



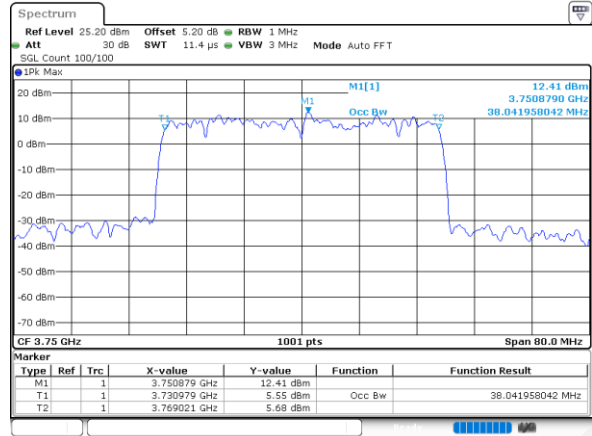
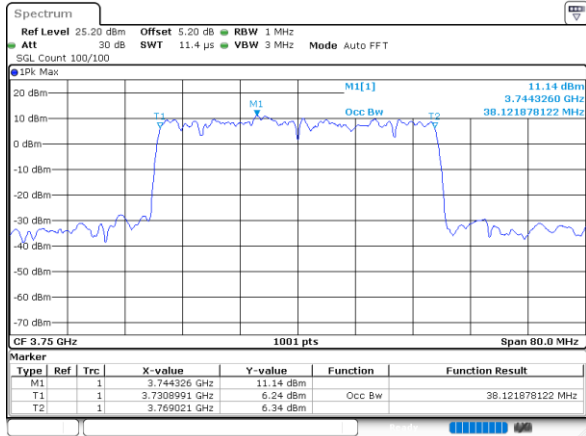
FR1 UL-MIMO n78 / 40MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



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

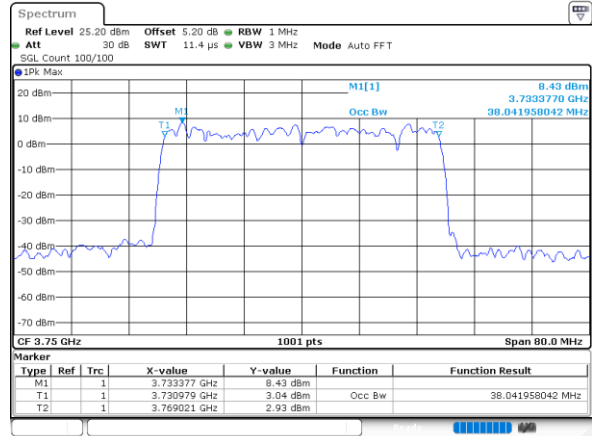
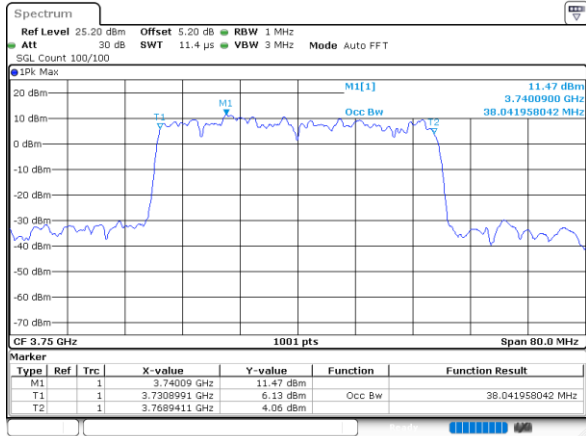
Date: 3.FEB.2021 05:13:33

64QAM

256QAM

Middle Channel

Middle Channel



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

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



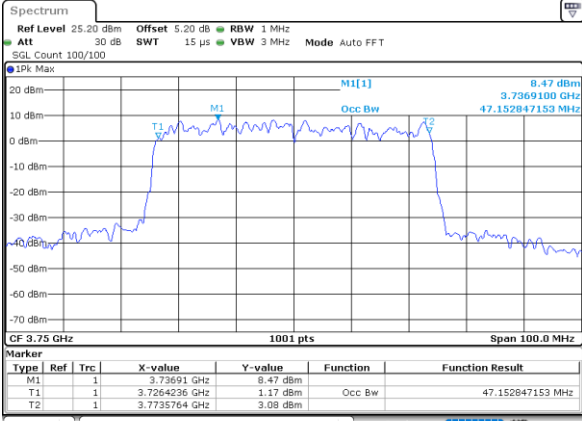
FR1 UL-MIMO n78 / 50MHz / CP-OFDM (M2)

QPSK

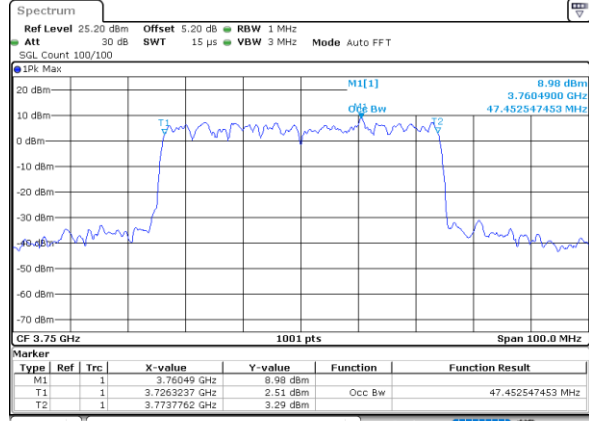
16QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:45:07



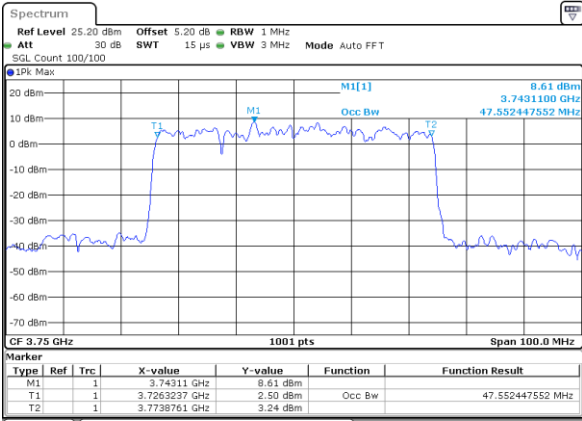
Date: 30_JAN_2021 06:45:20

64QAM

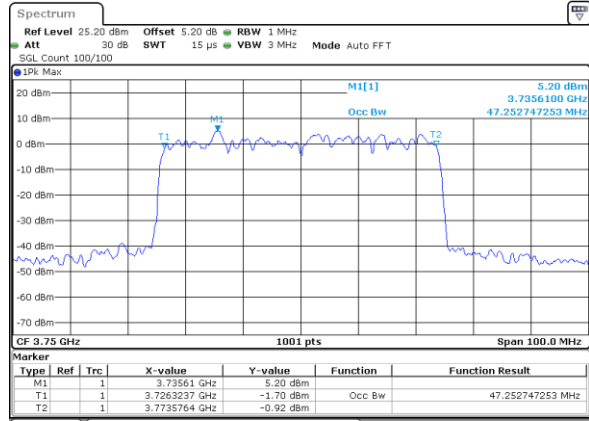
256QAM

Middle Channel

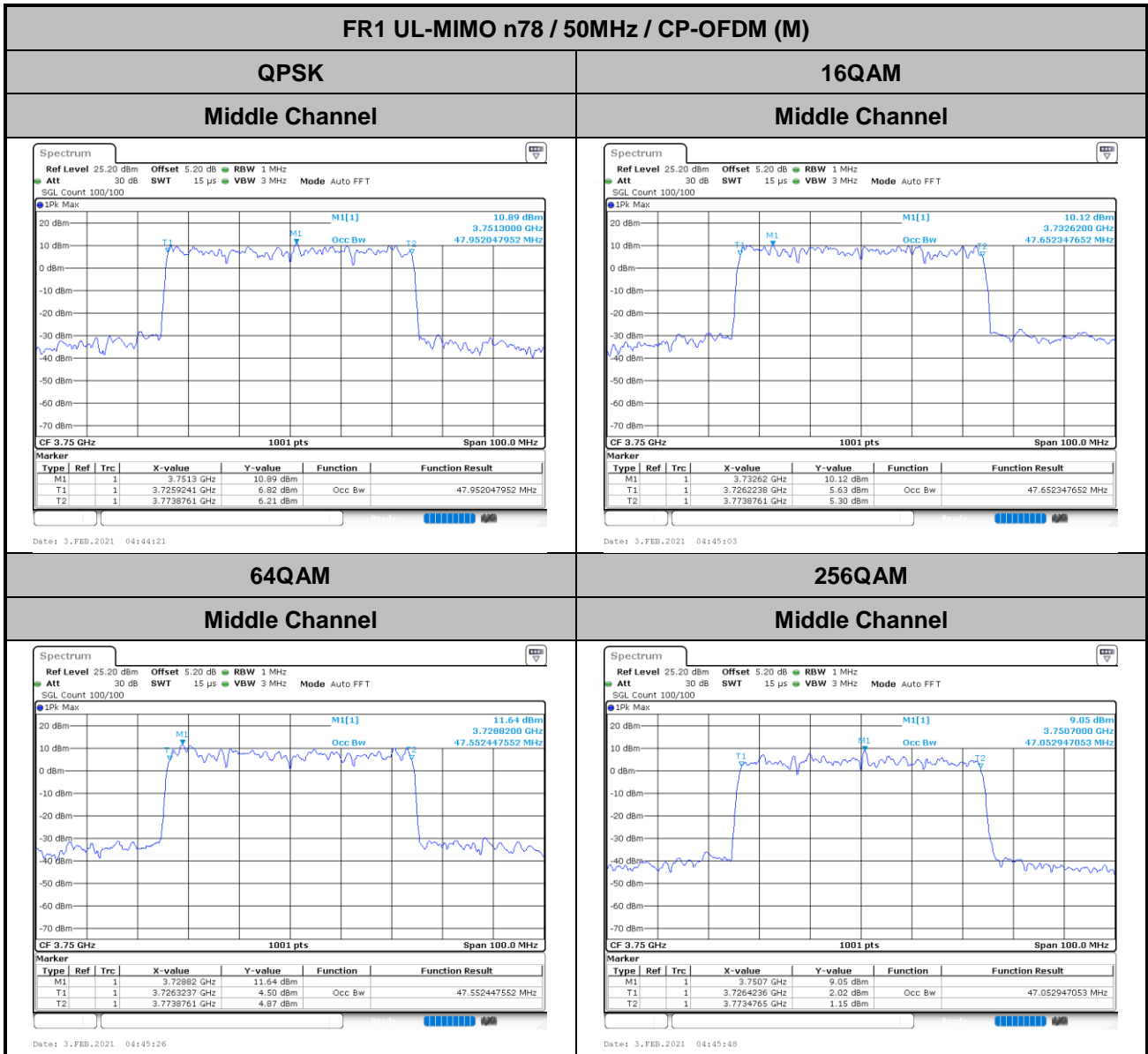
Middle Channel



Date: 30_JAN_2021 06:45:31



Date: 30_JAN_2021 06:45:45





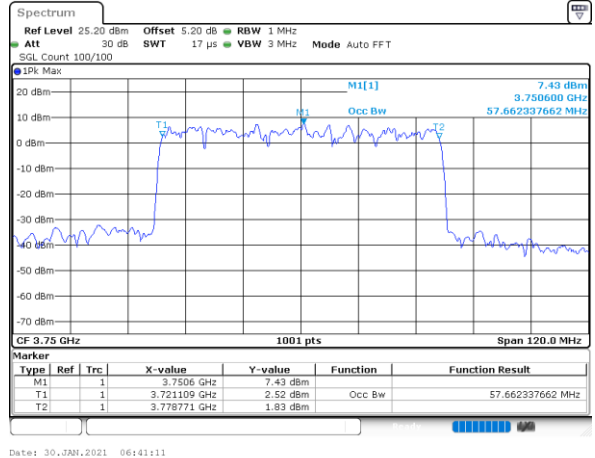
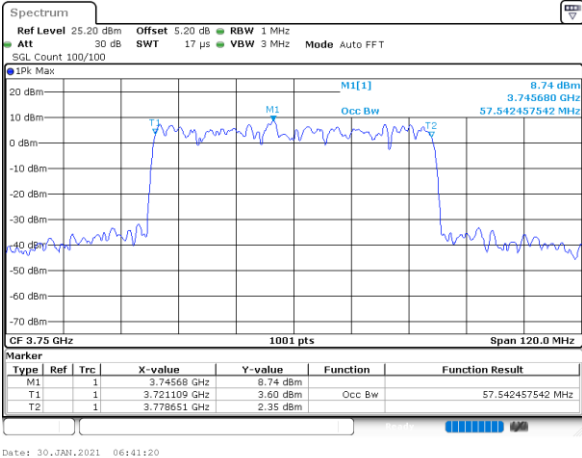
FR1 UL-MIMO n78 / 60MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30, JAN, 2021 06:41:20

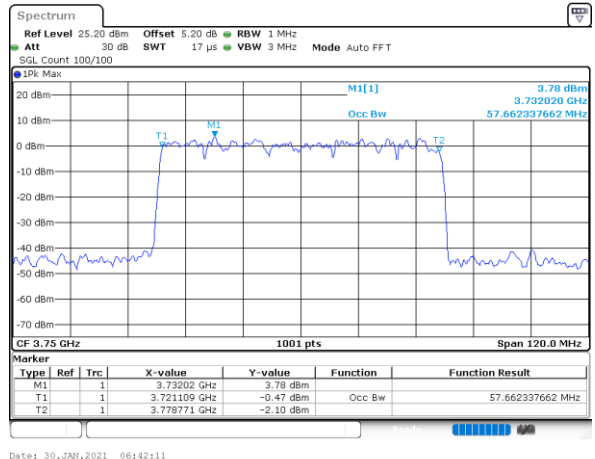
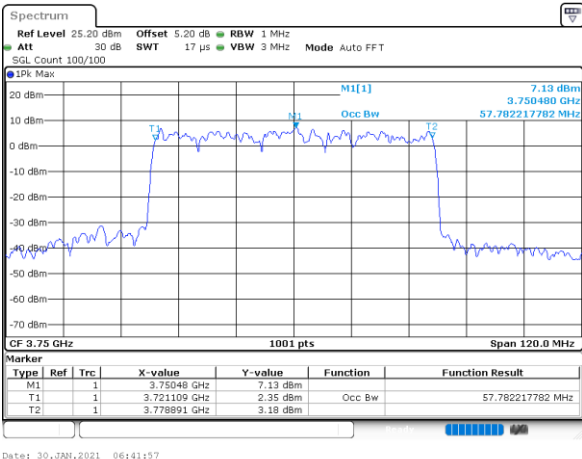
Date: 30, JAN, 2021 06:41:11

64QAM

256QAM

Middle Channel

Middle Channel



Date: 30, JAN, 2021 06:41:57

Date: 30, JAN, 2021 06:42:11



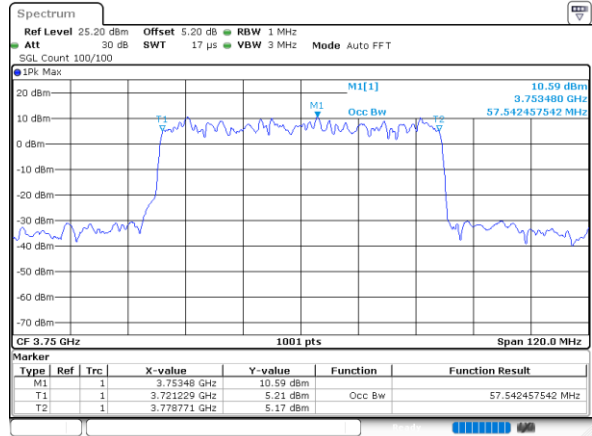
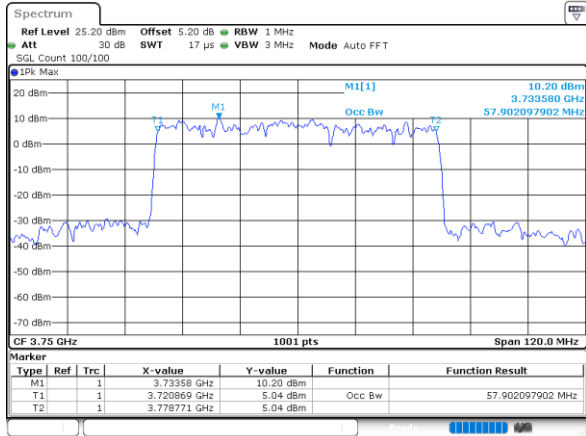
FR1 UL-MIMO n78 / 60MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



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

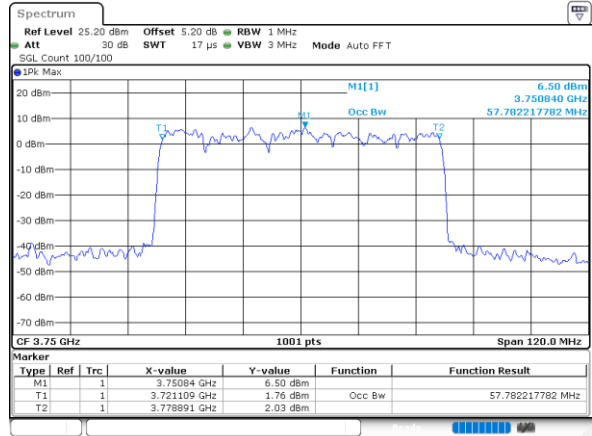
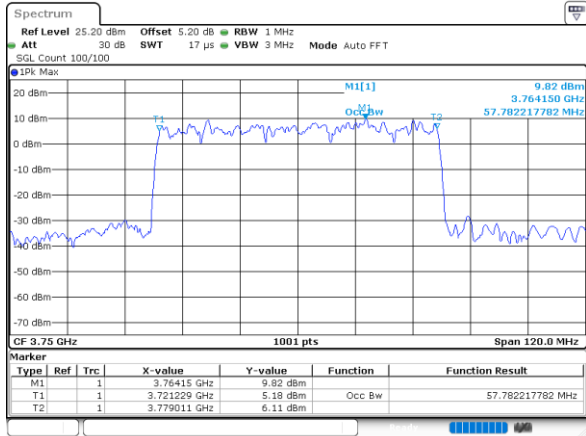
Date: 3.FEB.2021 04:42:25

64QAM

256QAM

Middle Channel

Middle Channel



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

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



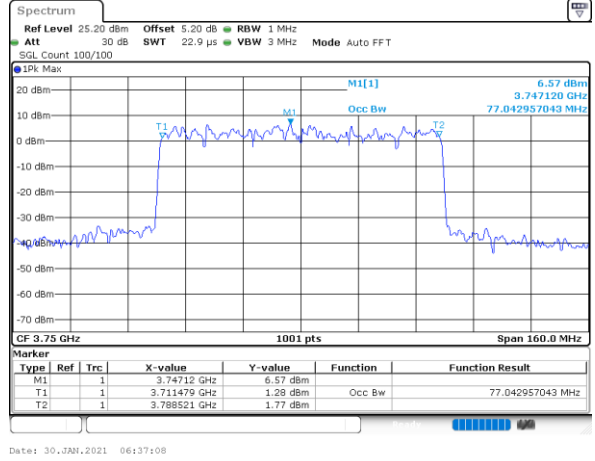
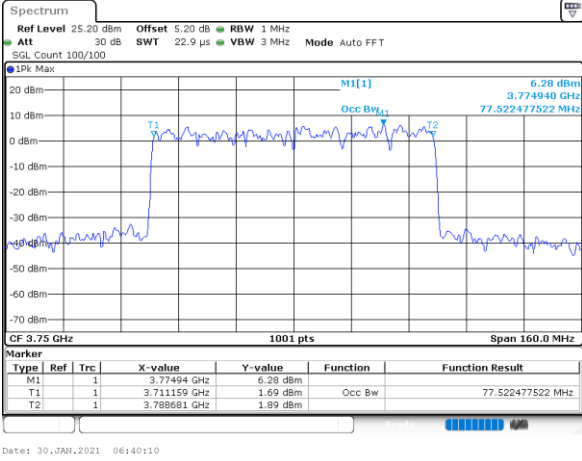
FR1 UL-MIMO n78 / 80MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel

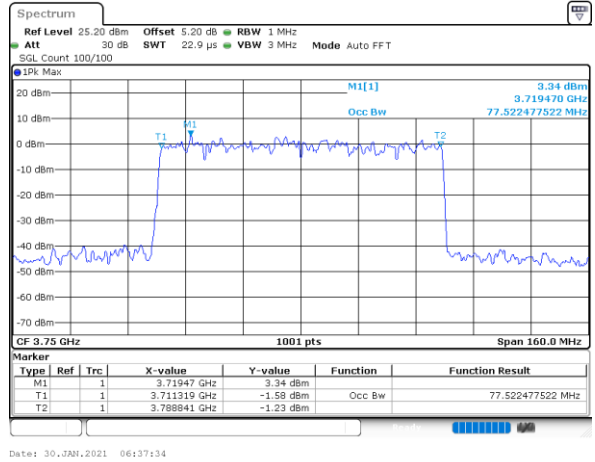
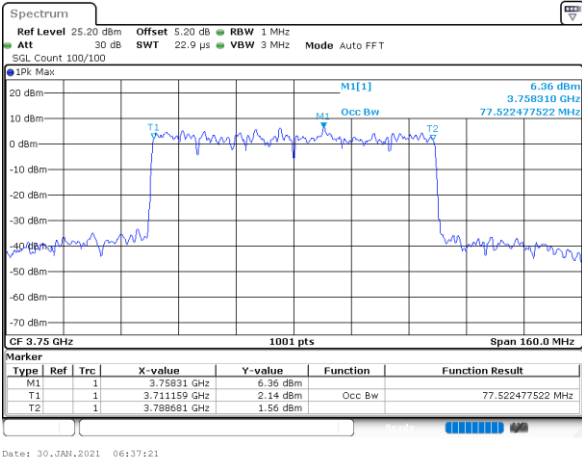


64QAM

256QAM

Middle Channel

Middle Channel





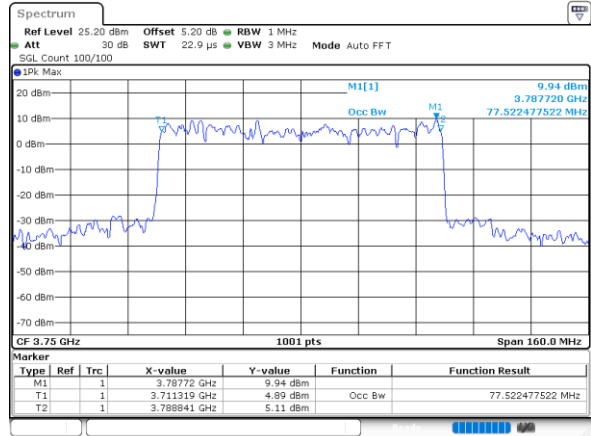
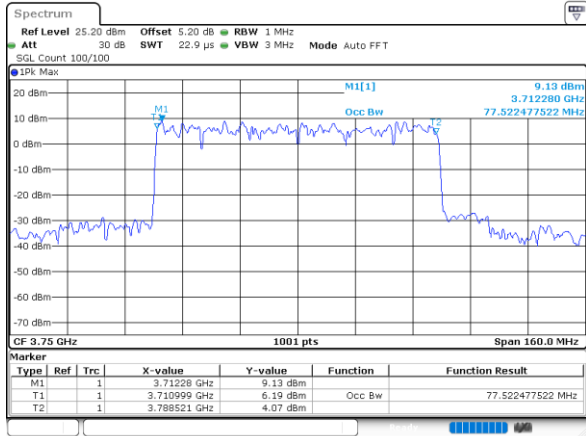
FR1 UL-MIMO n78 / 80MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



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

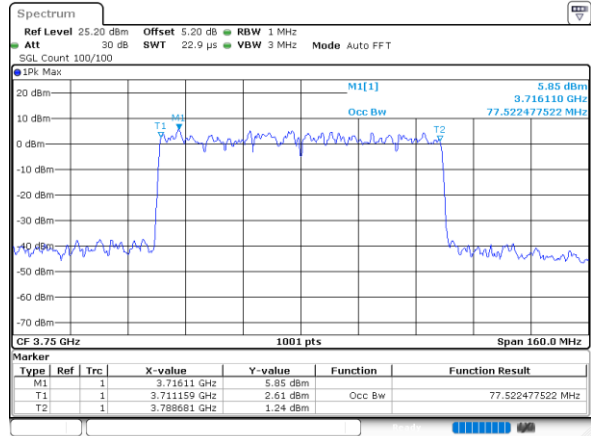
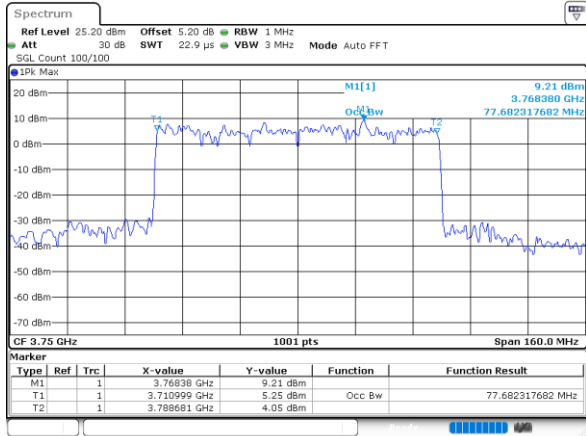
Date: 3.FEB.2021 04:40:06

64QAM

256QAM

Middle Channel

Middle Channel



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

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



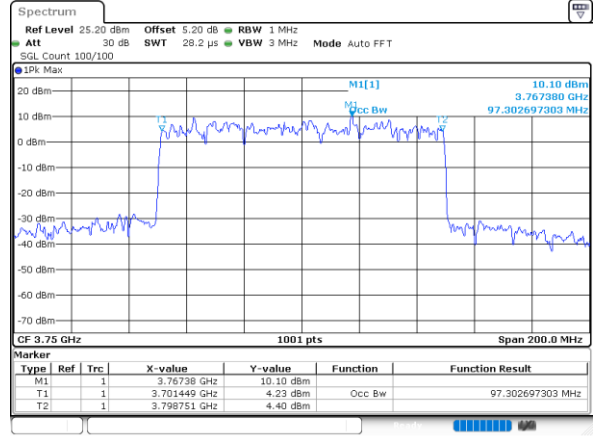
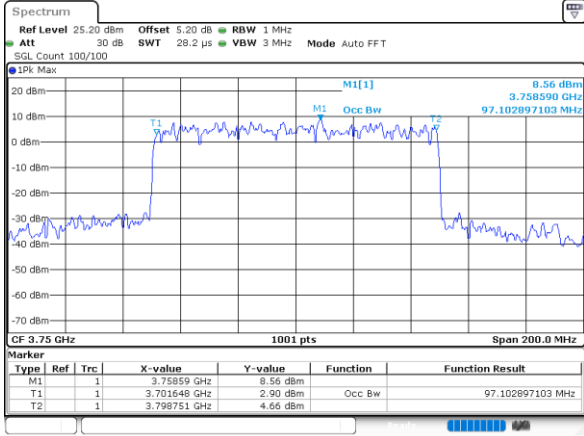
FR1 UL-MIMO n78 / 100MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



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

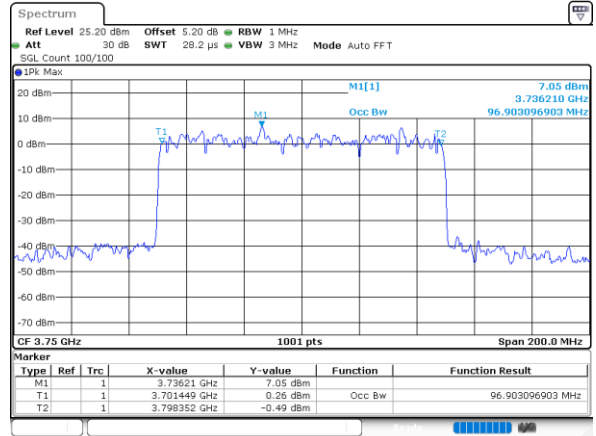
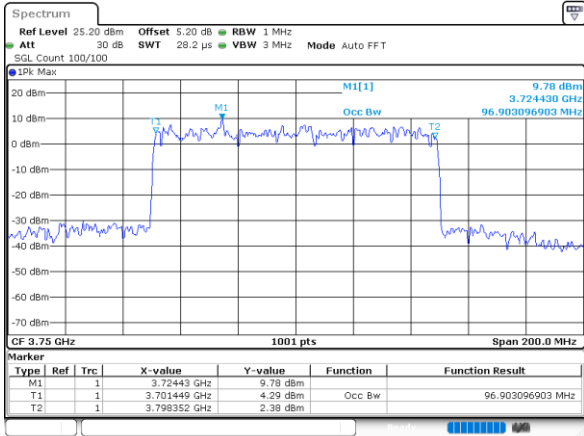
Date: 30.JAN.2021 06:27:01

64QAM

256QAM

Middle Channel

Middle Channel



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

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



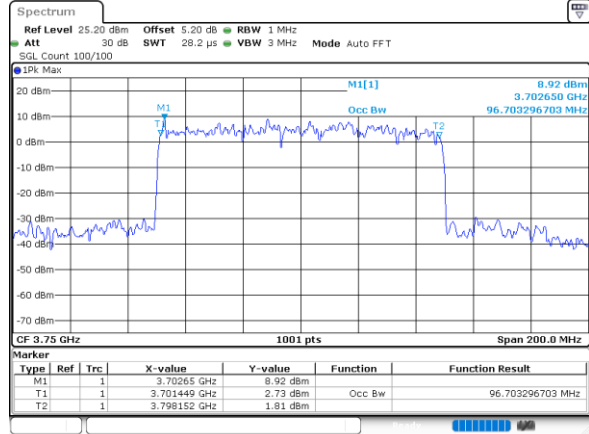
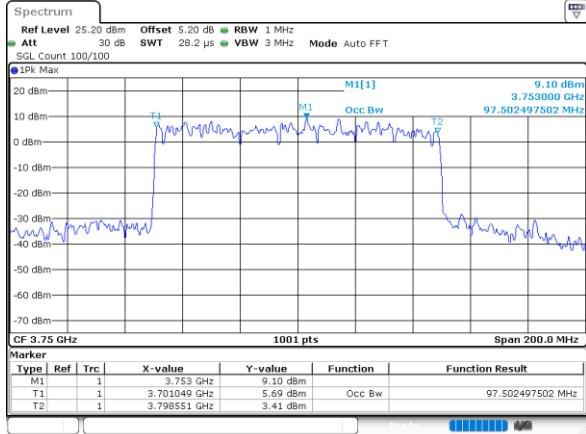
FR1 UL-MIMO n78 / 100MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



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

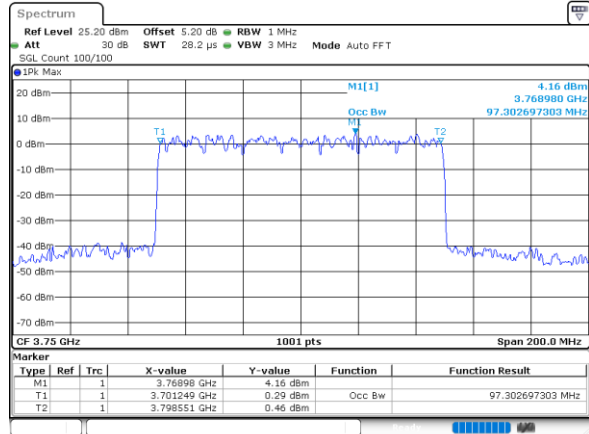
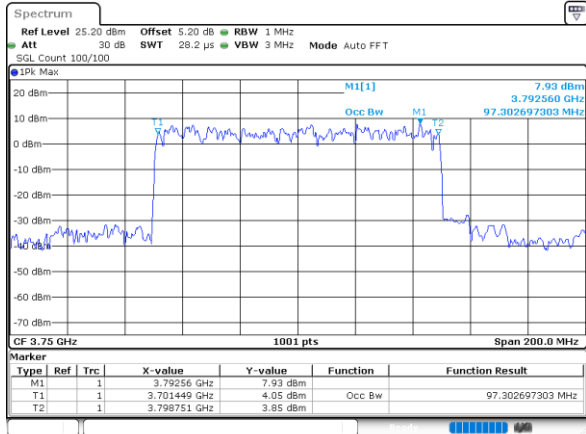
Date: 3.FEB.2021 04:24:46

64QAM

256QAM

Middle Channel

Middle Channel

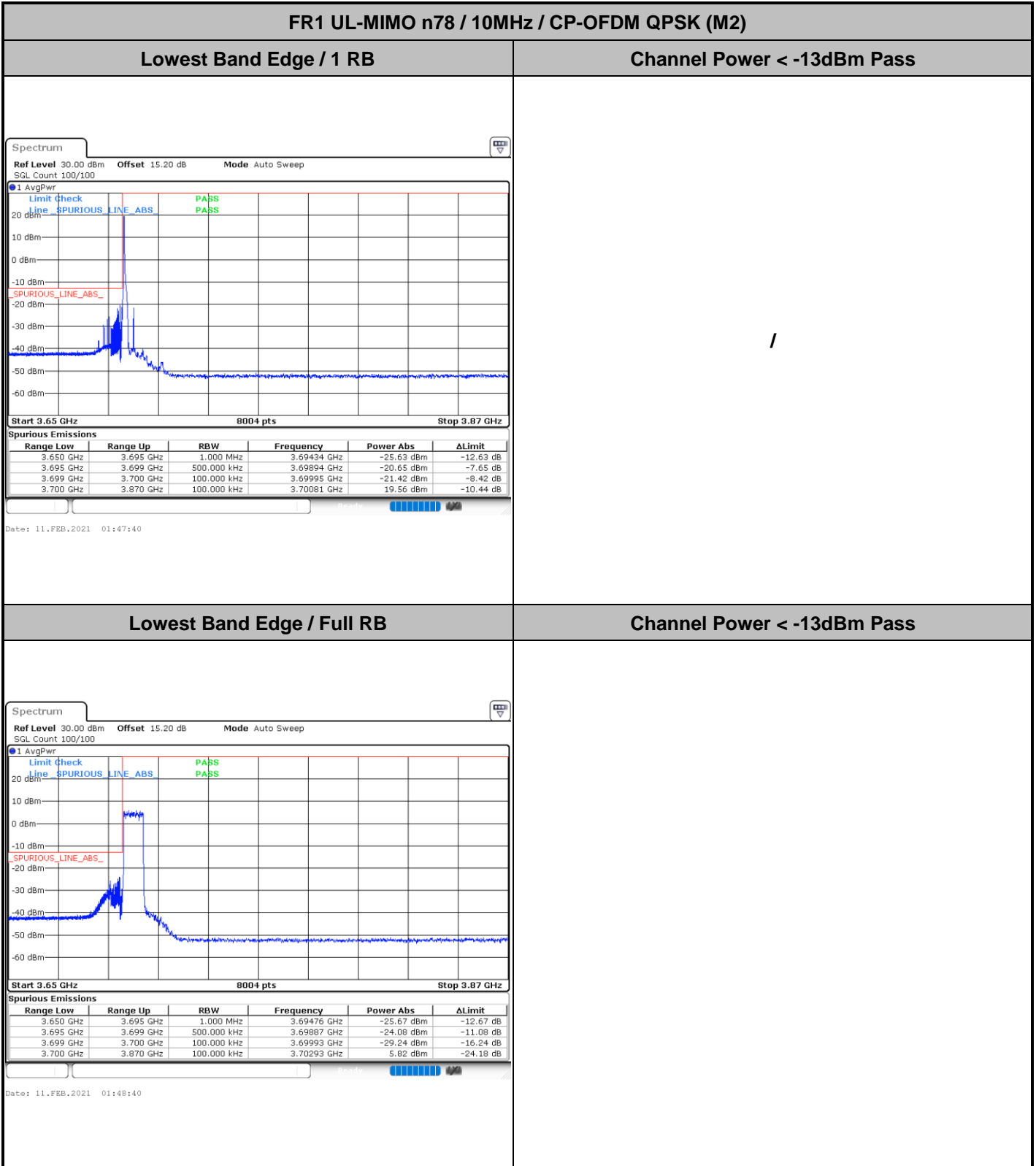


Date: 3.FEB.2021 04:25:12

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



Conducted Band Edge

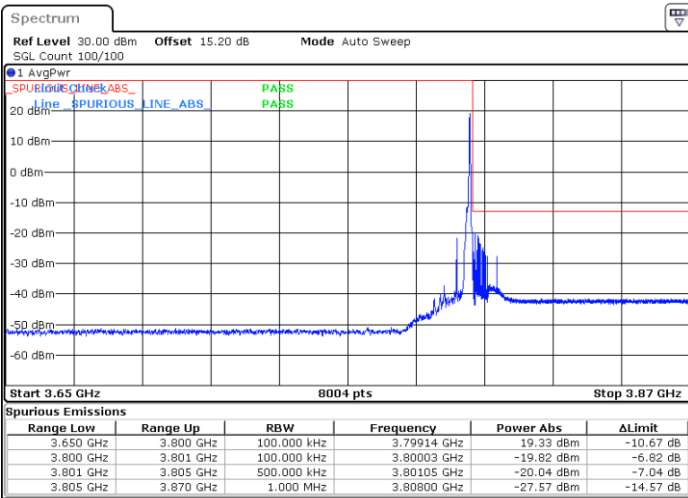




FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M2)

Highest Band Edge / 1 RB

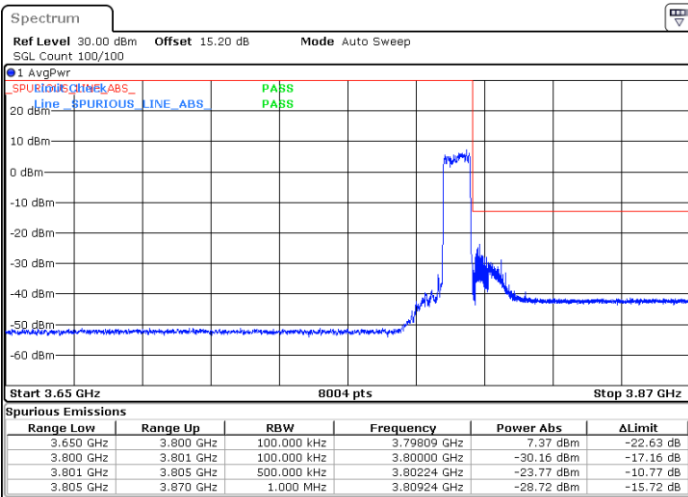
Channel Power < -13dBm Pass



Date: 11.FEB.2021 01:47:11

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



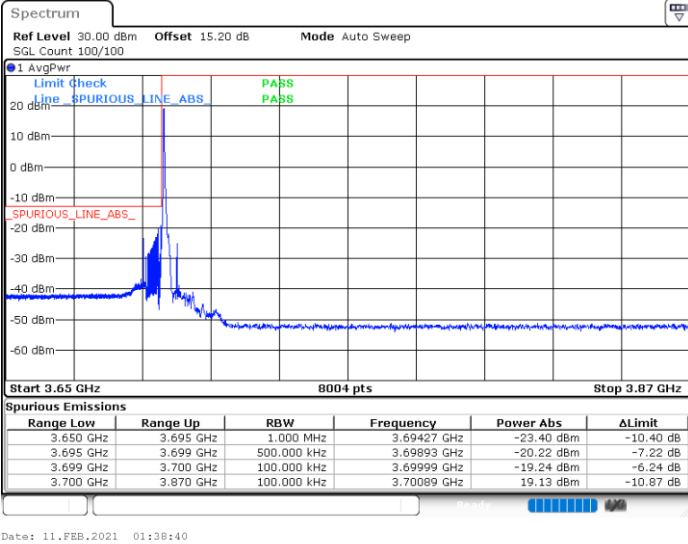
Date: 11.FEB.2021 01:46:04



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

Lowest Band Edge / 1 RB

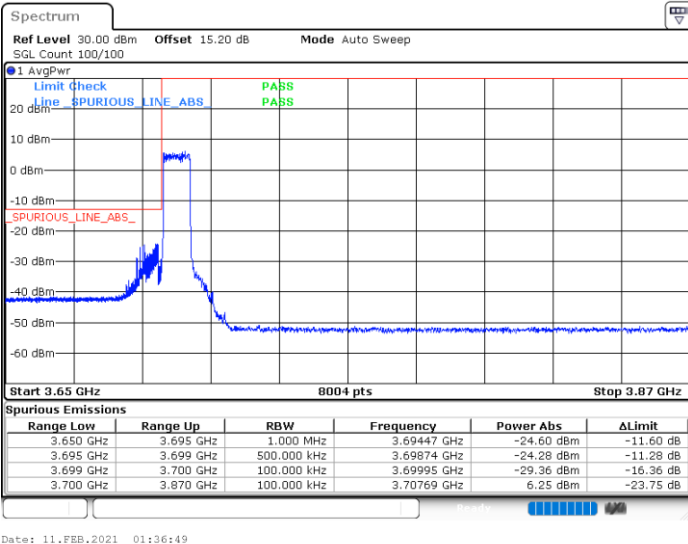
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



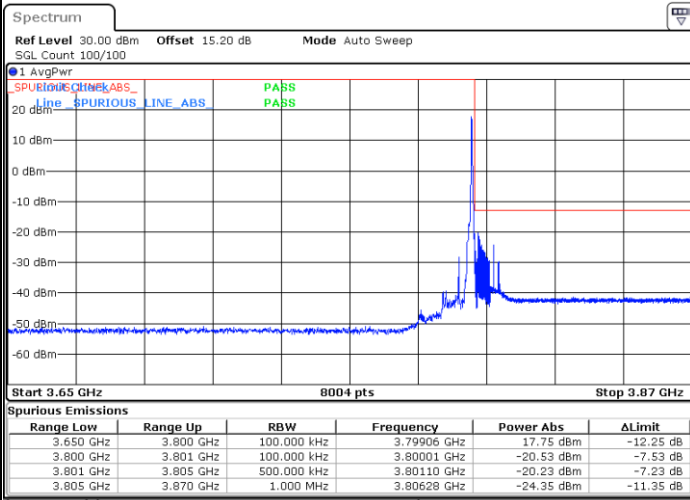
/



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

Highest Band Edge / 1 RB

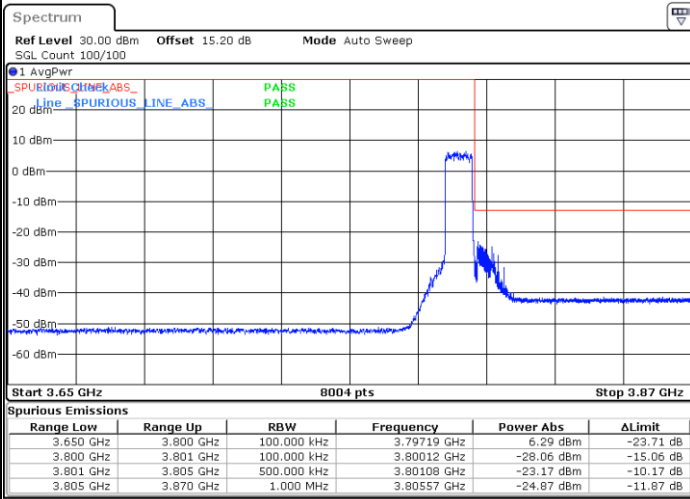
Channel Power < -13dBm Pass



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

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



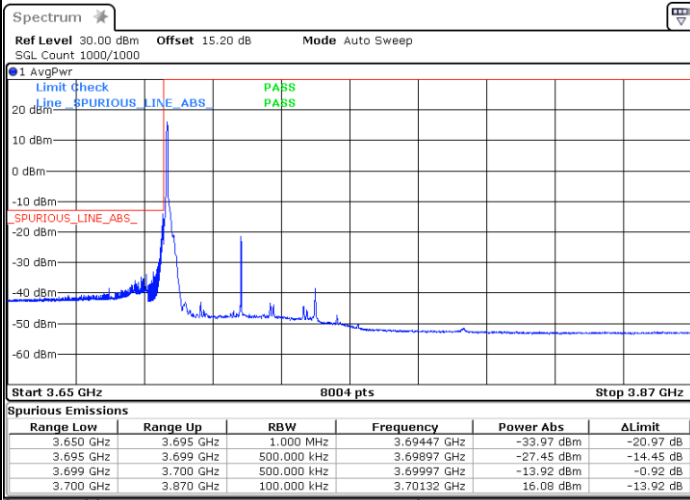
Date: 11.FEB.2021 01:42:45



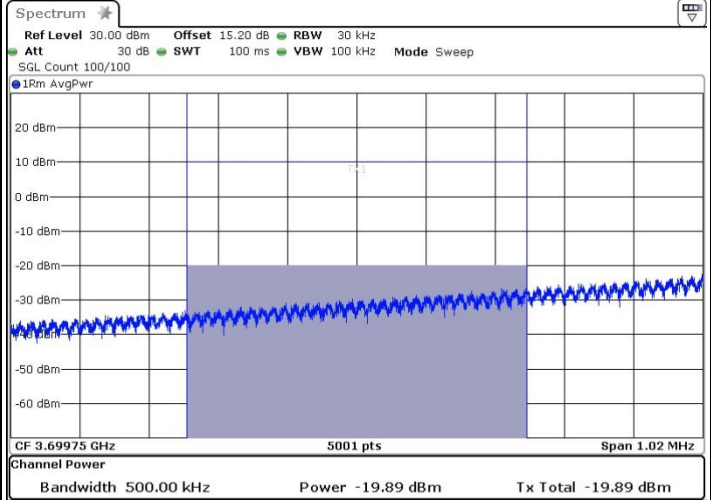
FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M2)

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



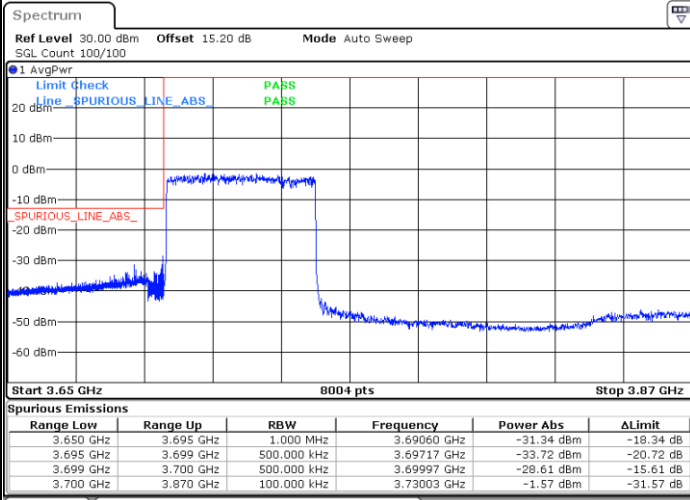
Date: 2.FEB.2021 14:14:55



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

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



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

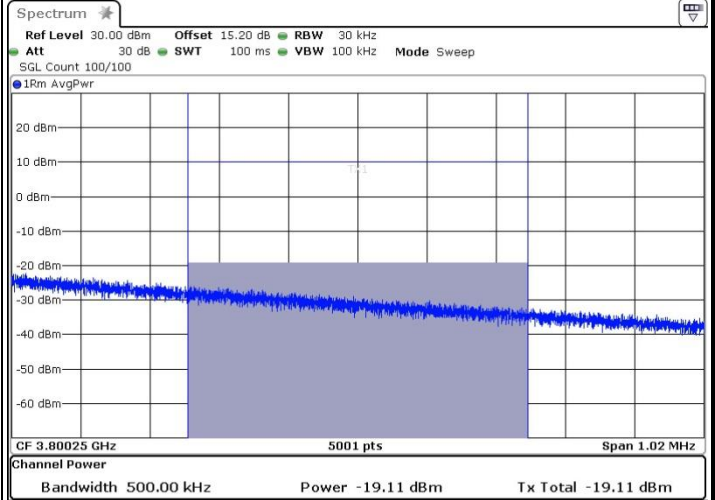
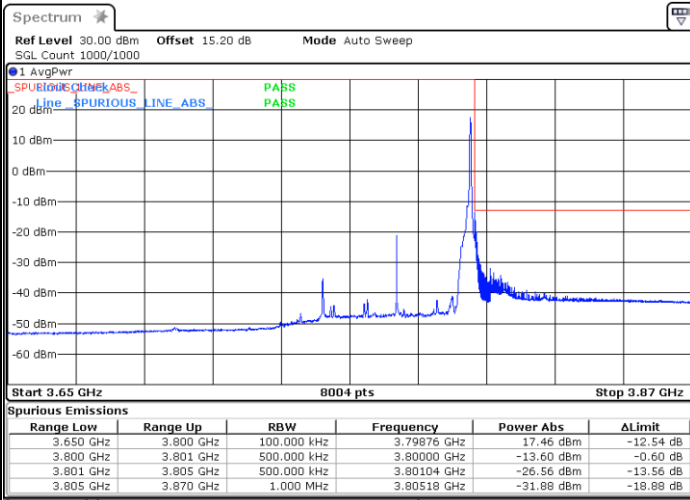
/



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

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass

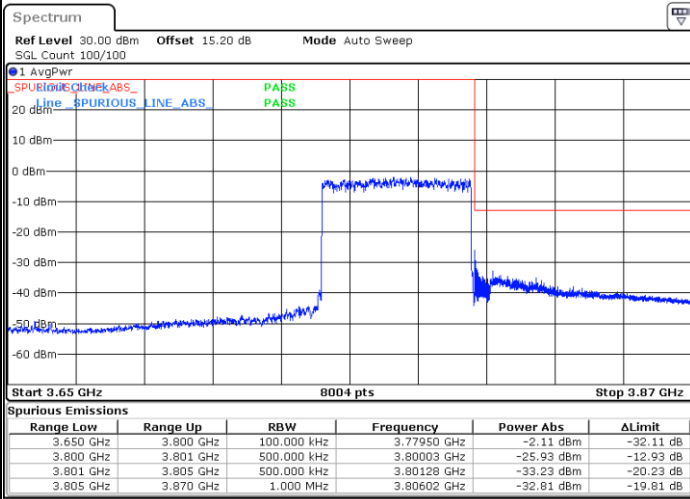


Date: 2.FEB.2021 14:29:39

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

Highest Band Edge / Full RB

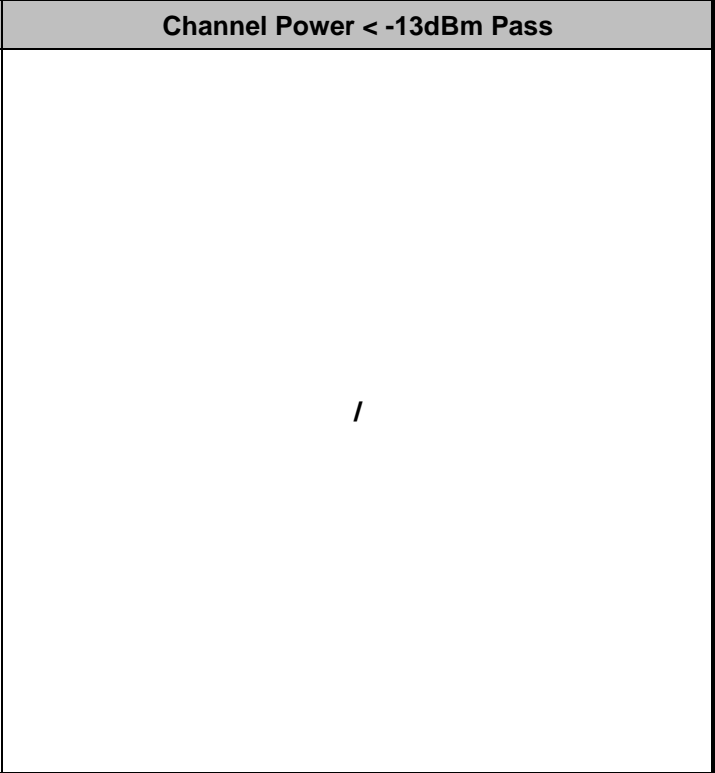
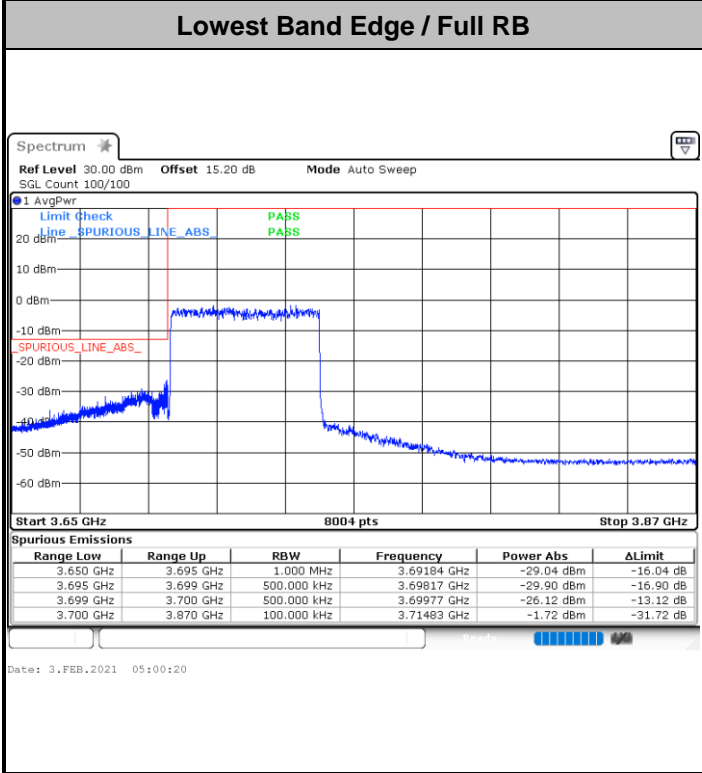
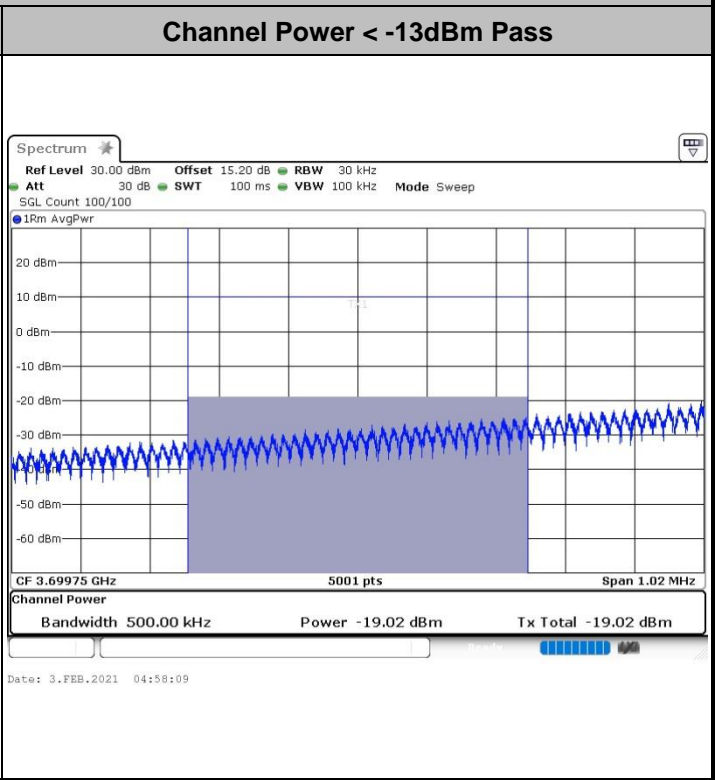
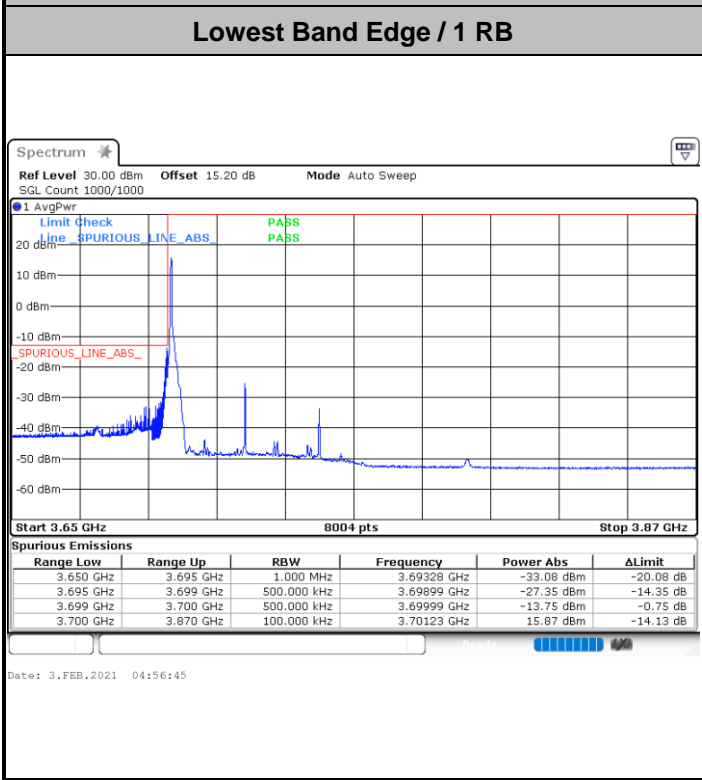
Channel Power < -13dBm Pass



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

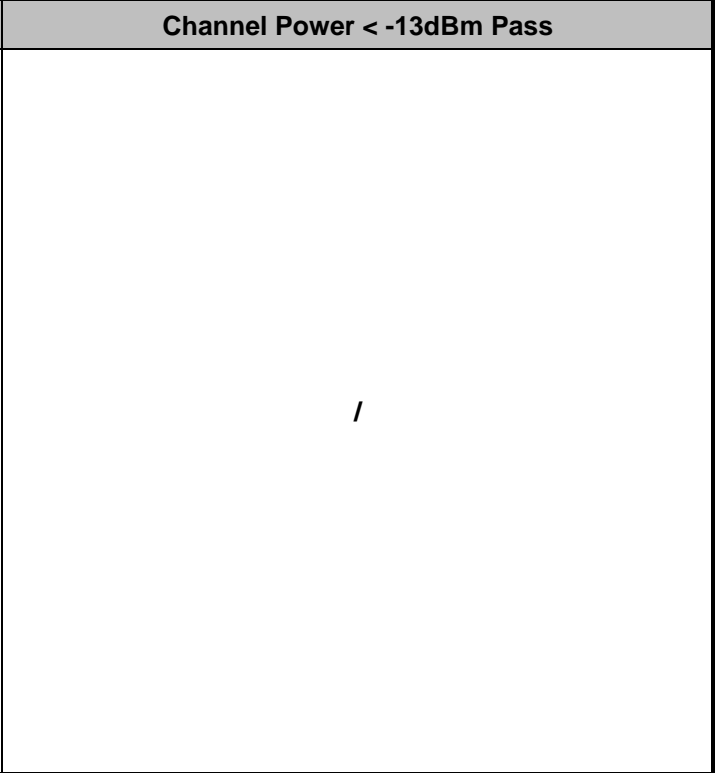
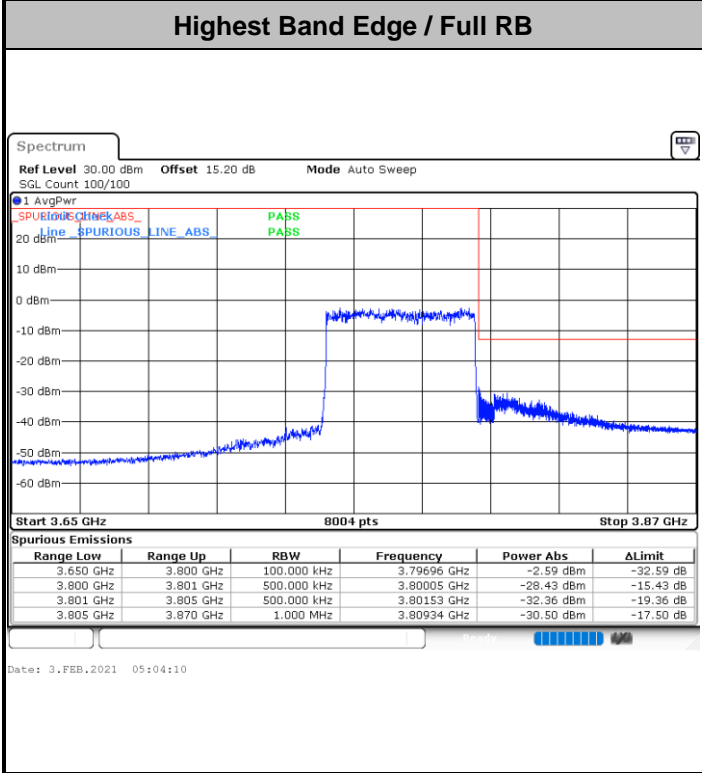
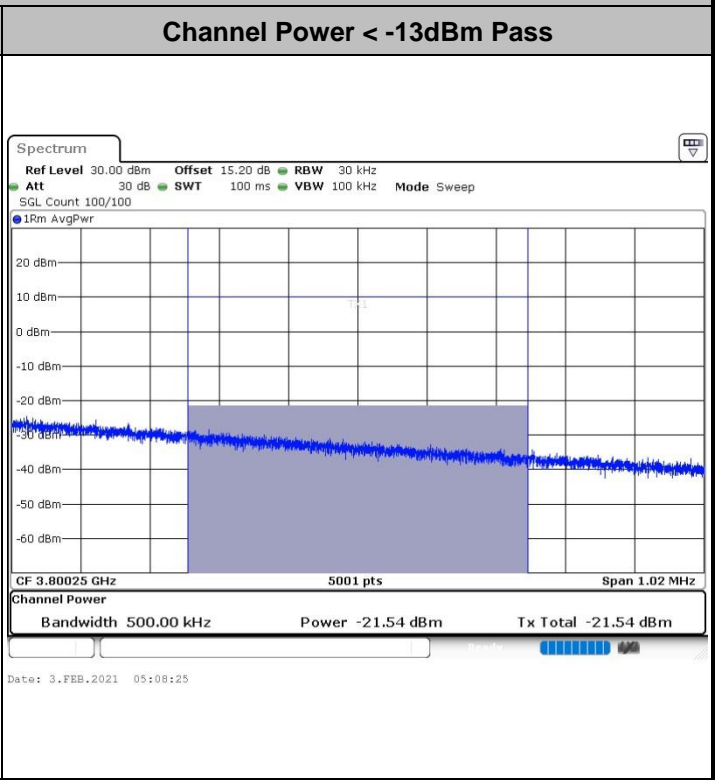
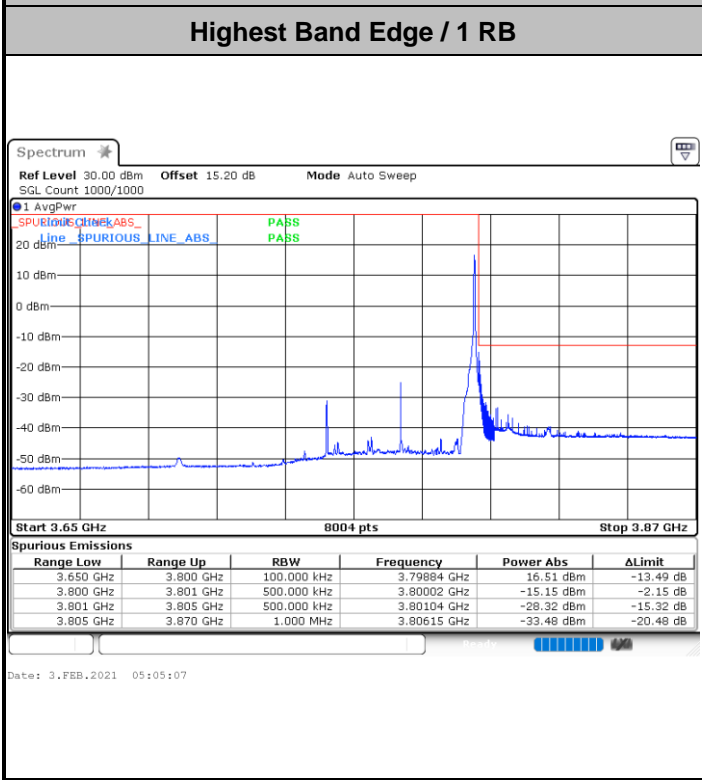


FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M)





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

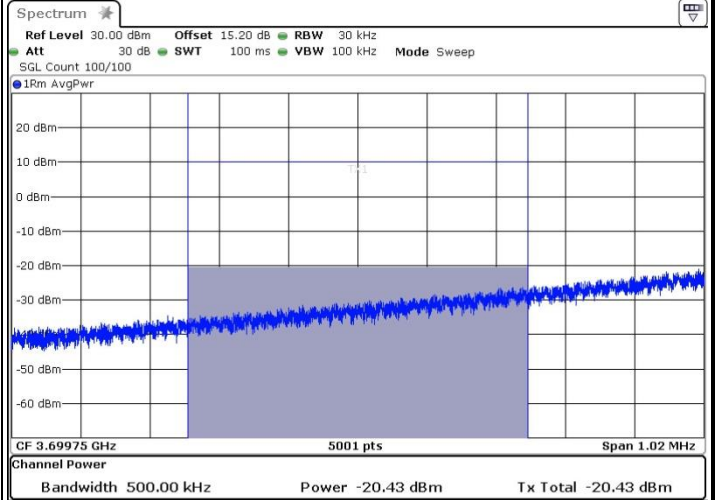
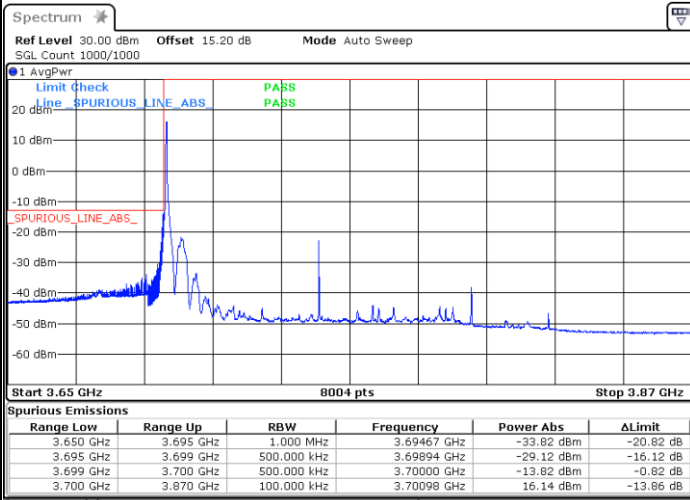




FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M2)

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass

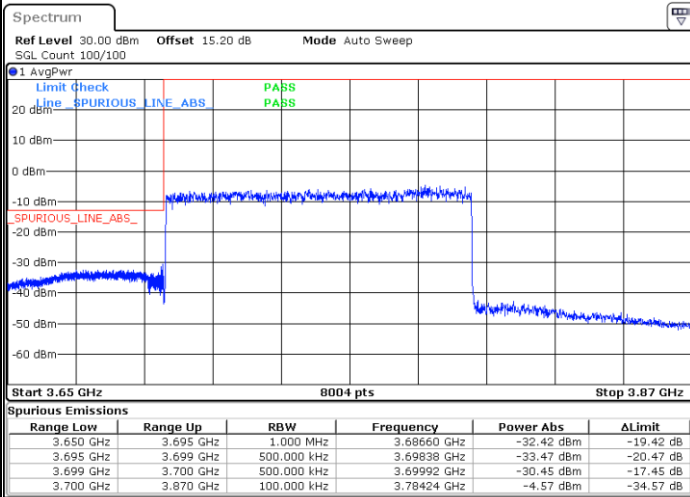


Date: 2.FEB.2021 13:48:15

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

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



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

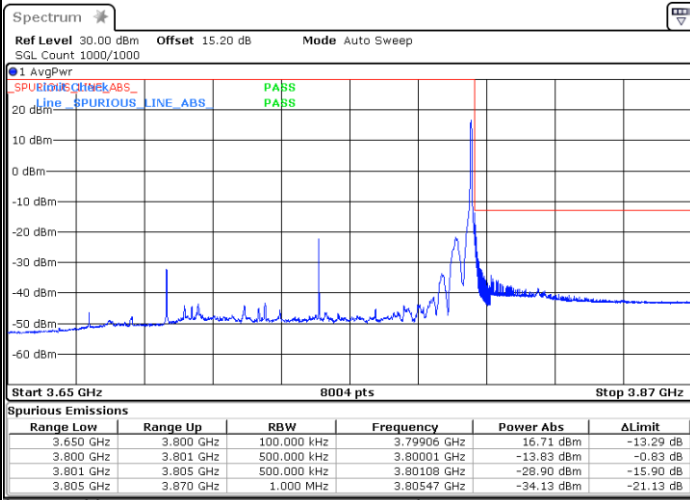
/



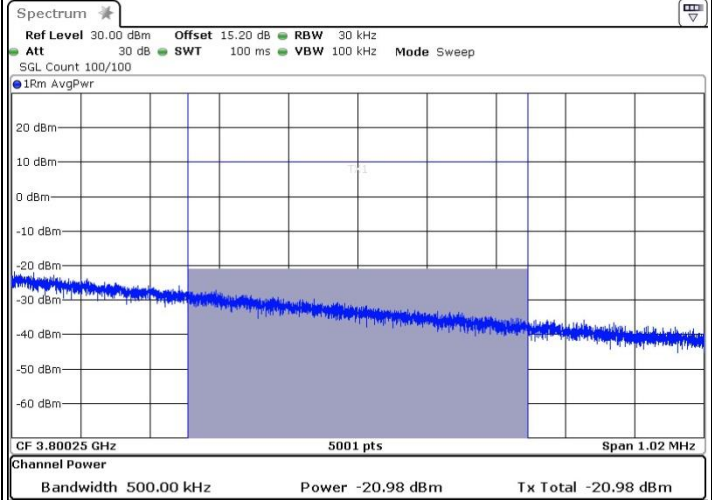
FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M2)

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



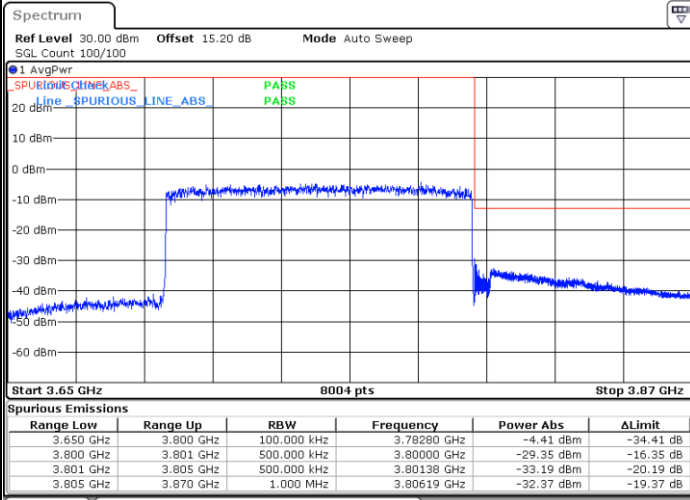
Date: 2.FEB.2021 14:03:44



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

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



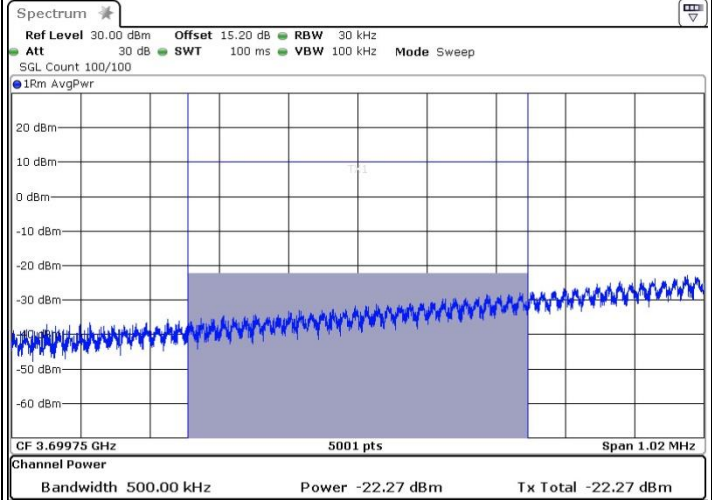
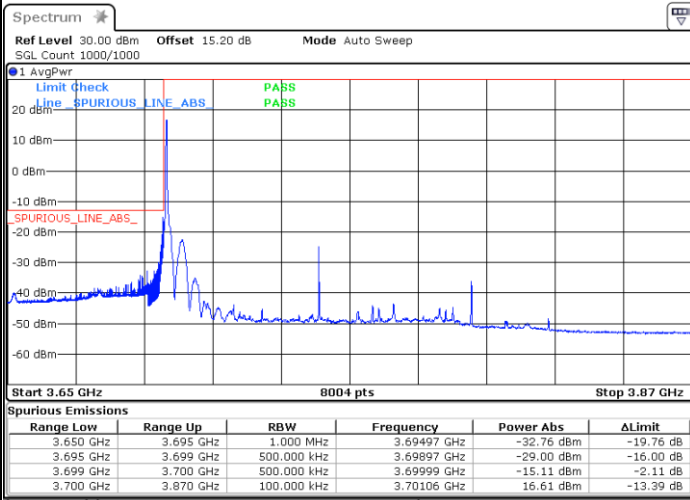
Date: 2.FEB.2021 13:59:25



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

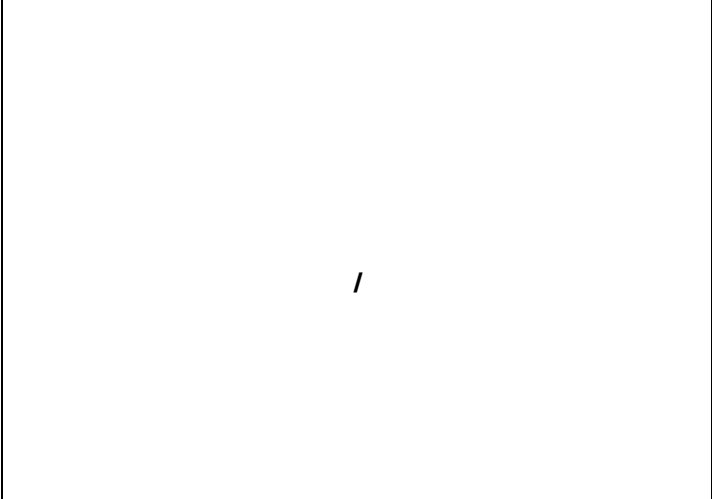
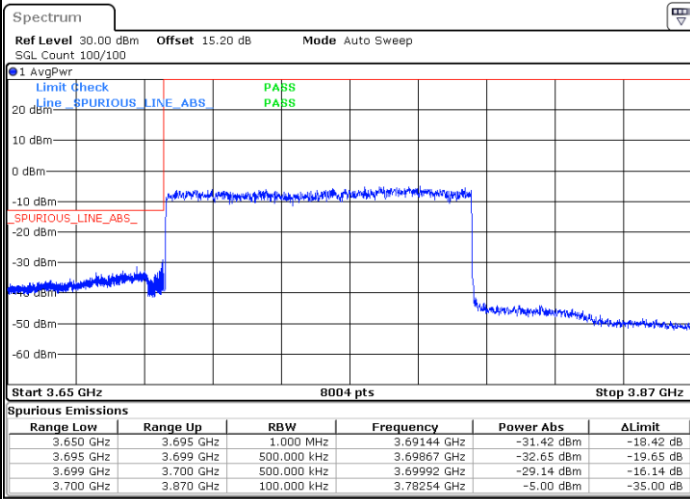
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

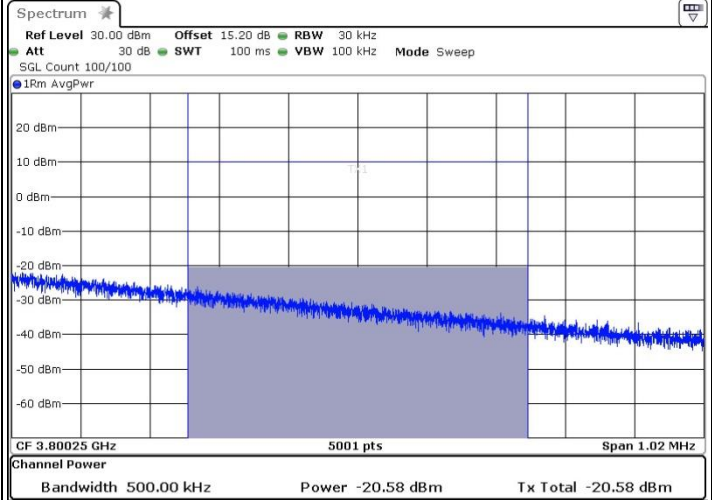
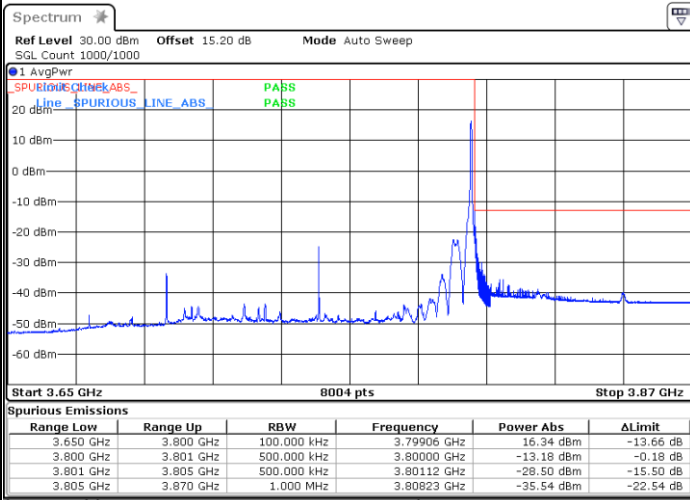




FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M)

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass

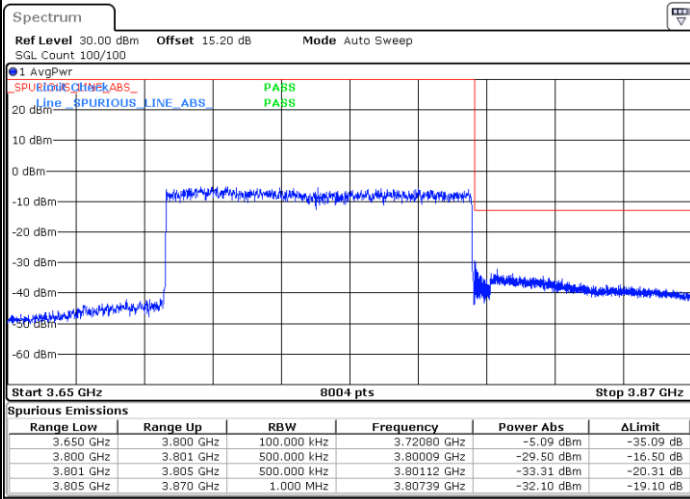


Date: 3.FEB.2021 04:36:20

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

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



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

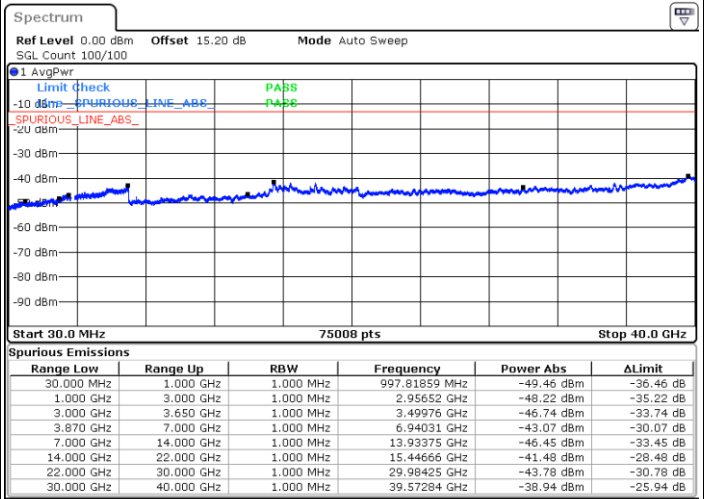
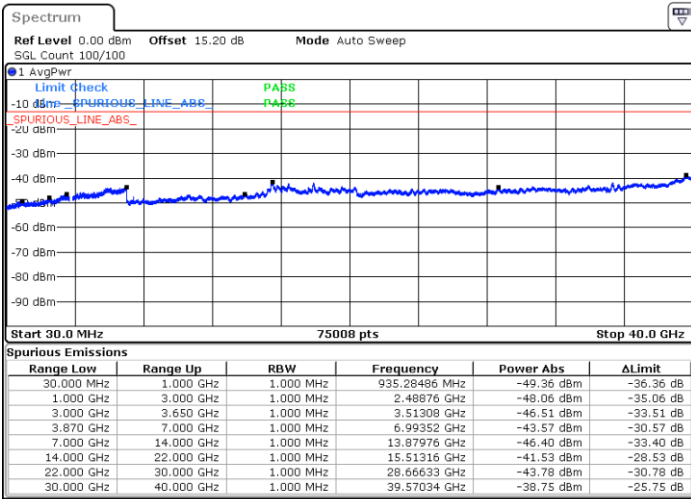


Conducted Spurious Emission

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

Lowest Channel / 1RB

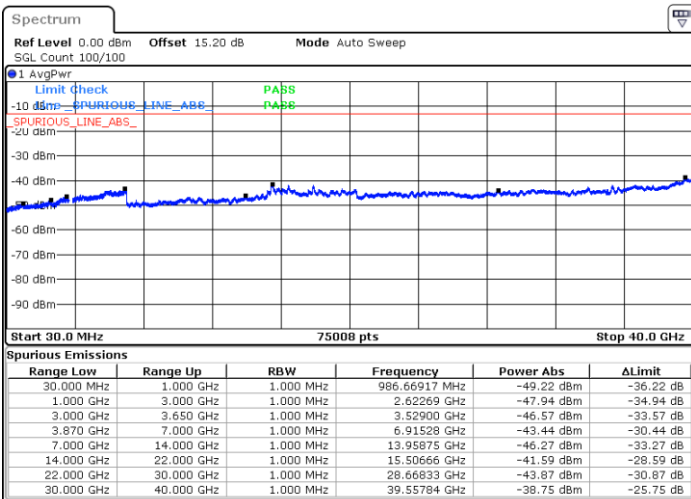
Middle Channel / 1RB



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

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

Highest Channel / 1RB



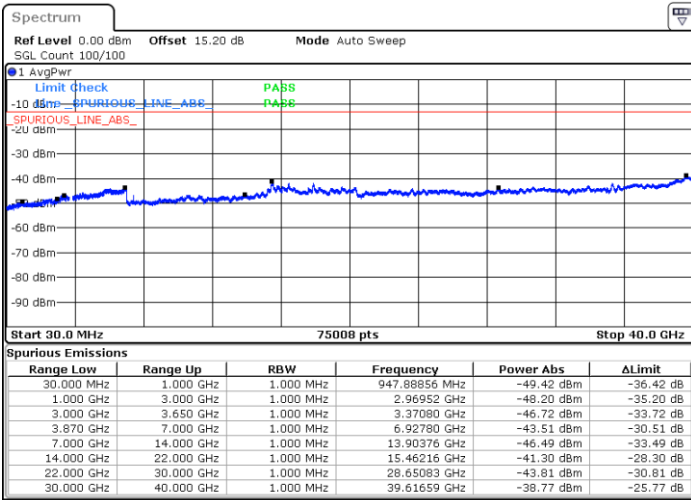
Date: 2.FEB.2021 15:35:01



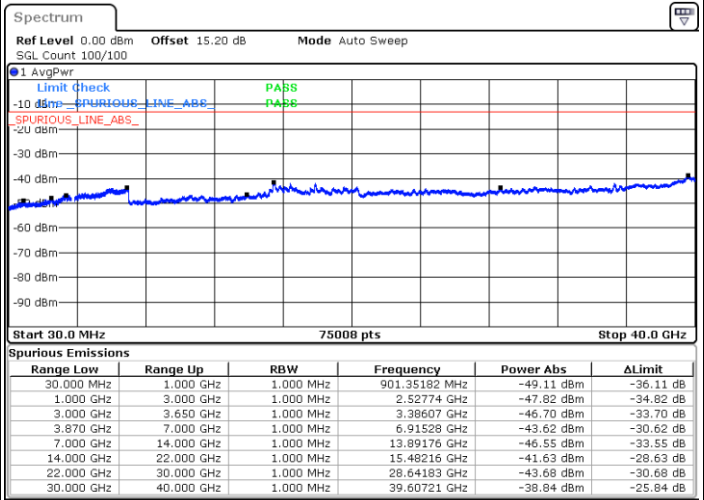
FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M)

Lowest Channel / 1RB

Middle Channel / 1RB

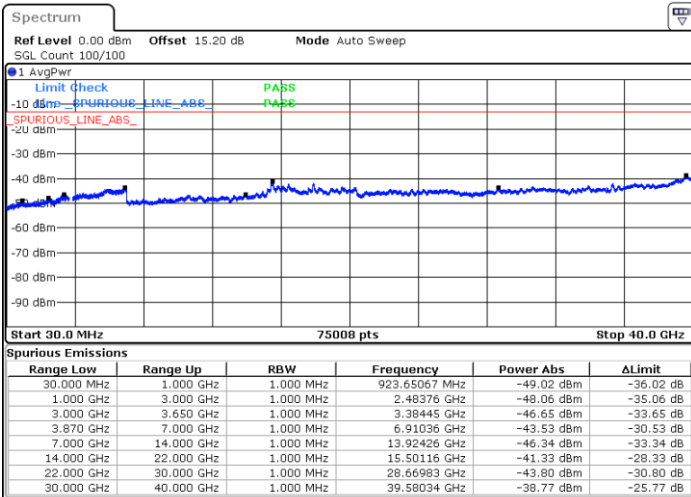


Date: 3.FEB.2021 05:43:51



Date: 3.FEB.2021 05:35:05

Highest Channel / 1RB



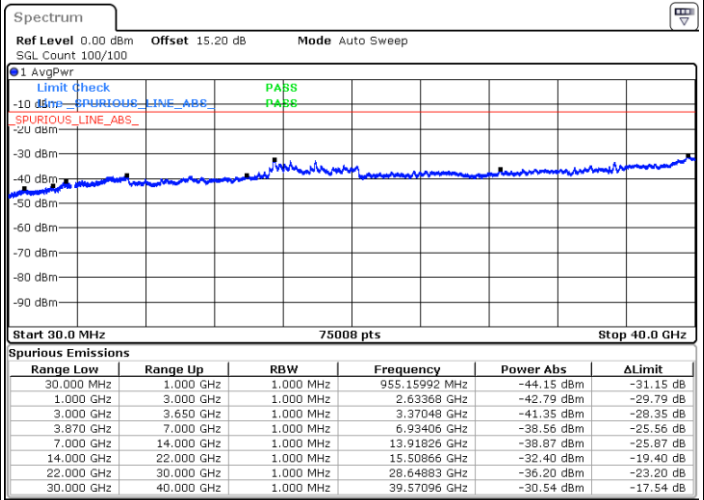
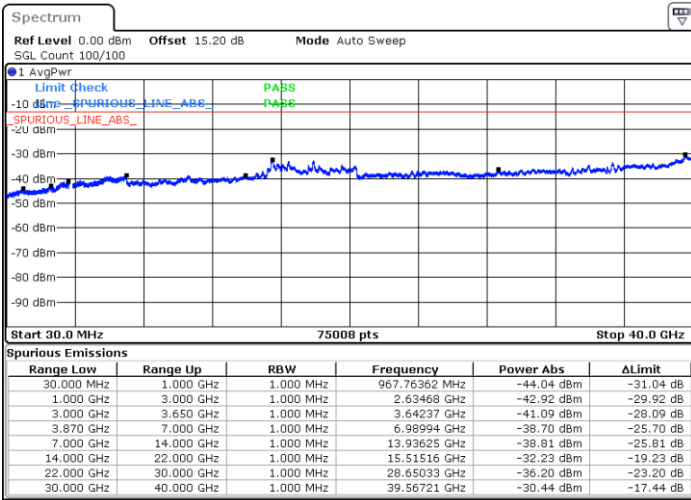
Date: 3.FEB.2021 06:01:39



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

Lowest Channel / 1RB

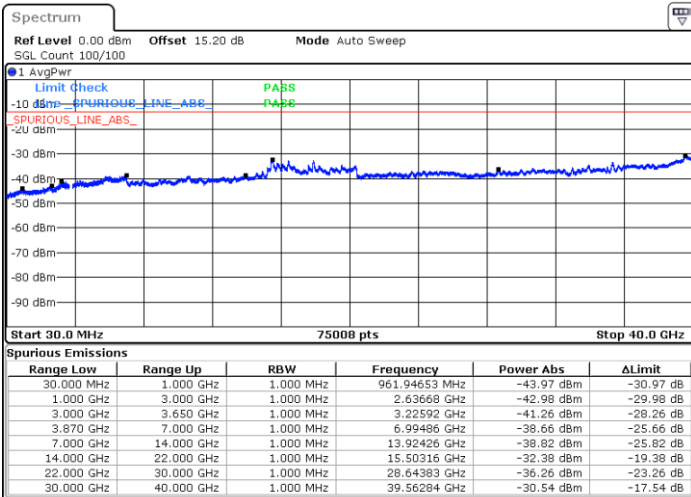
Middle Channel / 1RB



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

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

Highest Channel / 1RB



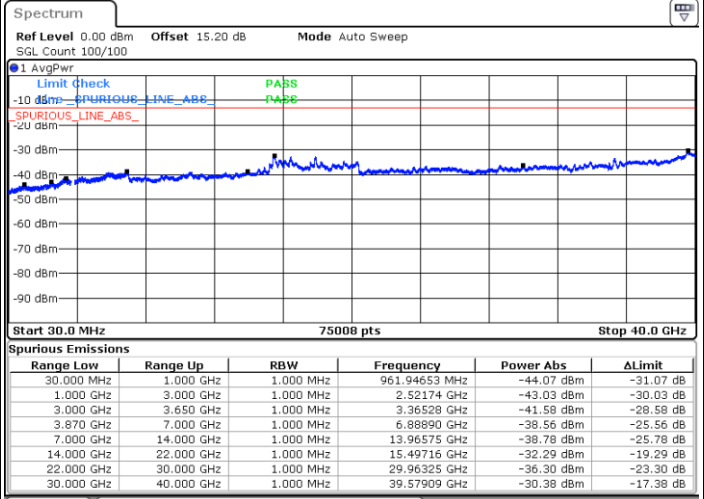
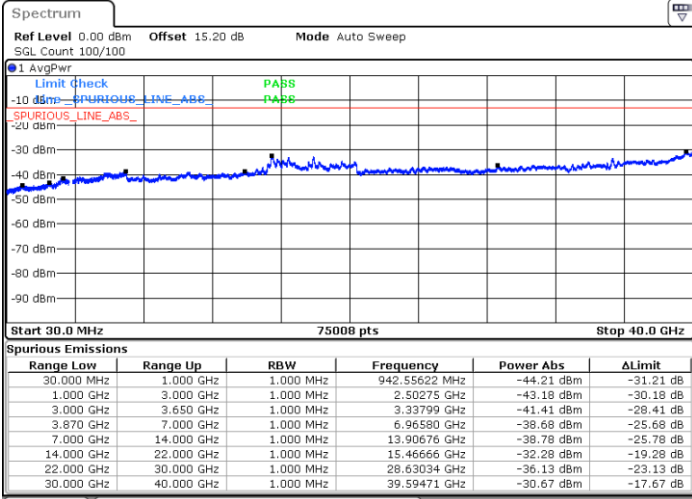
Date: 2.FEB.2021 14:27:42



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

Lowest Channel / 1RB

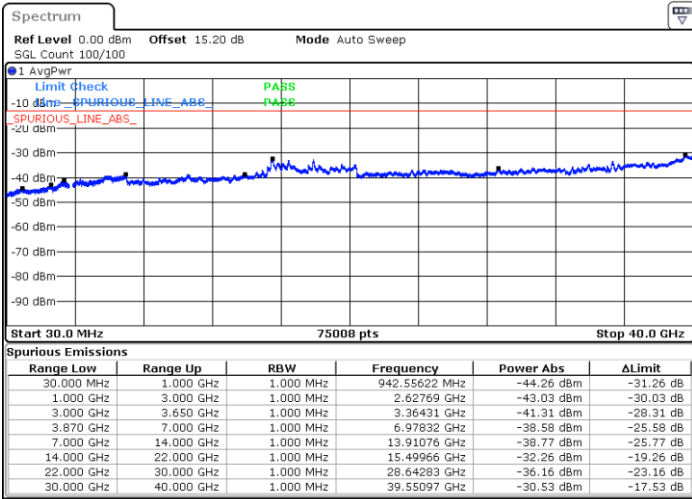
Middle Channel / 1RB



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

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

Highest Channel / 1RB

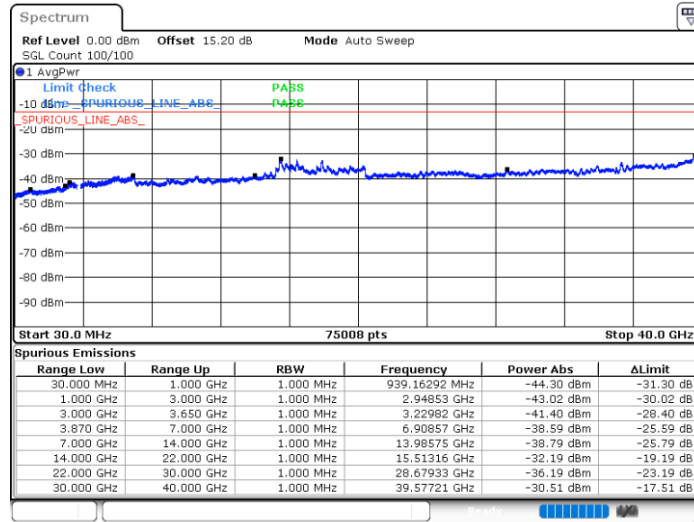


Date: 3.FEB.2021 05:10:26



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

Middle Channel / 1RB

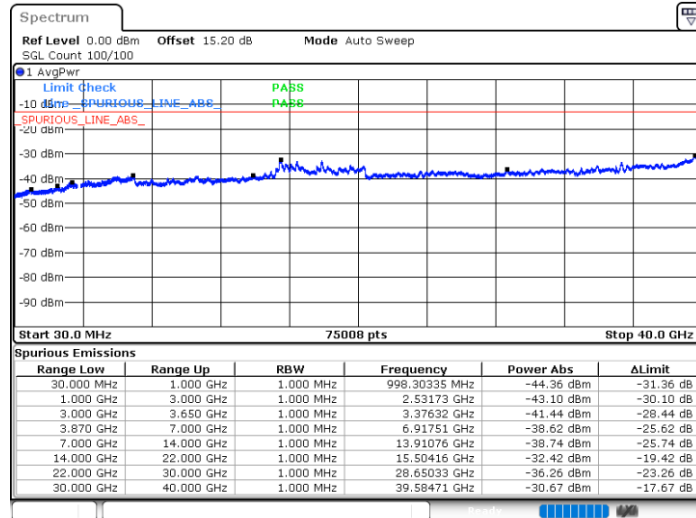


Date: 2.FEB.2021 14:11:41



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	PASS
Middle CH	4.32	3.86	5.59	5.39	
Highest CH	4.61	3.91	6.29	5.04	



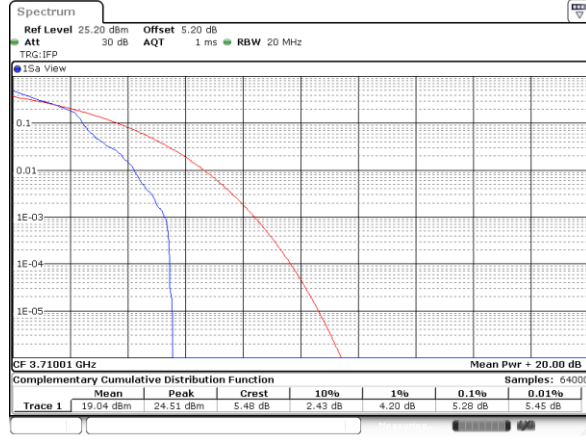
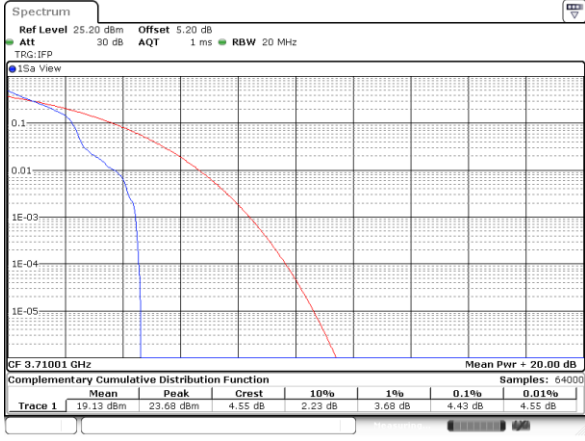
FR1 n78 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / 1RB

Lowest Channel / 1RB

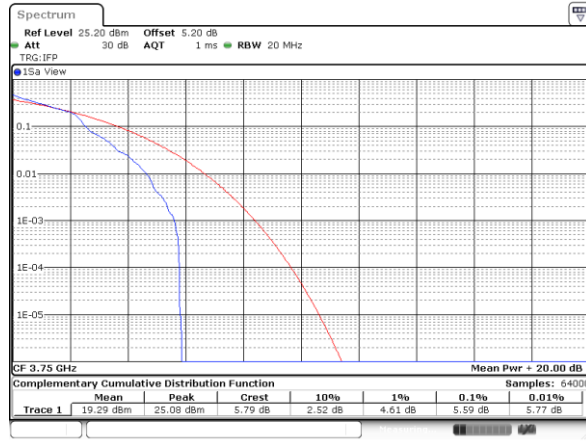
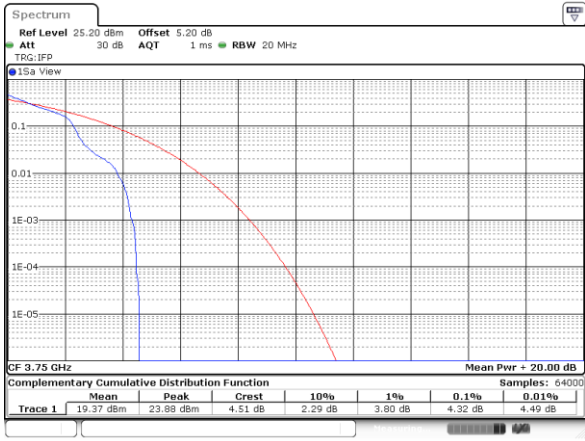


Date: 2.FEB.2021 04:48:136

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

Middle Channel / 1 RB

Middle Channel / 1 RB

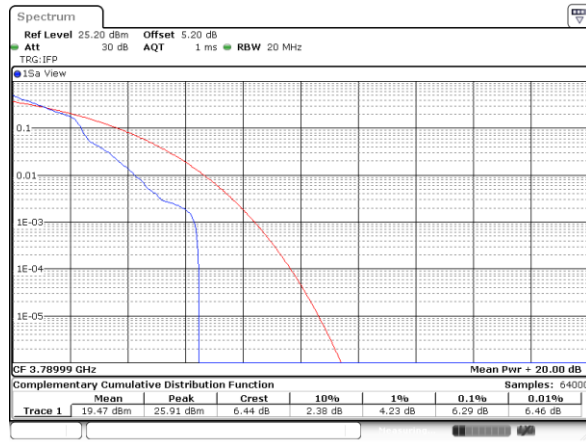
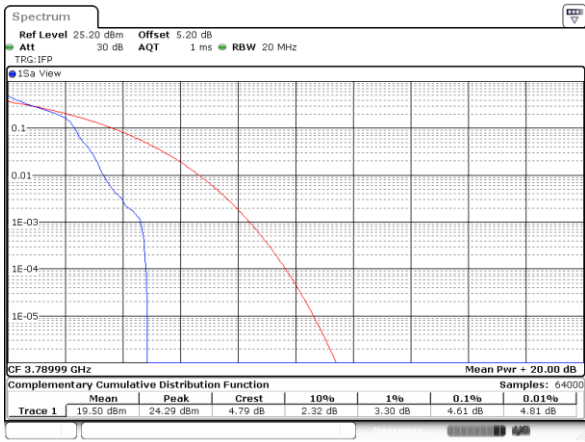


Date: 2.FEB.2021 05:00:11

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



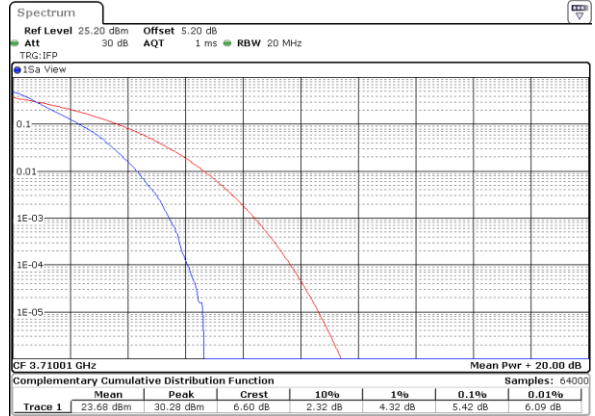
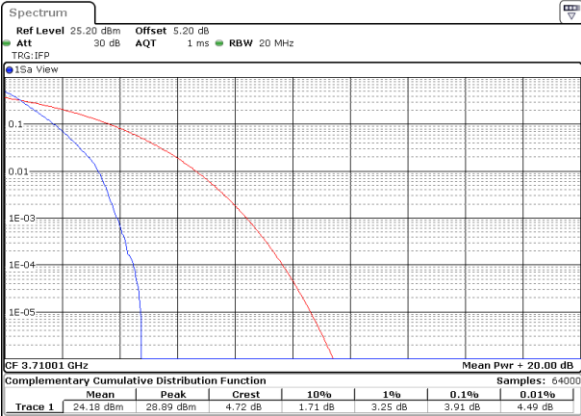
FR1 n78 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / Full RB

Lowest Channel / Full RB

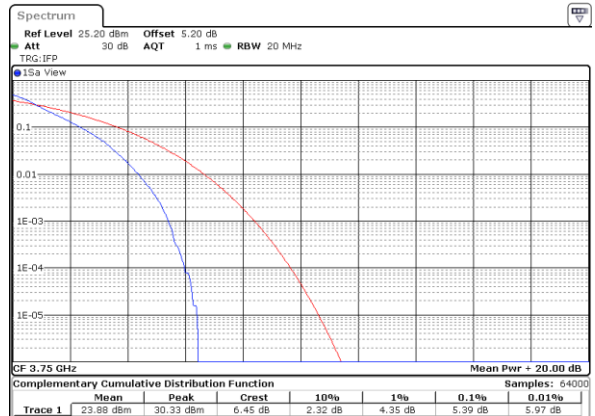
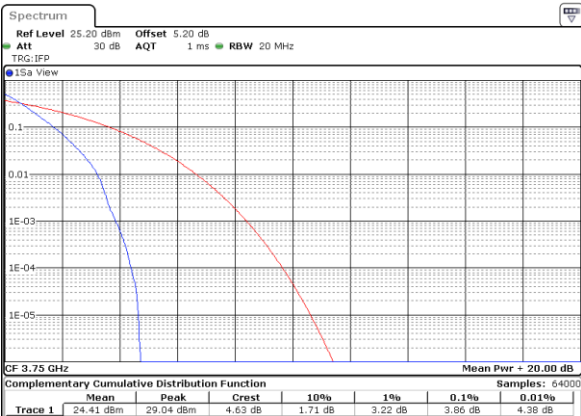


Date: 2.FEB.2021 04:47:38

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

Middle Channel / Full RB

Middle Channel / Full RB

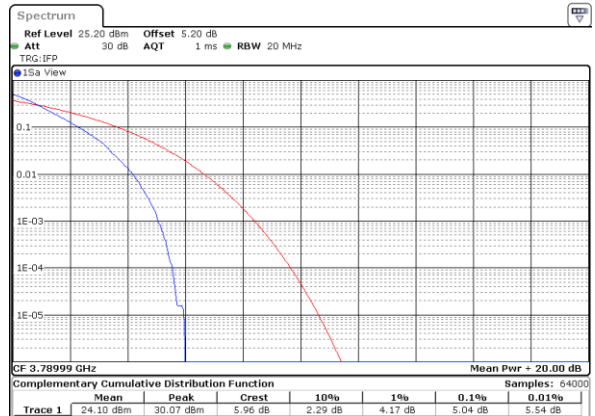
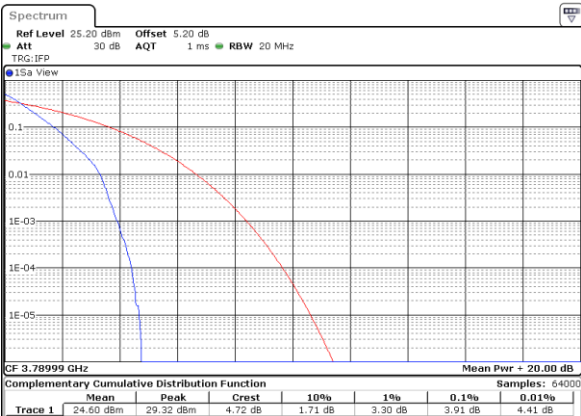


Date: 2.FEB.2021 04:59:39

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				