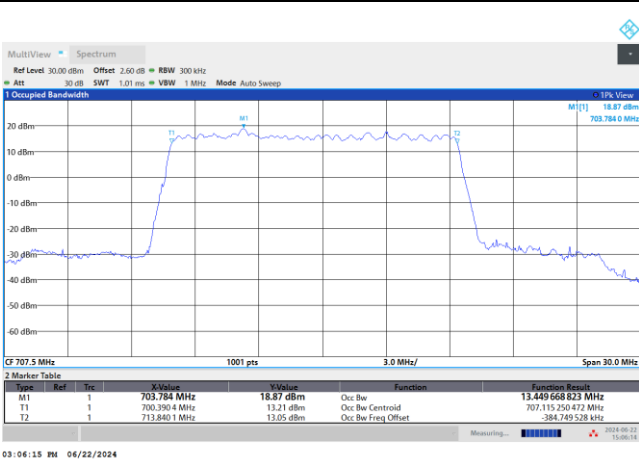




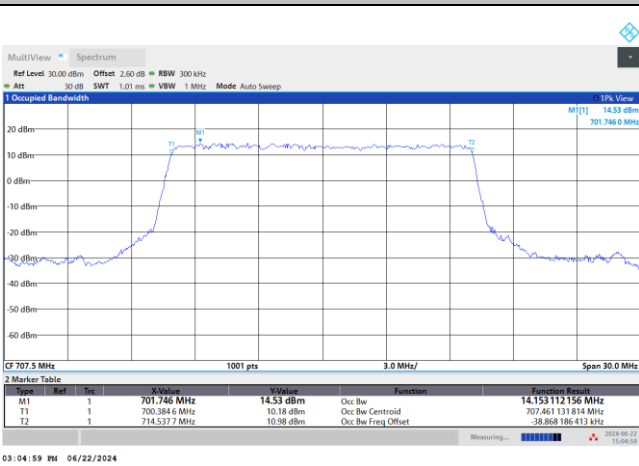
FR1 n12 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

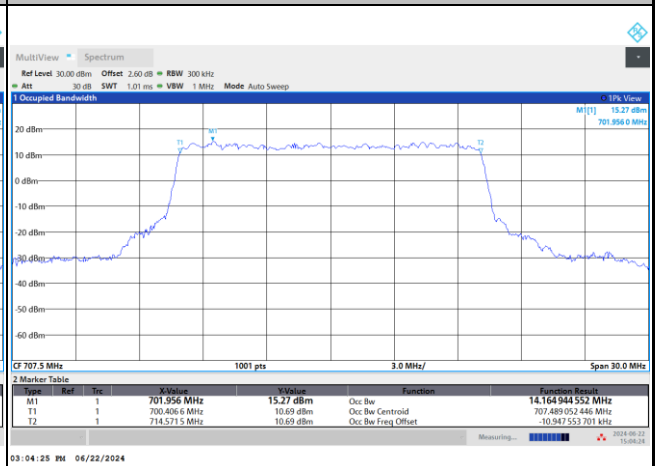


FR1 n12 / 15MHz / CP OFDM / Middle Channel / Full RB

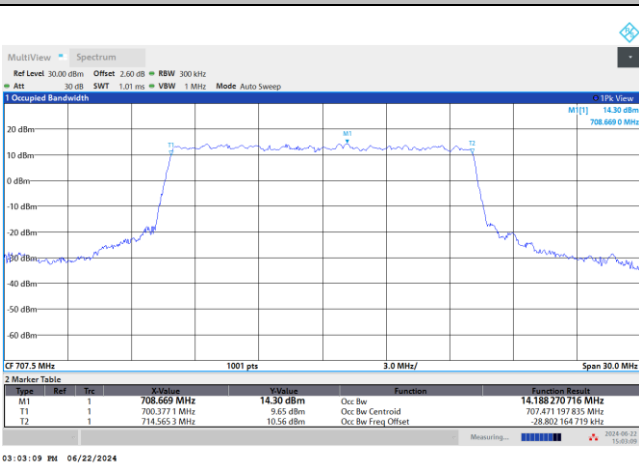
QPSK



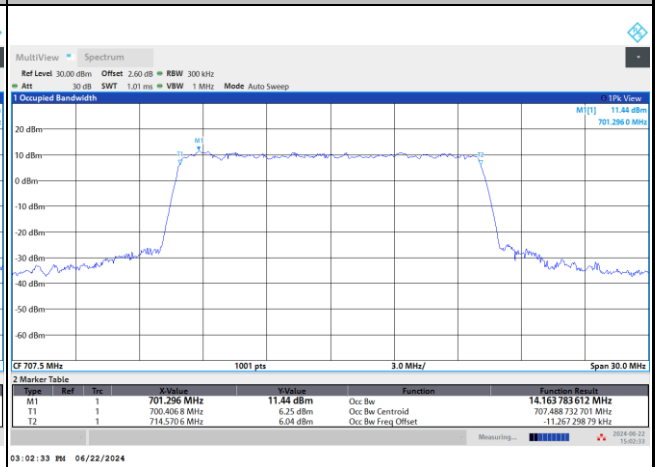
16QAM



64QAM



256QAM



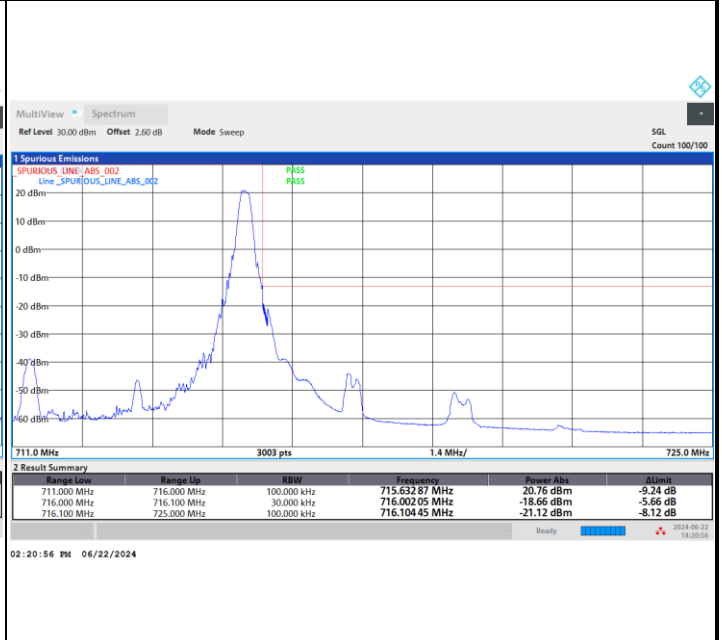
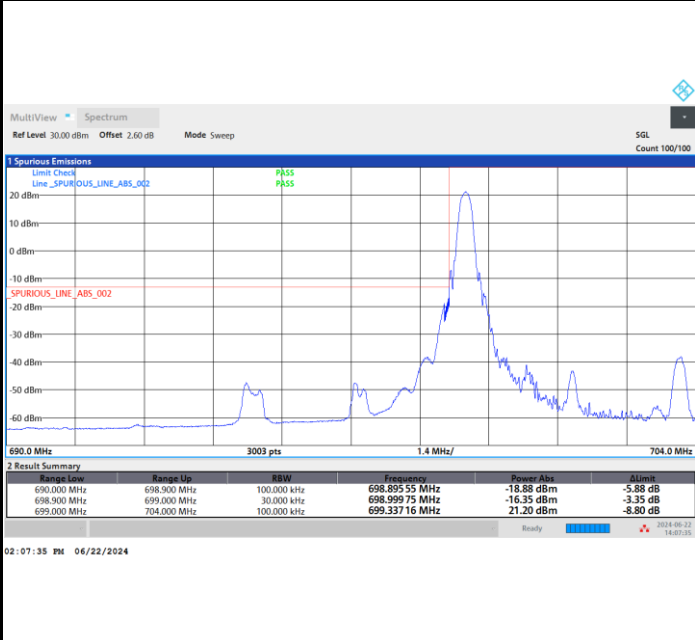


Conducted Band Edge

FR1 n12 / 5MHz / DFT-S OFDM / PI/2 BPSK

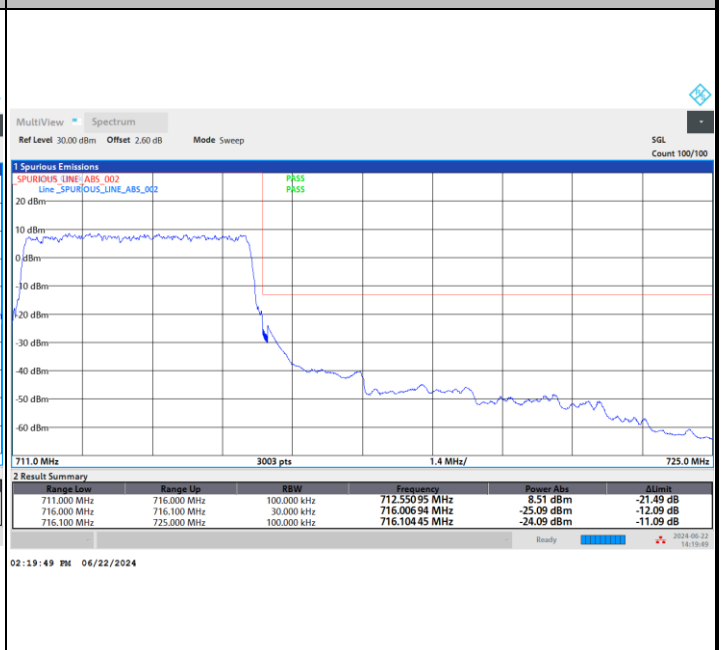
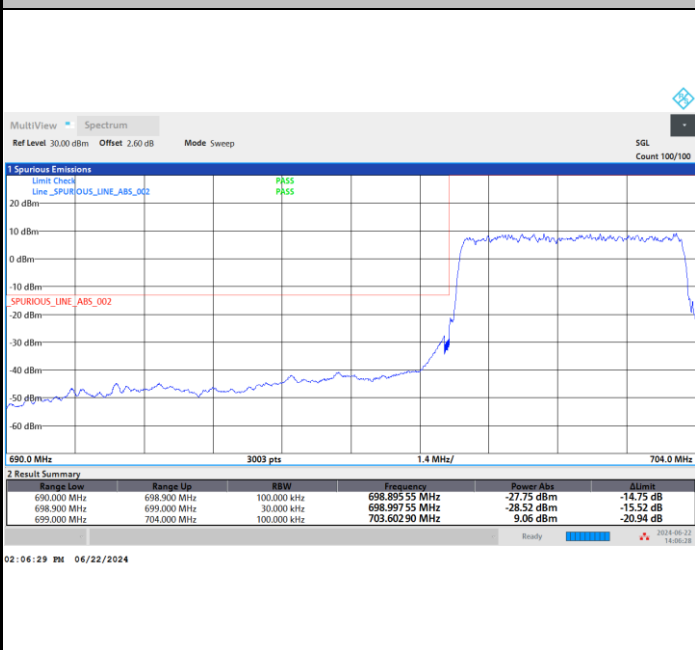
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

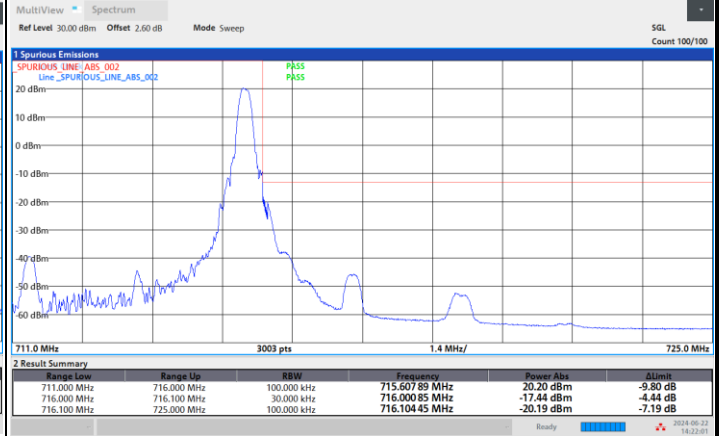
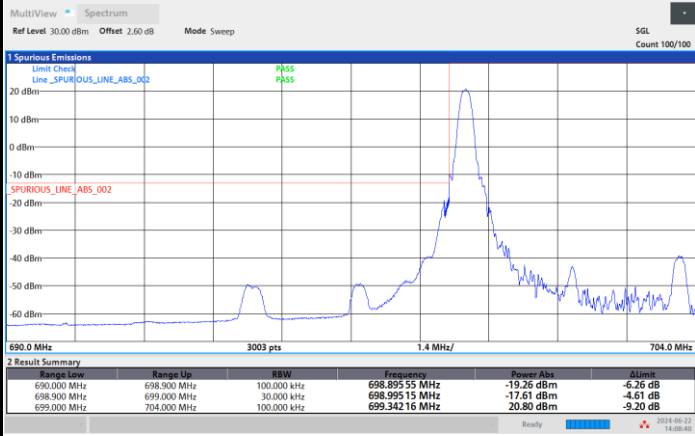




FR1 n12 / 5MHz / DFT-S OFDM / QPSK

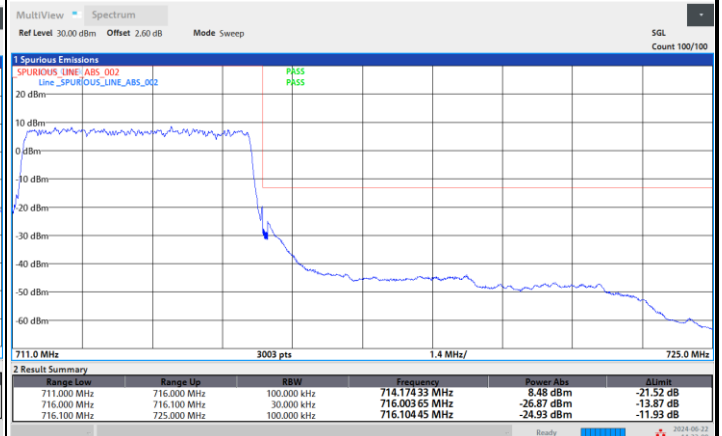
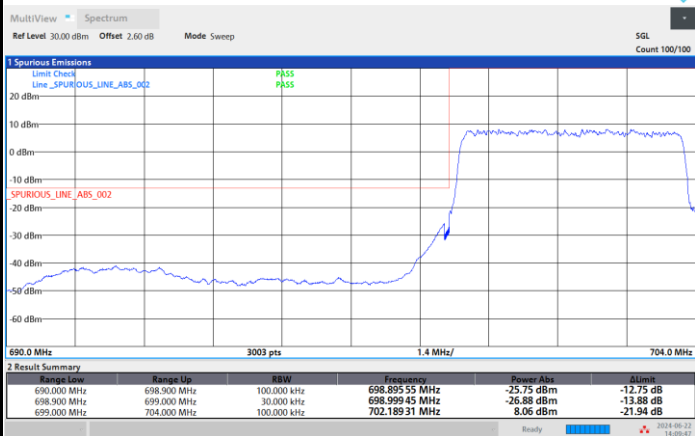
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

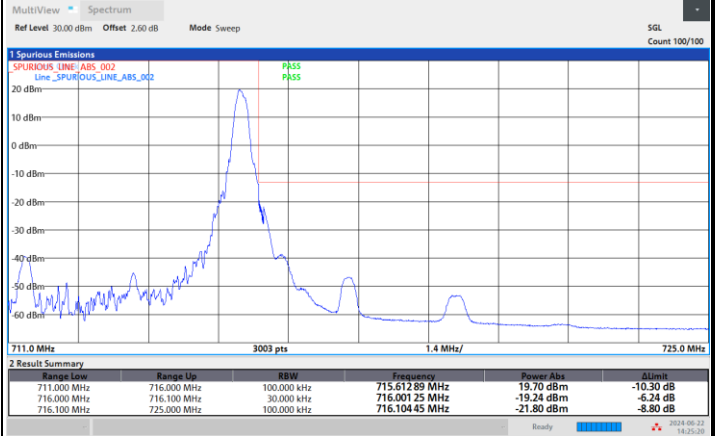
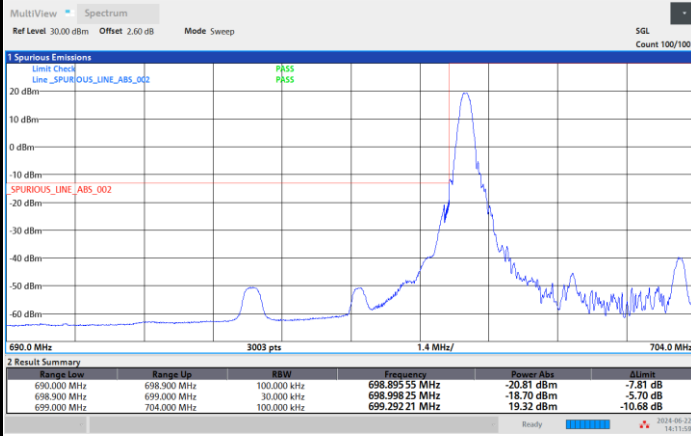




FR1 n12 / 5MHz / DFT-S OFDM / 16QAM

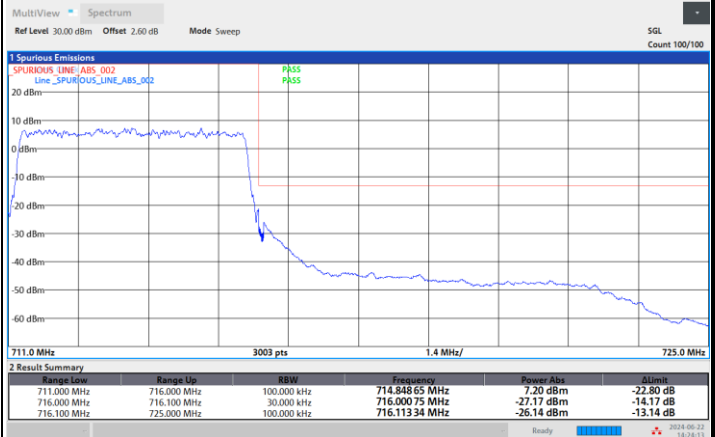
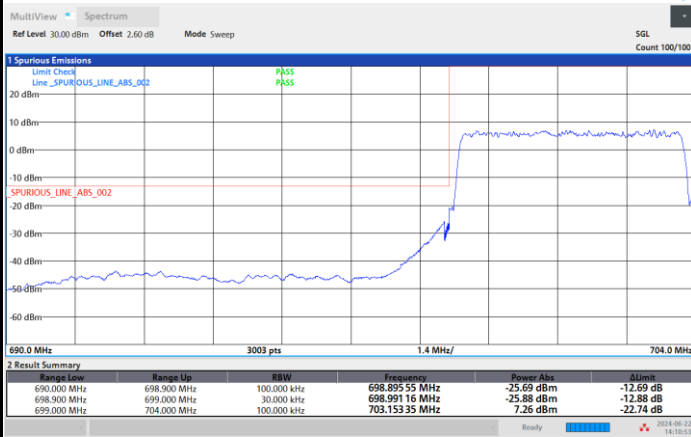
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

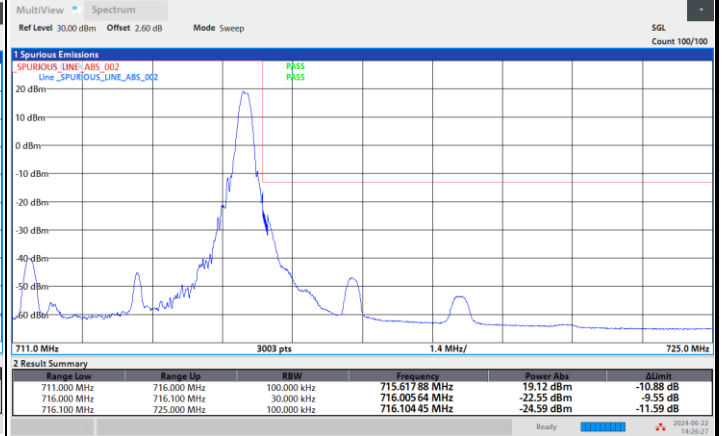
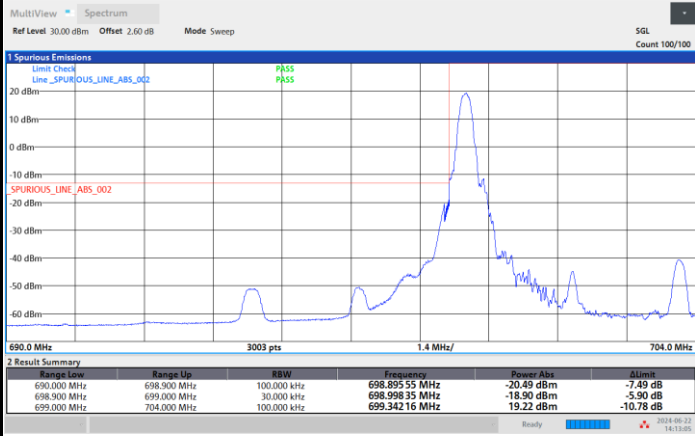




FR1 n12 / 5MHz / DFT-S OFDM / 64QAM

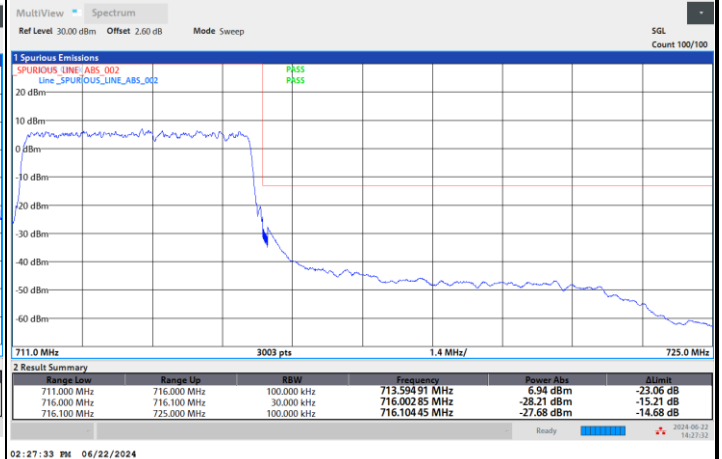
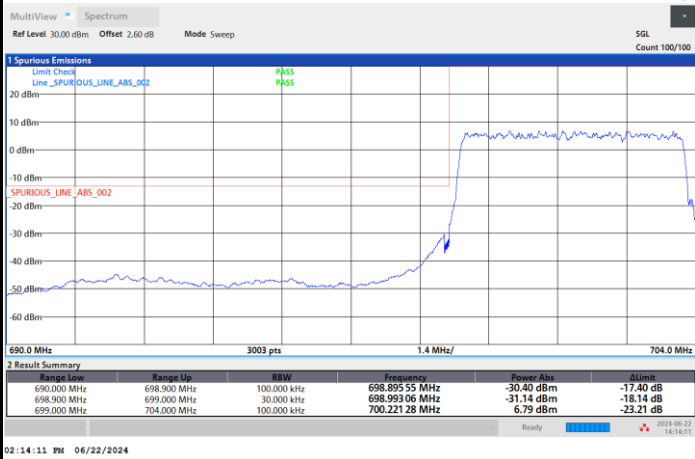
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

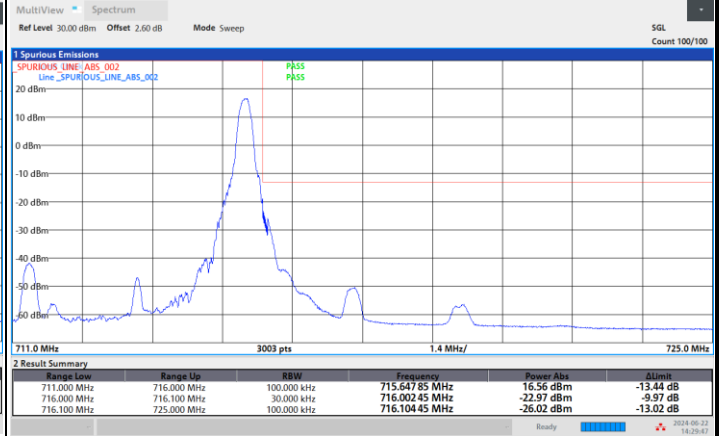
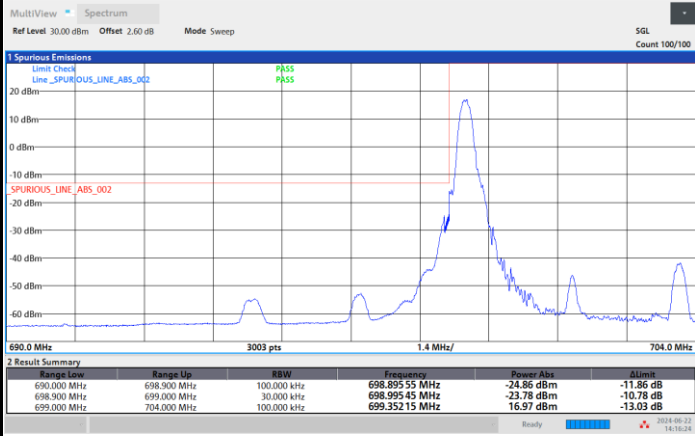




FR1 n12 / 5MHz / DFT-S OFDM / 256QAM

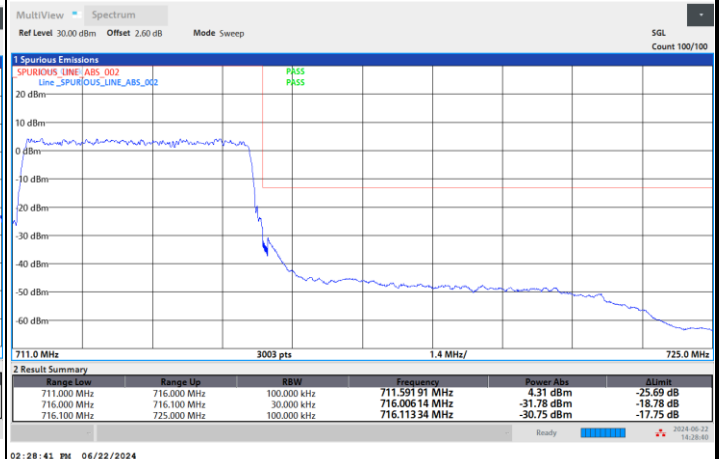
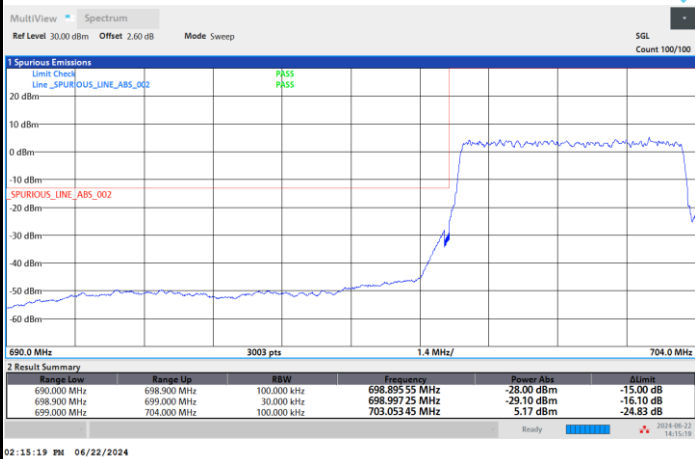
Lowest Band Edge / 1RB0

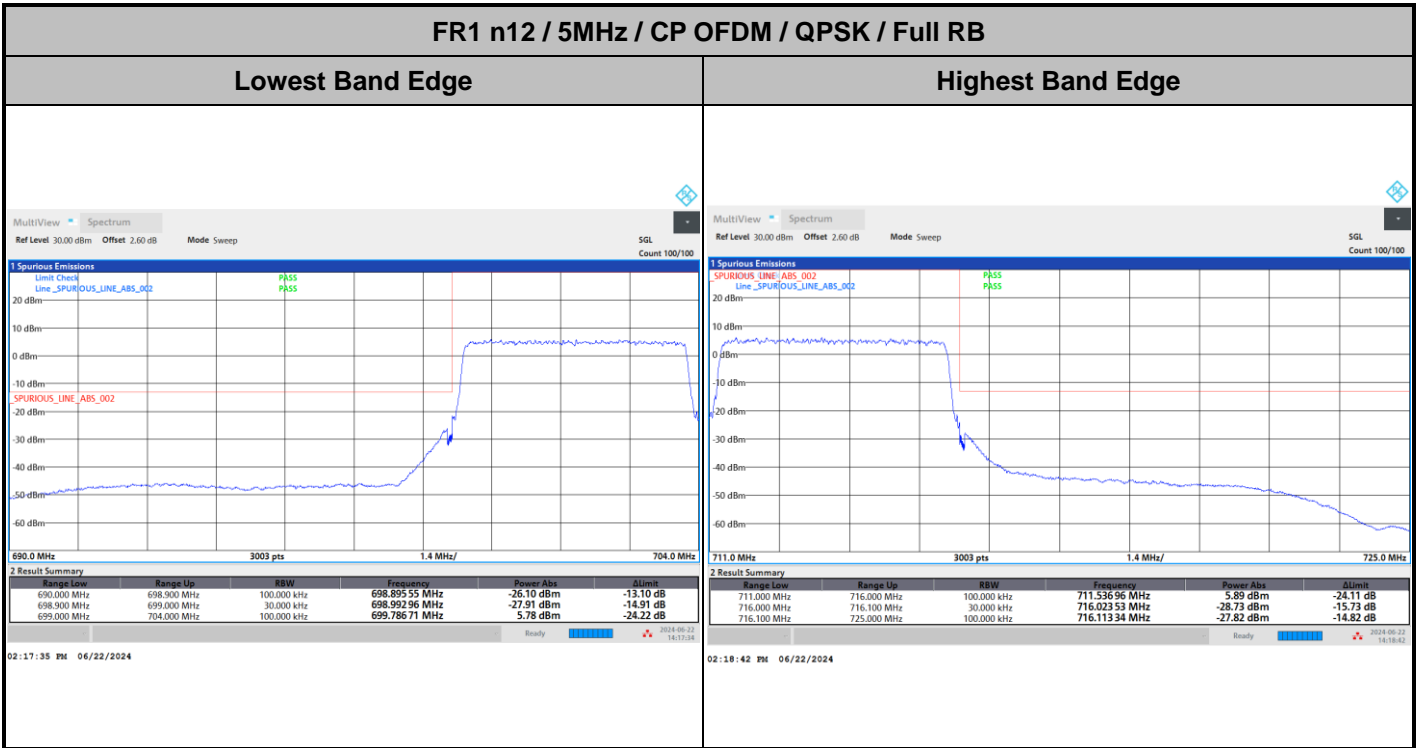
Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB



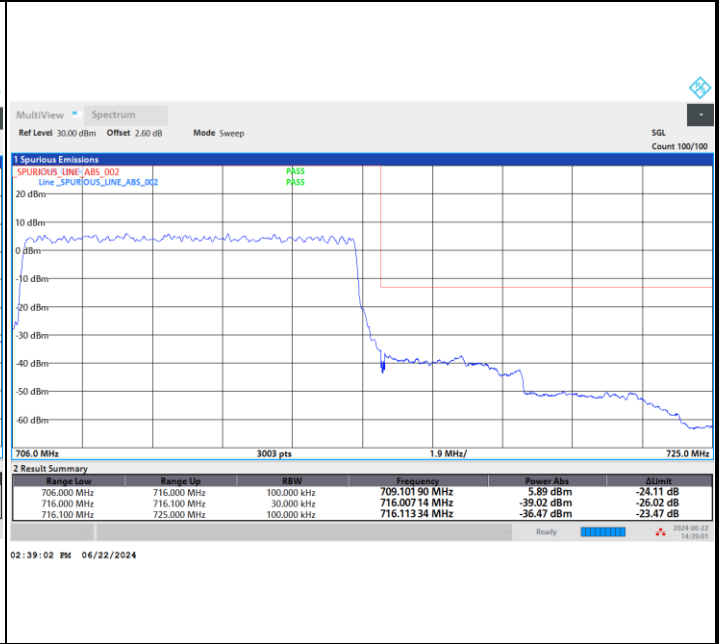
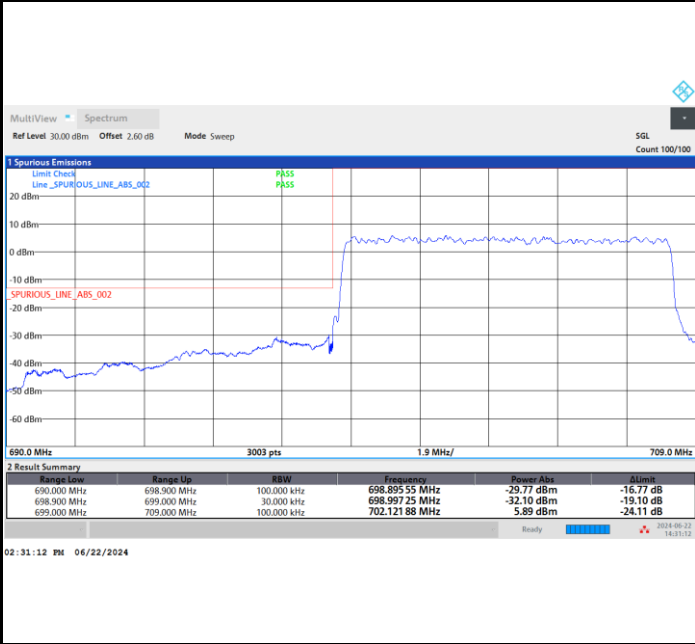




FR1 n12 / 10MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

Lowest Band Edge

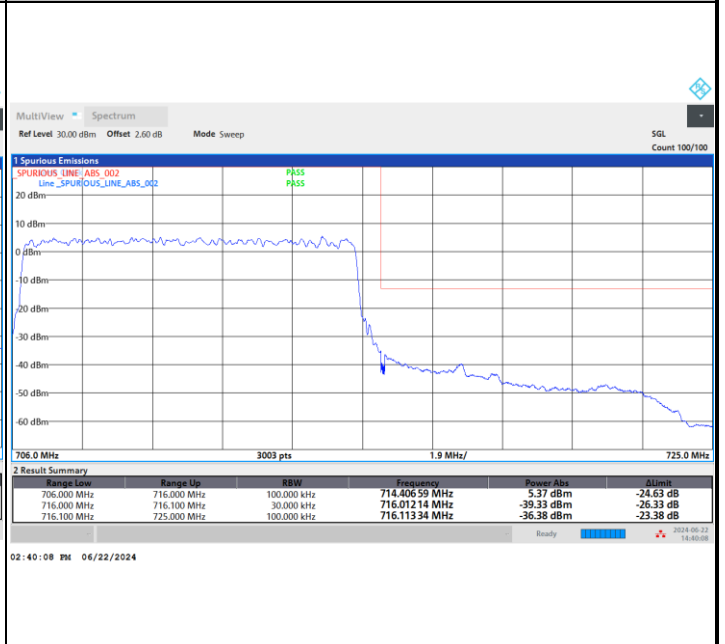
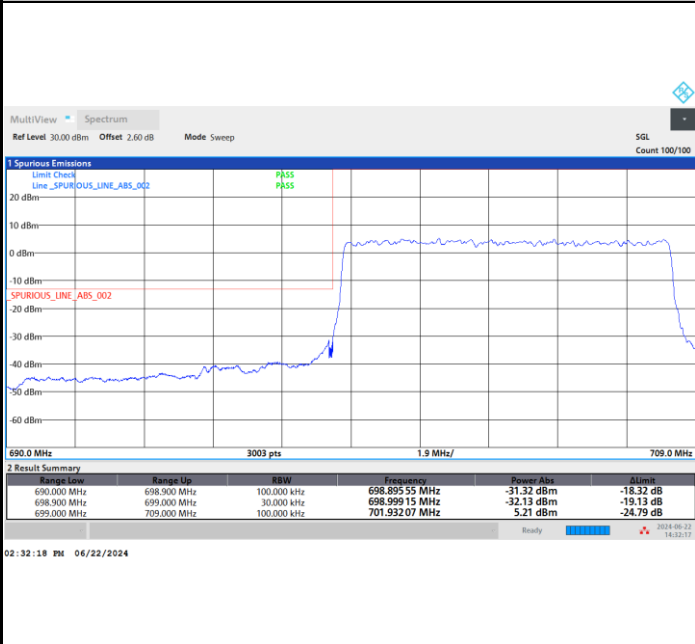
Highest Band Edge

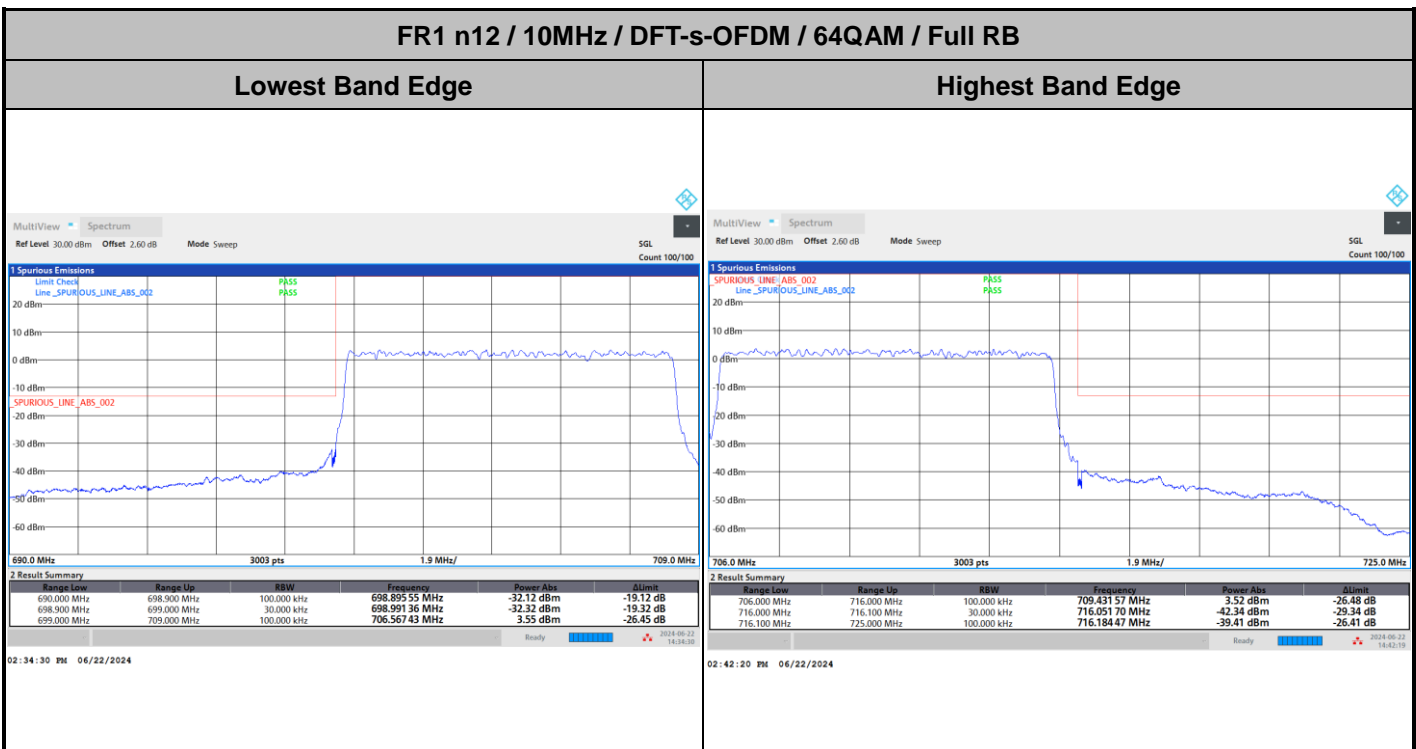
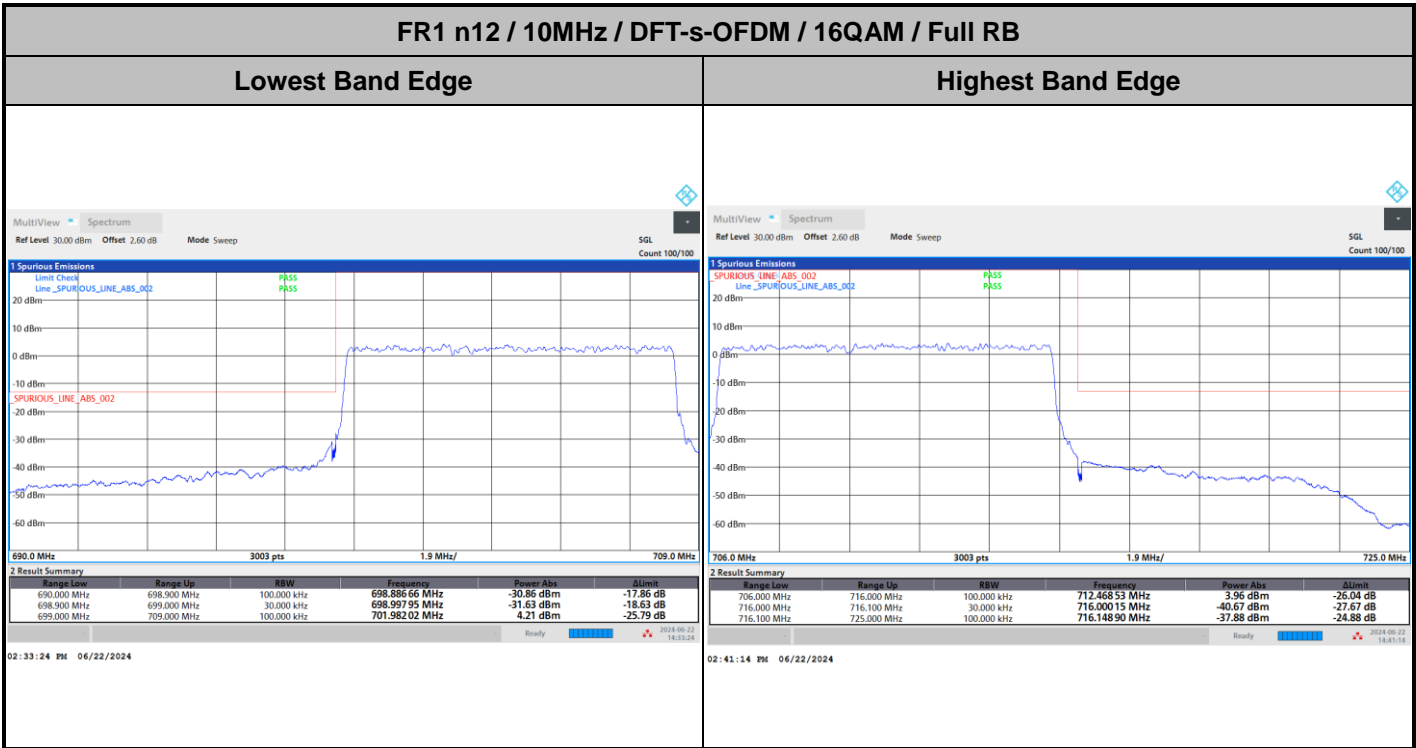


FR1 n12 / 10MHz / DFT-s-OFDM / QPSK / Full RB

Lowest Band Edge

Highest Band Edge



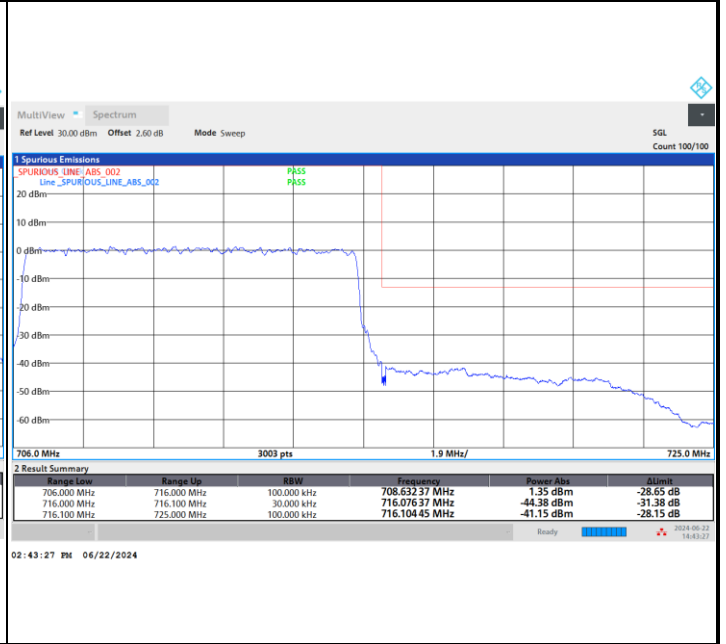
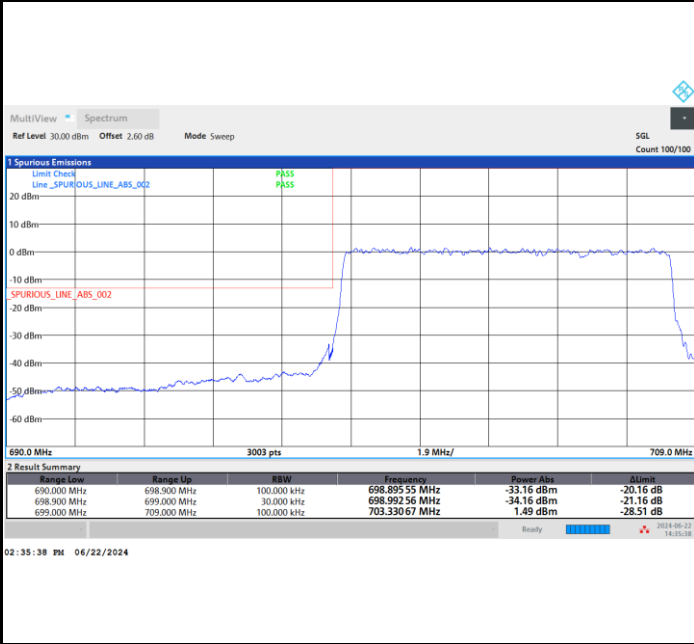




FR1 n12 / 10MHz / DFT-s-OFDM / 256QAM / Full RB

Lowest Band Edge

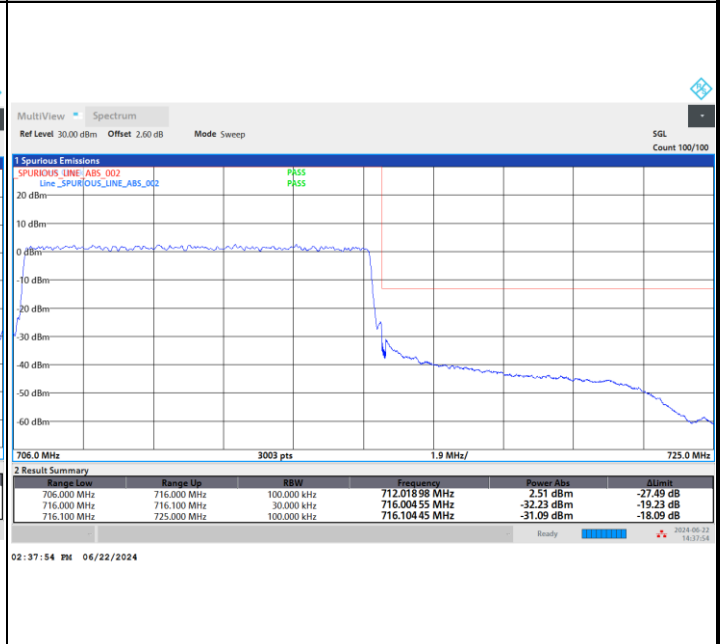
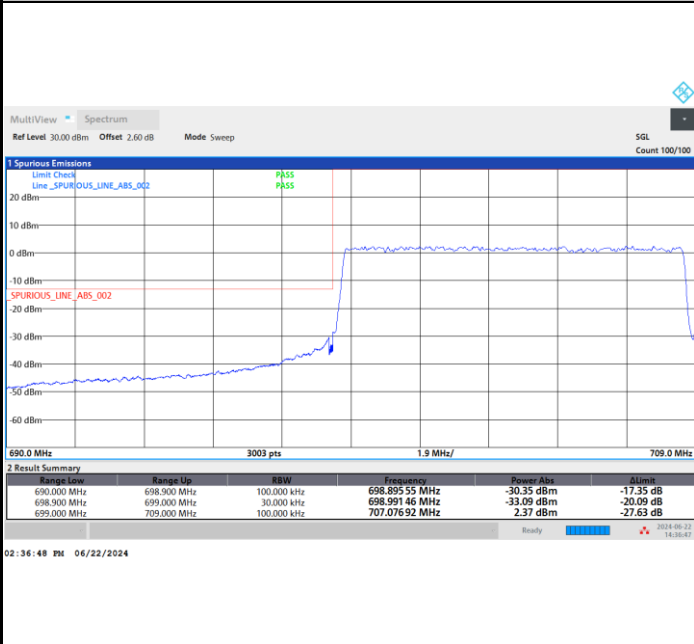
Highest Band Edge



FR1 n12 / 10MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge

Highest Band Edge

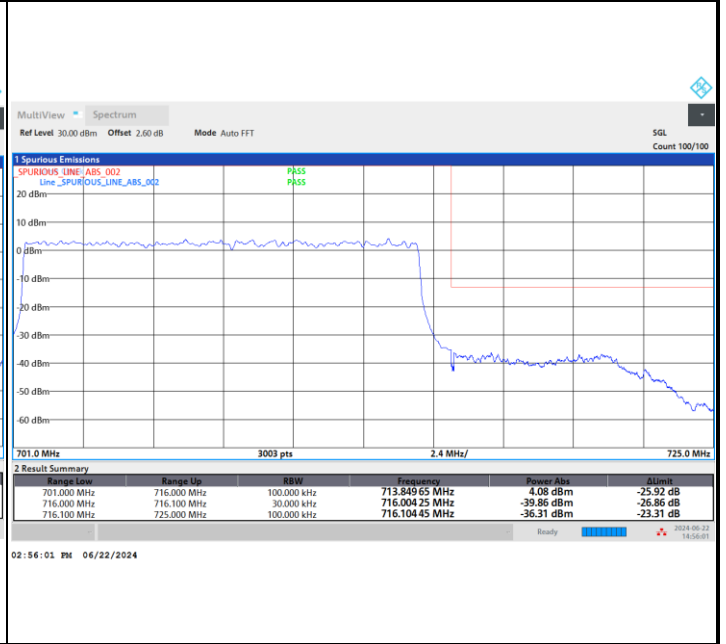
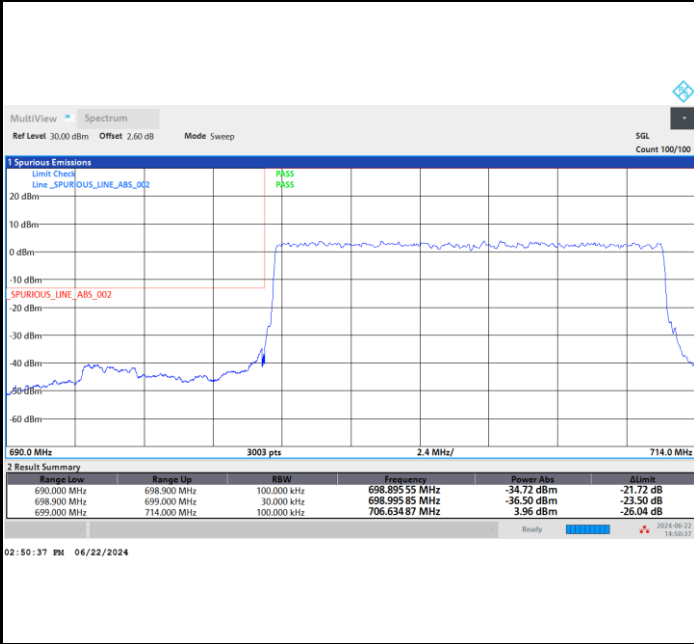




FR1 n12 / 15MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

Lowest Band Edge

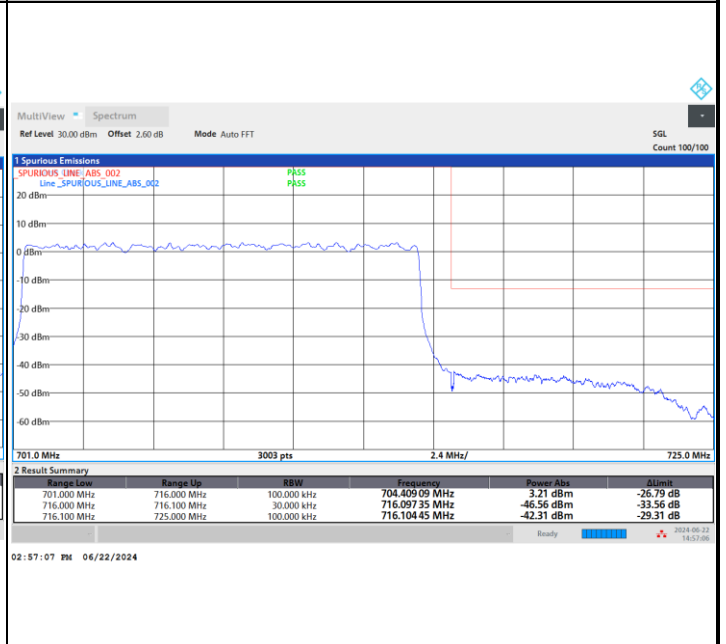
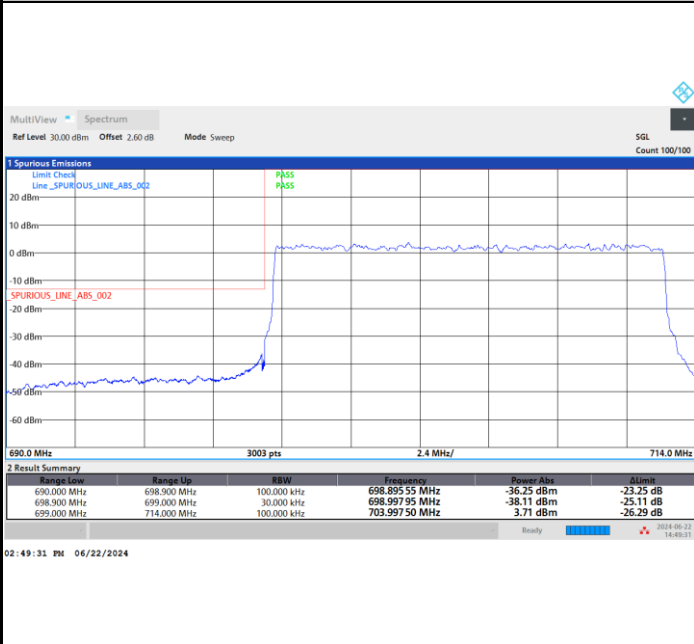
Highest Band Edge



FR1 n12 / 15MHz / DFT-s-OFDM / QPSK / Full RB

Lowest Band Edge

Highest Band Edge

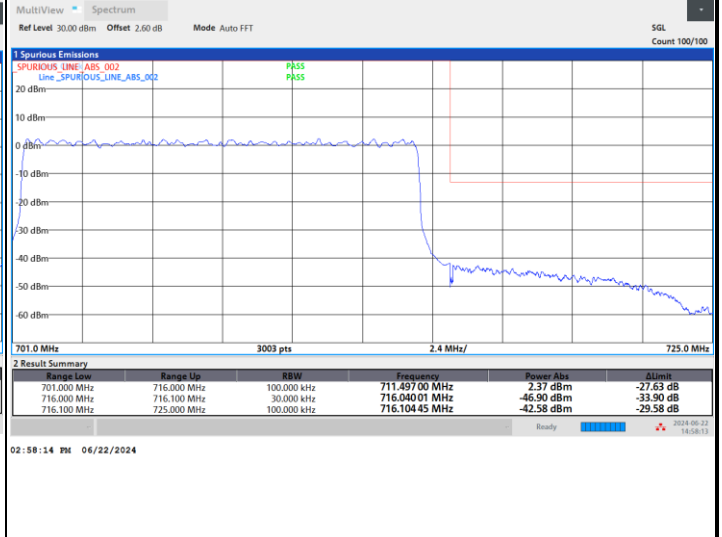
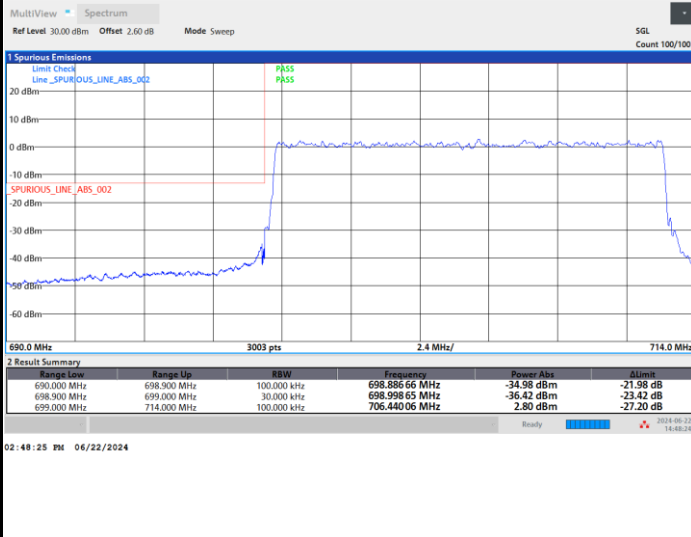




FR1 n12 / 15MHz / DFT-s-OFDM / 16QAM / Full RB

Lowest Band Edge

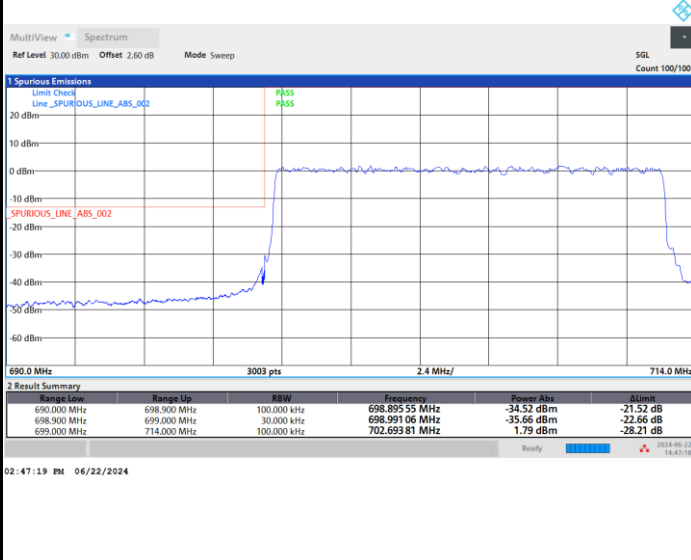
Highest Band Edge



FR1 n12 / 15MHz / DFT-s-OFDM / 64QAM / Full RB

Lowest Band Edge

Highest Band Edge

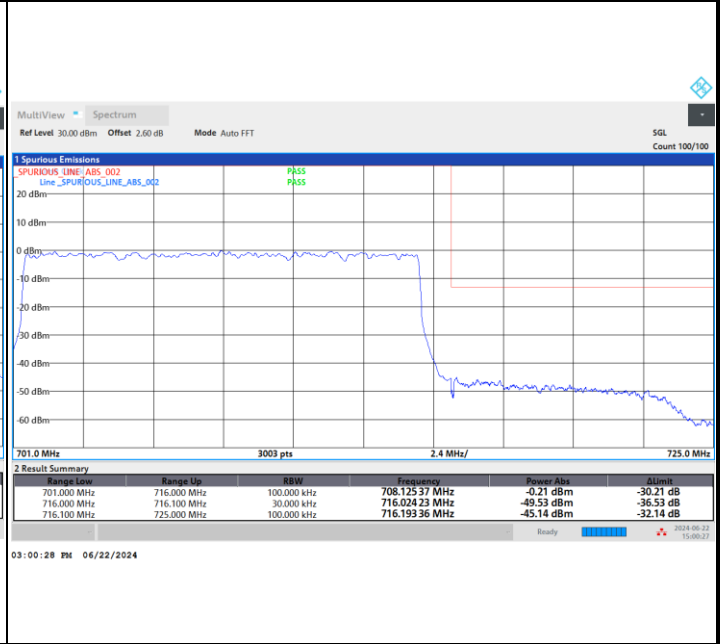
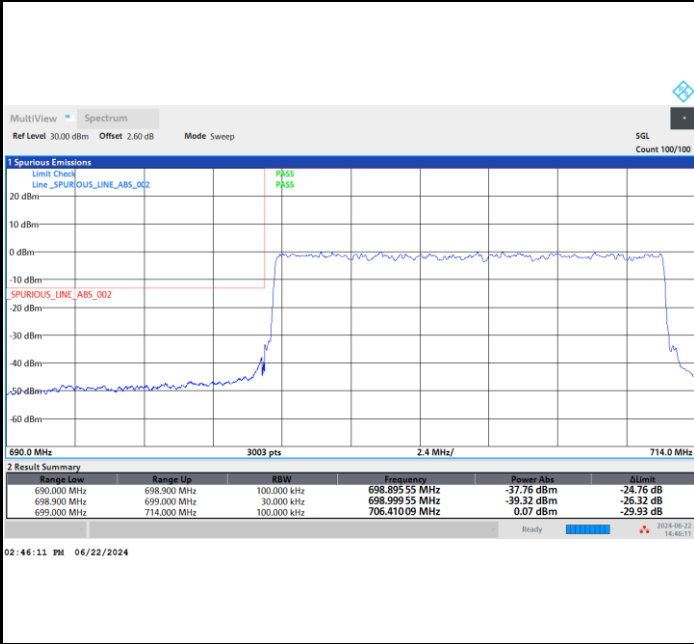




FR1 n12 / 15MHz / DFT-s-OFDM / 256QAM / Full RB

Lowest Band Edge

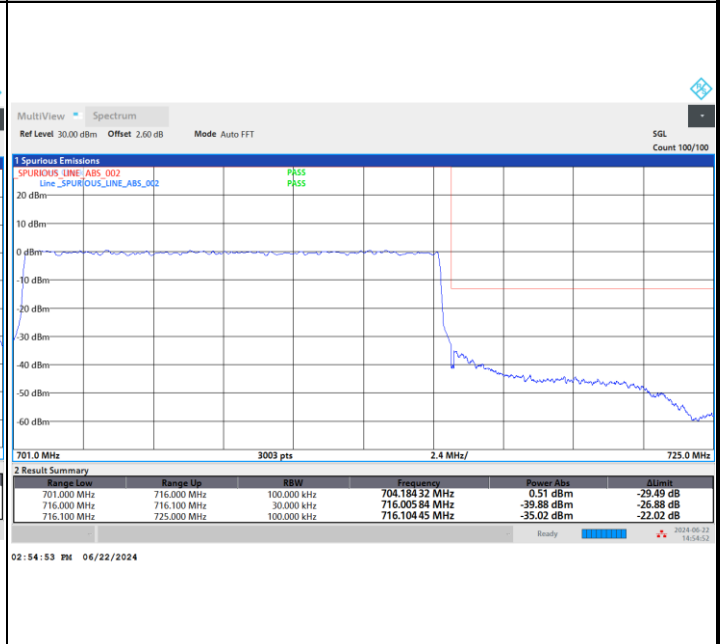
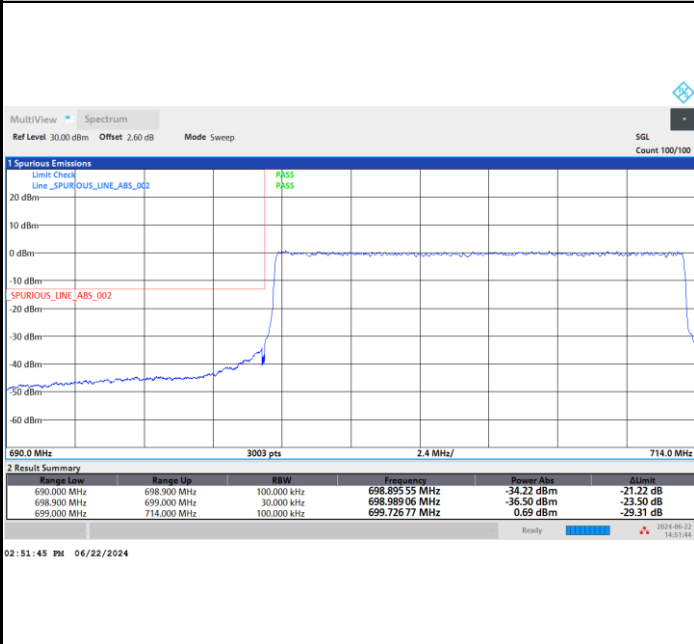
Highest Band Edge



FR1 n12 / 15MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge

Highest Band Edge



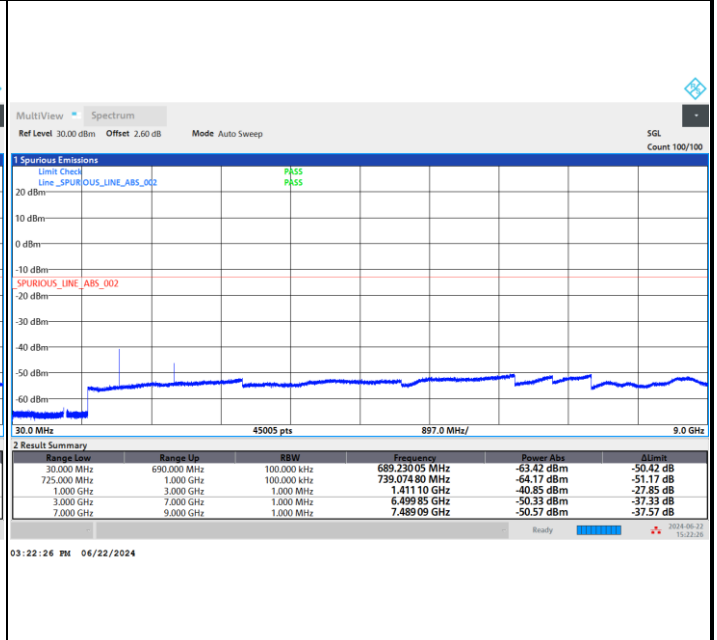
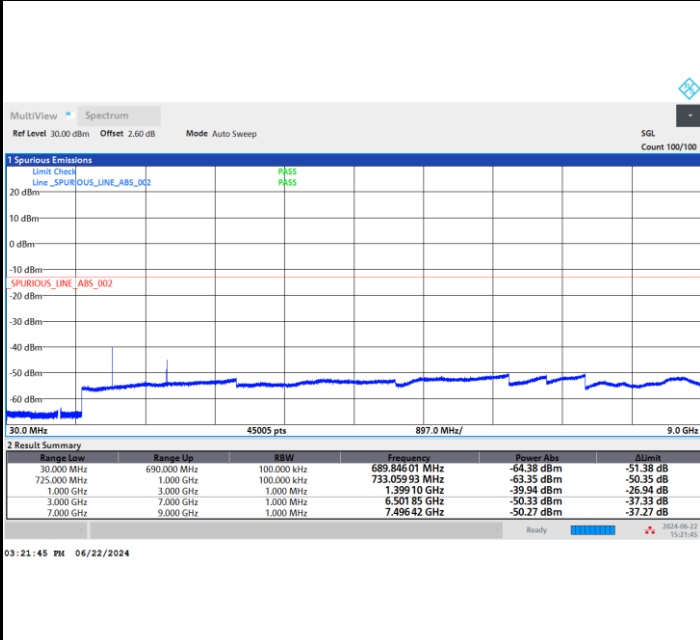


Conducted Spurious Emission

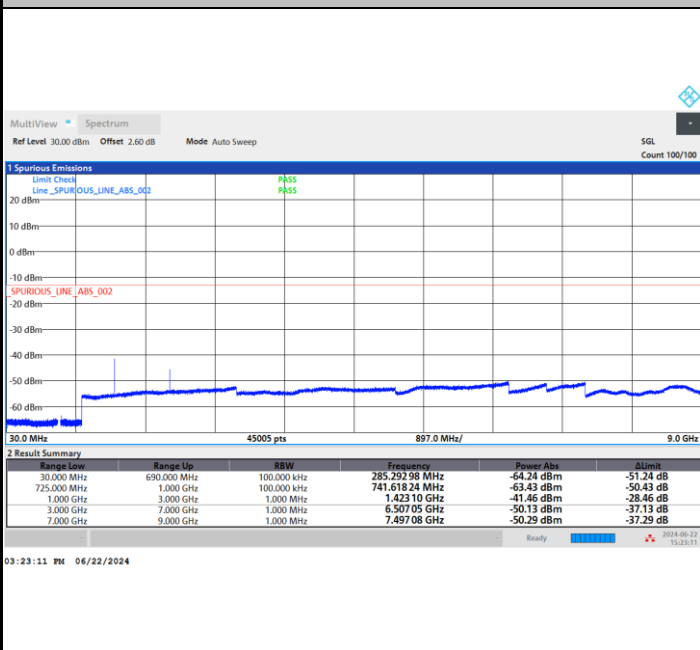
FR1 n12 / 5MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel





Frequency Stability

Test Conditions		FR1 n12 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 15MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0087	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0033	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0022	
0	Normal Voltage	0.0048	
-10	Normal Voltage	0.0042	
-20	Normal Voltage	0.0046	
-30	Normal Voltage	0.0067	
20	Maximum Voltage	0.0049	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0026	

Note:

- 1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 3.465 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



FR1 n13

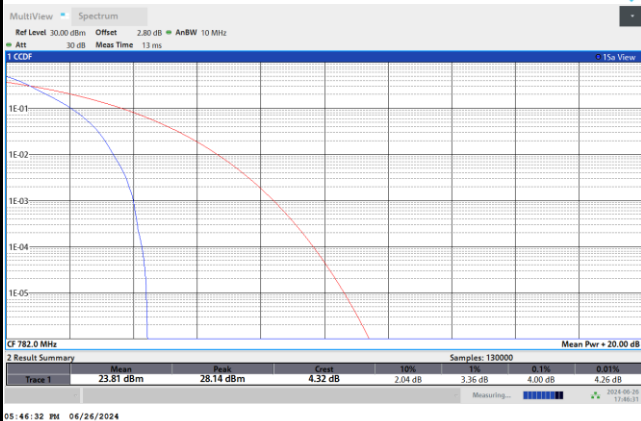
Peak-to-Average Ratio

Mode	FR1 n13 / 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	4.00	4.78	5.66	5.98	PASS
Mode	FR1 n13 / 10MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.58				PASS

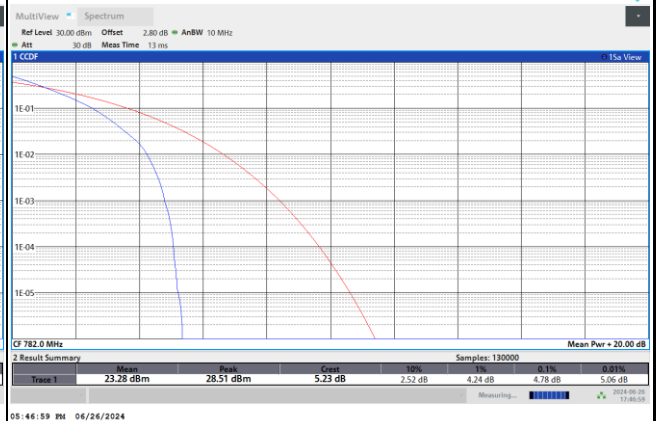


FR1 n13 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

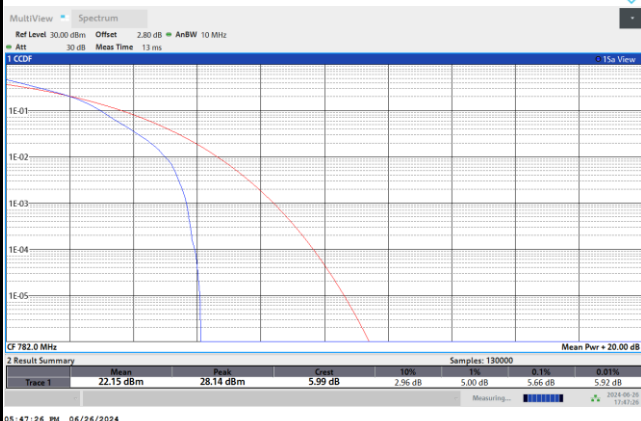
PI/2 BPSK



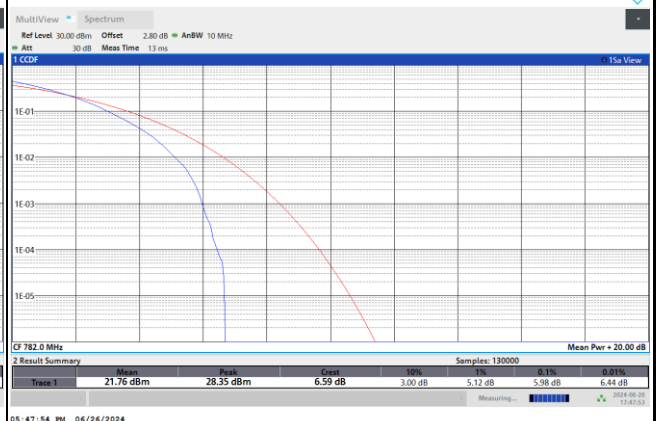
QPSK



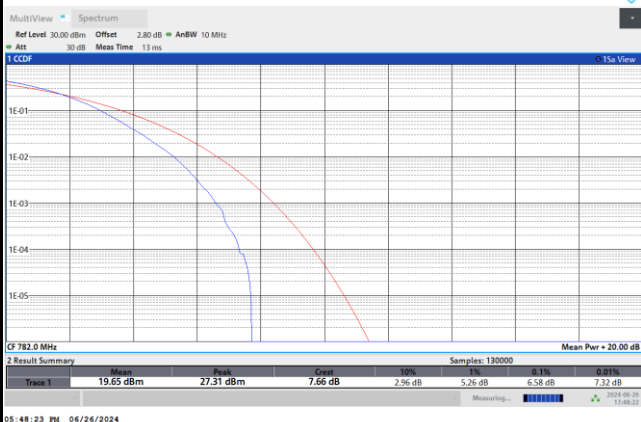
16QAM



64QAM



256QAM





26dB Bandwidth

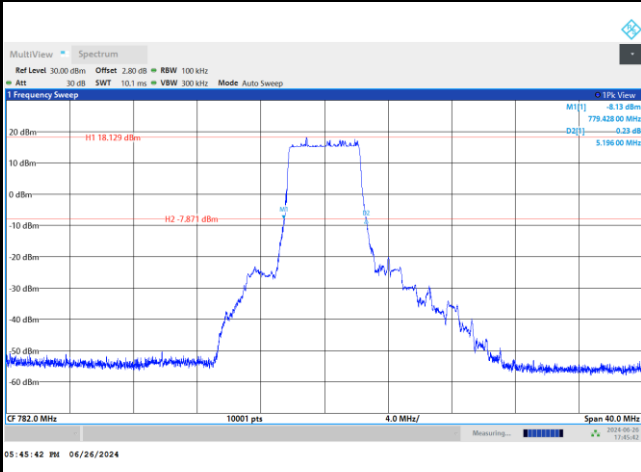
Mode	FR1 n13 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz					
Mod.	PI/2 BPSK		PI/2 BPSK					
Middle CH	5.19		9.82					

Mode	FR1 n13 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM				
Middle CH	5.32	5.24	10.18	10.23				
Mod.	64QAM	256QAM	64QAM	256QAM				
Middle CH	5.22	5.27	10.26	10.24				



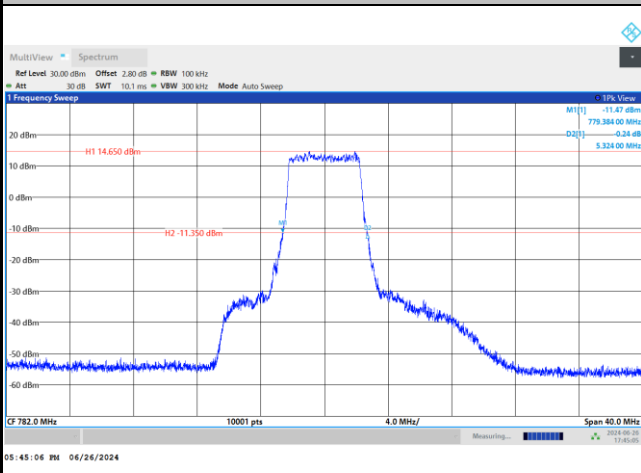
FR1 n13 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

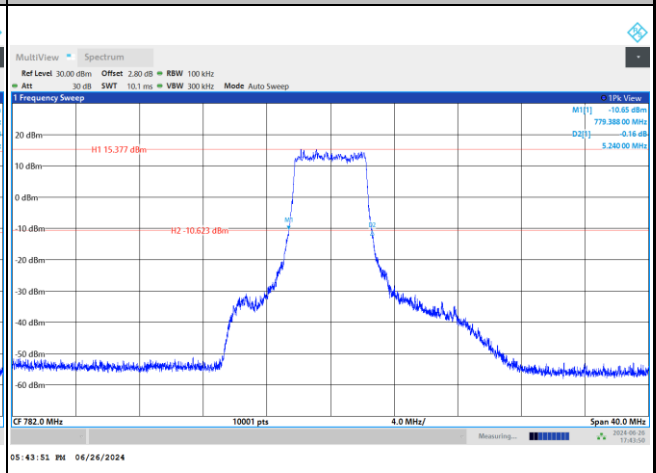


FR1 n13 / 5MHz / CP OFDM / Middle Channel / Full RB

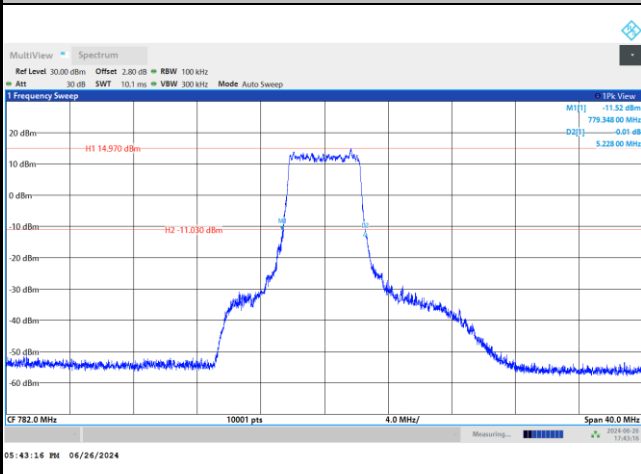
QPSK



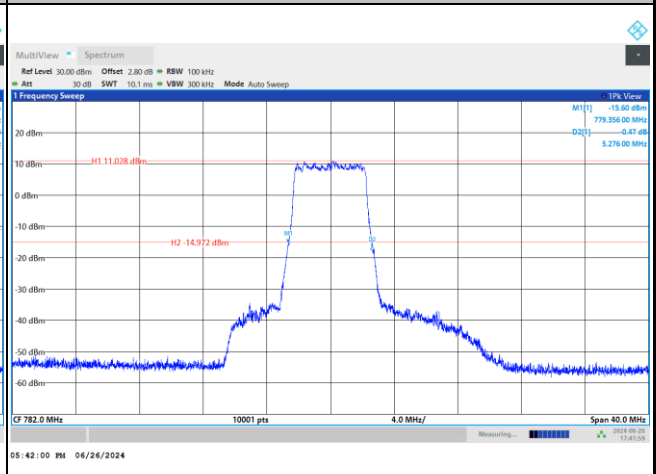
16QAM



64QAM



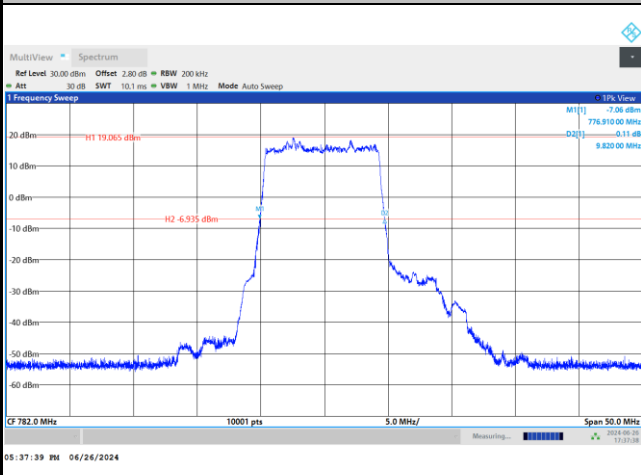
256QAM





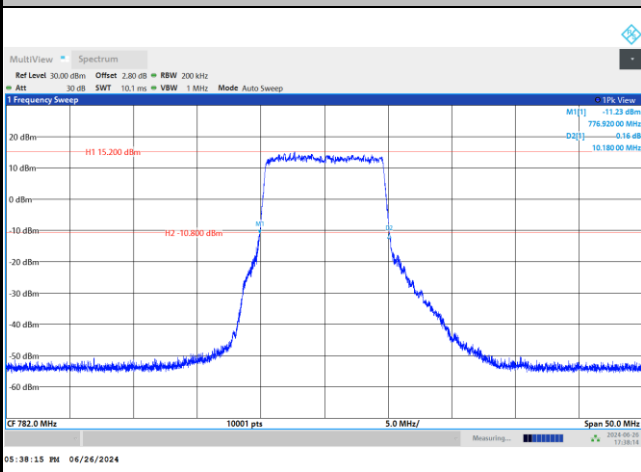
FR1 n13 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

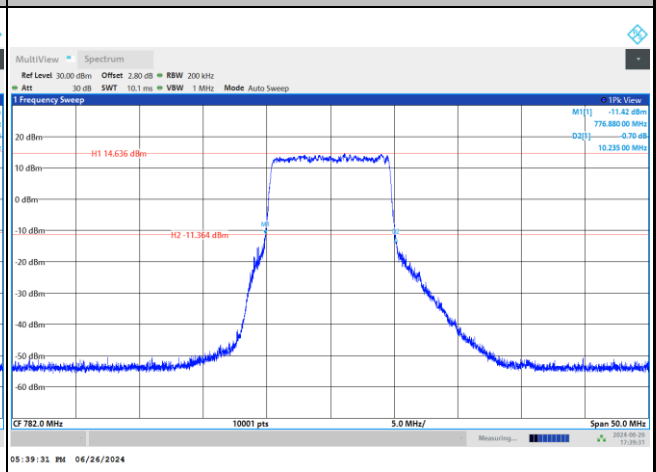


FR1 n13 / 10MHz / CP OFDM / Middle Channel / Full RB

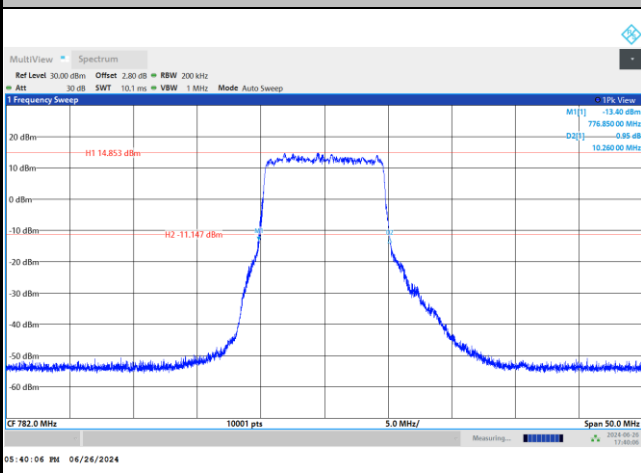
QPSK



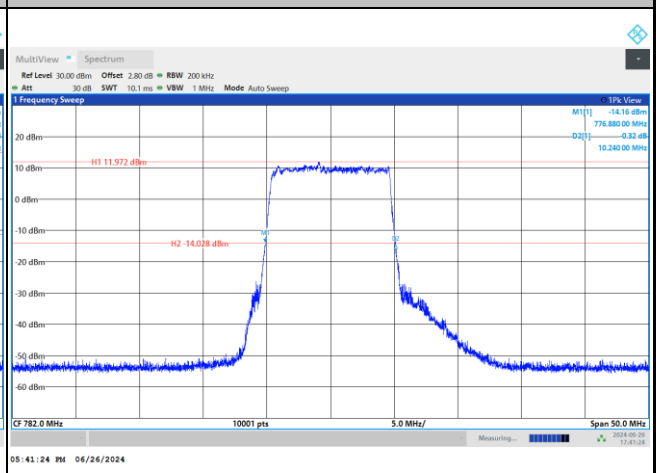
16QAM



64QAM



256QAM





Occupied Bandwidth

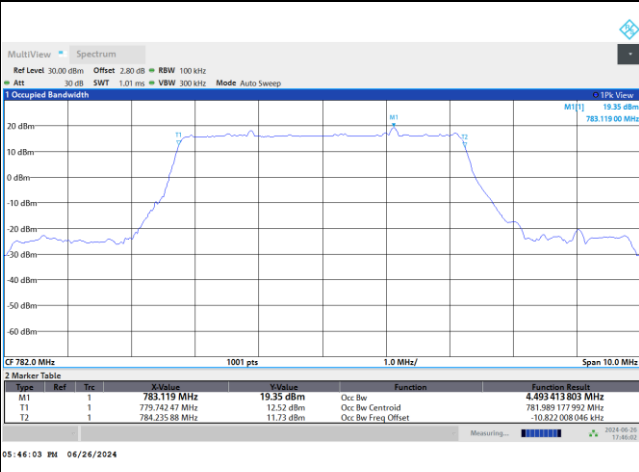
Mode	FR1 n13 : 99%OBW(MHz) / DFT-S OFDM						
BW	5MHz		10MHz				
Mod.	PI/2 BPSK		PI/2 BPSK				
Middle CH	4.49		8.96				

Mode	FR1 n13 : 99%OBW (MHz) / CP OFDM						
BW	5MHz		10MHz				
Mod.	QPSK	16QAM	QPSK	16QAM			
Middle CH	4.53	4.53	9.30	9.29			
Mod.	64QAM	256QAM	64QAM	256QAM			
Middle CH	4.51	4.51	9.28	9.32			



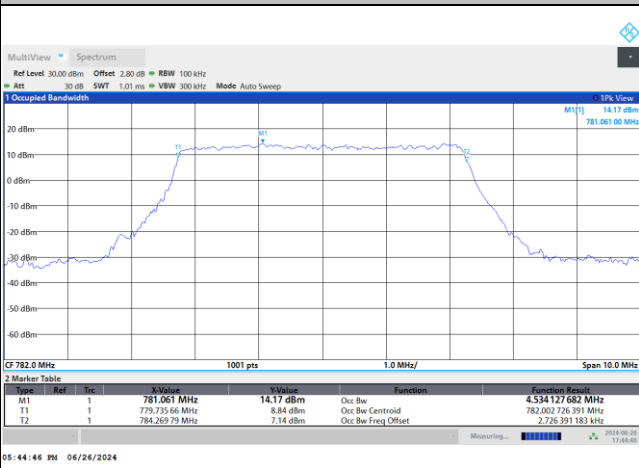
FR1 n13 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

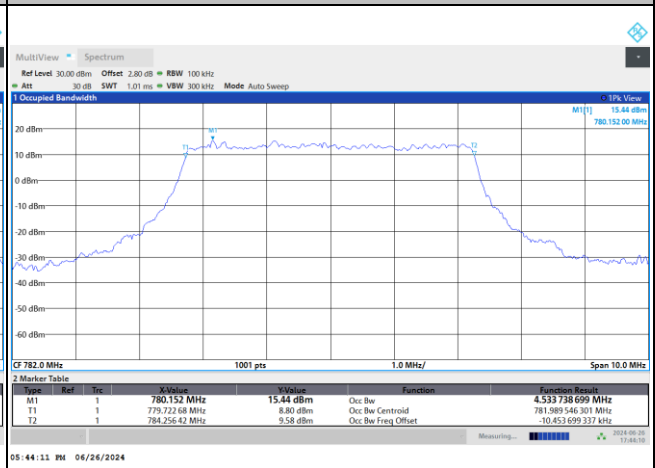


FR1 n13 / 5MHz / CP OFDM / Middle Channel / Full RB

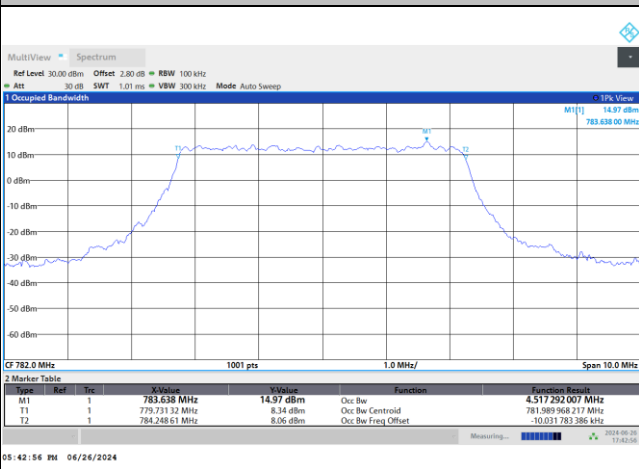
QPSK



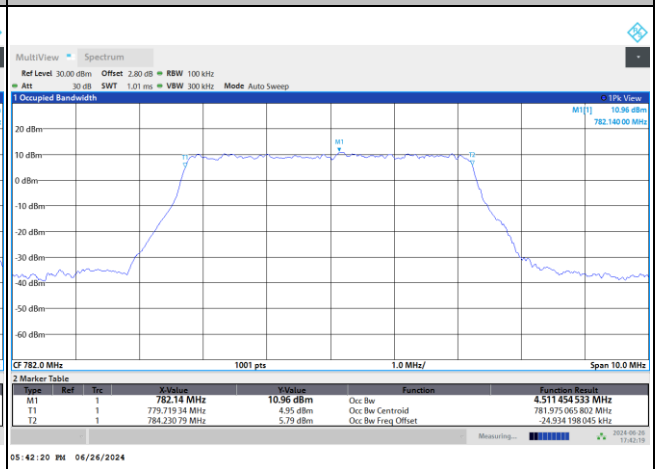
16QAM



64QAM



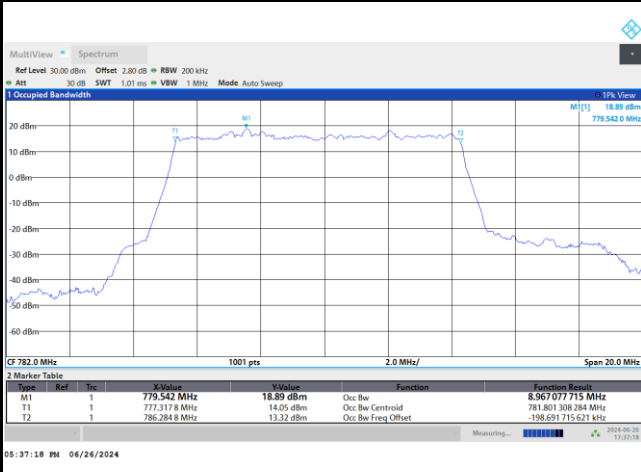
256QAM





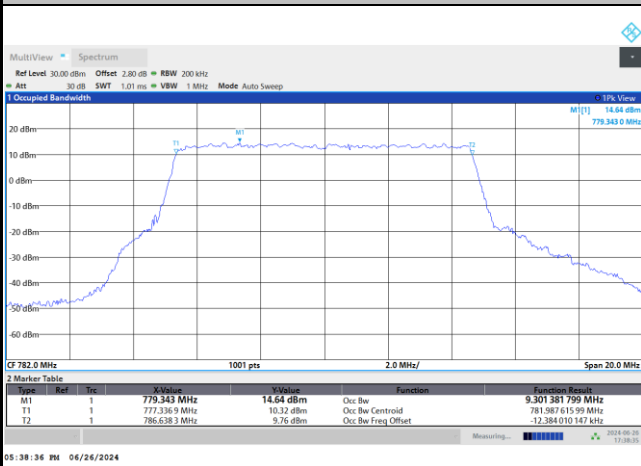
FR1 n13 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

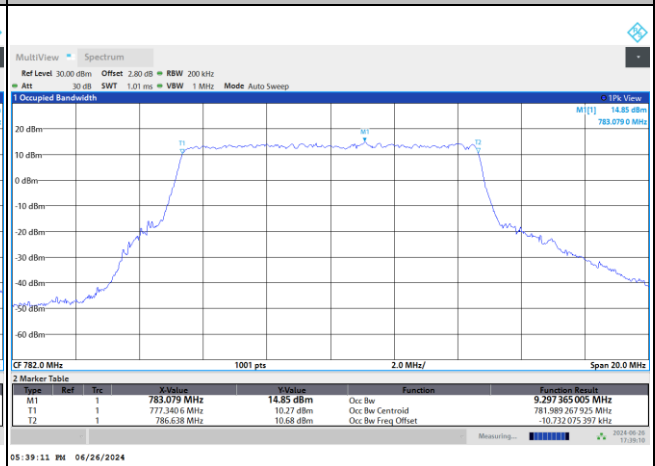


FR1 n13 / 10MHz / CP OFDM / Middle Channel / Full RB

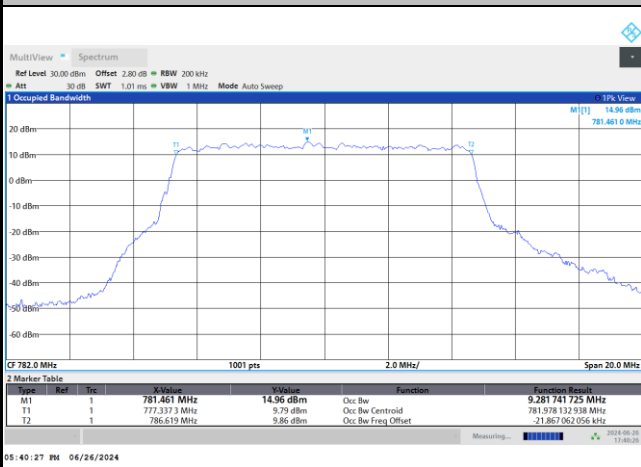
QPSK



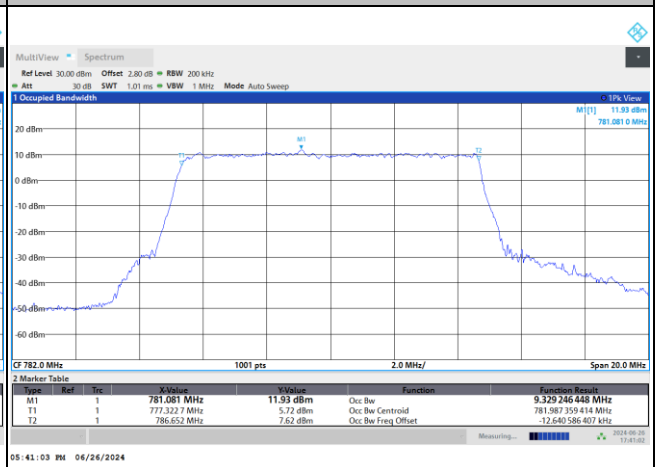
16QAM



64QAM



256QAM



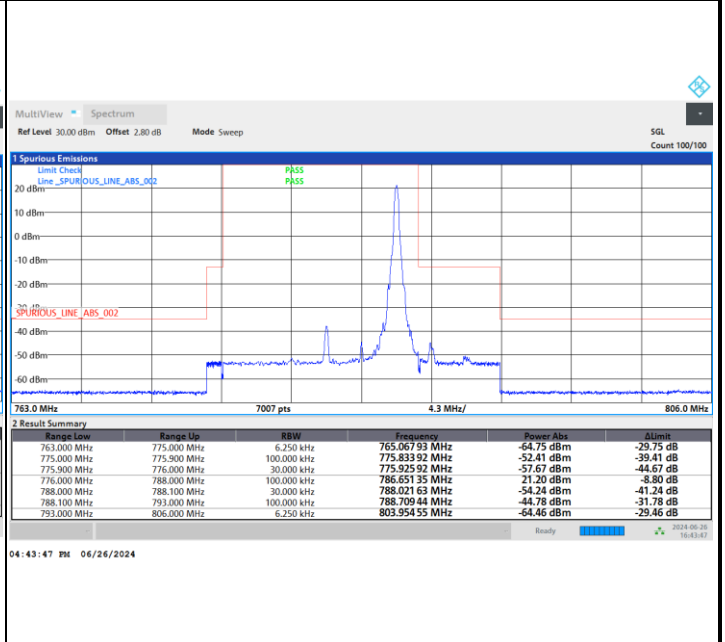
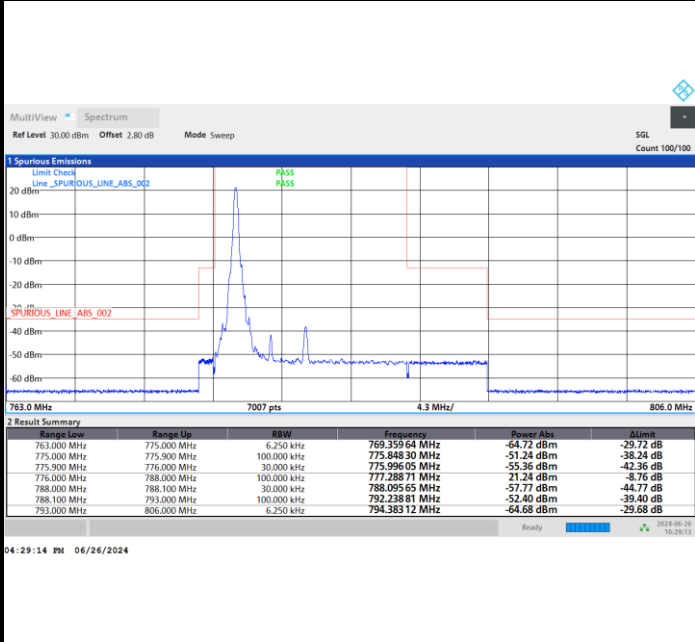


Conducted Band Edge

FR1 n13 / 5MHz / DFT-S OFDM / PI/2 BPSK

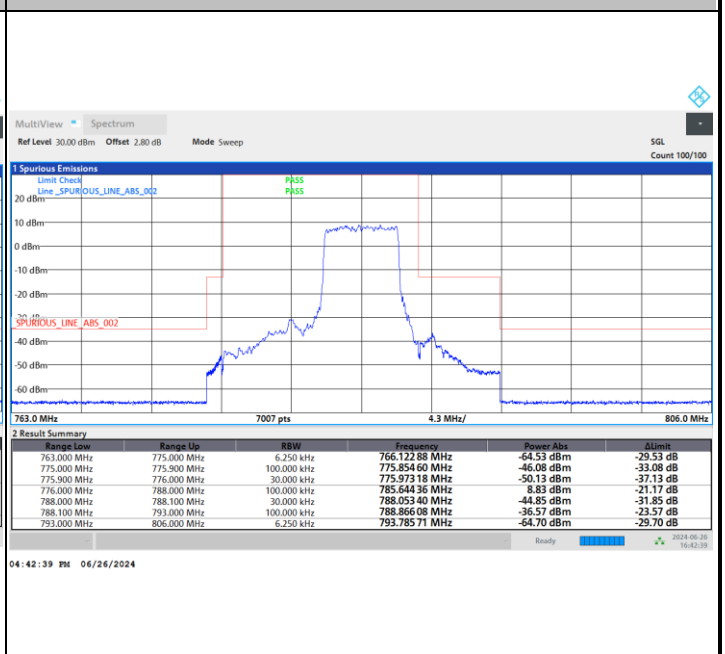
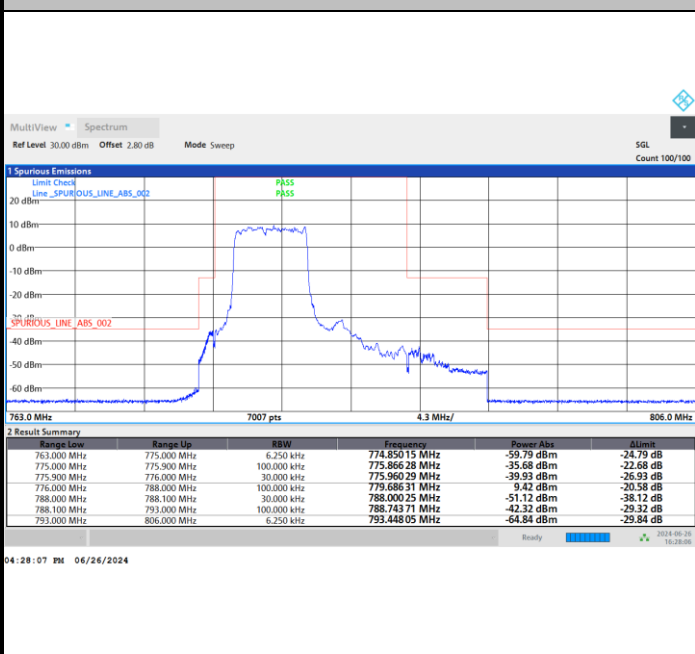
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

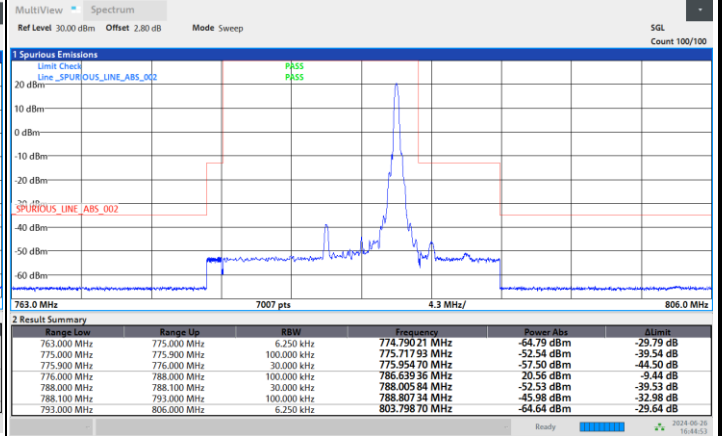
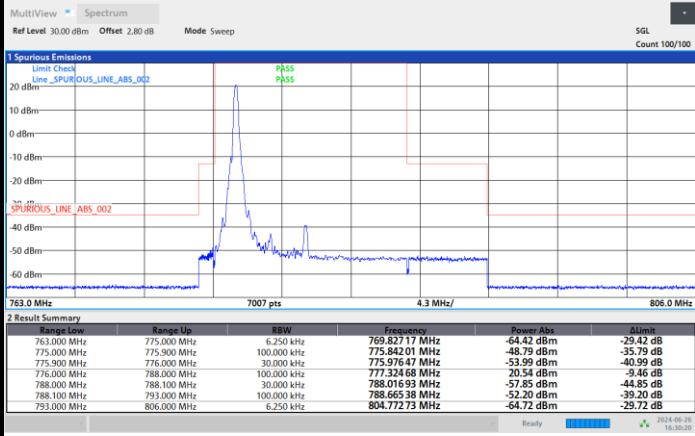




FR1 n13 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

