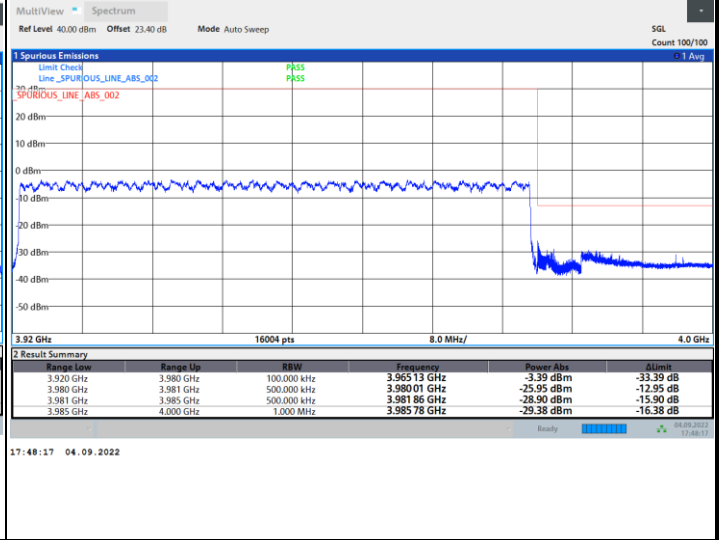
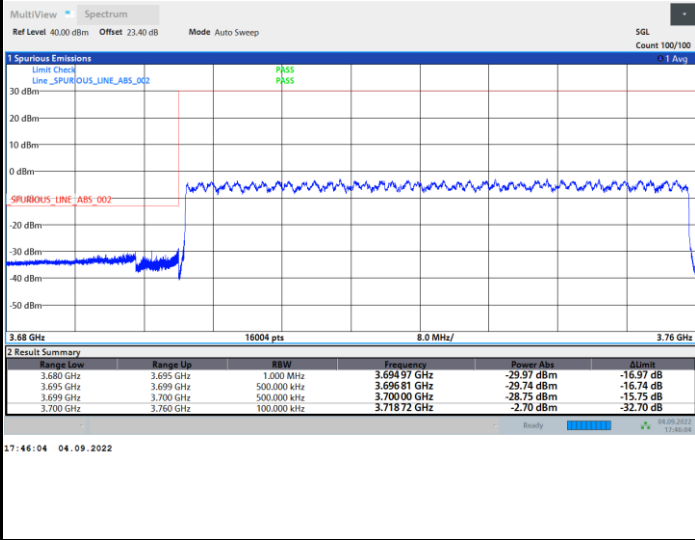




FR1 n77 / 60MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

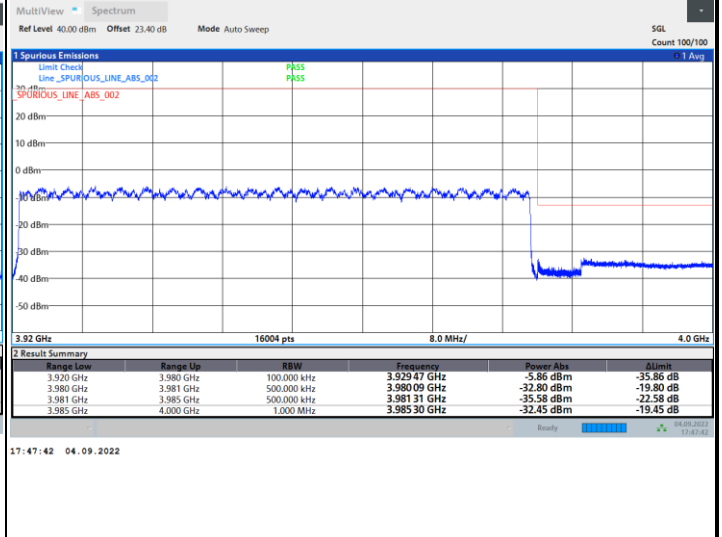
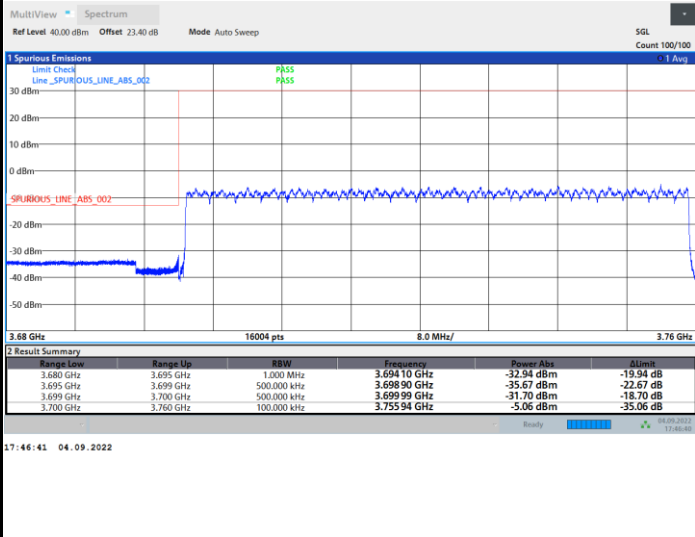
Highest Band Edge / Full RB



FR1 n77 / 60MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

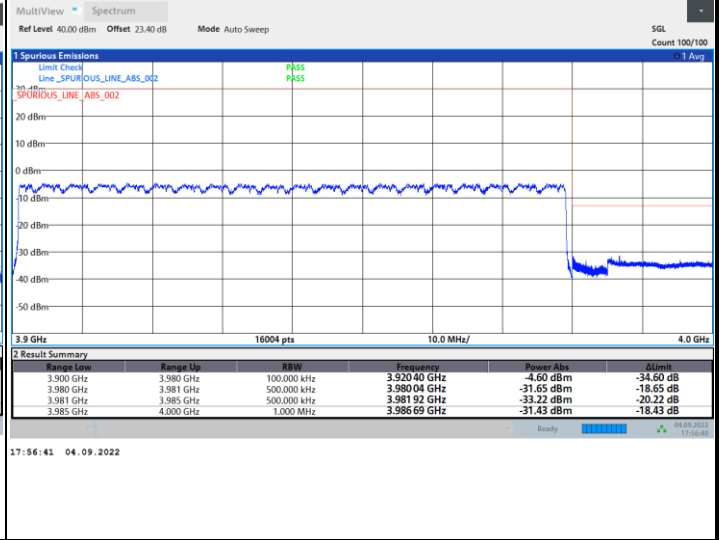
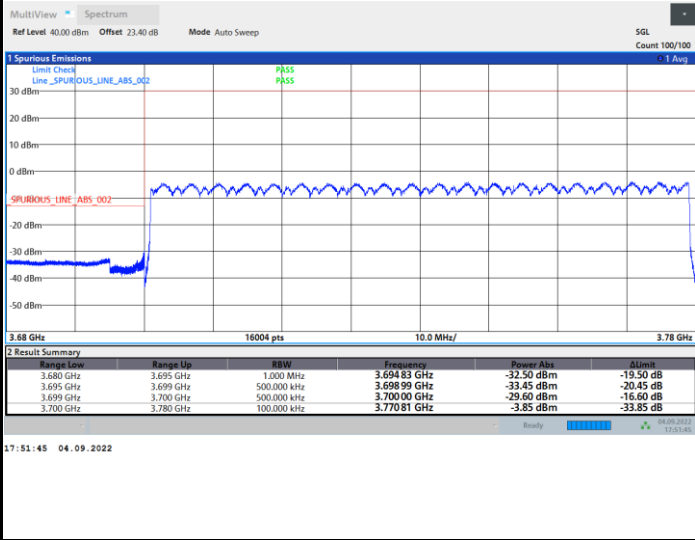




FR1 n77 / 80MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

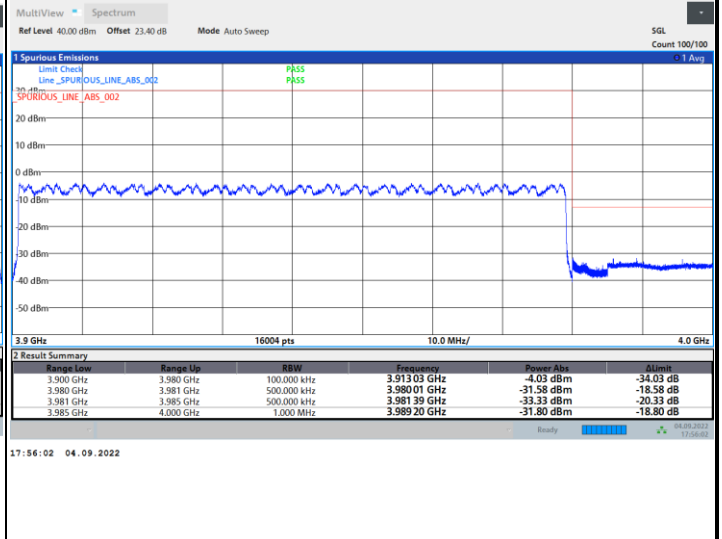
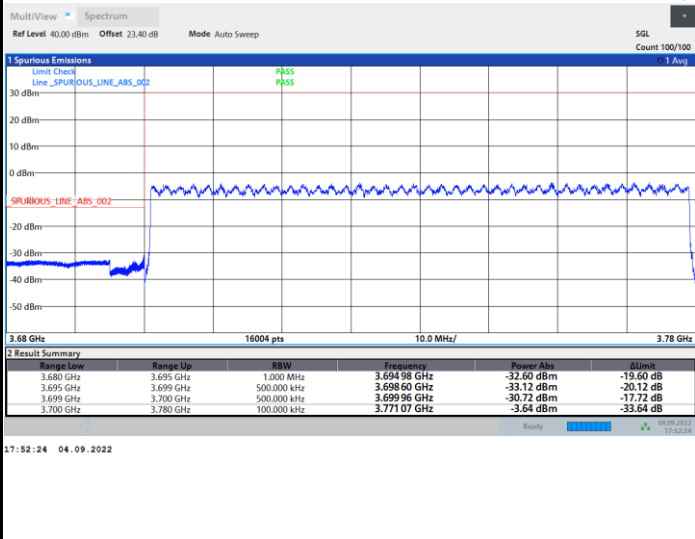
Highest Band Edge / Full RB



FR1 n77 / 80MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

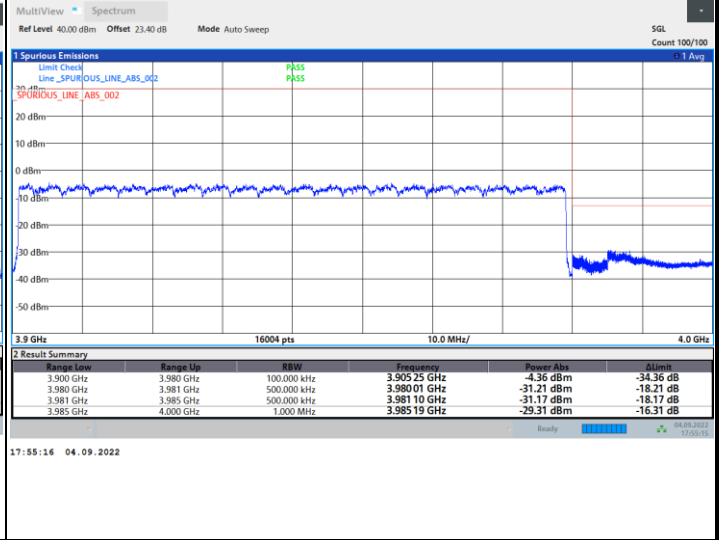
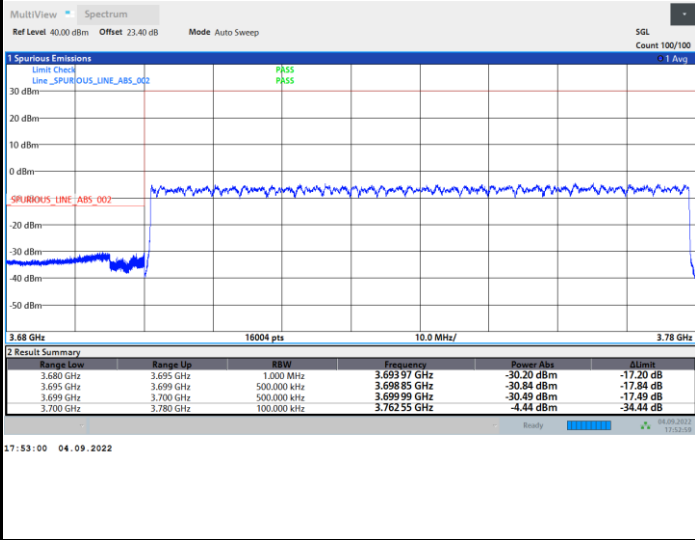




FR1 n77 / 80MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

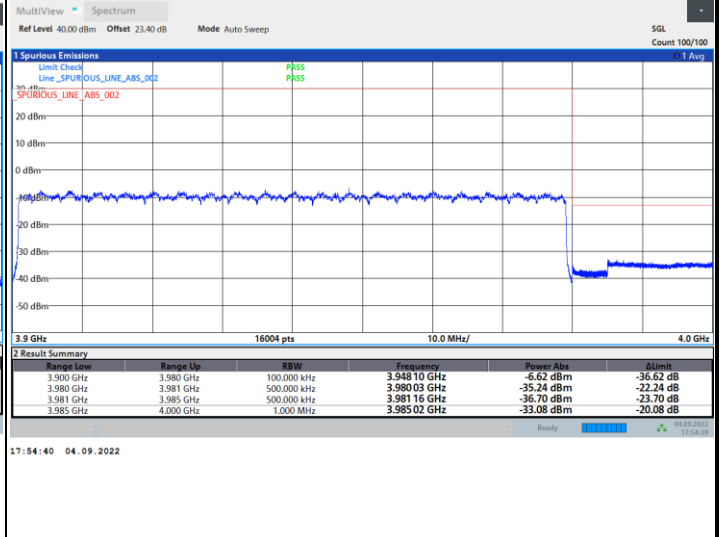
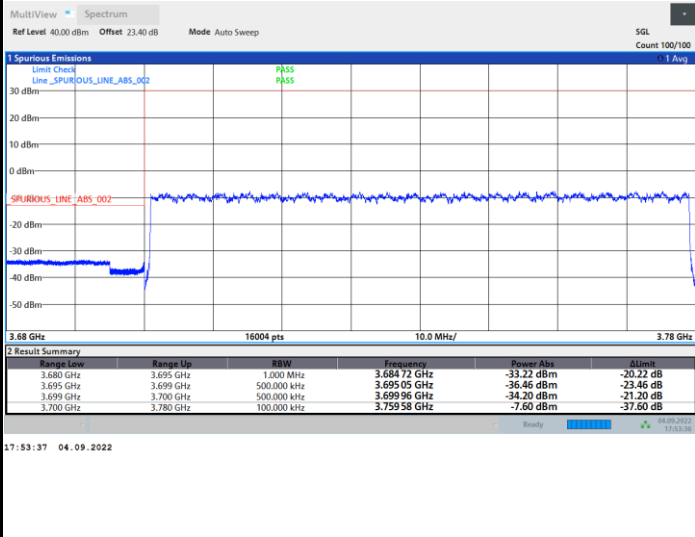
Highest Band Edge / Full RB



FR1 n77 / 80MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

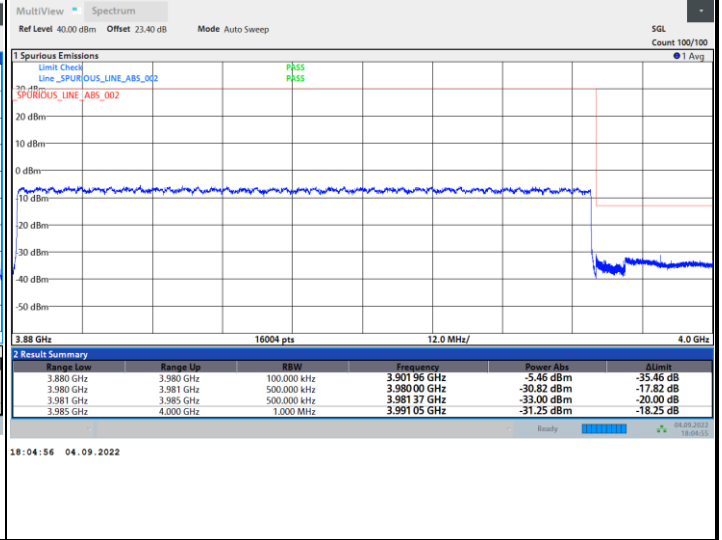
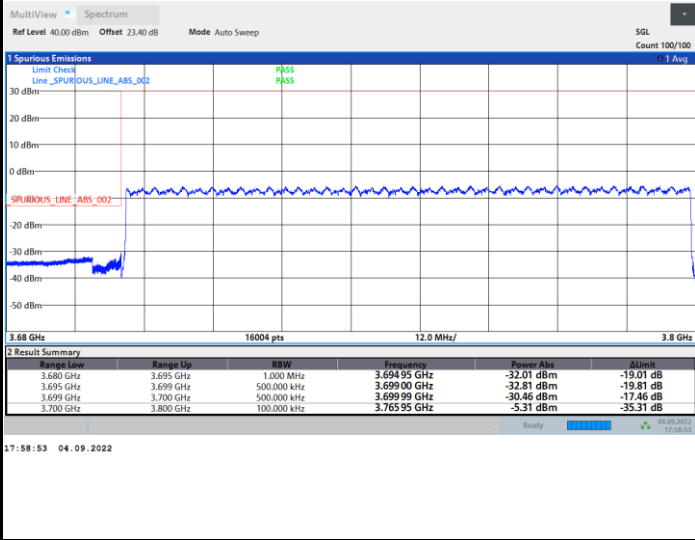




FR1 n77 / 100MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

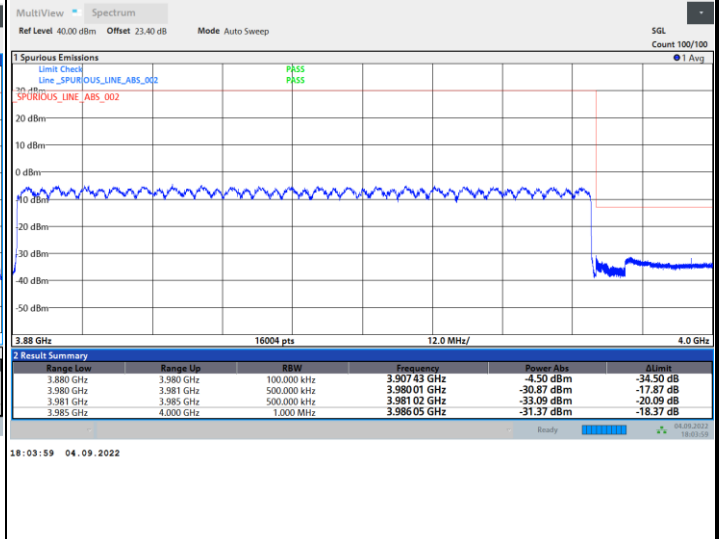
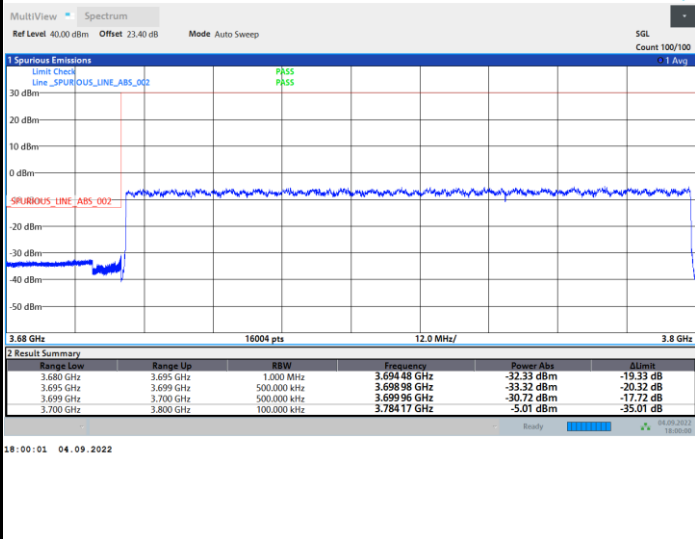
Highest Band Edge / Full RB



FR1 n77 / 100MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

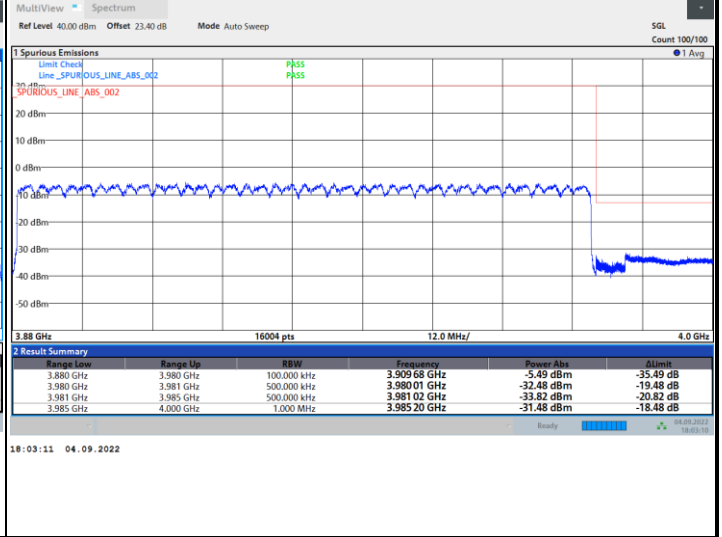
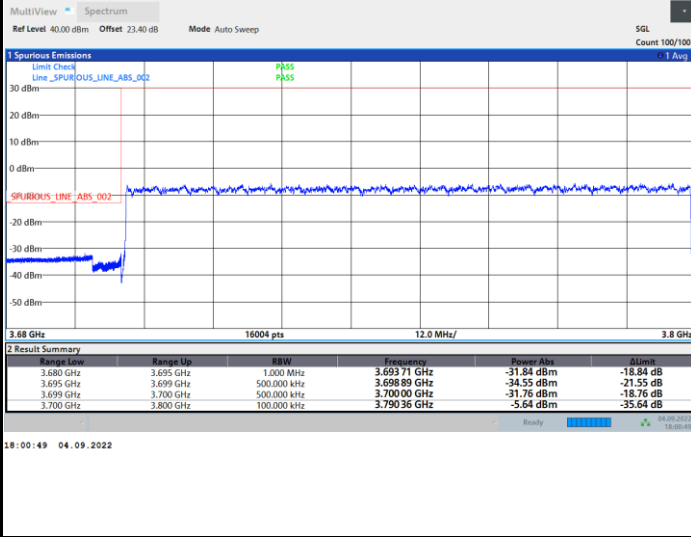




FR1 n77 / 100MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

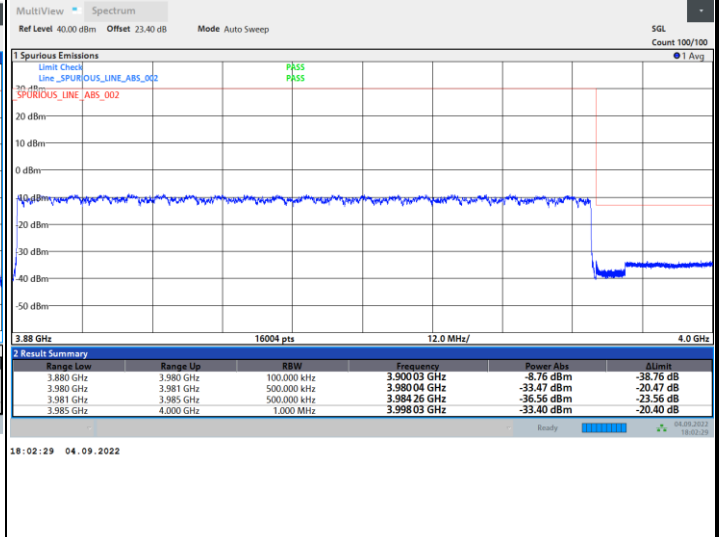
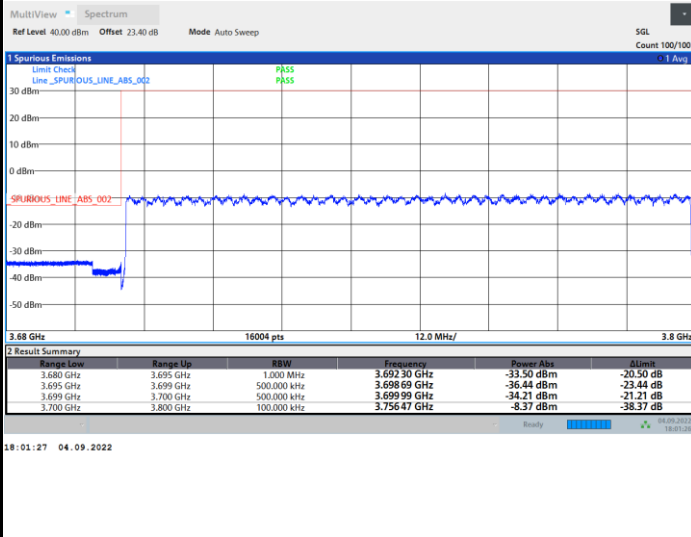
Highest Band Edge / Full RB



FR1 n77 / 100MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

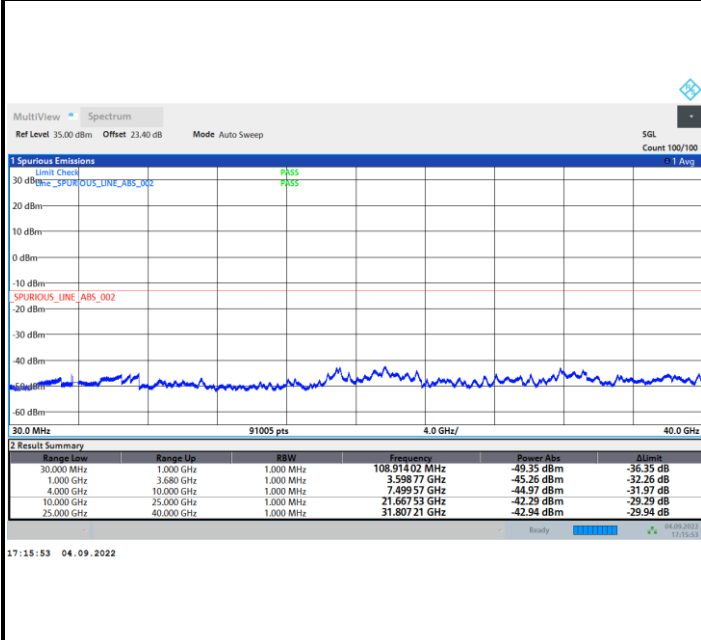




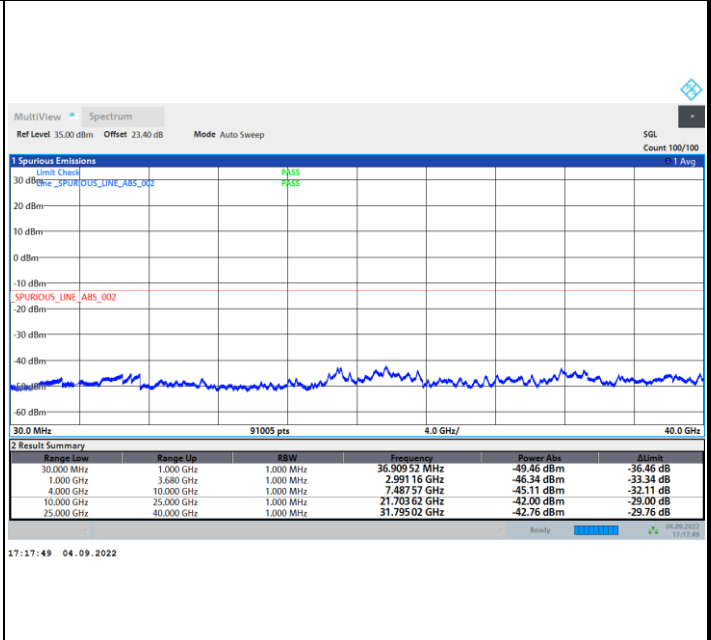
# Conducted Spurious Emission

FR1 n77 / 20MHz / CP OFDM / QPSK / 1RB1

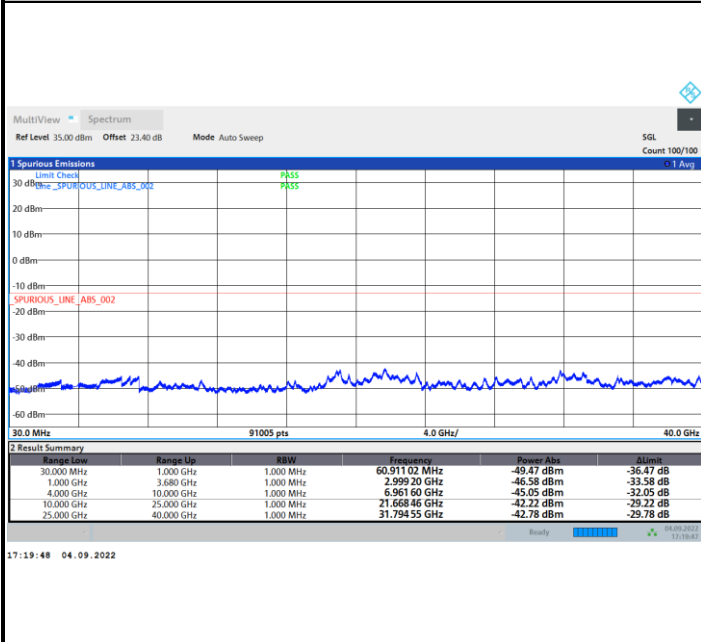
## Lowest Channel



## Middle Channel



## Highest Channel





### Frequency Stability

Test Conditions		FR1 n77 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0043	
30	Normal Voltage	0.0040	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0021	
0	Normal Voltage	0.0057	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0034	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0052	

**Note:**

- 1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



# FR1 n78 (HPUE)

<SISO Mode>

## 26dB Bandwidth

Mode	FR1 n78 (HPUE) : 26dB BW(MHz) / DFT-S OFDM							
BW	20MHz	25MHz	30MHz	40MHz	50MHz	60MHz	70MHz	80MHz
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	-	-	-	-	48.15	-	67.13	-
BW	90MHz	100MHz						
Mod.	PI/2 BPSK	PI/2 BPSK						
Middle CH	89.73	-						

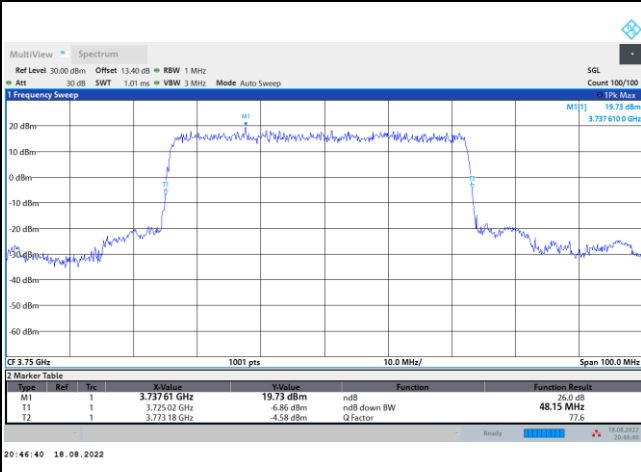
Mode	FR1 n78 (HPUE) : 26dB BW(MHz) / CP OFDM							
BW	20MHz		25MHz		30MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	-	-	-	-
BW	50MHz		60MHz		70MHz		80MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	50.15	50.25	-	-	70.35	70.63	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	50.15	50.05	-	-	70.21	70.35	-	-
BW	90MHz		100MHz					
Mod.	QPSK	16QAM	QPSK	16QAM				
Middle CH	90.63	90.63	-	-				
Mod.	64QAM	256QAM	64QAM	256QAM				
Middle CH	90.63	90.63	-	-				





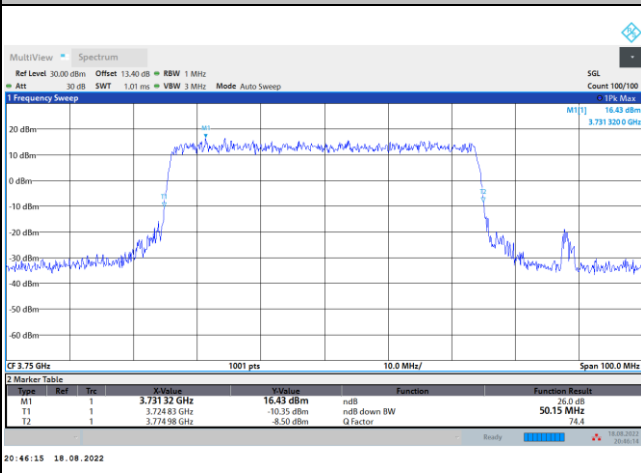
FR1 n78 (HPUE) / 50MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

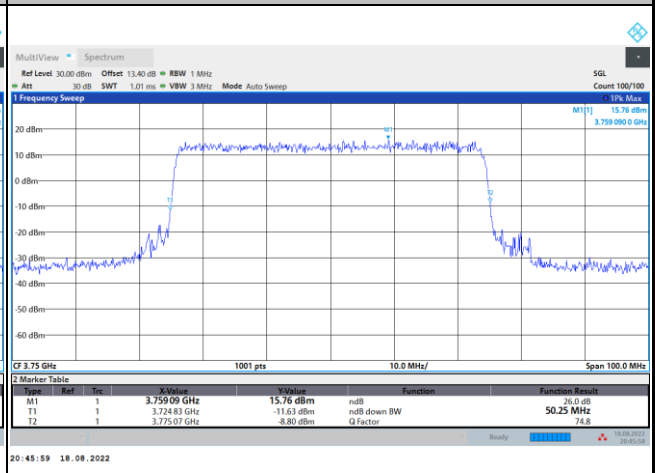


FR1 n78 (HPUE) / 50MHz / CP OFDM / Middle Channel / Full RB

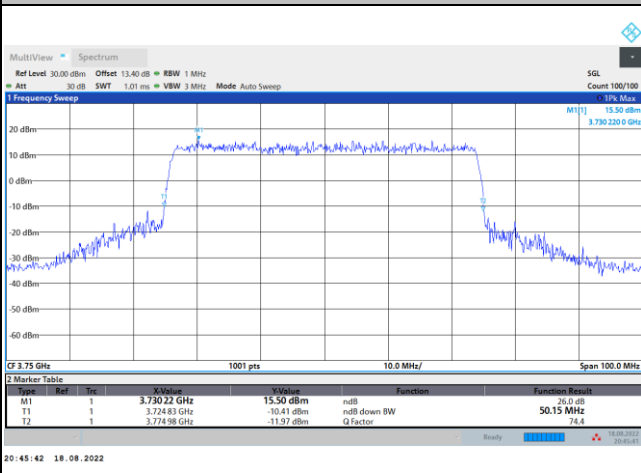
QPSK



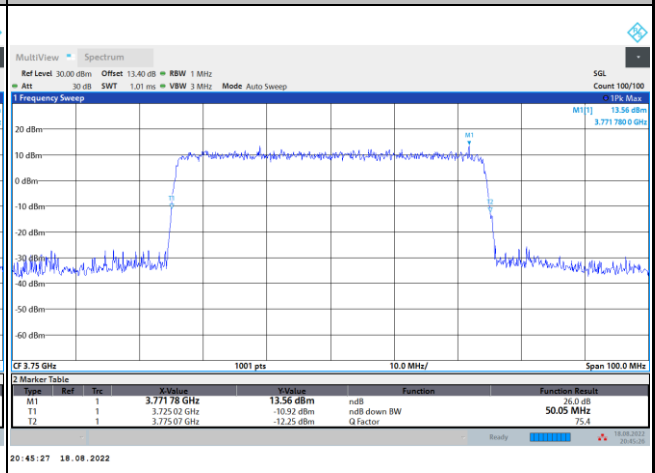
16QAM



64QAM



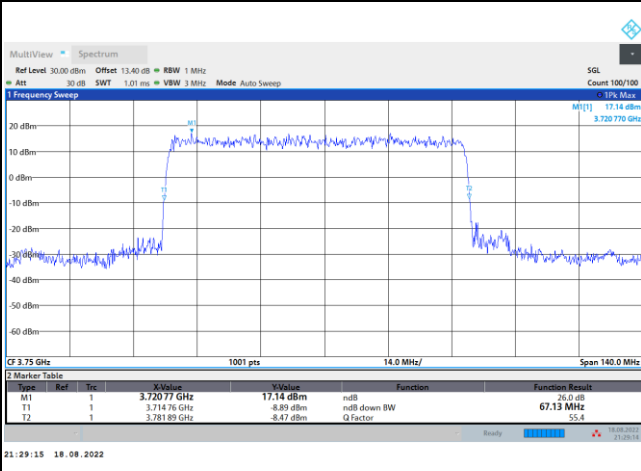
256QAM





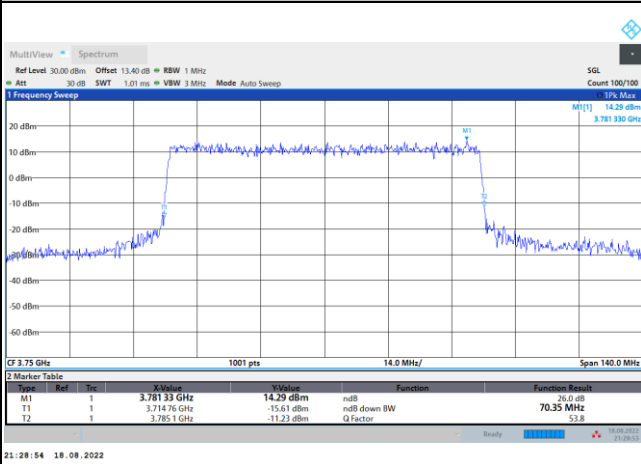
FR1 n78 (HPUE) / 70MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

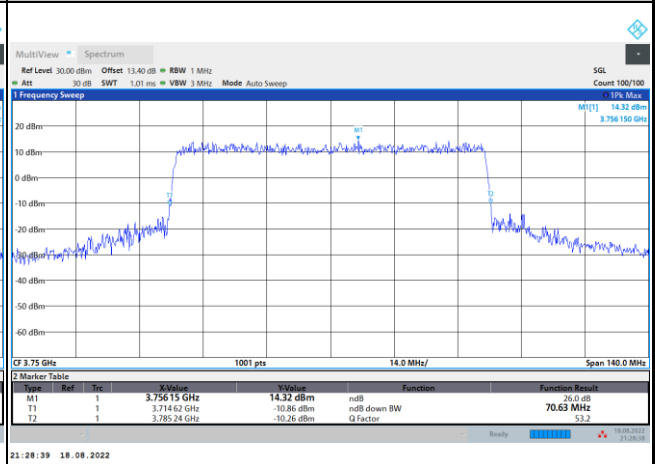


FR1 n78 (HPUE) / 70MHz / CP OFDM / Middle Channel / Full RB

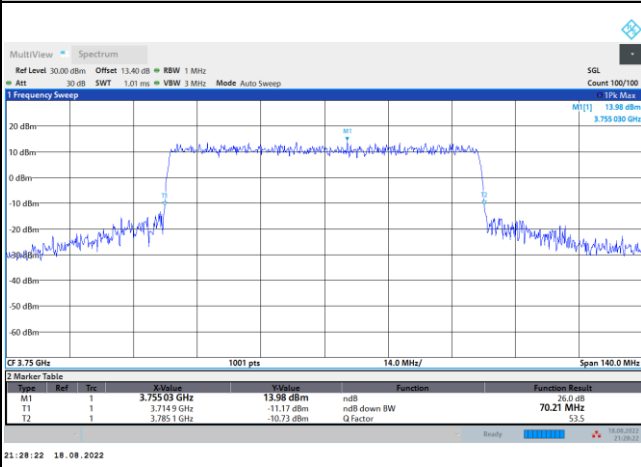
QPSK



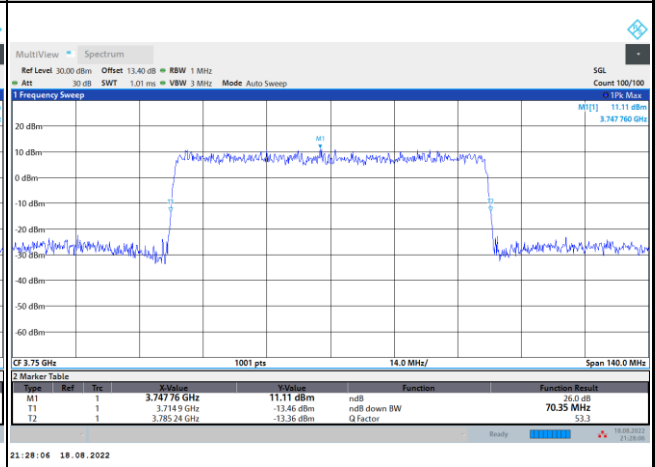
16QAM



64QAM



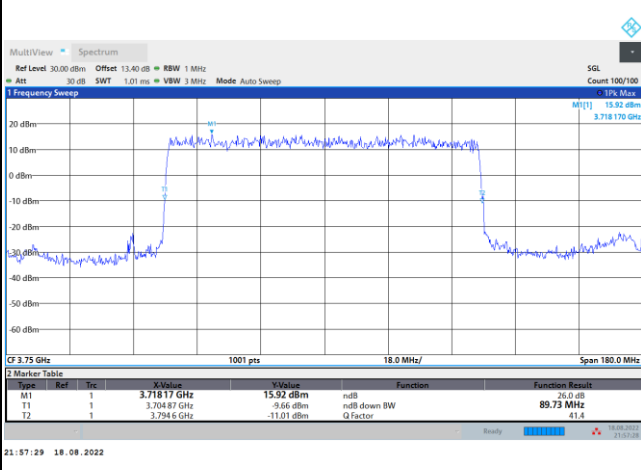
256QAM





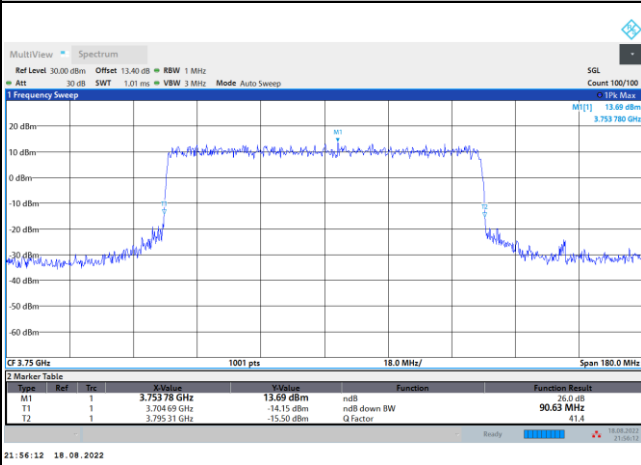
FR1 n78 (HPUE) / 90MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

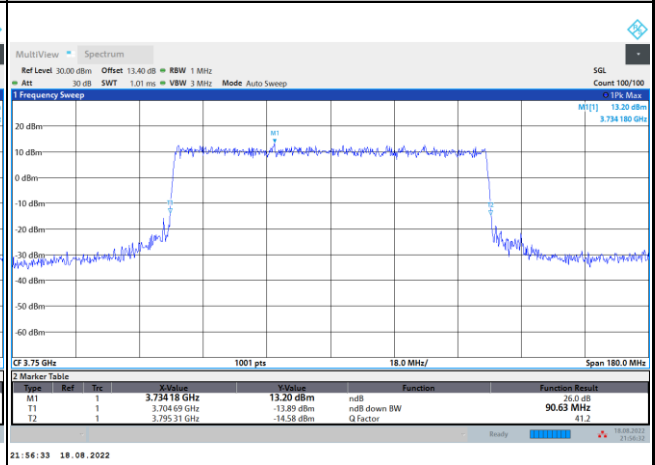


FR1 n78 (HPUE) / 90MHz / CP OFDM / Middle Channel / Full RB

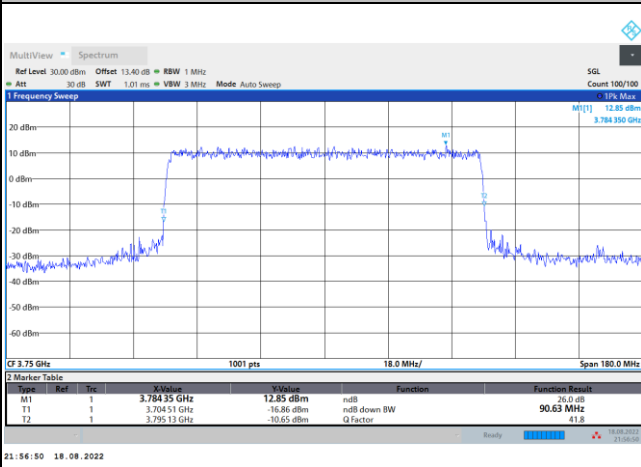
QPSK



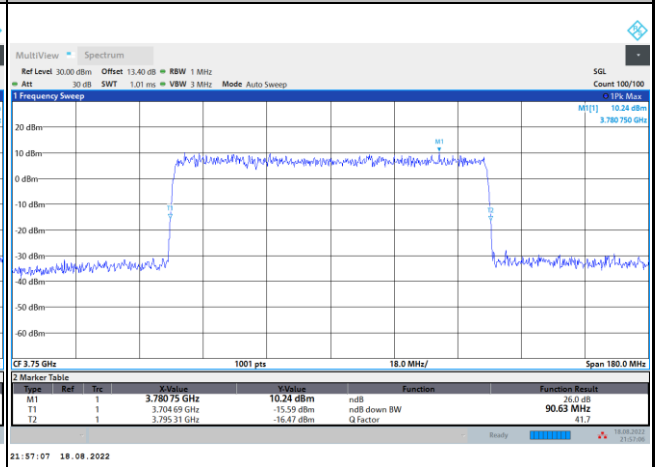
16QAM



64QAM



256QAM





**Occupied Bandwidth**

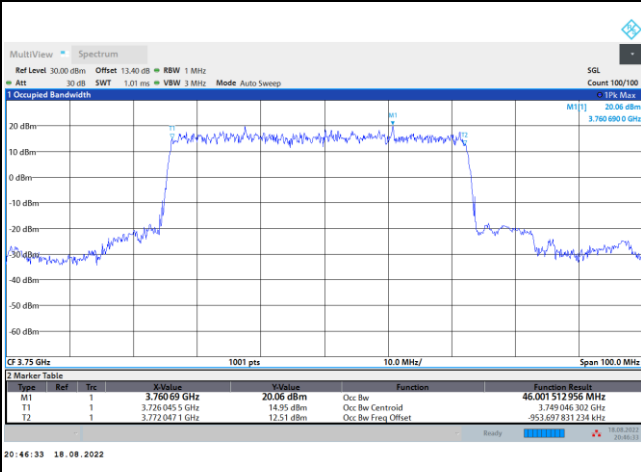
Mode	FR1 n78 (HPUE) : OB BW(MHz) / DFT-S OFDM							
BW	20MHz	25MHz	30MHz	40MHz	50MHz	60MHz	70MHz	80MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	-	-	-	-	46.00	-	64.21	-
BW	90MHz	100MHz						
Mod.	PI/2 BPSK	PI/2 BPSK						
Middle CH	86.72	-						

Mode	FR1 n78 (HPUE) : OB BW(MHz) / CP OFDM							
BW	20MHz		25MHz		30MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	-	-	-	-
BW	50MHz		60MHz		70MHz		80MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	47.50	47.50	-	-	67.46	67.49	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	47.69	47.60	-	-	67.53	67.51	-	-
BW	90MHz		100MHz					
Mod.	QPSK	16QAM	QPSK	16QAM				
Middle CH	87.20	87.41	-	-				
Mod.	64QAM	256QAM	64QAM	256QAM				
Middle CH	87.39	87.45	-	-				



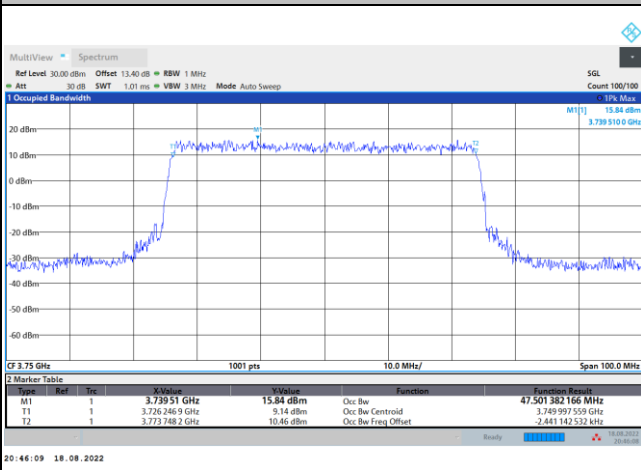
FR1 n78 (HPUE) / 50MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

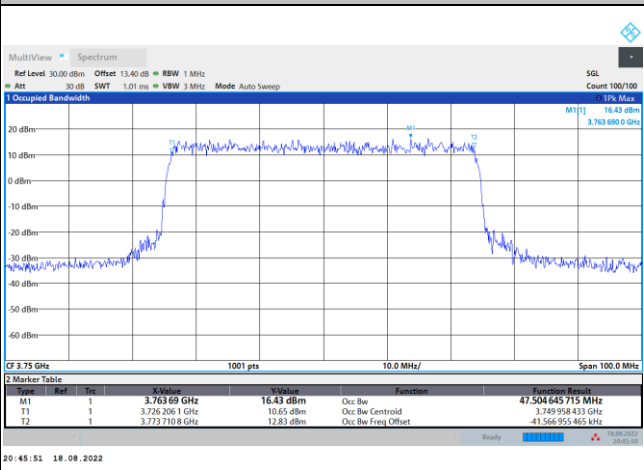


FR1 n78 (HPUE) / 50MHz / CP OFDM / Middle Channel / Full RB

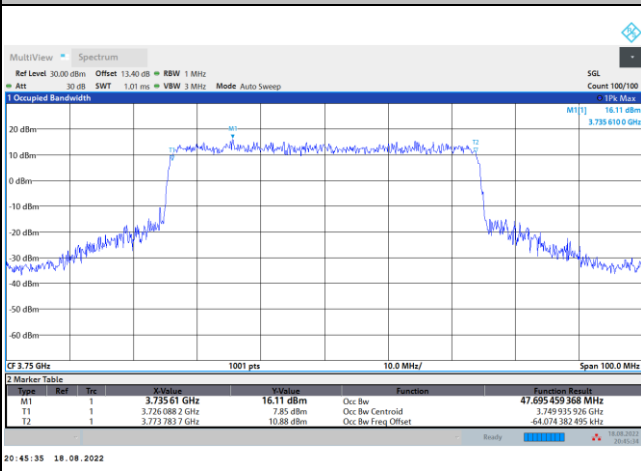
QPSK



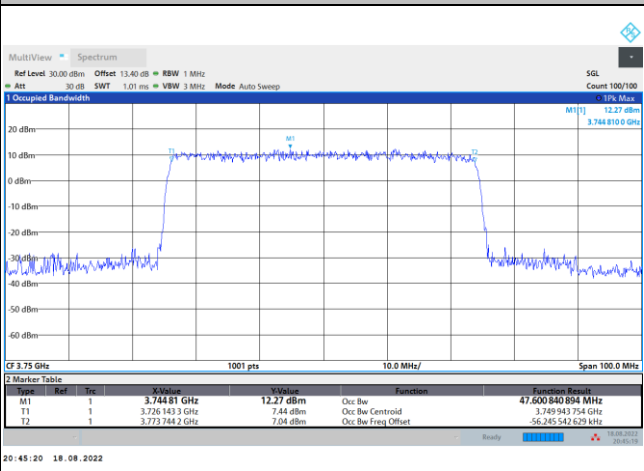
16QAM



64QAM



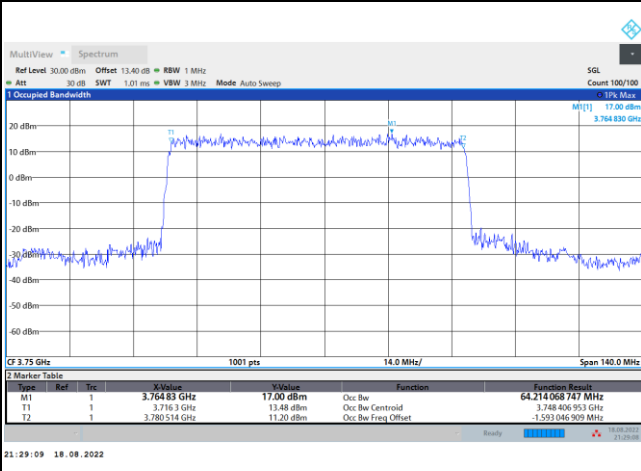
256QAM





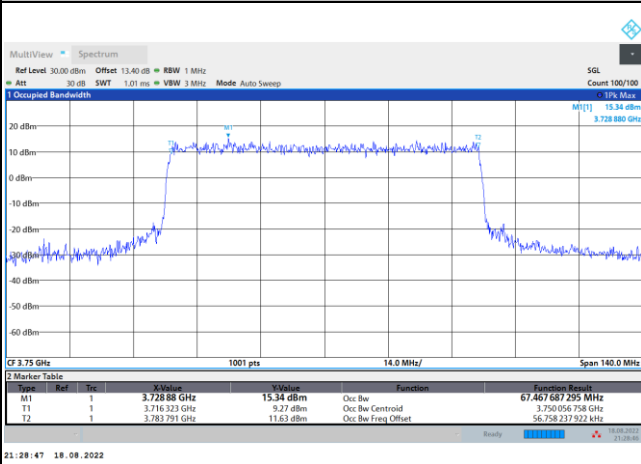
FR1 n78 (HPUE) / 70MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

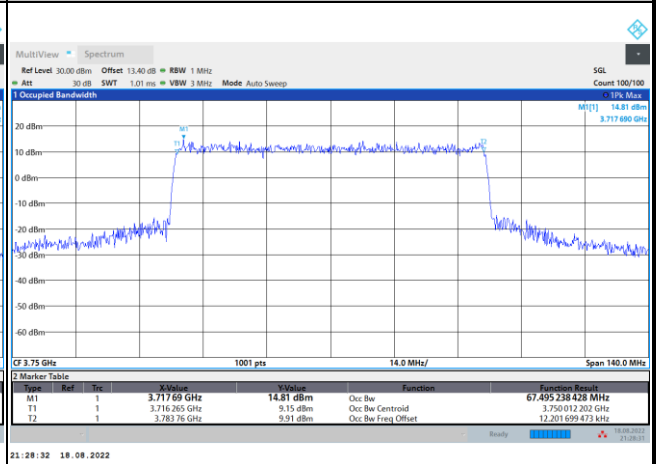


FR1 n78 (HPUE) / 70MHz / CP OFDM / Middle Channel / Full RB

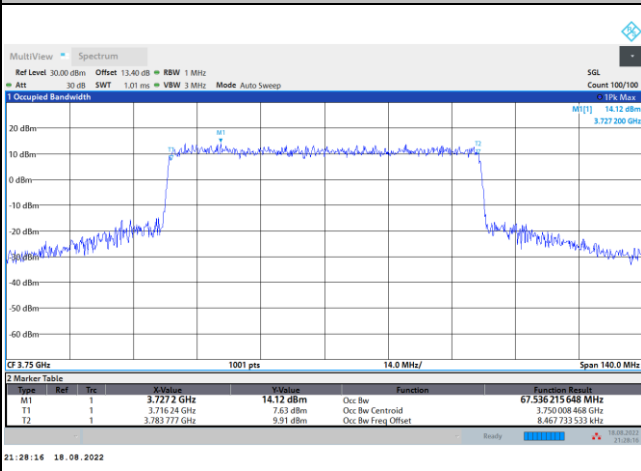
QPSK



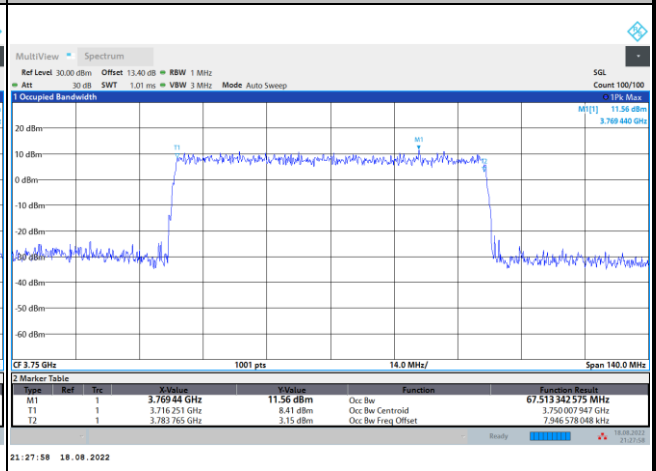
16QAM



64QAM



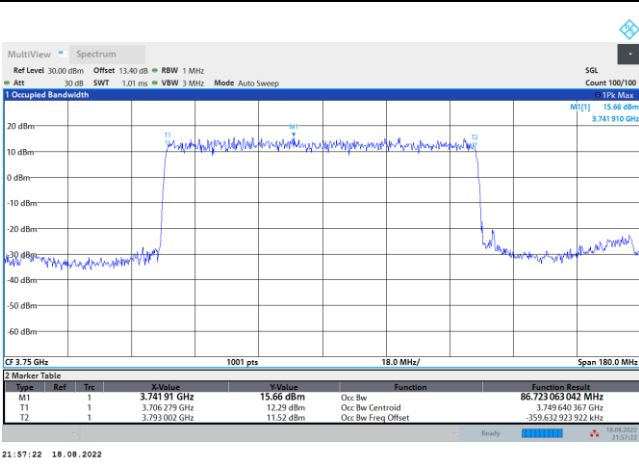
256QAM





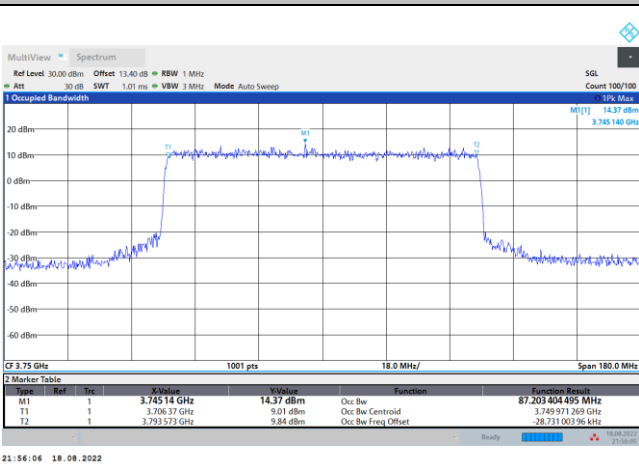
FR1 n78 (HPUE) / 90MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

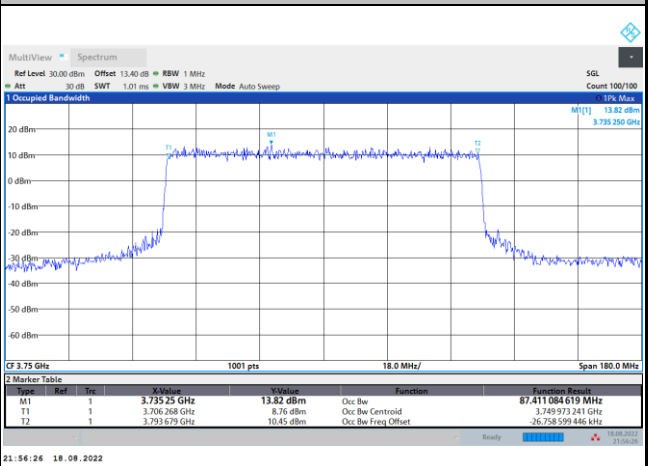


FR1 n78 (HPUE) / 90MHz / CP OFDM / Middle Channel / Full RB

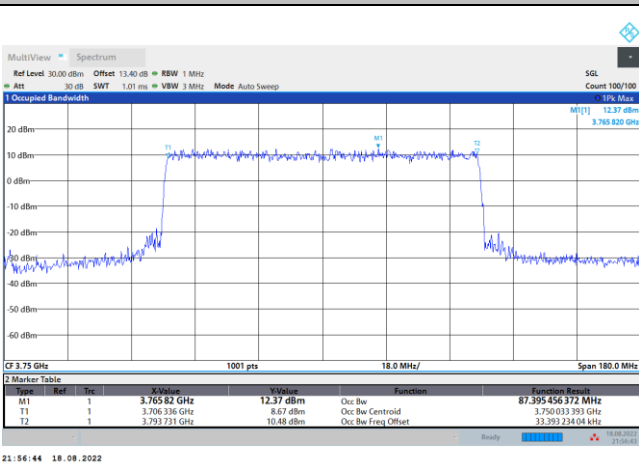
QPSK



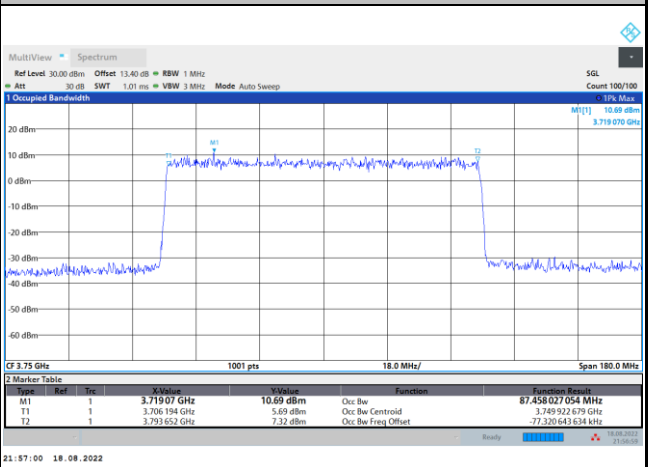
16QAM



64QAM



256QAM

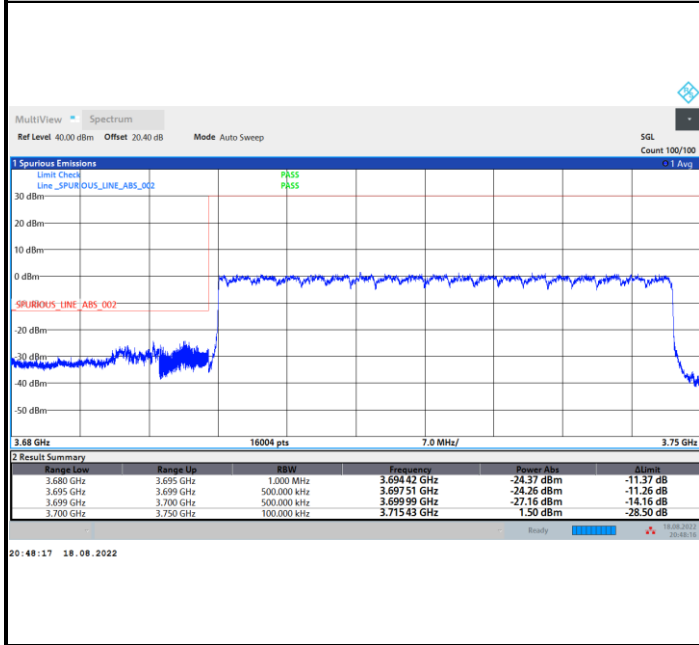




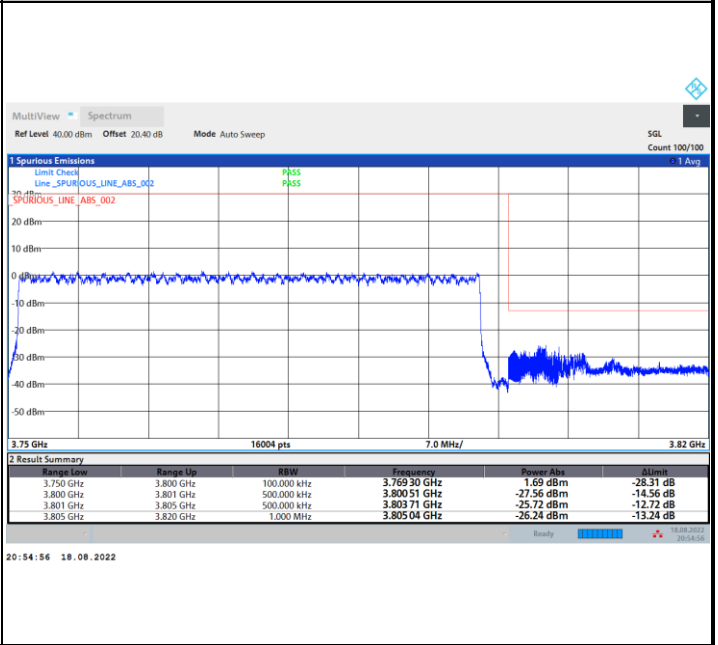
# Conducted Band Edge

## FR1 n78 (HPUE) / 50MHz / DFT-S OFDM / PI/2 BPSK

### Lowest Band Edge / Full RB

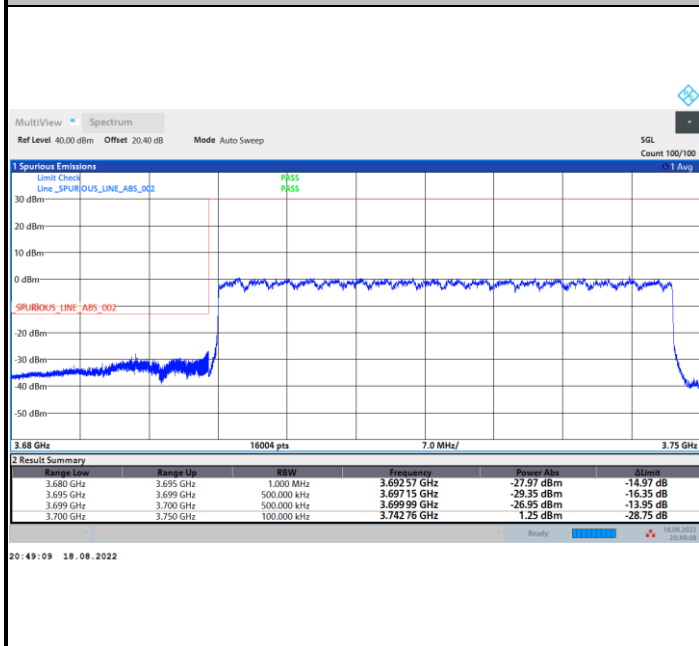


### Highest Band Edge / Full RB

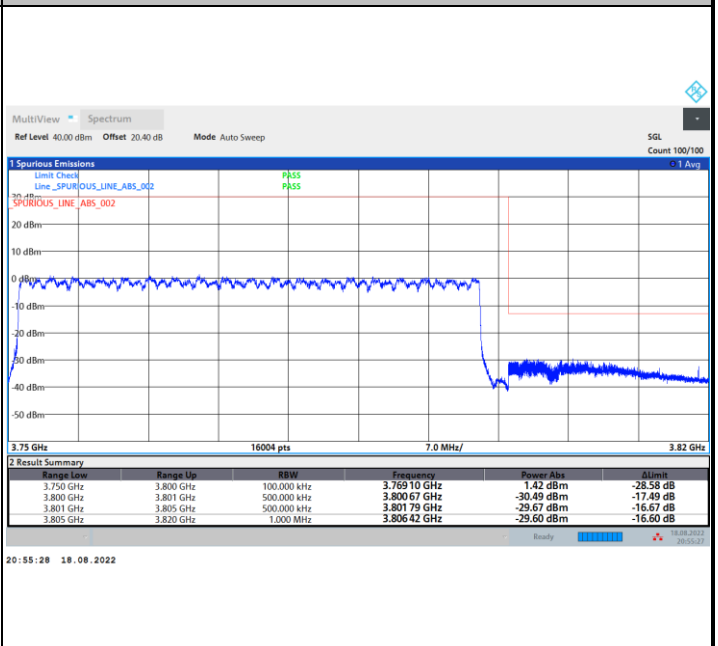


## FR1 n78 (HPUE) / 50MHz / DFT-S OFDM / QPSK

### Lowest Band Edge / Full RB



### Highest Band Edge / Full RB

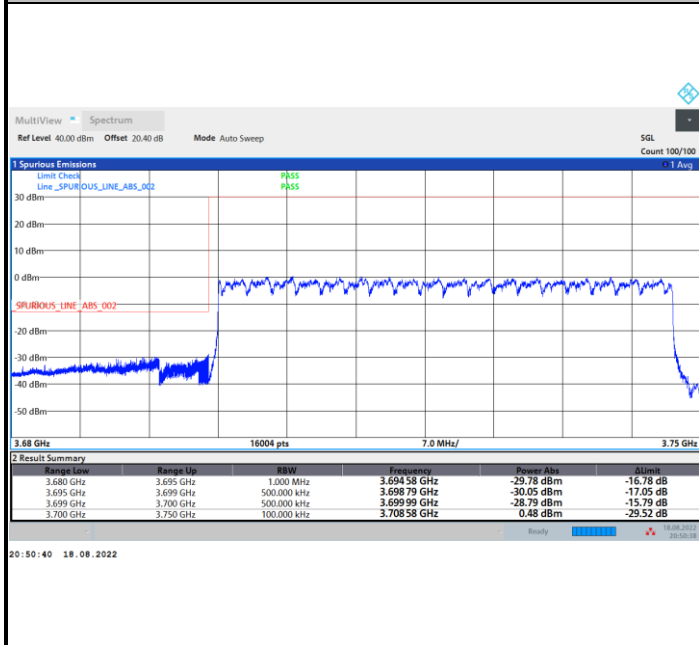




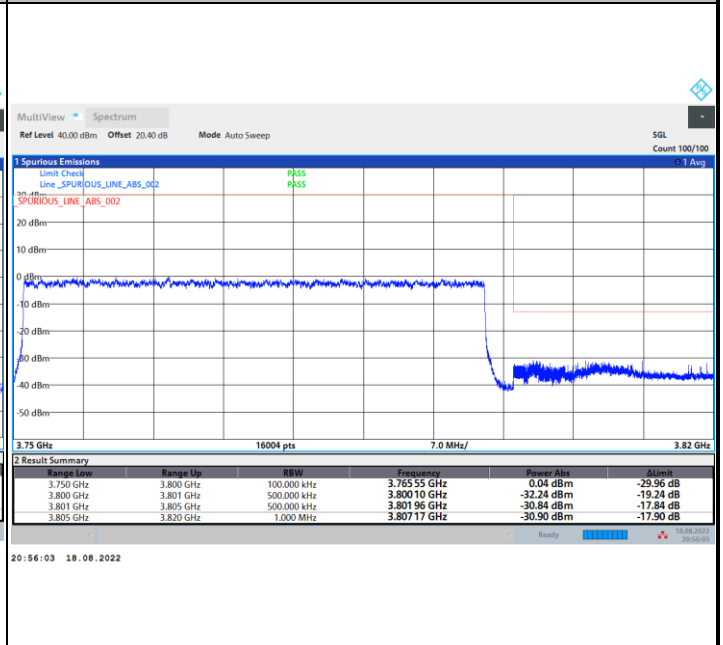


FR1 n78 (HPUE) / 50MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / Full RB

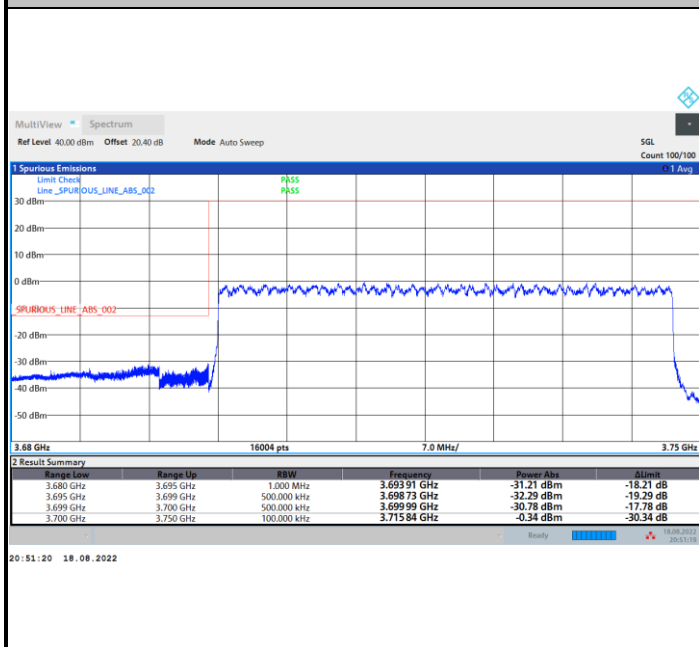


Highest Band Edge / Full RB

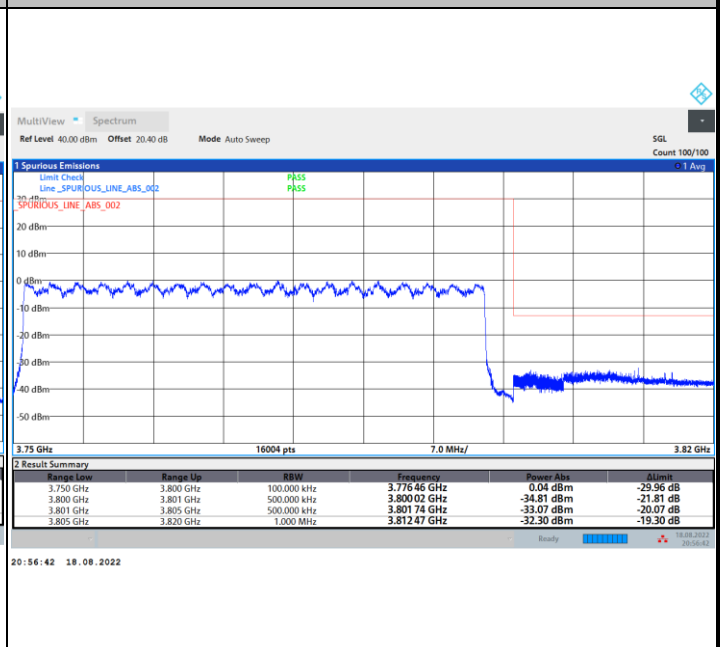


FR1 n78 (HPUE) / 50MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

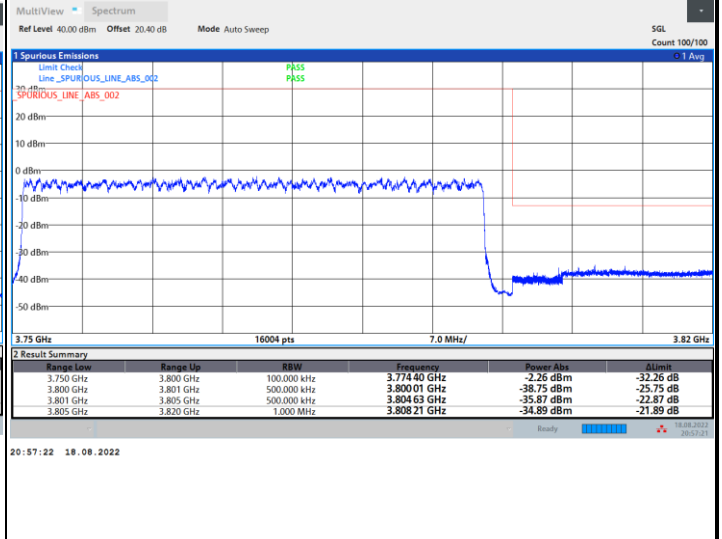
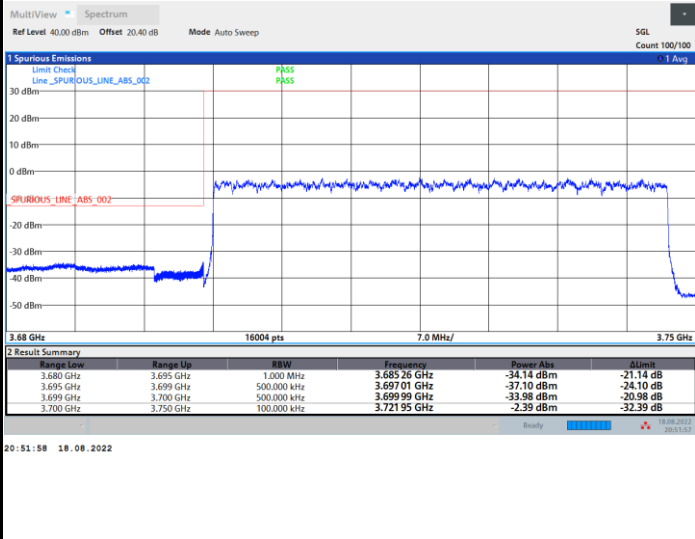




FR1 n78 (HPUE) / 50MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

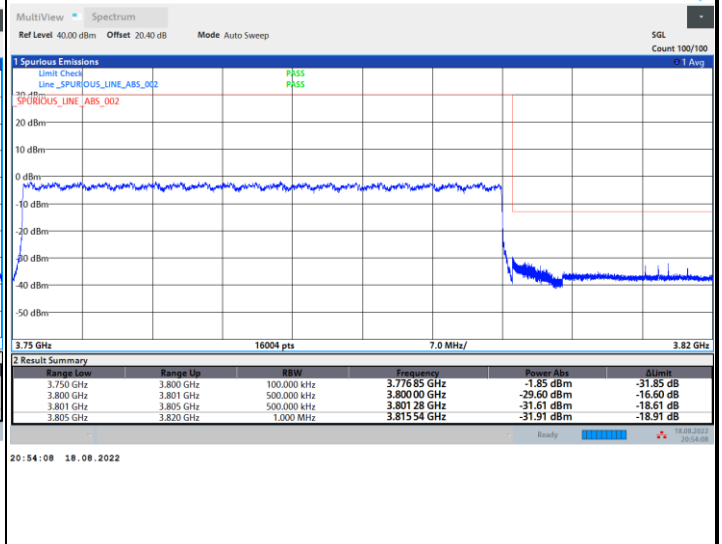
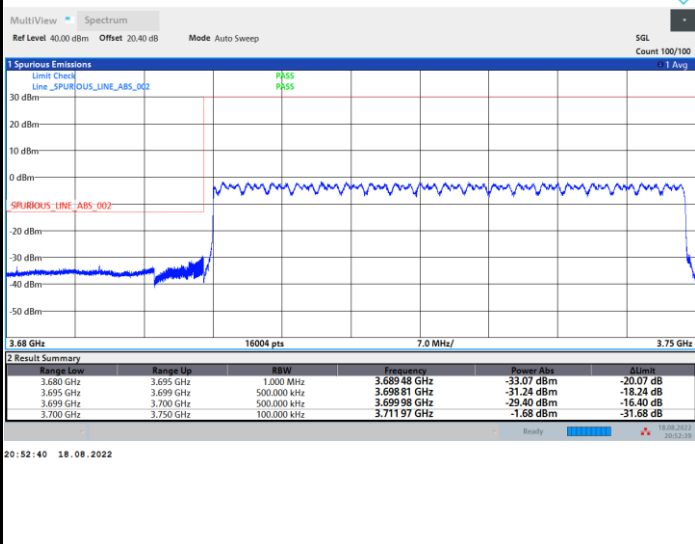
Highest Band Edge / Full RB



FR1 n78 (HPUE) / 50MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge

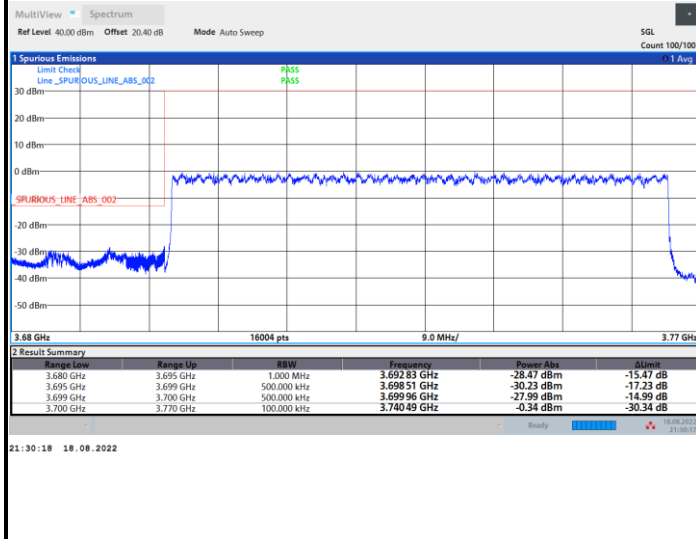
Highest Band Edge



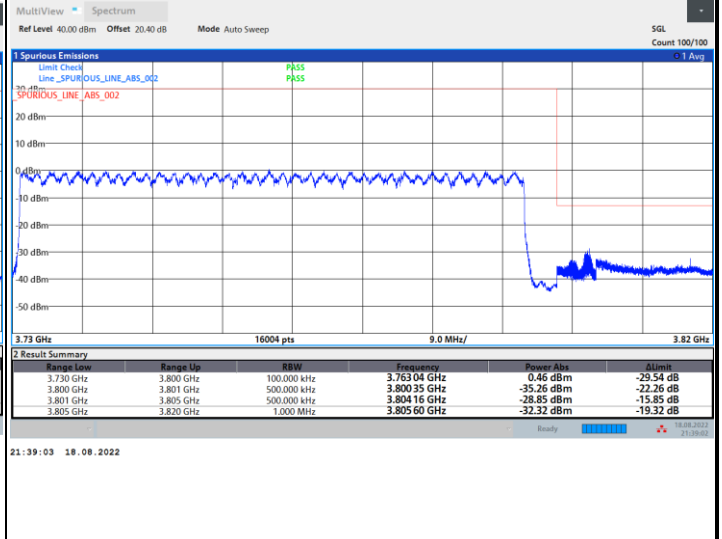


FR1 n78 (HPUE) / 70MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

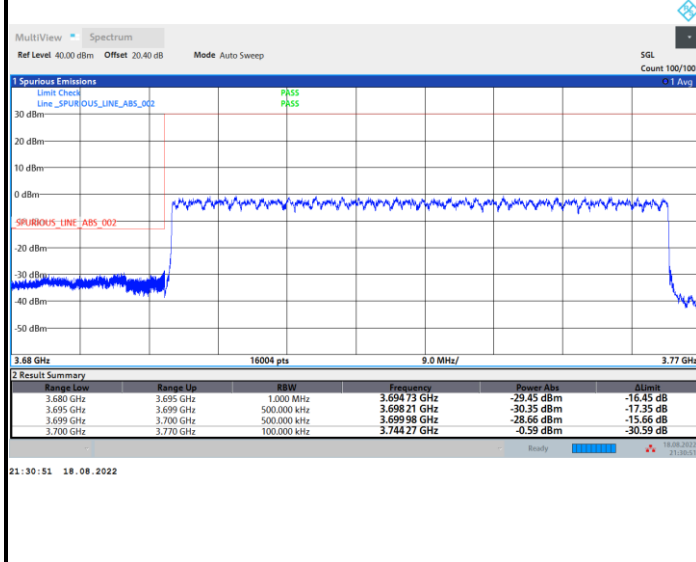


Highest Band Edge / Full RB

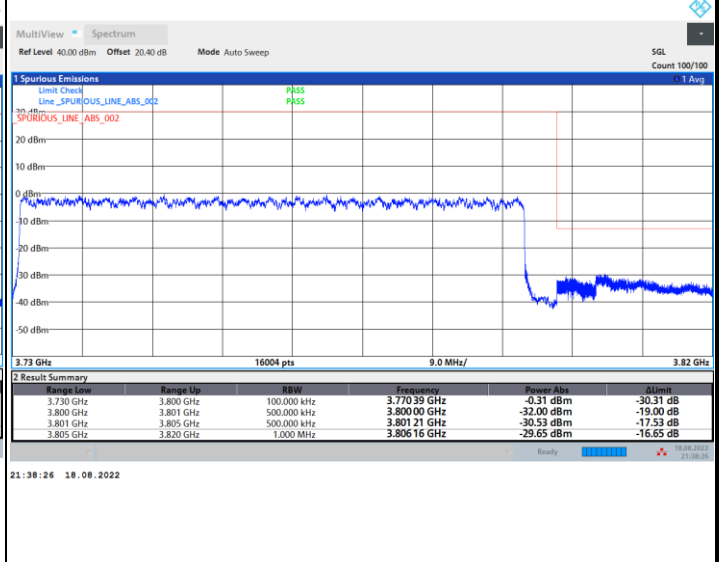


FR1 n78 (HPUE) / 70MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB



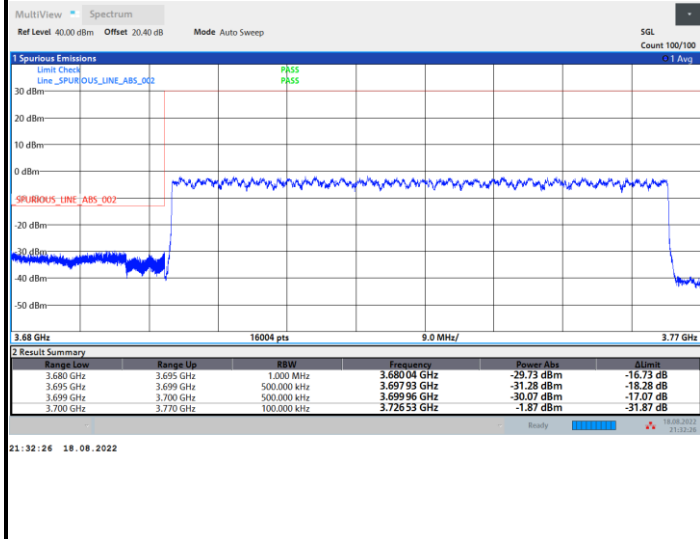
Highest Band Edge / Full RB



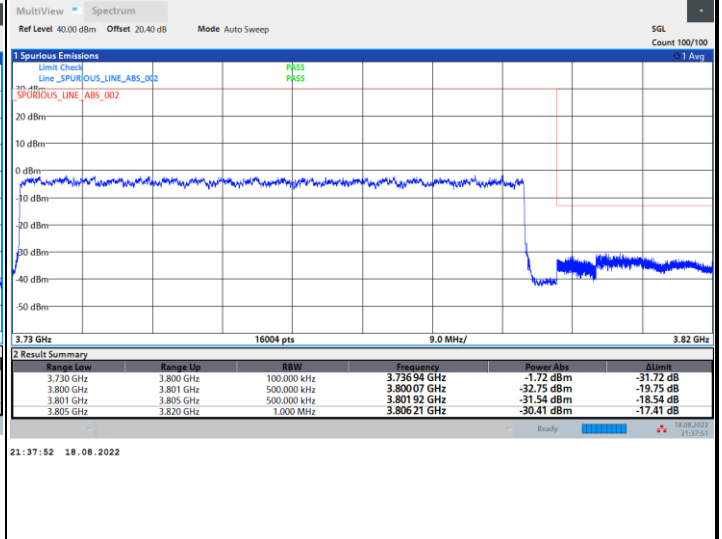


FR1 n78 (HPUE) / 70MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / Full RB

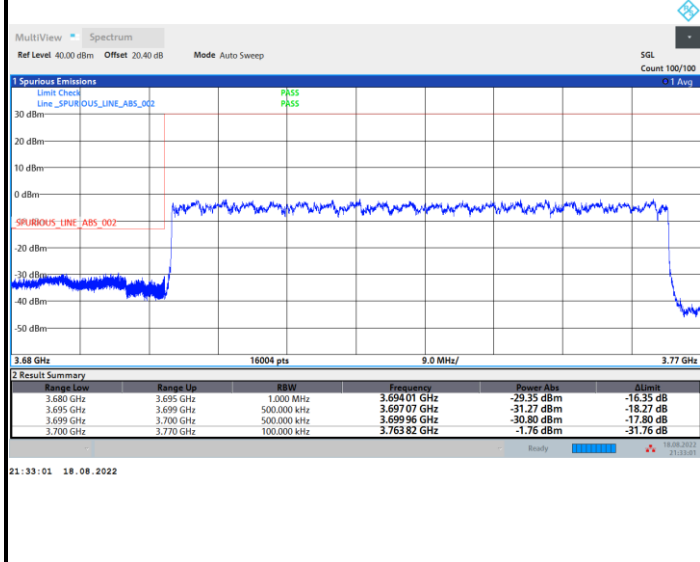


Highest Band Edge / Full RB

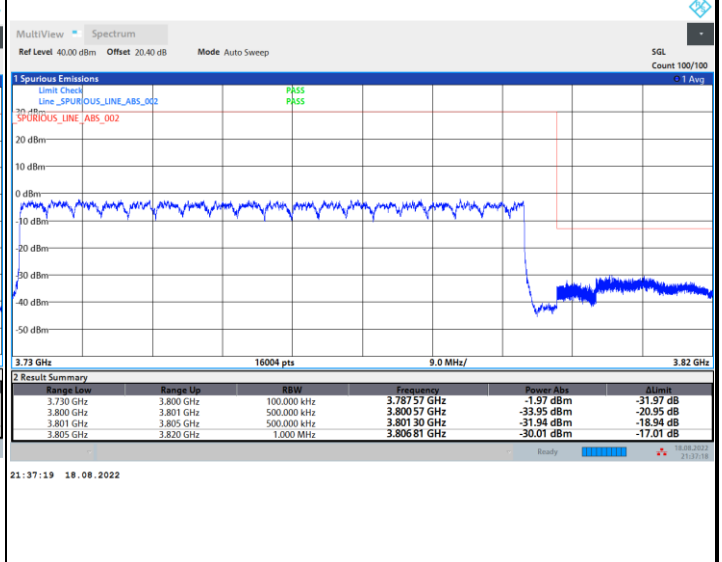


FR1 n78 (HPUE) / 70MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB



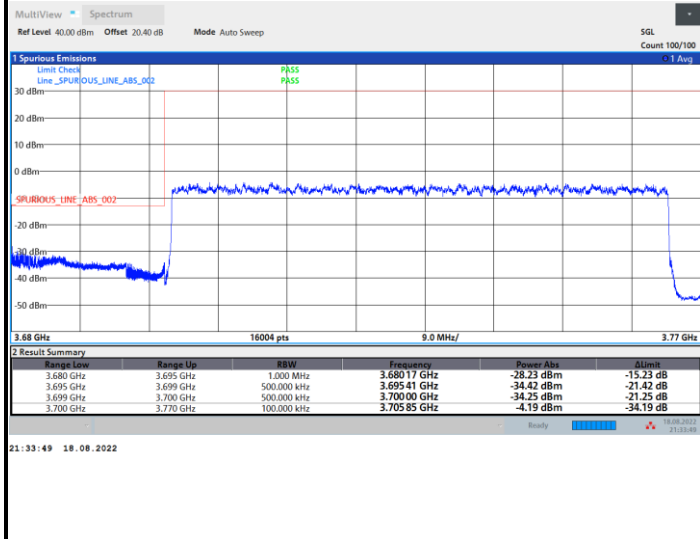
Highest Band Edge / Full RB



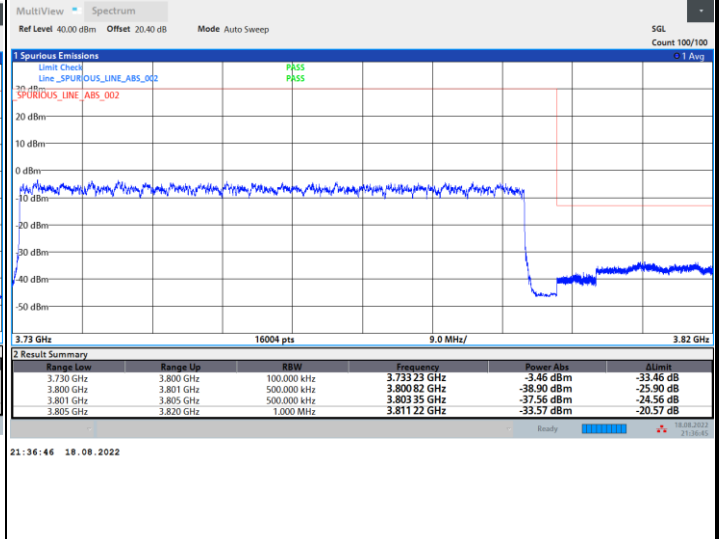


FR1 n78 (HPUE) / 70MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

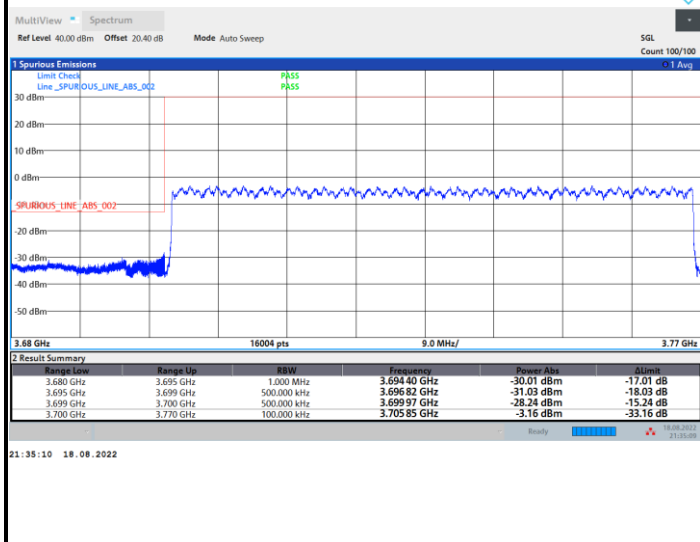


Highest Band Edge / Full RB

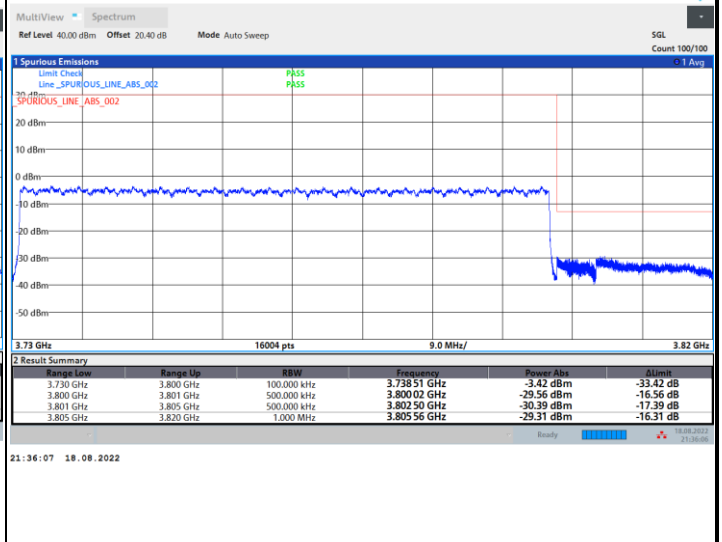


FR1 n78 (HPUE) / 70MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



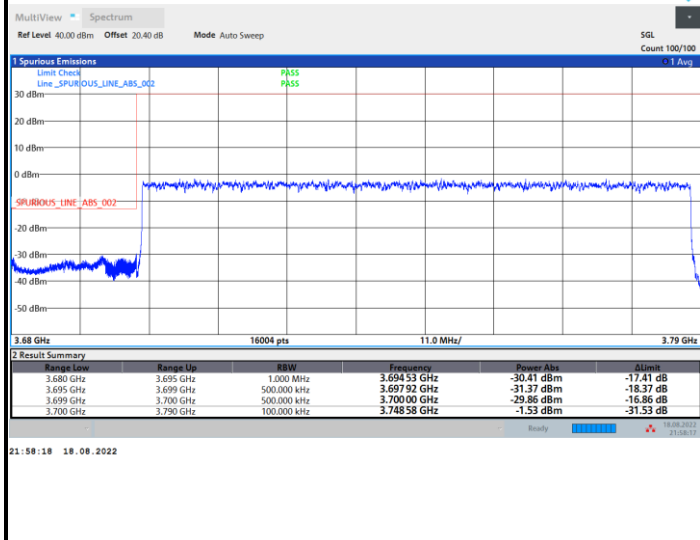
Highest Band Edge



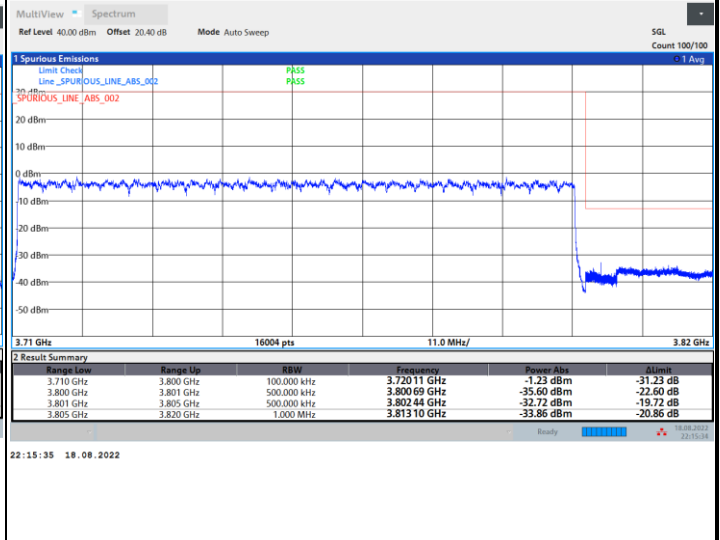


FR1 n78 (HPUE) / 90MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

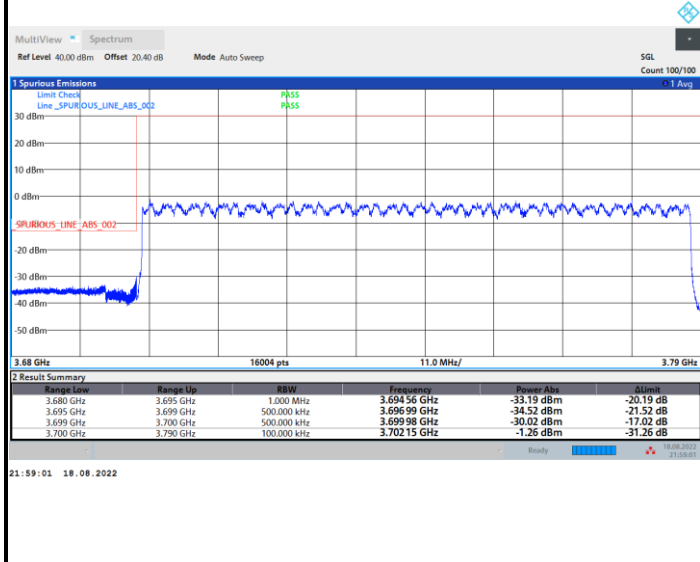


Highest Band Edge / Full RB



FR1 n78 (HPUE) / 90MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB



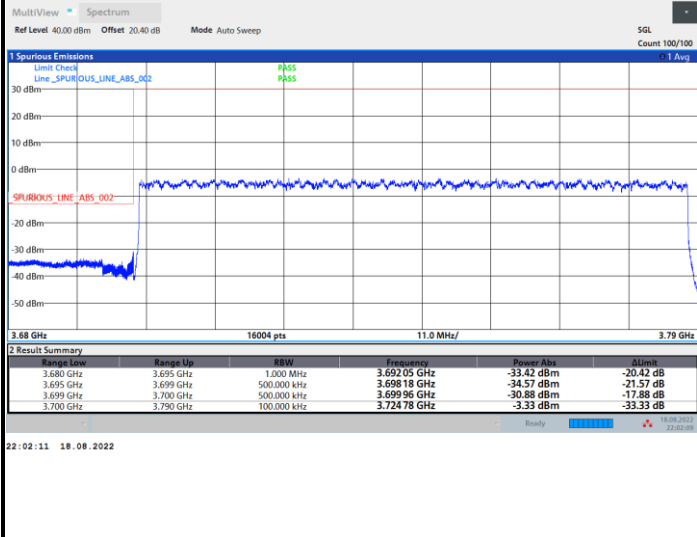
Highest Band Edge / Full RB



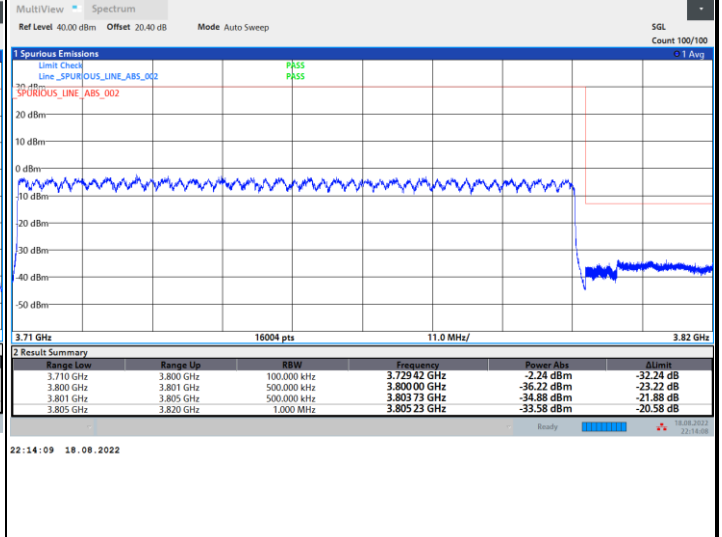


FR1 n78 (HPUE) / 90MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / Full RB

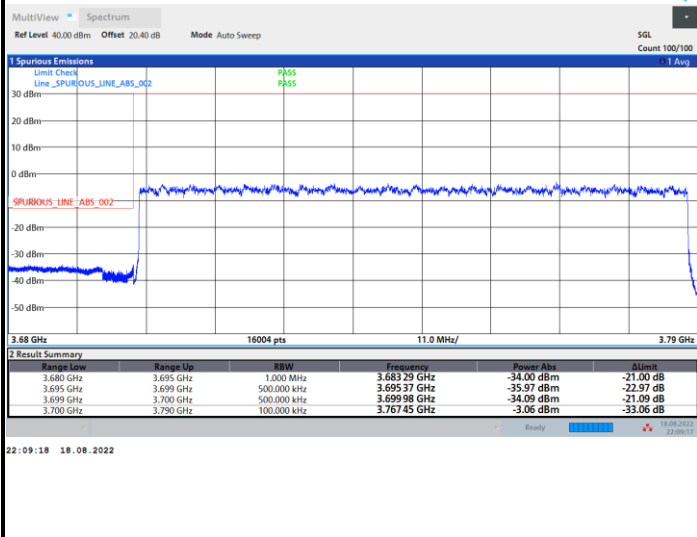


Highest Band Edge / Full RB



FR1 n78 (HPUE) / 90MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

