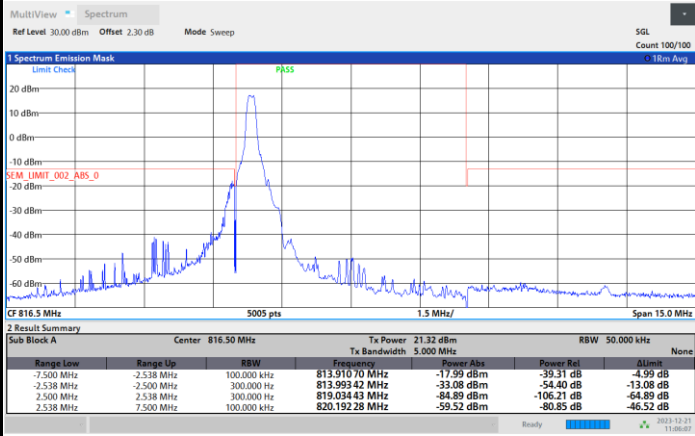


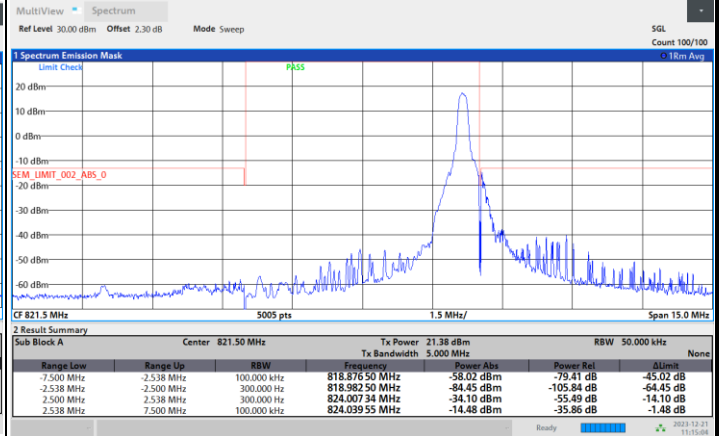


FR1 n26 / 5MHz / DFT-S OFDM / 64QAM

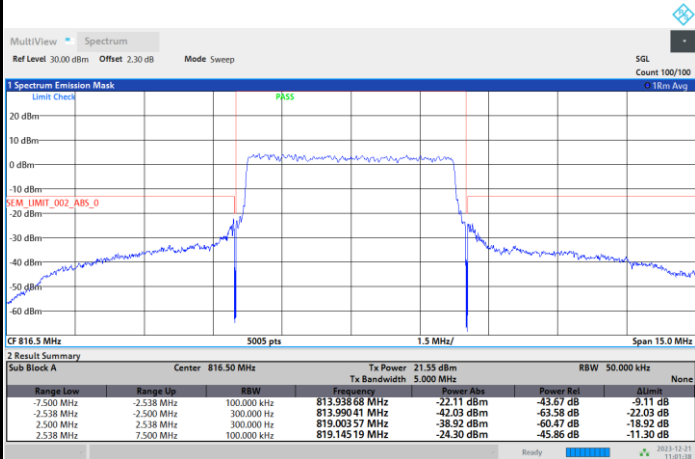
Lowest MASK / 1RB0



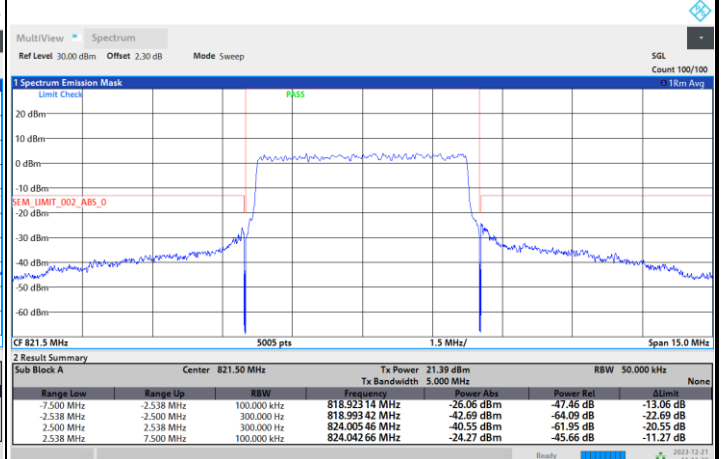
Highest MASK / 1RBmax



Lowest MASK / Full RB



Highest MASK / Full RB

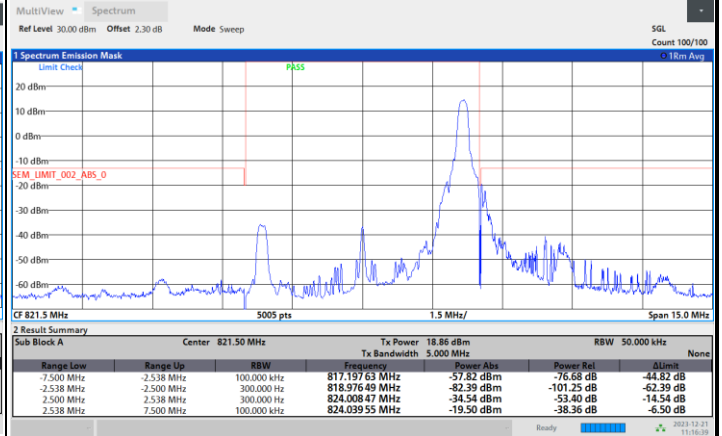
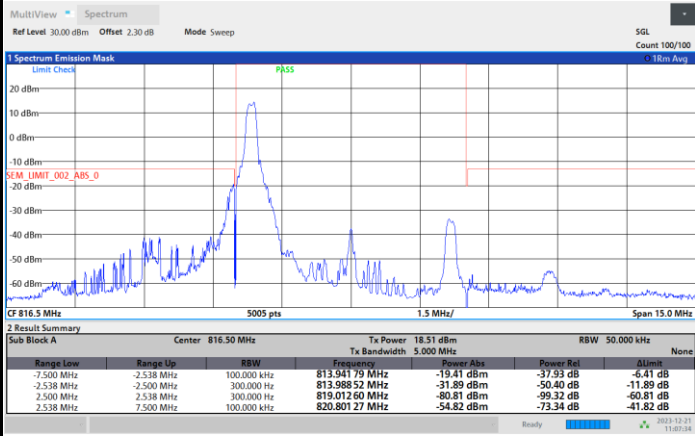




FR1 n26 / 5MHz / DFT-S OFDM / 256QAM

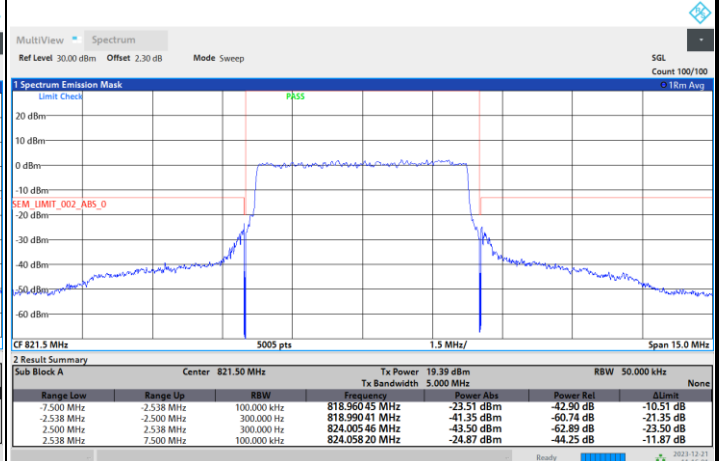
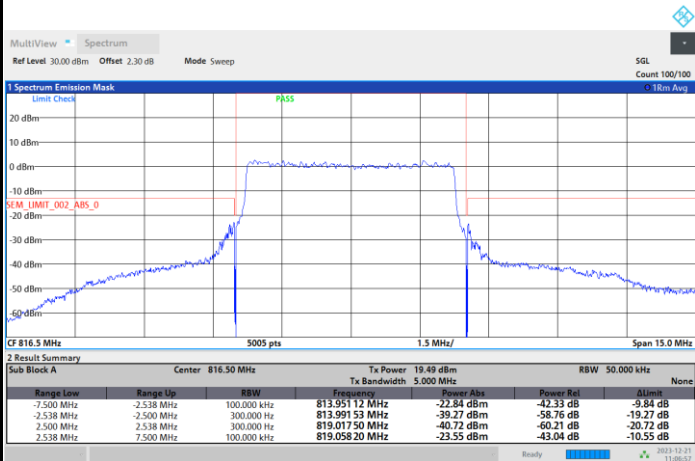
Lowest MASK / 1RB0

Highest MASK / 1RBmax



Lowest MASK / Full RB

Highest MASK / Full RB

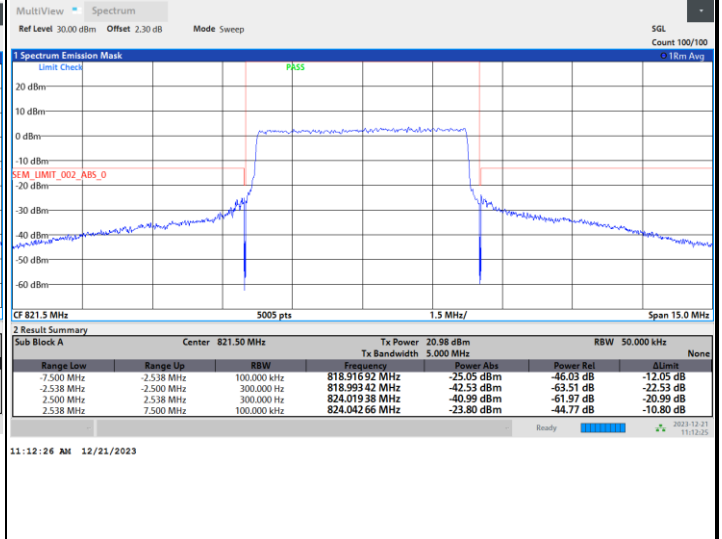
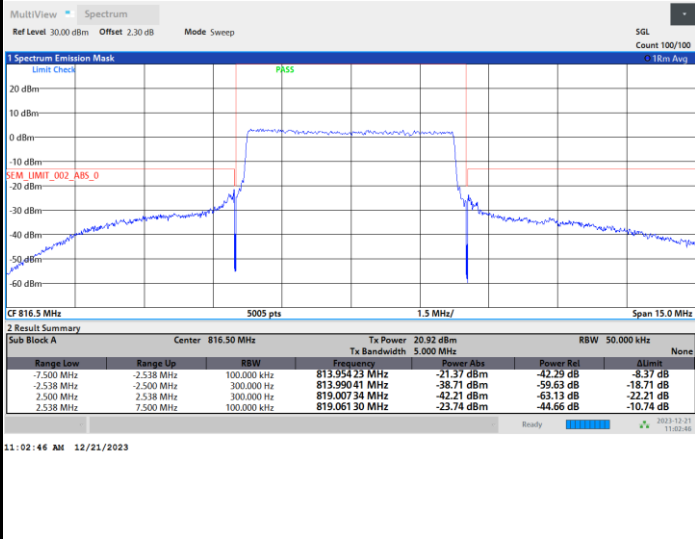




FR1 n26 / 5MHz / CP OFDM / QPSK / Full RB

Lowest MASK

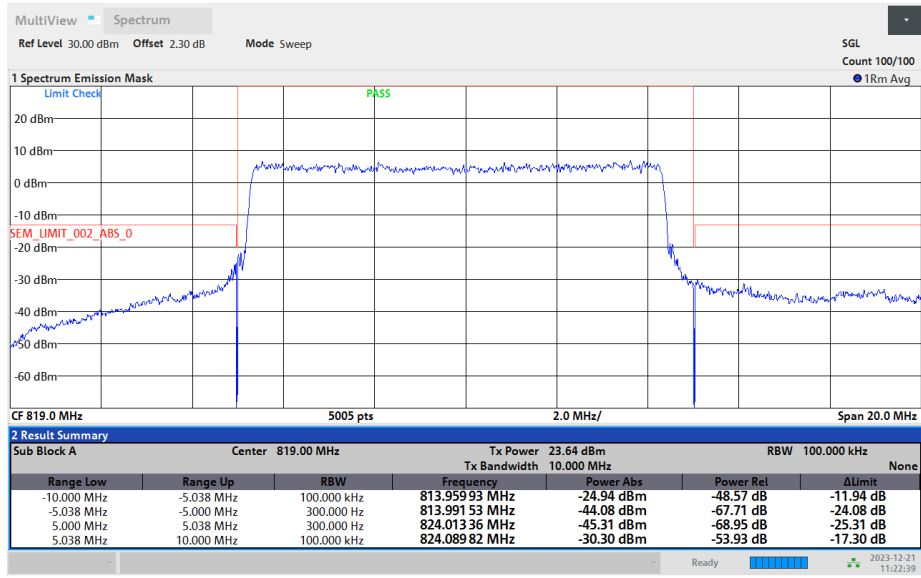
Highest MASK





FR1 n26 / 10MHz / DFT-s-OFDM / PI/2 BPSK

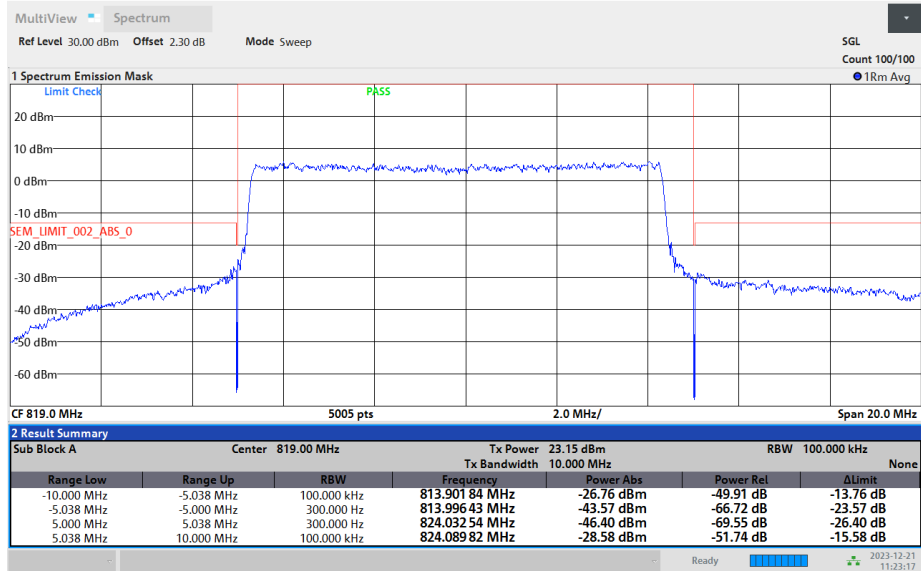
Middle MASK / Full RB



11:22:40 AM 12/21/2023

FR1 n26 / 10MHz / DFT-s-OFDM / QPSK

Lowest MASK / Full RB

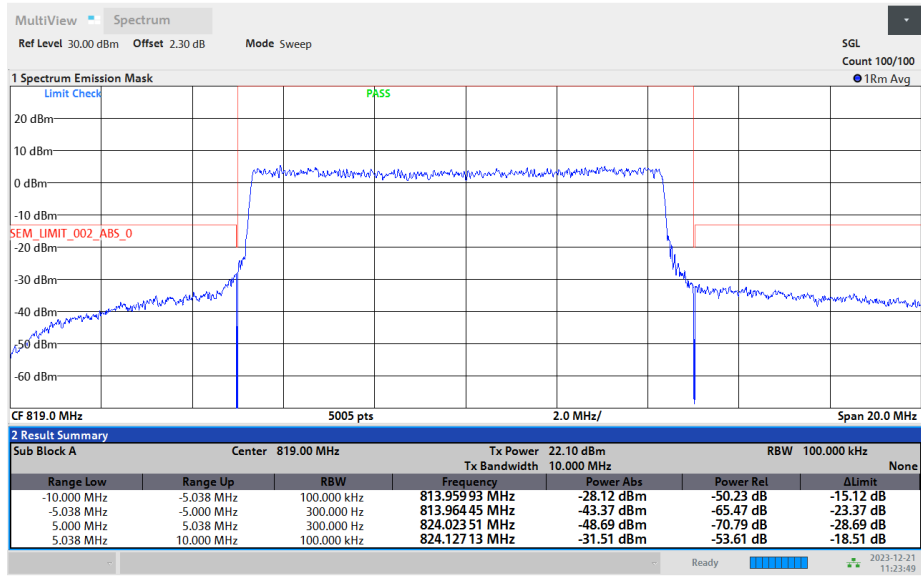


11:23:18 AM 12/21/2023



FR1 n26 / 10MHz / DFT-s-OFDM / 16QAM

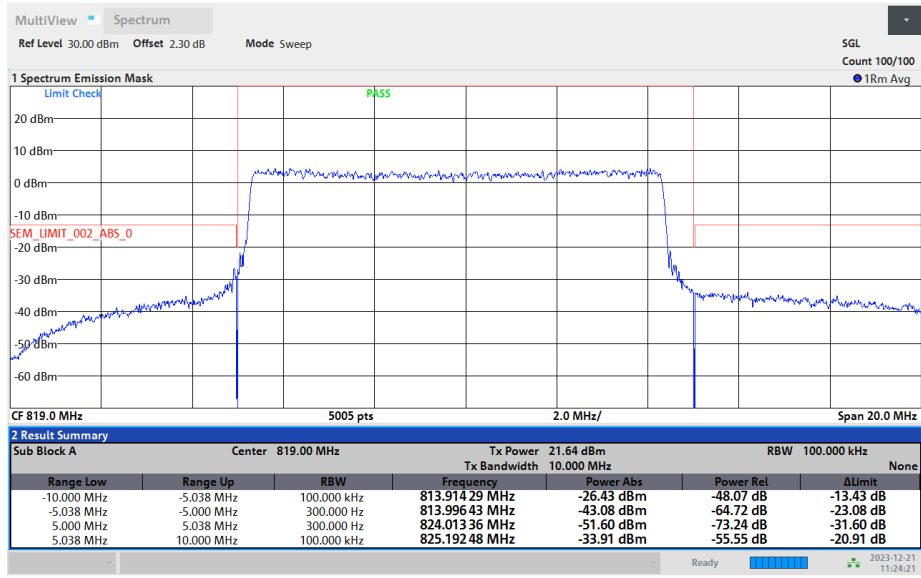
Middle MASK / Full RB



11:23:50 AM 12/21/2023

FR1 n26 / 10MHz / DFT-s-OFDM / 64QAM

Middle MASK / Full RB

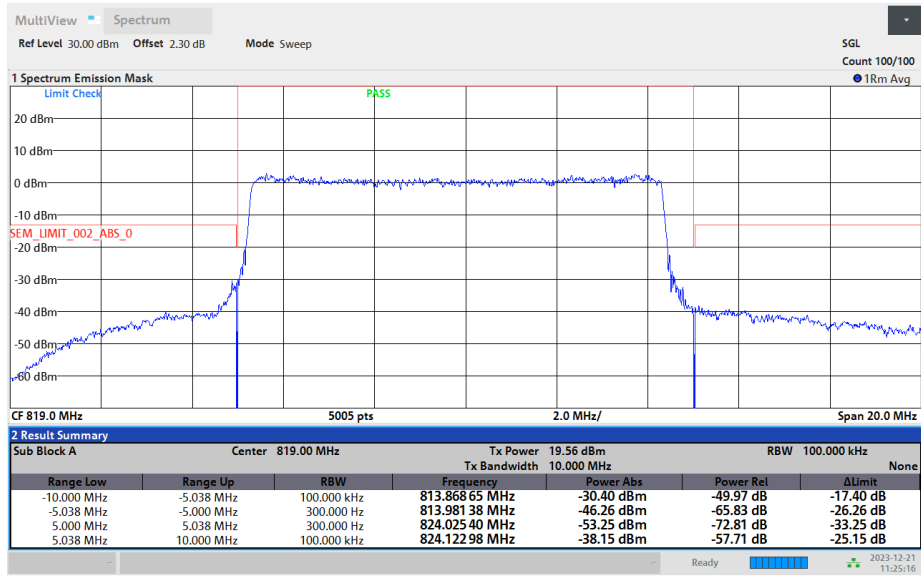


11:24:22 AM 12/21/2023



FR1 n26 / 10MHz / DFT-s-OFDM / 256QAM

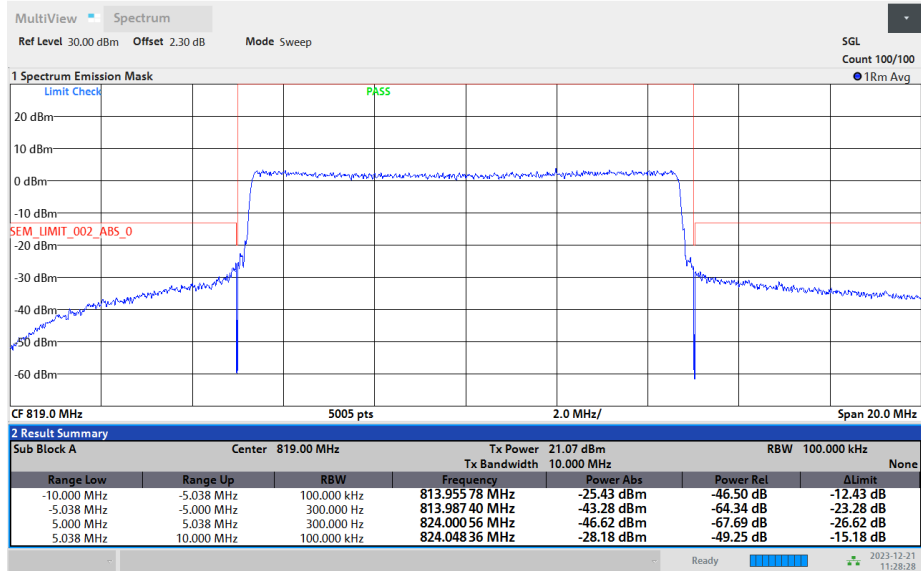
Middle MASK / Full RB



11:25:17 AM 12/21/2023

FR1 n26 / 10MHz / CP OFDM / QPSK / Full RB

Middle MASK



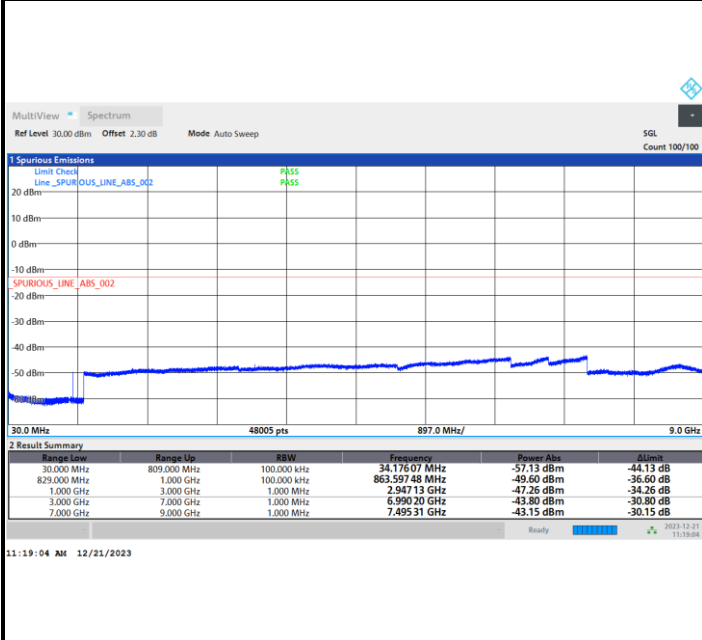
11:28:28 AM 12/21/2023



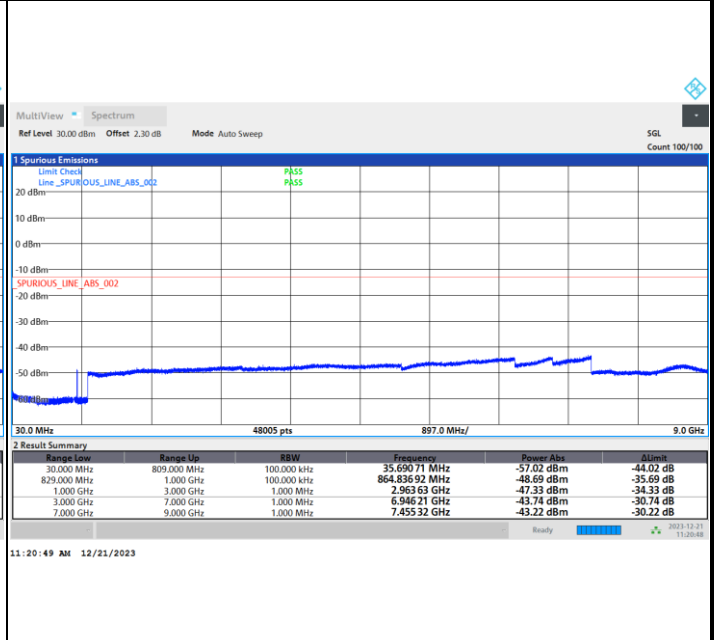
# Emission masks – Out of band emissions

FR1 n26 / 5MHz / DFT-S OFDM / QPSK / 1RB1

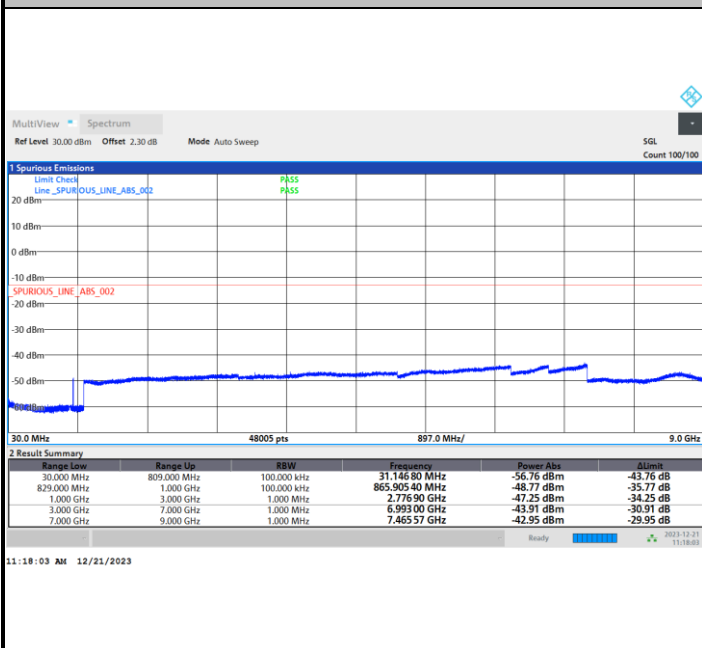
## Lowest Channel



## Middle Channel



## Highest Channel





### Frequency Stability

Test Conditions		FR1 n26 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0014	PASS
40	Normal Voltage	0.0044	
30	Normal Voltage	0.0055	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0078	
0	Normal Voltage	0.0127	
-10	Normal Voltage	0.0131	
-20	Normal Voltage	0.0069	
-30	Normal Voltage	0.0127	
20	Maximum Voltage	0.0113	
20	Normal Voltage	0.0136	
20	Battery End Point	0.0021	

**Note:**

- 1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.2 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.





# FR1 n26 Part90s Straddle Channel

## Peak-to-Average Ratio

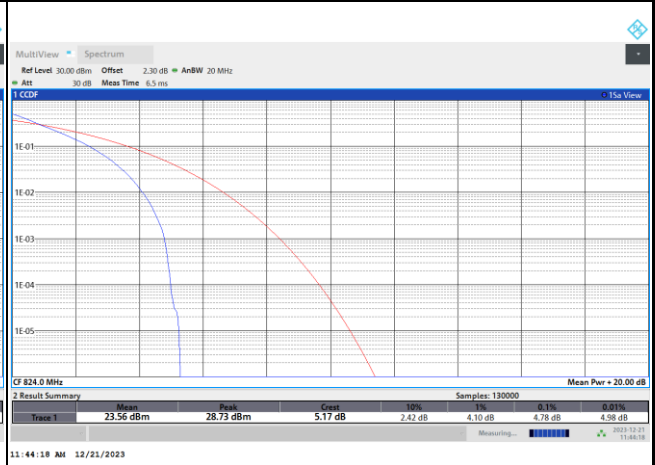
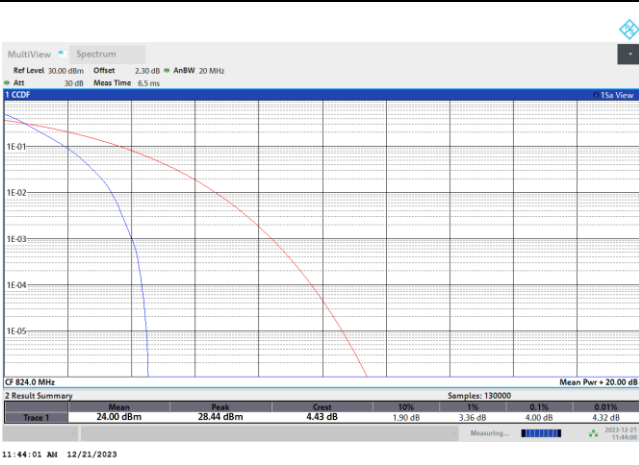
Mode	FR1 n26 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.00	4.78	5.64	5.98	PASS
Mode	FR1 n26 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.70				PASS



FR1 n26 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

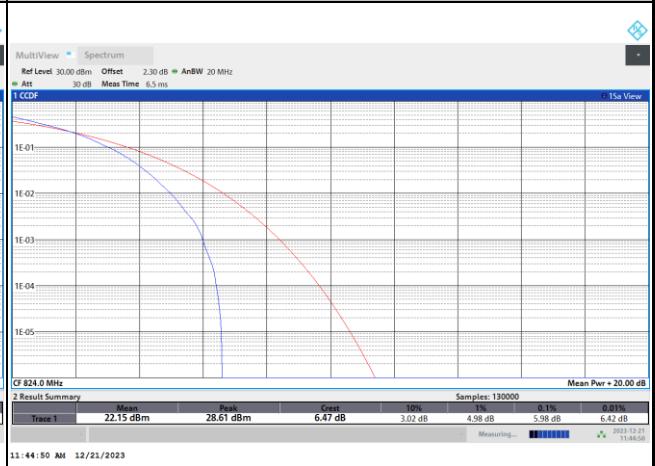
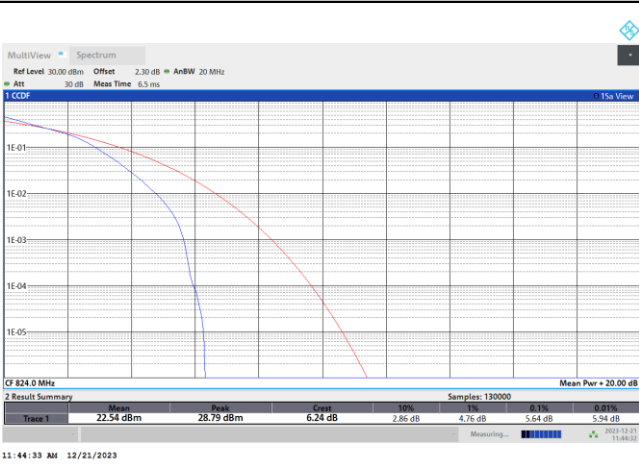
PI/2 BPSK

QPSK

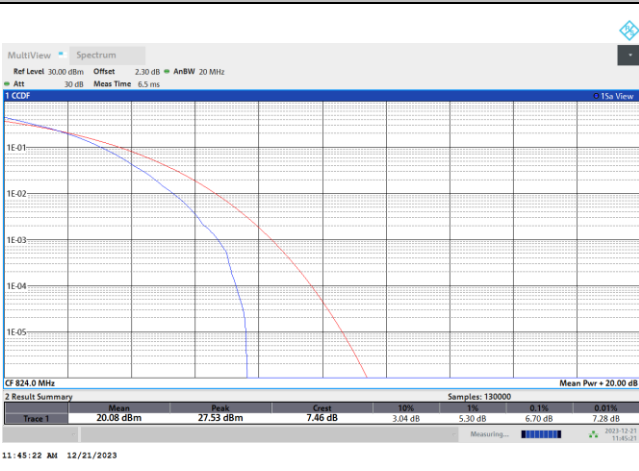


16QAM

64QAM



256QAM





**26dB Bandwidth**

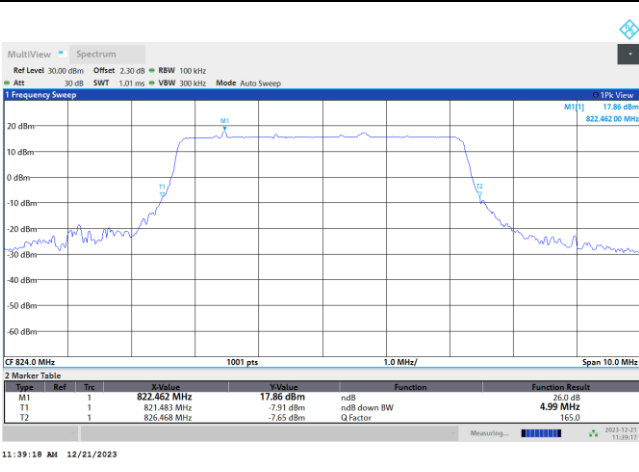
Mode	FR1 n26 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.99		9.71		14.54		19.34	

Mode	FR1 n26 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	5.24	5.21	10.27	10.21	15.20	15.31	20.38	20.42
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	5.13	5.13	10.15	10.17	15.04	15.29	20.42	20.38



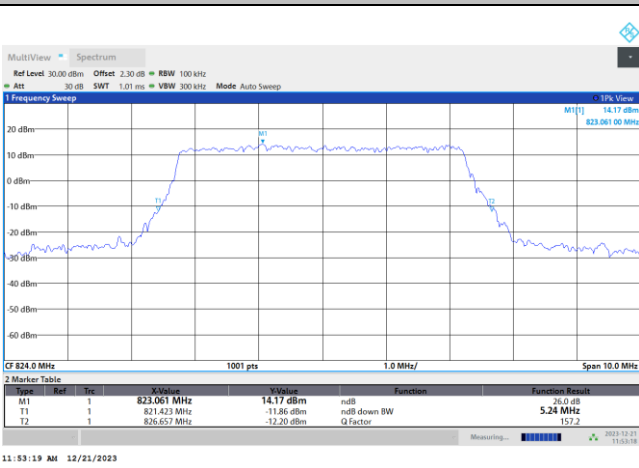
FR1 n26 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

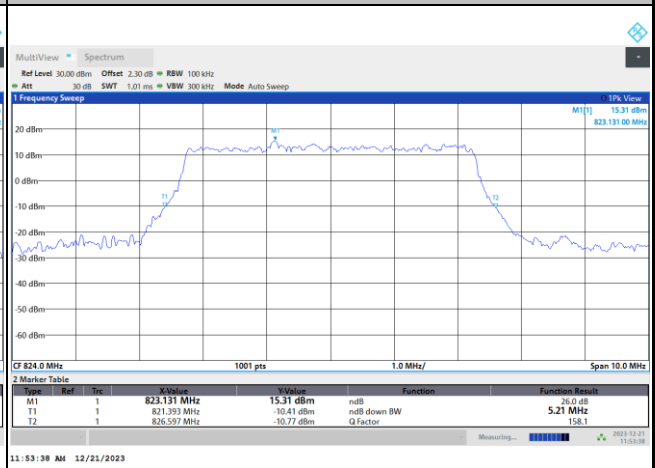


FR1 n26 / 5MHz / CP OFDM / Middle Channel / Full RB

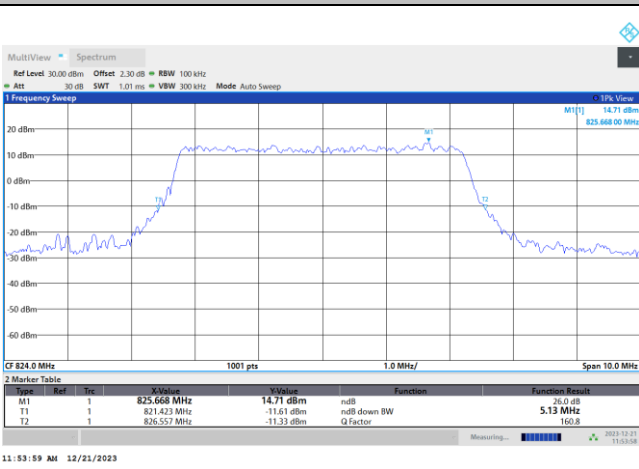
QPSK



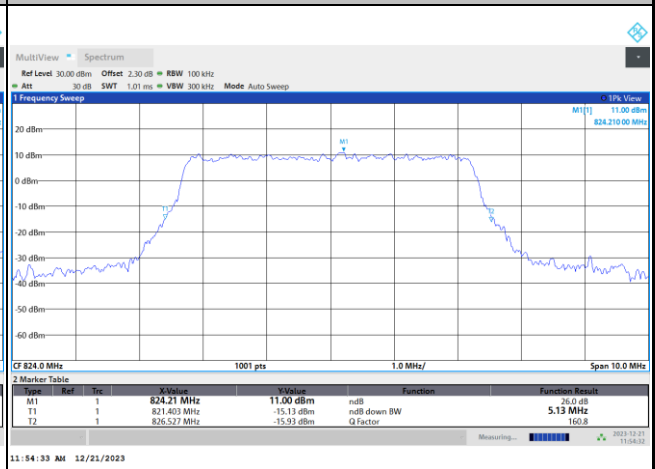
16QAM



64QAM



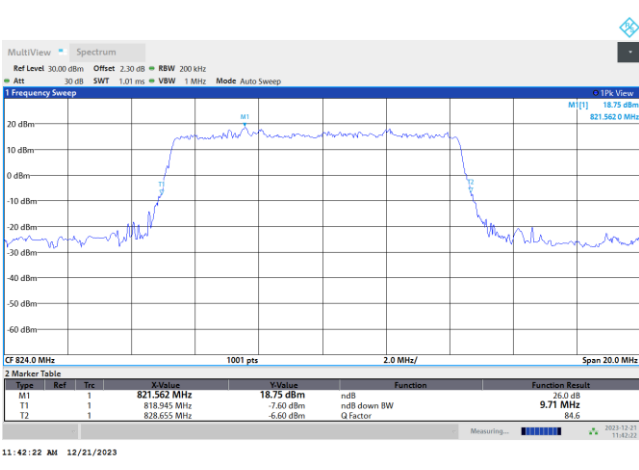
256QAM





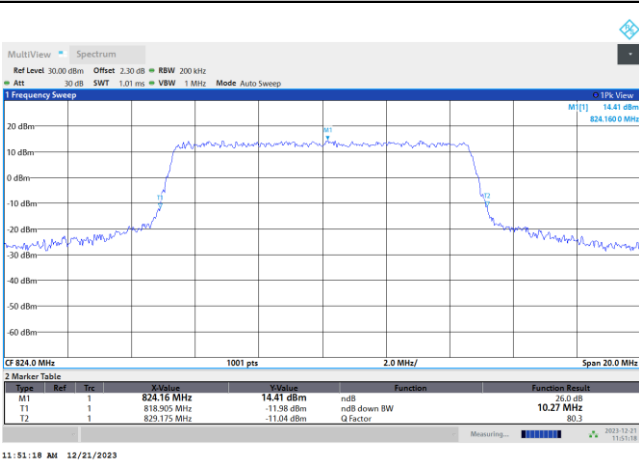
FR1 n26 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

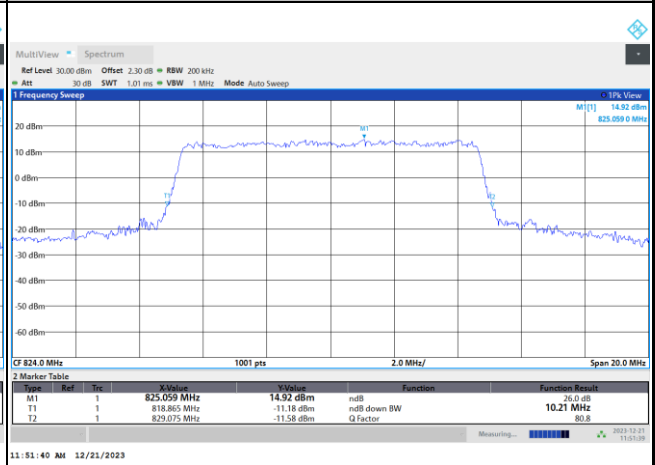


FR1 n26 / 10MHz / CP OFDM / Middle Channel / Full RB

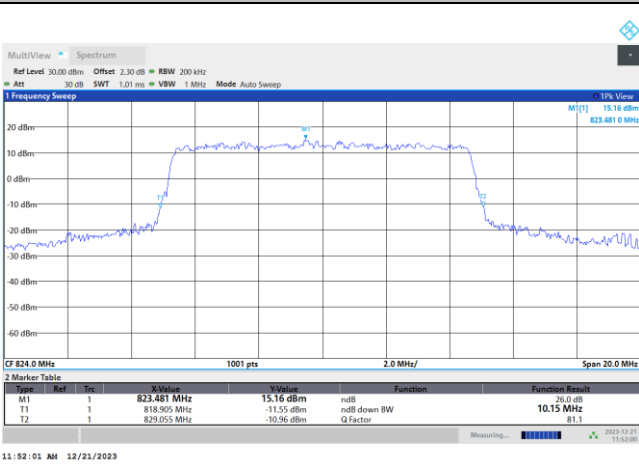
QPSK



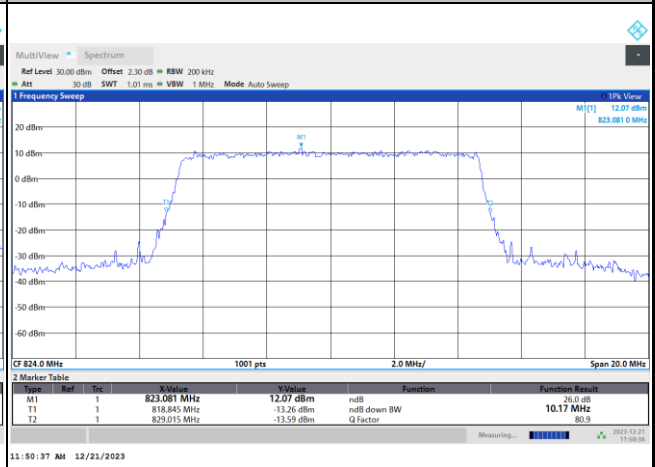
16QAM



64QAM



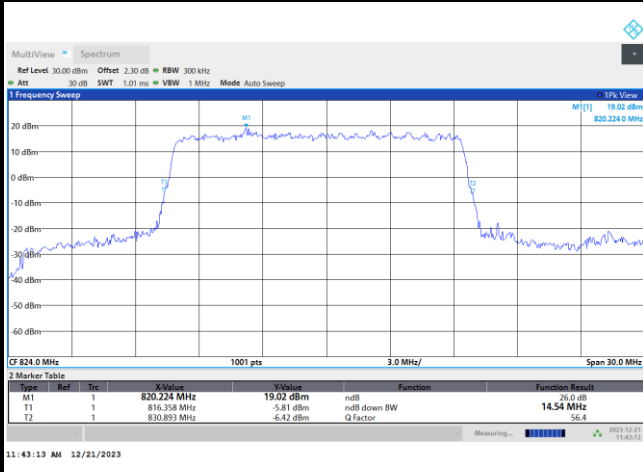
256QAM





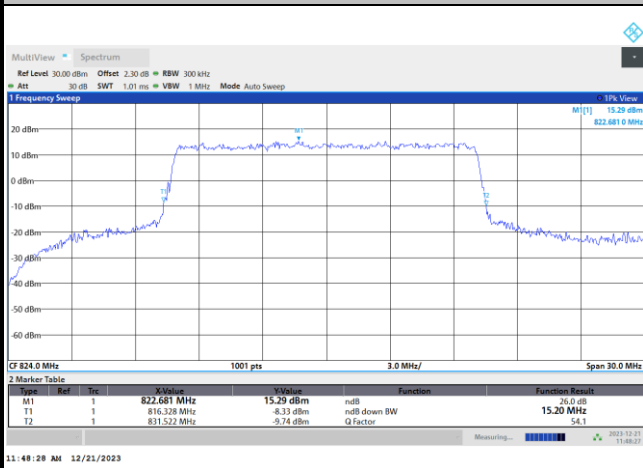
FR1 n26 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

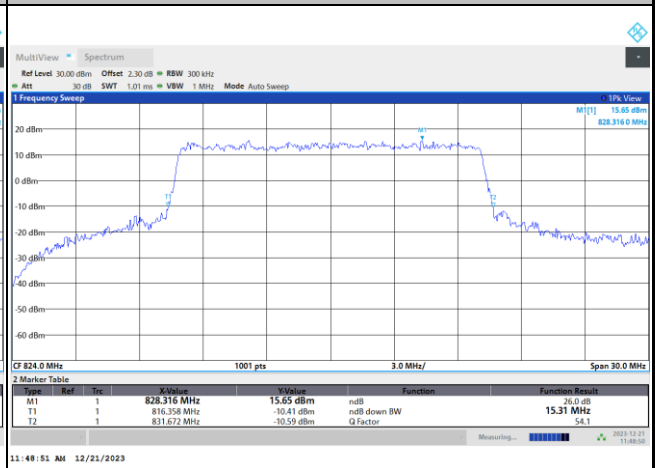


FR1 n26 / 15MHz / CP OFDM / Middle Channel / Full RB

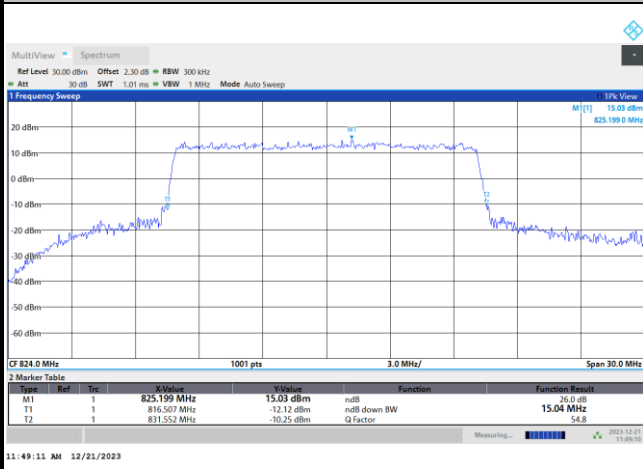
QPSK



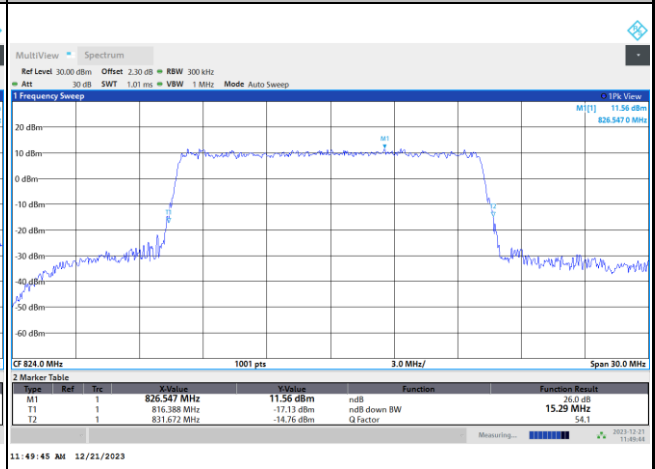
16QAM



64QAM



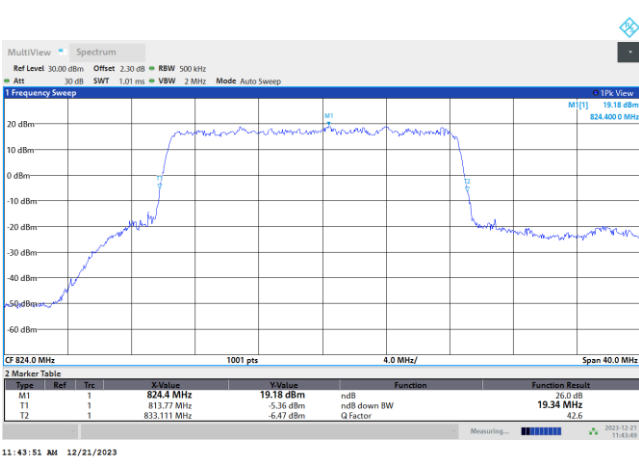
256QAM





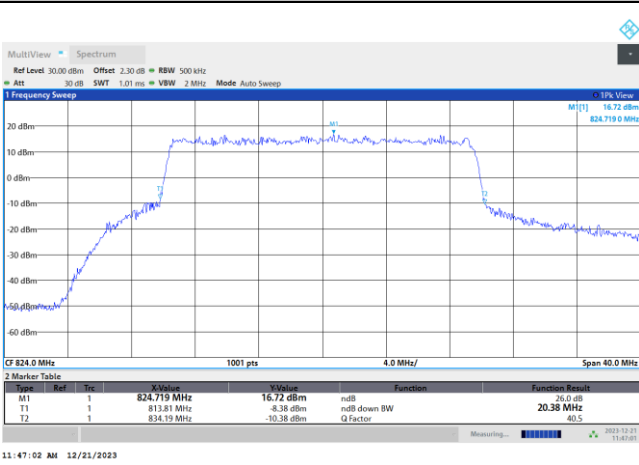
FR1 n26 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

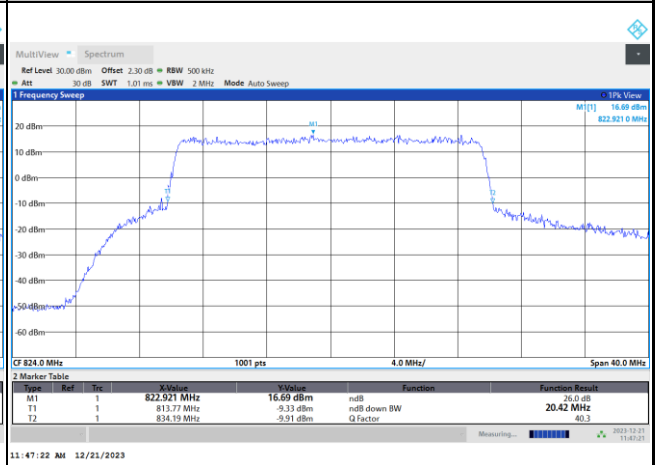


FR1 n26 / 20MHz / CP OFDM / Middle Channel / Full RB

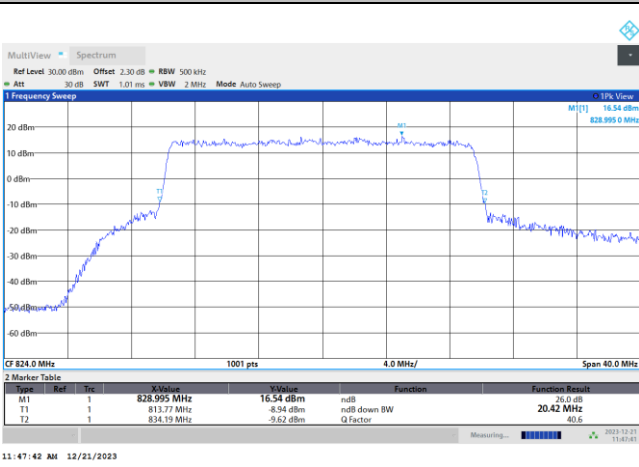
QPSK



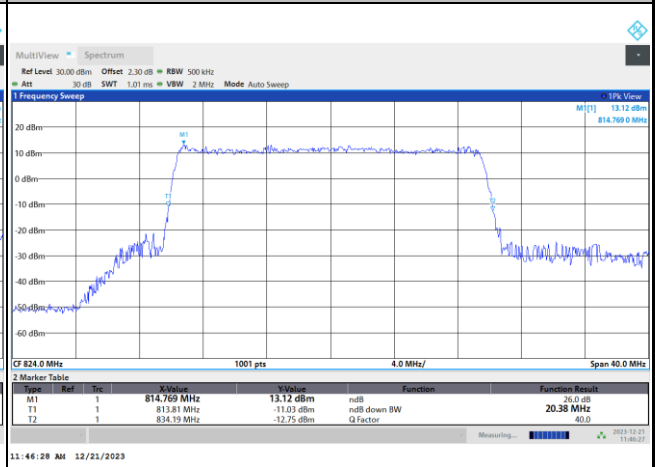
16QAM



64QAM



256QAM





**Occupied Bandwidth**

Mode	FR1 n26 : 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	4.47		8.96		13.45		18.01	

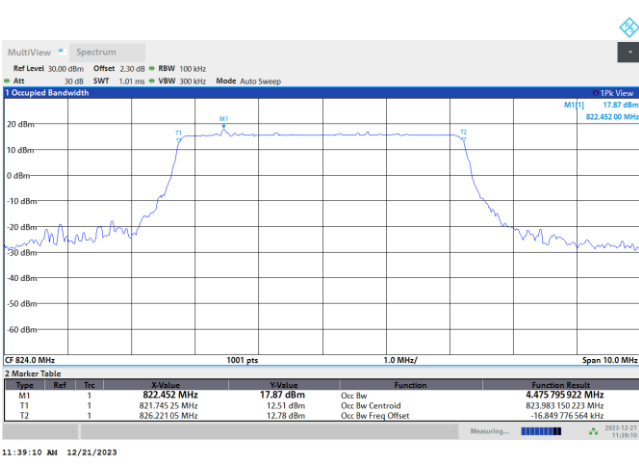
Mode	FR1 n26 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.50	4.54	9.33	9.32	14.15	14.18	19.05	19.08
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.50	4.51	9.29	9.33	14.16	14.14	19.03	19.06





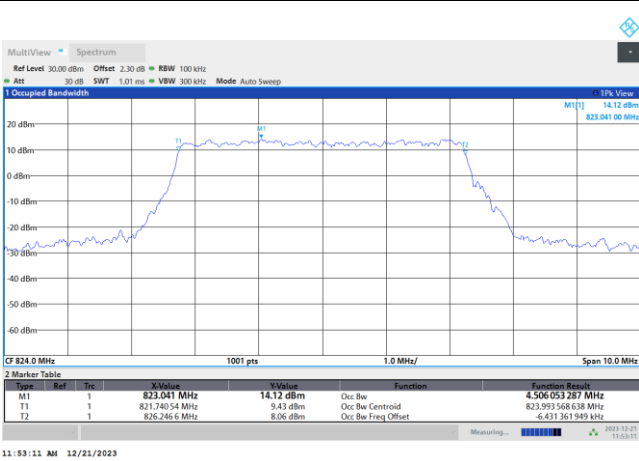
FR1 n26 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

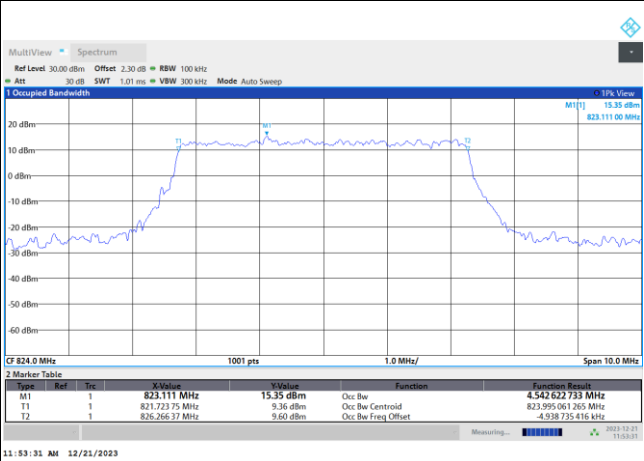


FR1 n26 / 5MHz / CP OFDM / Middle Channel / Full RB

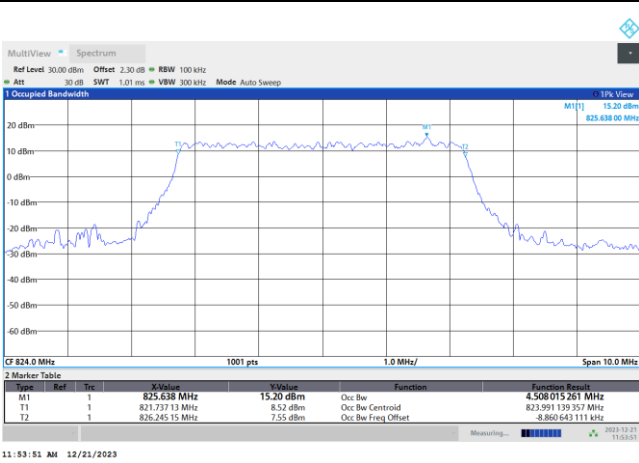
QPSK



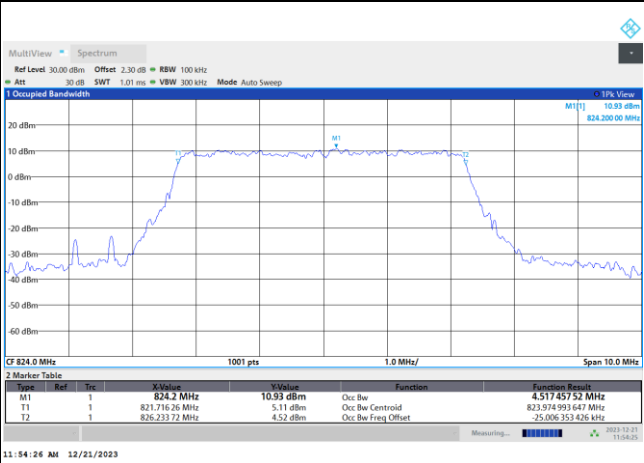
16QAM



64QAM



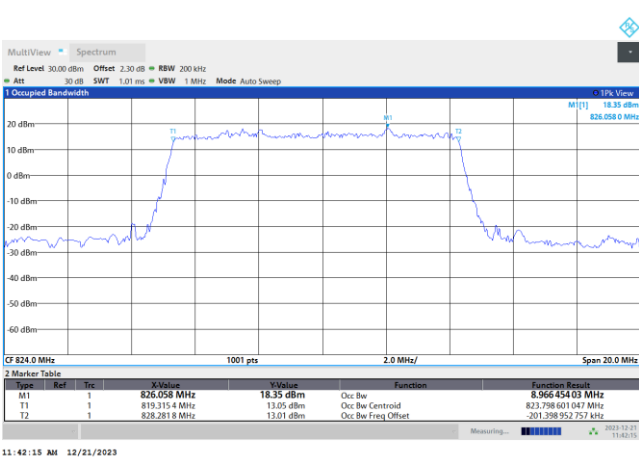
256QAM





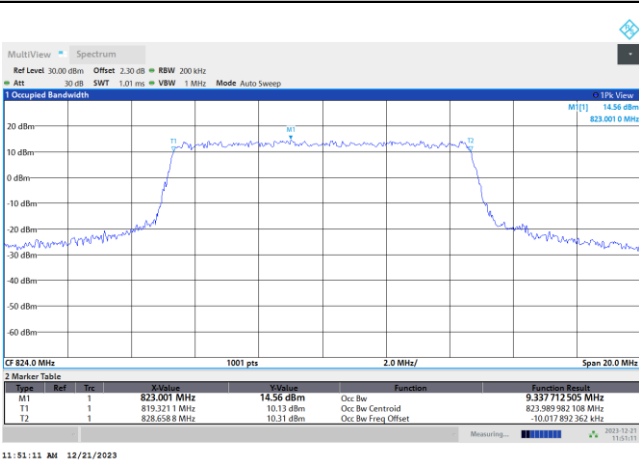
FR1 n26 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

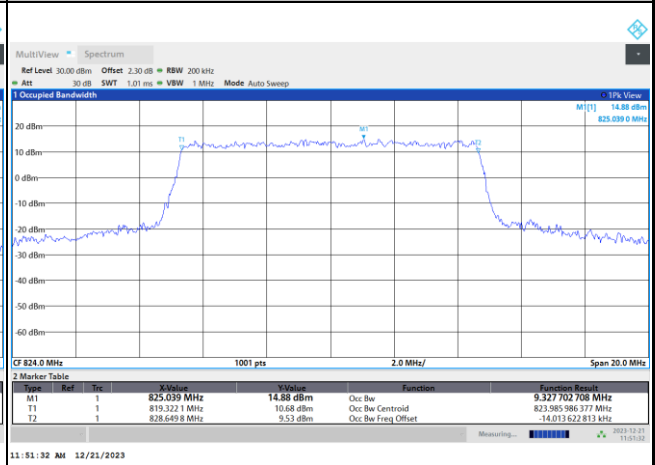


FR1 n26 / 10MHz / CP OFDM / Middle Channel / Full RB

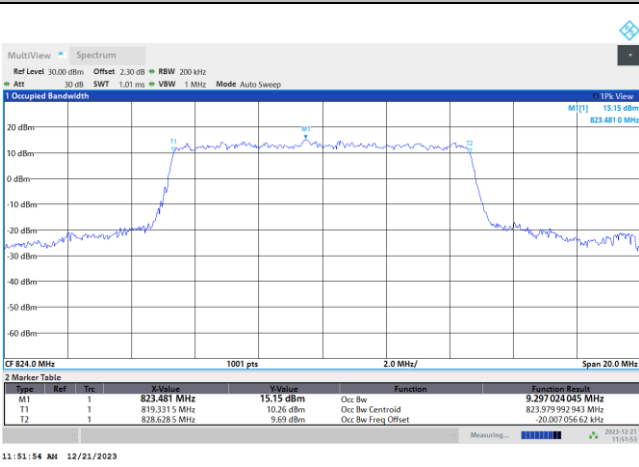
QPSK



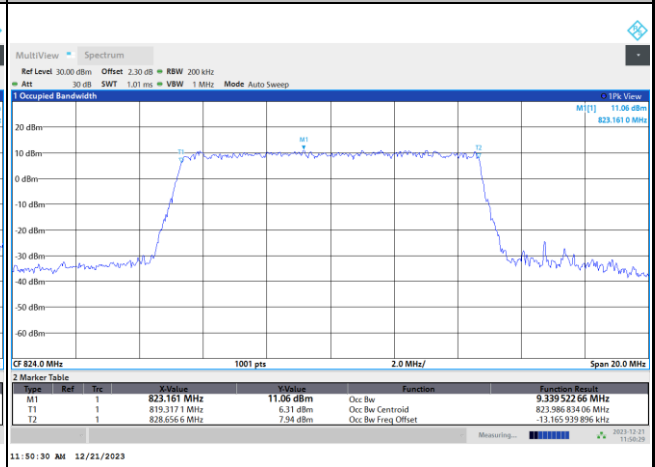
16QAM



64QAM



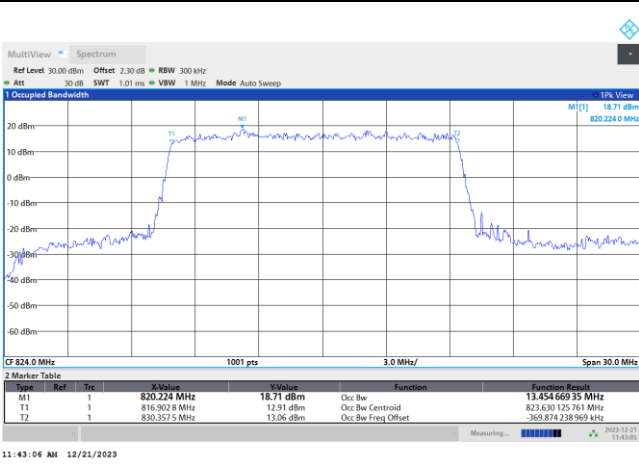
256QAM





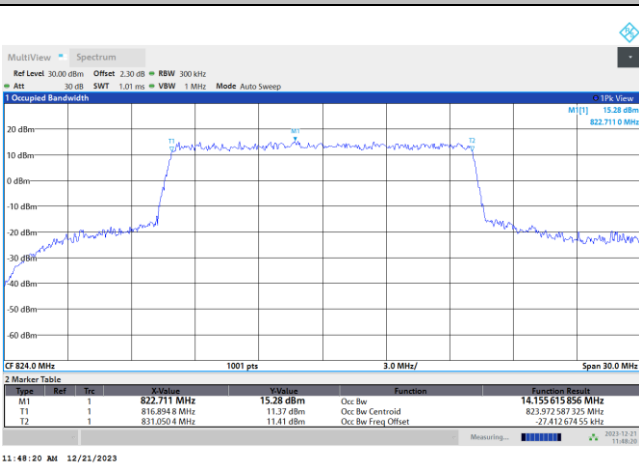
FR1 n26 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

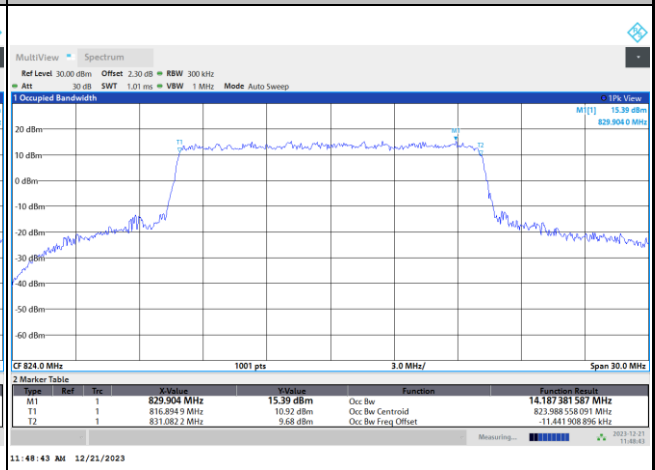


FR1 n26 / 15MHz / CP OFDM / Middle Channel / Full RB

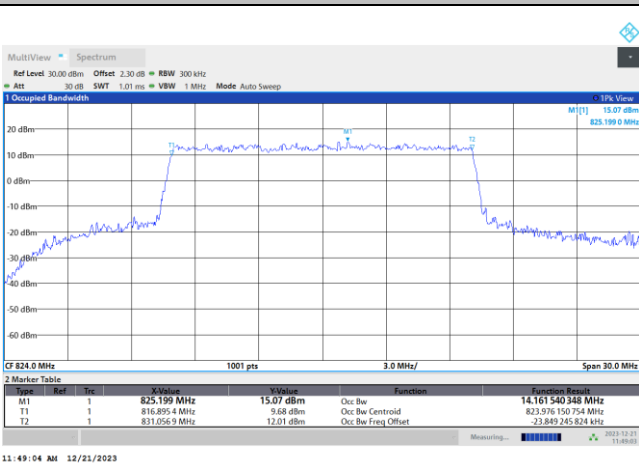
QPSK



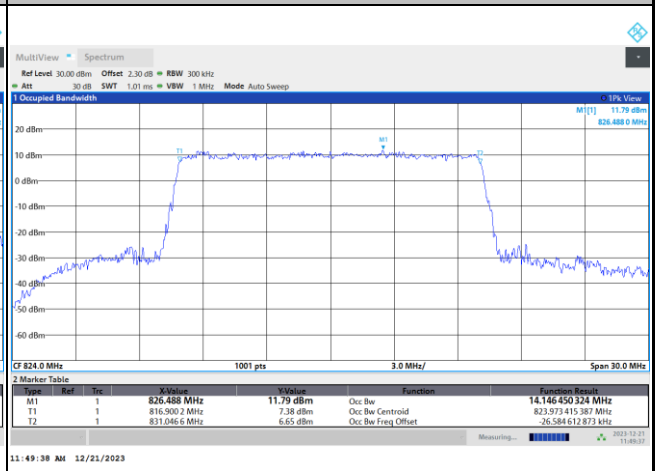
16QAM



64QAM



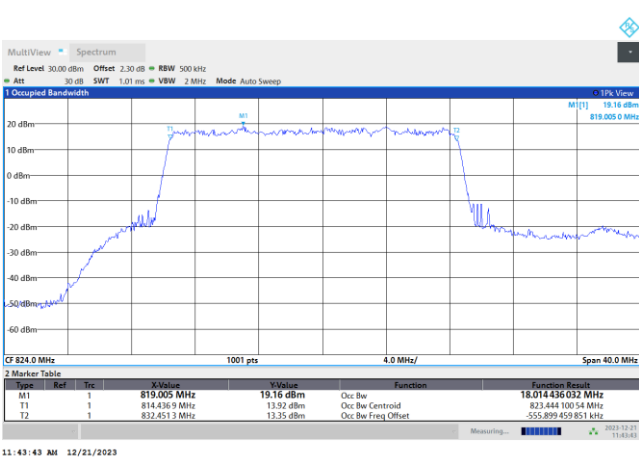
256QAM





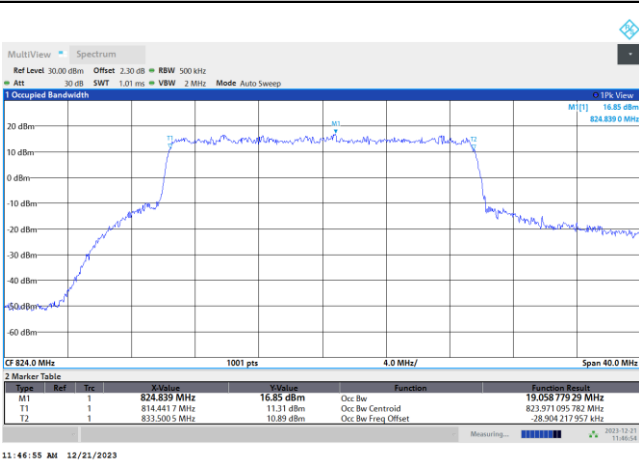
FR1 n26 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

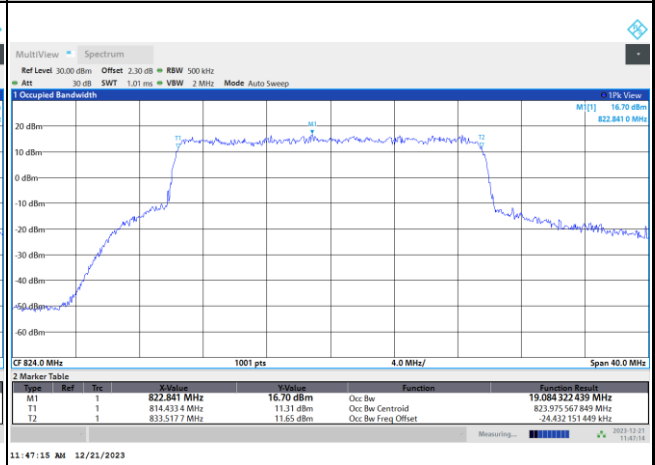


FR1 n26 / 20MHz / CP OFDM / Middle Channel / Full RB

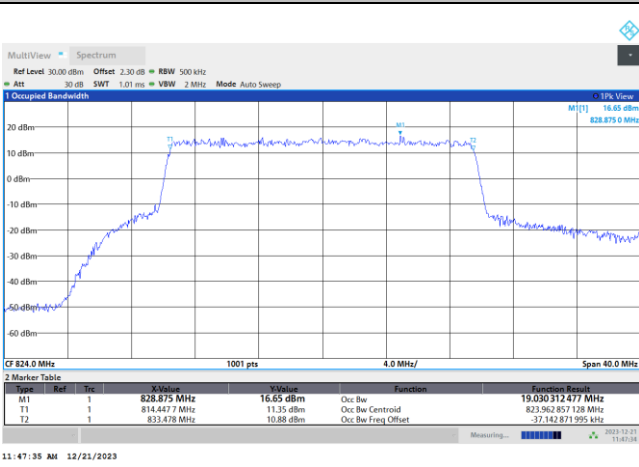
QPSK



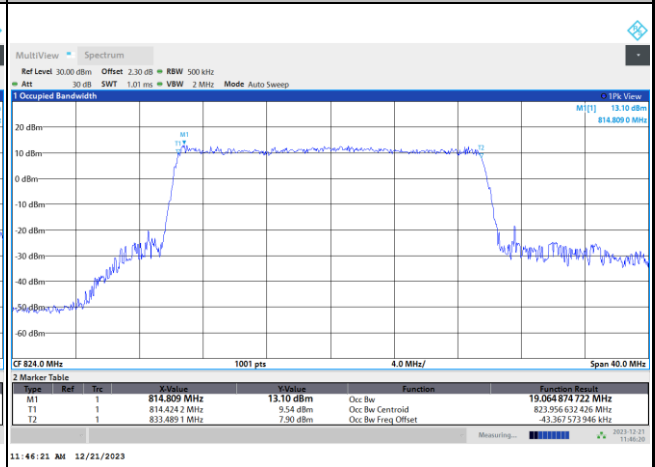
16QAM



64QAM



256QAM

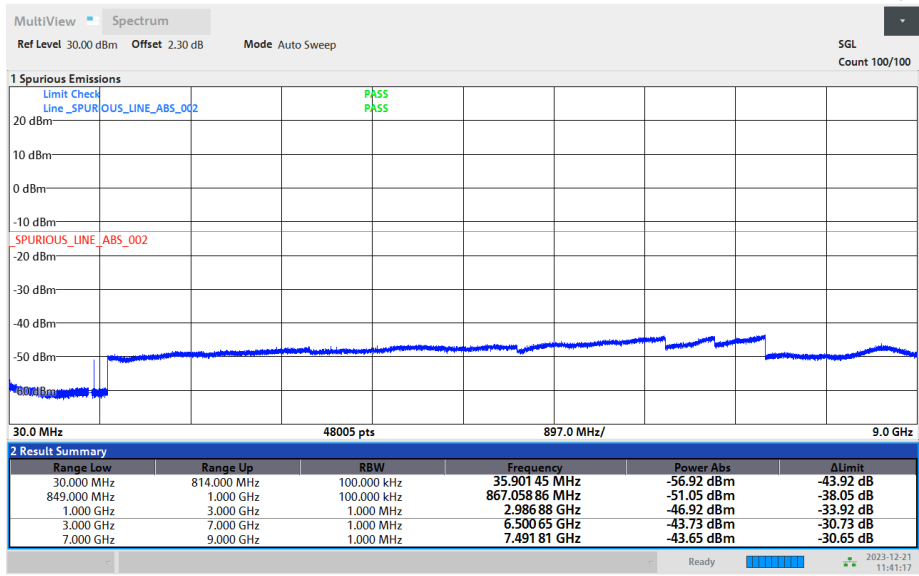




# Emission masks – Out of band emissions

FR1 n26 / 5MHz / DFT-S OFDM / QPSK / 1RB1

Middle Channel





**Frequency Stability**

Test Conditions		FR1 n26 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	2.5 ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0042	PASS
40	Normal Voltage	0.0028	
30	Normal Voltage	0.0068	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0141	
0	Normal Voltage	0.0146	
-10	Normal Voltage	0.0114	
-20	Normal Voltage	0.0033	
-30	Normal Voltage	0.0095	
20	Maximum Voltage	0.0075	
20	Normal Voltage	0.0034	
20	Battery End Point	0.0182	

**Note:**

- 1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.2 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



# FR1 n38

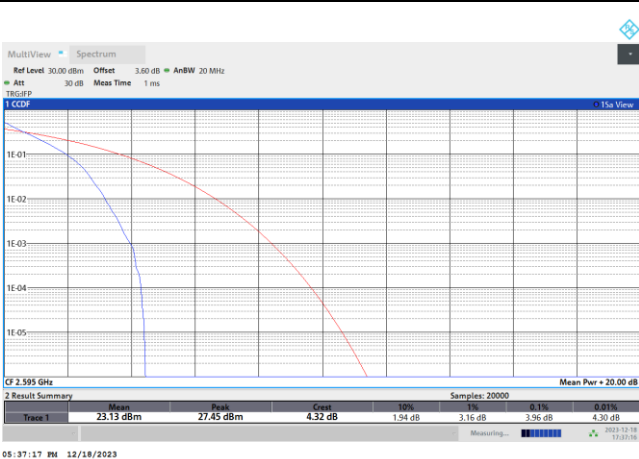
## Peak-to-Average Ratio

Mode	FR1 n38 / 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	3.96	4.76	5.52	5.84	PASS
Mode	FR1 n38 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	8.14				PASS

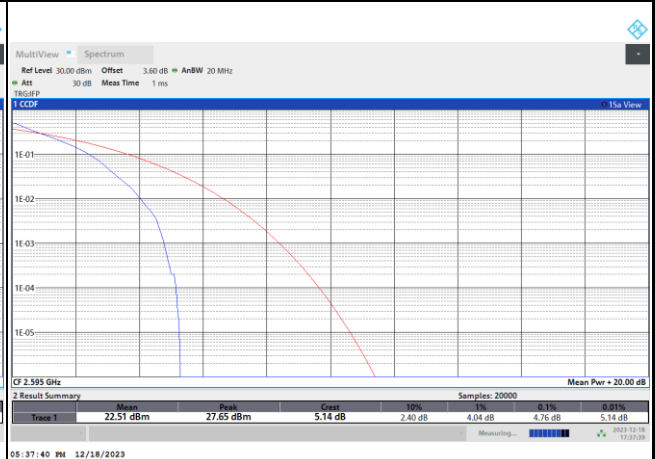


FR1 n38 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

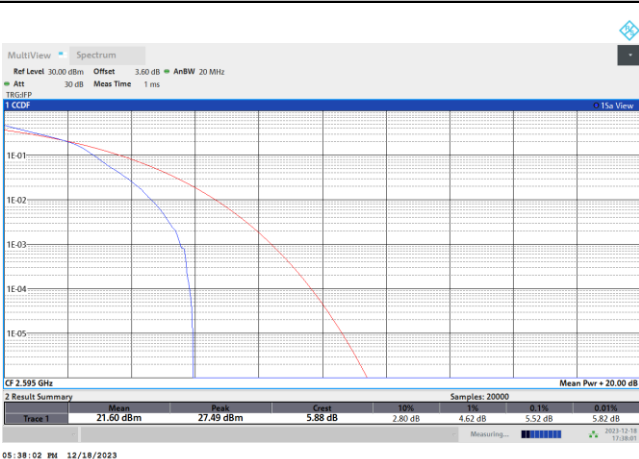
PI/2 BPSK



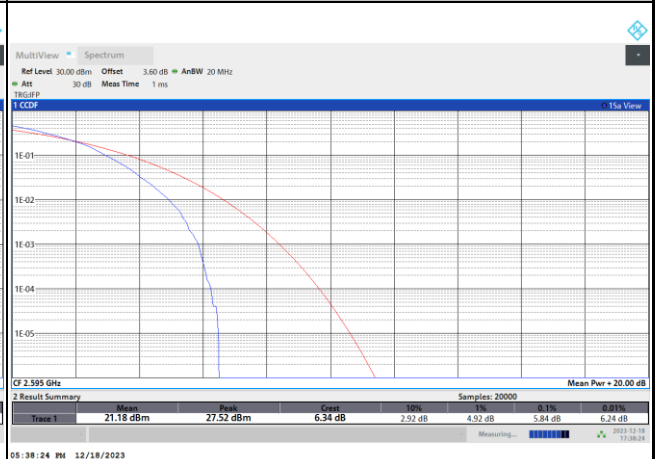
QPSK



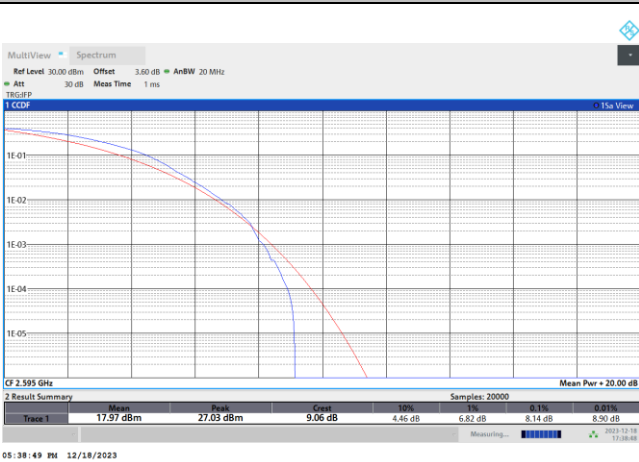
16QAM



64QAM



256QAM







**26dB Bandwidth**

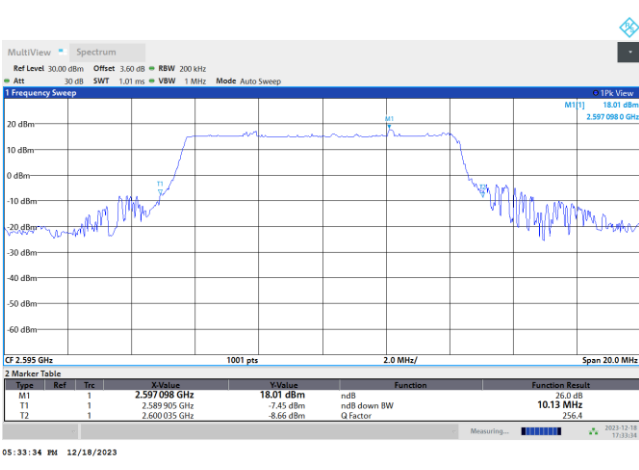
Mode	FR1 n38 : 26dB BW(MHz) / DFT-S OFDM				
BW	10MHz	15MHz	20MHz	30MHz	40MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	10.13	14.60	20.06	29.85	39.00

Mode	FR1 n38 : 26dB BW(MHz) / CP OFDM									
BW	10MHz		15MHz		20MHz		30MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	10.39	10.27	15.61	15.40	20.74	20.70	31.05	31.05	42.28	41.40
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	10.27	10.03	15.58	15.70	20.70	20.30	31.77	31.17	41.08	41.00



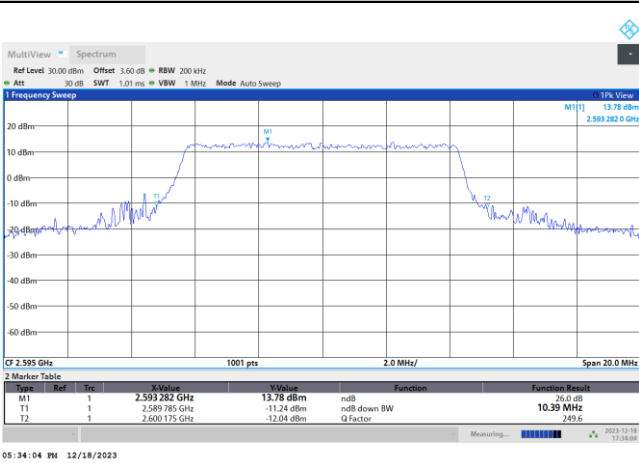
FR1 n38 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

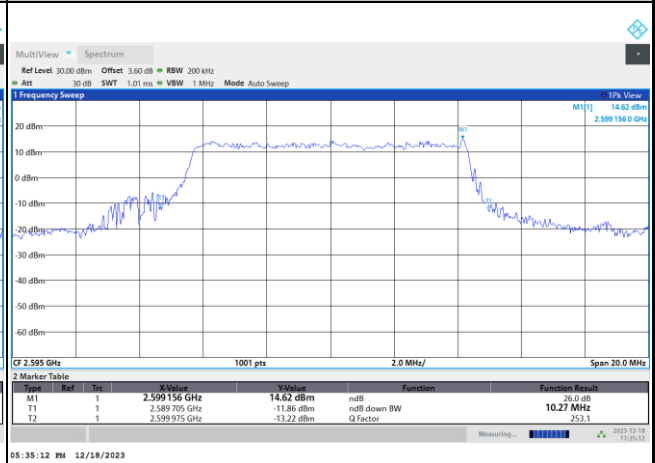


FR1 n38 / 10MHz / CP OFDM / Middle Channel / Full RB

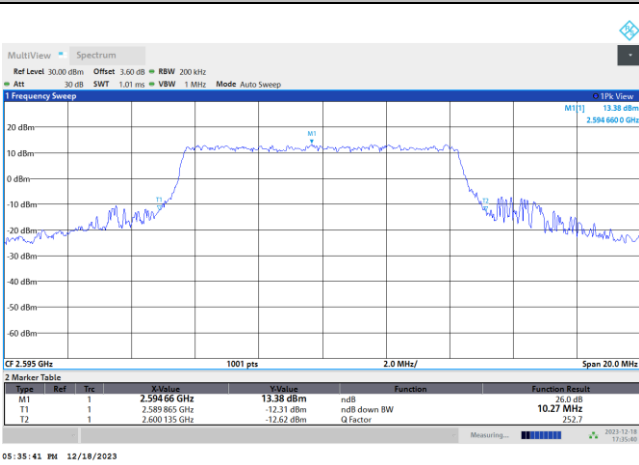
QPSK



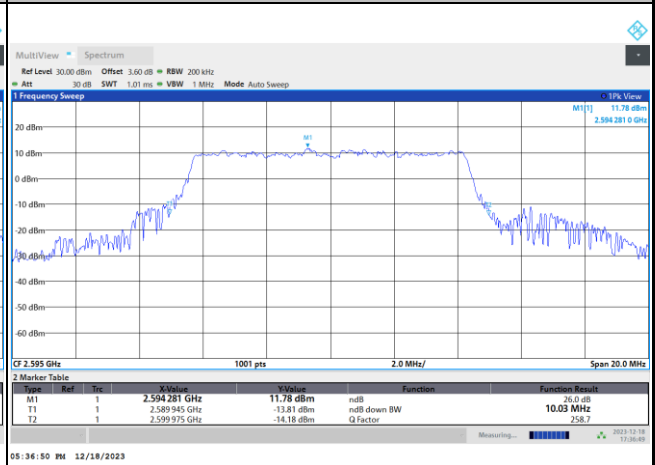
16QAM



64QAM



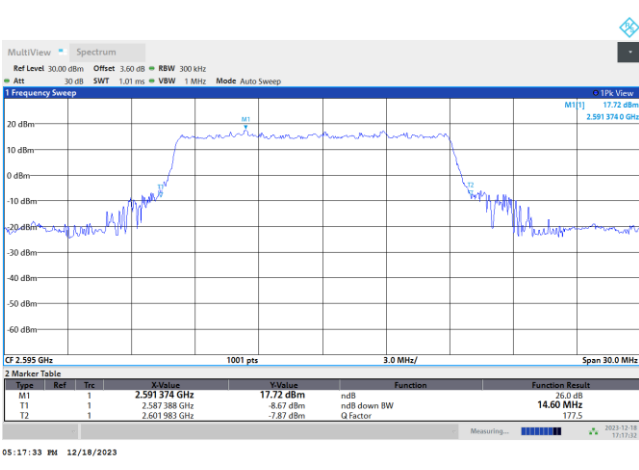
256QAM





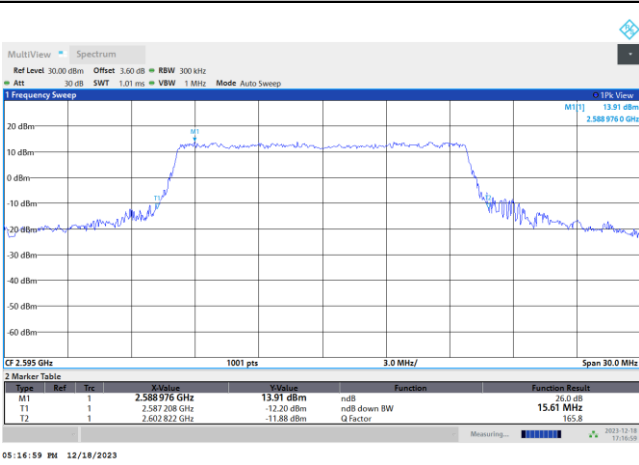
FR1 n38 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

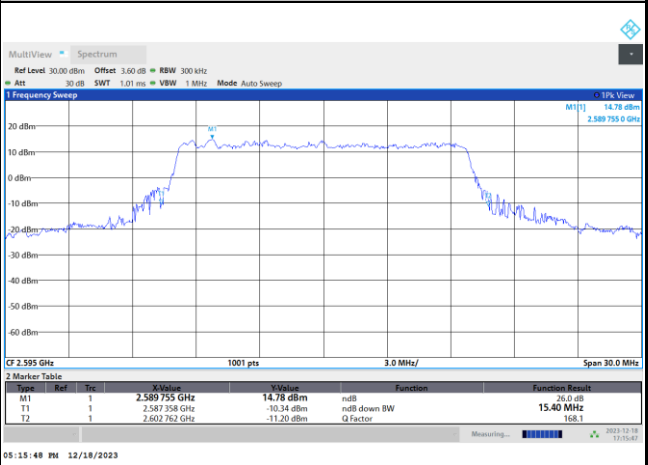


FR1 n38 / 15MHz / CP OFDM / Middle Channel / Full RB

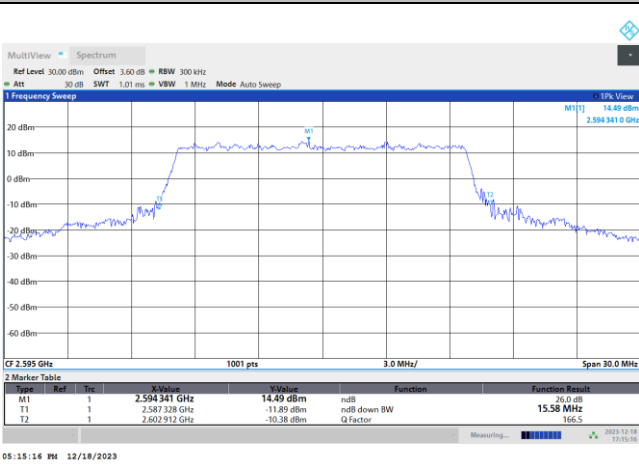
QPSK



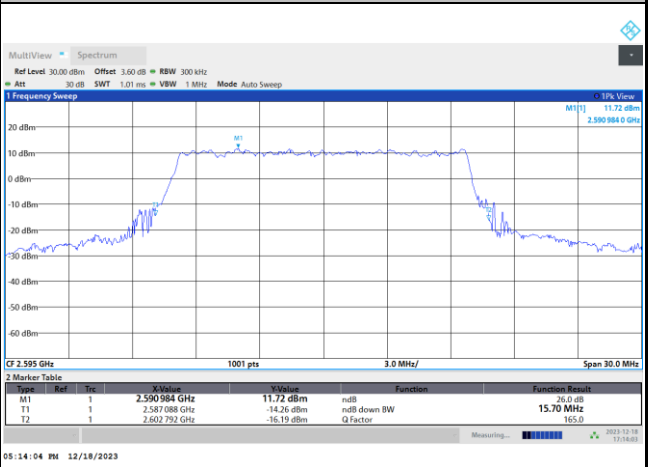
16QAM



64QAM



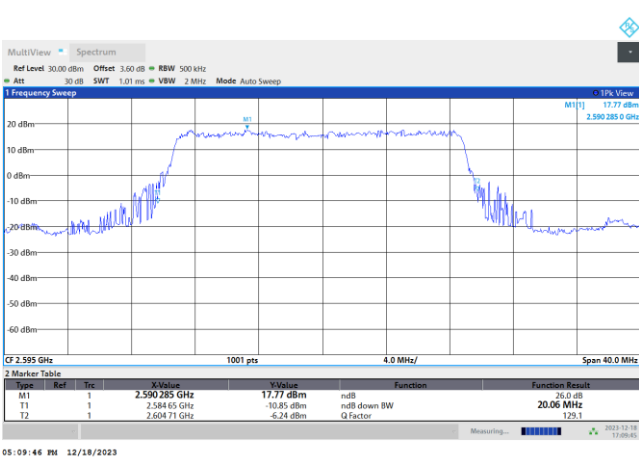
256QAM





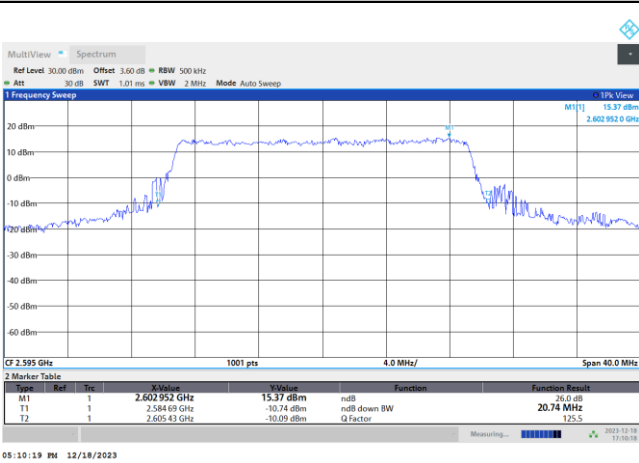
FR1 n38 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

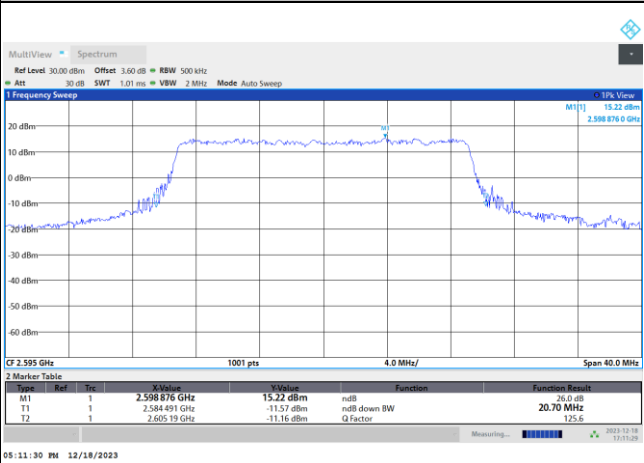


FR1 n38 / 20MHz / CP OFDM / Middle Channel / Full RB

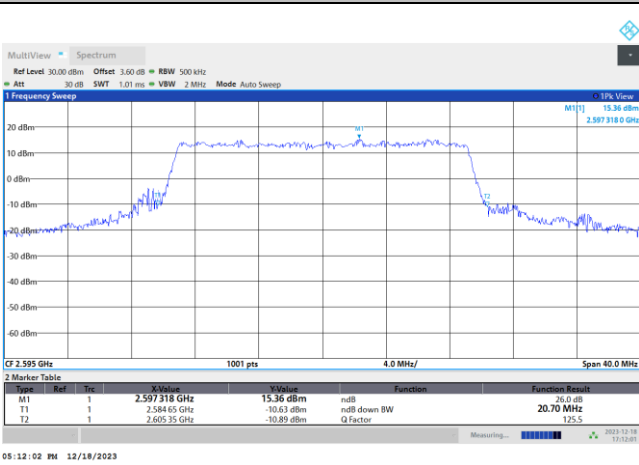
QPSK



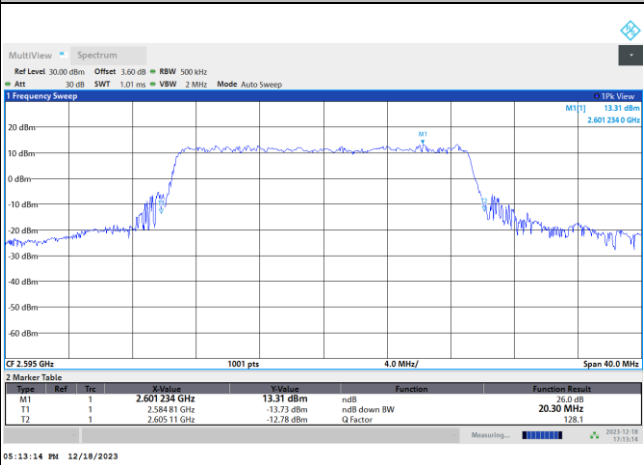
16QAM



64QAM



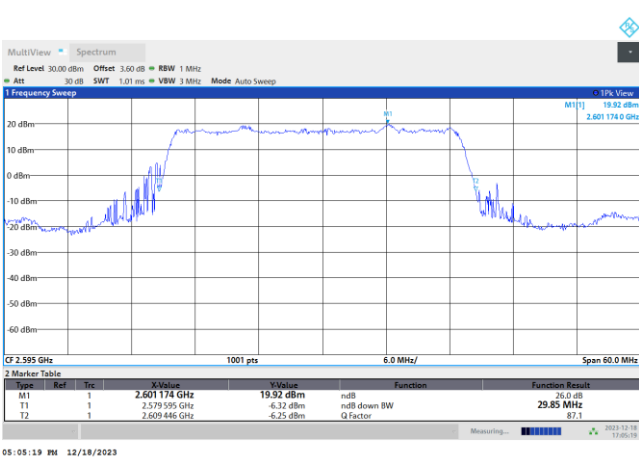
256QAM





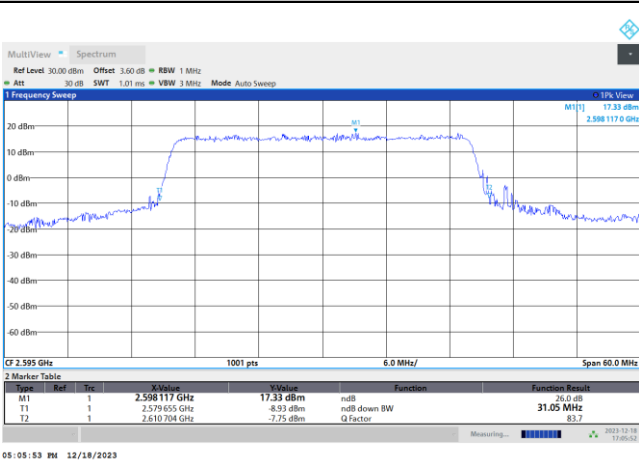
FR1 n38 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

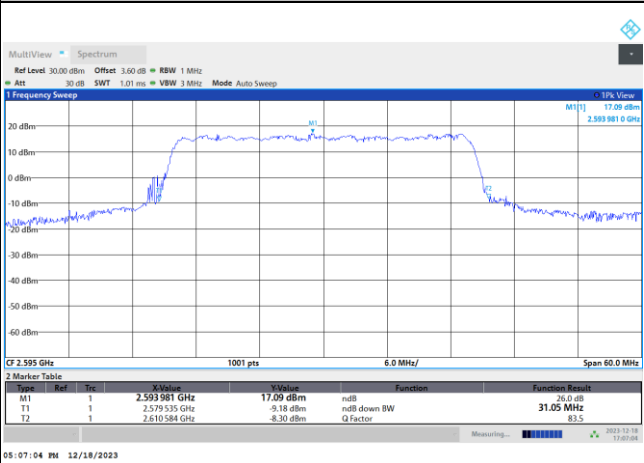


FR1 n38 / 30MHz / CP OFDM / Middle Channel / Full RB

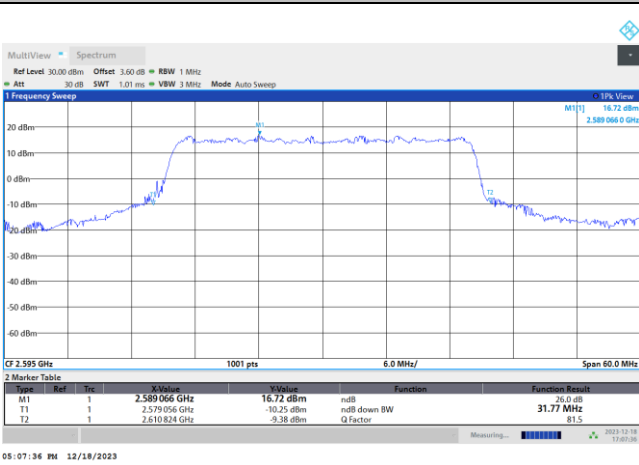
QPSK



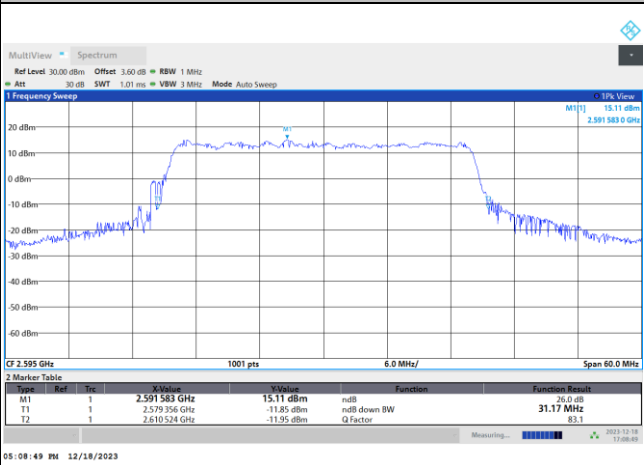
16QAM



64QAM



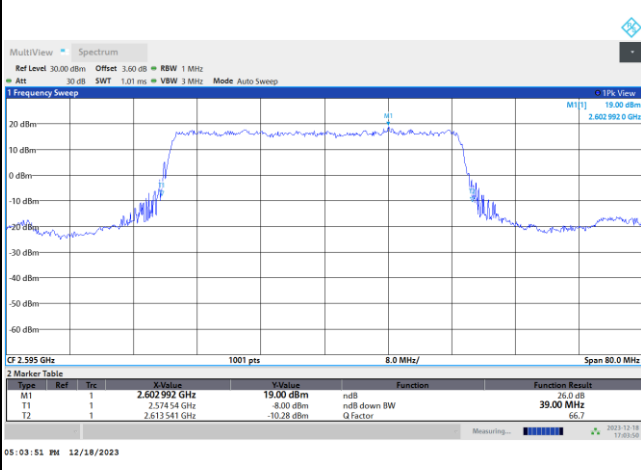
256QAM





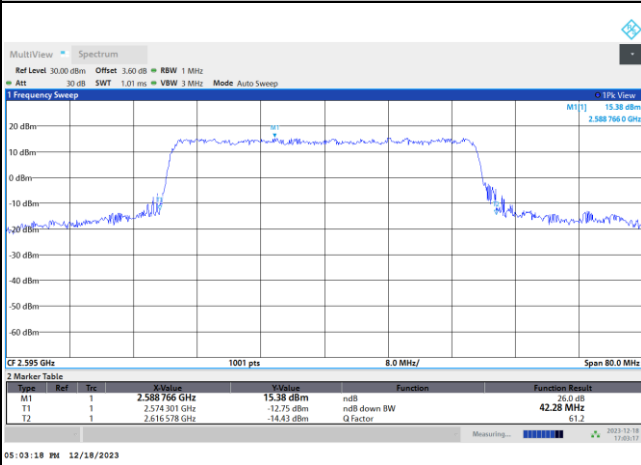
FR1 n38 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

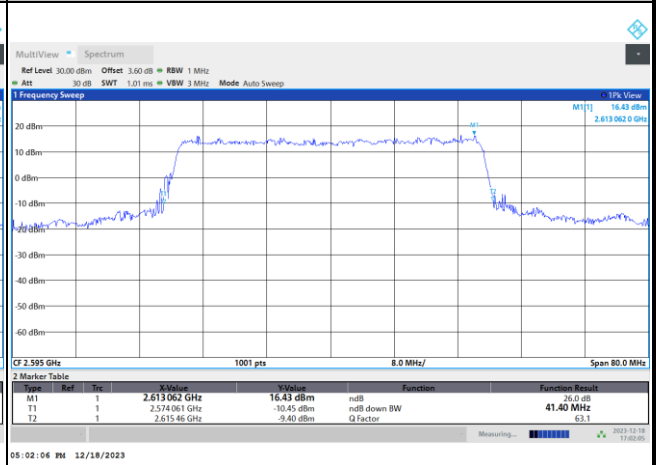


FR1 n38 / 40MHz / CP OFDM / Middle Channel / Full RB

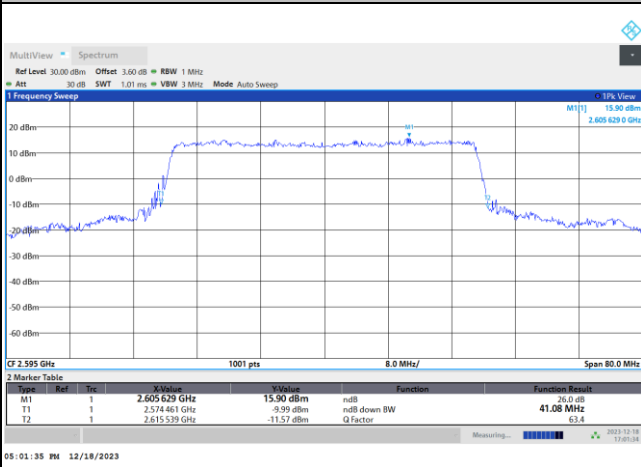
QPSK



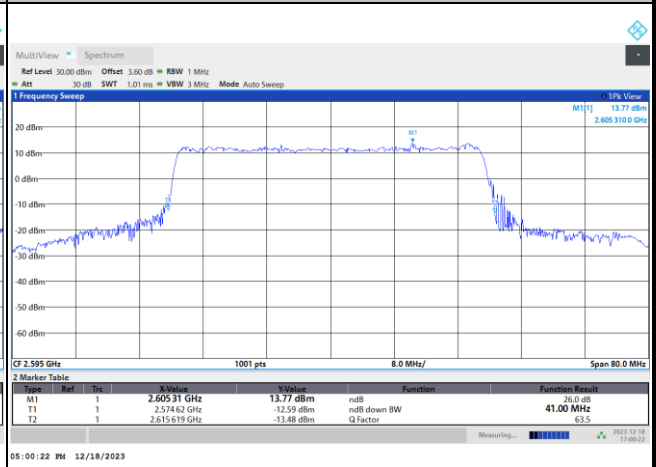
16QAM



64QAM



256QAM





Occupied Bandwidth

Mode	FR1 n38 : OB BW(MHz) / DFT-S OFDM				
BW	10MHz	15MHz	20MHz	30MHz	40MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	8.70	13.01	18.05	27.33	36.09

Mode	FR1 n38 : OB BW(MHz) / CP OFDM									
BW	10MHz		15MHz		20MHz		30MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	8.72	8.71	13.70	13.76	18.56	18.47	28.30	28.32	38.13	38.21
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	8.73	8.73	13.74	13.73	18.48	18.43	28.29	28.37	38.30	38.32