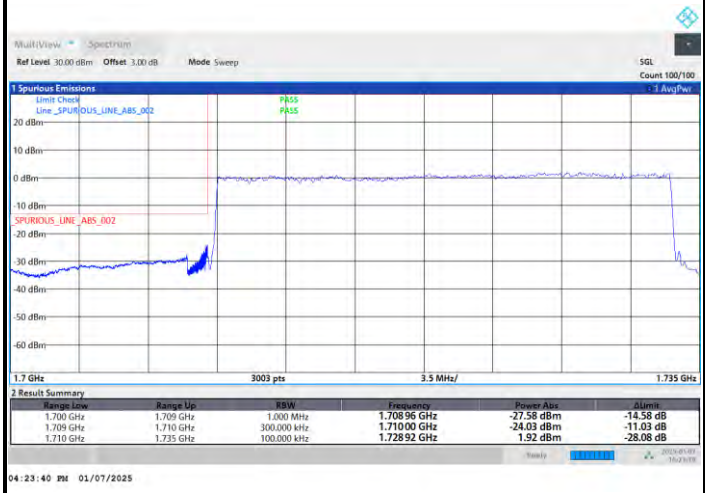
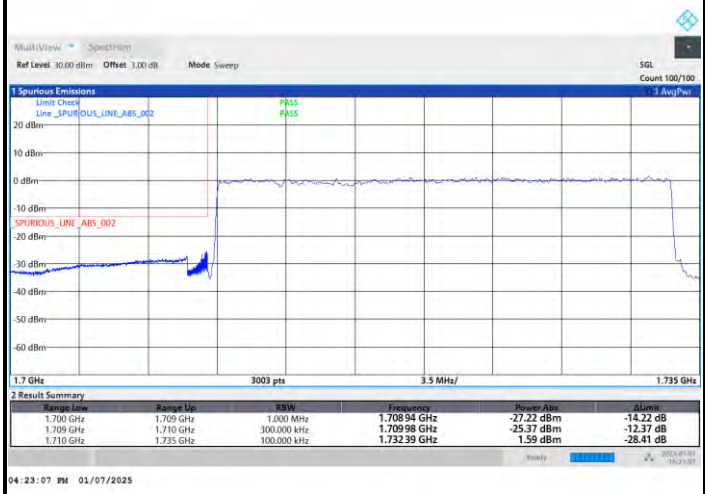
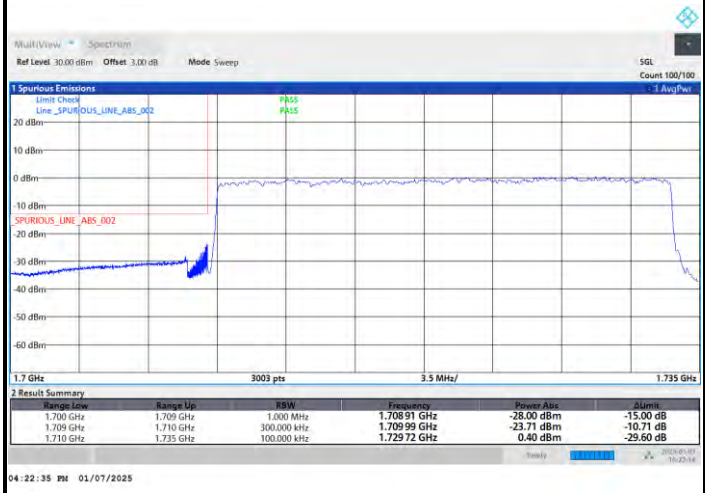
FR1 n66 / 20MHz / DFT-s-OFDM / 256QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n66 / 20MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

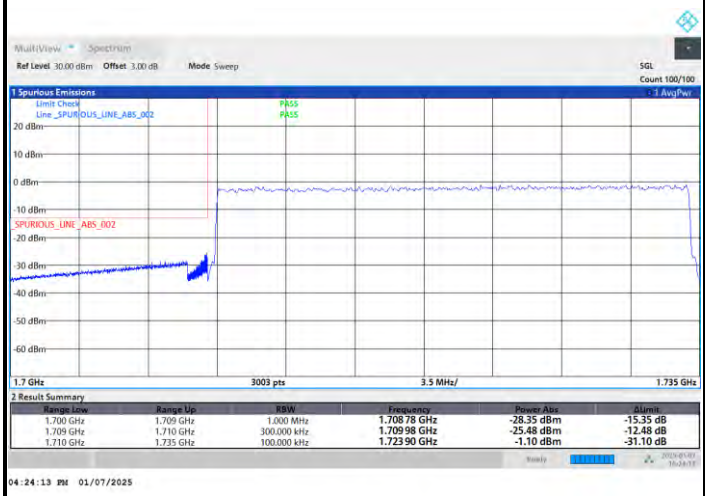
FR1 n66 / 25MHz / DFT-s-OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

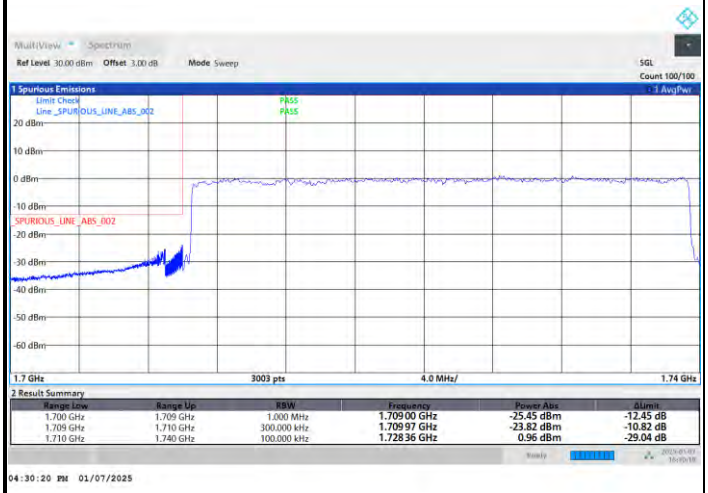
FR1 n66 / 25MHz / DFT-s-OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

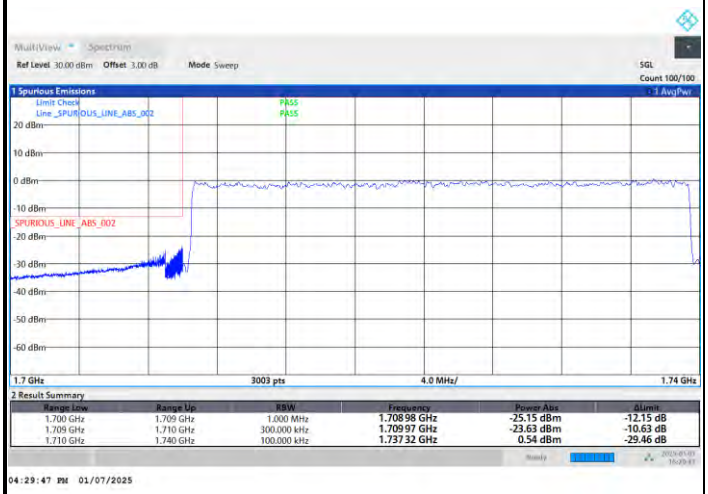
FR1 n66 / 25MHz / DFT-s-OFDM / 16QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

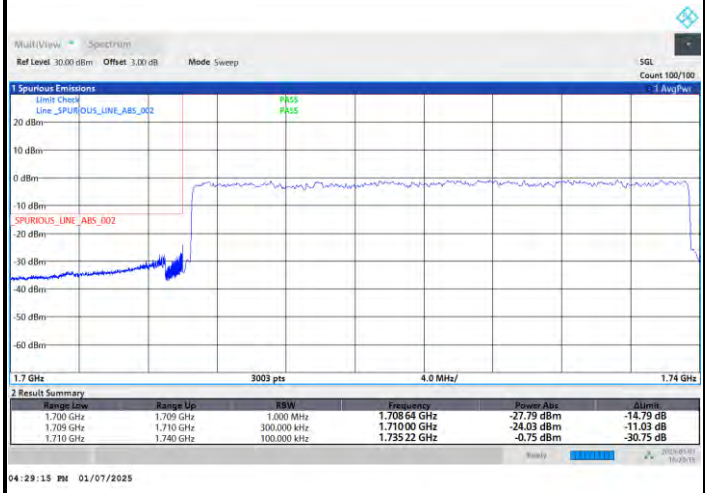
FR1 n66 / 25MHz / DFT-s-OFDM / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

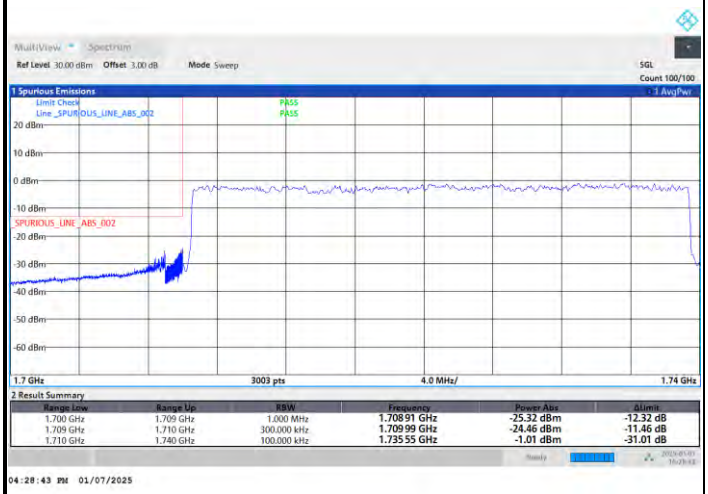
FR1 n66 / 25MHz / DFT-s-OFDM / 256QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n66 / 25MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

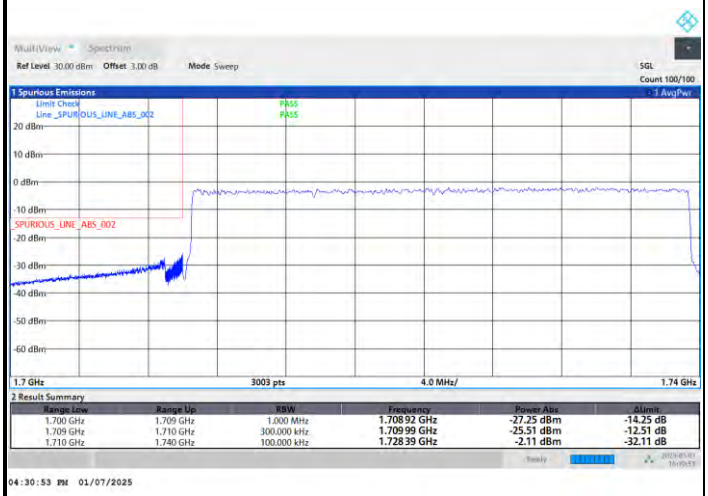
FR1 n66 / 30MHz / DFT-s-OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

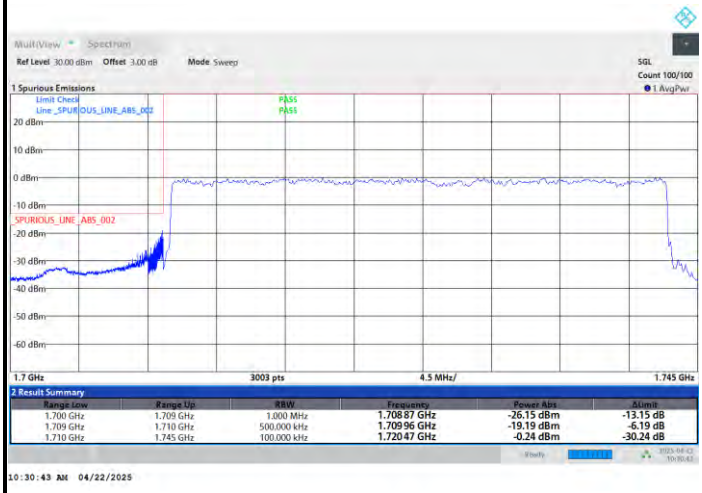
FR1 n66 / 30MHz / DFT-s-OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n66 / 30MHz / DFT-s-OFDM / 16QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n66 / 30MHz / DFT-s-OFDM / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

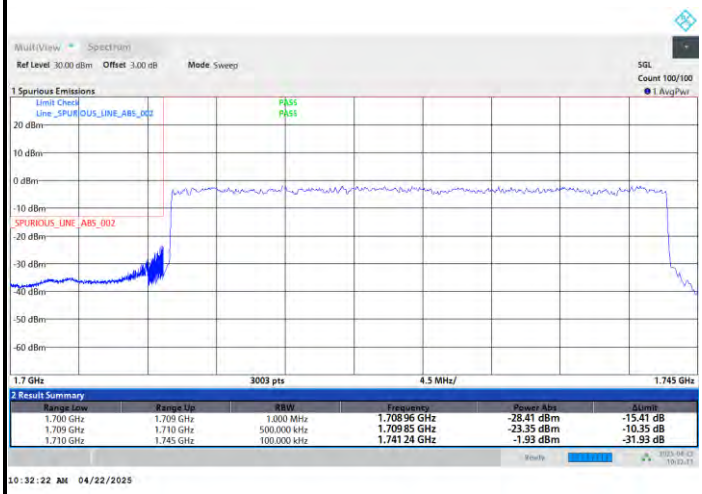
FR1 n66 / 30MHz / DFT-s-OFDM / 256QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

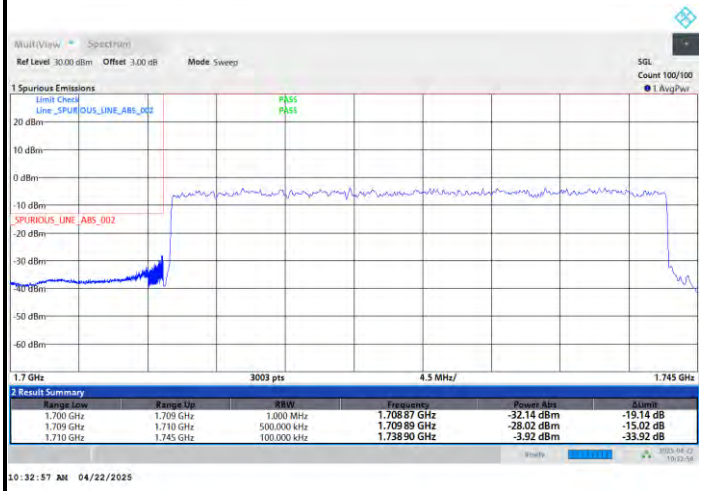
FR1 n66 / 30MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

FR1 n66 / 35MHz / DFT-s-OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

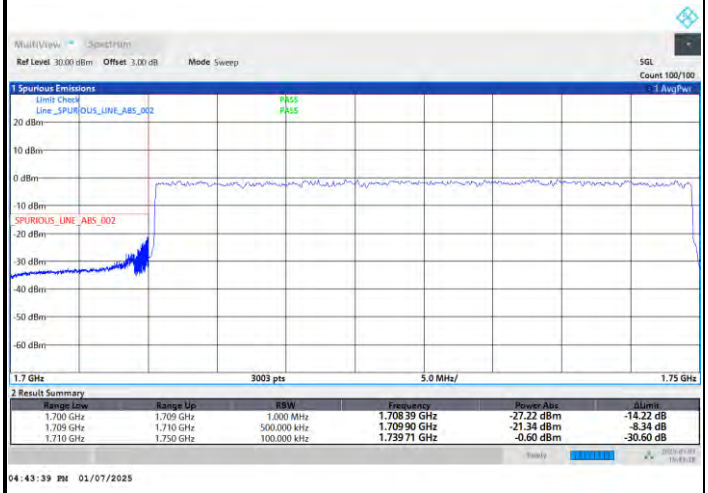
FR1 n66 / 35MHz / DFT-s-OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

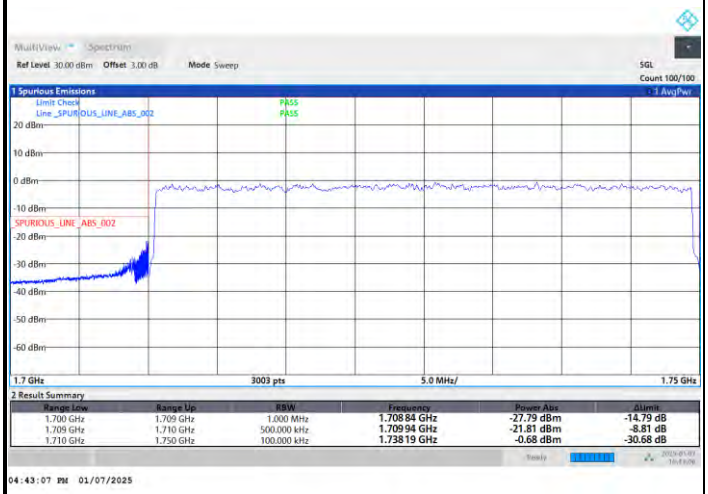
FR1 n66 / 35MHz / DFT-s-OFDM / 16QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n66 / 35MHz / DFT-s-OFDM / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

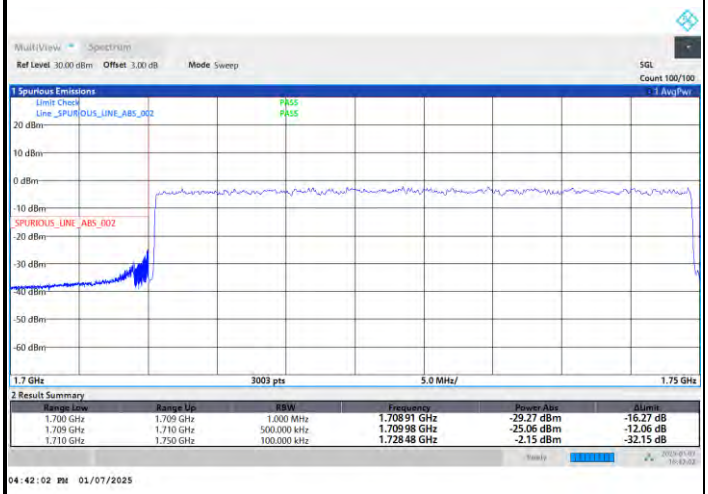
FR1 n66 / 35MHz / DFT-s-OFDM / 256QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

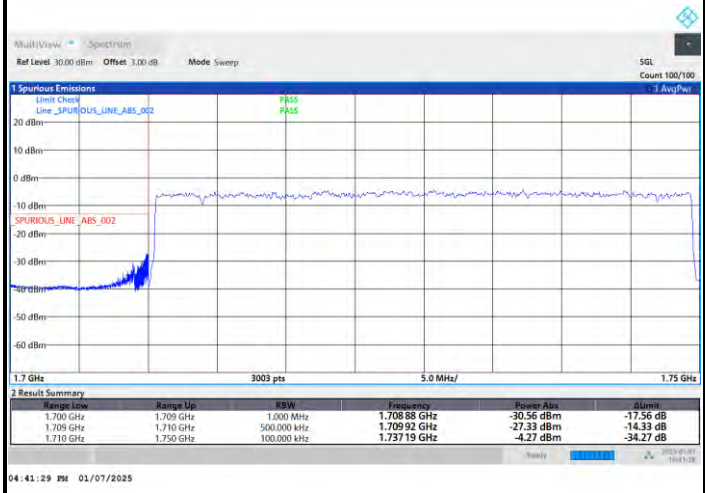
FR1 n66 / 35MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

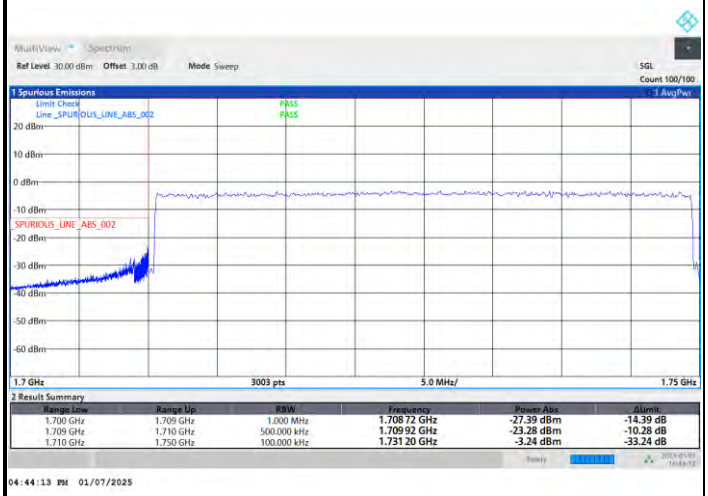
FR1 n66 / 40MHz / DFT-s-OFDM / PI/2 BPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n66 / 40MHz / DFT-s-OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n66 / 40MHz / DFT-s-OFDM / 16QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n66 / 40MHz / DFT-s-OFDM / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

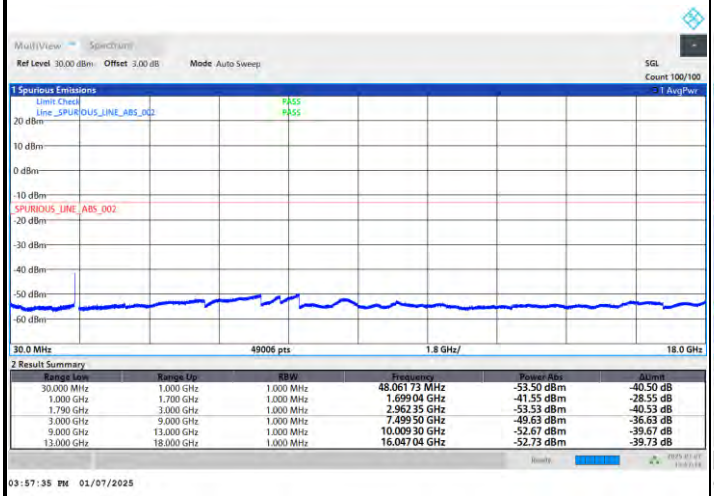
FR1 n66 / 40MHz / DFT-s-OFDM / 256QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n66 / 40MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

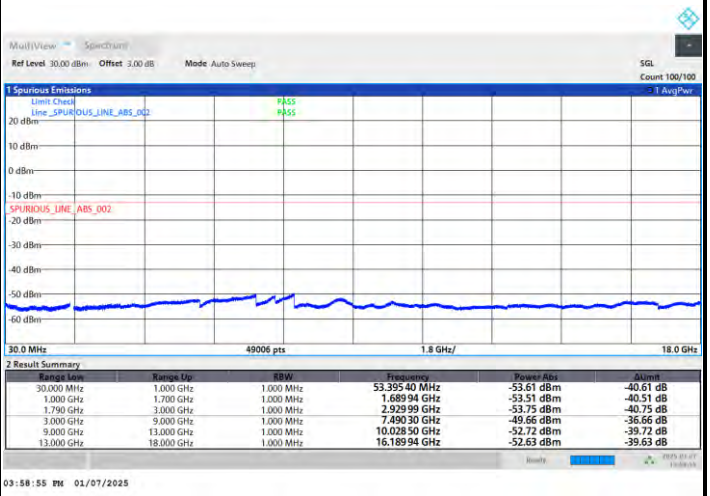
Conducted Spurious Emission

FR1 n66 / 5MHz / DFT-S OFDM / QPSK / 1RB1

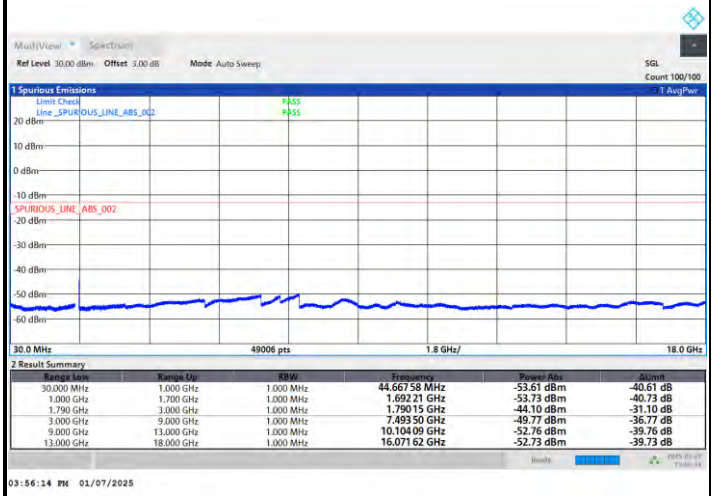
Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n66 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0071	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0120	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0041	
-10	Normal Voltage	0.0106	
-20	Normal Voltage	0.0014	
-30	Normal Voltage	0.0045	
20	Maximum Voltage	0.0127	
20	Normal Voltage	0.0025	
20	Minimum Voltage	0.0041	

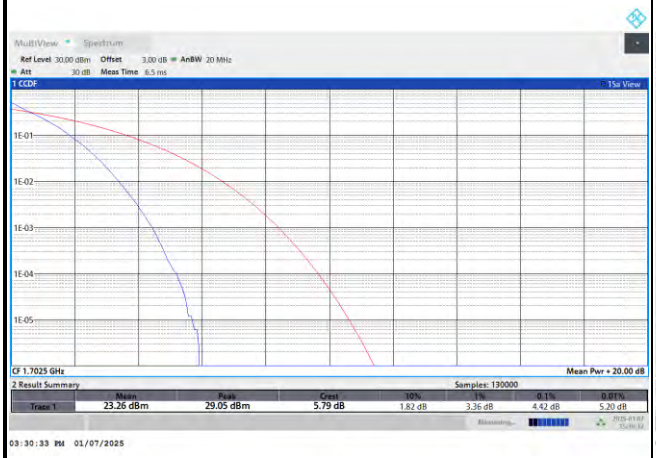
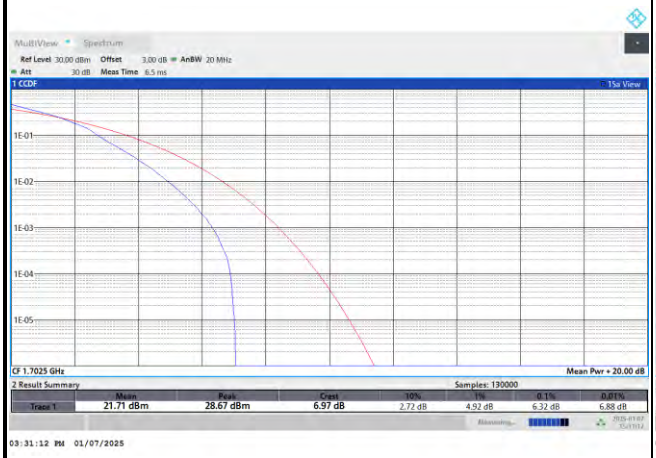
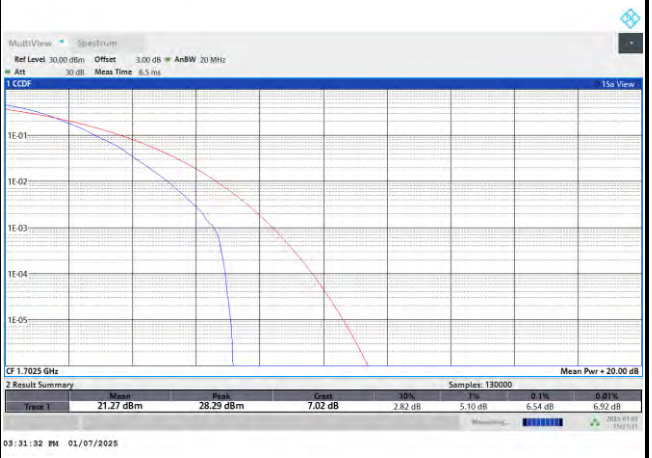
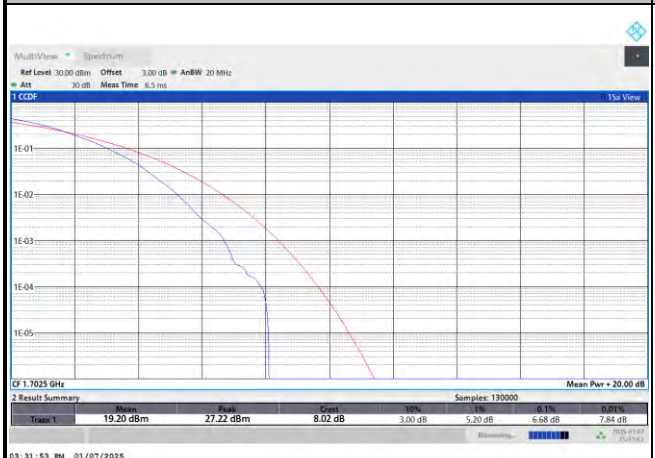
Note:

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 n70

Peak-to-Average Ratio

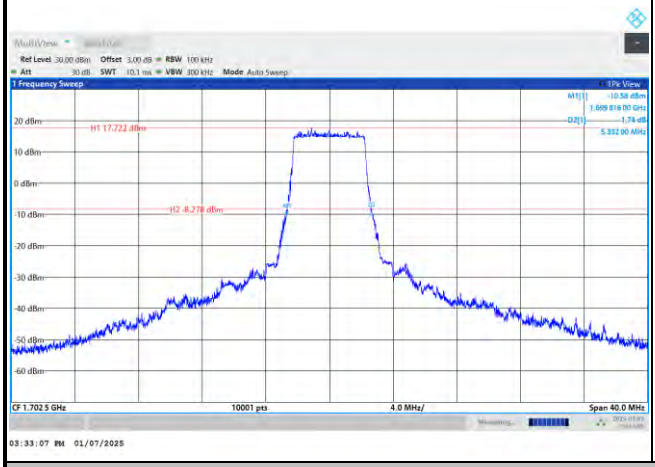
Mode	FR1 n70 / 15MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.42	5.54	6.32	6.54	PASS
Mode	FR1 n70 / 15MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.68				PASS

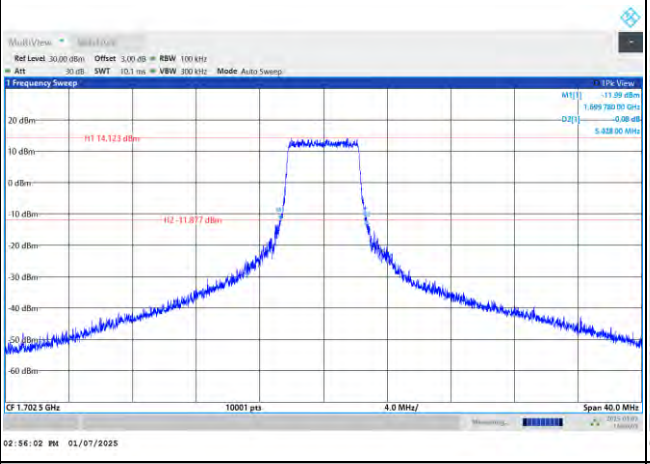
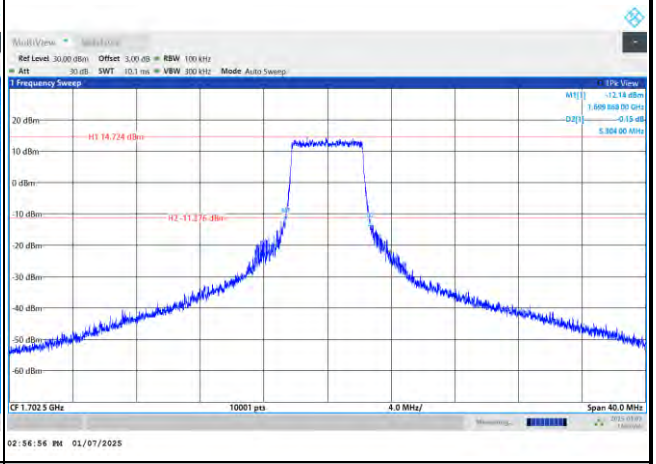
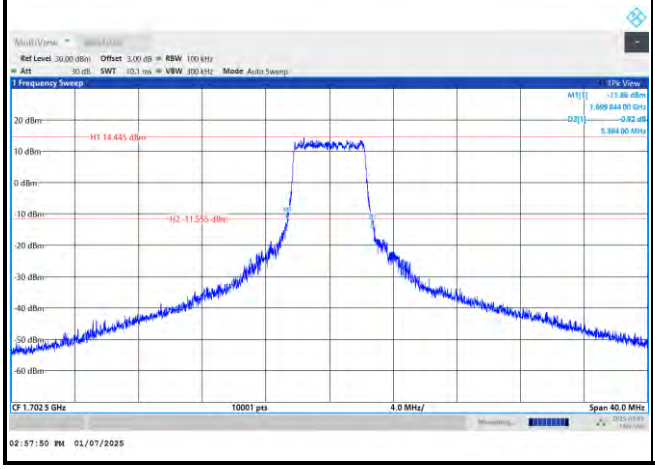
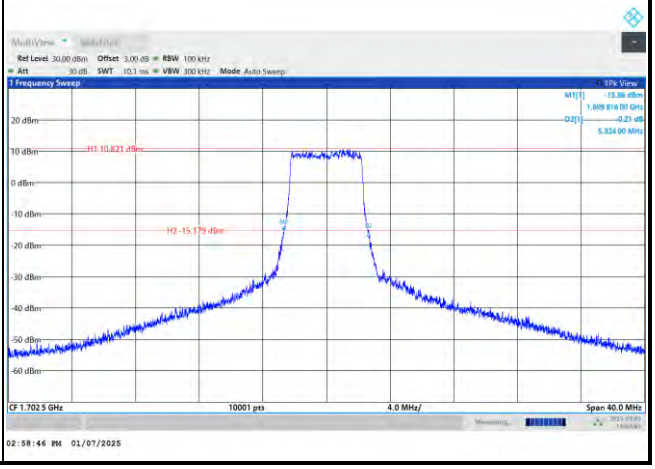
FR1 n70 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	64QAM
	
256QAM	
	

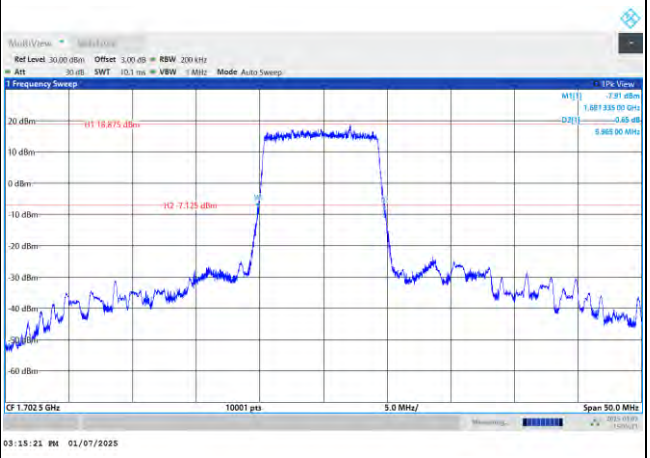
26dB Bandwidth

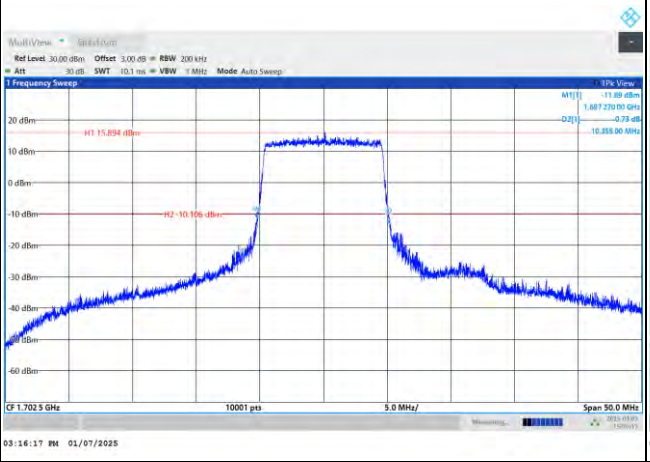
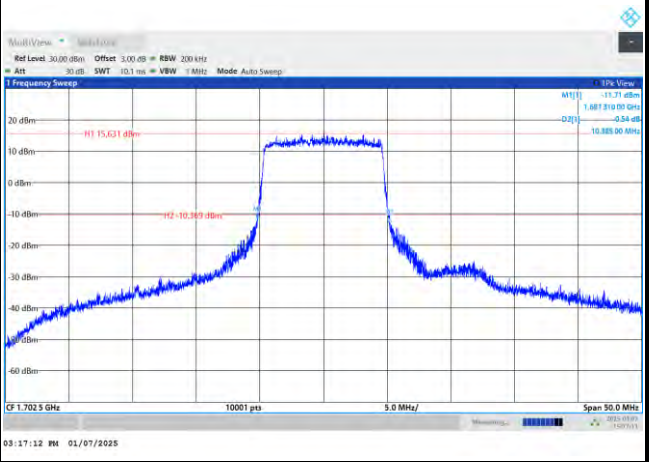
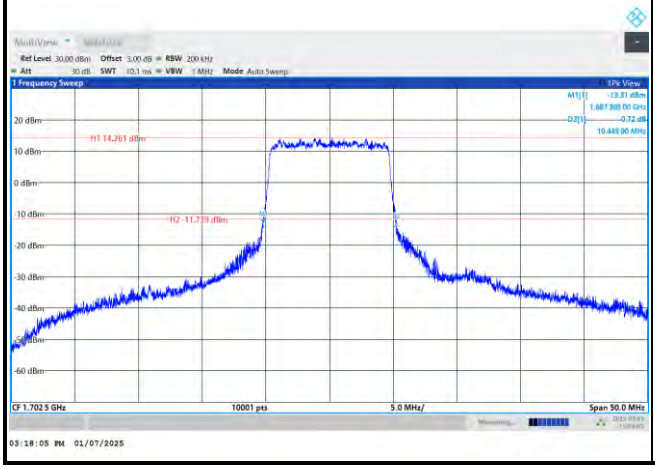
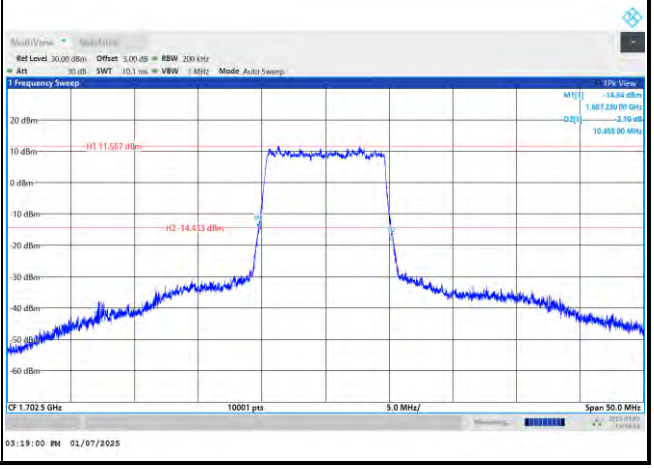
Mode	FR1 n70 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz			
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK			
Middle CH	5.33		9.96		14.74			

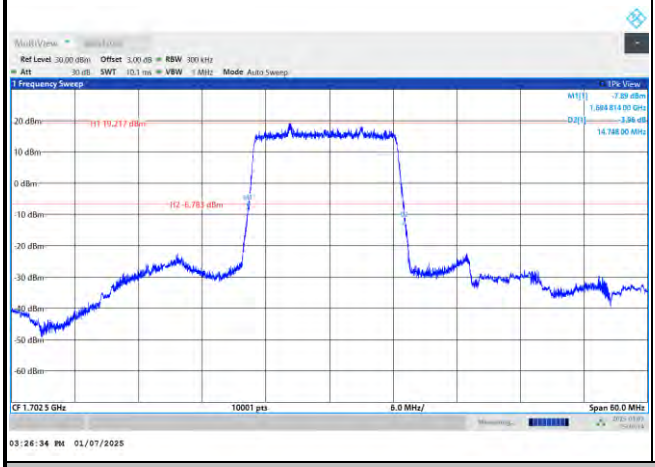
Mode	FR1 n70 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz			
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM		
Middle CH	5.42	5.30	10.35	10.38	15.43	15.72		
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM		
Middle CH	5.36	5.32	10.44	10.45	15.52	15.28		

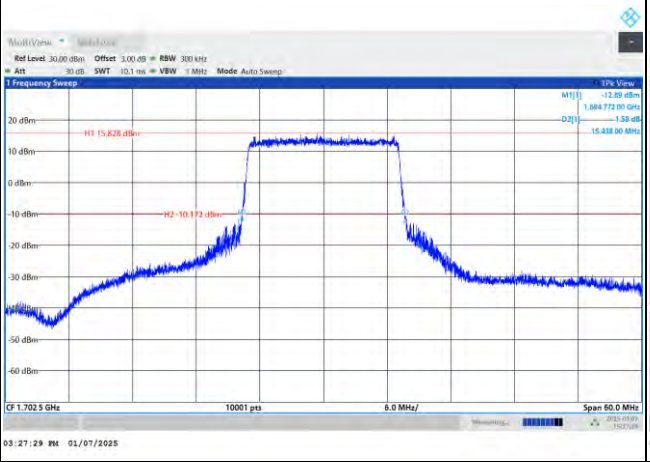
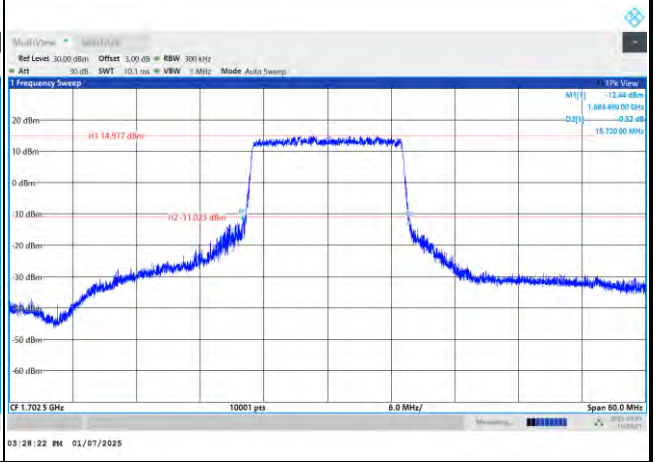
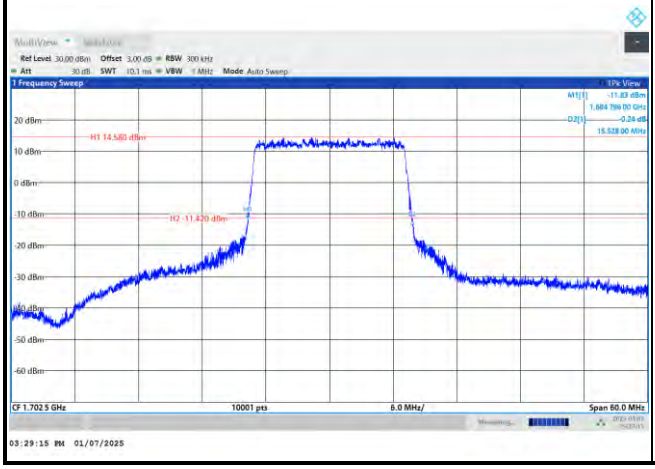
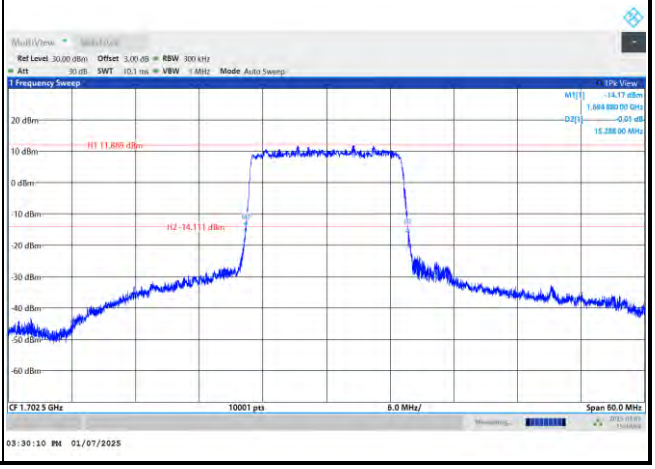
FR1 n70 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n70 / 5MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

FR1 n70 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n70 / 10MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

FR1 n70 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n70 / 15MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

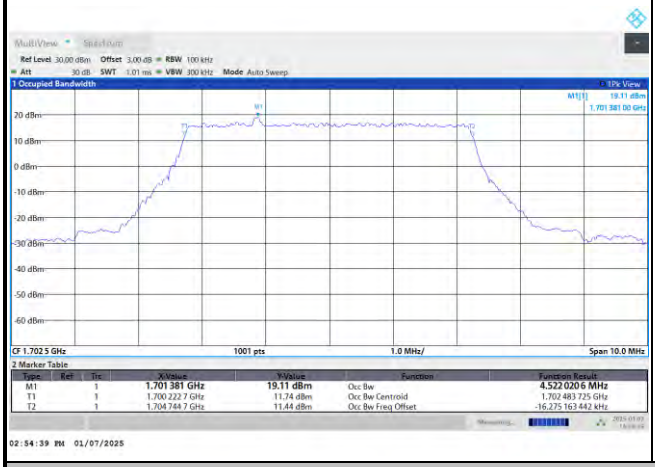
Occupied Bandwidth

Mode	FR1 n70 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz			
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK			
Middle CH	4.52		9.00		13.47			

Mode	FR1 n70 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz			
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM		
Middle CH	4.52	4.53	9.32	9.30	14.14	14.16		
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM		
Middle CH	4.53	4.50	9.34	9.36	14.17	14.20		

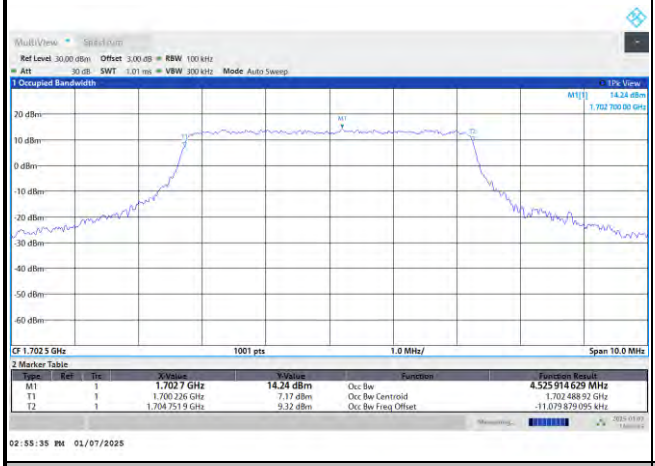
FR1 n70 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



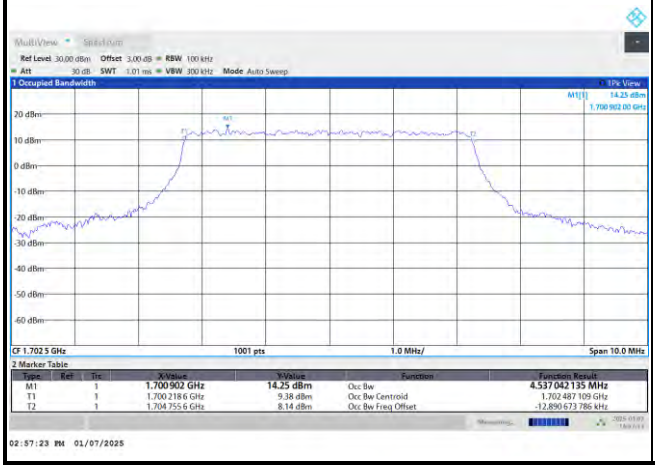
FR1 n70 / 5MHz / CP OFDM / Middle Channel / Full RB

QPSK

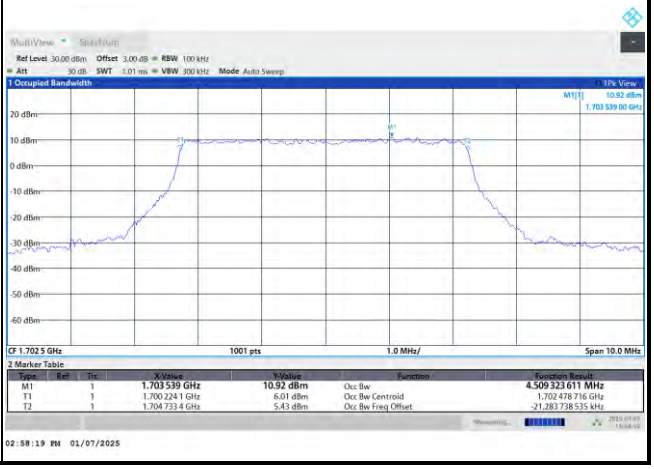


16QAM

64QAM

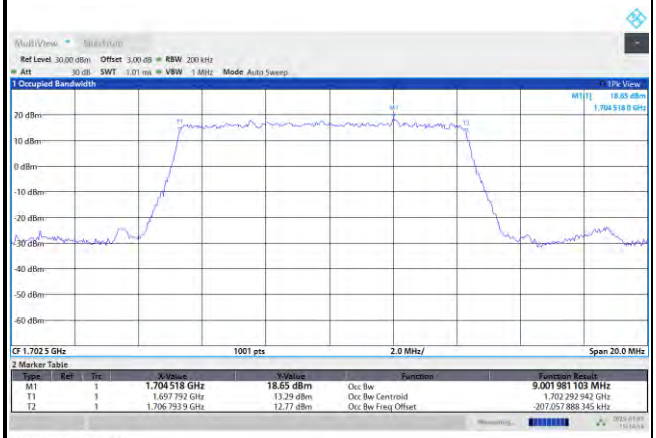


256QAM



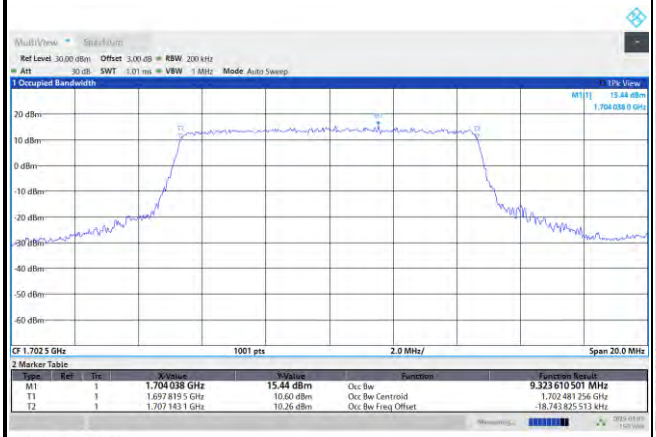
FR1 n70 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

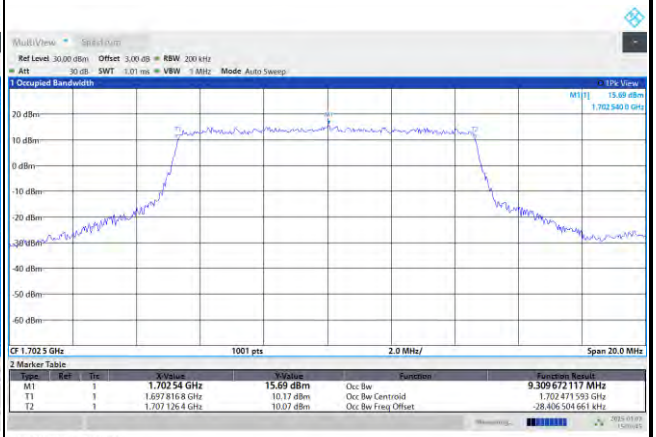


FR1 n70 / 10MHz / CP OFDM / Middle Channel / Full RB

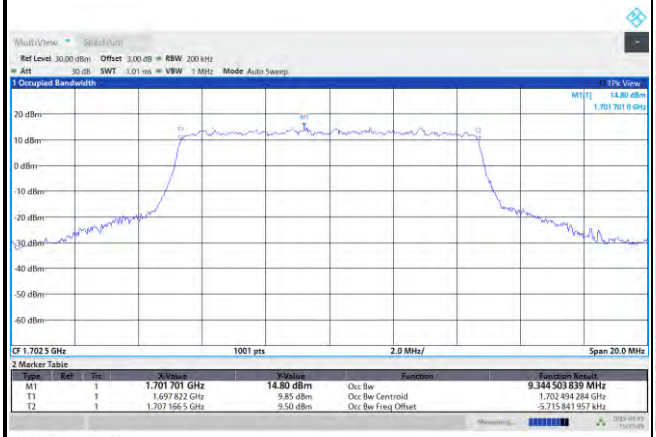
QPSK



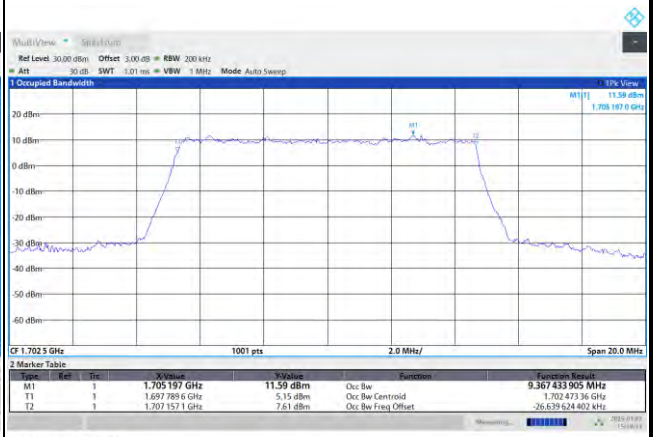
16QAM



64QAM

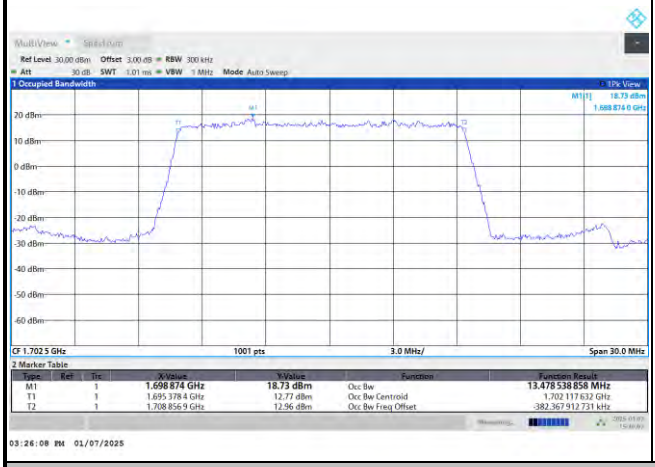


256QAM



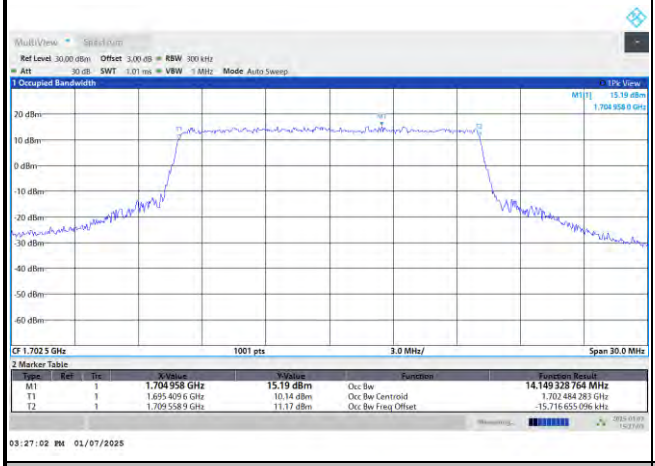
FR1 n70 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

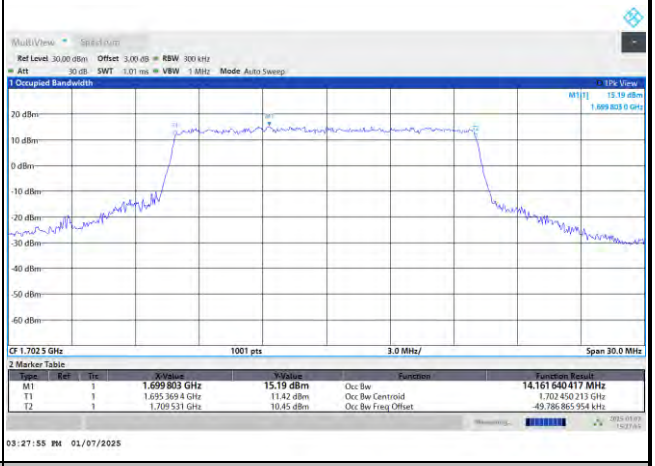


FR1 n70 / 15MHz / CP OFDM / Middle Channel / Full RB

QPSK



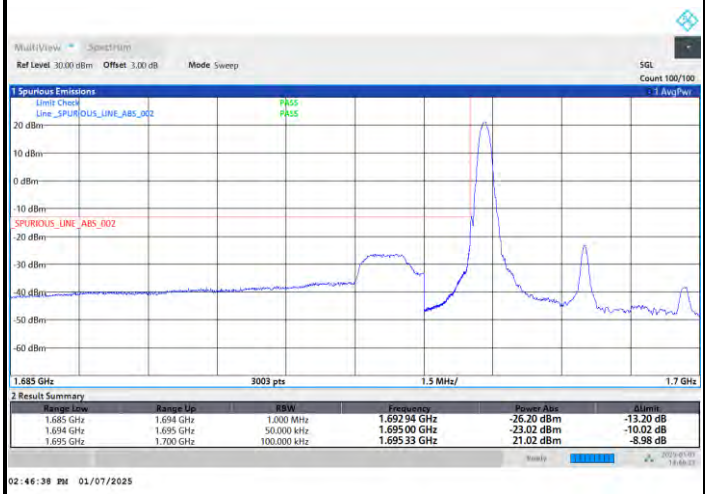
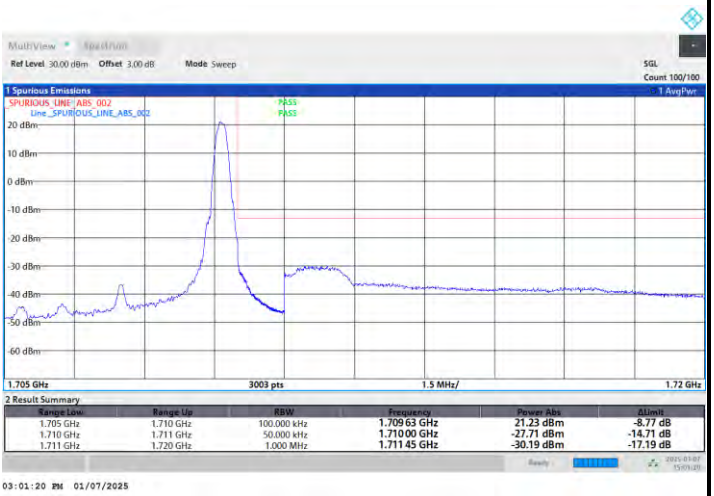
16QAM



64QAM

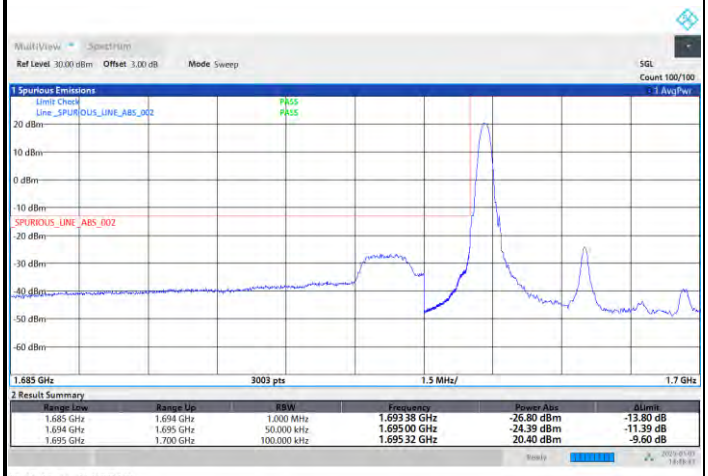
256QAM

Conducted Band Edge

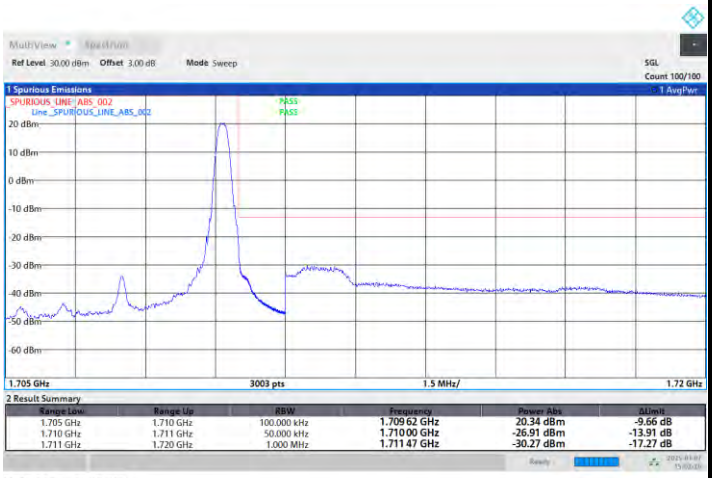
FR1 n70 / 5MHz / DFT-S OFDM / PI/2 BPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**

FR1 n70 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax

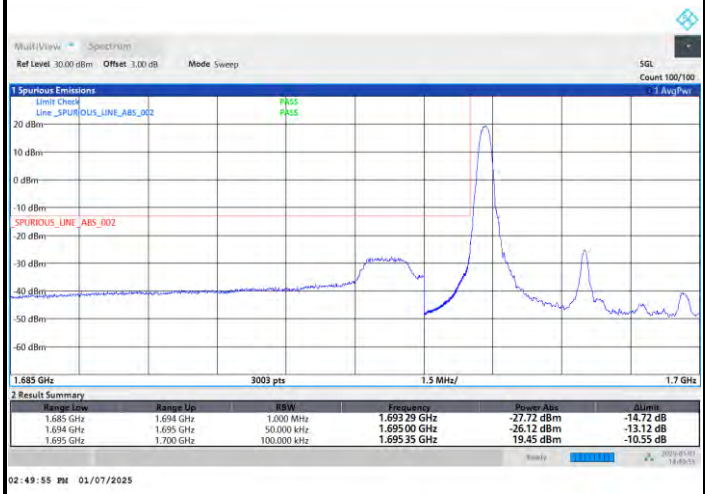


Lowest Band Edge / Full RB

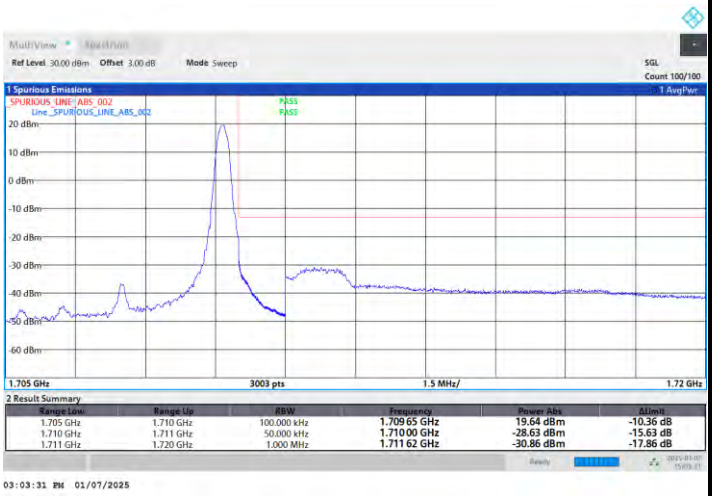
Highest Band Edge / Full RB

FR1 n70 / 5MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0

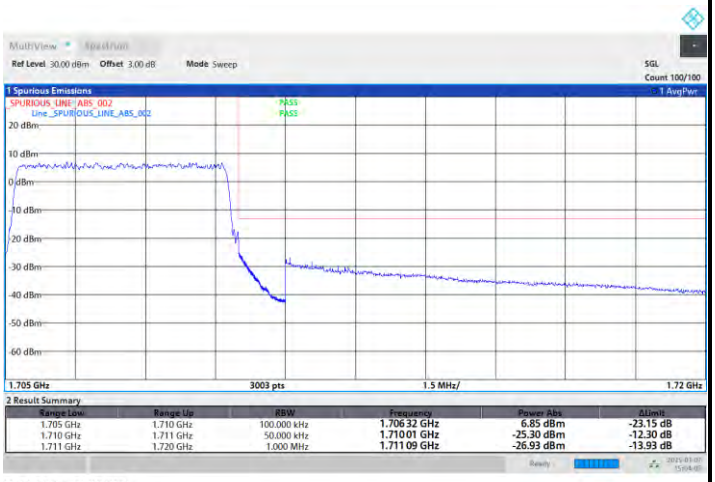


Highest Band Edge / 1RBmax



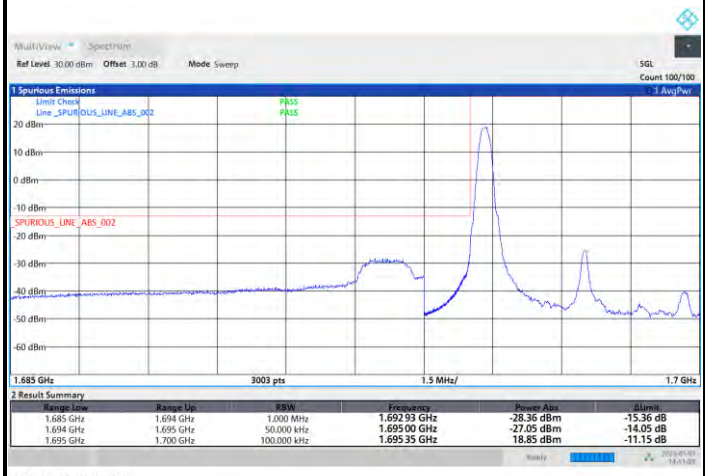
Lowest Band Edge / Full RB

Highest Band Edge / Full RB

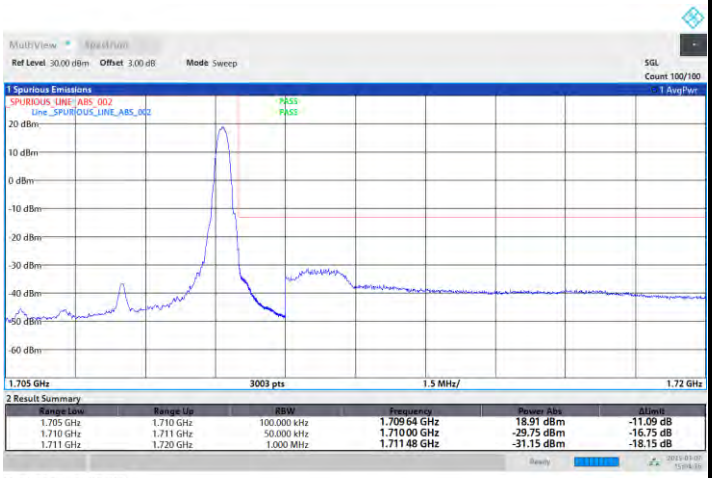


FR1 n70 / 5MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax

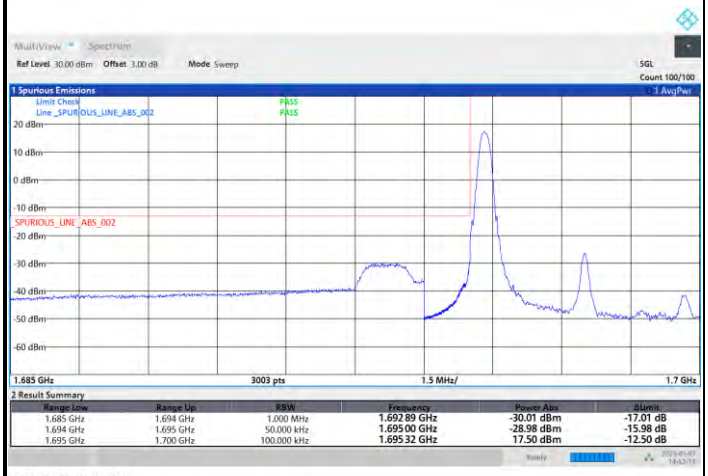


Lowest Band Edge / Full RB

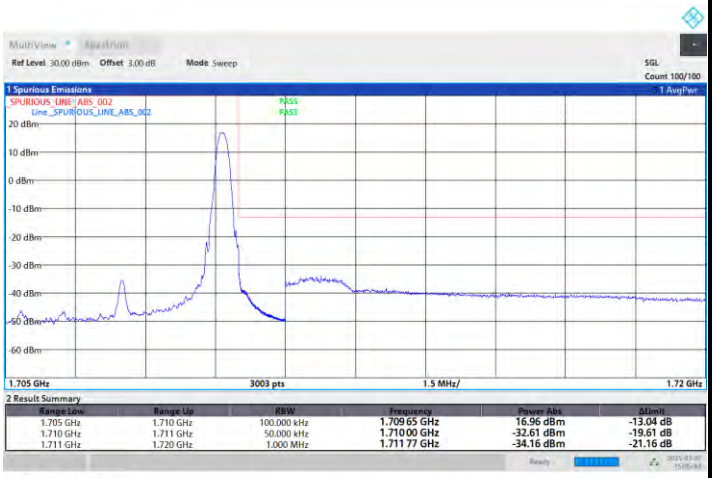
Highest Band Edge / Full RB

FR1 n70 / 5MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0

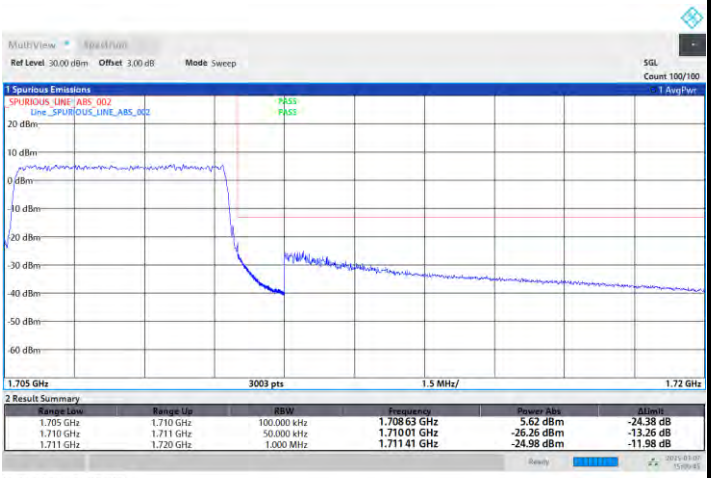


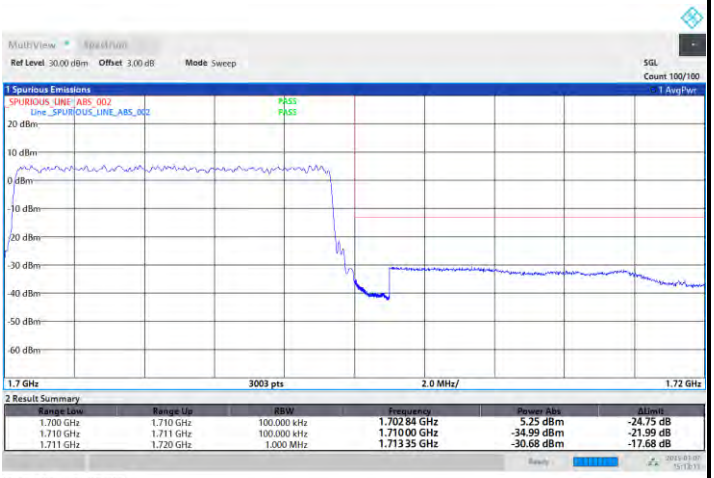
Highest Band Edge / 1RBmax

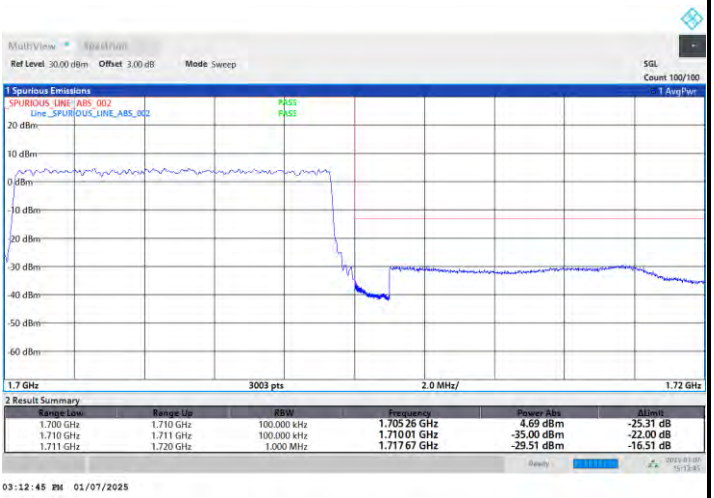


Lowest Band Edge / Full RB

Highest Band Edge / Full RB

FR1 n70 / 5MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

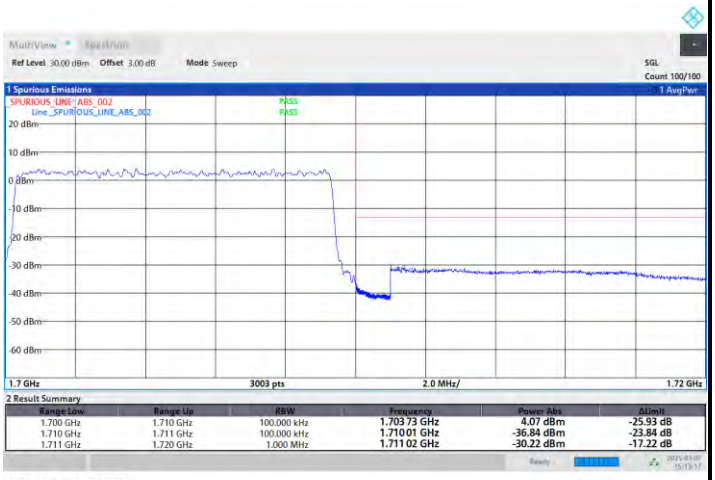
FR1 n70 / 10MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

FR1 n70 / 10MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

FR1 n70 / 10MHz / DFT-s-OFDM / 16QAM / Full RB

Lowest Band Edge

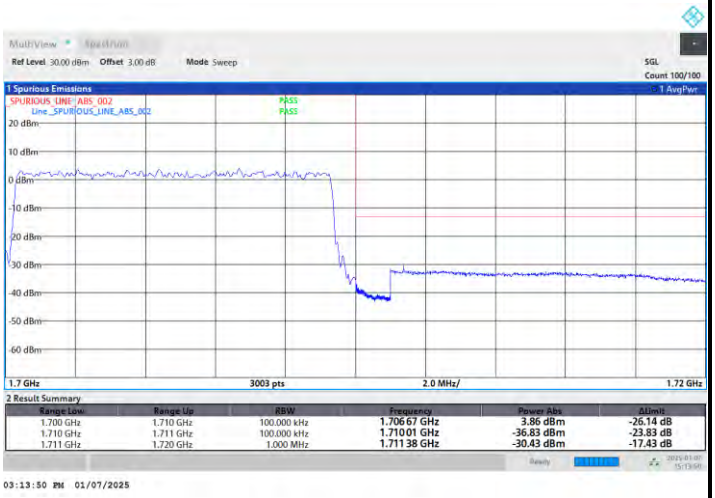
Highest Band Edge

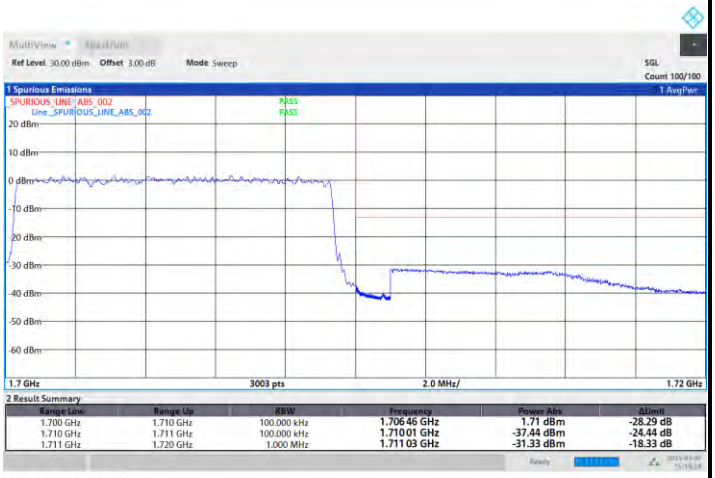


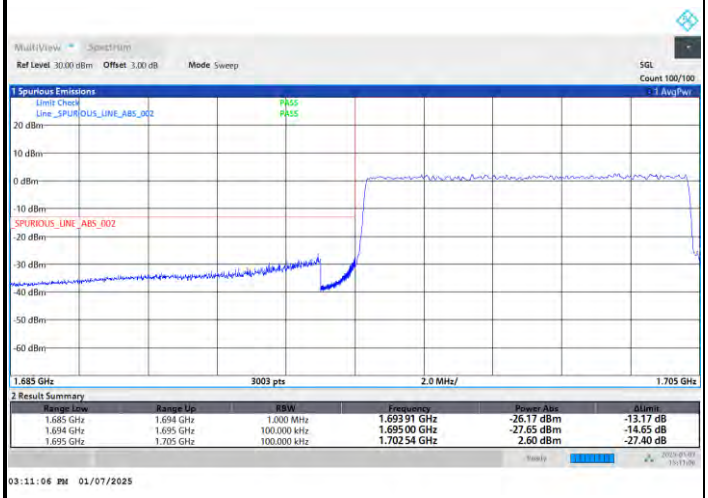
FR1 n70 / 10MHz / DFT-s-OFDM / 64QAM / Full RB

Lowest Band Edge

Highest Band Edge

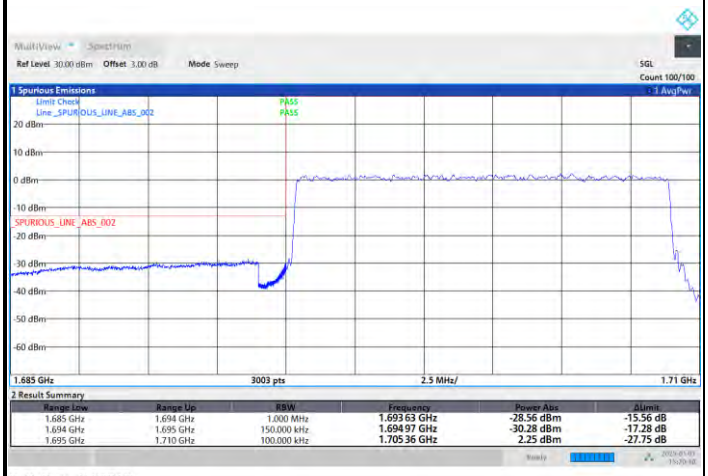


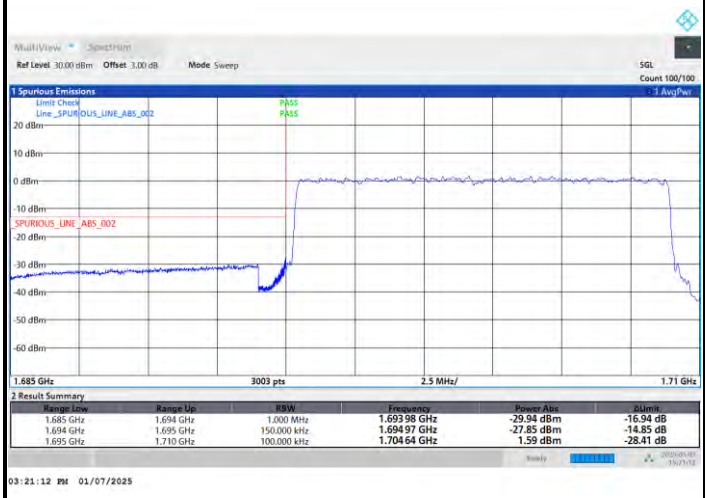
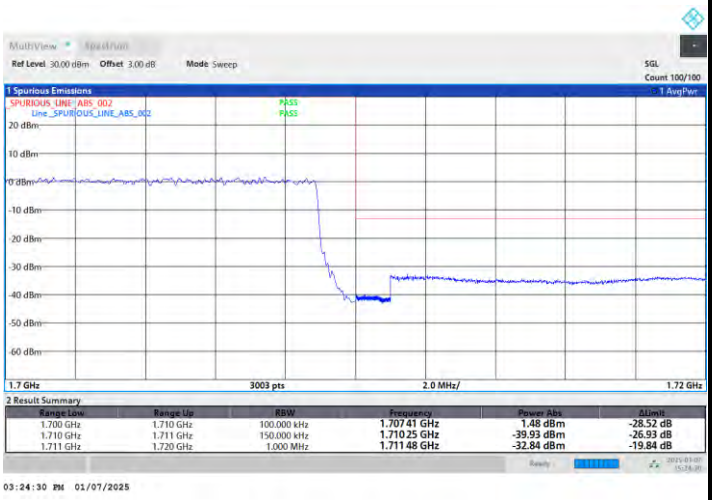
FR1 n70 / 10MHz / DFT-s-OFDM / 256QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

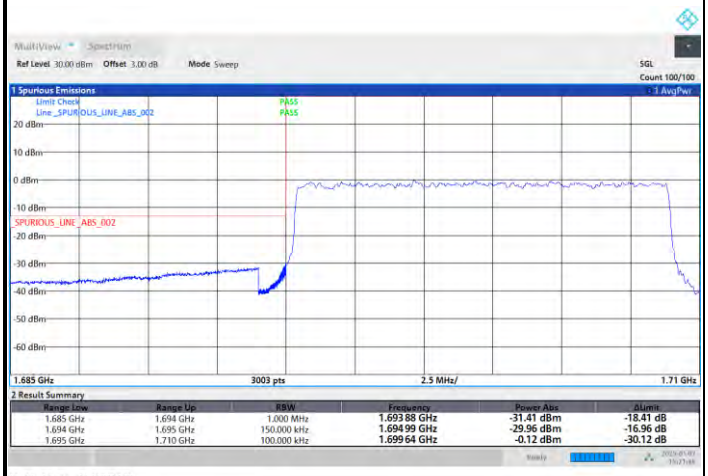
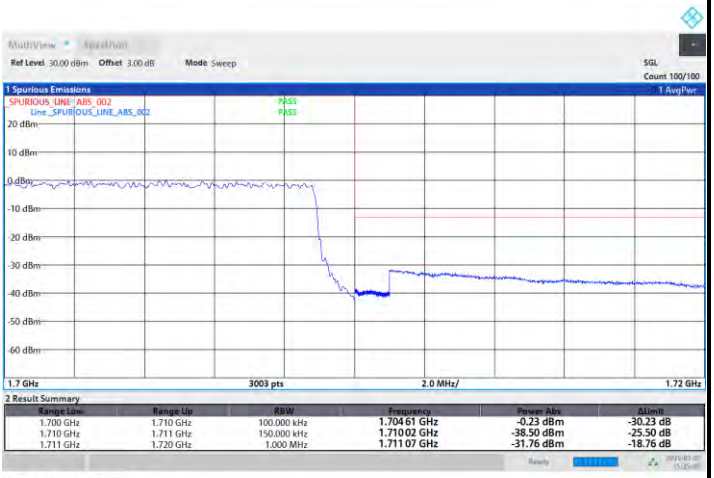
FR1 n70 / 10MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

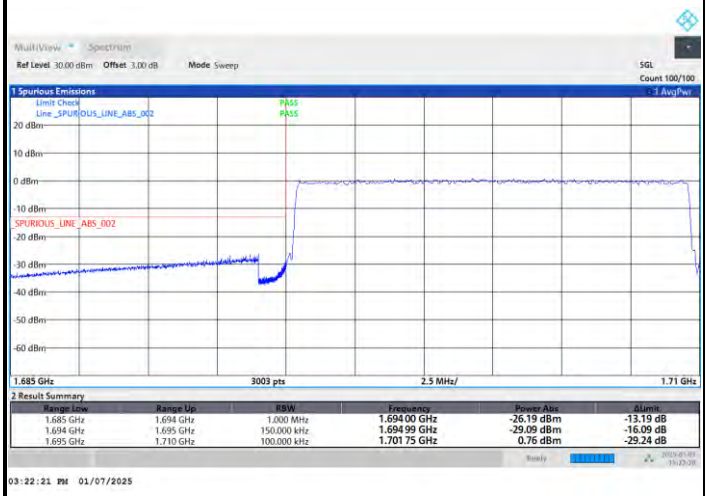
FR1 n70 / 15MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

FR1 n70 / 15MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

FR1 n70 / 15MHz / DFT-s-OFDM / 16QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

FR1 n70 / 15MHz / DFT-s-OFDM / 64QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

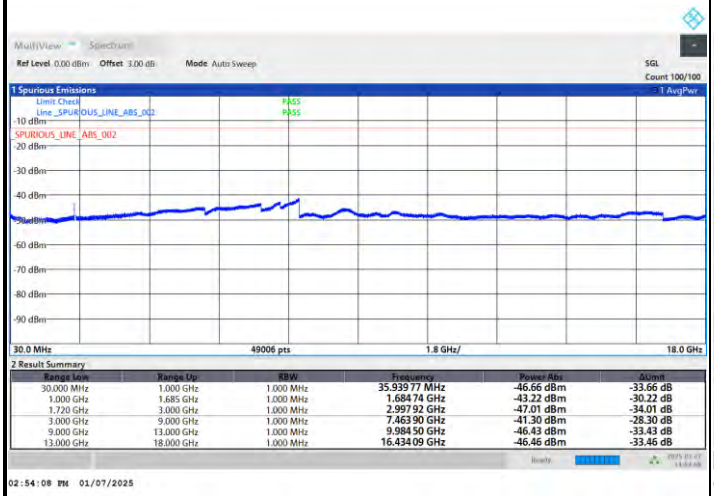
FR1 n70 / 15MHz / DFT-s-OFDM / 256QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

FR1 n70 / 15MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

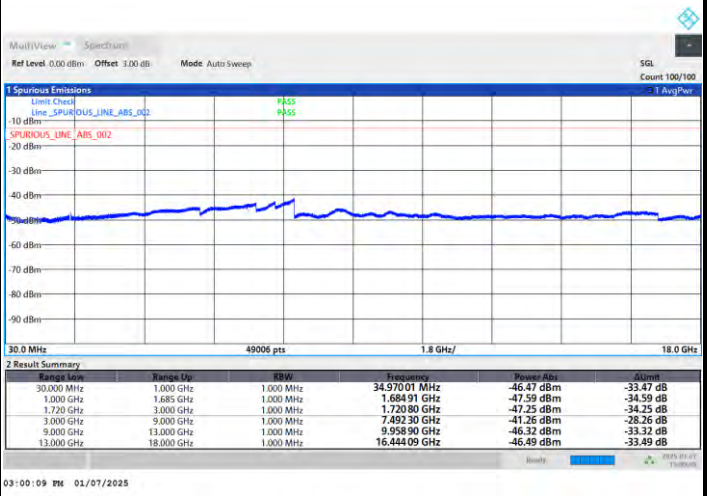
Conducted Spurious Emission

FR1 n70 / 5MHz / DFT-S OFDM / QPSK / 1RB1

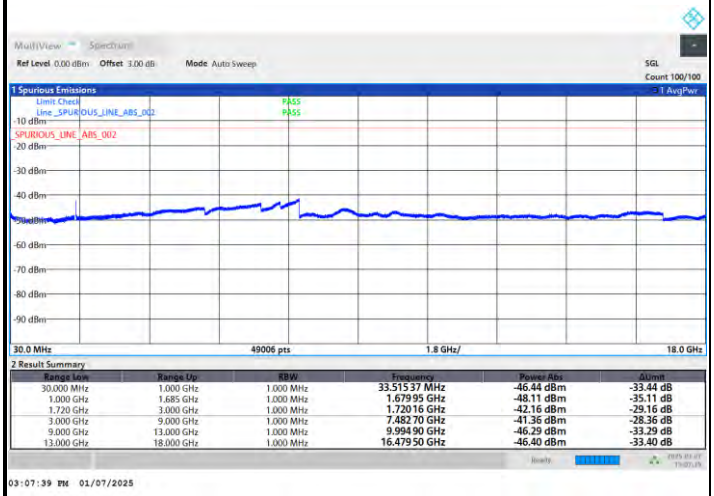
Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n70 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 15MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0160	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0034	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0170	
0	Normal Voltage	0.0117	
-10	Normal Voltage	0.0141	
-20	Normal Voltage	0.0051	
-30	Normal Voltage	0.0078	
20	Maximum Voltage	0.0069	
20	Normal Voltage	0.0030	
20	Minimum Voltage	0.0055	

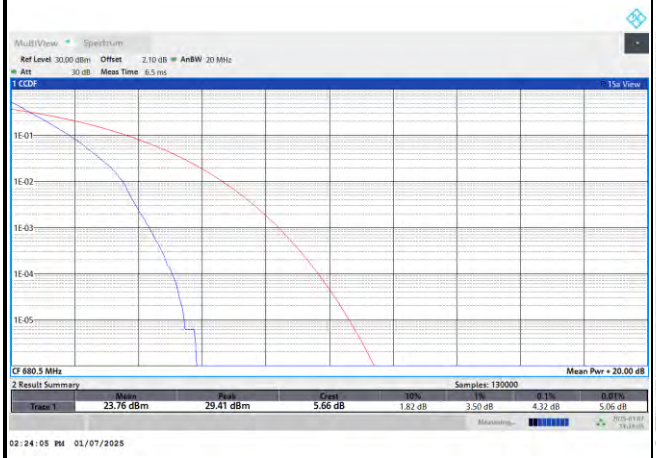
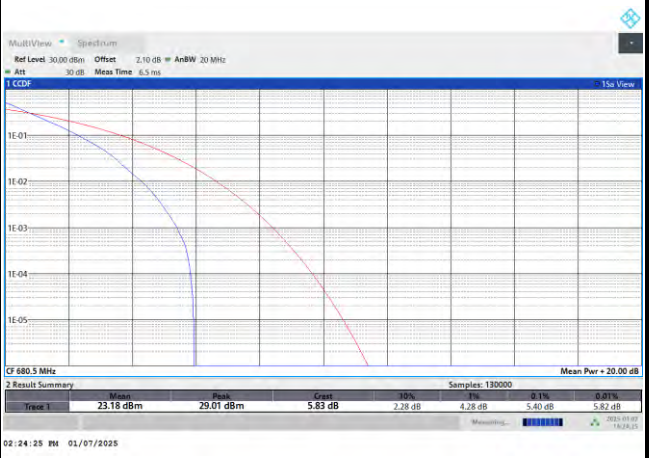
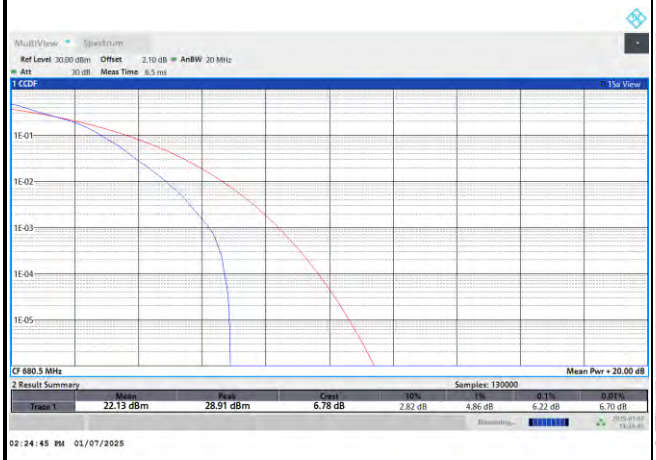
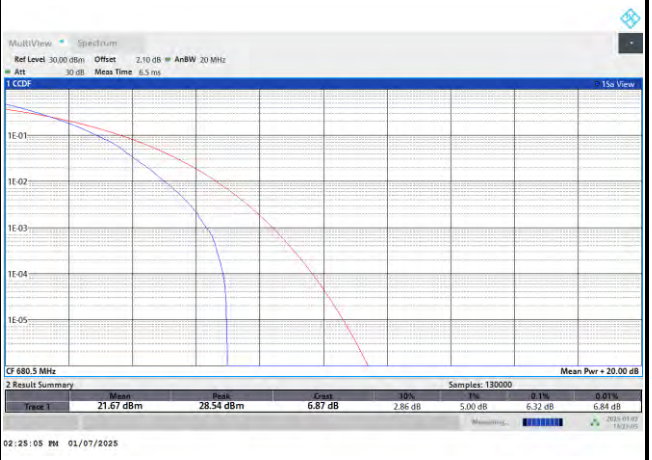
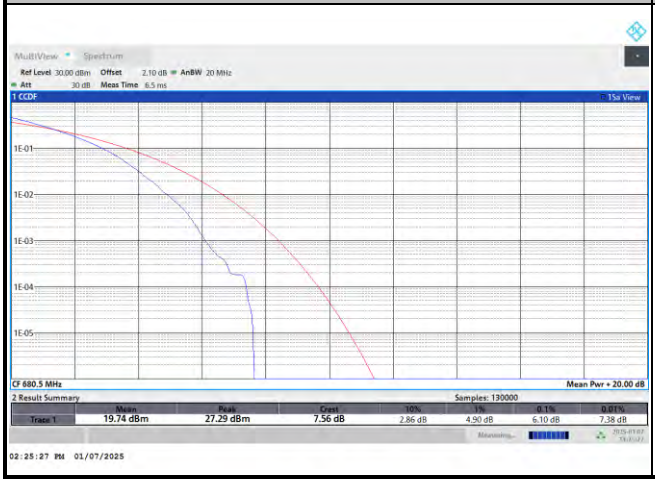
Note:

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 n71

Peak-to-Average Ratio

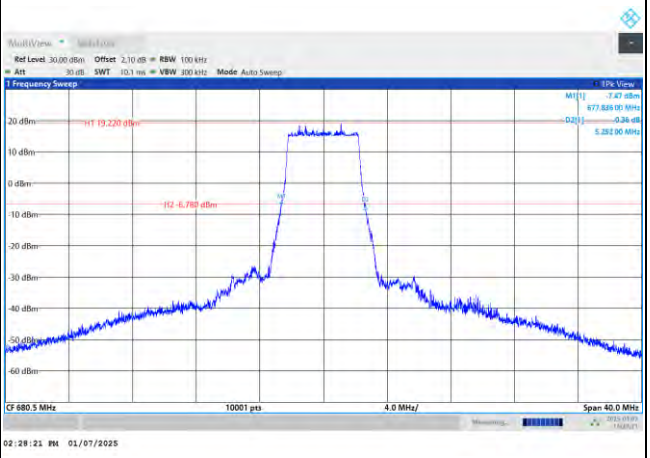
Mode	FR1 n71 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.32	5.40	6.22	6.32	PASS
Mode	FR1 n71 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.10				PASS

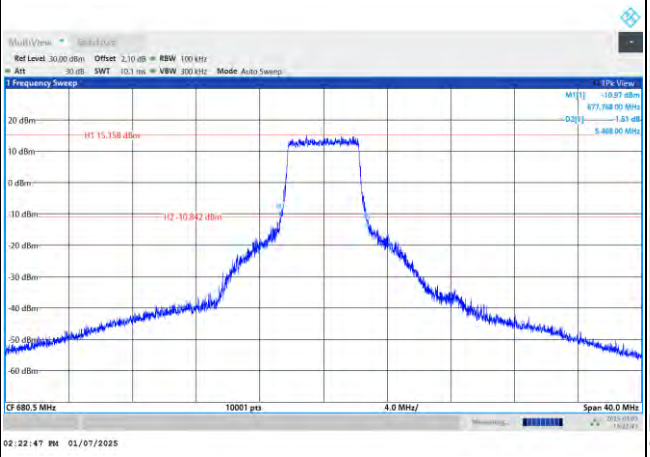
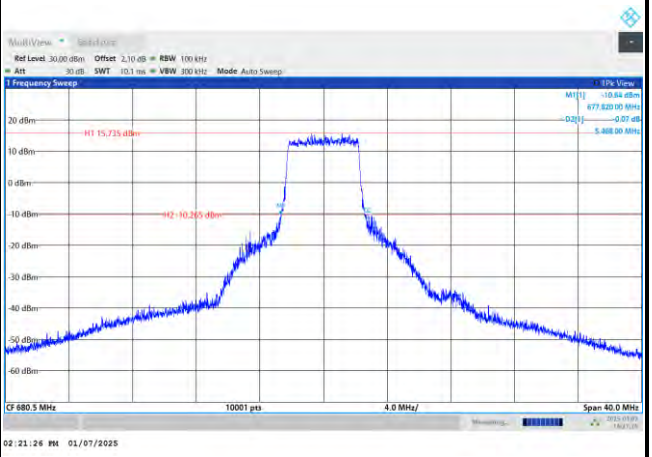
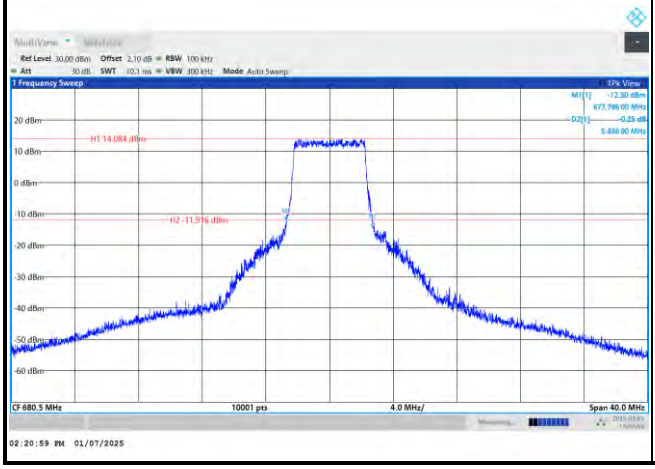
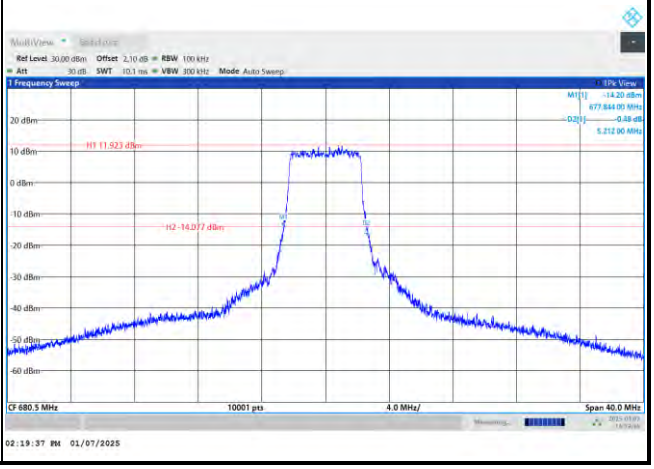
FR1 n71 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	64QAM
	
256QAM	
	

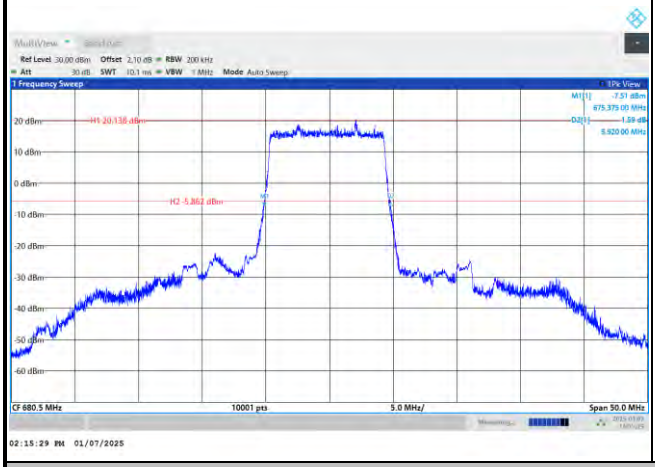
26dB Bandwidth

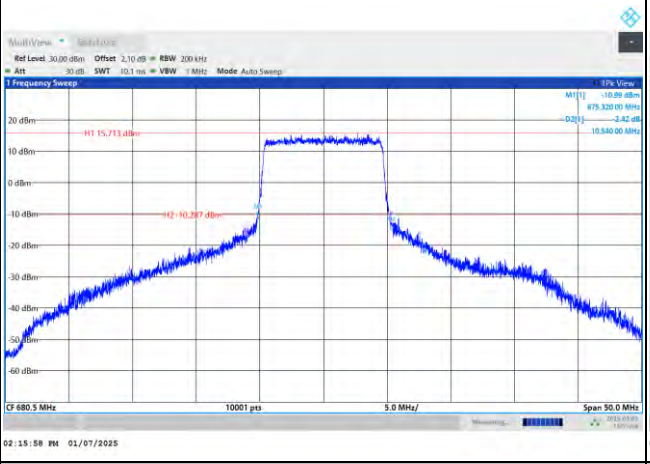
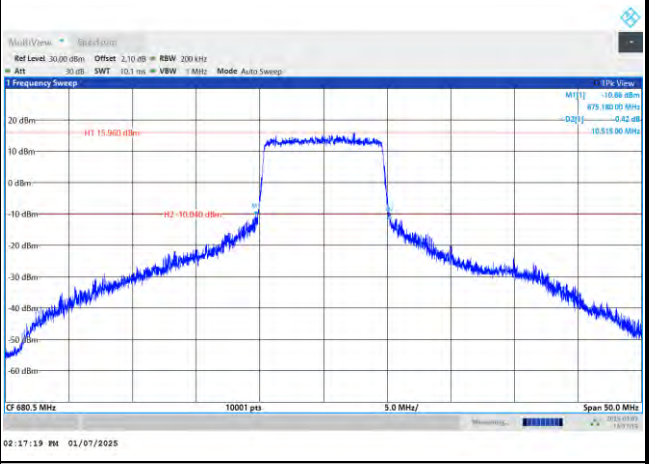
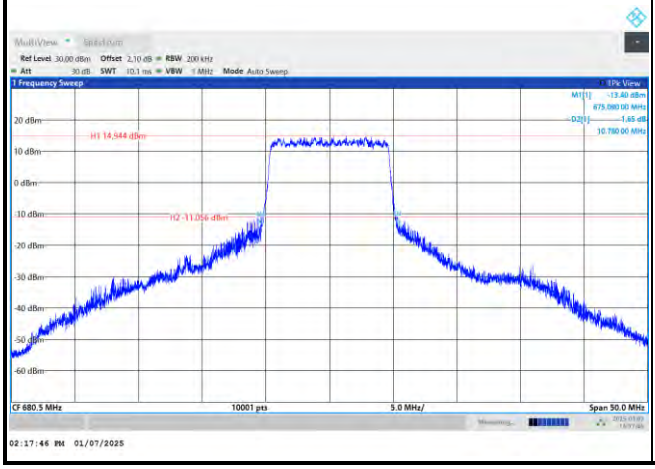
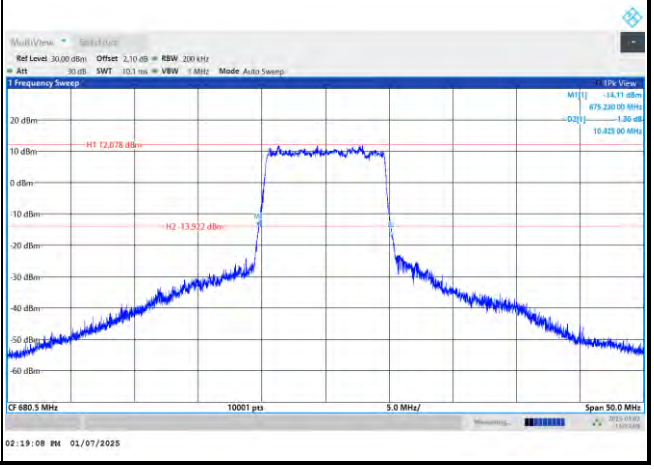
Mode	FR1 n71 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	5.29		9.92		14.68		19.52	

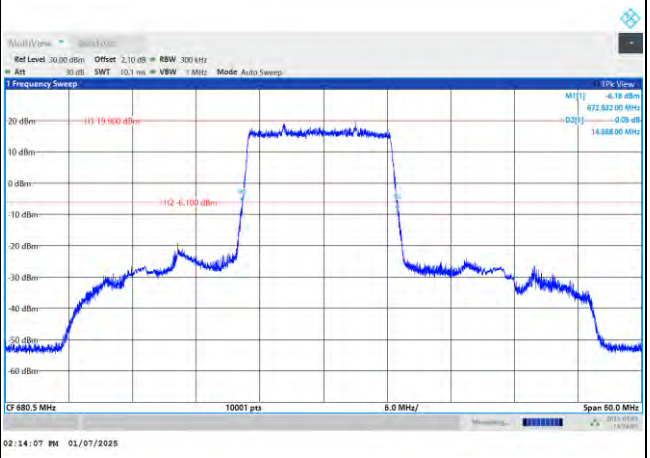
Mode	FR1 n71 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	5.46	5.46	10.54	10.51	15.35	15.99	21.47	21.45
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	5.43	5.21	10.78	10.42	15.45	15.30	21.09	21.25

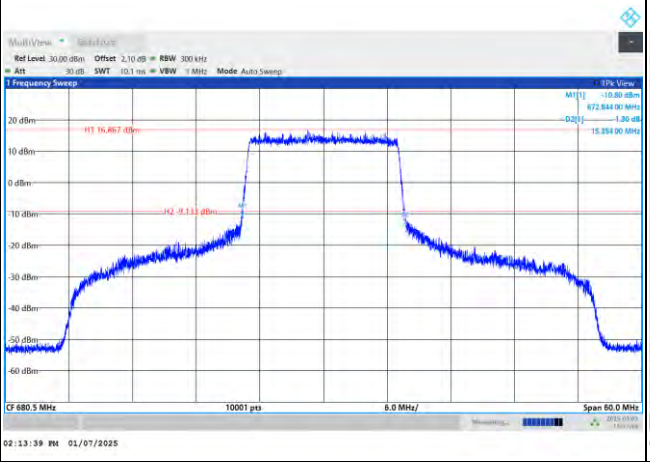
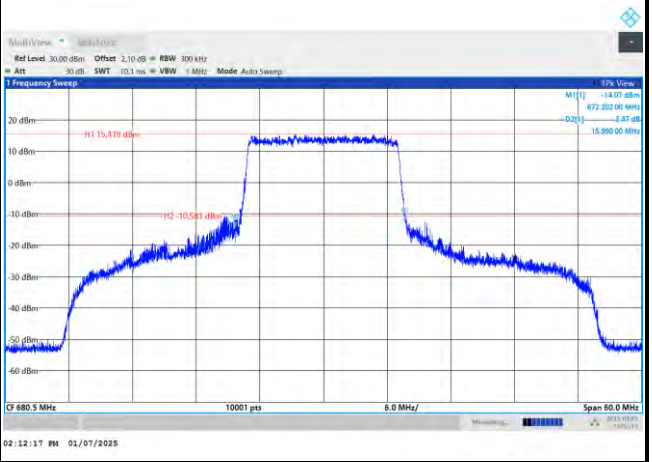
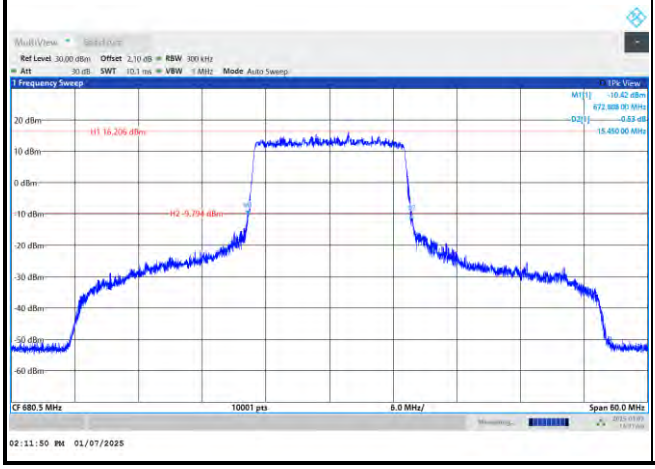
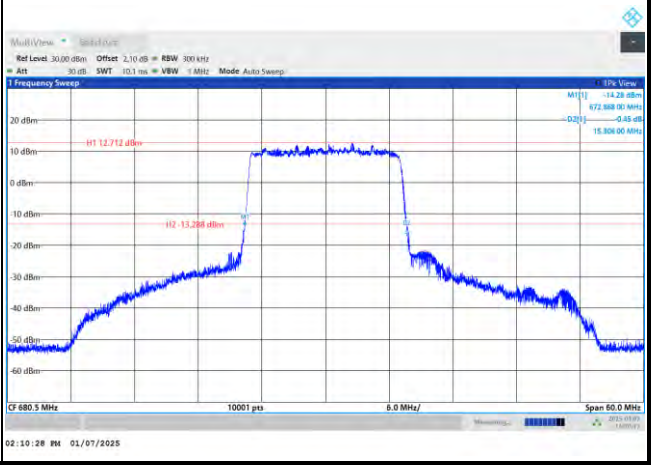
FR1 n71 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

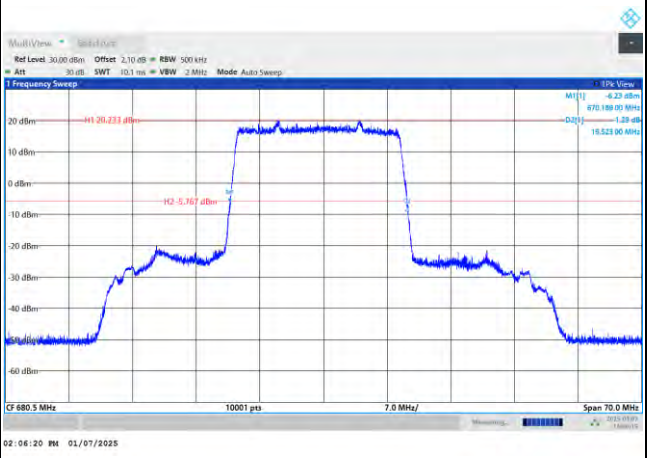
FR1 n71 / 5MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

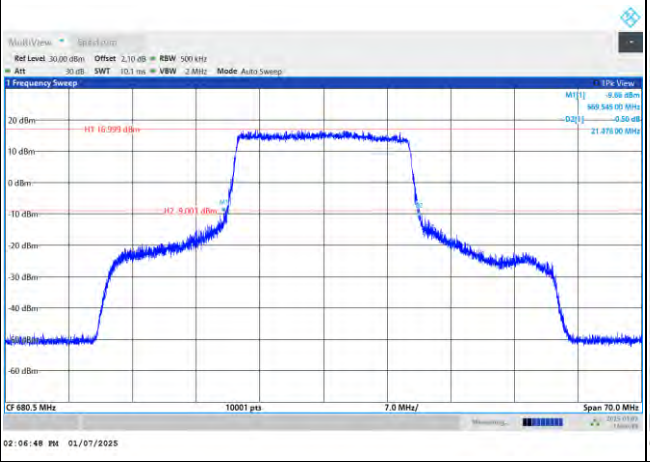
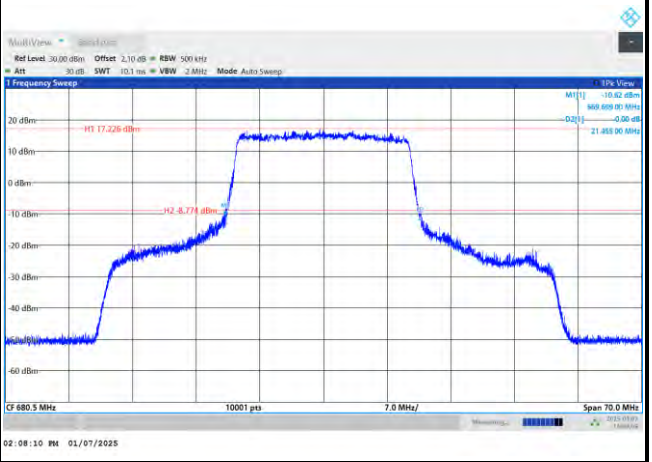
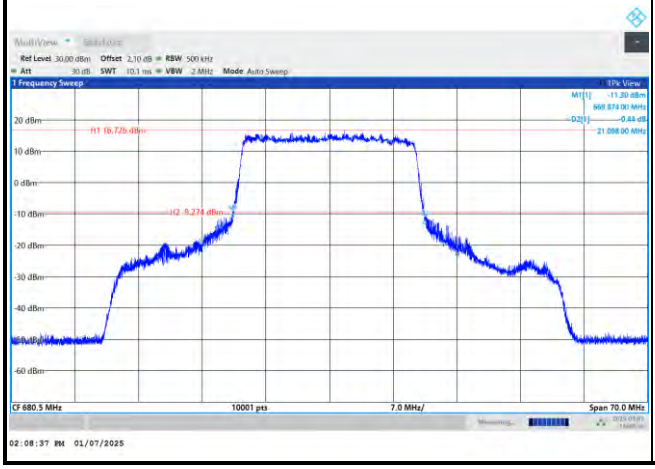
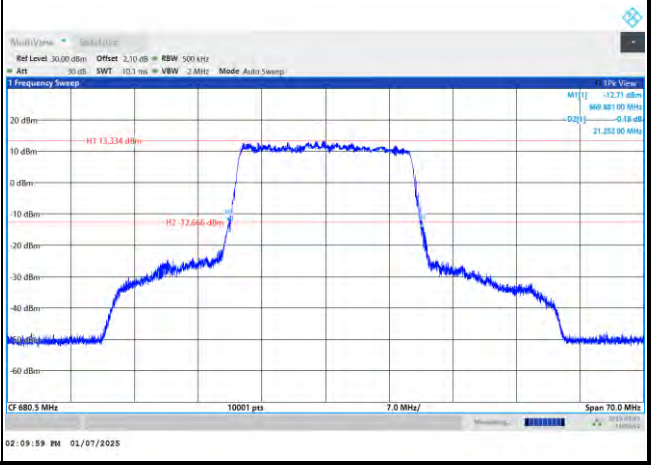
FR1 n71 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n71 / 10MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

FR1 n71 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n71 / 15MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

FR1 n71 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n71 / 20MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

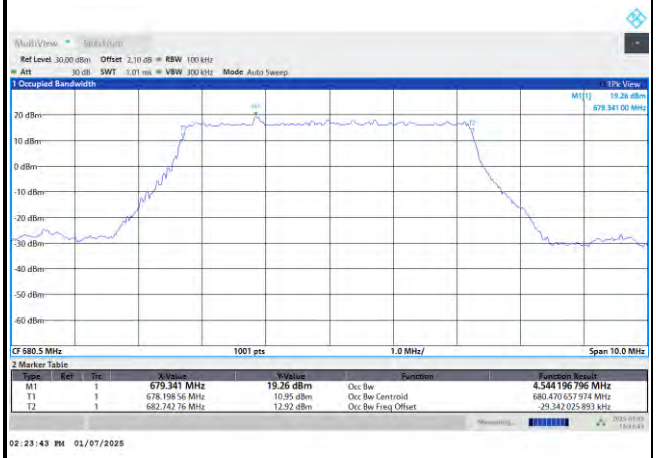
Occupied Bandwidth

Mode	FR1 n71 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.54		8.98		13.48		18.00	

Mode	FR1 n71 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.52	4.51	9.32	9.32	14.14	14.16	19.01	19.04
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.53	4.50	9.36	9.36	14.17	14.18	19.06	19.03

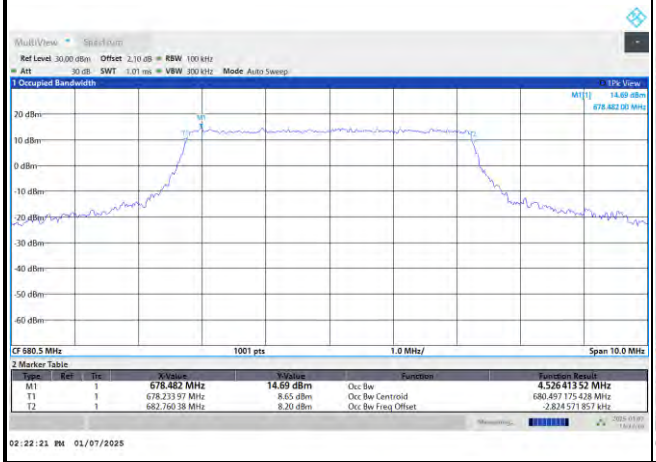
FR1 n71 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

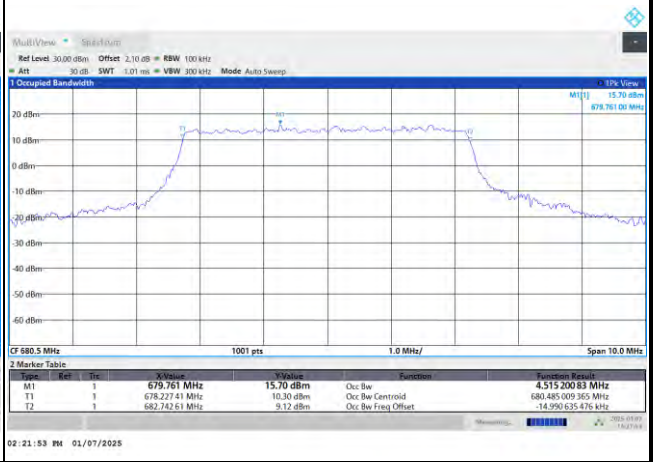


FR1 n71 / 5MHz / CP OFDM / Middle Channel / Full RB

QPSK



16QAM

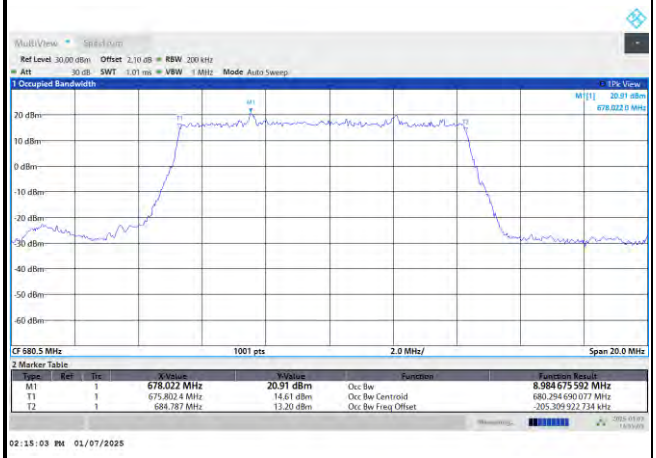


64QAM

256QAM

FR1 n71 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

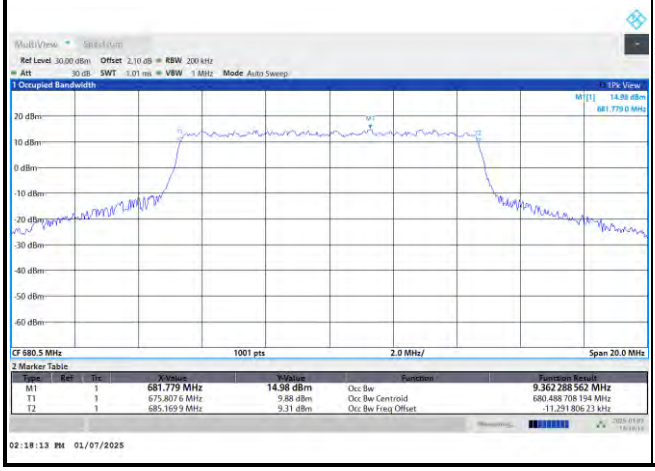


FR1 n71 / 10MHz / CP OFDM / Middle Channel / Full RB

QPSK

16QAM

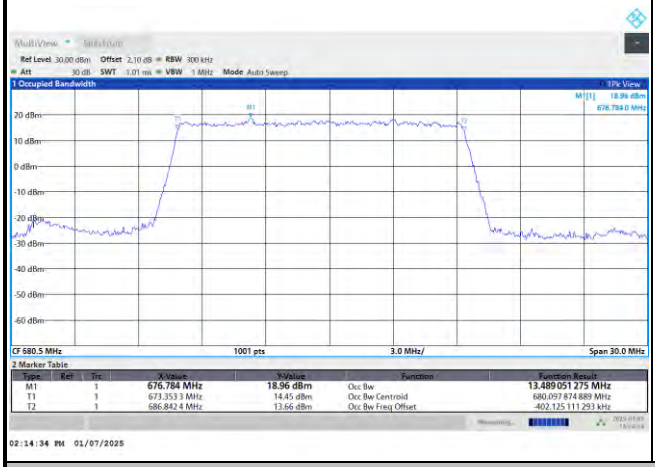
64QAM



256QAM

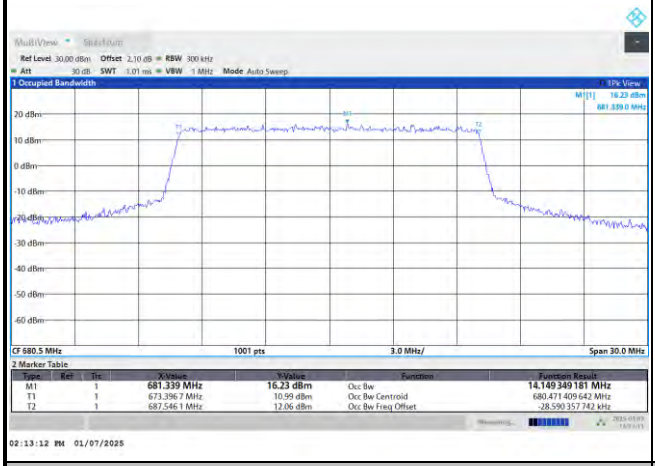
FR1 n71 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

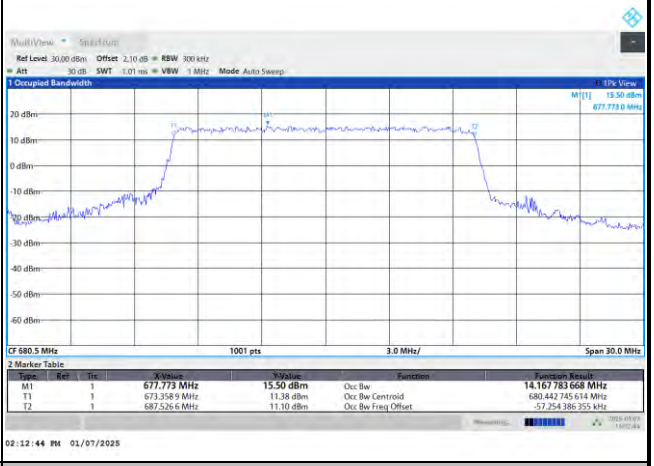


FR1 n71 / 15MHz / CP OFDM / Middle Channel / Full RB

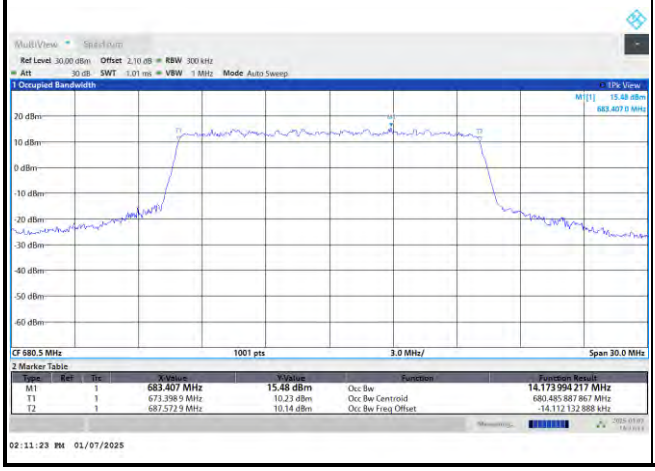
QPSK



16QAM



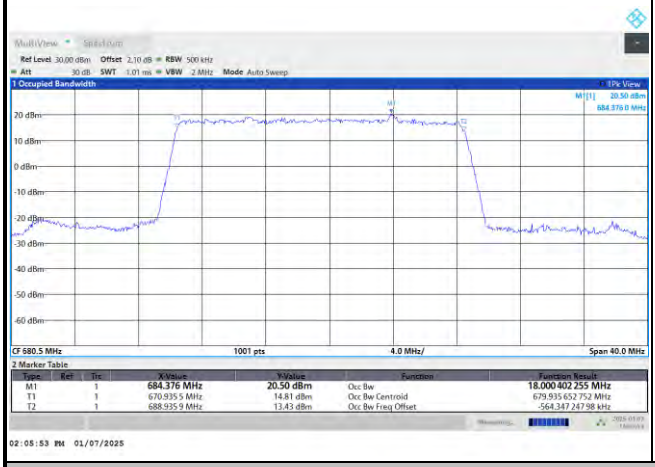
64QAM



256QAM

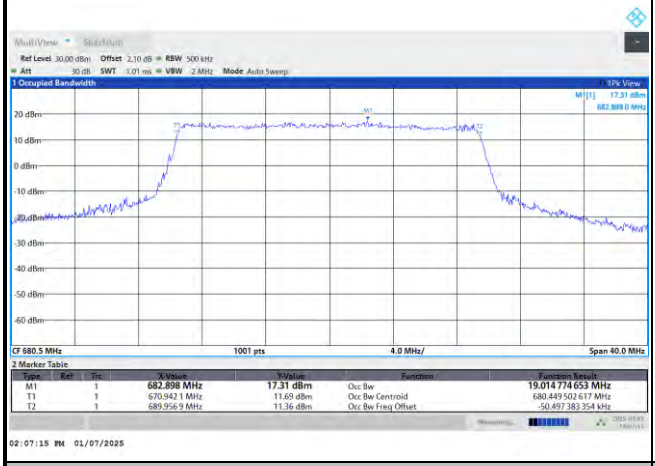
FR1 n71 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

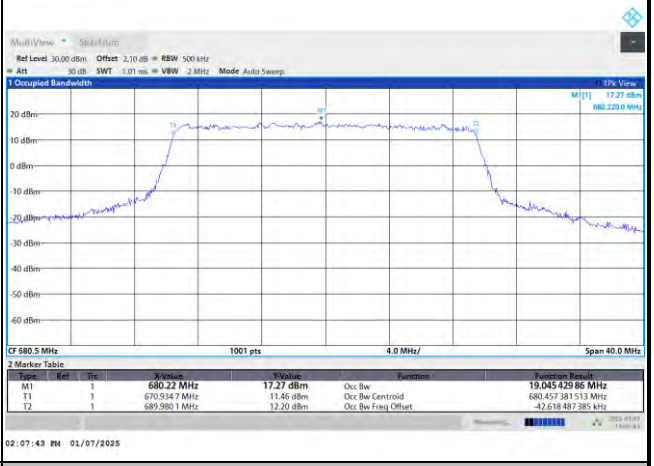


FR1 n71 / 20MHz / CP OFDM / Middle Channel / Full RB

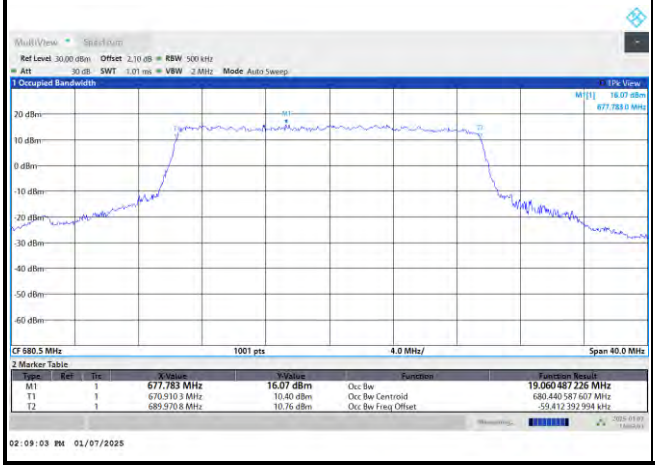
QPSK



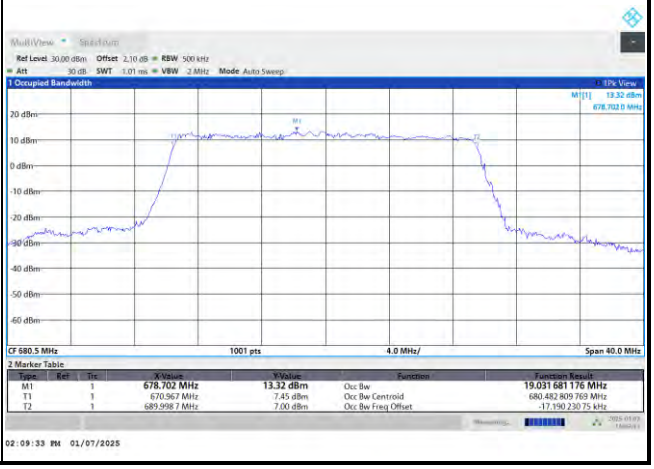
16QAM



64QAM



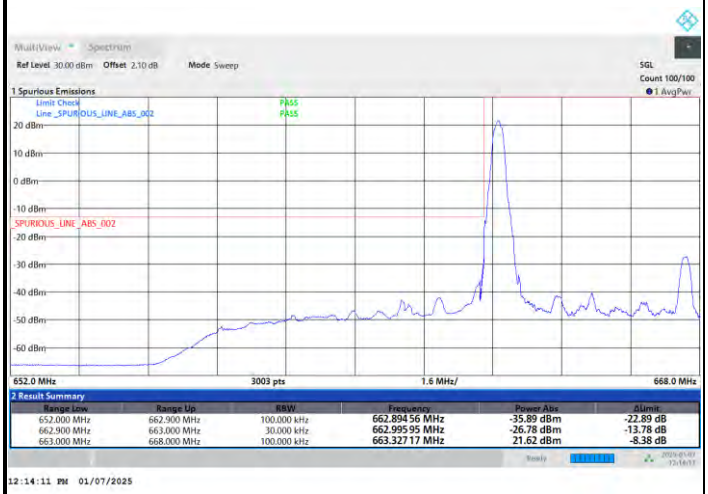
256QAM



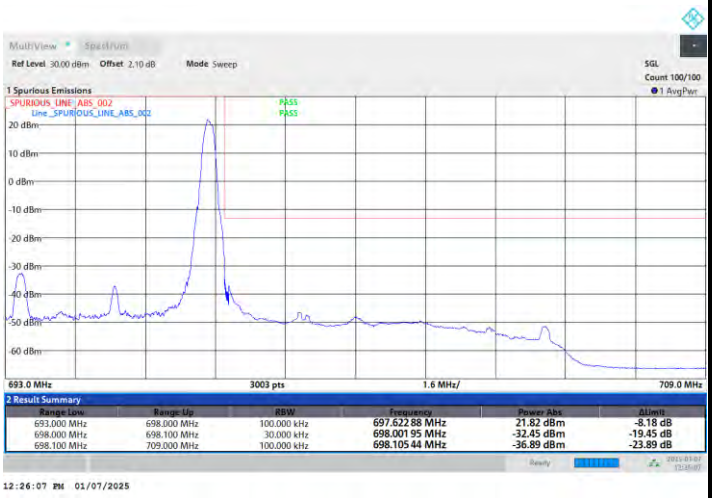
Conducted Band Edge

FR1 n71 / 5MHz / DFT-S OFDM / PI/2 BPSK

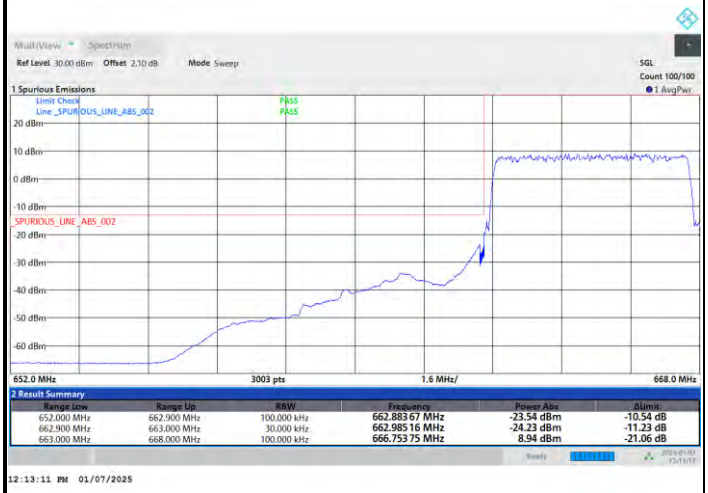
Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax



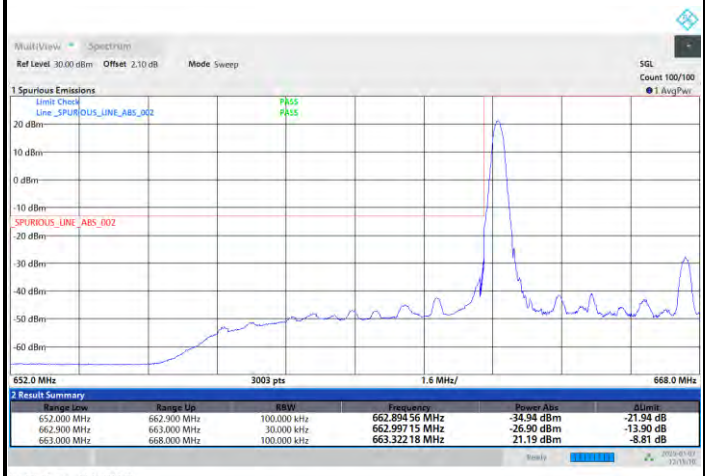
Lowest Band Edge / Full RB



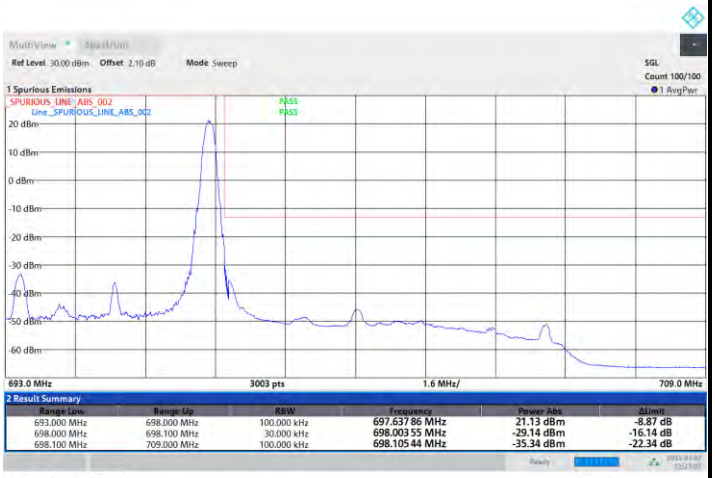
Highest Band Edge / Full RB

FR1 n71 / 5MHz / DFT-S OFDM / QPSK

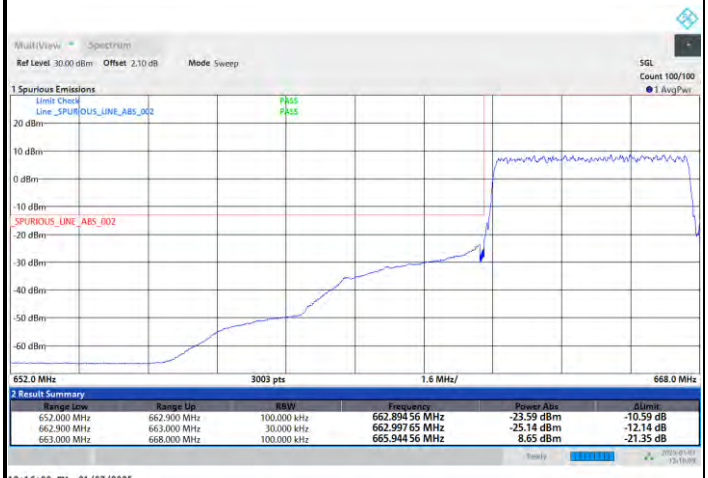
Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax



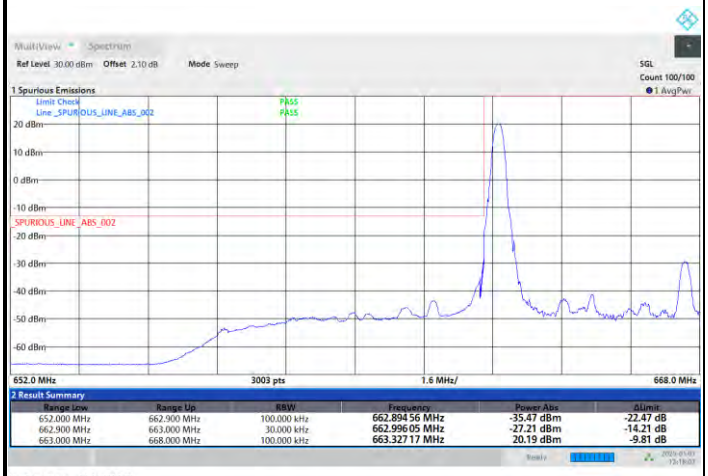
Lowest Band Edge / Full RB



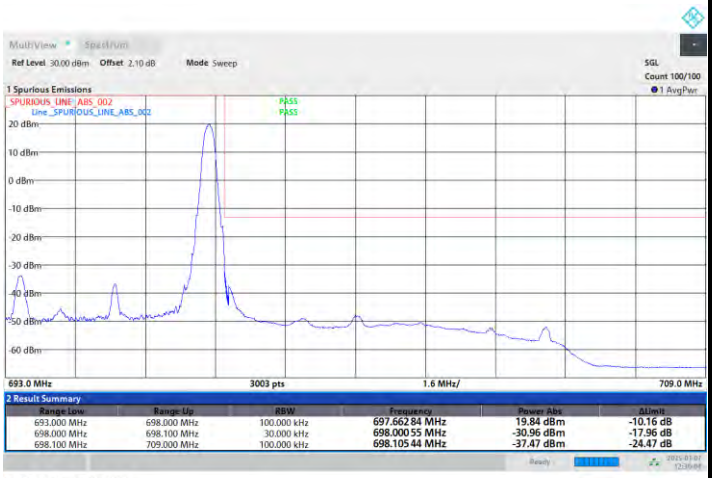
Highest Band Edge / Full RB

FR1 n71 / 5MHz / DFT-S OFDM / 16QAM

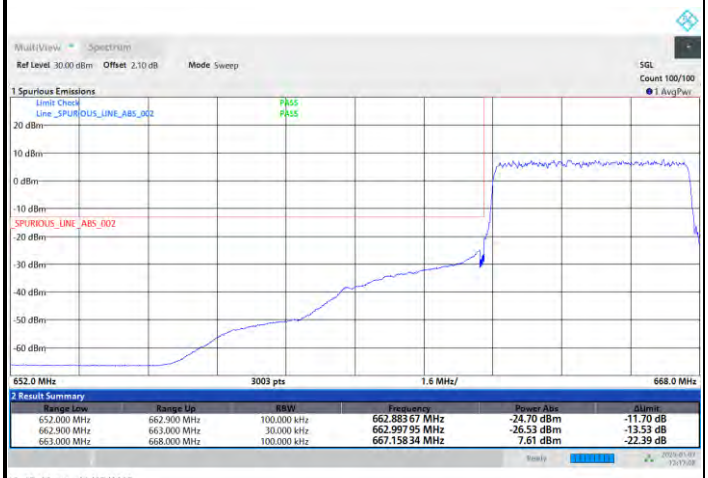
Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax



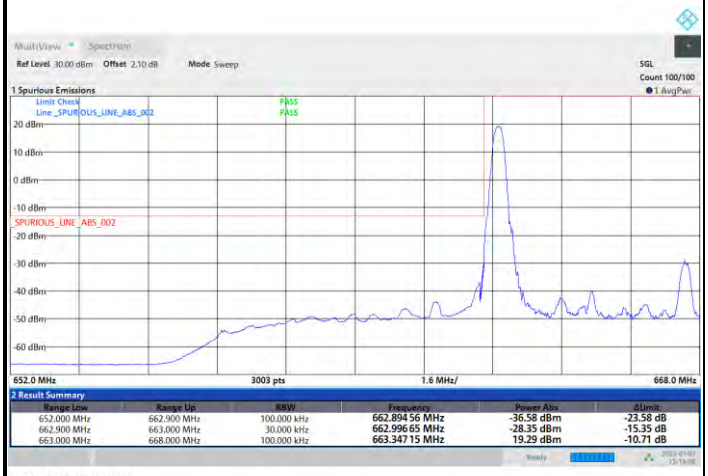
Lowest Band Edge / Full RB



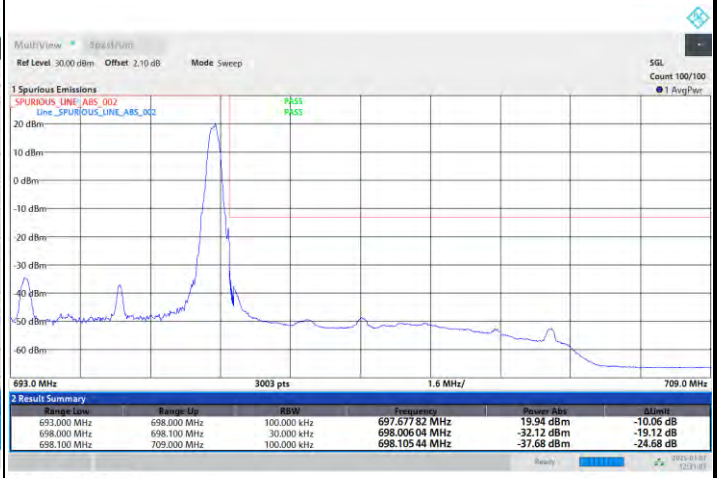
Highest Band Edge / Full RB

FR1 n71 / 5MHz / DFT-S OFDM / 64QAM

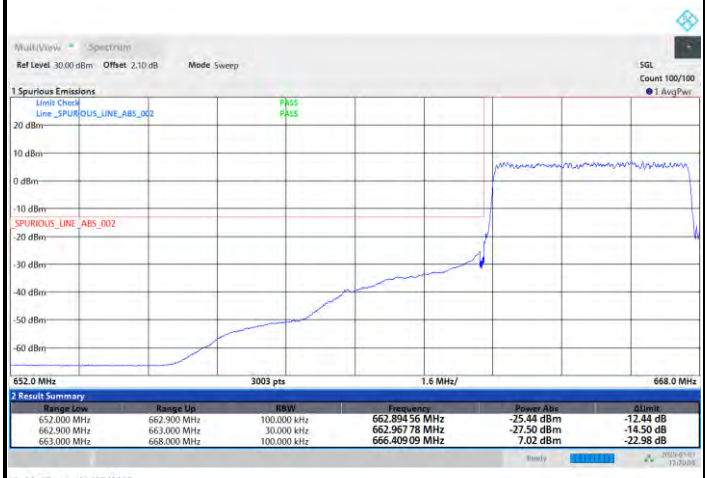
Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax



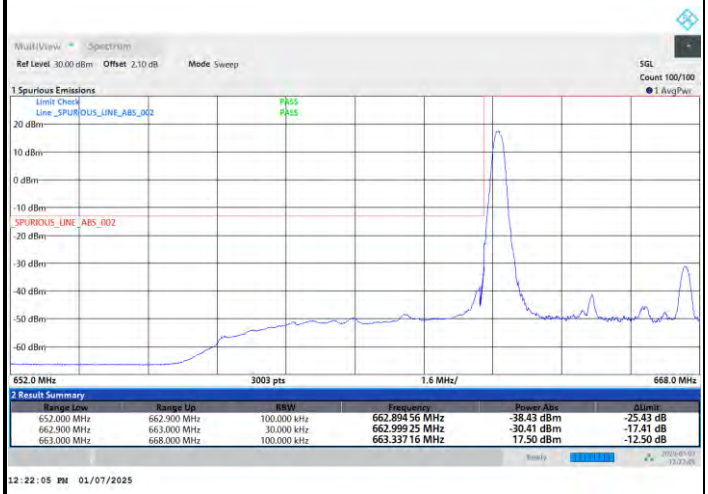
Lowest Band Edge / Full RB



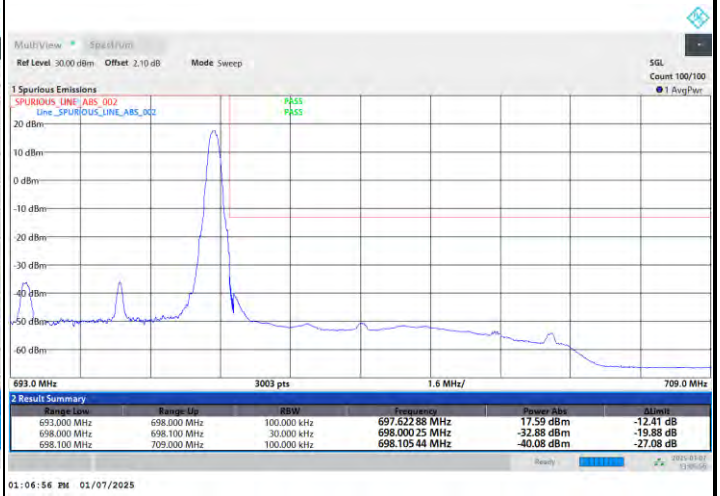
Highest Band Edge / Full RB

FR1 n71 / 5MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax



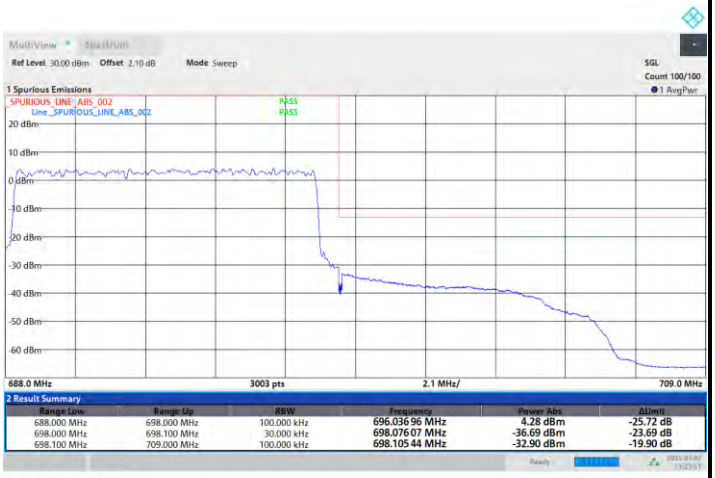
Lowest Band Edge / Full RB

Highest Band Edge / Full RB

FR1 n71 / 5MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

FR1 n71 / 10MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

FR1 n71 / 10MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

FR1 n71 / 10MHz / DFT-s-OFDM / 16QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**
	

FR1 n71 / 10MHz / DFT-s-OFDM / 64QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**

FR1 n71 / 10MHz / DFT-s-OFDM / 256QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**

FR1 n71 / 10MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

FR1 n71 / 15MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

FR1 n71 / 15MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**