



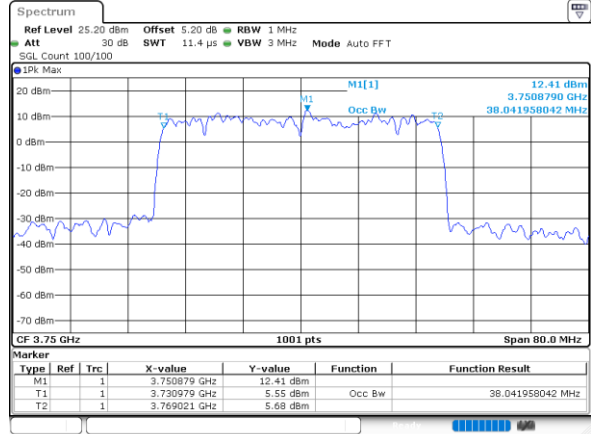
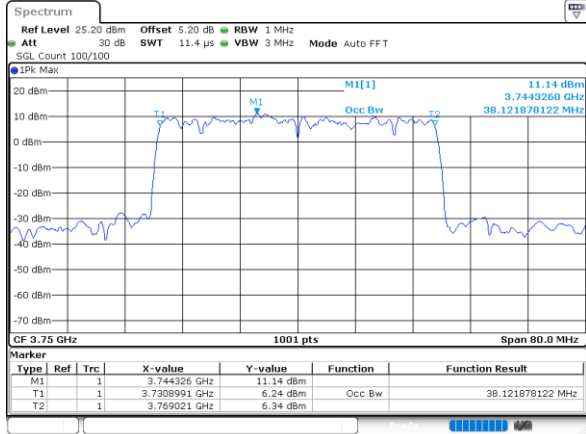
FR1 UL-MIMO n78 / 40MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 05:13:12

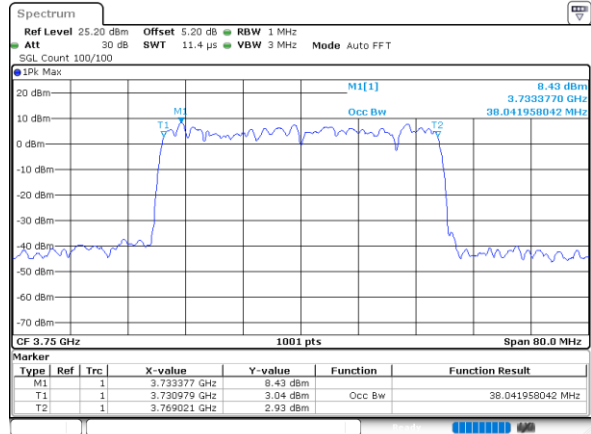
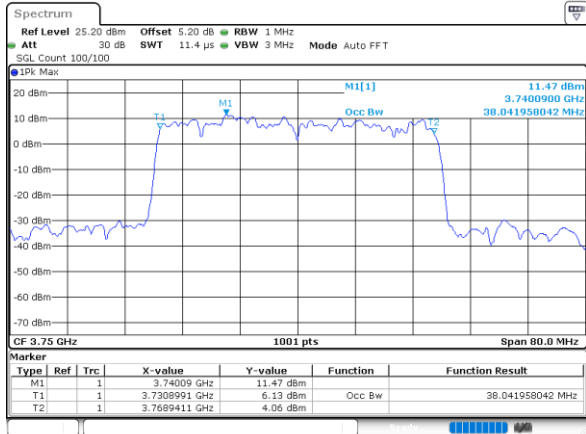
Date: 3.FEB.2021 05:13:33

64QAM

256QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 05:13:52

Date: 3.FEB.2021 05:14:09



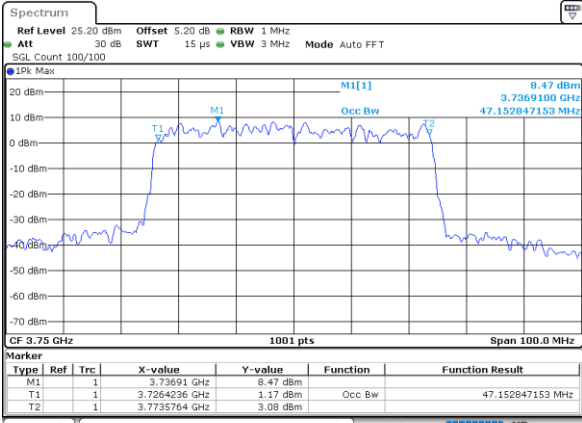
FR1 UL-MIMO n78 / 50MHz / CP-OFDM (M2)

QPSK

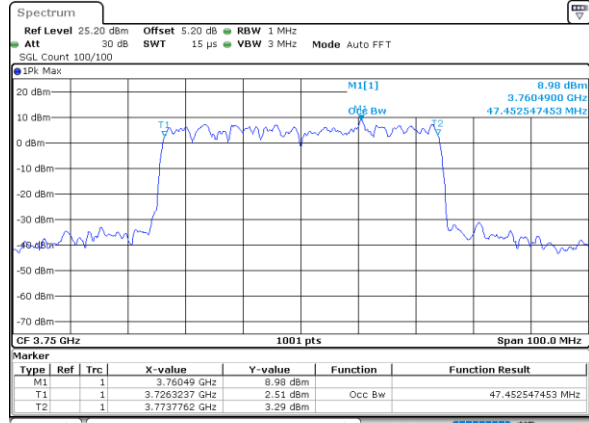
16QAM

Middle Channel

Middle Channel



Date: 30\_JAN\_2021 06:45:07



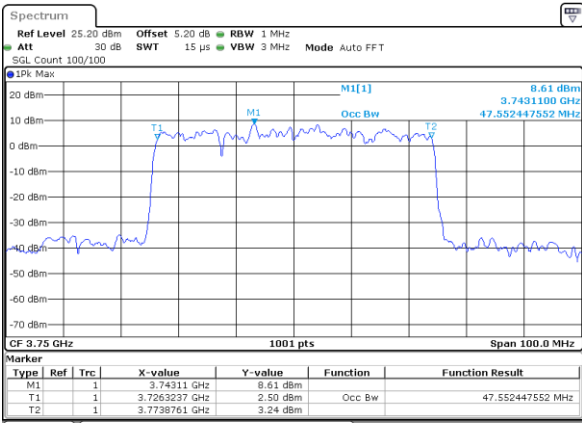
Date: 30\_JAN\_2021 06:45:20

64QAM

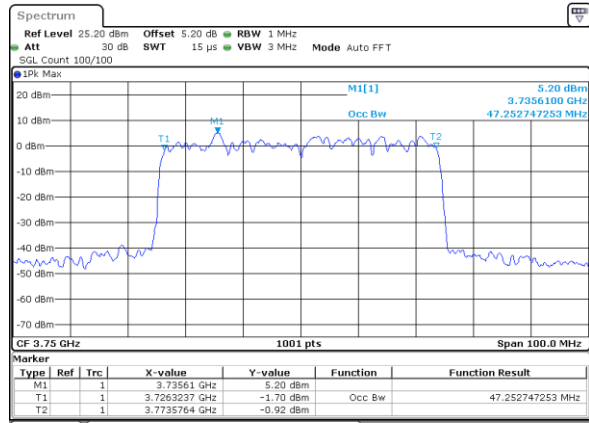
256QAM

Middle Channel

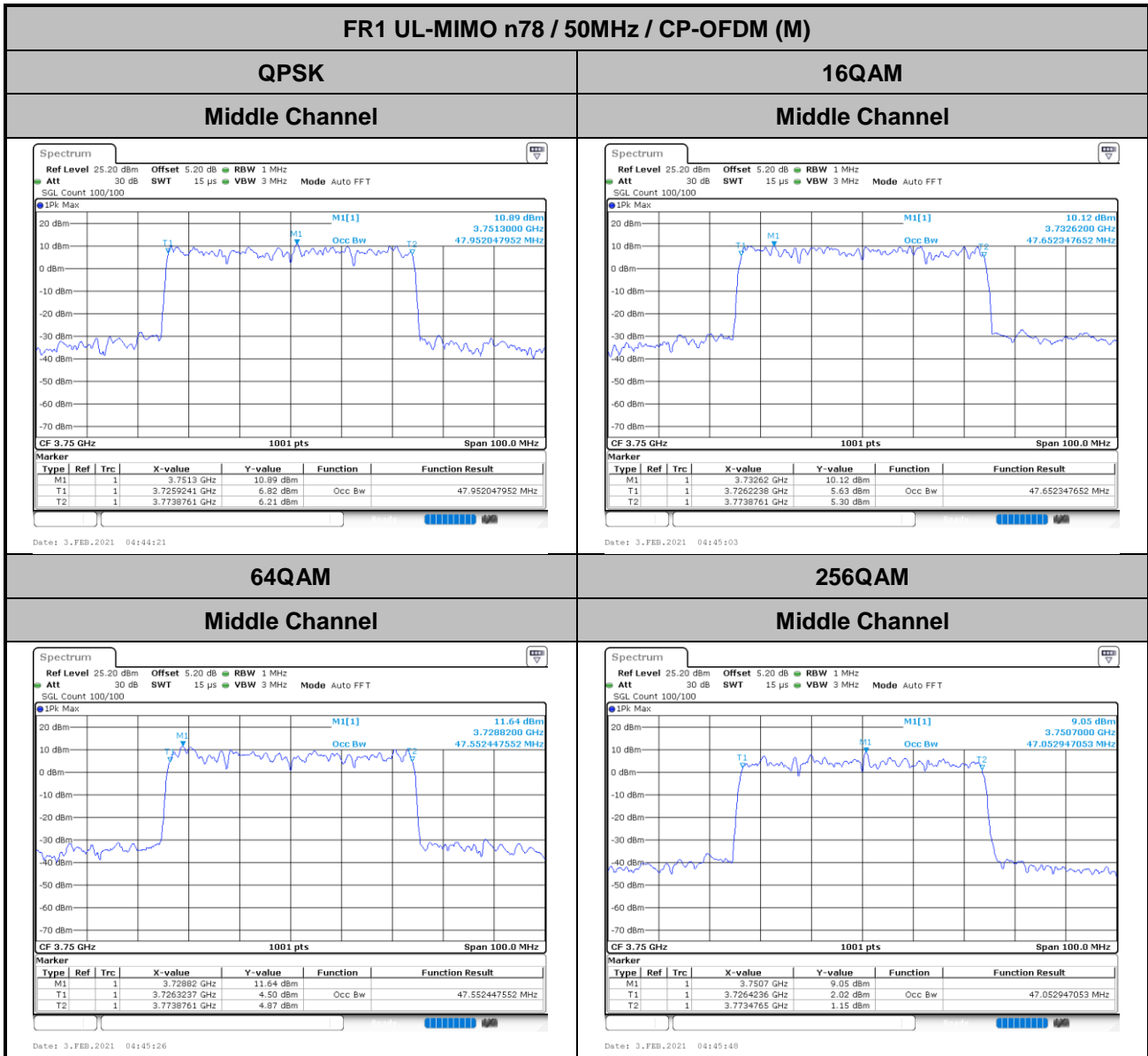
Middle Channel



Date: 30\_JAN\_2021 06:45:31



Date: 30\_JAN\_2021 06:45:45





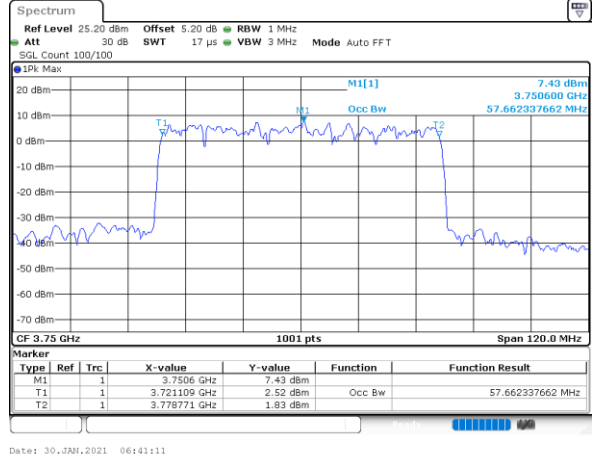
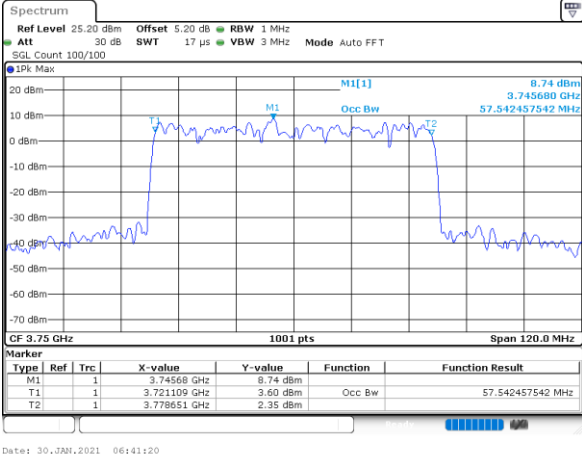
FR1 UL-MIMO n78 / 60MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel

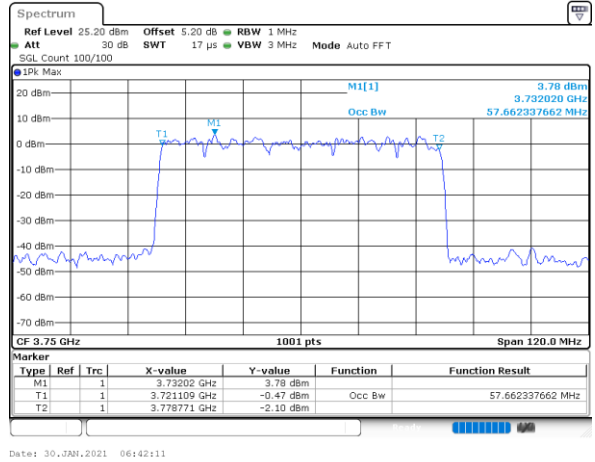
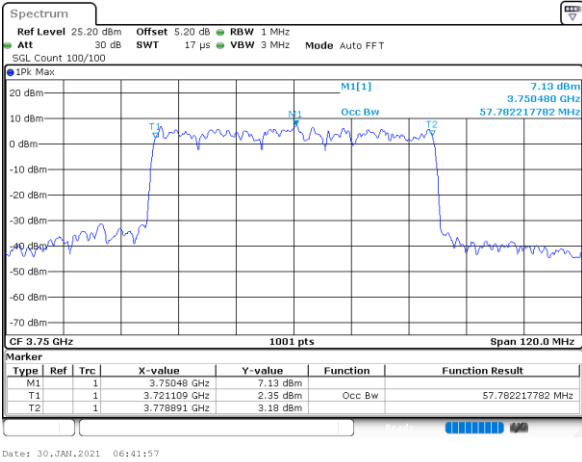


64QAM

256QAM

Middle Channel

Middle Channel





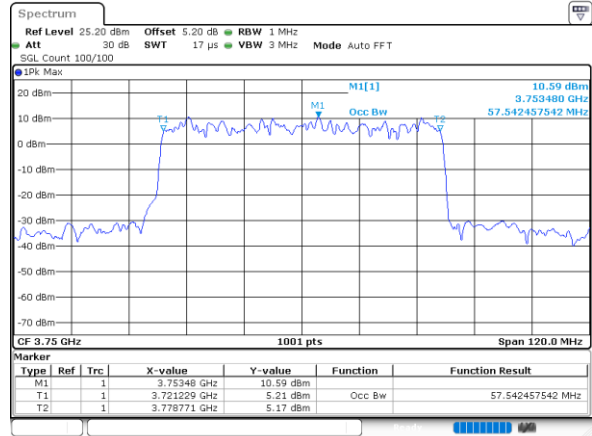
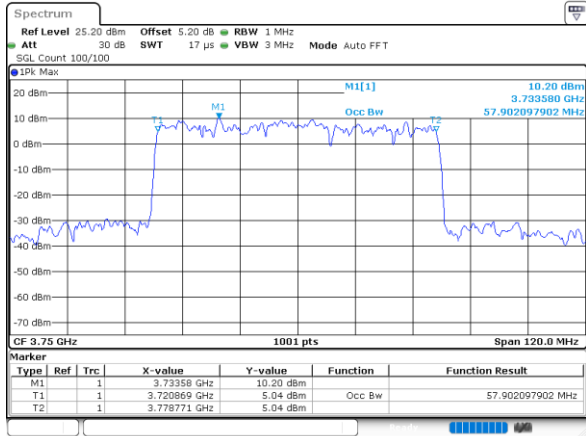
FR1 UL-MIMO n78 / 60MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:42:58

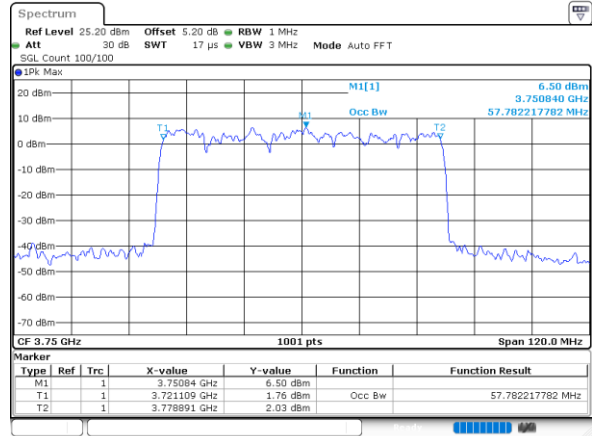
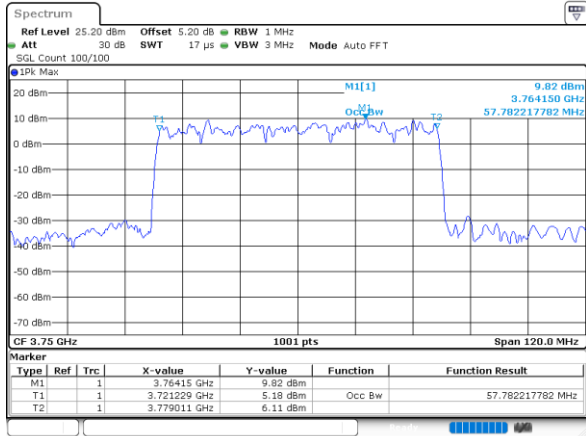
Date: 3.FEB.2021 04:42:25

64QAM

256QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:42:05

Date: 3.FEB.2021 04:41:44



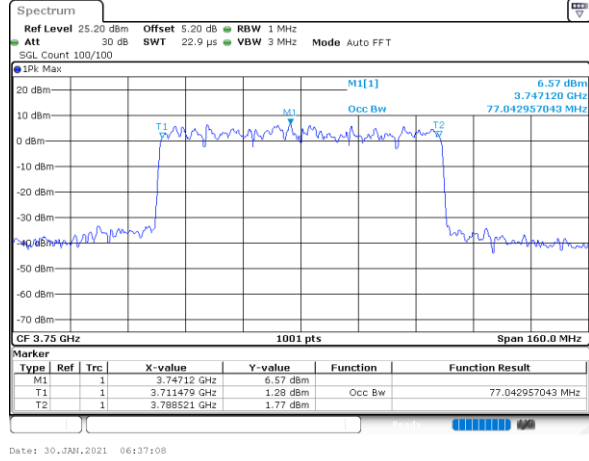
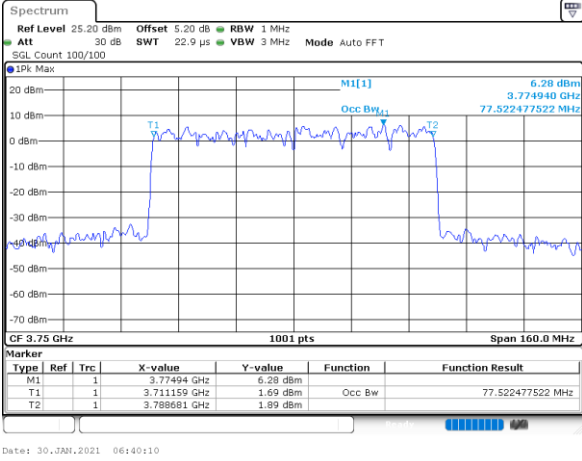
FR1 UL-MIMO n78 / 80MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30\_JAN\_2021 06:40:10

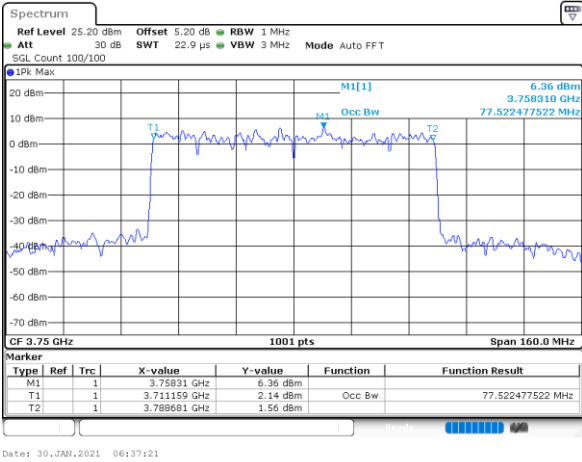
Date: 30\_JAN\_2021 06:13:08

64QAM

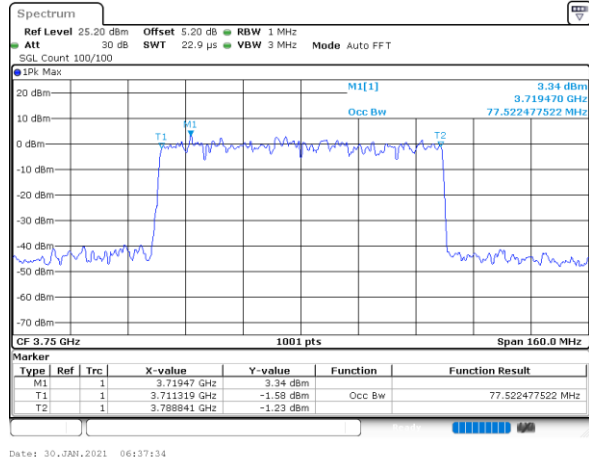
256QAM

Middle Channel

Middle Channel



Date: 30\_JAN\_2021 06:37:21



Date: 30\_JAN\_2021 06:13:14





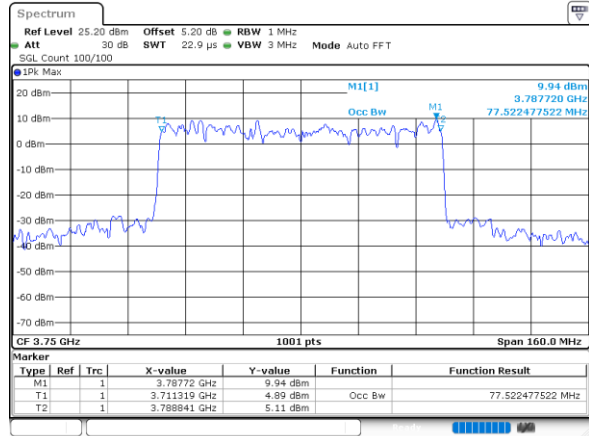
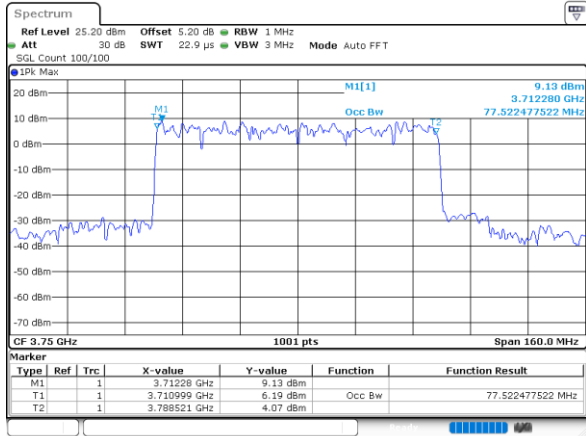
FR1 UL-MIMO n78 / 80MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:39:43

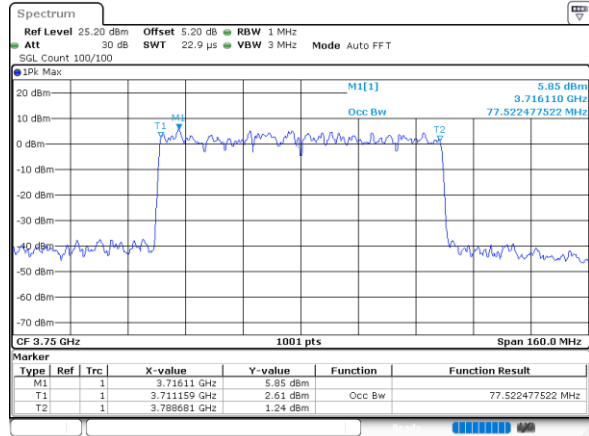
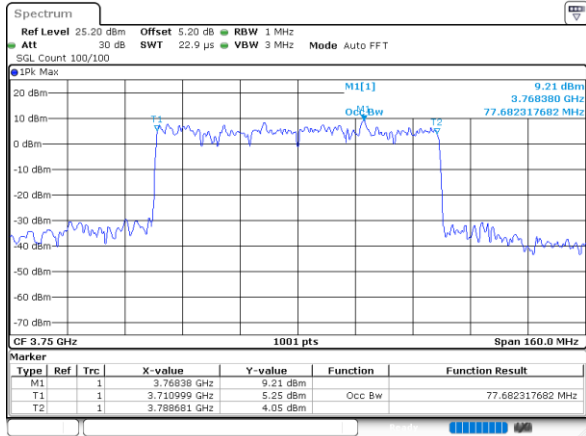
Date: 3.FEB.2021 04:40:06

64QAM

256QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:40:25

Date: 3.FEB.2021 04:40:53



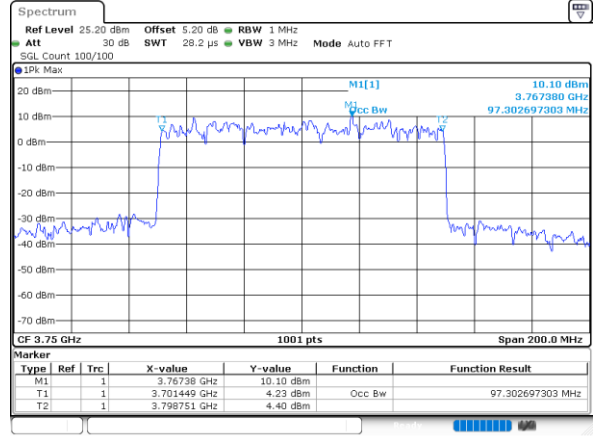
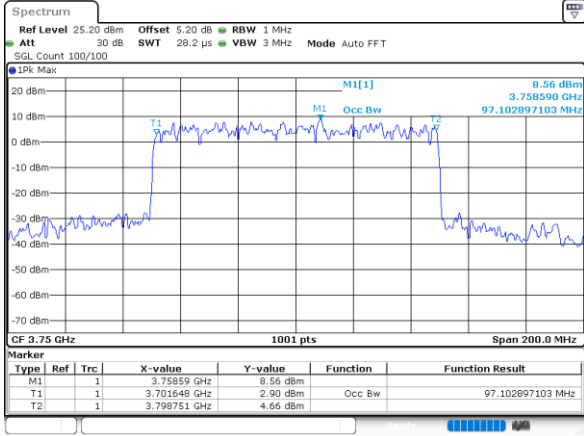
FR1 UL-MIMO n78 / 100MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30.JAN.2021 06:17:24

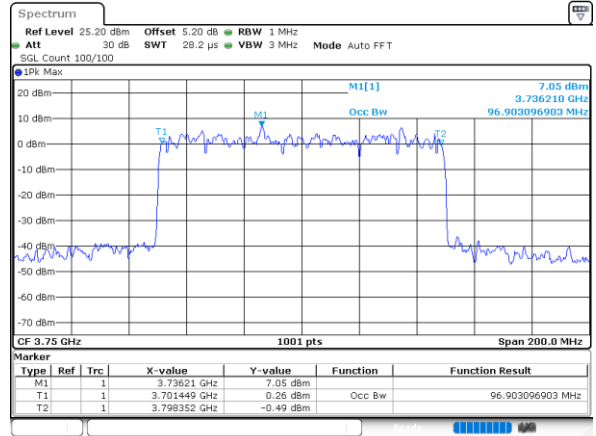
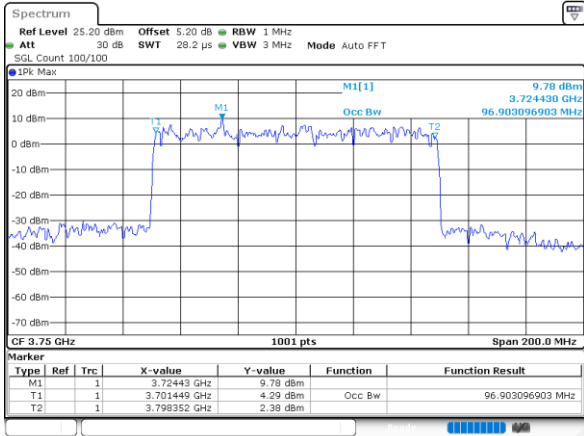
Date: 30.JAN.2021 06:27:01

64QAM

256QAM

Middle Channel

Middle Channel



Date: 30.JAN.2021 06:27:14

Date: 30.JAN.2021 06:27:31



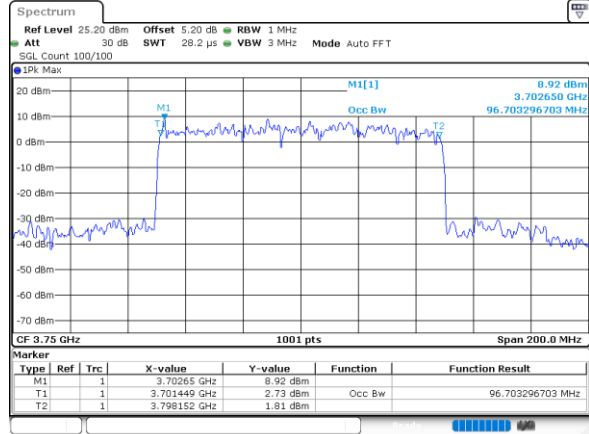
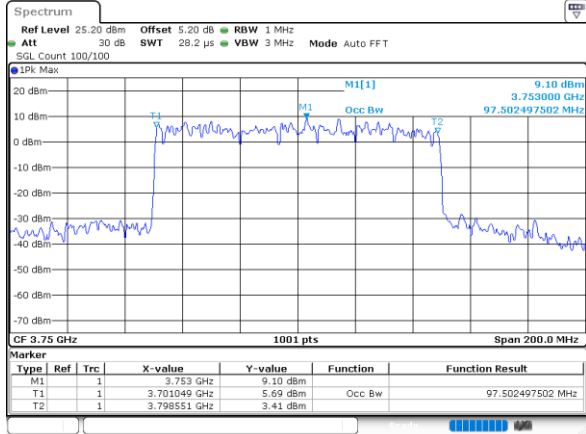
FR1 UL-MIMO n78 / 100MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:17:25

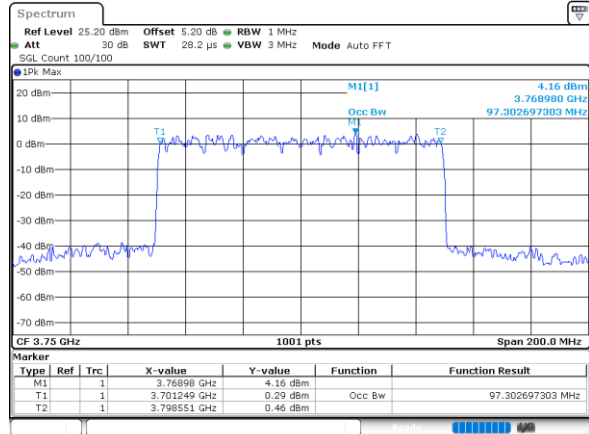
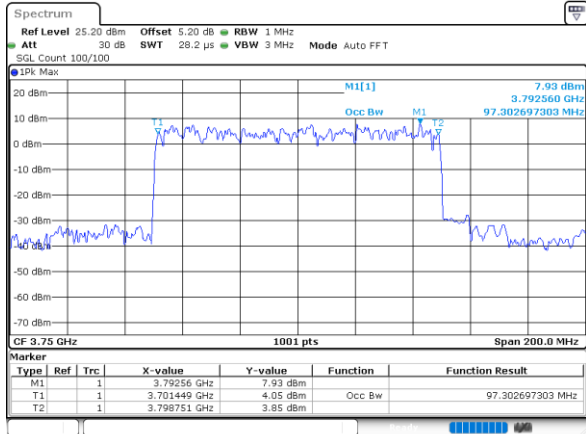
Date: 3.FEB.2021 04:24:46

64QAM

256QAM

Middle Channel

Middle Channel

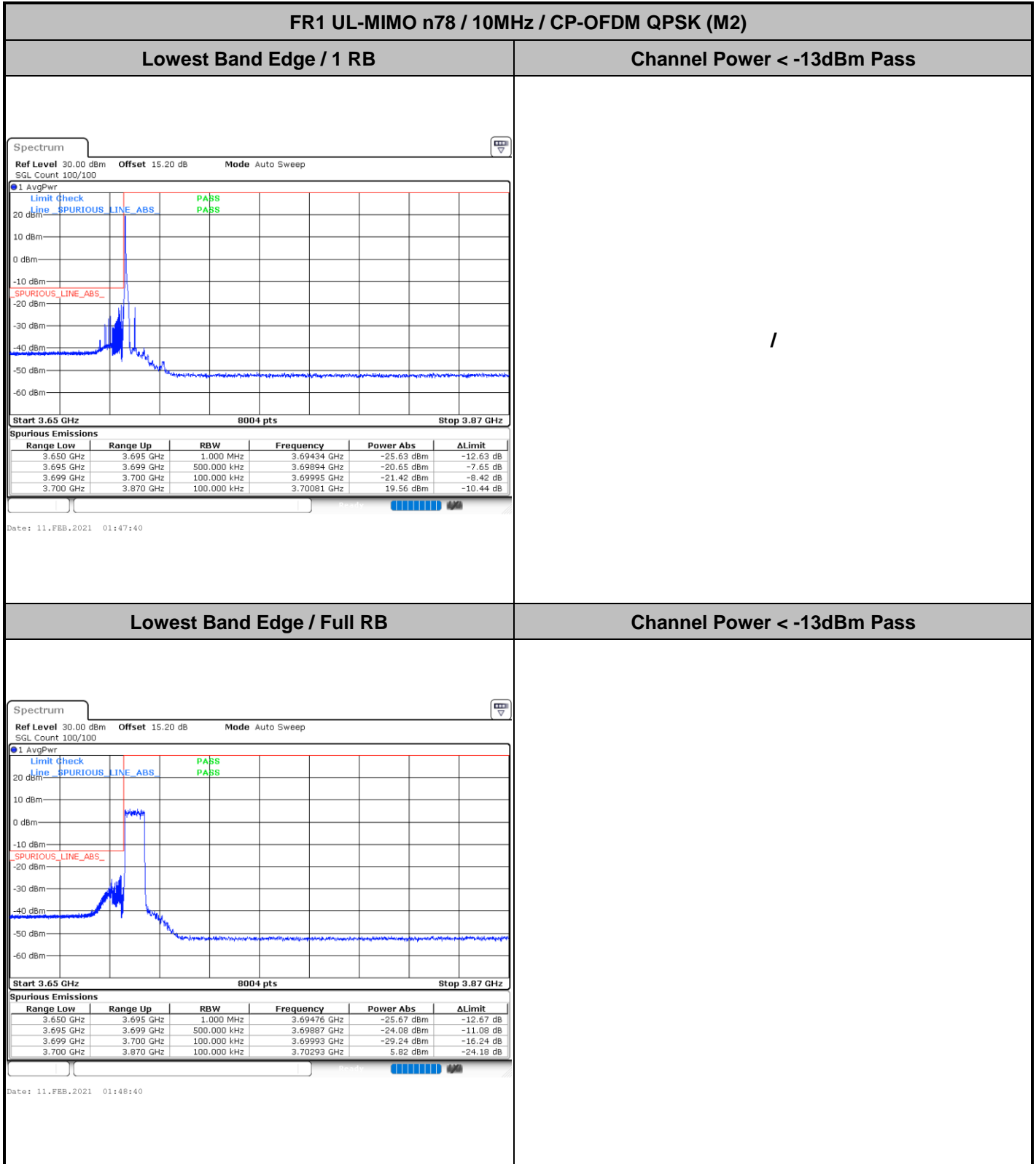


Date: 3.FEB.2021 04:25:12

Date: 3.FEB.2021 04:25:36



# Conducted Band Edge

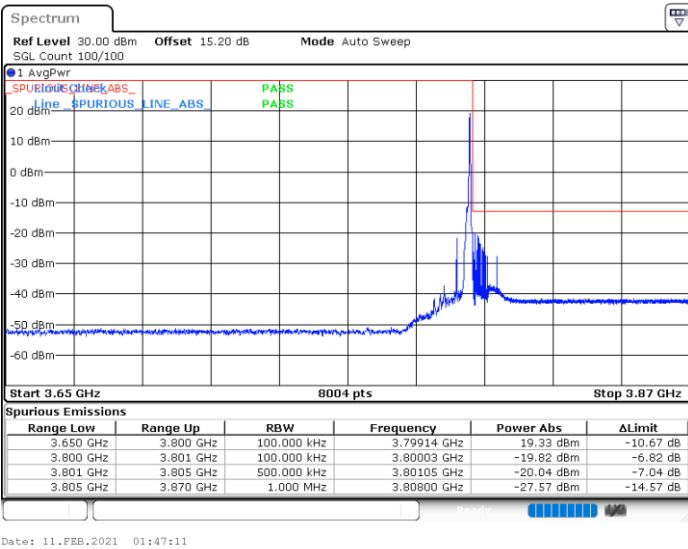




FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M2)

Highest Band Edge / 1 RB

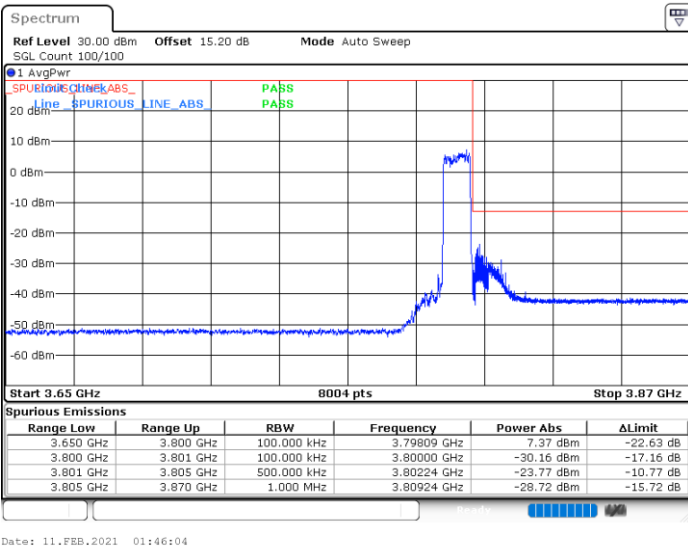
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



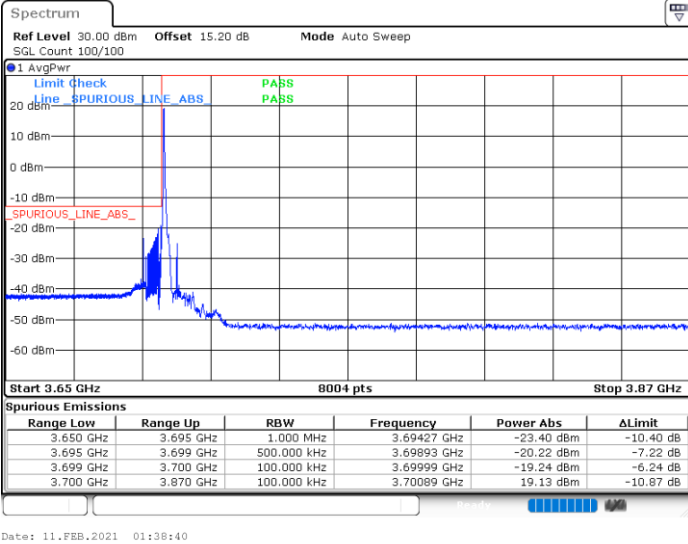
/



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

Lowest Band Edge / 1 RB

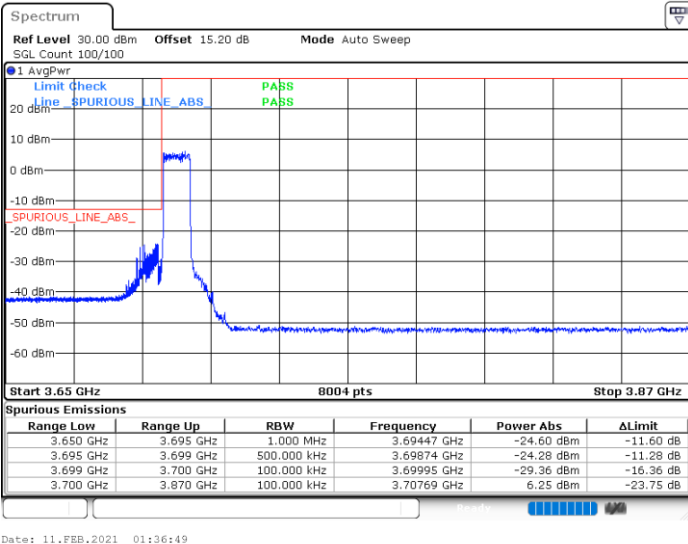
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



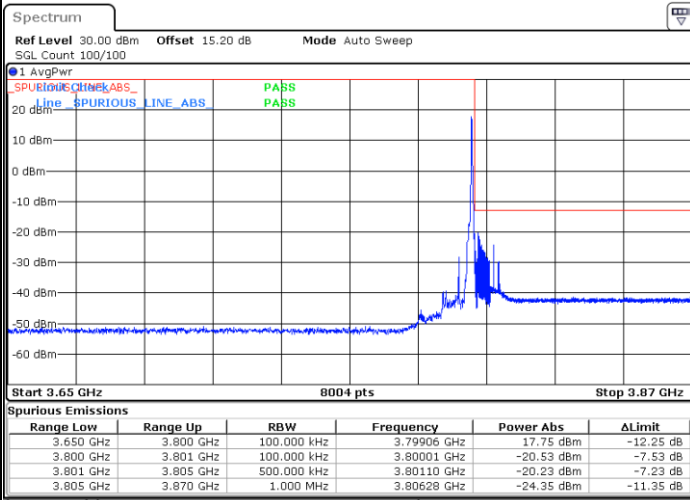
/



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

Highest Band Edge / 1 RB

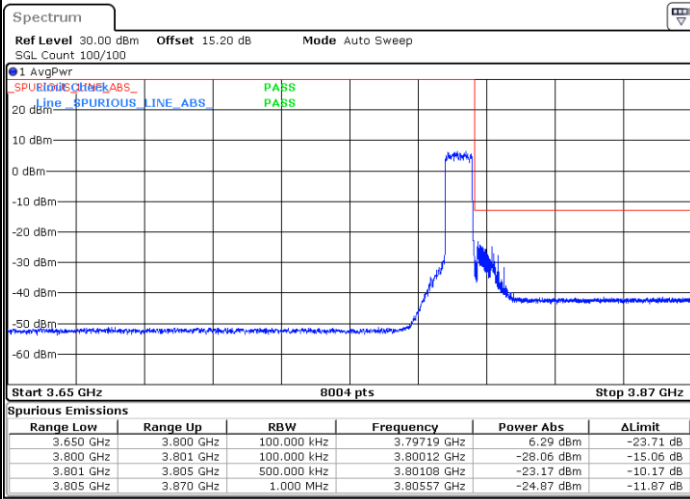
Channel Power < -13dBm Pass



Date: 11.FEB.2021 01:39:14

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



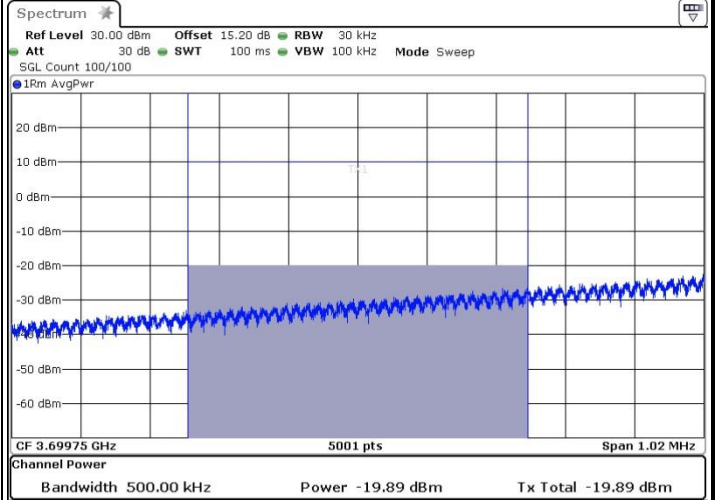
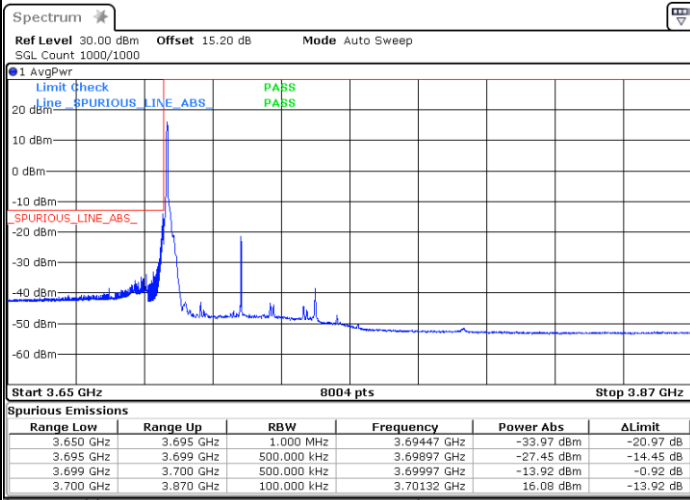
Date: 11.FEB.2021 01:42:45



FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M2)

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass

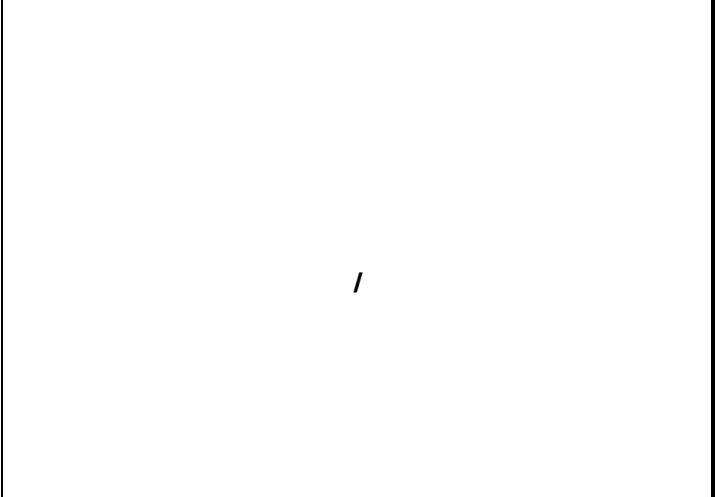
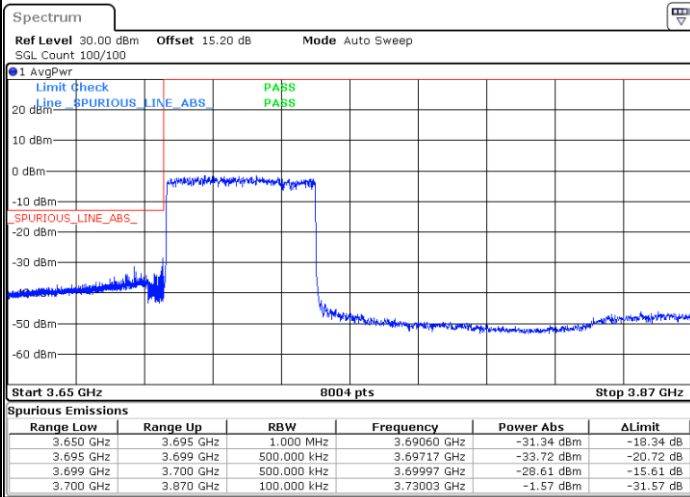


Date: 2.FEB.2021 14:14:55

Date: 2.FEB.2021 14:15:49

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



Date: 2.FEB.2021 14:21:26

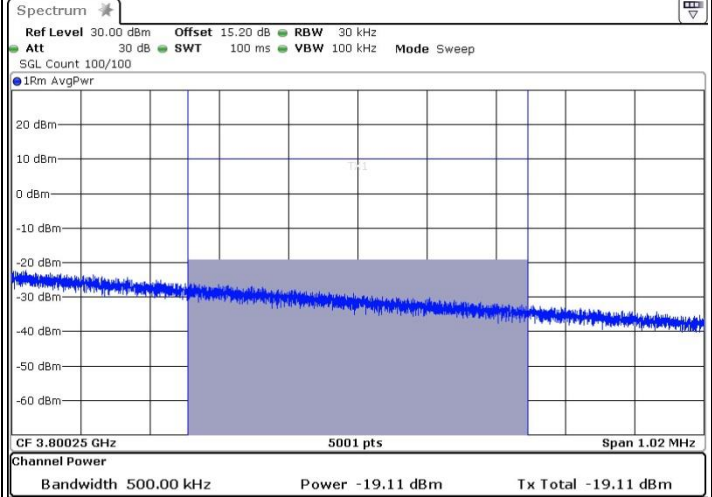
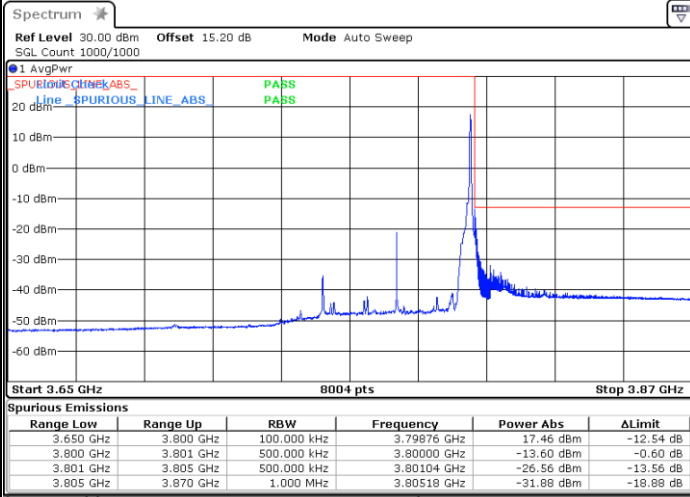




FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M2)

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass

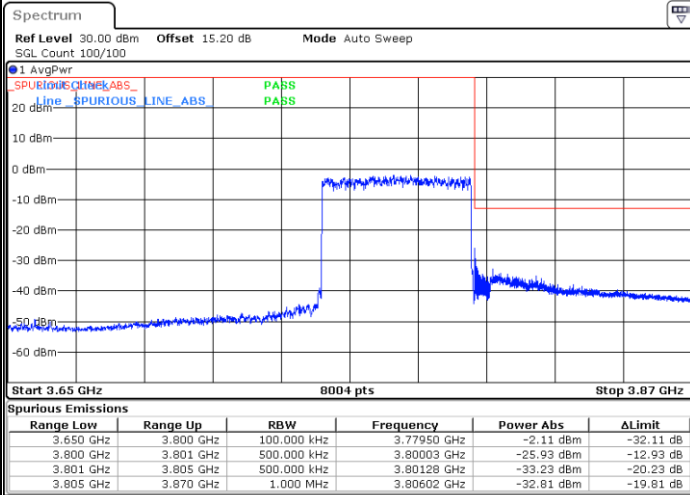


Date: 2.FEB.2021 14:29:39

Date: 2.FEB.2021 14:30:30

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



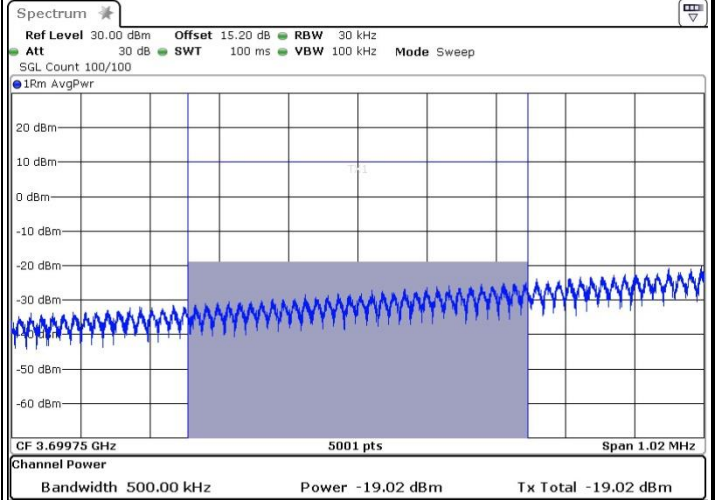
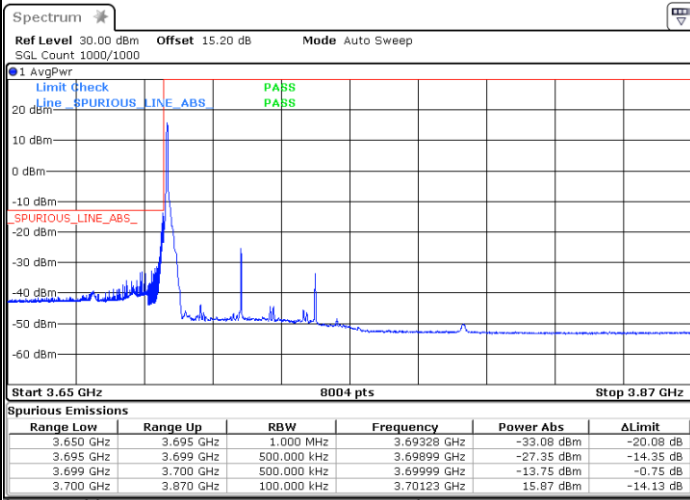
Date: 2.FEB.2021 14:33:39



FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M)

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass

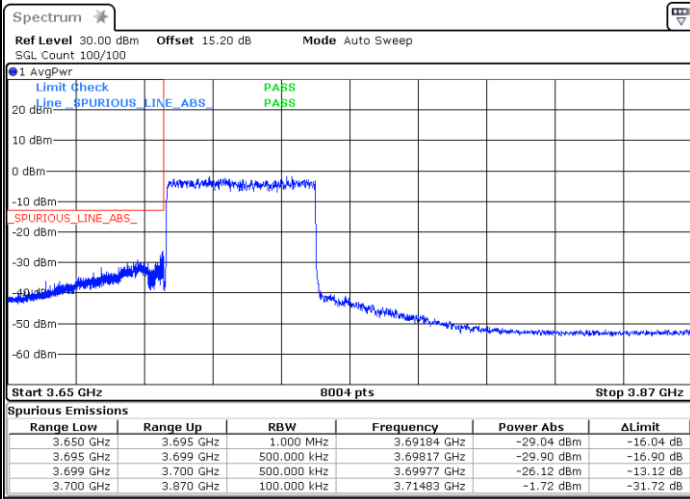


Date: 3.FEB.2021 04:56:45

Date: 3.FEB.2021 04:58:09

Lowest Band Edge / Full RB

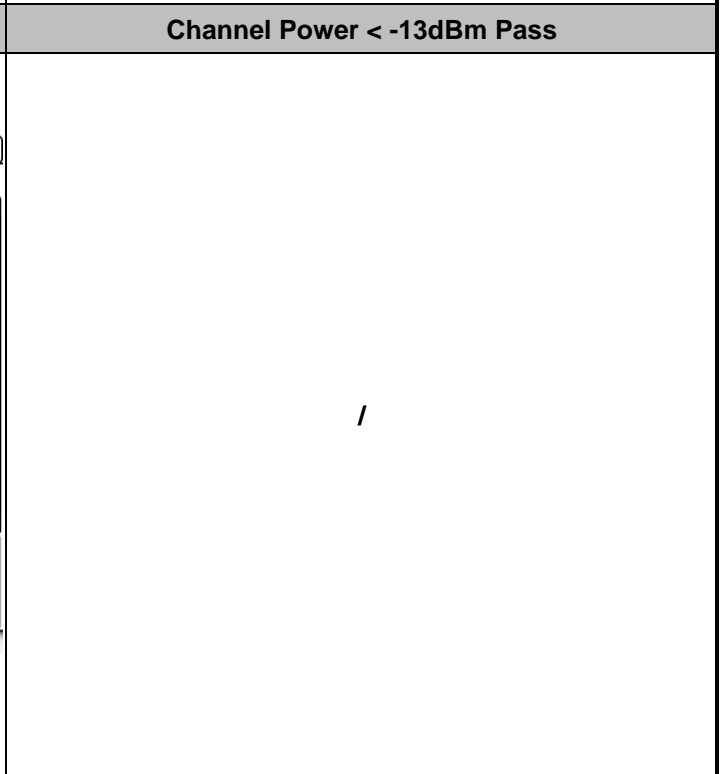
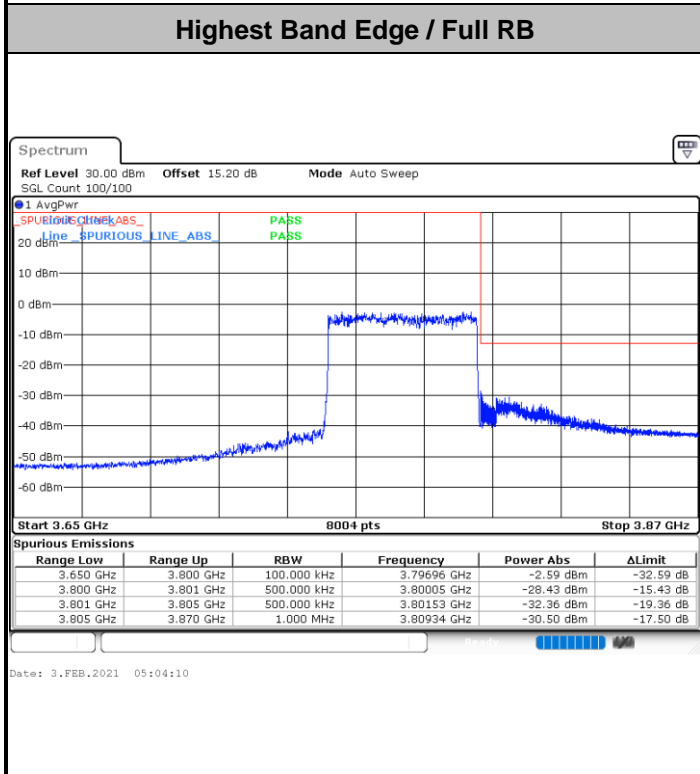
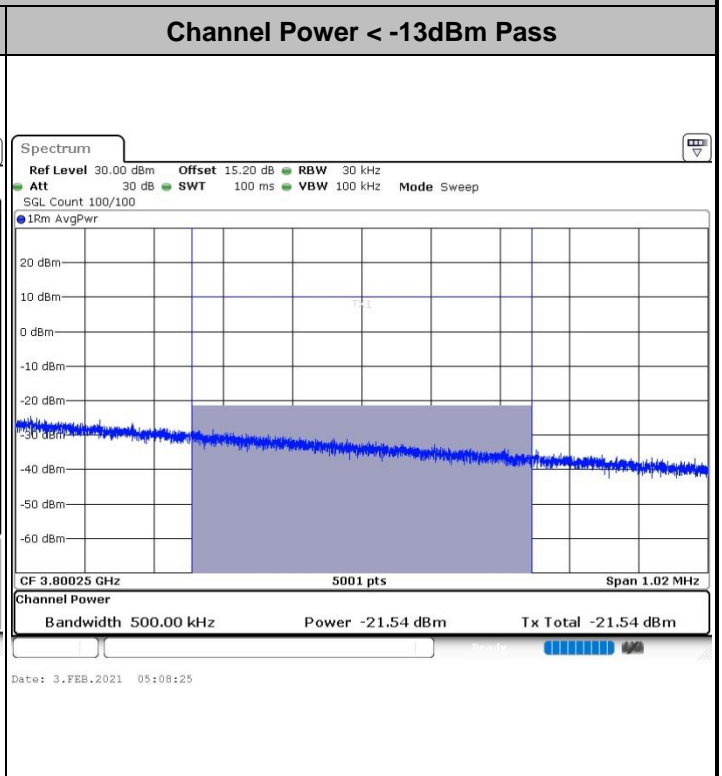
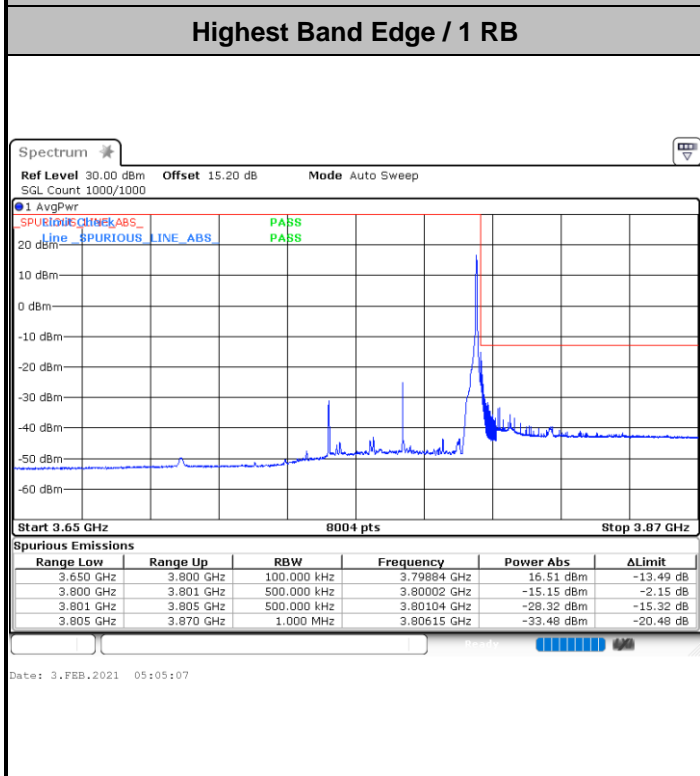
Channel Power < -13dBm Pass



Date: 3.FEB.2021 05:00:20



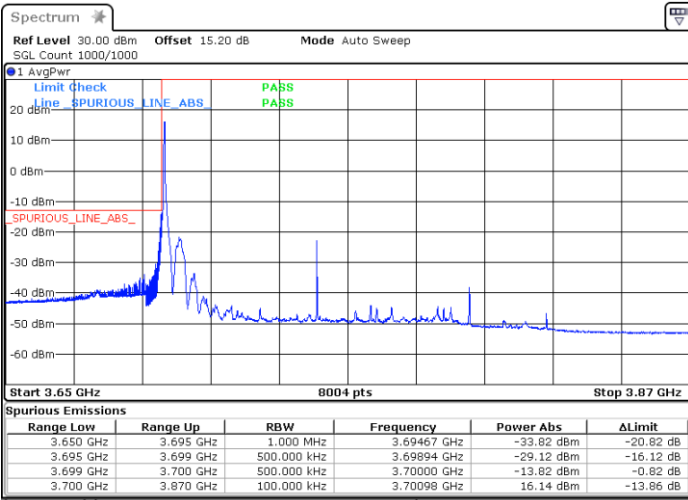
**FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M)**





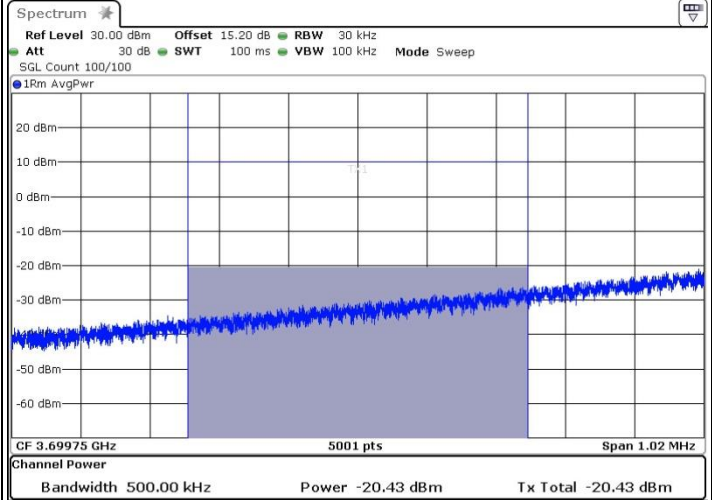
FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M2)

Lowest Band Edge / 1 RB



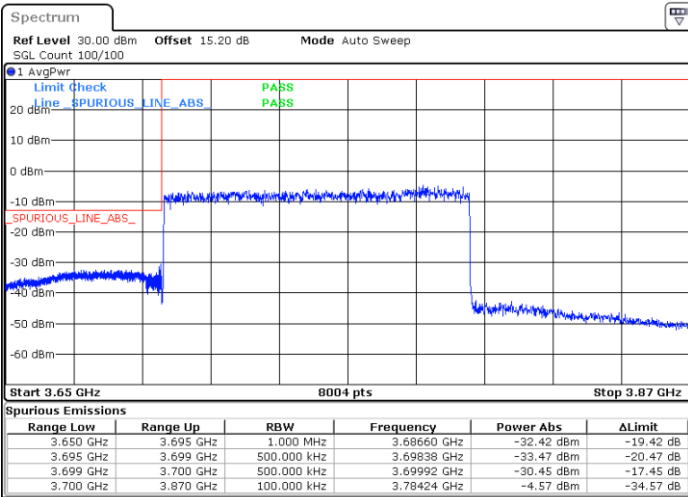
Date: 2.FEB.2021 13:48:15

Channel Power < -13dBm Pass



Date: 2.FEB.2021 13:50:07

Lowest Band Edge / Full RB



Date: 2.FEB.2021 13:58:21

Channel Power < -13dBm Pass

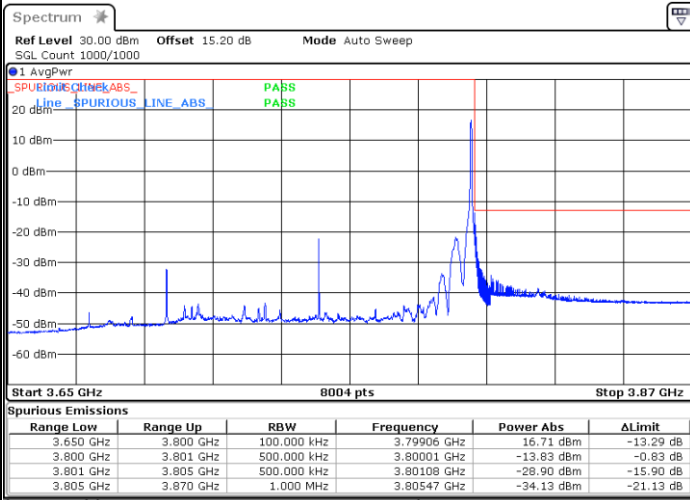
/



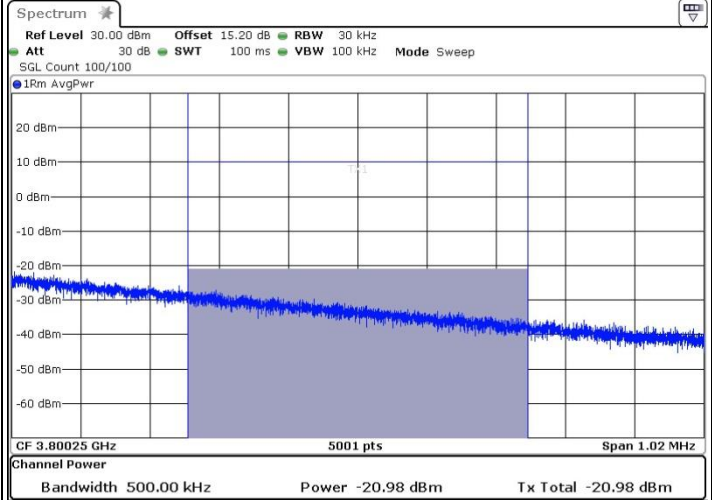
FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M2)

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



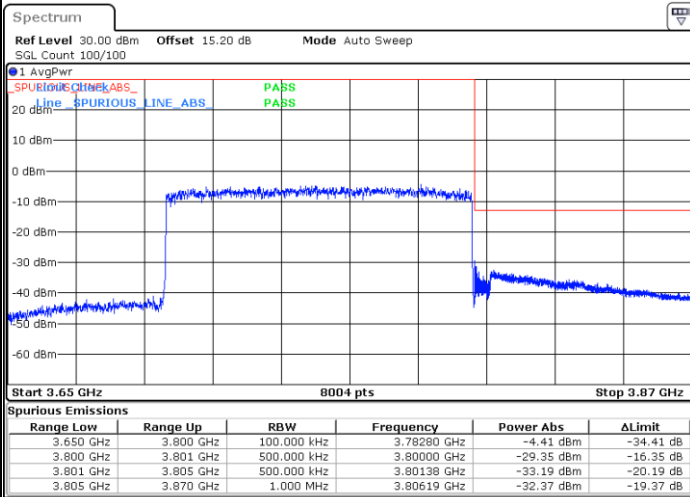
Date: 2.FEB.2021 14:03:44



Date: 2.FEB.2021 14:04:49

Highest Band Edge / Full RB

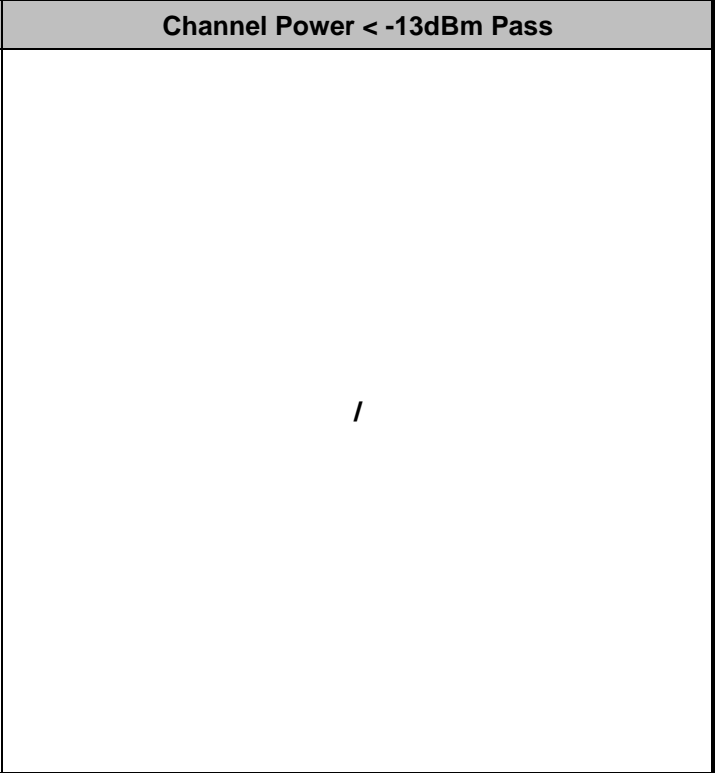
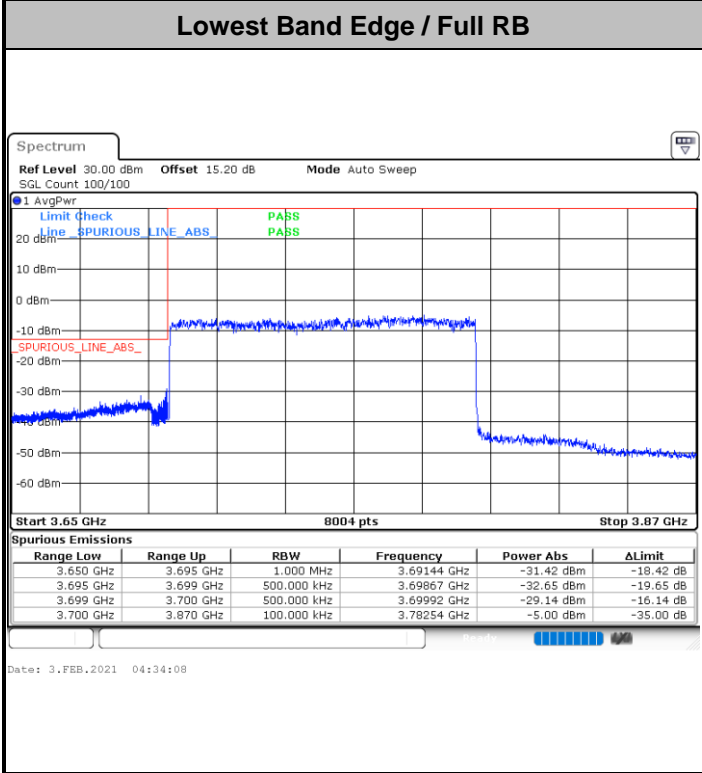
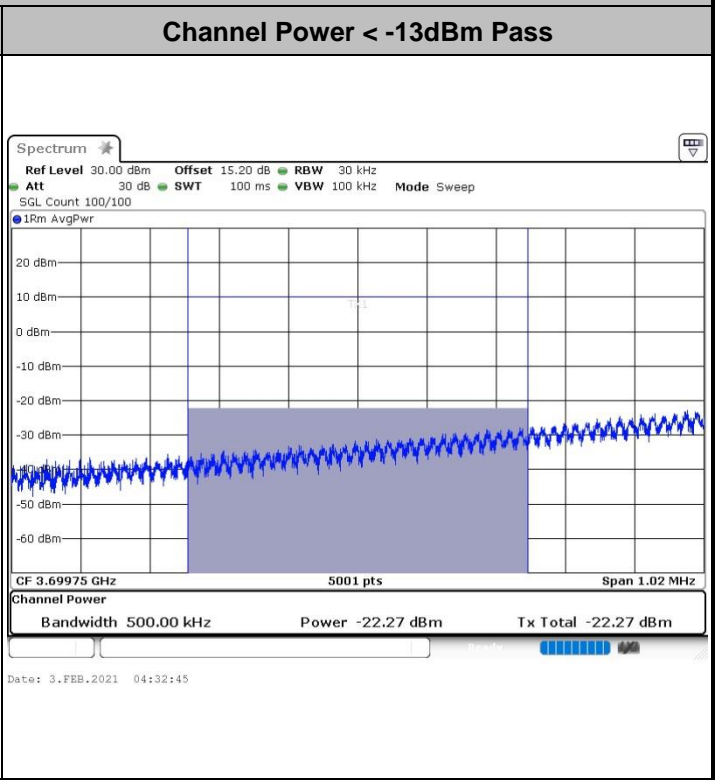
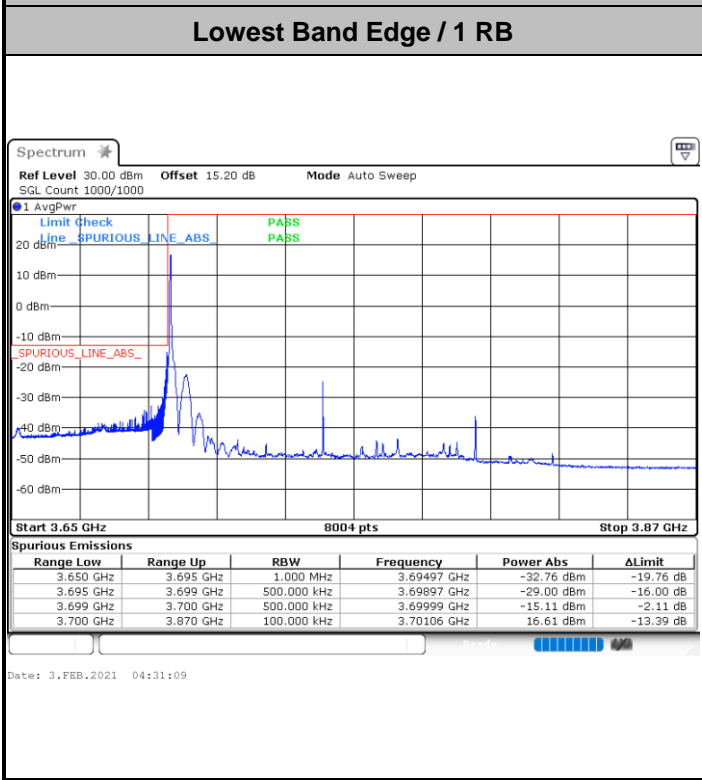
Channel Power < -13dBm Pass



Date: 2.FEB.2021 13:59:25



**FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M)**

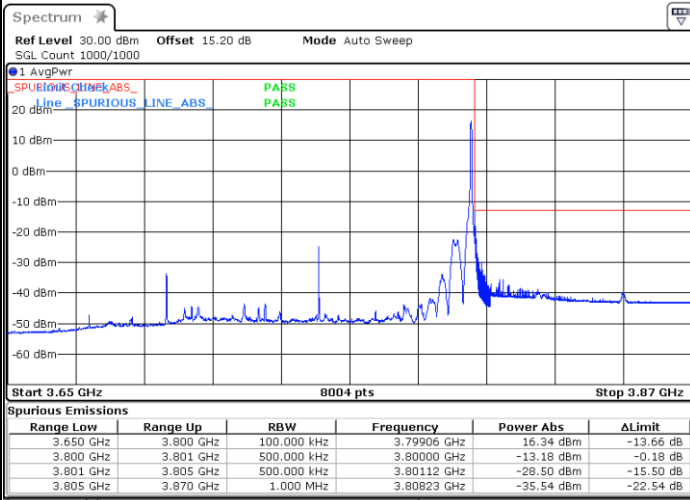




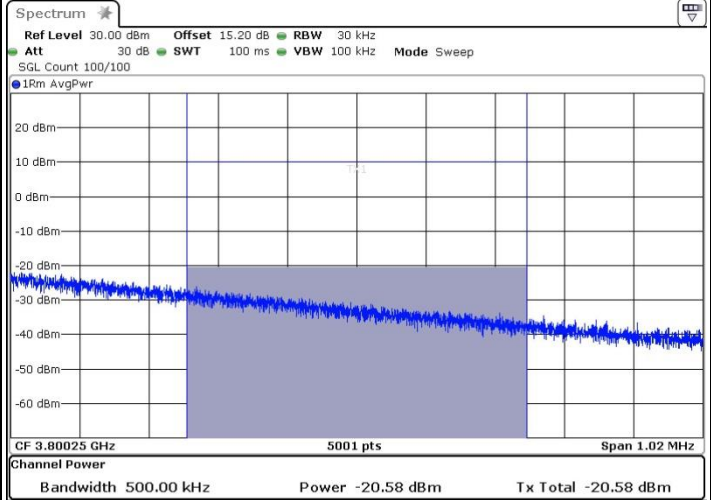
FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M)

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



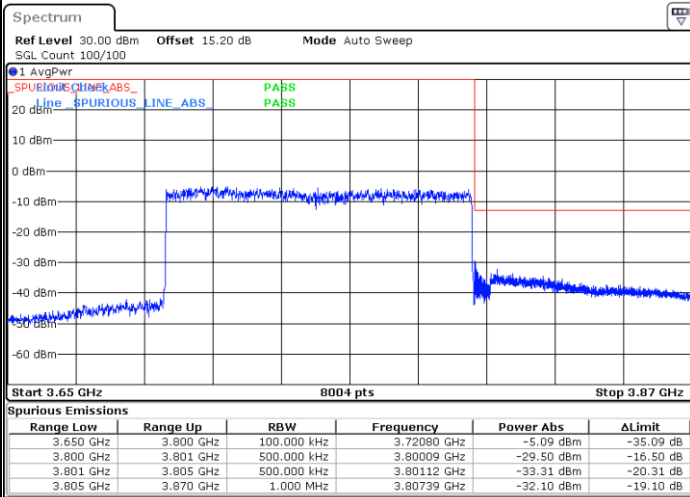
Date: 3.FEB.2021 04:36:20



Date: 3.FEB.2021 04:38:29

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



Date: 3.FEB.2021 04:34:23

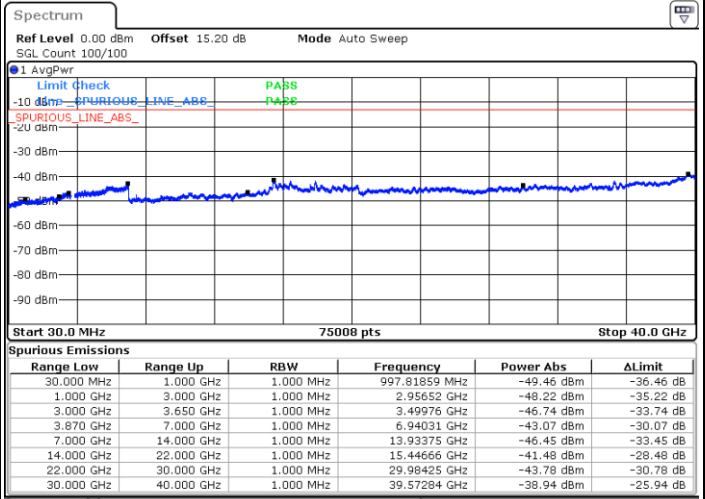
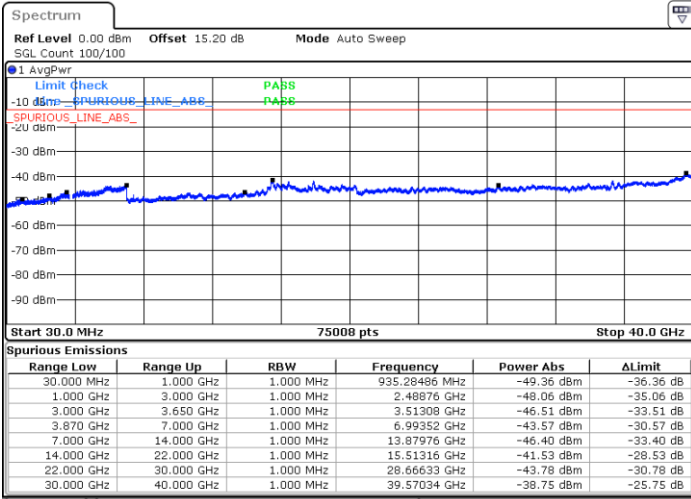


# Conducted Spurious Emission

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

### Lowest Channel / 1RB

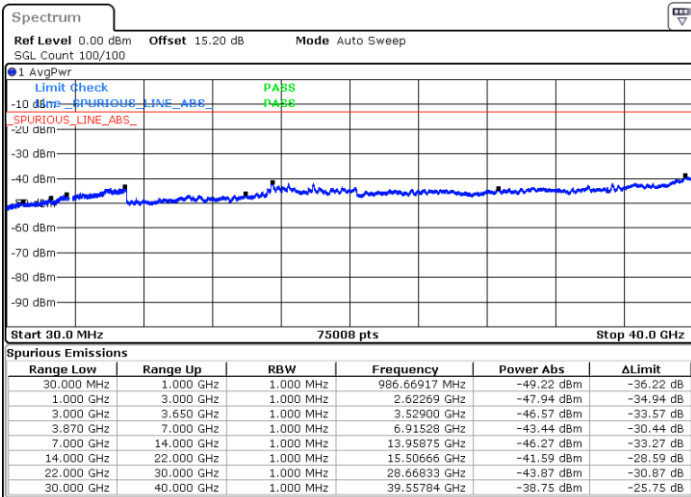
### Middle Channel / 1RB



Date: 2.FEB.2021 14:56:25

Date: 2.FEB.2021 15:12:51

### Highest Channel / 1RB



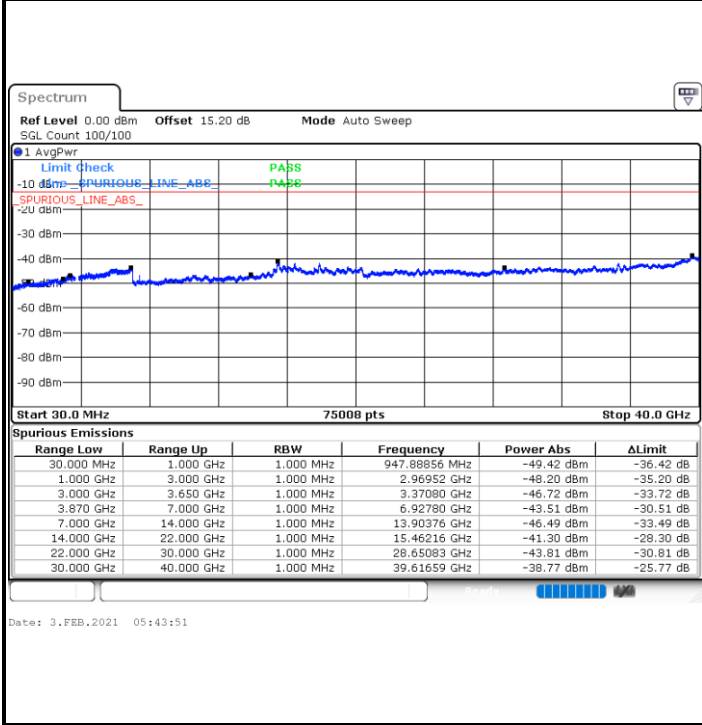
Date: 2.FEB.2021 15:35:01



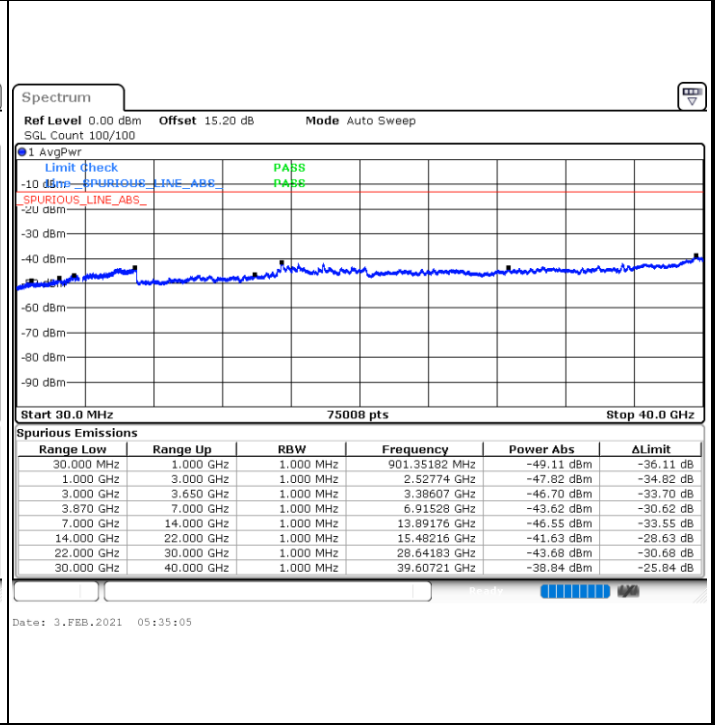


FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M)

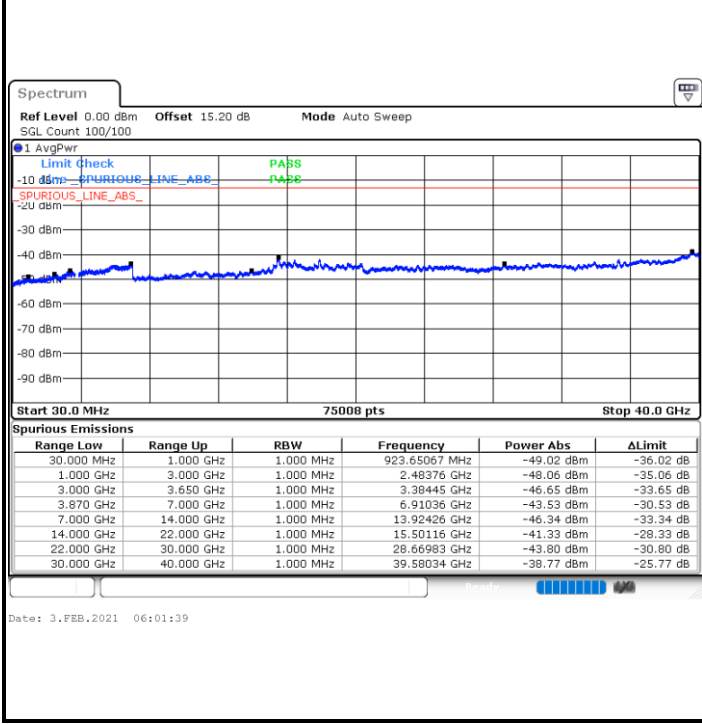
Lowest Channel / 1RB



Middle Channel / 1RB



Highest Channel / 1RB

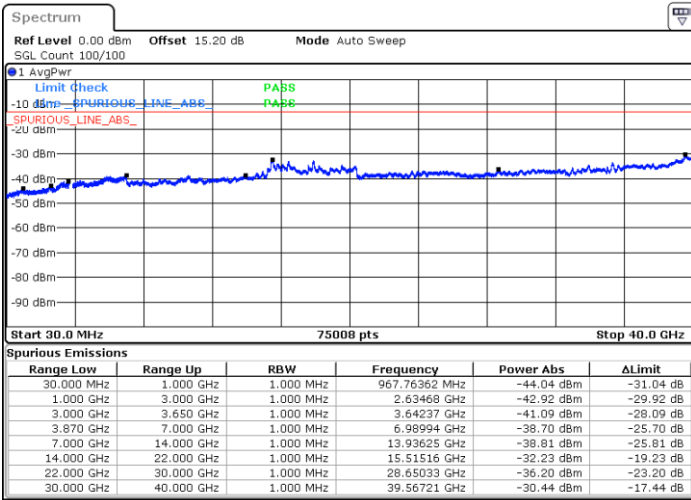




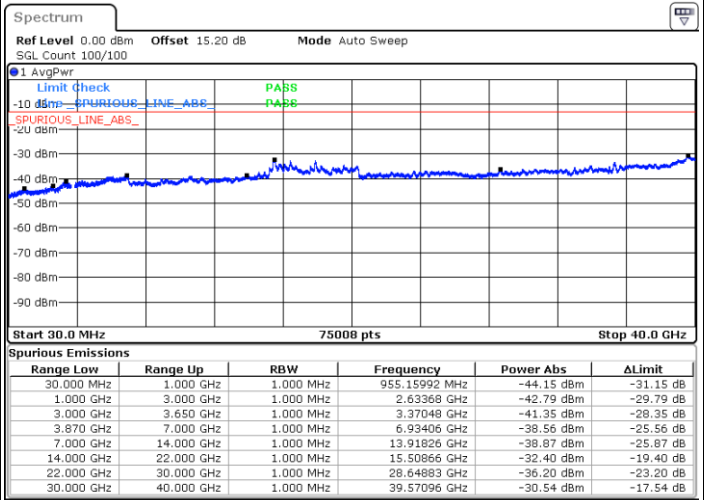
FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M2)

Lowest Channel / 1RB

Middle Channel / 1RB

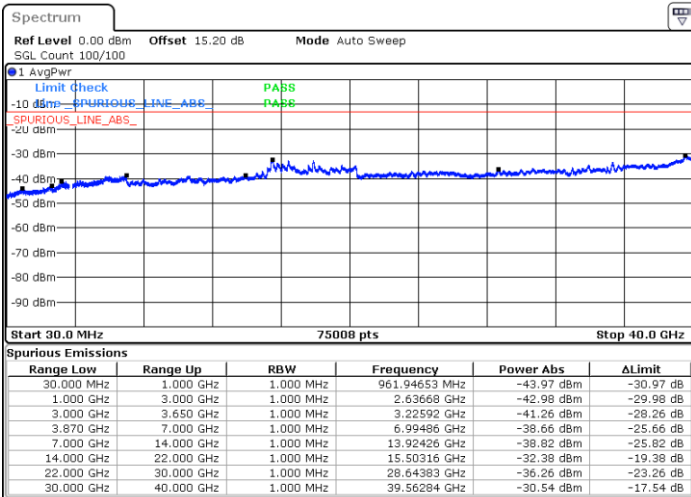


Date: 2.FEB.2021 14:17:20



Date: 2.FEB.2021 14:23:19

Highest Channel / 1RB



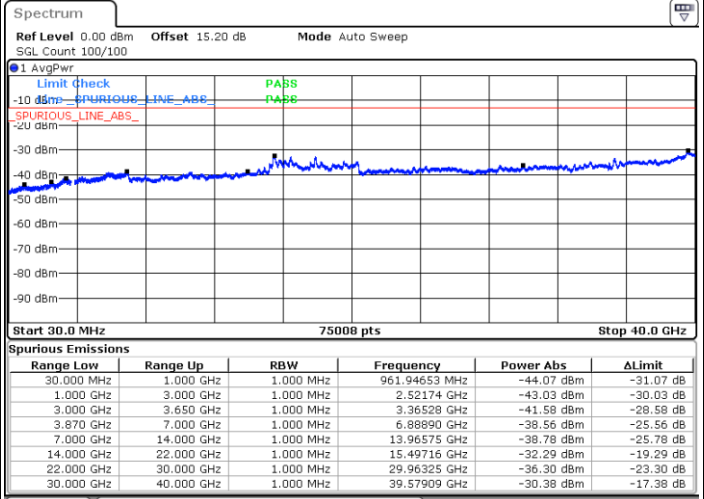
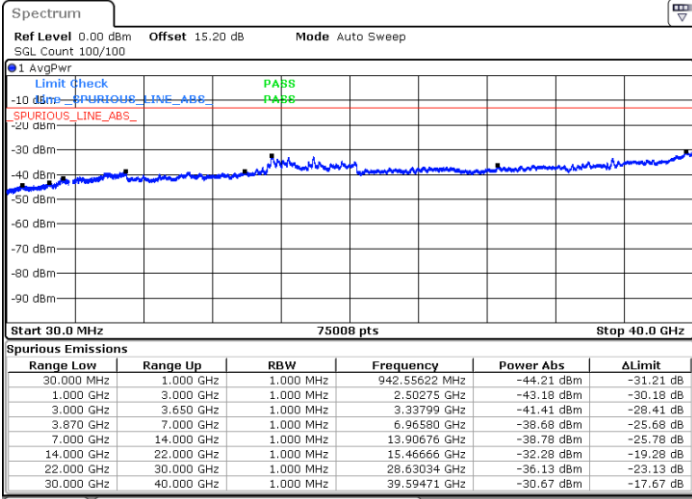
Date: 2.FEB.2021 14:27:42



FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M)

Lowest Channel / 1RB

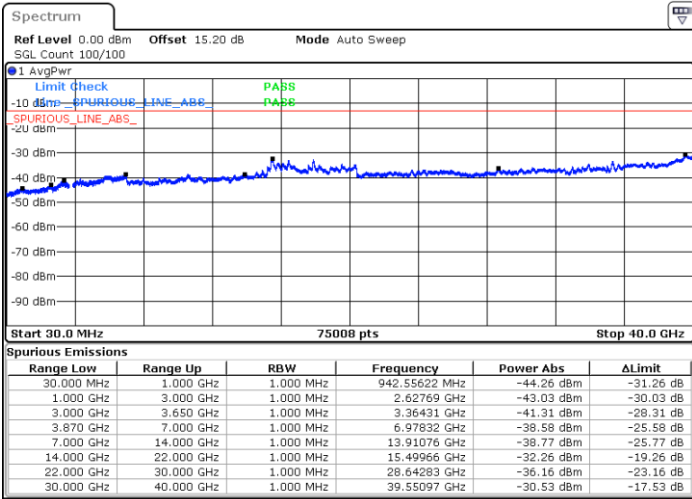
Middle Channel / 1RB



Date: 3.FEB.2021 04:52:22

Date: 3.FEB.2021 04:47:27

Highest Channel / 1RB

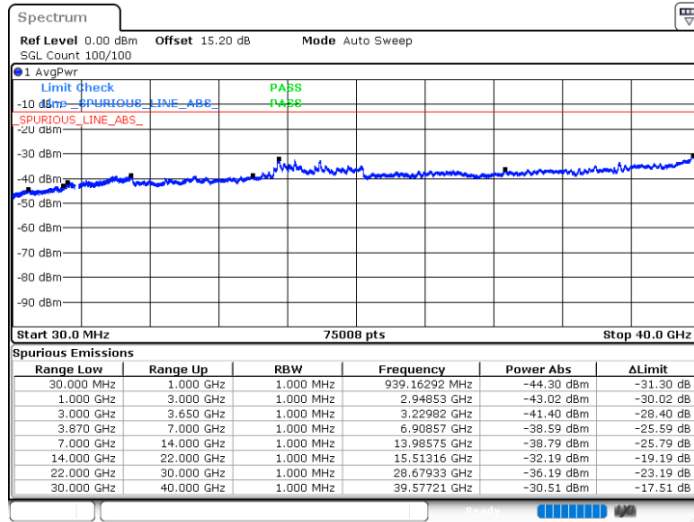


Date: 3.FEB.2021 05:10:26



FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M2)

Middle Channel / 1RB

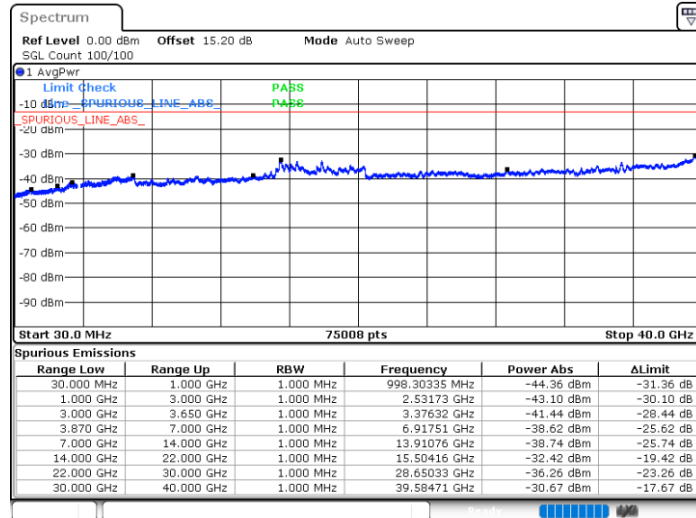


Date: 2.FEB.2021 14:11:41



FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M)

Middle Channel / 1RB



Date: 3.FEB.2021 04:27:12



Frequency Stability

Test Conditions		NR UL-MIMO n78 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0012	PASS
40	Normal Voltage	0.0019	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0021	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0010	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0015	
20	Battery End Point	0.0013	

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 NSA-SCS 15K

### Peak-to-Average Ratio

Mode	FR1 n78 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	PI/2 BPSK	QPSK	QPSK	Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.43	3.91	5.28	5.42	<b>PASS</b>
Middle CH	4.32	3.86	5.59	5.39	
Highest CH	4.61	3.91	6.29	5.04	



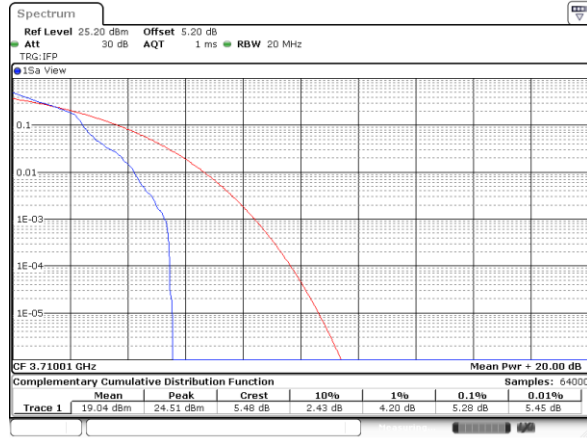
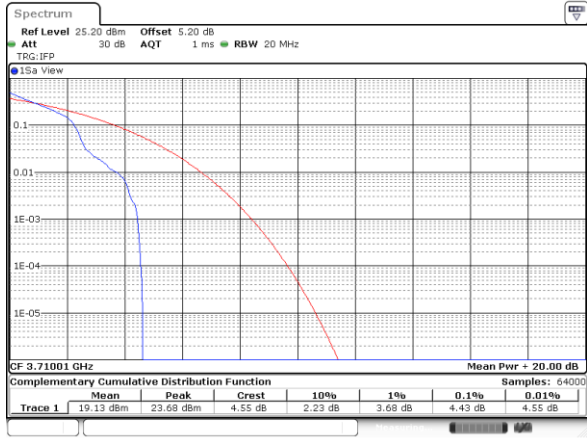
FR1 n78 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / 1RB

Lowest Channel / 1RB

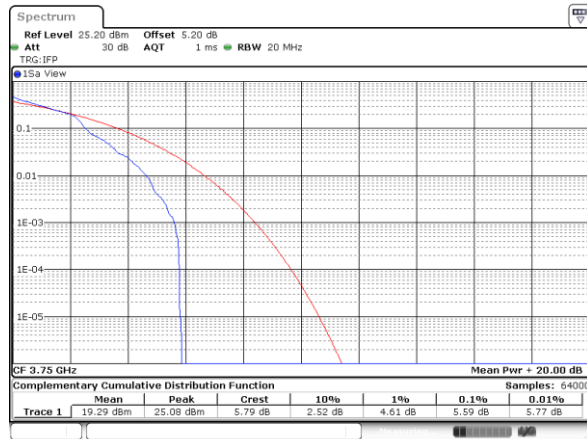
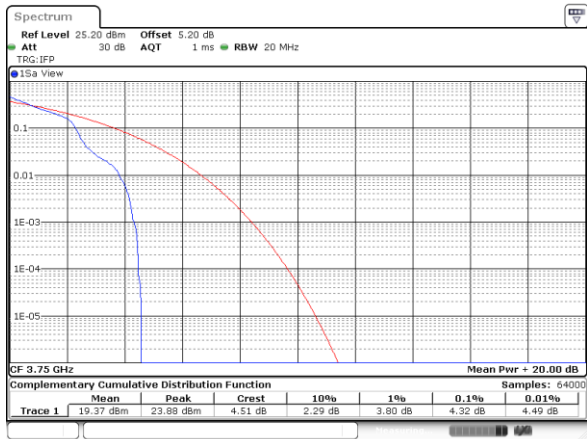


Date: 2.FEB.2021 04:48:136

Date: 2.FEB.2021 04:49:06

Middle Channel / 1 RB

Middle Channel / 1 RB

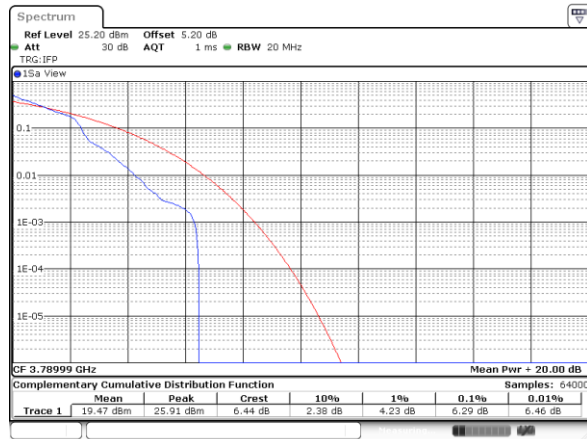
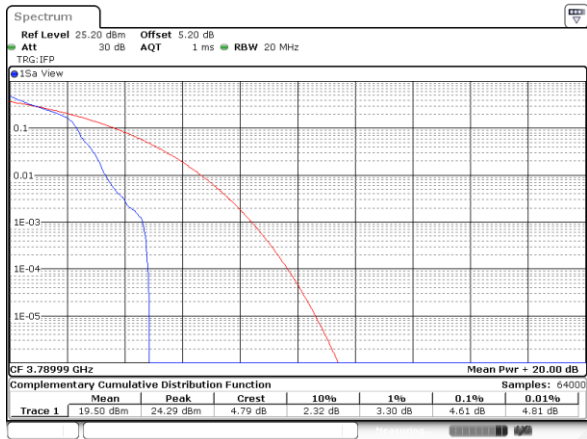


Date: 2.FEB.2021 05:00:11

Date: 2.FEB.2021 05:00:33

Highest Channel / 1 RB

Highest Channel / 1 RB



Date: 2.FEB.2021 05:10:132

Date: 2.FEB.2021 05:09:43





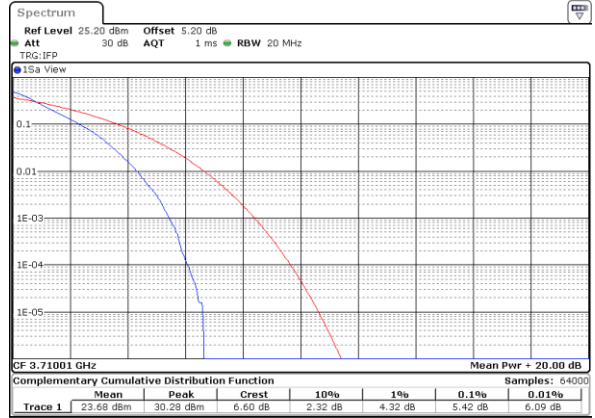
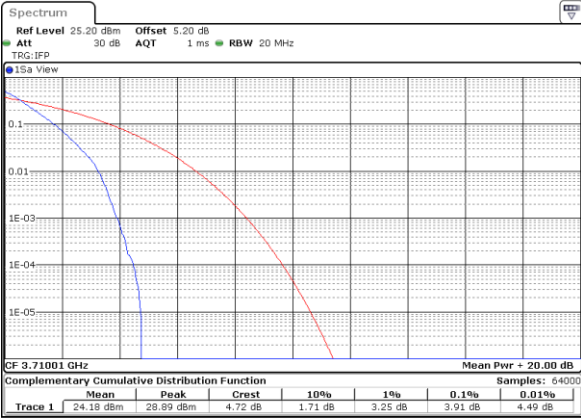
FR1 n78 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / Full RB

Lowest Channel / Full RB

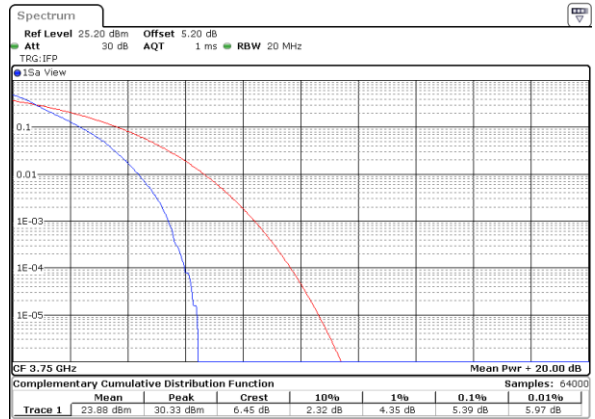
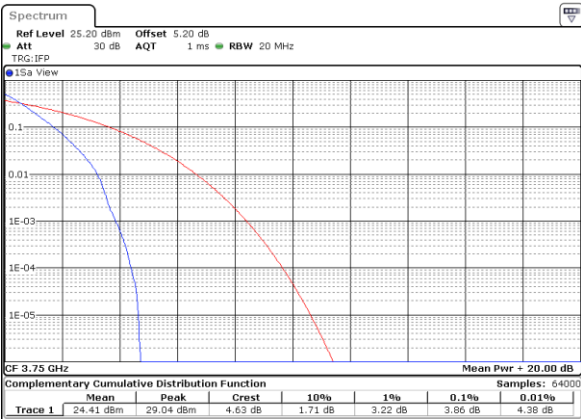


Date: 2.FEB.2021 04:47:38

Date: 2.FEB.2021 04:46:33

Middle Channel / Full RB

Middle Channel / Full RB

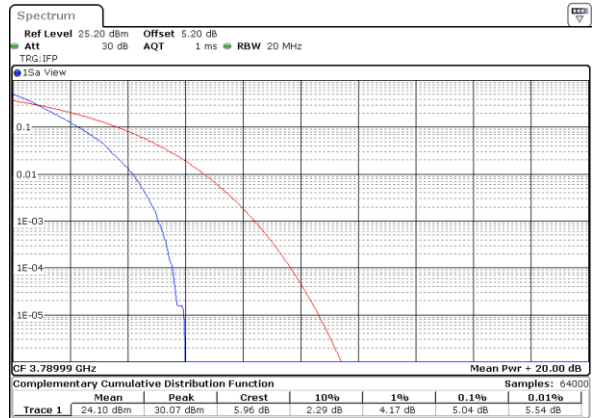
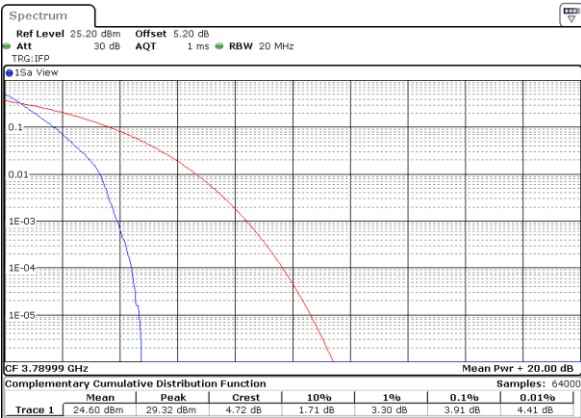


Date: 2.FEB.2021 04:59:39

Date: 2.FEB.2021 04:58:46

Highest Channel / Full RB

Highest Channel / Full RB



Date: 2.FEB.2021 05:11:14

Date: 2.FEB.2021 05:12:51



**26dB Bandwidth**

Mode	FR1 n78 : 26dB BW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.71	9.73	9.59	9.65				

Mode	FR1 n78 : 26dB BW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.84	14.90	14.90	14.84				

Mode	FR1 n78 : 26dB BW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	19.7	19.86	19.94	19.78				