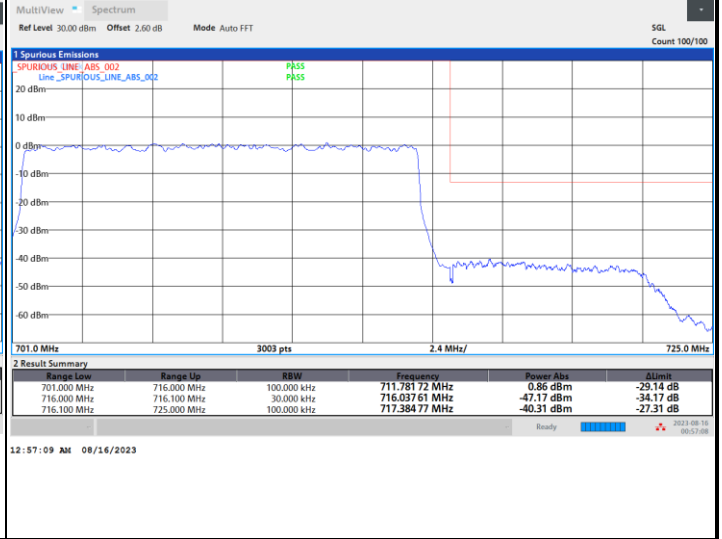
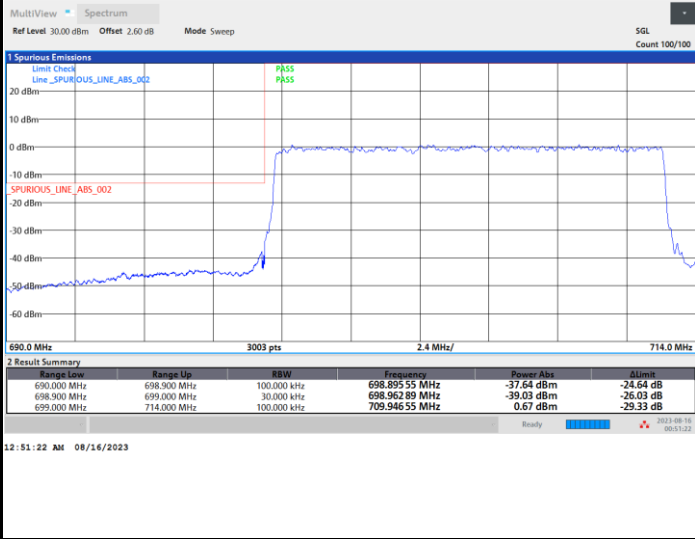




5G-FR1 SA n12 / 15MHz / DFT-s-OFDM / 256QAM / Full RB

Lowest Band Edge

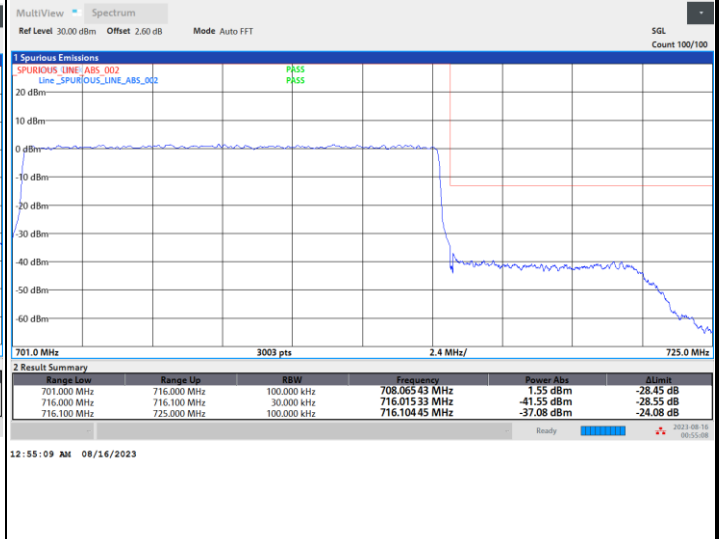
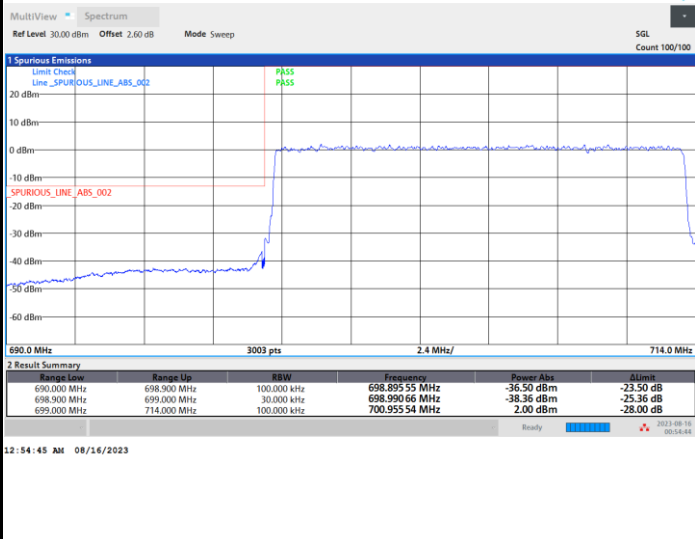
Highest Band Edge



5G-FR1 SA n12 / 15MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge

Highest Band Edge



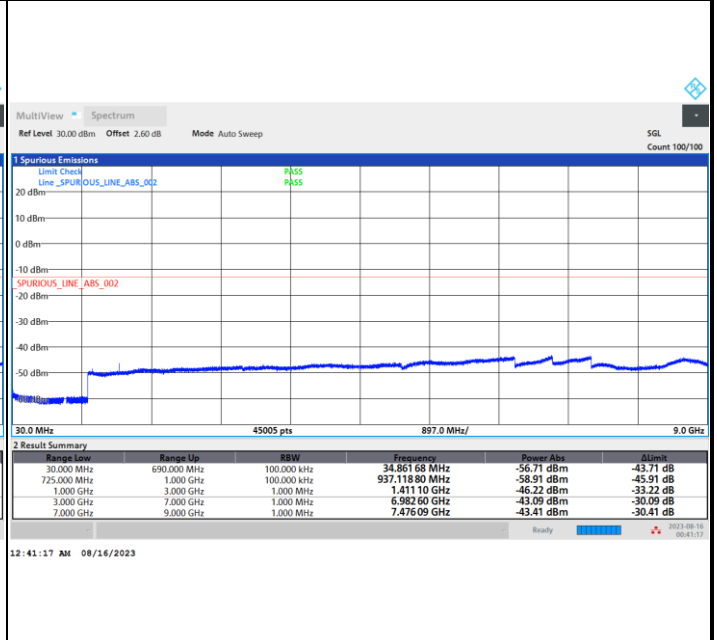
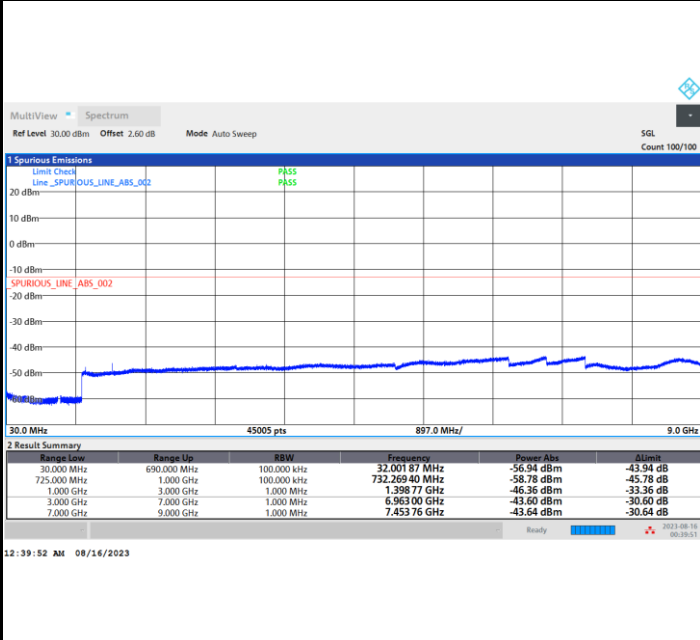


Conducted Spurious Emission

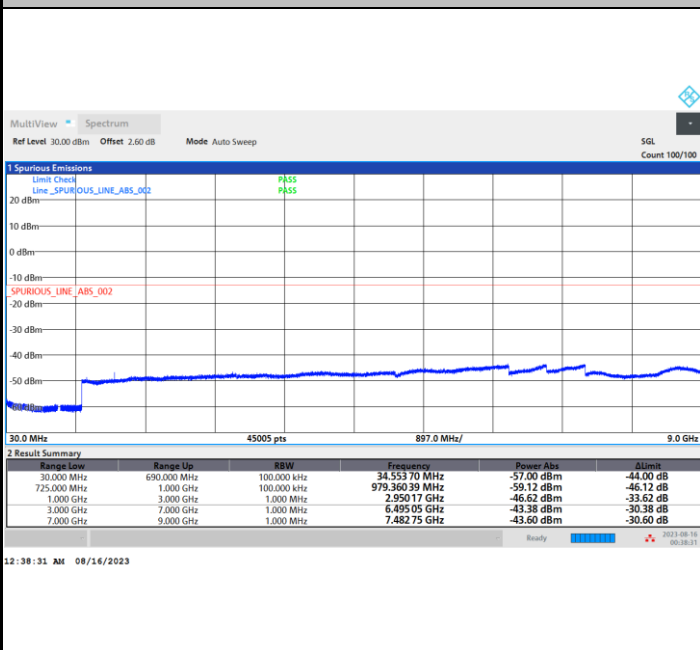
5G-FR1 SA n12 / 5MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel





Frequency Stability

Test Conditions		5G-FR1 SA n12 (PI/2 BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 15MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0112	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0196	
0	Normal Voltage	0.0171	
-10	Normal Voltage	0.0045	
-20	Normal Voltage	0.0054	
-30	Normal Voltage	0.0107	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0188	

Note:

- 1. Normal Voltage = 48 V. ; Minimum Voltage = 42.5 V. ; Maximum Voltage = 57 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



5G-FR1 SA n25

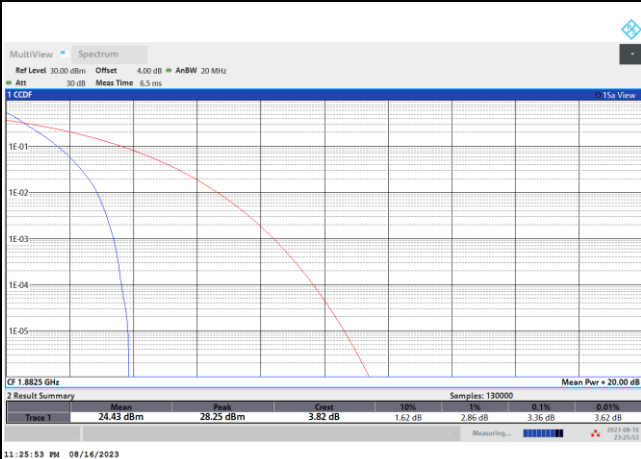
Peak-to-Average Ratio

Mode	5G-FR1 SA n25 / 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	3.36	4.18	5.12	5.30	PASS
Mode	5G-FR1 SA n25 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.14				PASS

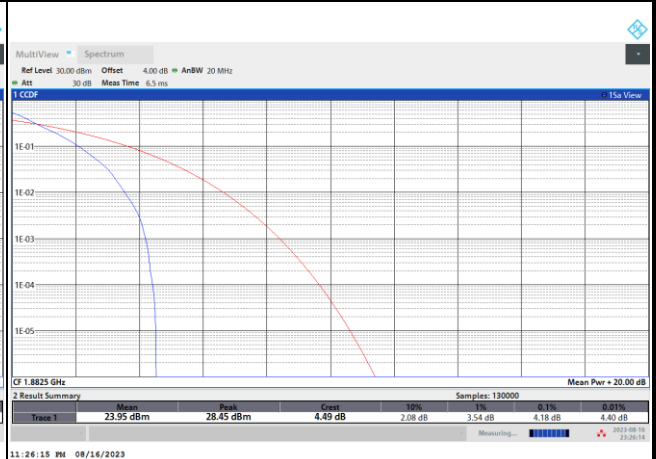


5G-FR1 SA n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

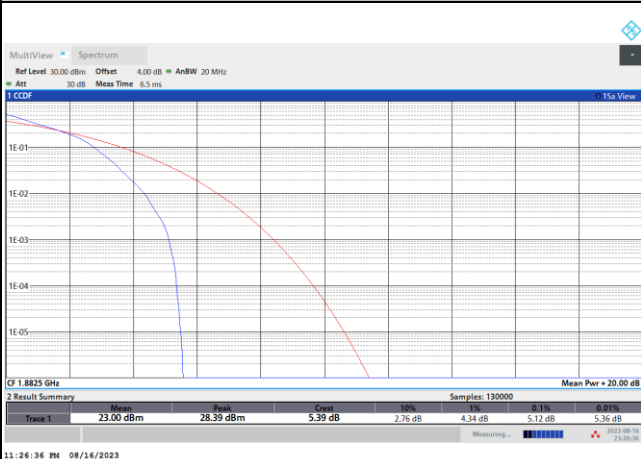
PI/2 BPSK



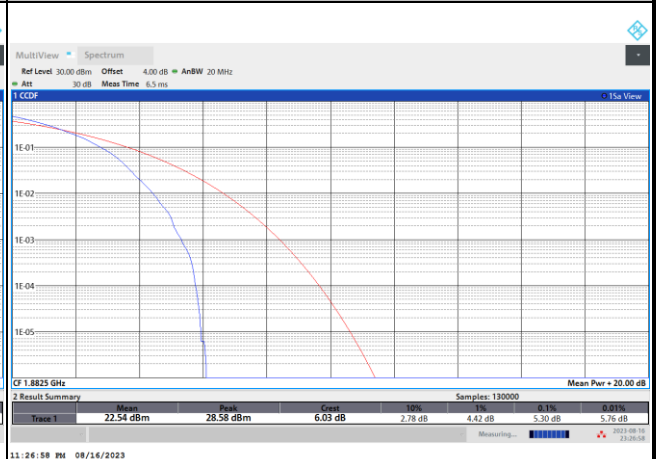
QPSK



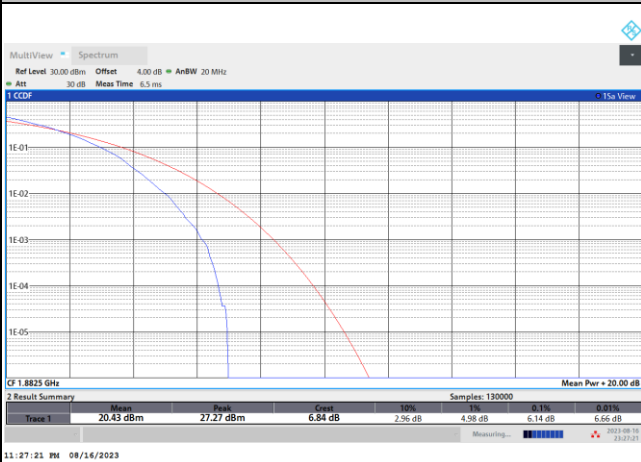
16QAM



64QAM



256QAM





26dB Bandwidth

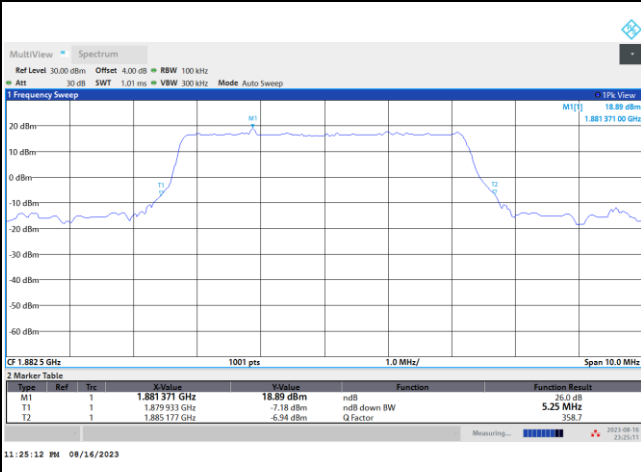
Mode	5G-FR1 SA n25 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	5.25		9.53		14.63		19.10	
BW	25MHz		30MHz		35MHz		40MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	24.13		33.36		33.36		41.32	

Mode	5G-FR1 SA n25 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	5.31	5.32	10.35	10.25	15.55	15.47	20.62	20.38
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	5.29	5.31	10.35	10.13	15.50	15.38	20.18	20.30
BW	25MHz		30MHz		35MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	25.18	25.13	35.17	35.24	35.17	35.24	41.96	43.32
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	25.23	24.93	35.10	34.76	35.10	34.76	41.96	41.16



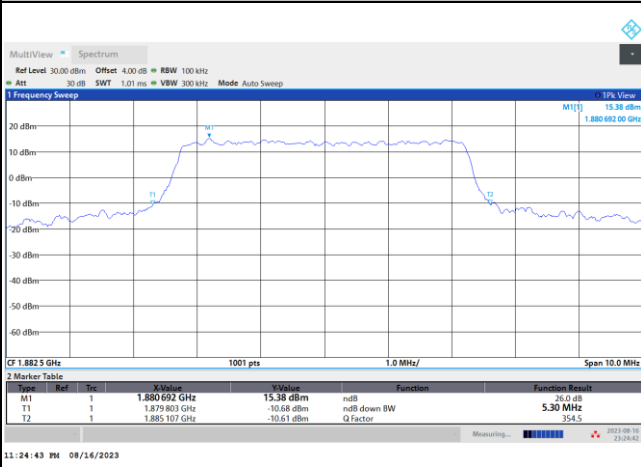
5G-FR1 SA n25 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

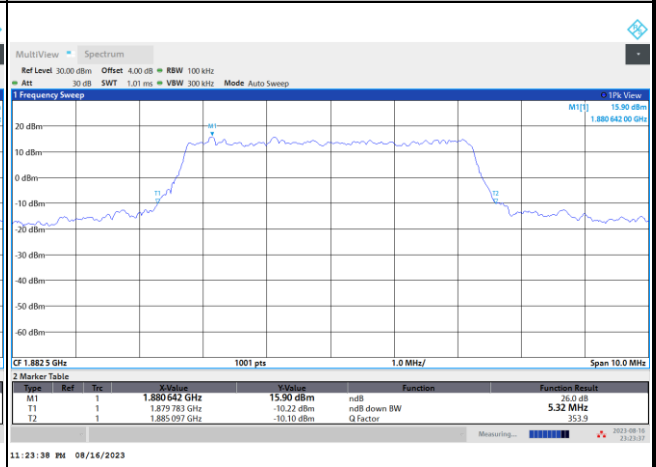


5G-FR1 SA n25 / 5MHz / CP OFDM / Middle Channel / Full RB

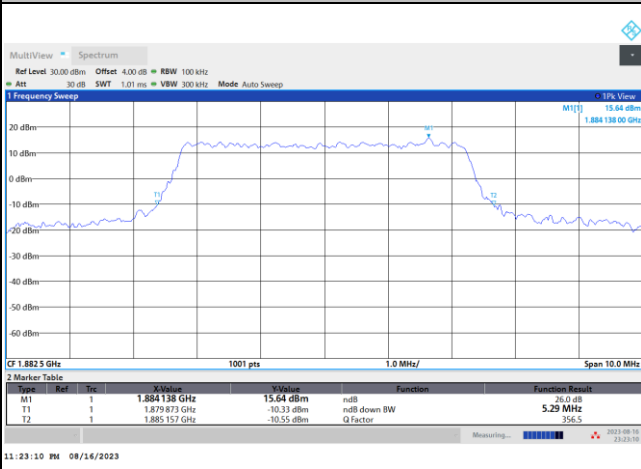
QPSK



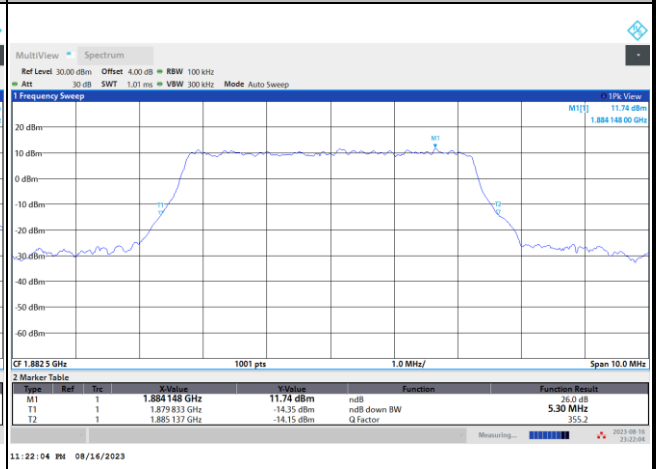
16QAM



64QAM



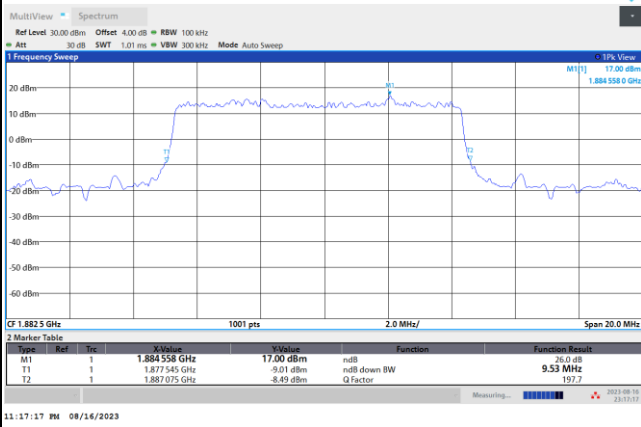
256QAM





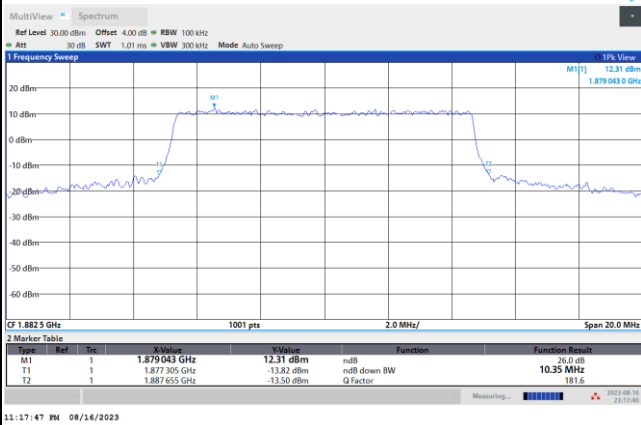
5G-FR1 SA n25 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

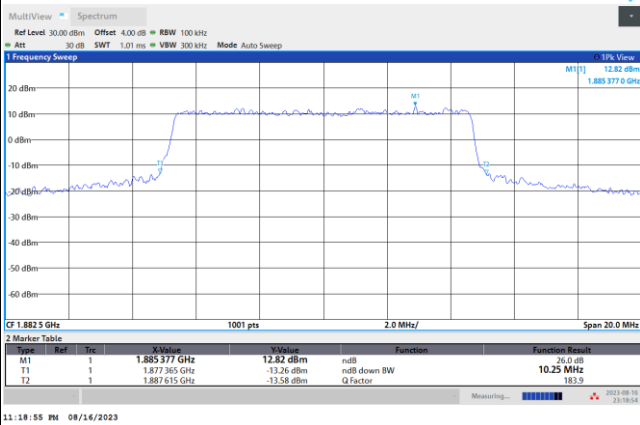


5G-FR1 SA n25 / 10MHz / CP OFDM / Middle Channel / Full RB

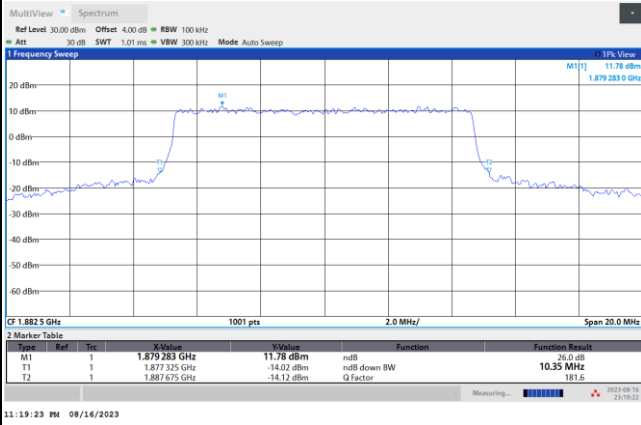
QPSK



16QAM



64QAM



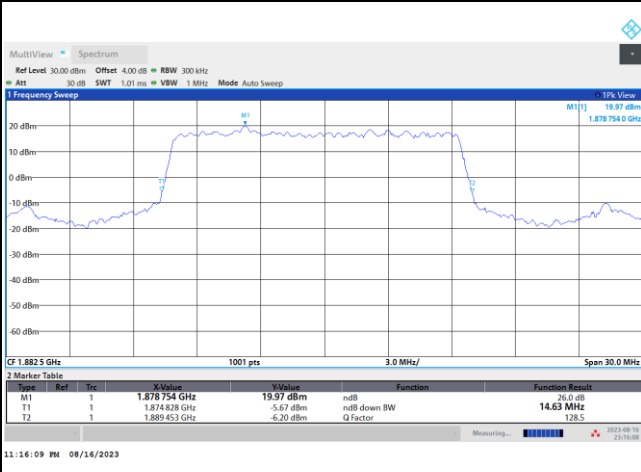
256QAM





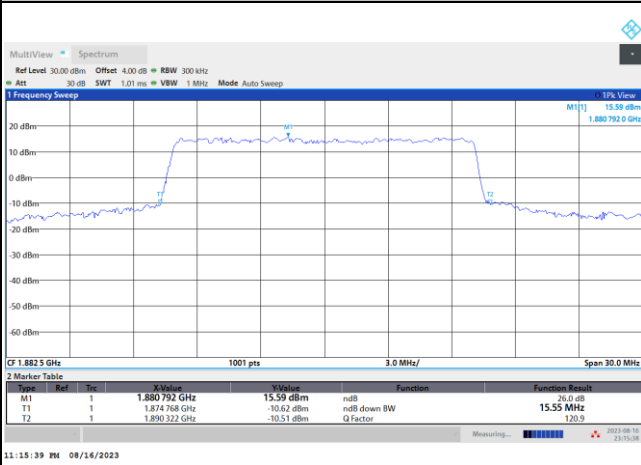
5G-FR1 SA n25 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

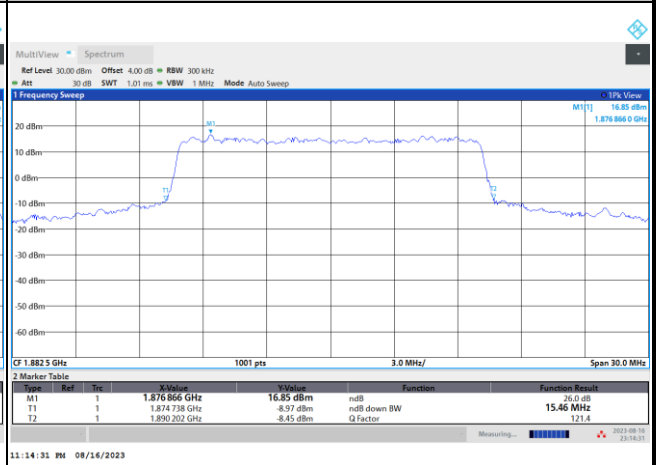


5G-FR1 SA n25 / 15MHz / CP OFDM / Middle Channel / Full RB

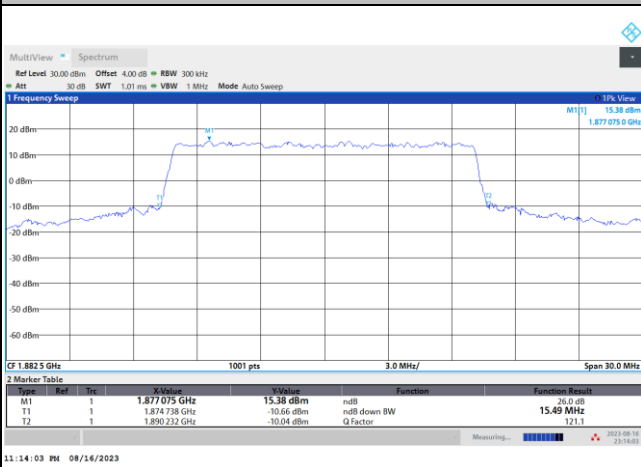
QPSK



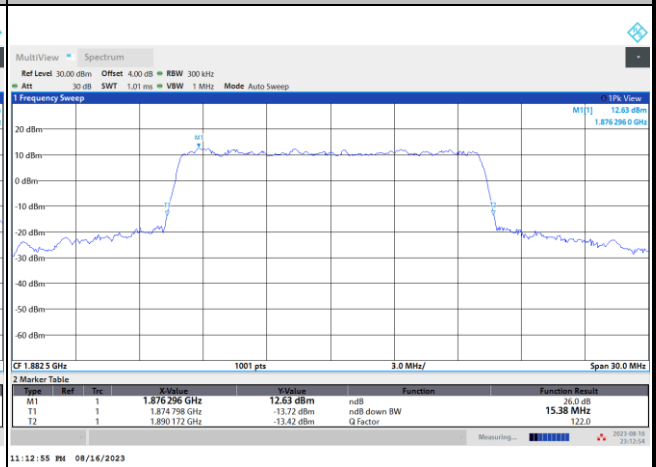
16QAM



64QAM



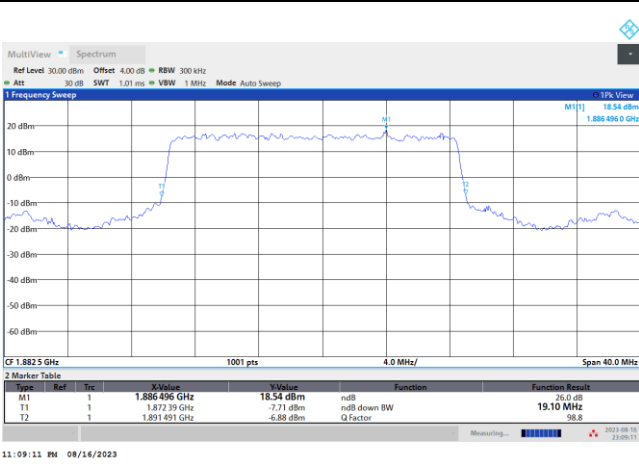
256QAM





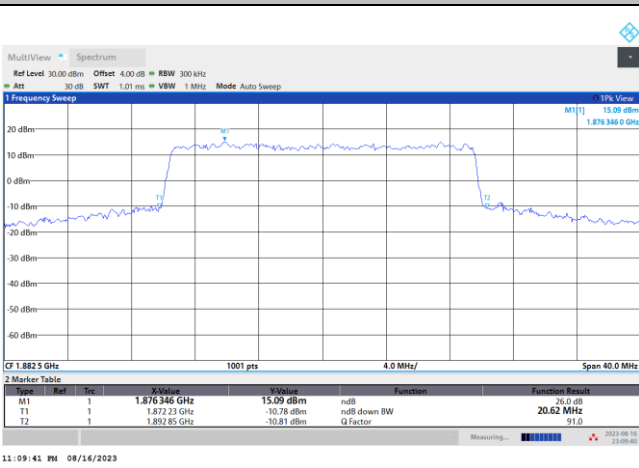
5G-FR1 SA n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

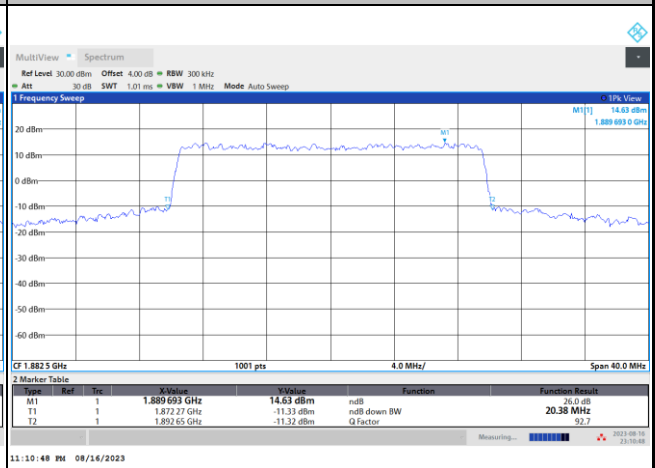


5G-FR1 SA n25 / 20MHz / CP OFDM / Middle Channel / Full RB

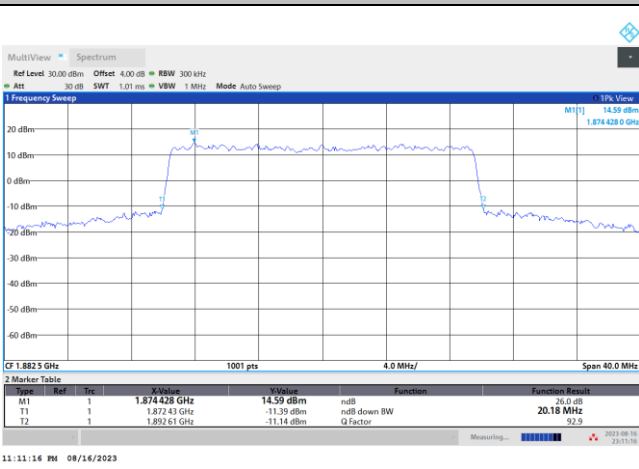
QPSK



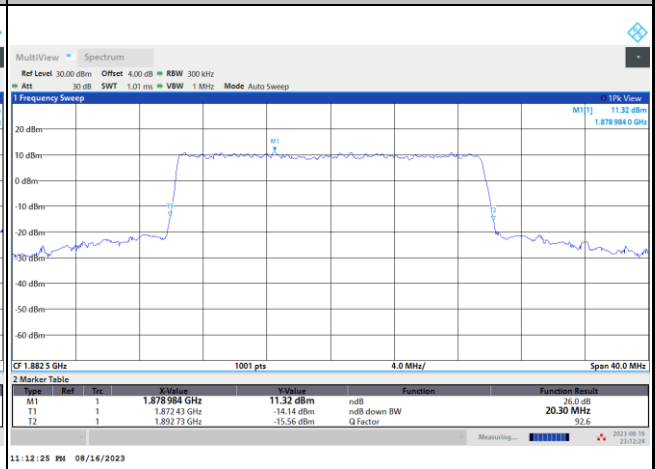
16QAM



64QAM



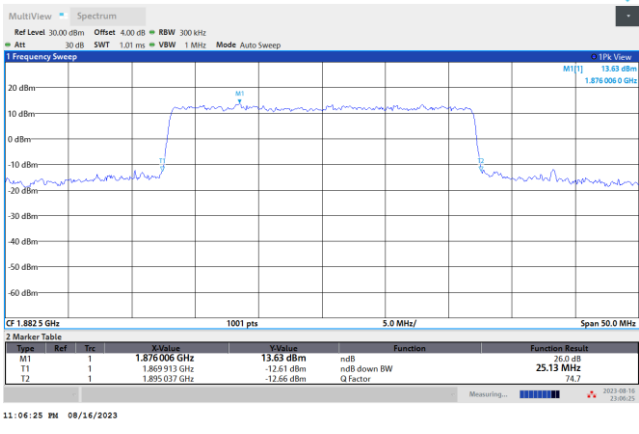
256QAM





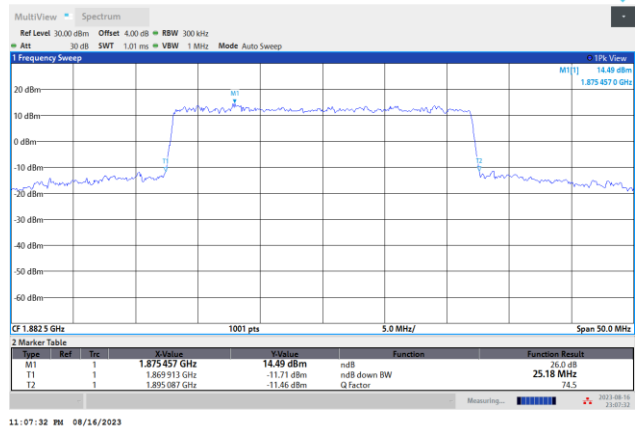
5G-FR1 SA n25 / 25MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

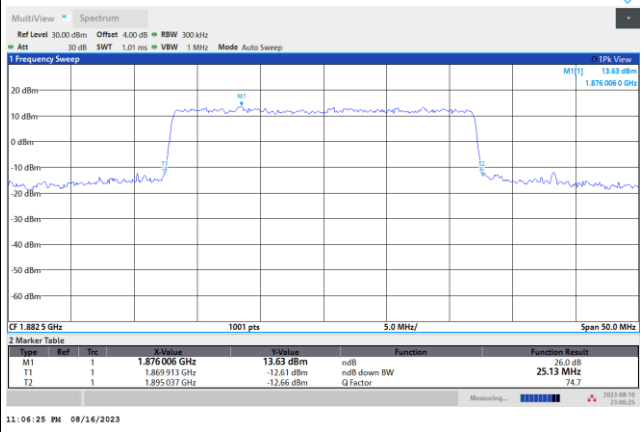


5G-FR1 SA n25 / 25MHz / CP OFDM / Middle Channel / Full RB

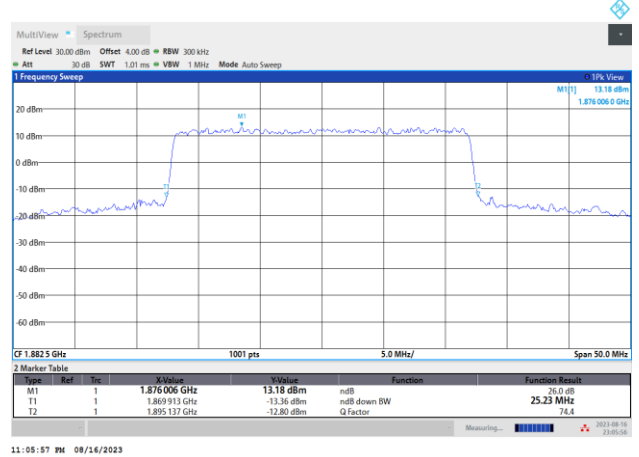
QPSK



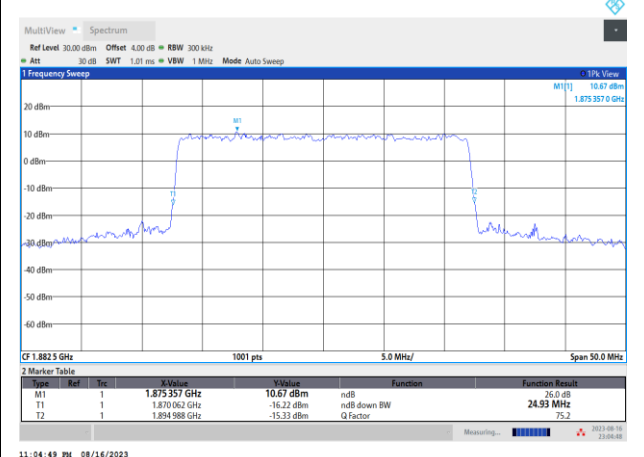
16QAM



64QAM



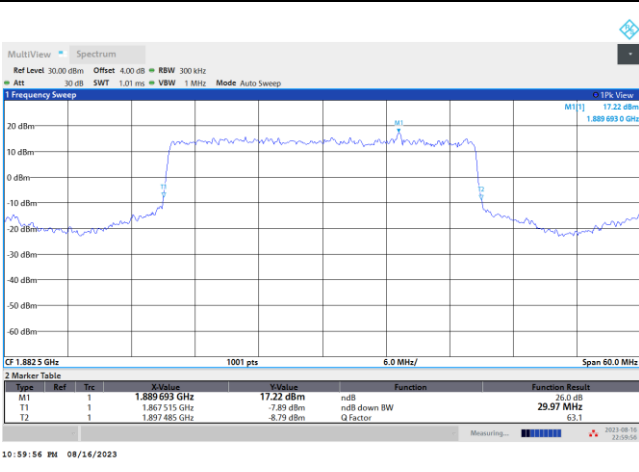
256QAM





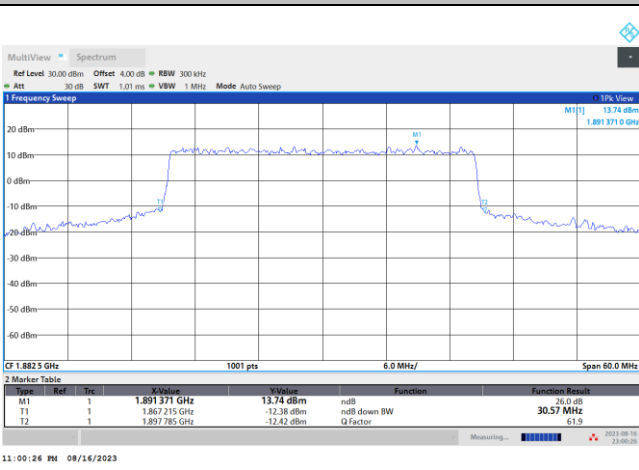
5G-FR1 SA n25 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

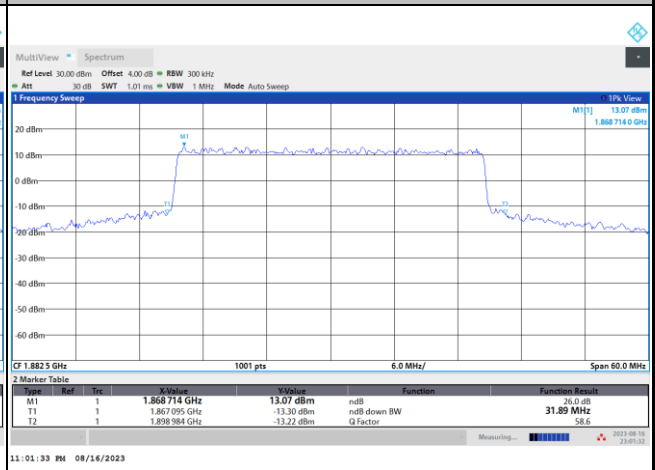


5G-FR1 SA n25 / 30MHz / CP OFDM / Middle Channel / Full RB

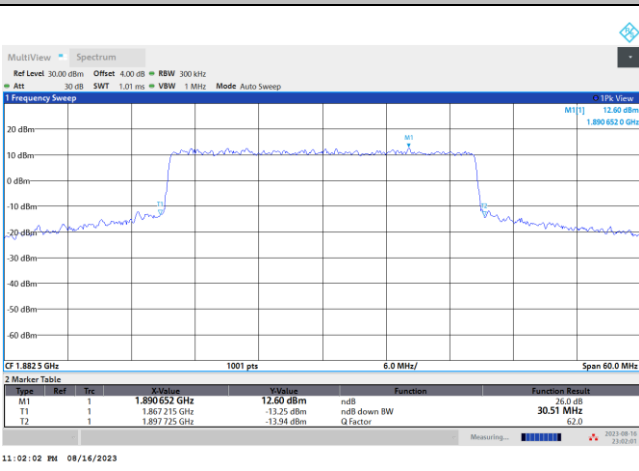
QPSK



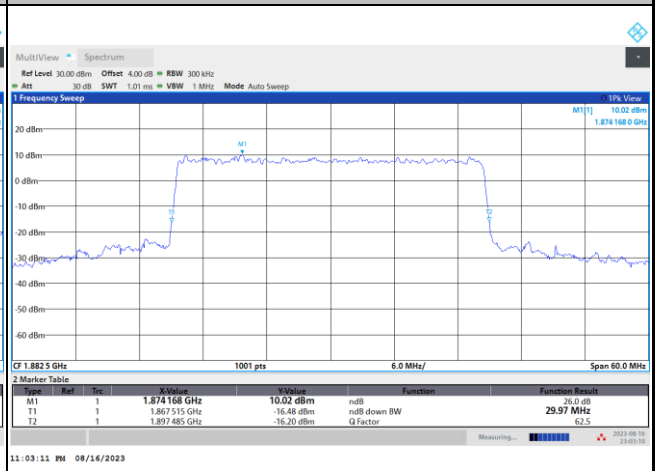
16QAM



64QAM



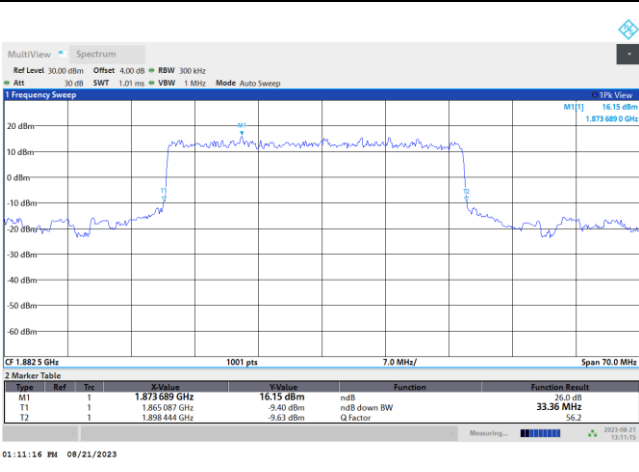
256QAM





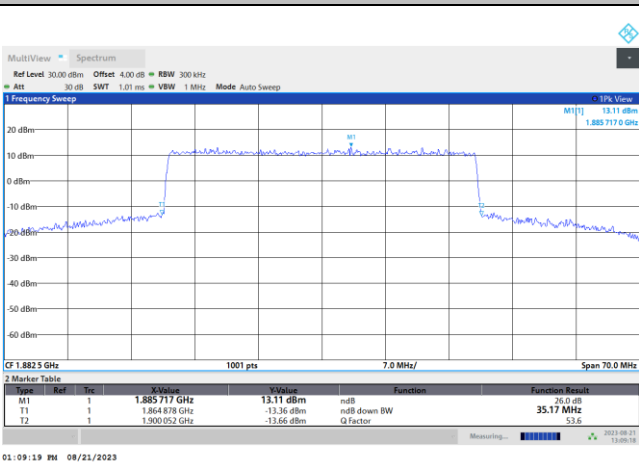
5G-FR1 SA n25 / 35MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

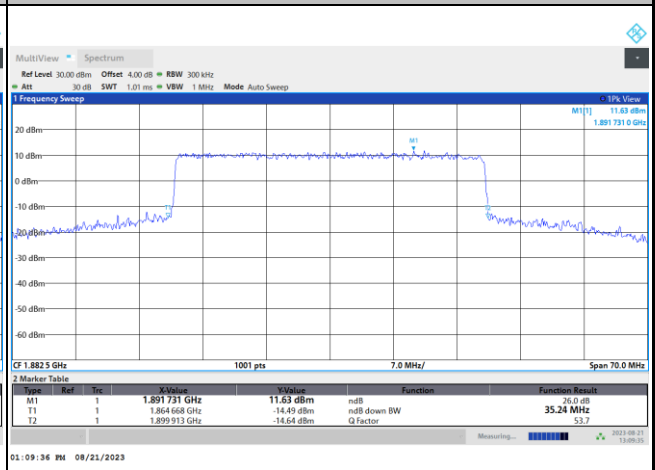


5G-FR1 SA n25 / 35MHz / CP OFDM / Middle Channel / Full RB

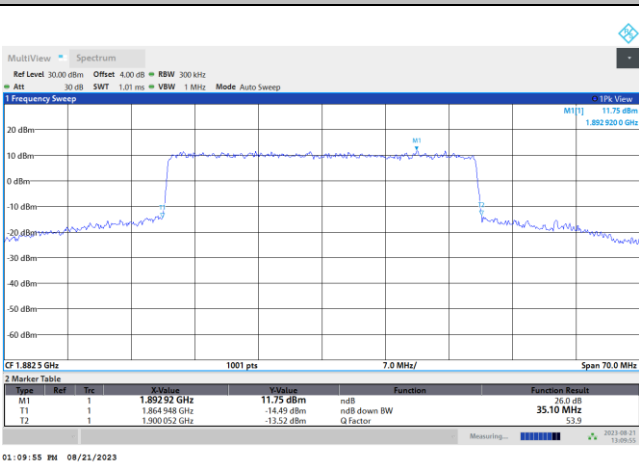
QPSK



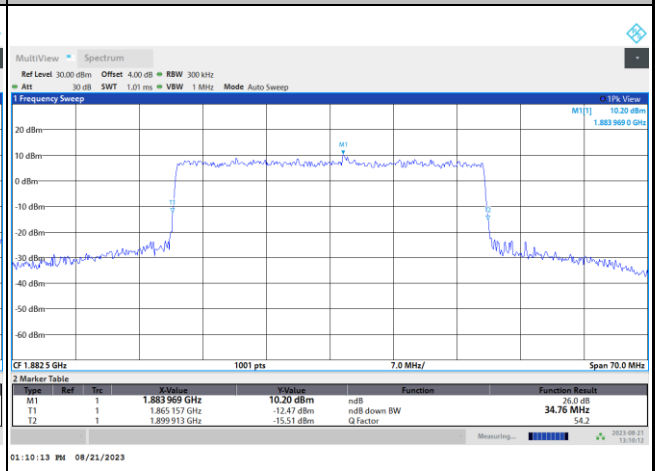
16QAM



64QAM



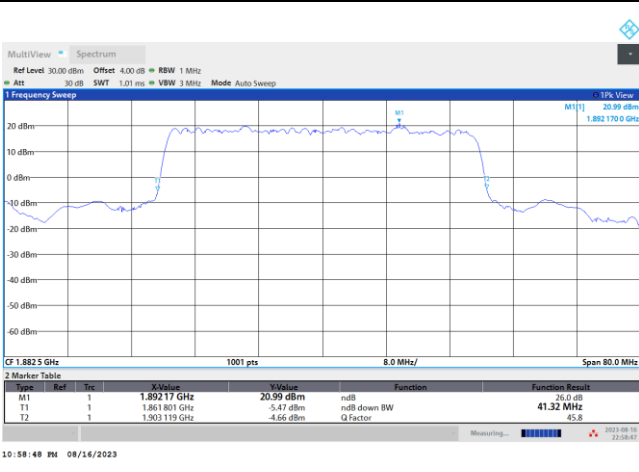
256QAM





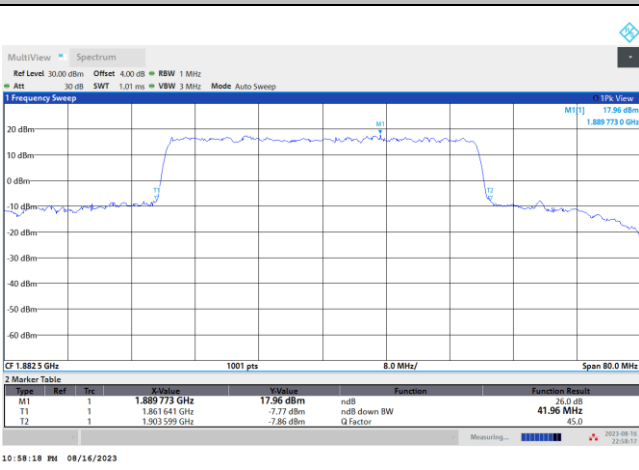
5G-FR1 SA n25 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

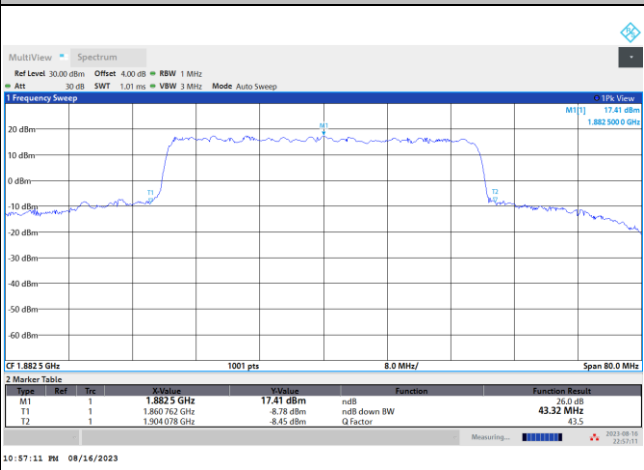


5G-FR1 SA n25 / 40MHz / CP OFDM / Middle Channel / Full RB

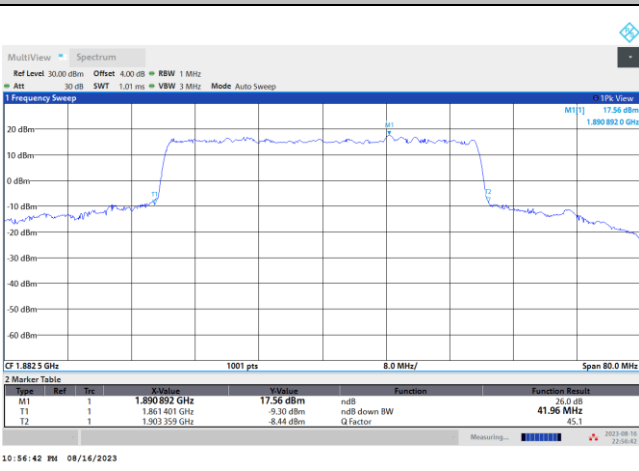
QPSK



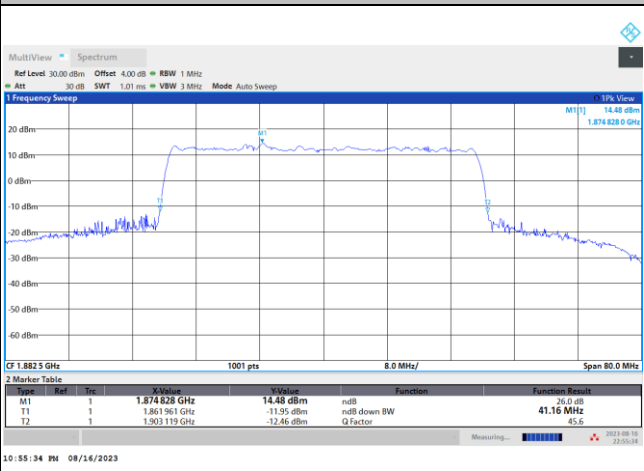
16QAM



64QAM



256QAM





Occupied Bandwidth

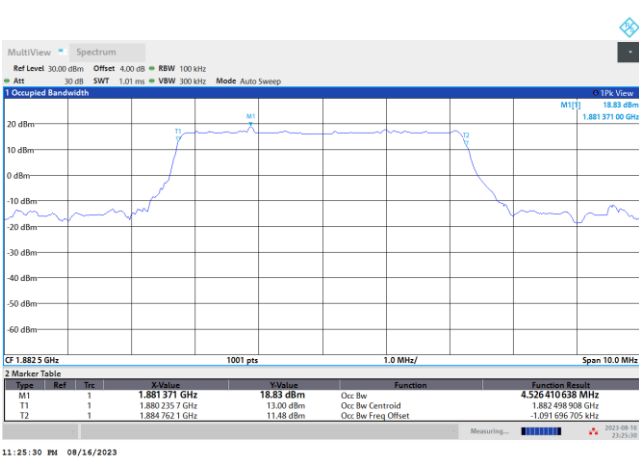
Mode	5G-FR1 SA n25 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.52		8.92		13.47		17.92	
BW	25MHz		30MHz		35MHz		40MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	22.89		28.57		32.14		38.72	

Mode	5G-FR1 SA n25 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.53	4.55	9.32	9.31	14.19	14.21	19.00	19.03
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.55	4.53	9.30	9.30	14.23	14.20	19.00	19.03
BW	25MHz		30MHz		35MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	23.80	23.80	28.60	28.68	33.62	33.67	38.90	38.84
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	23.77	23.75	28.57	28.57	33.63	33.56	39.04	38.72



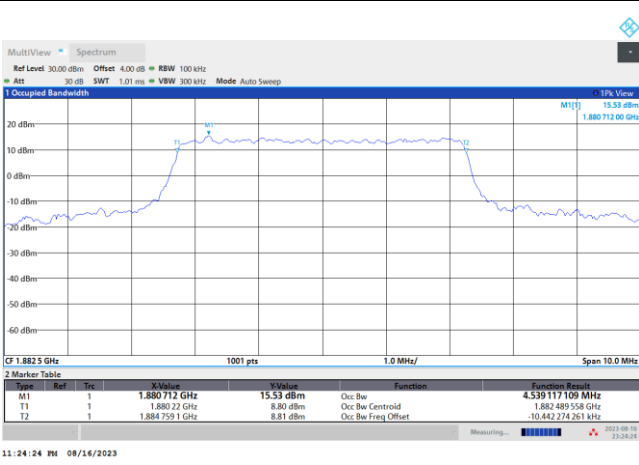
5G-FR1 SA n25 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

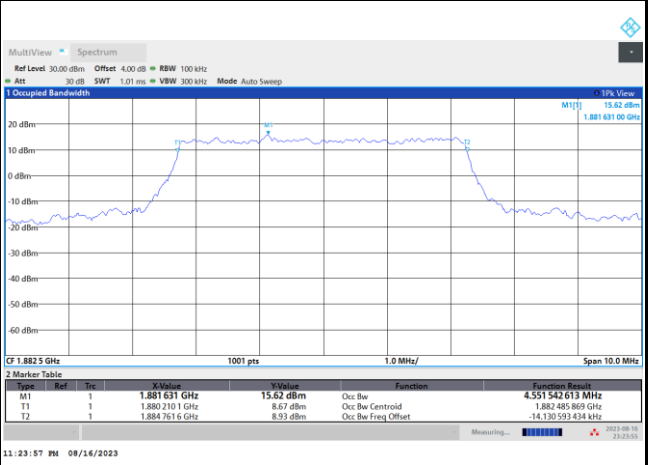


5G-FR1 SA n25 / 5MHz / CP OFDM / Middle Channel / Full RB

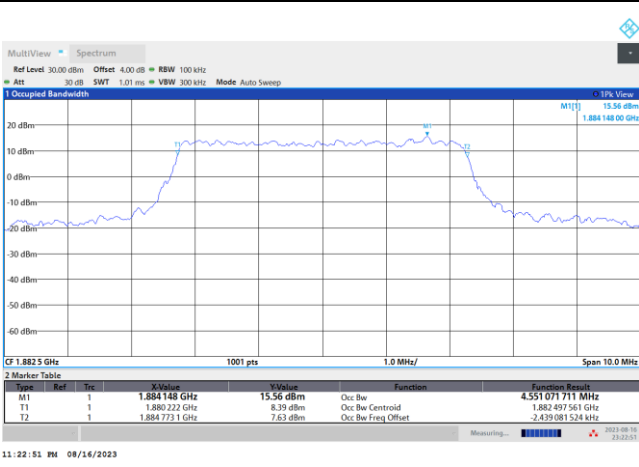
QPSK



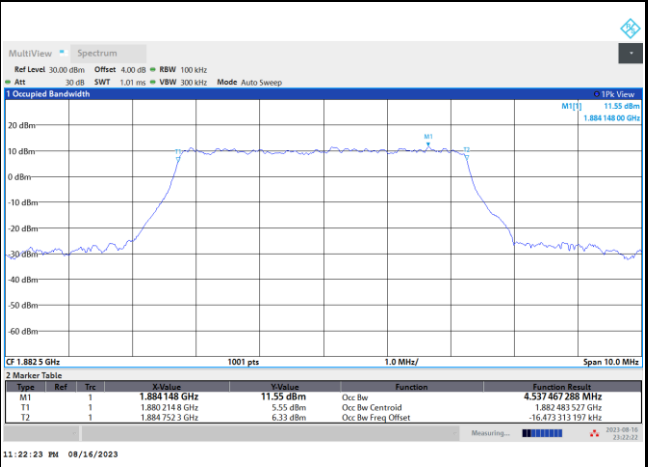
16QAM



64QAM



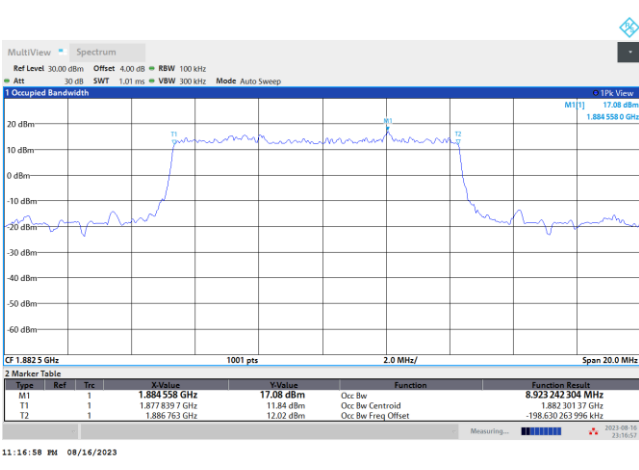
256QAM





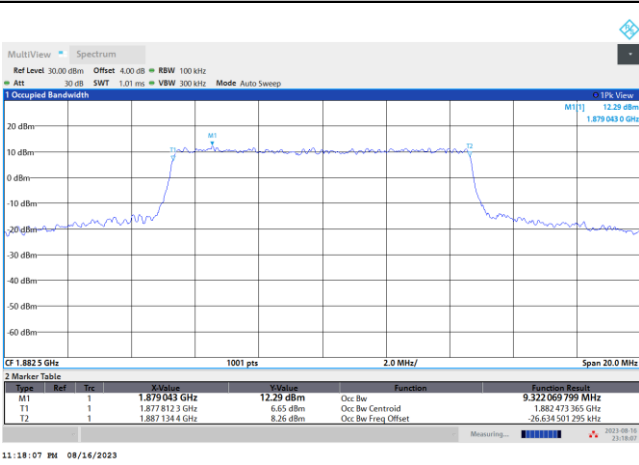
5G-FR1 SA n25 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

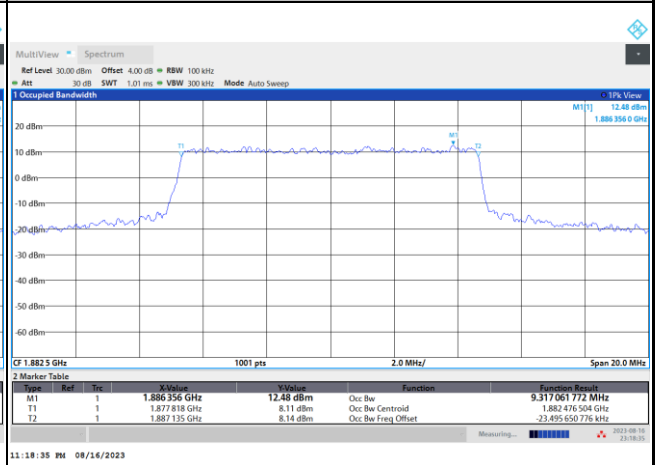


5G-FR1 SA n25 / 10MHz / CP OFDM / Middle Channel / Full RB

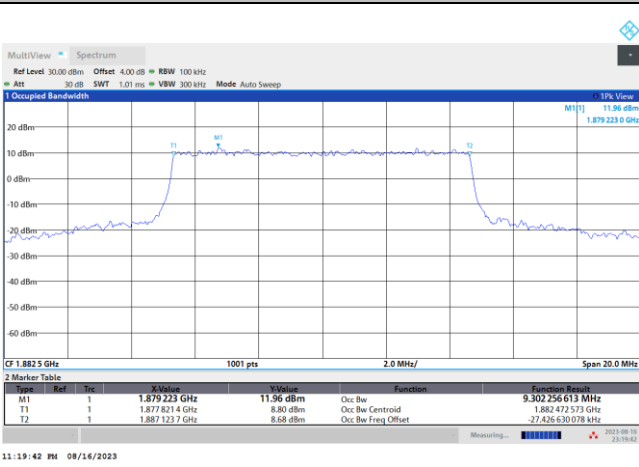
QPSK



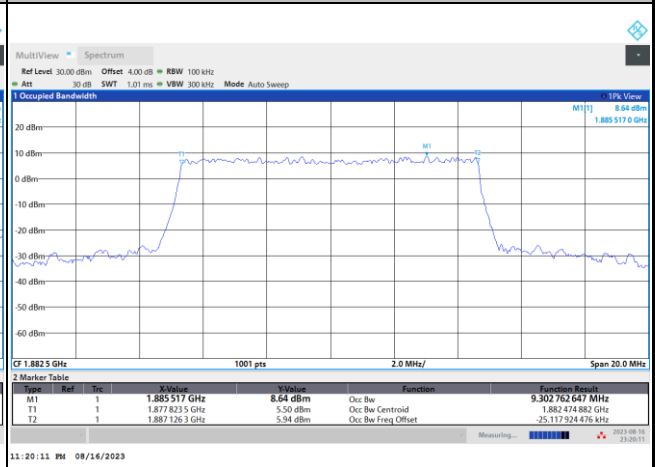
16QAM



64QAM



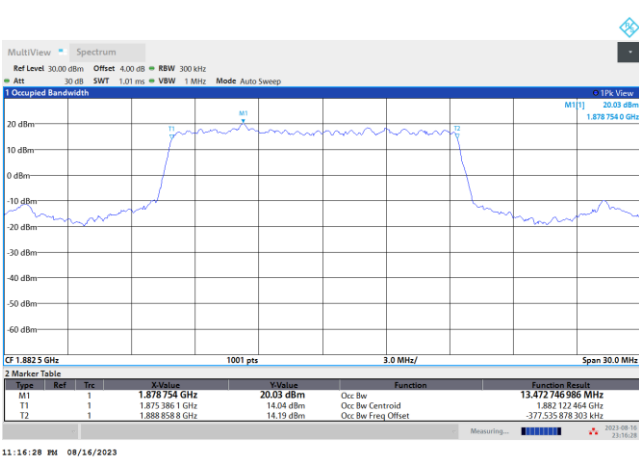
256QAM





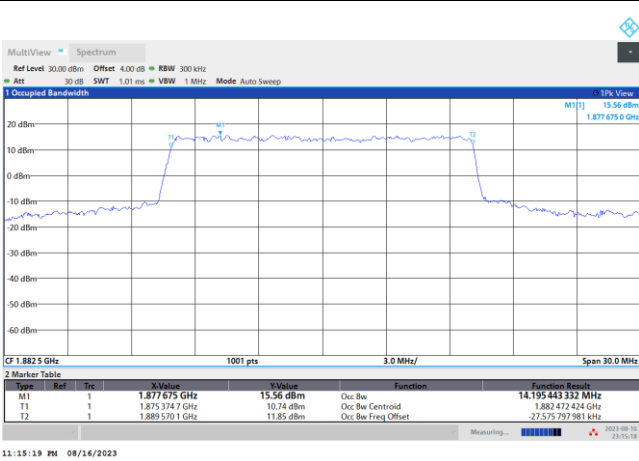
5G-FR1 SA n25 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

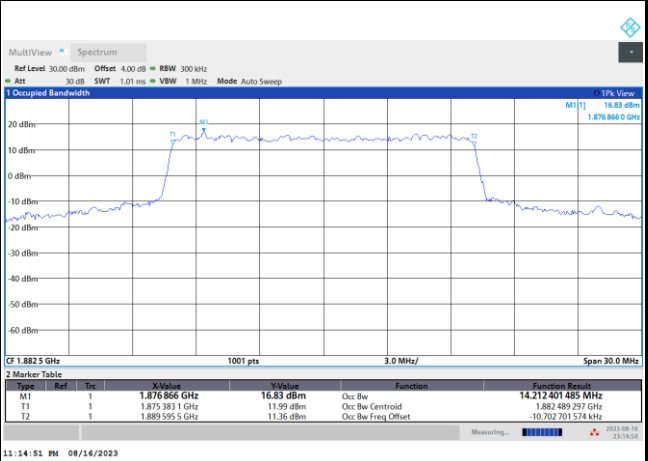


5G-FR1 SA n25 / 15MHz / CP OFDM / Middle Channel / Full RB

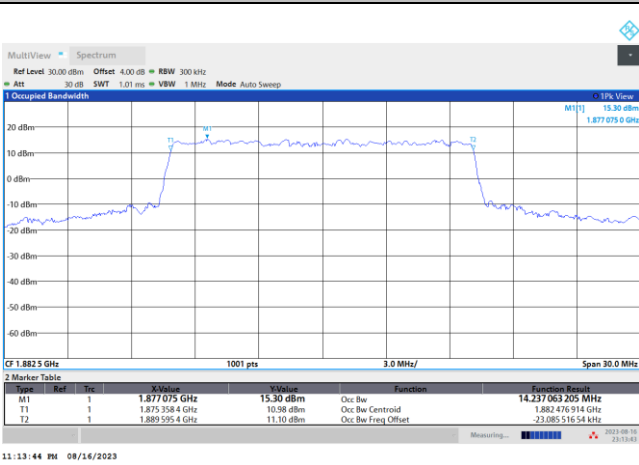
QPSK



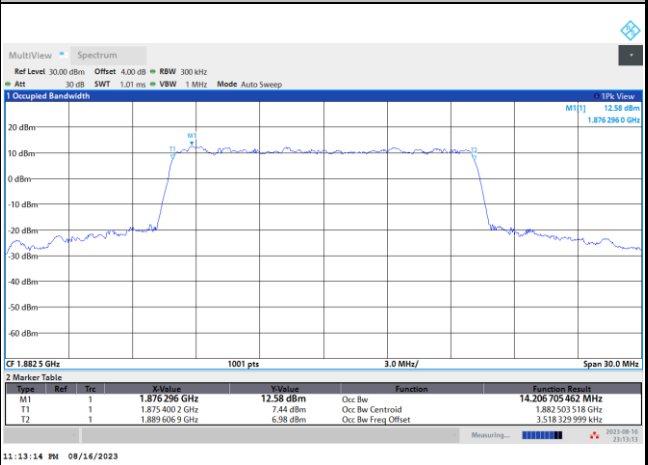
16QAM



64QAM



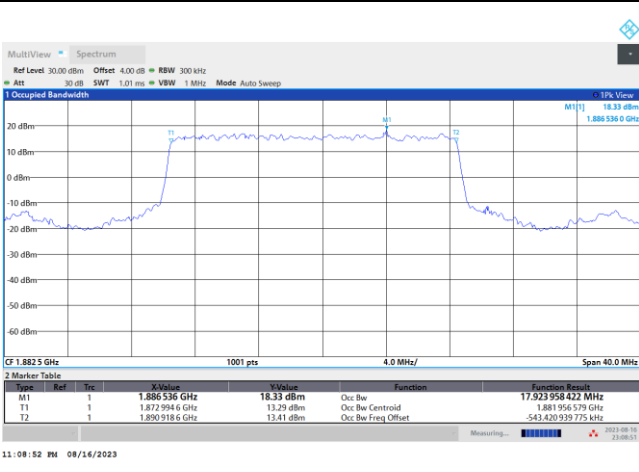
256QAM





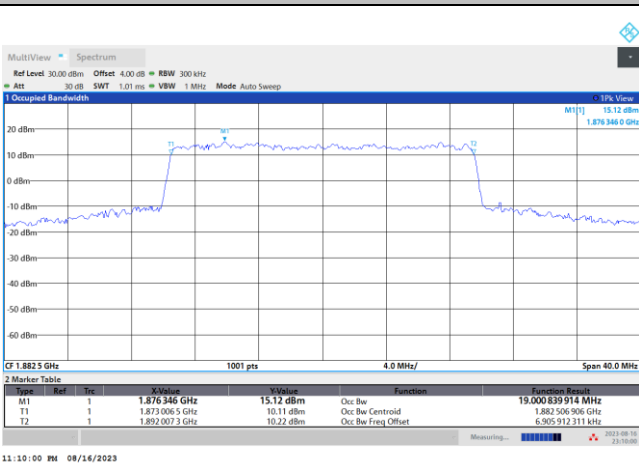
5G-FR1 SA n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

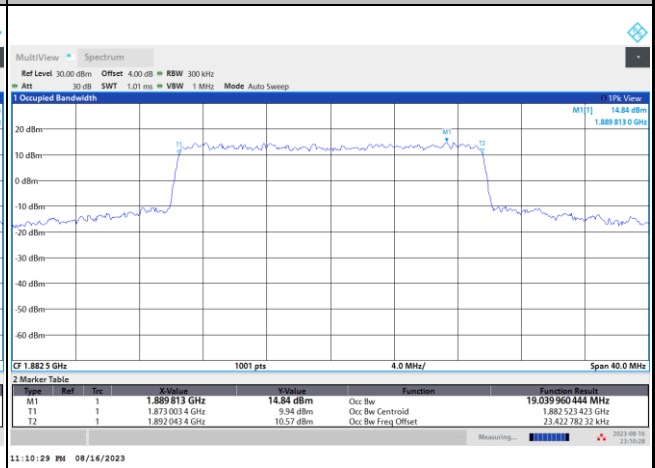


5G-FR1 SA n25 / 20MHz / CP OFDM / Middle Channel / Full RB

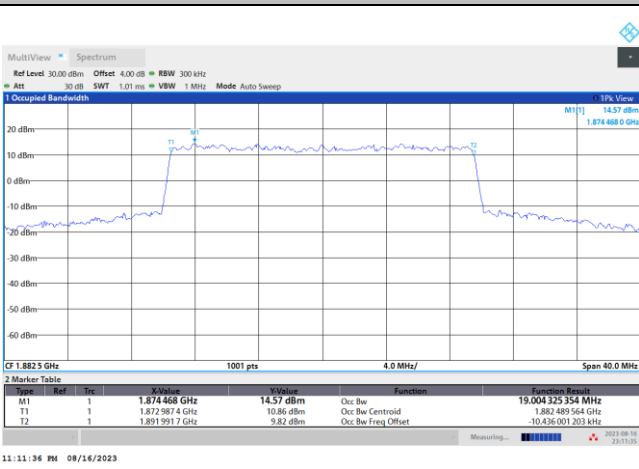
QPSK



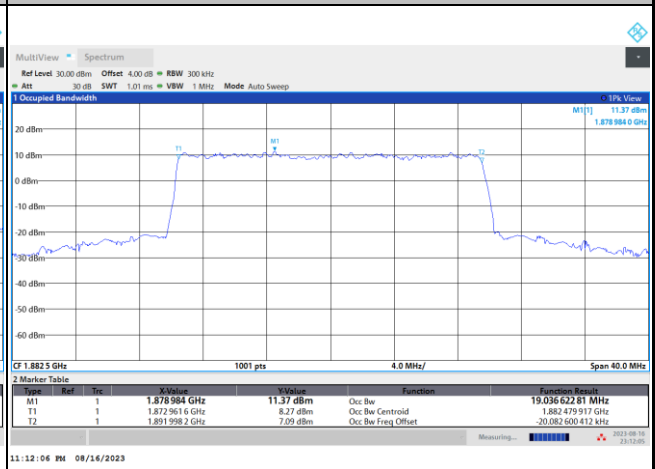
16QAM



64QAM



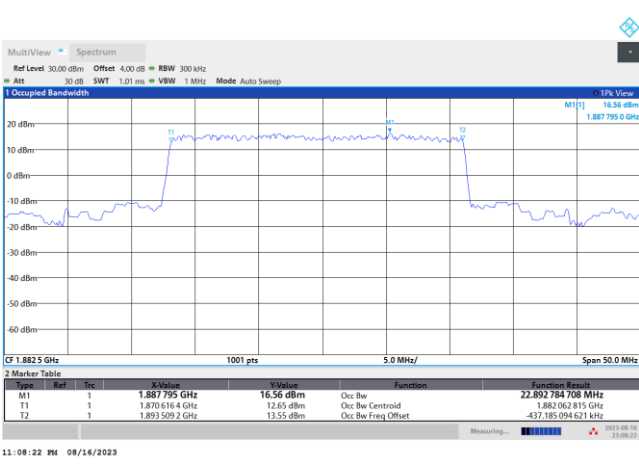
256QAM





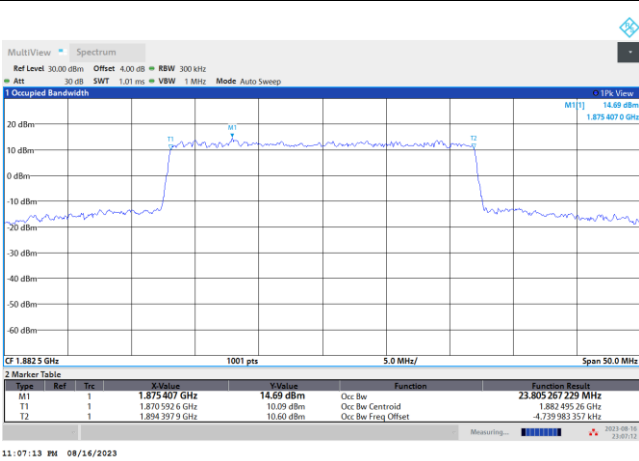
5G-FR1 SA n25 / 25MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

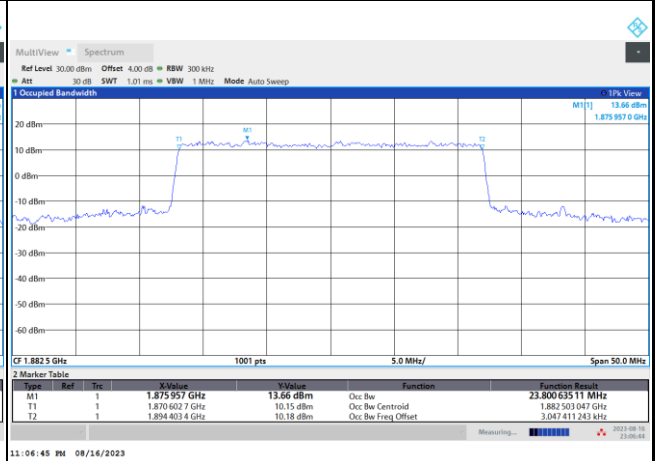


5G-FR1 SA n25 / 25MHz / CP OFDM / Middle Channel / Full RB

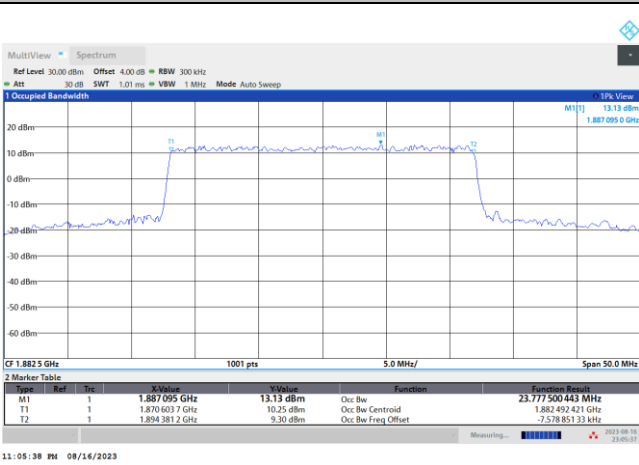
QPSK



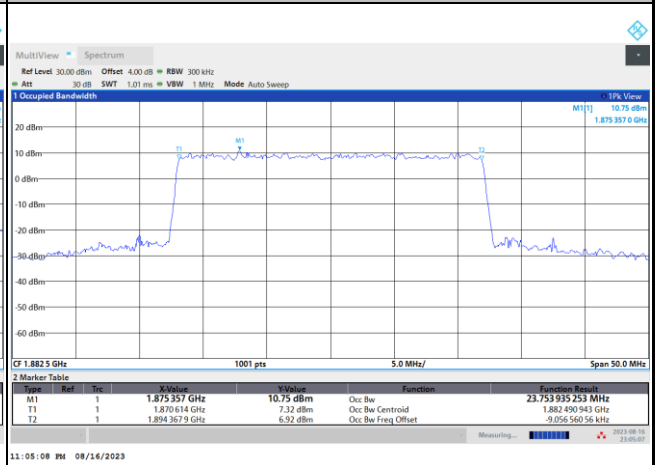
16QAM



64QAM



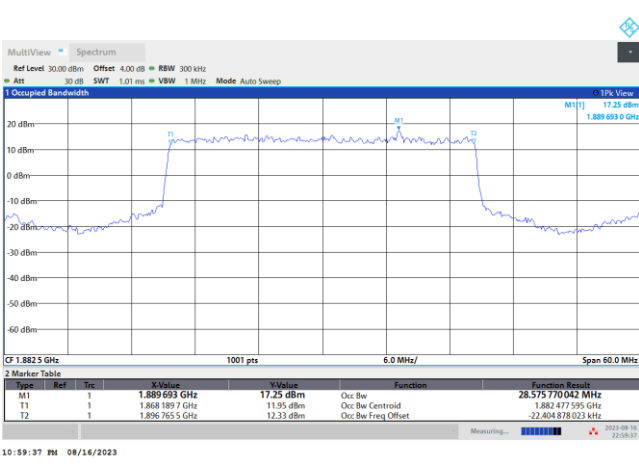
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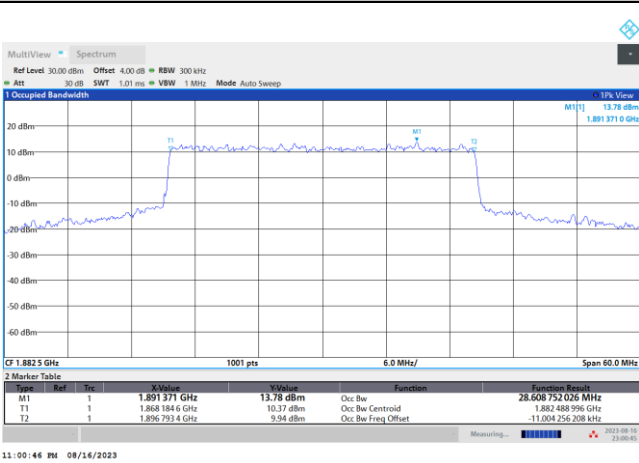
5G-FR1 SA n25 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

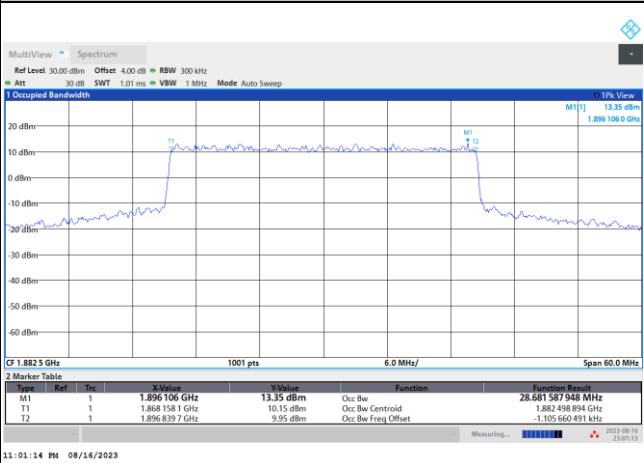


5G-FR1 SA n25 / 30MHz / CP OFDM / Middle Channel / Full RB

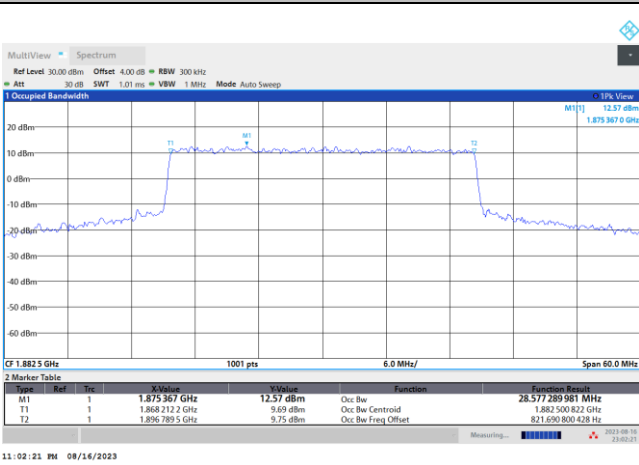
QPSK



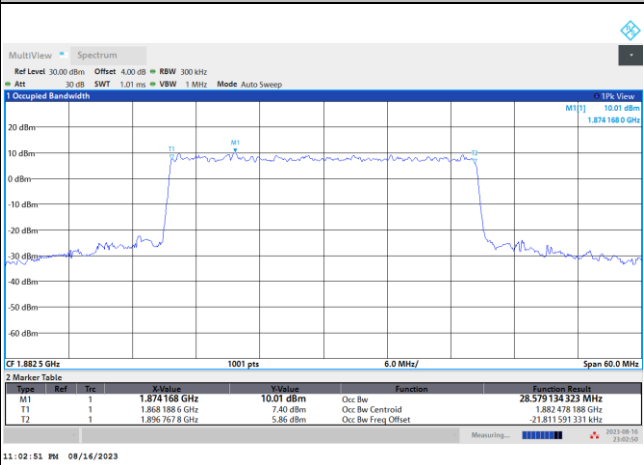
16QAM



64QAM



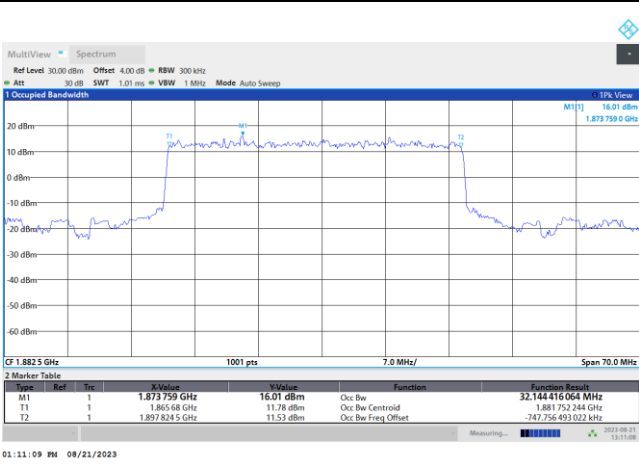
256QAM





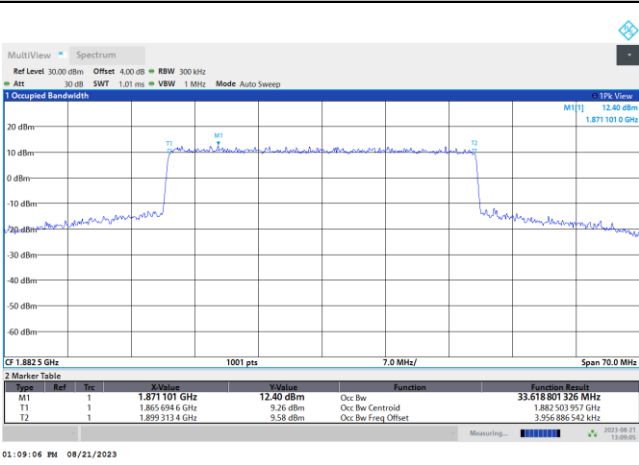
5G-FR1 SA n25 / 35MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

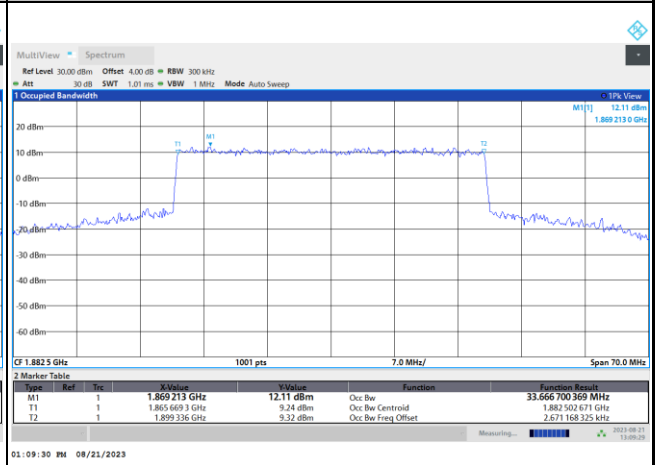


5G-FR1 SA n25 / 35MHz / CP OFDM / Middle Channel / Full RB

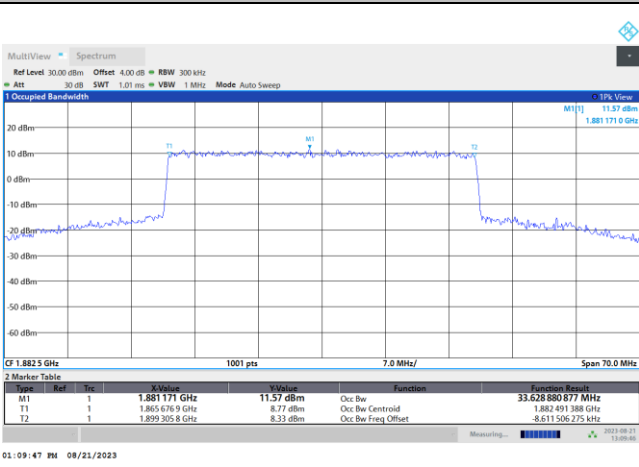
QPSK



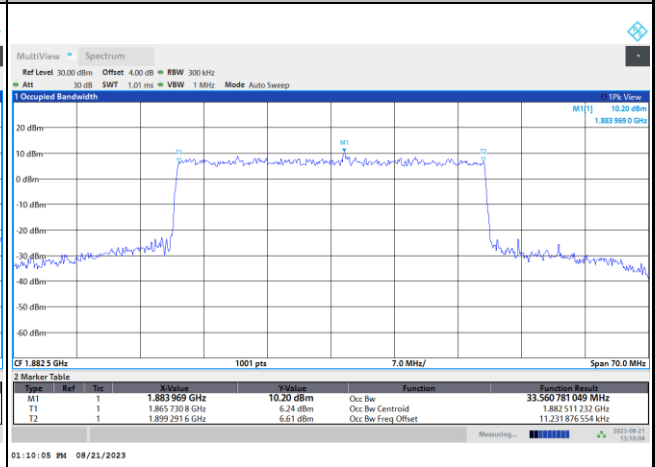
16QAM



64QAM



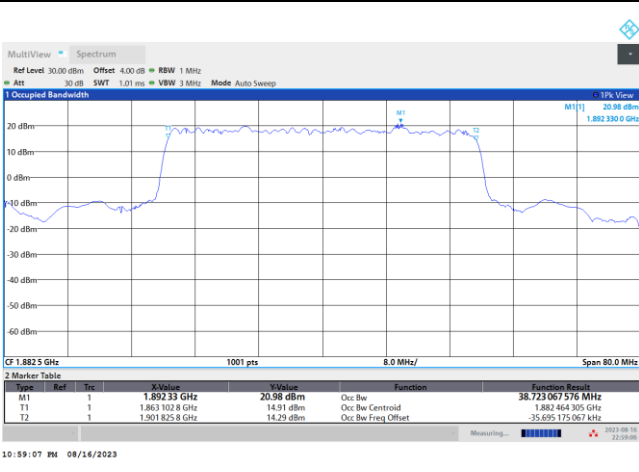
256QAM





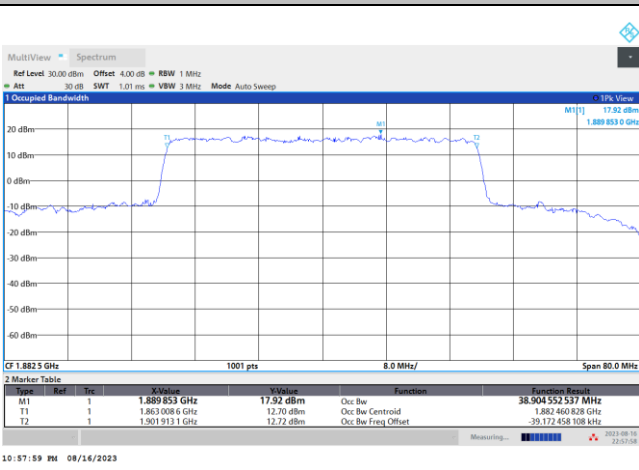
5G-FR1 SA n25 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

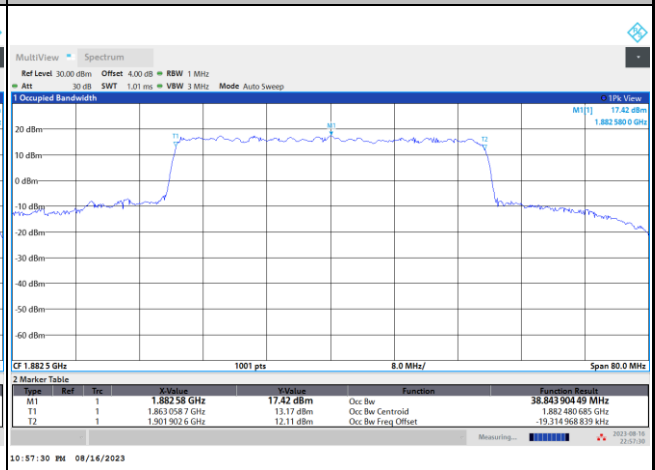


5G-FR1 SA n25 / 40MHz / CP OFDM / Middle Channel / Full RB

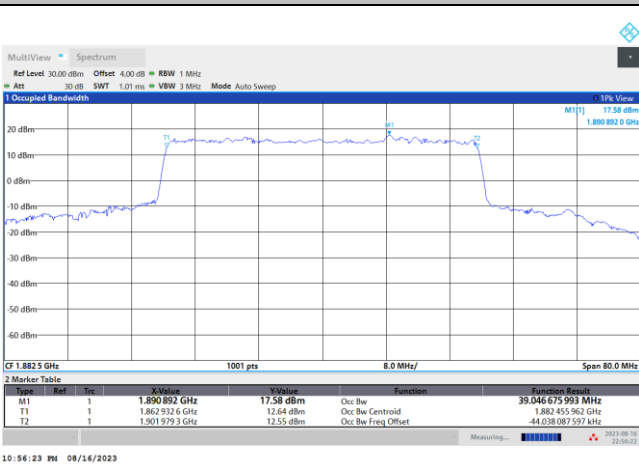
QPSK



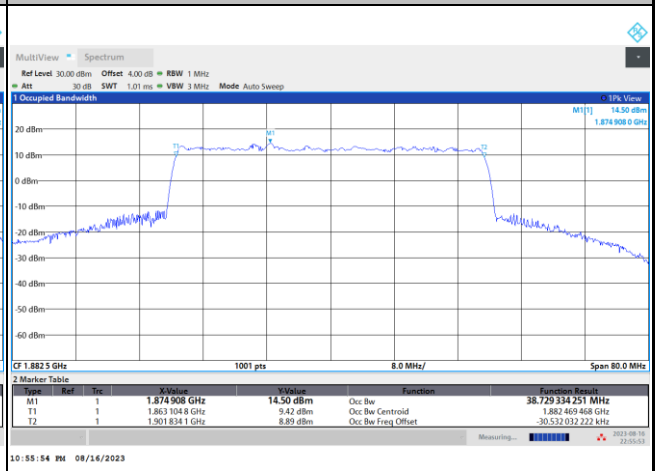
16QAM



64QAM

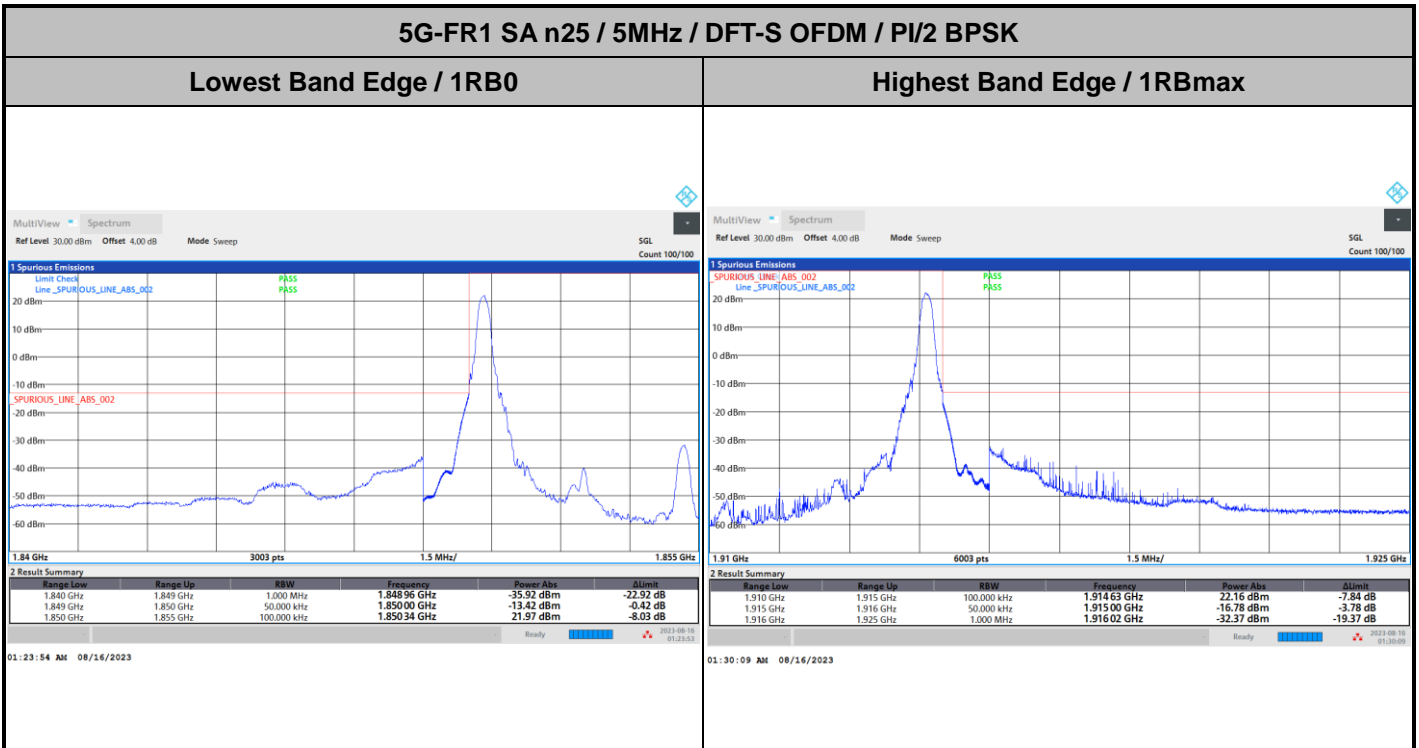


256QAM





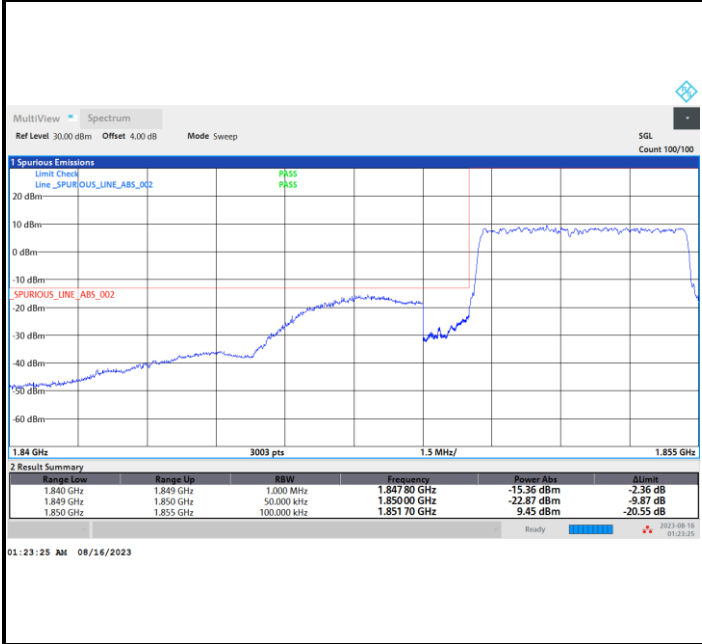
Conducted Band Edge





5G-FR1 SA n25 / 5MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

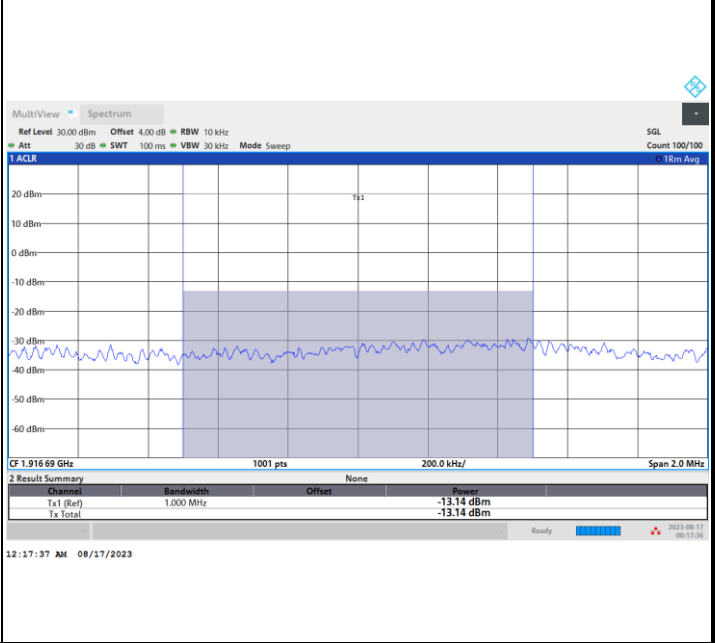


Highest Band Edge / Full RB

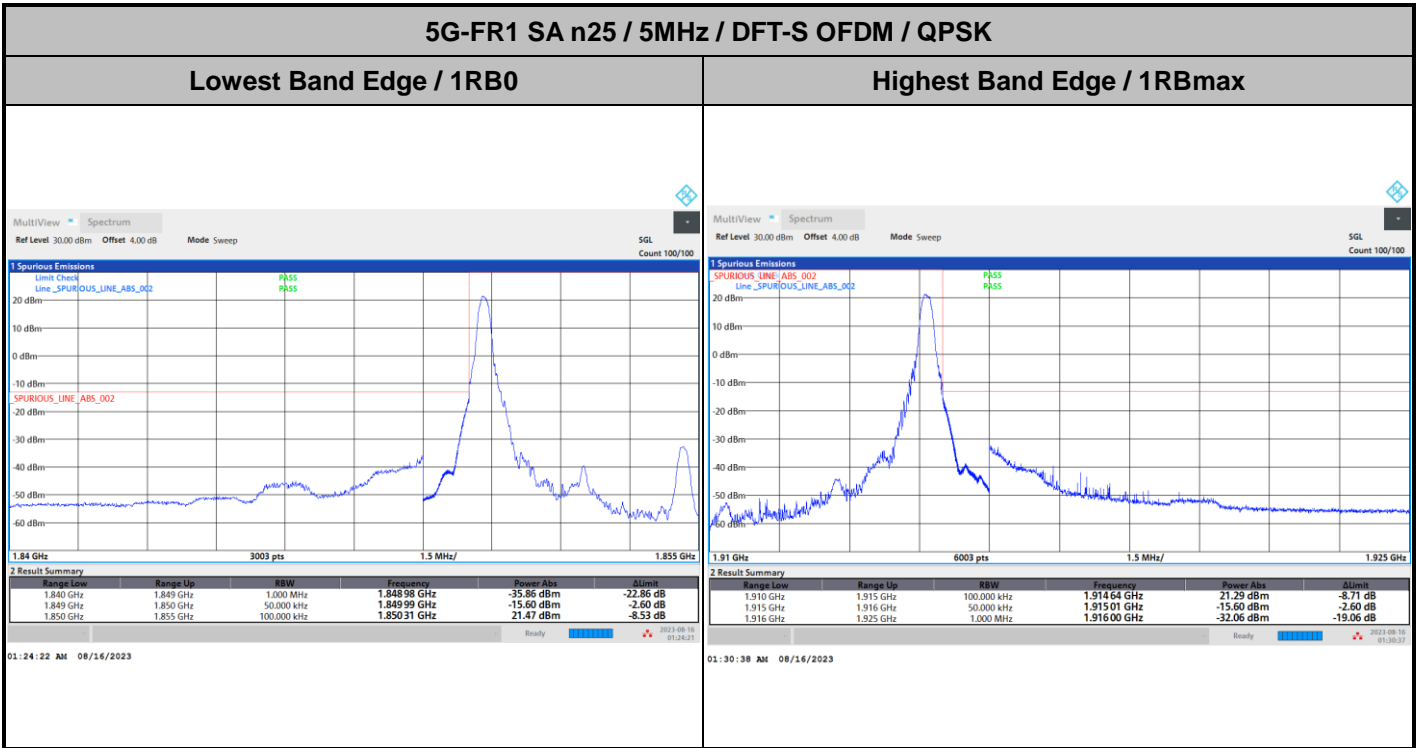


01:23:25 AM 08/16/2023

**Adjacent to the block edge can pass the limit
(shown below is the 1916MHz block edge)**



12:17:37 AM 08/17/2023

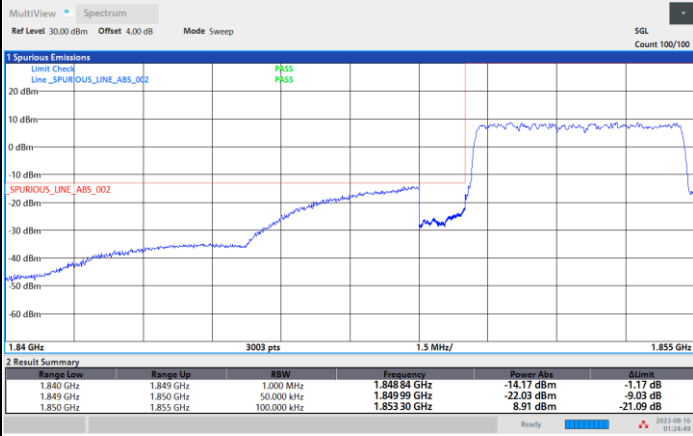




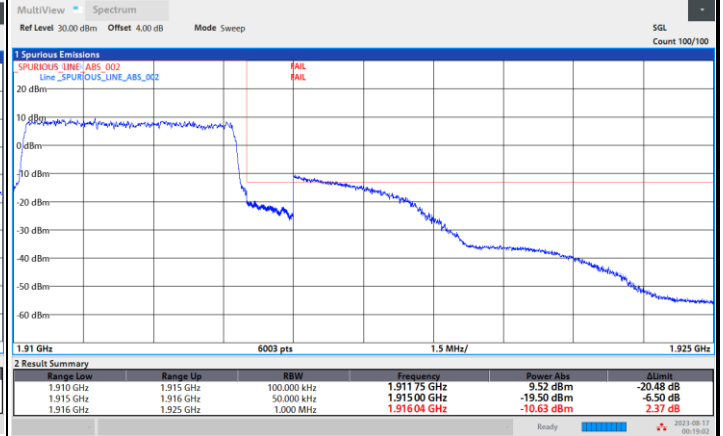
5G-FR1 SA n25 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

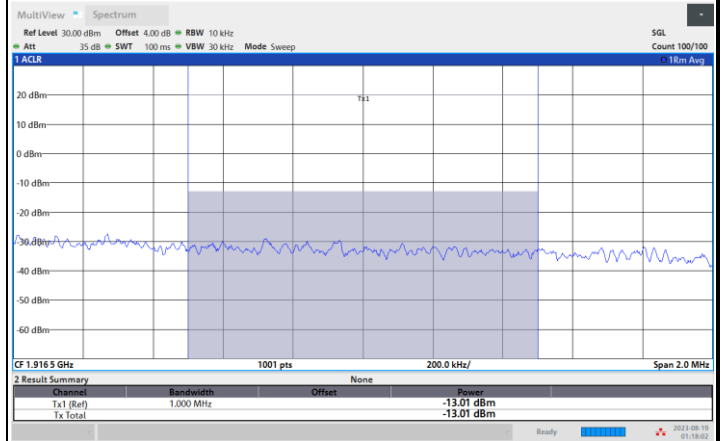


01:24:50 AM 08/16/2023



12:19:02 AM 08/17/2023

Adjacent to the block edge can pass the limit (shown below is the 1916MHz block edge)



01:18:03 AM 08/19/2023