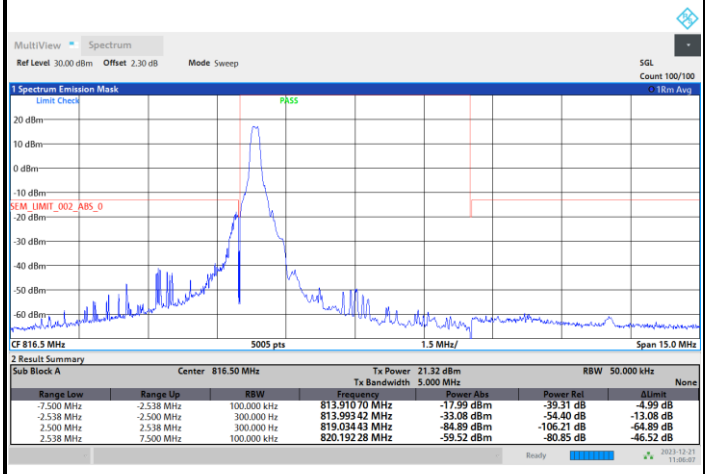
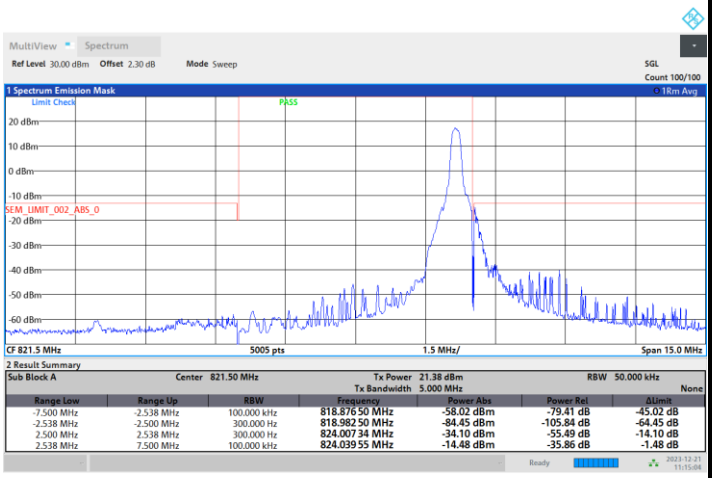
FR1 n26 / 5MHz / DFT-S OFDM / 64QAM

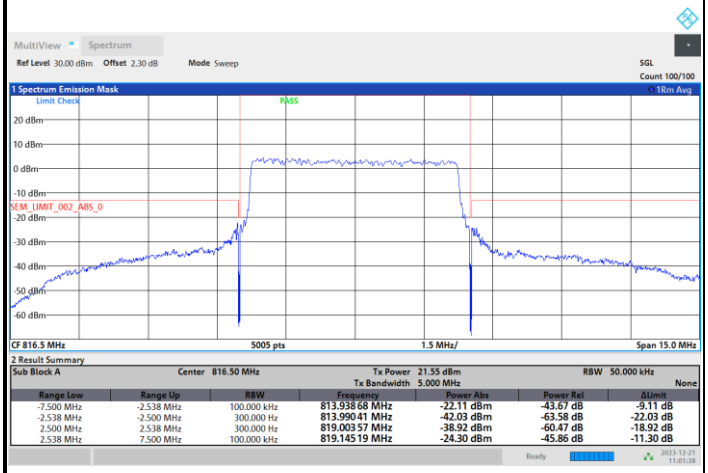
Lowest MASK / 1RB0



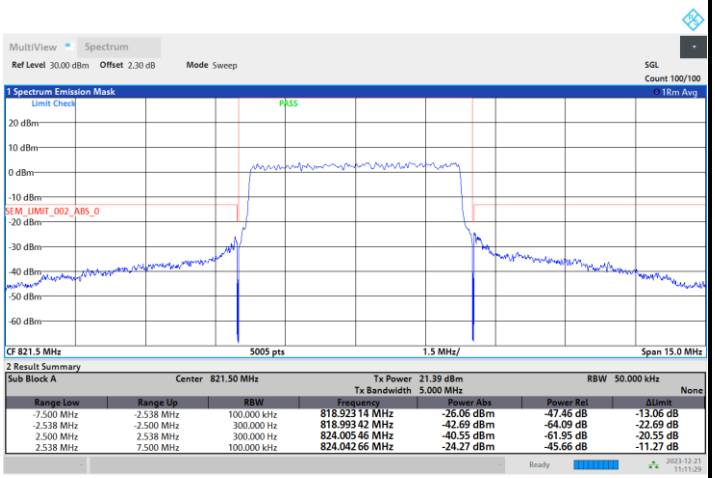
Highest MASK / 1RBmax



Lowest MASK / Full RB

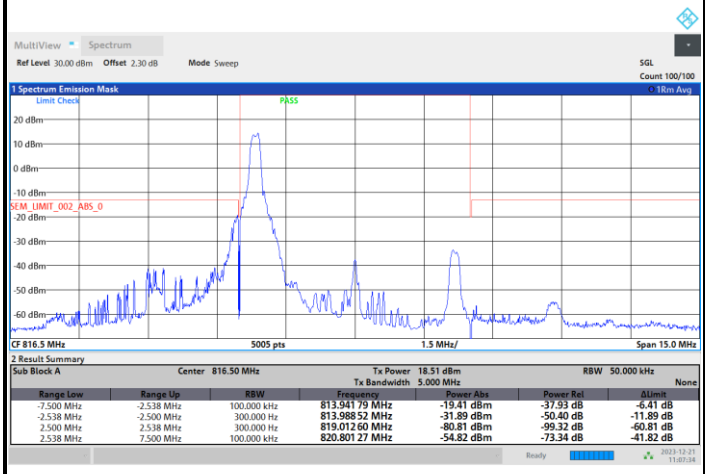


Highest MASK / Full RB

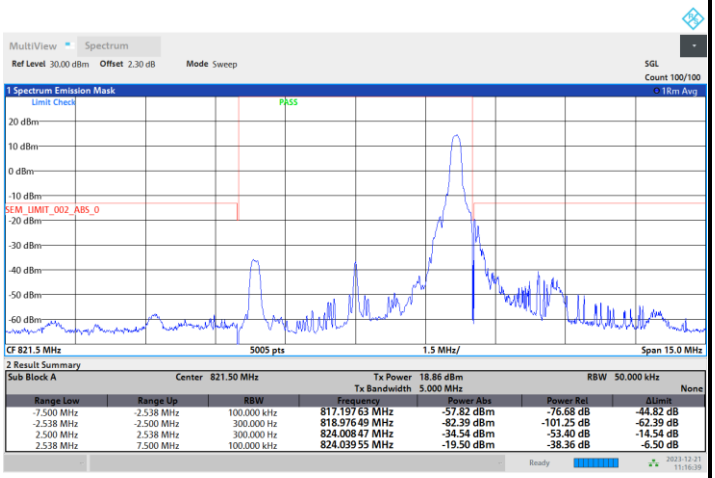


FR1 n26 / 5MHz / DFT-S OFDM / 256QAM

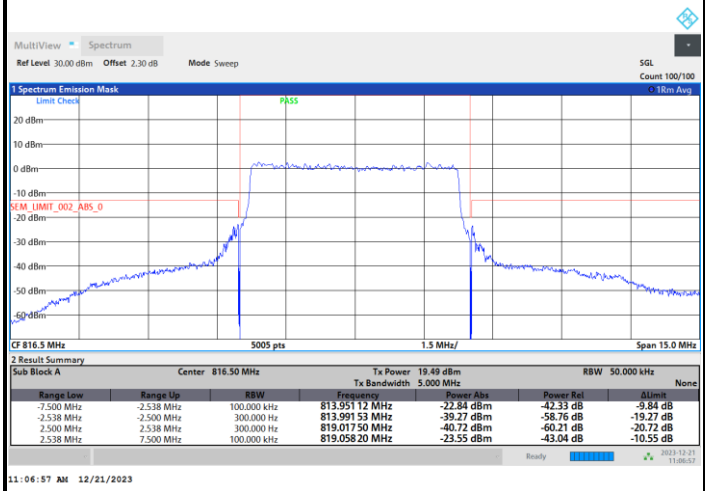
Lowest MASK / 1RB0



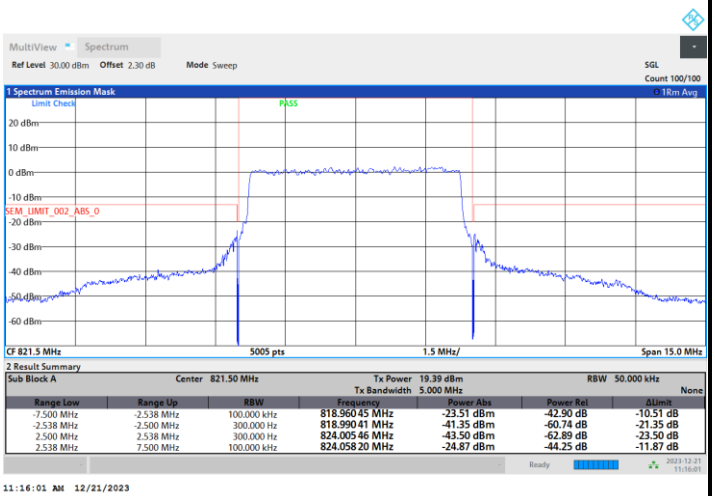
Highest MASK / 1RBmax

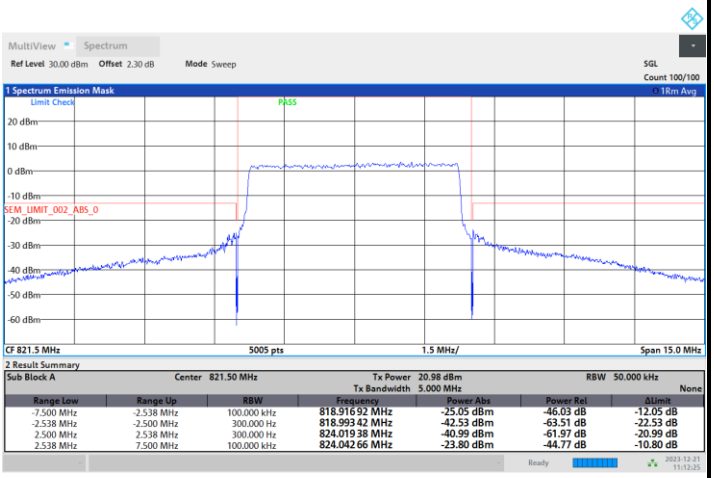


Lowest MASK / Full RB



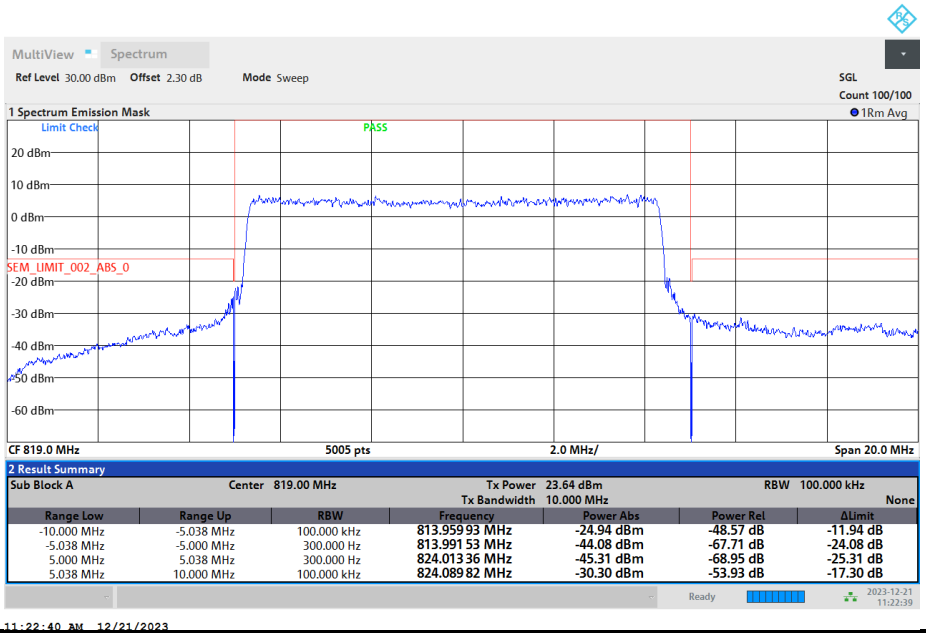
Highest MASK / Full RB



FR1 n26 / 5MHz / CP OFDM / QPSK / Full RB	
Lowest MASK	**Highest MASK**
	

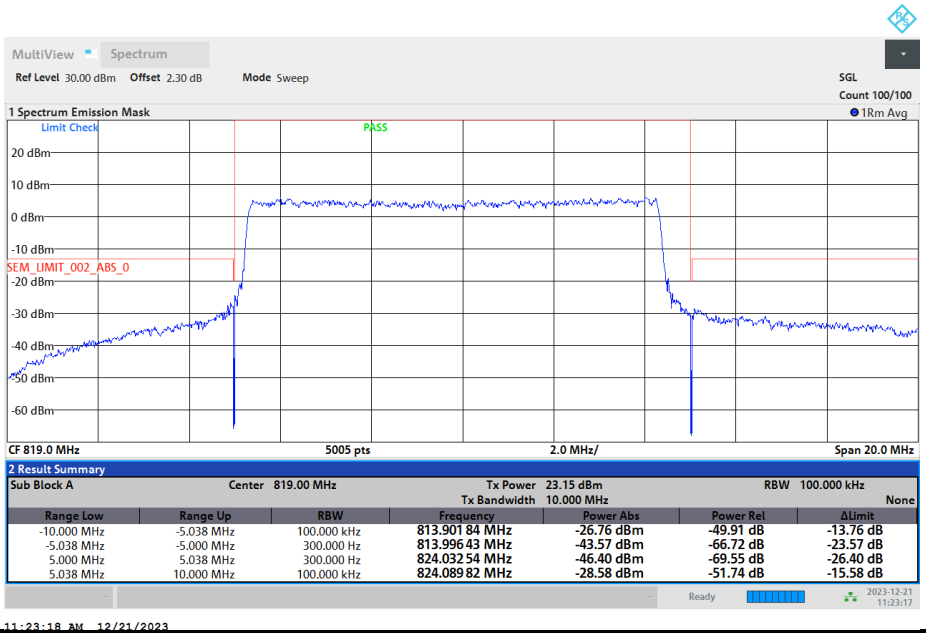
FR1 n26 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Middle MASK / Full RB



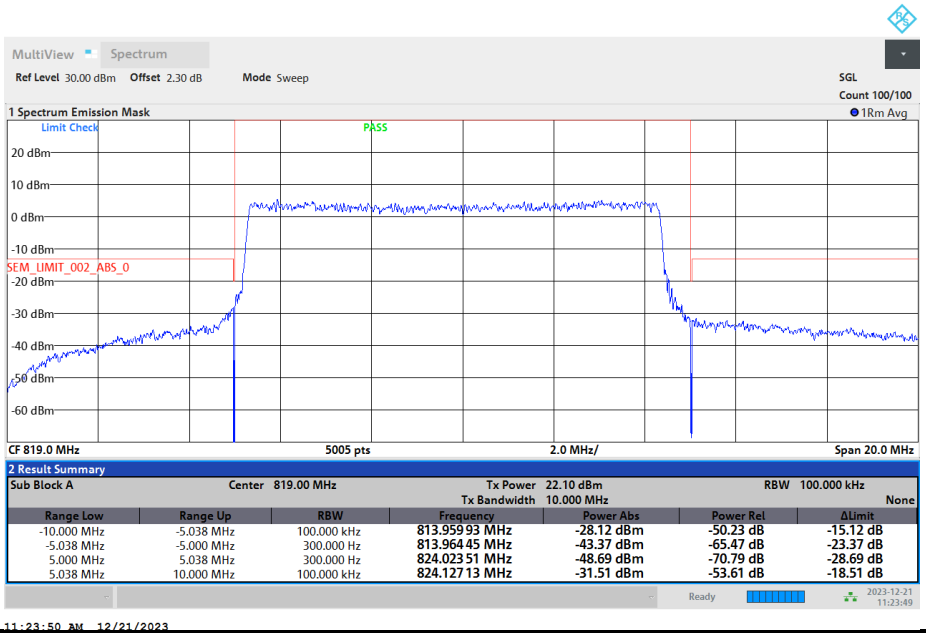
FR1 n26 / 10MHz / DFT-s-OFDM / QPSK

Lowest MASK / Full RB



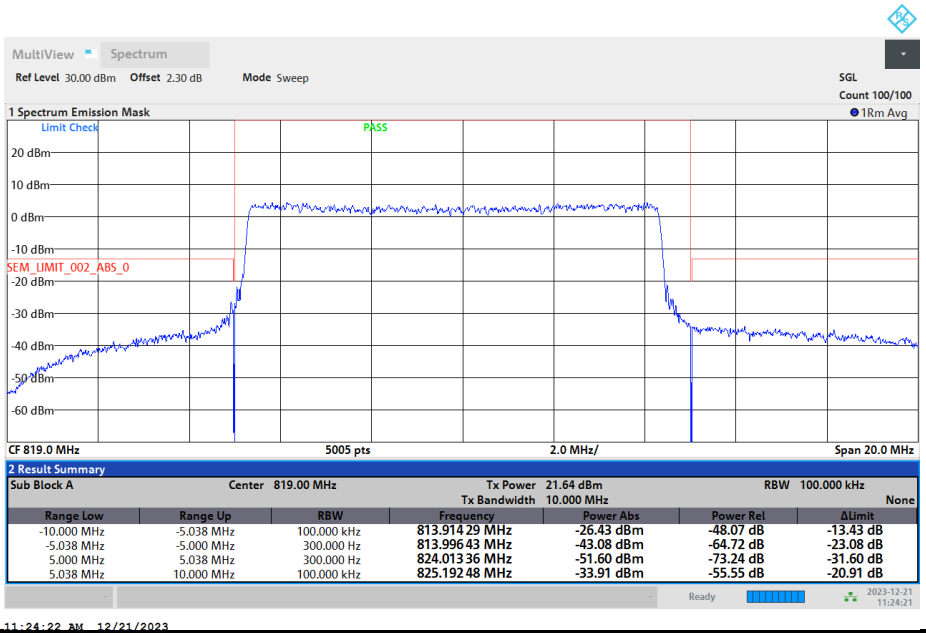
FR1 n26 / 10MHz / DFT-s-OFDM / 16QAM

Middle MASK / Full RB



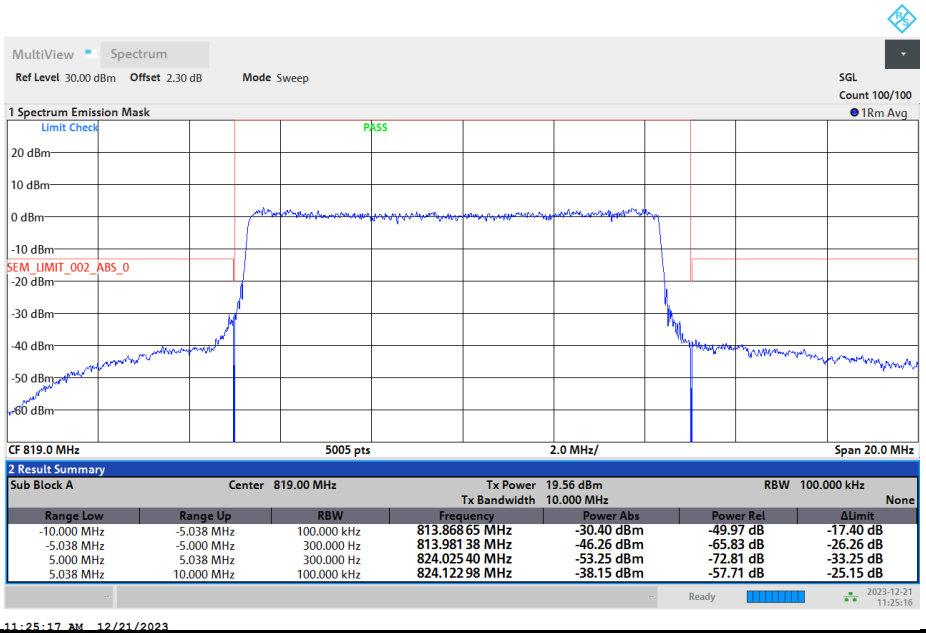
FR1 n26 / 10MHz / DFT-s-OFDM / 64QAM

Middle MASK / Full RB



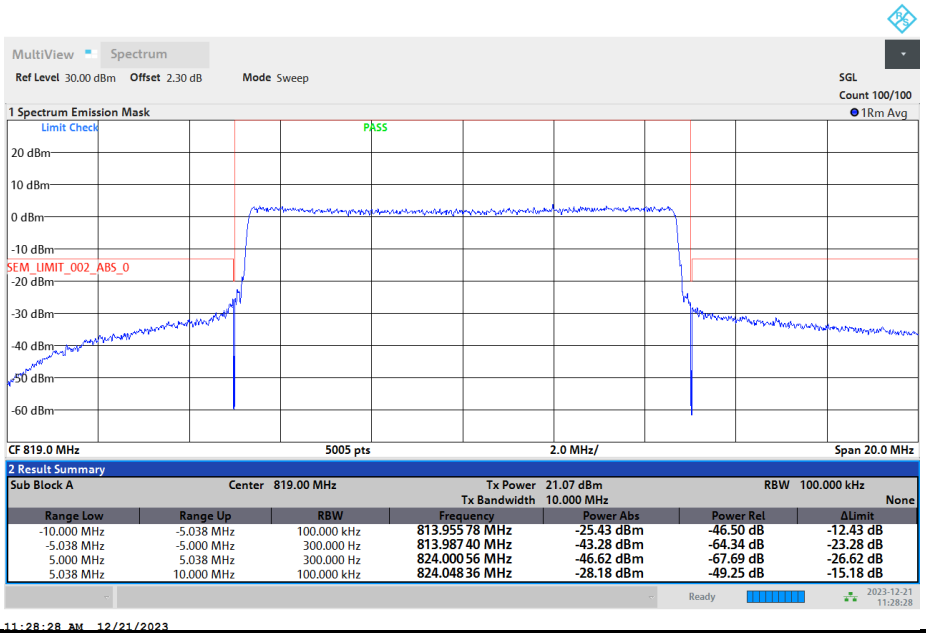
FR1 n26 / 10MHz / DFT-s-OFDM / 256QAM

Middle MASK / Full RB



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

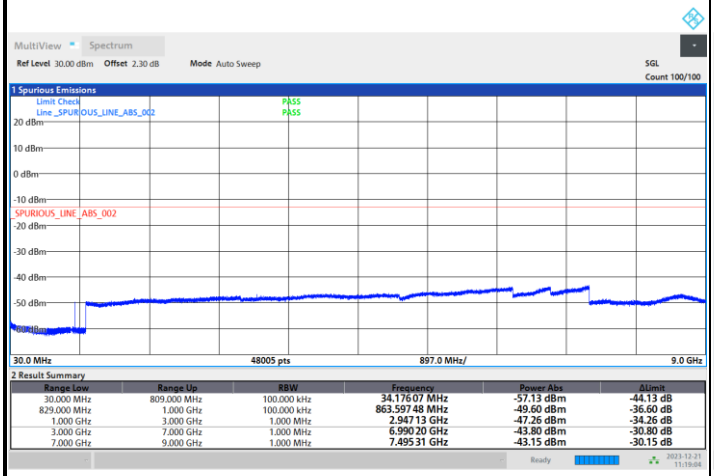
Middle MASK



Emission masks – Out of band emissions

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

Lowest Channel

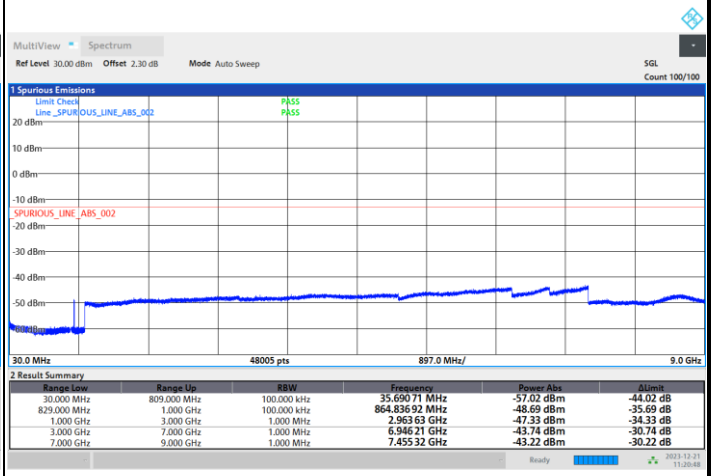


2 Result Summary

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	809.000 MHz	100.000 kHz	34.176 07 MHz	-57.13 dBm	-44.13 dB
829.000 MHz	1.000 GHz	100.000 kHz	863.597 48 MHz	-49.60 dBm	-36.60 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.947 13 GHz	-47.26 dBm	-34.26 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.990 20 GHz	-43.80 dBm	-30.80 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.495 31 GHz	-43.15 dBm	-30.15 dB

11:19:04 AM 12/21/2023

Middle Channel

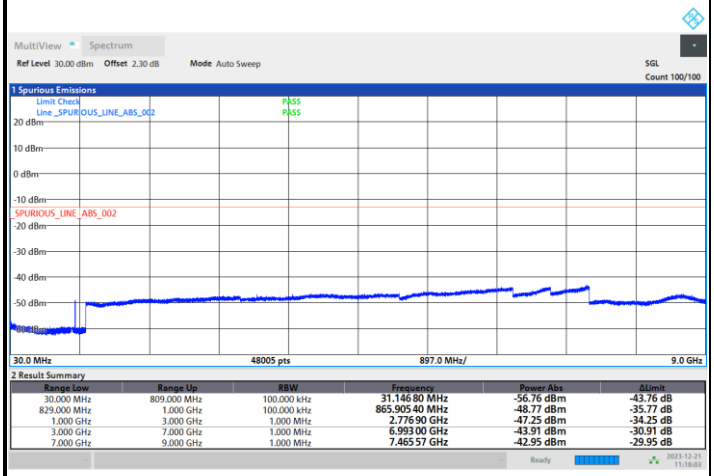


2 Result Summary

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	809.000 MHz	100.000 kHz	35.690 71 MHz	-57.02 dBm	-44.02 dB
829.000 MHz	1.000 GHz	100.000 kHz	864.836 92 MHz	-48.69 dBm	-35.69 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.963 63 GHz	-47.33 dBm	-34.33 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.946 21 GHz	-43.74 dBm	-30.74 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.455 32 GHz	-43.22 dBm	-30.22 dB

11:20:49 AM 12/21/2023

Highest Channel



2 Result Summary

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	809.000 MHz	100.000 kHz	31.146 80 MHz	-56.76 dBm	-43.76 dB
829.000 MHz	1.000 GHz	100.000 kHz	865.905 40 MHz	-48.77 dBm	-35.77 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.776 90 GHz	-47.25 dBm	-34.25 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.993 00 GHz	-43.91 dBm	-30.91 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.465 57 GHz	-42.95 dBm	-29.95 dB

11:18:03 AM 12/21/2023

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.

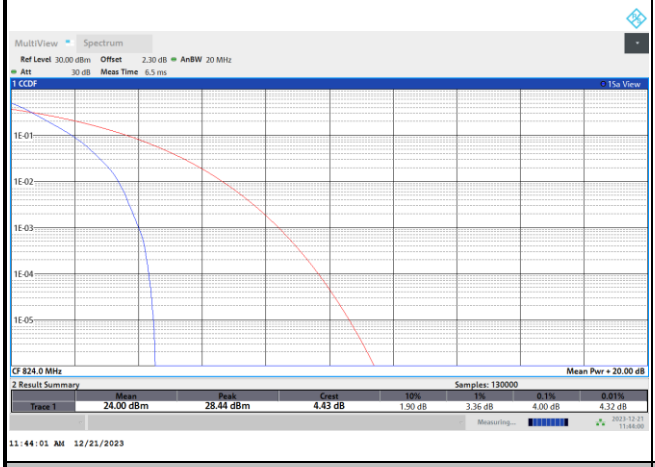
FR1 n26 Part90s Straddle Channel

Peak-to-Average Ratio

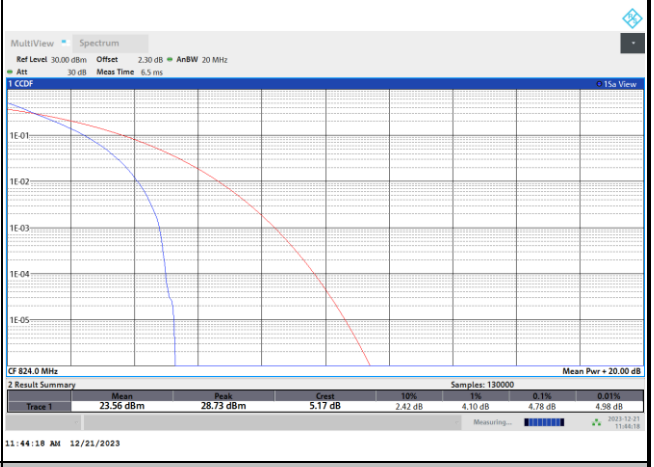
Mode	FR1 n26 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.00	4.78	5.64	5.98	PASS
Mode	FR1 n26 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.70				PASS

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

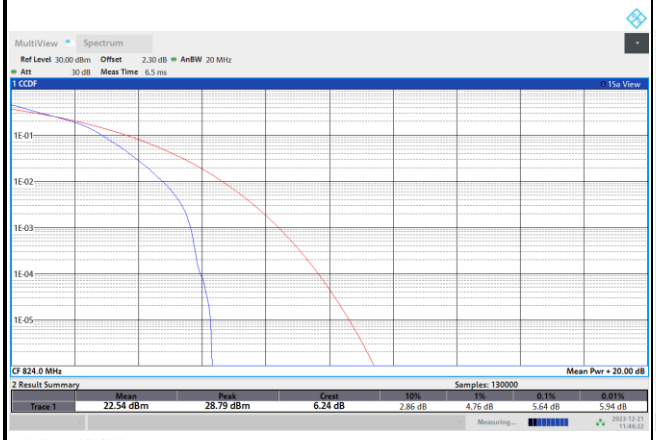
PI/2 BPSK



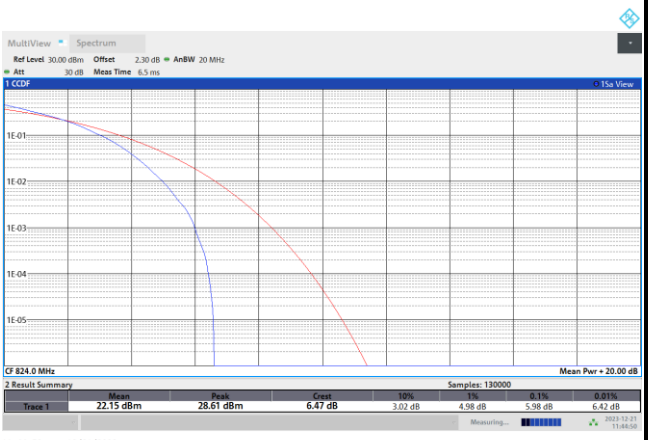
QPSK



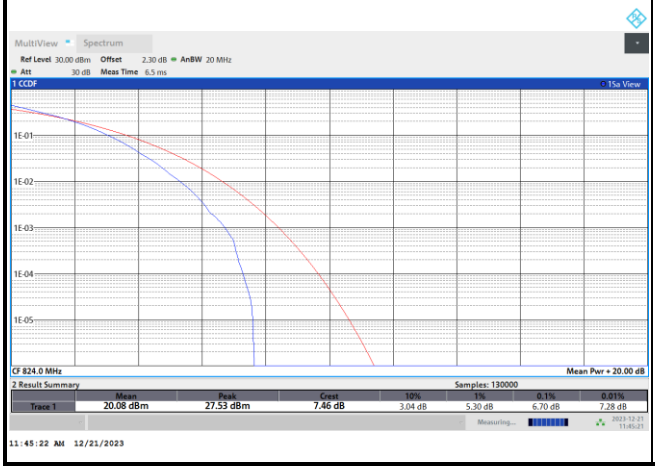
16QAM



64QAM



256QAM



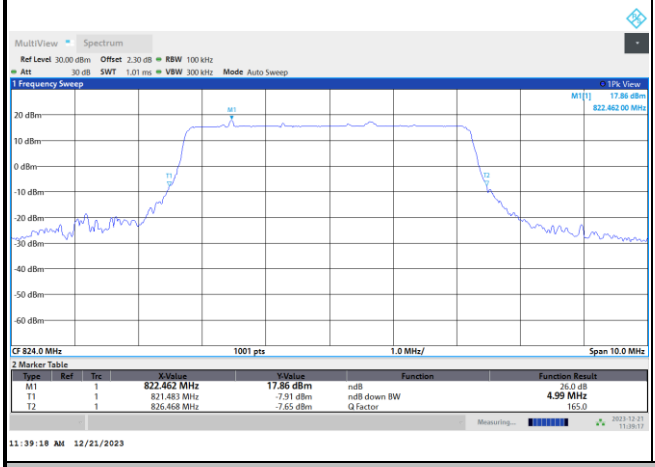
26dB Bandwidth

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

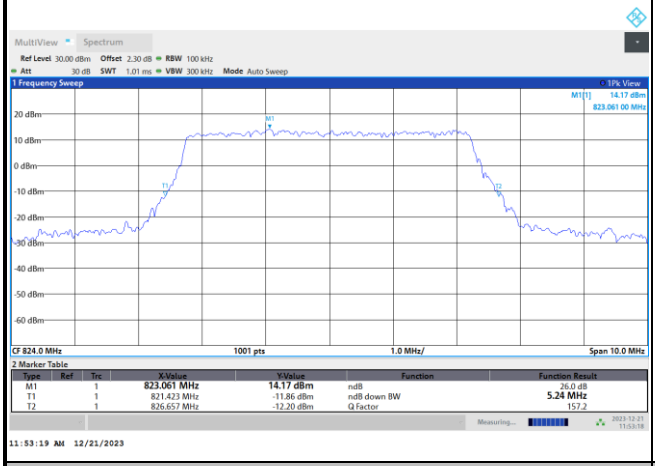
FR1 n26 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

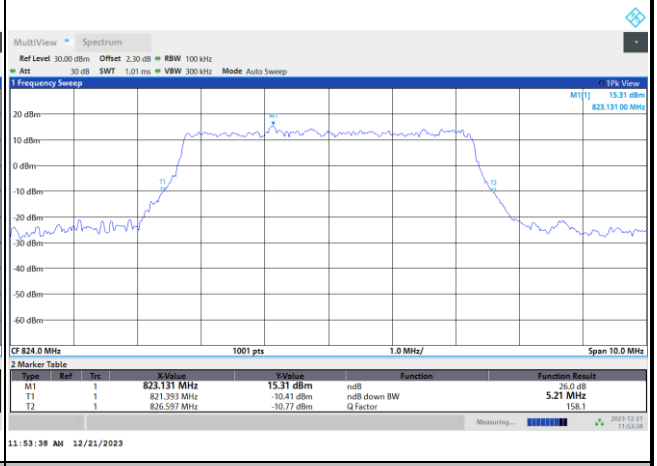


FR1 n26 / 5MHz / CP OFDM / Middle Channel / Full RB

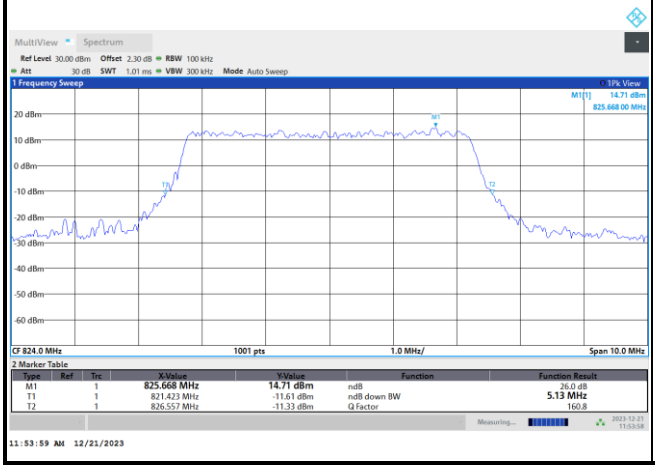
QPSK



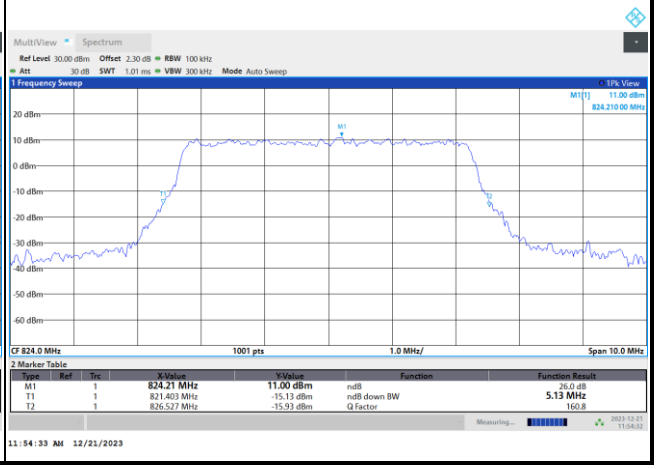
16QAM



64QAM

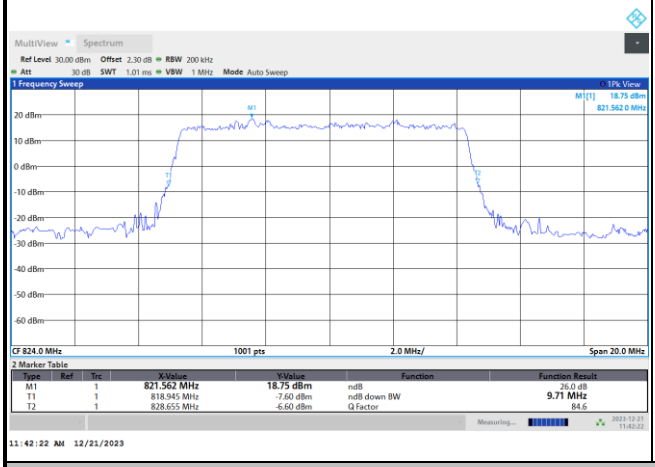


256QAM



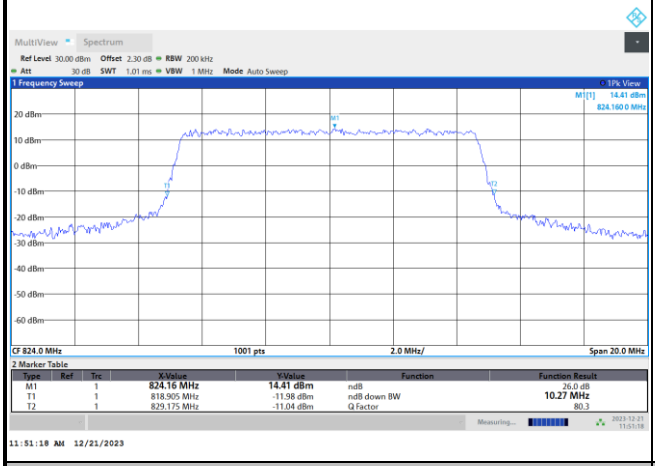
FR1 n26 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



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

QPSK



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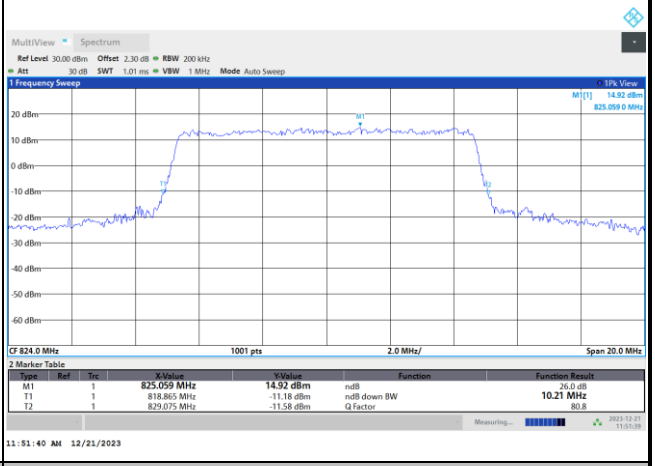

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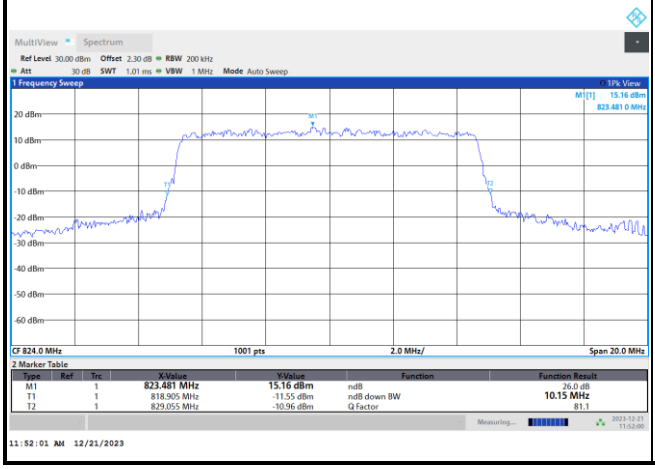
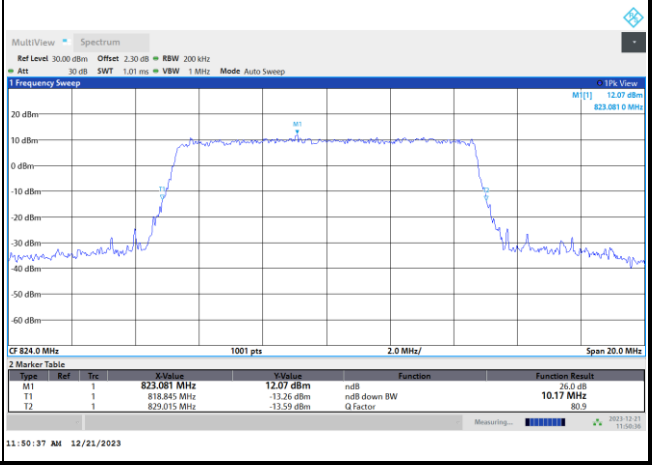
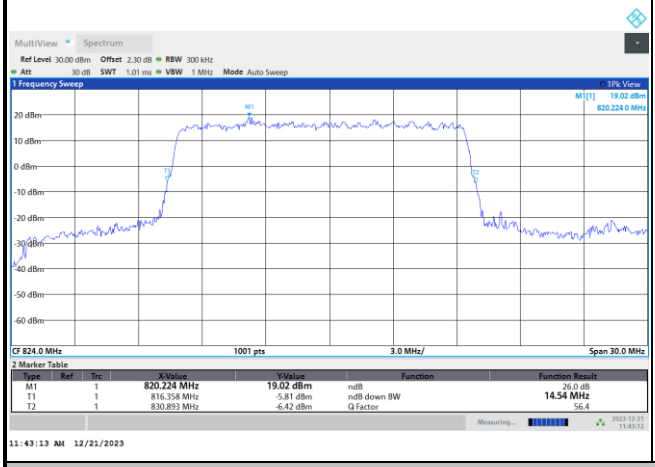


256QAM



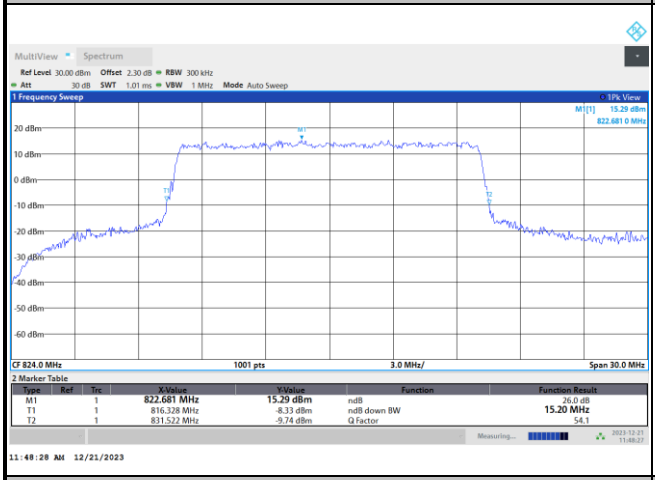
FR1 n26 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

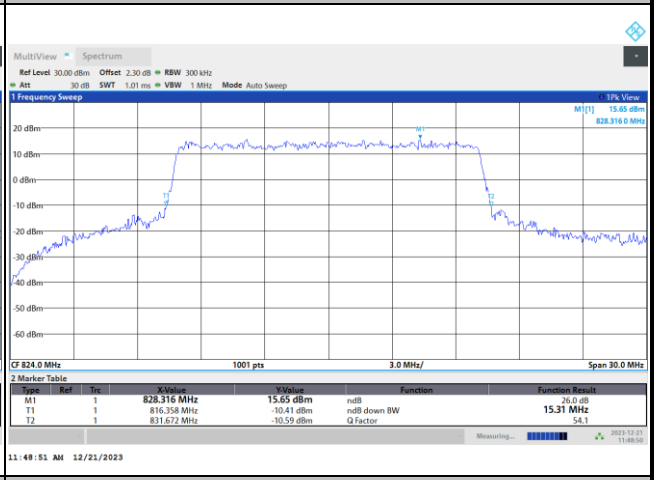


FR1 n26 / 15MHz / CP OFDM / Middle Channel / Full RB

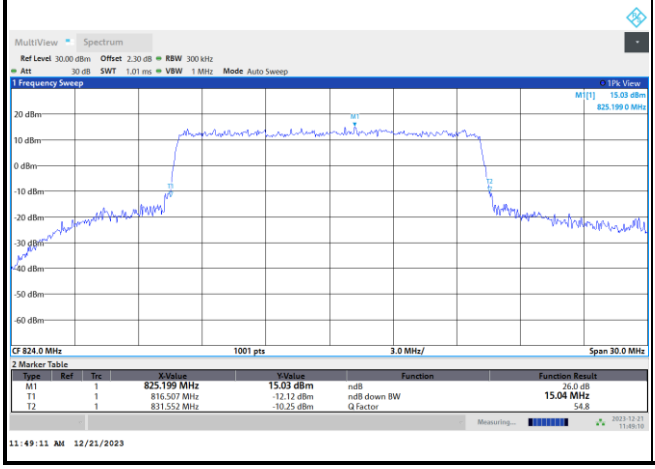
QPSK



16QAM



64QAM



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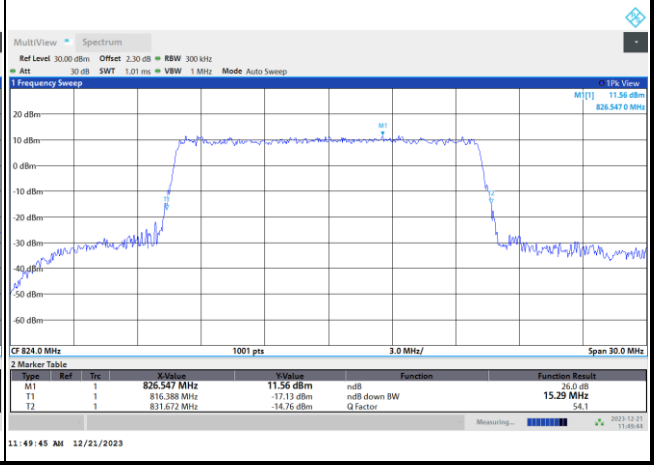
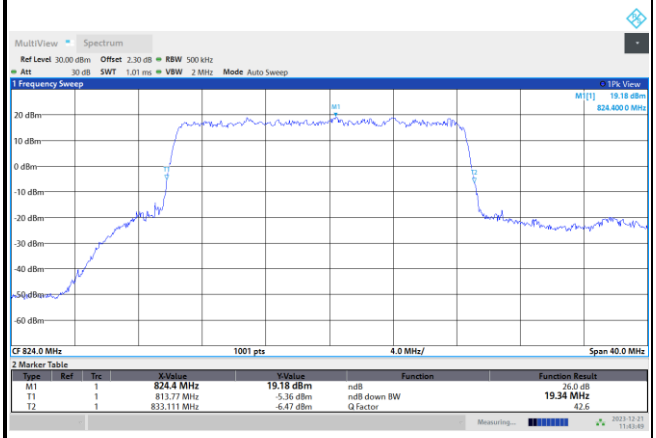


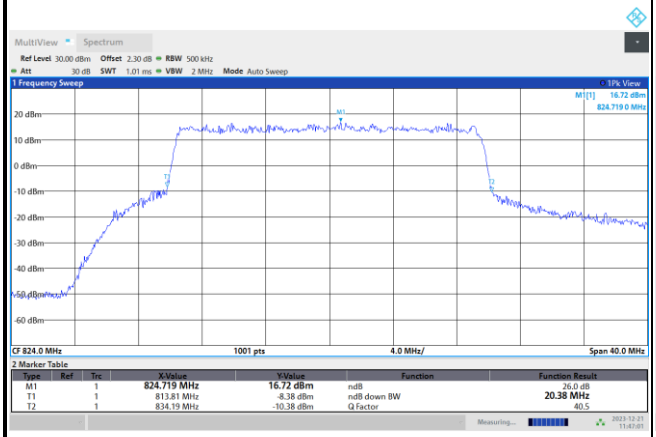
FR1 n26 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

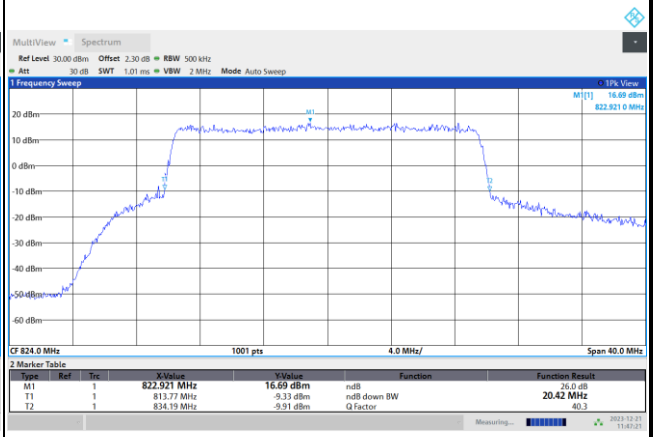


FR1 n26 / 20MHz / CP OFDM / Middle Channel / Full RB

QPSK



16QAM



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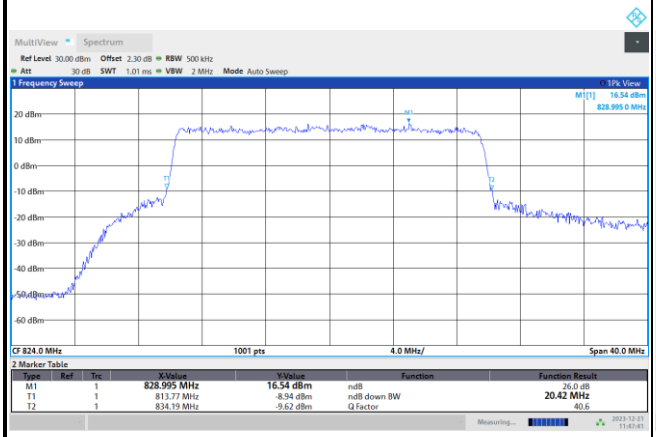

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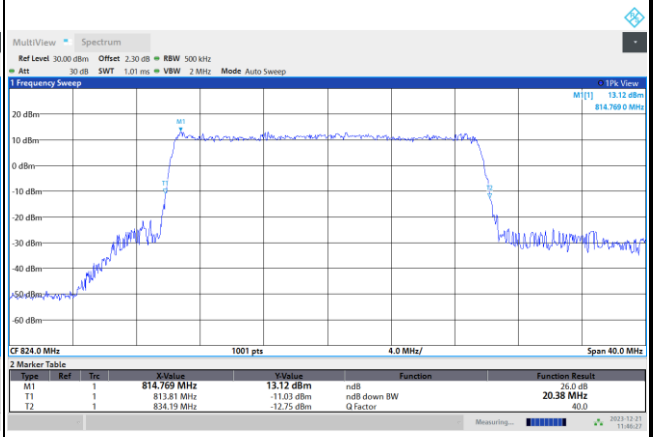


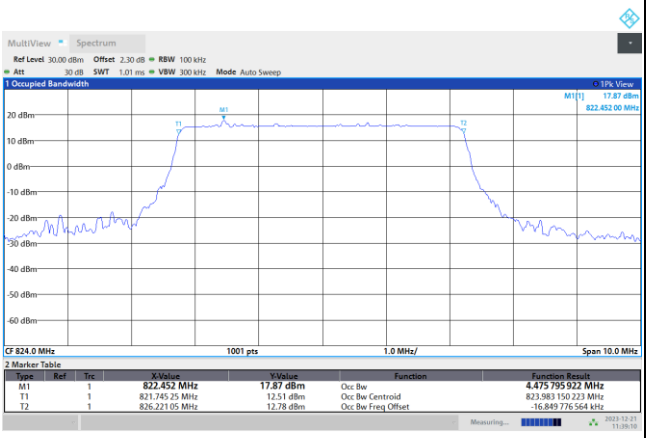
Occupied Bandwidth

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

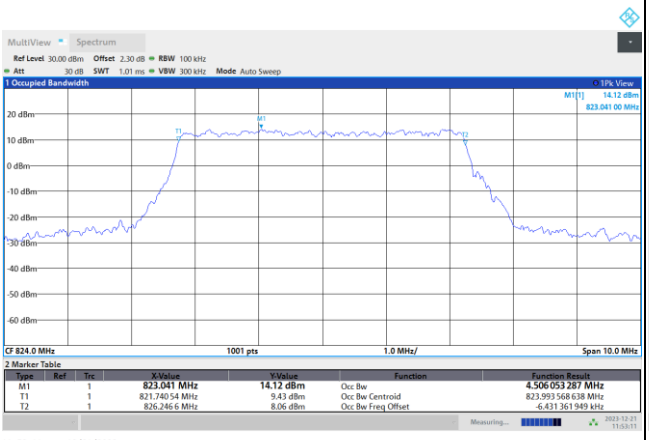
FR1 n26 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



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

QPSK



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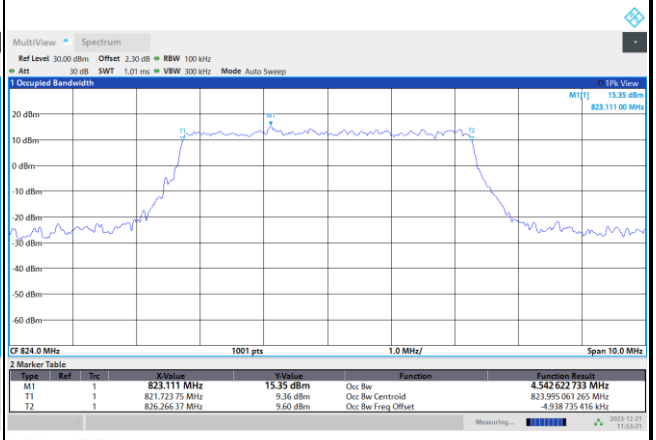

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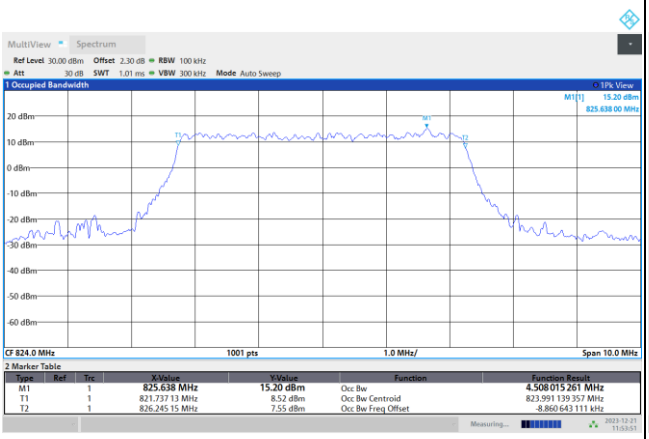

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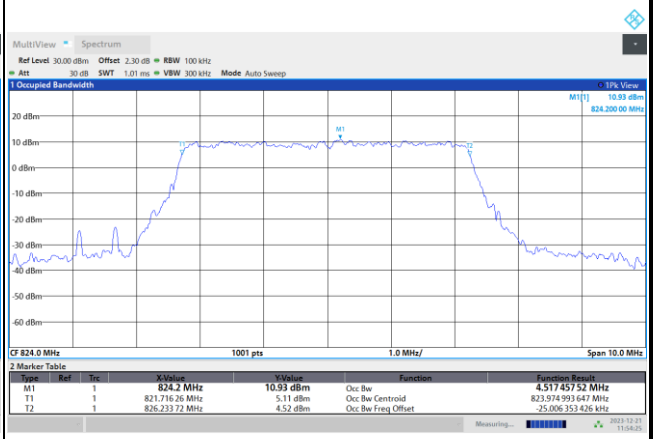
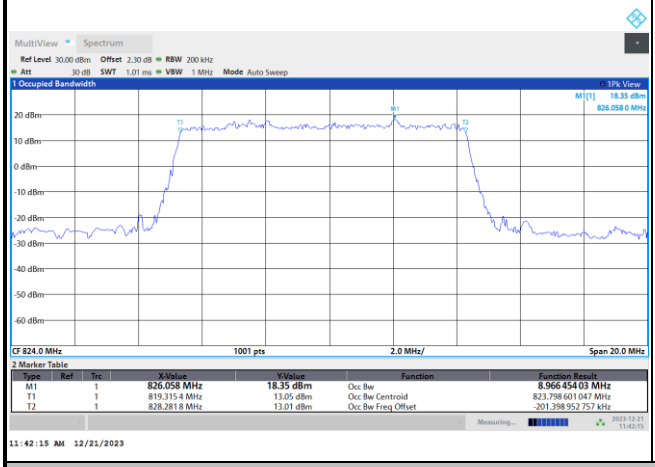


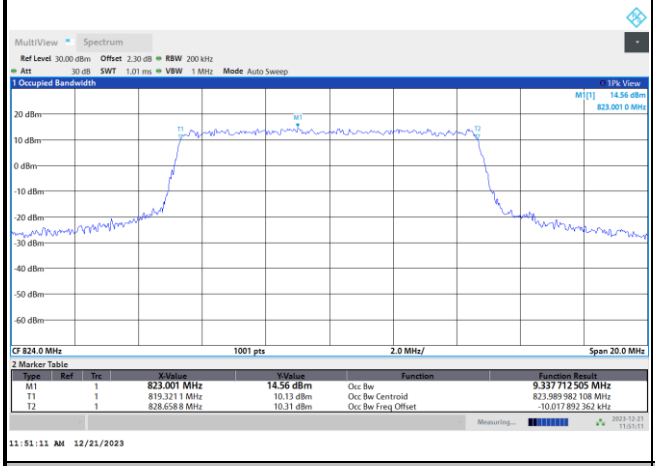
FR1 n26 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



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

QPSK



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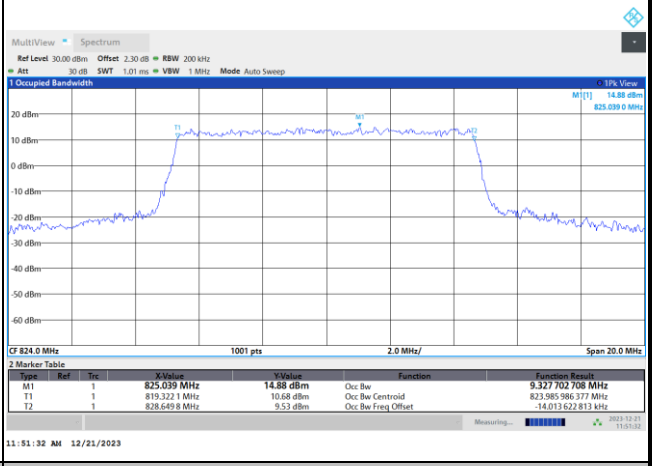

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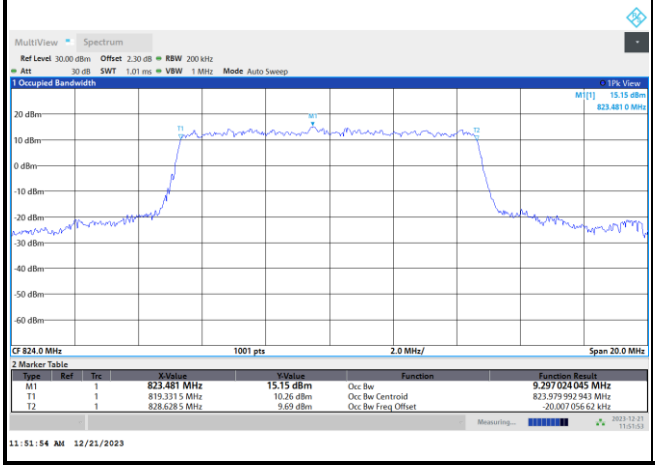

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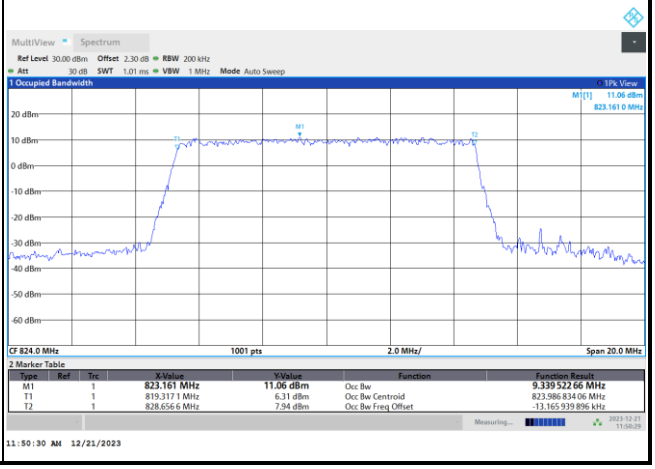
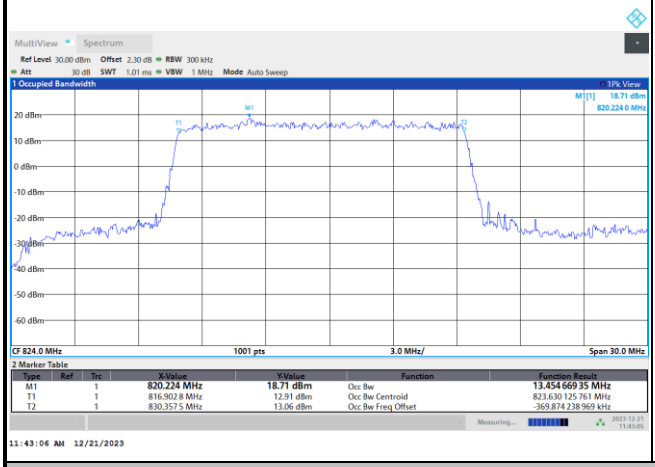


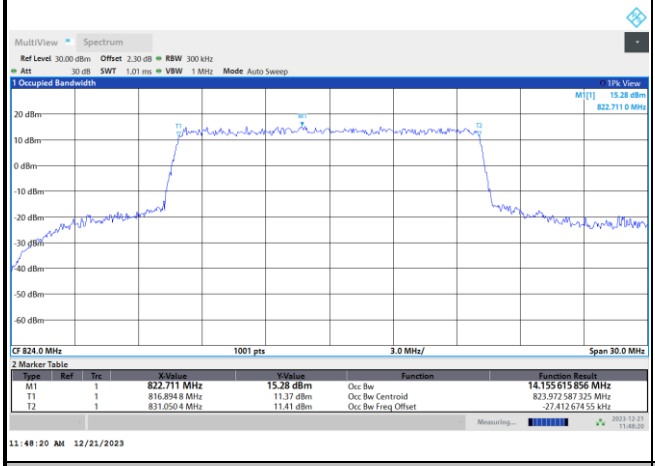
FR1 n26 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



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

QPSK



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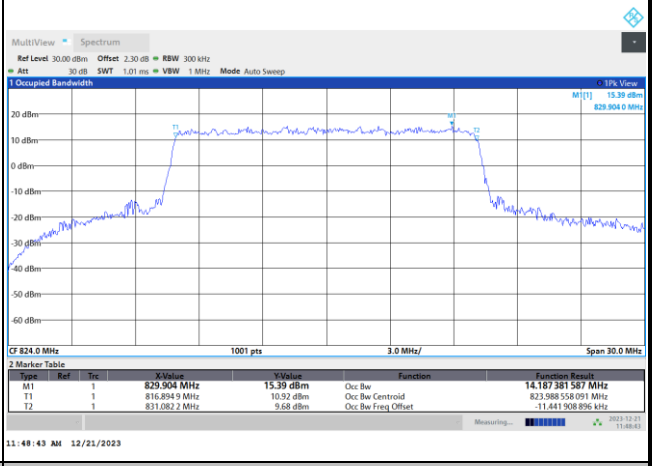

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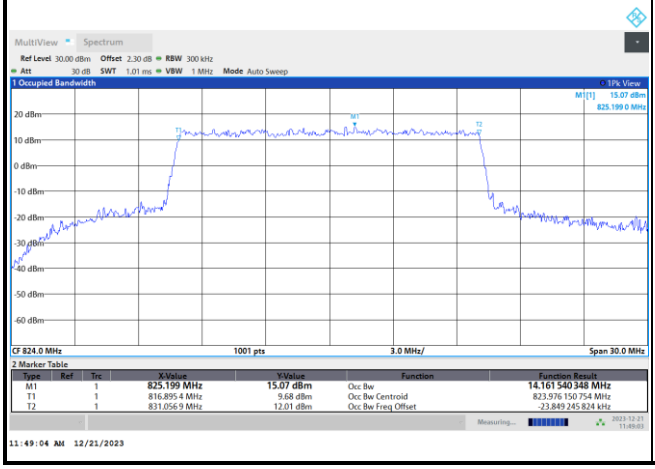

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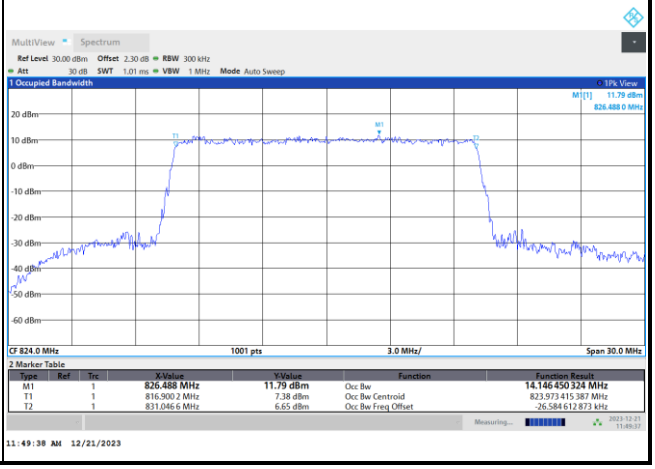
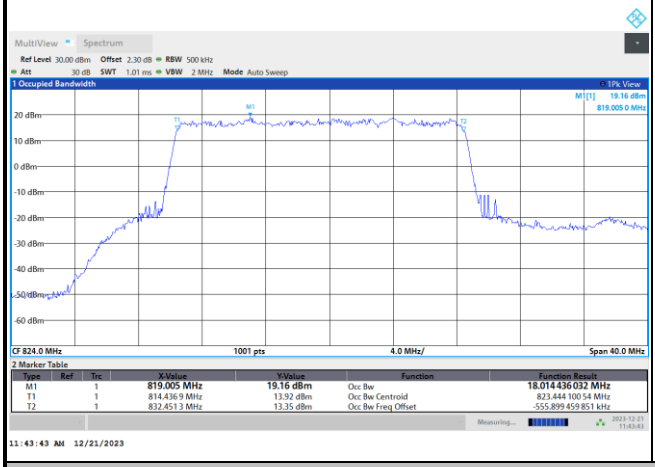


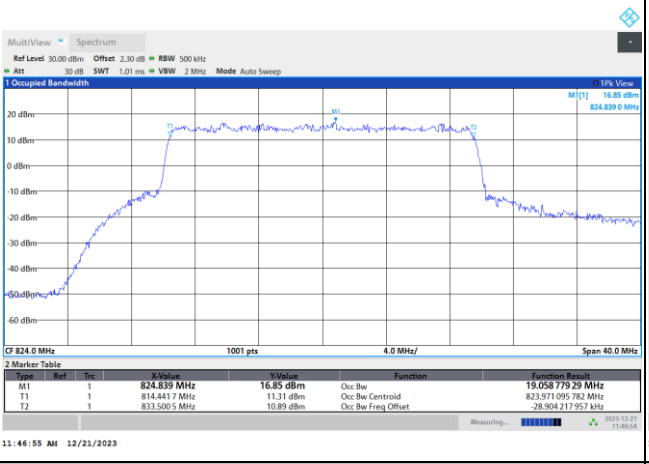
FR1 n26 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



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

QPSK



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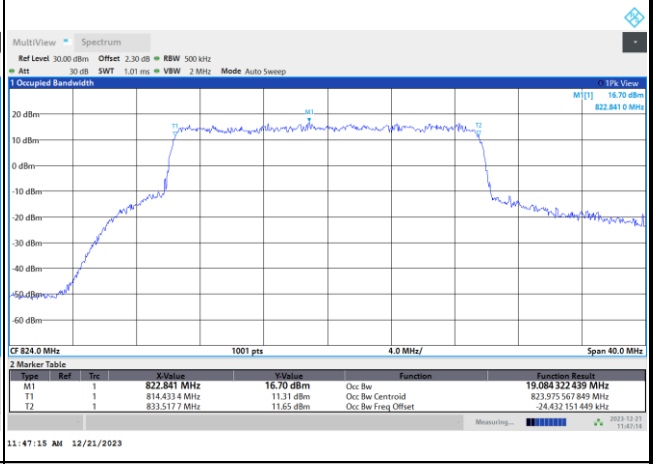

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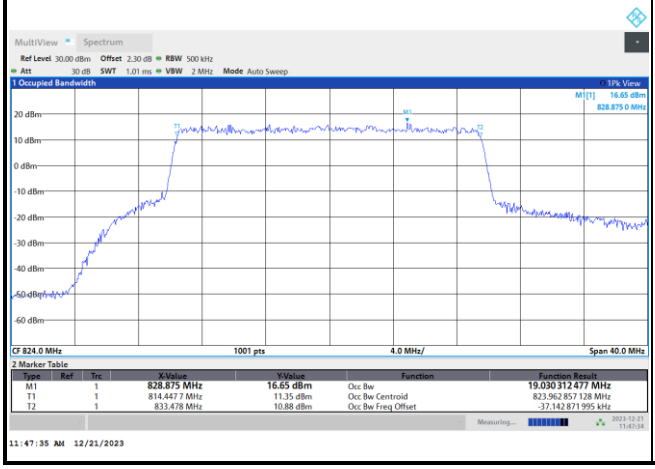

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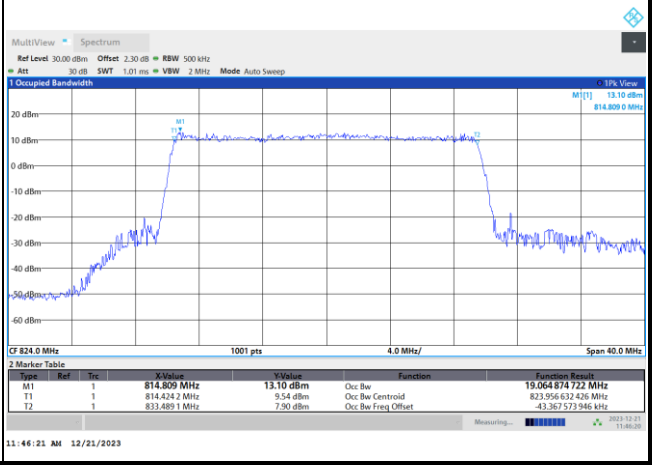
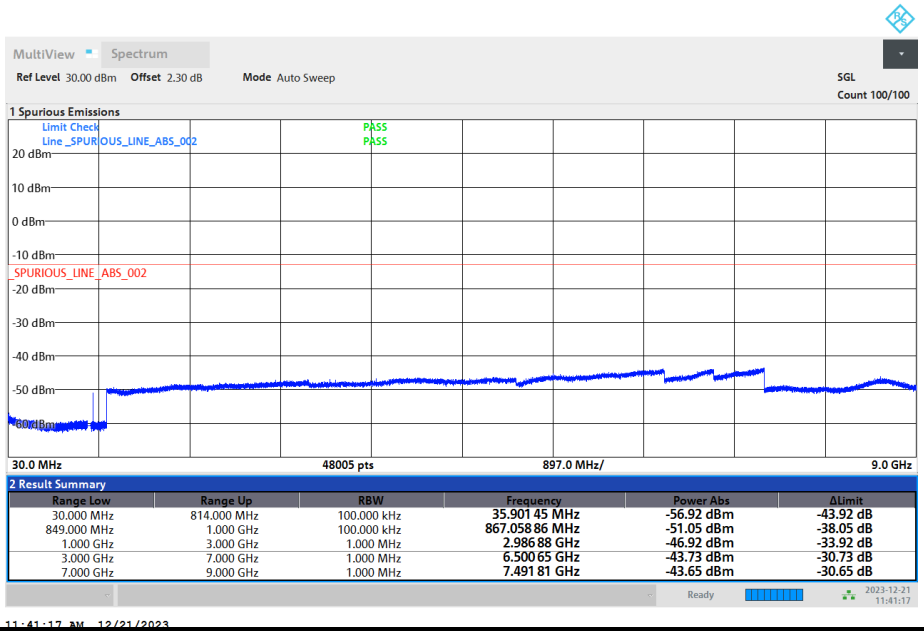


Emission masks – Out of band emissions

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.

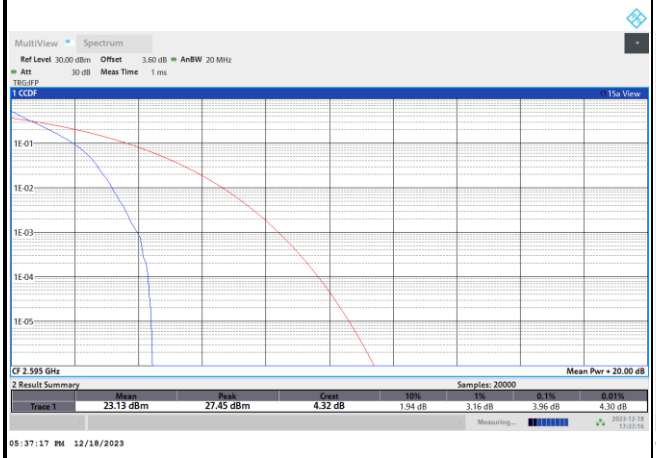
FR1 n38

Peak-to-Average Ratio

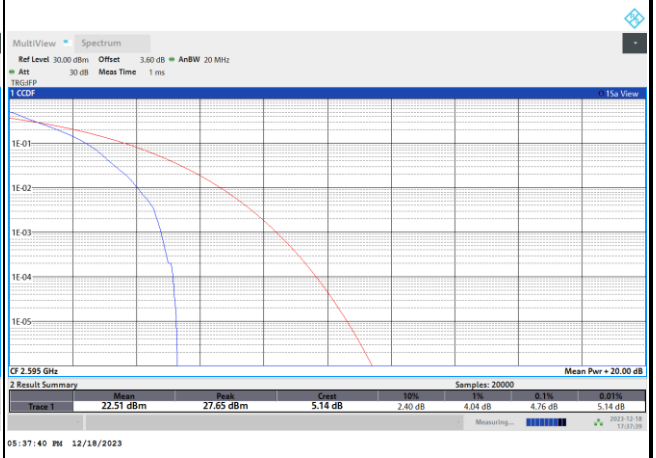
Mode	FR1 n38 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.96	4.76	5.52	5.84	PASS
Mode	FR1 n38 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	8.14				PASS

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

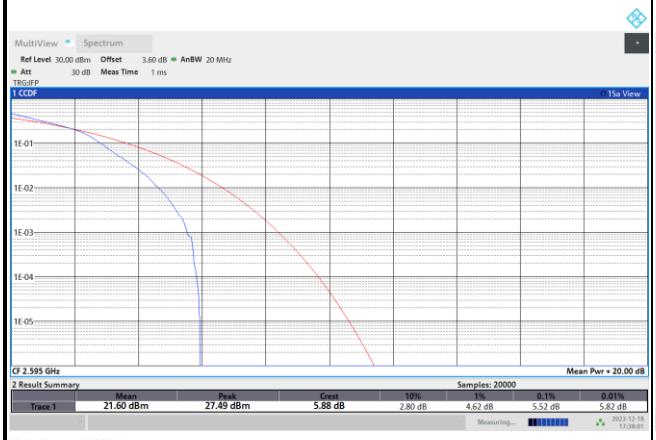
PI/2 BPSK



QPSK



16QAM



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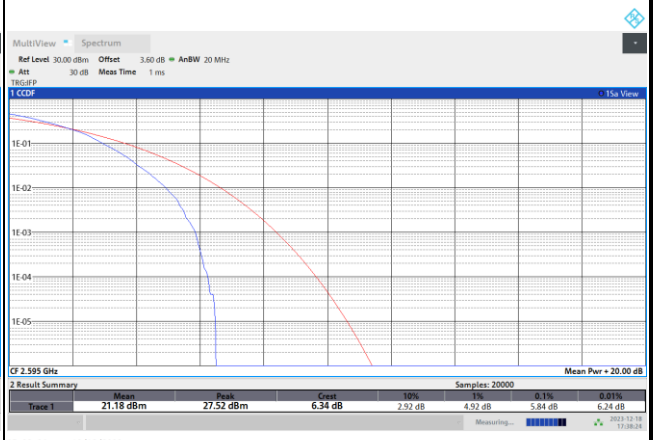
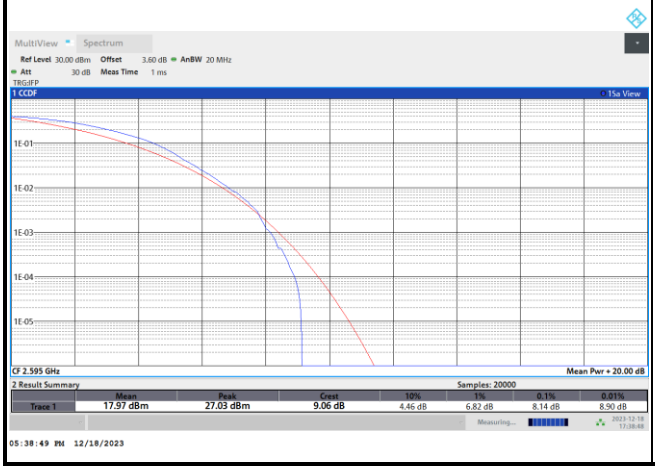


256QAM



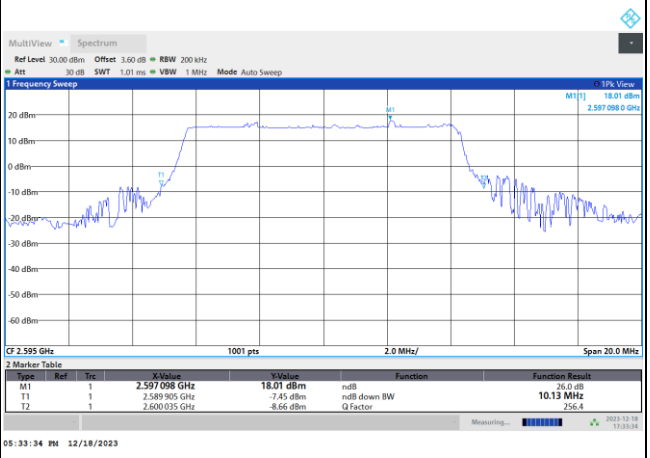
26dB Bandwidth

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

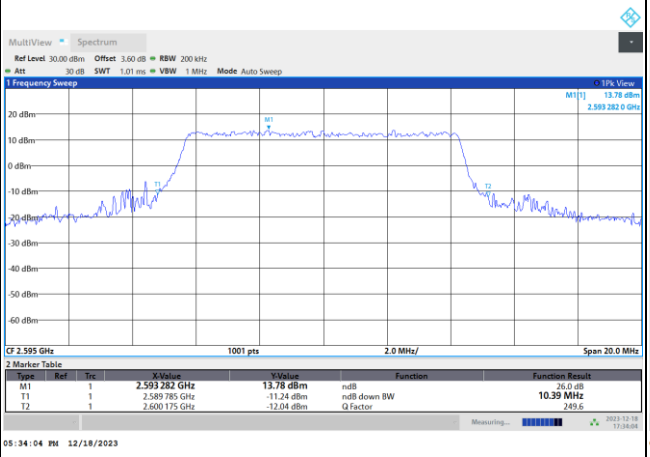
FR1 n38 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



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

QPSK



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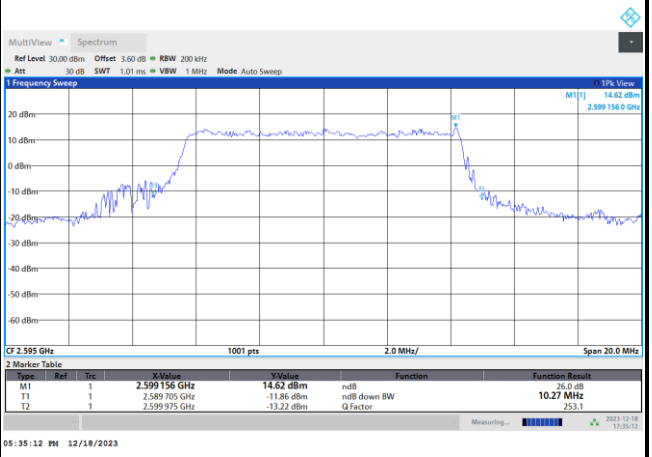

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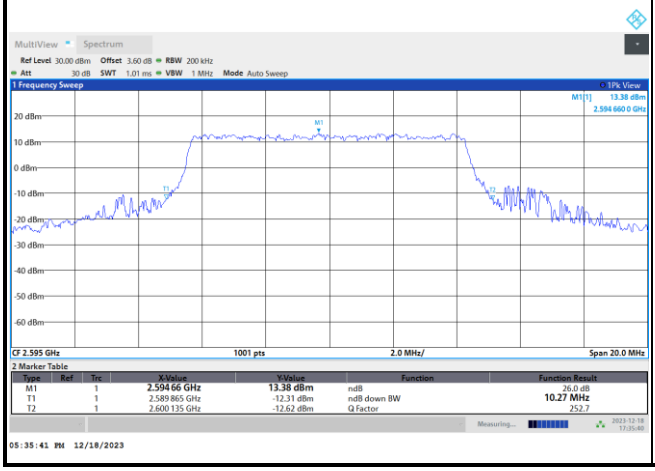

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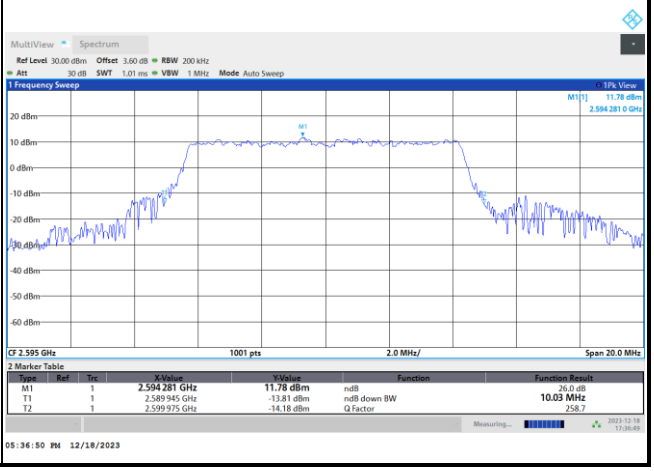
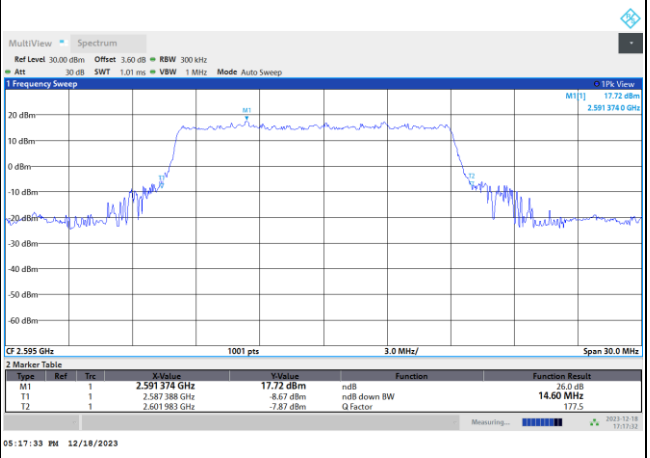


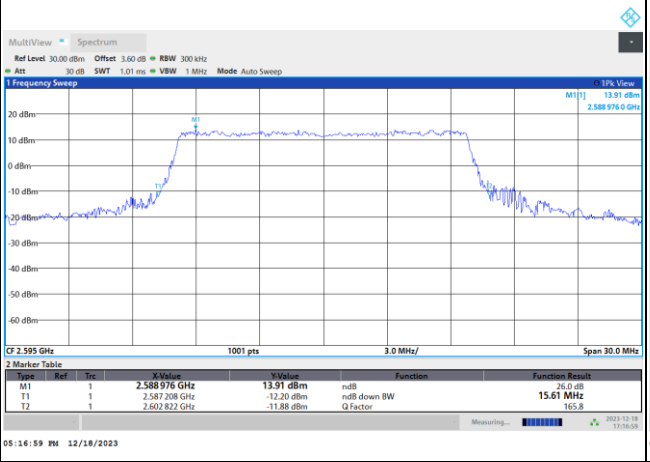
FR1 n38 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



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

QPSK



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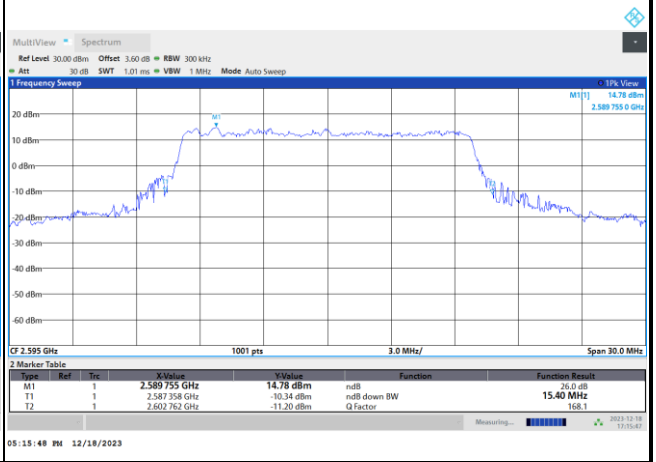

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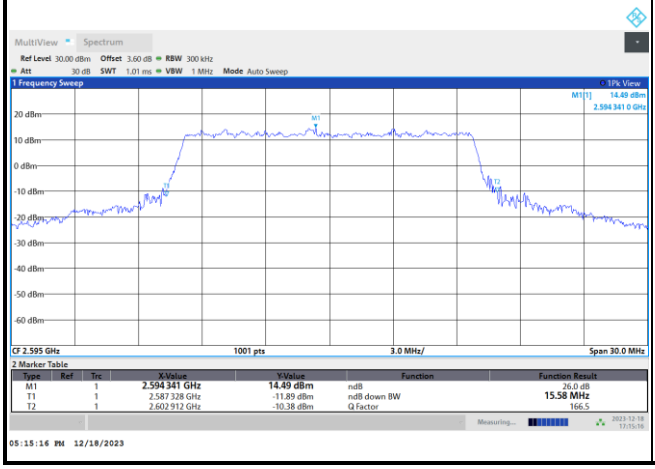

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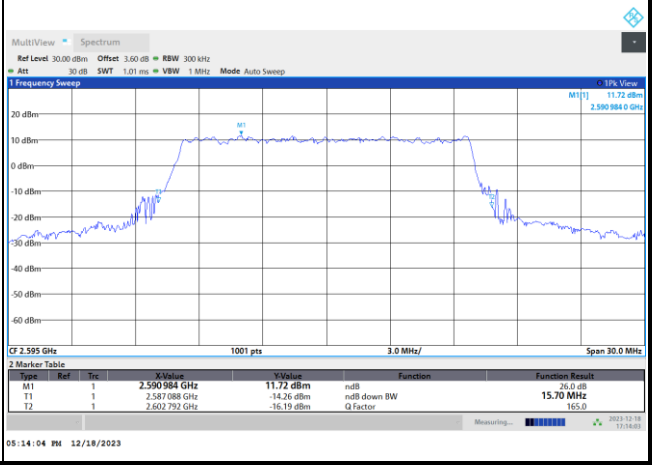
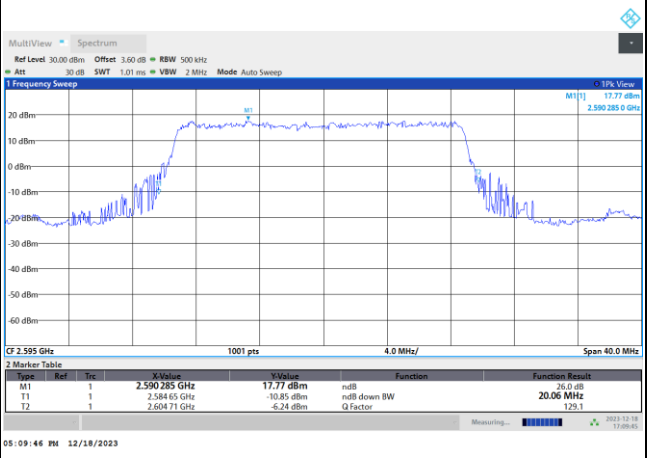


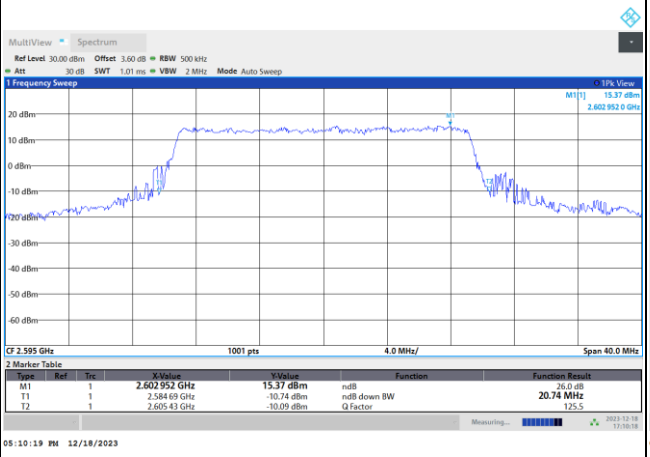
FR1 n38 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



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

QPSK



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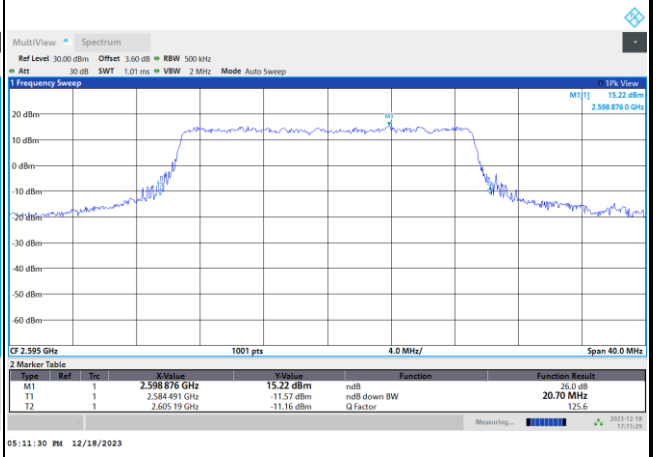

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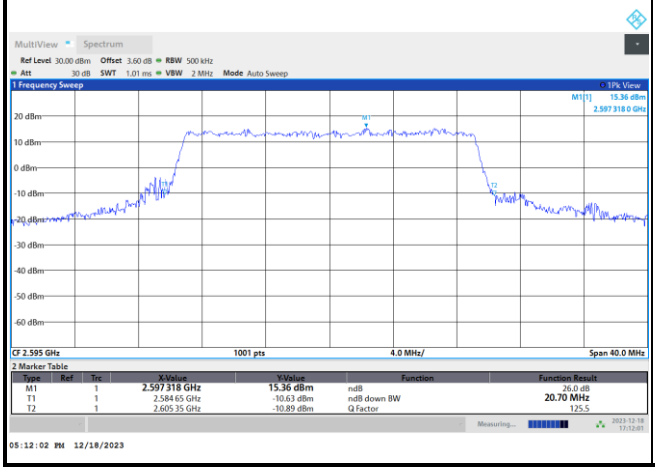

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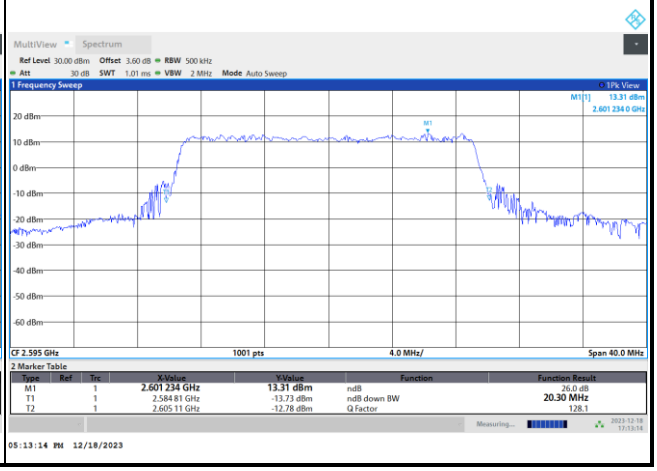
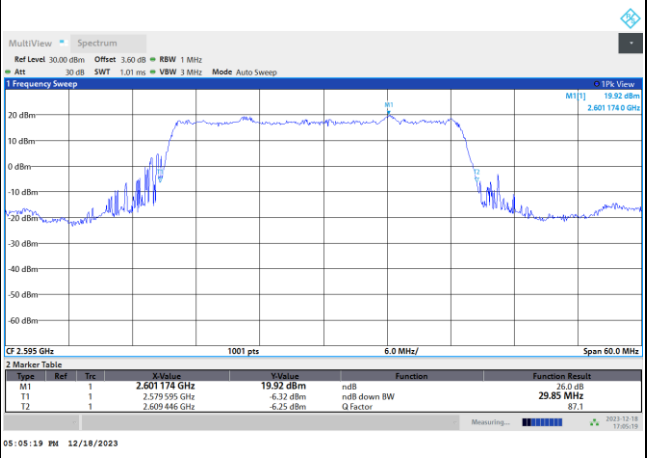


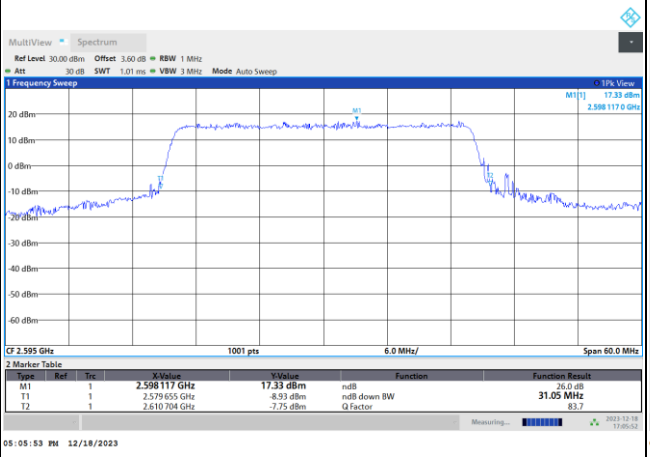
FR1 n38 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



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

QPSK



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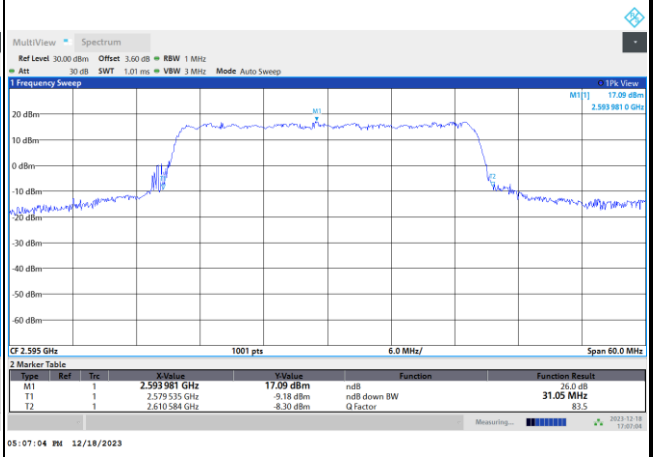

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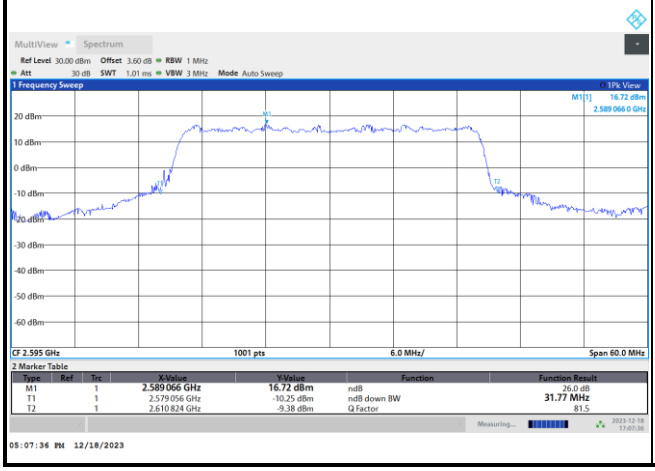

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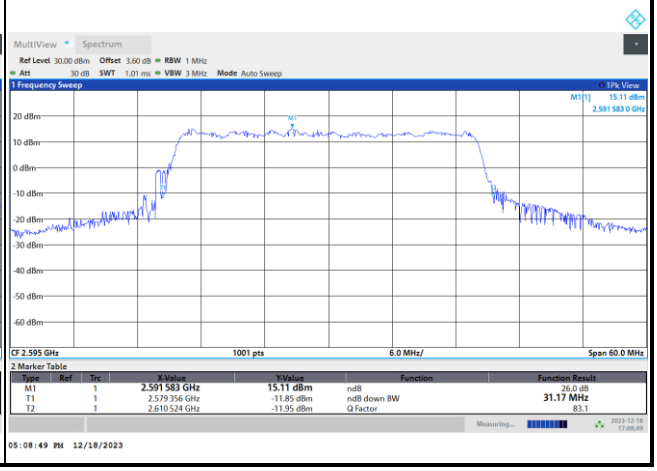
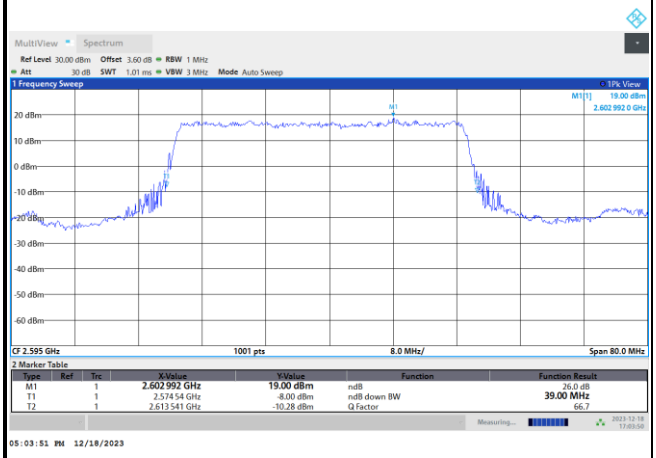


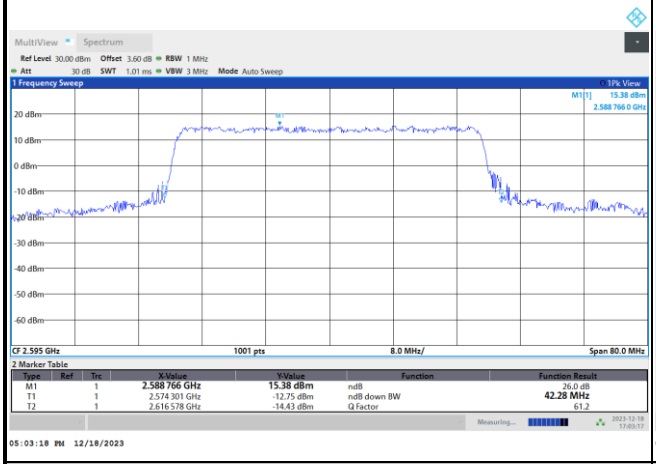
FR1 n38 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

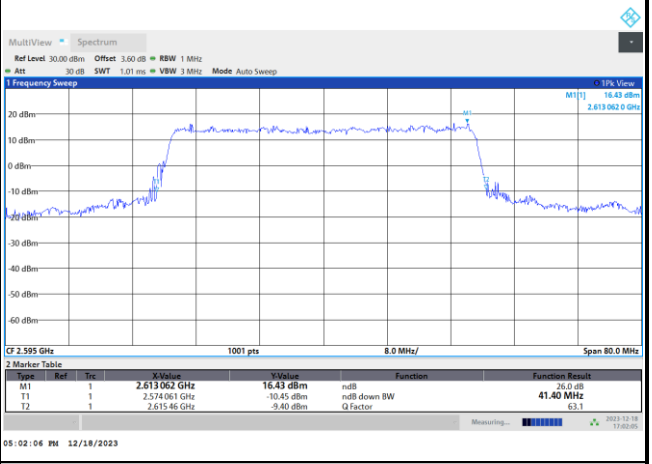


FR1 n38 / 40MHz / CP OFDM / Middle Channel / Full RB

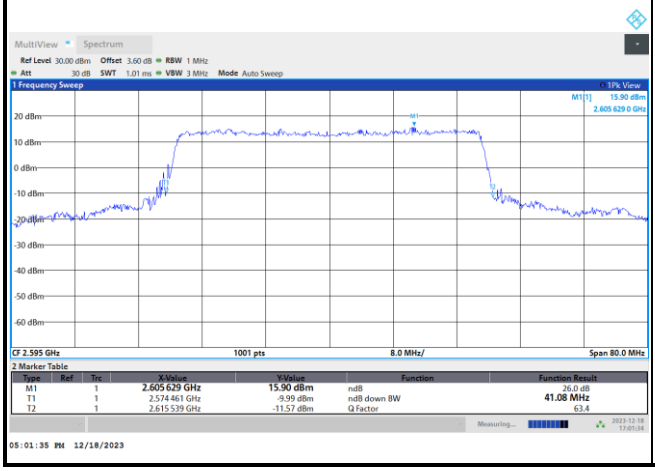
QPSK



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