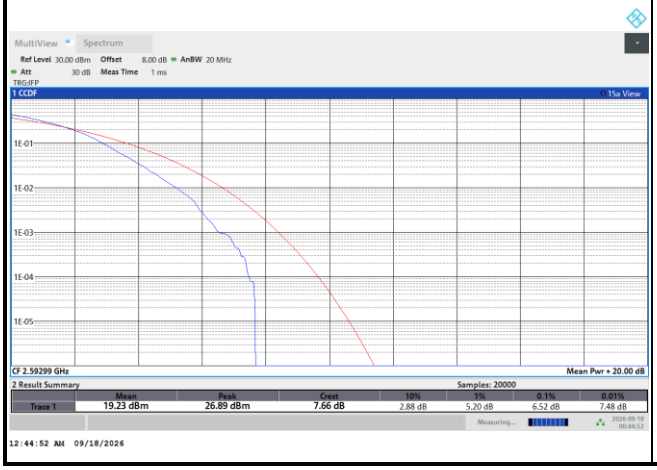
1. Normal Voltage = 3.75 V. ; Minimum Voltage = 3.5 V. ; Maximum Voltage = 4.57 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.

FR1 n41 for Main PA –ANT 3

<SISO Mode>

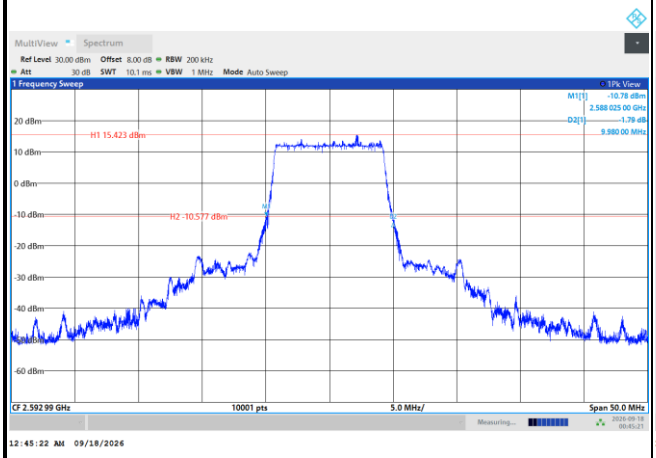
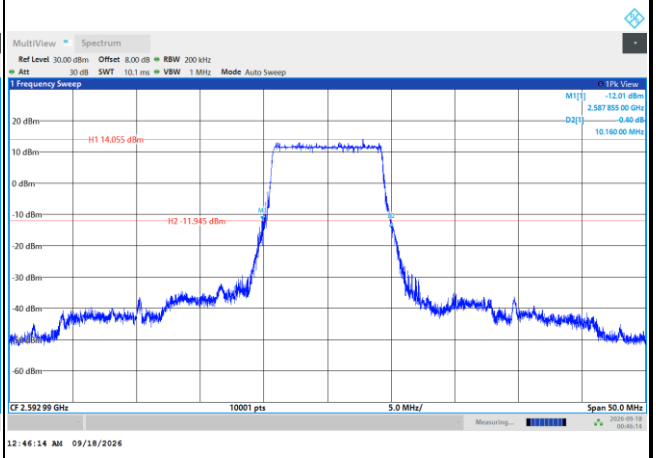
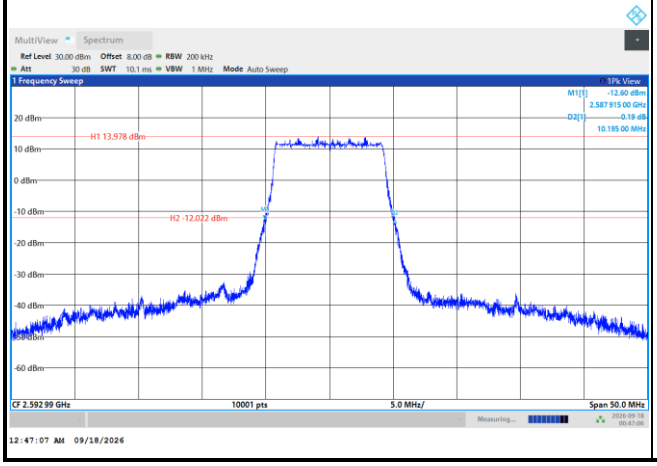
Peak-to-Average Ratio

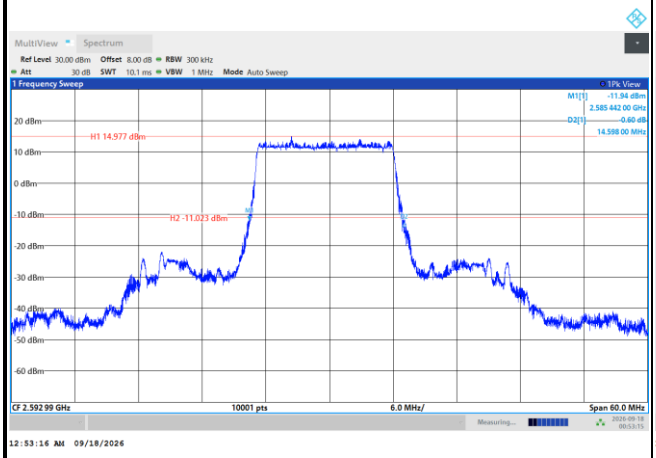
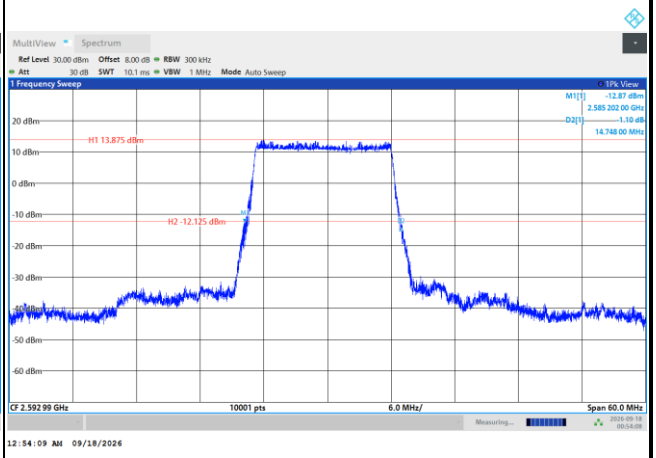
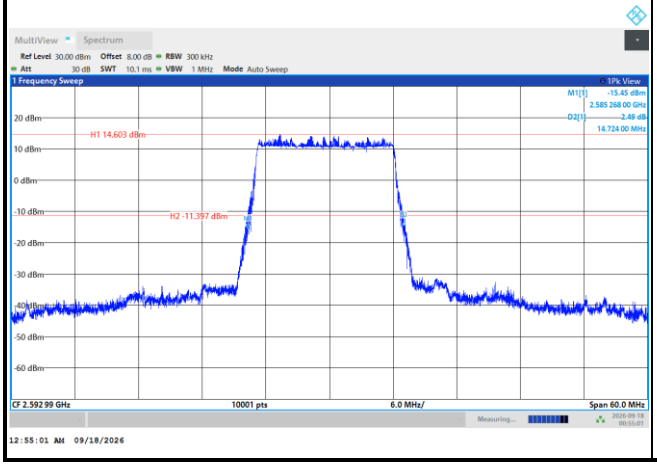
Mode	FR1 n41 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.64	4.40	5.38	5.84	PASS
Mode	FR1 n41 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.52				PASS

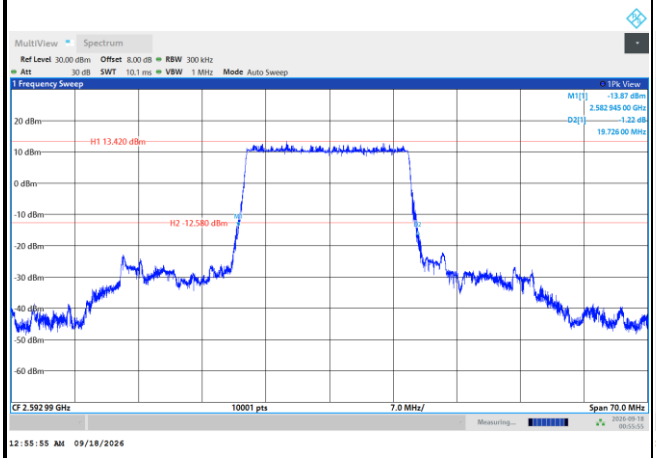
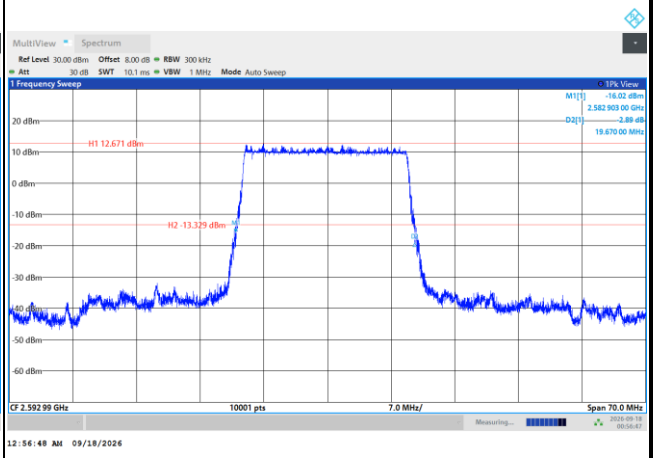
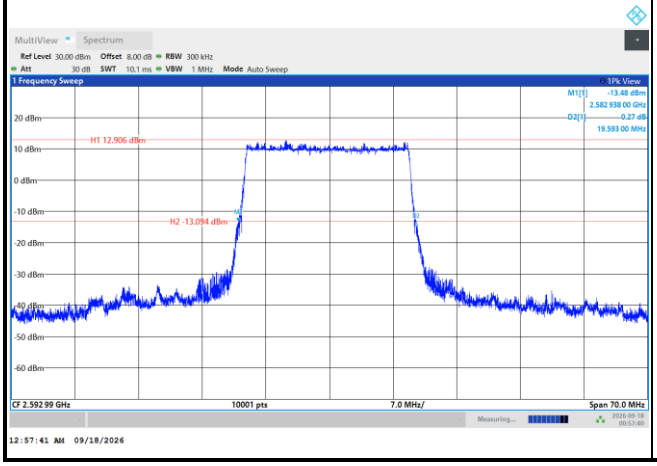
FR1 n41 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	64QAM
	
256QAM	
	

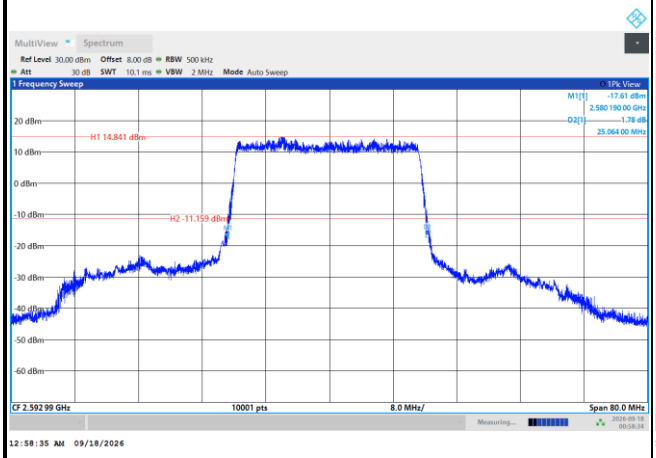
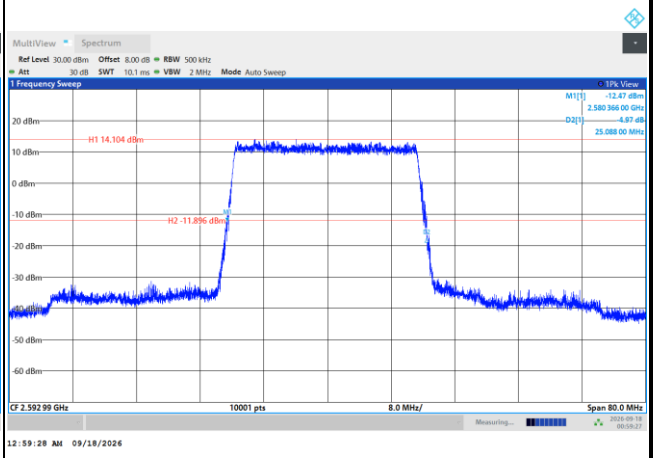
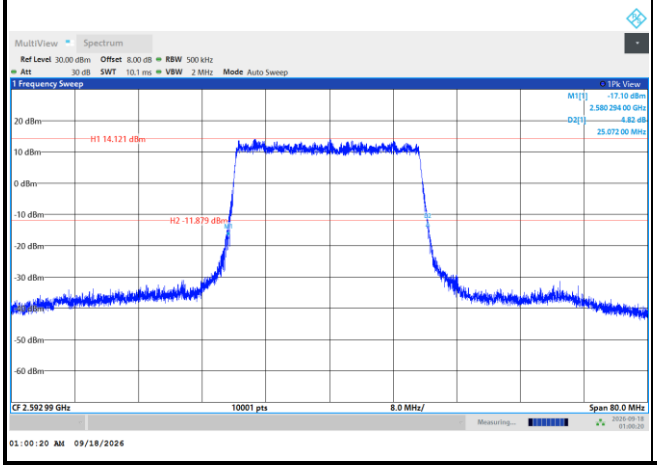
26dB Bandwidth

Mode	FR1 n41 : 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	9.98	10.16	14.59	14.74	19.72	19.67	25.06	25.08
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	10.19		14.72		19.59		25.07	
BW	30MHz		35MHz		40MHz		45MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	29.85	29.64	-	-	38.67	38.59	-	-
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	29.88		-		38.70		-	
BW	50MHz		60MHz		70MHz		80MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	48.68	48.76	62.76	62.71	69.30	69.29	82.06	82.42
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	48.71		62.94		69.32		82.27	
BW	90MHz		100MHz					
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK				
Middle CH	91.93	92.14	101.61	101.54				
Mod.	16QAM		16QAM					
Middle CH	92.06		101.56					

FR1 n41 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n41 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n41 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	
	

FR1 n41 / 25MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM