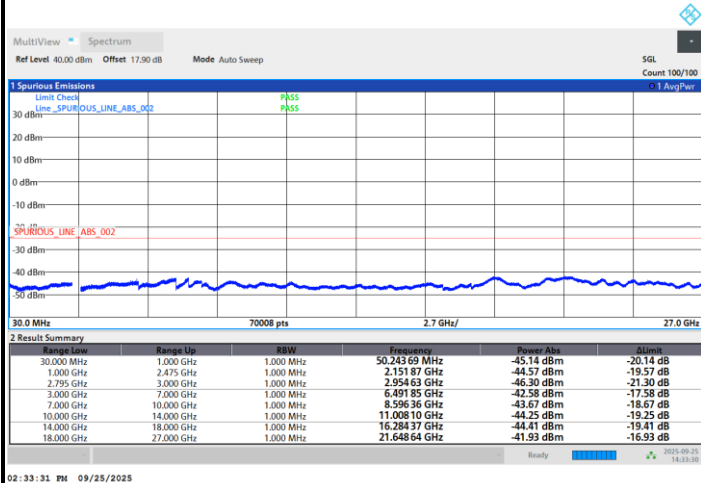




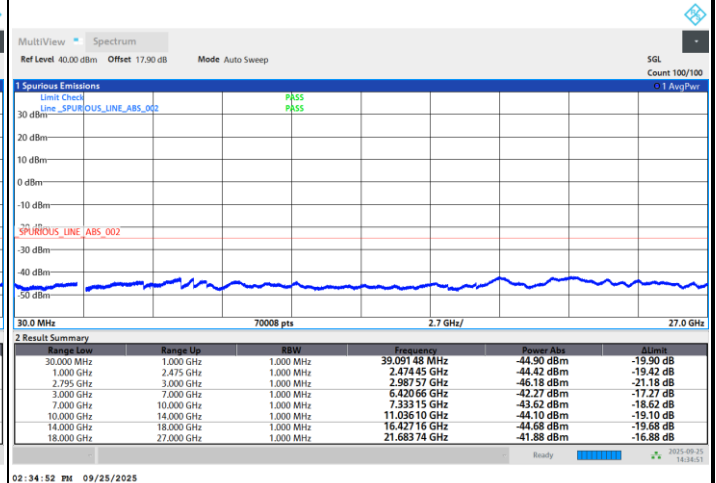
Conducted Spurious Emission

FR1 n41 / 35MHz / DFT-S OFDM / QPSK / 1RB1

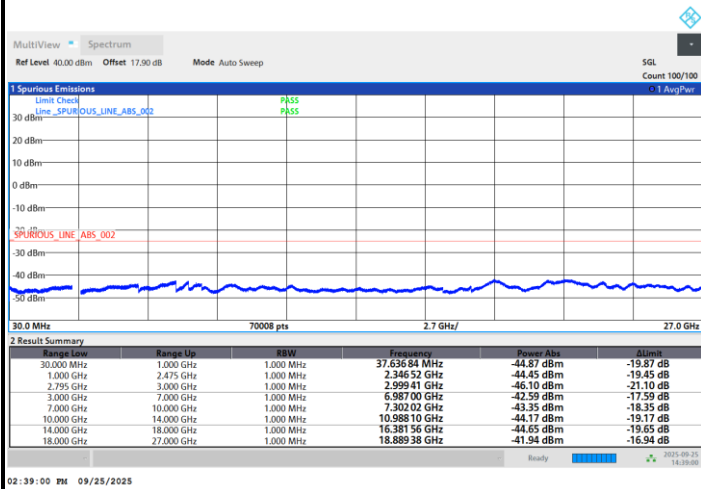
Lowest Channel



Middle Channel



Highest Channel



**Frequency Stability**

Test Conditions		FR1 n41 (BPSK) / Middle Channel 35M			
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Frequency Offset (Δf) (Hz)	Within Authorized Frequency Block(Hz)	Result
50	Normal Voltage	0.0027	7.1	Yes	PASS
40	Normal Voltage	0.0011	2.9	Yes	
30	Normal Voltage	0.0023	-5.9	Yes	
20(Ref.)	Normal Voltage	0.0000	0	Yes	
10	Normal Voltage	0.0045	11.7	Yes	
0	Normal Voltage	0.0026	6.7	Yes	
-10	Normal Voltage	0.0000	-0.1	Yes	
-20	Normal Voltage	0.0049	12.7	Yes	
-30	Normal Voltage	0.0014	3.6	Yes	
20	Maximum Voltage	0.0029	7.4	Yes	
20	Normal Voltage	0.0047	12.3	Yes	
20	Minimum Voltage	0.0003	0.7	Yes	

Note:

1. Normal Voltage = 3.8 V. ; Minimum Voltage = 3.4 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.

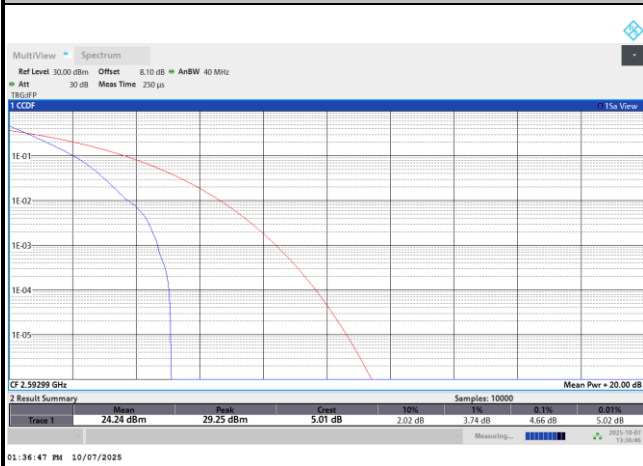
**FR1 n41****MIMO <Ant. 2+0> (Ant. 0)****Peak-to-Average Ratio**

Mode	FR1 n41 / 35MHz / 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	4.66	5.54	6.48	6.68	PASS
Mode	FR1 n41 / 35MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.82				PASS

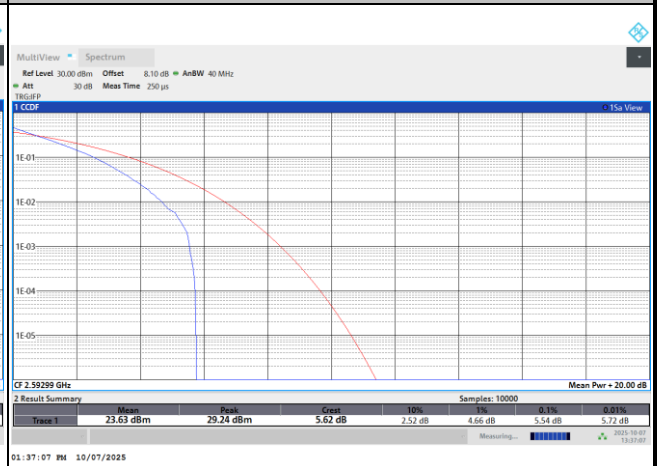


FR1 n41 / 35MHz / DFT-S OFDM / Middle Channel / Full RB

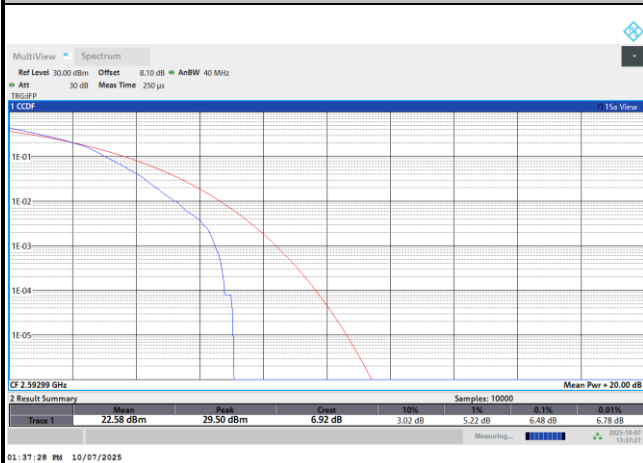
PI/2 BPSK



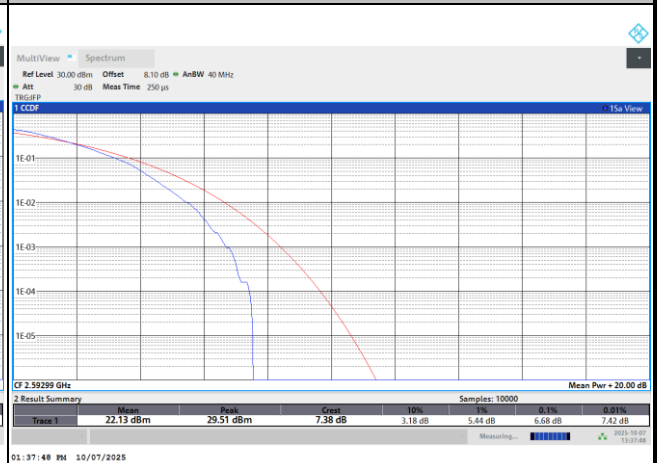
QPSK



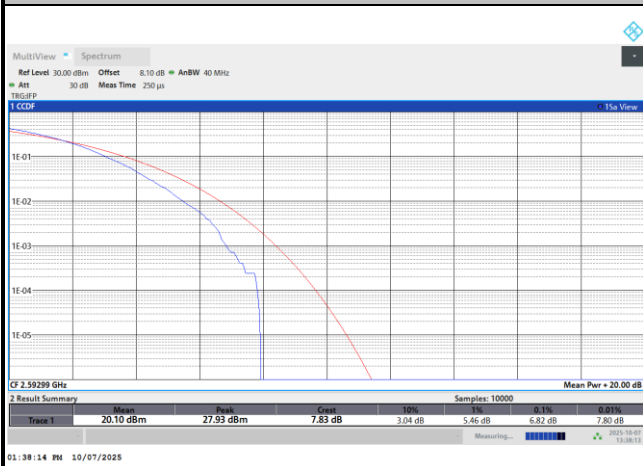
16QAM



64QAM



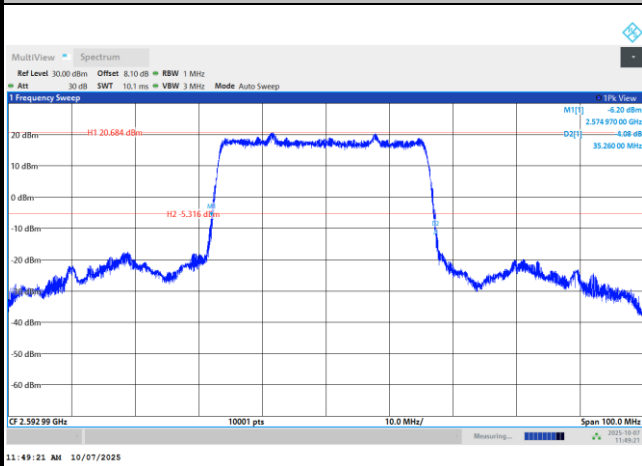
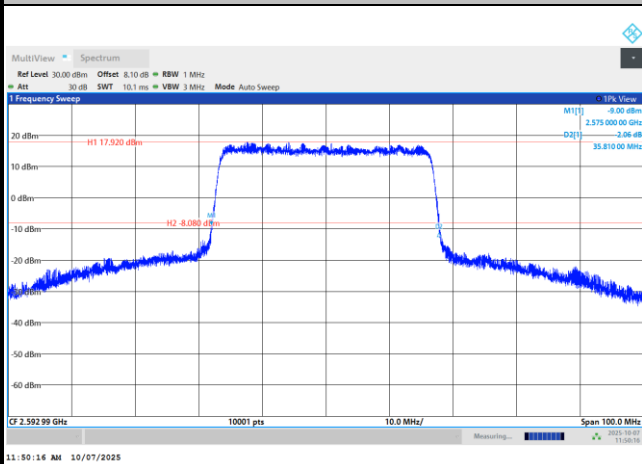
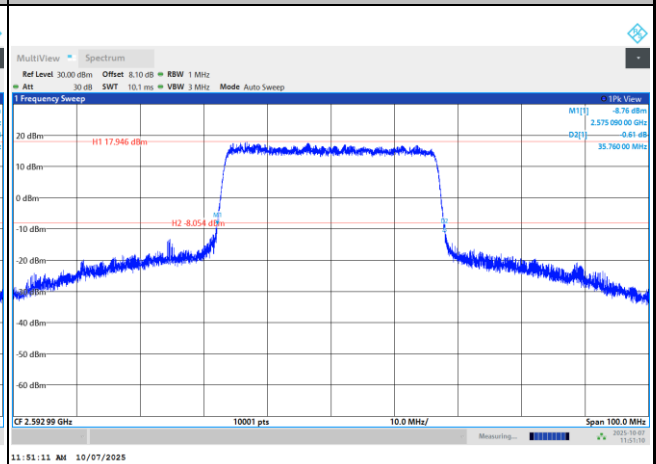
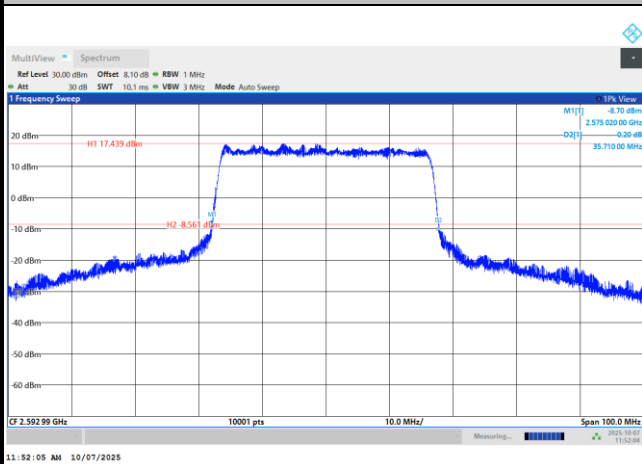
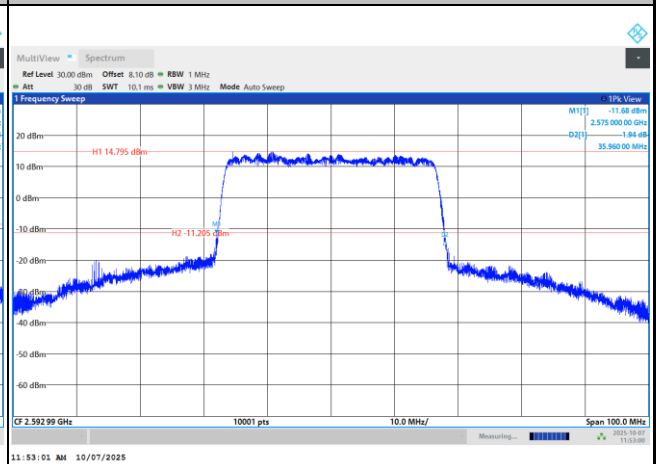
256QAM

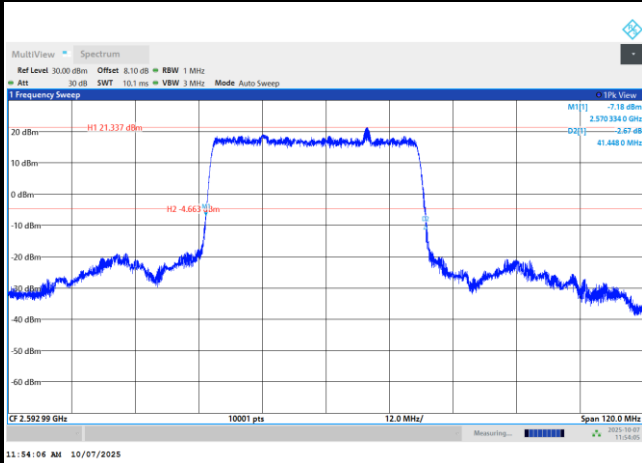
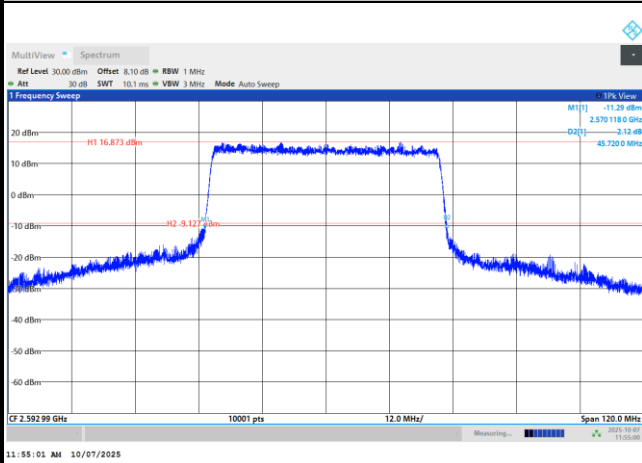
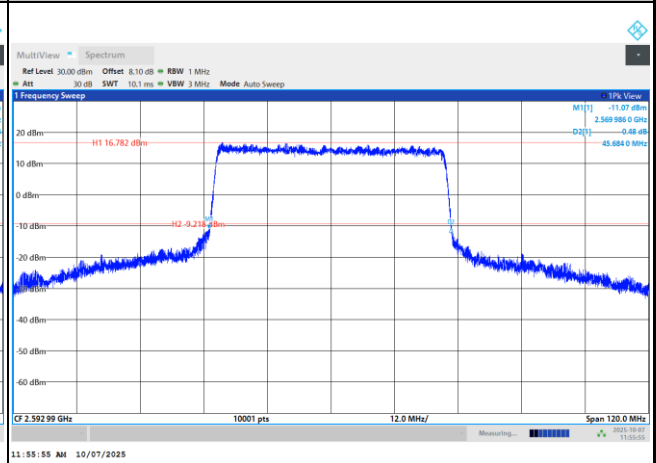
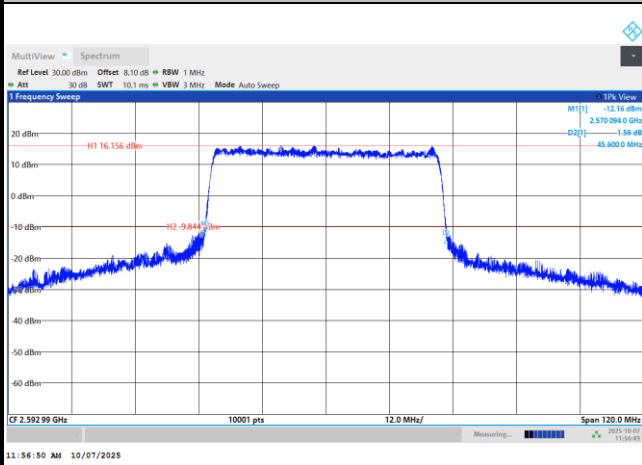
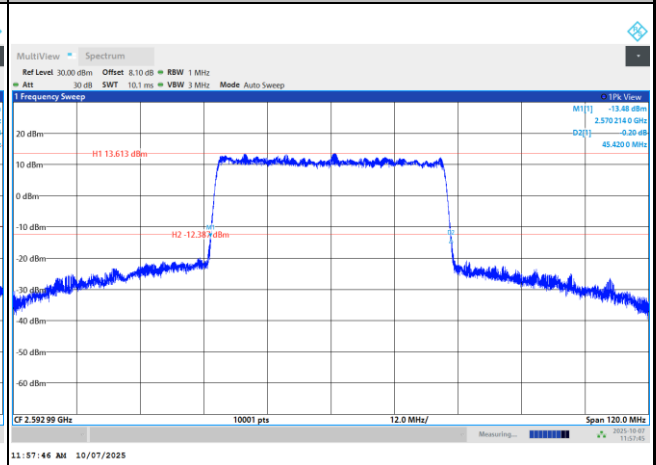


**26dB Bandwidth**

Mode	FR1 n41 : 26dB BW(MHz) / DFT-S OFDM							
BW	10MHz	15MHz	20MHz	25MHz	30MHz	35MHz	40MHz	45MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	-	-	-	-	-	35.26	-	41.44

Mode	FR1 n41 : 26dB BW(MHz) / CP OFDM							
BW	30MHz		35MHz		40MHz		45MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	35.81	35.76	-	-	45.72	45.68
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	35.71	35.96	-	-	45.60	45.42

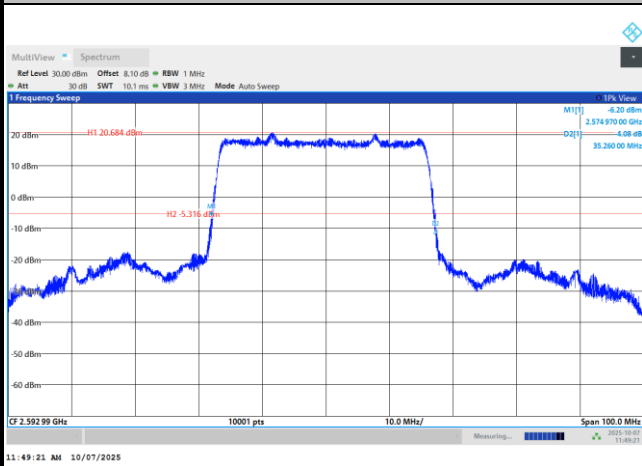
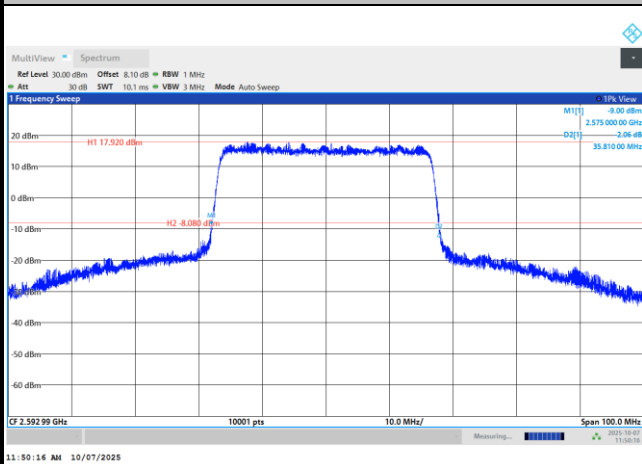
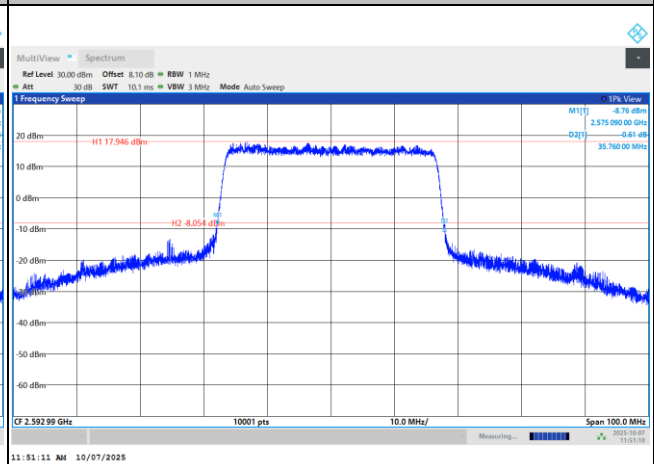
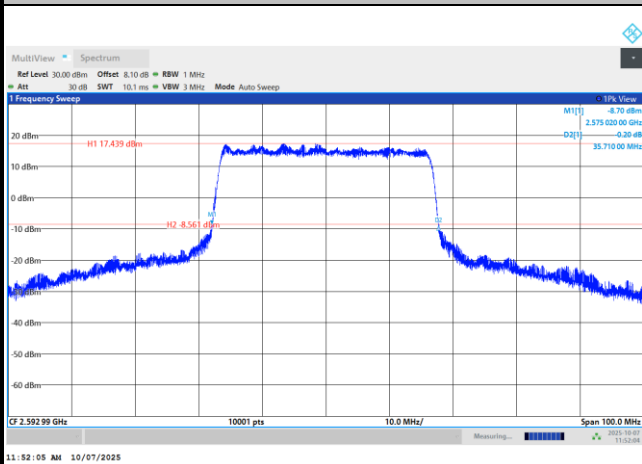
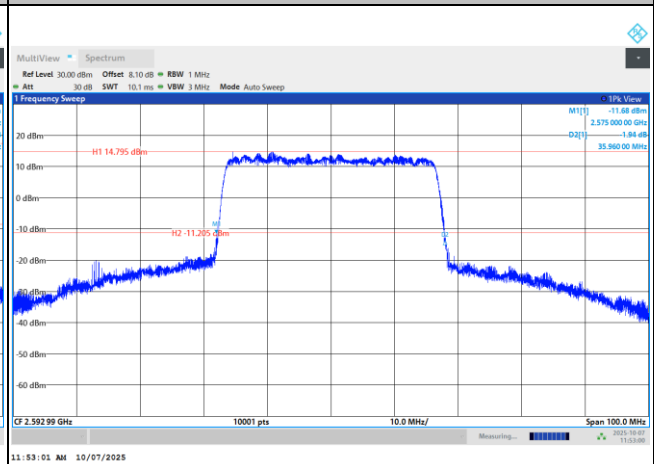
FR1 n41 / 35MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n41 / 35MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM


FR1 n41 / 45MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n41 / 45MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM


**Occupied Bandwidth**

Mode	FR1 n41 : OB BW(MHz) / DFT-S OFDM							
BW	10MHz	15MHz	20MHz	25MHz	30MHz	35MHz	40MHz	45MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	-	-	-	-	-	32.50	-	38.78

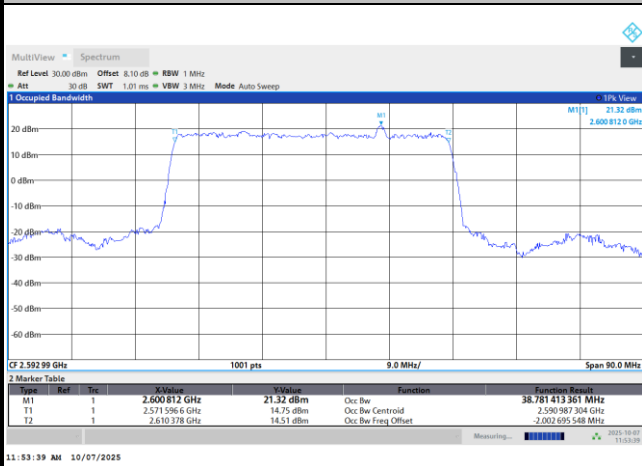
Mode	FR1 n41 : OB BW(MHz) / CP OFDM							
BW	30MHz		35MHz		40MHz		45MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	33.14	33.10	-	-	42.77	42.96
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	33.11	33.11	-	-	42.67	42.78

FR1 n41 / 35MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n41 / 35MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM




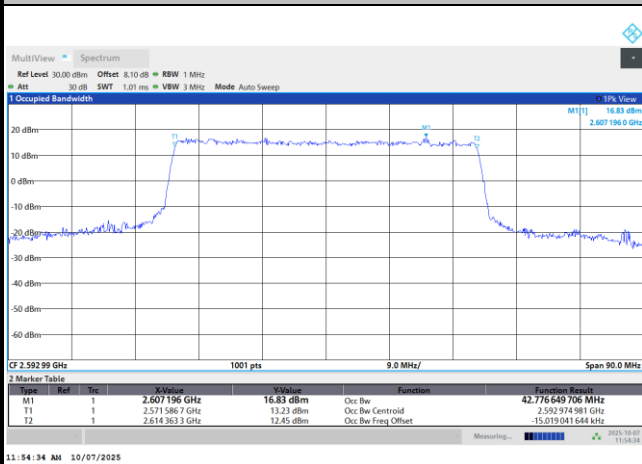
FR1 n41 / 45MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

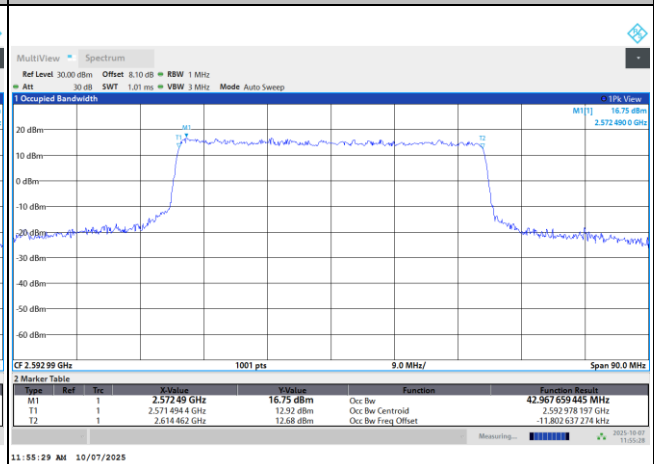


FR1 n41 / 45MHz / CP OFDM / Middle Channel / Full RB

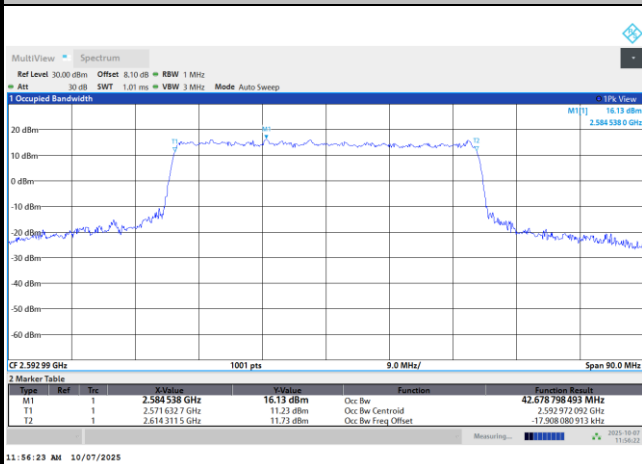
QPSK



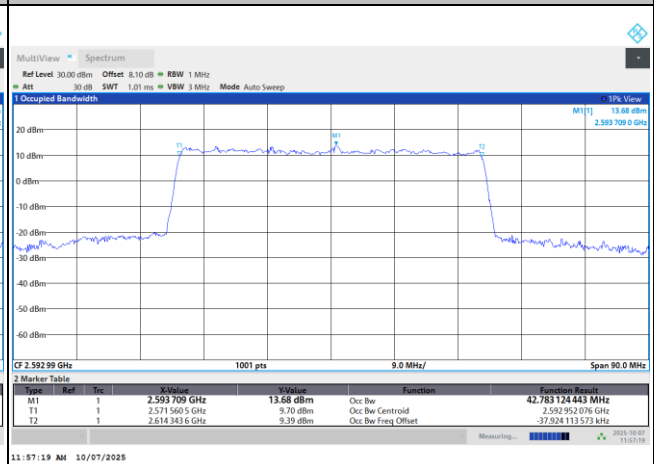
16QAM



64QAM



256QAM



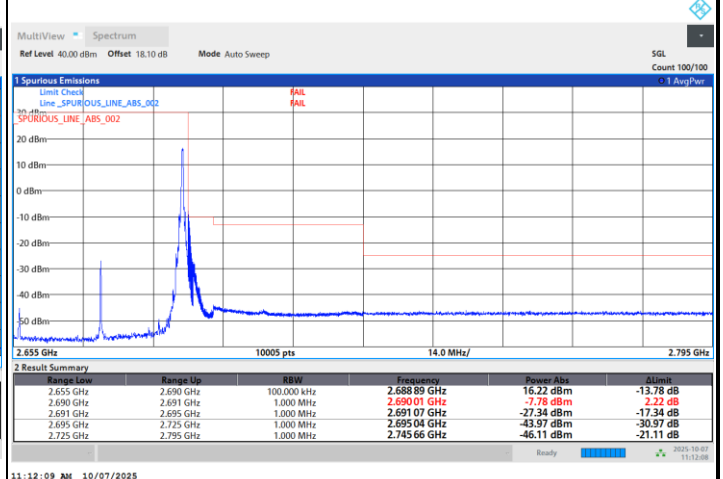
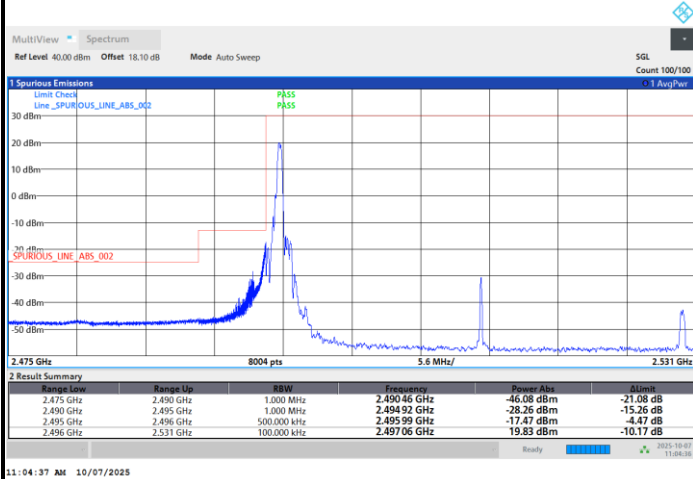


Conducted Band Edge

FR1 n41 / 35MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

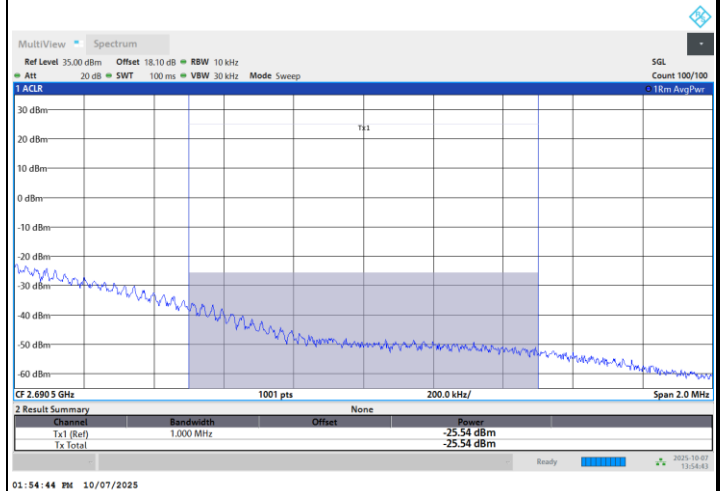


NA

Highest Channel 1RBmax

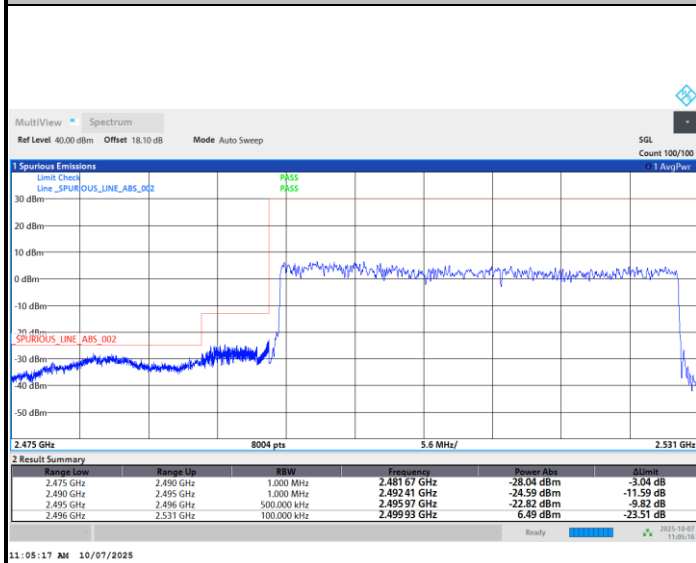
Channel power -13dBm > -25.54dBm (PASS)

NA

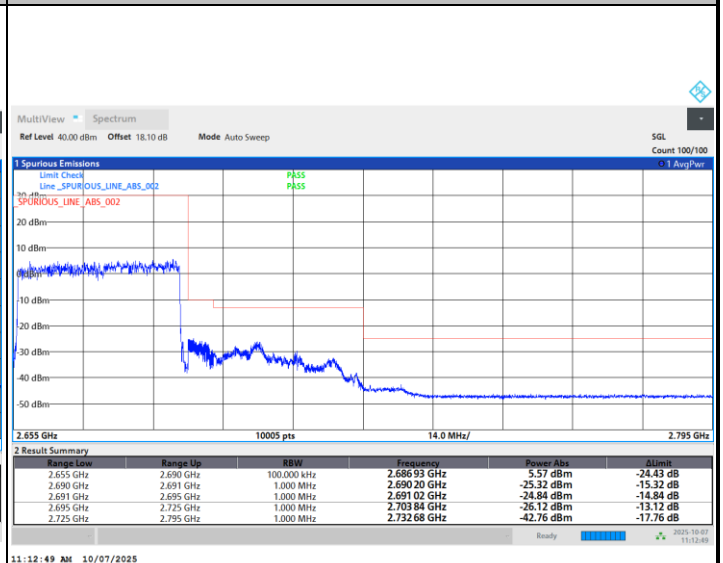




Lowest Band Edge / Full RB



Highest Band Edge / Full RB

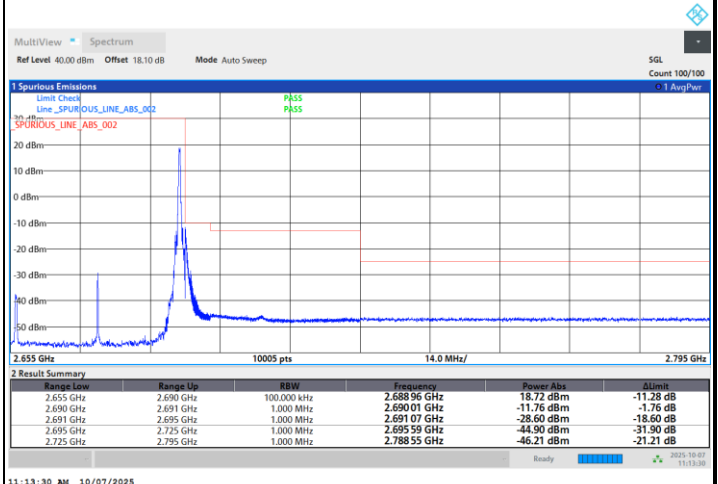
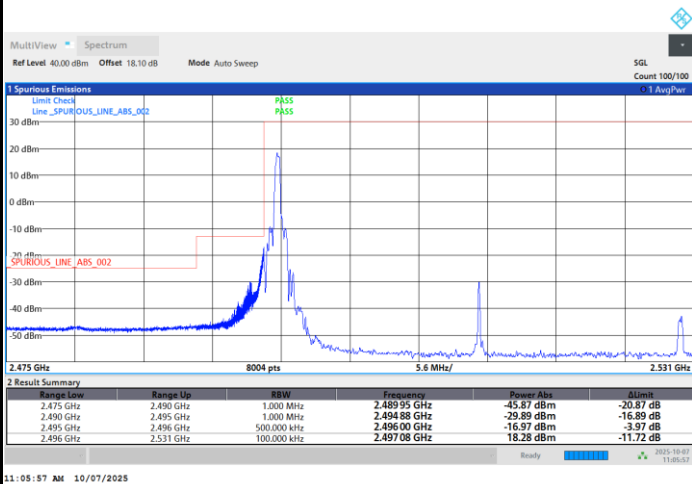




FR1 n41 / 35MHz / DFT-S OFDM / QPSK

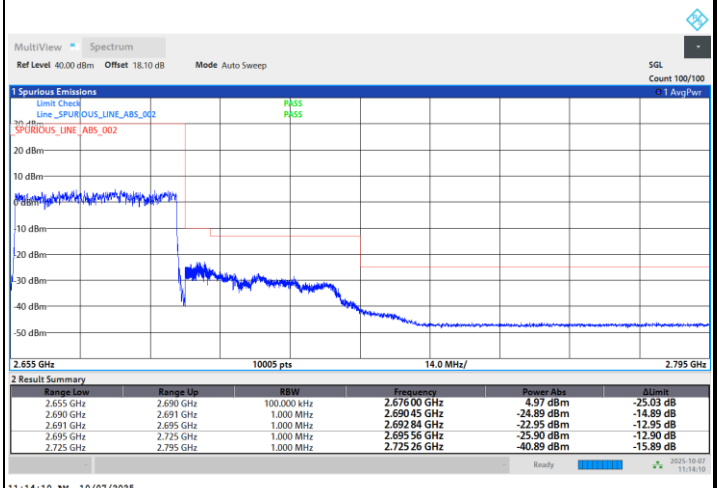
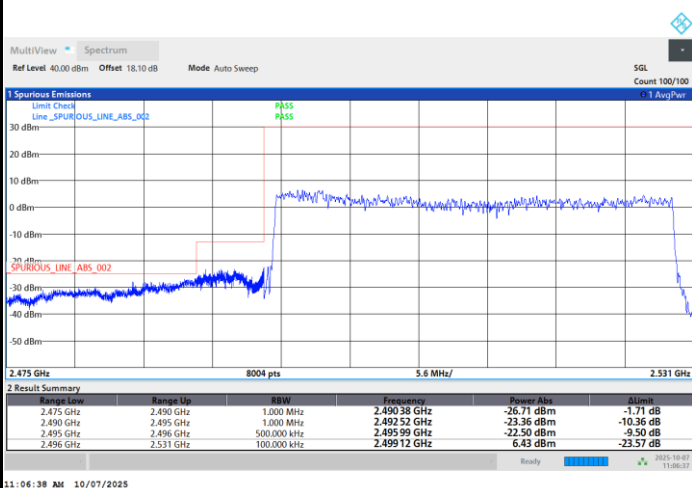
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

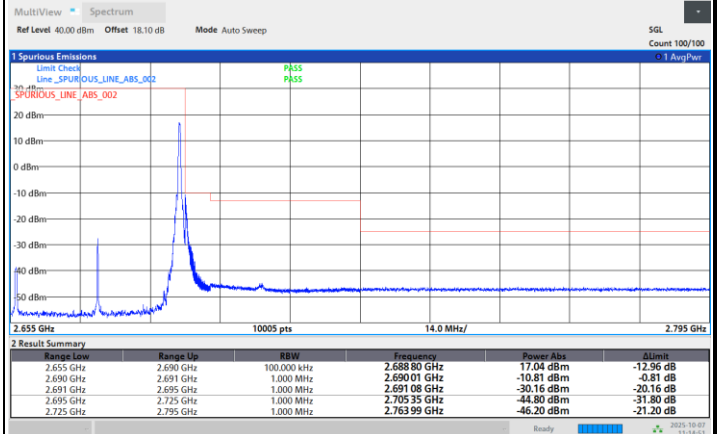
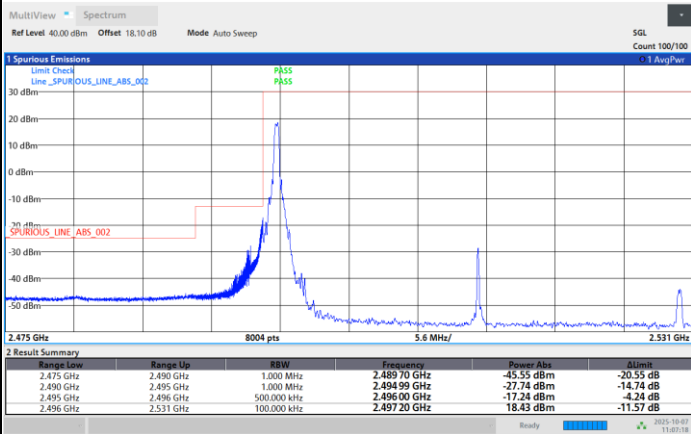




FR1 n41 / 35MHz / DFT-S OFDM / 16QAM

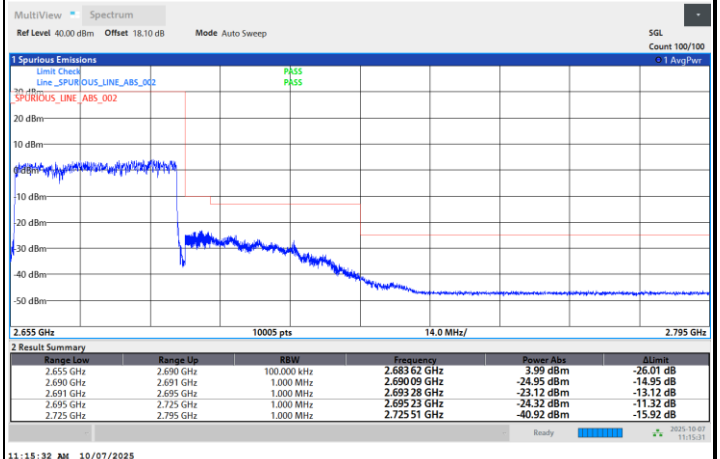
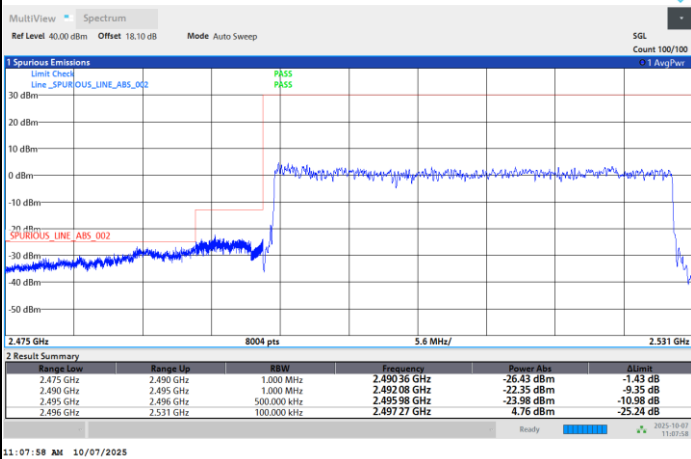
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

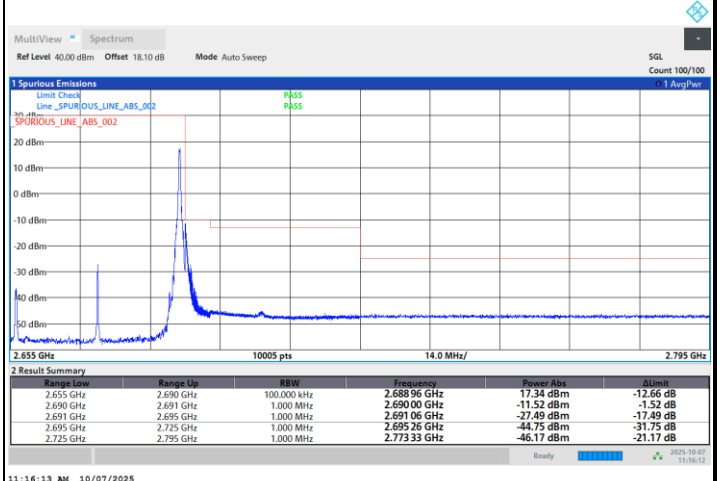
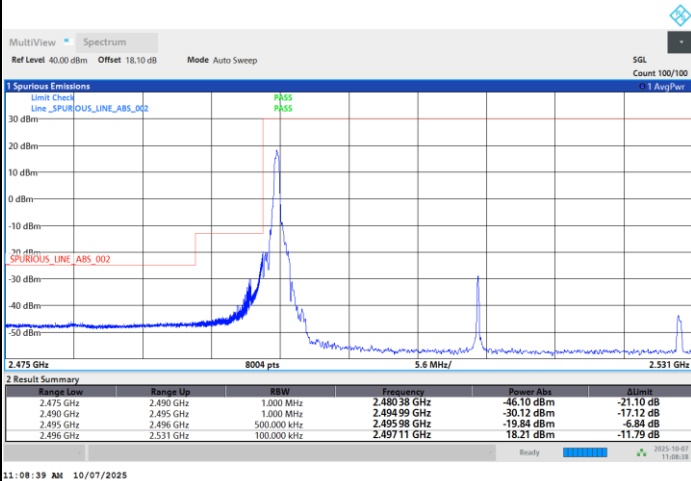




FR1 n35 / 35MHz / DFT-S OFDM / 64QAM

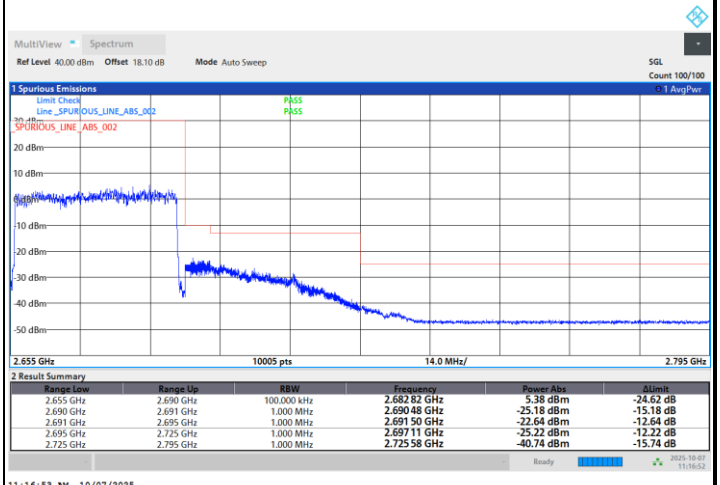
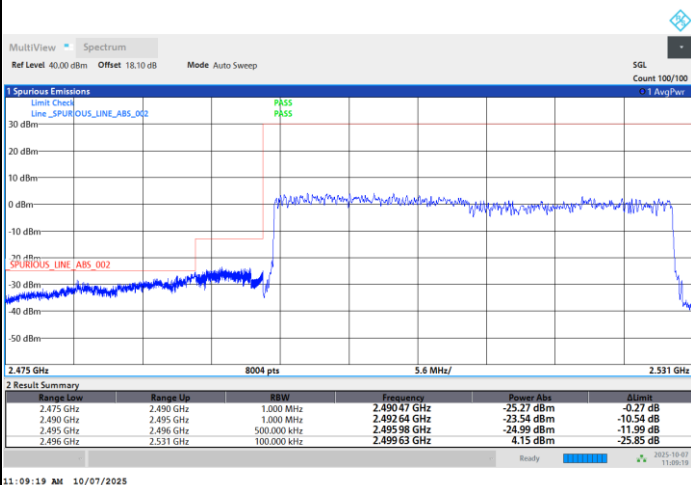
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

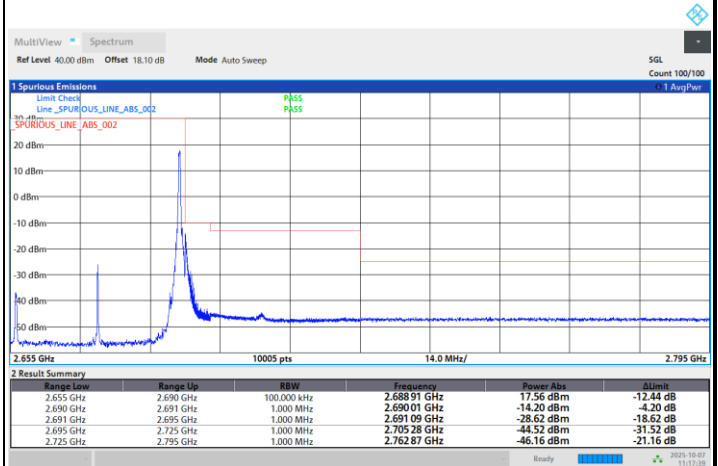
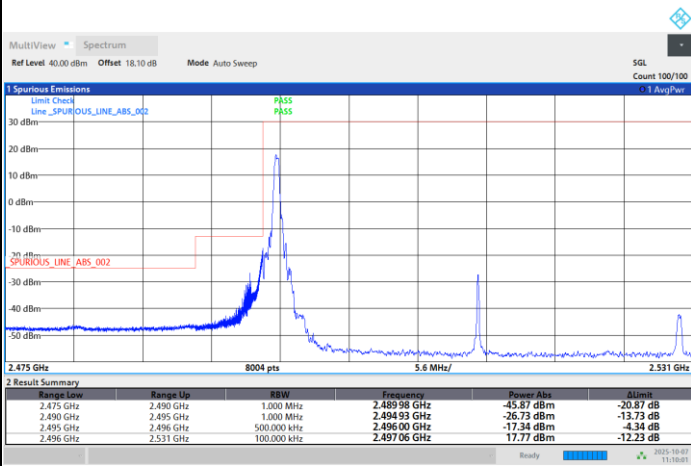




FR1 n41 / 35MHz / DFT-S OFDM / 256QAM

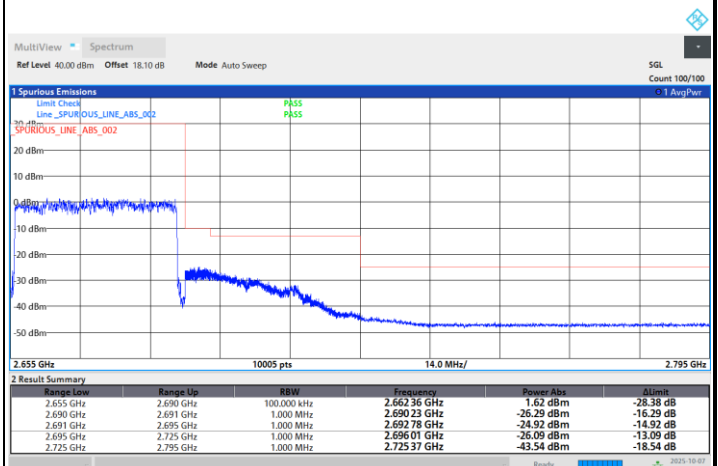
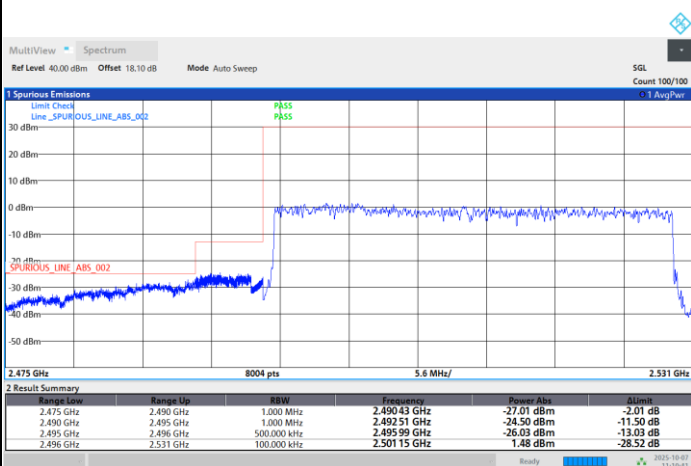
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

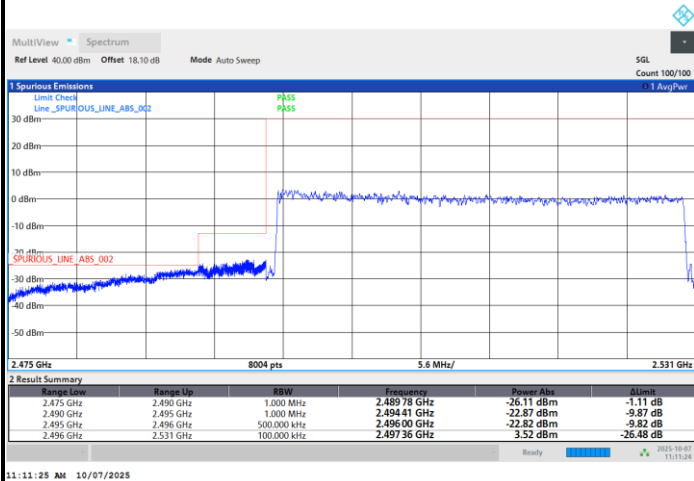
Highest Band Edge / Full RB



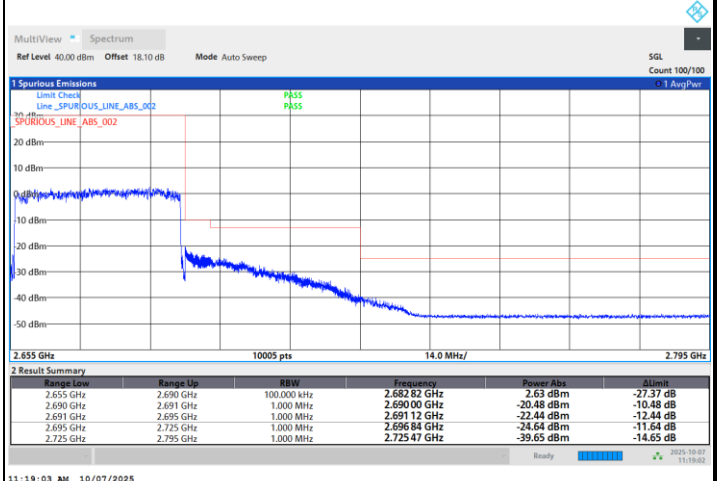


FR1 n41 / 35MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



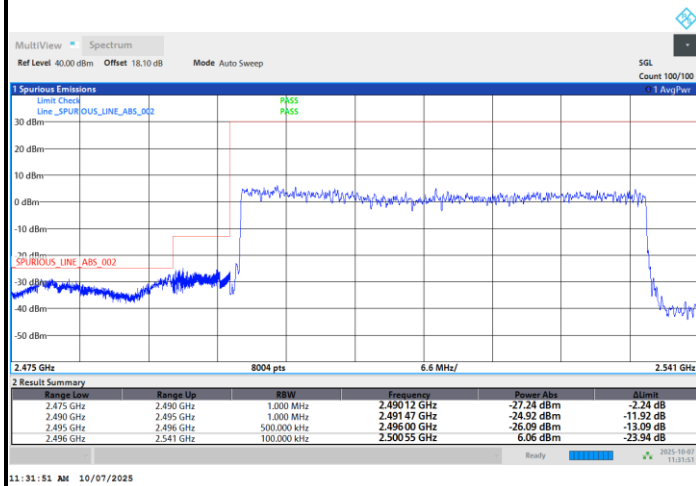
Highest Band Edge



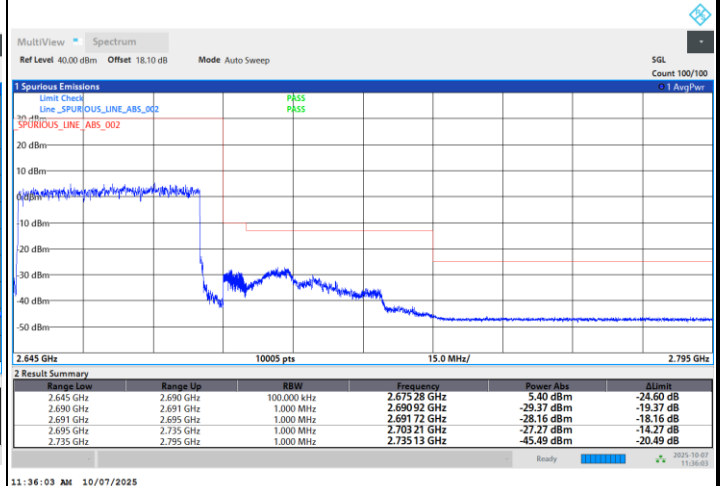


FR1 n41 / 45MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

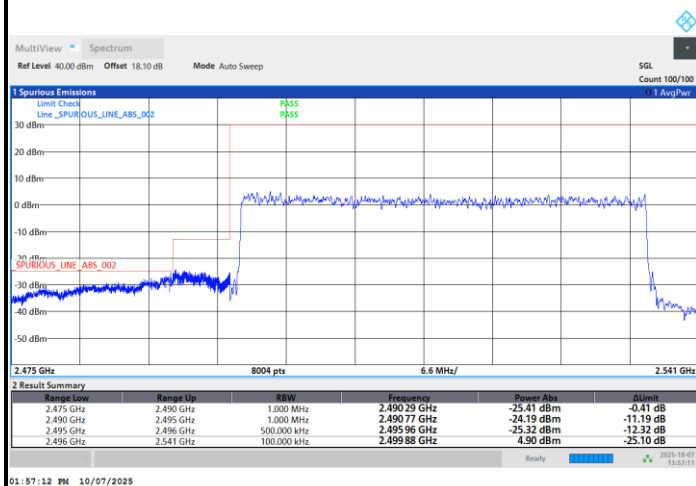


Highest Band Edge / Full RB

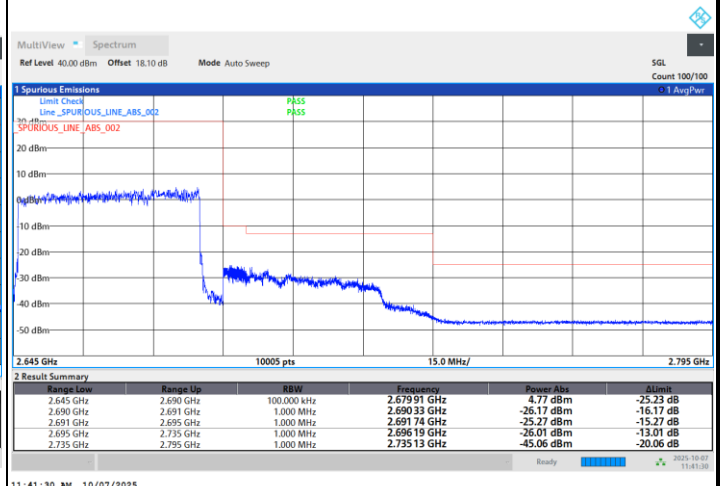


FR1 n41 / 45MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB



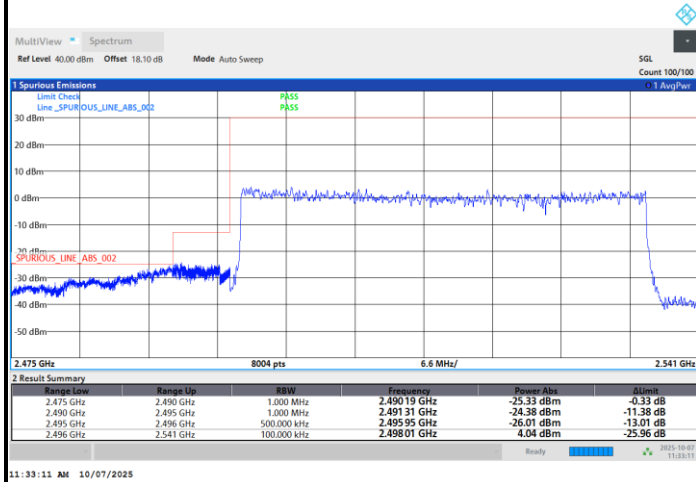
Highest Band Edge / Full RB



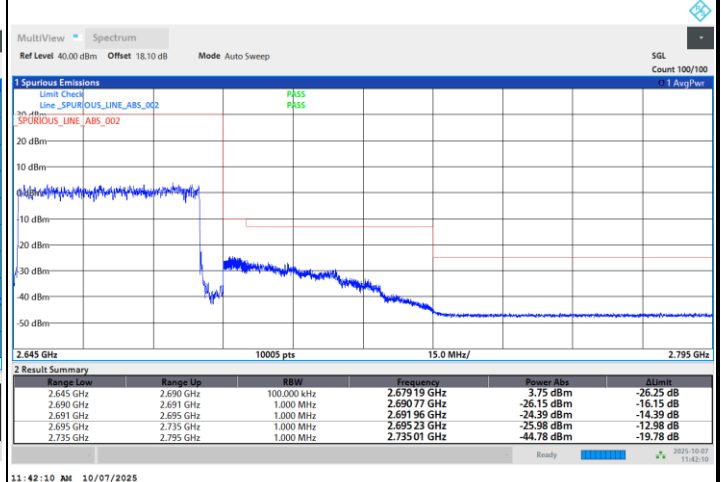


FR1 n41 / 45MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / Full RB

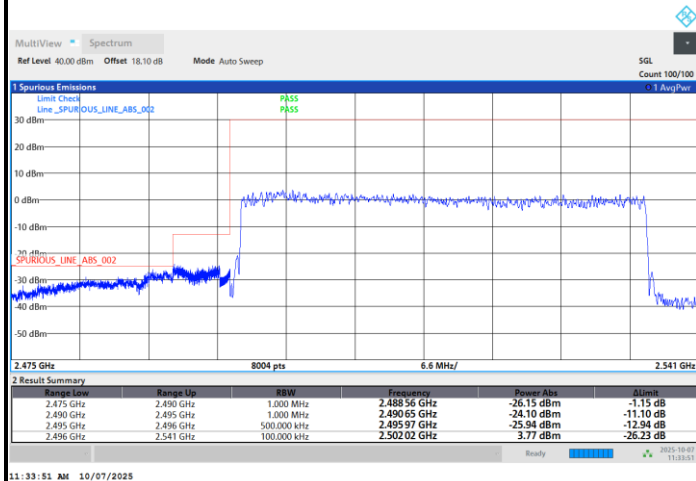


Highest Band Edge / Full RB

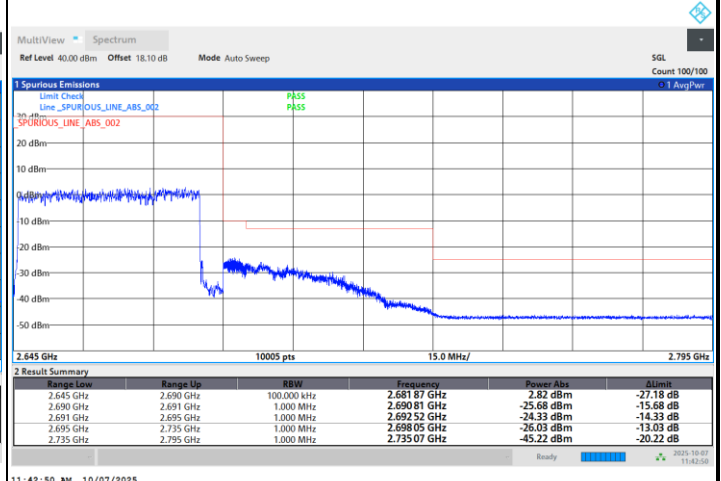


FR1 n41 / 45MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB



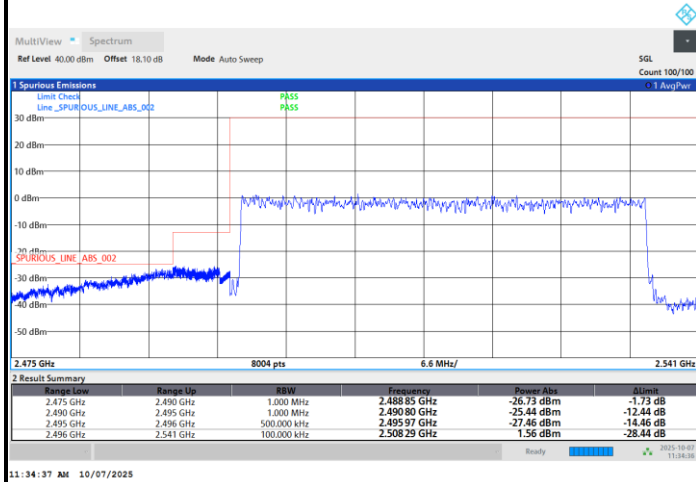
Highest Band Edge / Full RB



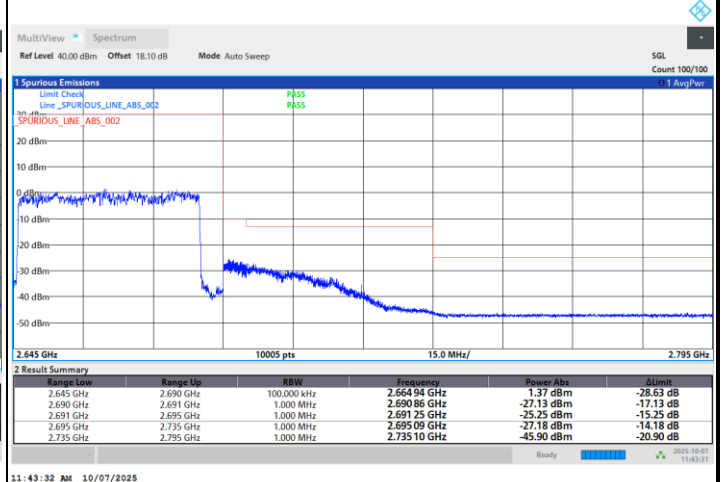


FR1 n41 / 45MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

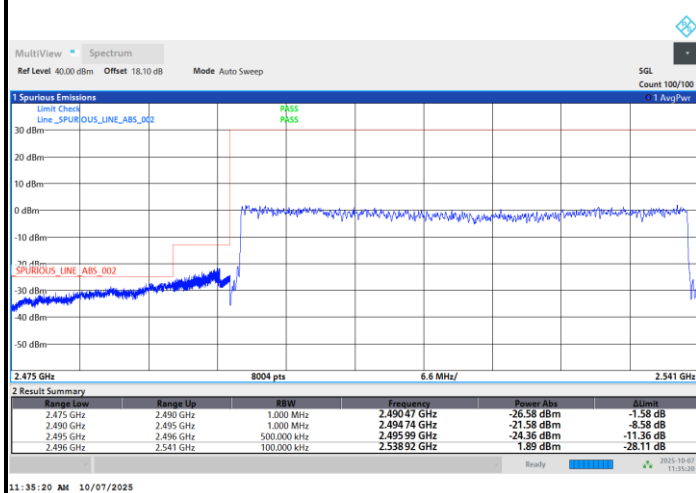


Highest Band Edge / Full RB

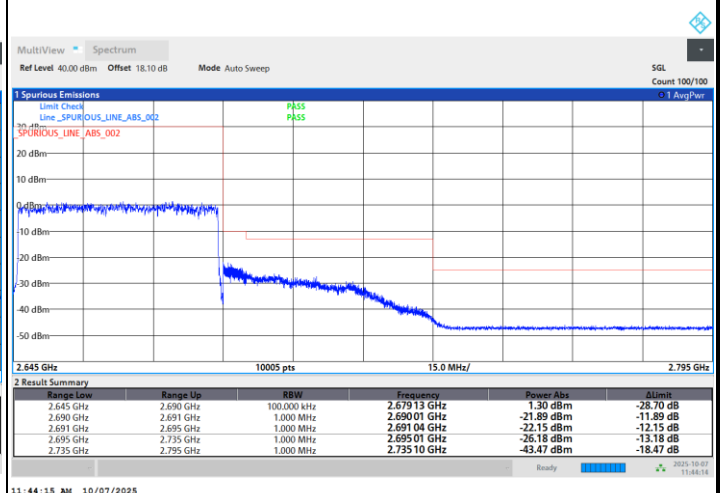


FR1 n41 / 45MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



Highest Band Edge

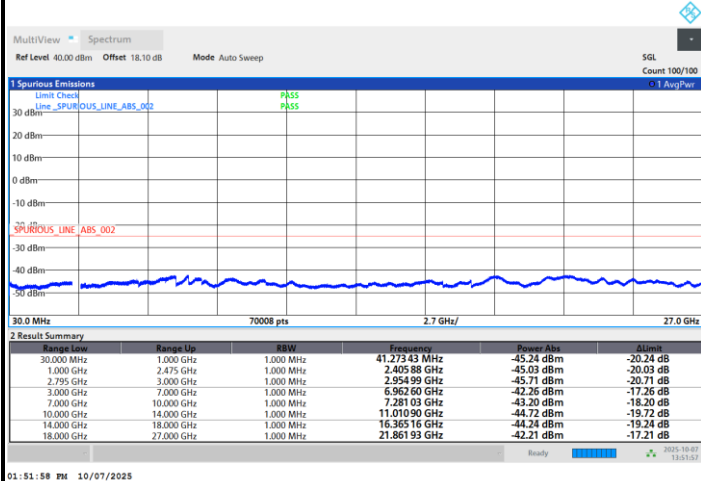




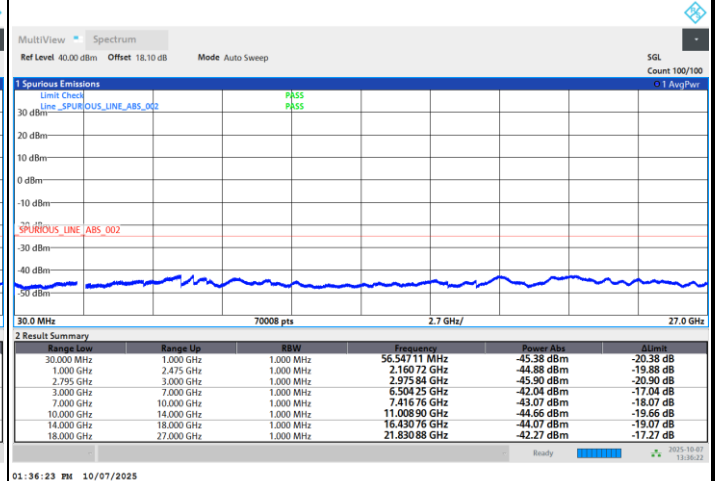
Conducted Spurious Emission

FR1 n41 / 35MHz / DFT-S OFDM / QPSK / 1RB1

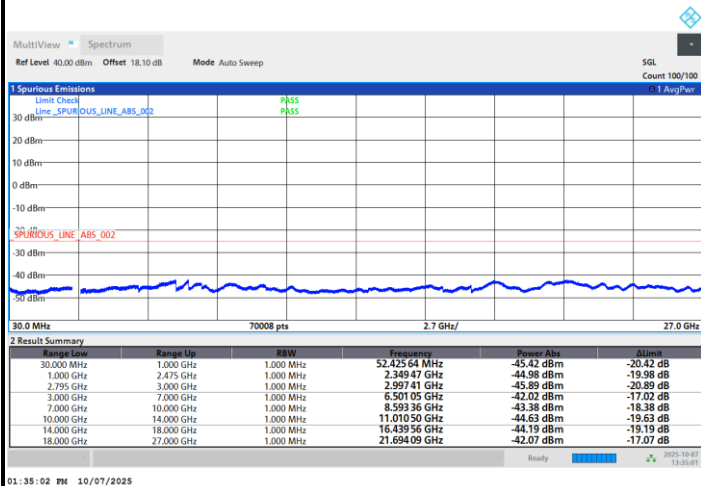
Lowest Channel



Middle Channel



Highest Channel



**Frequency Stability**

Test Conditions		FR1 n41 (BPSK) / Middle Channel 35M			
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Frequency Offset (Δf) (Hz)	Within Authorized Frequency Block(Hz)	Result
50	Normal Voltage	0.0049	-12.7	Yes	PASS
40	Normal Voltage	0.0012	3.2	Yes	
30	Normal Voltage	0.0016	4.2	Yes	
20(Ref.)	Normal Voltage	0.0000	0	Yes	
10	Normal Voltage	0.0020	5.1	Yes	
0	Normal Voltage	0.0019	4.9	Yes	
-10	Normal Voltage	0.0020	-5.2	Yes	
-20	Normal Voltage	0.0001	-0.3	Yes	
-30	Normal Voltage	0.0010	-2.5	Yes	
20	Maximum Voltage	0.0030	-7.9	Yes	
20	Normal Voltage	0.0017	4.4	Yes	
20	Minimum Voltage	0.0009	-2.3	Yes	

Note:

1. Normal Voltage = 3.8 V. ; Minimum Voltage = 3.4 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.

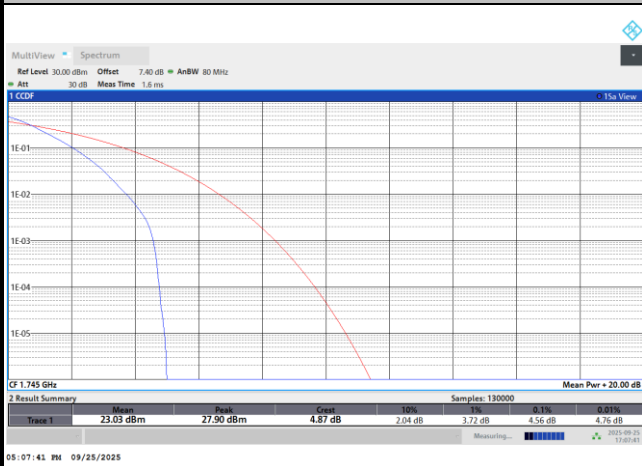
**FR1 n66****<SISO Mode>****Peak-to-Average Ratio**

Mode	FR1 n66 / 45MHz / 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	4.56	5.36	6.32	6.64	PASS
Mode	FR1 n66 / 45MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.92				PASS

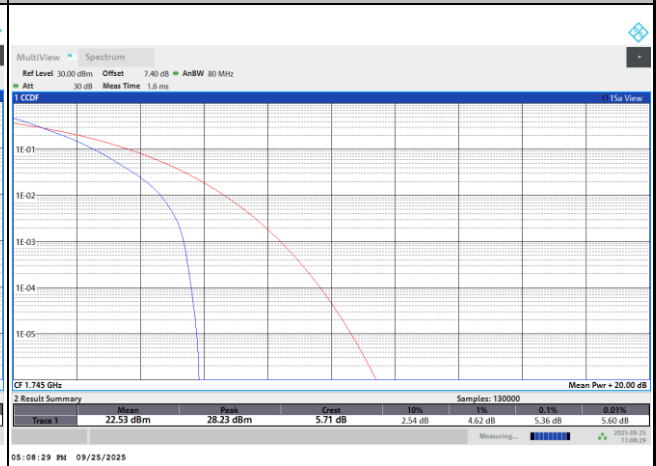


FR1 n66 / 45MHz / DFT-S OFDM / Middle Channel / Full RB

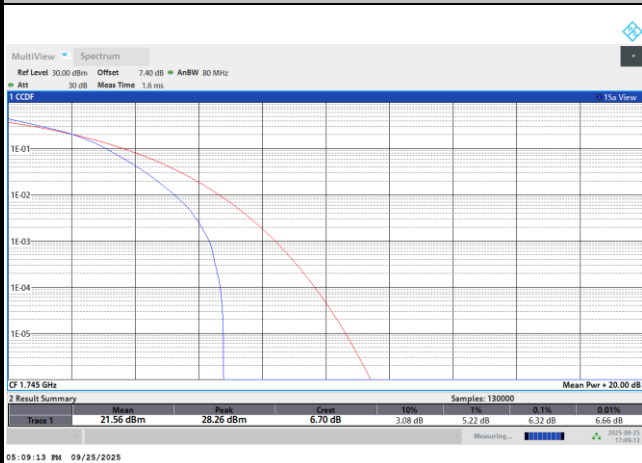
PI/2 BPSK



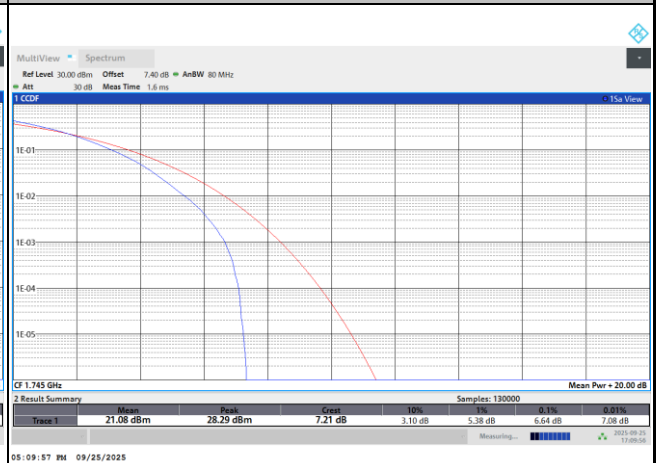
QPSK



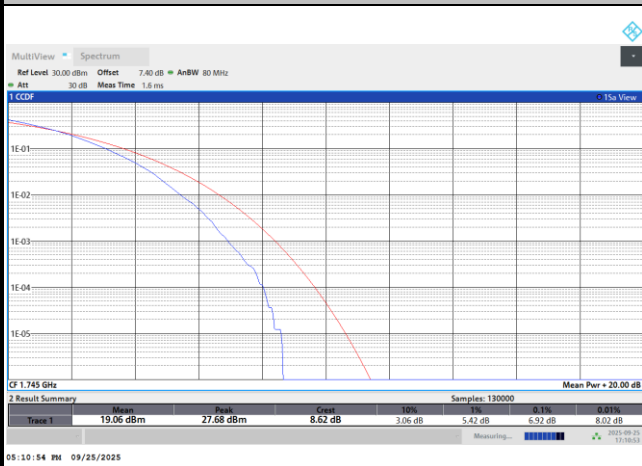
16QAM



64QAM



256QAM



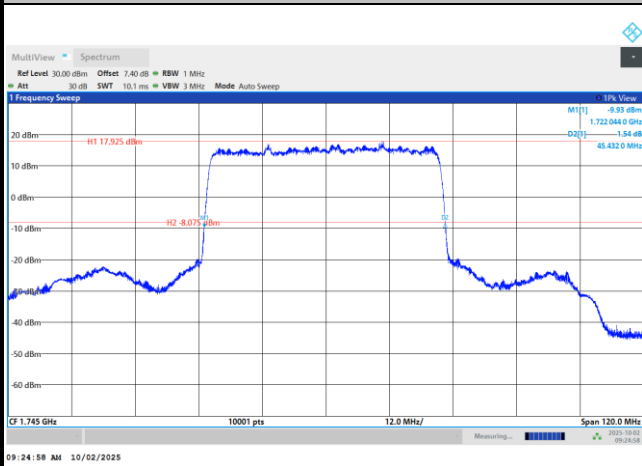
**26dB Bandwidth**

Mode	FR1 n66 : 26dB BW(MHz) / DFT-S OFDM							
BW	45MHz							
Mod.	PI/2 BPSK							
Middle CH	45.43							

Mode	FR1 n66 : 26dB BW(MHz) / CP OFDM							
BW	45MHz							
Mod.	QPSK	16QAM						
Middle CH	45.81	45.78						
Mod.	64QAM	256QAM						
Middle CH	45.86	45.90						

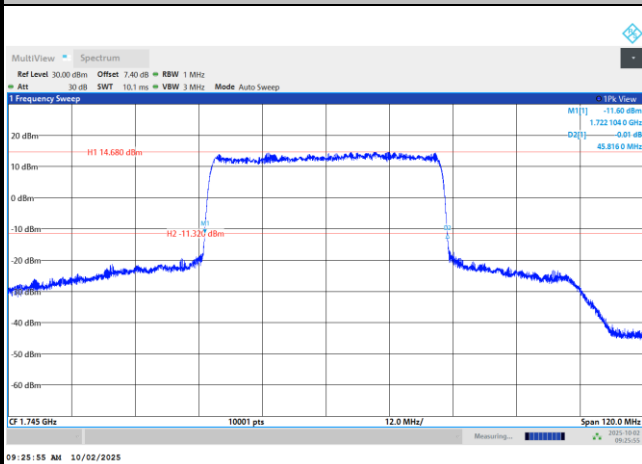
FR1 n66 / 45MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

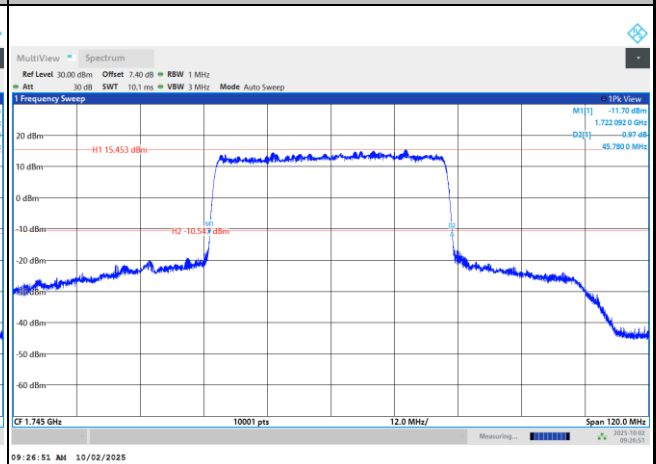


FR1 n66 / 45MHz / CP OFDM / Middle Channel / Full RB

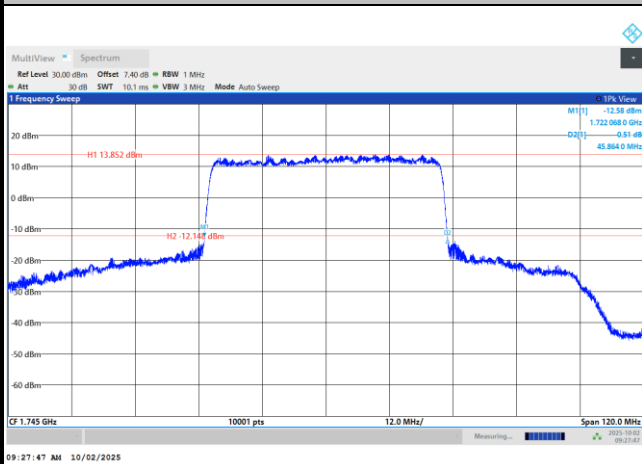
QPSK



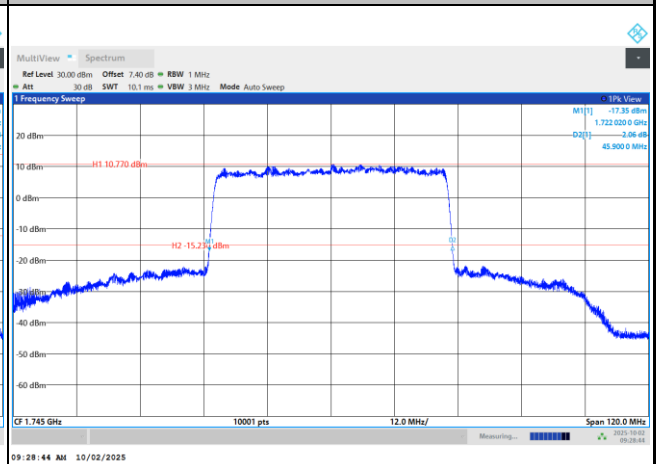
16QAM



64QAM



256QAM



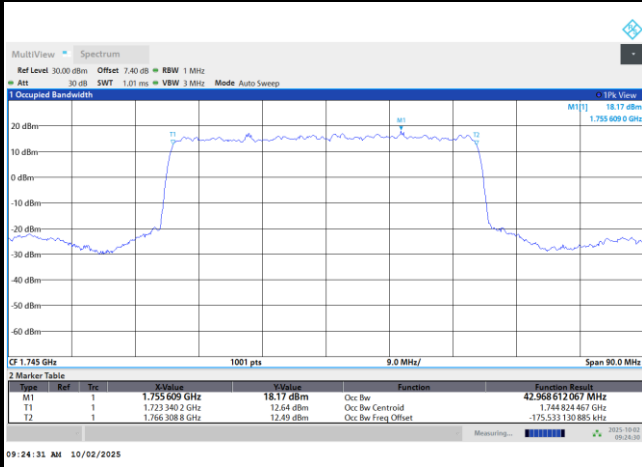
**Occupied Bandwidth**

Mode	FR1 n66 : OB BW(MHz) / DFT-S OFDM							
BW	45MHz							
Mod.	PI/2 BPSK							
Middle CH	42.96							

Mode	FR1 n66 : OB BW(MHz) / CP OFDM							
BW	45MHz							
Mod.	QPSK	16QAM						
Middle CH	43.19	43.22						
Mod.	64QAM	256QAM						
Middle CH	43.27	43.39						

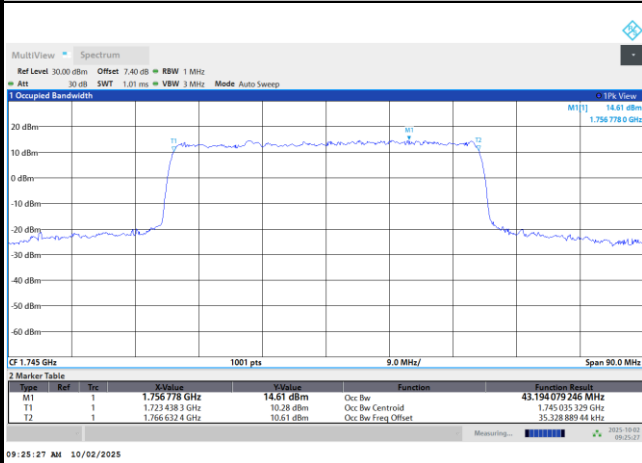
FR1 n66 / 45MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

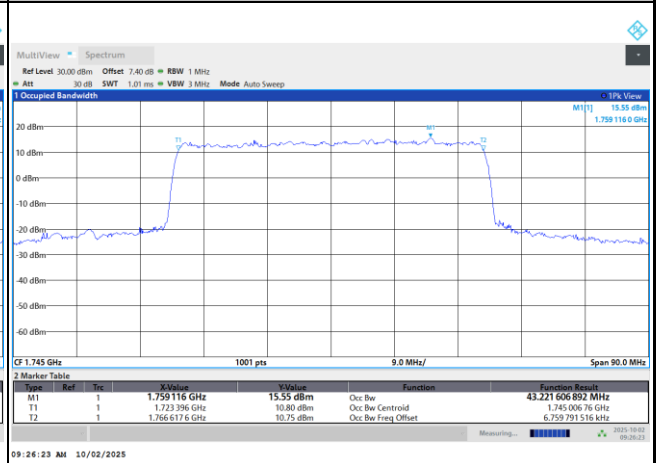


FR1 n66 / 45MHz / CP OFDM / Middle Channel / Full RB

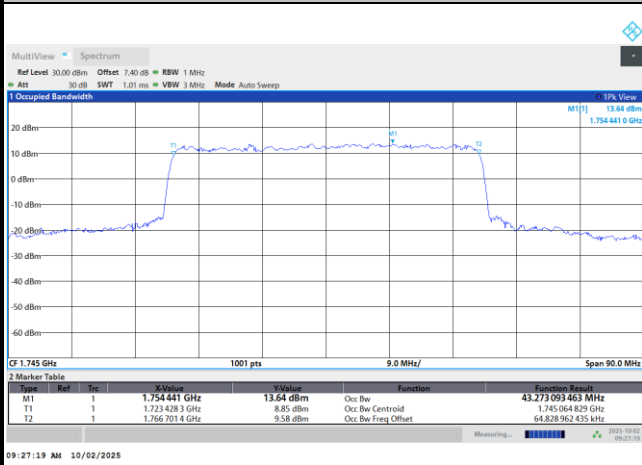
QPSK



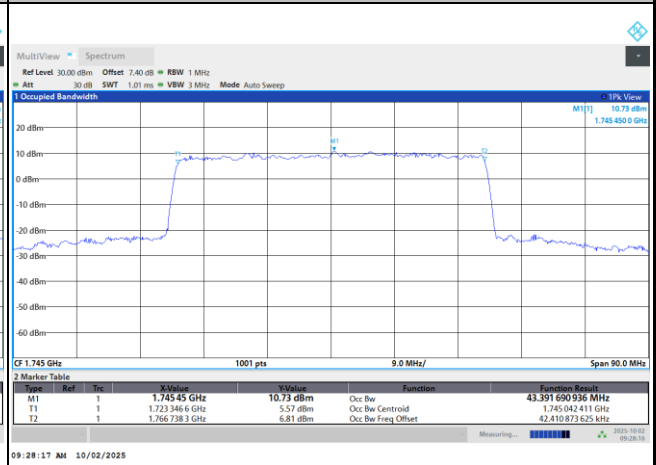
16QAM



64QAM



256QAM



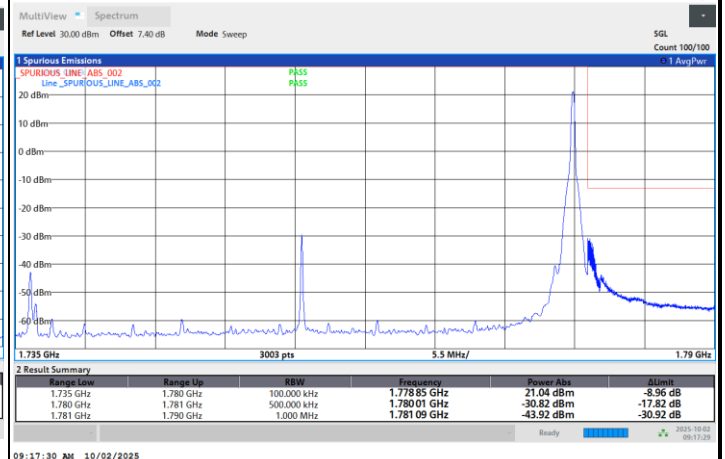
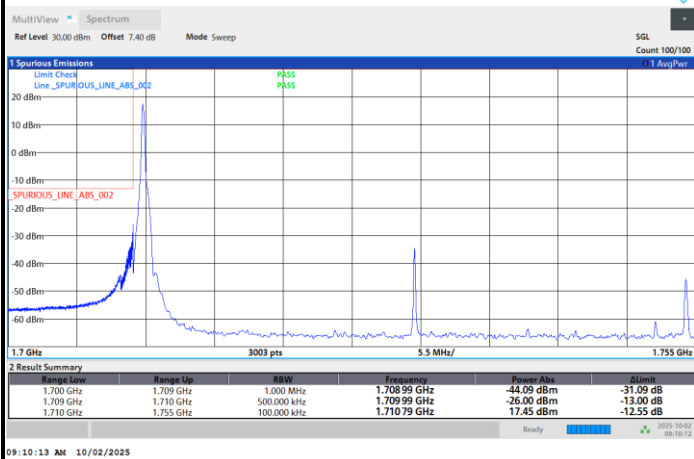


Conducted Band Edge

FR1 n66 / 45MHz / DFT-S OFDM / PI/2 BPSK

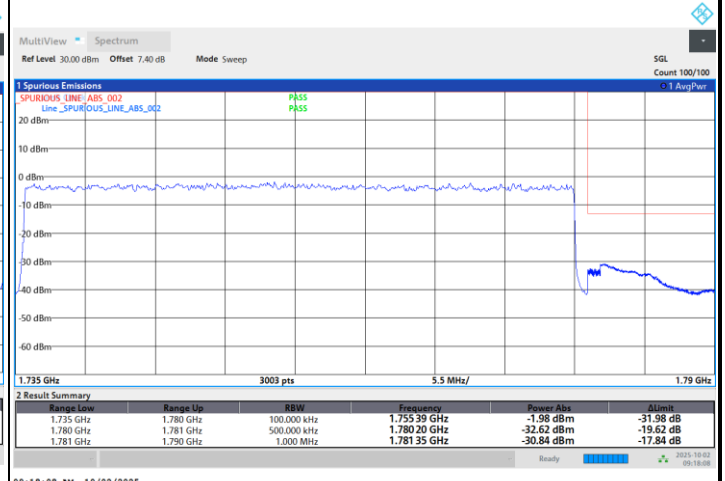
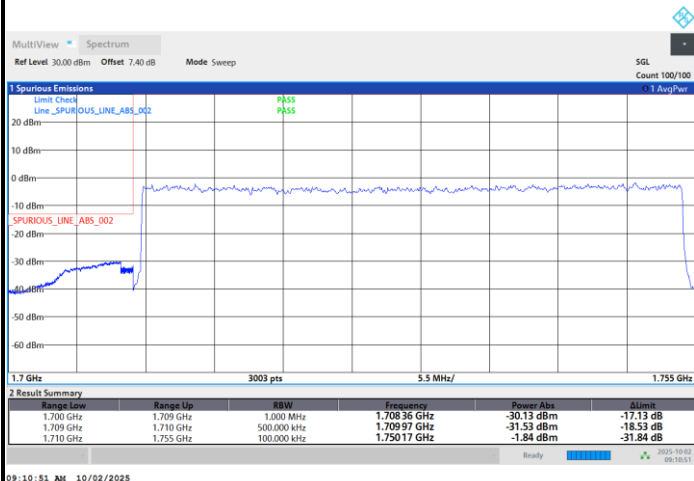
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

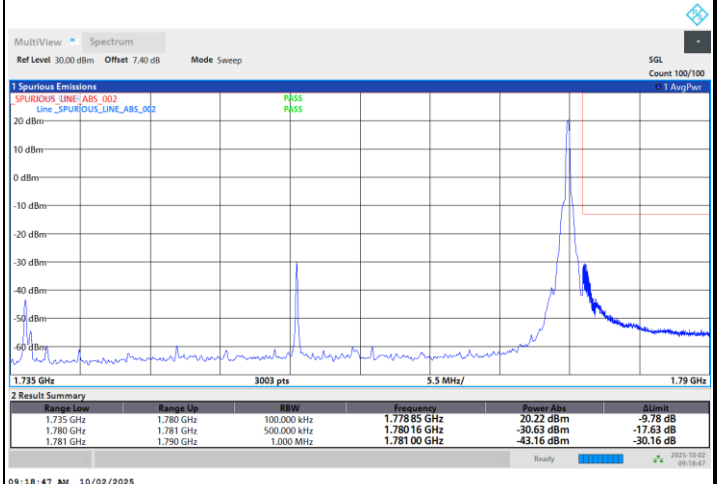
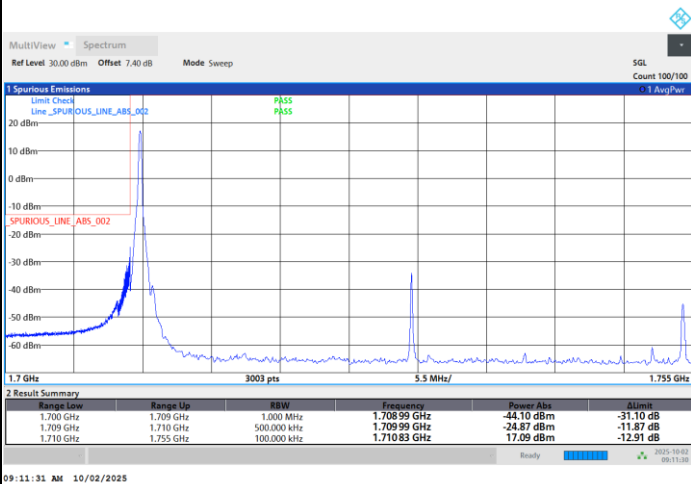




FR1 n66 / 45MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

