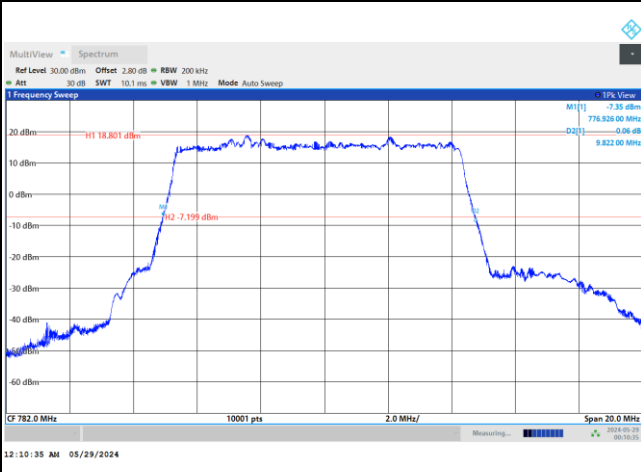




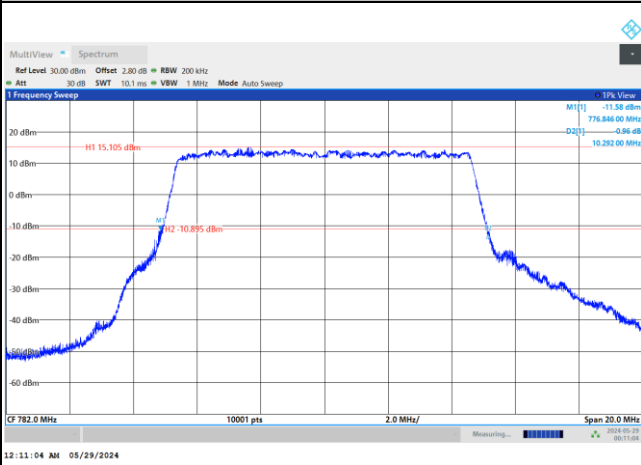
FR1 n13 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

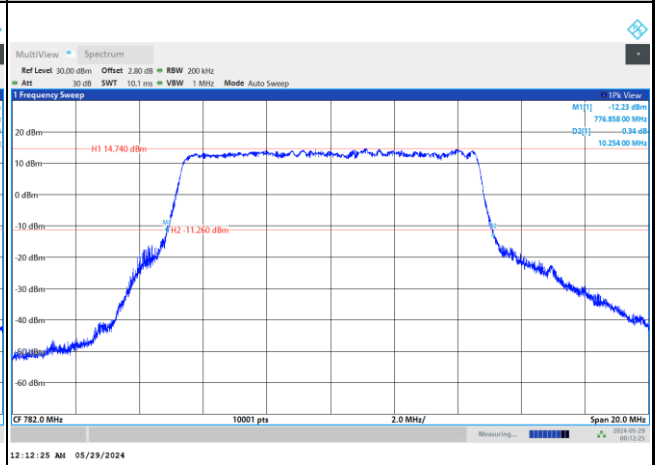


FR1 n13 / 10MHz / CP OFDM / Middle Channel / Full RB

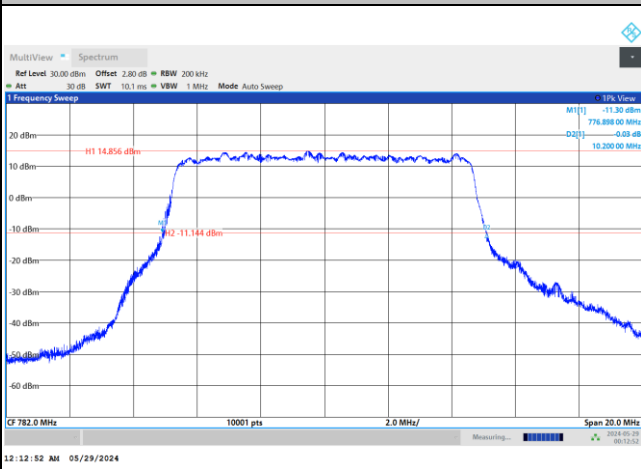
QPSK



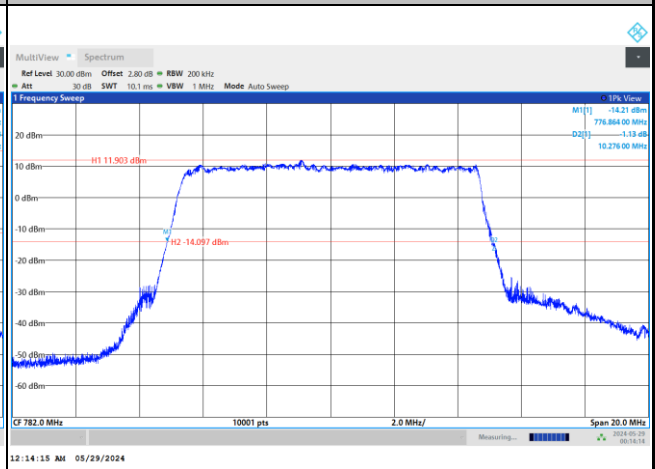
16QAM



64QAM



256QAM





## Occupied Bandwidth

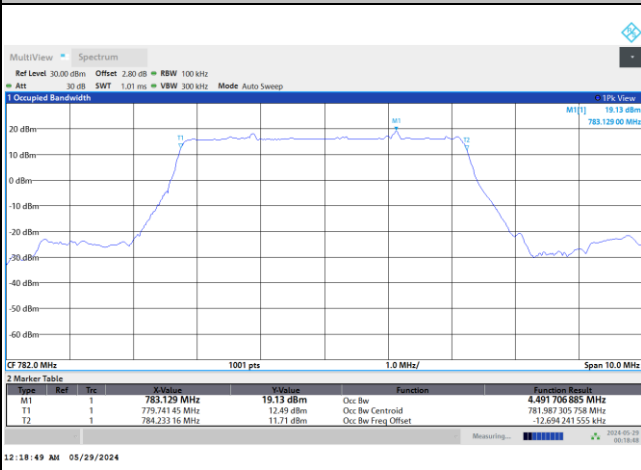
Mode	FR1 n13 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz					
Mod.	PI/2 BPSK		PI/2 BPSK					
Middle CH	4.49		8.97					

Mode	FR1 n13 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM				
Middle CH	4.53	4.53	9.29	9.29				
Mod.	64QAM	256QAM	64QAM	256QAM				
Middle CH	4.51	4.51	9.27	9.32				



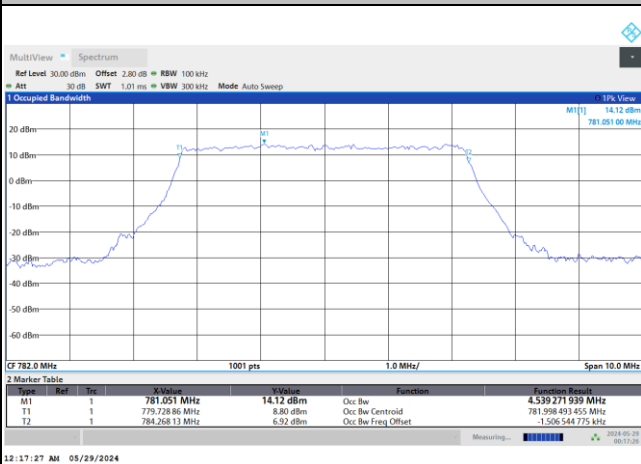
FR1 n13 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

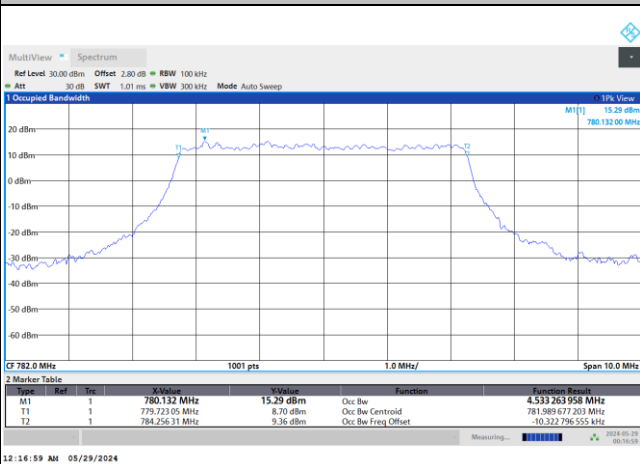


FR1 n13 / 5MHz / CP OFDM / Middle Channel / Full RB

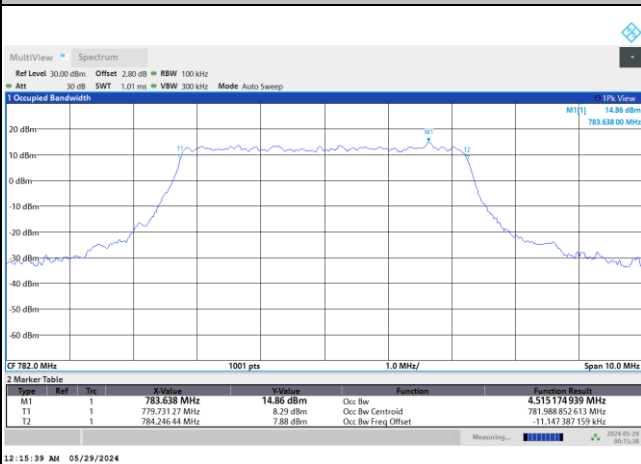
QPSK



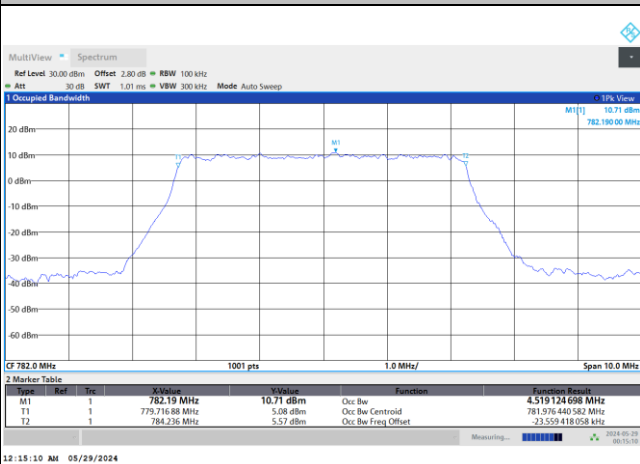
16QAM



64QAM



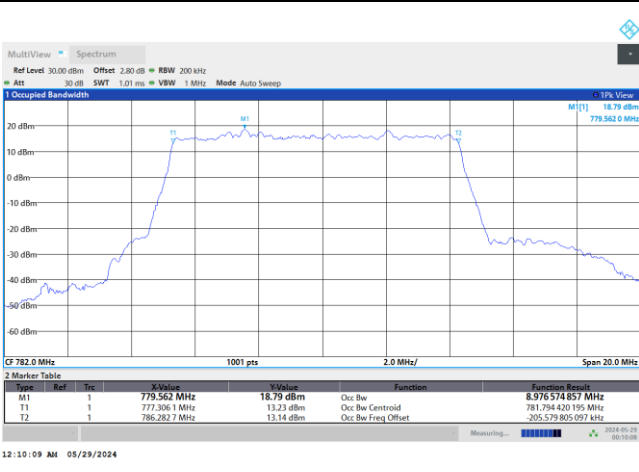
256QAM





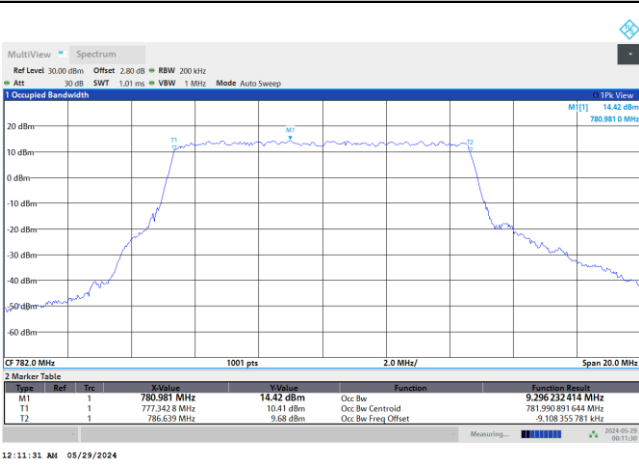
FR1 n13 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

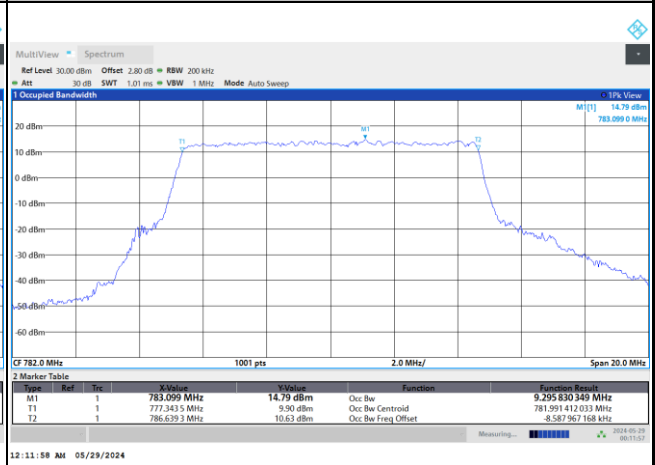


FR1 n13 / 10MHz / CP OFDM / Middle Channel / Full RB

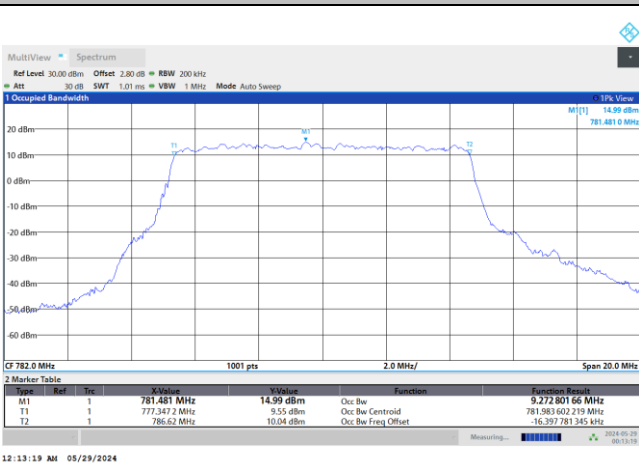
QPSK



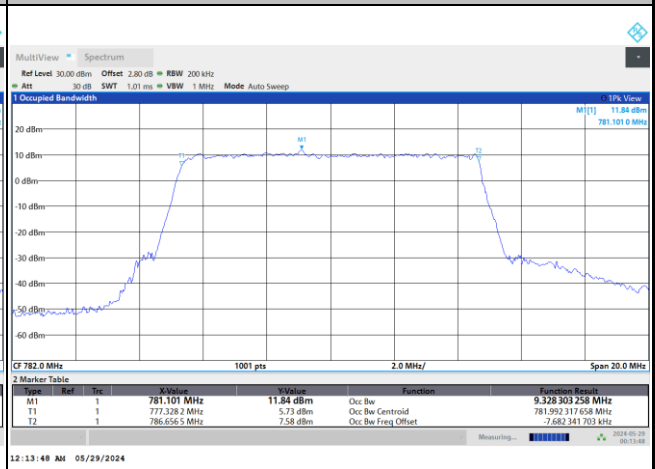
16QAM



64QAM



256QAM



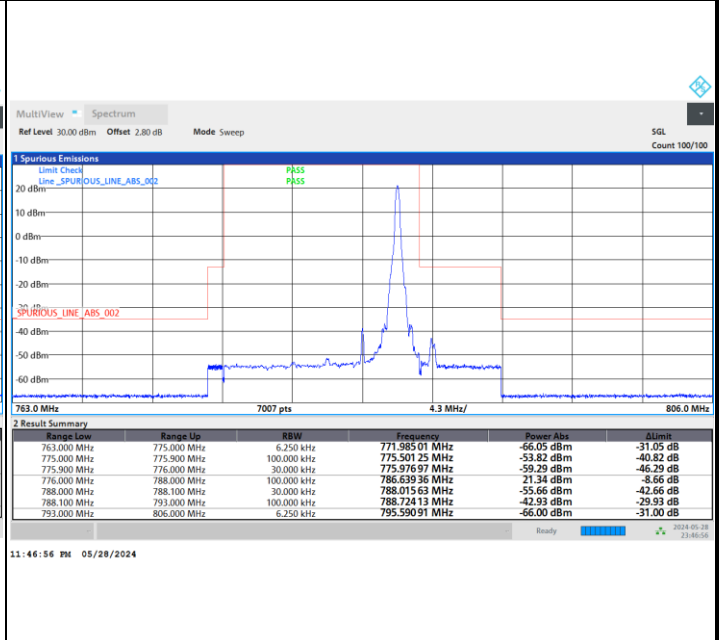
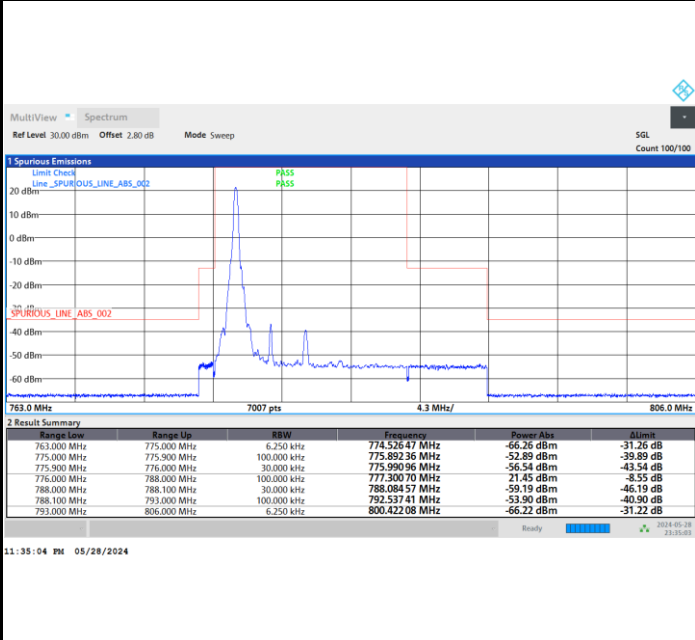


# Conducted Band Edge

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

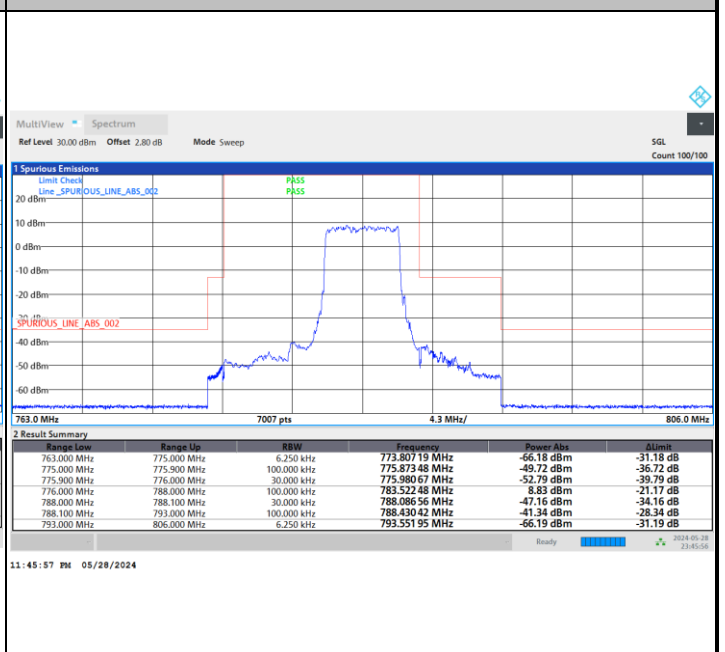
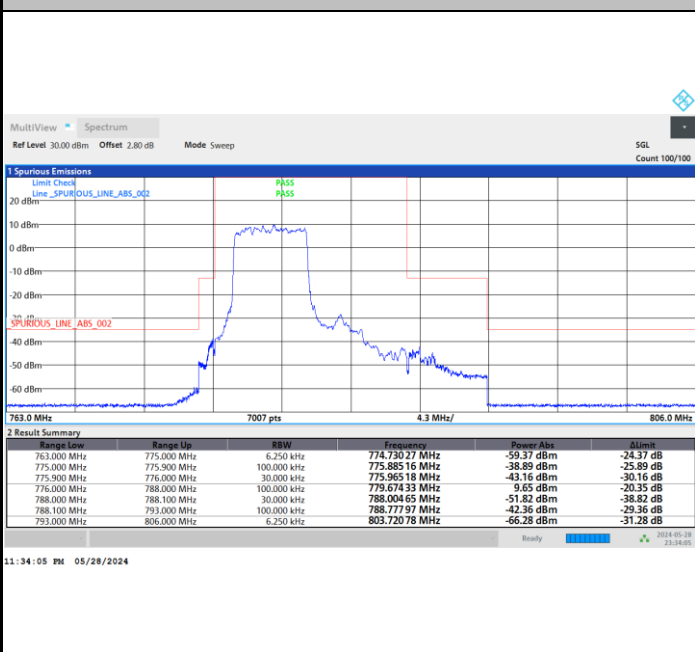
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

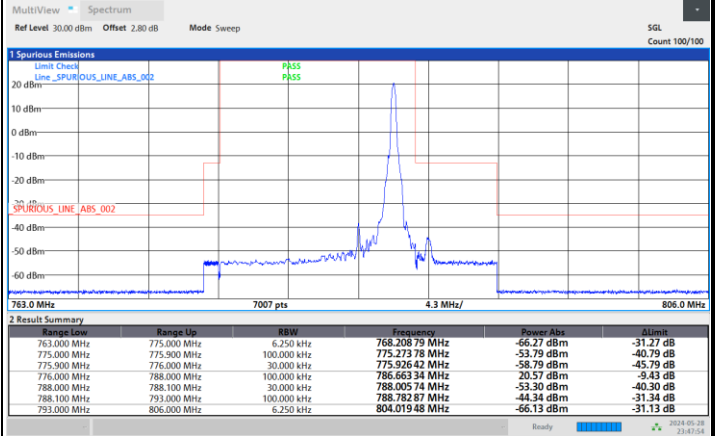
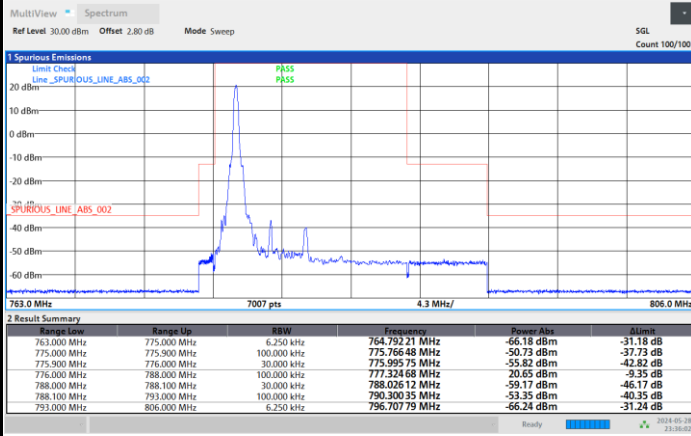




FR1 n13 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

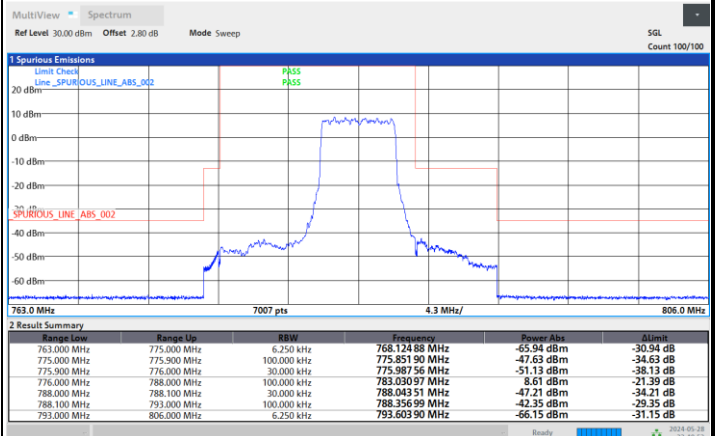
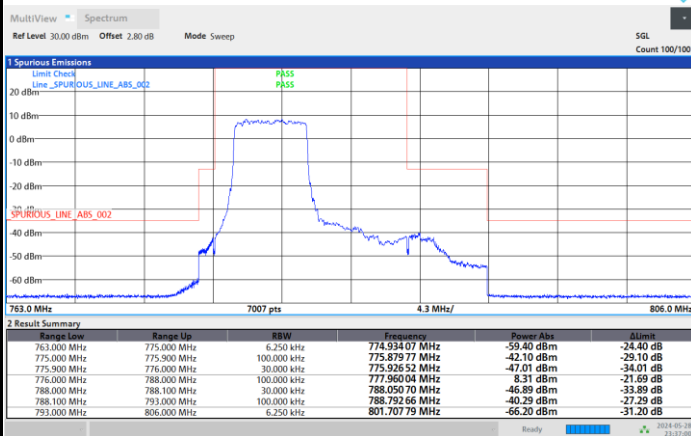


11:36:03 PM 05/28/2024

11:47:55 PM 05/28/2024

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



11:37:01 PM 05/28/2024

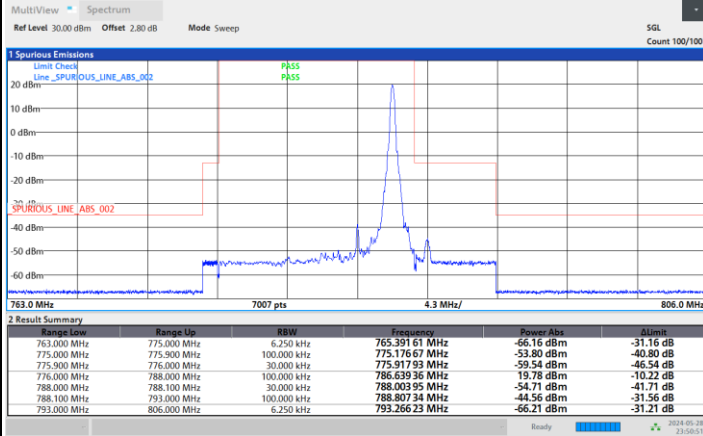
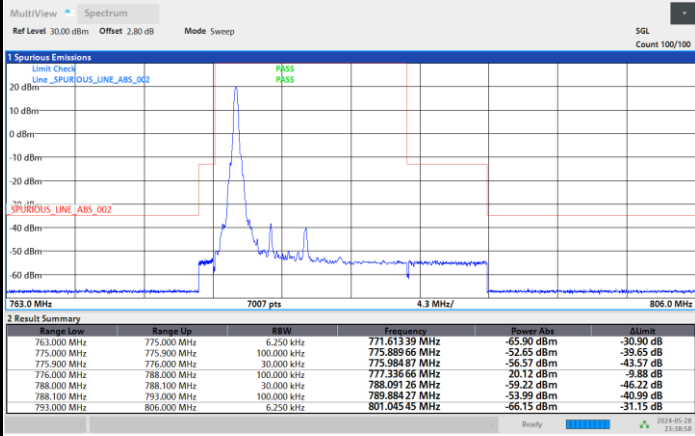
11:48:54 PM 05/28/2024



FR1 n13 / 5MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

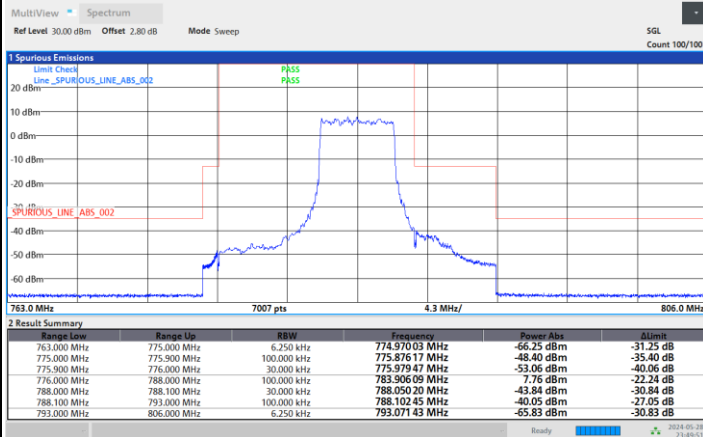
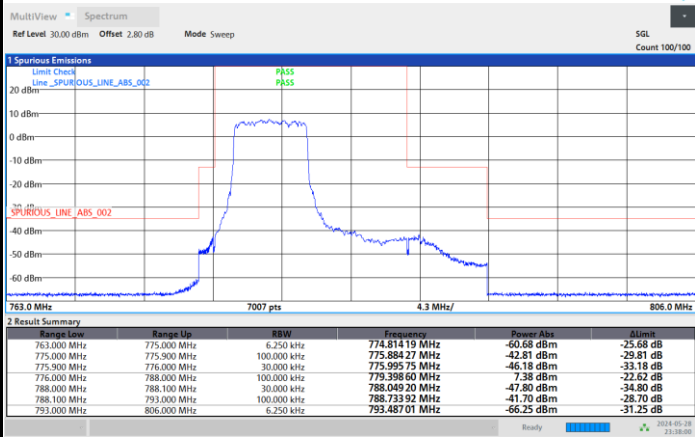


11:38:59 PM 05/28/2024

11:50:52 PM 05/28/2024

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



11:38:00 PM 05/28/2024

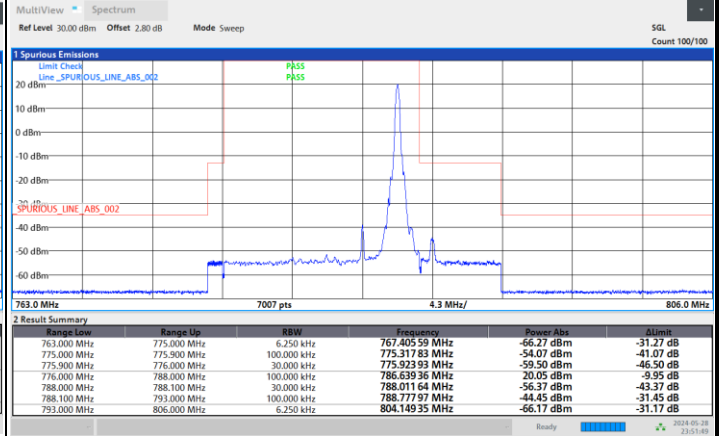
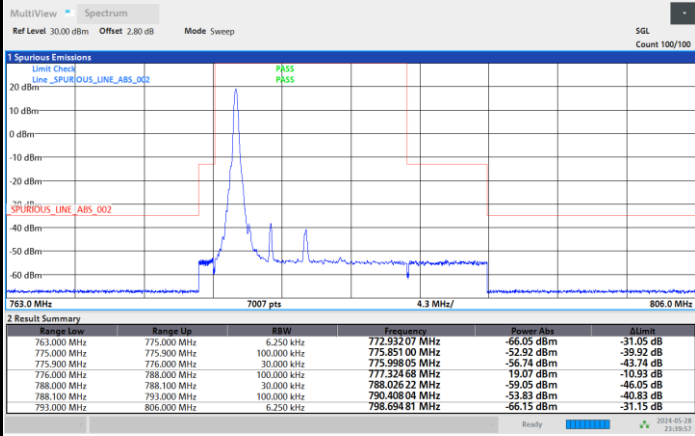
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FR1 n13 / 5MHz / DFT-S OFDM / 64QAM

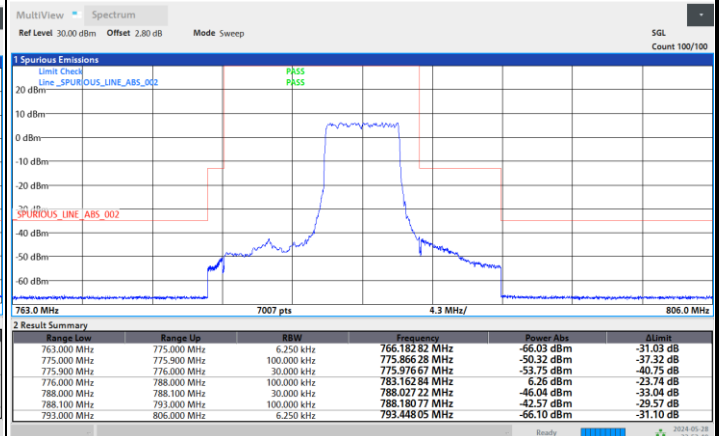
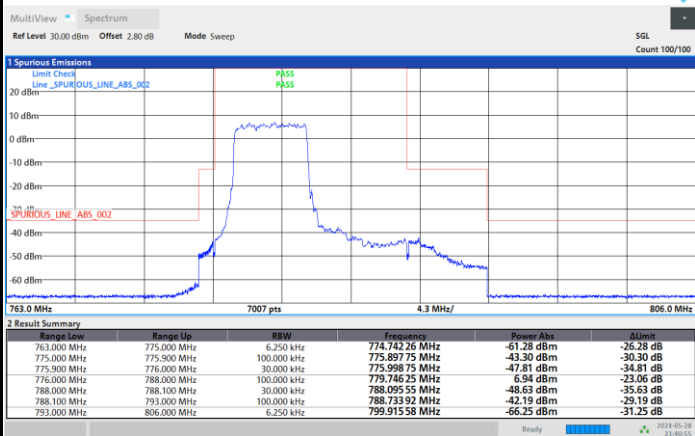
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB



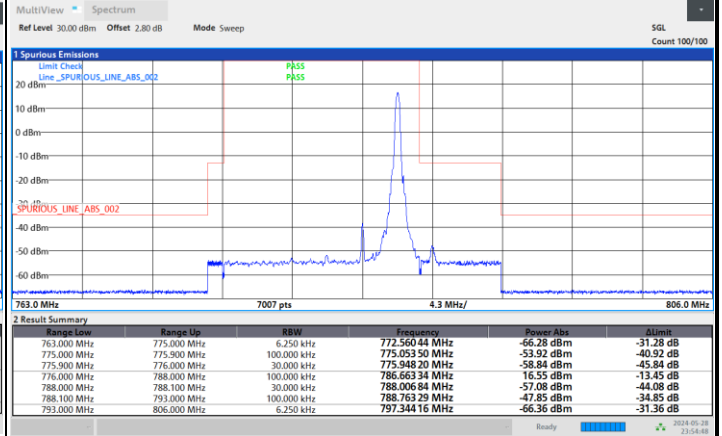
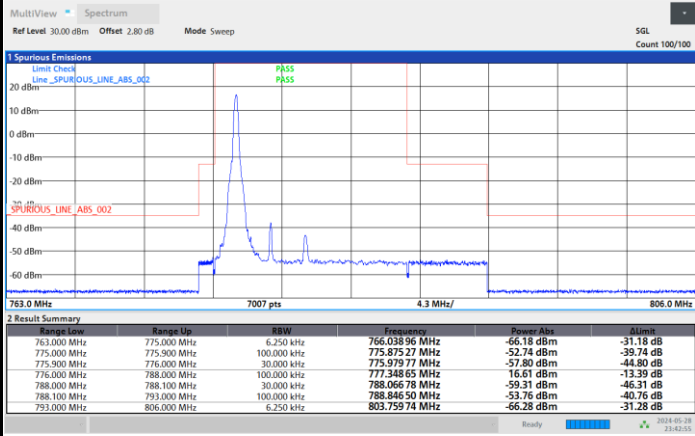




FR1 n13 / 5MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

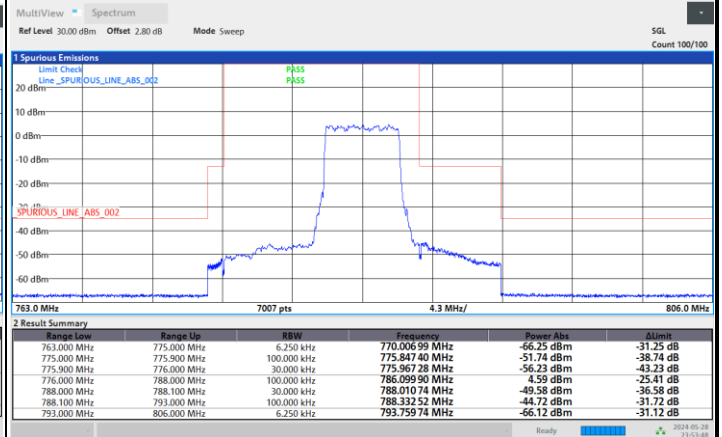
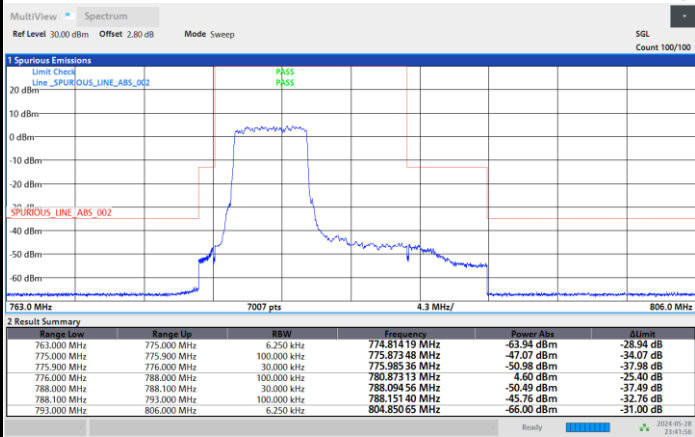


11:42:55 PM 05/28/2024

11:54:49 PM 05/28/2024

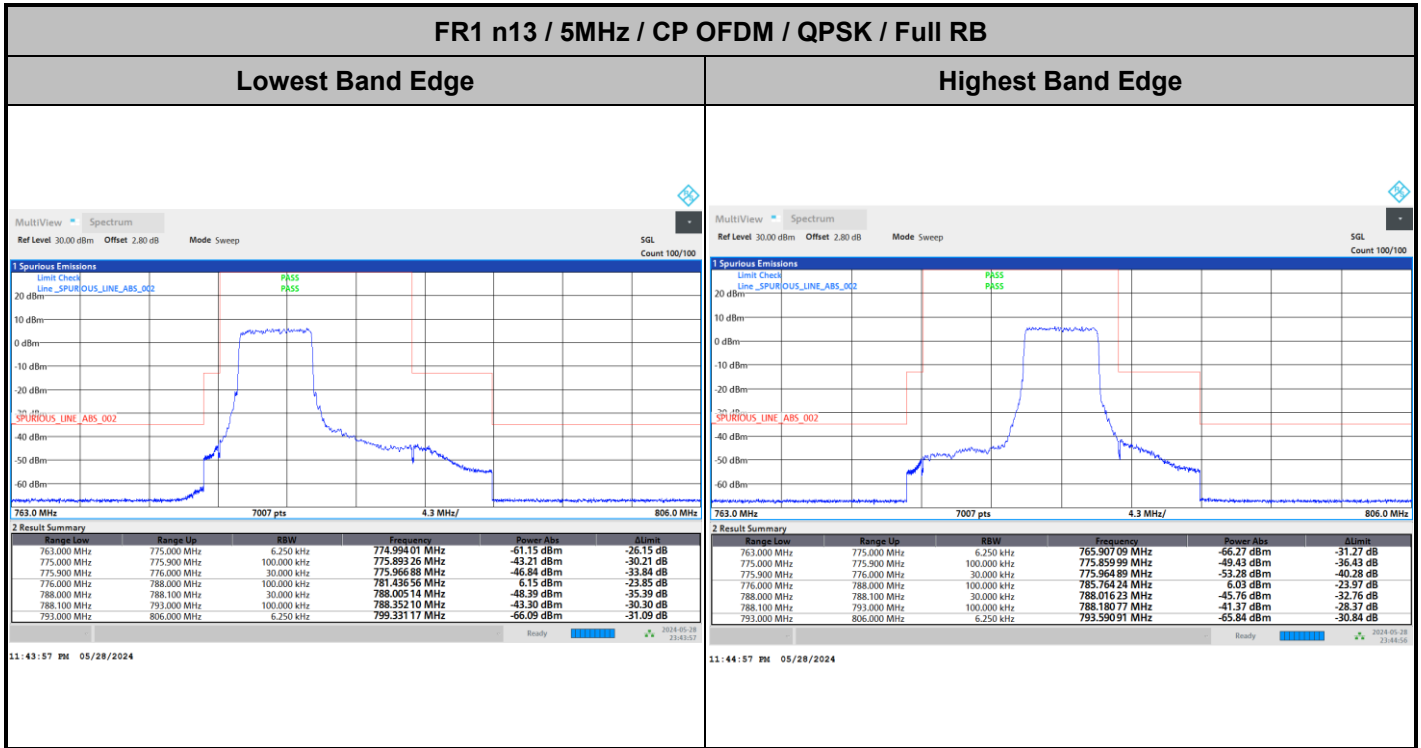
Lowest Band Edge / Full RB

Highest Band Edge / Full RB



11:41:57 PM 05/28/2024

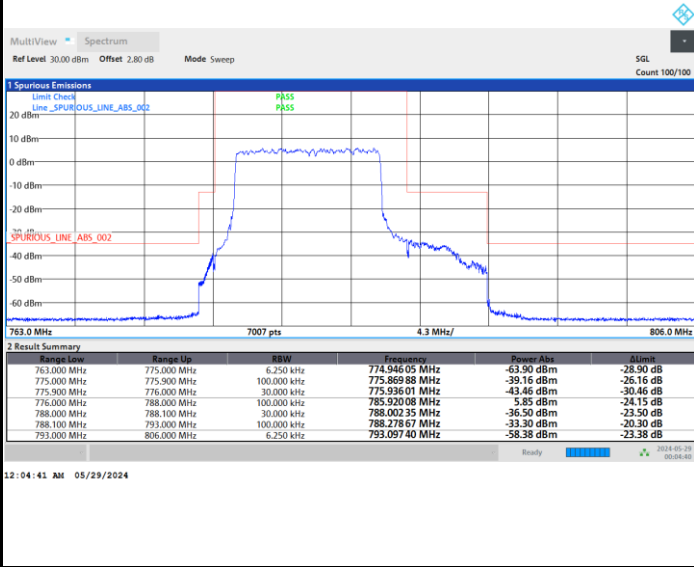
11:53:49 PM 05/28/2024





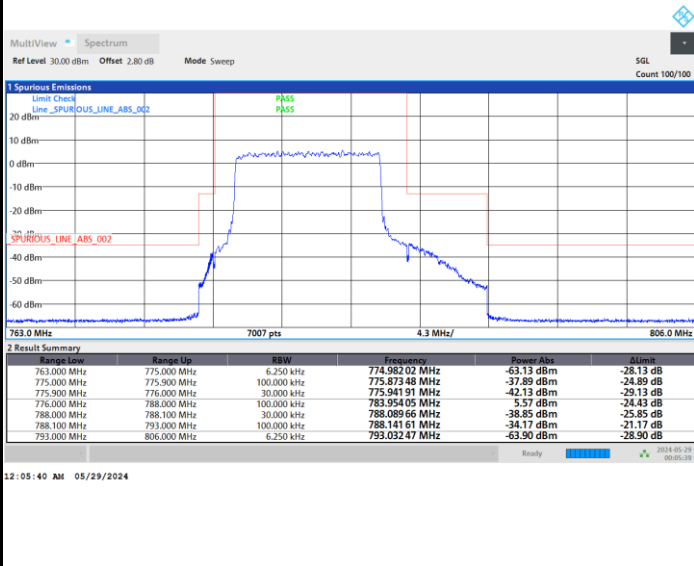
FR1 n13 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Middle Band Edge / Full RB



FR1 n13 / 10MHz / DFT-s-OFDM / QPSK

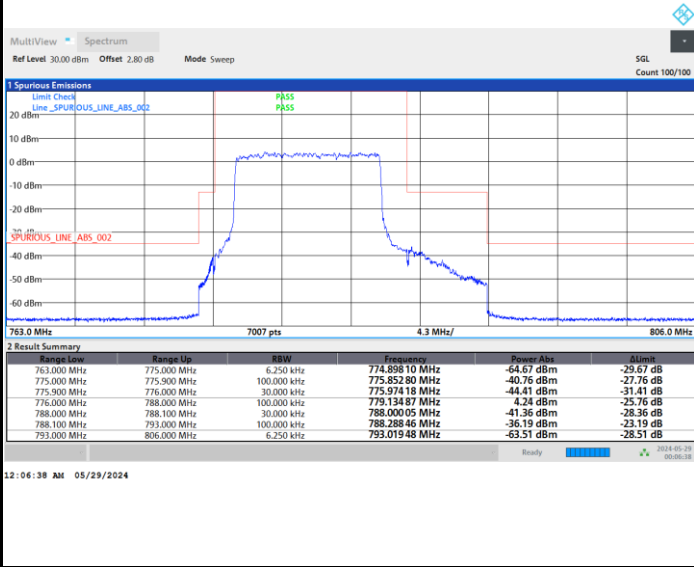
Middle Band Edge / Full RB





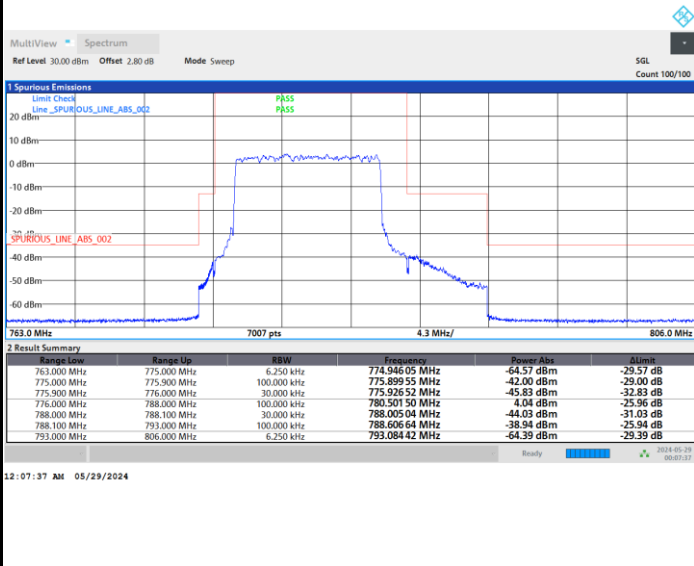
FR1 n13 / 10MHz / DFT-s-OFDM / 16QAM

Middle Band Edge / Full RB



FR1 n13 / 10MHz / DFT-s-OFDM / 64QAM

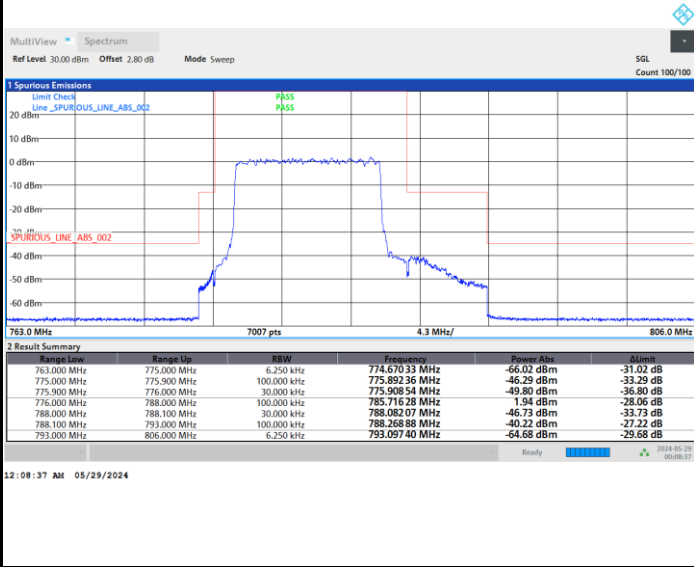
Middle Band Edge / Full RB





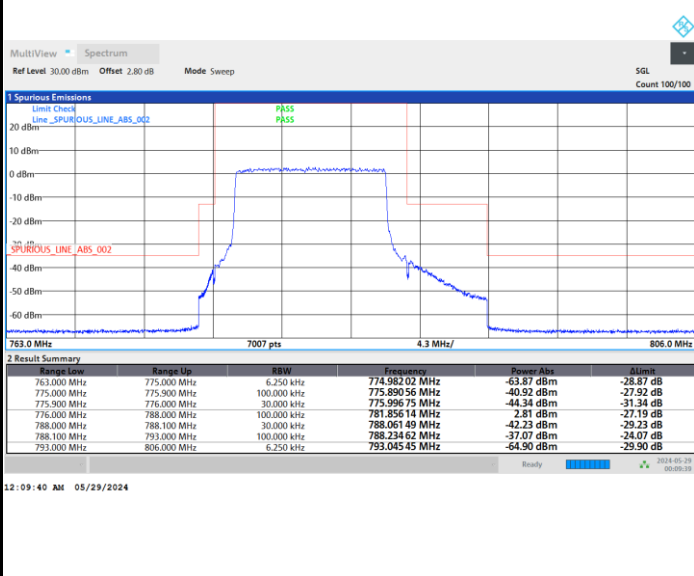
FR1 n13 / 10MHz / DFT-s-OFDM / 256QAM

Middle Band Edge / Full RB



FR1 n13 / 10MHz / CP OFDM / QPSK / Full RB

Middle Band Edge / Full RB

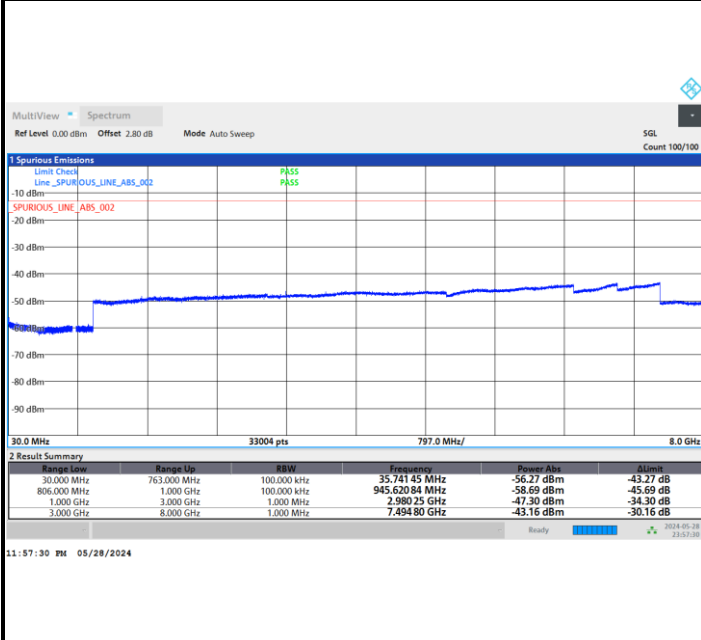




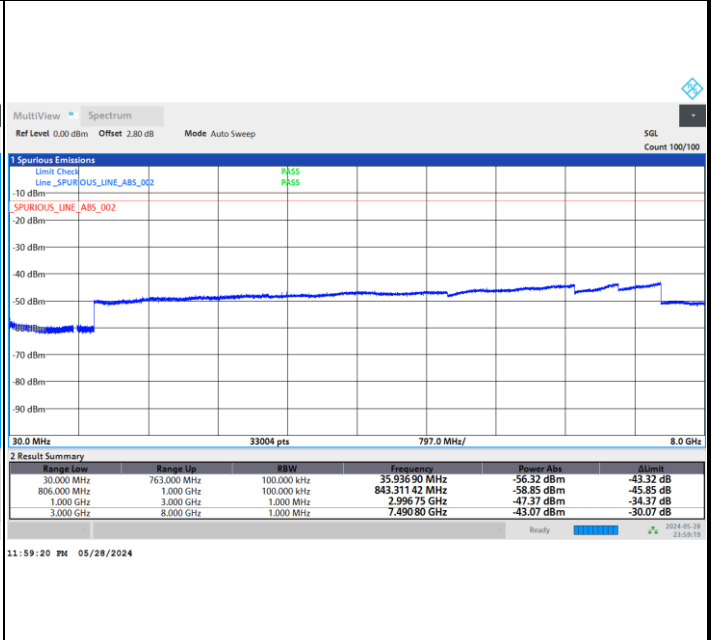
# Conducted Spurious Emission

FR1 n13 / 5MHz / DFT-S OFDM / QPSK / 1RB1

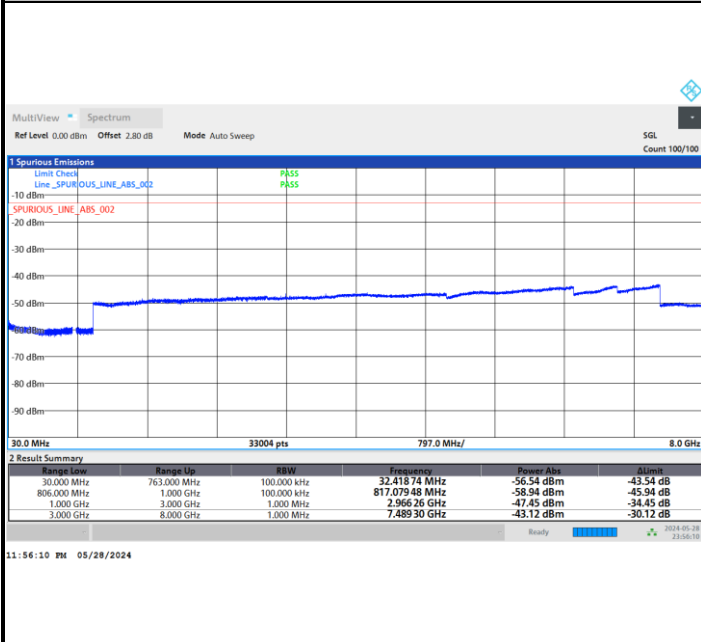
## Lowest Channel



## Middle Channel



## Highest Channel





### Frequency Stability

Test Conditions		FR1 n13 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0059	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0046	
0	Normal Voltage	0.0015	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0056	
-30	Normal Voltage	0.0068	
20	Maximum Voltage	0.0059	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0046	

**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 n14

## Peak-to-Average Ratio

Mode	FR1 n14 / 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	3.80	4.36	5.42	5.86	PASS
Mode	FR1 n14 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.56				PASS

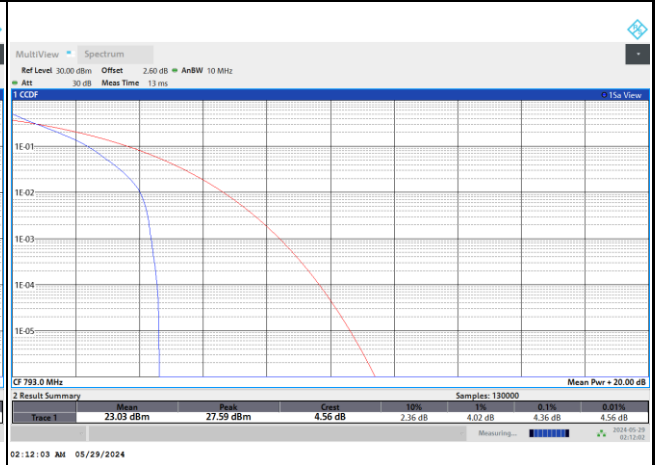
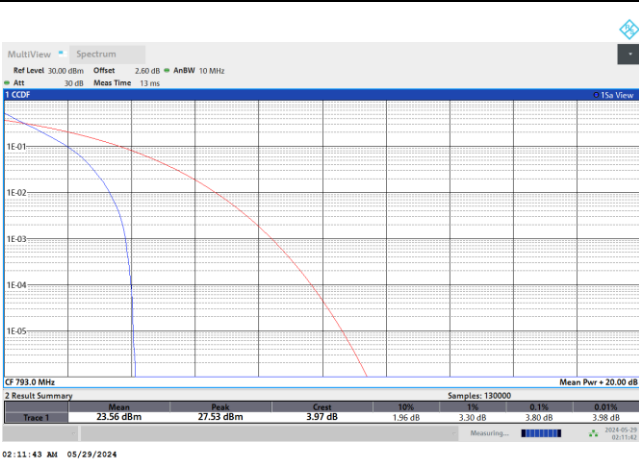




FR1 n14 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

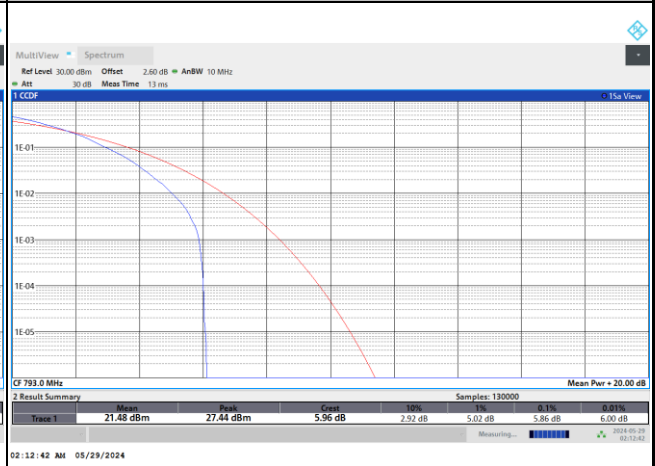
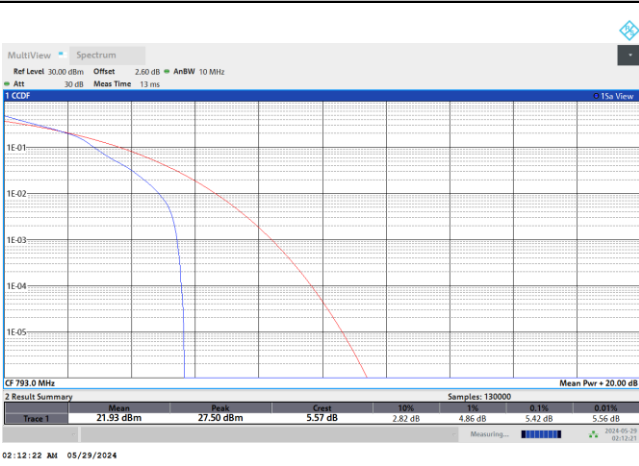
PI/2 BPSK

QPSK

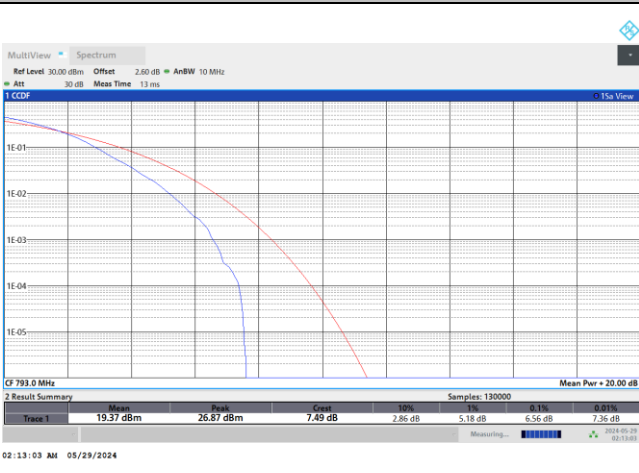


16QAM

64QAM



256QAM





**26dB Bandwidth**

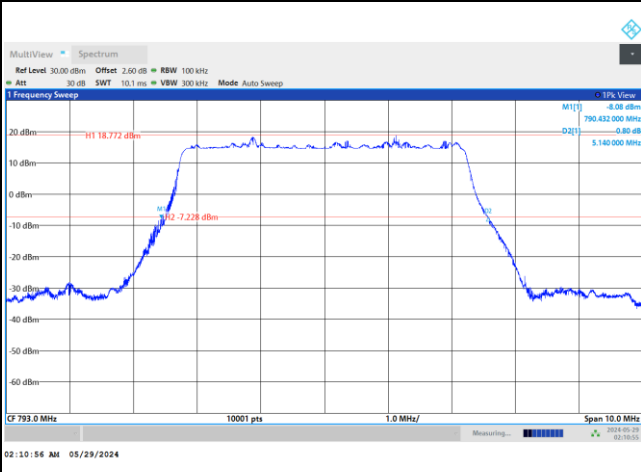
Mode	FR1 n14 : 26dB BW(MHz) / DFT-S OFDM						
BW	5MHz		10MHz				
Mod.	PI/2 BPSK		PI/2 BPSK				
Middle CH	5.14		9.83				

Mode	FR1 n14 : 26dB BW(MHz) / CP OFDM						
BW	5MHz		10MHz				
Mod.	QPSK	16QAM	QPSK	16QAM			
Middle CH	5.35	5.25	10.35	10.33			
Mod.	64QAM	256QAM	64QAM	256QAM			
Middle CH	5.20	5.20	10.26	10.27			



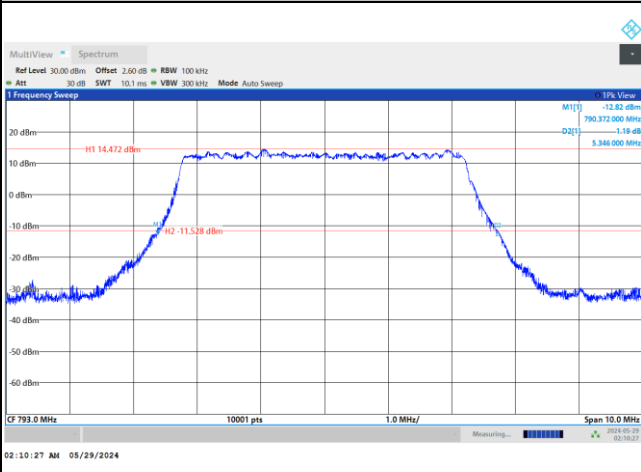
FR1 n14 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

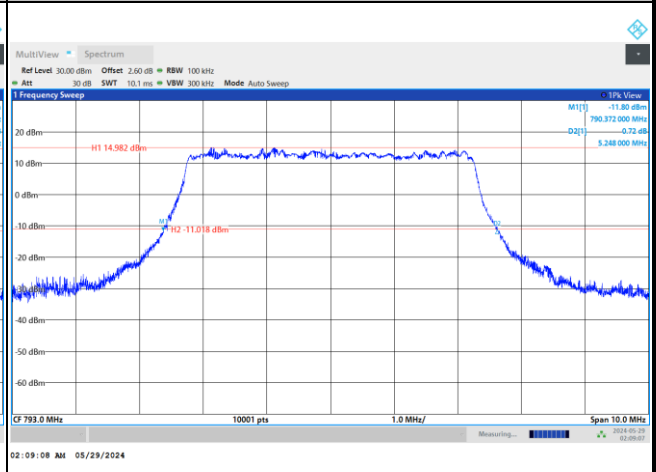


FR1 n14 / 5MHz / CP OFDM / Middle Channel / Full RB

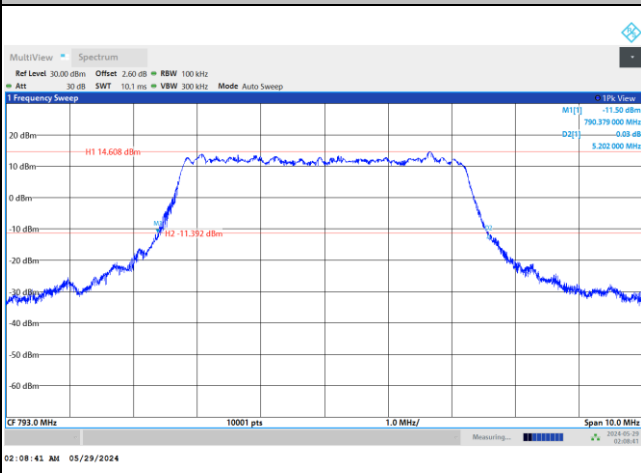
QPSK



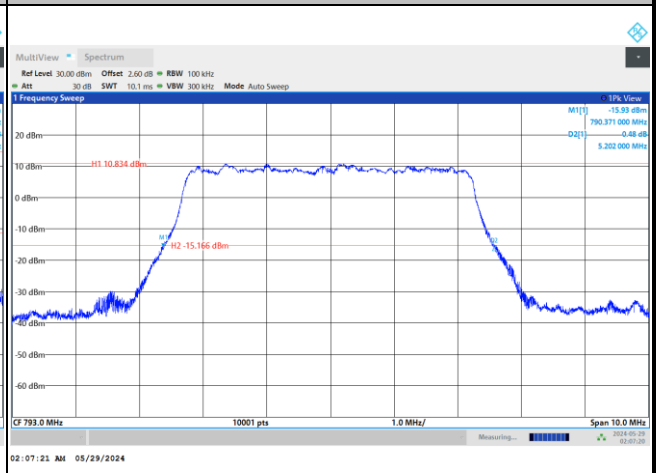
16QAM



64QAM



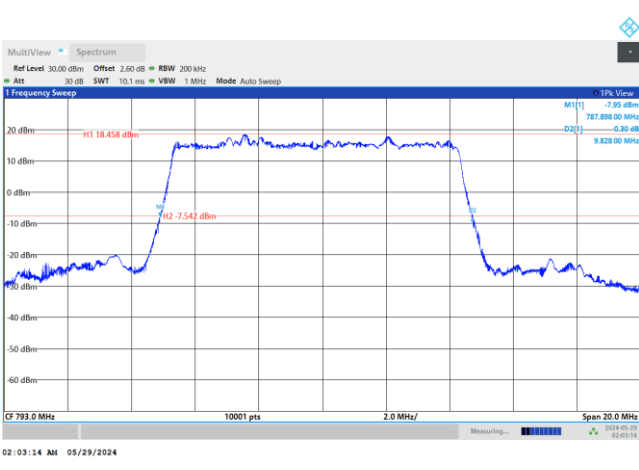
256QAM





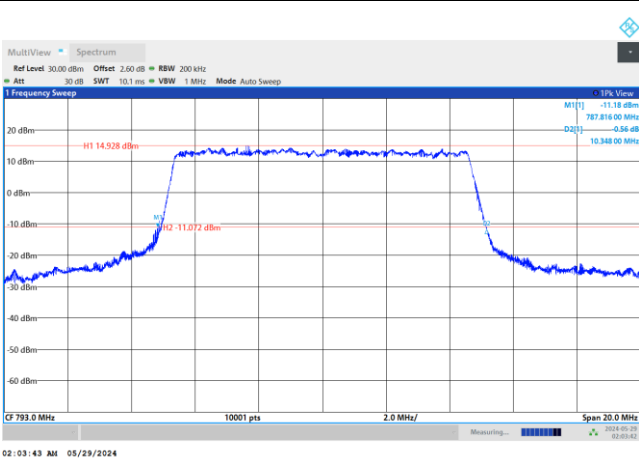
FR1 n14 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

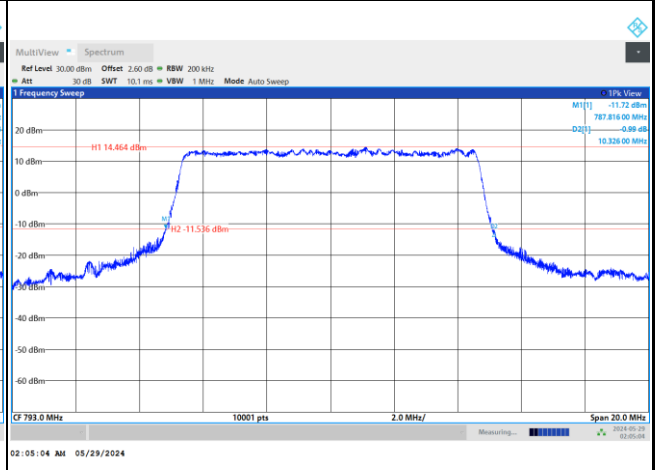


FR1 n14 / 10MHz / CP OFDM / Middle Channel / Full RB

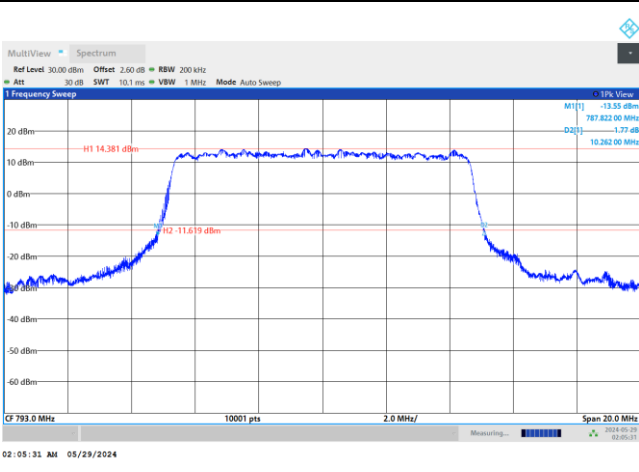
QPSK



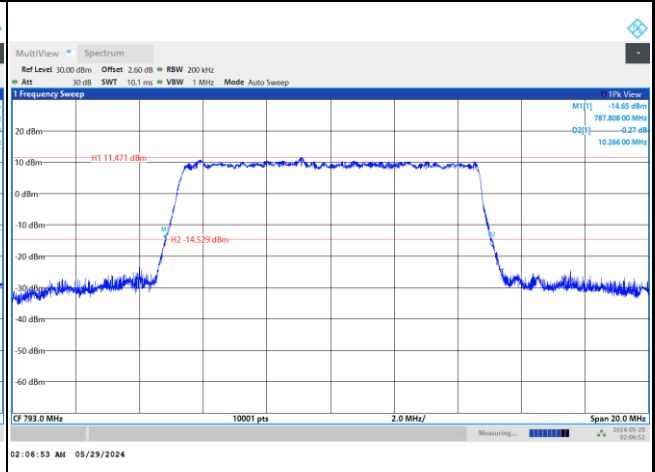
16QAM



64QAM



256QAM





### Occupied Bandwidth

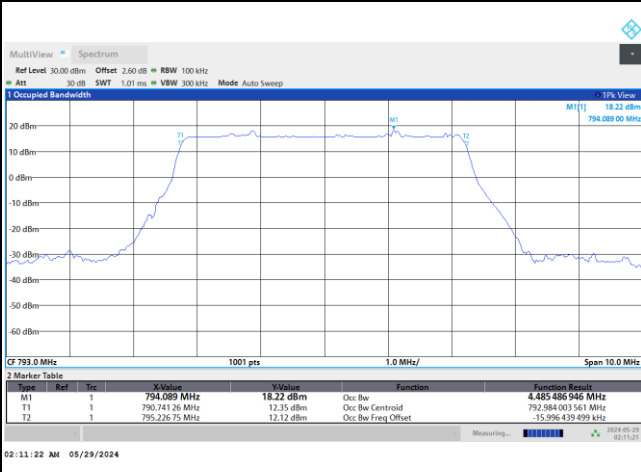
Mode	FR1 n14 : 99%OBW(MHz) / DFT-S OFDM						
BW	5MHz		10MHz				
Mod.	PI/2 BPSK		PI/2 BPSK				
Middle CH	4.48		8.98				

Mode	FR1 n14 : 99%OBW (MHz) / CP OFDM						
BW	5MHz		10MHz				
Mod.	QPSK	16QAM	QPSK	16QAM			
Middle CH	4.53	4.53	9.32	9.32			
Mod.	64QAM	256QAM	64QAM	256QAM			
Middle CH	4.51	4.51	9.31	9.35			



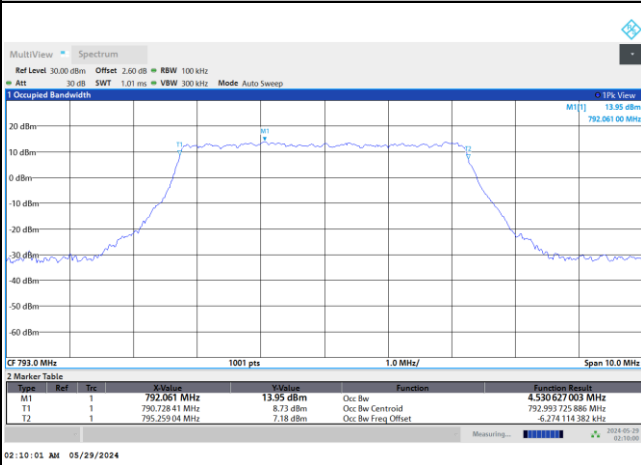
FR1 n14 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

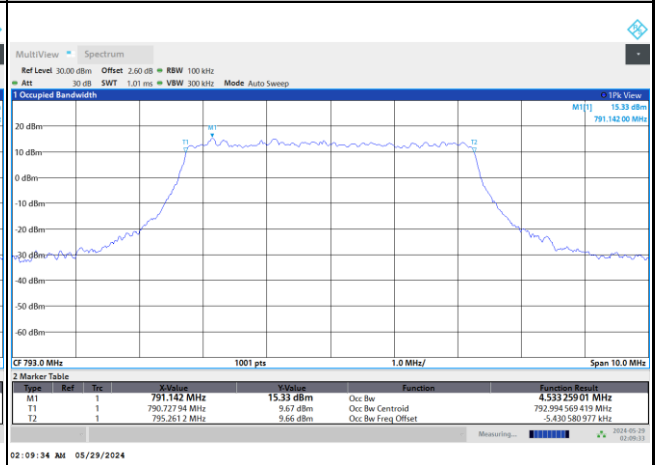


FR1 n14 / 5MHz / CP OFDM / Middle Channel / Full RB

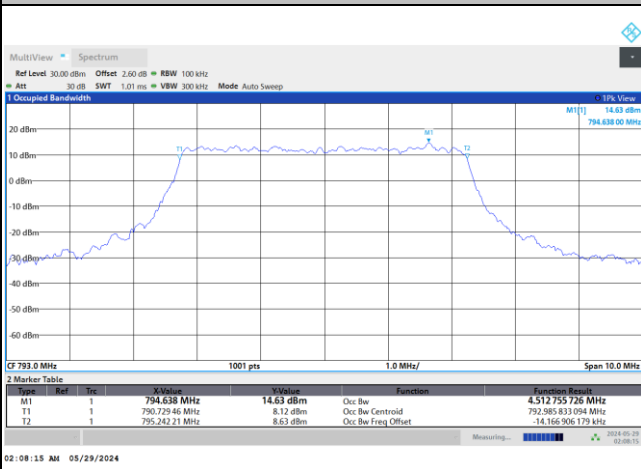
QPSK



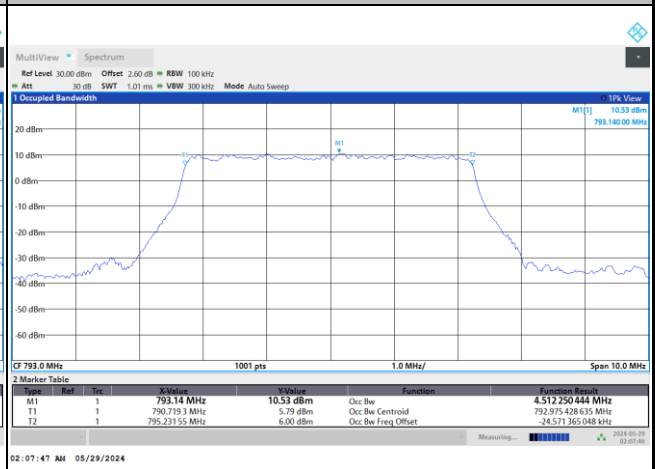
16QAM



64QAM



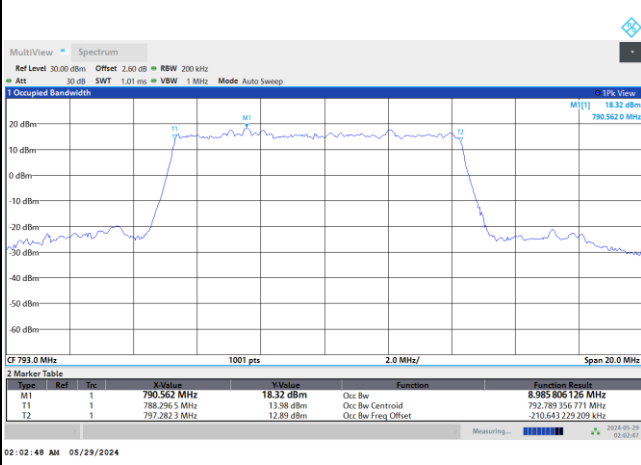
256QAM





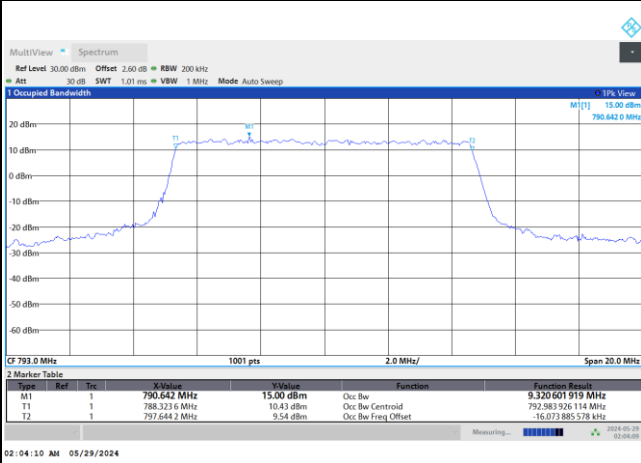
FR1 n14 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

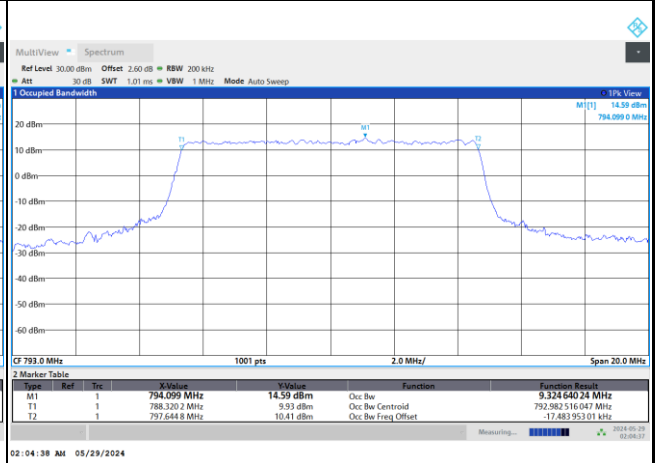


FR1 n14 / 10MHz / CP OFDM / Middle Channel / Full RB

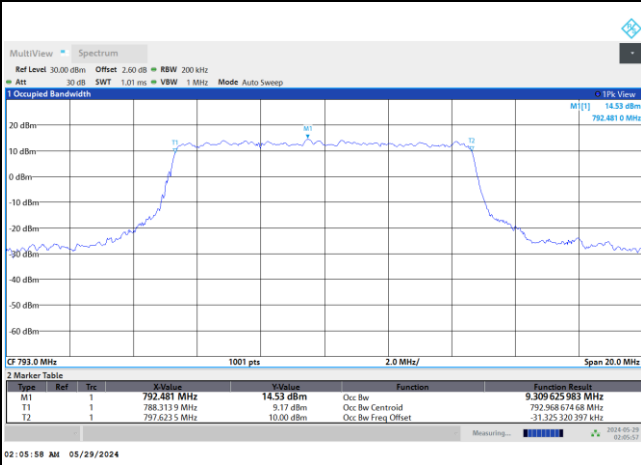
QPSK



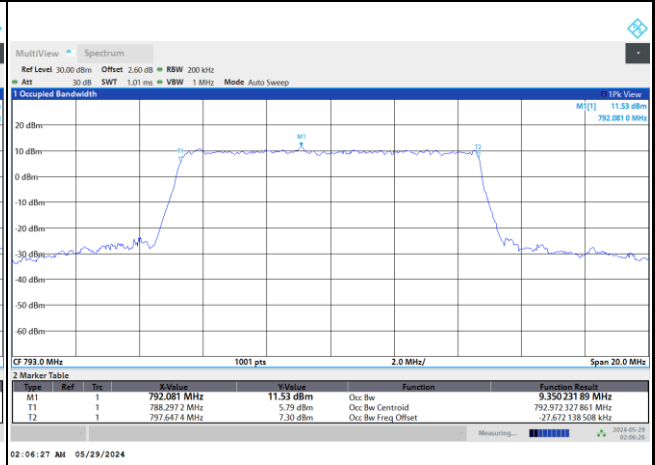
16QAM



64QAM



256QAM



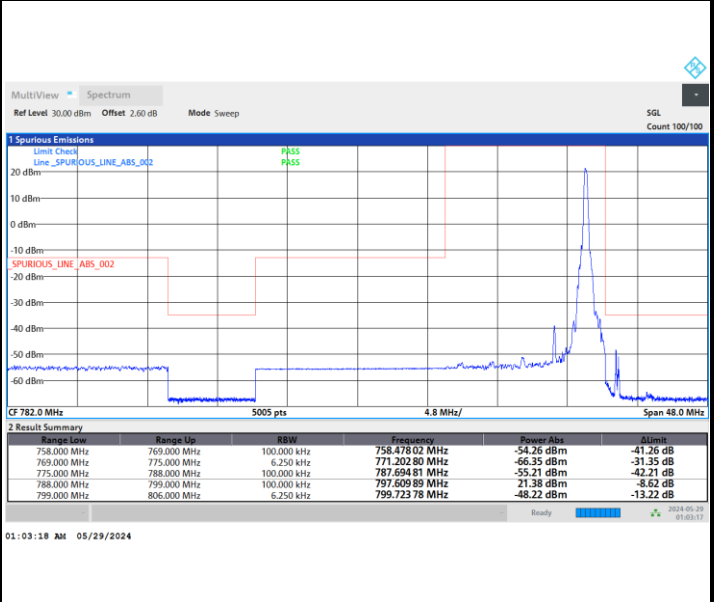
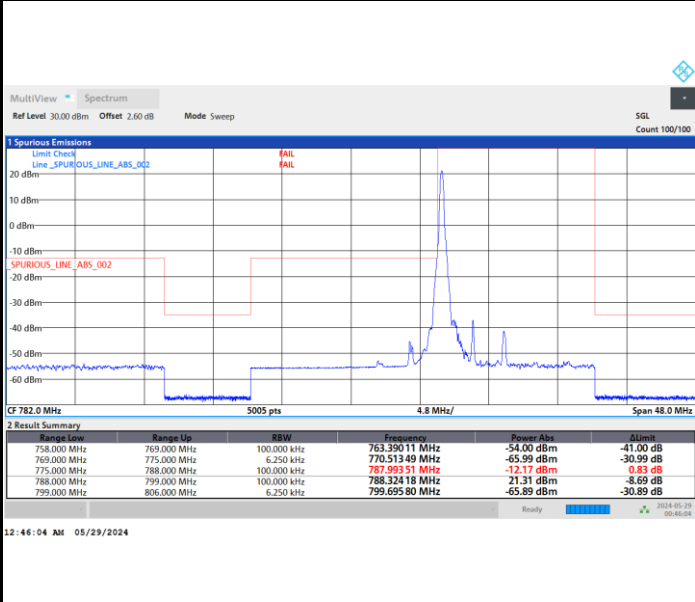


# Conducted Band Edge

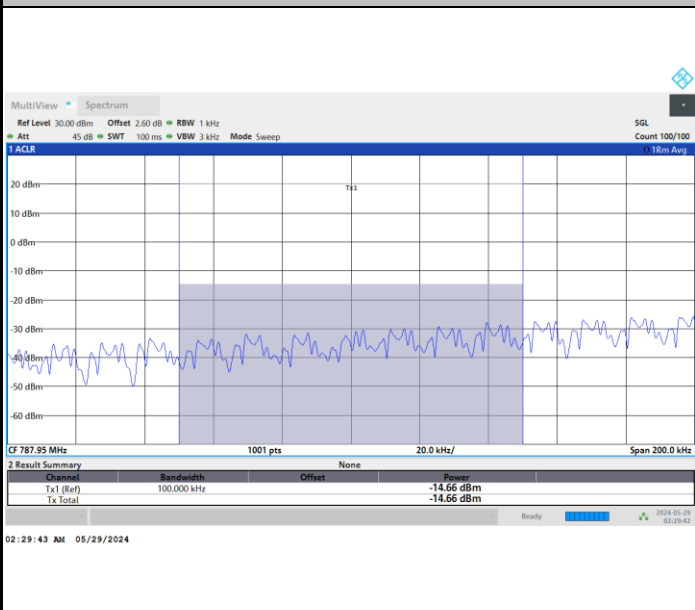
FR1 n14 / 5MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Channel power -13dBm > -14.66dBm Pass



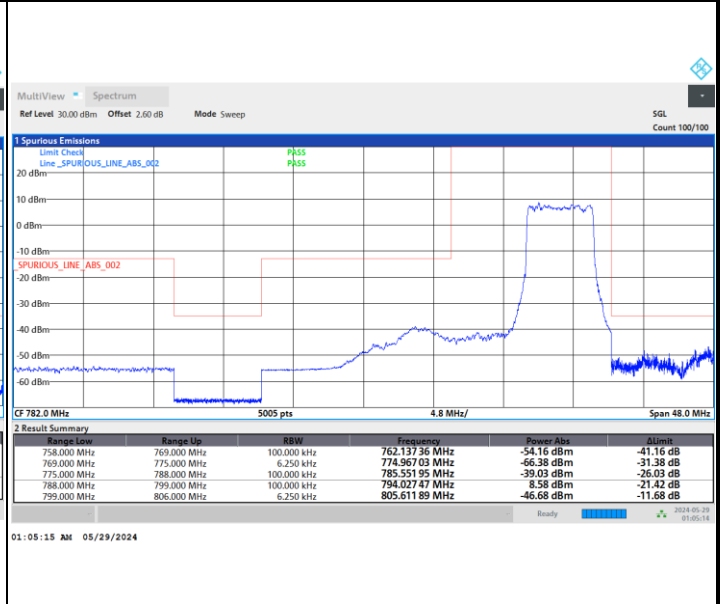
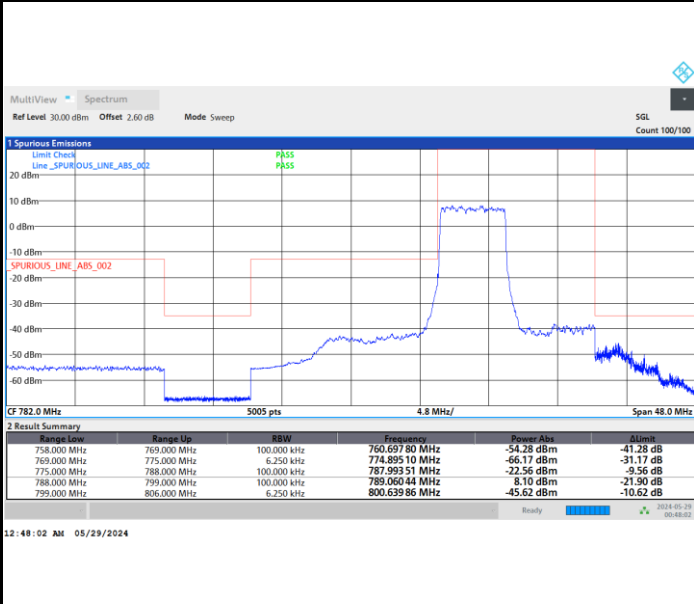




FR1 n14 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

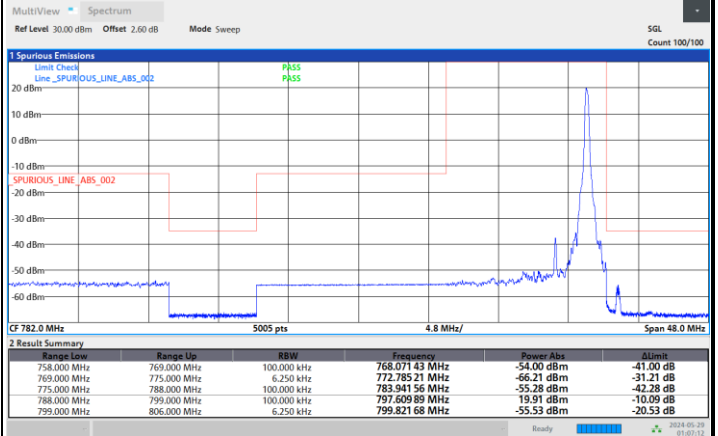
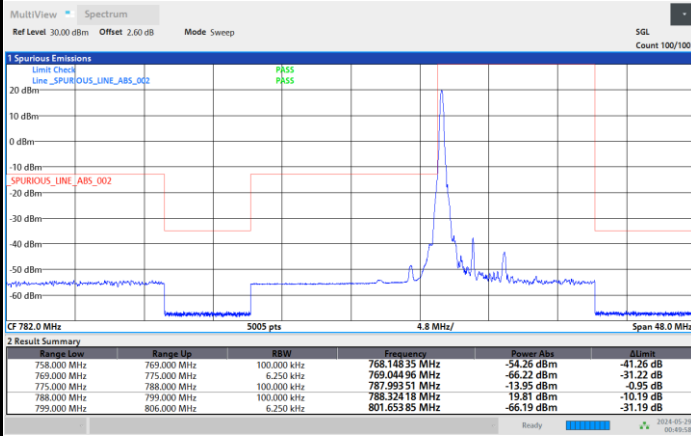




FR1 n14 / 5MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

