

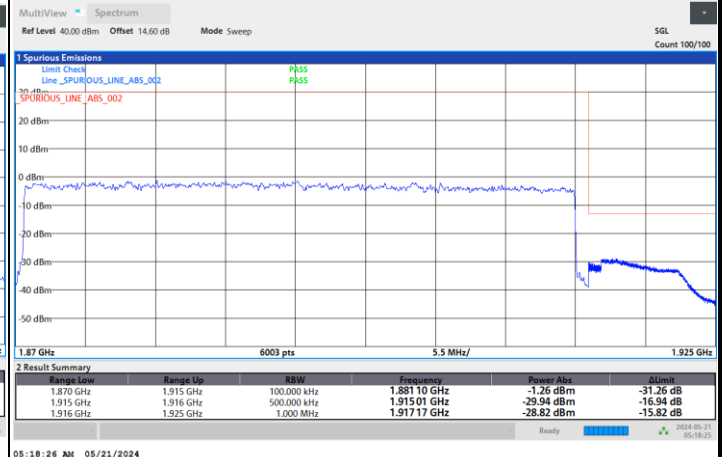


FR1 n25 / 45MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / Full RB

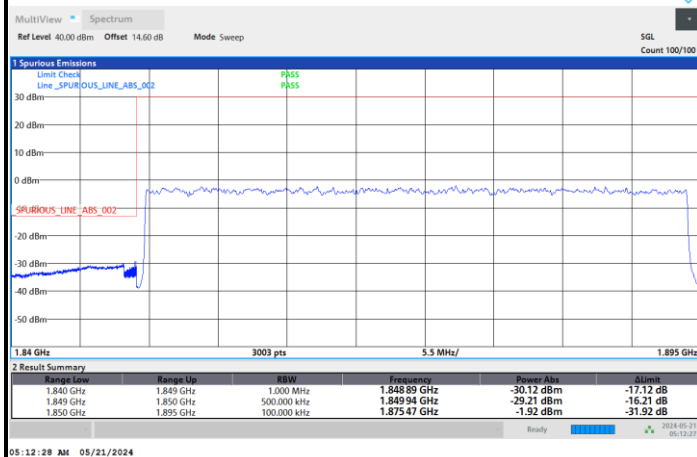


Highest Band Edge / Full RB

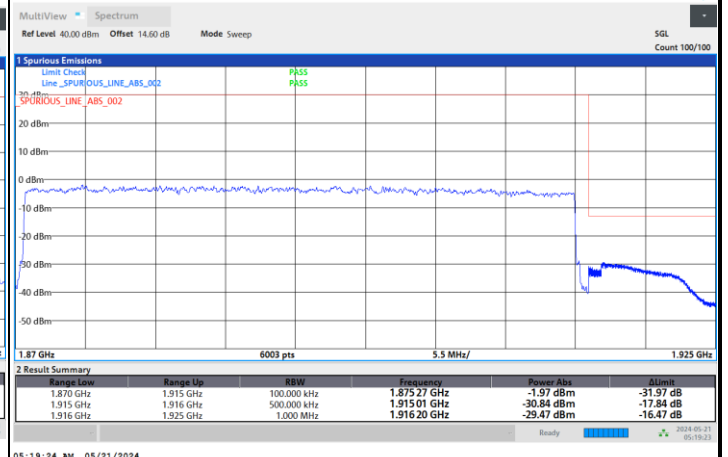


FR1 n25 / 45MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / Full RB



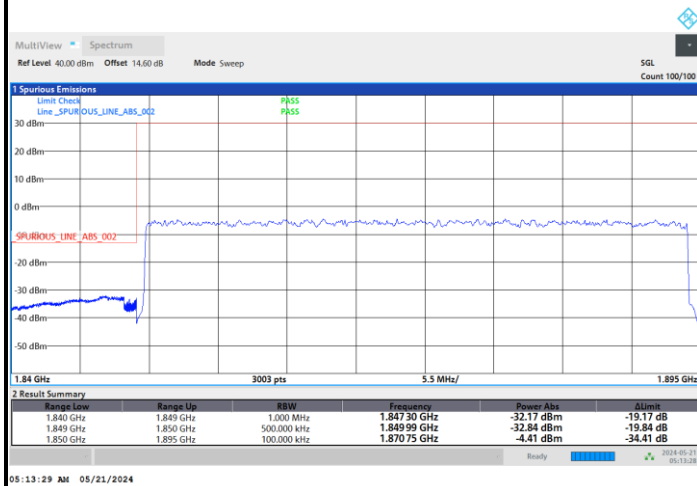
Highest Band Edge / Full RB



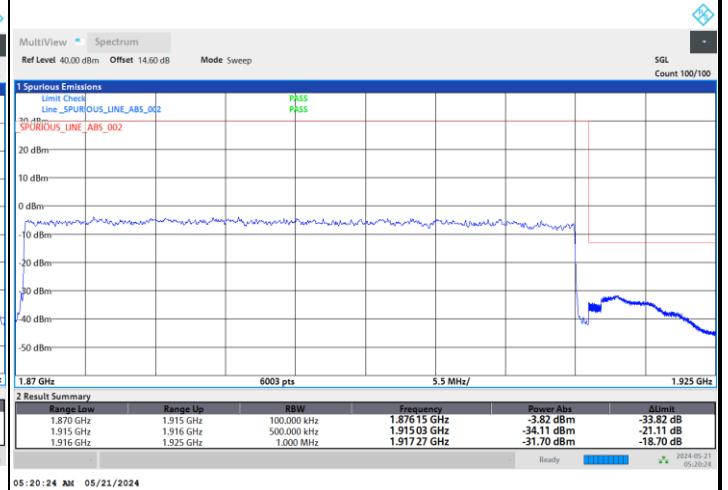


FR1 n25 / 45MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / Full RB

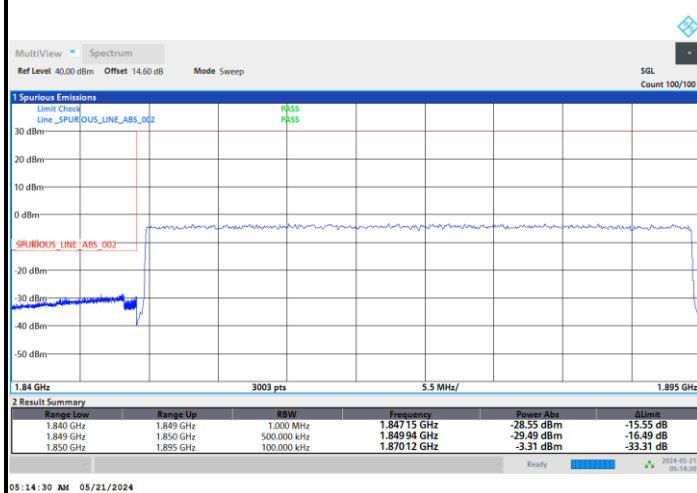


Highest Band Edge / Full RB

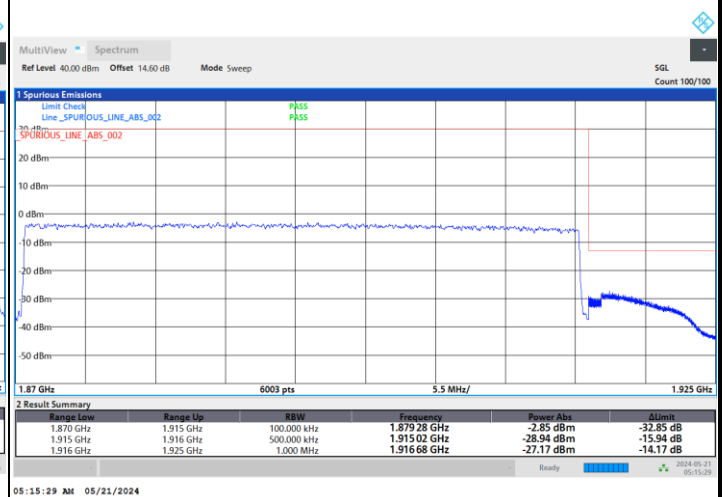


FR1 n25 / 45MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



Highest Band Edge

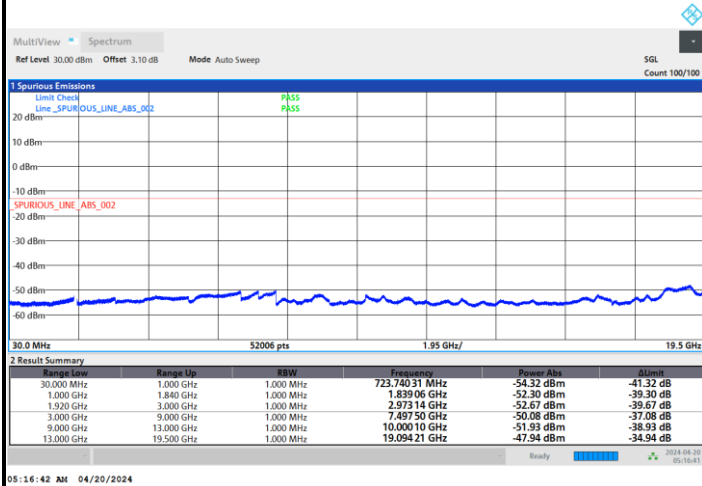




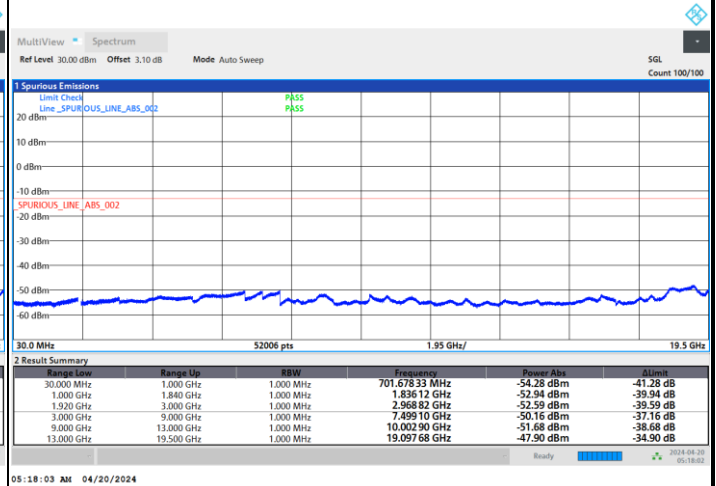
Conducted Spurious Emission

FR1 n25 / 5MHz / DFT-S OFDM / QPSK / 1RB1

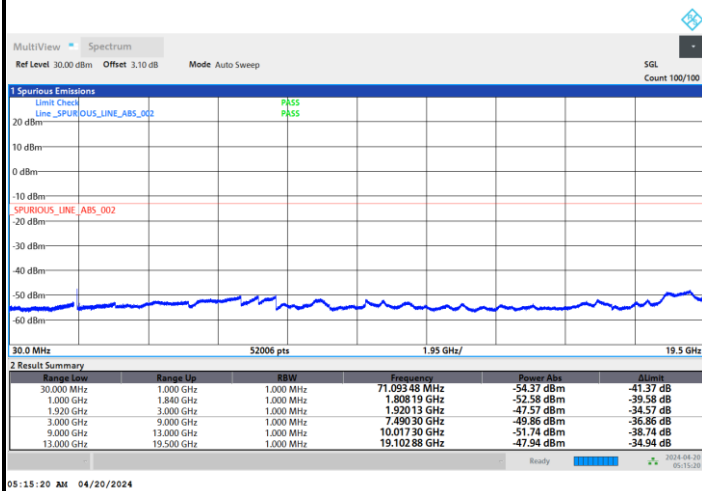
Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n25 (PI/2 BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0032	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0002	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0034	
-30	Normal Voltage	0.0039	
20	Maximum Voltage	0.0020	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0020	

Note:

1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

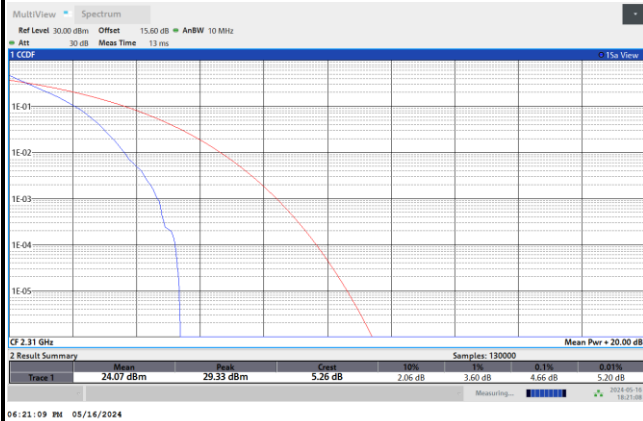
**FR1 n30****Peak-to-Average Ratio**

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	4.66	5.88	6.50	6.70	PASS
Mode	FR1 n30 / 10MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	7.00				PASS

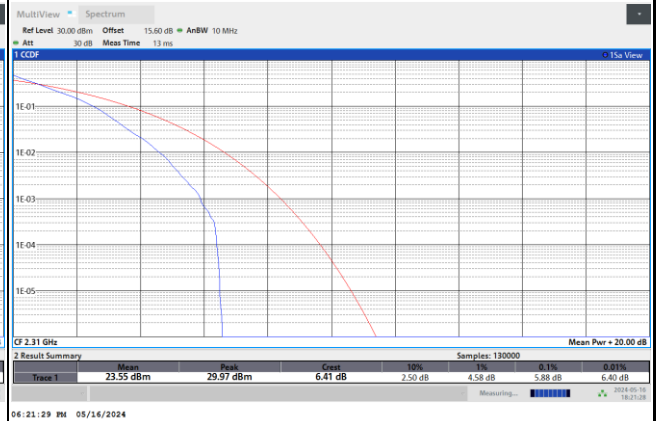


FR1 n30 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

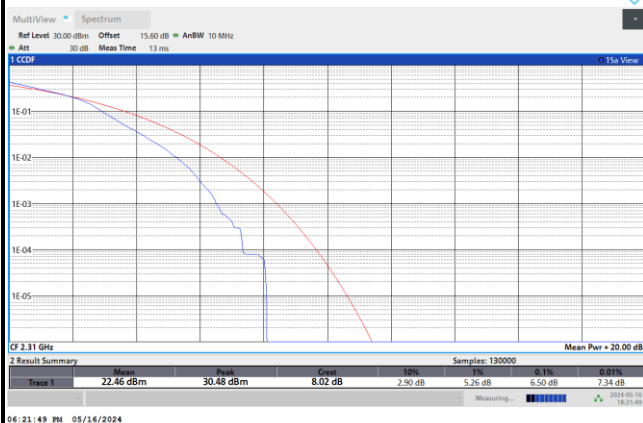
PI/2 BPSK



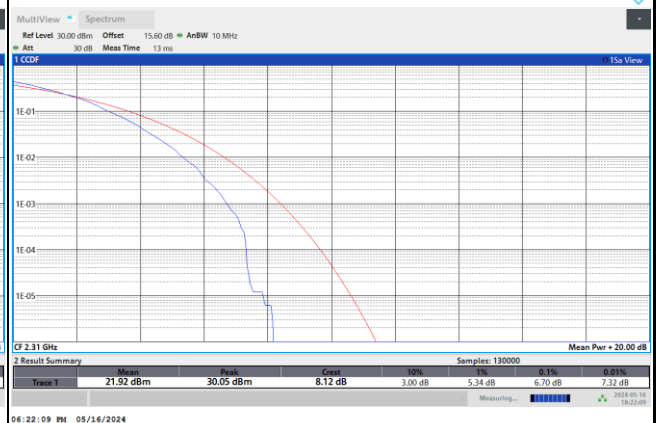
QPSK



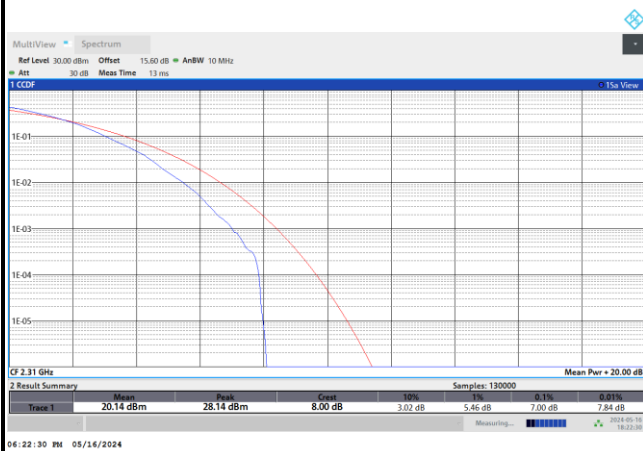
16QAM



64QAM



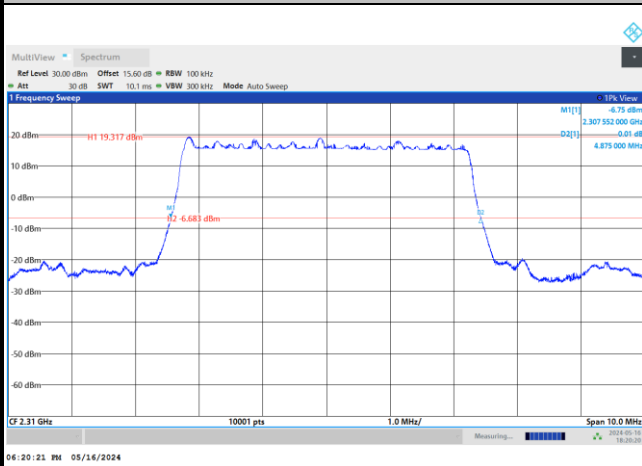
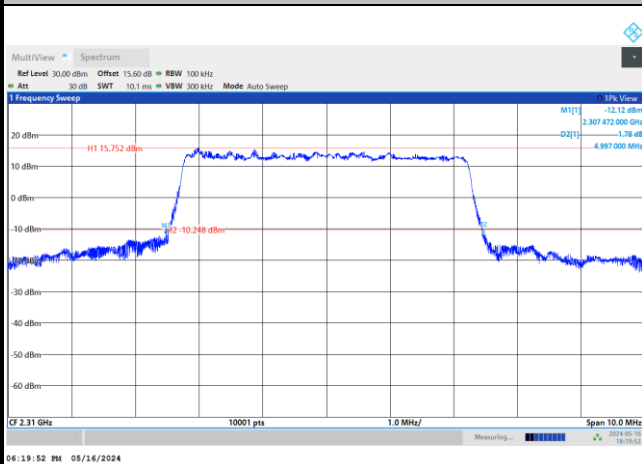
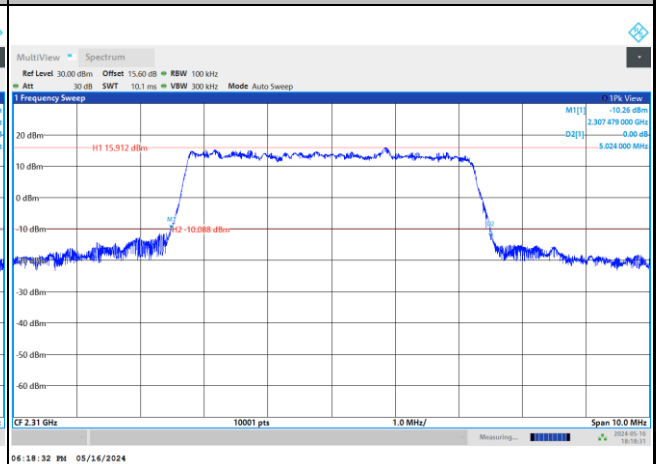
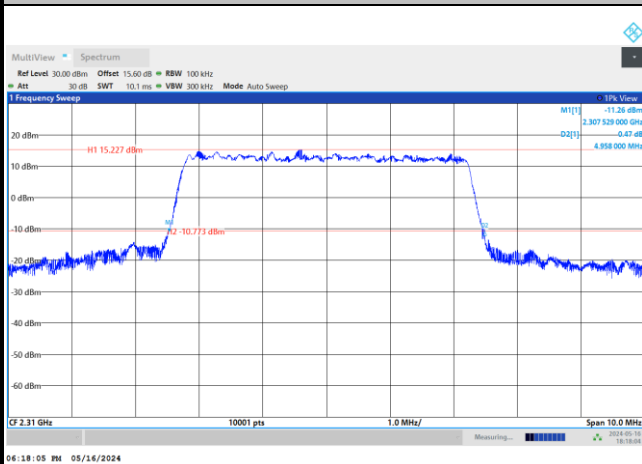
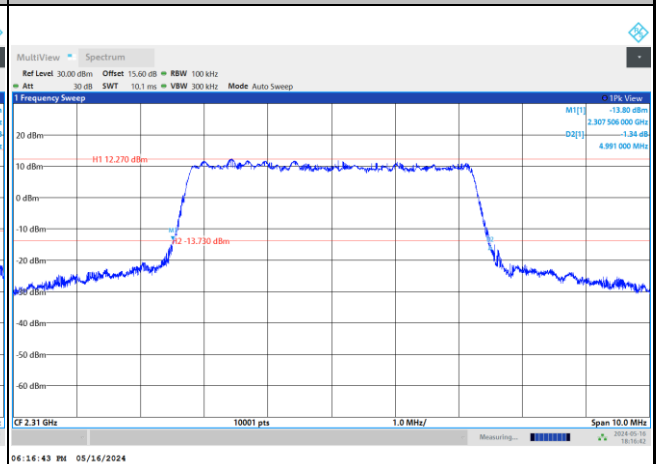
256QAM



**26dB Bandwidth**

Mode	FR1 n30 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz					
Mod.	PI/2 BPSK		PI/2 BPSK					
Middle CH	4.87		9.77					

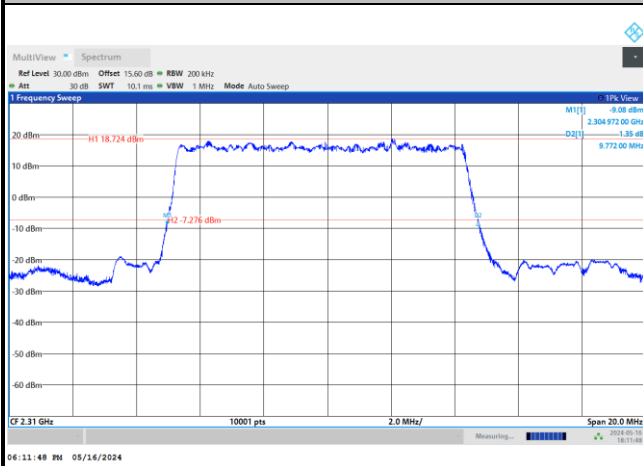
Mode	FR1 n30 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM				
Middle CH	5.00	5.02	10.13	10.11				
Mod.	64QAM	256QAM	64QAM	256QAM				
Middle CH	4.96	4.99	10.08	10.06				

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

FR1 n30 / 5MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM




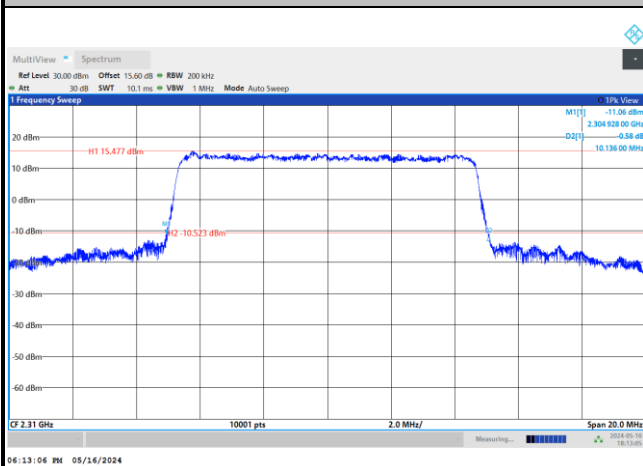
FR1 n30 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

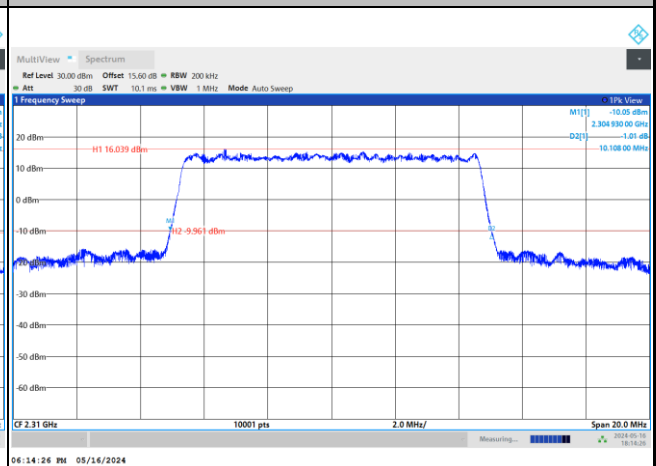


FR1 n30 / 10MHz / CP OFDM / Middle Channel / Full RB

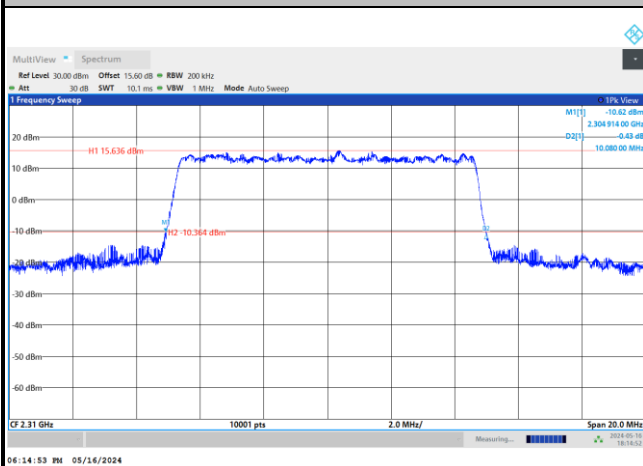
QPSK



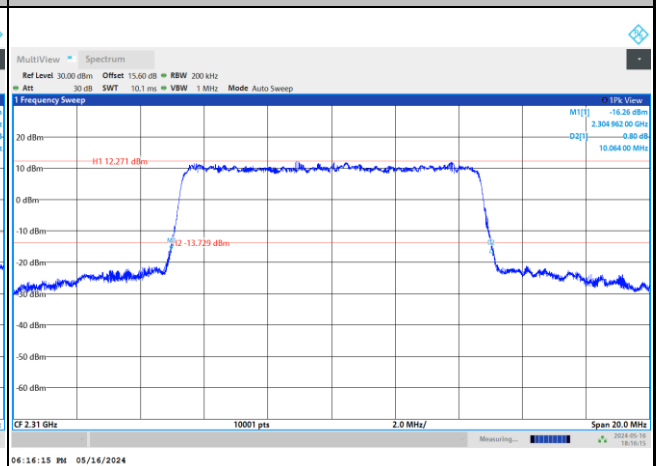
16QAM



64QAM



256QAM



**Occupied Bandwidth**

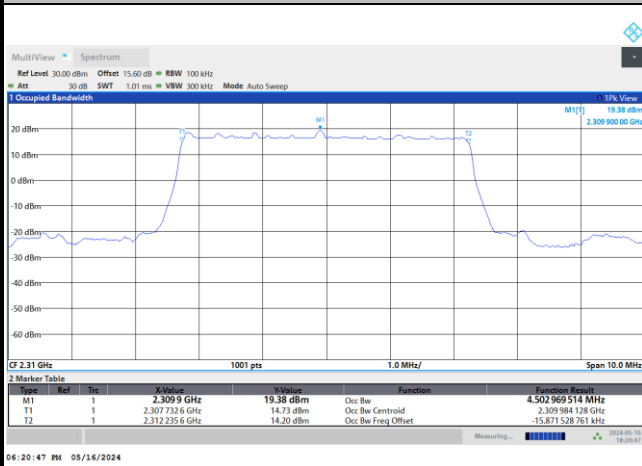
Mode	FR1 n30 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz					
Mod.	PI/2 BPSK		PI/2 BPSK					
Middle CH	4.50		9.02					

Mode	FR1 n30 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM				
Middle CH	4.49	4.51	9.33	9.33				
Mod.	64QAM	256QAM	64QAM	256QAM				
Middle CH	4.50	4.49	9.34	9.31				



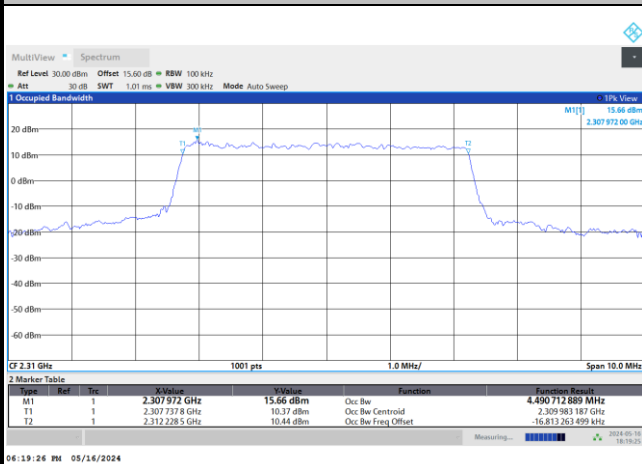
FR1 n30 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

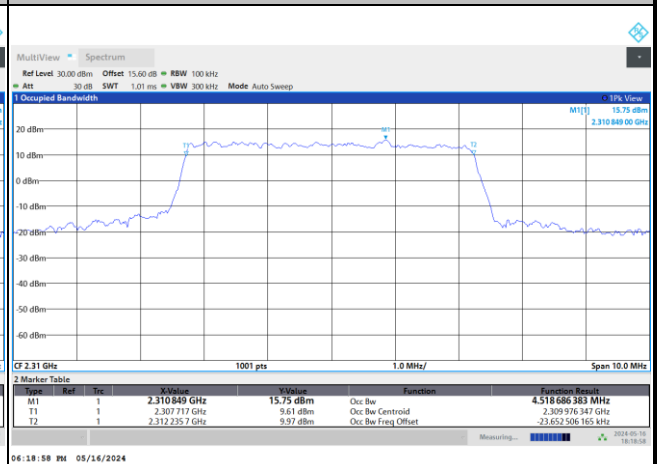


FR1 n30 / 5MHz / CP OFDM / Middle Channel / Full RB

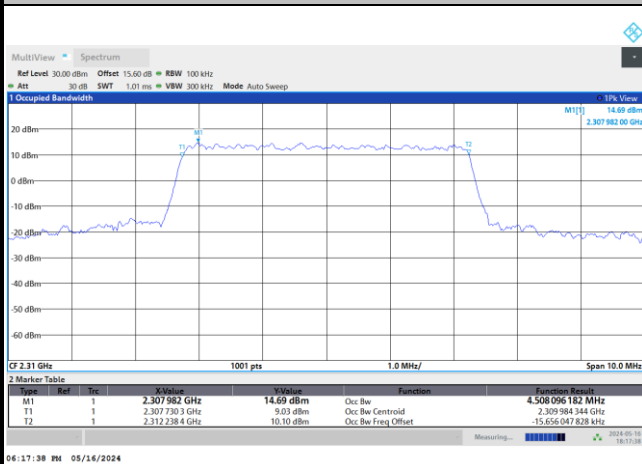
QPSK



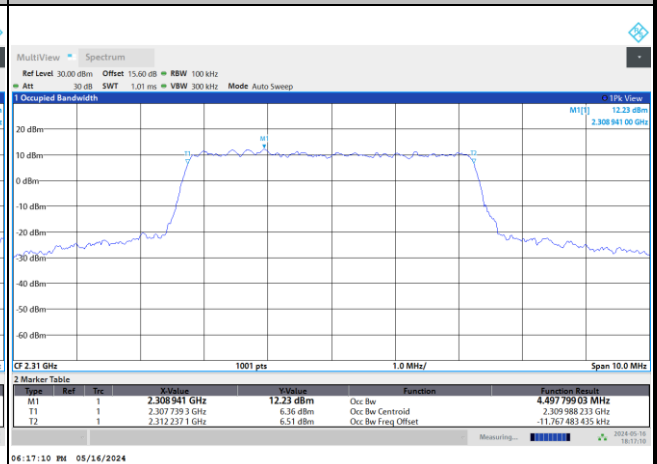
16QAM



64QAM



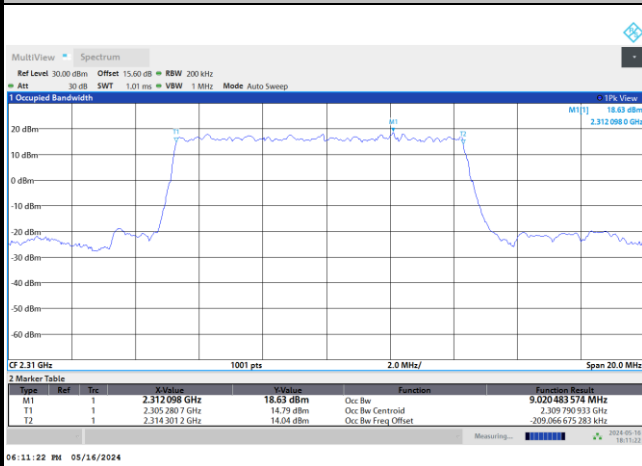
256QAM





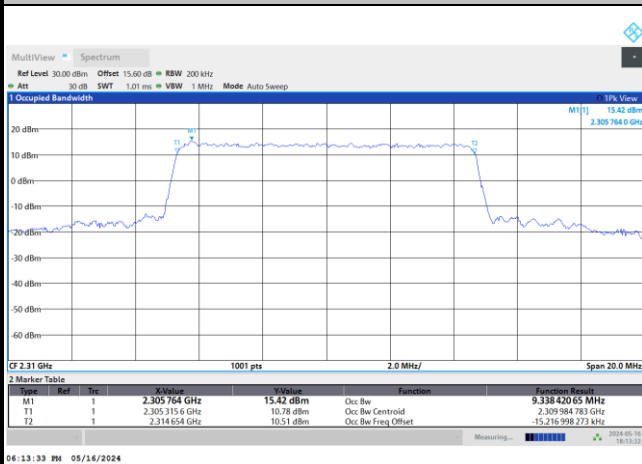
FR1 n30 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

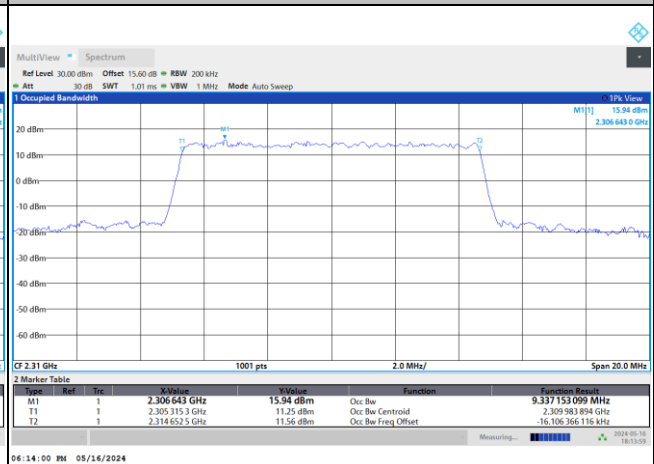


FR1 n30 / 10MHz / CP OFDM / Middle Channel / Full RB

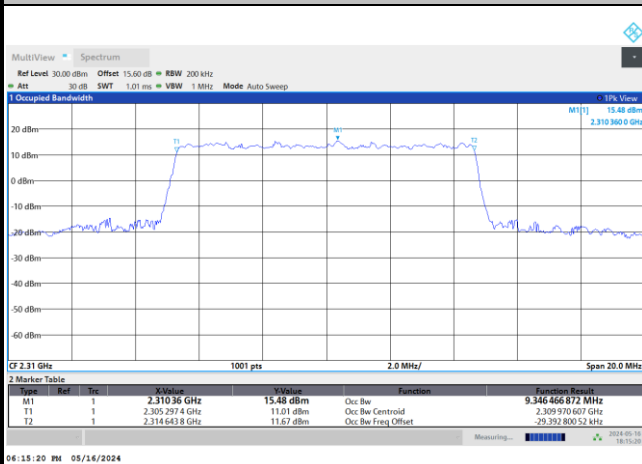
QPSK



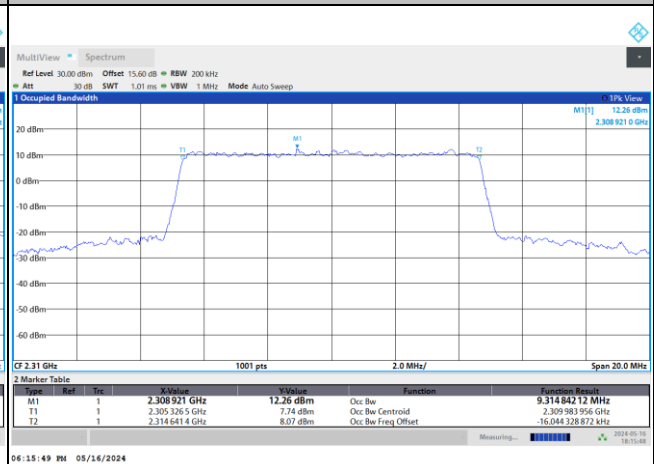
16QAM



64QAM



256QAM



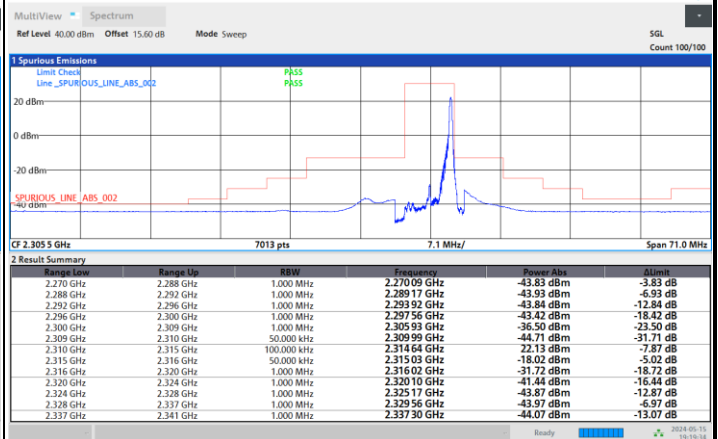
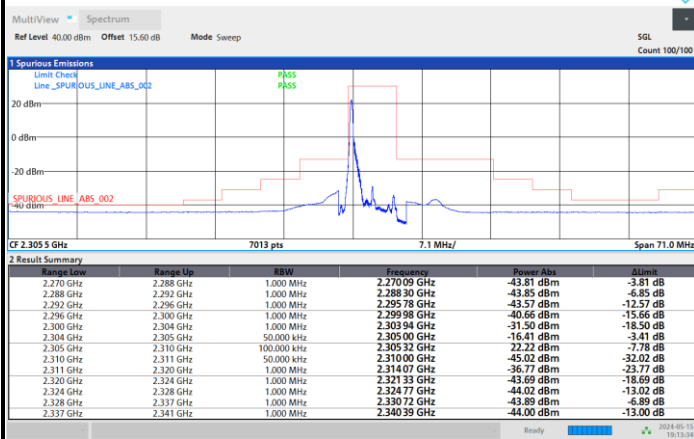


Conducted Band Edge

FR1 n30 / 5MHz / DFT-S OFDM / PI/2 BPSK

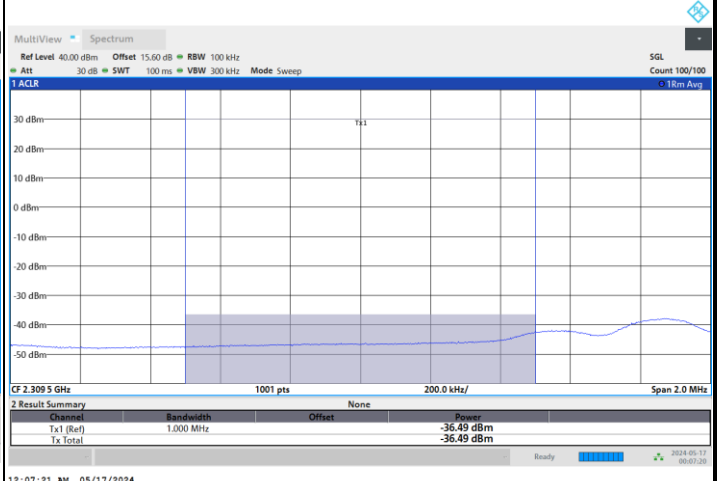
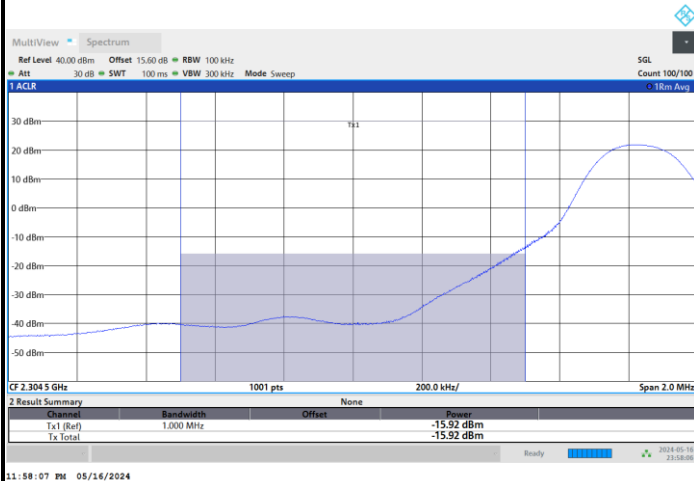
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / 1 RB / Lower zoom in

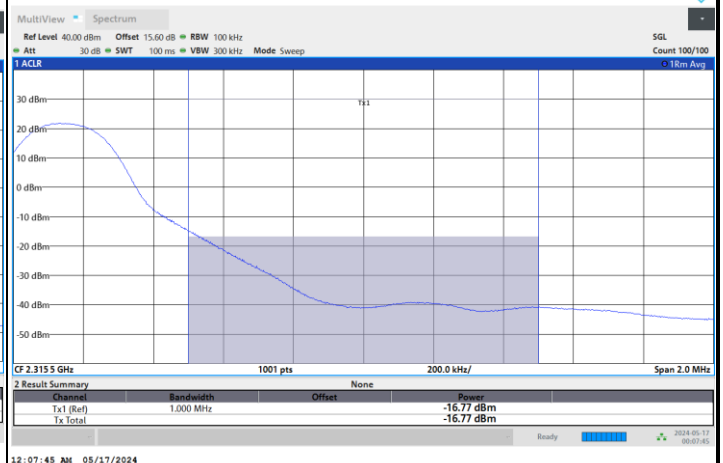
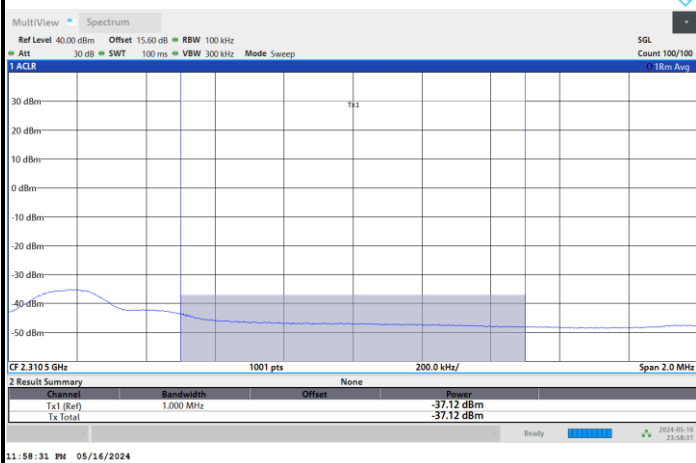
Highest Band Edge / 1 RB / Lower zoom in





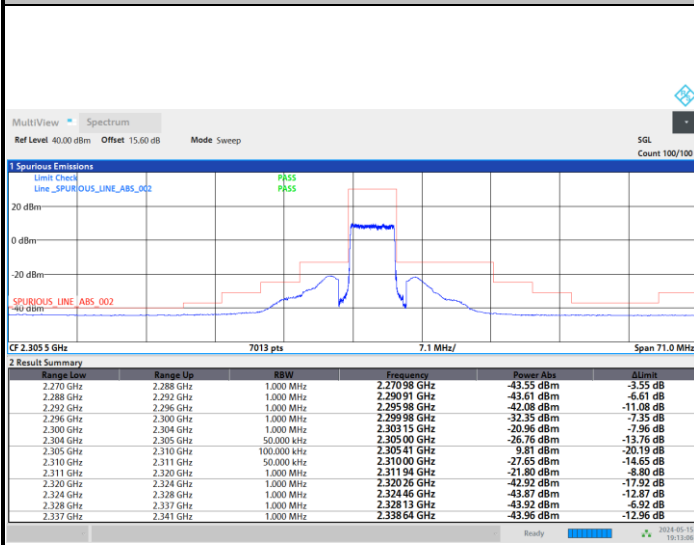
Lowest Band Edge / 1 RB / Upper zoom in

Highest Band Edge / 1 RB / Upper zoom in

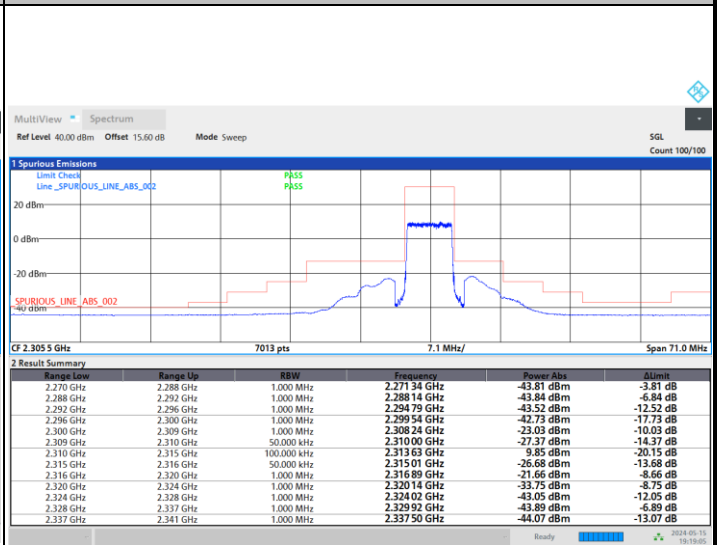




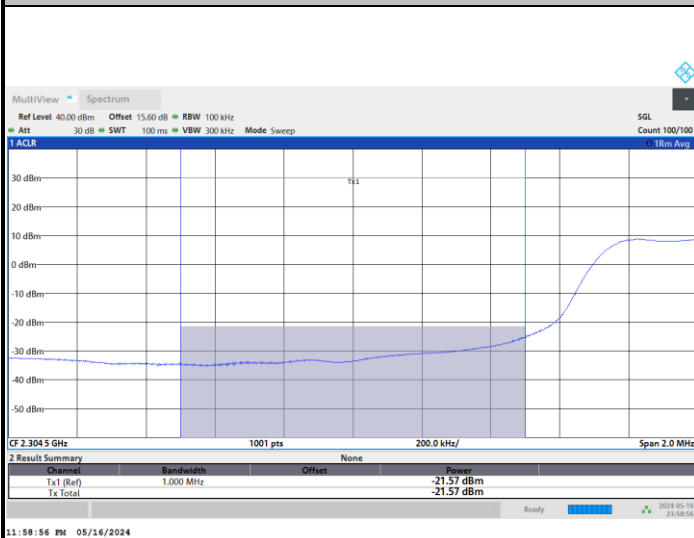
Lowest Band Edge / Full RB



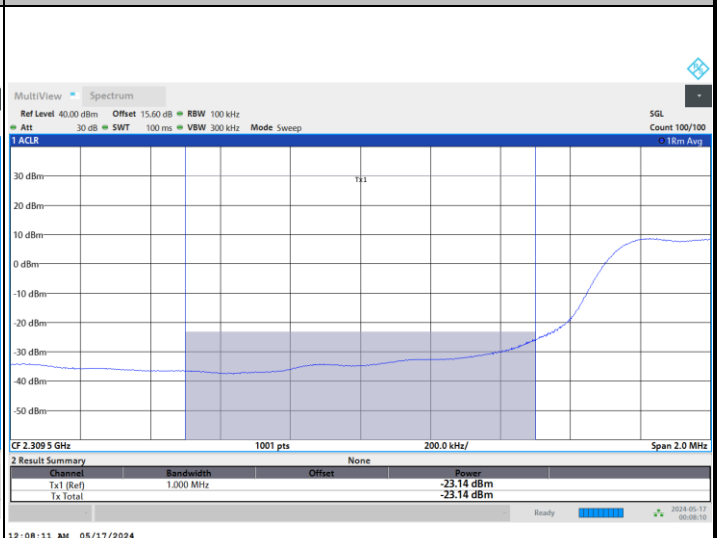
Highest Band Edge / Full RB

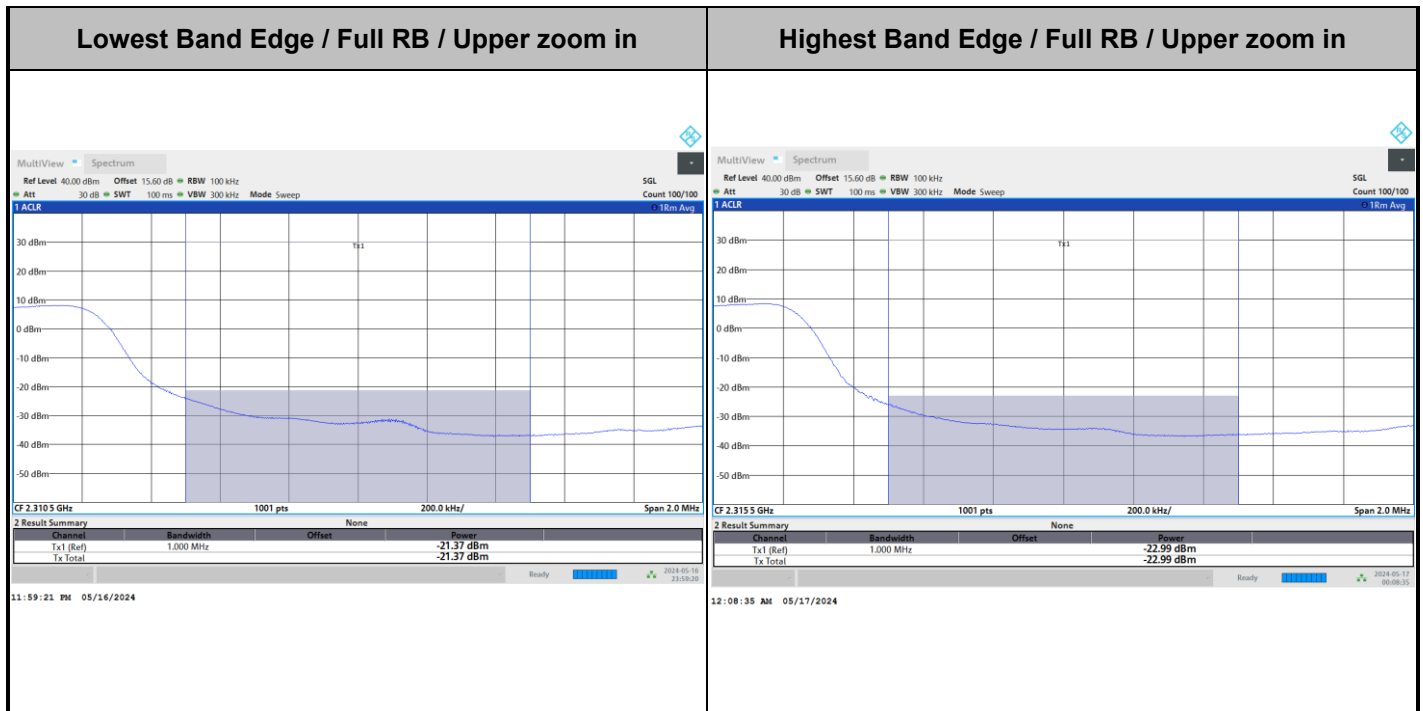


Lowest Band Edge / Full RB / Lower zoom in



Highest Band Edge / Full RB / Lower zoom in



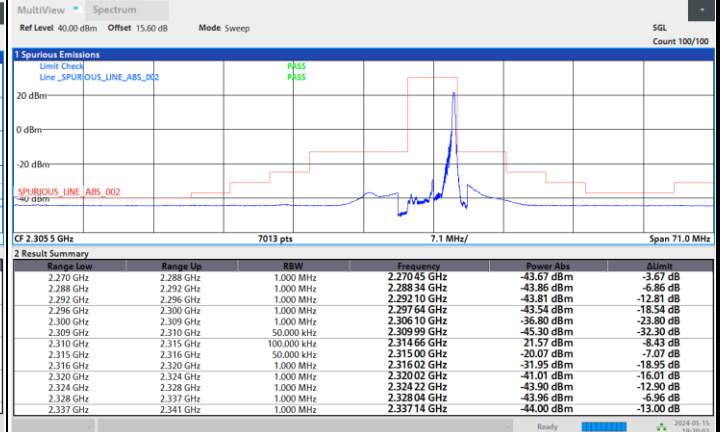
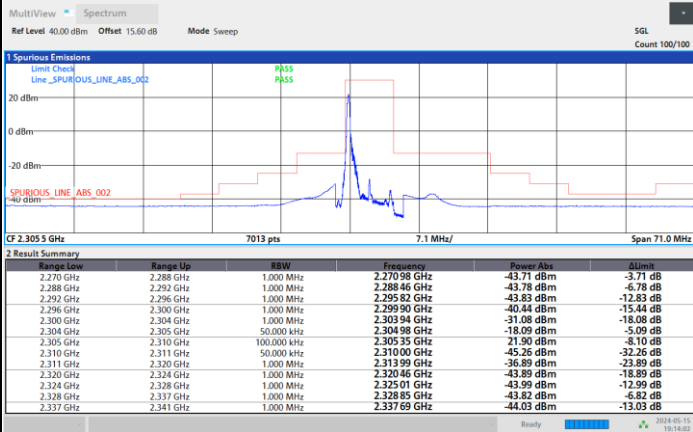




FR1 n30 / 5MHz / DFT-S OFDM / QPSK

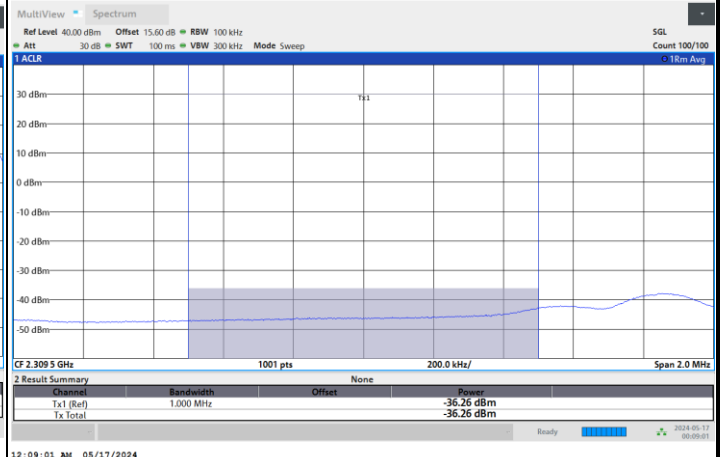
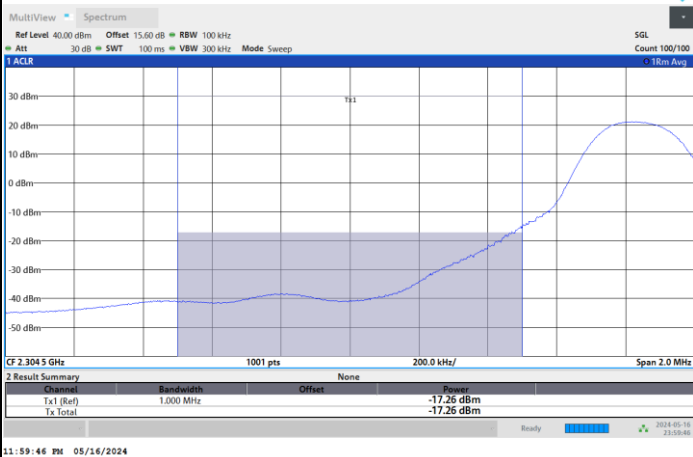
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / 1 RB / Lower zoom in

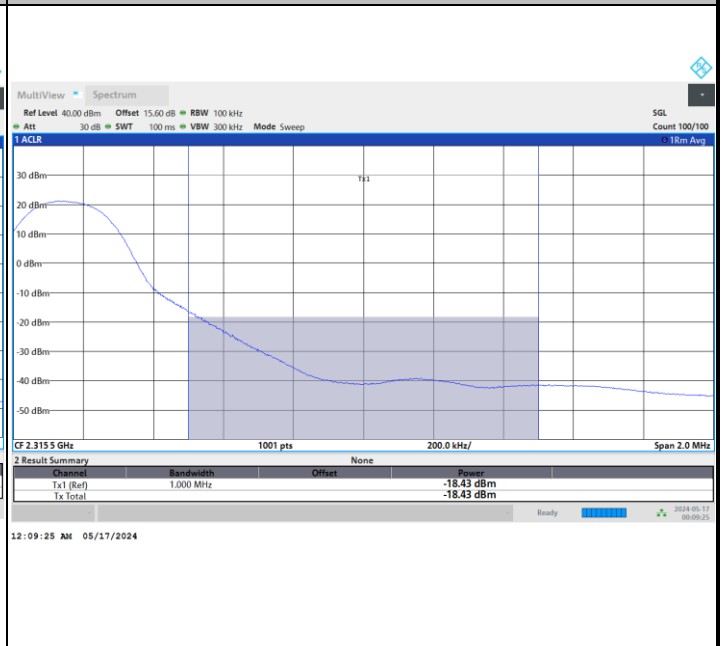
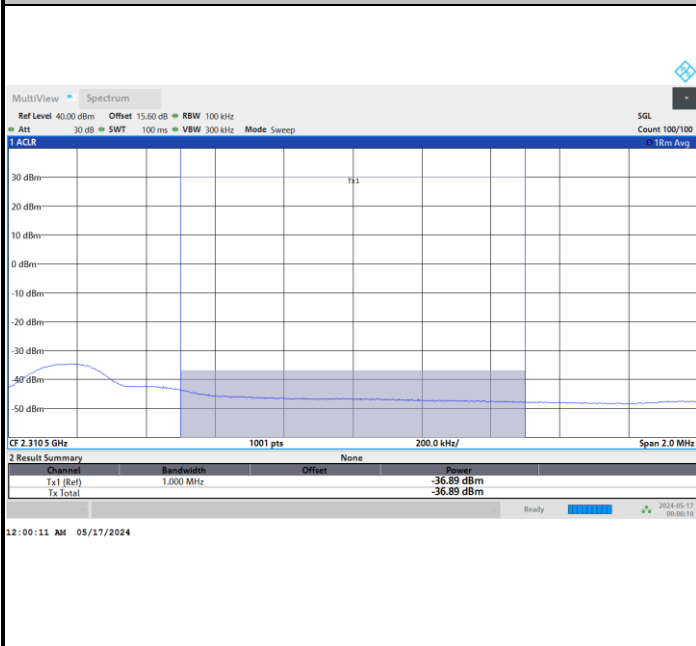
Highest Band Edge / 1 RB / Lower zoom in





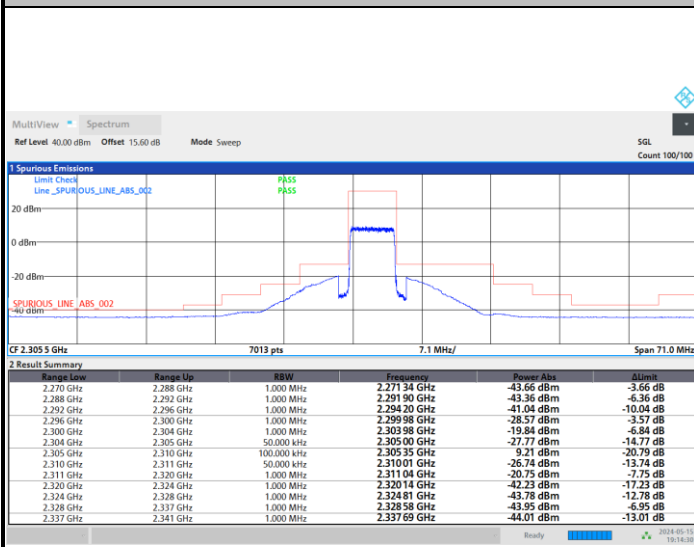
Lowest Band Edge / 1 RB / Upper zoom in

Highest Band Edge / 1 RB / Upper zoom in

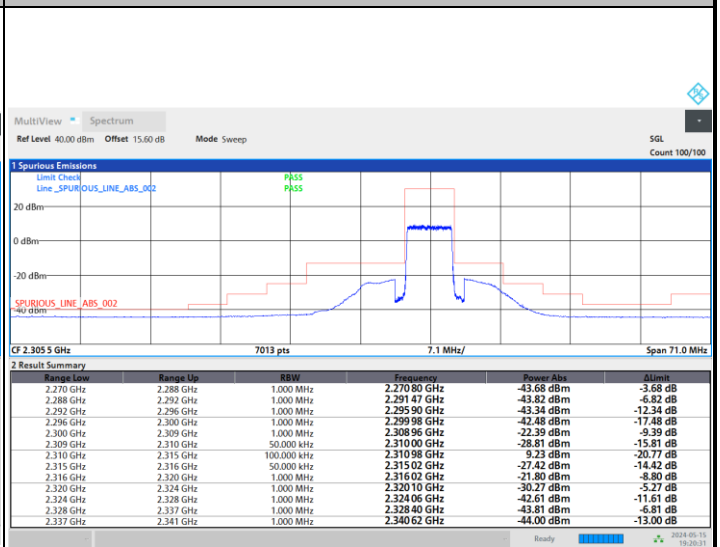




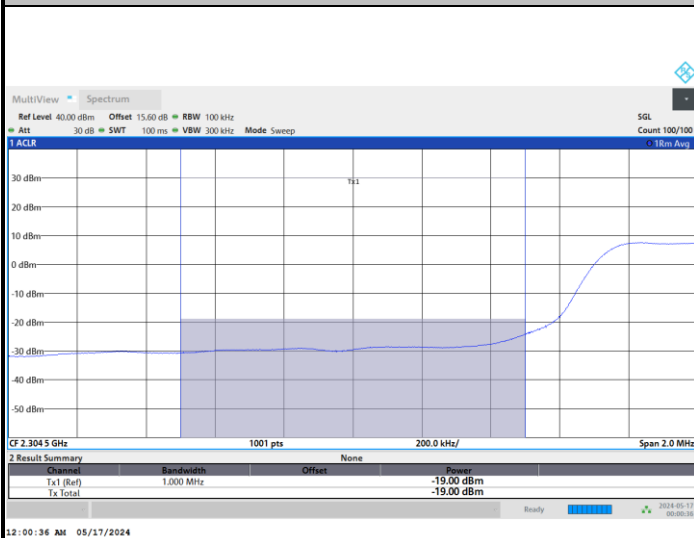
Lowest Band Edge / Full RB



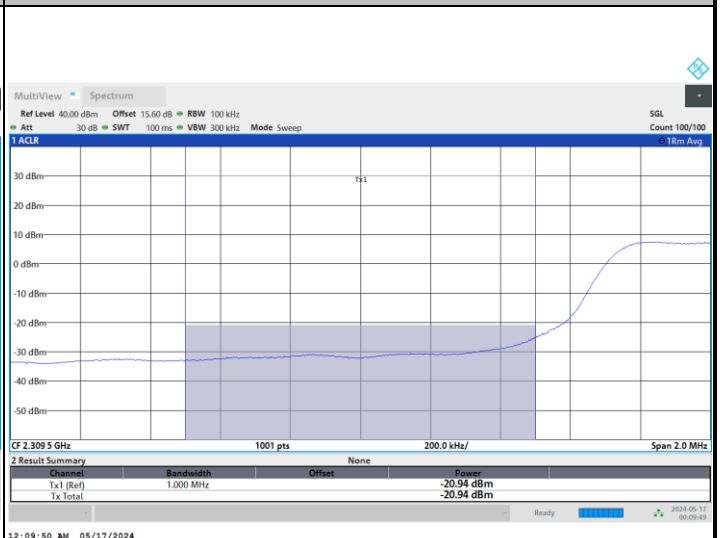
Highest Band Edge / Full RB

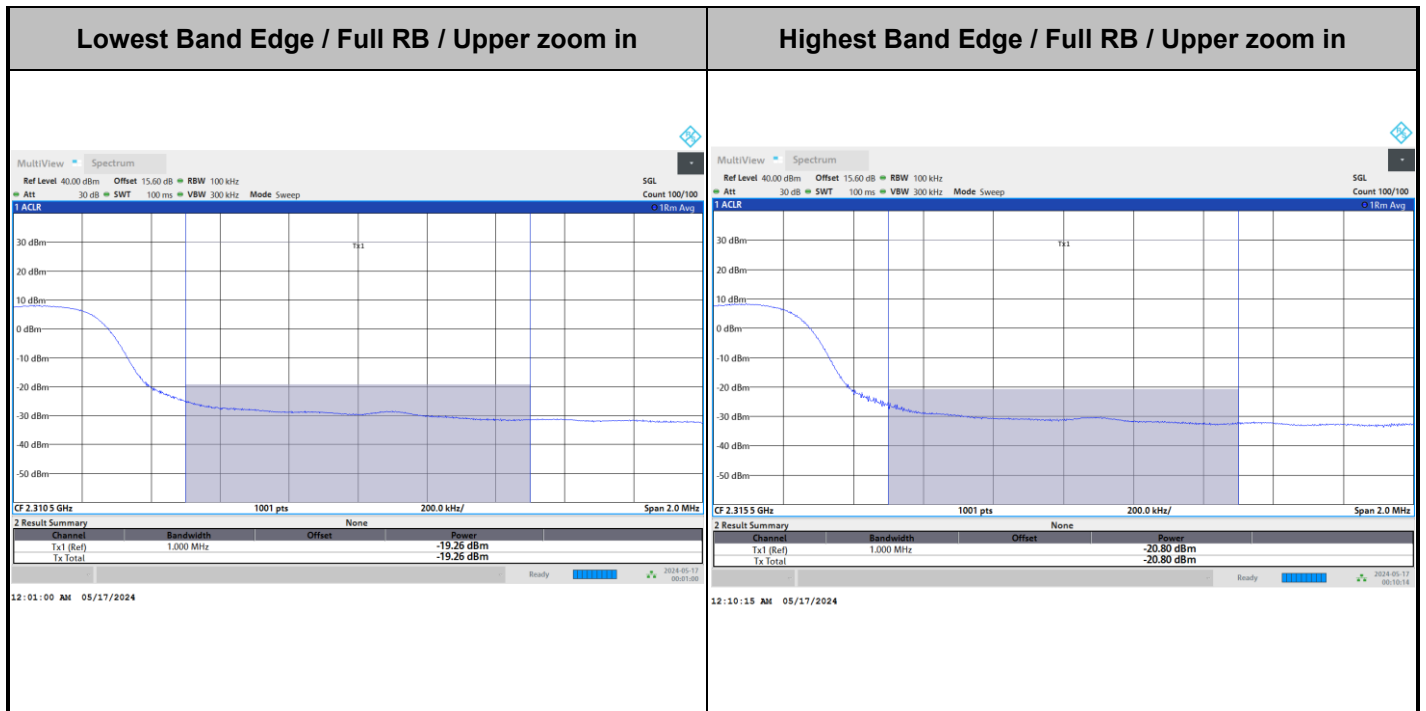


Lowest Band Edge / Full RB / Lower zoom in



Highest Band Edge / Full RB / Lower zoom in



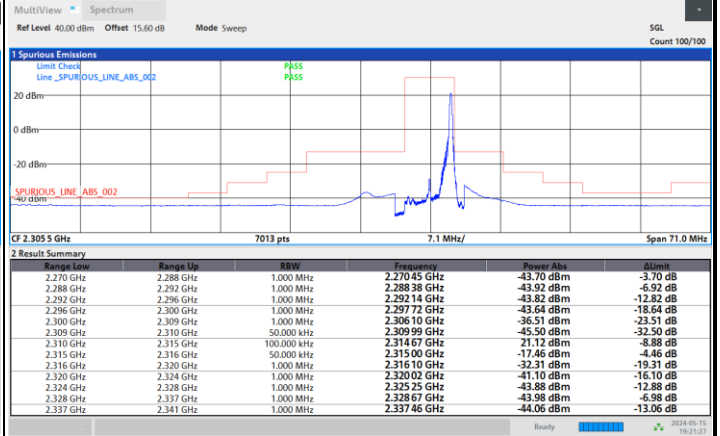
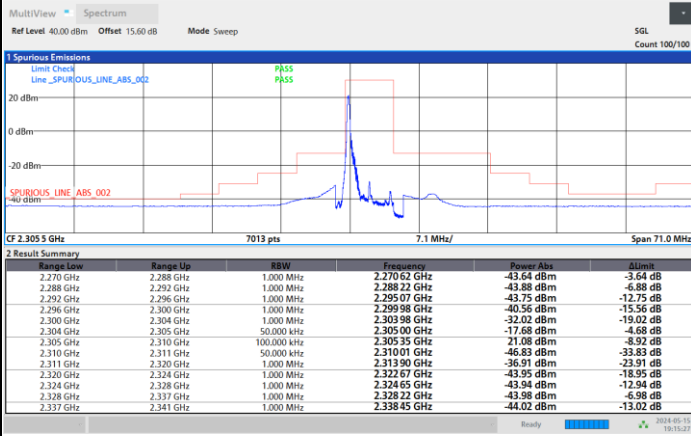




FR1 n30 / 5MHz / DFT-S OFDM / 16QAM

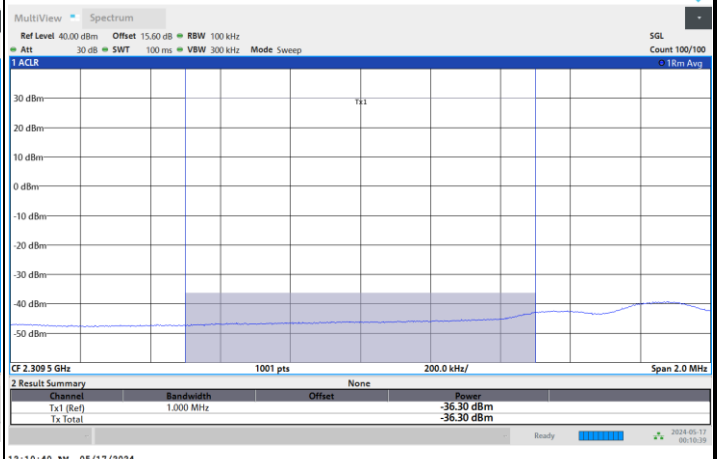
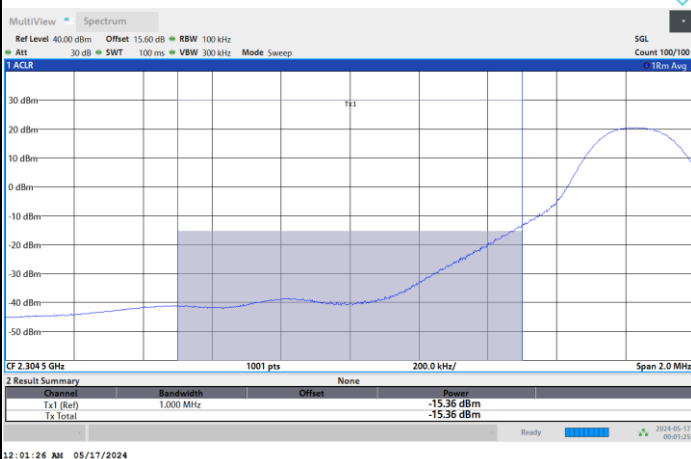
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / 1 RB / Lower zoom in

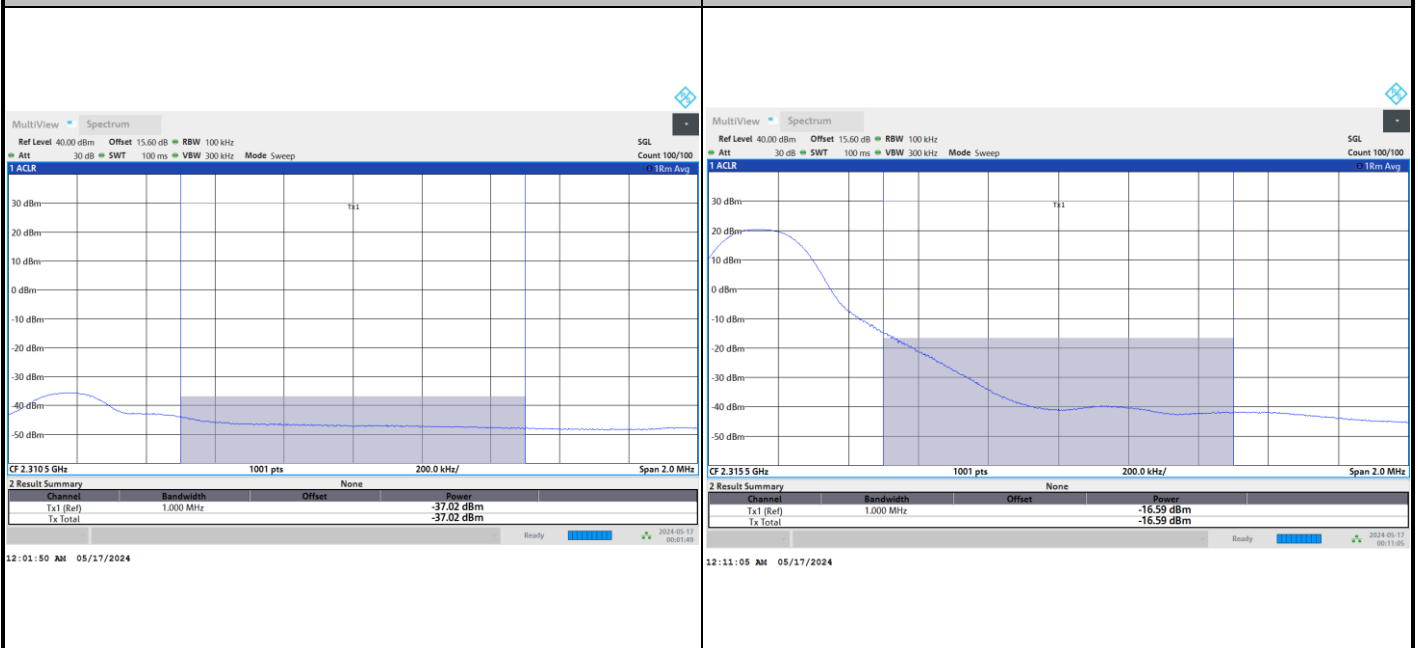
Highest Band Edge / 1 RB / Lower zoom in





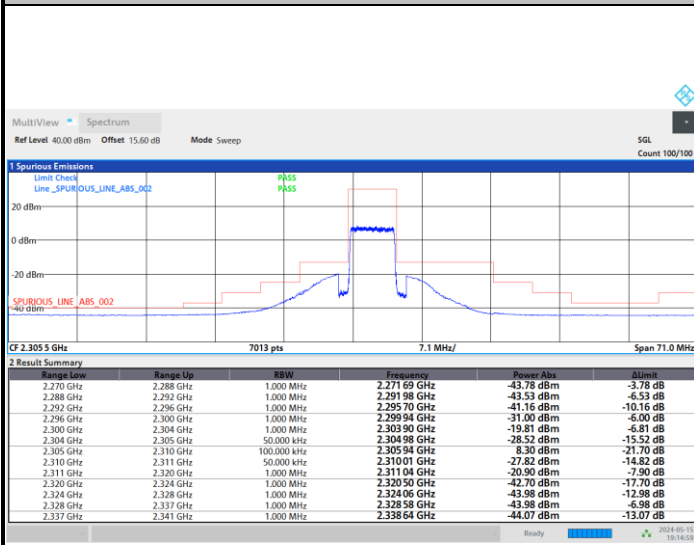
Lowest Band Edge / 1 RB / Upper zoom in

Highest Band Edge / 1 RB / Upper zoom in

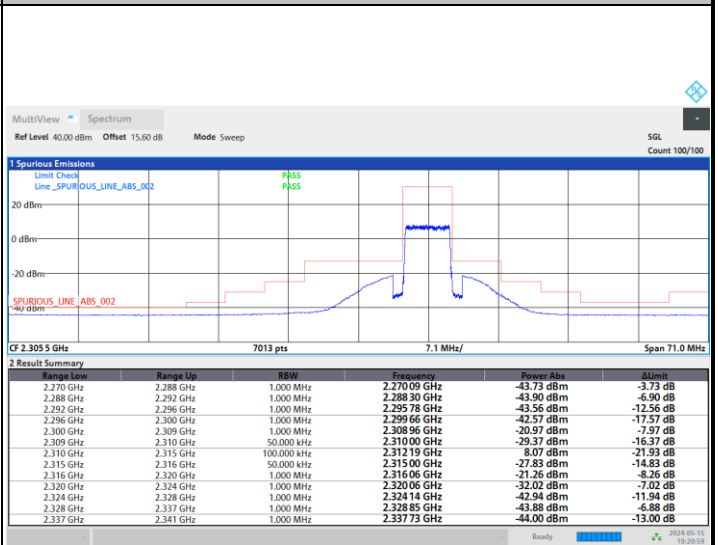




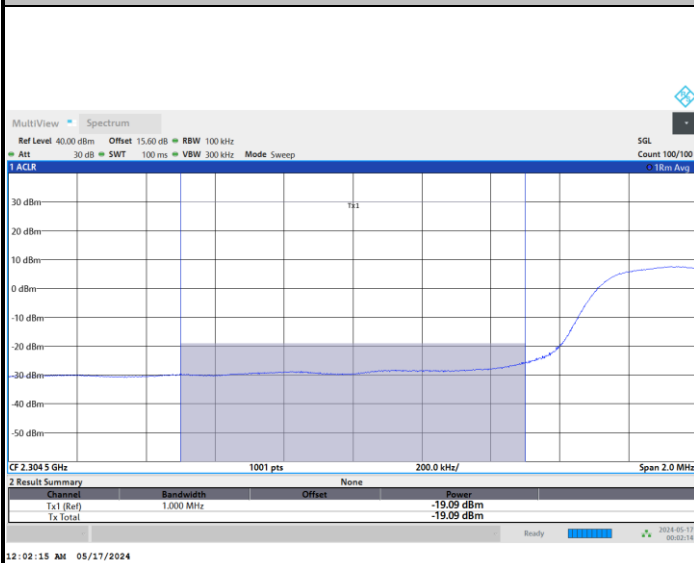
Lowest Band Edge / Full RB



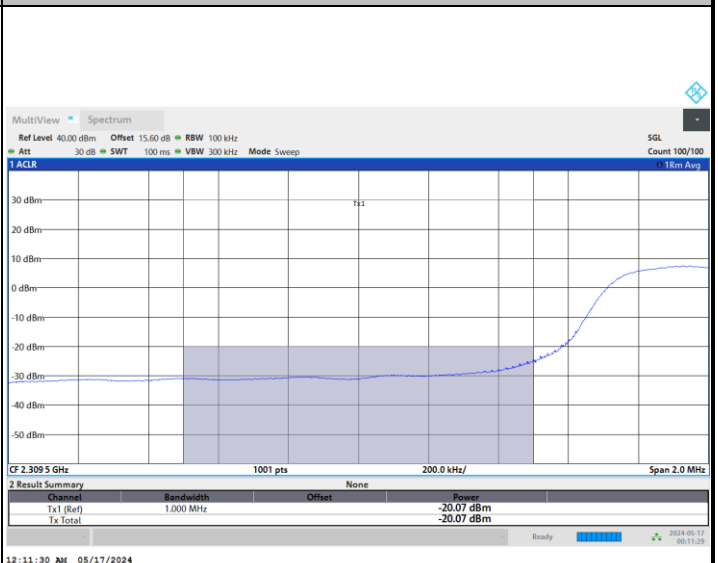
Highest Band Edge / Full RB

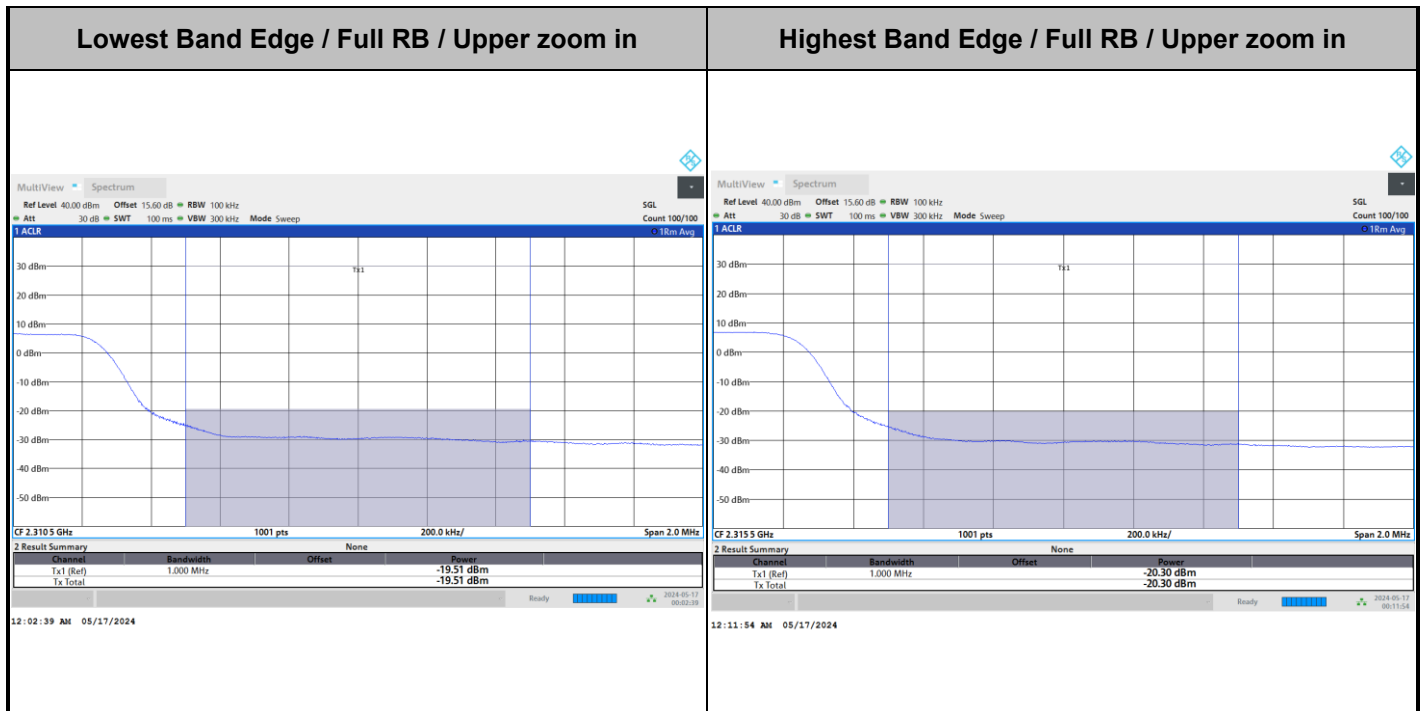


Lowest Band Edge / Full RB / Lower zoom in



Highest Band Edge / Full RB / Lower zoom in



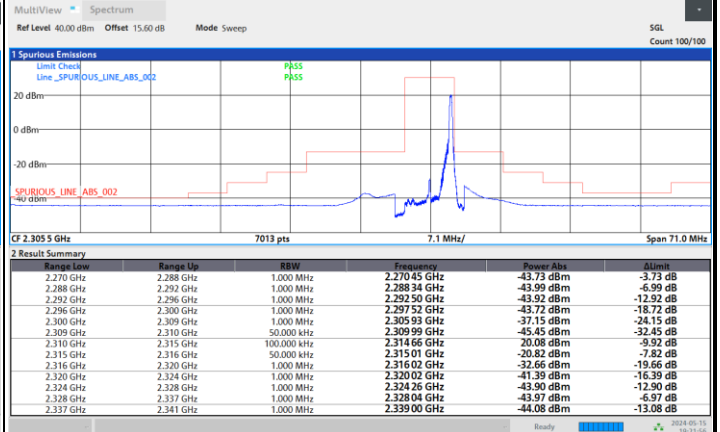
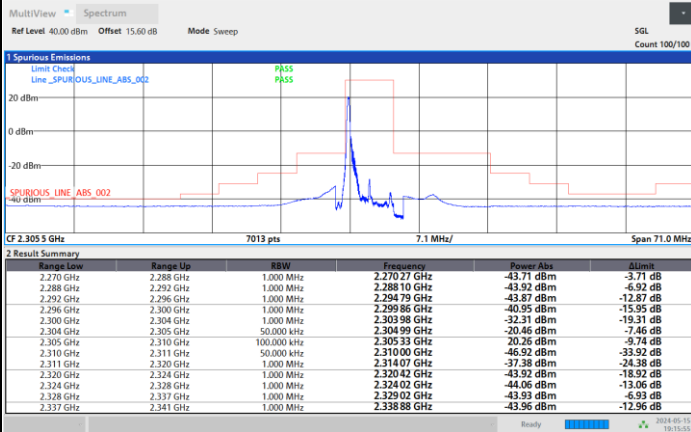




FR1 n30 / 5MHz / DFT-S OFDM / 64QAM

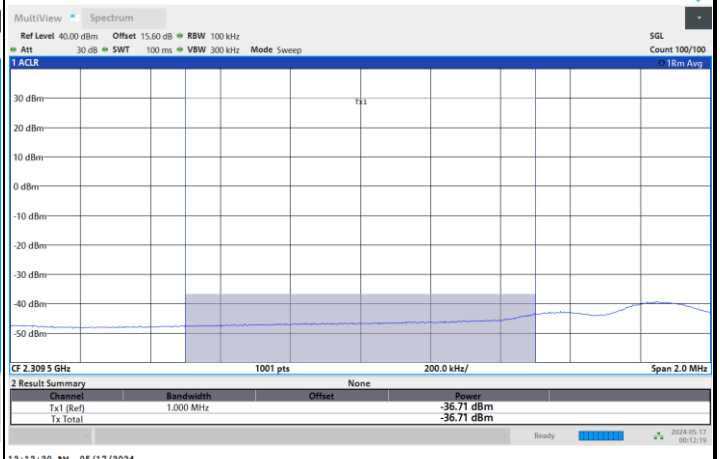
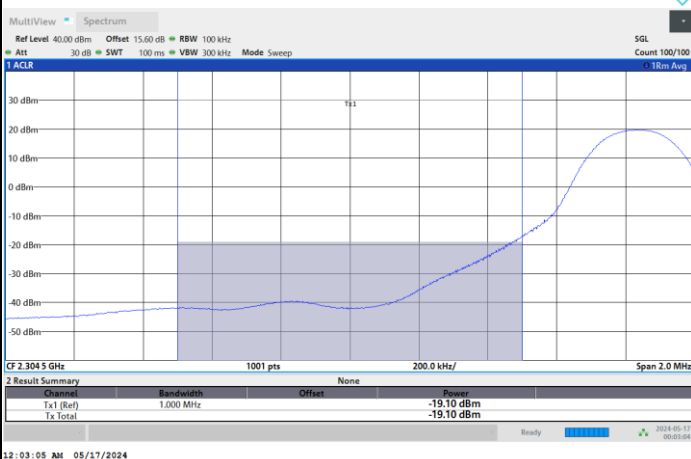
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / 1 RB / Lower zoom in

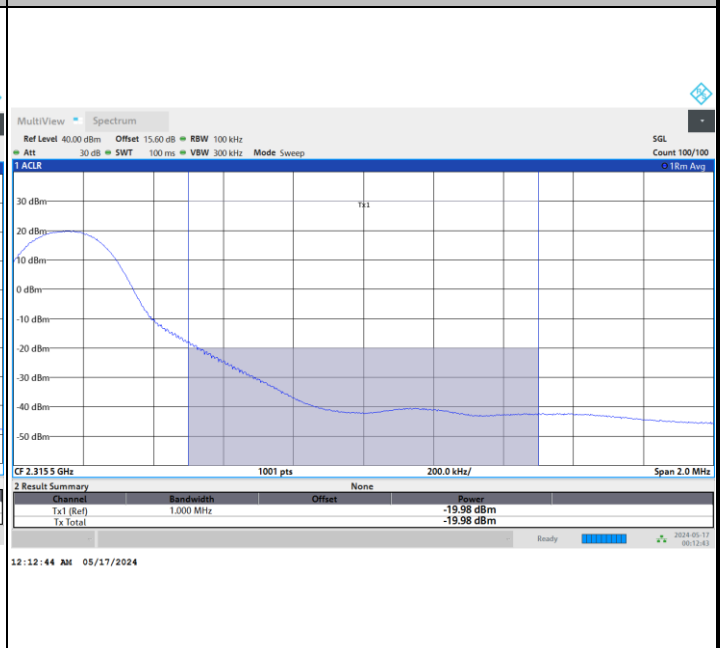
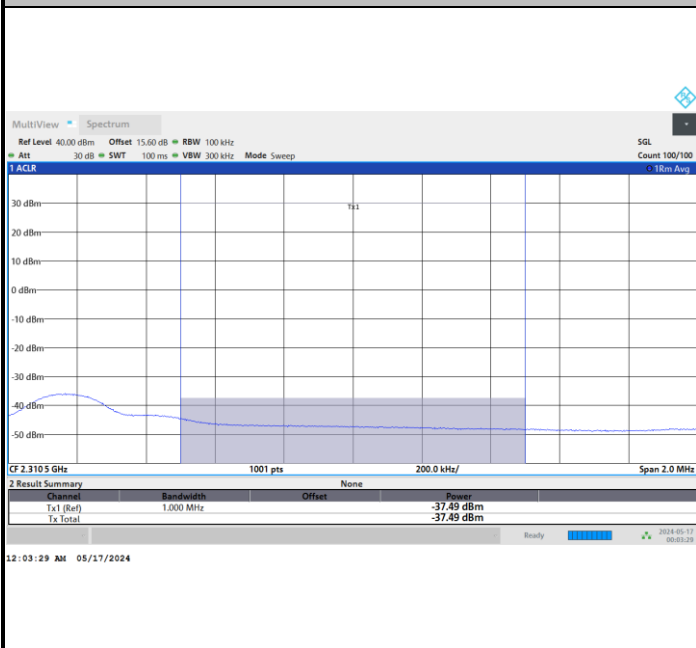
Highest Band Edge / 1 RB / Lower zoom in





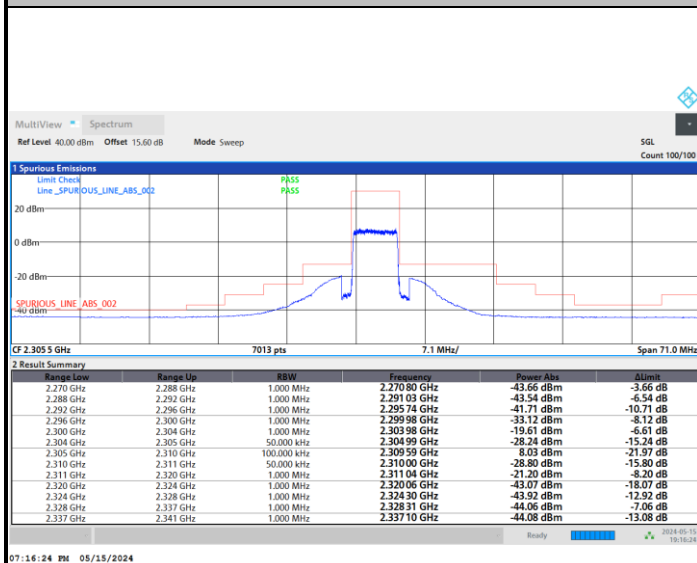
Lowest Band Edge / 1 RB / Upper zoom in

Highest Band Edge / 1 RB / Upper zoom in

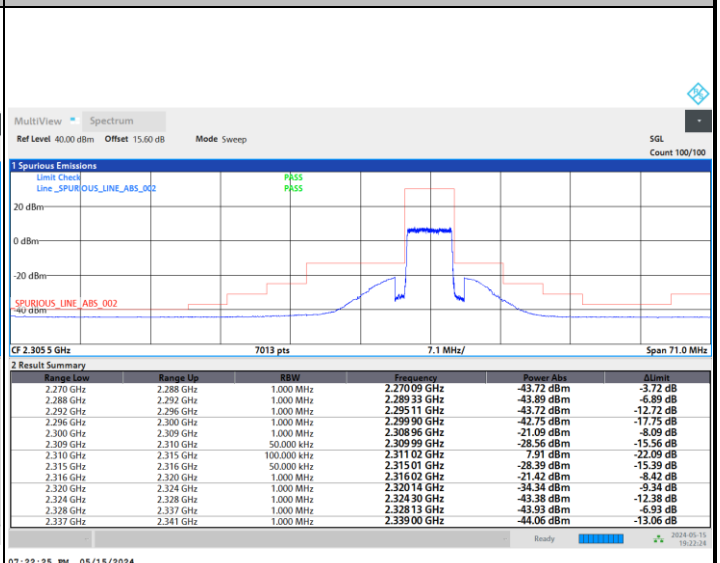




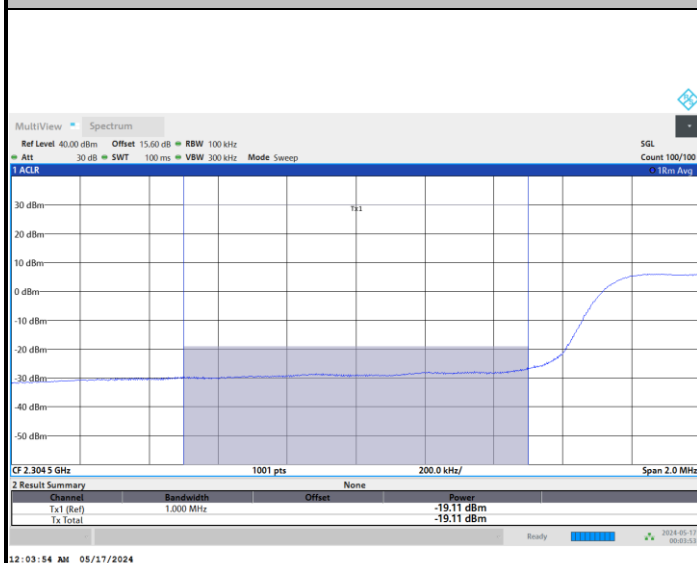
Lowest Band Edge / Full RB



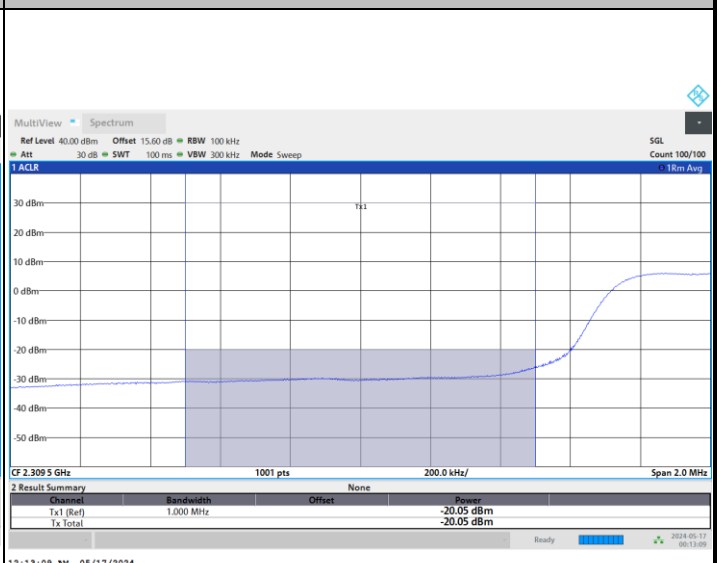
Highest Band Edge / Full RB



Lowest Band Edge / Full RB / Lower zoom in



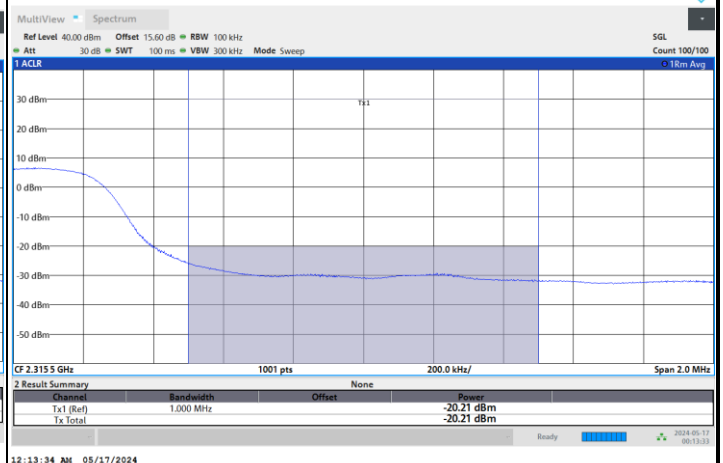
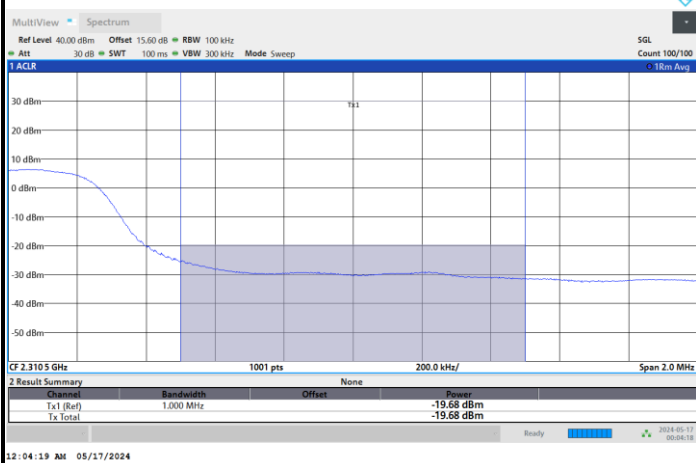
Highest Band Edge / Full RB / Lower zoom in





Lowest Band Edge / Full RB / Upper zoom in

Highest Band Edge / Full RB / Upper zoom in

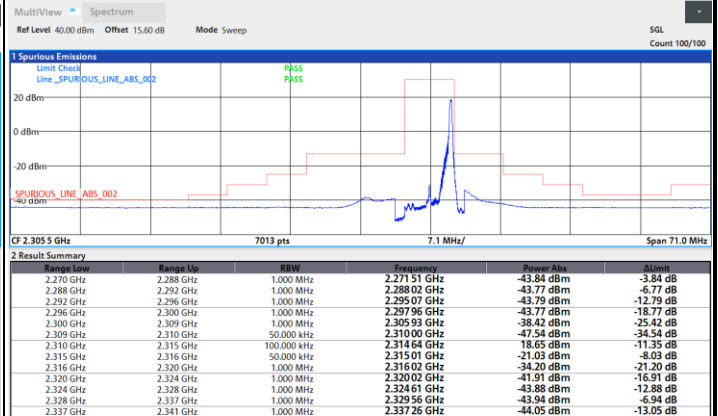
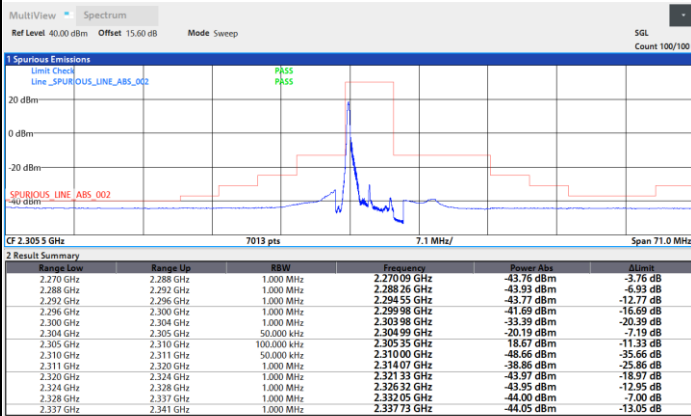




FR1 n30 / 5MHz / DFT-S OFDM / 256QAM

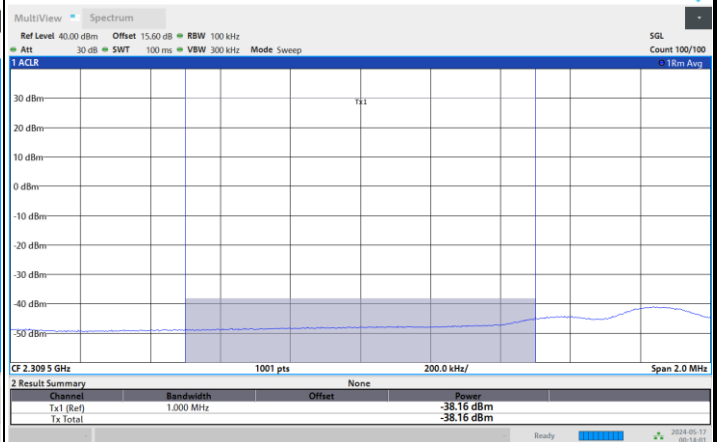
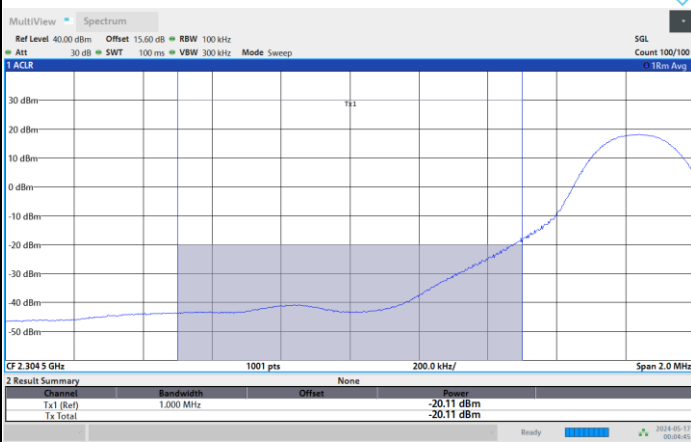
Lowest Band Edge / 1RB0

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

