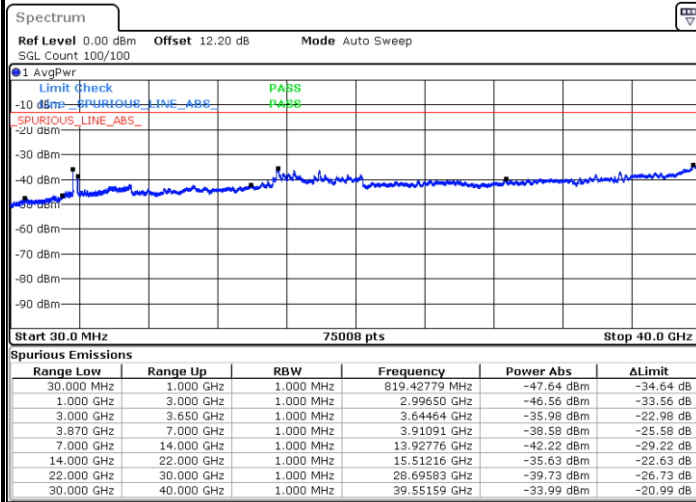




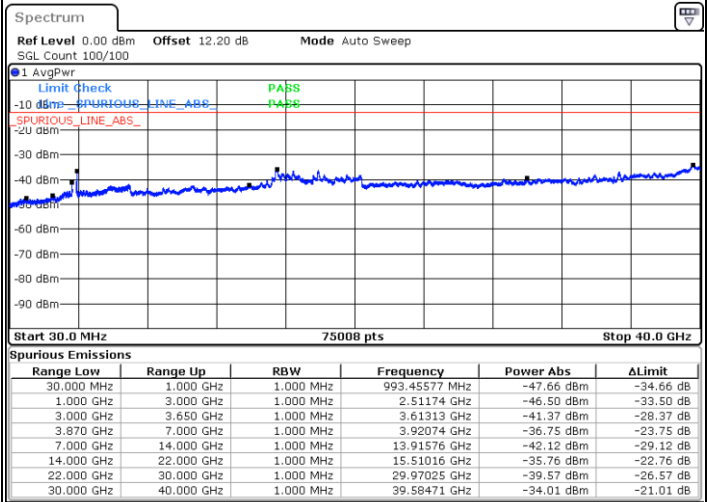
FR1 n78 / 50MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB



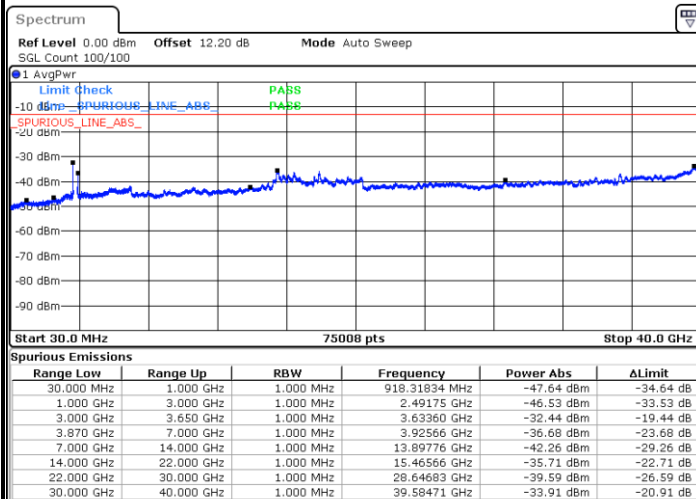
Date: 30.JAN.2021 02:48:18

Middle Channel / 1RB



Date: 30.JAN.2021 02:56:24

Highest Channel / 1RB

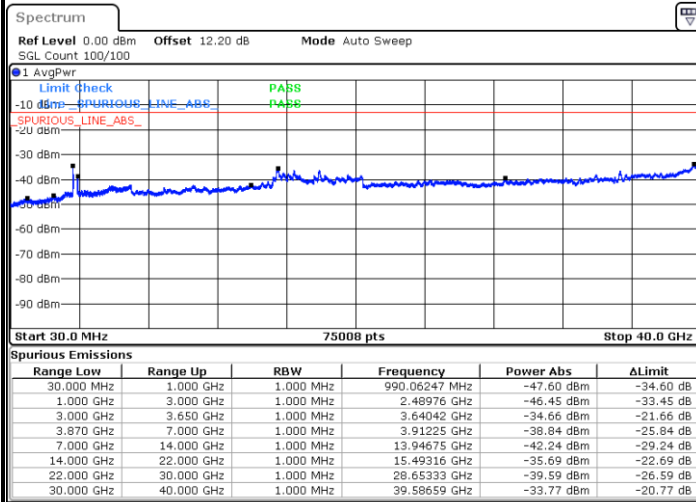


Date: 30.JAN.2021 03:00:11



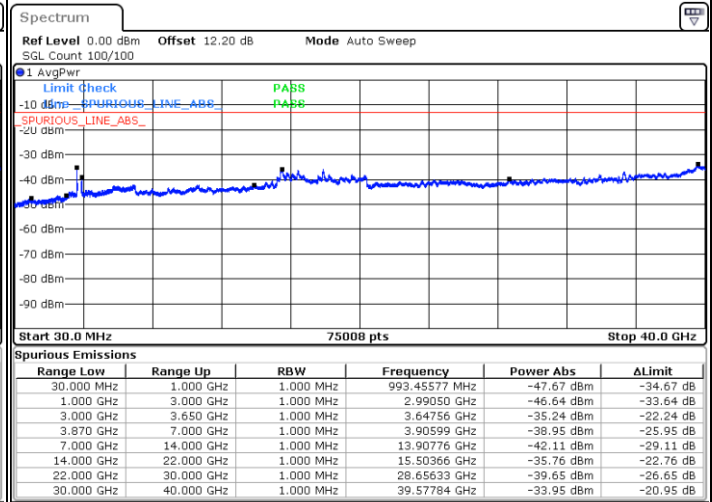
FR1 n78 / 50MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



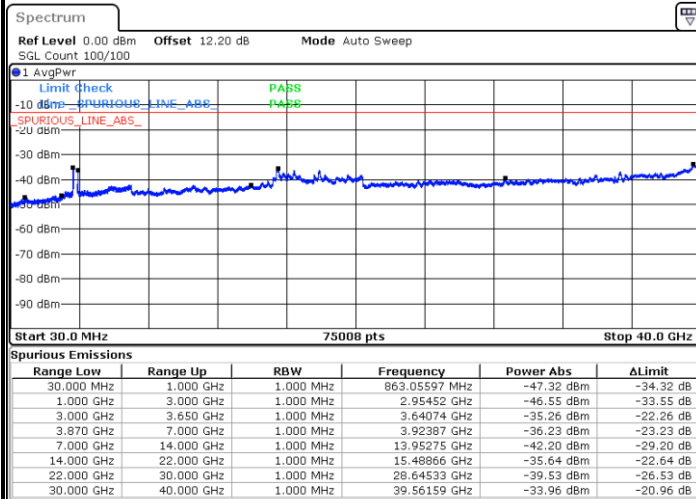
Date: 30.JAN.2021 02:49:34

Middle Channel / 1RB



Date: 30.JAN.2021 02:52:10

Highest Channel / 1RB

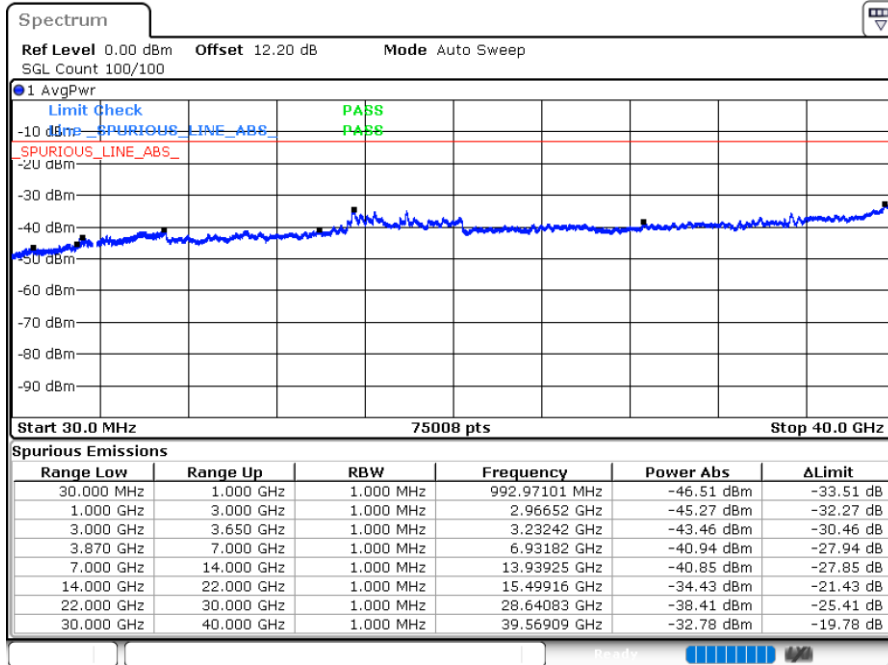


Date: 30.JAN.2021 03:01:30



FR1 n78 / 100MHz / DFT-S OFDM / BPSK

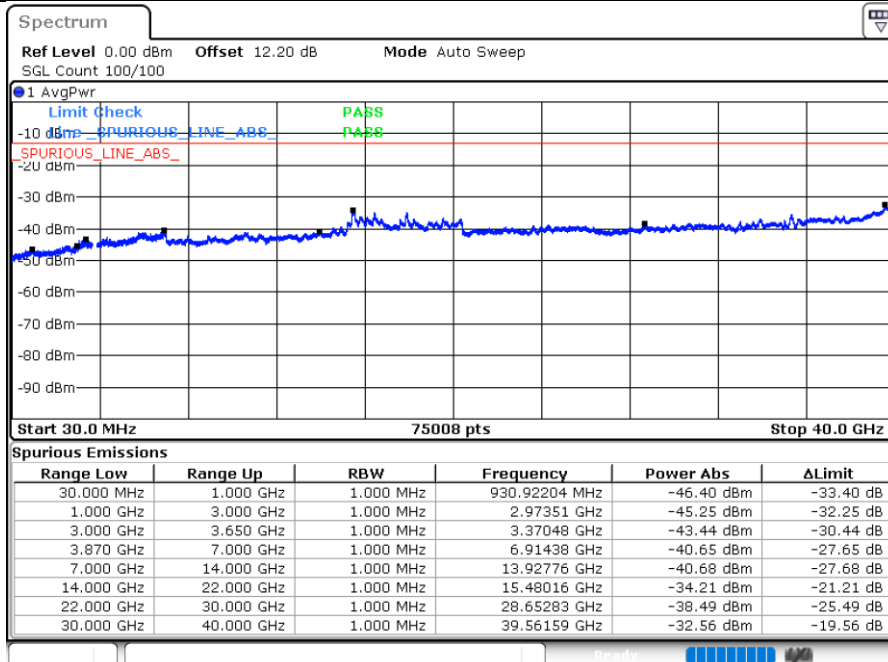
Middle Channel / 1RB



Date: 11.FEB.2021 00:25:07

FR1 n78 / 100MHz / DFT-S OFDM / QPSK

Middle Channel / 1RB



Date: 11.FEB.2021 00:26:24

Frequency Stability

Test Conditions		NR n78 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0018	PASS
40	Normal Voltage	0.0022	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0013	
10	Normal Voltage	0.0035	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0018	

Note:

1. Normal Voltage =3.3 V. ; Battery End Point (BEP) =3.14 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



5G NR n78 UL_MIMO HPUE -SCS 15K

Peak-to-Average Ratio

Mode	FR1 UL-MIMO n78 / 20MHz / CP-OFDM (M2)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.58	8.46			PASS
Middle CH	6.58	8.38			
Highest CH	6.52	8.38			

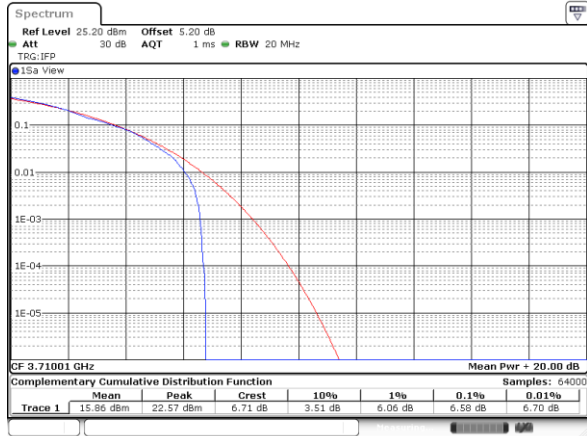
Mode	FR1 UL-MIMO n78 / 20MHz / CP-OFDM (M)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.36	8.32			PASS
Middle CH	7.30	8.26			
Highest CH	7.30	8.09			



FR1 UL-MIMO n78 / 20MHz / CP-OFDM

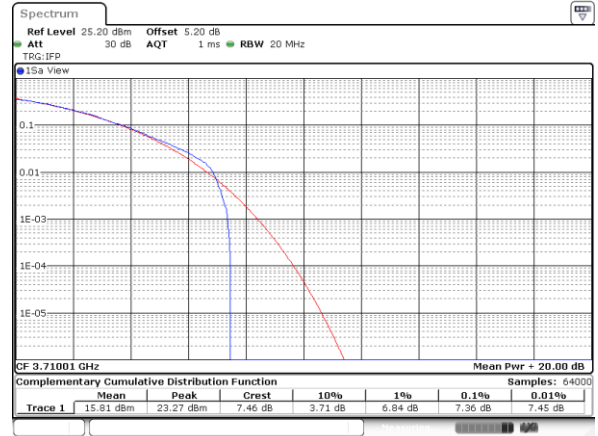
QPSK(M2)

Lowest Channel / 1RB

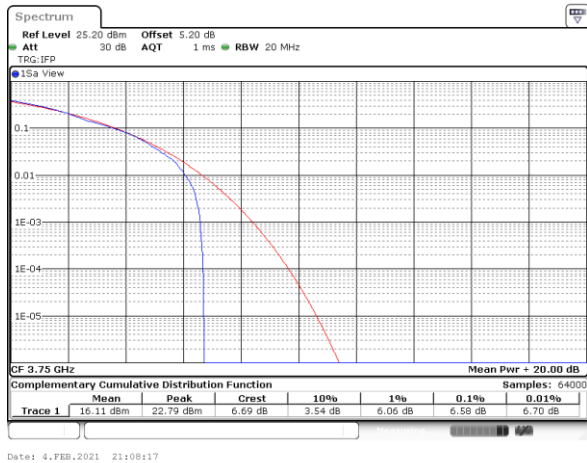


QPSK(M)

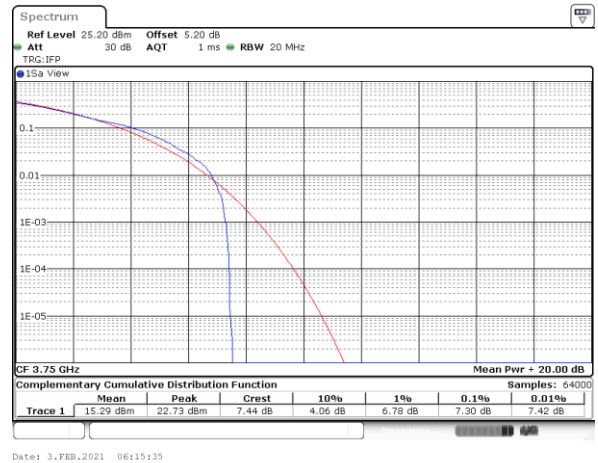
Lowest Channel / 1RB



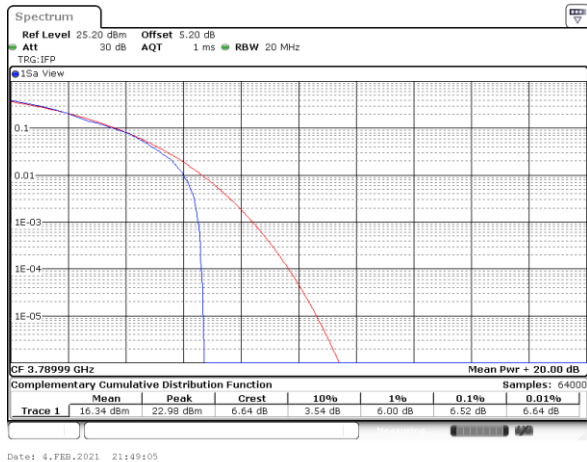
Middle Channel / 1 RB



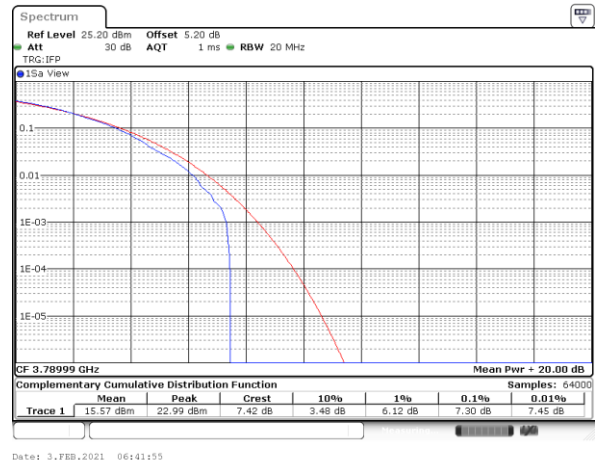
Middle Channel / 1 RB

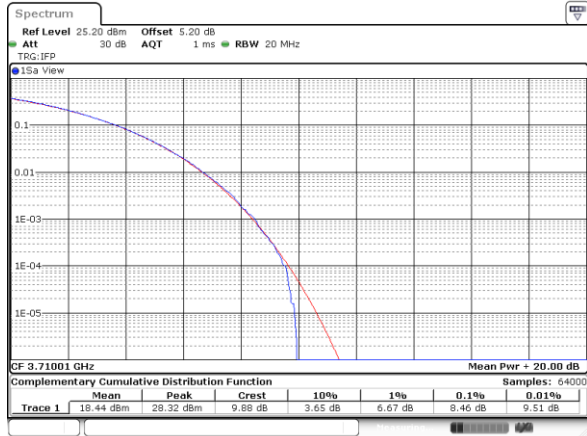
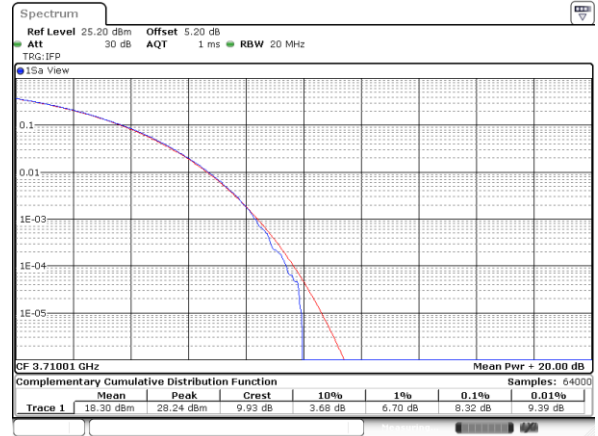
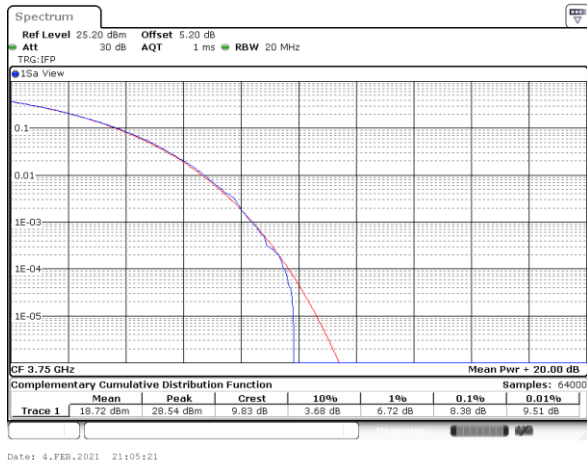
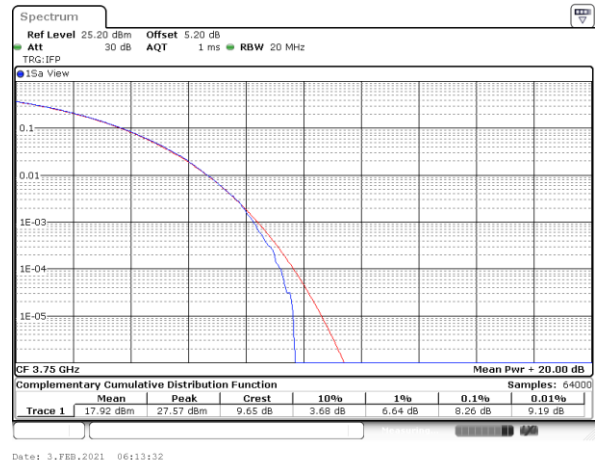
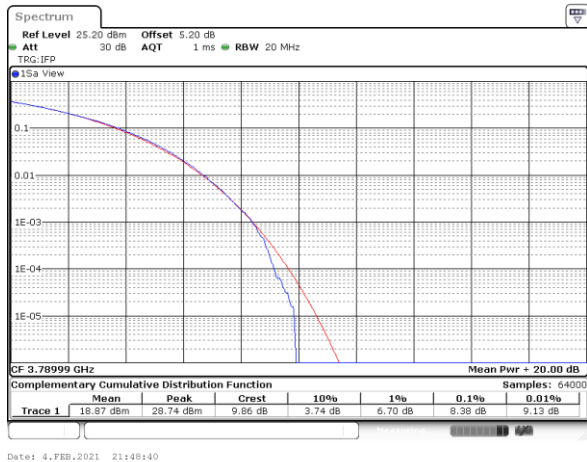
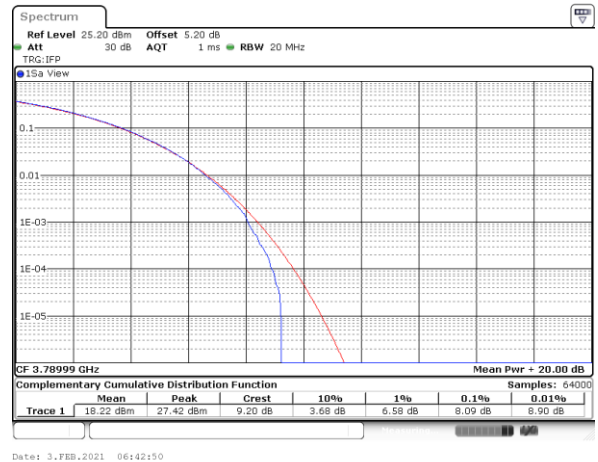


Highest Channel / 1 RB



Highest Channel / 1 RB



FR1 UL-MIMO n78 / 20MHz / CP-OFDM
QPSK(M2)
Lowest Channel / Full RB

QPSK(M)
Lowest Channel / Full RB

Middle Channel / Full RB

Middle Channel / Full RB

Highest Channel / Full RB

Highest Channel / Full RB


**26dB Bandwidth**

Mode	FR1 UL-MIMO n78 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	9.69	9.65	9.77	9.69	9.71	9.67	9.75	9.75

Mode	FR1 UL-MIMO n78 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	14.83	14.86	14.83	14.83	14.92	14.83	14.80	14.86

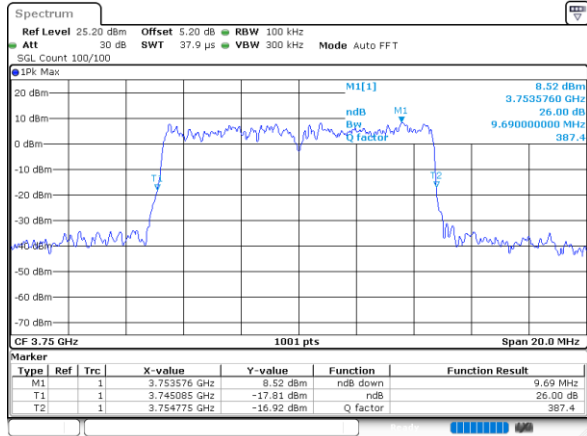
Mode	FR1 UL-MIMO n78 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	19.66	19.7	19.74	19.94	19.74	19.7	19.94	19.7



FR1 UL-MIMO n78 / 10MHz / CP-OFDM (M2)

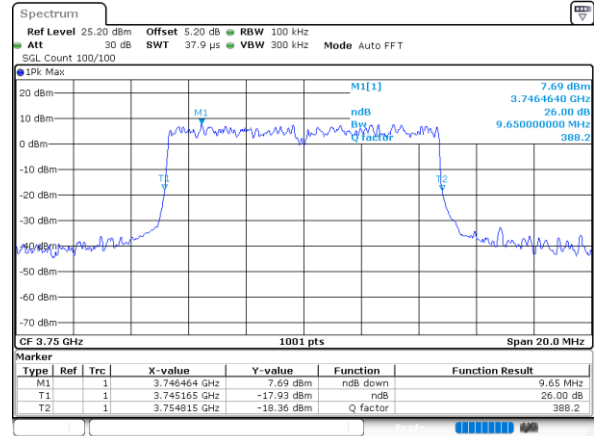
QPSK

Middle Channel



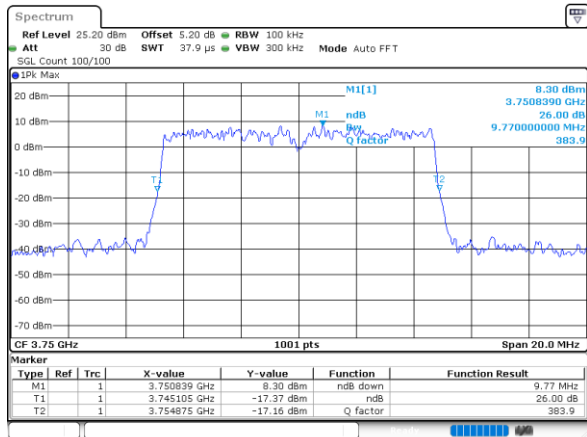
16QAM

Middle Channel



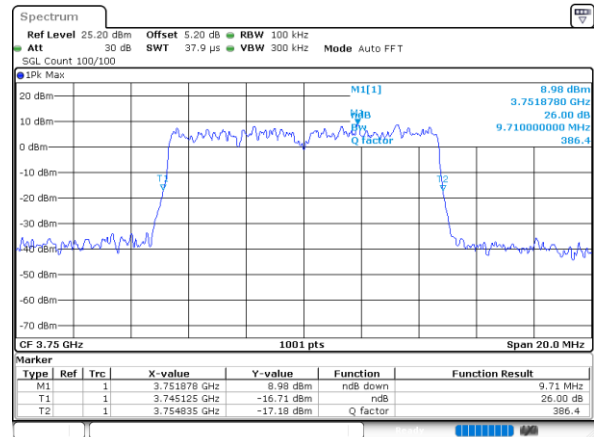
64QAM

Middle Channel



256QAM

Middle Channel

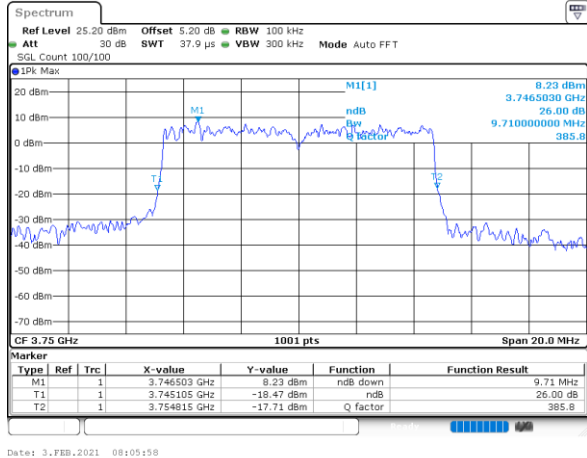




FR1 UL-MIMO n78 / 10MHz / CP-OFDM (M)

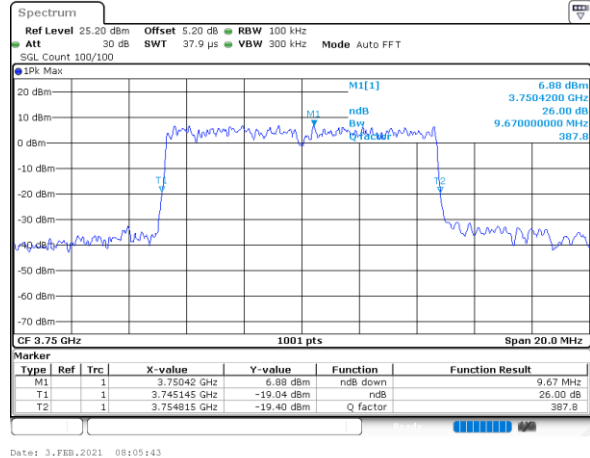
QPSK

Middle Channel



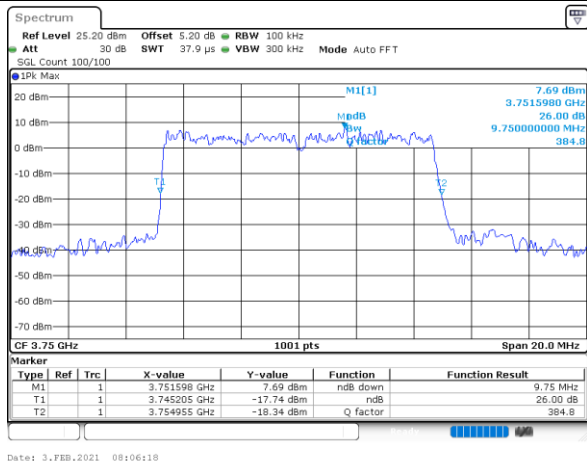
16QAM

Middle Channel



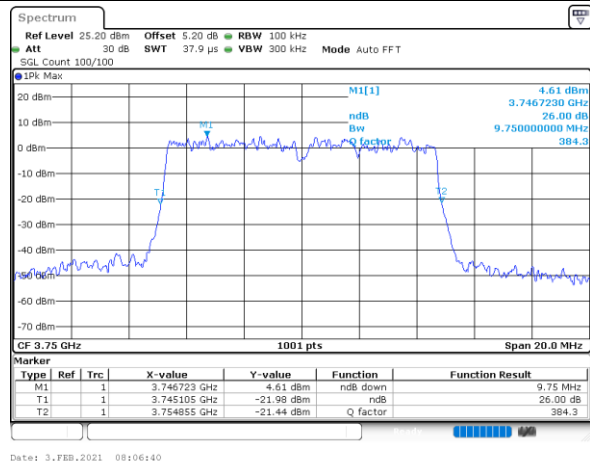
64QAM

Middle Channel



256QAM

Middle Channel





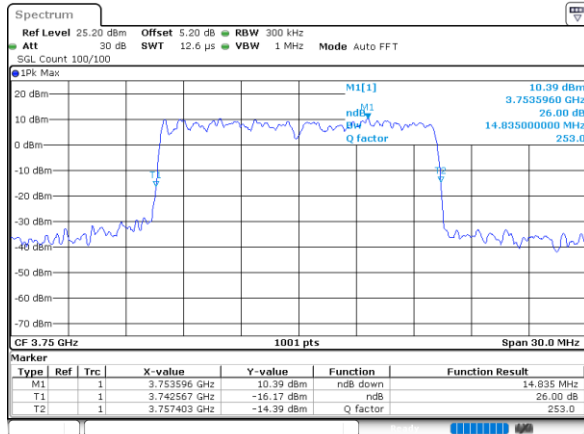
FR1 UL-MIMO n78 / 15MHz / CP-OFDM (M2)

QPSK

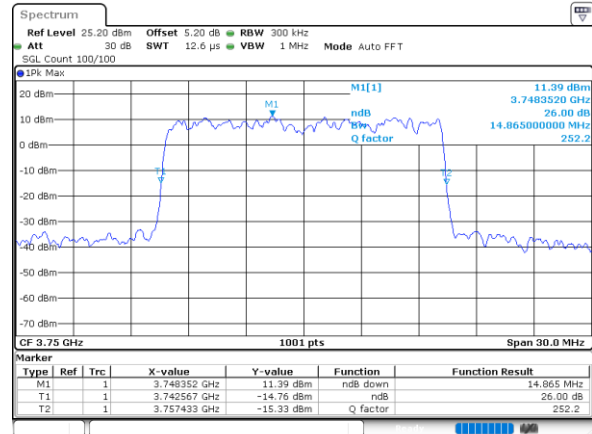
16QAM

Middle Channel

Middle Channel



Date: 4.FEB.2021 22:05:26



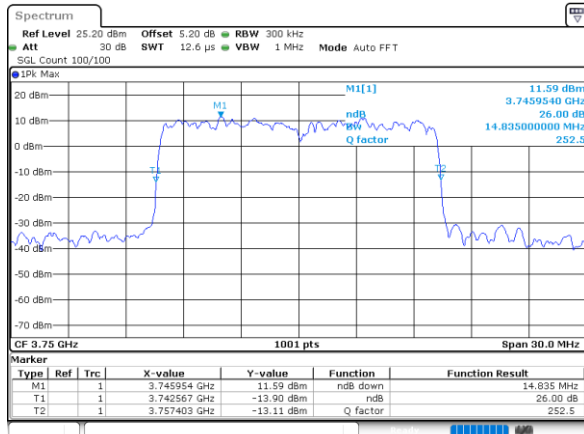
Date: 4.FEB.2021 22:05:40

64QAM

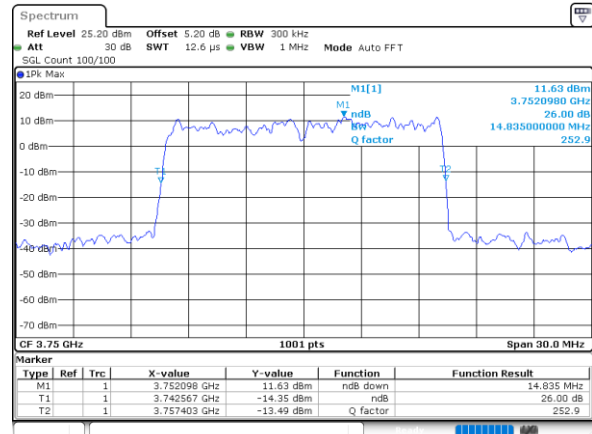
256QAM

Middle Channel

Middle Channel



Date: 5.FEB.2021 08:22:53



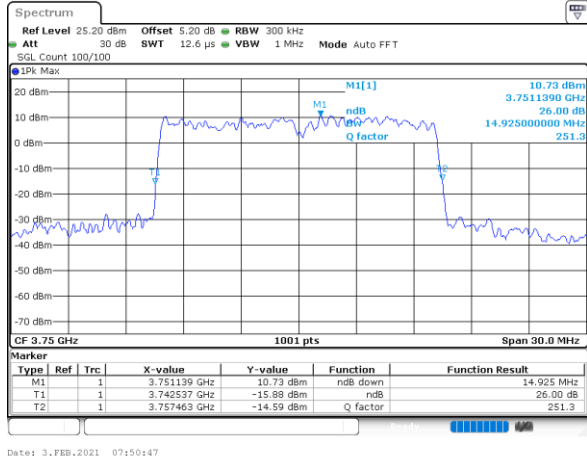
Date: 5.FEB.2021 08:22:39



FR1 UL-MIMO n78 / 15MHz / CP-OFDM (M)

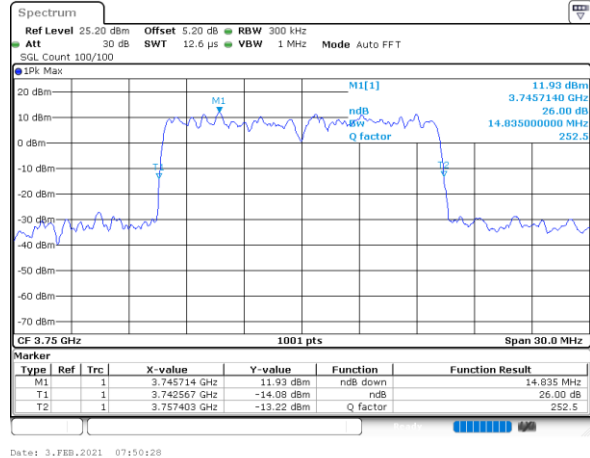
QPSK

Middle Channel



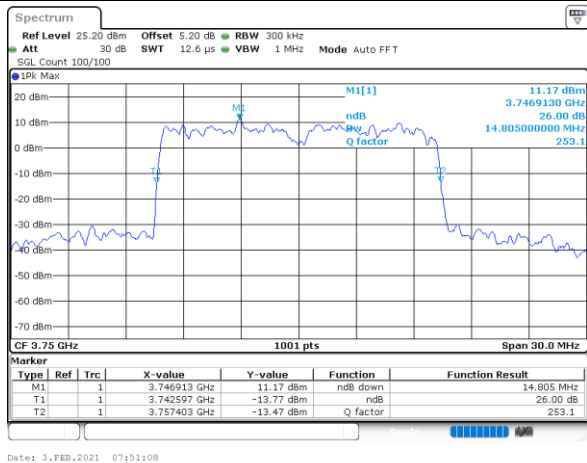
16QAM

Middle Channel



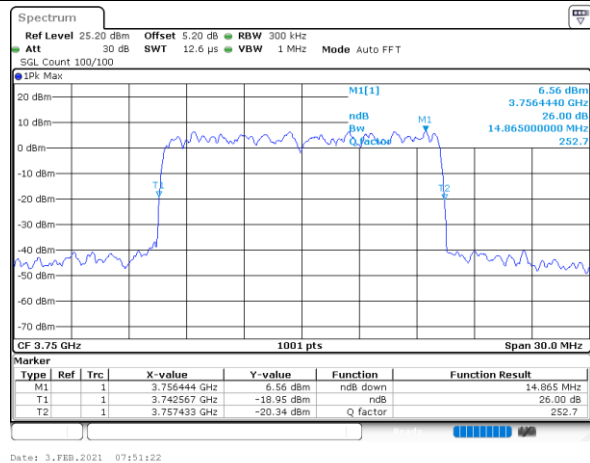
64QAM

Middle Channel



256QAM

Middle Channel

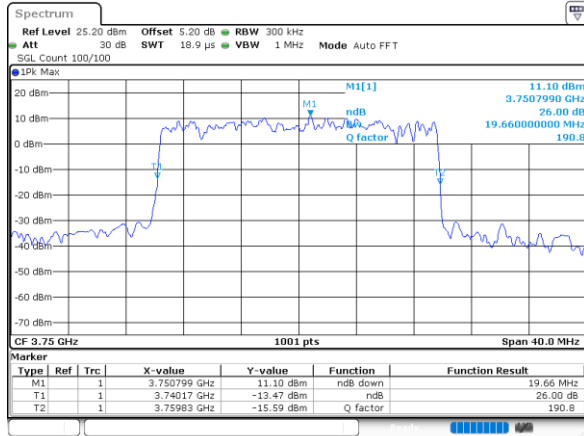




FR1 UL-MIMO n78 / 20MHz / CP-OFDM (M2)

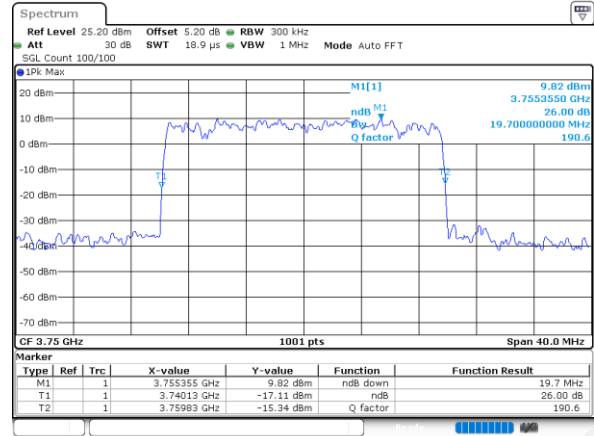
QPSK

Middle Channel



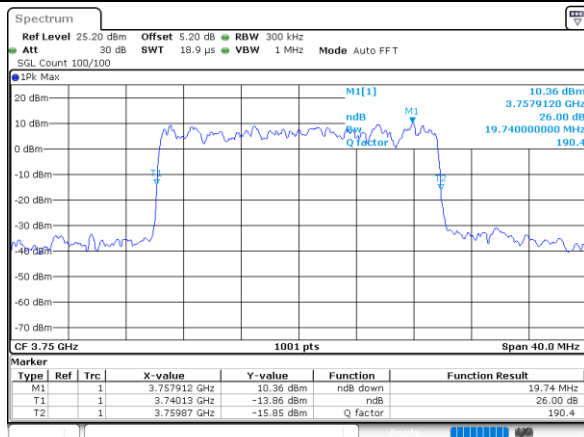
16QAM

Middle Channel



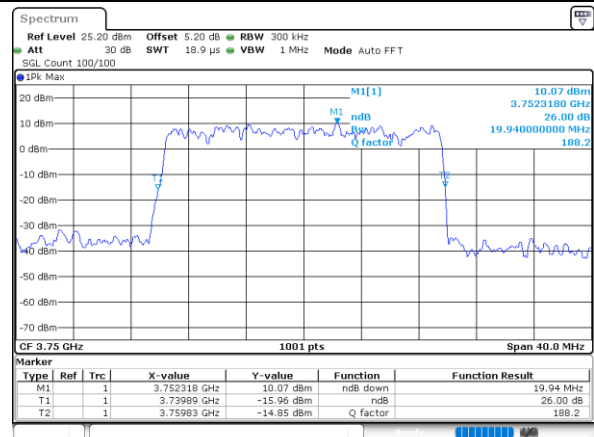
64QAM

Middle Channel



256QAM

Middle Channel

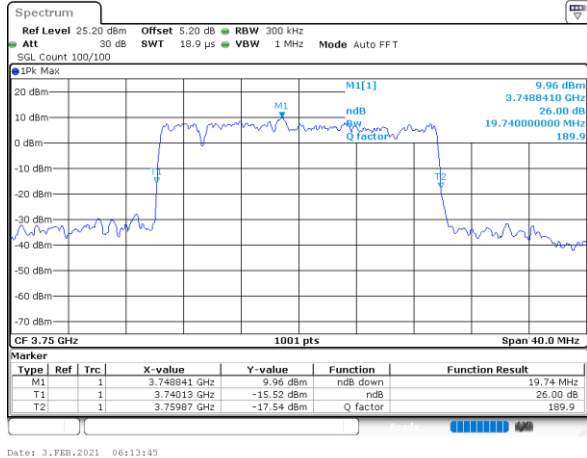




FR1 UL-MIMO n78 / 20MHz / CP-OFDM (M)

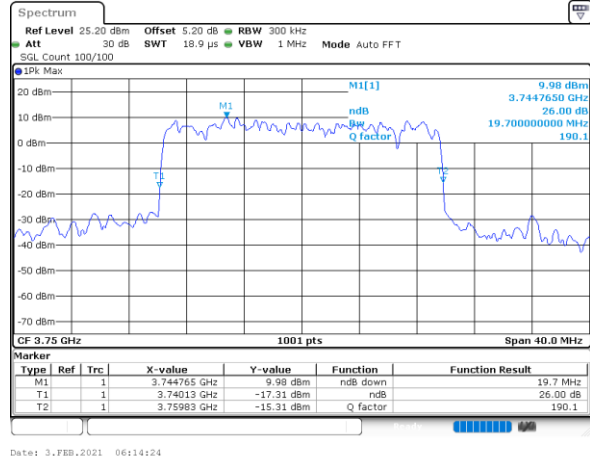
QPSK

Middle Channel



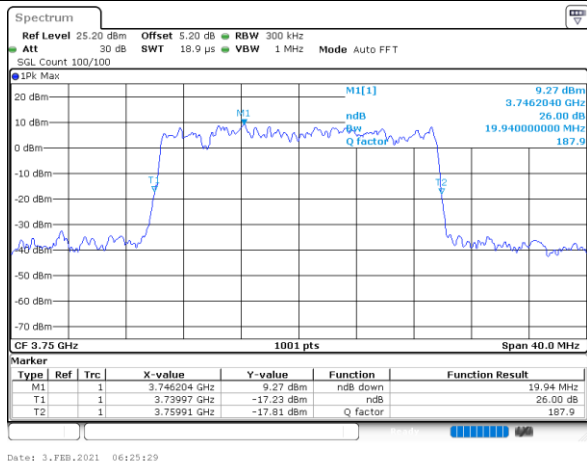
16QAM

Middle Channel



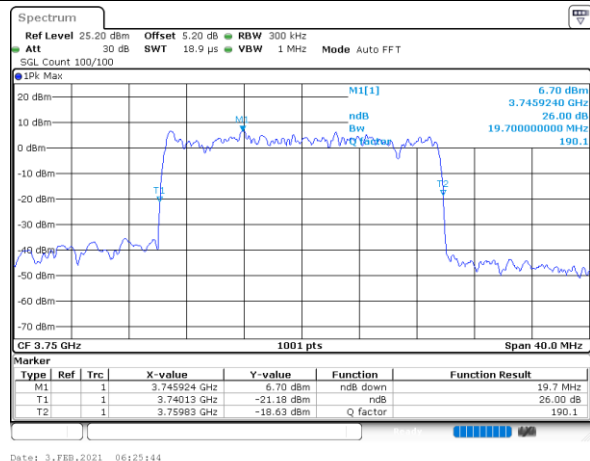
64QAM

Middle Channel



256QAM

Middle Channel



**Occupied Bandwidth**

Mode	FR1 UL-MIMO n78 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	9.27	9.29	9.29	9.29	9.27	9.29	9.29	9.31

Mode	FR1 UL-MIMO n78 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	14.15	14.18	14.15	14.15	14.18	14.12	14.15	14.12

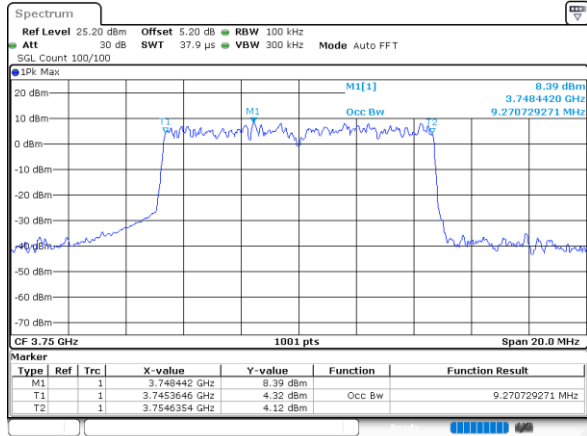
Mode	FR1 UL-MIMO n78 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	18.78	18.98	18.98	18.94	18.94	18.98	18.98	18.90



FR1 UL-MIMO n78 / 10MHz / CP-OFDM (M2)

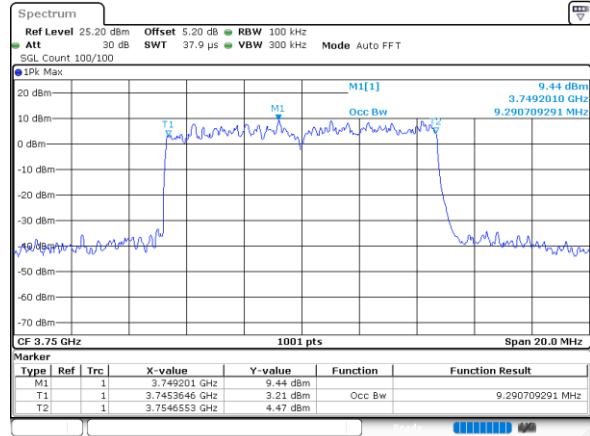
QPSK

Middle Channel



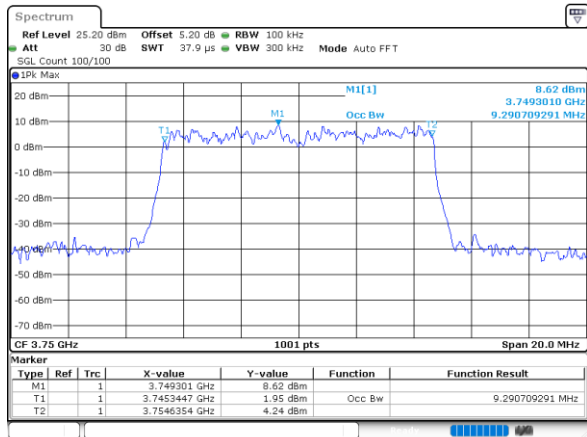
16QAM

Middle Channel



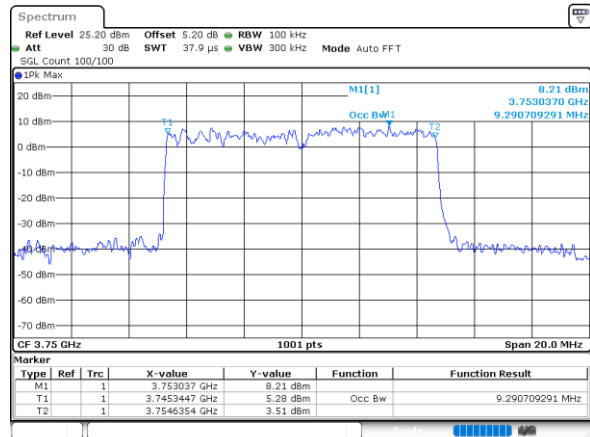
64QAM

Middle Channel



256QAM

Middle Channel





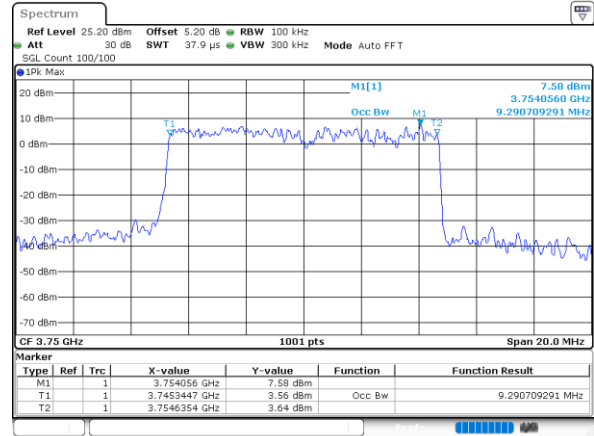
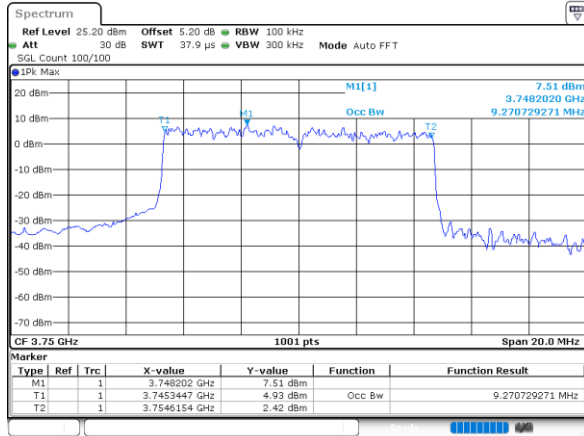
FR1 UL-MIMO n78 / 10MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel

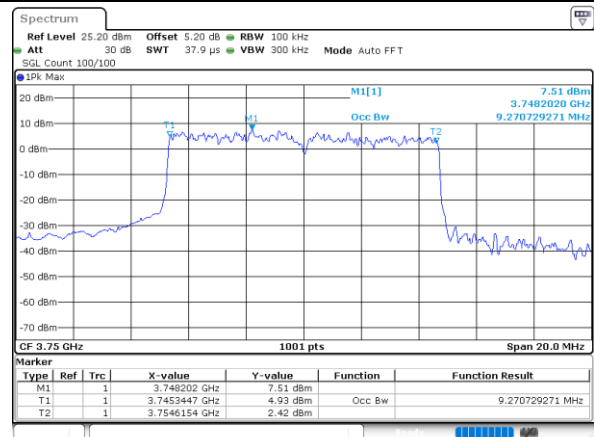
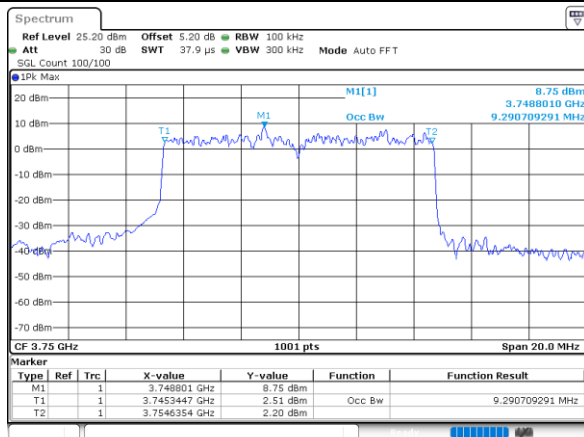


64QAM

256QAM

Middle Channel

Middle Channel

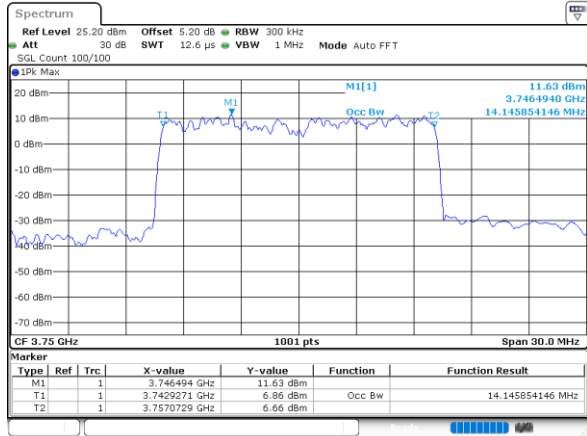




FR1 UL-MIMO n78 / 15MHz / CP-OFDM (M2)

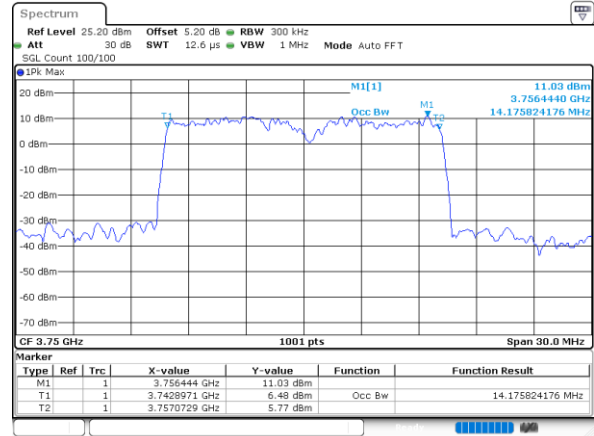
QPSK

Middle Channel



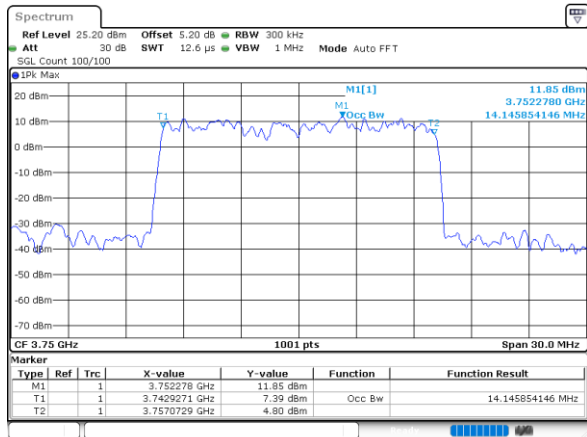
16QAM

Middle Channel



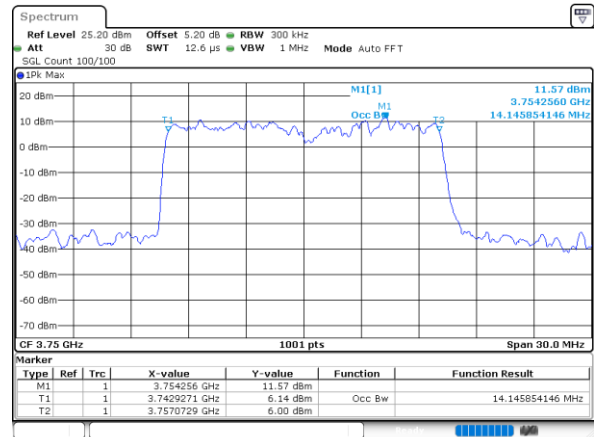
64QAM

Middle Channel



256QAM

Middle Channel

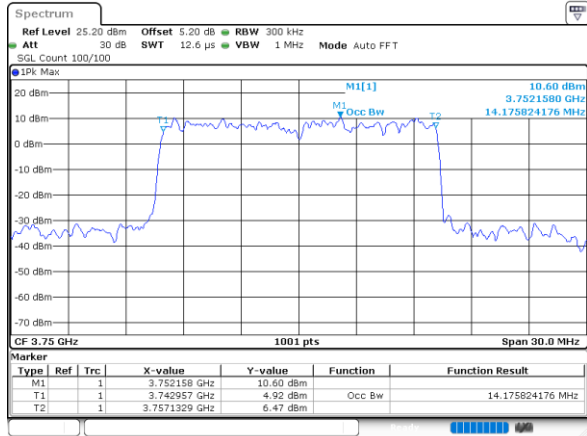




FR1 UL-MIMO n78 / 15MHz / CP-OFDM (M)

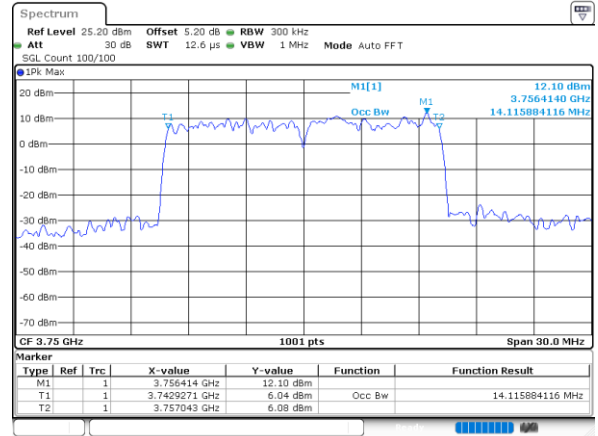
QPSK

Middle Channel



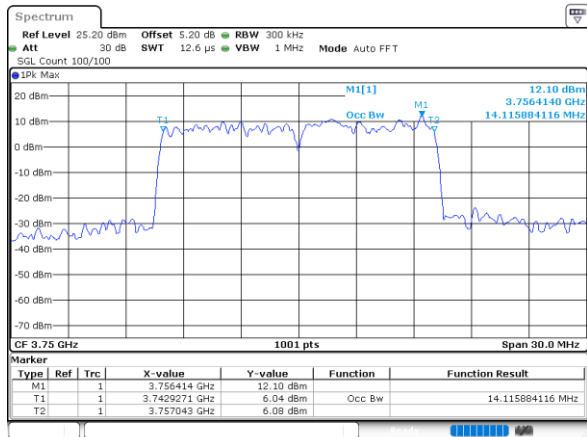
16QAM

Middle Channel



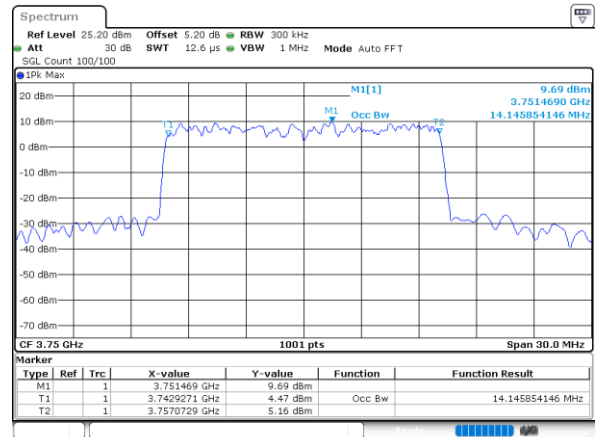
64QAM

Middle Channel



256QAM

Middle Channel

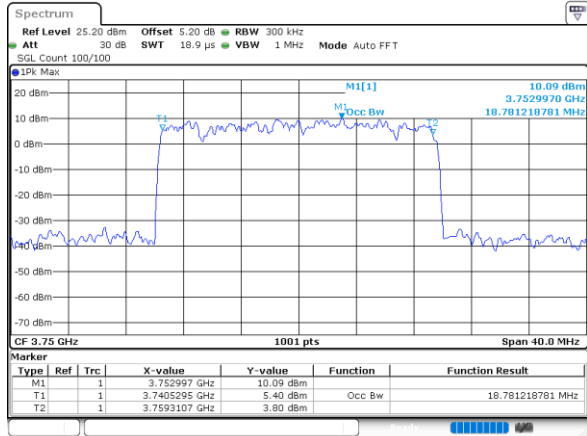




FR1 UL-MIMO n78 / 20MHz / CP-OFDM (M2)

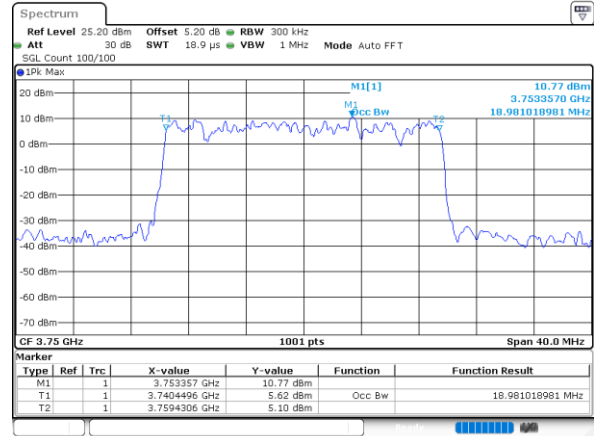
QPSK

Middle Channel



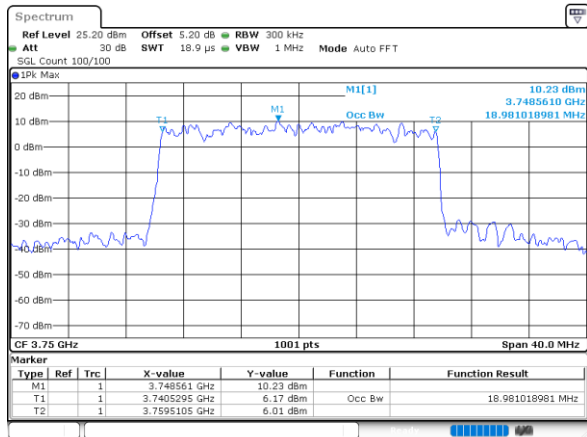
16QAM

Middle Channel



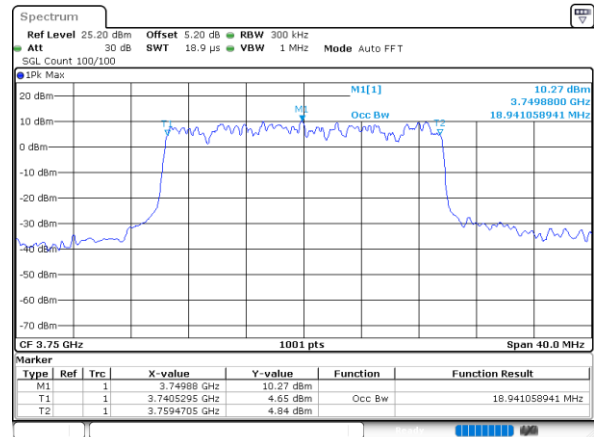
64QAM

Middle Channel



256QAM

Middle Channel

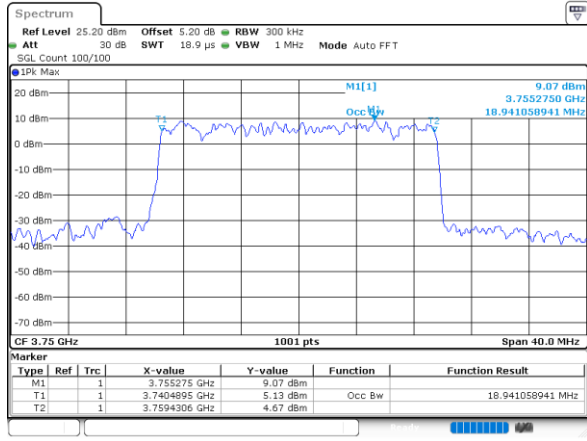




FR1 UL-MIMO n78 / 20MHz / CP-OFDM (M)

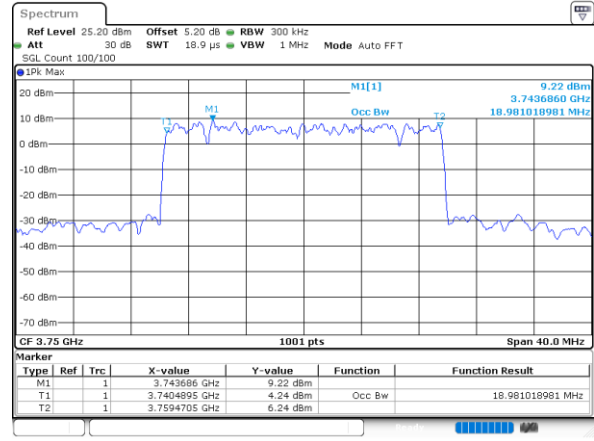
QPSK

Middle Channel



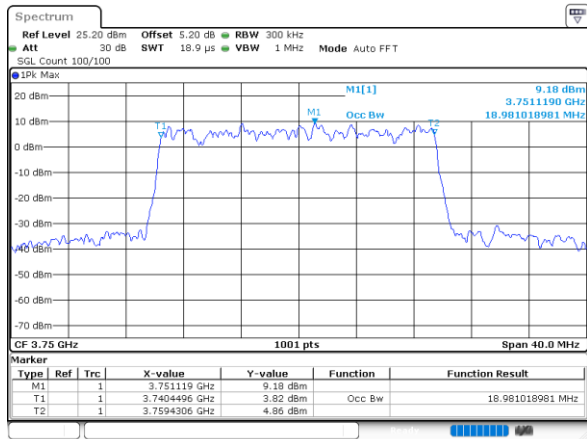
16QAM

Middle Channel



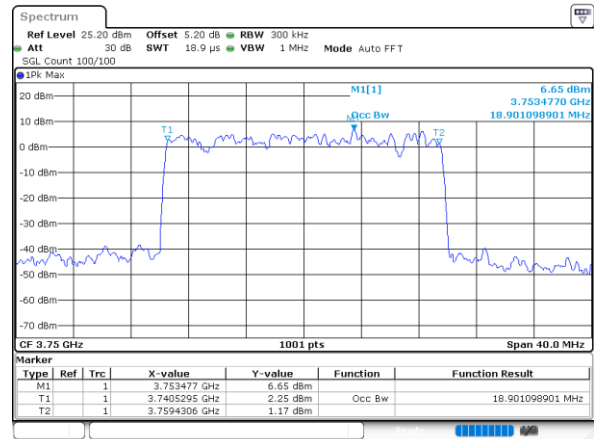
64QAM

Middle Channel



256QAM

Middle Channel

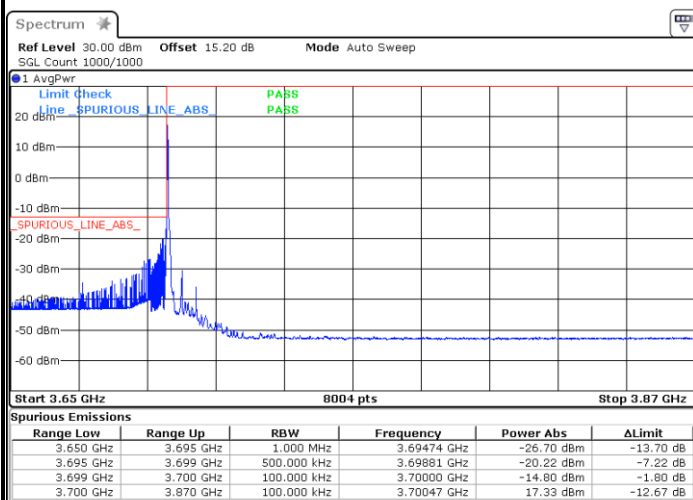




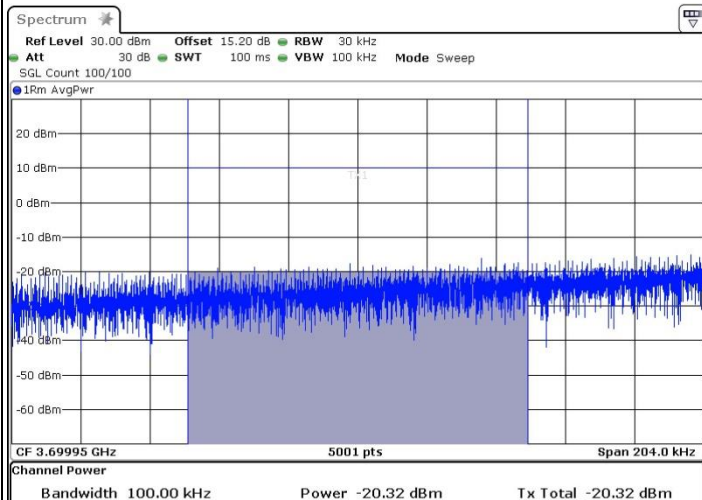
Conducted Band Edge

FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M2)

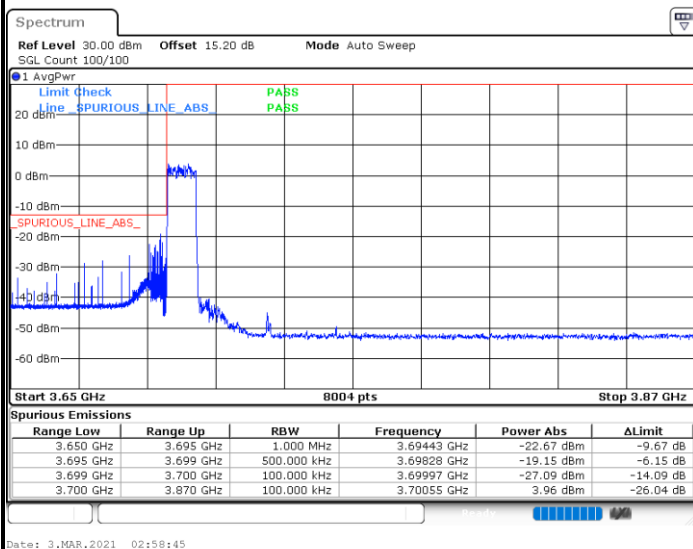
Lowest Band Edge / 1 RB



Channel Power < -13dBm Pass



Lowest Band Edge / Full RB



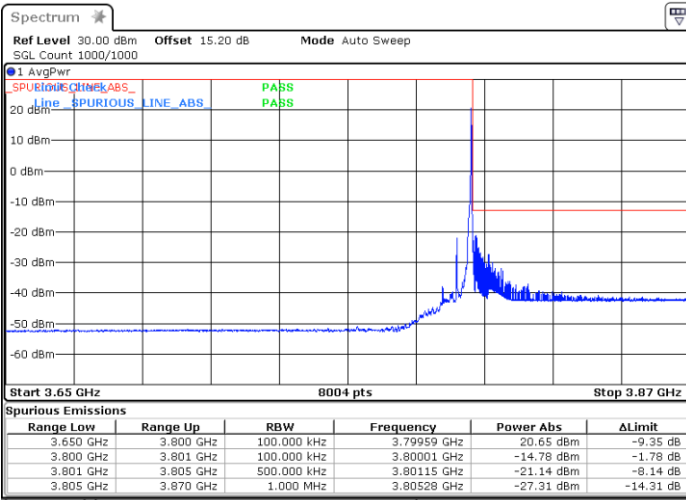
Channel Power < -13dBm Pass

/

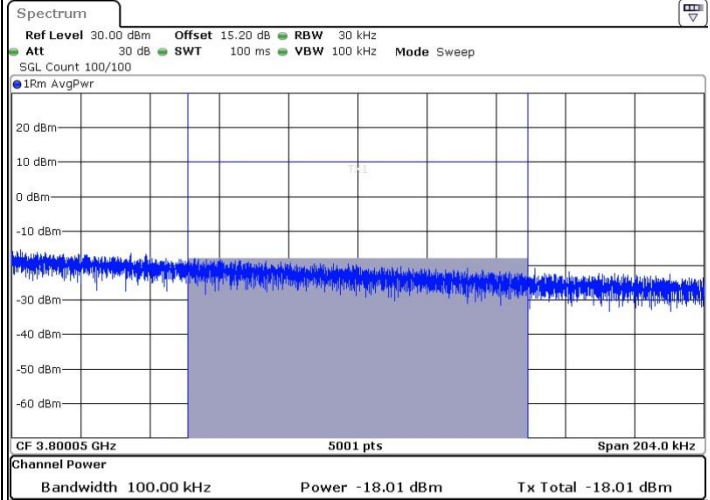


FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M2)

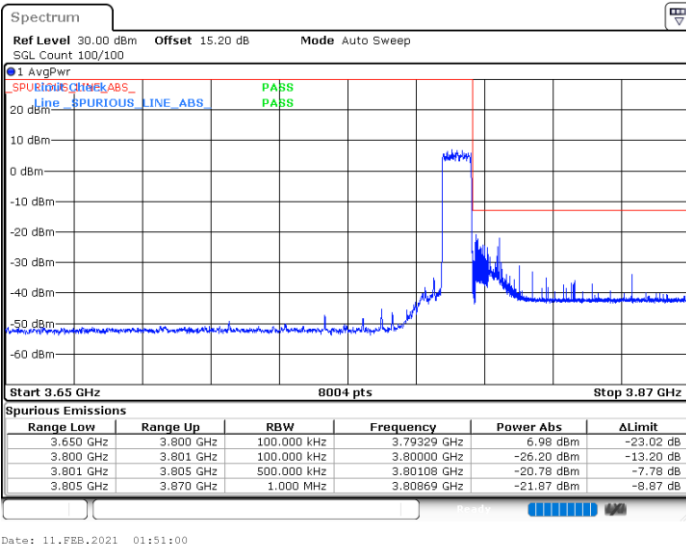
Highest Band Edge / 1 RB



Channel Power < -13dBm Pass



Highest Band Edge / Full RB



Channel Power < -13dBm Pass

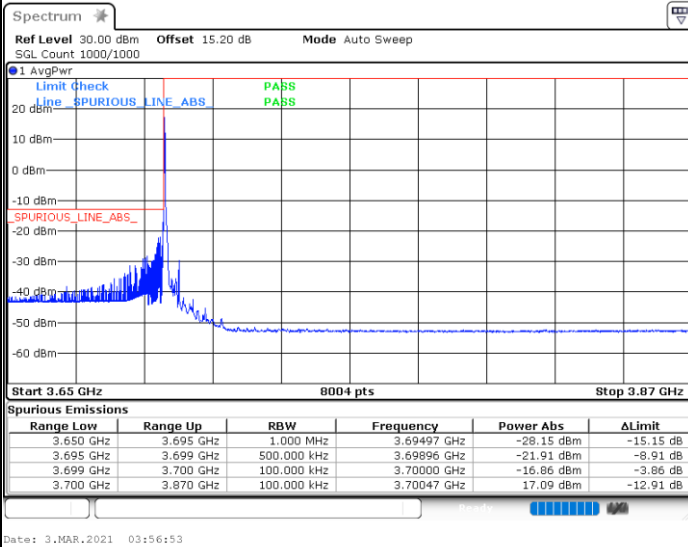
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FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M)

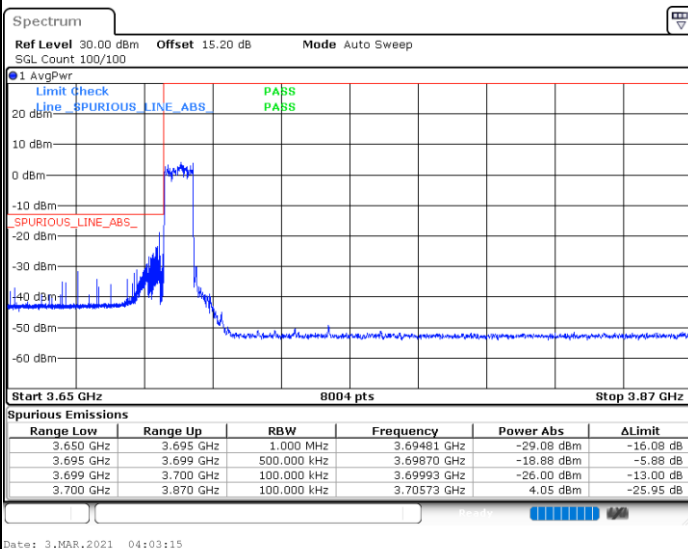
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

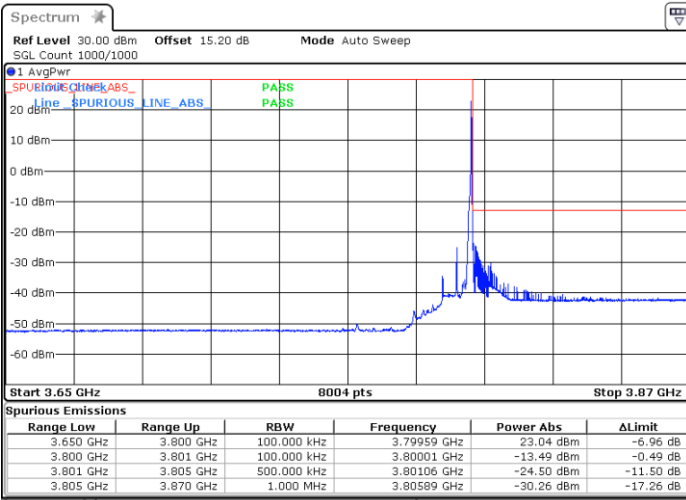
Channel Power < -13dBm Pass



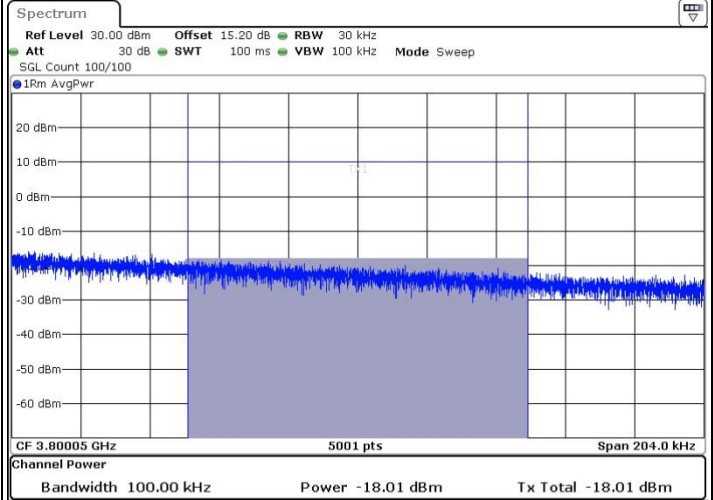


FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M)

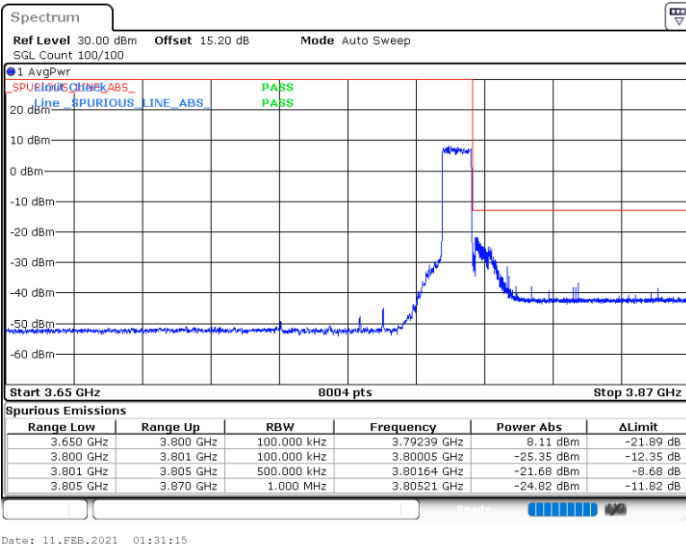
Highest Band Edge / 1 RB



Channel Power < -13dBm Pass



Highest Band Edge / Full RB



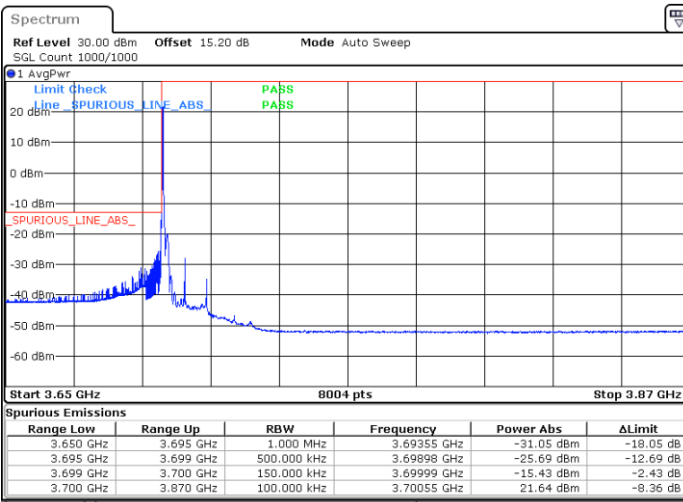
Channel Power < -13dBm Pass

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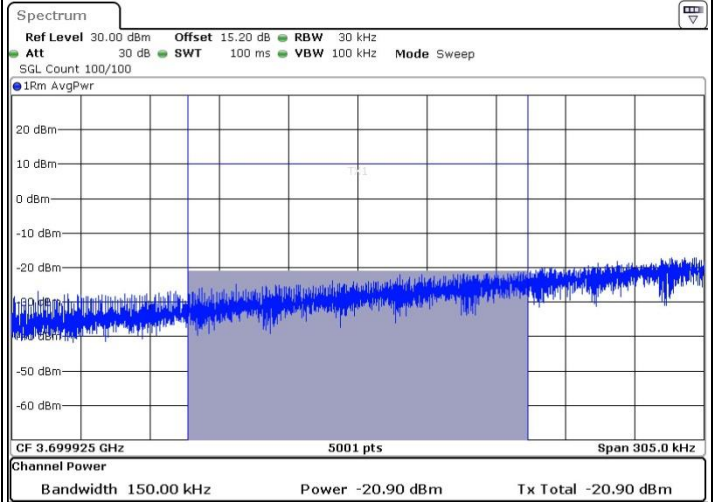


FR1 UL-MIMO n78 / 15MHz / CP-OFDM QPSK (M2)

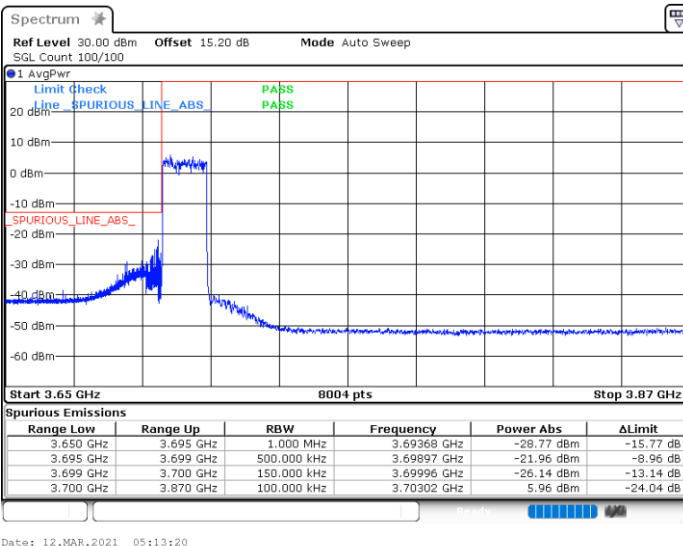
Lowest Band Edge / 1 RB



Channel Power < -13dBm Pass



Lowest Band Edge / Full RB



Channel Power < -13dBm Pass

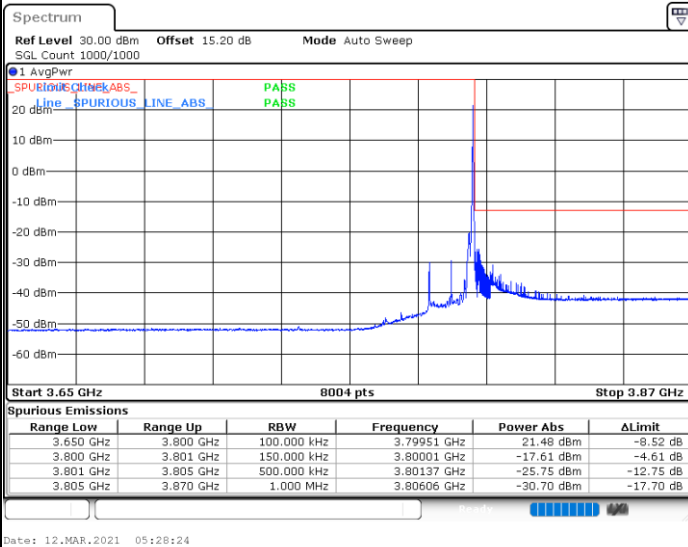
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FR1 UL-MIMO n78 /15MHz / CP-OFDM QPSK (M2)

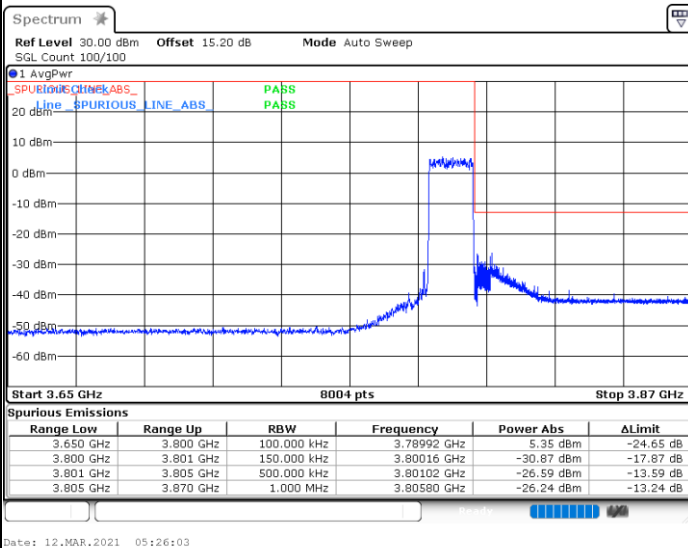
Highest Band Edge / 1 RB

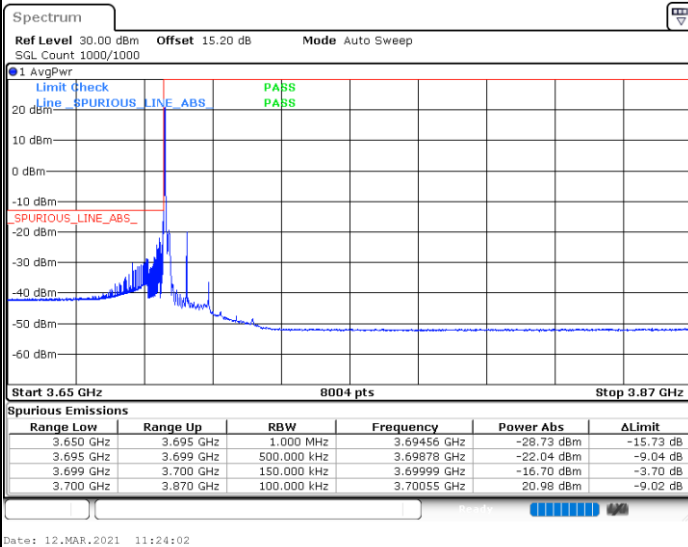
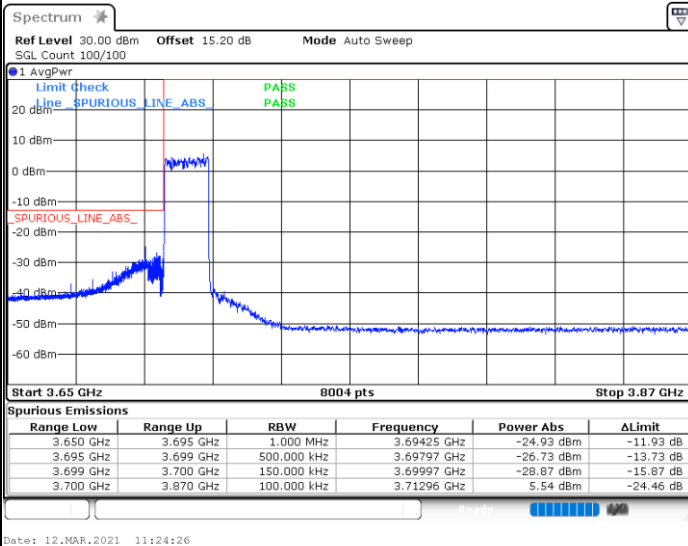
Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass



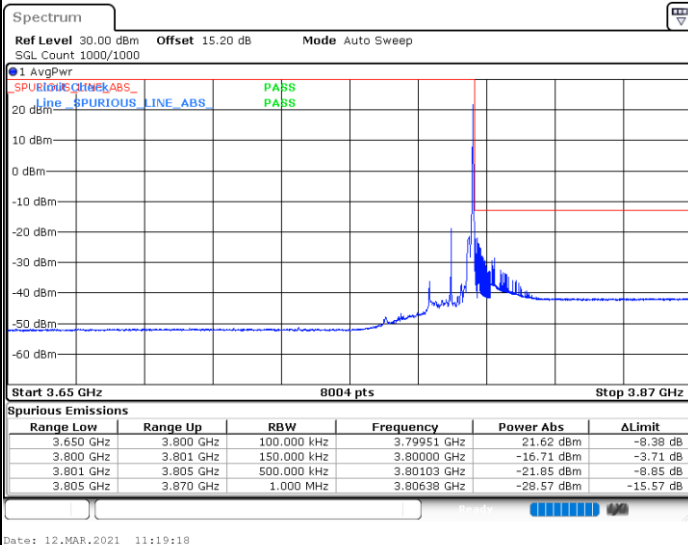
**FR1 UL-MIMO n78 / 15MHz / CP-OFDM QPSK (M)****Lowest Band Edge / 1 RB****Channel Power < -13dBm Pass****Lowest Band Edge / Full RB****Channel Power < -13dBm Pass**



FR1 UL-MIMO n78 /15MHz / CP-OFDM QPSK (M)

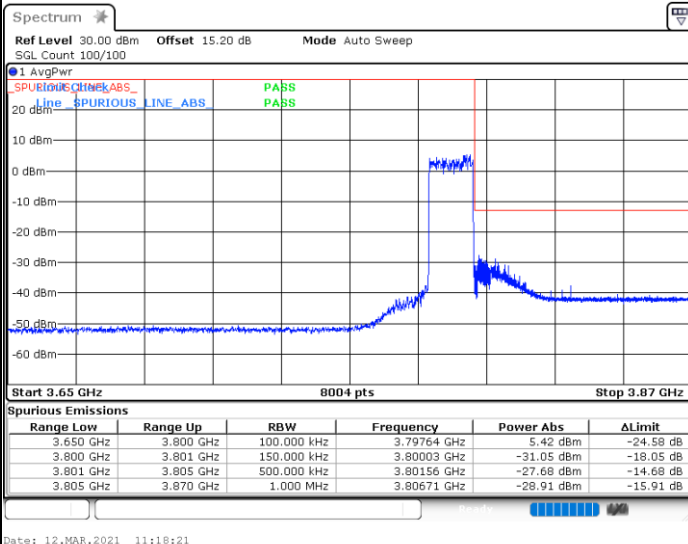
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

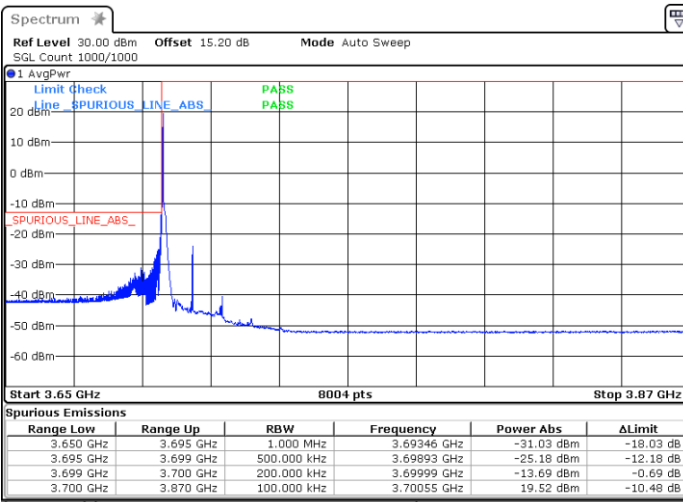
Channel Power < -13dBm Pass



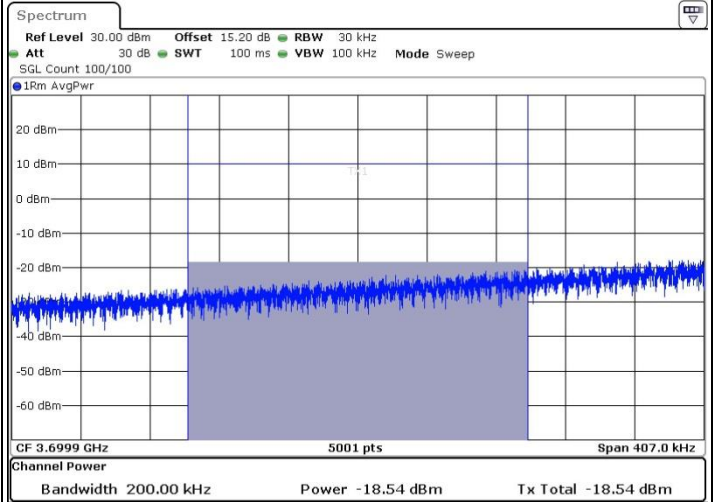


FR1 UL-MIMO n78 / 20MHz / CP-OFDM QPSK (M2)

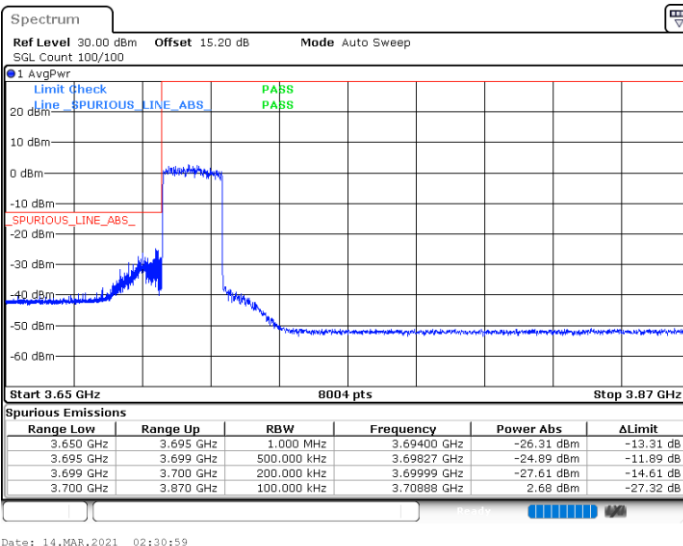
Lowest Band Edge / 1 RB



Channel Power < -13dBm Pass



Lowest Band Edge / Full RB



Channel Power < -13dBm Pass

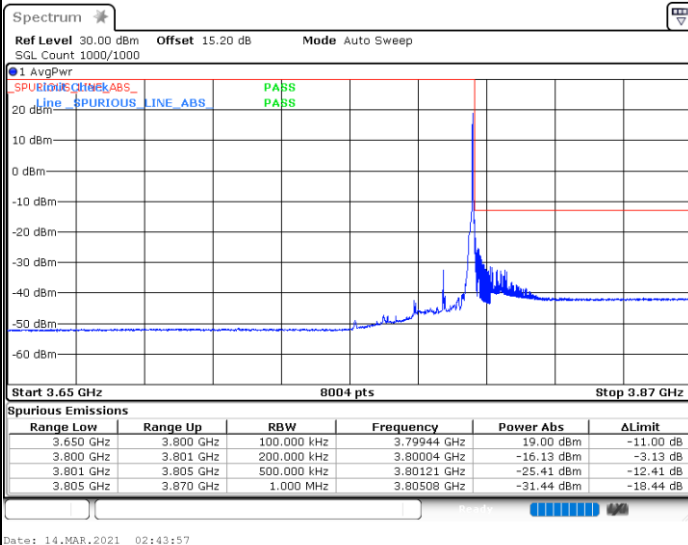
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FR1 UL-MIMO n78 / 20MHz / CP-OFDM QPSK (M2)

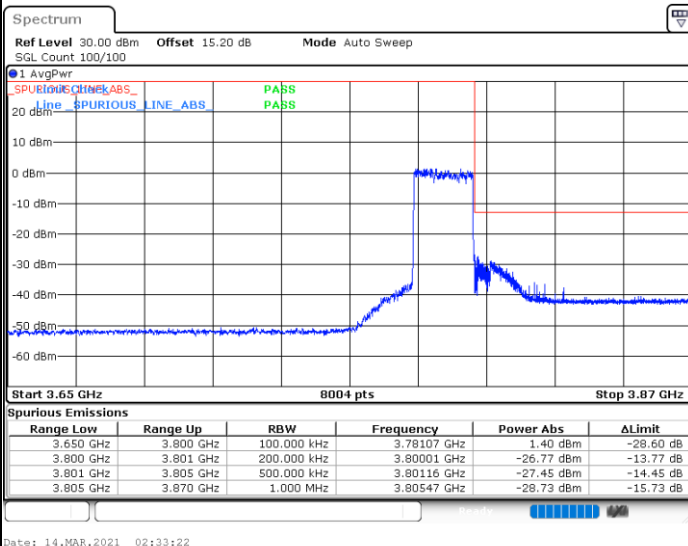
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

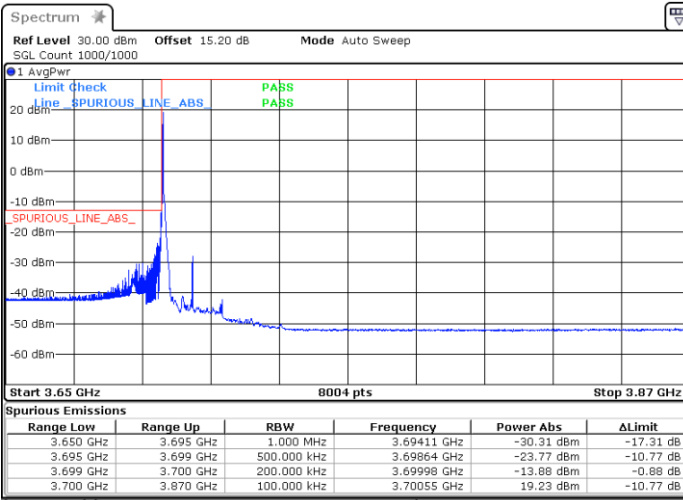
Channel Power < -13dBm Pass



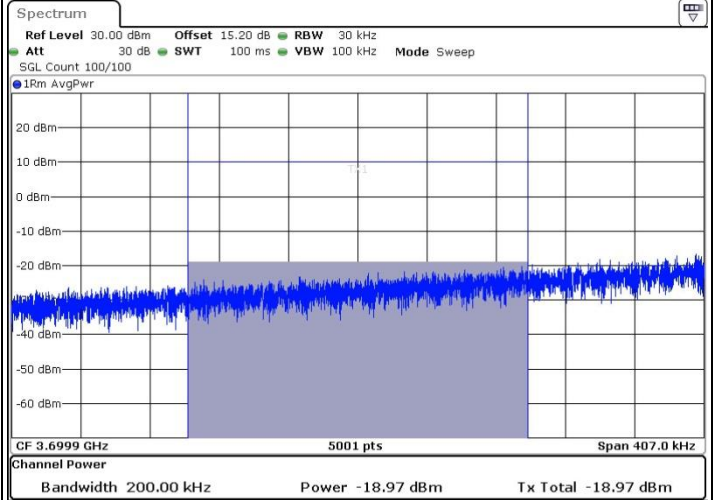


FR1 UL-MIMO n78 / 20MHz / CP-OFDM QPSK (M)

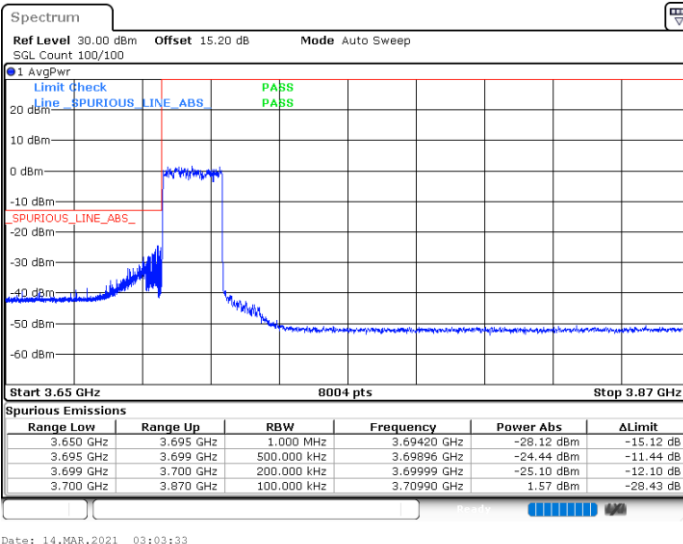
Lowest Band Edge / 1 RB



Channel Power < -13dBm Pass



Lowest Band Edge / Full RB



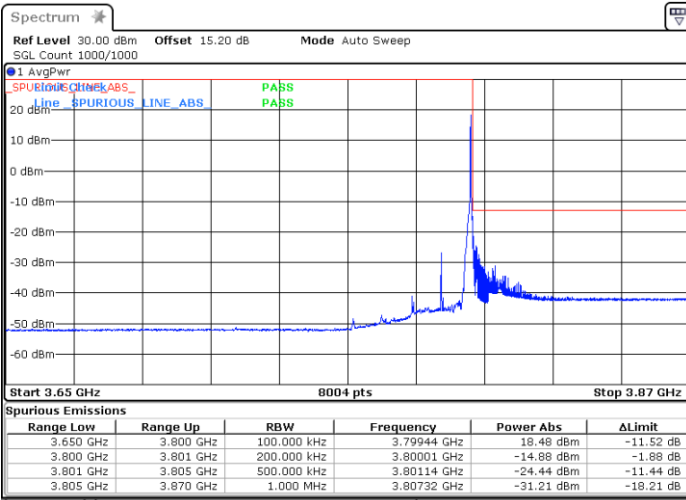
Channel Power < -13dBm Pass

/

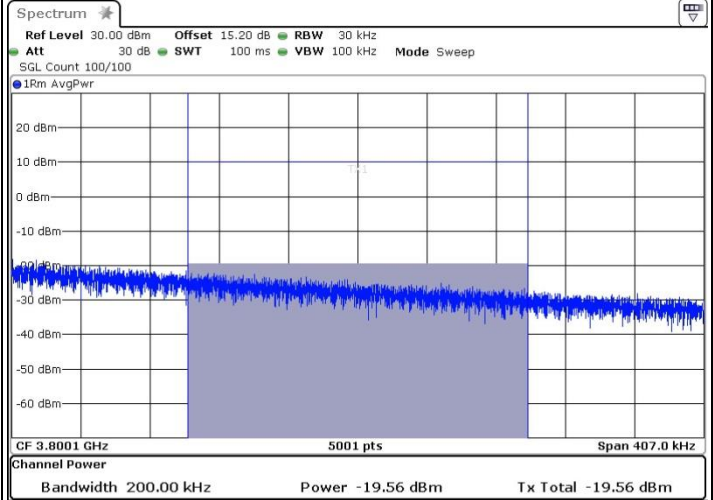


FR1 UL-MIMO n78 / 20MHz / CP-OFDM QPSK (M)

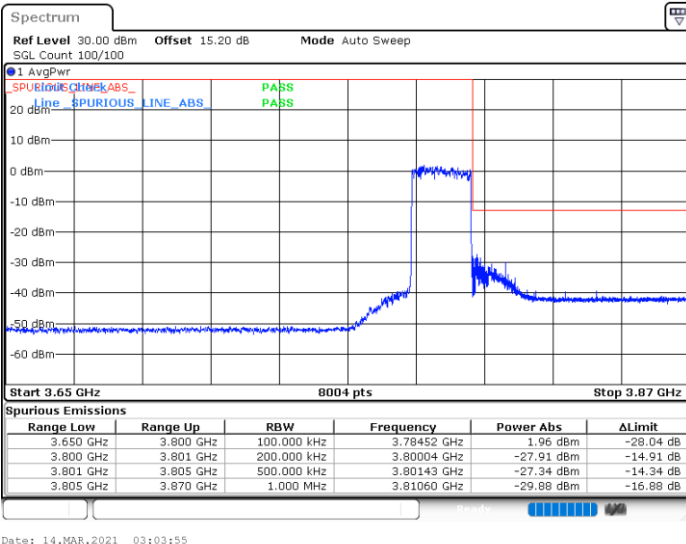
Highest Band Edge / 1 RB



Channel Power < -13dBm Pass



Highest Band Edge / Full RB



Channel Power < -13dBm Pass

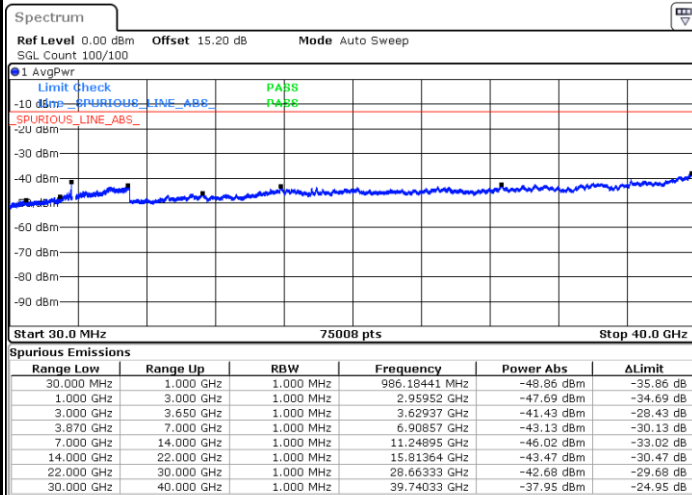
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Conducted Spurious Emission

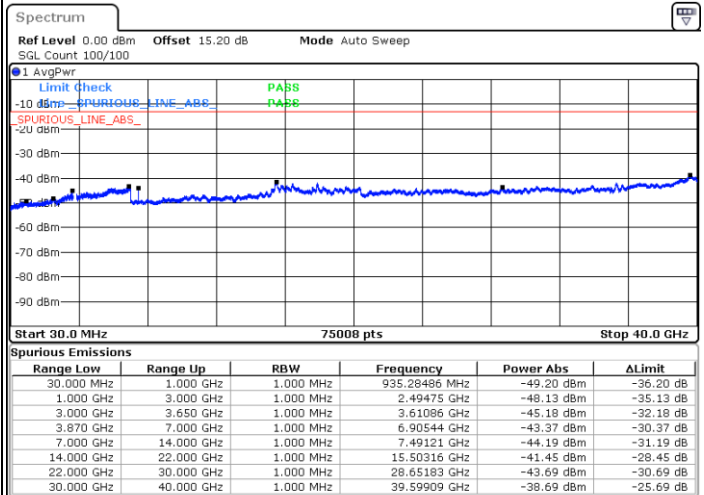
FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M2)

Lowest Channel / 1RB



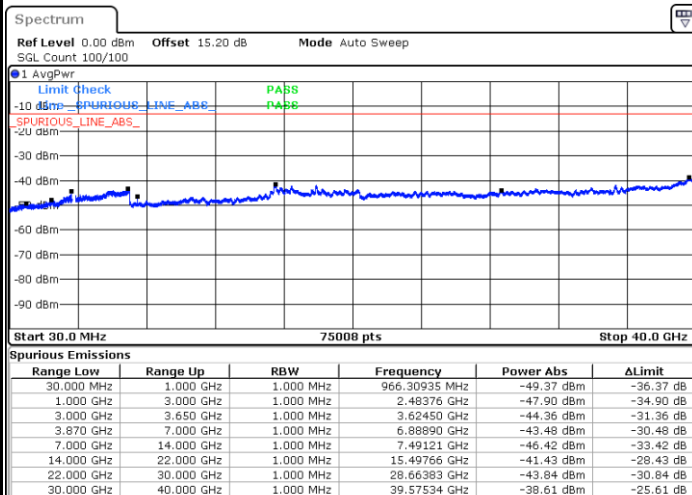
Date: 3.MAR.2021 03:04:56

Middle Channel / 1RB



Date: 4.FEB.2021 22:53:06

Highest Channel / 1RB

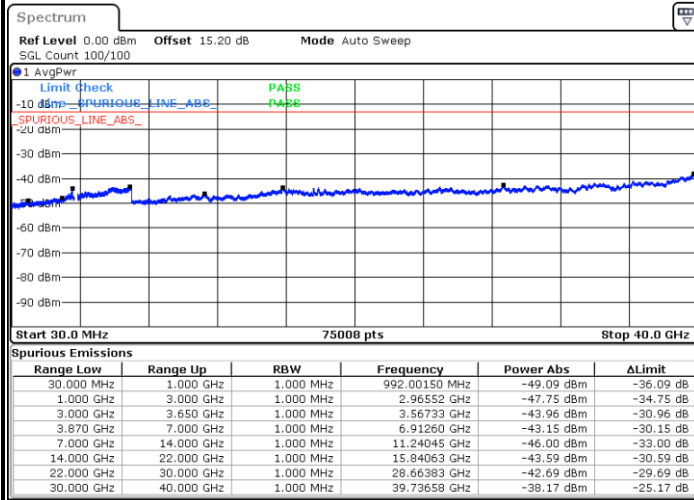


Date: 4.FEB.2021 22:57:38



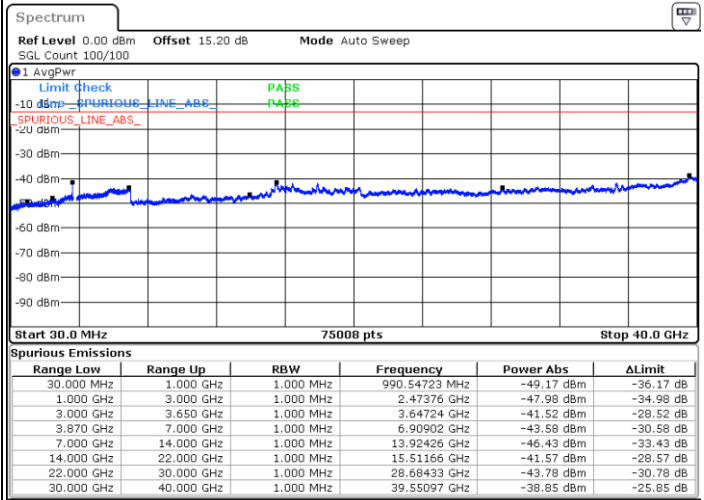
FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M)

Lowest Channel / 1RB



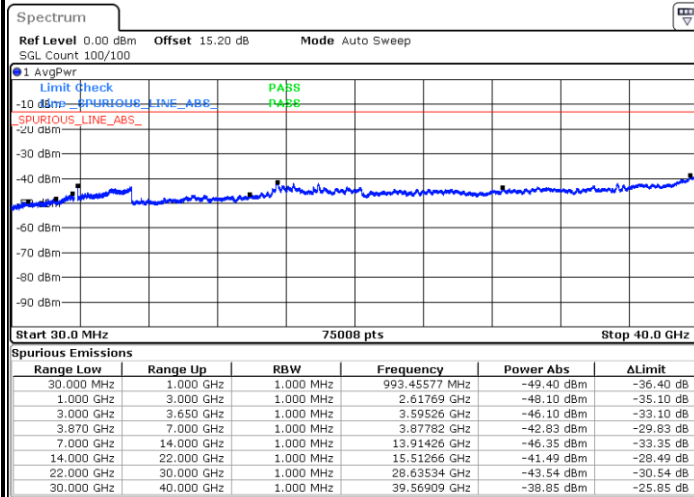
Date: 3.MAR.2021 04:05:25

Middle Channel / 1RB



Date: 3.FEB.2021 07:56:21

Highest Channel / 1RB



Date: 3.FEB.2021 07:58:07