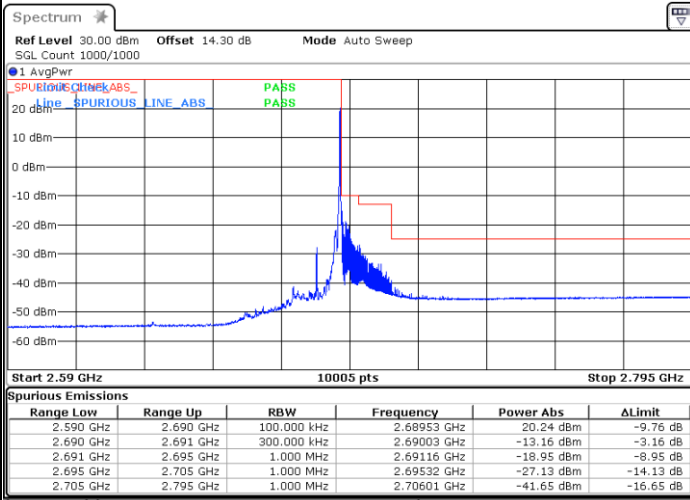




FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M2)

Highest Band Edge / 1 RB

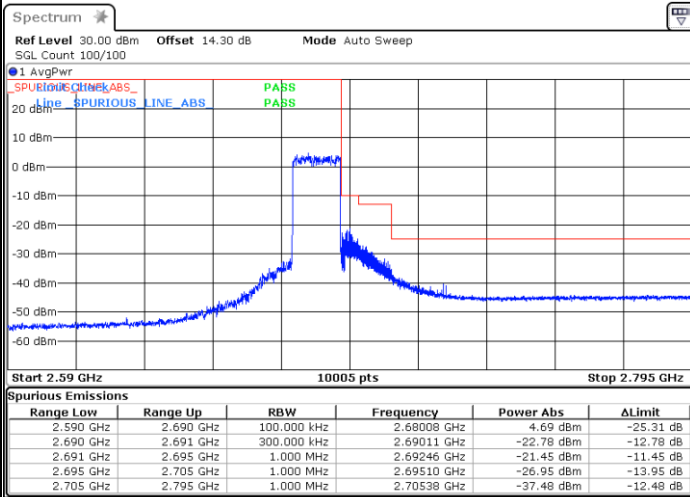
Channel Power < -10dBm Pass



Date: 26.FEB.2021 09:26:03

Highest Band Edge / Full RB

Channel Power < -10dBm Pass

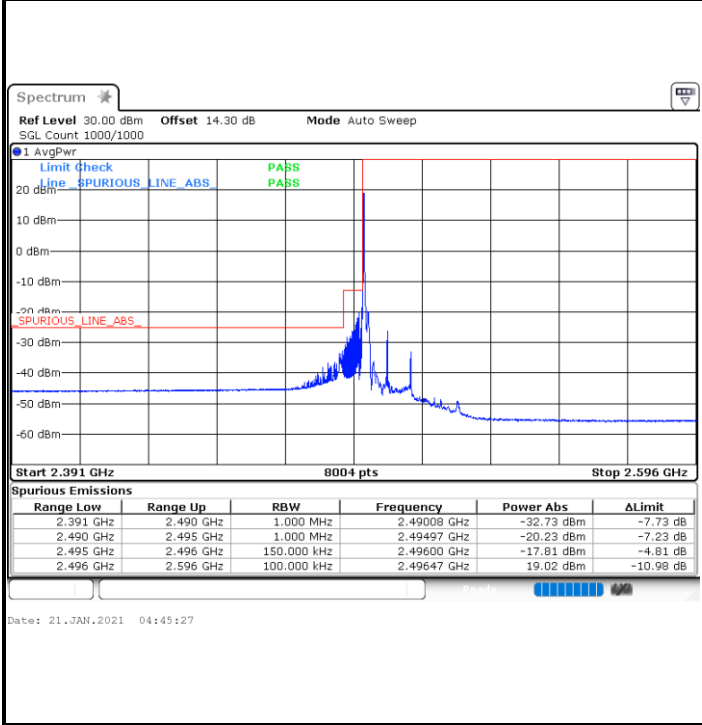


Date: 26.FEB.2021 08:22:57



FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M)

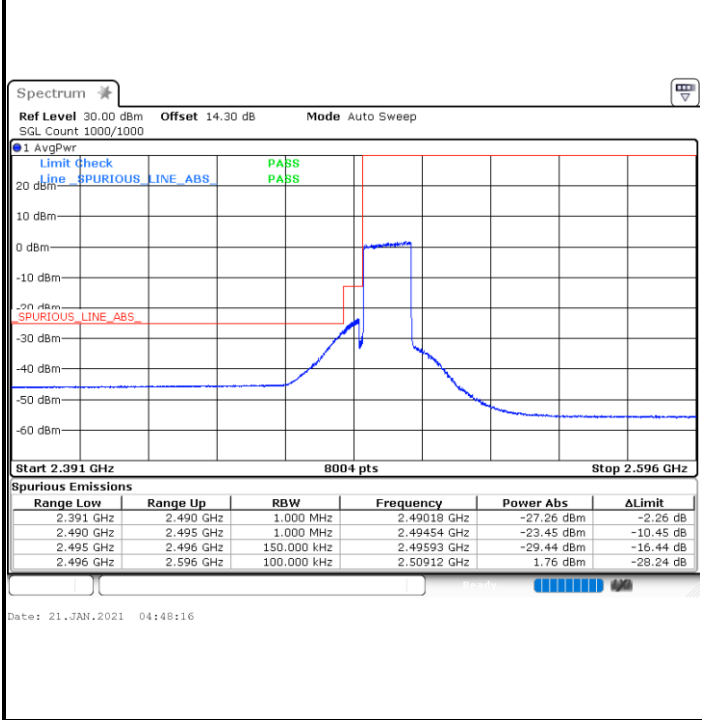
Lowest Band Edge / 1 RB



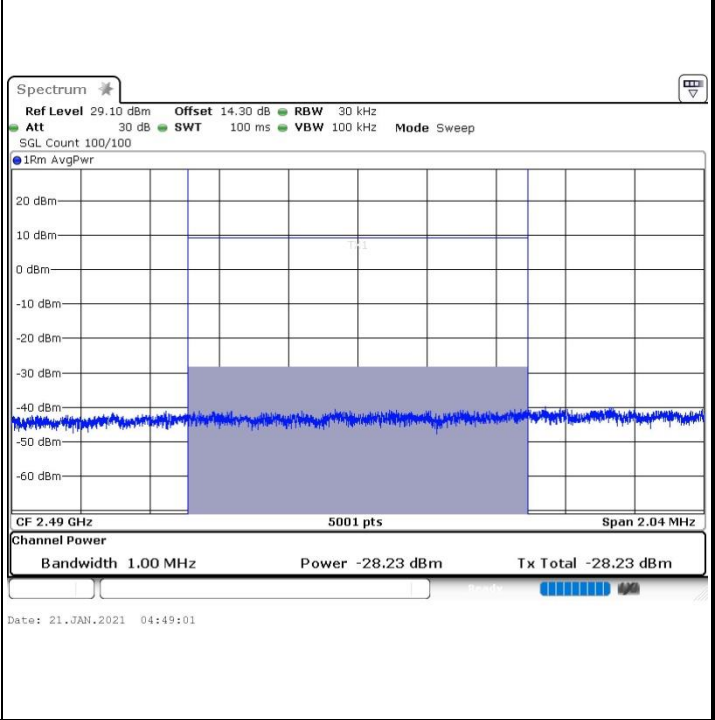
Channel Power < -25dBm Pass

/

Lowest Band Edge / Full RB



Channel Power < -25dBm Pass

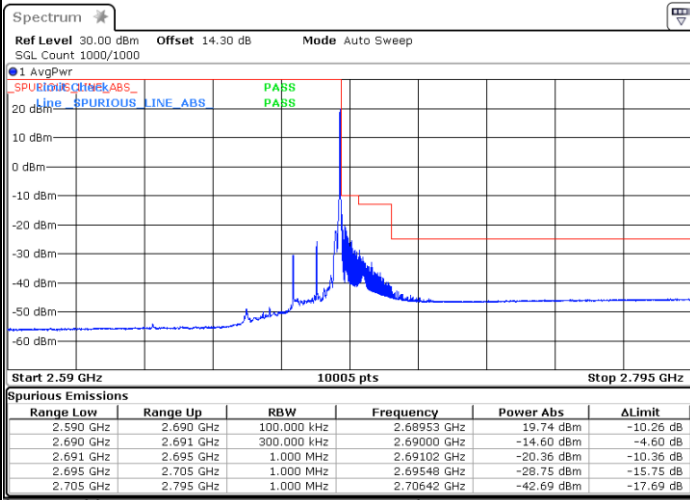




FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M)

Highest Band Edge / 1 RB

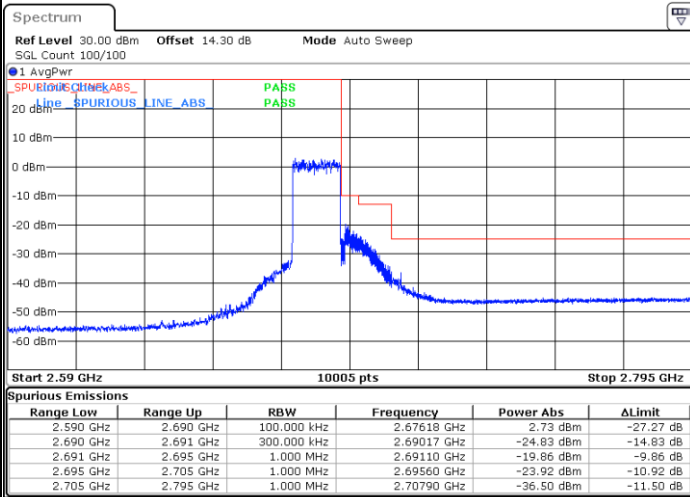
Channel Power < -13dBm Pass



Date: 21.JAN.2021 04:54:23

Highest Band Edge / Full RB

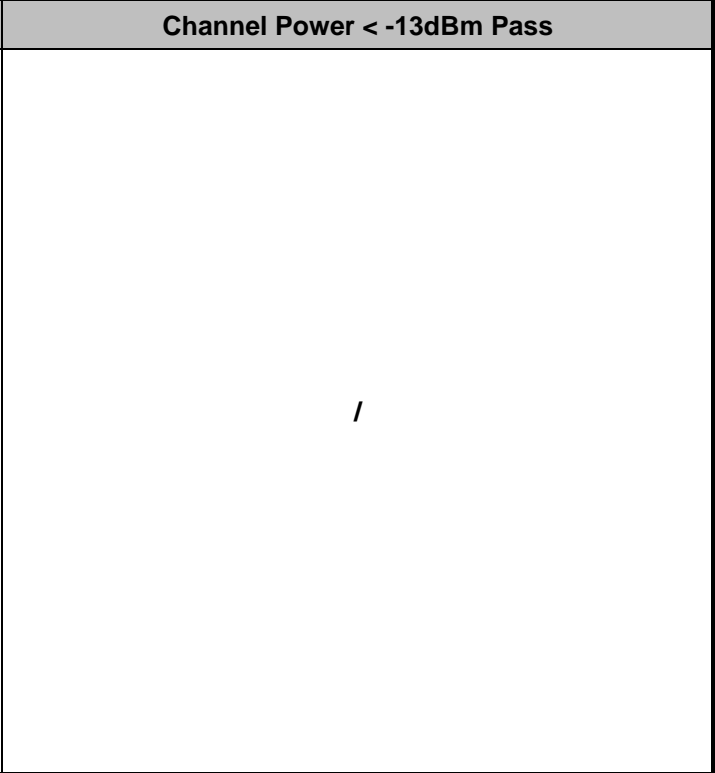
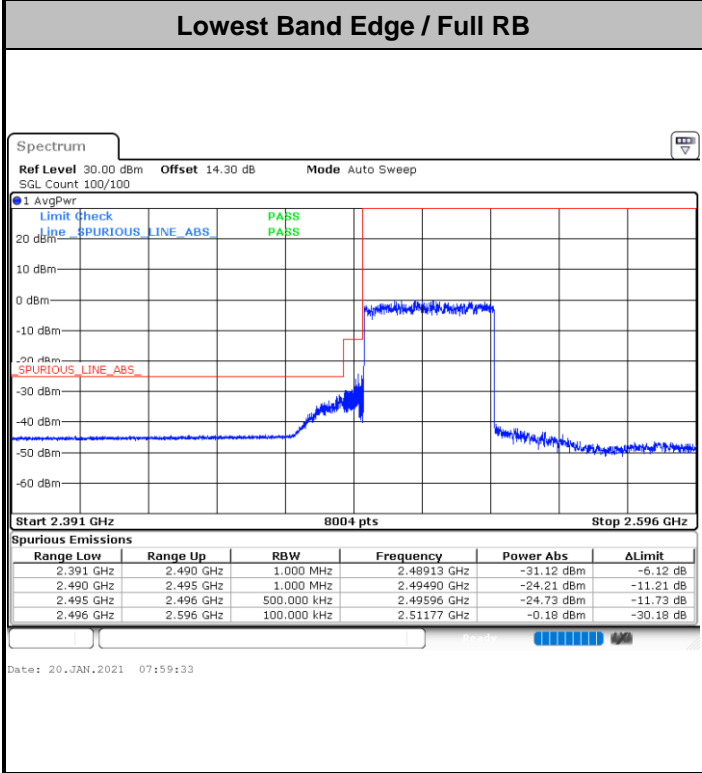
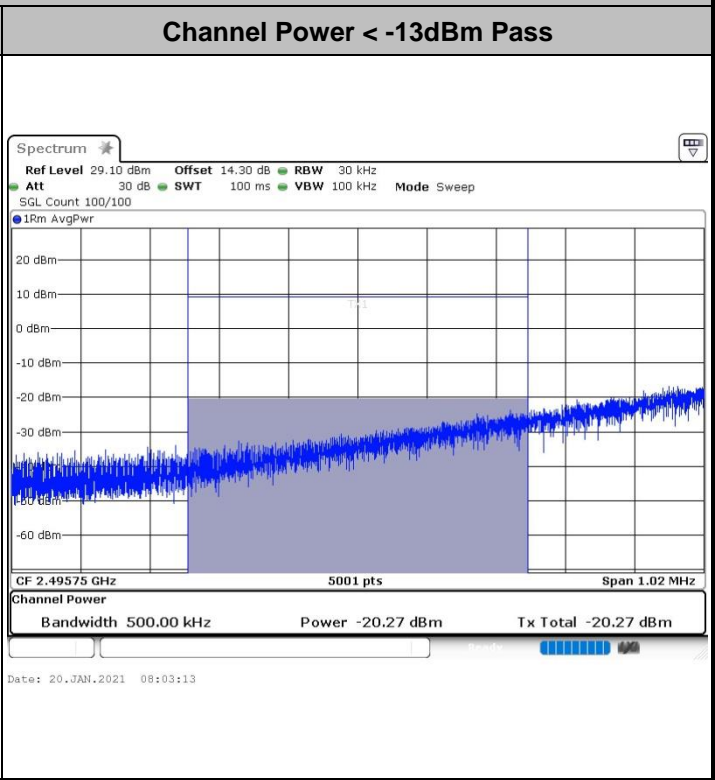
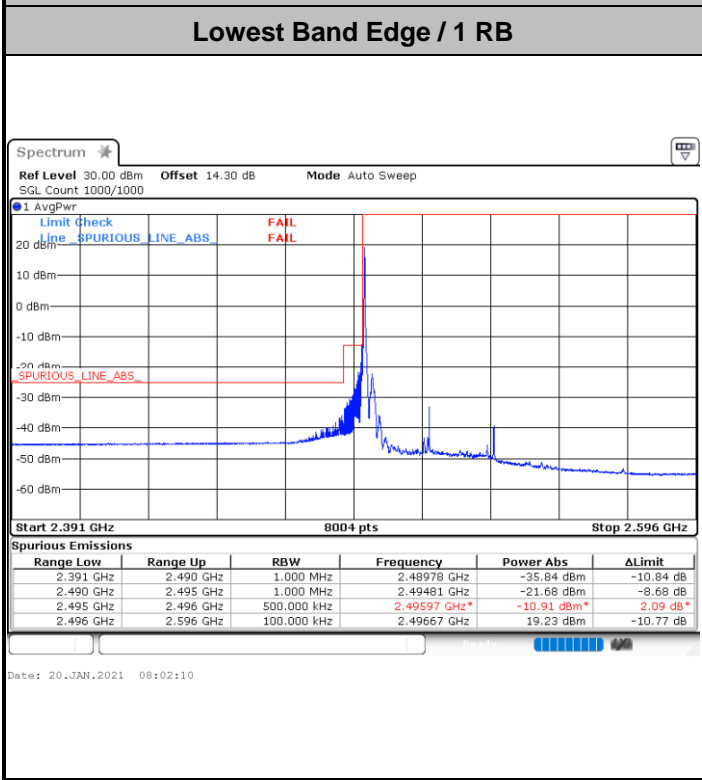
Channel Power < -13dBm Pass



Date: 21.JAN.2021 04:51:35



FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M2)

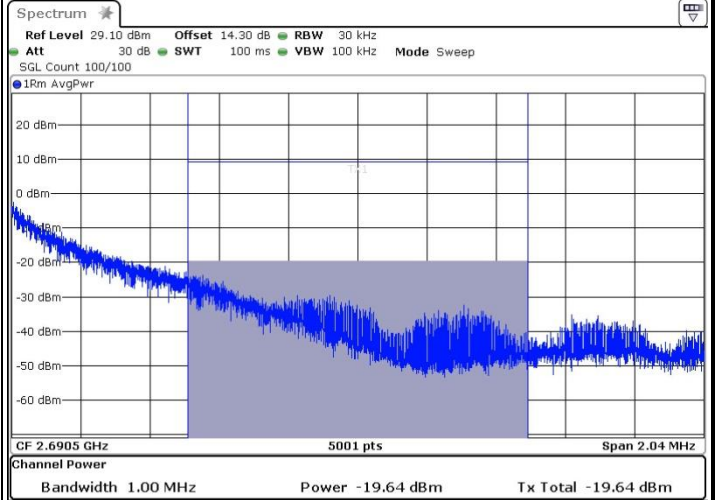
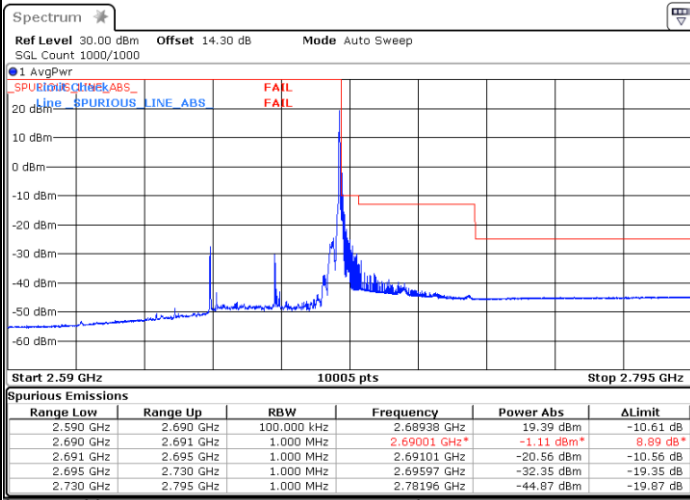




FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M2)

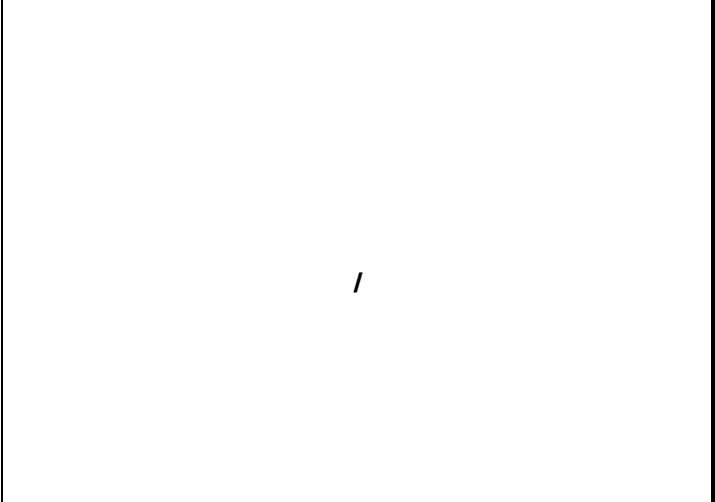
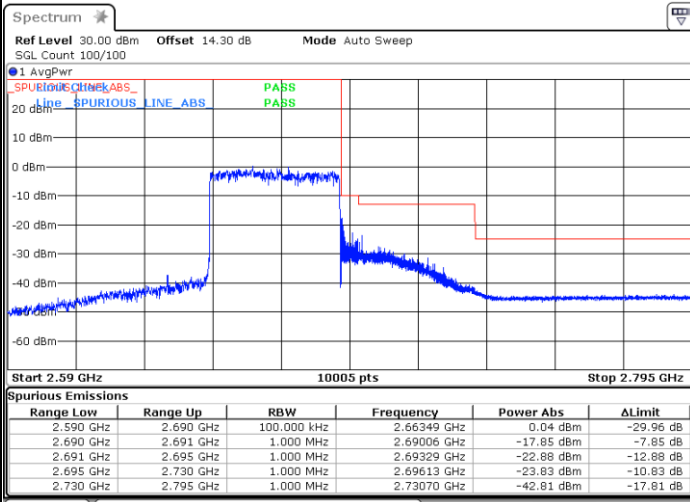
Highest Band Edge / 1 RB

Channel Power < -10dBm Pass



Highest Band Edge / Full RB

Channel Power < -10dBm Pass

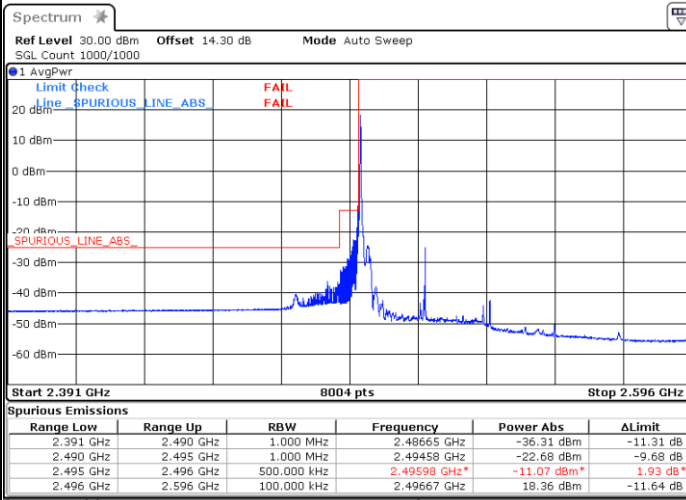




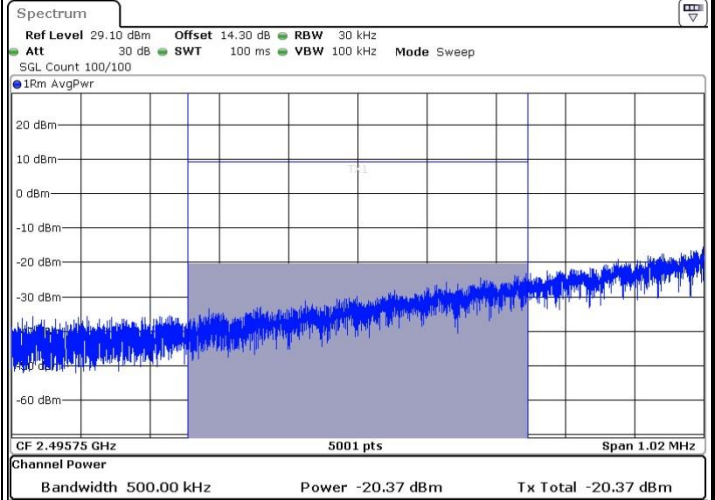
FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M)

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



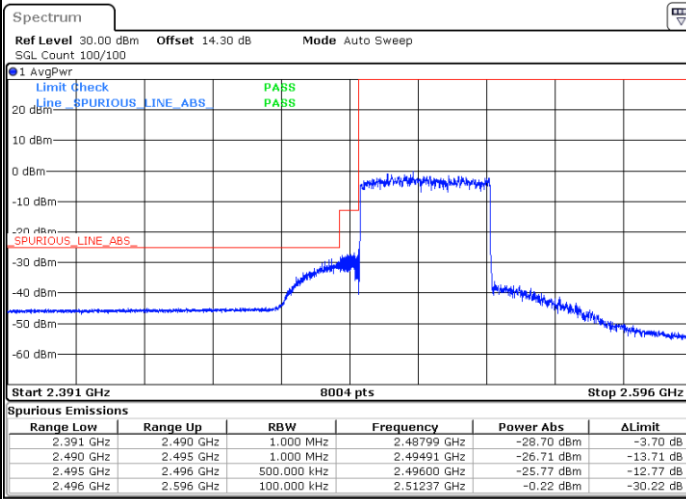
Date: 21.JAN.2021 04:12:08



Date: 21.JAN.2021 04:14:29

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

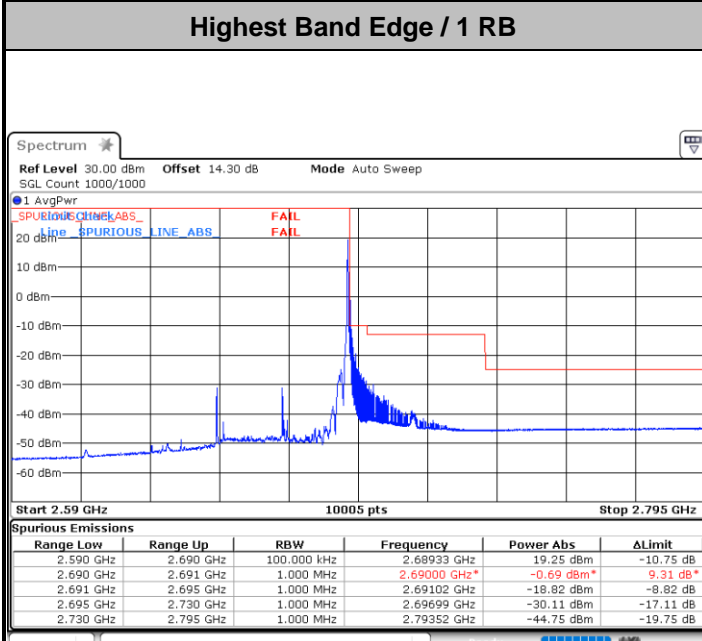


Date: 21.JAN.2021 04:12:31

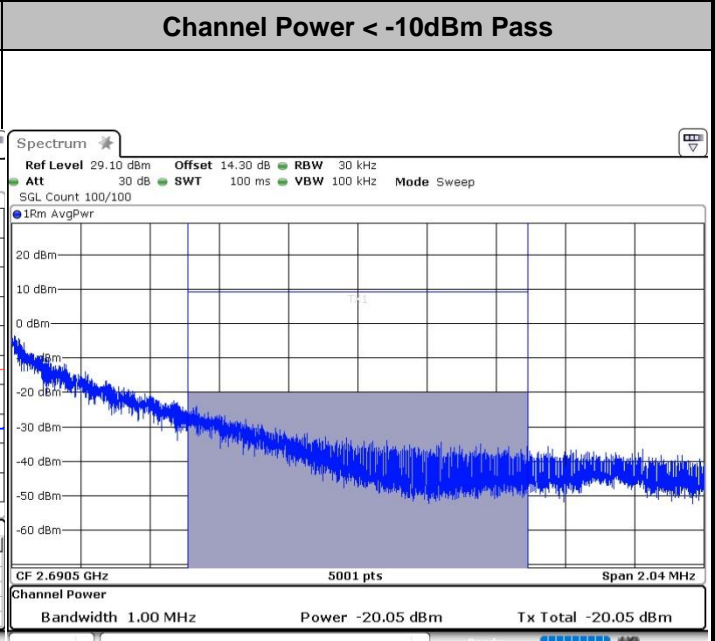
/



FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M)

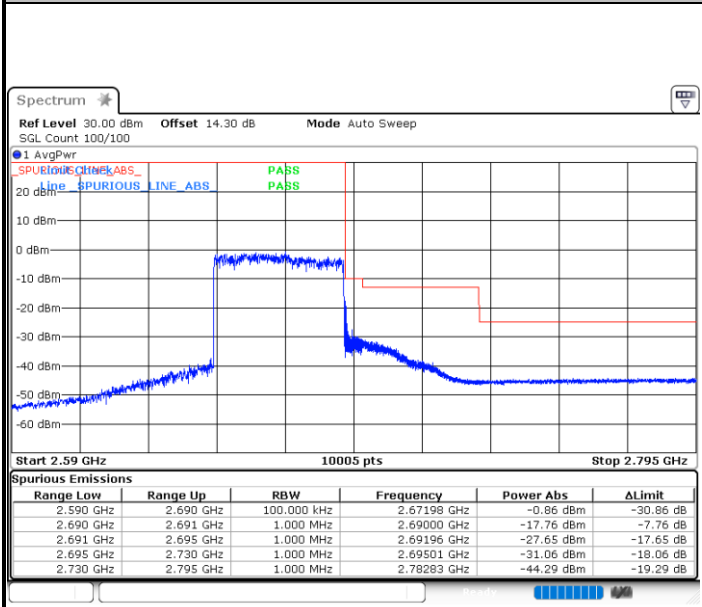


Date: 26.FEB.2021 13:38:55



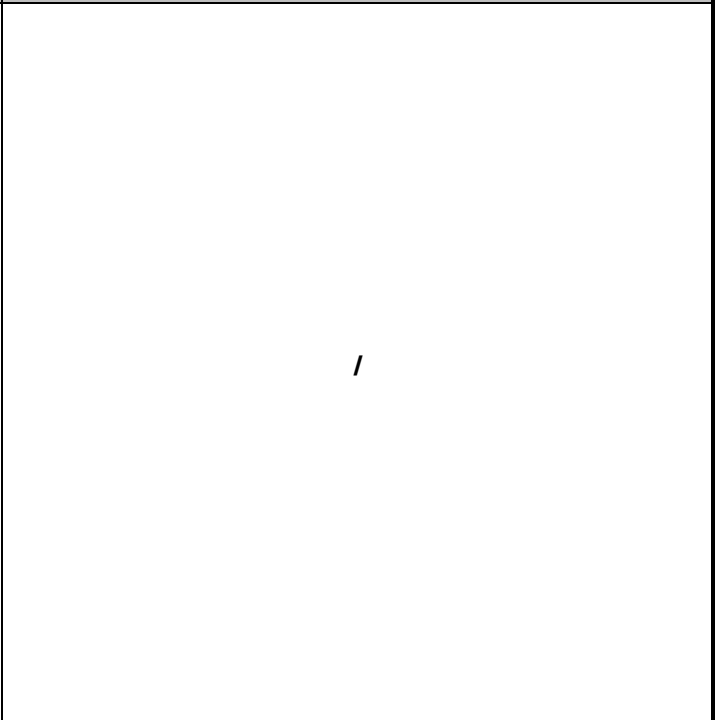
Date: 26.FEB.2021 13:40:23

Highest Band Edge / Full RB



Date: 26.FEB.2021 13:45:56

Channel Power < -10dBm Pass



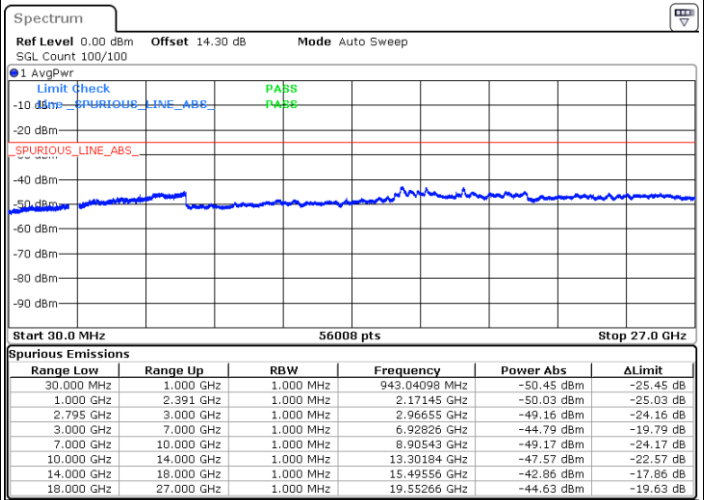
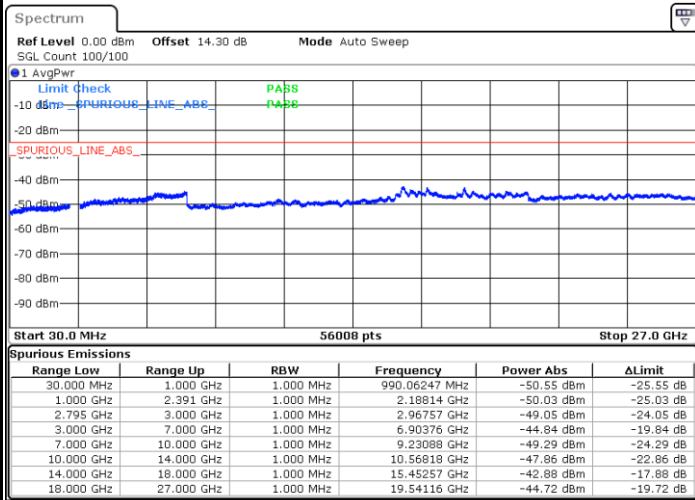


Conducted Spurious Emission

FR1 UL-MIMO n41 / 10MHz / CP-OFDM QPSK (M2)

Lowest Channel / 1RB

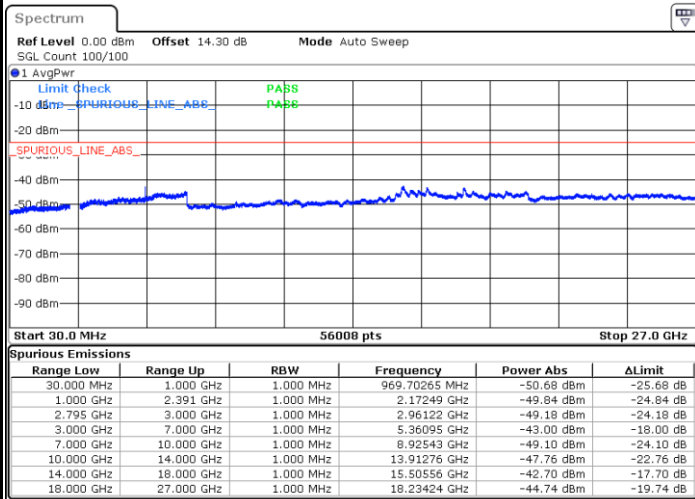
Middle Channel / 1RB



Date: 21.JAN.2021 03:32:07

Date: 21.JAN.2021 03:19:56

Highest Channel / 1RB



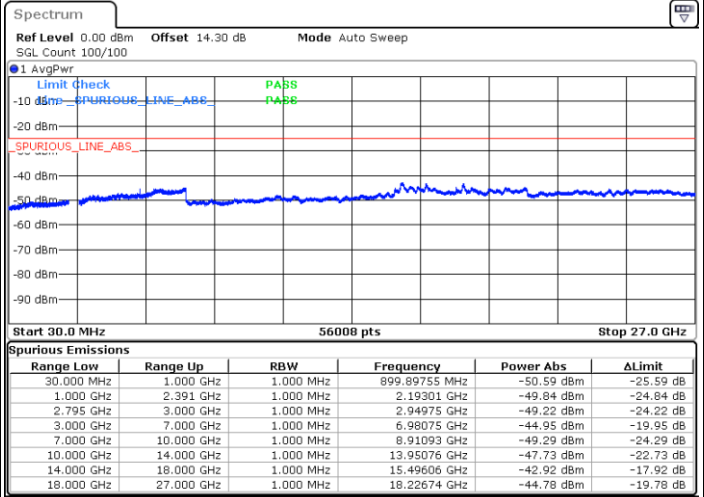
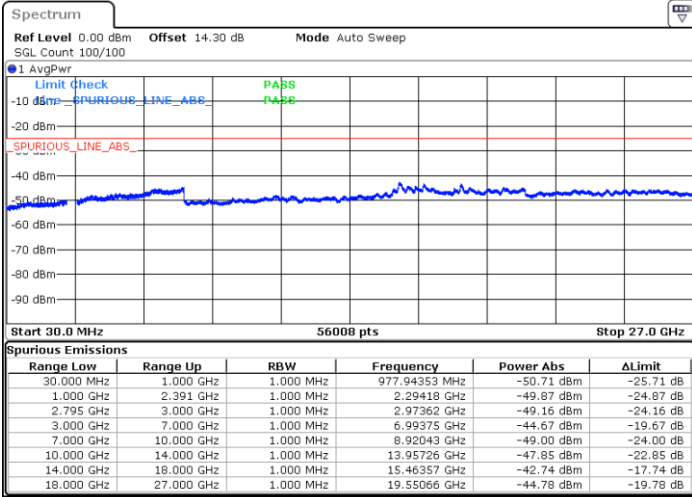
Date: 21.JAN.2021 03:12:57



FR1 UL-MIMO n41 / 10MHz / CP-OFDM QPSK (M)

Lowest Channel / 1RB

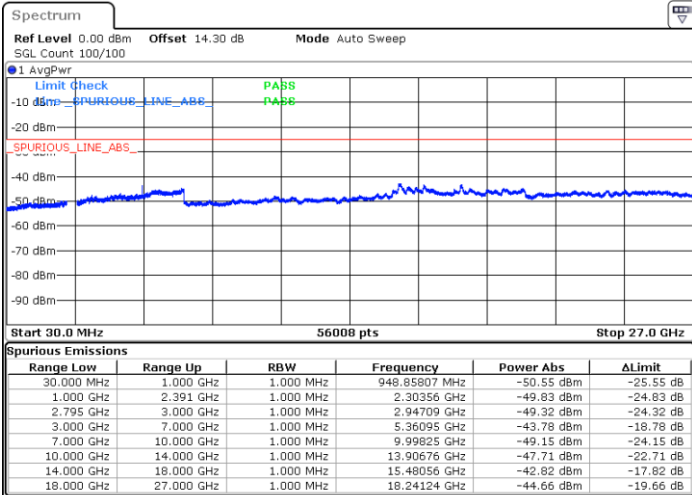
Middle Channel / 1RB



Date: 21.JAN.2021 05:17:24

Date: 21.JAN.2021 05:03:48

Highest Channel / 1RB



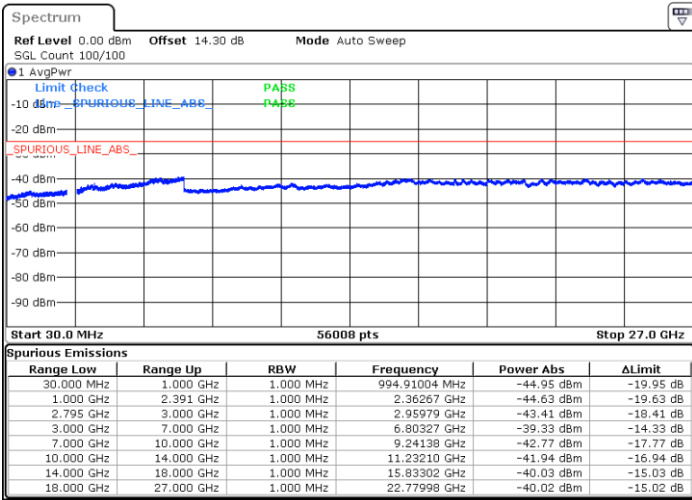
Date: 21.JAN.2021 05:20:35



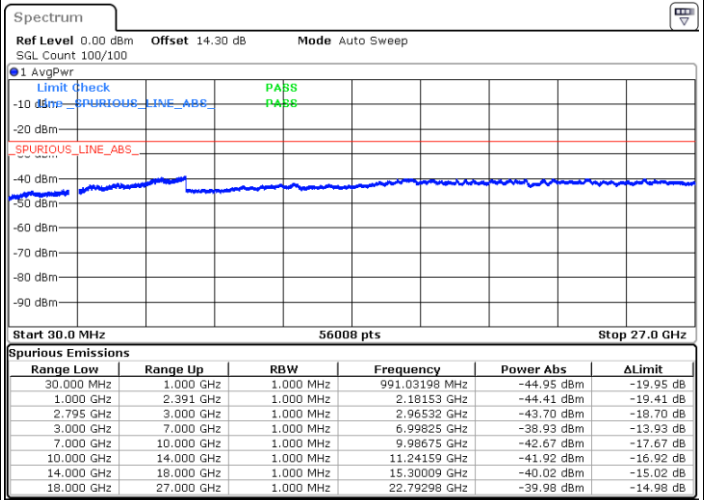
FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M2)

Lowest Channel / 1RB

Middle Channel / 1RB

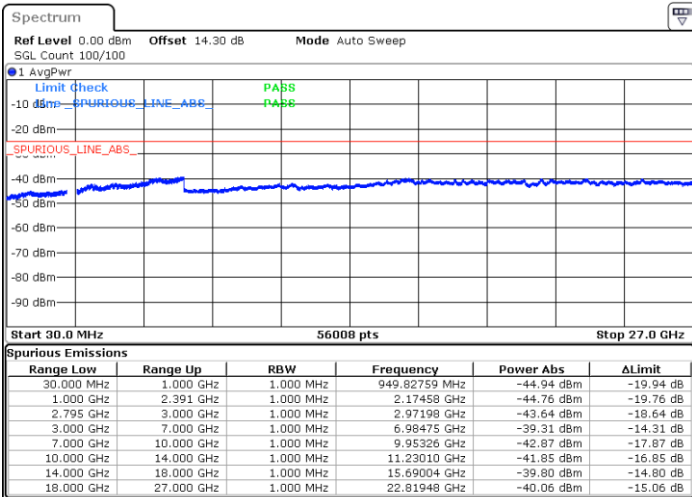


Date: 20.JAN.2021 08:34:01



Date: 20.JAN.2021 08:28:53

Highest Channel / 1RB



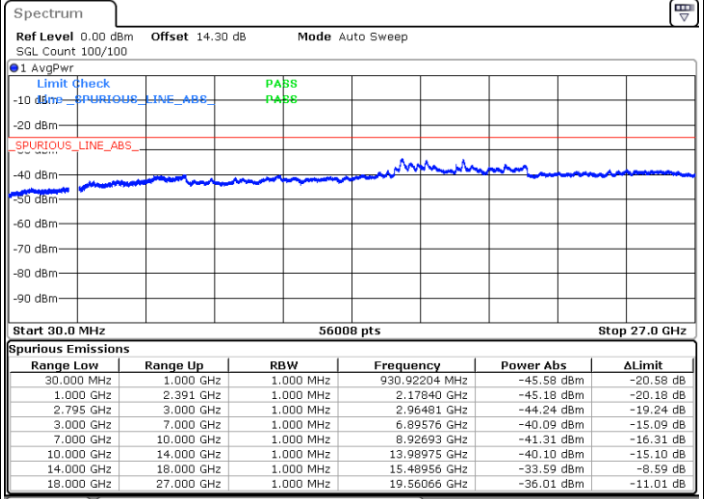
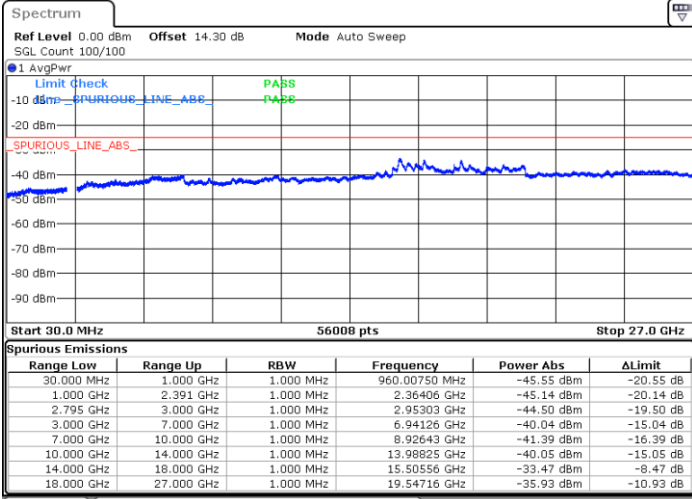
Date: 20.JAN.2021 08:27:38



FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M)

Lowest Channel / 1RB

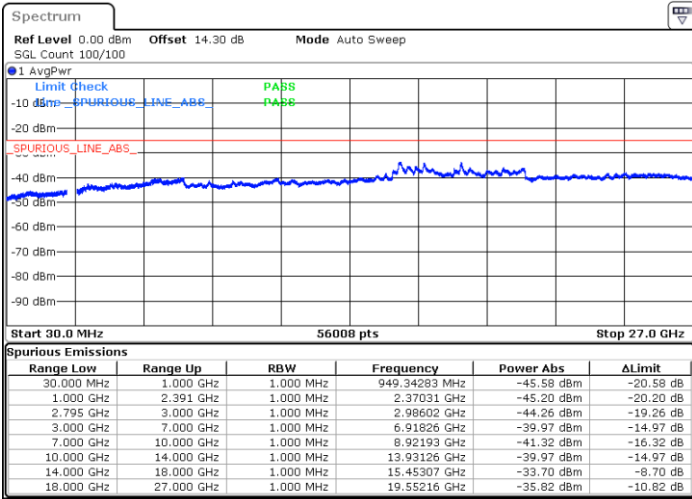
Middle Channel / 1RB



Date: 21.JAN.2021 04:44:23

Date: 21.JAN.2021 04:31:28

Highest Channel / 1RB



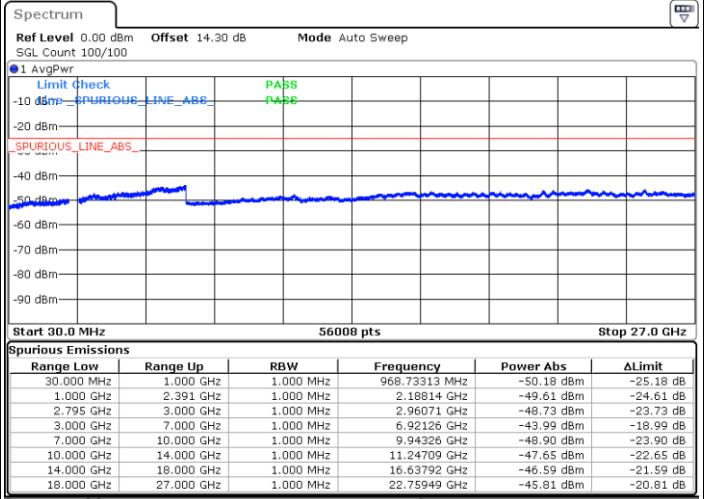
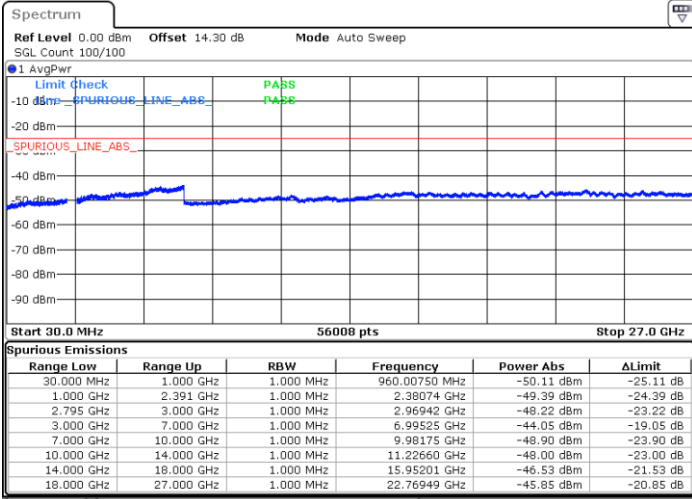
Date: 21.JAN.2021 04:55:32



FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M2)

Lowest Channel / 1RB

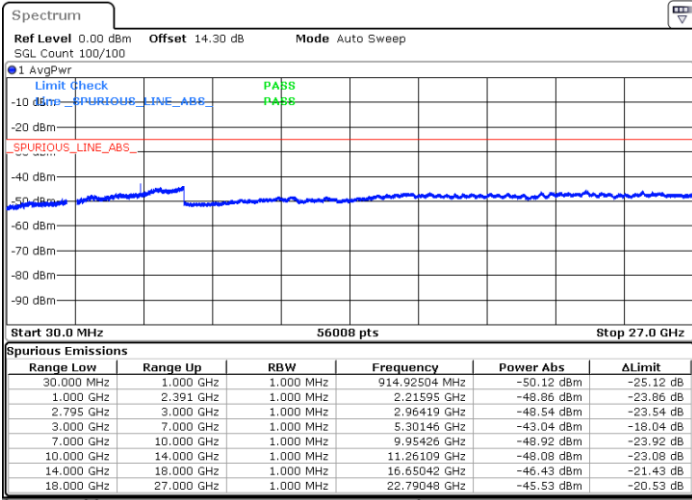
Middle Channel / 1RB



Date: 20.JAN.2021 08:12:26

Date: 20.JAN.2021 08:11:20

Highest Channel / 1RB



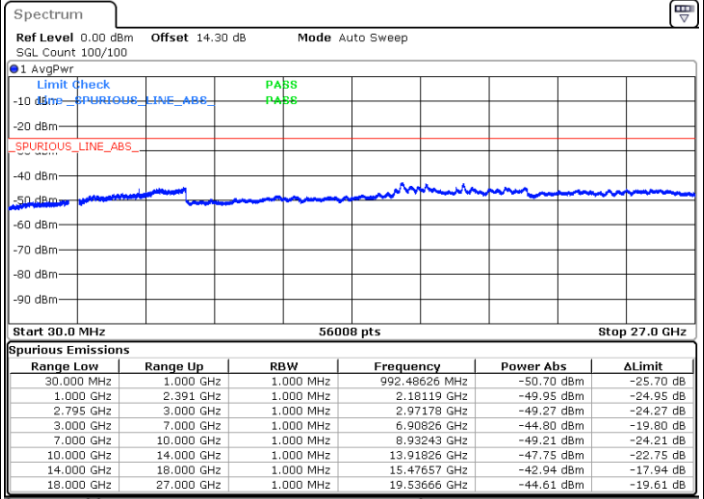
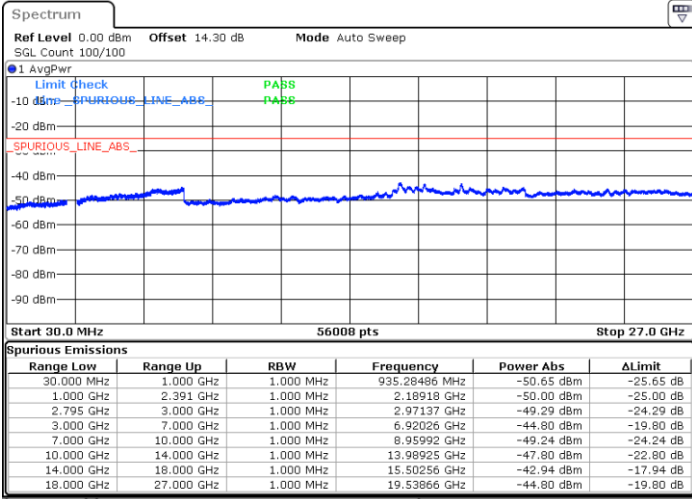
Date: 20.JAN.2021 08:08:31



FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M)

Lowest Channel / 1RB

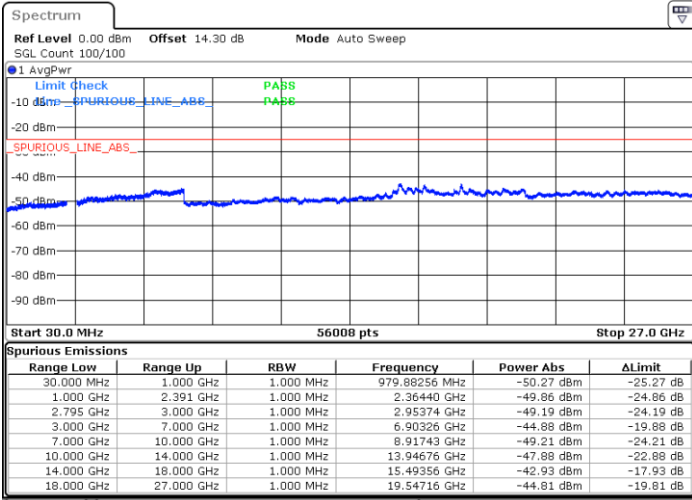
Middle Channel / 1RB



Date: 21.JAN.2021 04:09:40

Date: 21.JAN.2021 04:02:58

Highest Channel / 1RB



Date: 21.JAN.2021 04:24:05



Frequency Stability

Test Conditions		NR UL-MIMO n41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0015	
10	Normal Voltage	0.0022	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0025	
-20	Normal Voltage	0.0021	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0028	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0022	

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 n41 UL_MIMO HPUE -SCS 30K

Peak-to-Average Ratio

Mode	FR1 UL-MIMO n41 / 10MHz / CP-OFDM (M2)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.65	8.64			PASS
Middle CH	7.45	8.61			
Highest CH	7.77	8.61			

Mode	FR1 UL-MIMO n41 / 10MHz / CP-OFDM (M)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	8.09	8.9			PASS
Middle CH	8.03	8.78			
Highest CH	7.59	8.81			



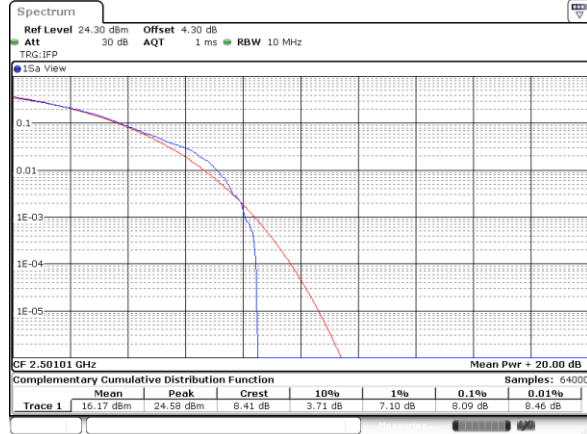
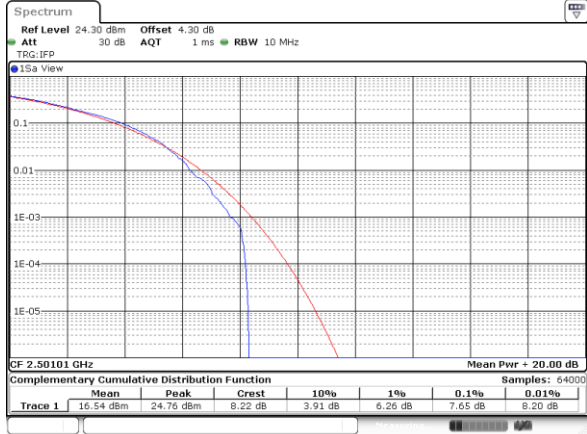
FR1 UL-MIMO n41 / 10MHz / CP-OFDM

QPSK(M2)

QPSK(M)

Lowest Channel / 1RB

Lowest Channel / 1RB

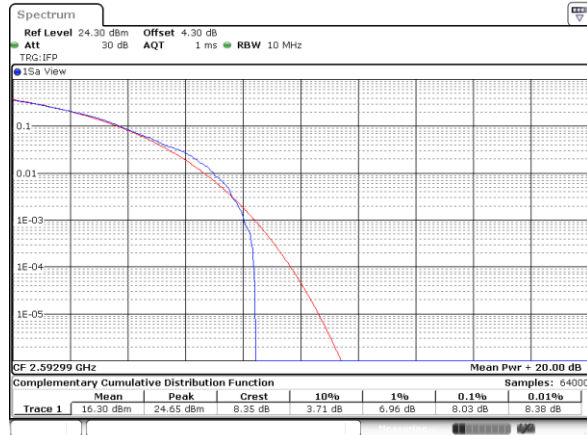
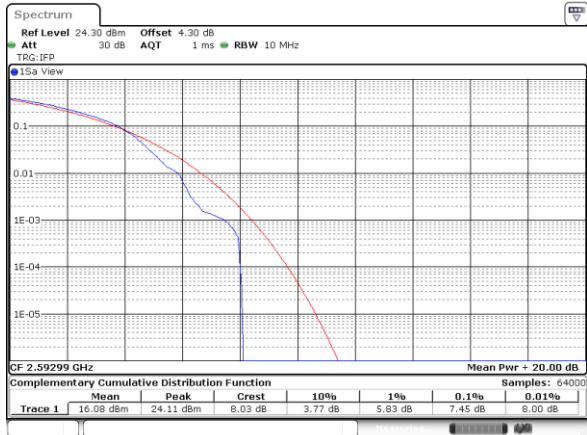


Date: 15_JAN_2021 21:30:02

Date: 15_JAN_2021 21:20:47

Middle Channel / 1 RB

Middle Channel / 1 RB

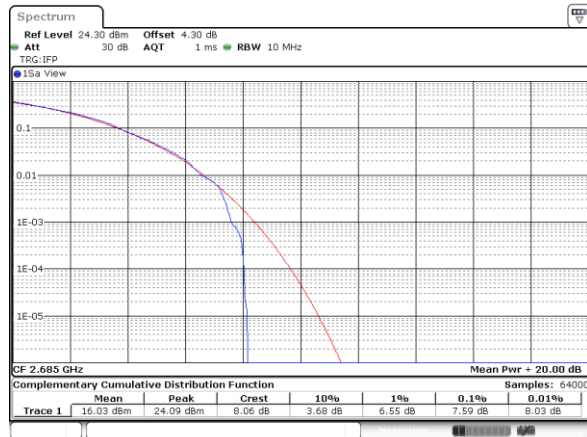
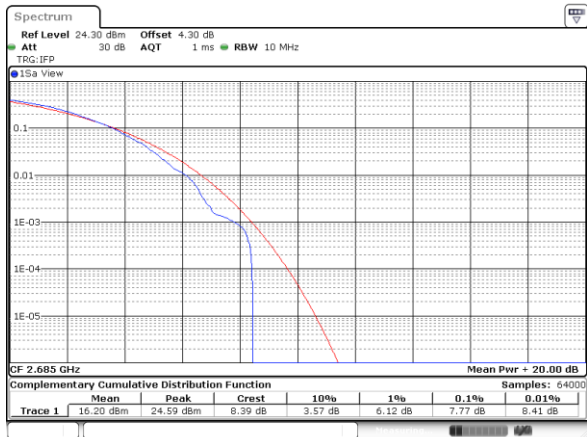


Date: 15_JAN_2021 21:48:24

Date: 15_JAN_2021 21:19:35

Highest Channel / 1 RB

Highest Channel / 1 RB



Date: 15_JAN_2021 22:20:08

Date: 15_JAN_2021 21:14:07



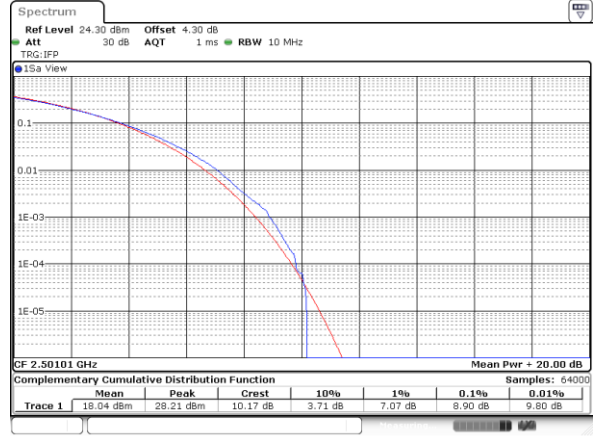
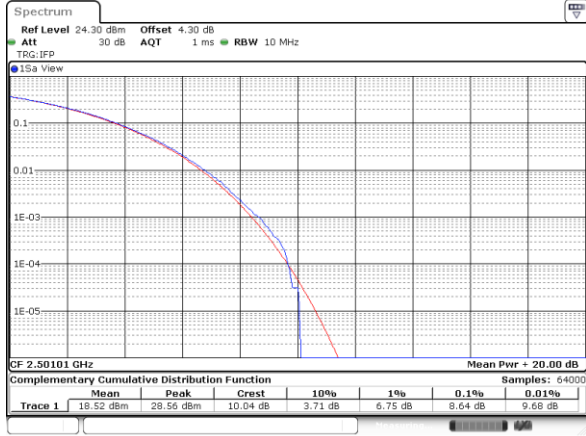
FR1 UL-MIMO n41 / 20MHz / CP-OFDM

QPSK(M2)

QPSK(M)

Lowest Channel / Full RB

Lowest Channel / Full RB

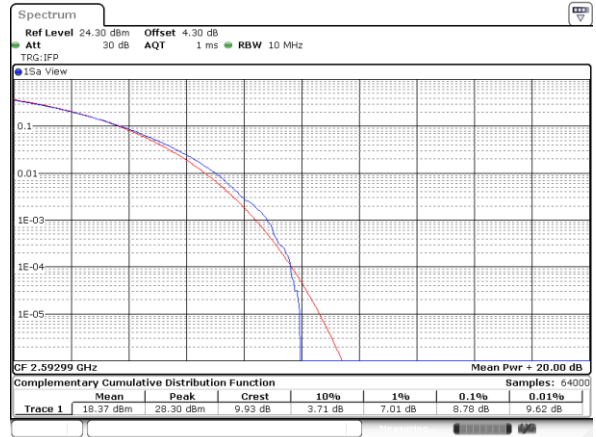
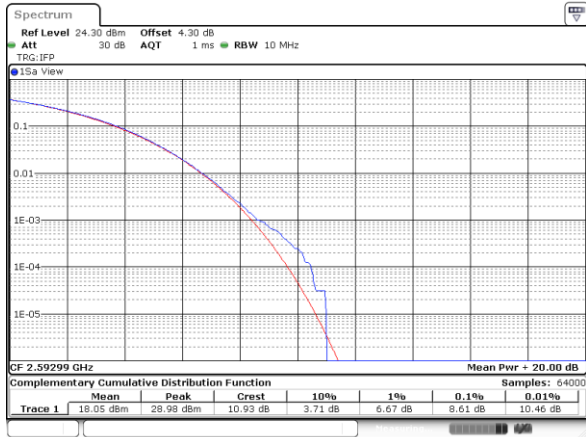


Date: 15_JAN_2021 21:26:50

Date: 15_JAN_2021 21:22:17

Middle Channel / Full RB

Middle Channel / Full RB

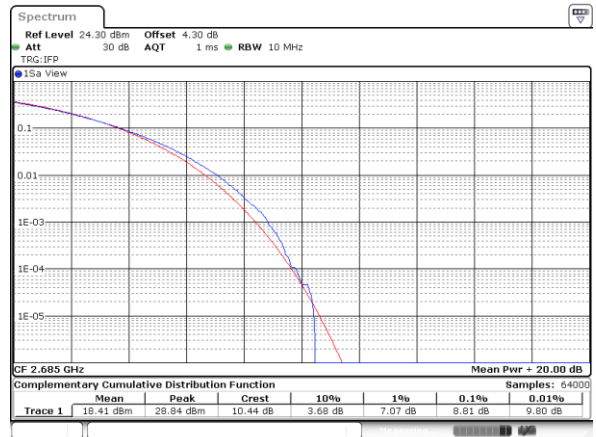
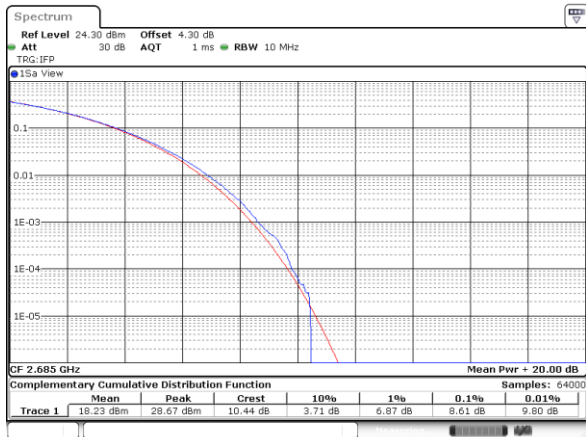


Date: 15_JAN_2021 21:44:38

Date: 15_JAN_2021 21:17:40

Highest Channel / Full RB

Highest Channel / Full RB



Date: 15_JAN_2021 22:22:28

Date: 15_JAN_2021 21:16:42



26dB Bandwidth

Mode	FR1 UL-MIMO n41 : 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	9.33	9.07	9.07	9.23	9.31	8..93	9.31	9.09

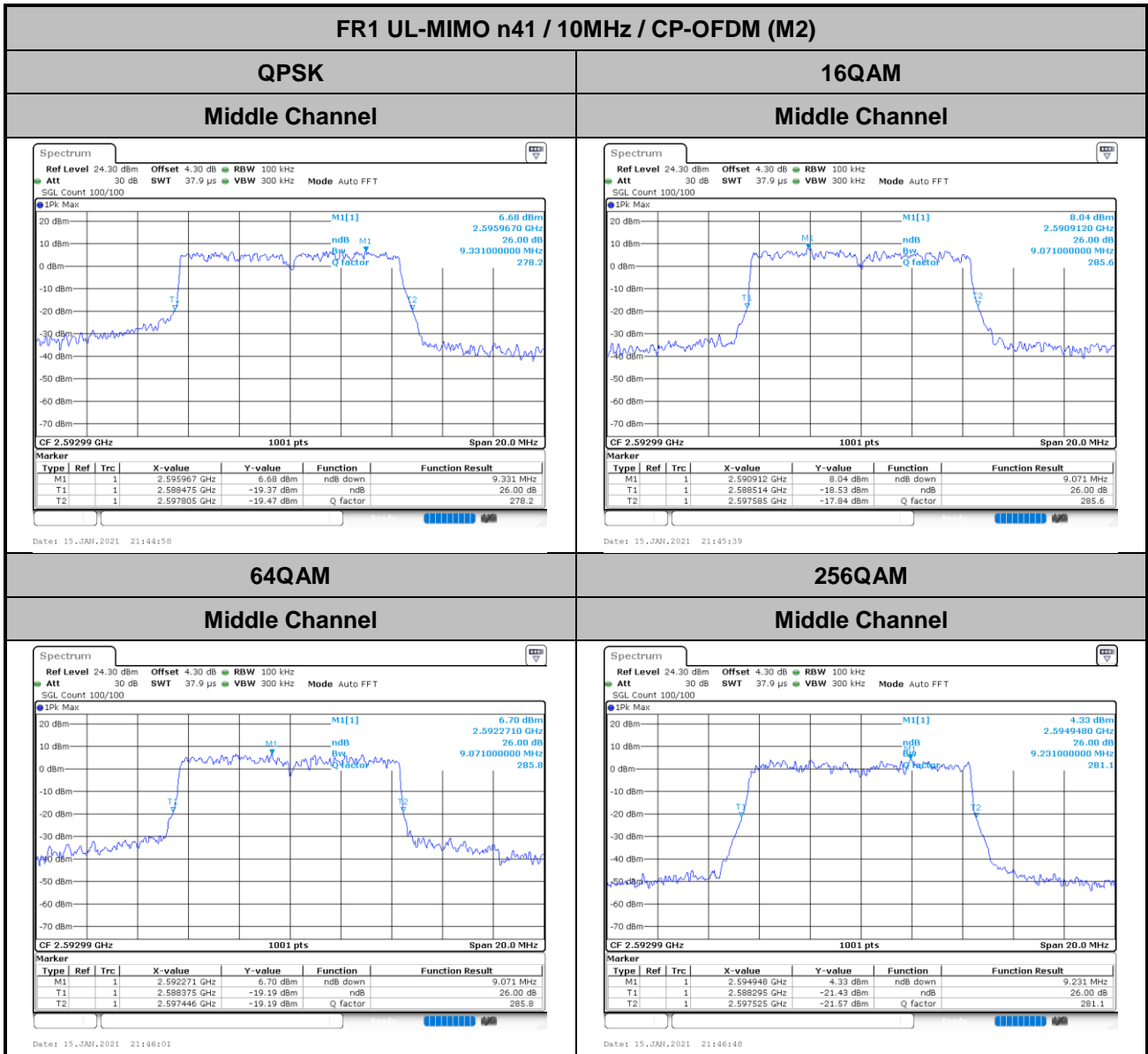
Mode	FR1 UL-MIMO n41 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	14.57	14.33	14.42	14.3	14.72	14.51	14.30	14.54

Mode	FR1 UL-MIMO n41 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	28.71	28.77	28.77	28.71	28.95	28.95	28.95	29.07

Mode	FR1 UL-MIMO n41 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	40.44	40.2	40.36	40.28	40.52	40.28	40.36	40.2

Mode	FR1 UL-MIMO n41 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	49.75	49.75	49.85	49.65	49.75	49.75	49.65	49.75

Mode	FR1 UL-MIMO n41 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	80.08	79.92	80.08	79.92	79.92	79.92	79.92	80.08





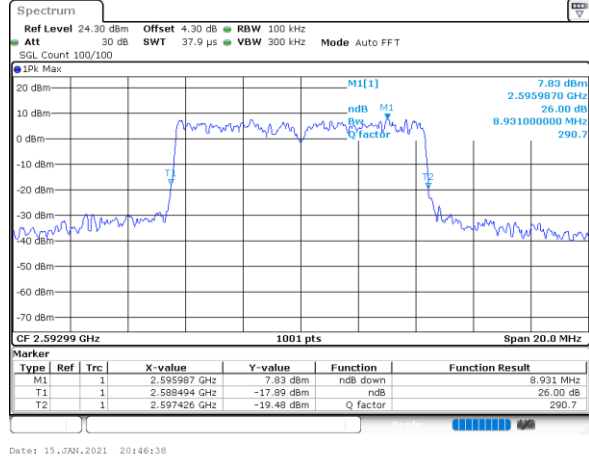
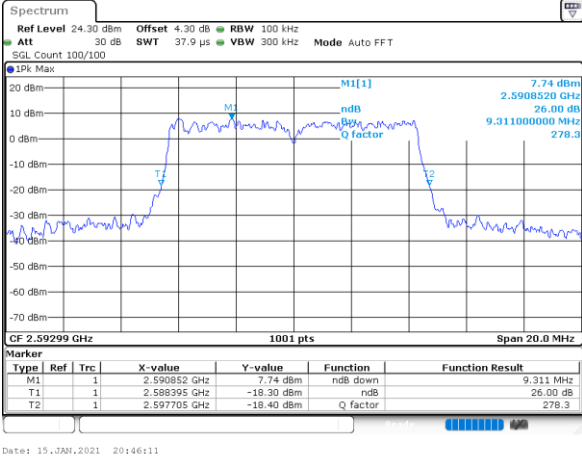
FR1 UL-MIMO n41 / 10MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel

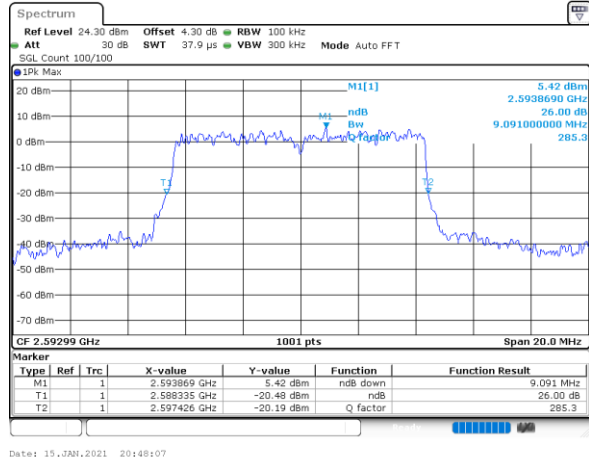
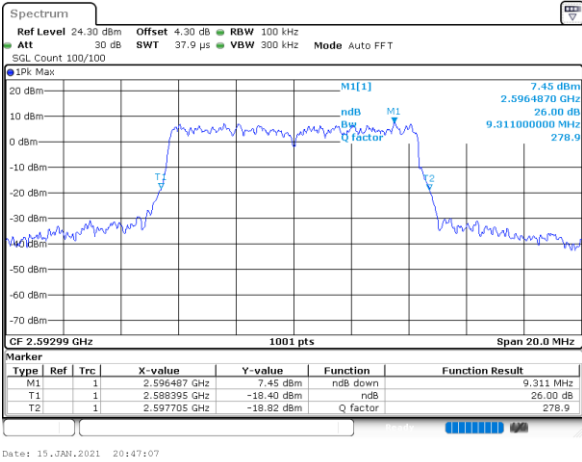


64QAM

256QAM

Middle Channel

Middle Channel





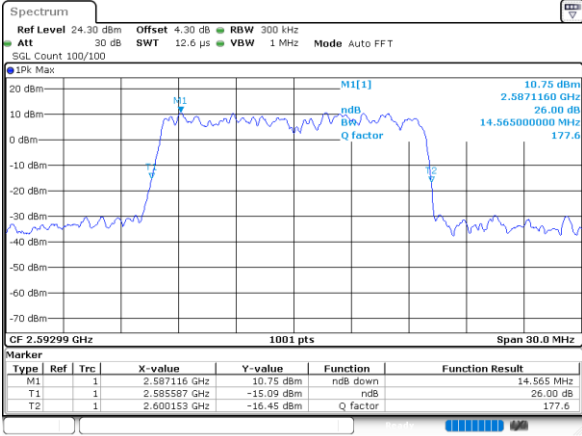
FR1 UL-MIMO n41 / 15MHz / CP-OFDM (M2)

QPSK

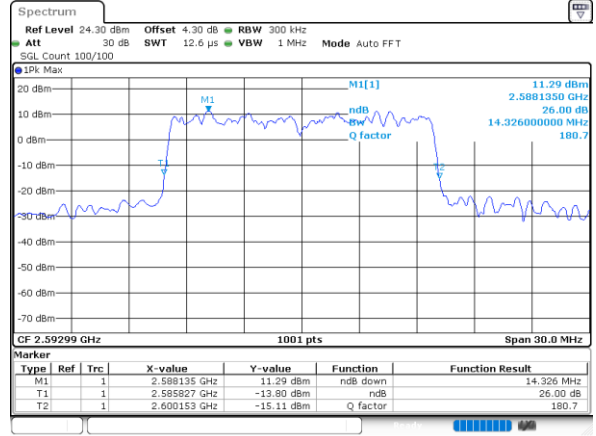
16QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 22:37:49



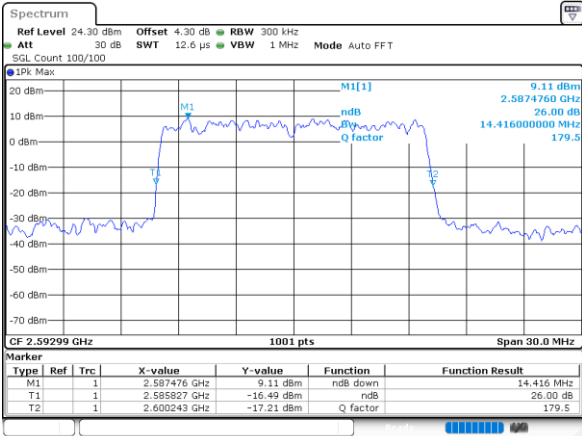
Date: 15_JAN_2021 22:38:32

64QAM

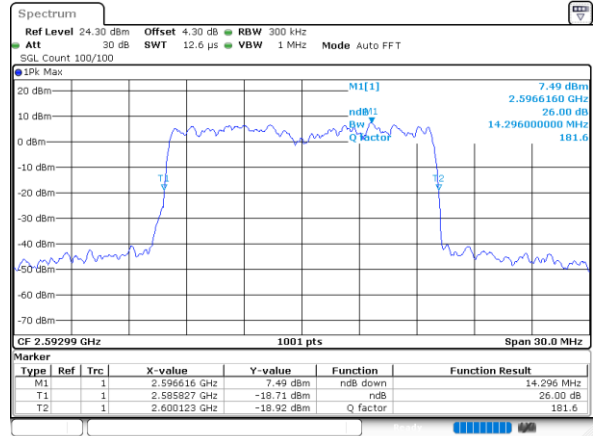
256QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 22:39:14



Date: 15_JAN_2021 22:39:40



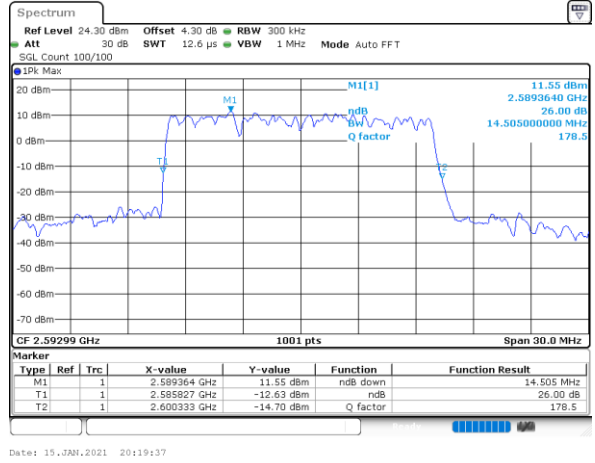
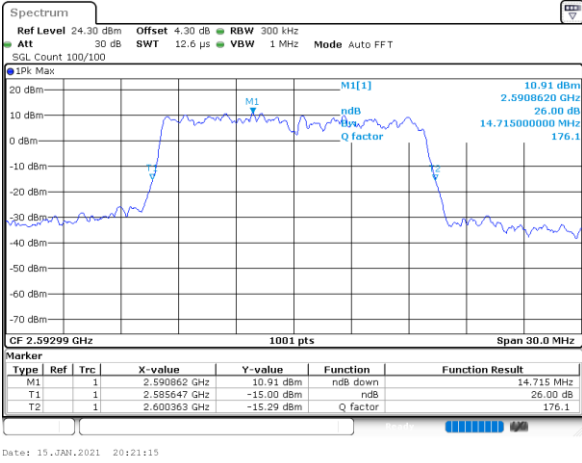
FR1 UL-MIMO n41 / 15MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel

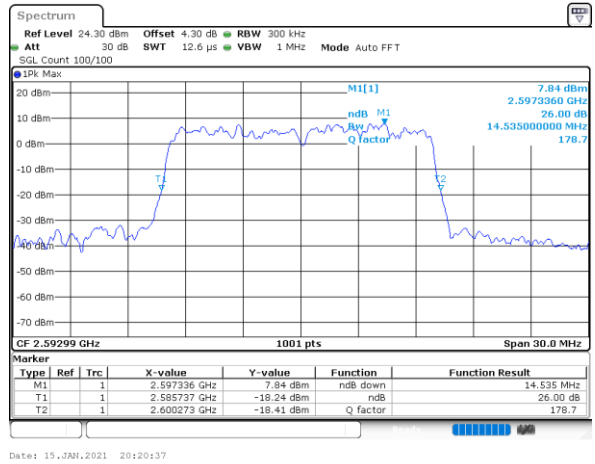
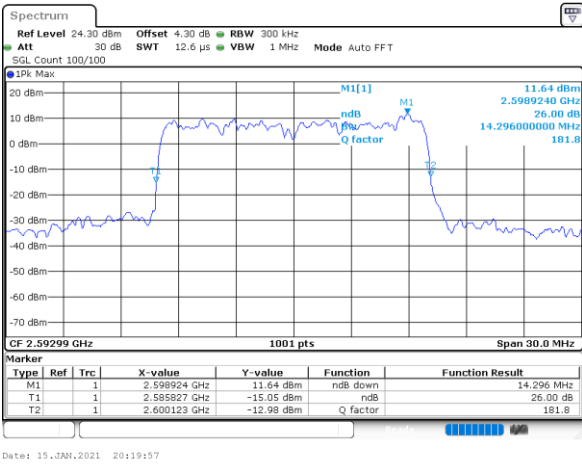


64QAM

256QAM

Middle Channel

Middle Channel





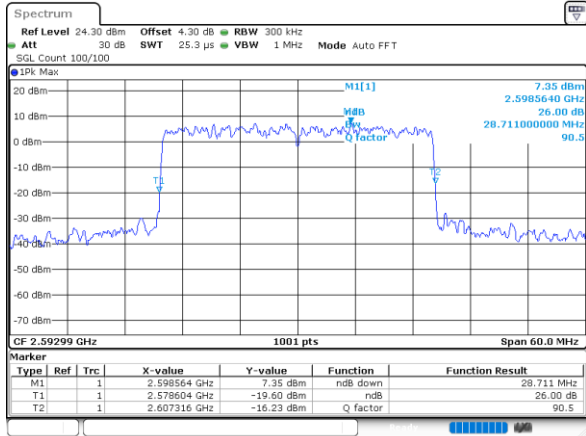
FR1 UL-MIMO n41 / 30MHz / CP-OFDM (M2)

QPSK

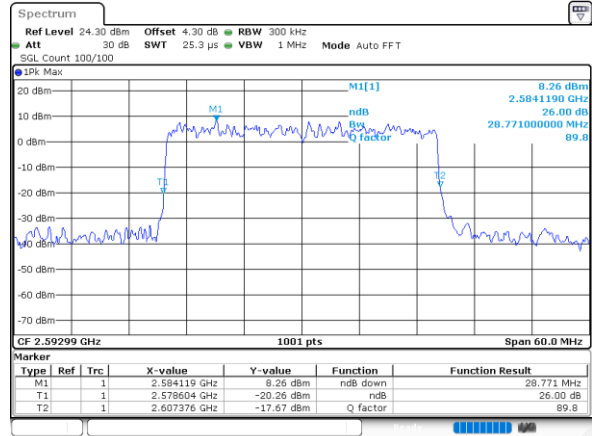
16QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 22:44:53



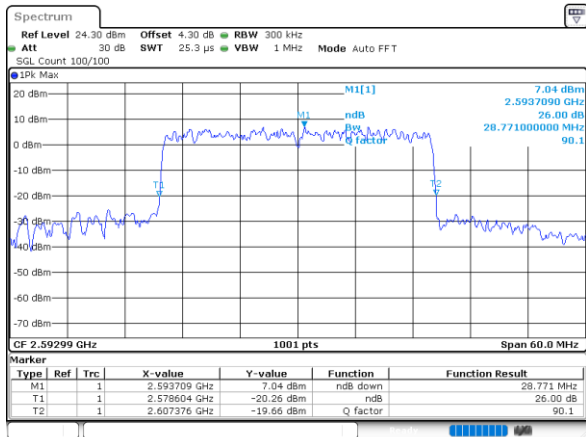
Date: 15_JAN_2021 22:46:14

64QAM

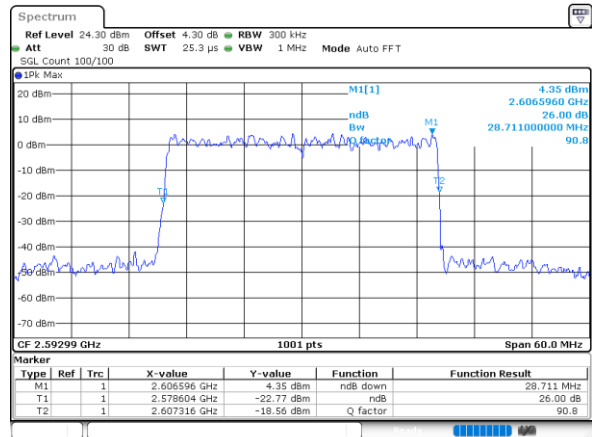
256QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 22:43:04



Date: 15_JAN_2021 22:42:10



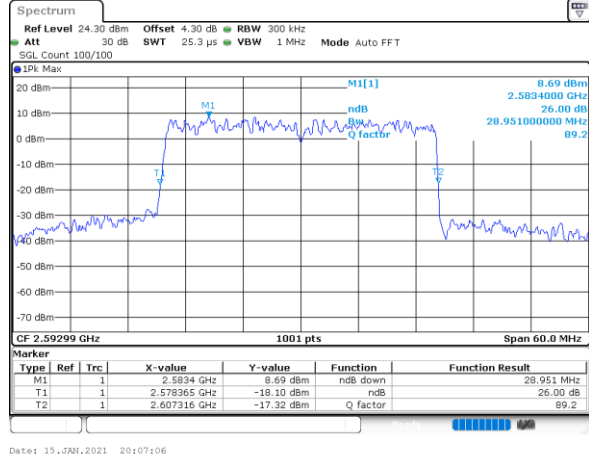
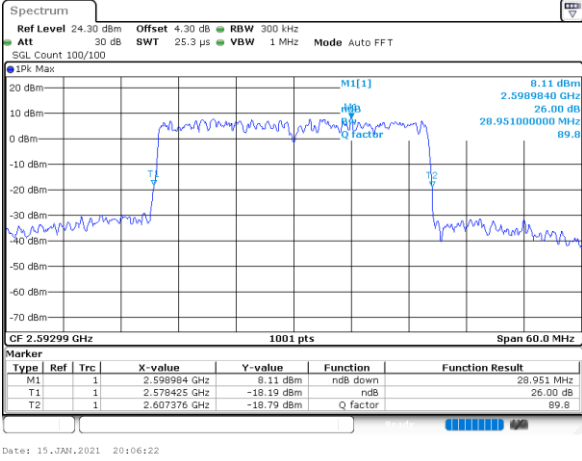
FR1 UL-MIMO n41 / 30MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel

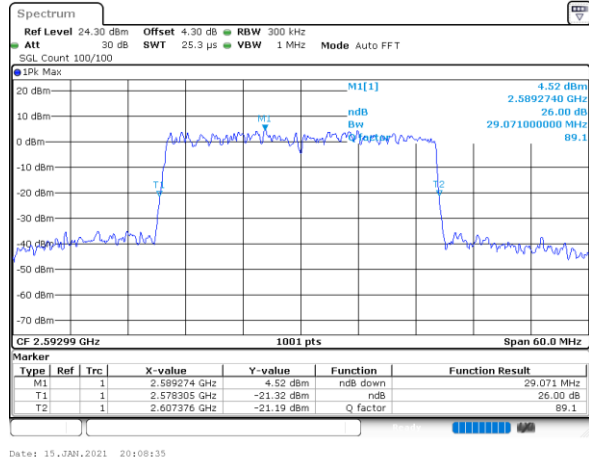
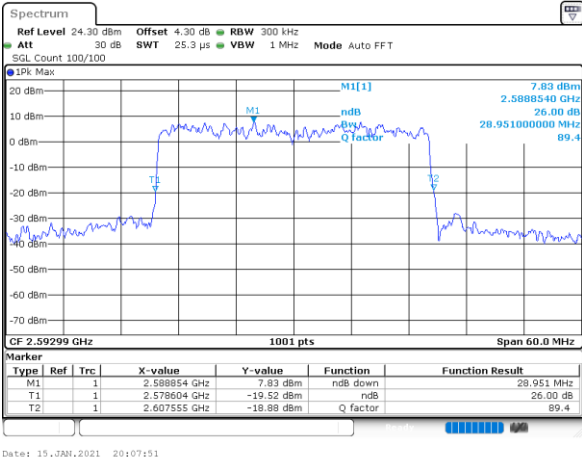


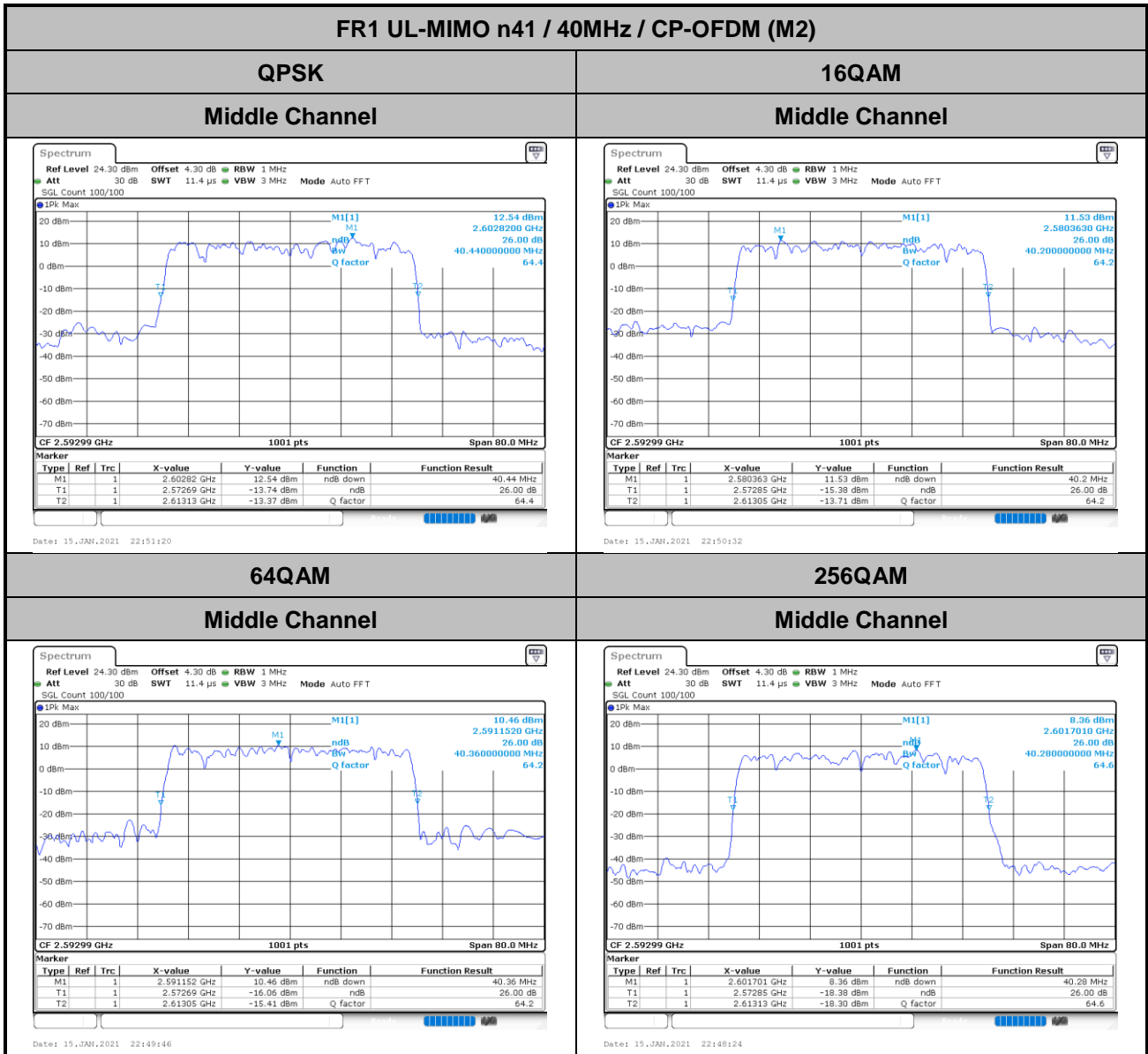
64QAM

256QAM

Middle Channel

Middle Channel







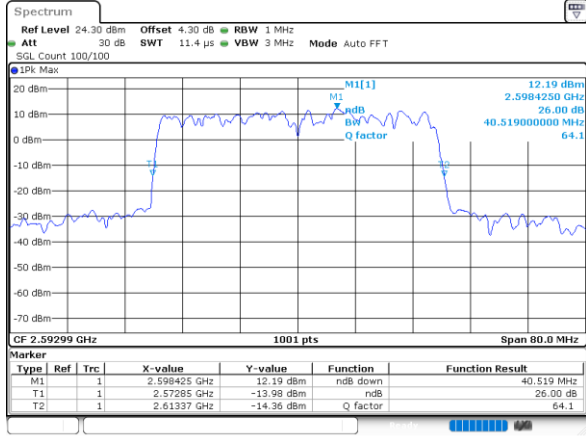
FR1 UL-MIMO n41 / 40MHz / CP-OFDM (M)

QPSK

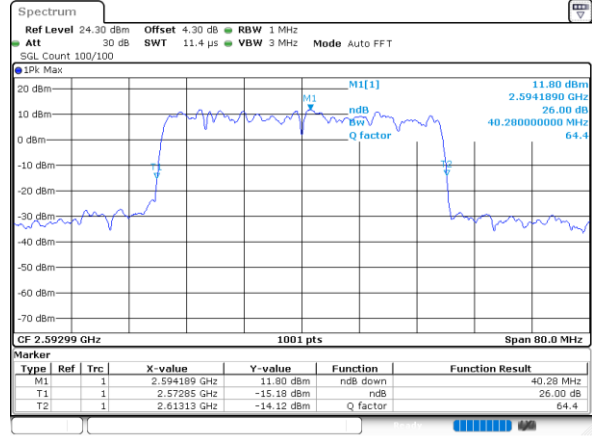
16QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 19:27:15



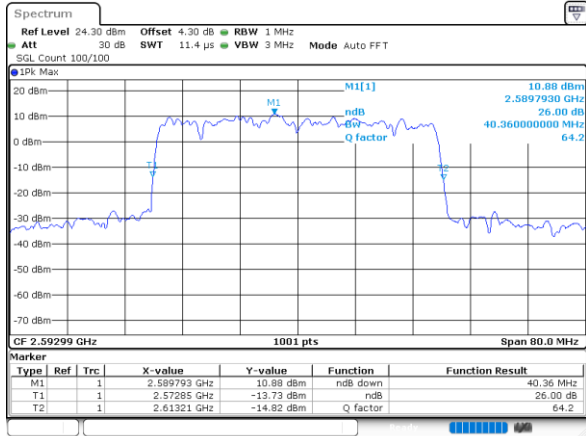
Date: 15_JAN_2021 19:26:41

64QAM

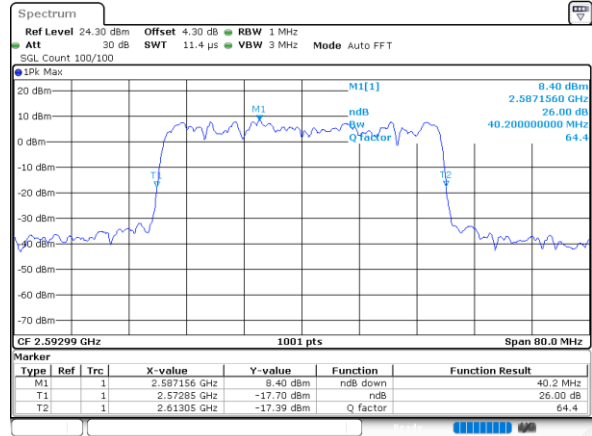
256QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 19:26:06



Date: 15_JAN_2021 19:25:22



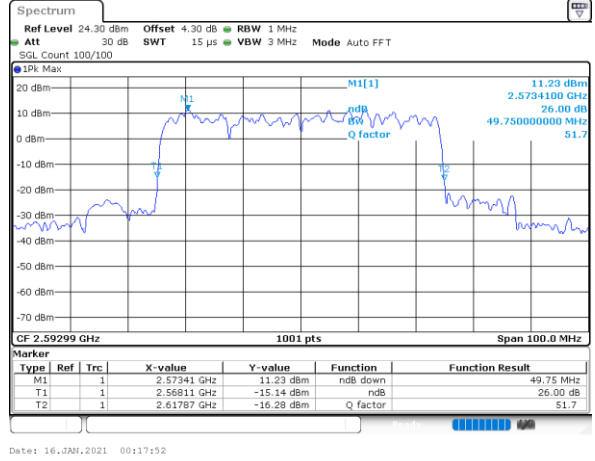
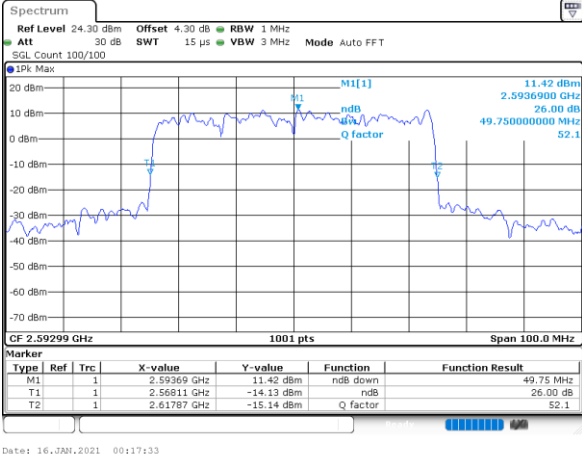
FR1 UL-MIMO n41 / 50MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel

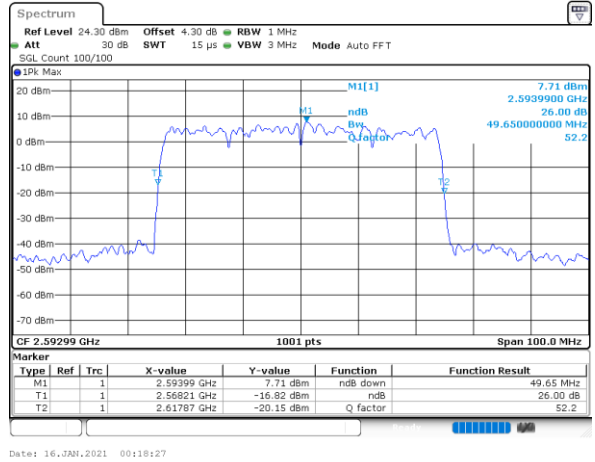
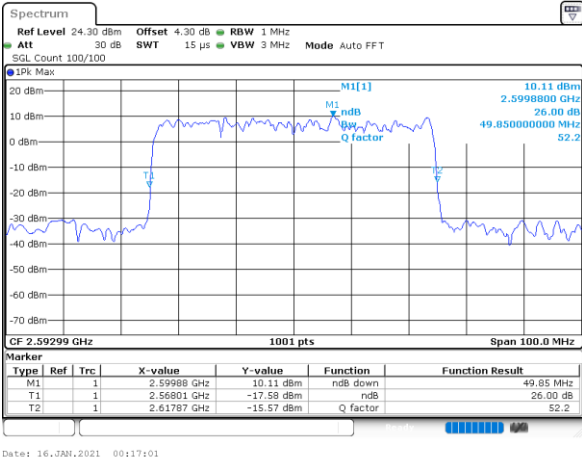


64QAM

256QAM

Middle Channel

Middle Channel





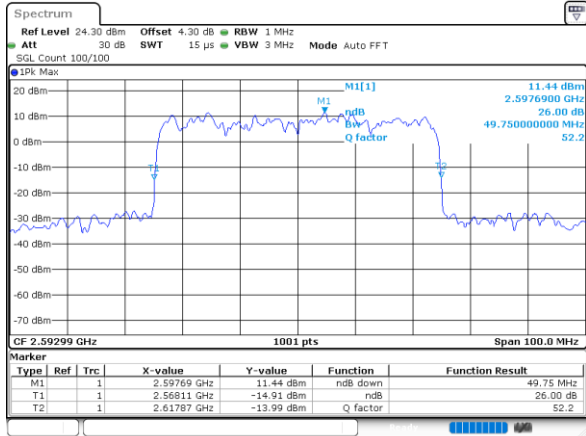
FR1 UL-MIMO n41 / 50MHz / CP-OFDM (M)

QPSK

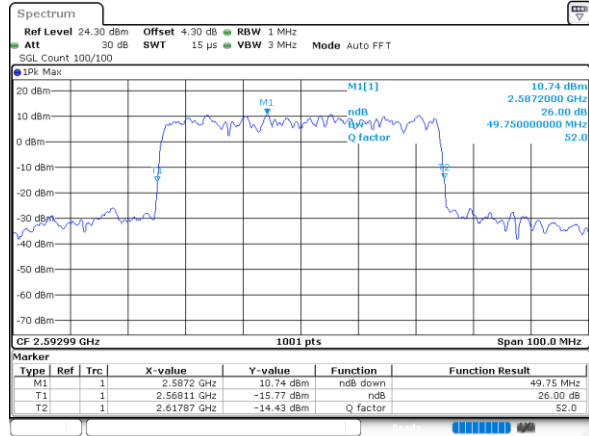
16QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 19:23:15



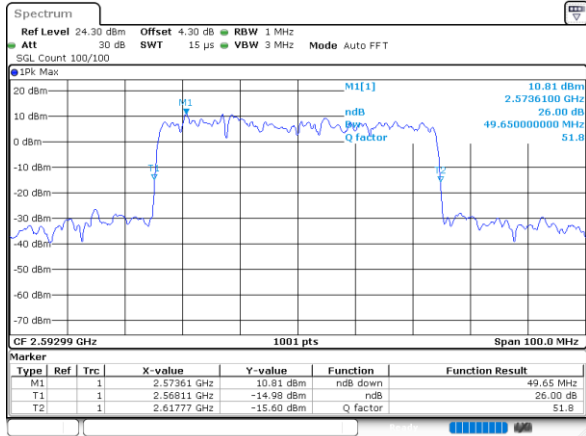
Date: 15_JAN_2021 19:23:35

64QAM

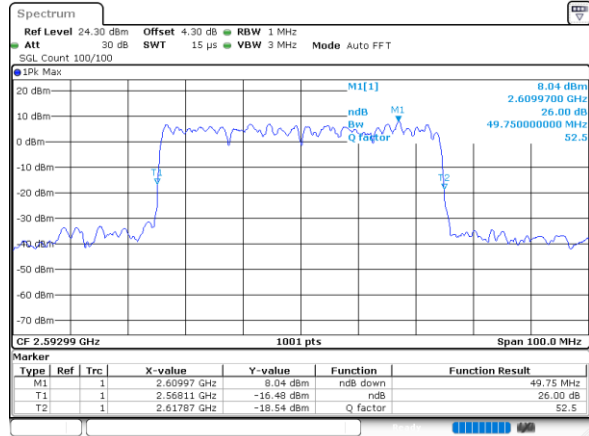
256QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 19:24:06



Date: 15_JAN_2021 19:24:21



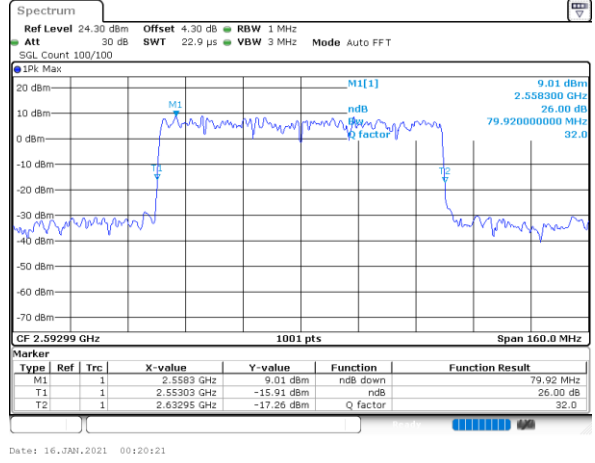
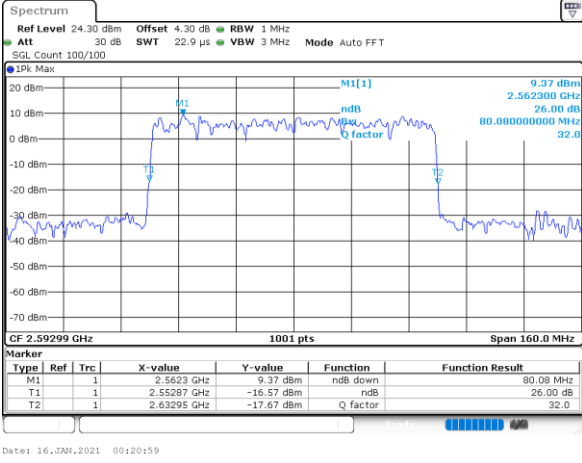
FR1 UL-MIMO n41 / 80MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel

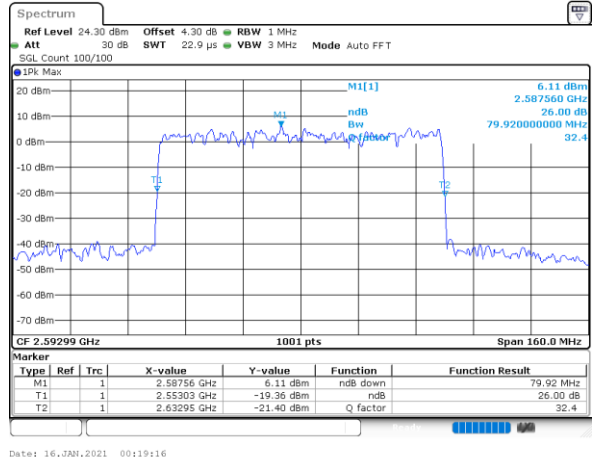
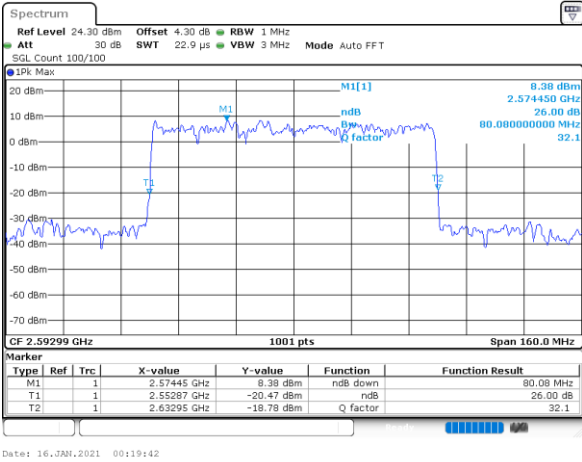


64QAM

256QAM

Middle Channel

Middle Channel





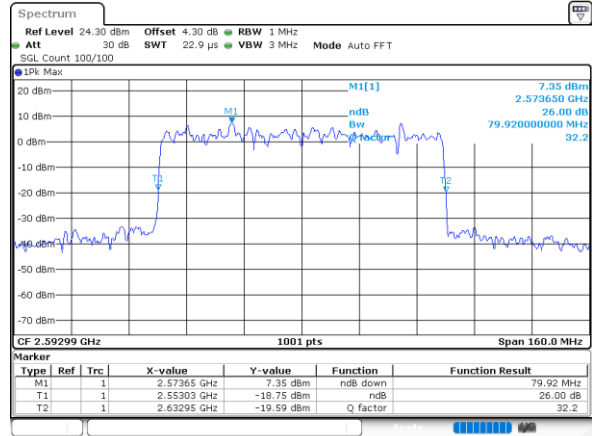
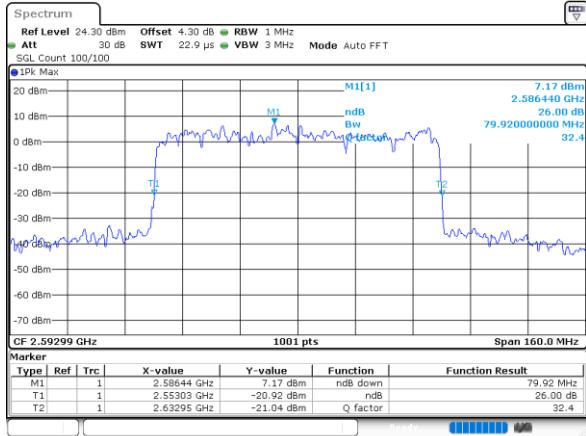
FR1 UL-MIMO n41 / 80MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 07:30:44

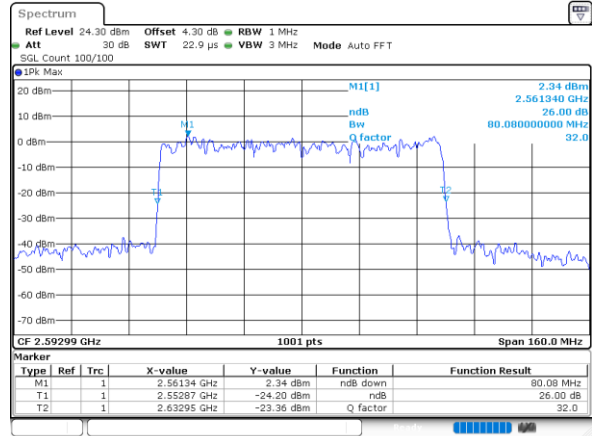
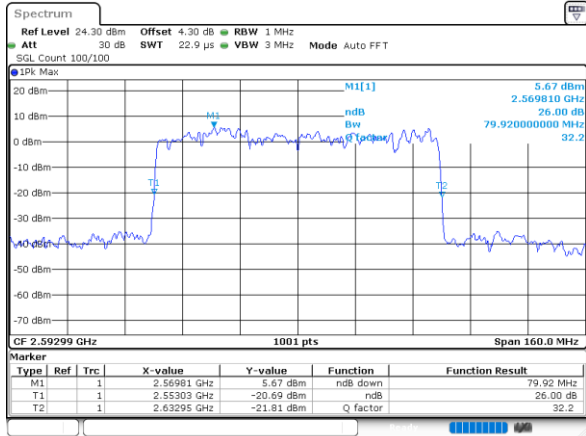
Date: 15_JAN_2021 07:30:53

64QAM

256QAM

Middle Channel

Middle Channel



Date: 15_JAN_2021 07:31:14

Date: 15_JAN_2021 07:31:33



Occupied Bandwidth

Mode	FR1 UL-MIMO n41 : 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	8.57	8.59	8.59	8.57	8.59	8.57	8.59	8.61

Mode	FR1 UL-MIMO n41 : 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	13.73	13.67	13.58	13.70	13.52	13.64	13.58	13.61

Mode	FR1 UL-MIMO n41 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	27.87	27.87	27.81	27.87	27.87	27.81	27.87	27.81

Mode	FR1 UL-MIMO n41 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	38.04	37.72	38.28	37.88	37.88	38.28	37.96	38.28

Mode	FR1 UL-MIMO n41 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	47.85	47.85	47.65	47.75	47.55	47.35	47.45	47.55

Mode	FR1 UL-MIMO n41 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	77.36	77.52	77.20	77.52	77.68	77.68	77.52	77.52

