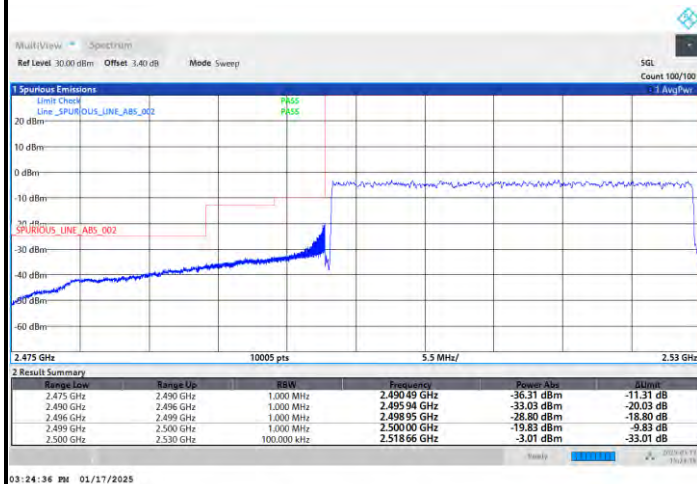




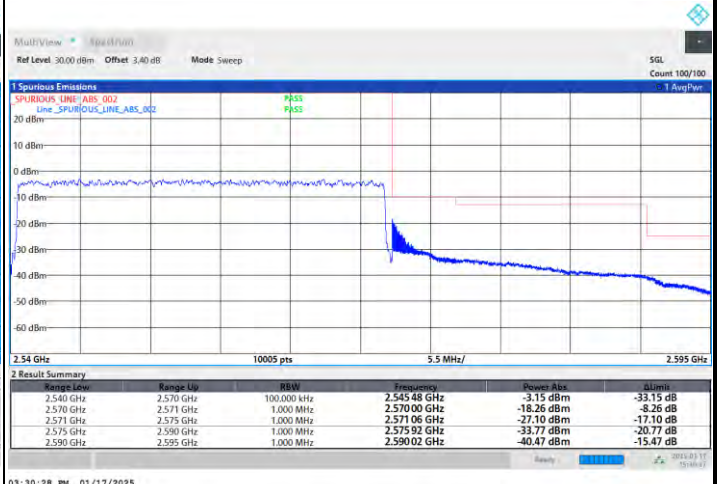
FR1 n7 / 30MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / Full RB



03:24:36 PM 01/17/2025

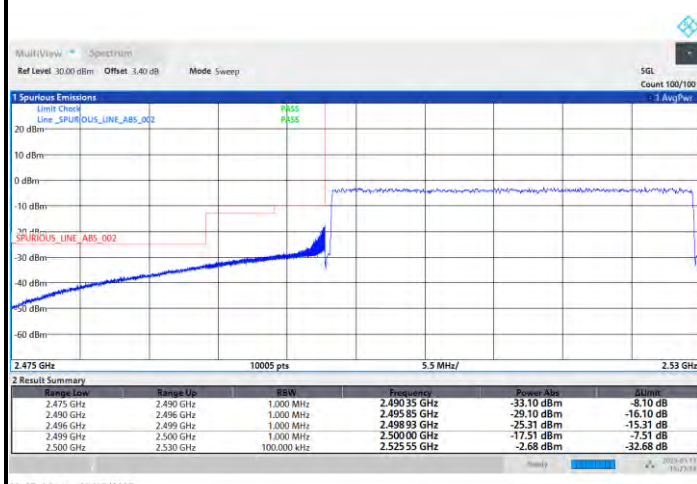
Highest Band Edge / Full RB



03:30:28 PM 01/17/2025

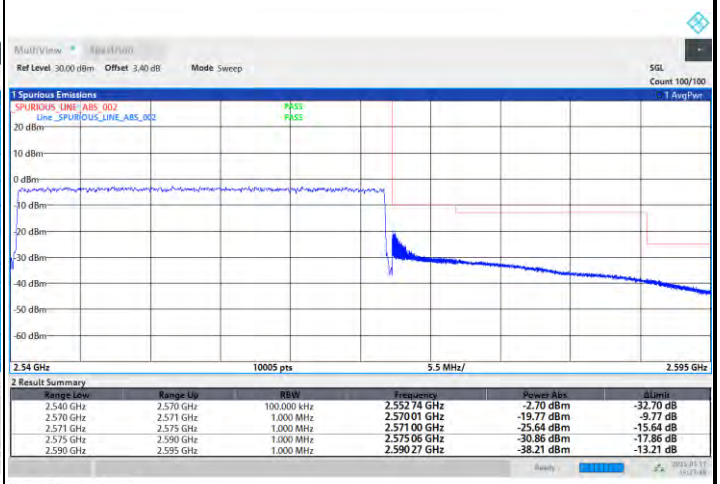
FR1 n7 / 30MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



03:27:16 PM 01/17/2025

Highest Band Edge

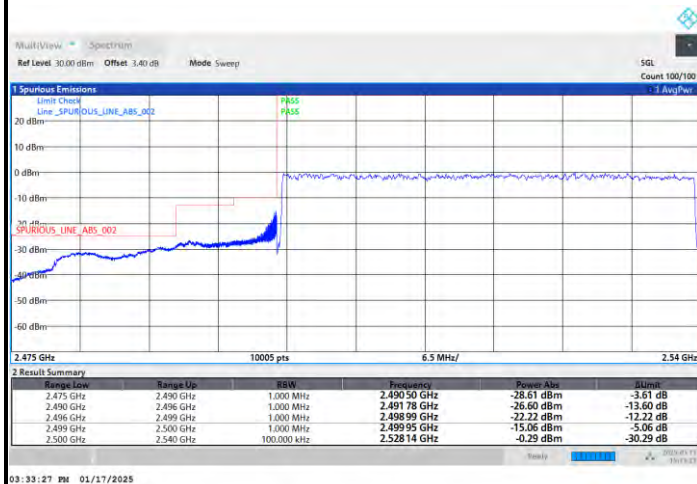


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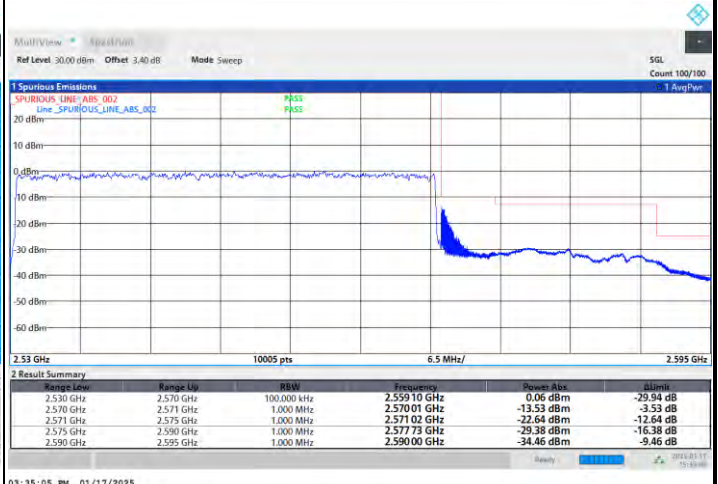
FR1 n7 / 40MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / Full RB



03:33:27 PM 01/17/2025

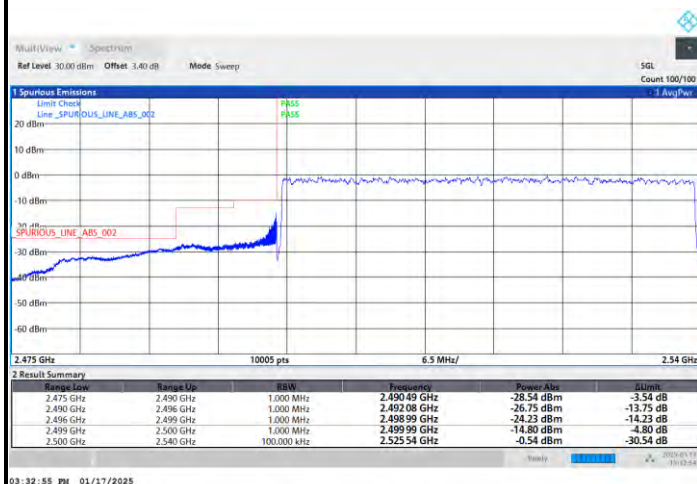
Highest Band Edge / Full RB



03:35:05 PM 01/17/2025

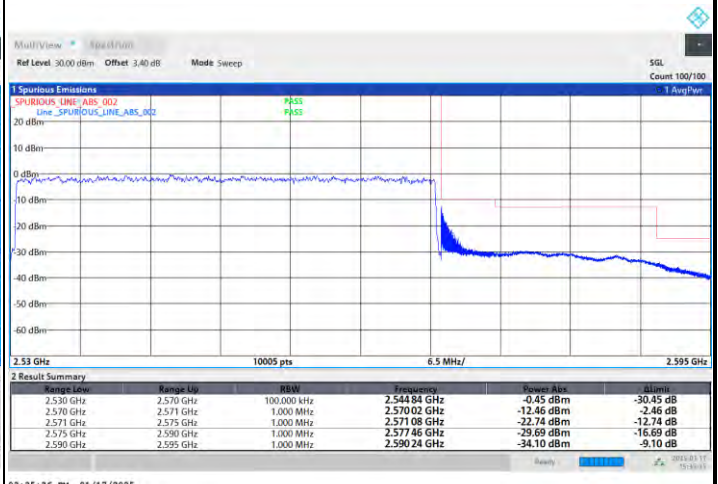
FR1 n7 / 40MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / Full RB



03:32:55 PM 01/17/2025

Highest Band Edge / Full RB

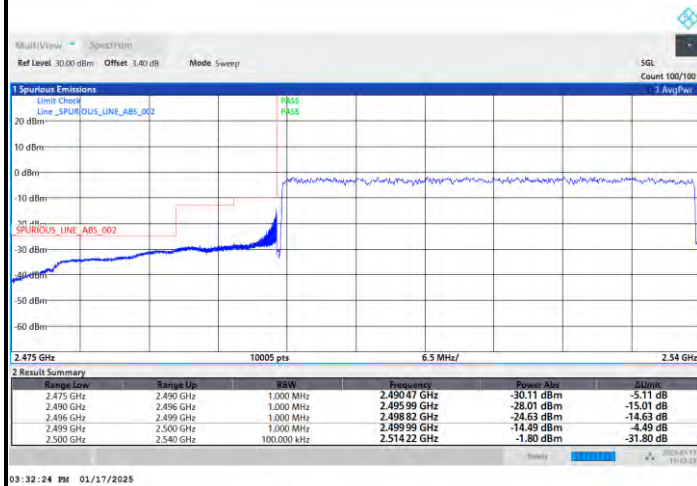


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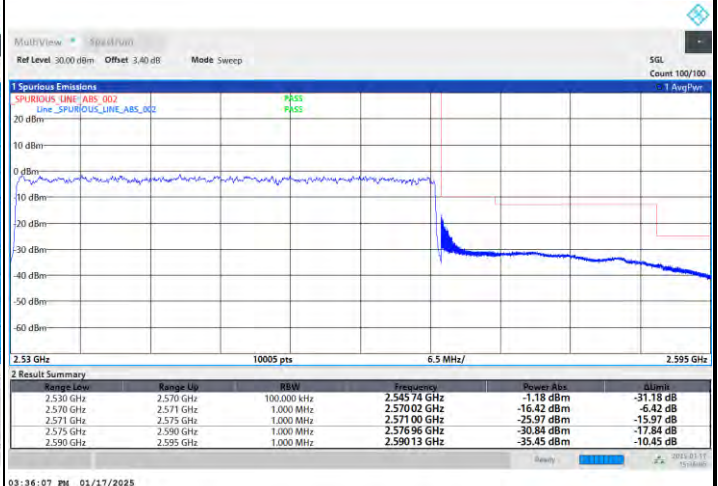
FR1 n7 / 40MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / Full RB



03:32:24 PM 01/17/2025

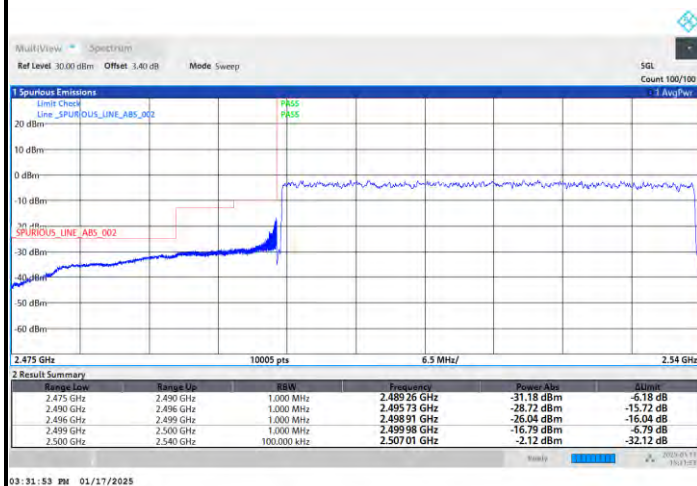
Highest Band Edge / Full RB



03:36:07 PM 01/17/2025

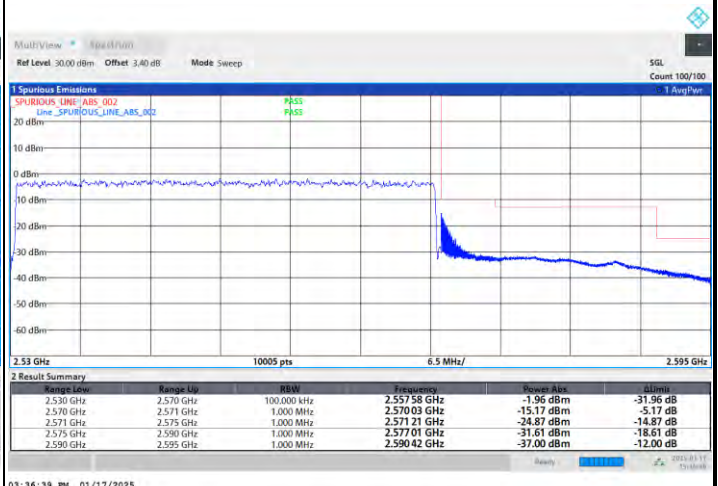
FR1 n7 / 40MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / Full RB



03:31:53 PM 01/17/2025

Highest Band Edge / Full RB

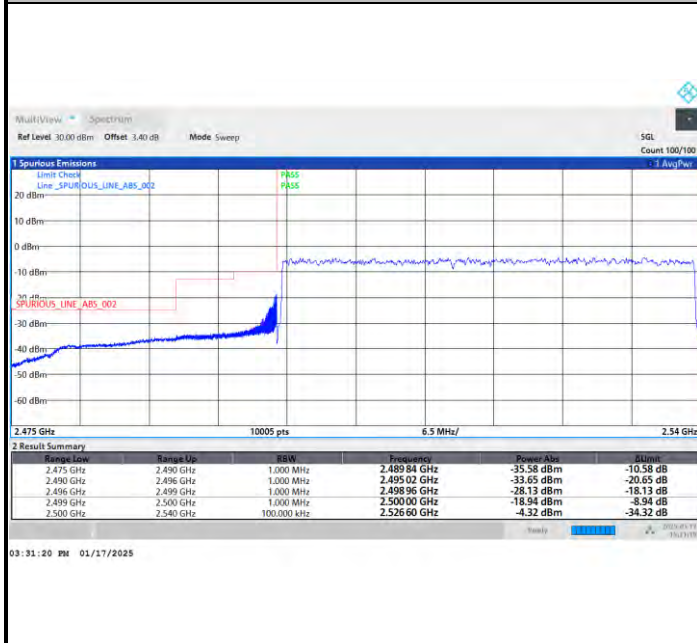


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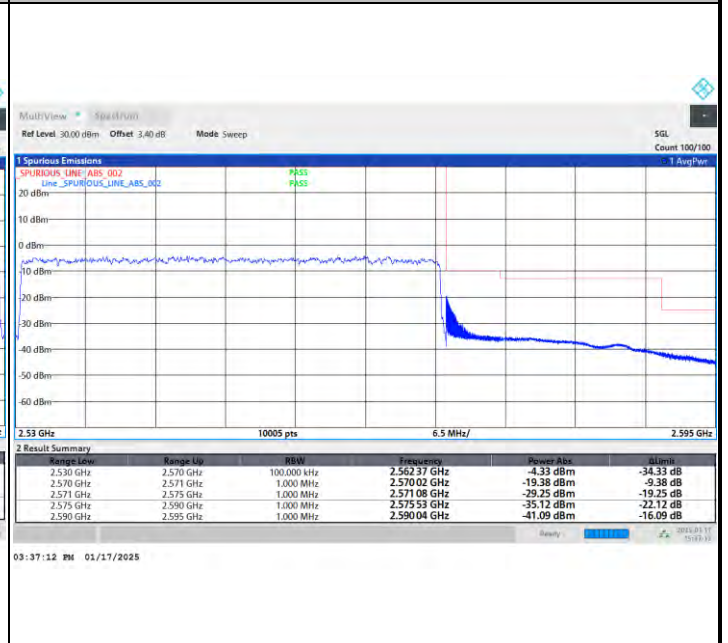


FR1 n7 / 40MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / Full RB

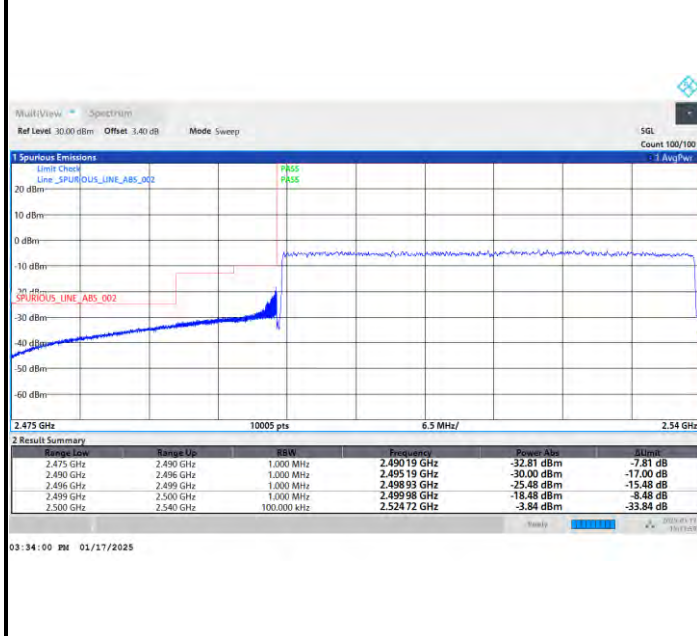


Highest Band Edge / Full RB

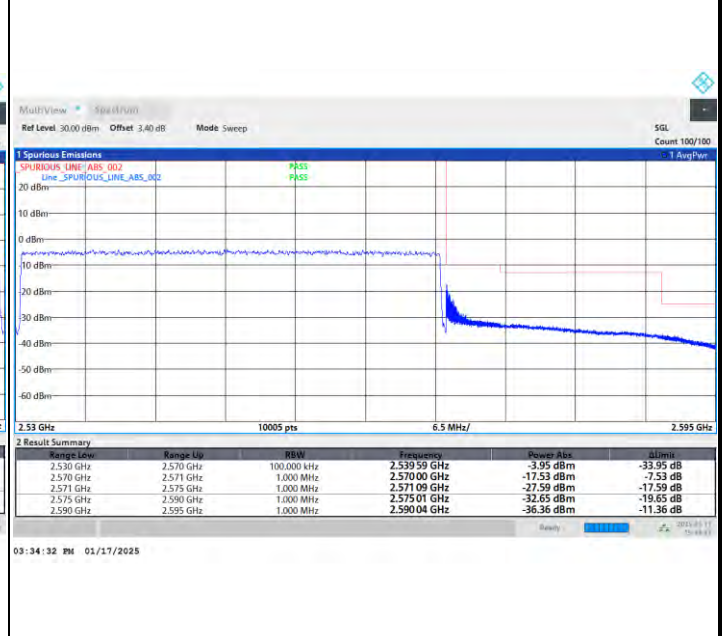


FR1 n7 / 40MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



Highest Band Edge



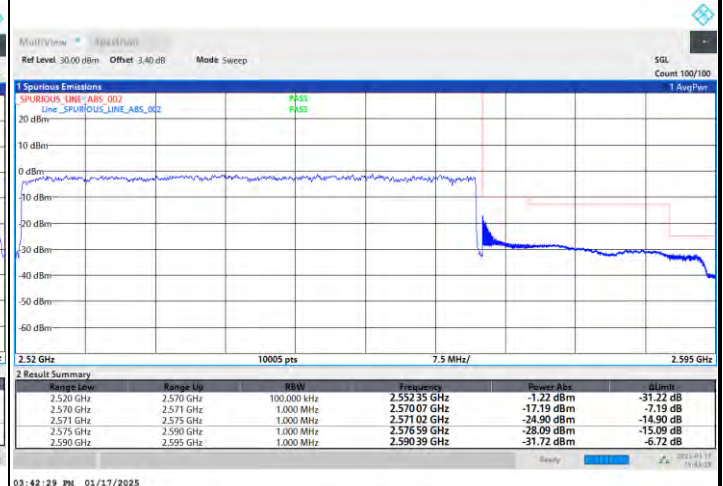


FR1 n7 / 50MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

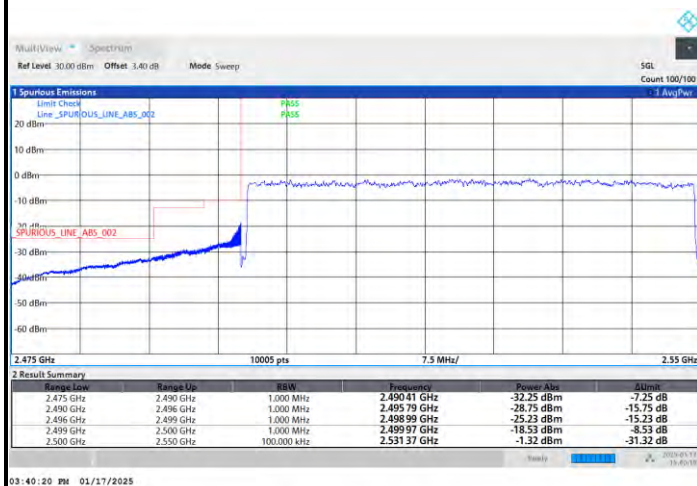


Highest Band Edge / Full RB

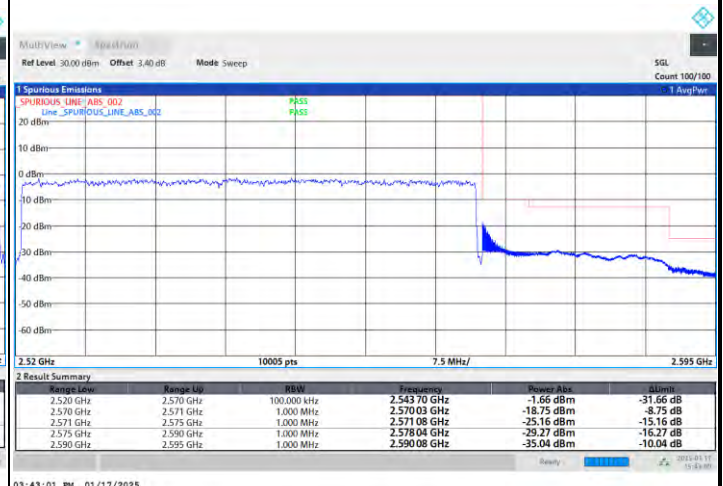


FR1 n7 / 50MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB





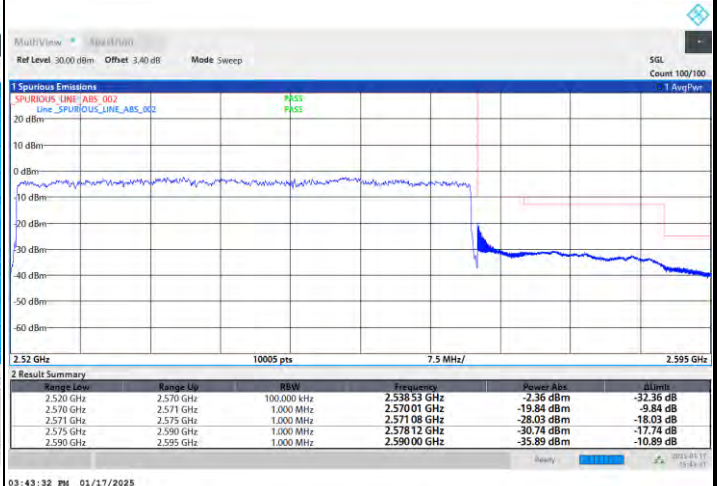
FR1 n7 / 50MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / Full RB



03:39:48 PM 01/17/2025

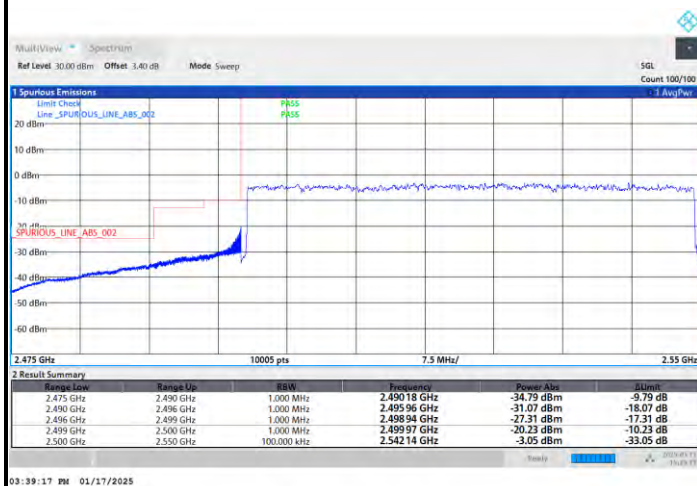
Highest Band Edge / Full RB



03:43:32 PM 01/17/2025

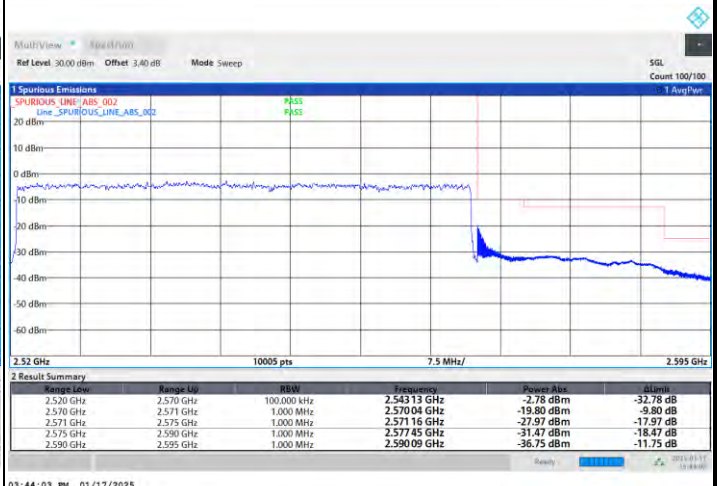
FR1 n7 / 50MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / Full RB



03:39:17 PM 01/17/2025

Highest Band Edge / Full RB

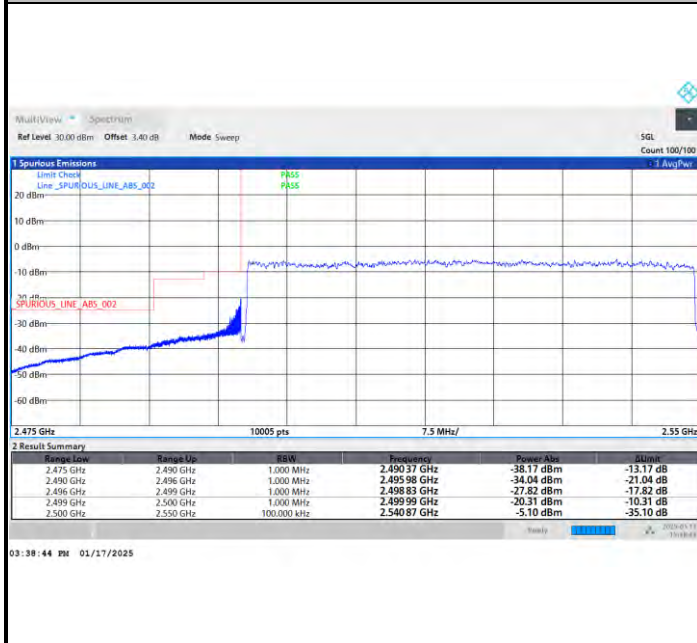


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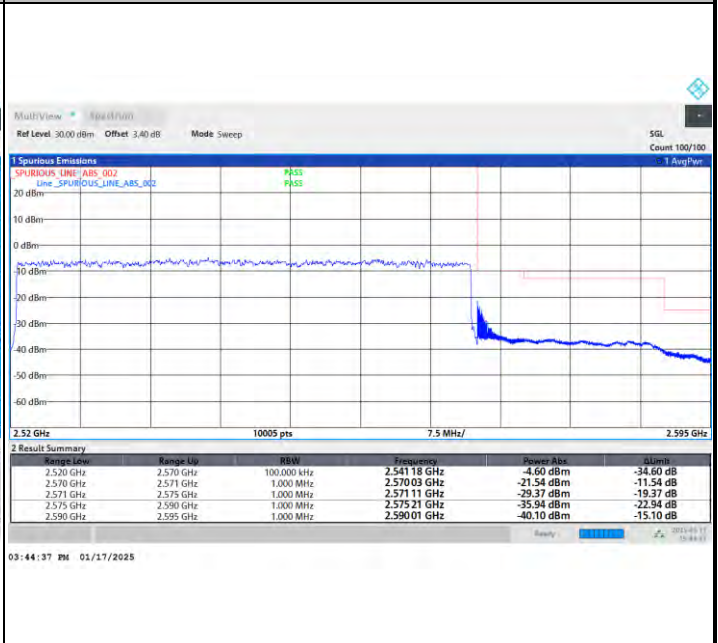


FR1 n7 / 50MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / Full RB

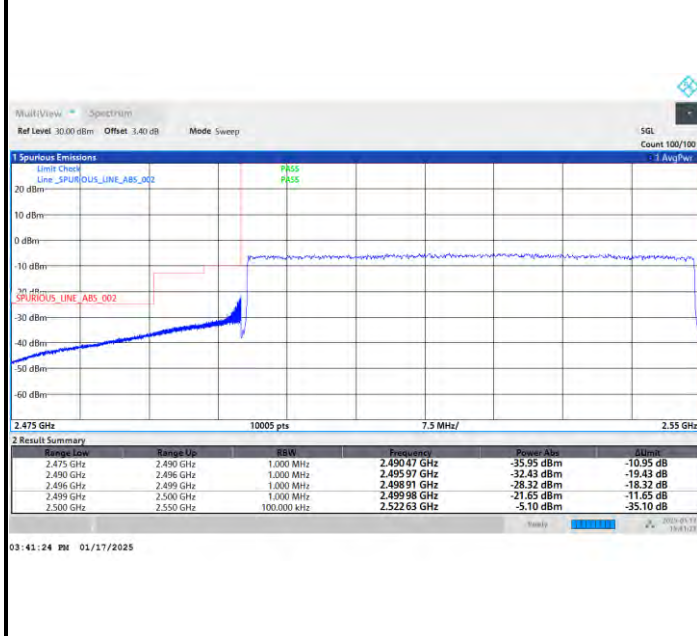


Highest Band Edge / Full RB



FR1 n7 / 50MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



Highest Band Edge

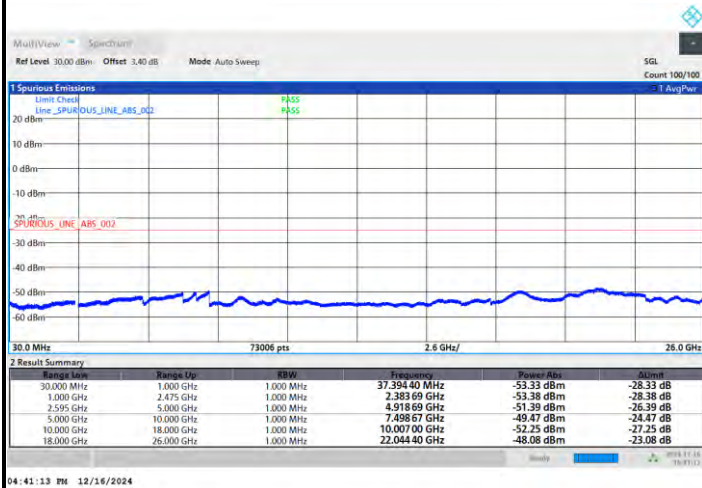




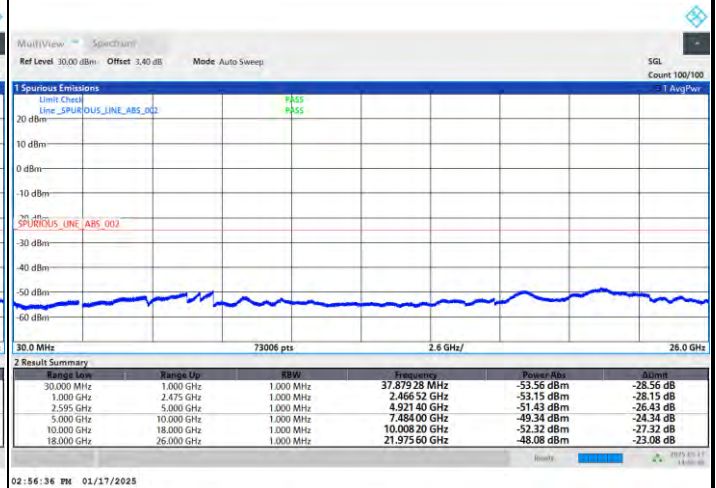
Conducted Spurious Emission

FR1 n7 / 5MHz / DFT-S OFDM / QPSK / 1RB1

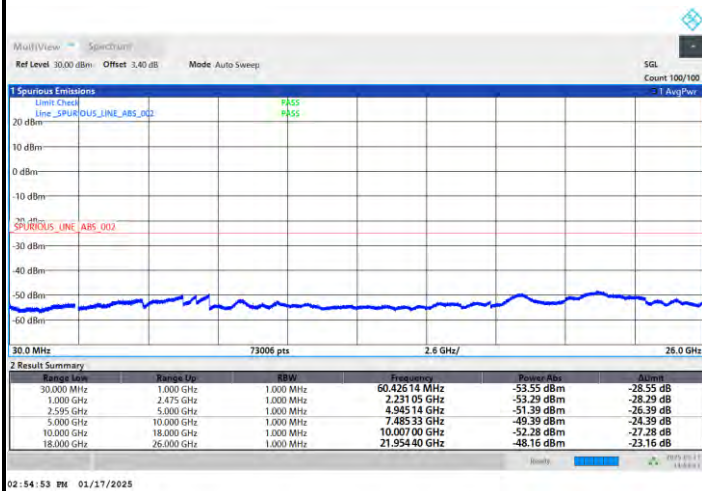
Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n7 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0057	PASS
40	Normal Voltage	0.0088	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0087	
0	Normal Voltage	0.0039	
-10	Normal Voltage	0.0097	
-20	Normal Voltage	0.0100	
-30	Normal Voltage	0.0117	
20	Maximum Voltage	0.0105	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0072	

Note:

1. Normal Voltage = 3.9 V. ; Minimum Voltage = 3.6 V. ; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



FR1 n12

Peak-to-Average Ratio

Mode	FR1 n12 / 15MHz / 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	4.50	5.90	6.60	6.86	PASS
Mode	FR1 n12 / 15MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.62				PASS

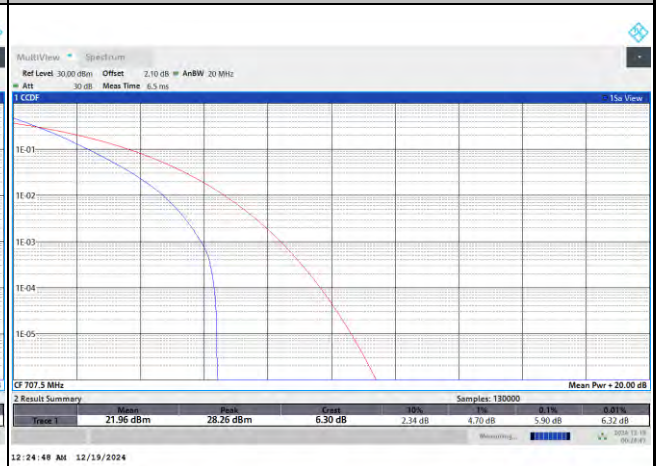


FR1 n12 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

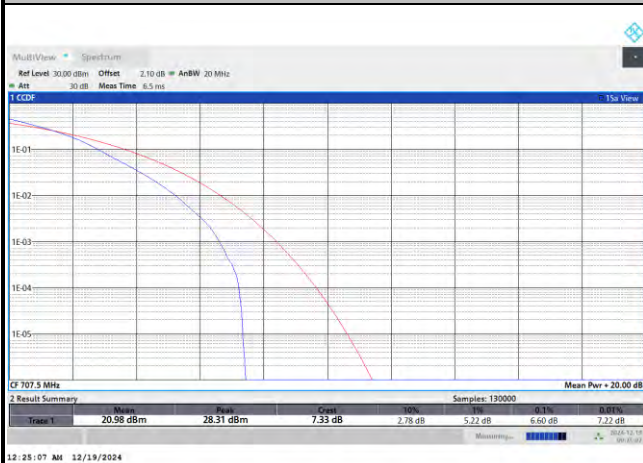
PI/2 BPSK



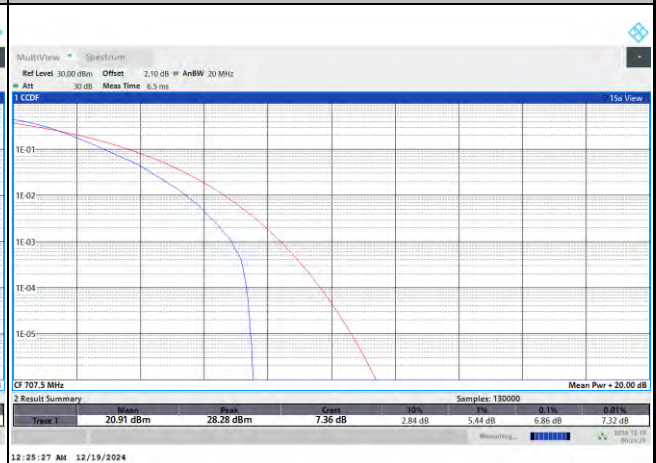
QPSK



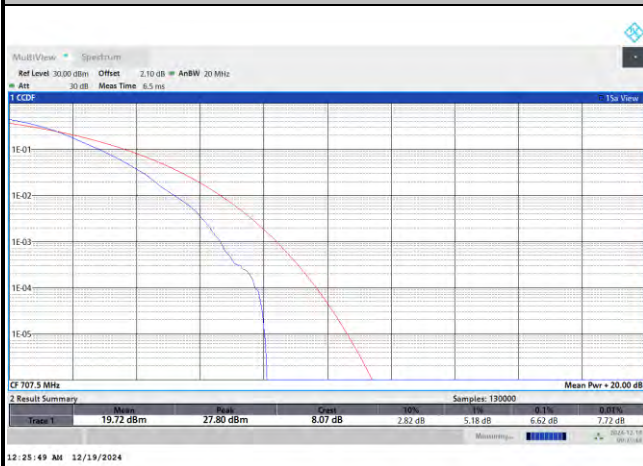
16QAM



64QAM



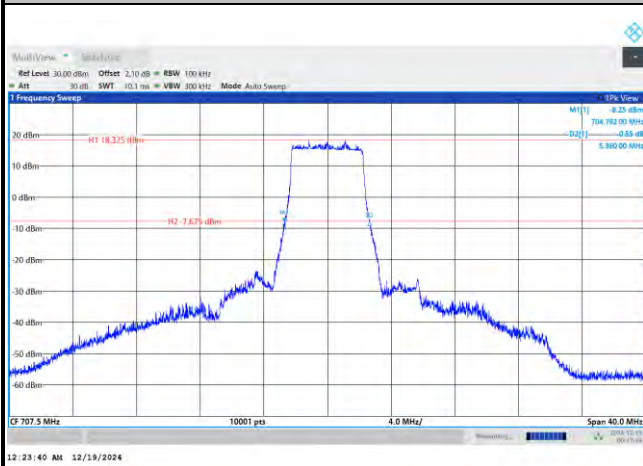
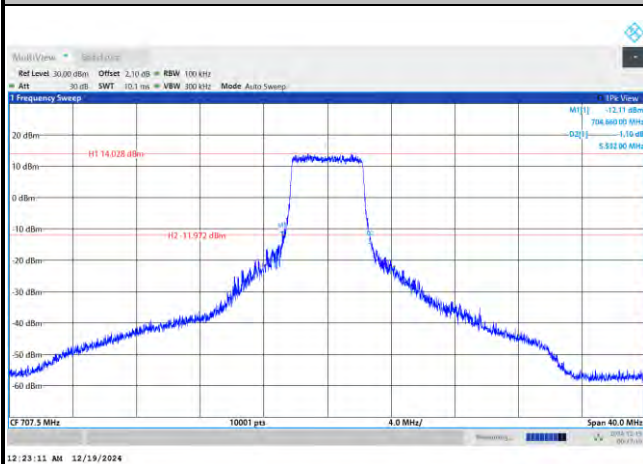
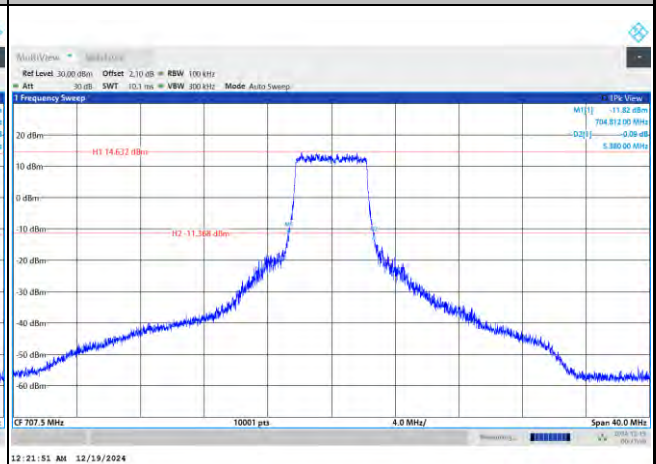
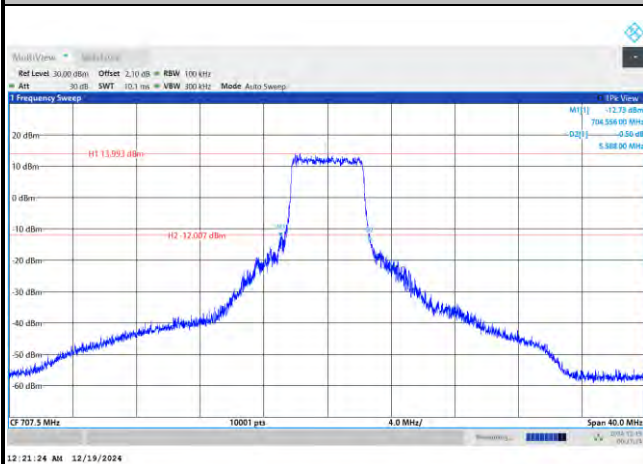
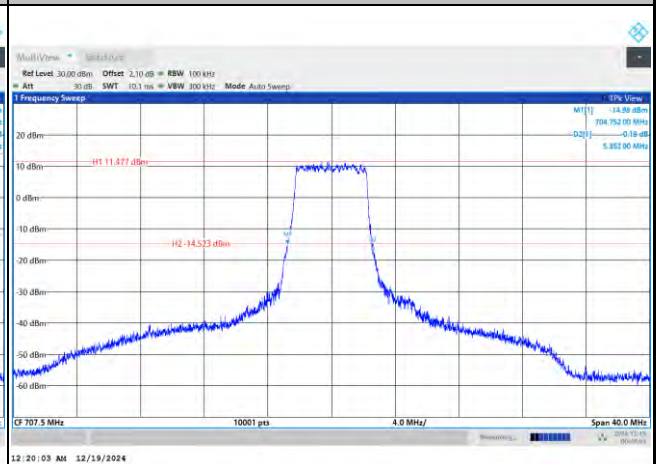
256QAM

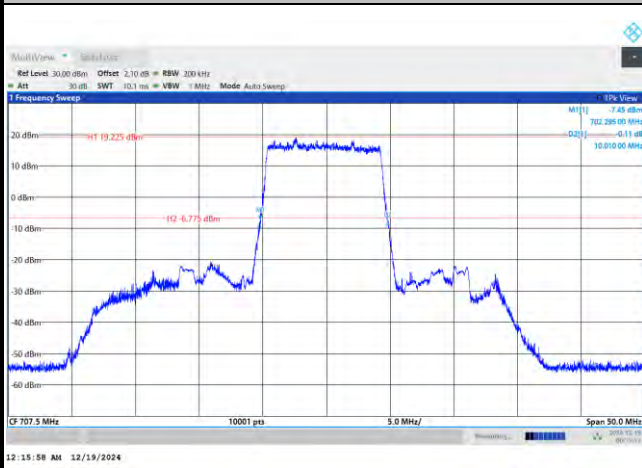
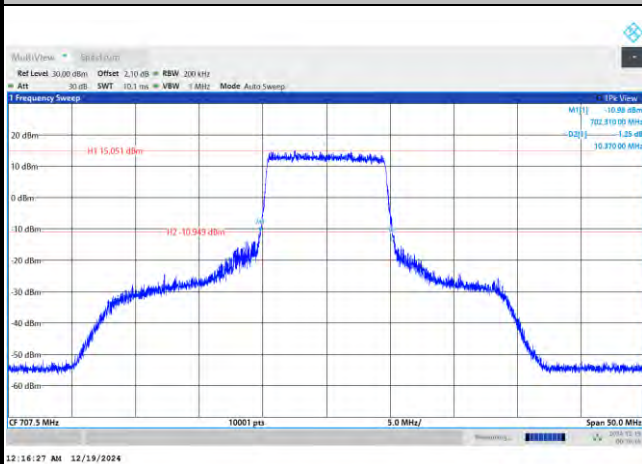
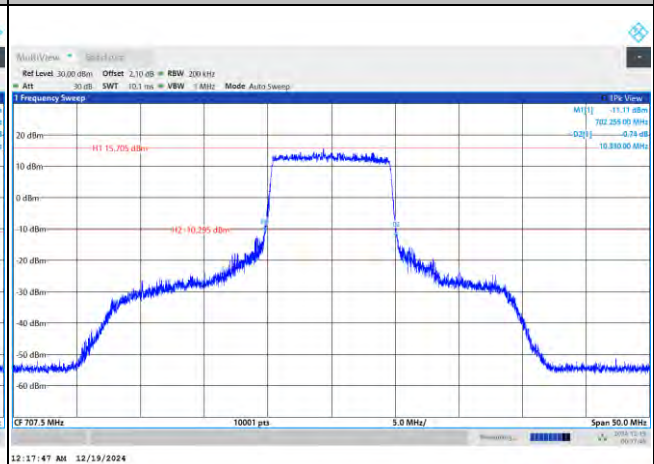
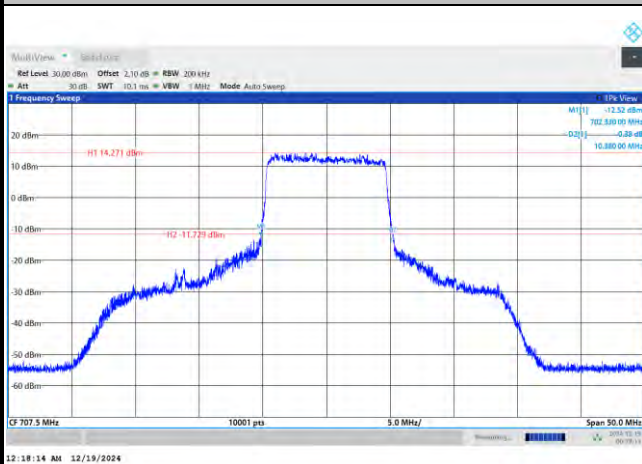
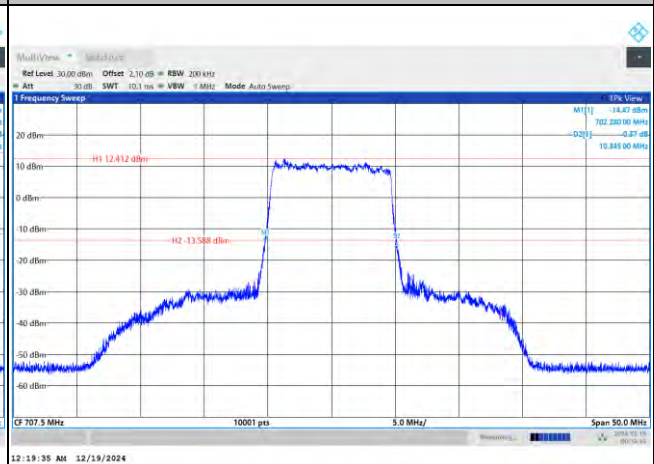


**26dB Bandwidth**

Mode	FR1 n12 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz			
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK			
Middle CH	5.36		10.01		14.74			

Mode	FR1 n12 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz			
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM		
Middle CH	5.53	5.38	10.37	10.33	15.44	15.69		
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM		
Middle CH	5.58	5.35	10.38	10.34	15.40	15.46		

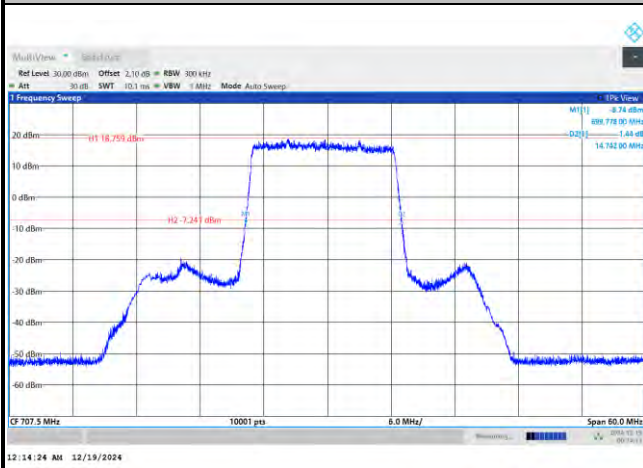
FR1 n12 / 5MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n12 / 5MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM


FR1 n12 / 10MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

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

16QAM

64QAM

256QAM




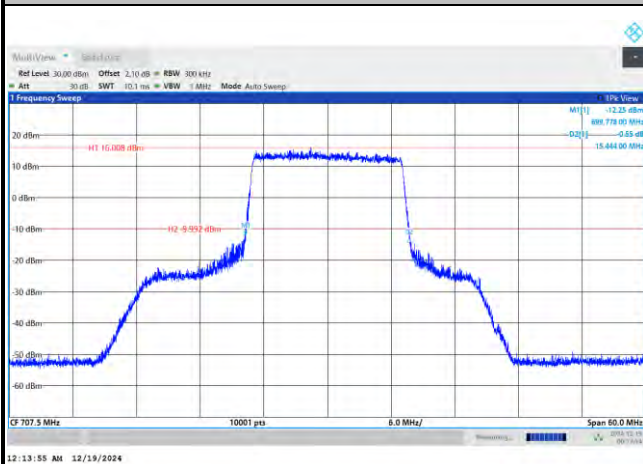
FR1 n12 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

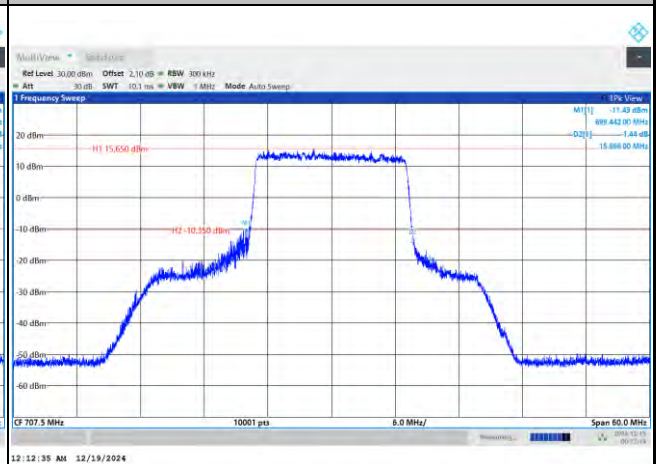


FR1 n12 / 15MHz / CP OFDM / Middle Channel / Full RB

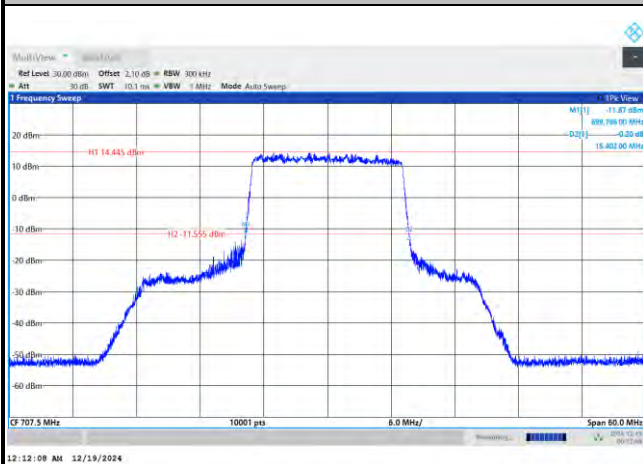
QPSK



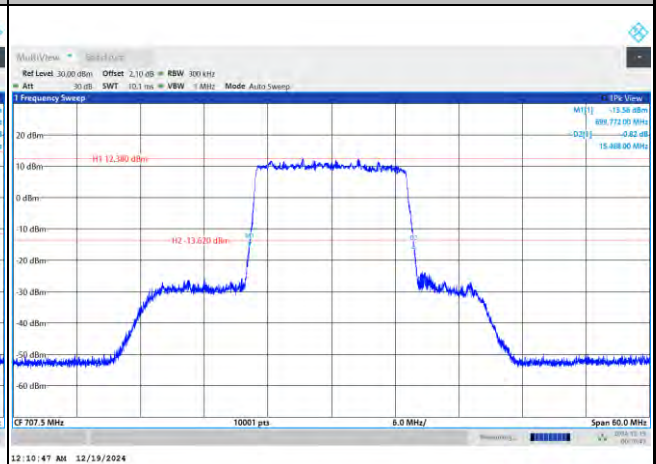
16QAM



64QAM



256QAM



**Occupied Bandwidth**

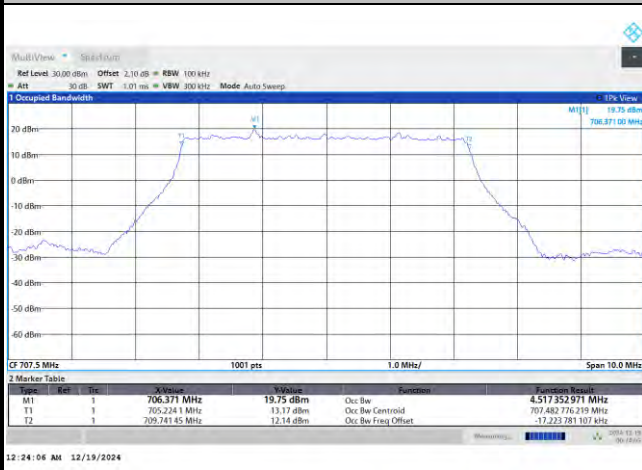
Mode	FR1 n12 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz			
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK			
Middle CH	4.51		9.03		13.47			

Mode	FR1 n12 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz			
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM		
Middle CH	4.51	4.51	9.34	9.35	14.15	14.16		
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM		
Middle CH	4.52	4.51	9.34	9.35	14.19	14.15		



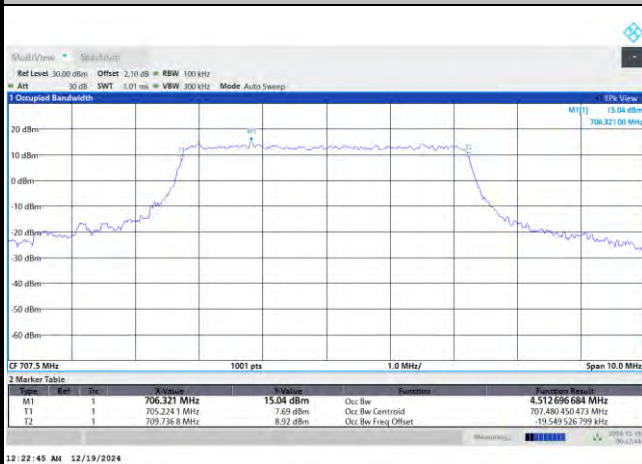
FR1 n12 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

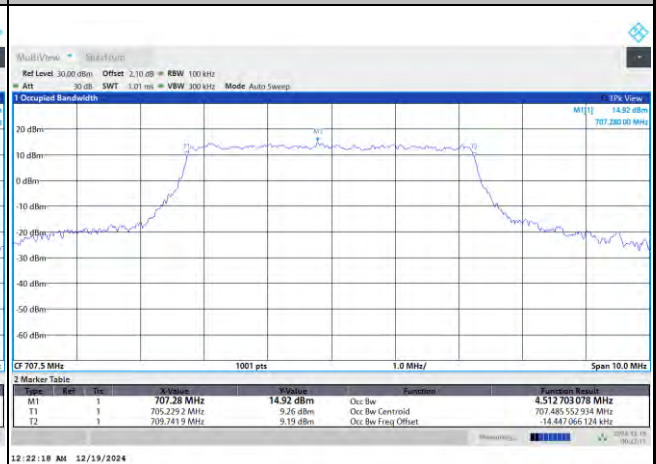


FR1 n12 / 5MHz / CP OFDM / Middle Channel / Full RB

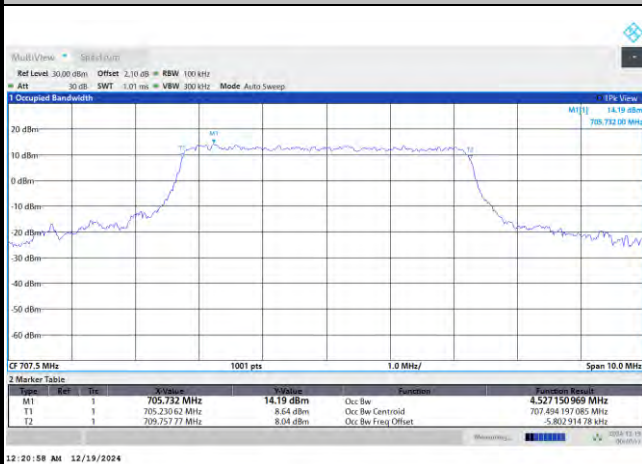
QPSK



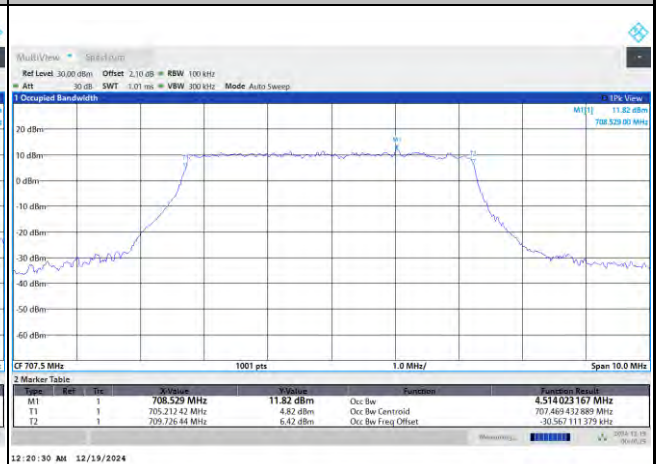
16QAM



64QAM



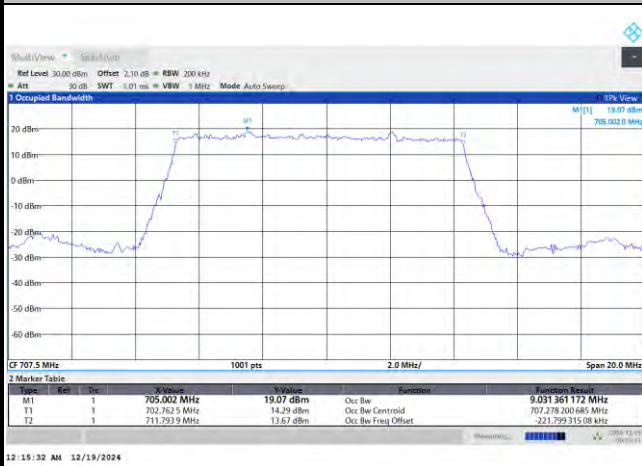
256QAM





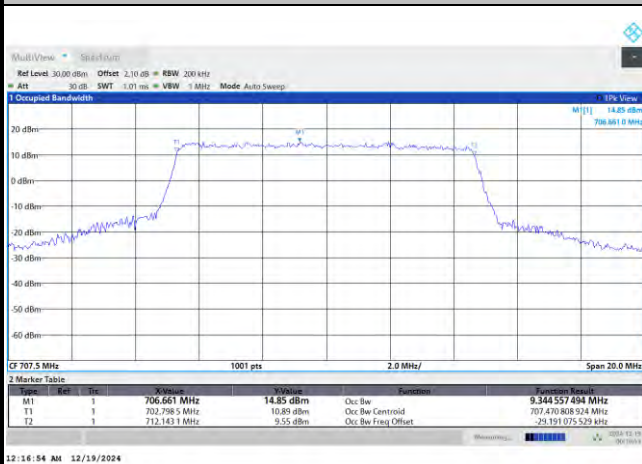
FR1 n12 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

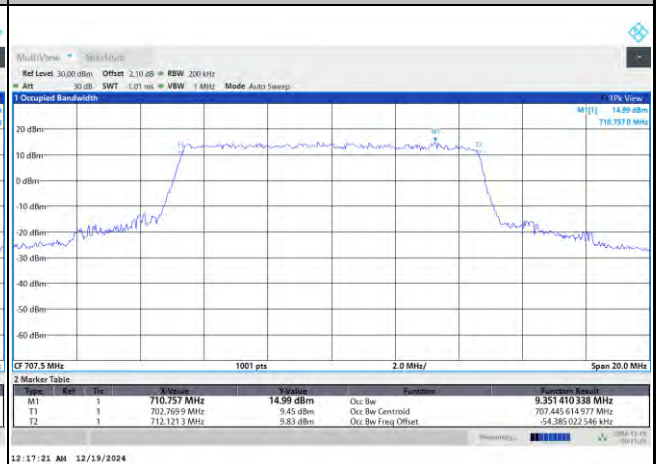


FR1 n12 / 10MHz / CP OFDM / Middle Channel / Full RB

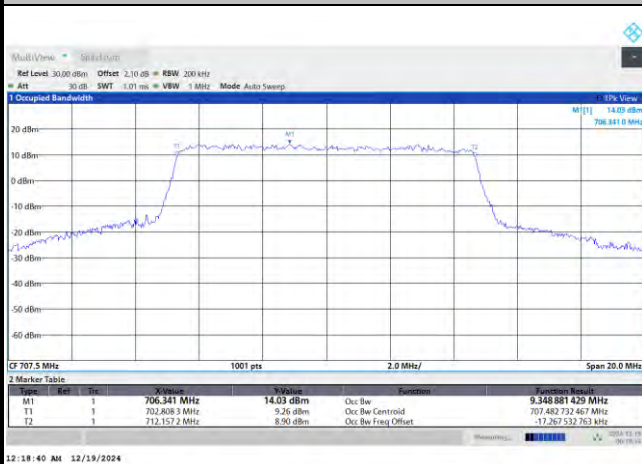
QPSK



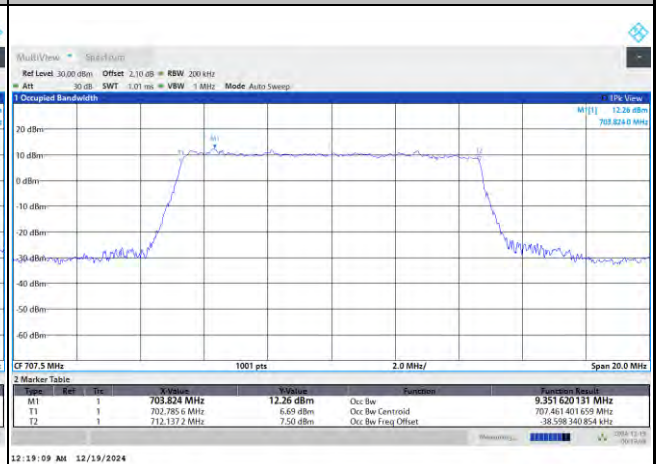
16QAM



64QAM



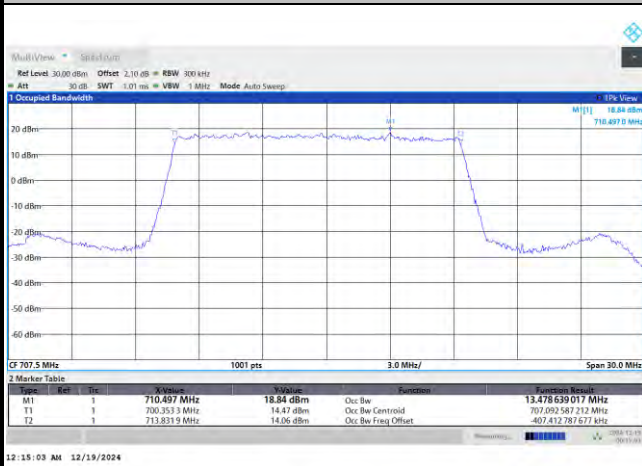
256QAM





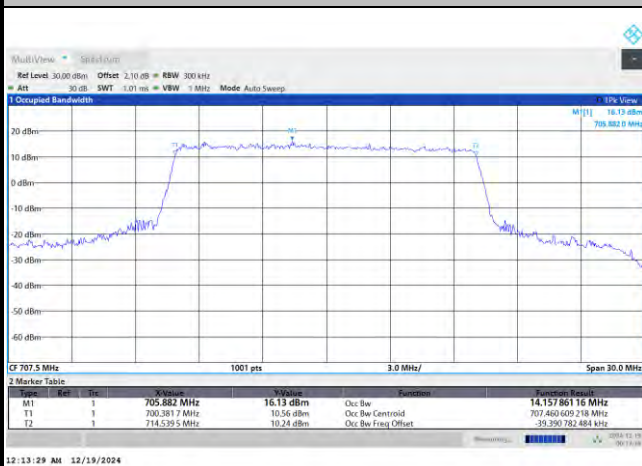
FR1 n12 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

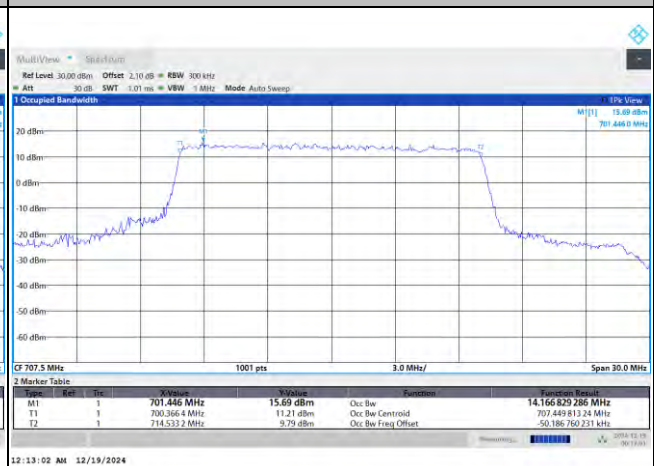


FR1 n12 / 15MHz / CP OFDM / Middle Channel / Full RB

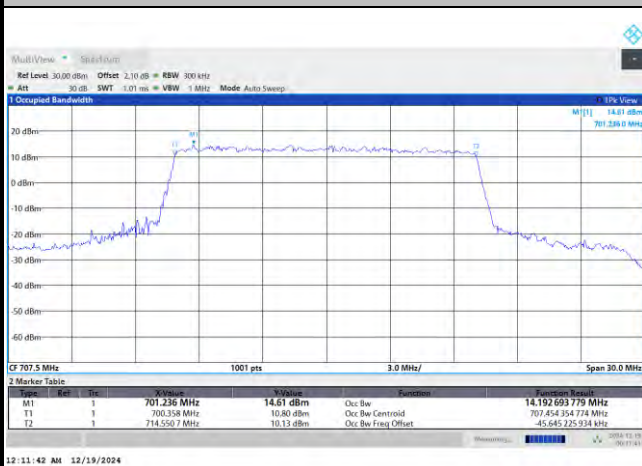
QPSK



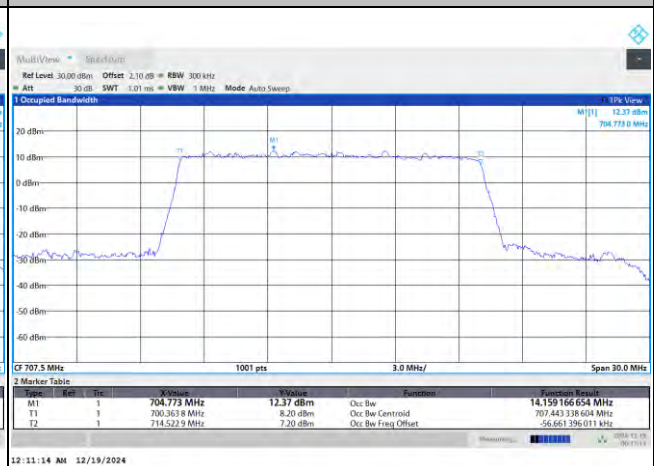
16QAM



64QAM



256QAM



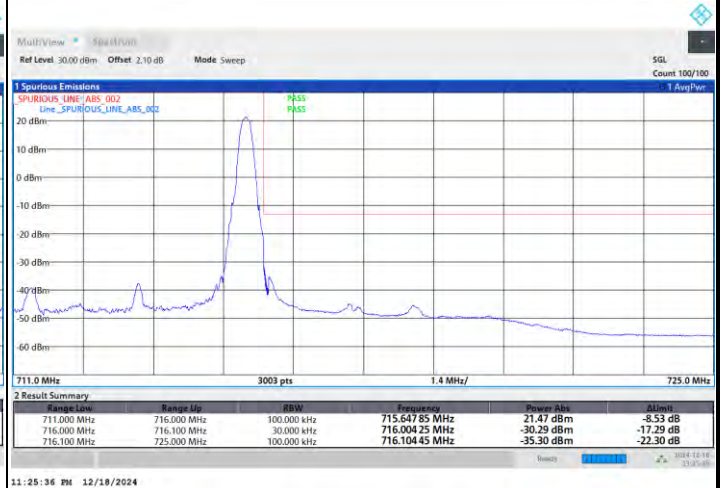
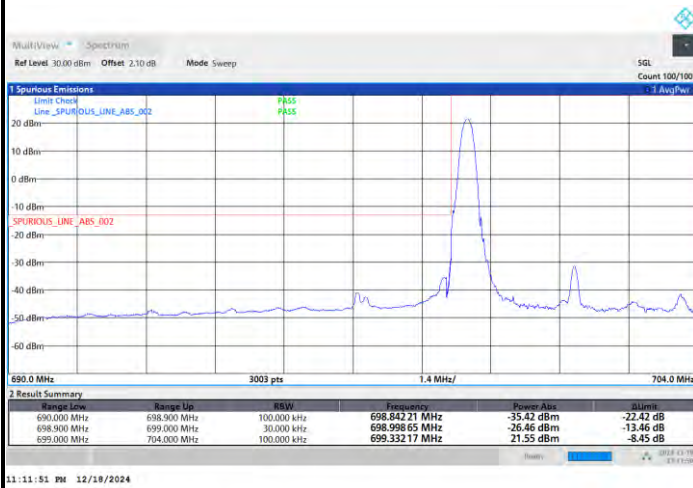


Conducted Band Edge

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

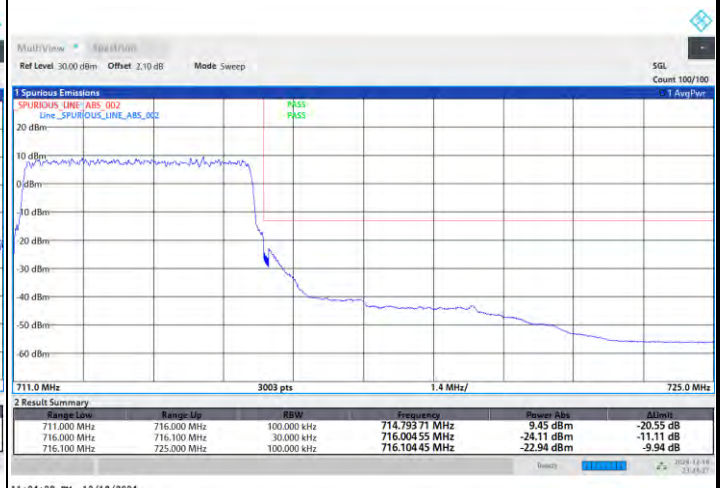
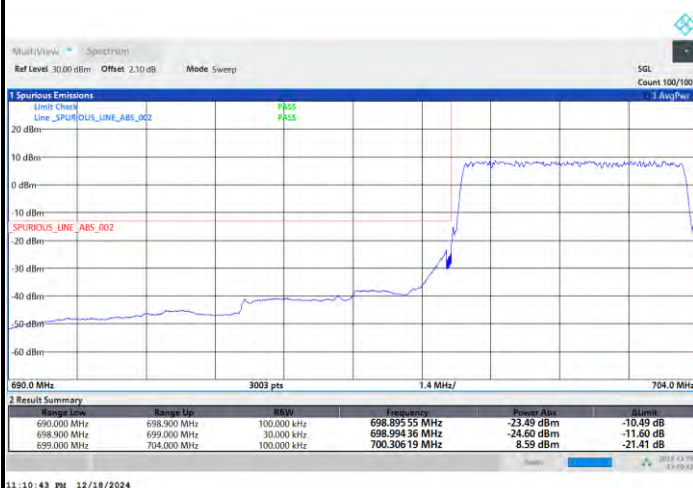
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

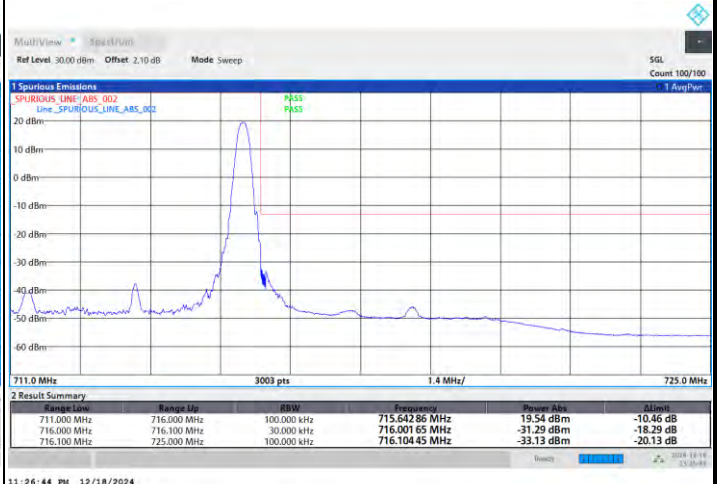
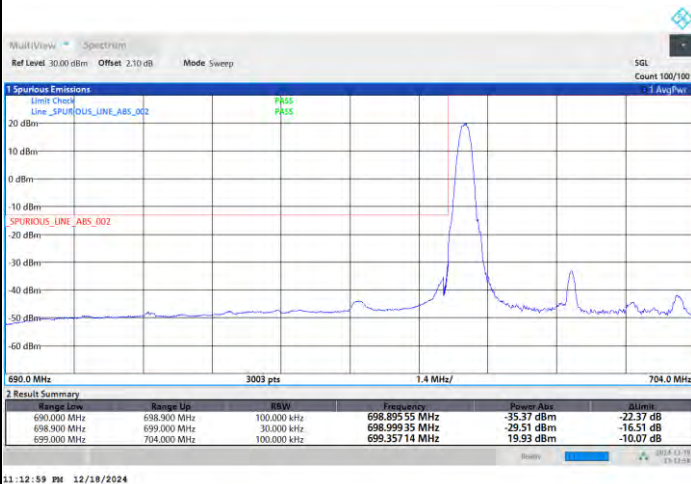




FR1 n12 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

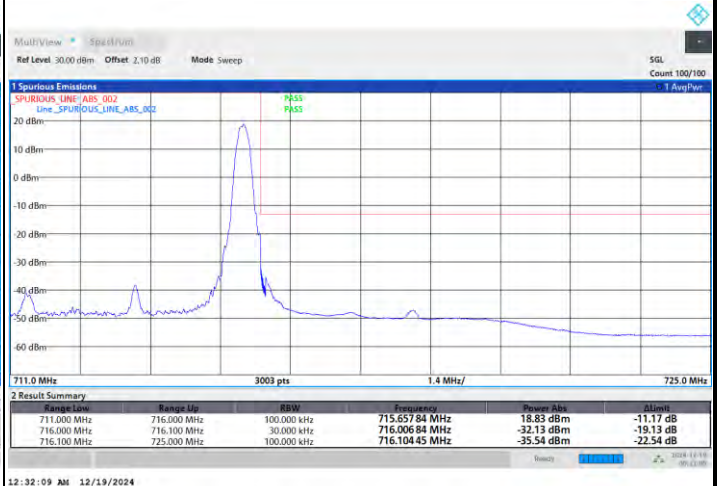
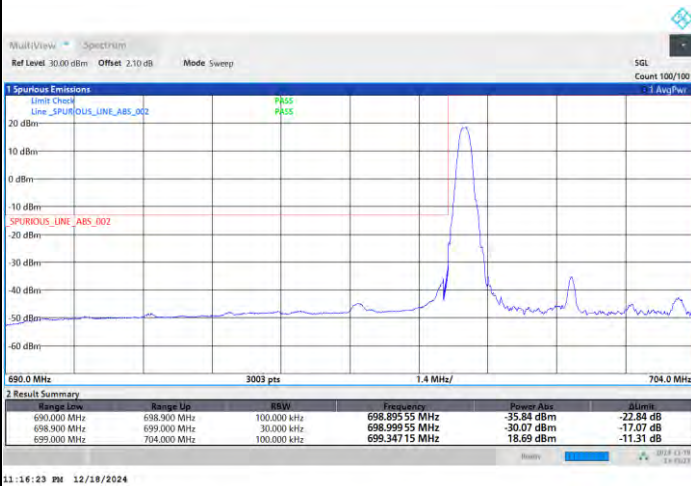




FR1 n12 / 5MHz / DFT-S OFDM / 16QAM

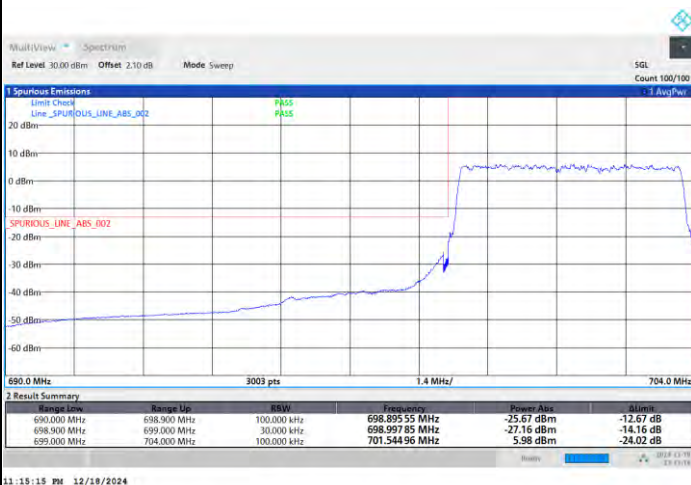
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

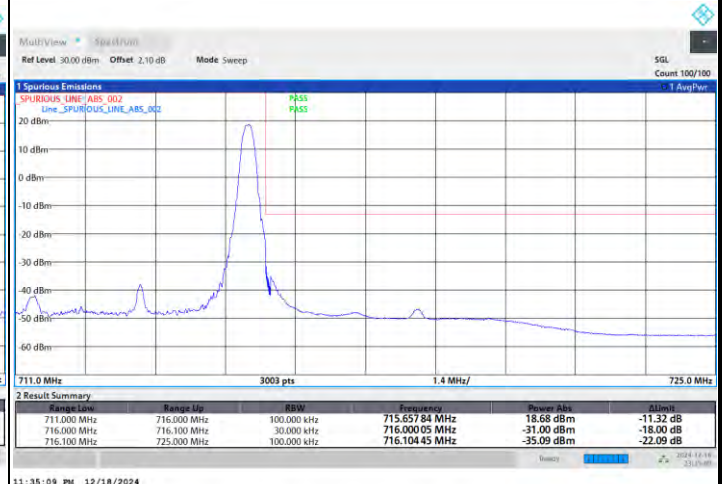
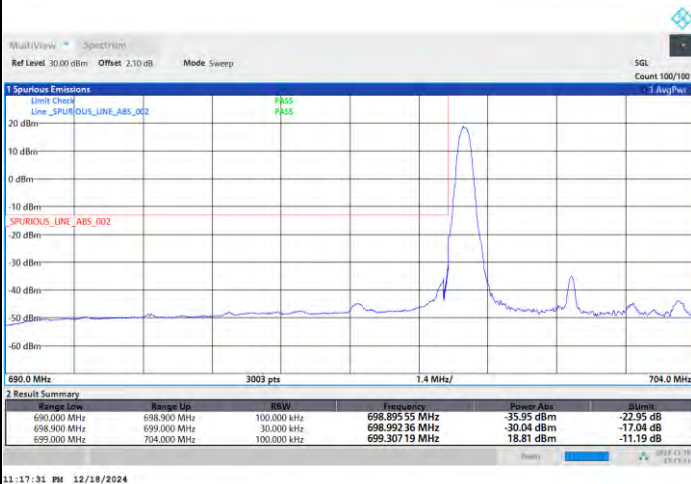




FR1 n12 / 5MHz / DFT-S OFDM / 64QAM

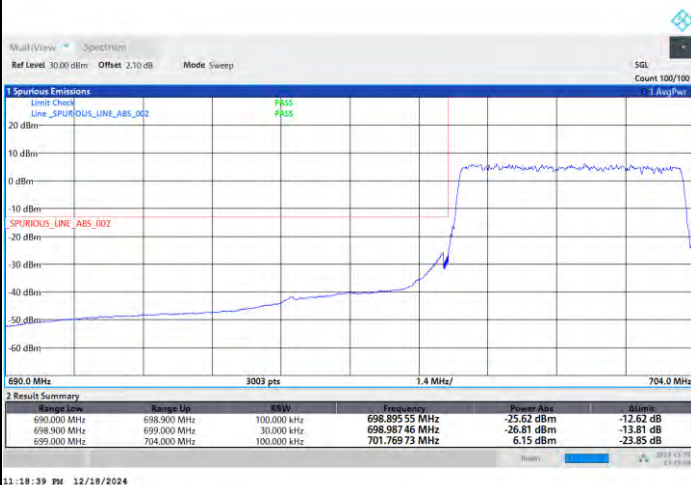
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

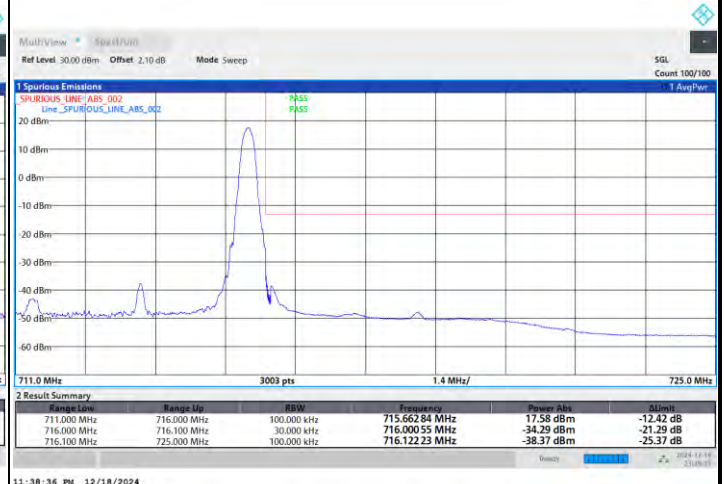
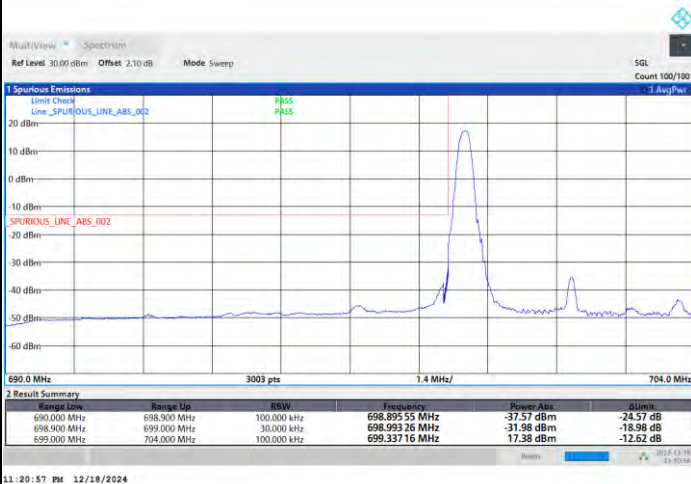




FR1 n12 / 5MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB





FR1 n12 / 5MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



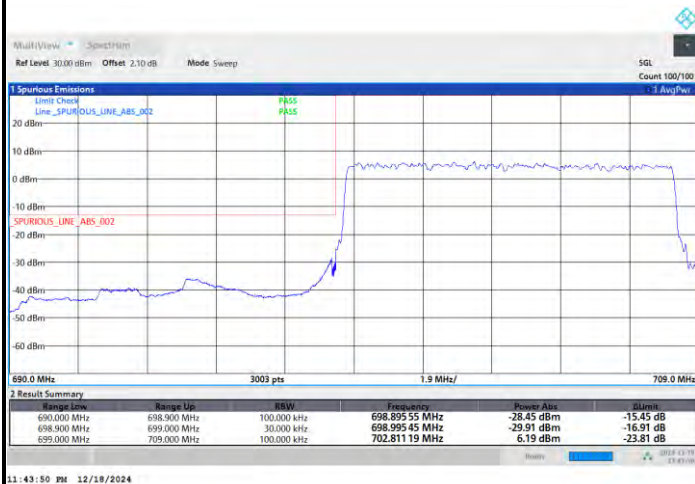
Highest Band Edge





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

Lowest Band Edge

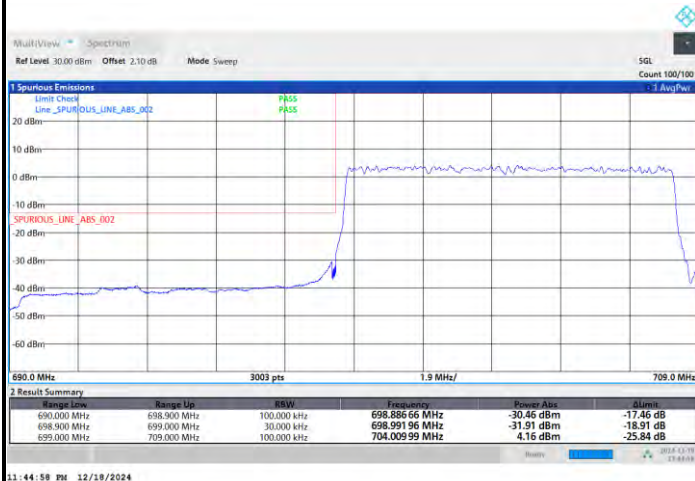


Highest Band Edge



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

Lowest Band Edge



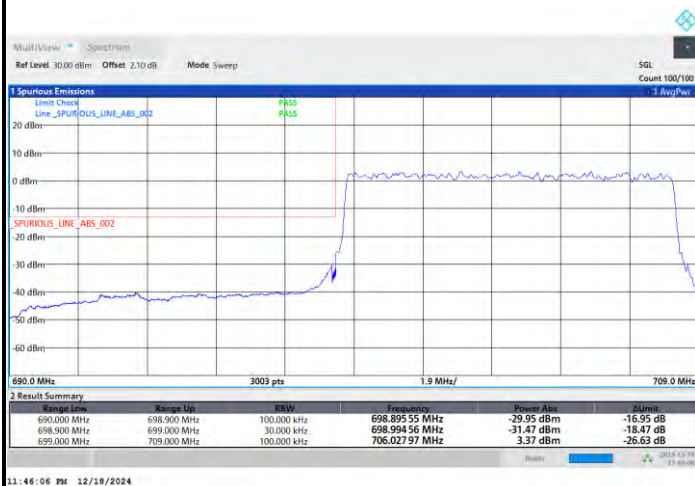
Highest Band Edge



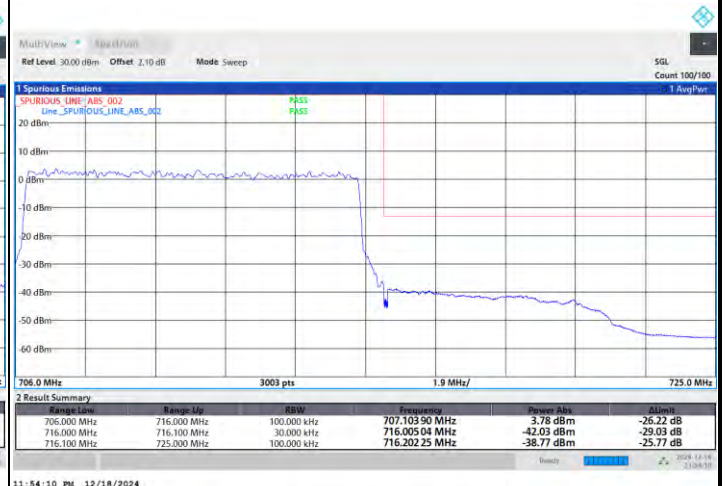


FR1 n12 / 10MHz / DFT-s-OFDM / 16QAM / Full RB

Lowest Band Edge

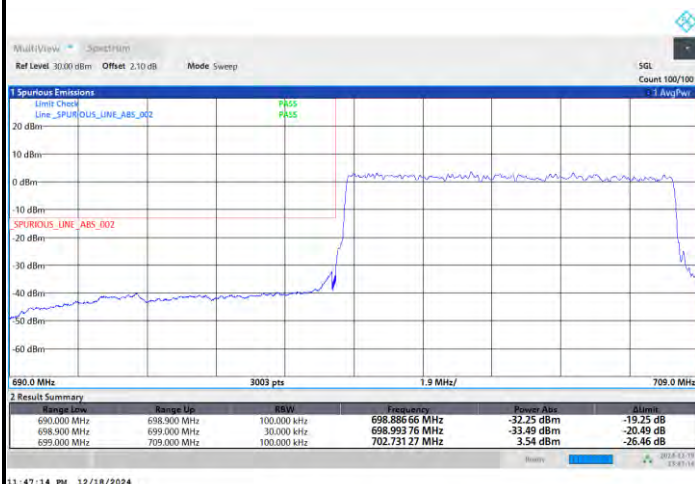


Highest Band Edge



FR1 n12 / 10MHz / DFT-s-OFDM / 64QAM / Full RB

Lowest Band Edge



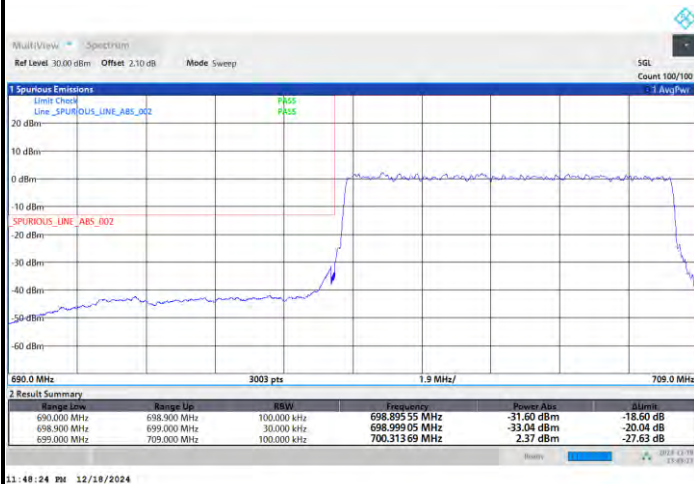
Highest Band Edge





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

Lowest Band Edge



11:48:24 PM 12/18/2024

Highest Band Edge



11:56:28 PM 12/18/2024

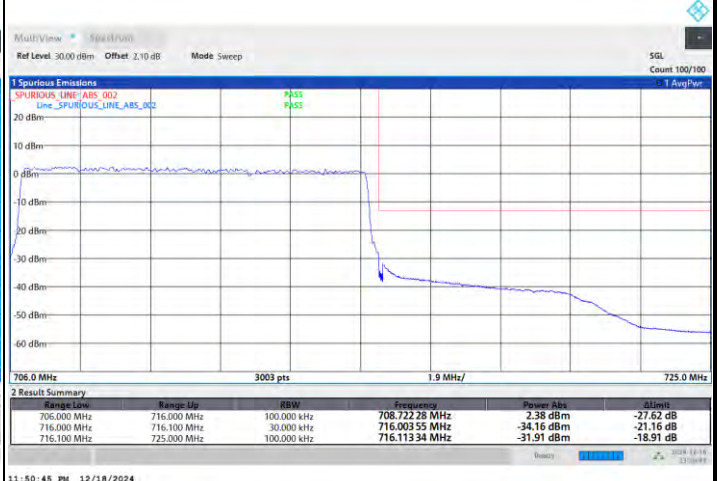
FR1 n12 / 10MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



11:49:36 PM 12/18/2024

Highest Band Edge

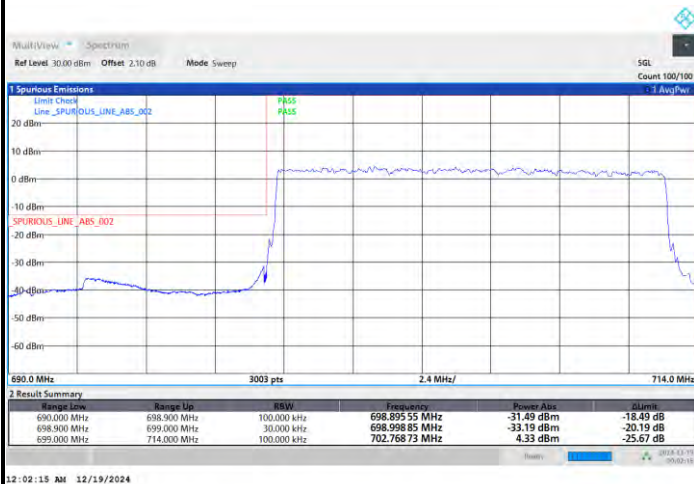


11:50:45 PM 12/18/2024



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

Lowest Band Edge



12:02:15 AM 12/19/2024

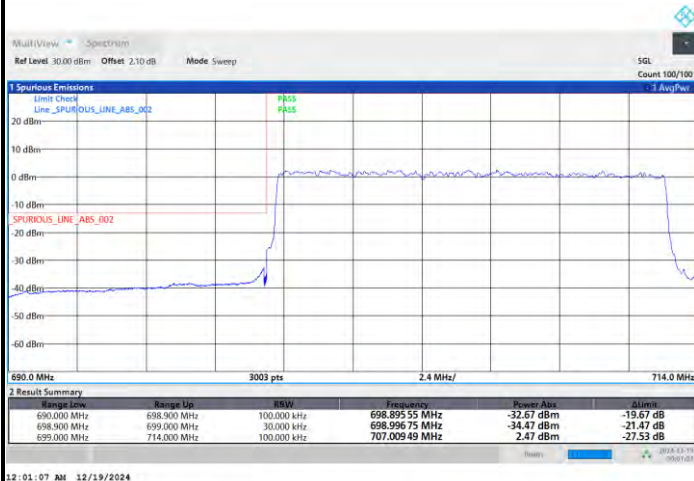
Highest Band Edge



12:05:44 AM 12/19/2024

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

Lowest Band Edge



12:01:07 AM 12/19/2024

Highest Band Edge

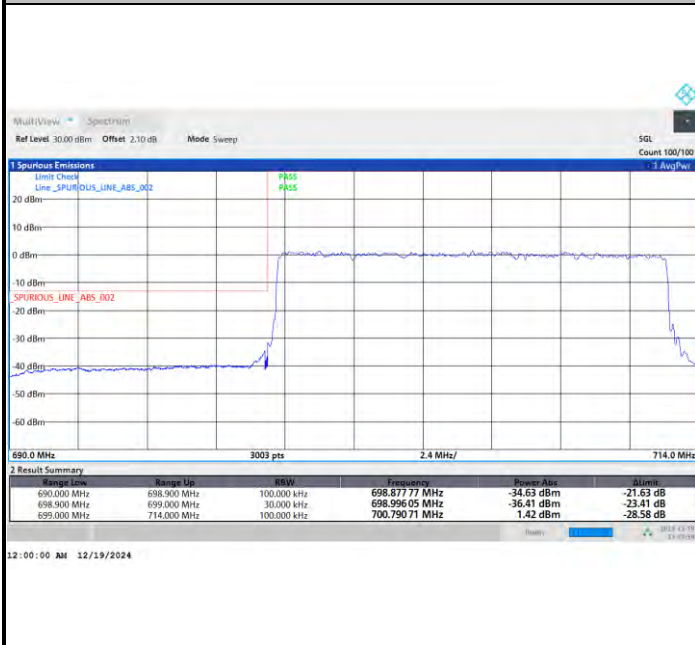


12:06:52 AM 12/19/2024

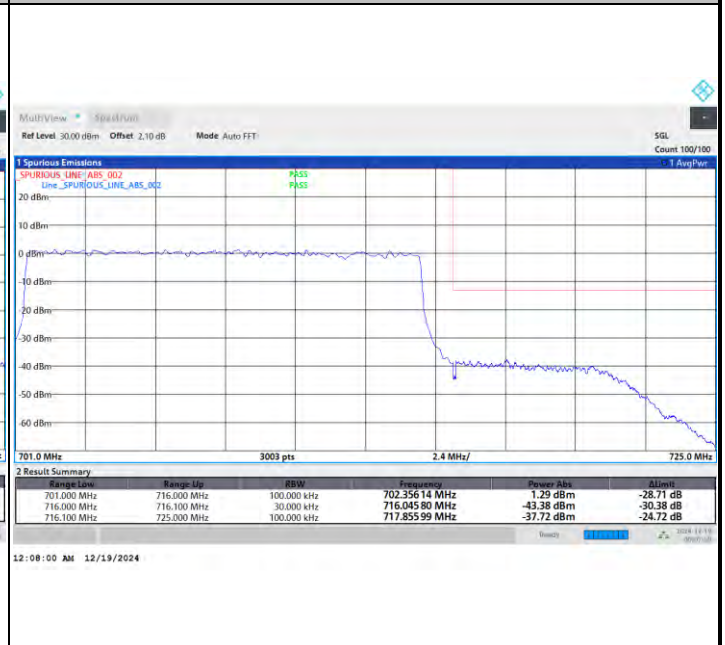


FR1 n12 / 15MHz / DFT-s-OFDM / 16QAM / Full RB

Lowest Band Edge

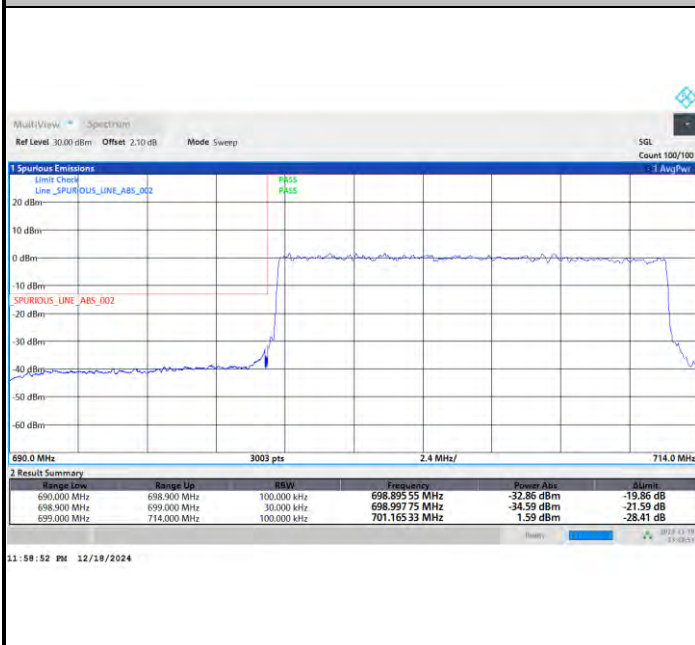


Highest Band Edge

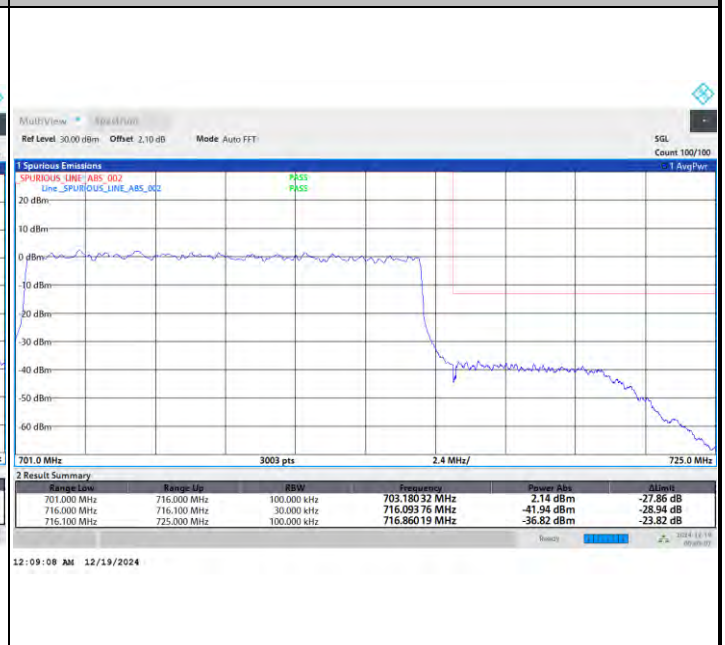


FR1 n12 / 15MHz / DFT-s-OFDM / 64QAM / Full RB

Lowest Band Edge



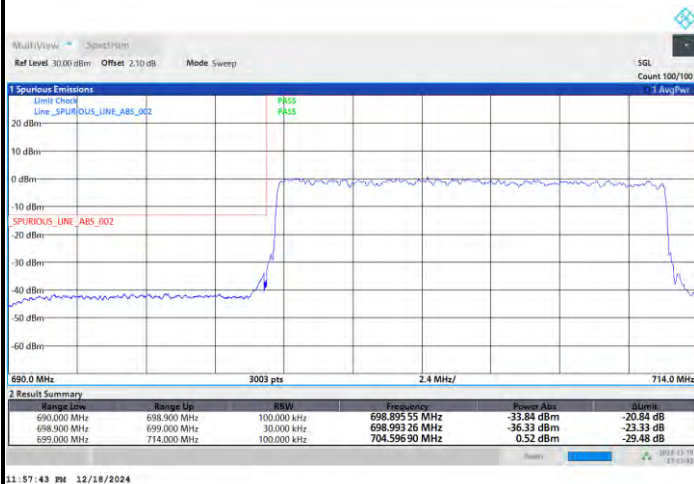
Highest Band Edge





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

Lowest Band Edge

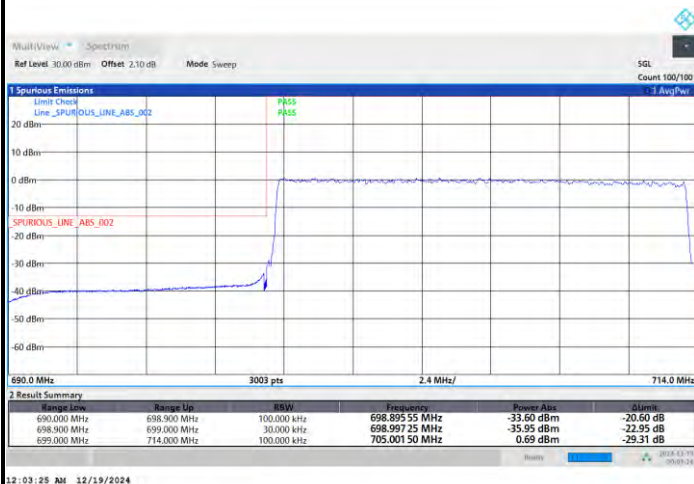


Highest Band Edge



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

Lowest Band Edge



Highest Band Edge

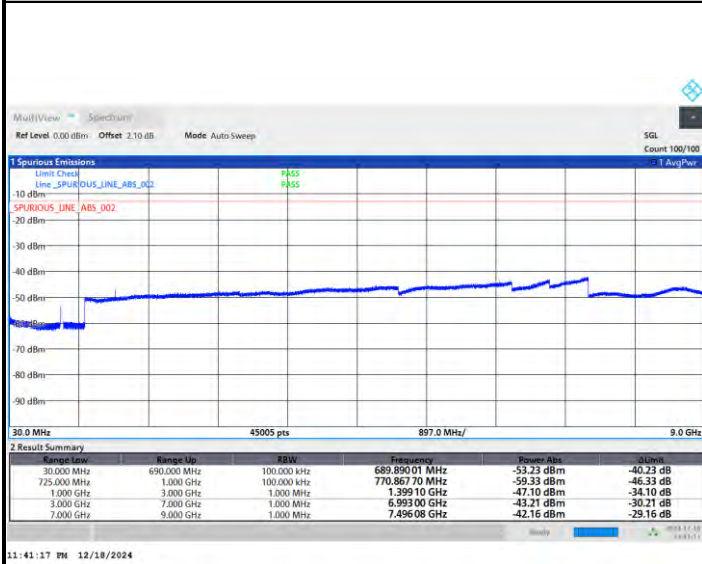




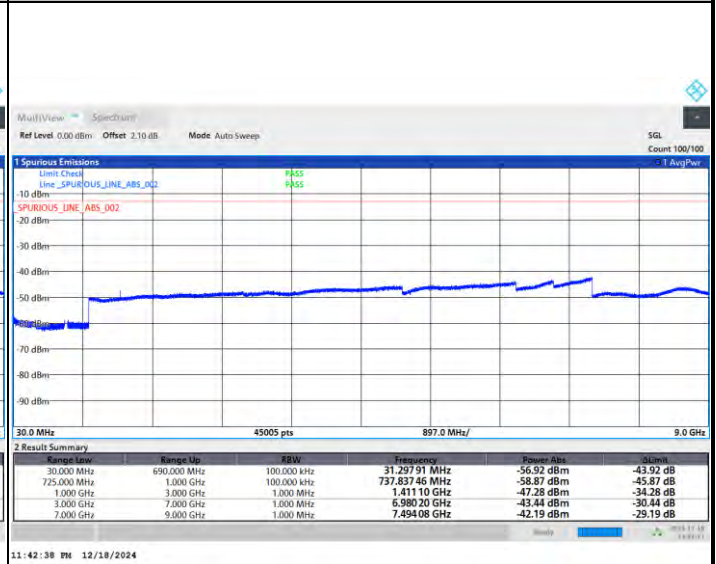
Conducted Spurious Emission

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

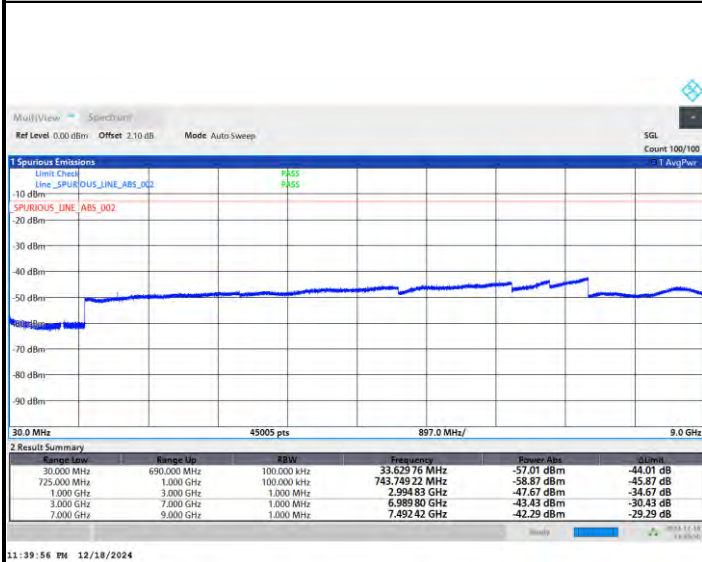
Lowest Channel



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	0.0073	PASS
40	Normal Voltage	0.0059	
30	Normal Voltage	0.0053	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0071	
0	Normal Voltage	0.0083	
-10	Normal Voltage	0.0025	
-20	Normal Voltage	0.0125	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0011	

Note:

1. Normal Voltage = 3.9 V. ; Minimum Voltage = 3.6 V. ; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

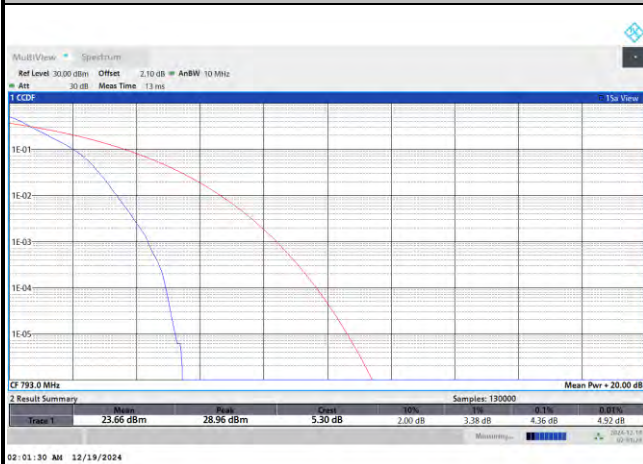
**FR1 n14****Peak-to-Average Ratio**

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	4.36	5.50	6.22	6.28	PASS
Mode	FR1 n14 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.68				PASS

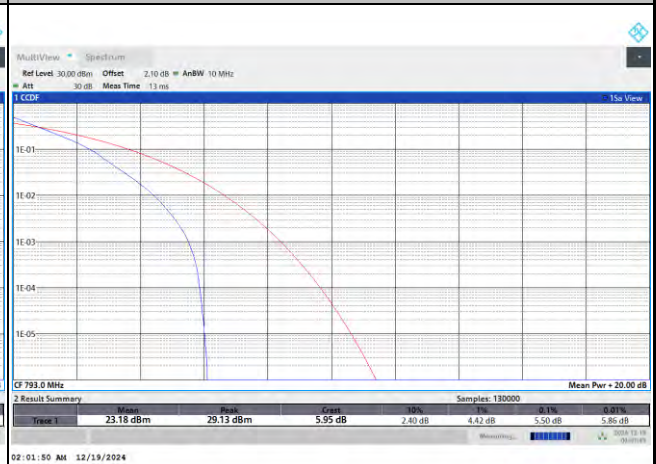


FR1 n14 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

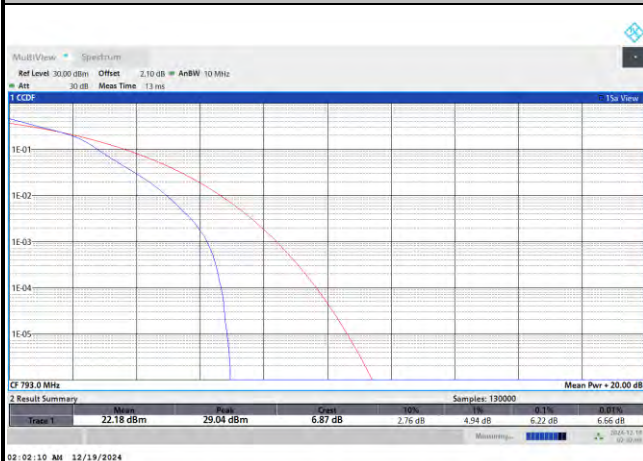
PI/2 BPSK



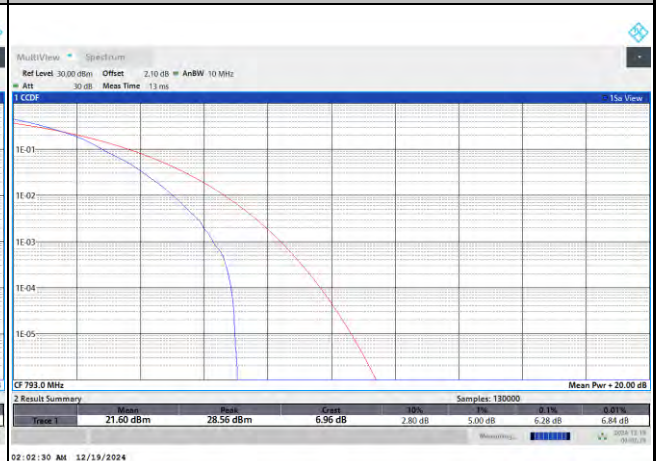
QPSK



16QAM



64QAM



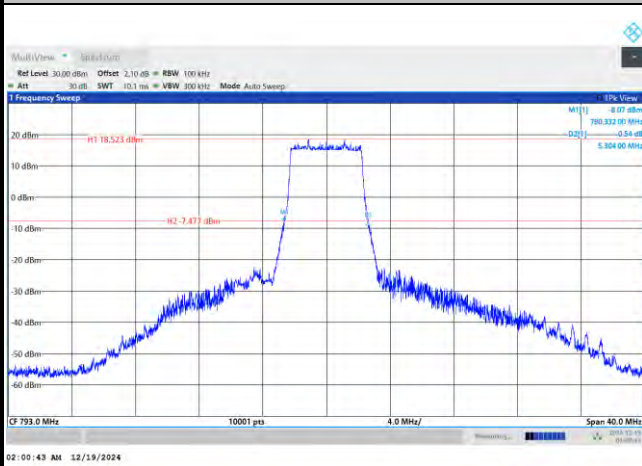
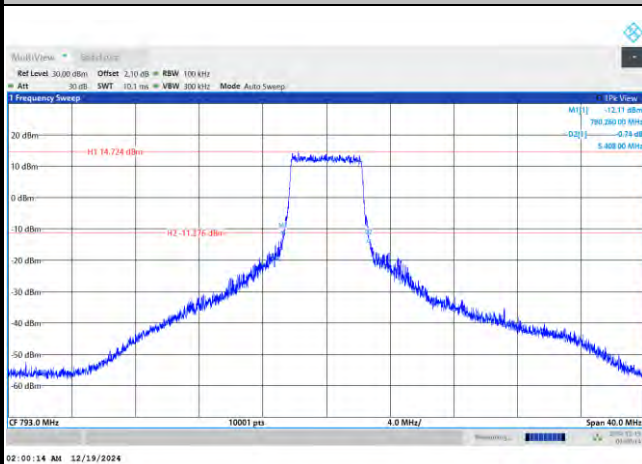
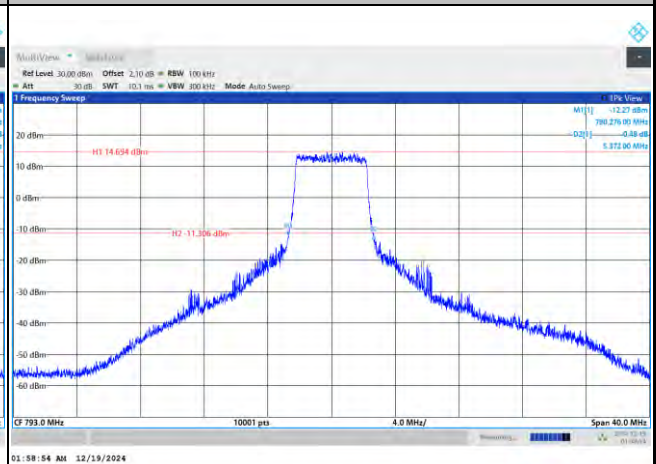
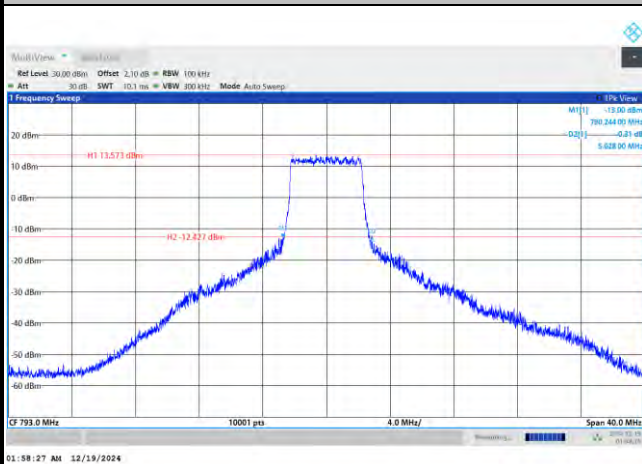
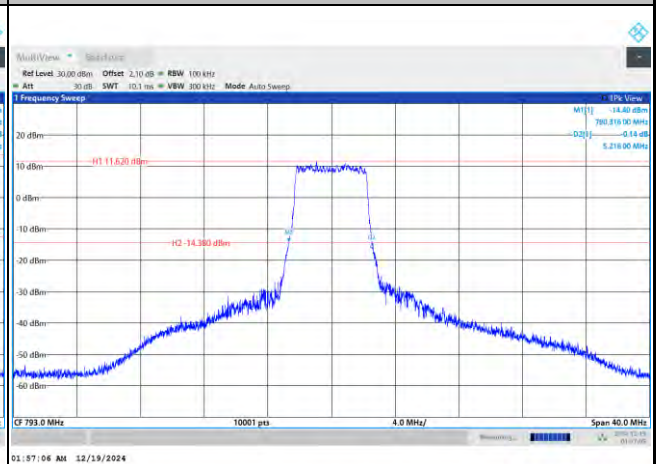
256QAM



**26dB Bandwidth**

Mode	FR1 n14 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz					
Mod.	PI/2 BPSK		PI/2 BPSK					
Middle CH	5.30		10.08					

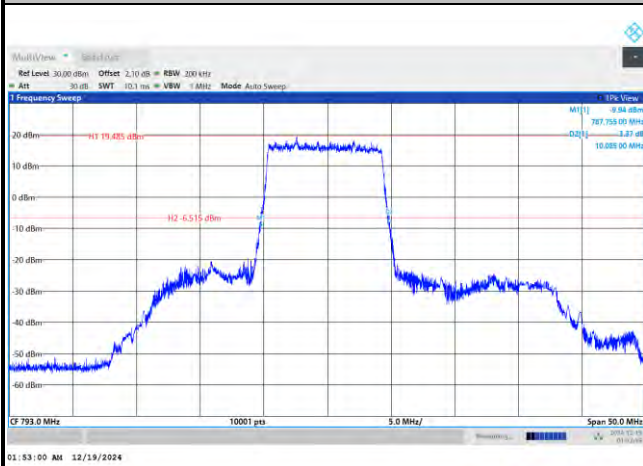
Mode	FR1 n14 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM				
Middle CH	5.40	5.37	10.42	10.38				
Mod.	64QAM	256QAM	64QAM	256QAM				
Middle CH	5.62	5.21	10.34	10.33				

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




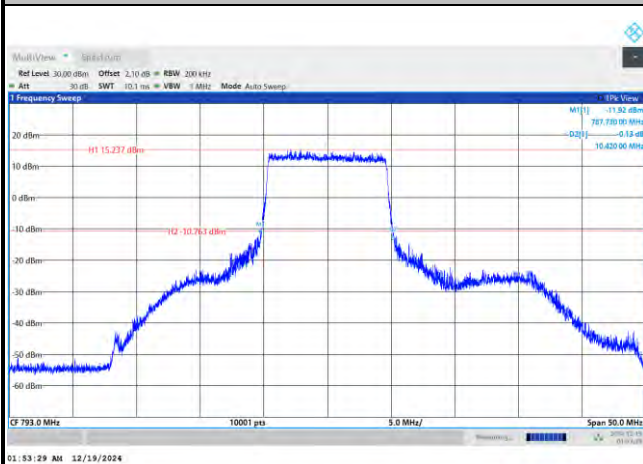
FR1 n14 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

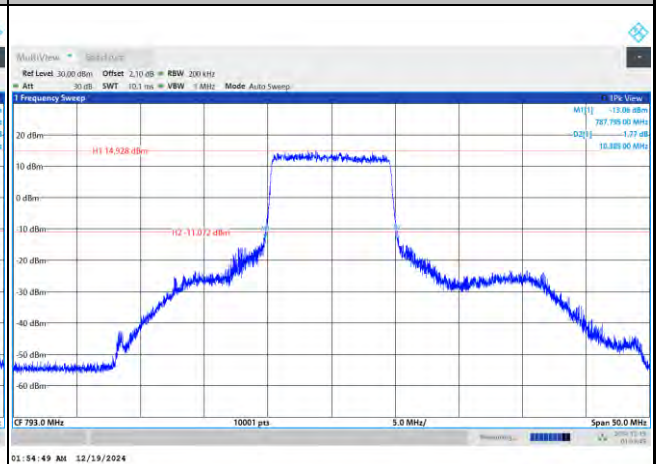


FR1 n14 / 10MHz / CP OFDM / Middle Channel / Full RB

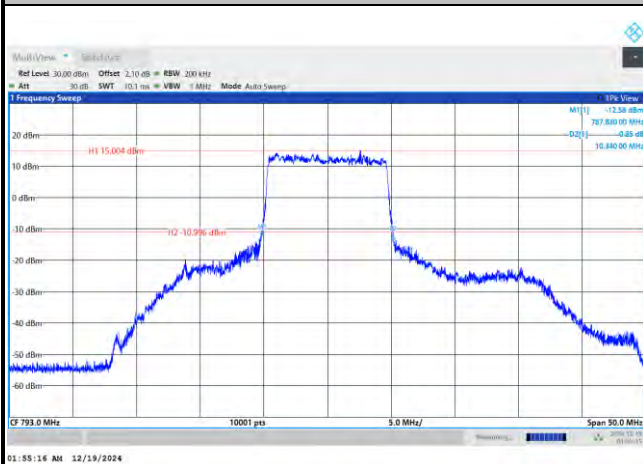
QPSK



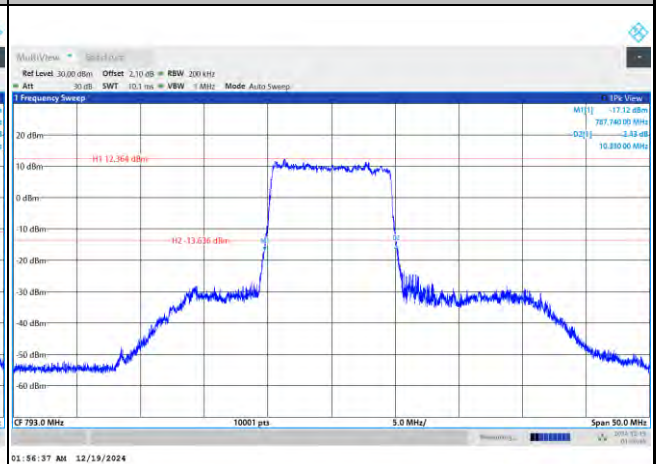
16QAM



64QAM



256QAM



**Occupied Bandwidth**

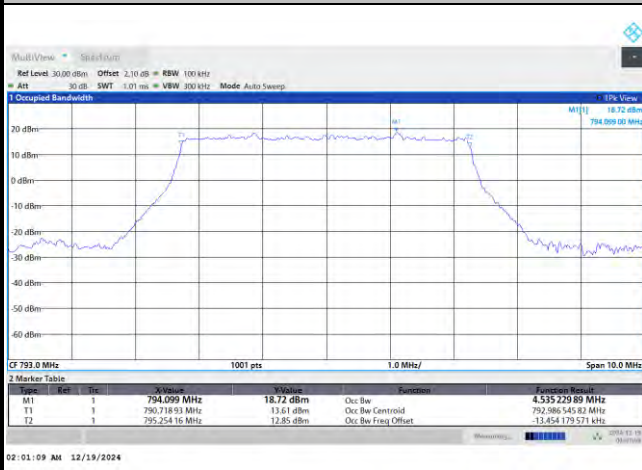
Mode	FR1 n14 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz					
Mod.	PI/2 BPSK		PI/2 BPSK					
Middle CH	4.53		9.02					

Mode	FR1 n14 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM				
Middle CH	4.52	4.51	9.34	9.33				
Mod.	64QAM	256QAM	64QAM	256QAM				
Middle CH	4.54	4.51	9.36	9.35				



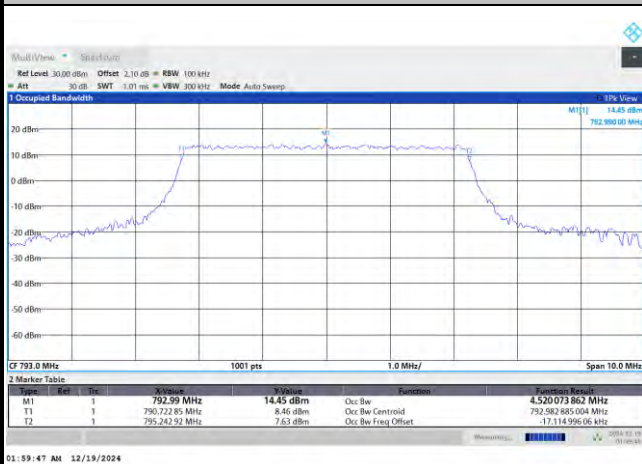
FR1 n14 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

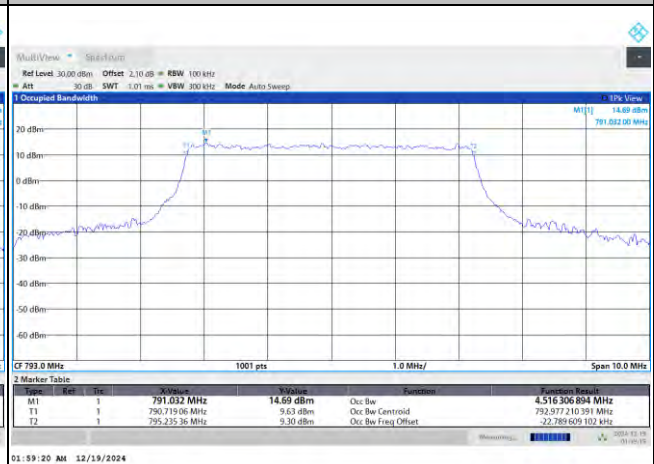


FR1 n14 / 5MHz / CP OFDM / Middle Channel / Full RB

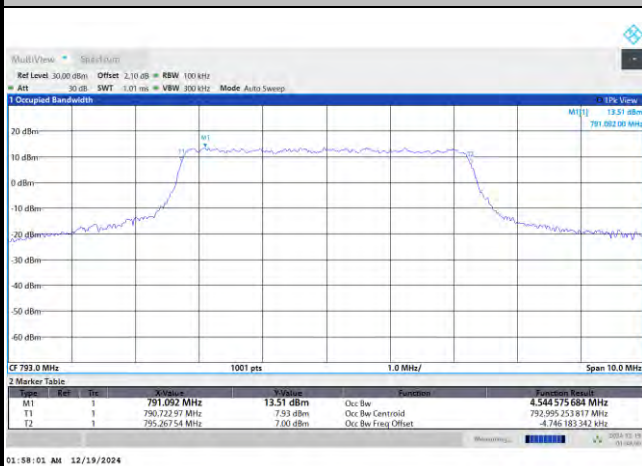
QPSK



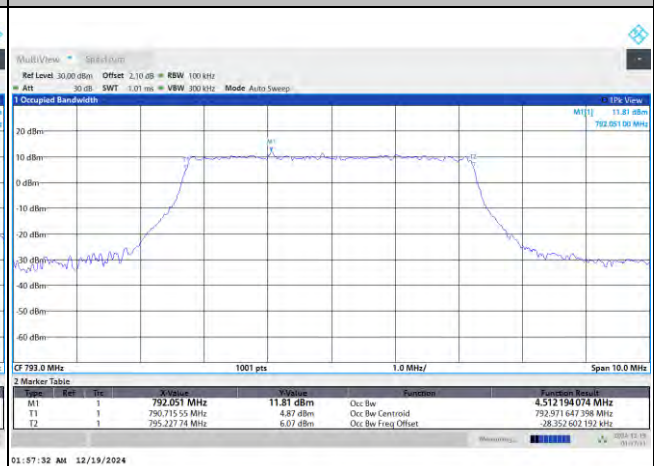
16QAM

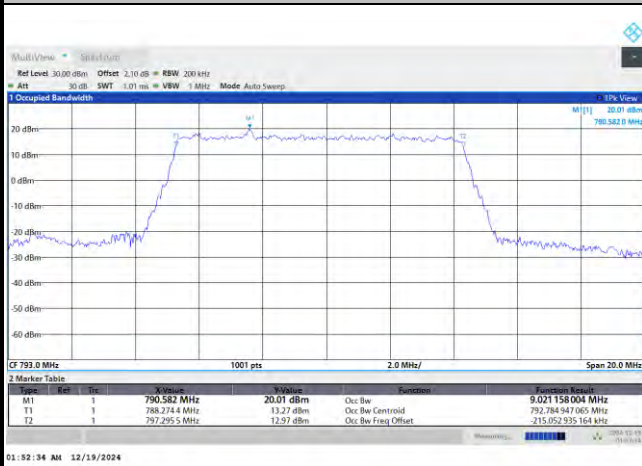
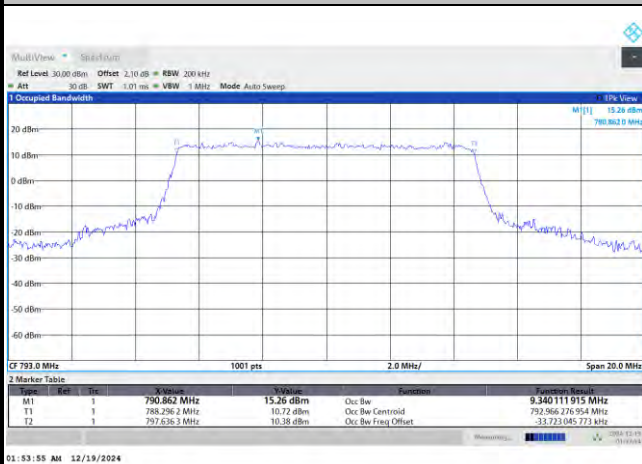
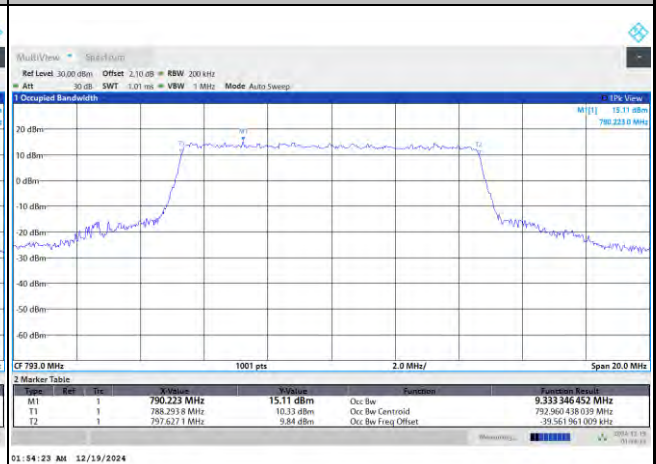
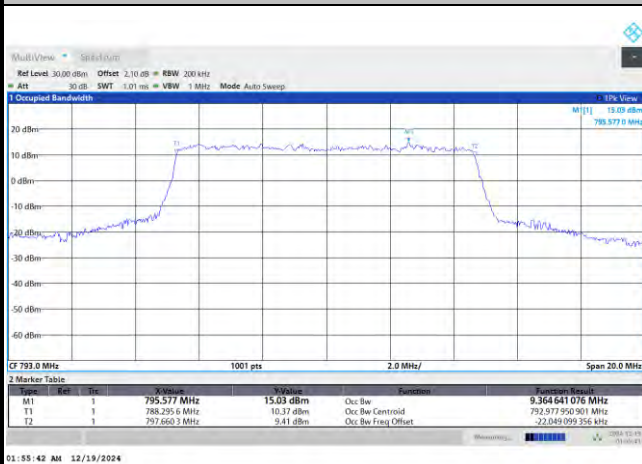
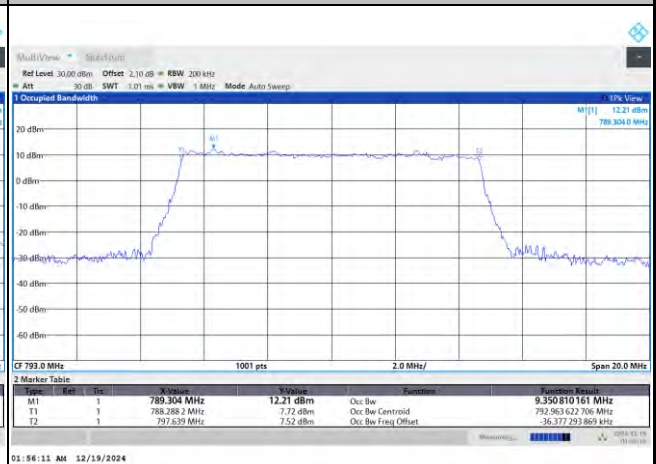


64QAM



256QAM



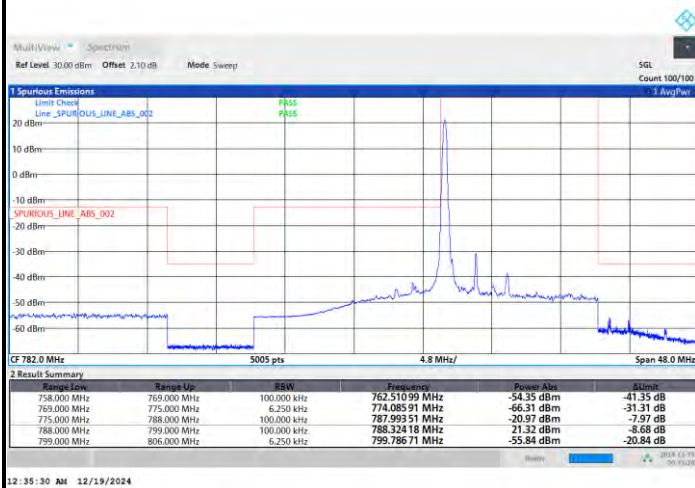
FR1 n14 / 10MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

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

16QAM

64QAM

256QAM




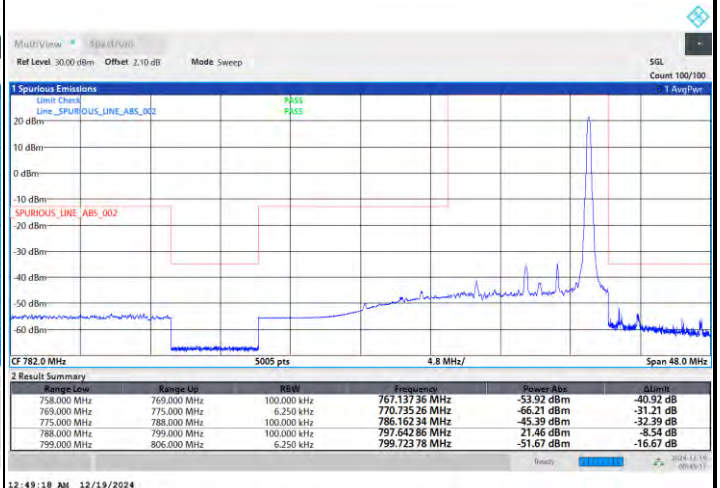
Conducted Band Edge

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

Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

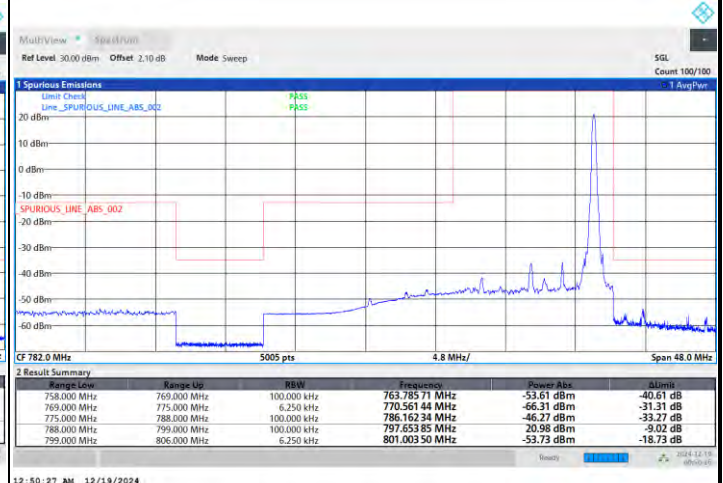
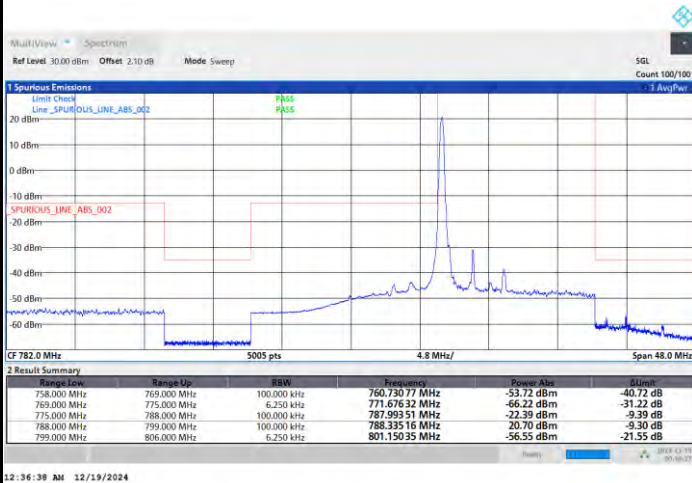




FR1 n14 / 5MHz / DFT-S OFDM / QPSK

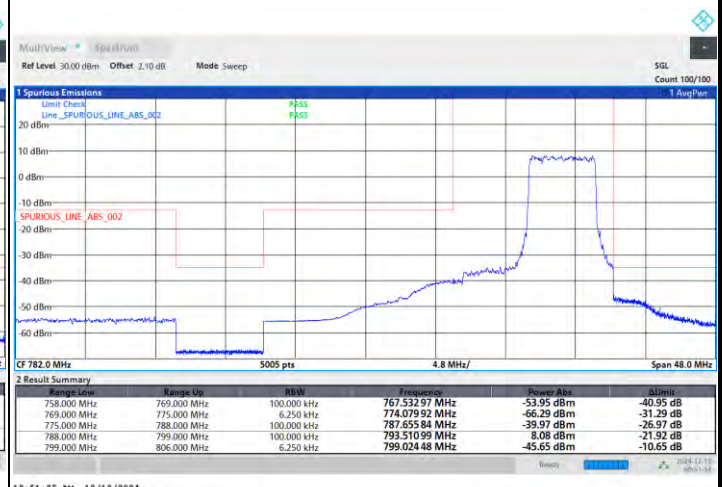
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

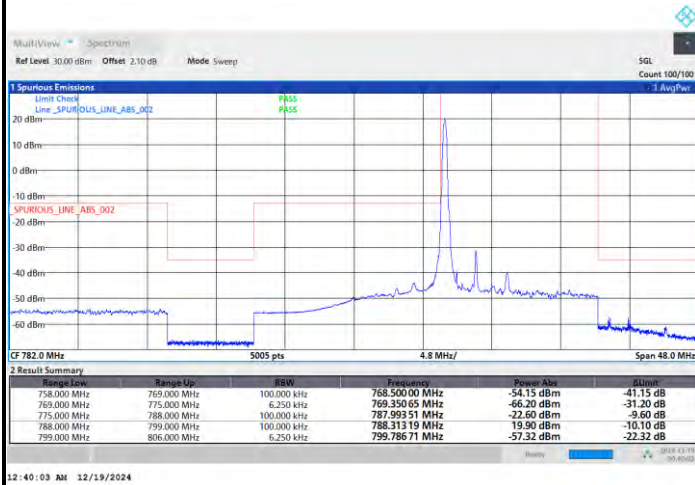
Highest Band Edge / Full RB



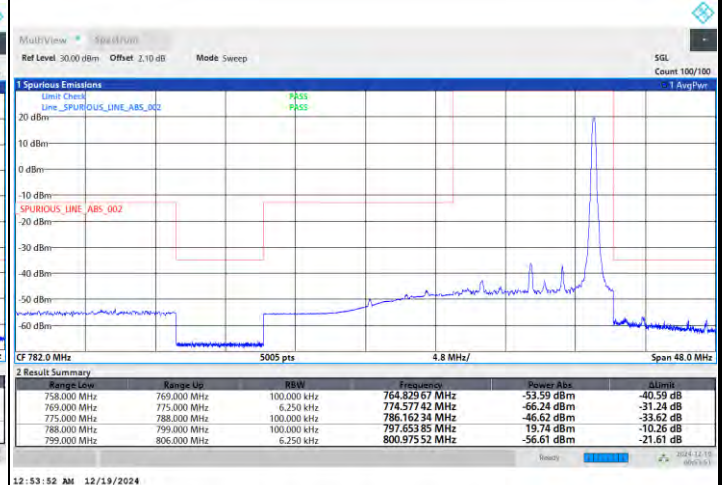


FR1 n14 / 5MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0



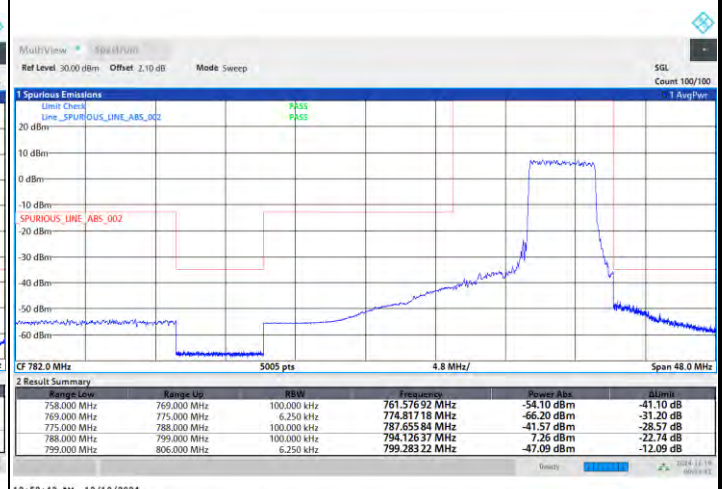
Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

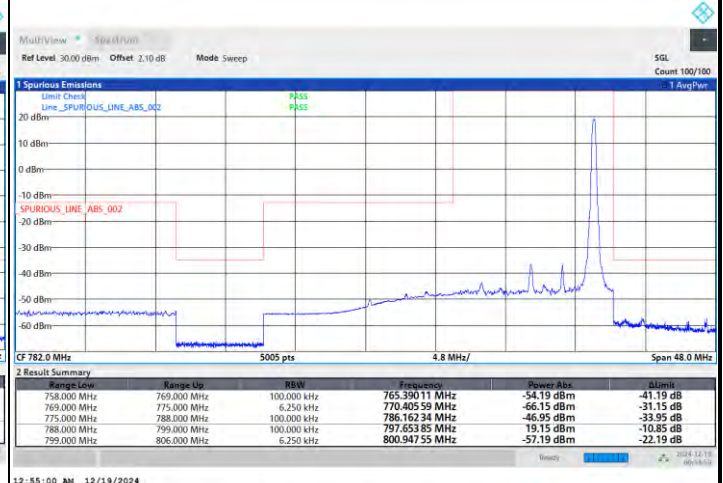
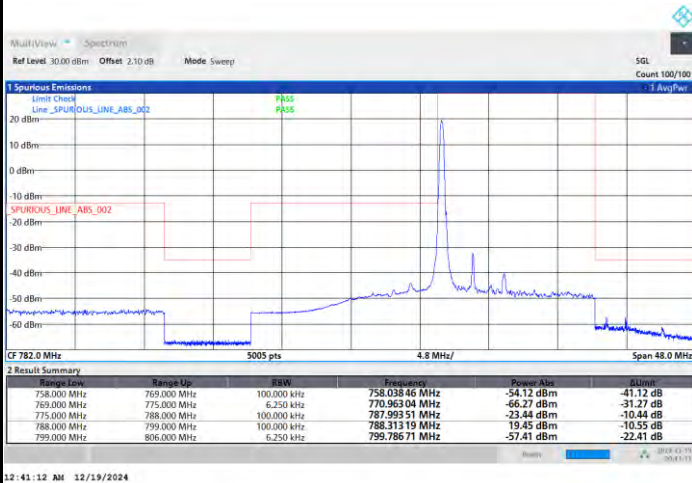




FR1 n14 / 5MHz / DFT-S OFDM / 64QAM

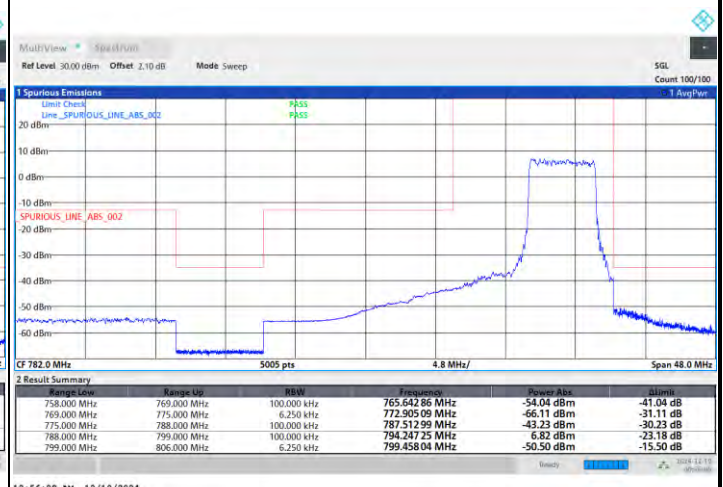
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

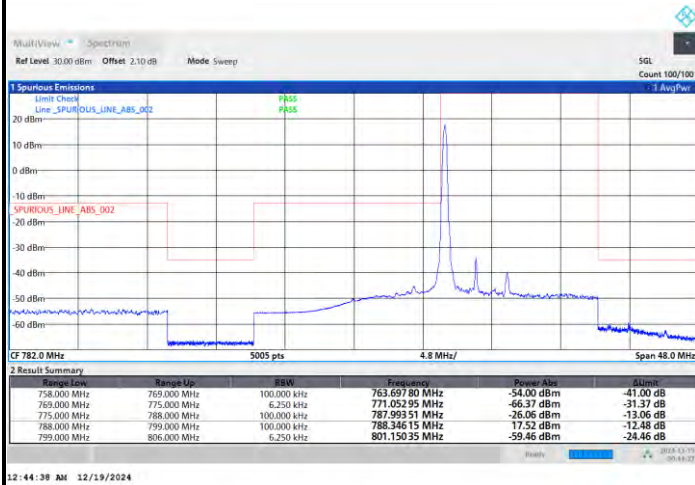
Highest Band Edge / Full RB



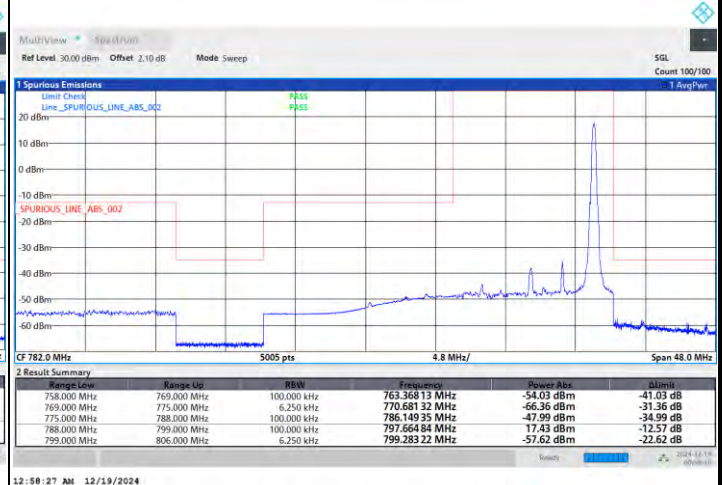


FR1 n14 / 5MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0



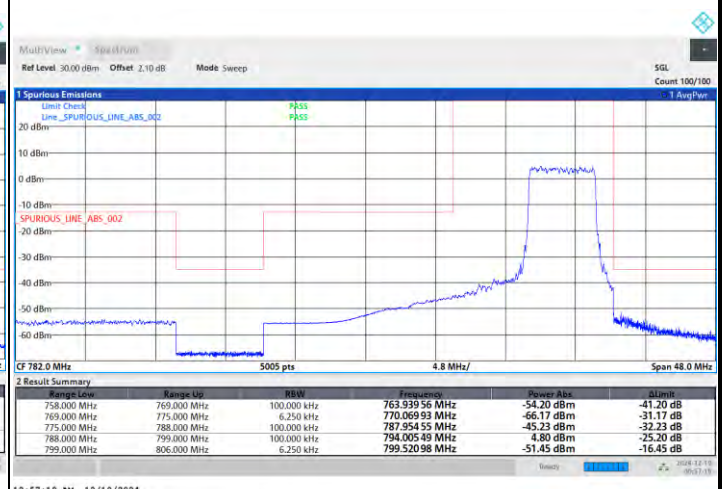
Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB



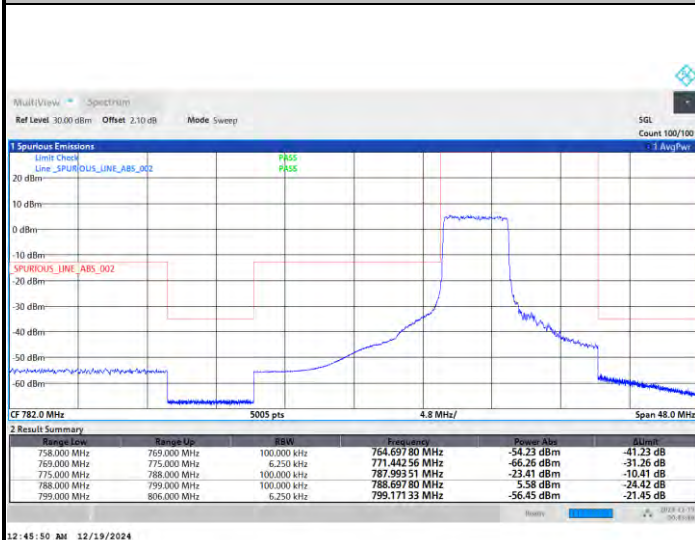
Highest Band Edge / Full RB



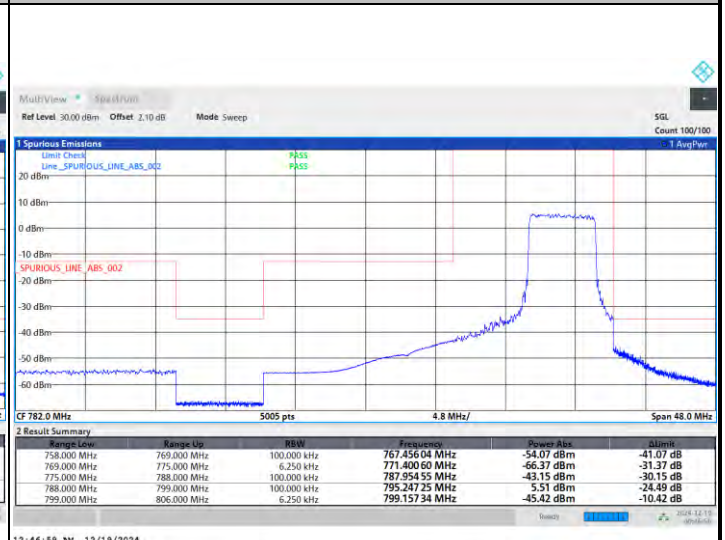


FR1 n14 / 5MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



Highest Band Edge





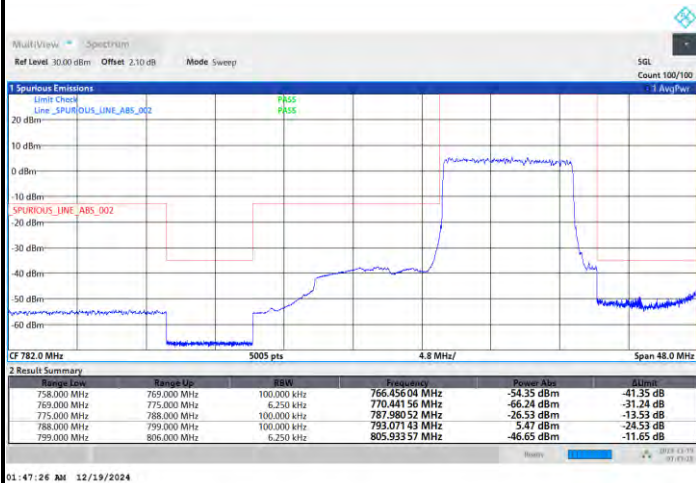
FR1 n14 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Middle Band Edge / Full RB



FR1 n14 / 10MHz / DFT-s-OFDM / QPSK

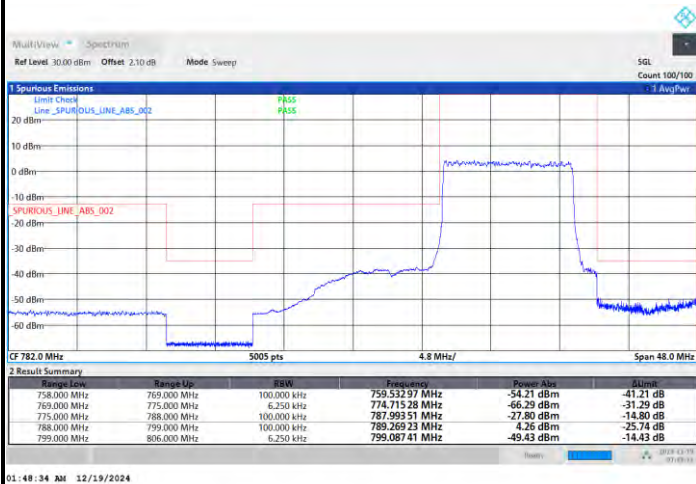
Middle Band Edge / Full RB





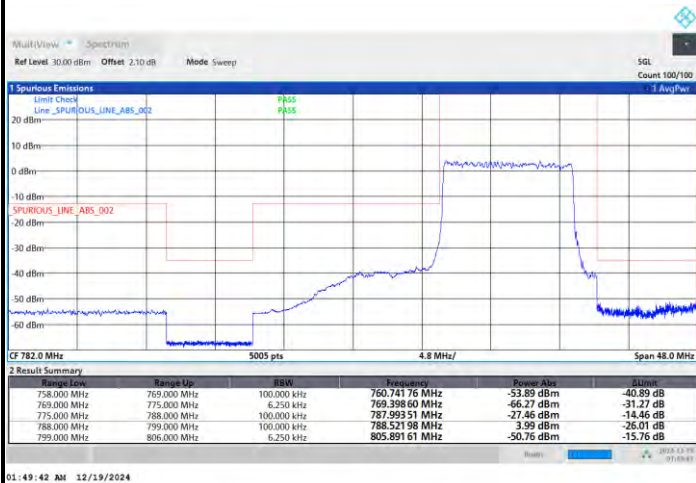
FR1 n14 / 10MHz / DFT-s-OFDM / 16QAM

Middle Band Edge / Full RB



FR1 n14 / 10MHz / DFT-s-OFDM / 64QAM

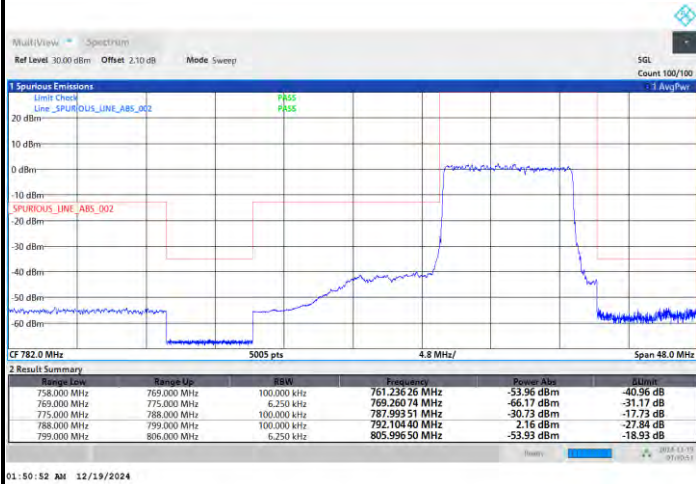
Middle Band Edge / Full RB





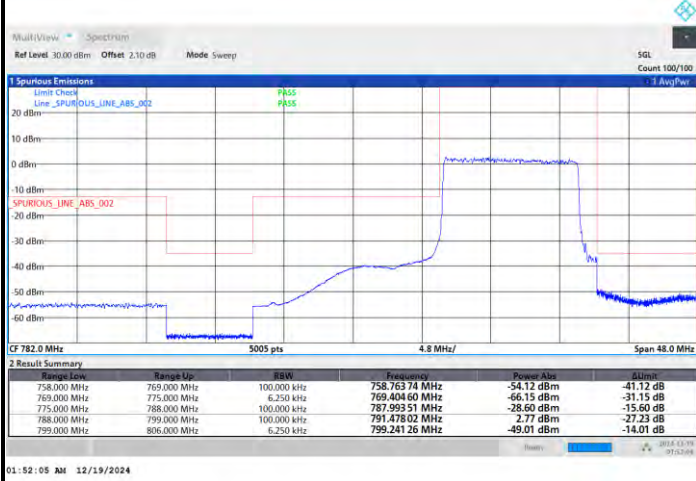
FR1 n14 / 10MHz / DFT-s-OFDM / 256QAM

Middle Band Edge / Full RB



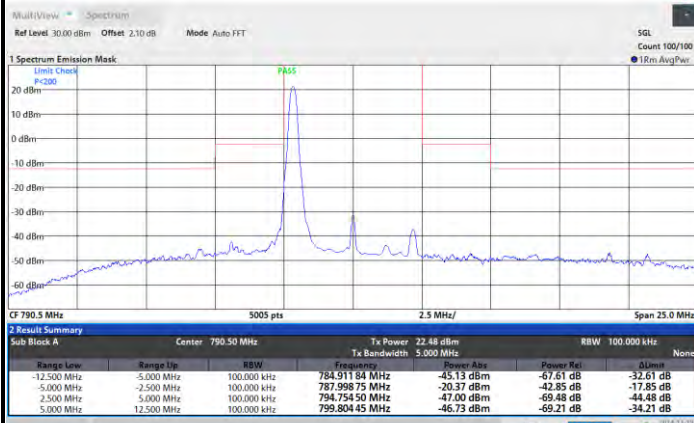
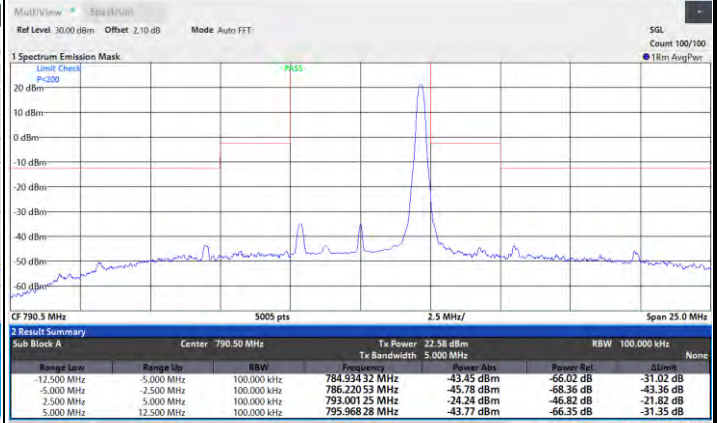
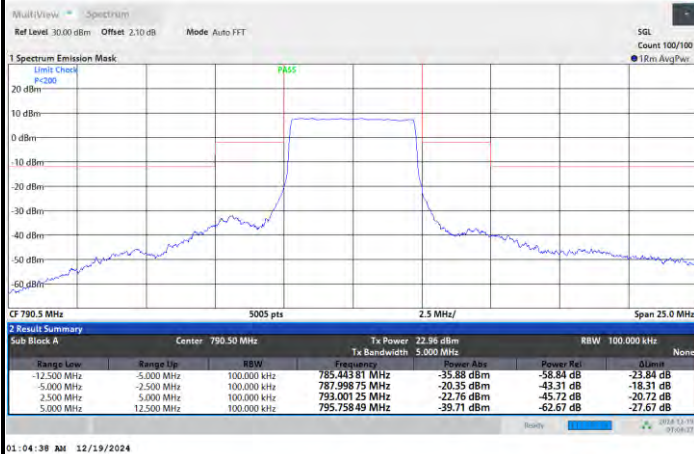
FR1 n14 / 10MHz / CP OFDM / QPSK / Full RB

Middle Band Edge / Full RB



**Unwanted Emission (MASK)**

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

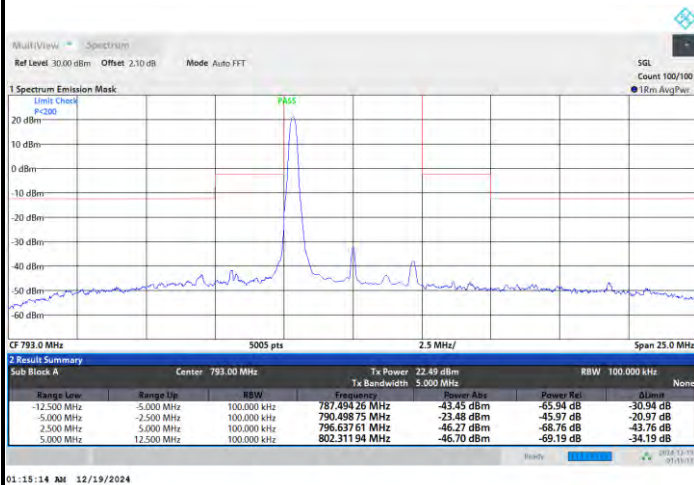
Lowest Channel**1RB0****1RBmax****Full RB**



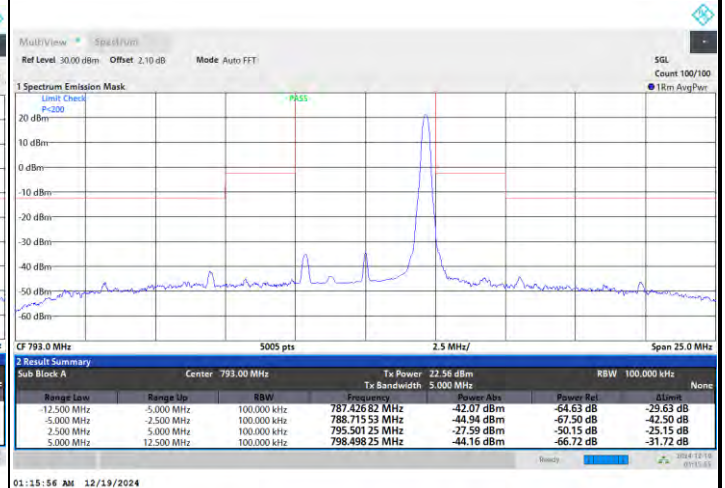
FR1 n14 / 5MHz / DFT-S OFDM / PI/2 BPSK

Middle Channel

1RB0



1RBmax



Full RB

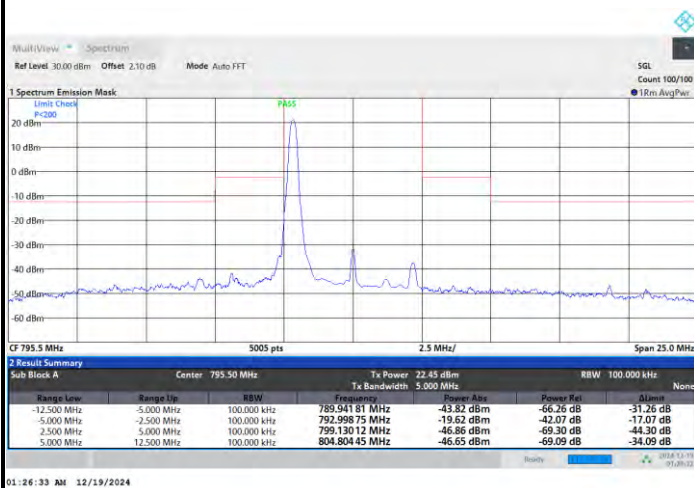




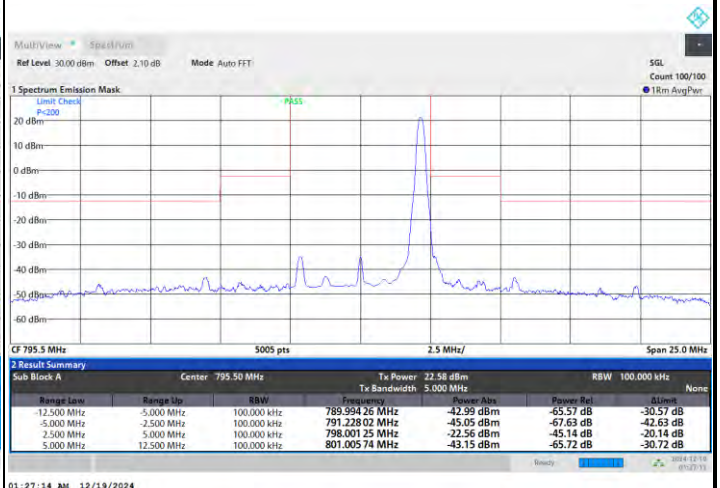
FR1 n14 / 5MHz / DFT-S OFDM / PI/2 BPSK

Highest Channel

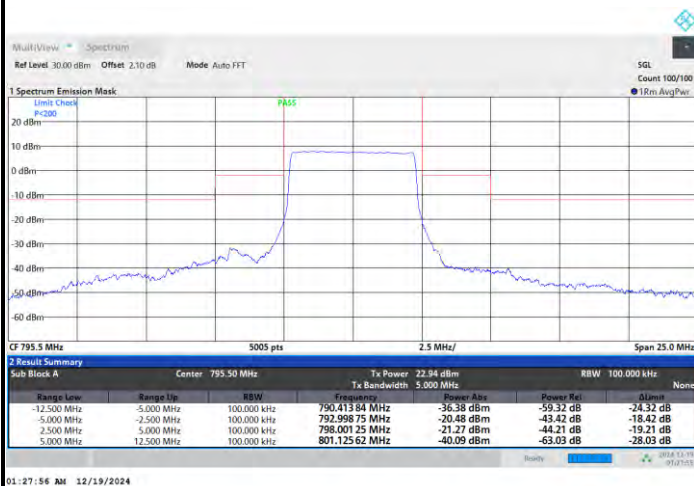
1RB0



1RBmax



Full RB

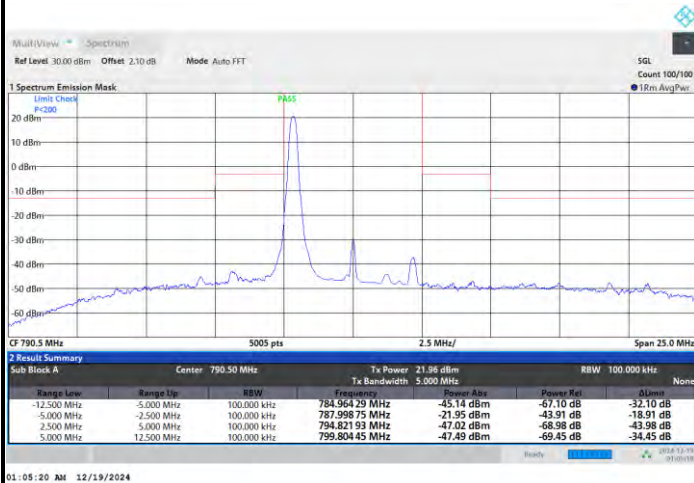




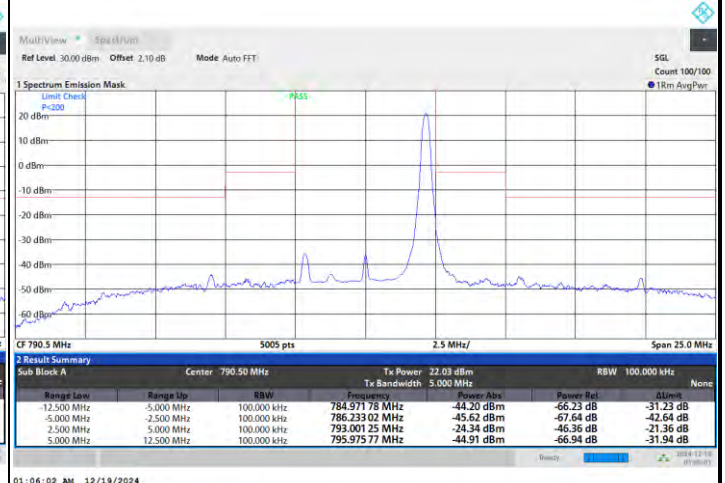
FR1 n14 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel

1RB0



1RBmax



Full RB

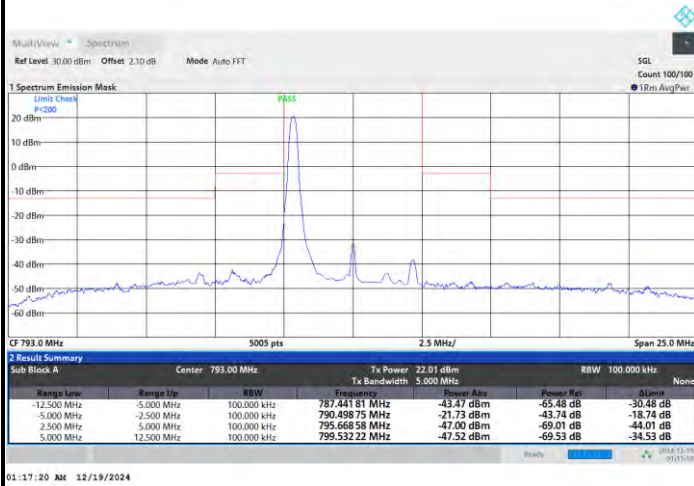




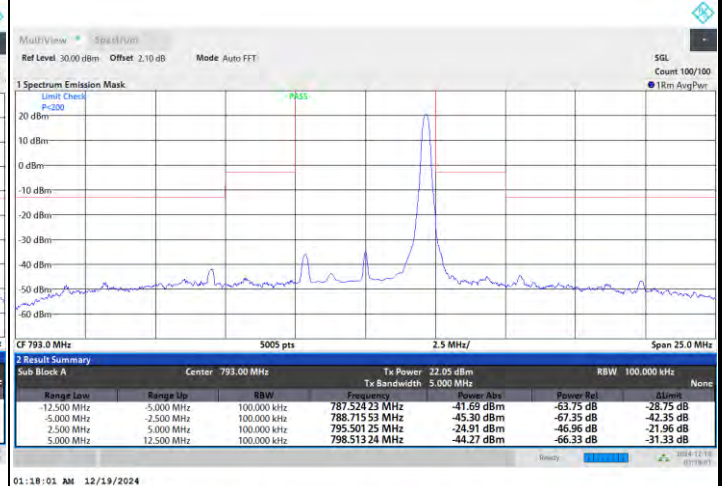
FR1 n14 / 5MHz / DFT-S OFDM / QPSK

Middle Channel

1RB0



1RBmax



Full RB

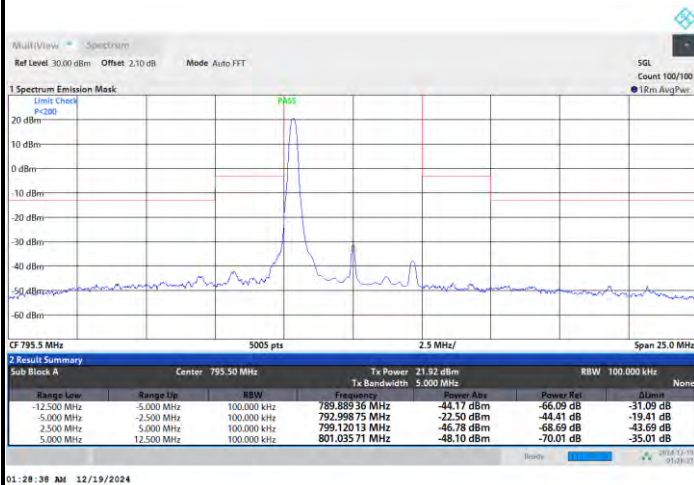




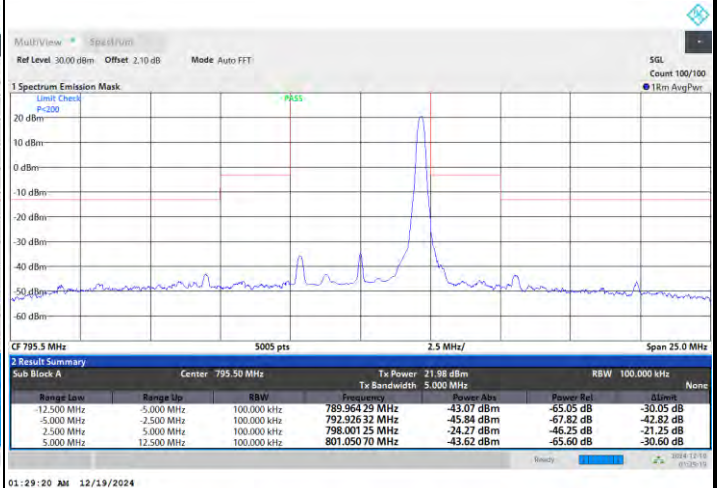
FR1 n14 / 5MHz / DFT-S OFDM / QPSK

Highest Channel

1RB0



1RBmax



Full RB

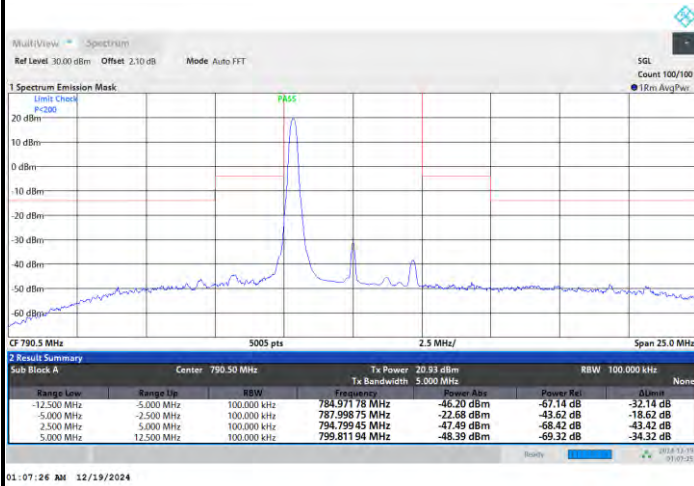




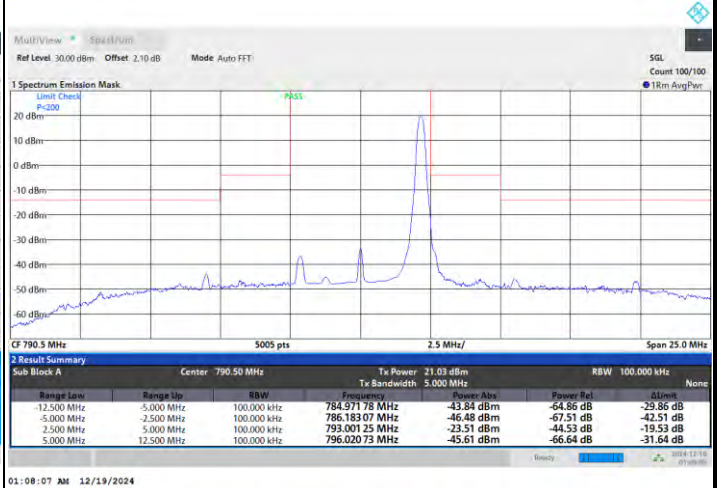
FR1 n14 / 5MHz / DFT-S OFDM / 16QAM

Lowest Channel

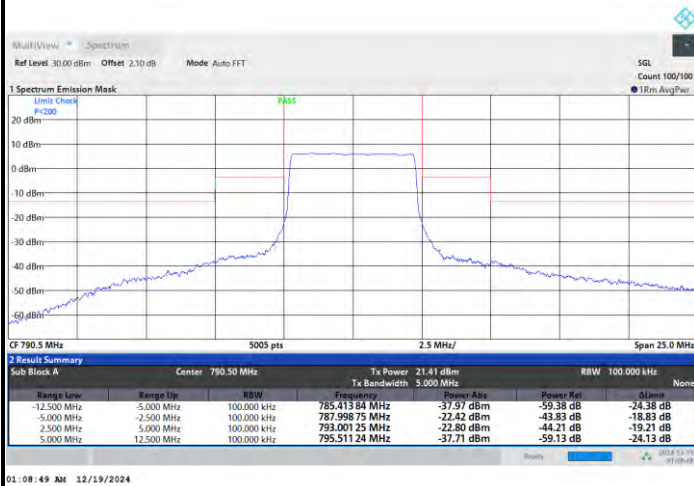
1RB0



1RBmax



Full RB

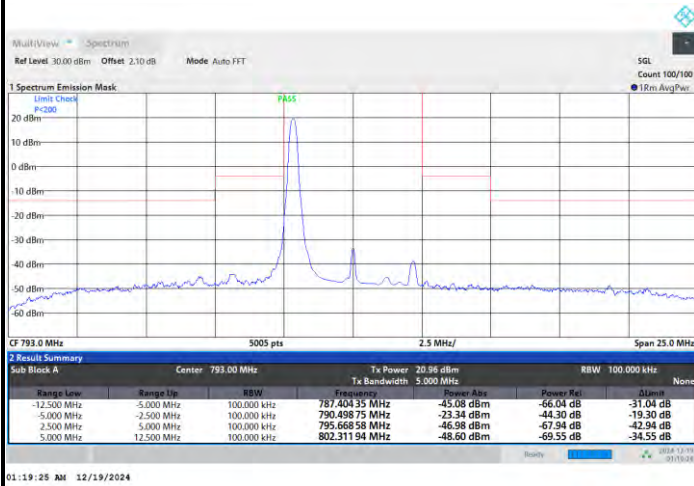




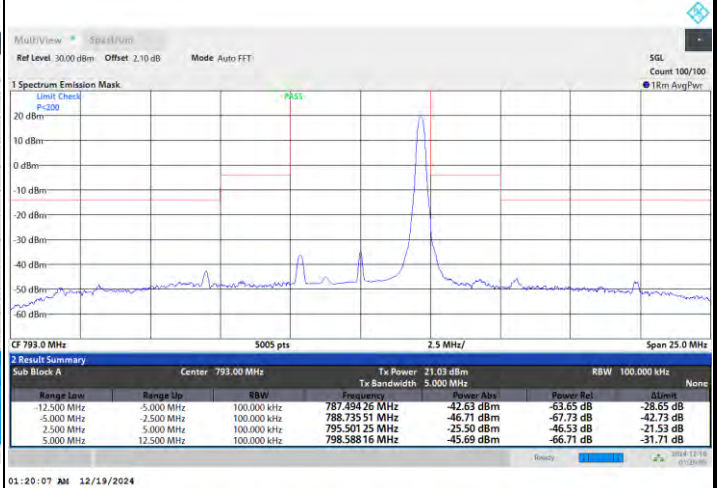
FR1 n14 / 5MHz / DFT-S OFDM / 16QAM

Middle Channel

1RB0



1RBmax



Full RB

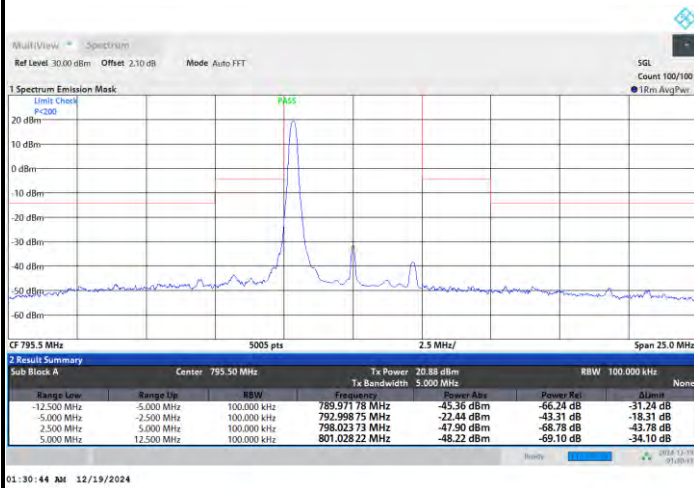




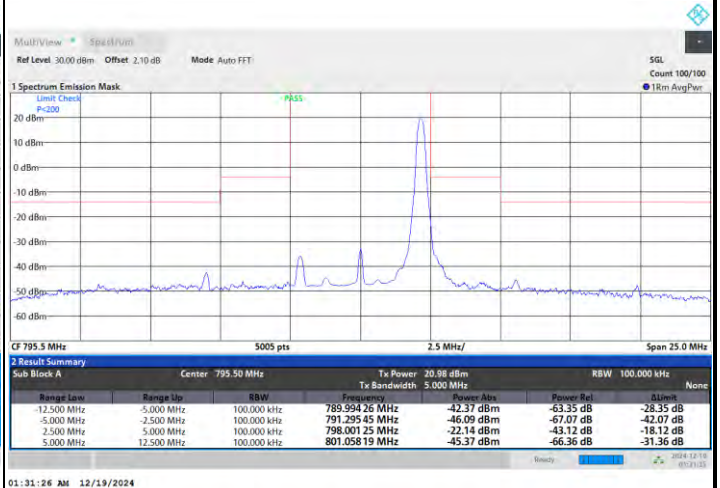
FR1 n14 / 5MHz / DFT-S OFDM / 16QAM

Highest Channel

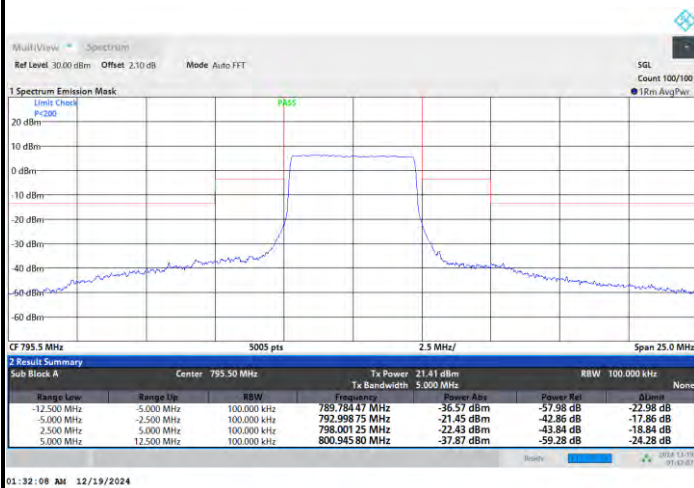
1RB0



1RBmax



Full RB

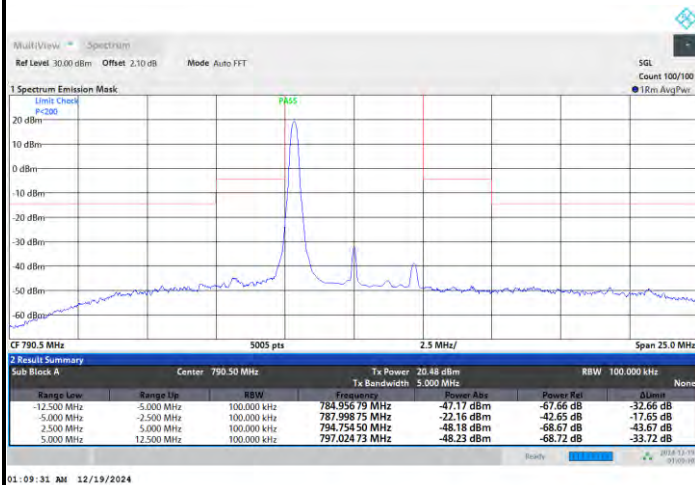




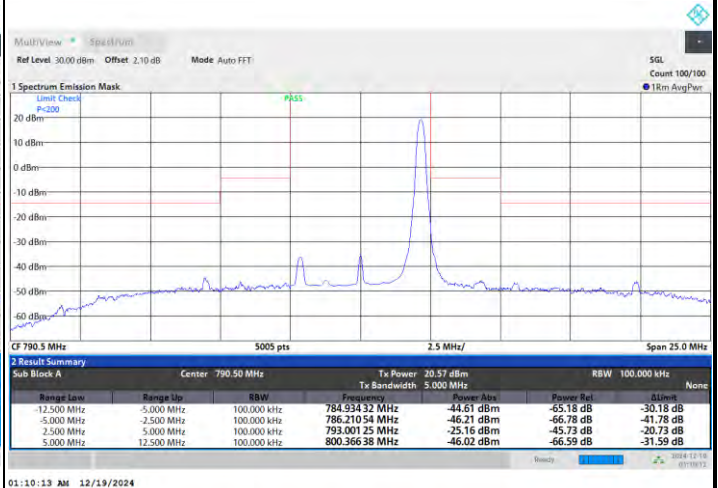
FR1 n14 / 5MHz / DFT-S OFDM / 64QAM

Lowest Channel

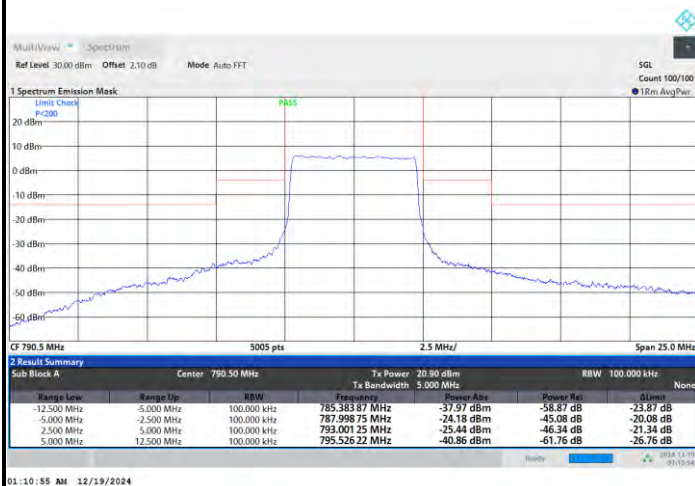
1RB0



1RBmax



Full RB

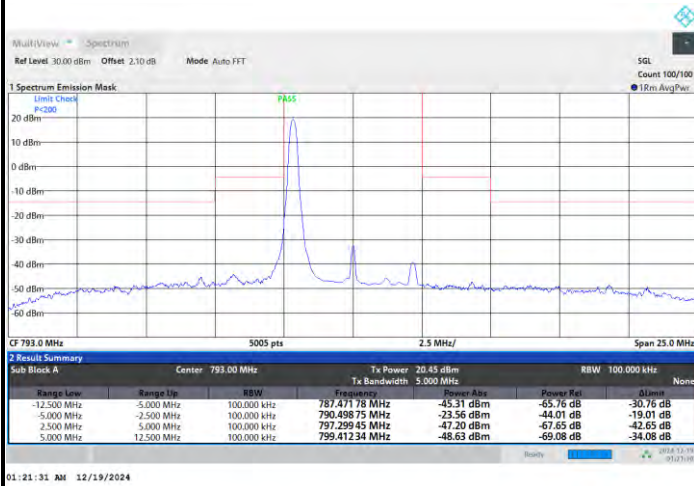




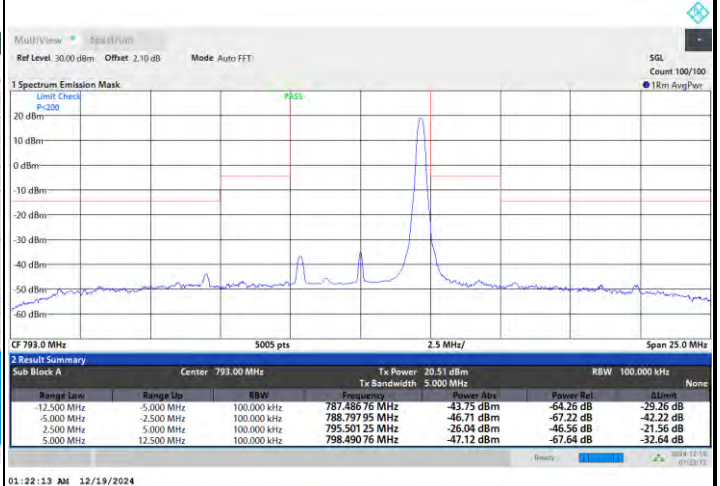
FR1 n14 / 5MHz / DFT-S OFDM / 64QAM

Middle Channel

1RB0



1RBmax



Full RB

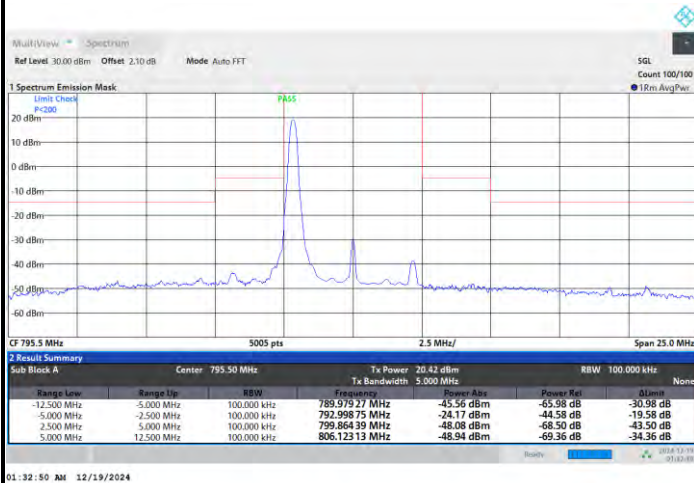




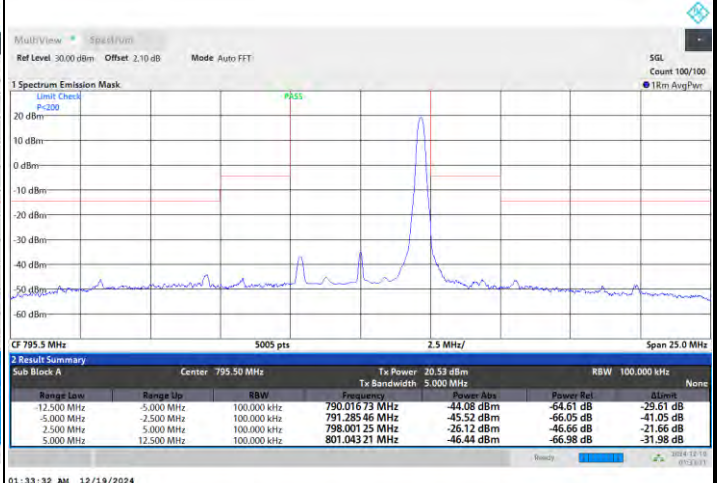
FR1 n14 / 5MHz / DFT-S OFDM / 64QAM

Highest Channel

1RB0



1RBmax



Full RB

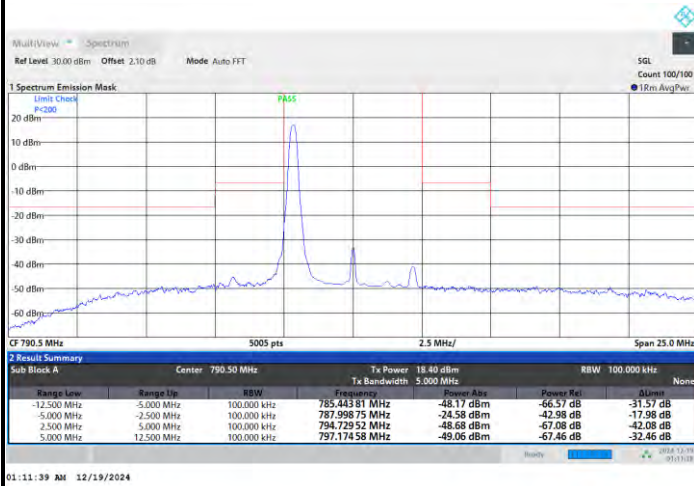




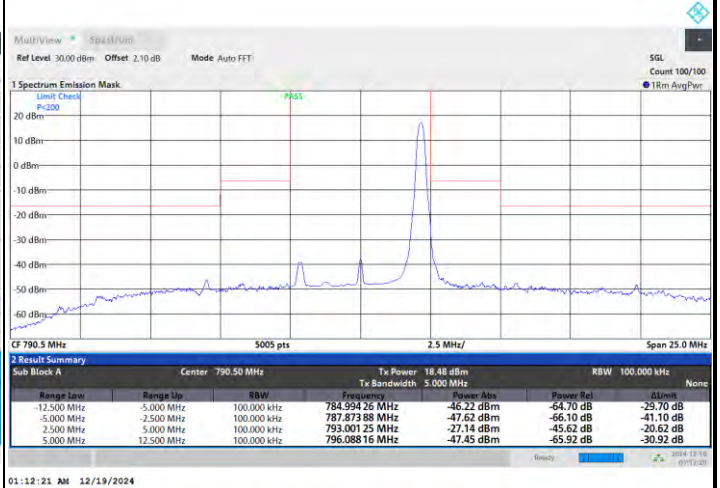
FR1 n14 / 5MHz / DFT-S OFDM / 256QAM

Lowest Channel

1RB0



1RBmax



Full RB

