



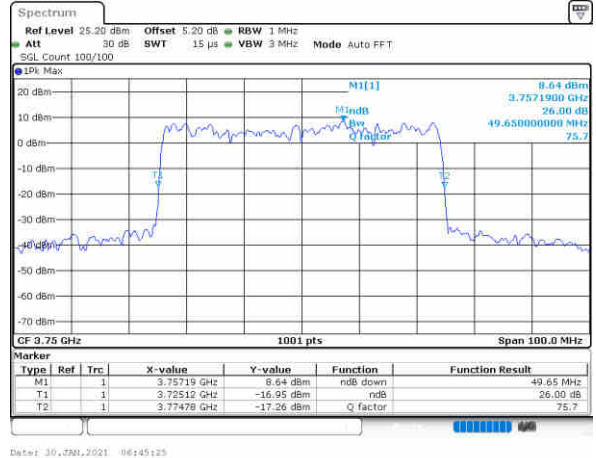
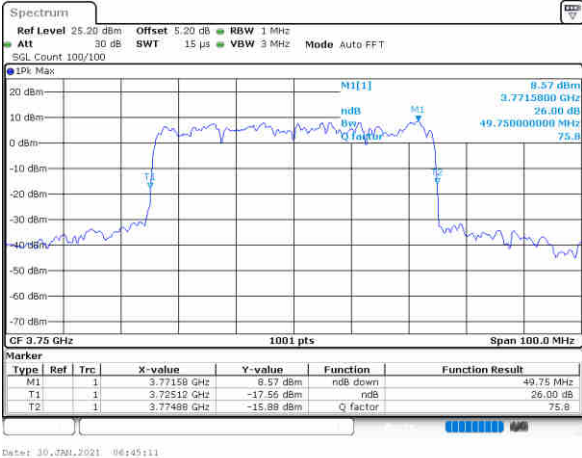
FR1 UL-MIMO n78 / 50MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel

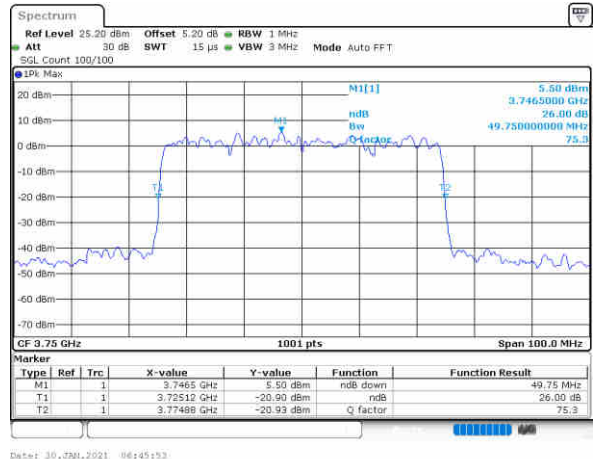
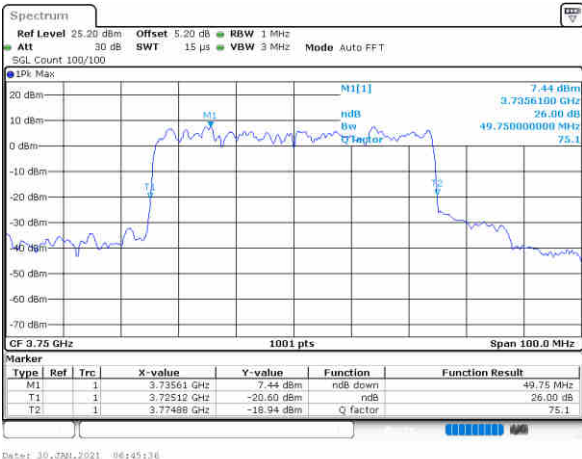


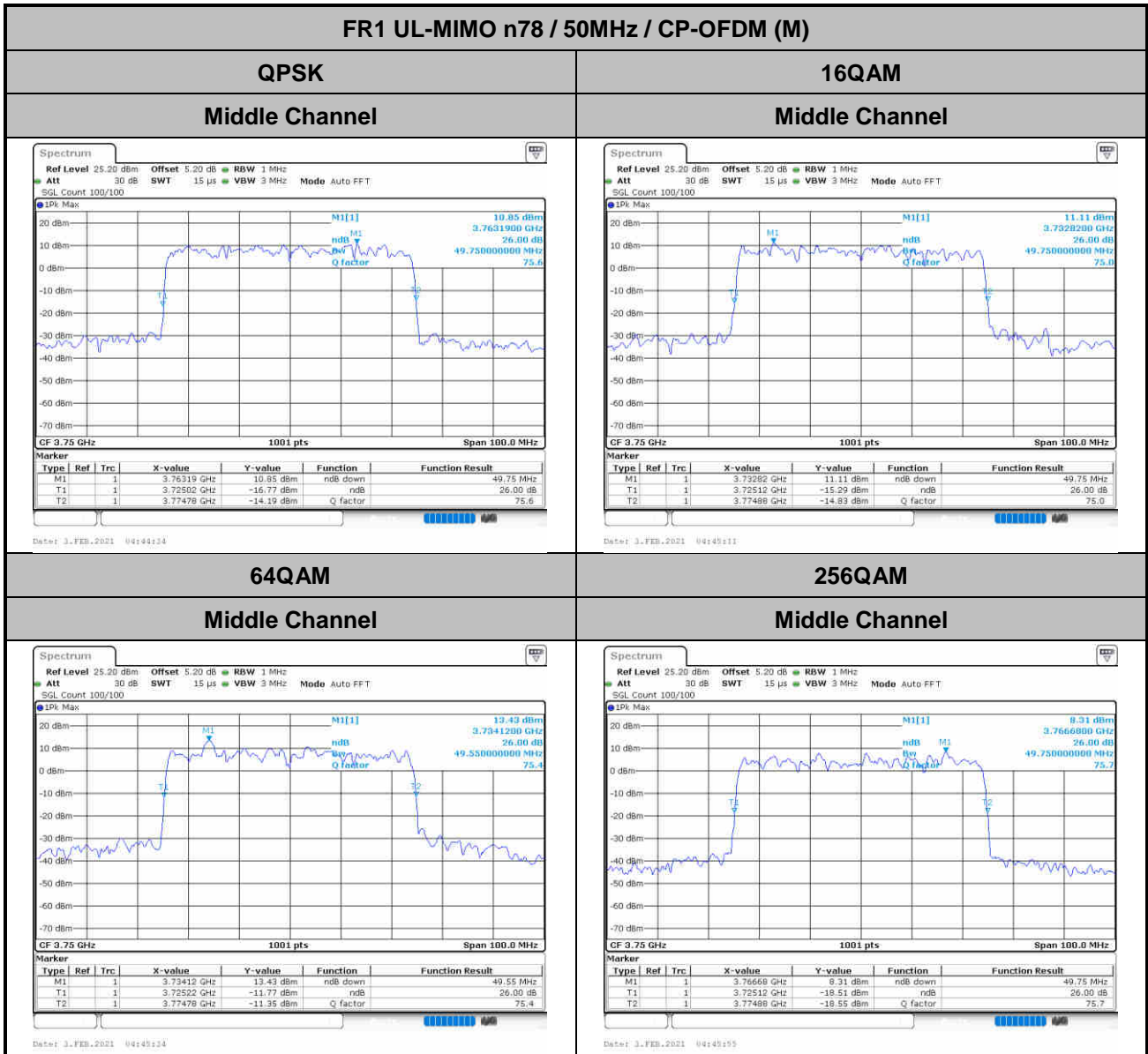
64QAM

256QAM

Middle Channel

Middle Channel







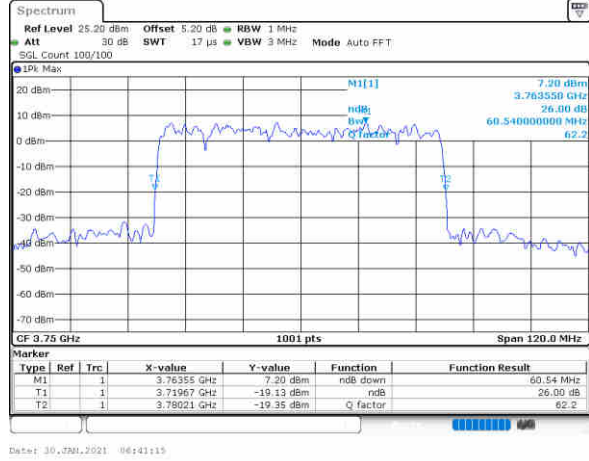
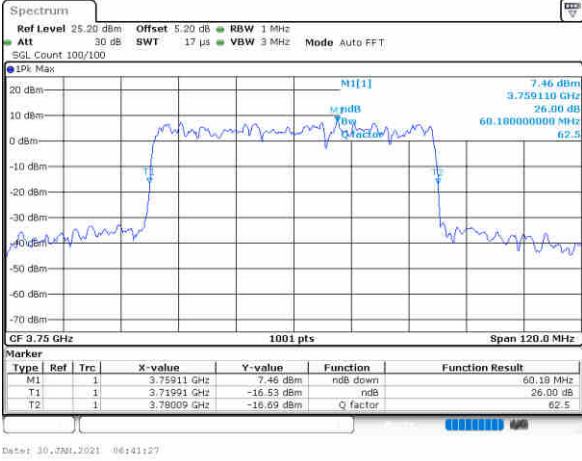
FR1 UL-MIMO n78 / 60MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30_JAN,2021 06:41:27

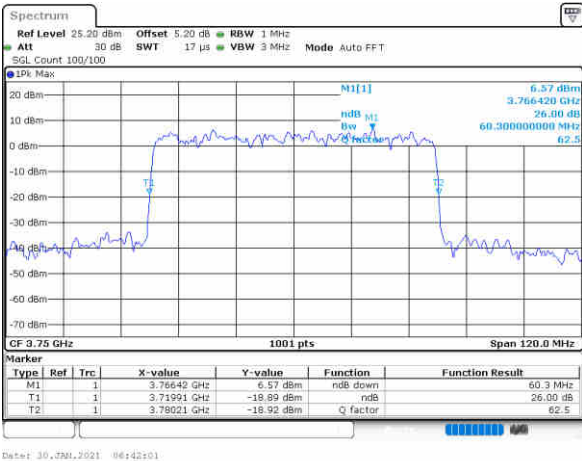
Date: 30_JAN,2021 06:41:15

64QAM

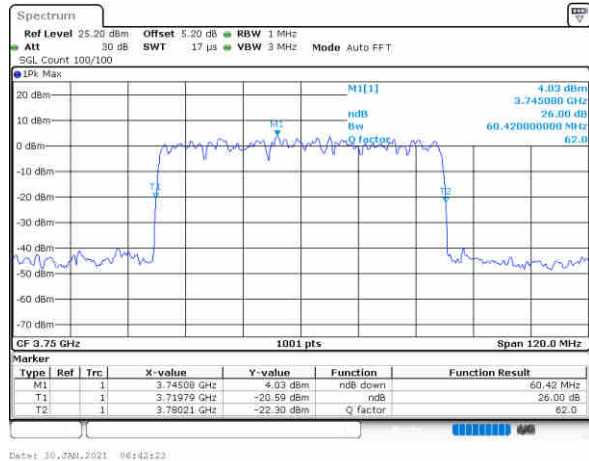
256QAM

Middle Channel

Middle Channel



Date: 30_JAN,2021 06:42:01



Date: 30_JAN,2021 06:42:23



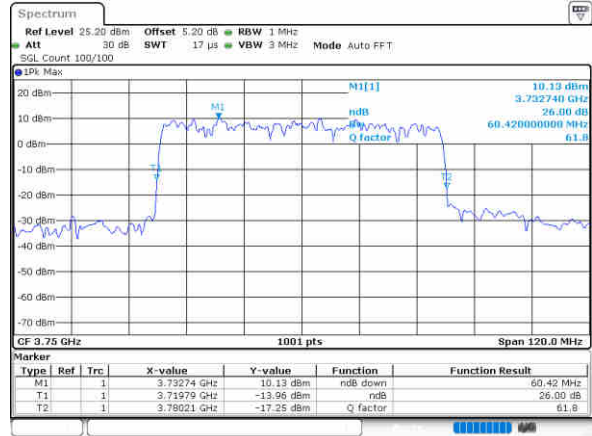
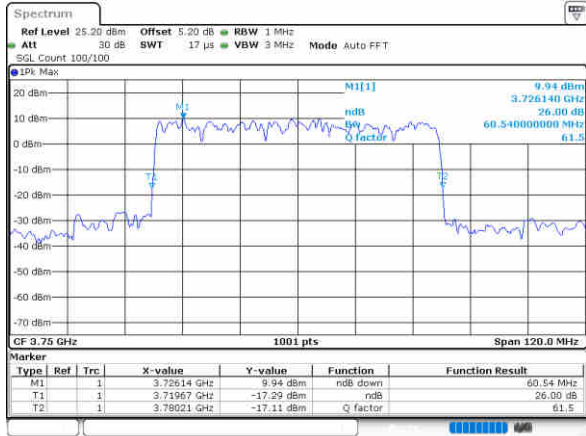
FR1 UL-MIMO n78 / 60MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:43:13

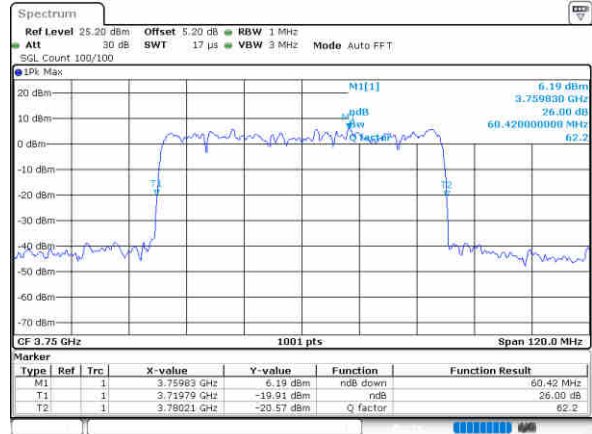
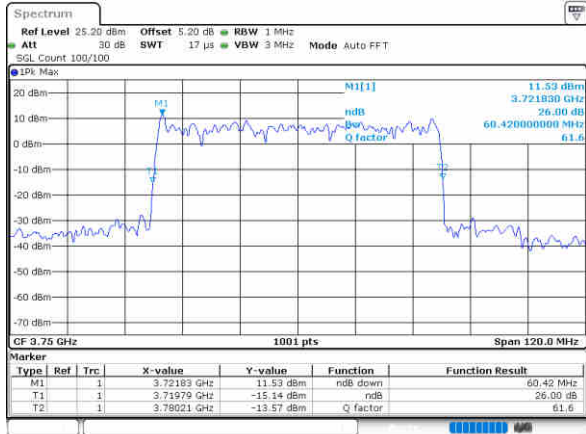
Date: 3.FEB.2021 04:42:32

64QAM

256QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:42:12

Date: 3.FEB.2021 04:41:50



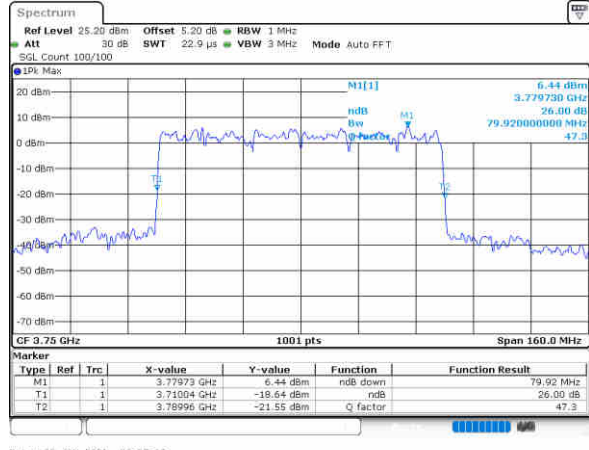
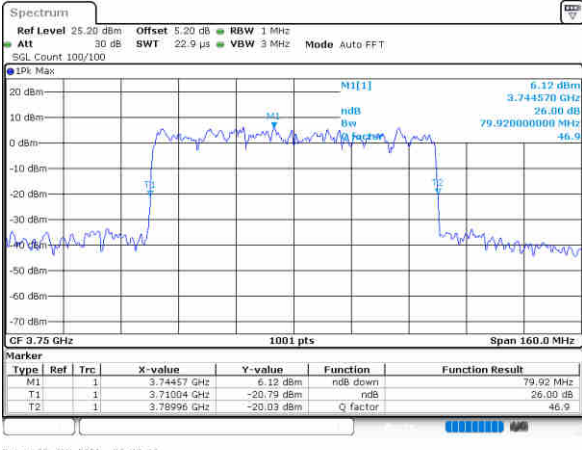
FR1 UL-MIMO n78 / 80MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:45:15

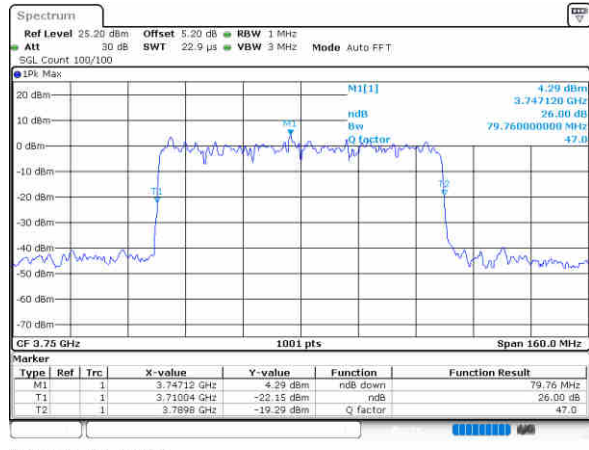
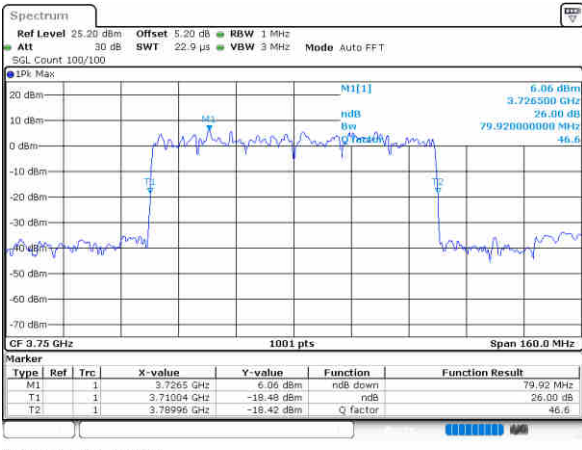
Date: 30_JAN_2021 06:17:12

64QAM

256QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:17:26

Date: 30_JAN_2021 06:17:19



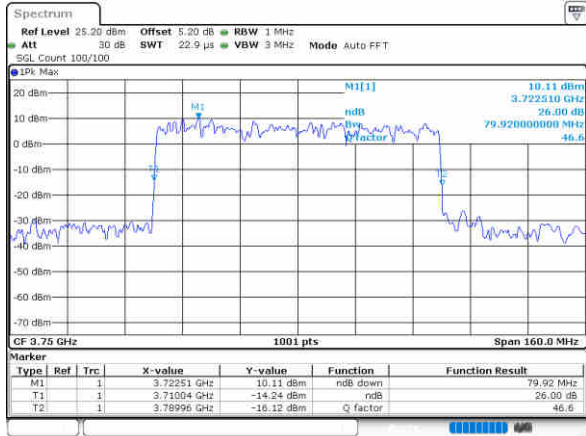
FR1 UL-MIMO n78 / 80MHz / CP-OFDM (M)

QPSK

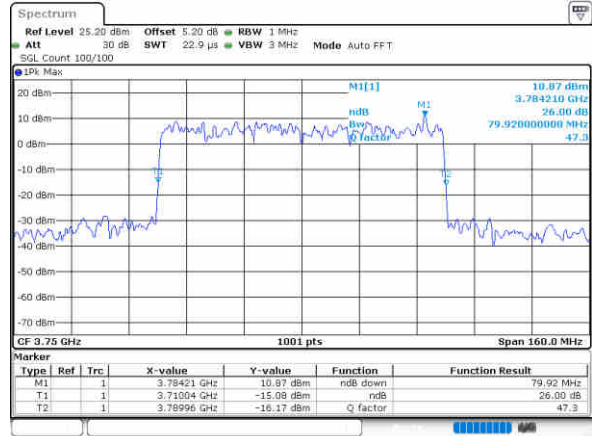
16QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:28:48



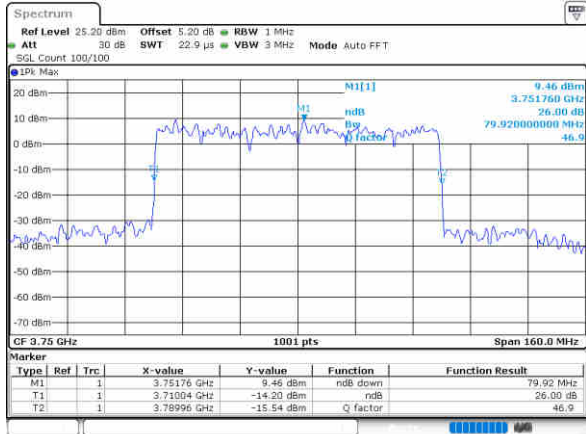
Date: 3.FEB.2021 04:40:12

64QAM

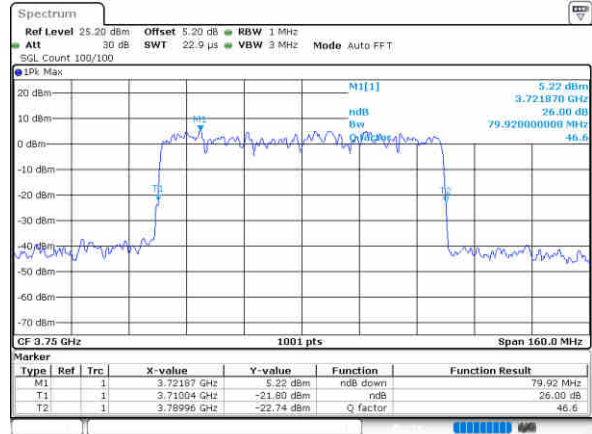
256QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:40:21



Date: 3.FEB.2021 04:41:00



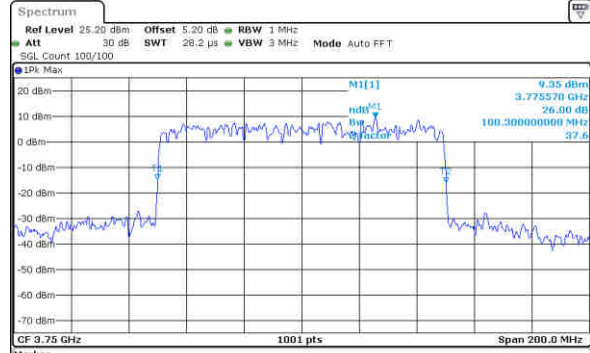
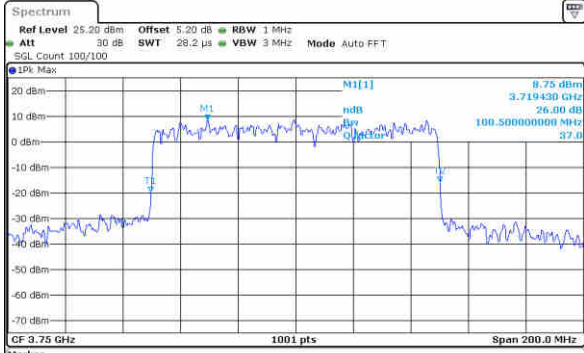
FR1 UL-MIMO n78 / 100MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:17:28

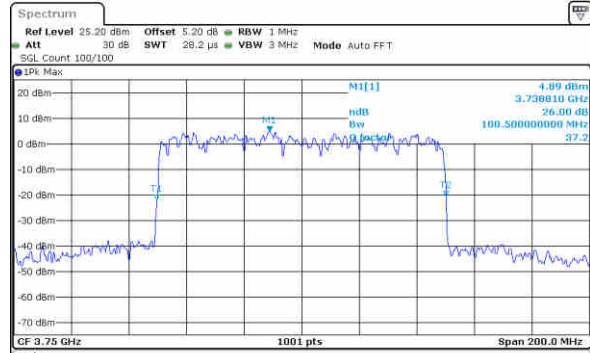
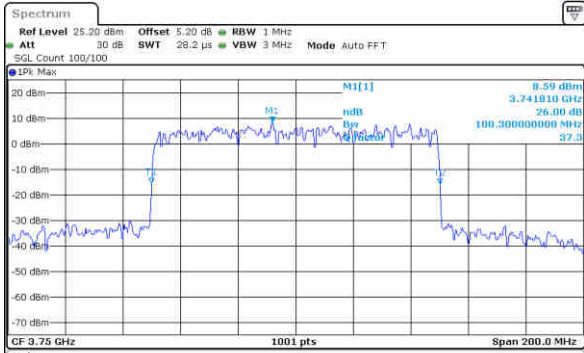
Date: 30_JAN_2021 06:27:06

64QAM

256QAM

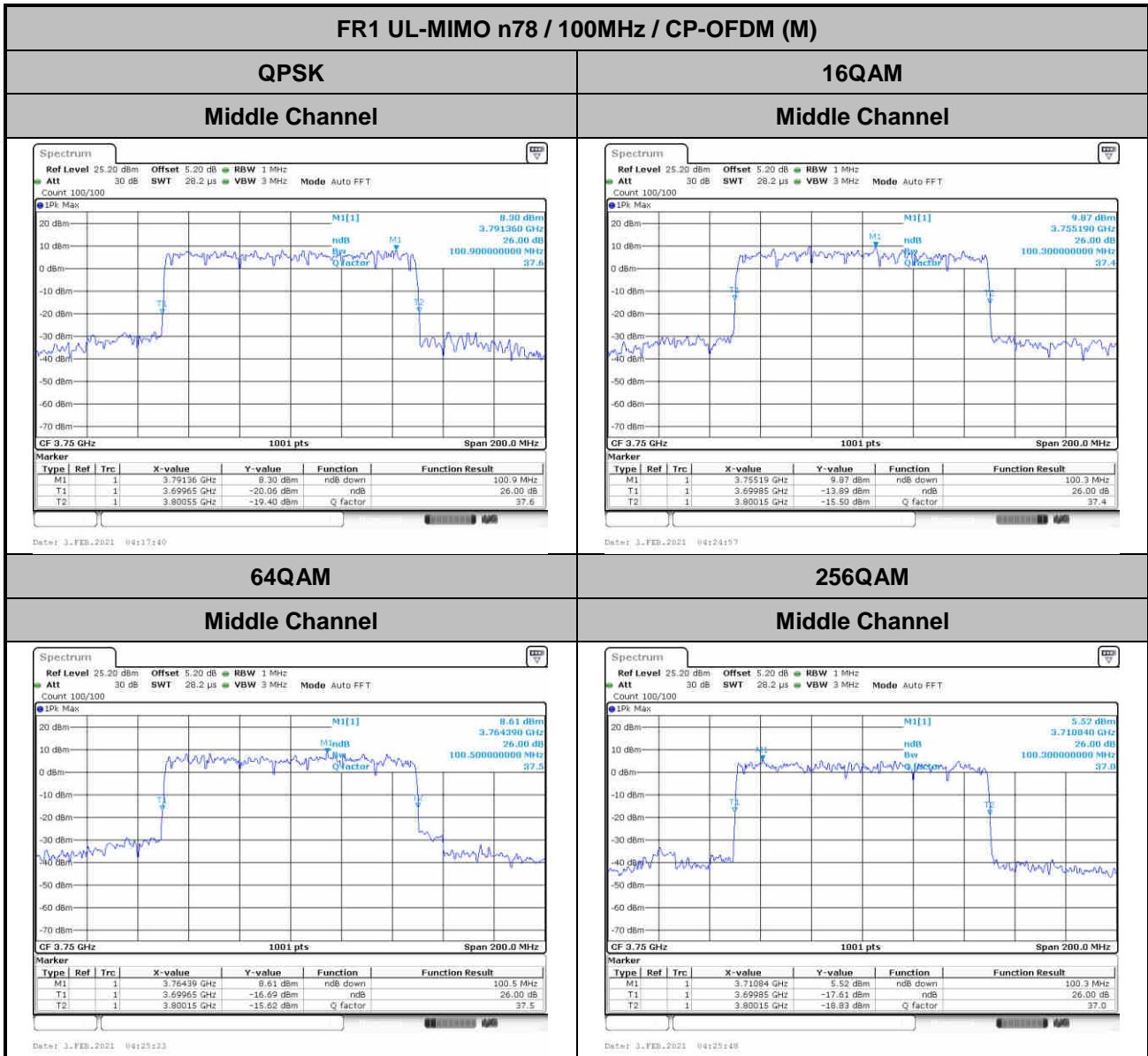
Middle Channel

Middle Channel



Date: 30_JAN_2021 06:27:19

Date: 30_JAN_2021 06:27:48





Occupied Bandwidth

Mode	FR1 UL-MIMO n78 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	8.57	8.57	8.57	8.57	8.53	8.59	8.59	8.55

Mode	FR1 UL-MIMO n78 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	13.55	13.58	13.61	13.64	13.58	13.52	13.61	13.64

Mode	FR1 UL-MIMO n78 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	18.22	18.14	18.30	18.22	18.26	18.30	18.46	18.34

Mode	FR1 UL-MIMO n78 : 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	37.88	37.96	37.96	38.12	38.12	38.04	38.04	38.04

Mode	FR1 UL-MIMO n78 : 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	47.15	47.45	47.55	47.25	47.95	47.65	47.55	47.05

Mode	FR1 UL-MIMO n78 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	60MHz	60MHz	60MHz	60MHz	60MHz	60MHz	60MHz	60MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	57.54	57.66	57.78	57.66	57.90	57.54	57.78	57.78



Mode	FR1 UL-MIMO n78 : 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	77.52	77.04	77.52	77.52	77.52	77.52	77.68	77.52

Mode	FR1 UL-MIMO n78 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	97.10	97.30	96.90	96.90	97.50	96.70	97.30	97.30



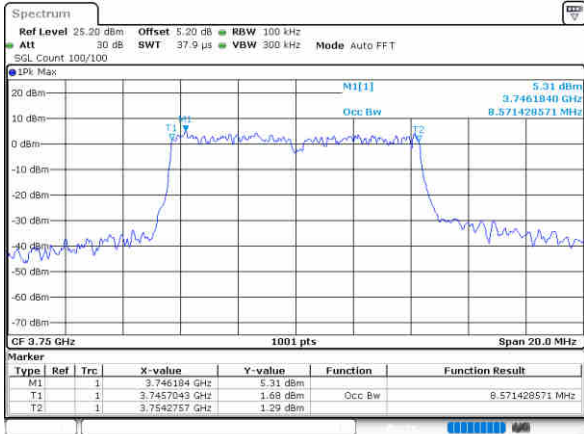
FR1 UL-MIMO n78 / 10MHz / CP-OFDM (M2)

QPSK

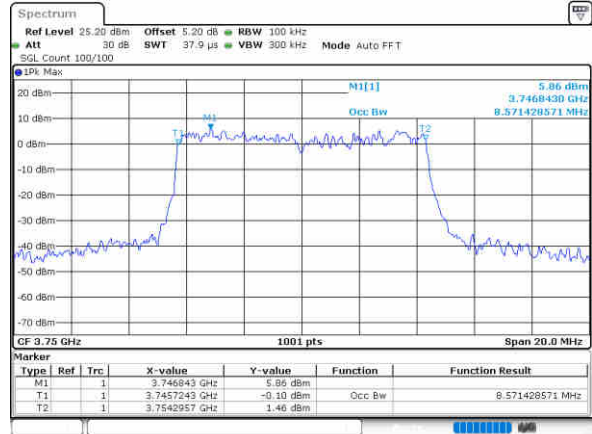
16QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 @9:13:56



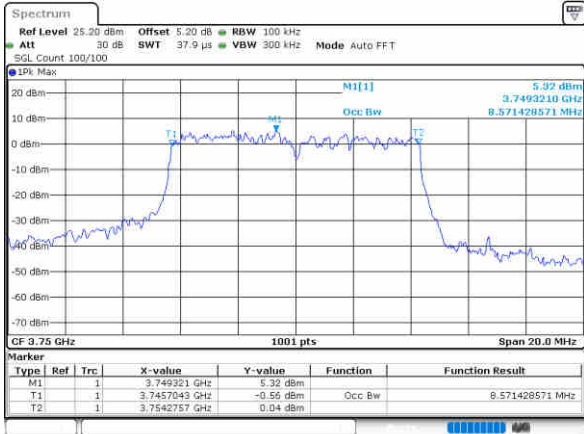
Date: 30_JAN_2021 @9:13:48

64QAM

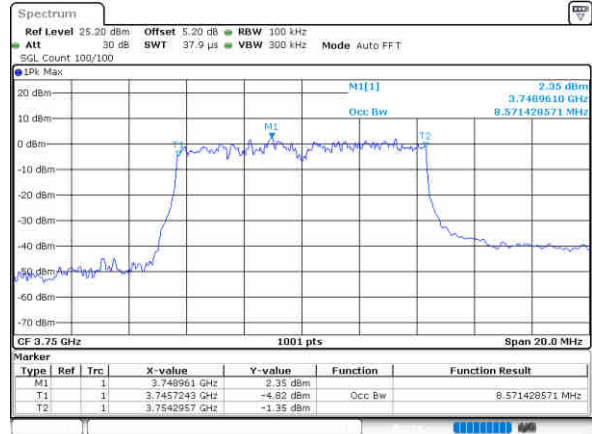
256QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 @9:14:07



Date: 30_JAN_2021 @9:14:18



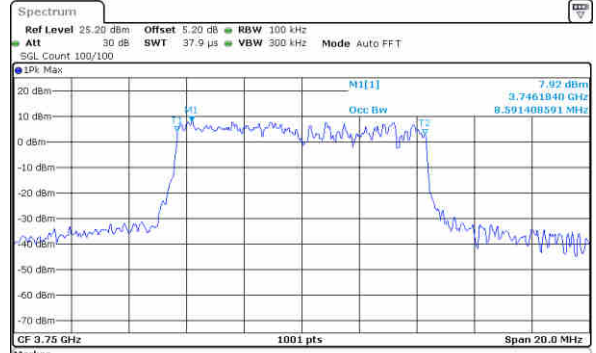
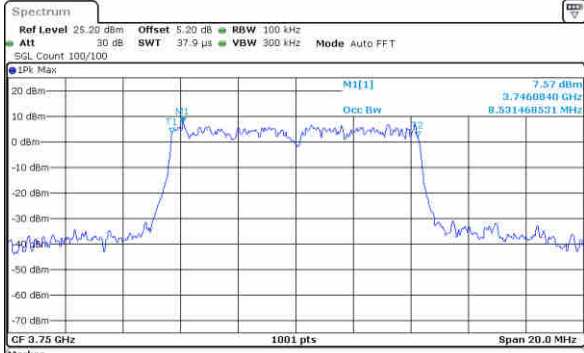
FR1 UL-MIMO n78 / 10MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 05:29:26

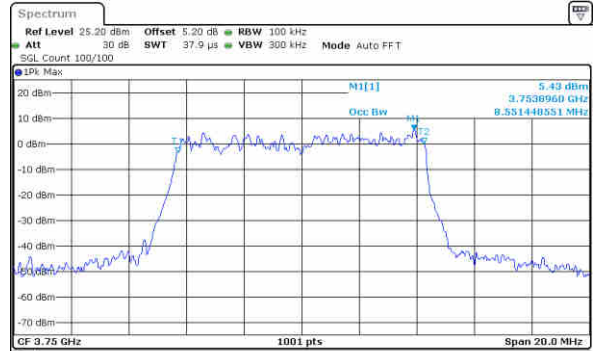
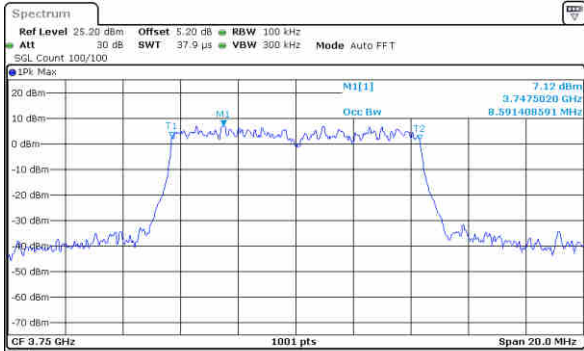
Date: 3.FEB.2021 05:29:03

64QAM

256QAM

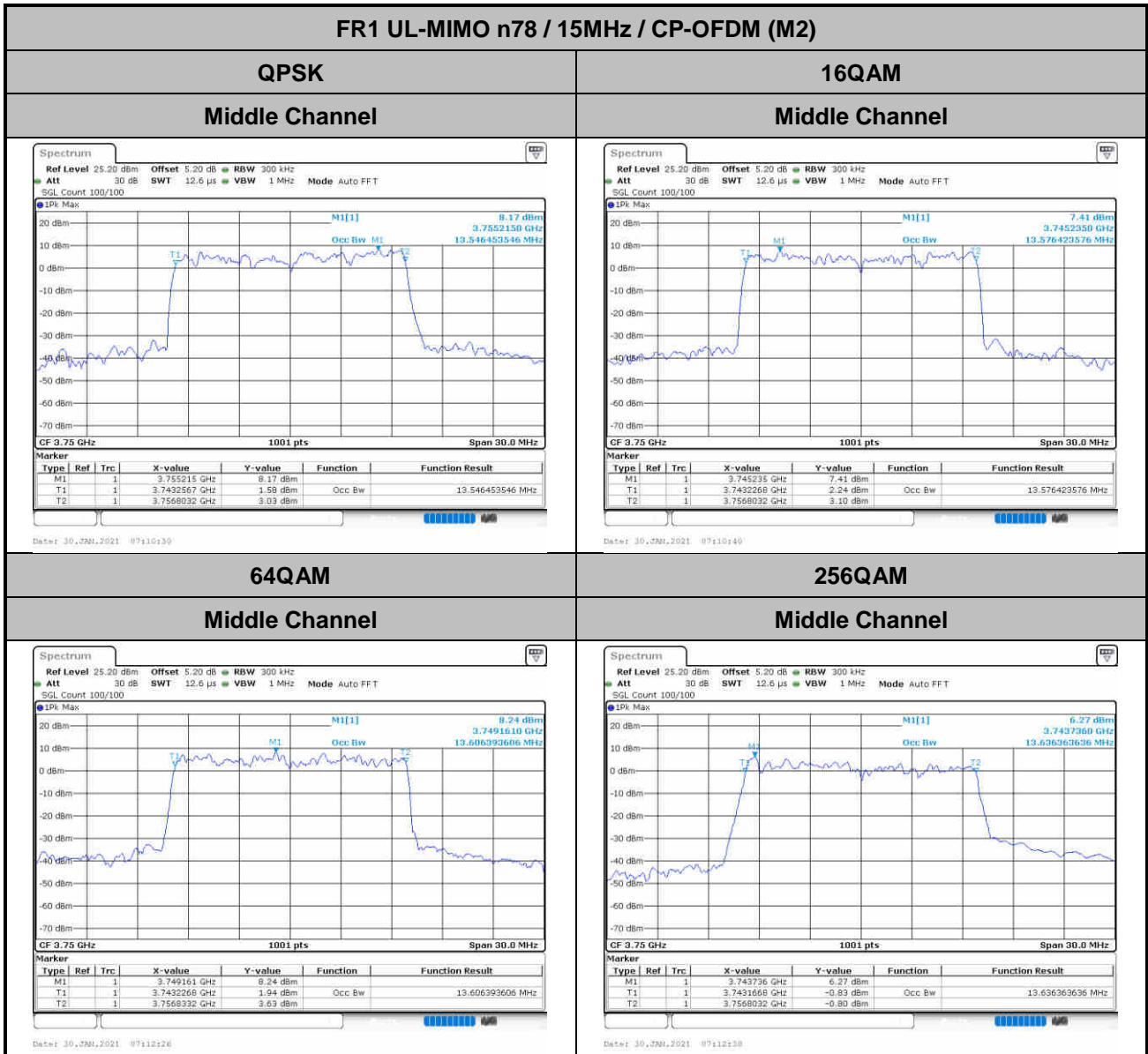
Middle Channel

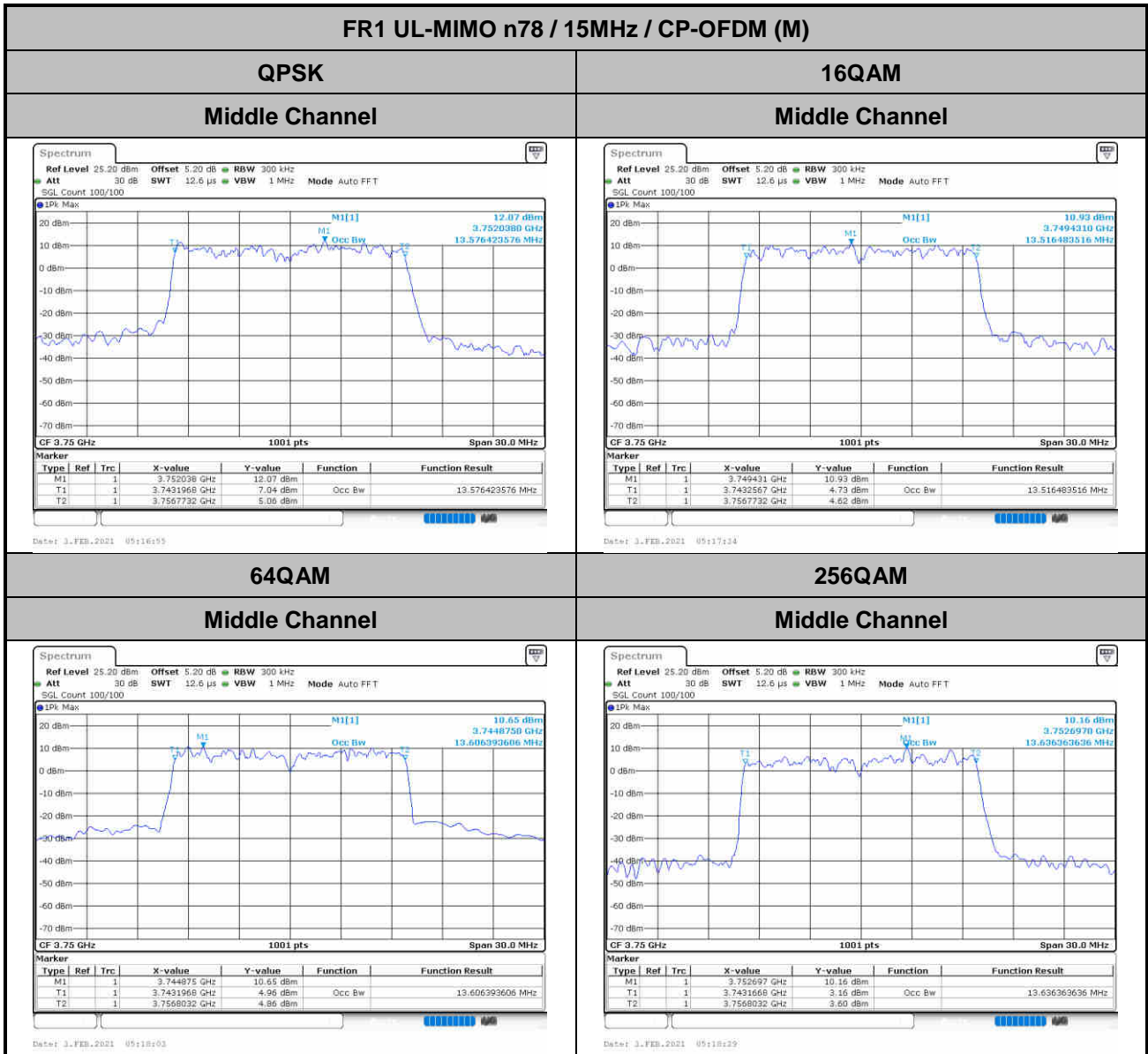
Middle Channel

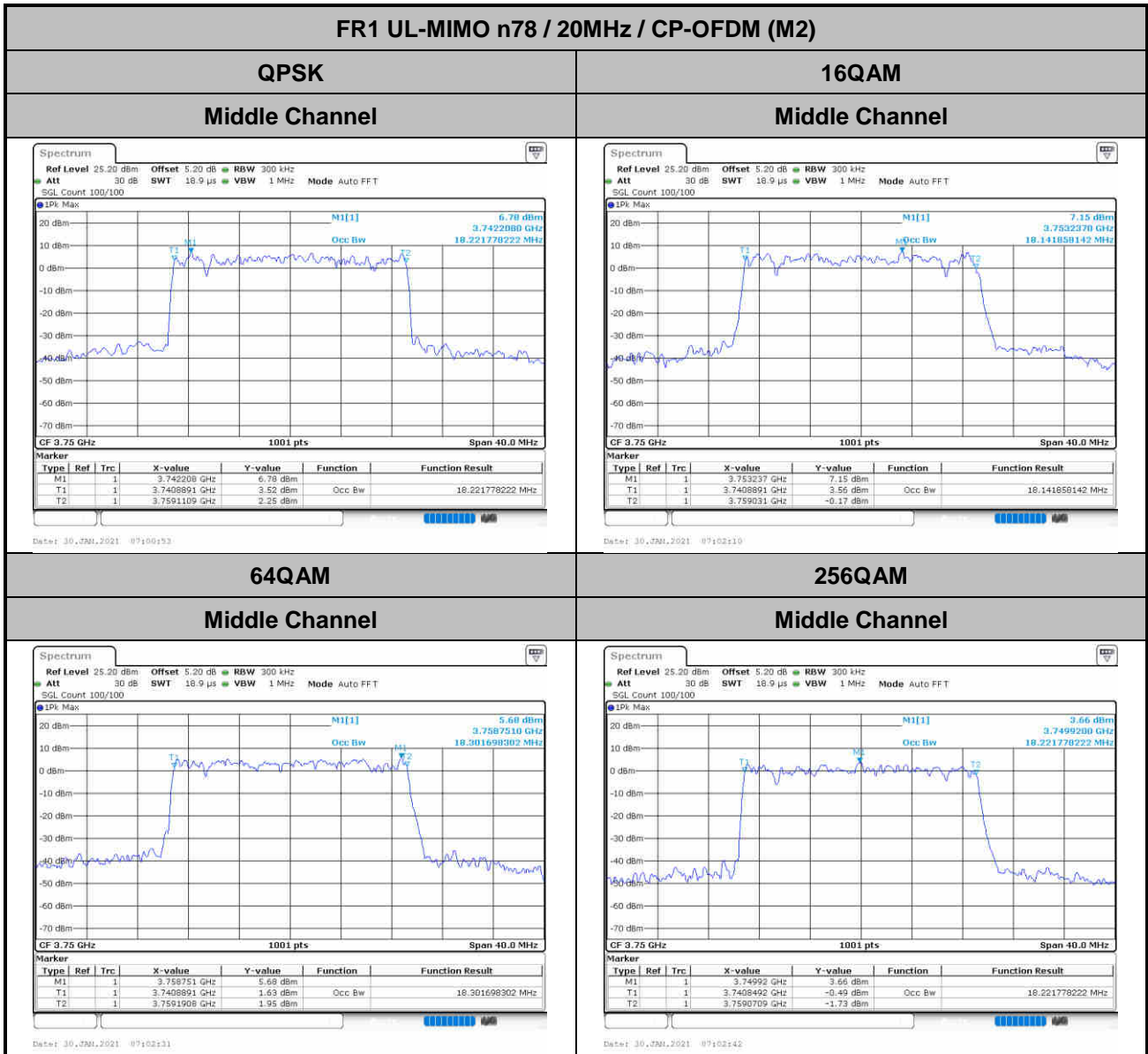


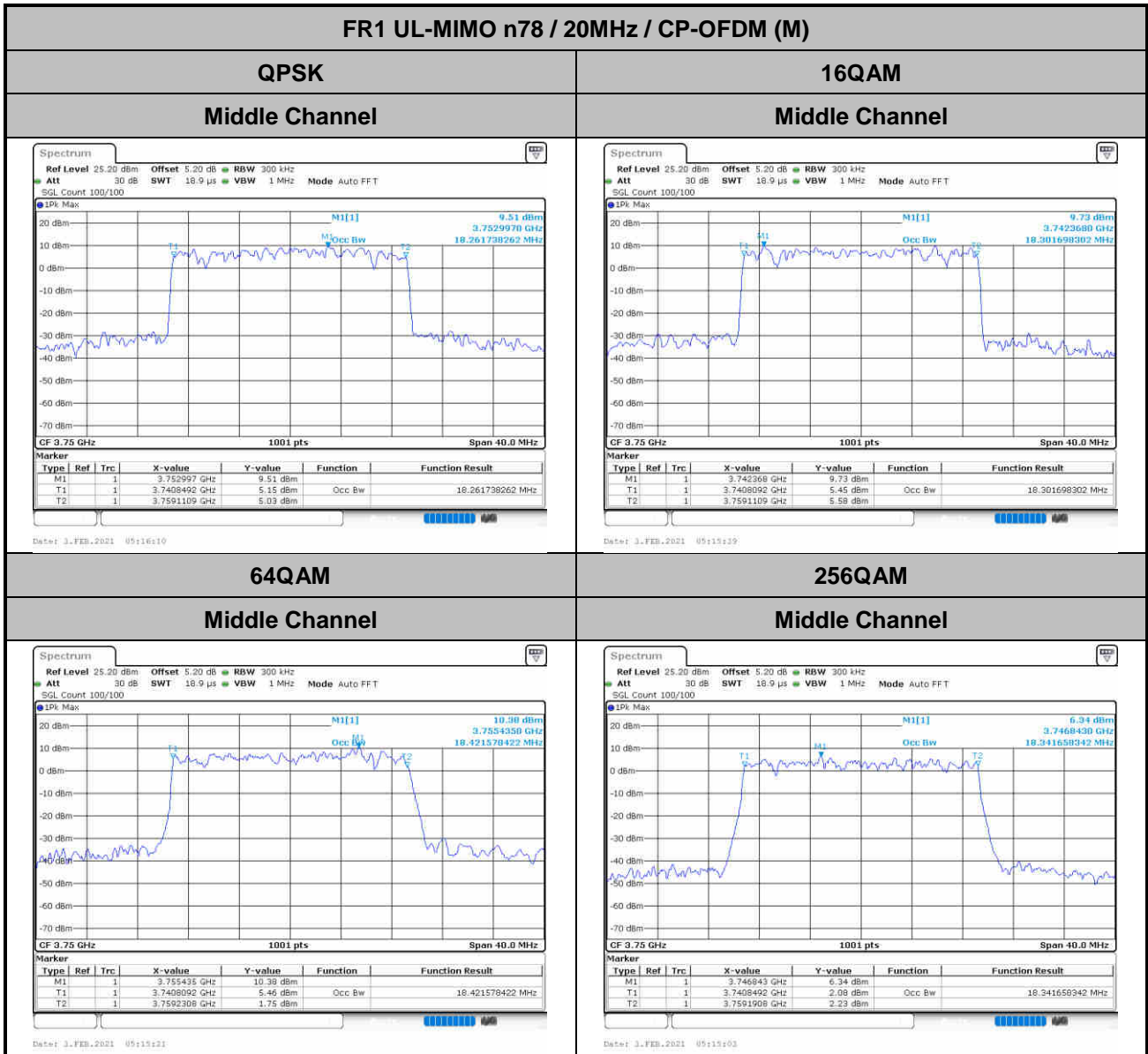
Date: 3.FEB.2021 05:28:41

Date: 3.FEB.2021 05:28:19











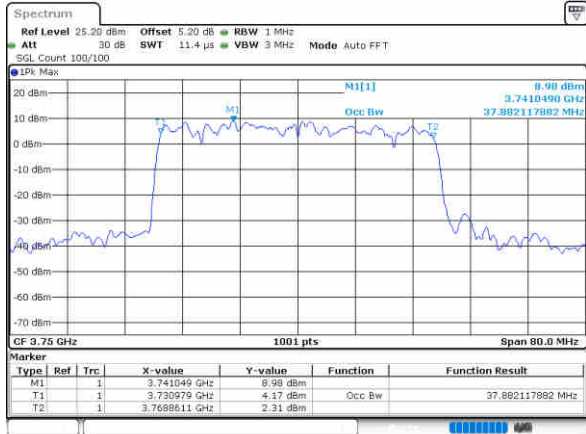
FR1 UL-MIMO n78 / 40MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:48:53

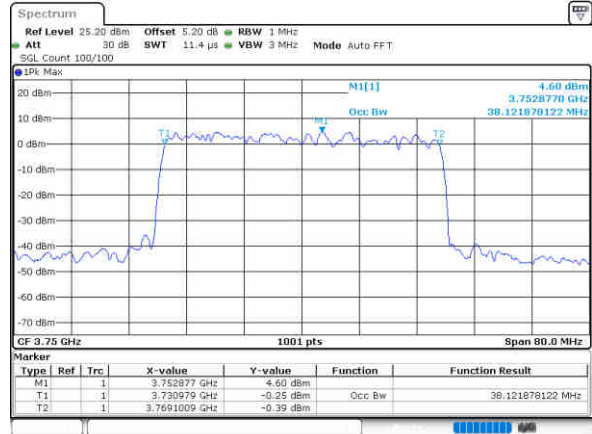
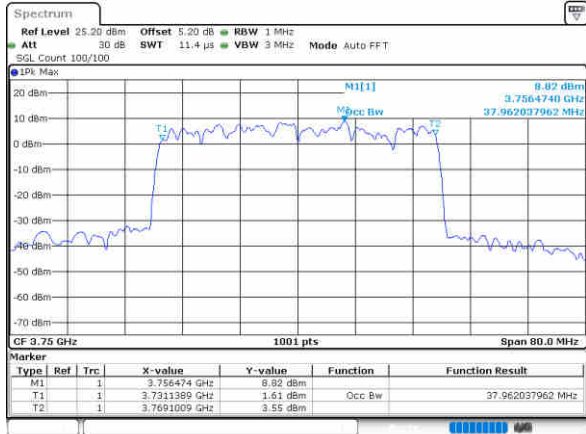
Date: 30_JAN_2021 06:49:28

64QAM

256QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:49:41

Date: 30_JAN_2021 06:49:59



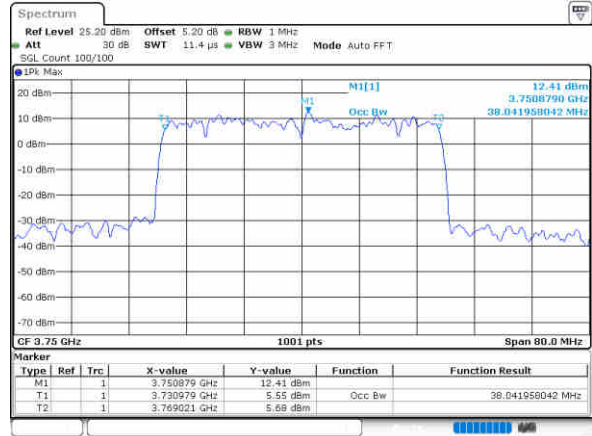
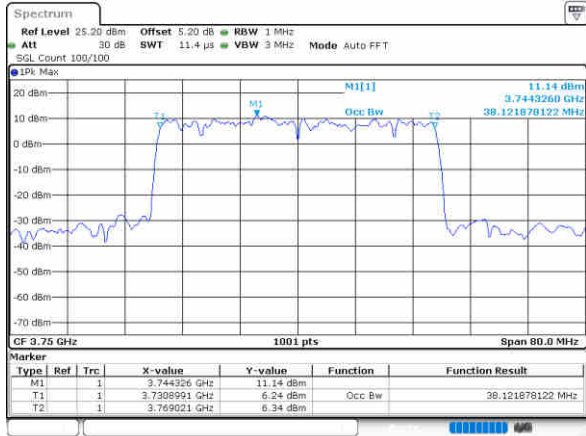
FR1 UL-MIMO n78 / 40MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



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

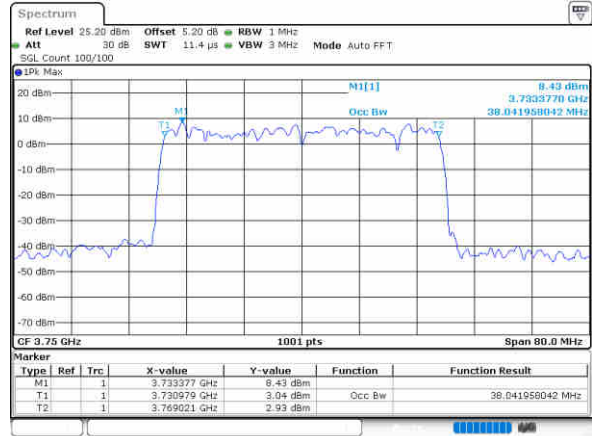
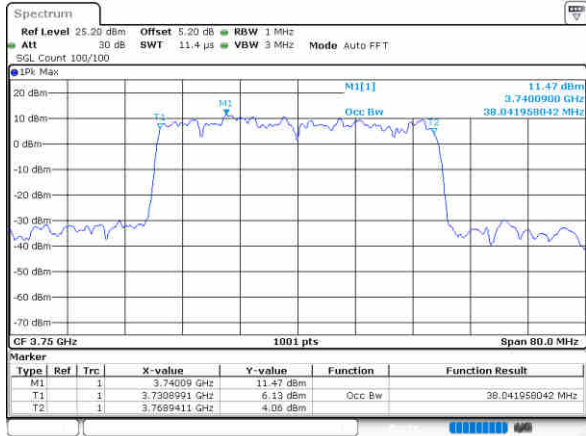
Date: 3.FEB.2021 05:13:33

64QAM

256QAM

Middle Channel

Middle Channel



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

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



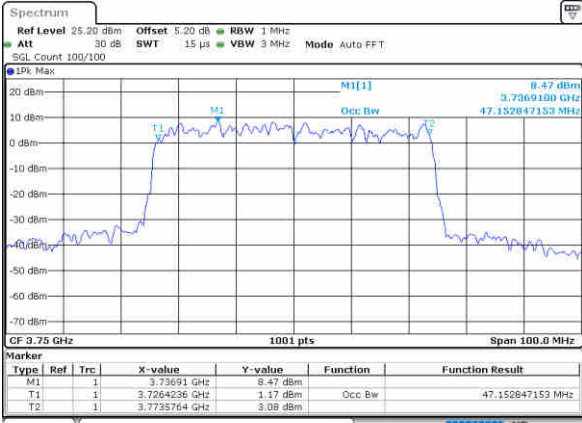
FR1 UL-MIMO n78 / 50MHz / CP-OFDM (M2)

QPSK

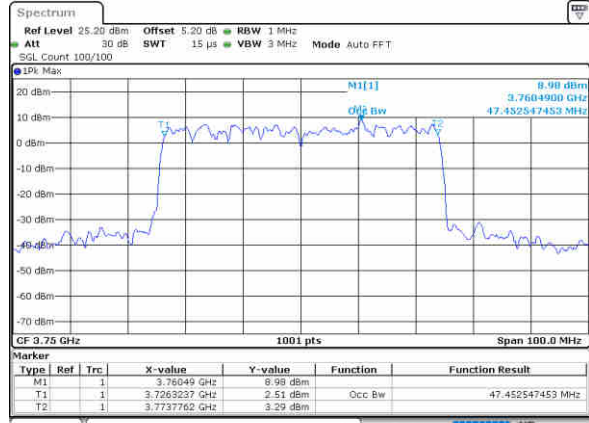
16QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:45:07



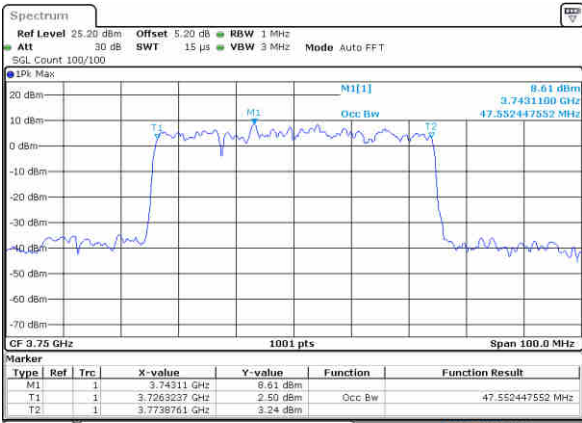
Date: 30_JAN_2021 06:45:29

64QAM

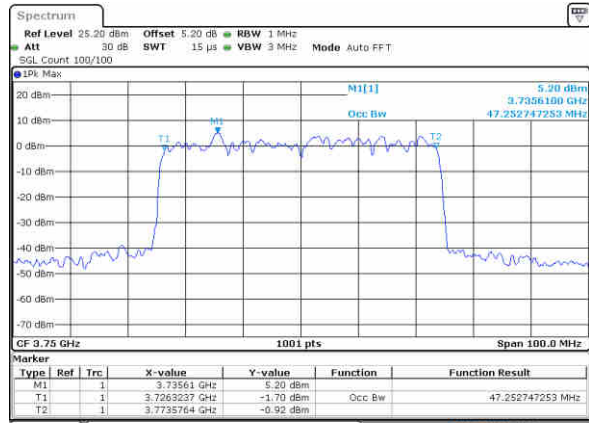
256QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:45:31



Date: 30_JAN_2021 06:45:45



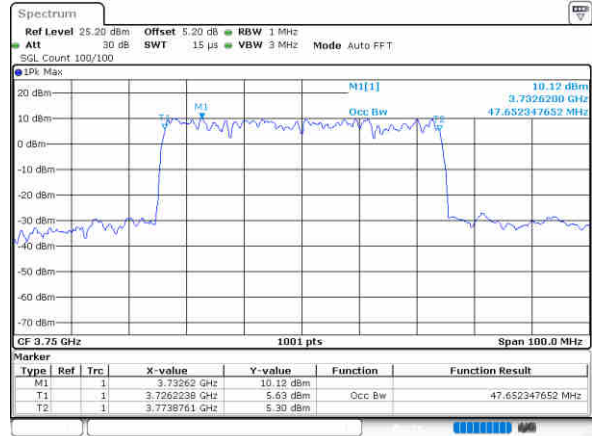
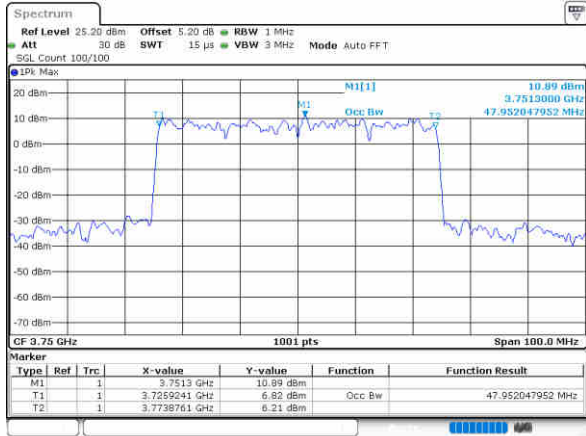
FR1 UL-MIMO n78 / 50MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:45:21

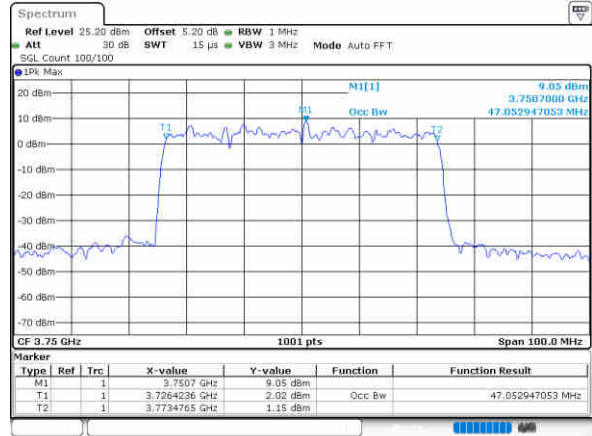
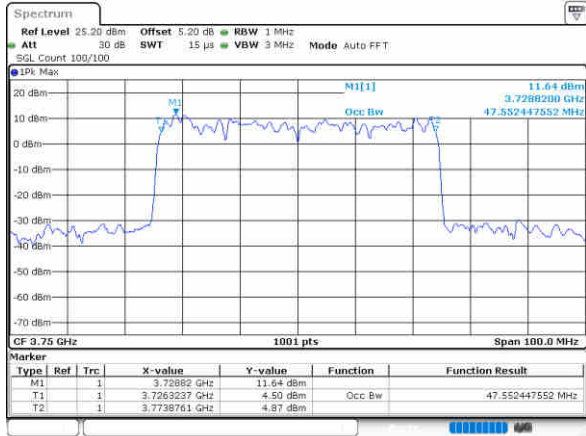
Date: 3.FEB.2021 04:45:03

64QAM

256QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:45:26

Date: 3.FEB.2021 04:45:48



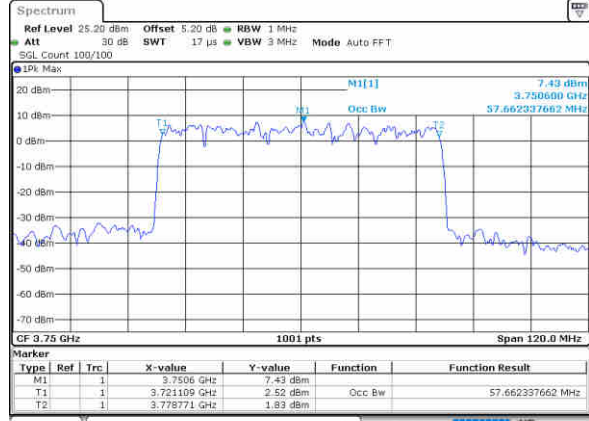
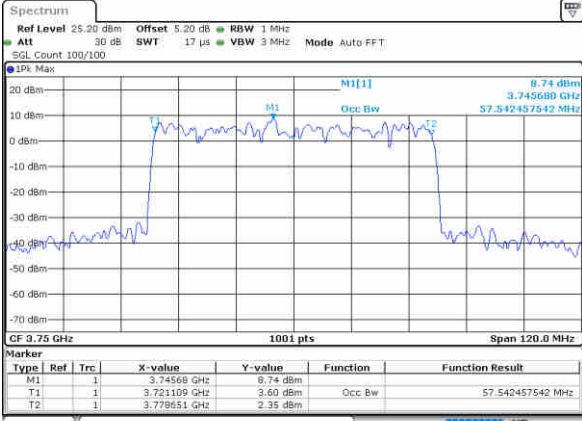
FR1 UL-MIMO n78 / 60MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:41:20

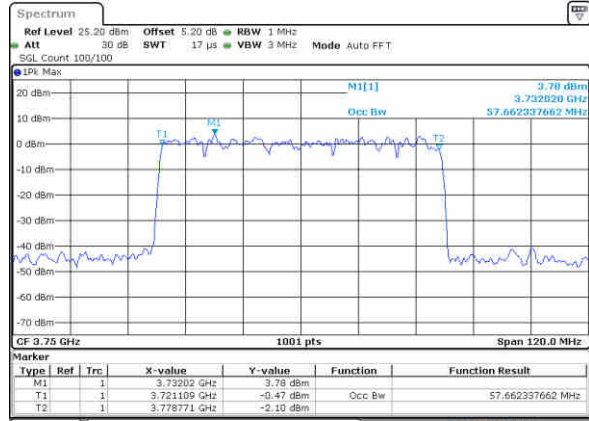
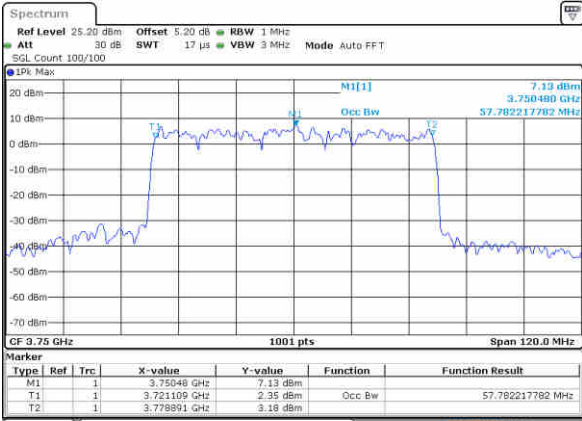
Date: 30_JAN_2021 06:41:11

64QAM

256QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:41:57

Date: 30_JAN_2021 06:42:11



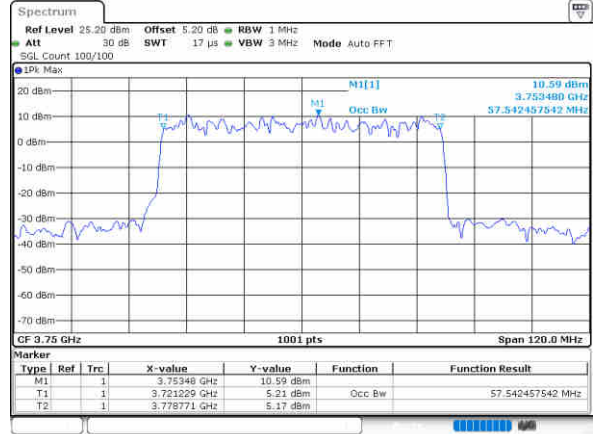
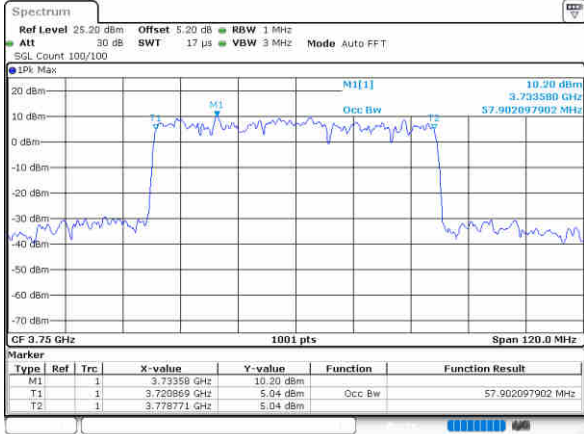
FR1 UL-MIMO n78 / 60MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



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

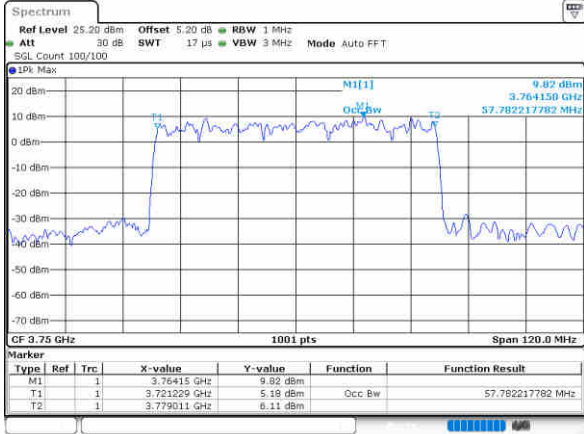
Date: 3.FEB.2021 04:42:53

64QAM

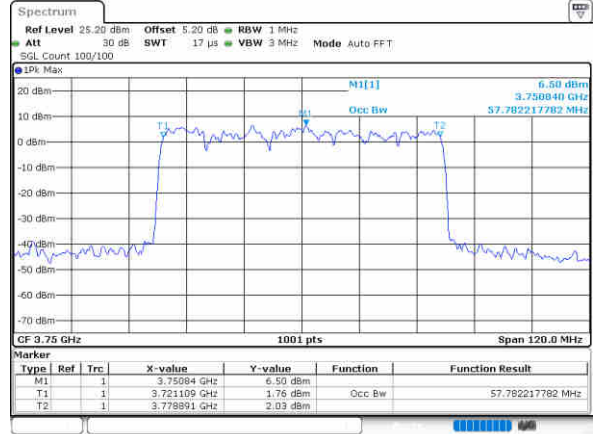
256QAM

Middle Channel

Middle Channel



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



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



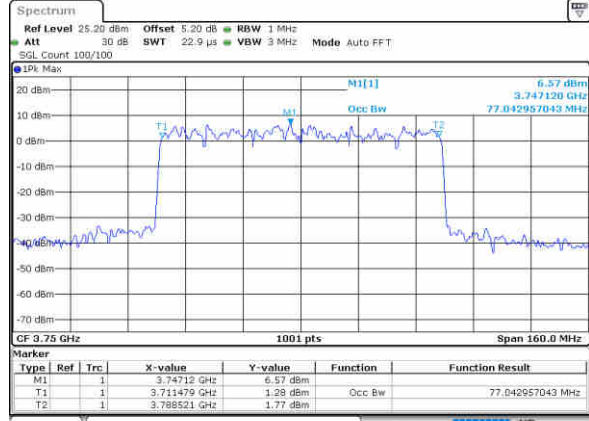
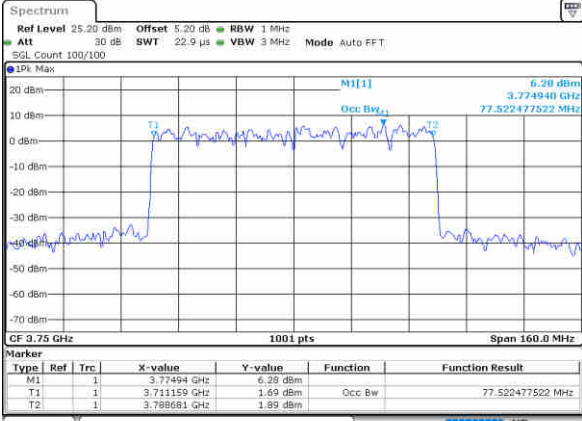
FR1 UL-MIMO n78 / 80MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:45:10

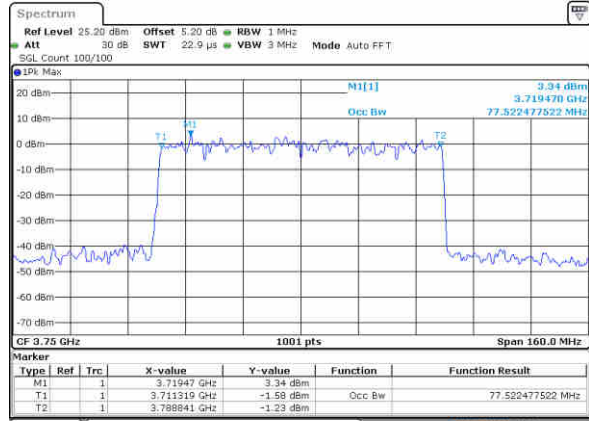
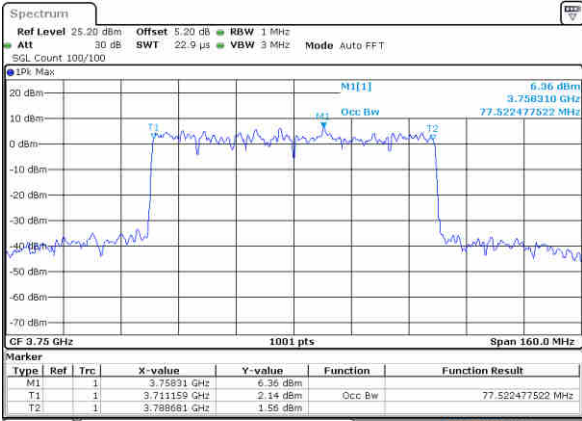
Date: 30_JAN_2021 06:17:08

64QAM

256QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:17:21

Date: 30_JAN_2021 06:17:14



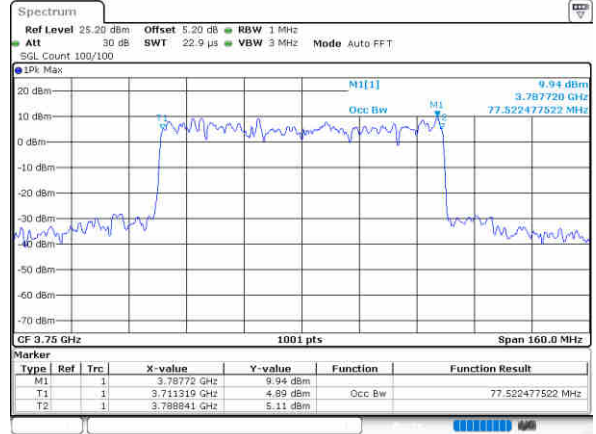
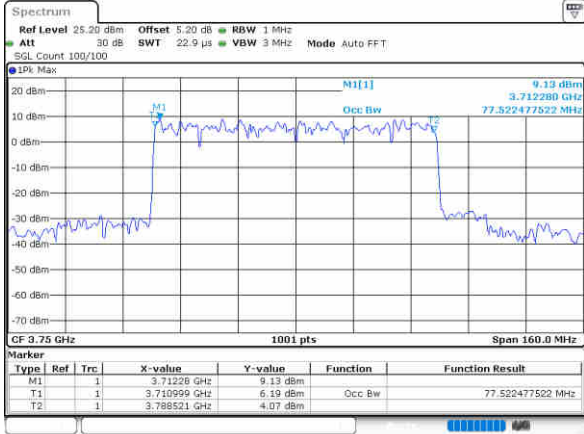
FR1 UL-MIMO n78 / 80MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 3.FEB.2021 04:28:43

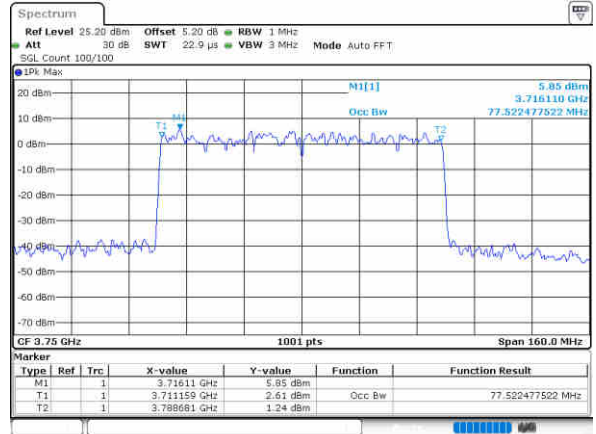
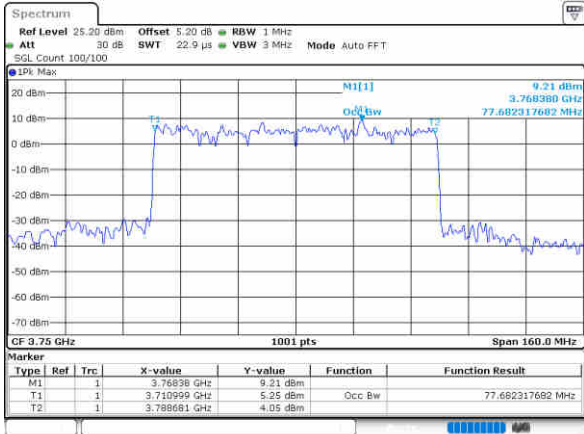
Date: 3.FEB.2021 04:40:06

64QAM

256QAM

Middle Channel

Middle Channel



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

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



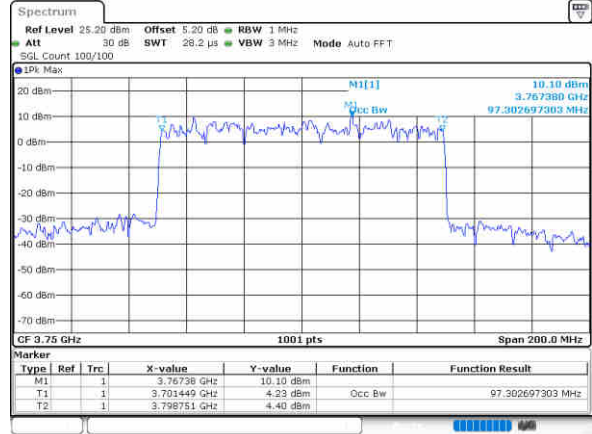
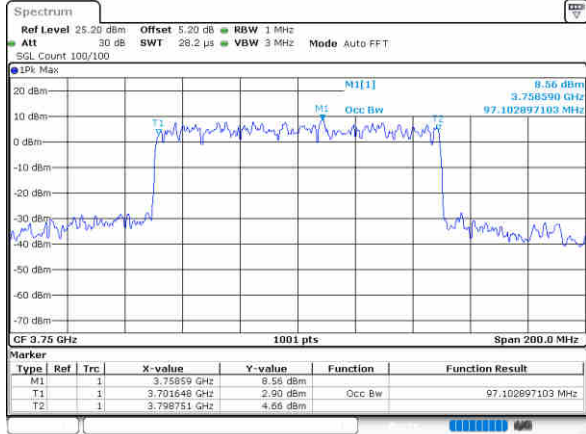
FR1 UL-MIMO n78 / 100MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel



Date: 30_JAN_2021 06:17:24

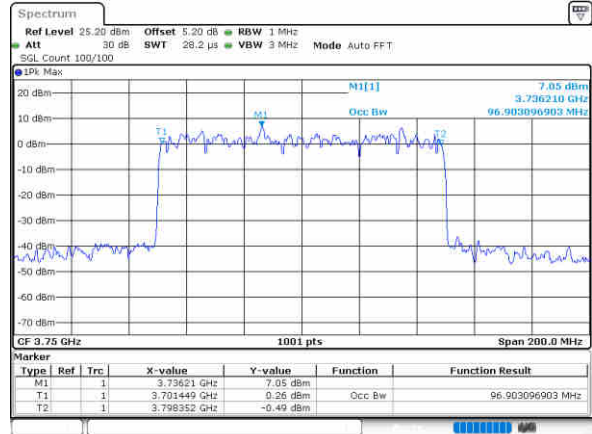
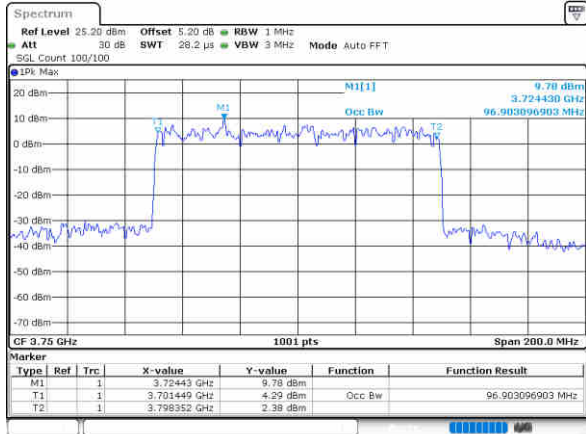
Date: 30_JAN_2021 06:27:01

64QAM

256QAM

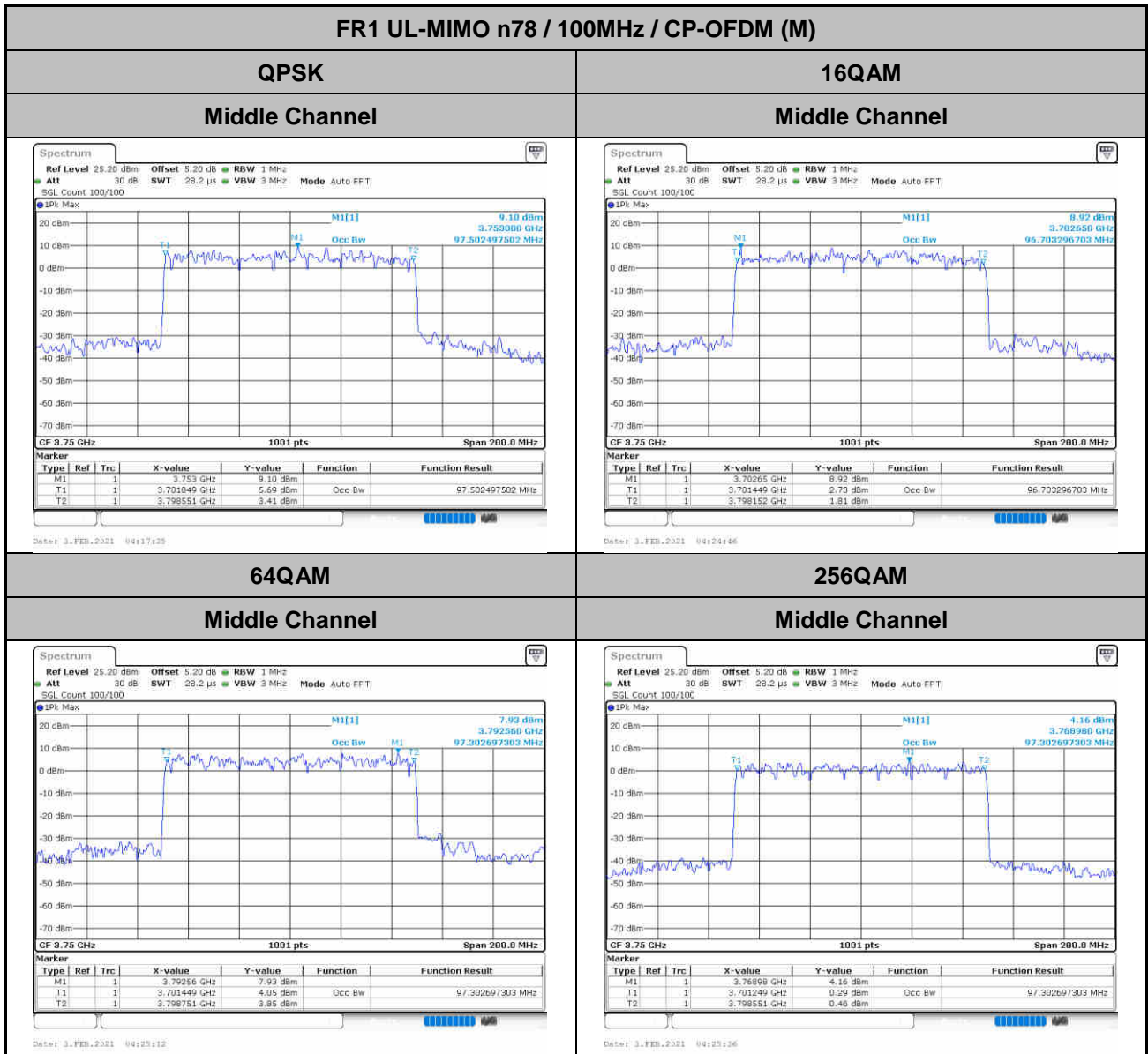
Middle Channel

Middle Channel



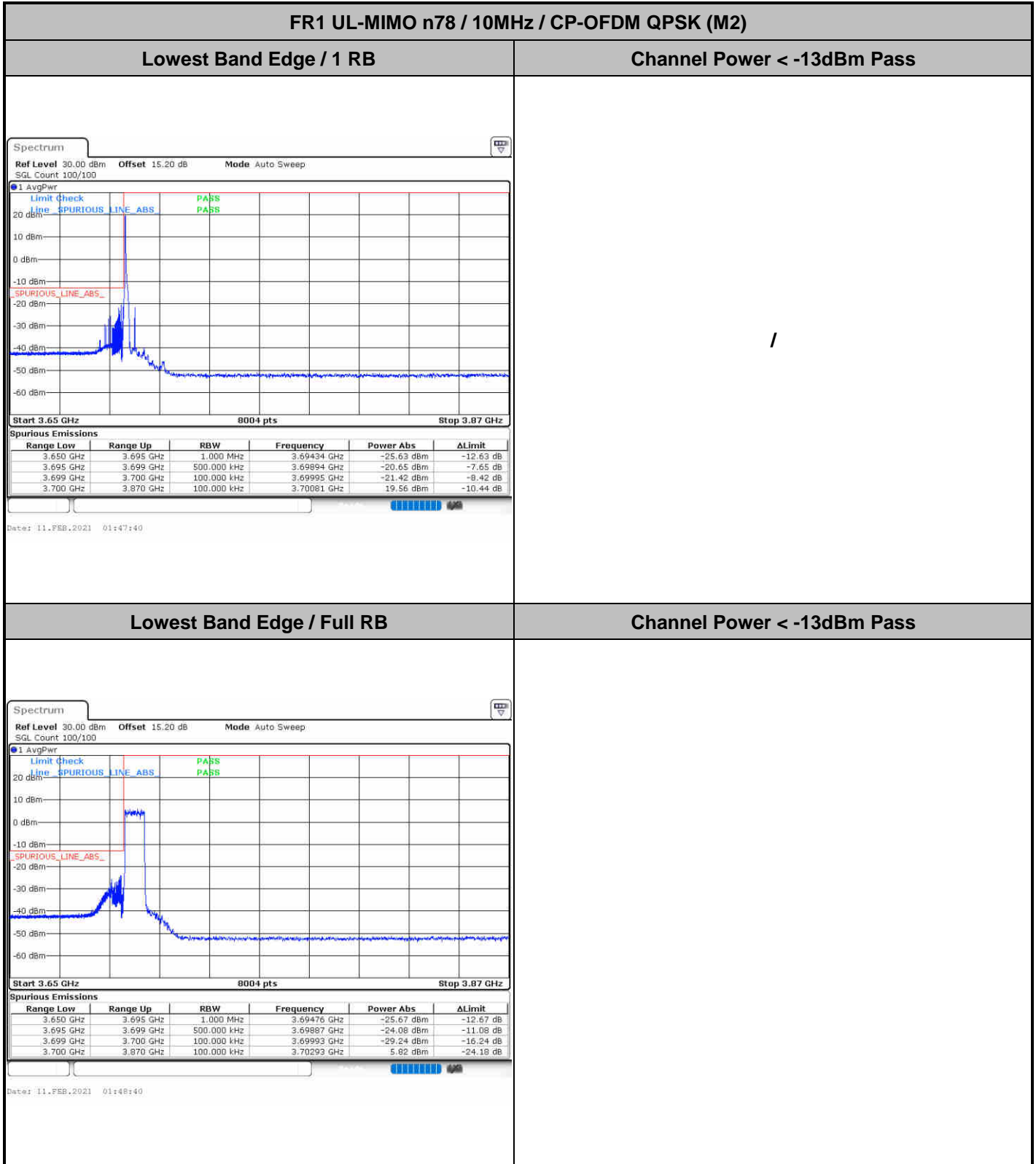
Date: 30_JAN_2021 06:27:14

Date: 30_JAN_2021 06:27:11



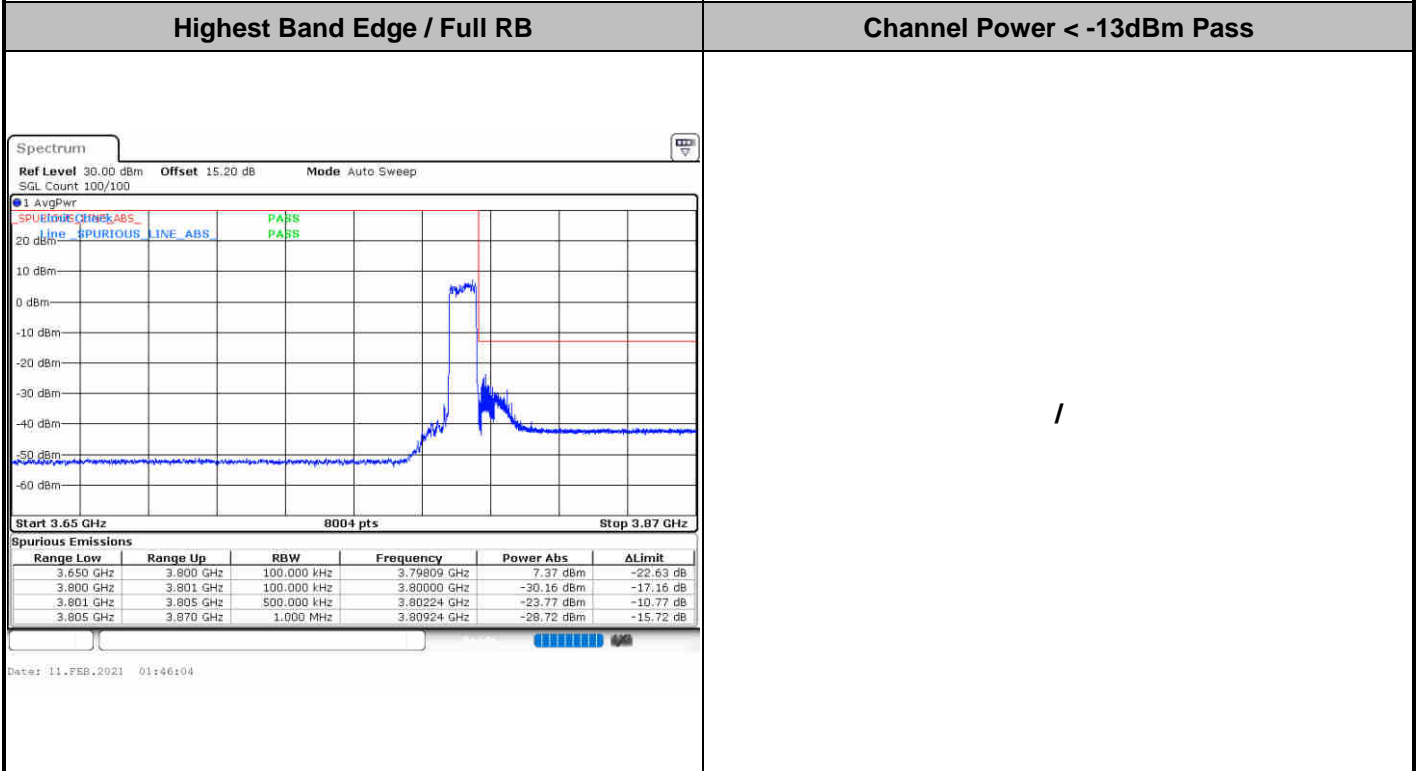
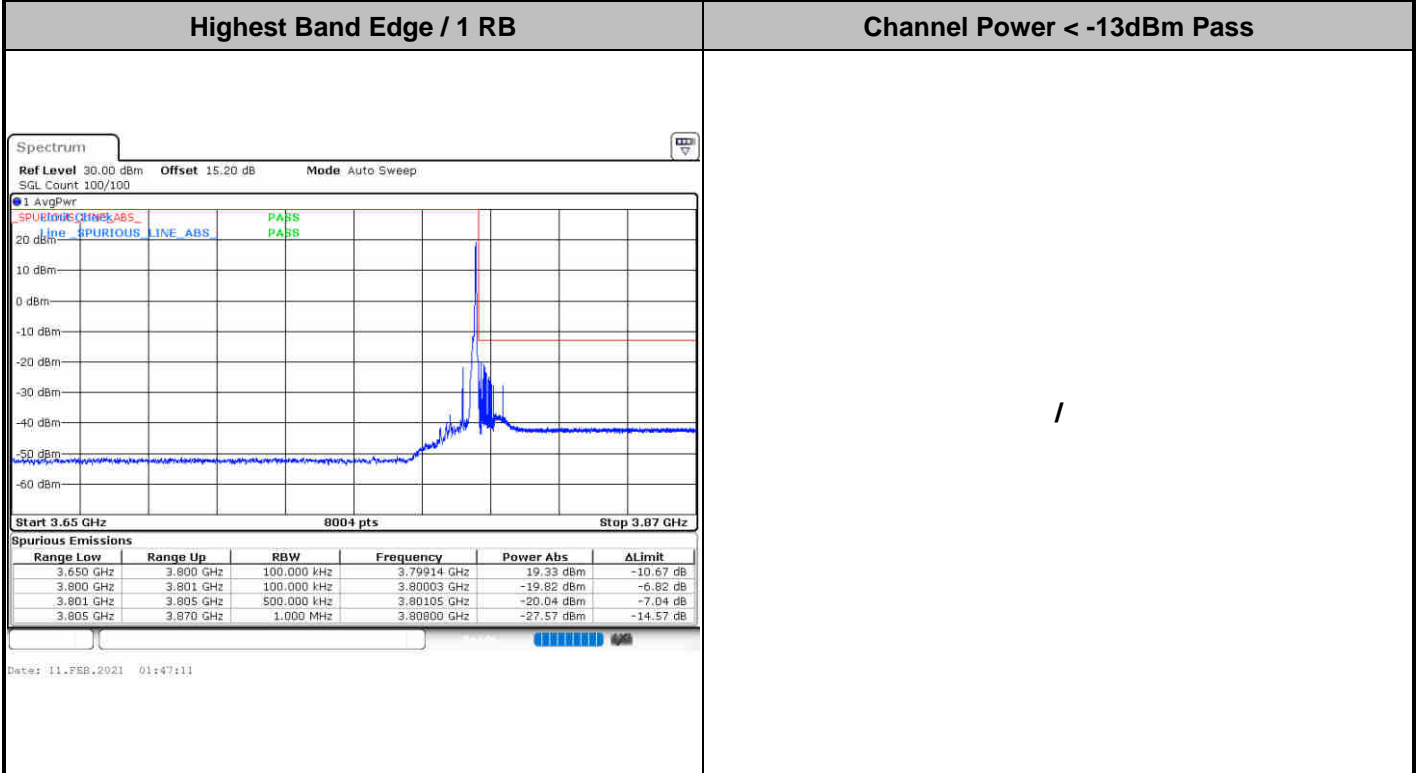


Conducted Band Edge





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

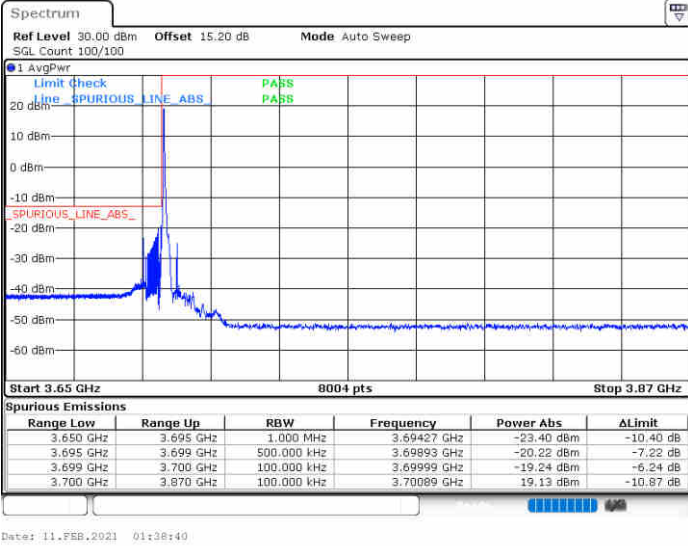




FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M)

Lowest Band Edge / 1 RB

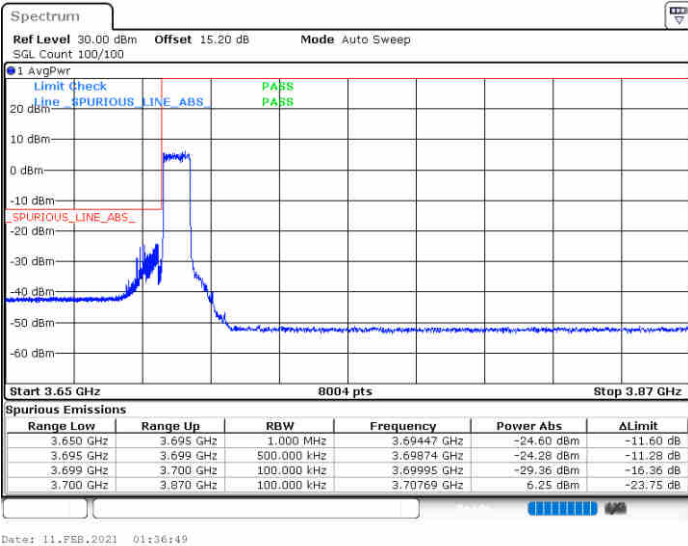
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



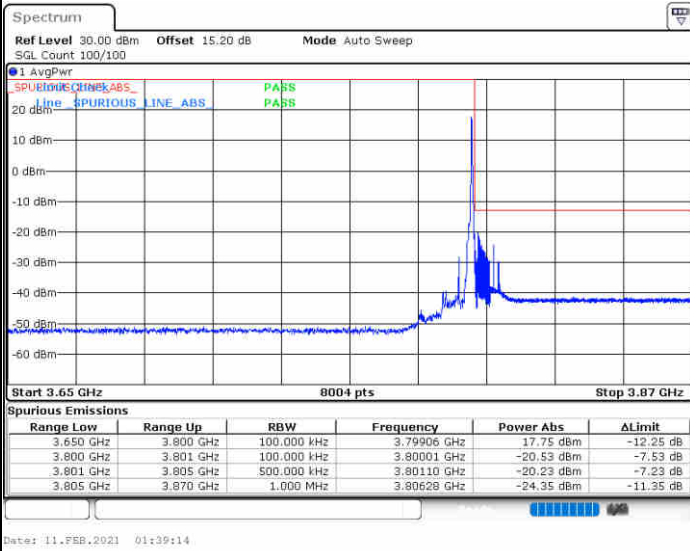
/



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

Highest Band Edge / 1 RB

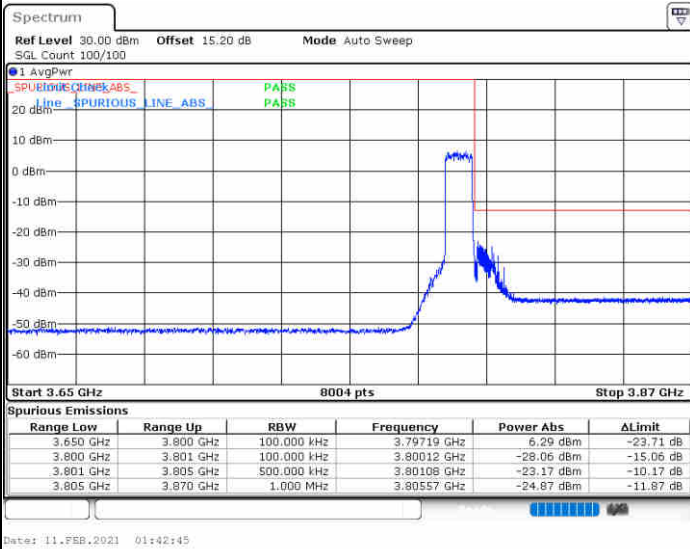
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass

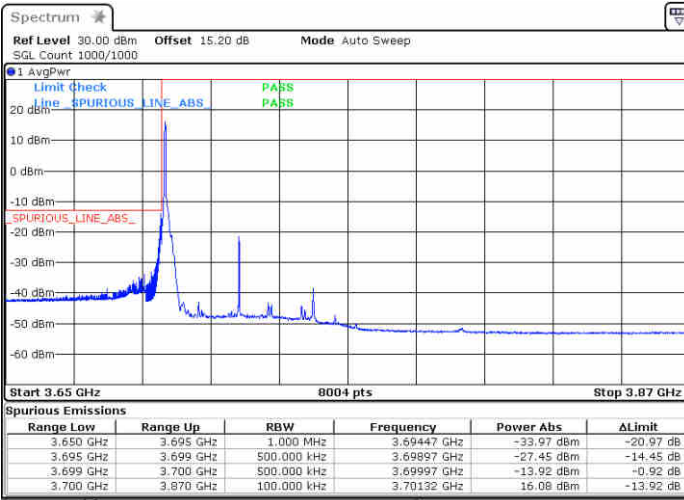


/



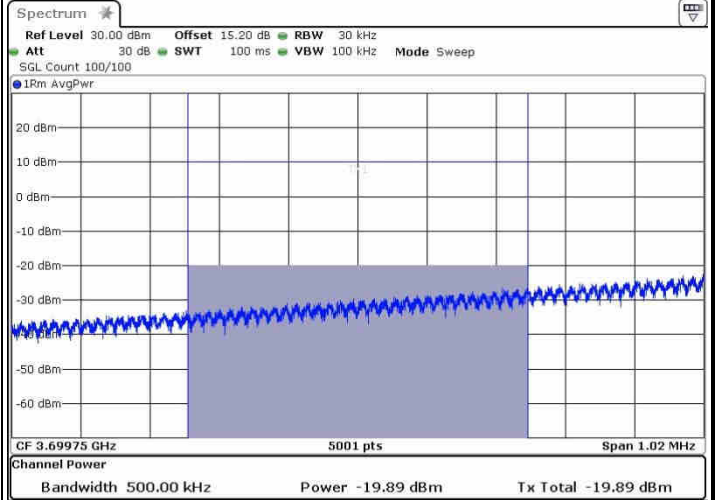
FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M2)

Lowest Band Edge / 1 RB



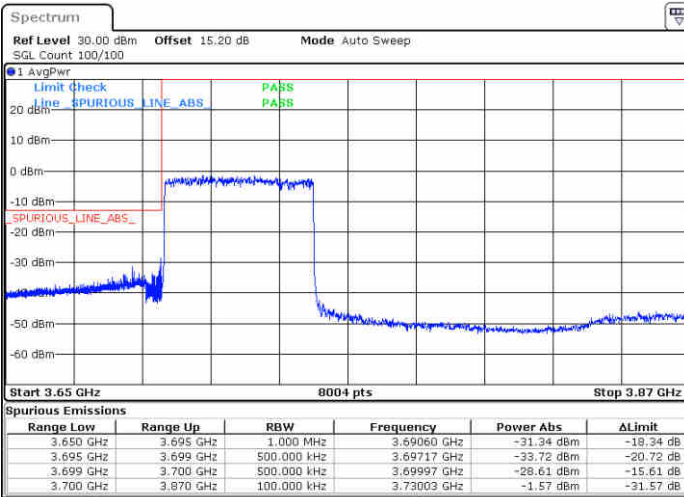
Date: 2.FEB.2021 14:14:55

Channel Power < -13dBm Pass



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

Lowest Band Edge / Full RB



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

Channel Power < -13dBm Pass

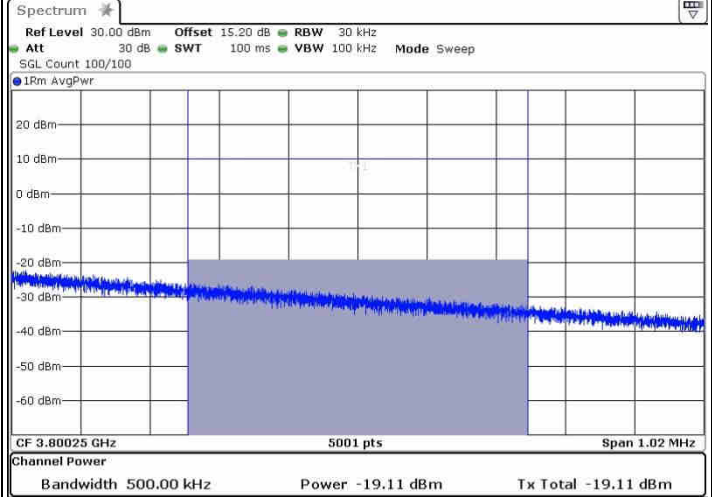
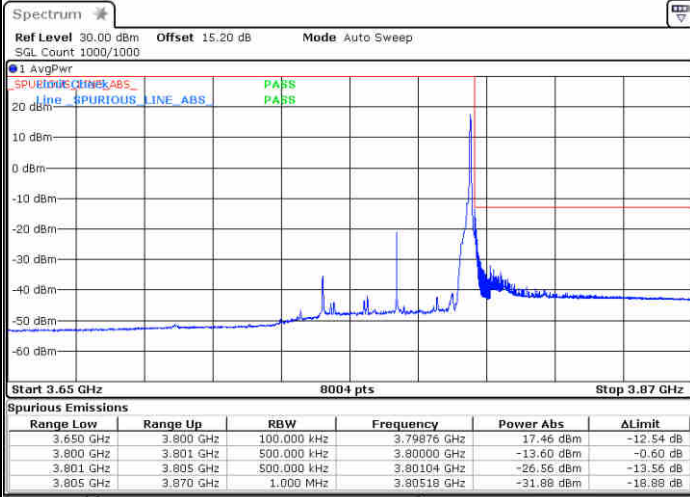
/



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

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass

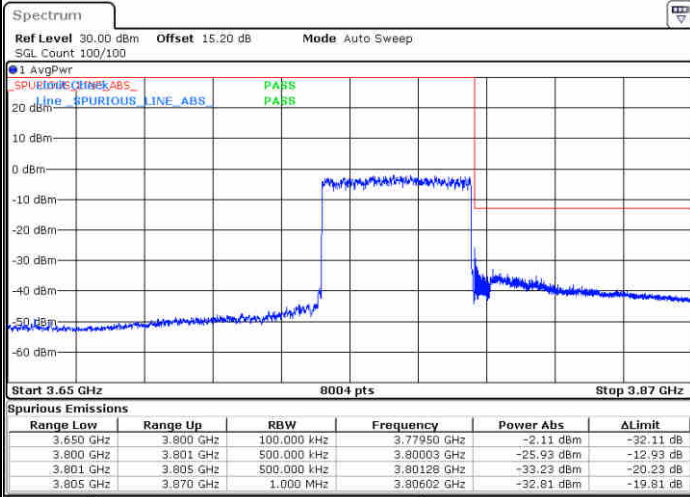


Date: 2.FEB.2021 14:29:39

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

Highest Band Edge / Full RB

Channel Power < -13dBm Pass

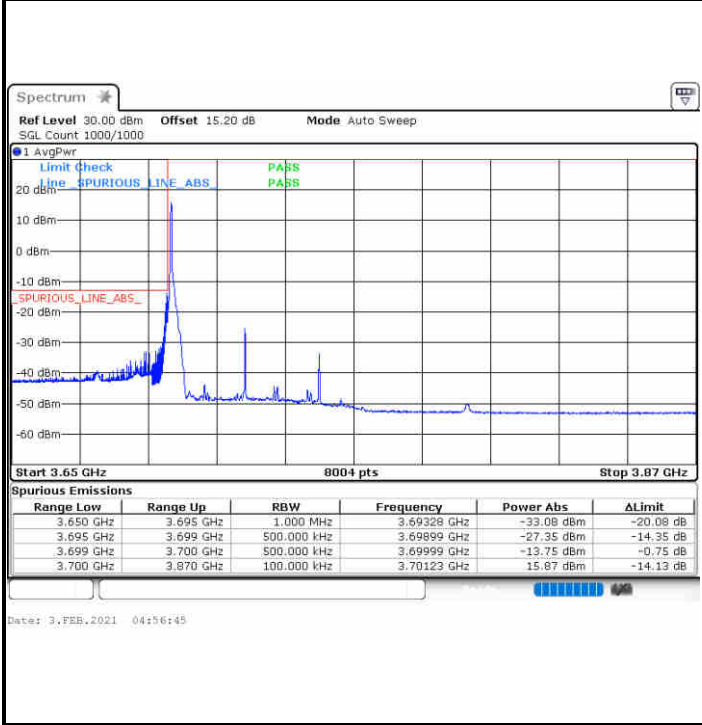


Date: 2.FEB.2021 14:33:39

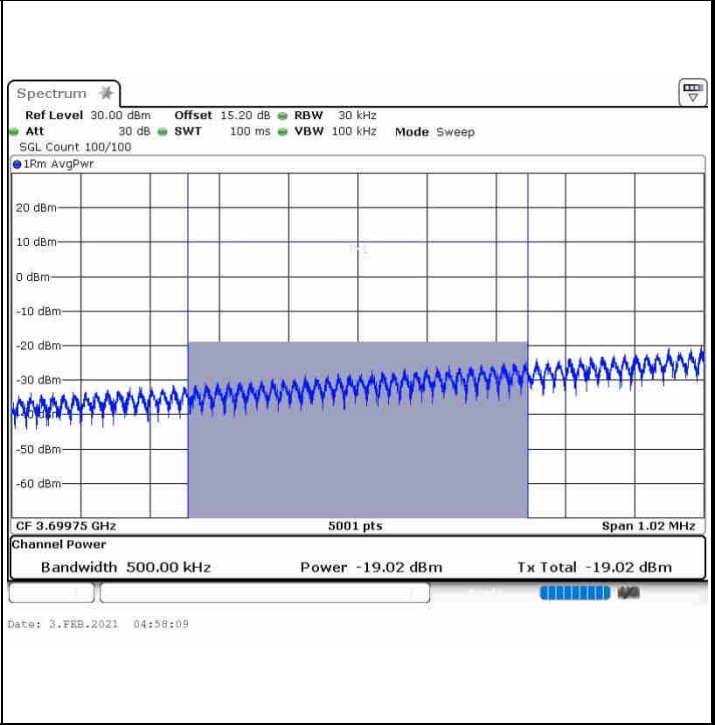


FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M)

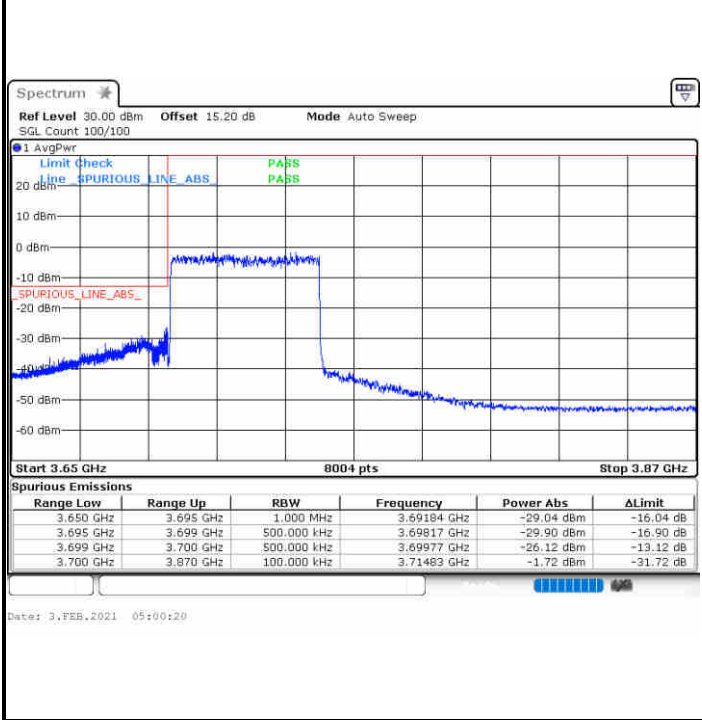
Lowest Band Edge / 1 RB



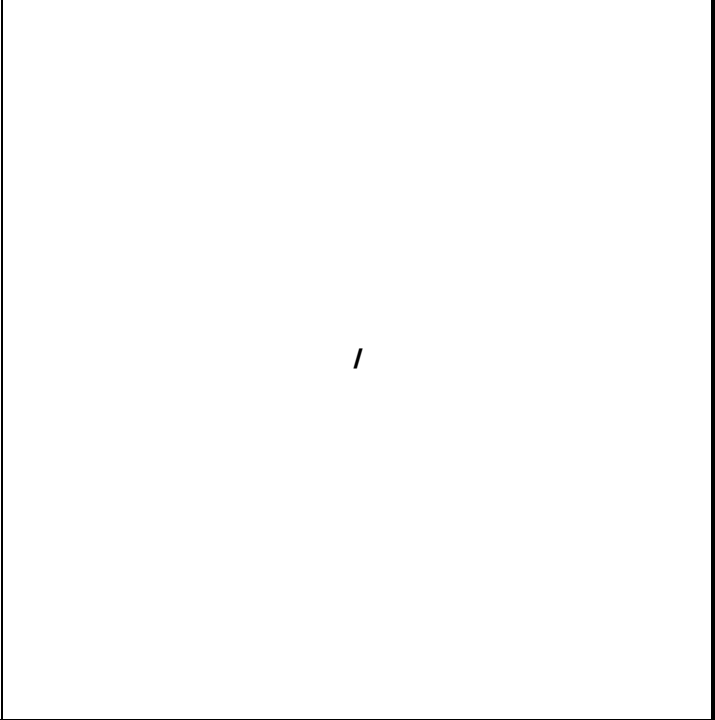
Channel Power < -13dBm Pass



Lowest Band Edge / Full RB



Channel Power < -13dBm Pass

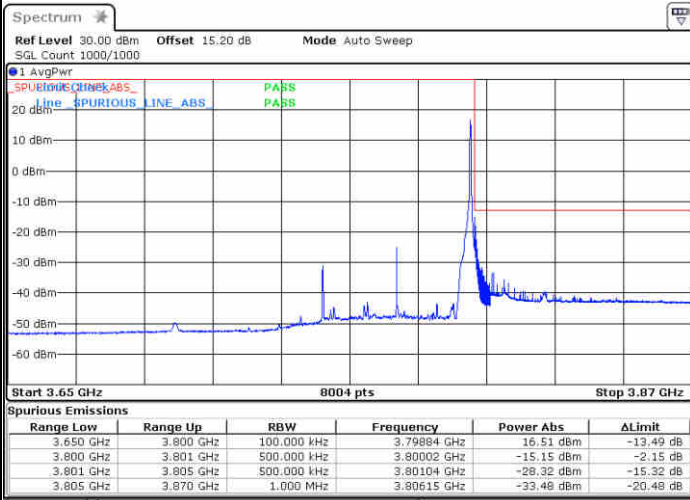




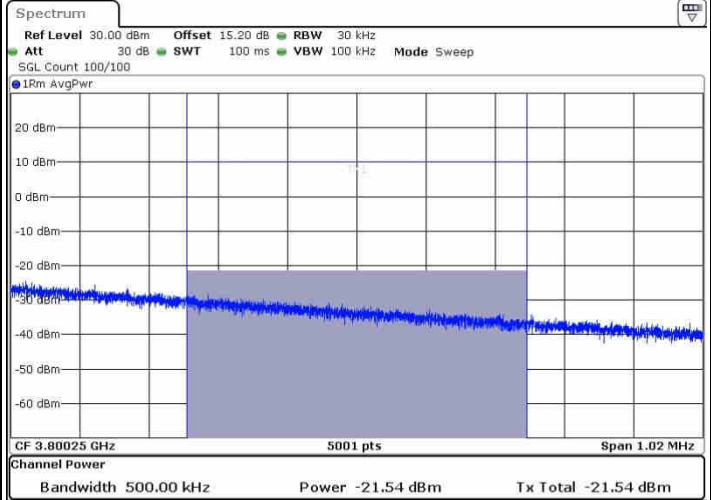
FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M)

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



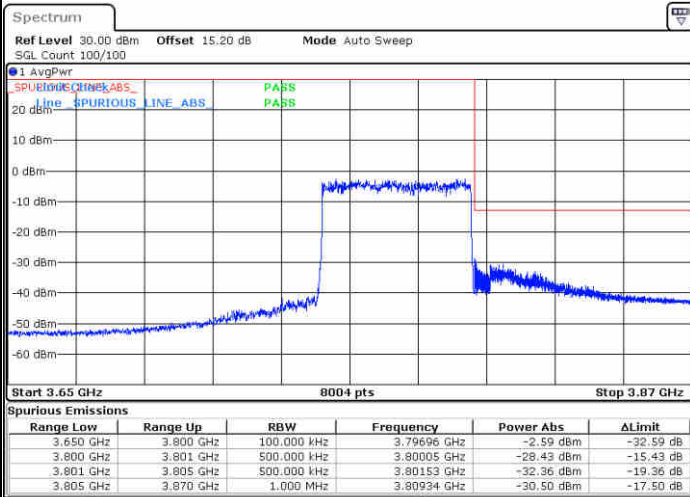
Date: 3.FEB.2021 05:05:07



Date: 3.FEB.2021 05:08:25

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



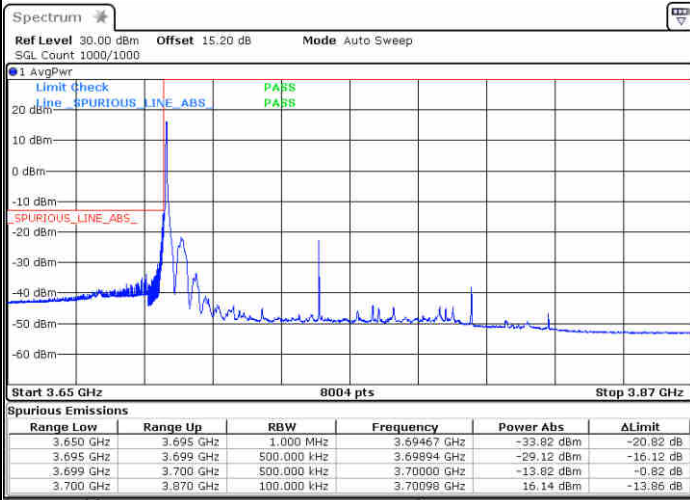
Date: 3.FEB.2021 05:04:10



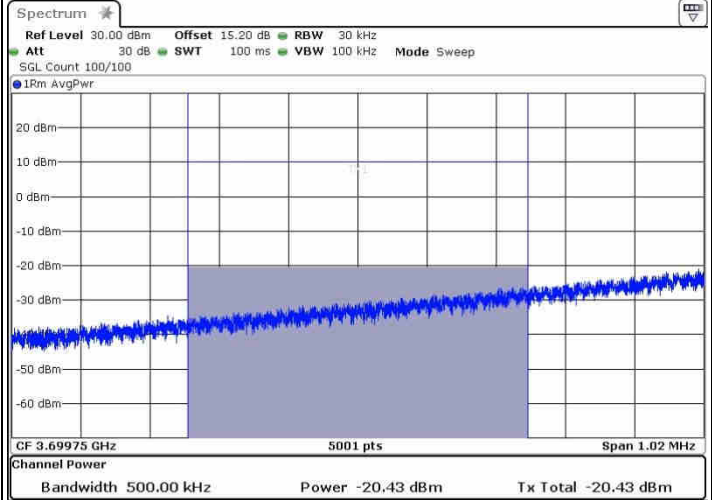
FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M2)

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



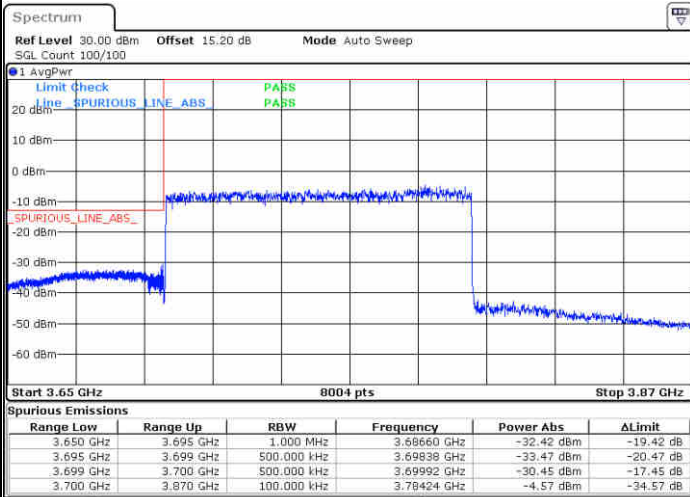
Date: 2.FEB.2021 13:48:15



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

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



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

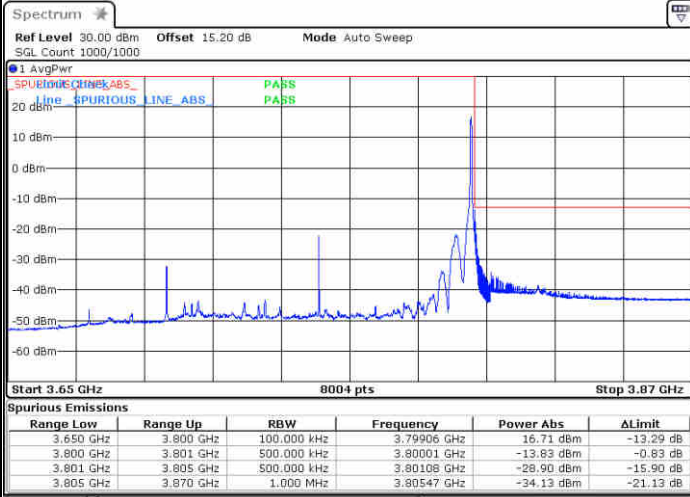
/



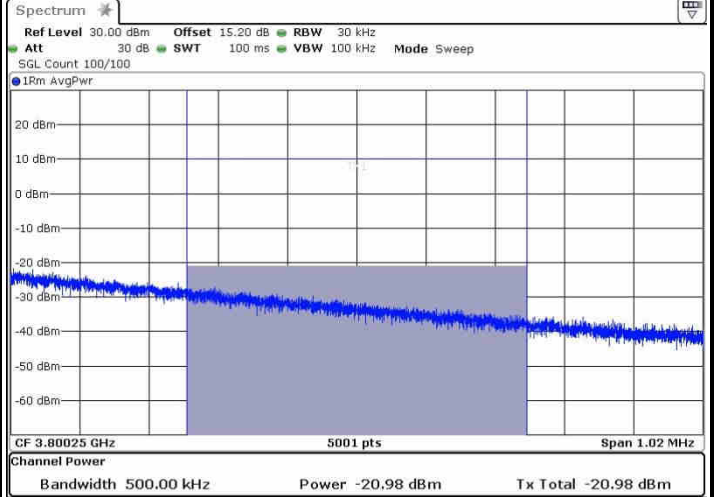
FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M2)

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



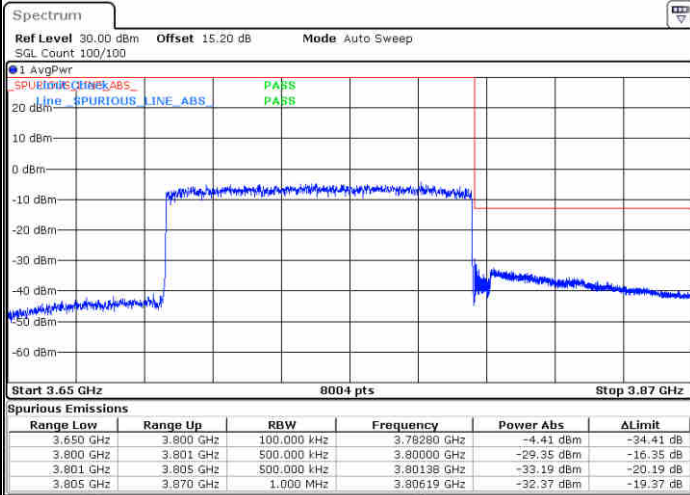
Date: 2.FEB.2021 14:03:44



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

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



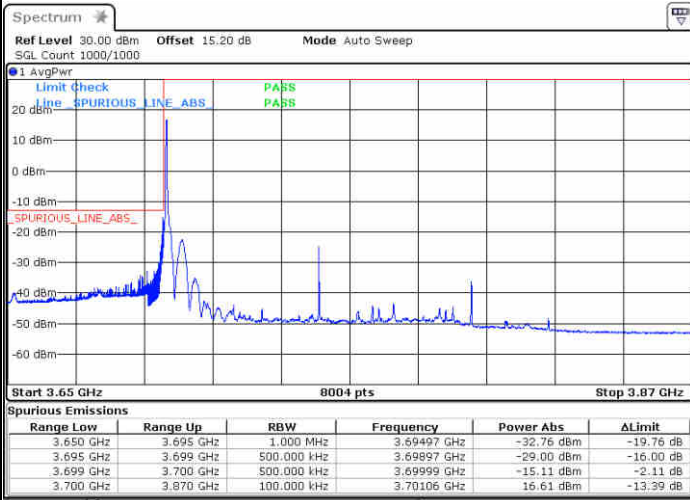
Date: 2.FEB.2021 13:59:25



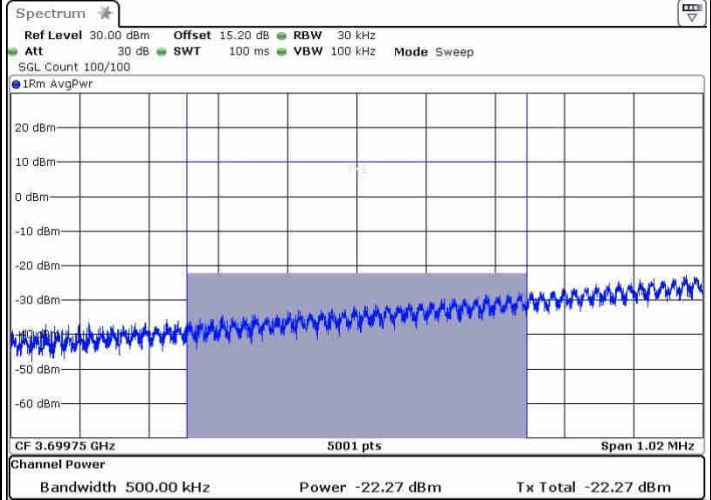
FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M)

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



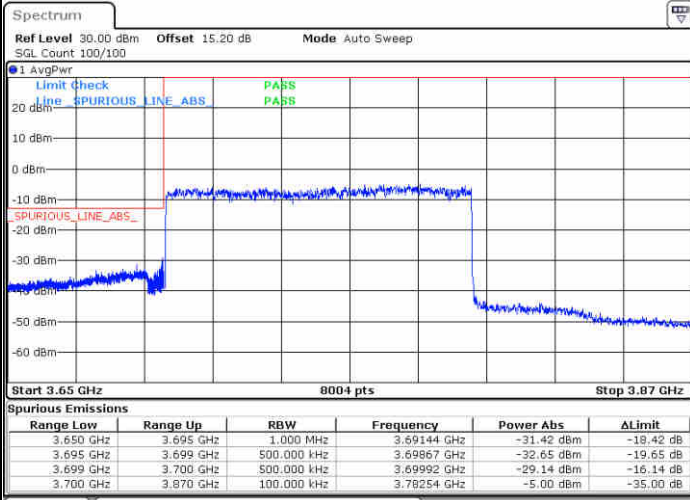
Date: 3.FEB.2021 04:31:09



Date: 3.FEB.2021 04:32:45

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



Date: 3.FEB.2021 04:34:08

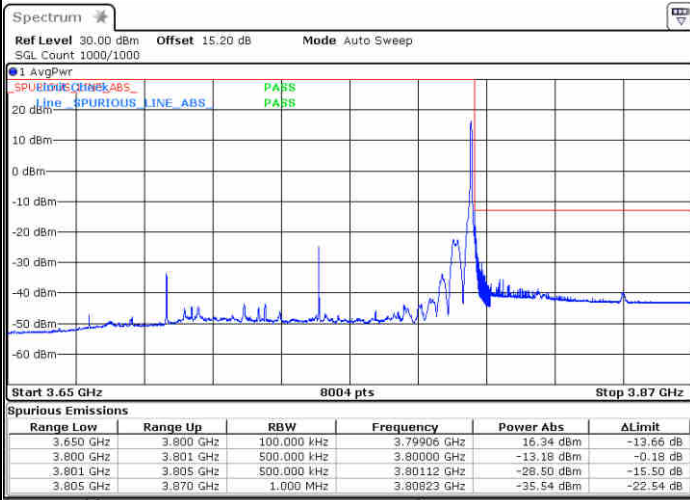
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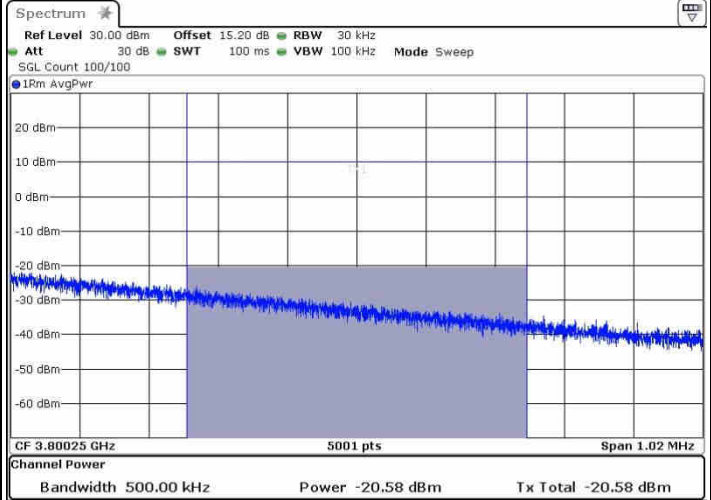
FR1 UL-MIMO n78 / 100MHz / CP-OFDM QPSK (M)

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



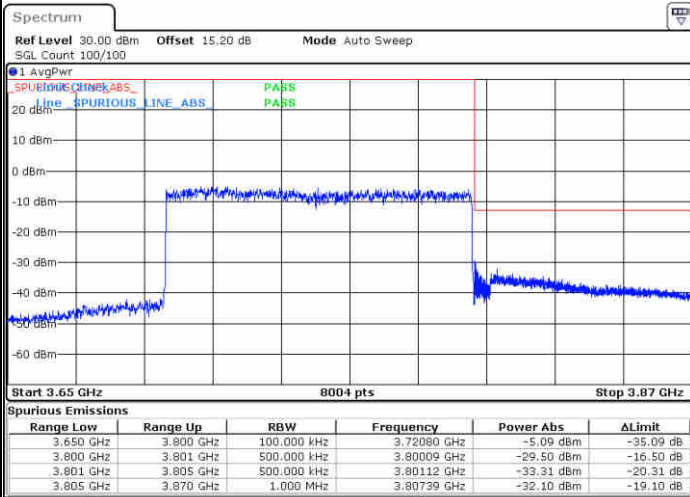
Date: 3.FEB.2021 04:36:20



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

Highest Band Edge / Full RB

Channel Power < -13dBm Pass

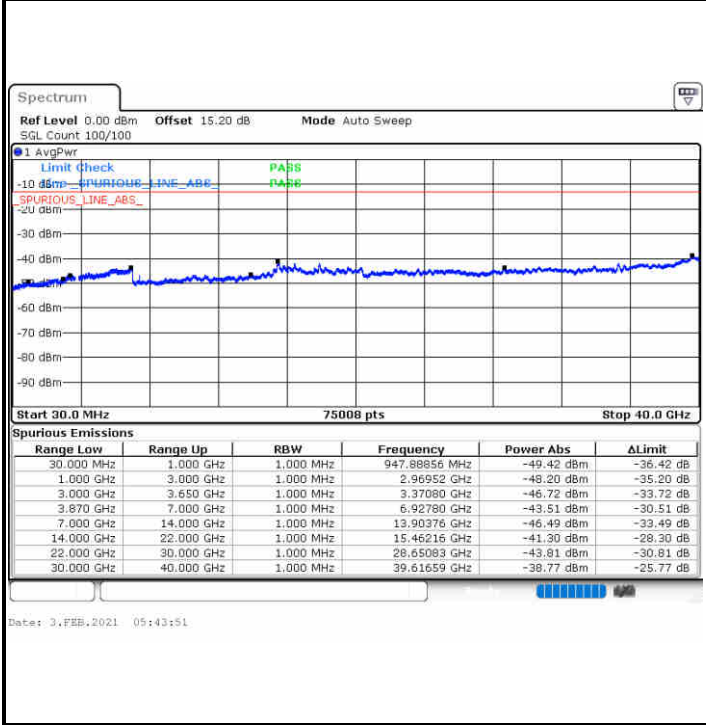


Date: 3.FEB.2021 04:34:23

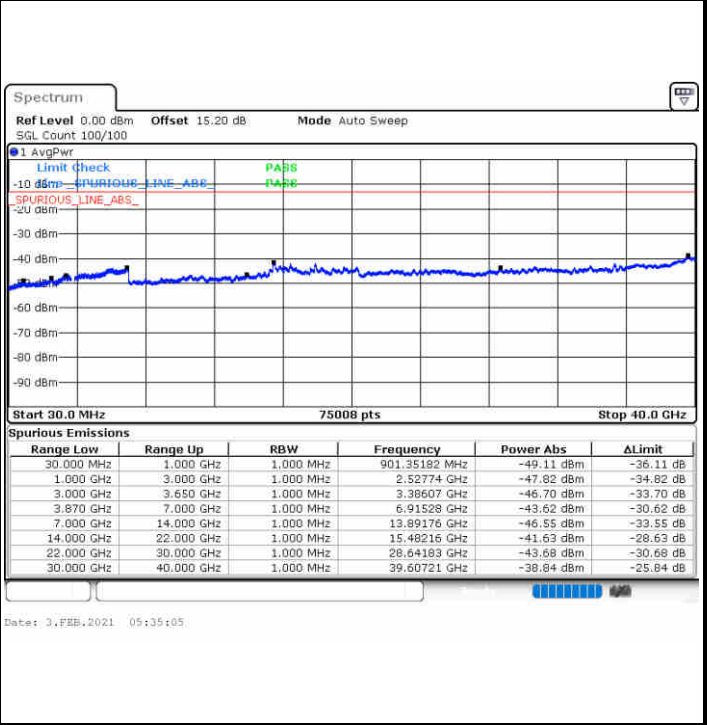


FR1 UL-MIMO n78 / 10MHz / CP-OFDM QPSK (M)

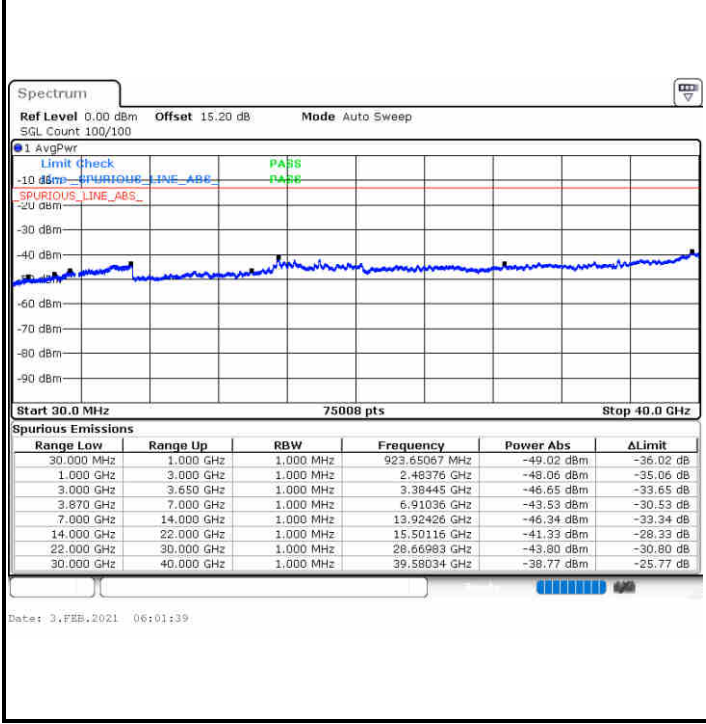
Lowest Channel / 1RB



Middle Channel / 1RB



Highest Channel / 1RB

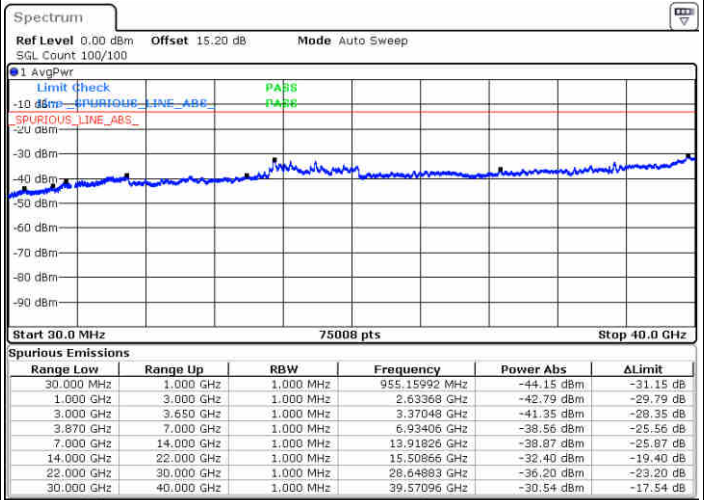
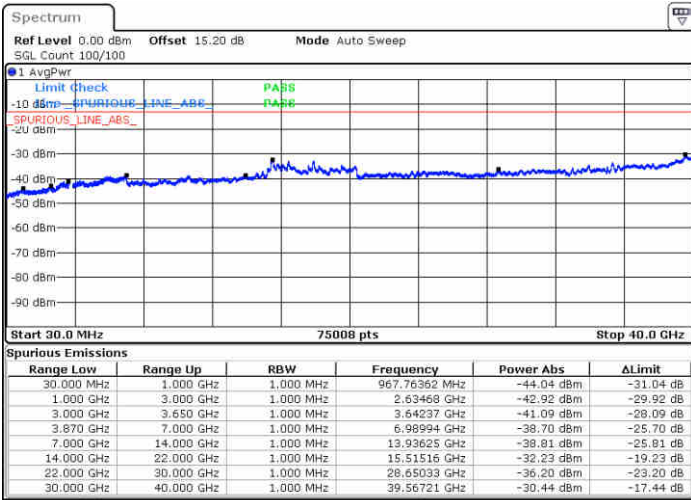




FR1 UL-MIMO n78 / 50MHz / CP-OFDM QPSK (M2)

Lowest Channel / 1RB

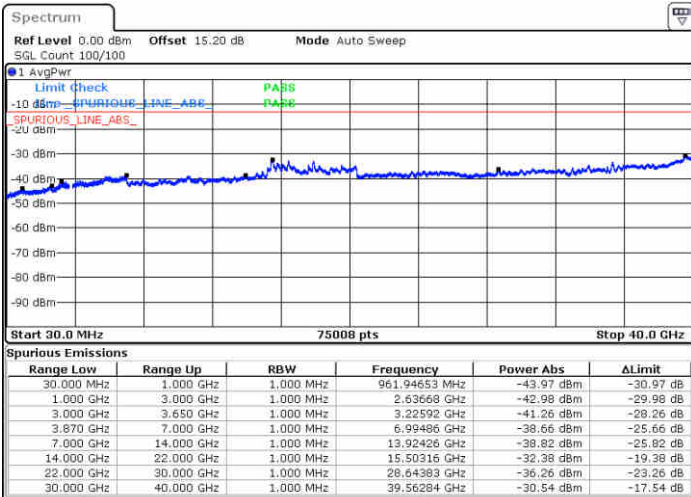
Middle Channel / 1RB



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

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

Highest Channel / 1RB



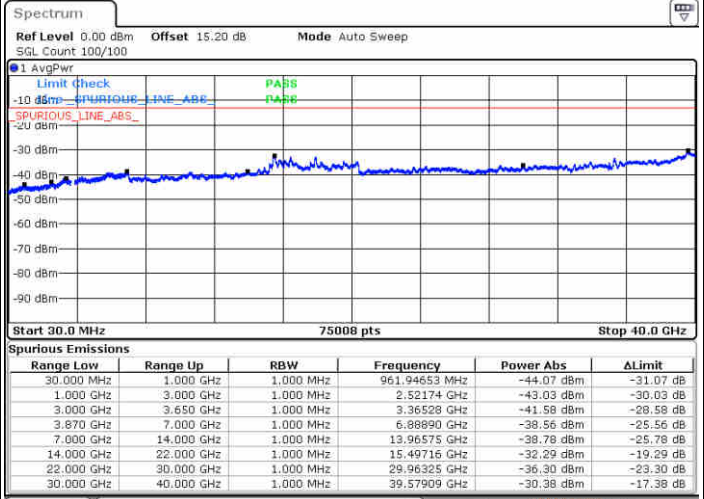
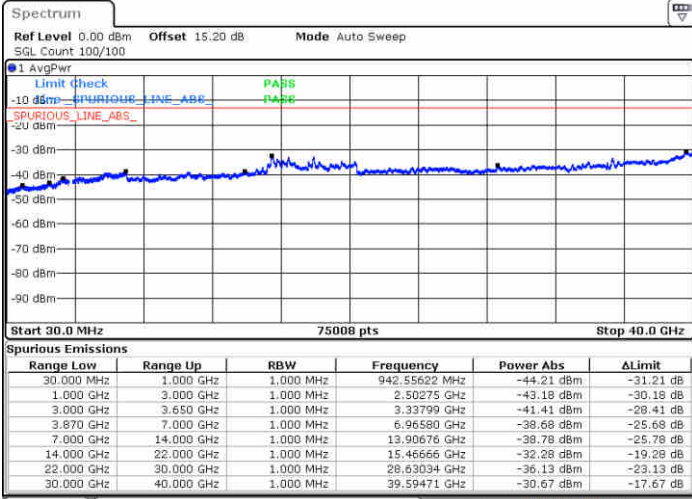
Date: 2.FEB.2021 14:27:42



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

Lowest Channel / 1RB

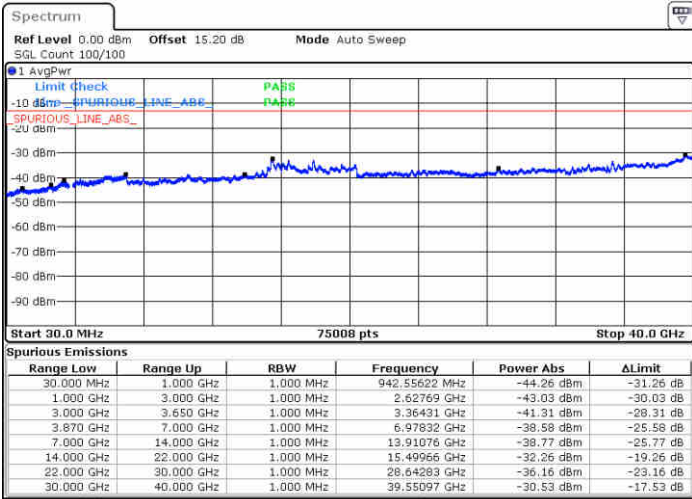
Middle Channel / 1RB



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

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

Highest Channel / 1RB

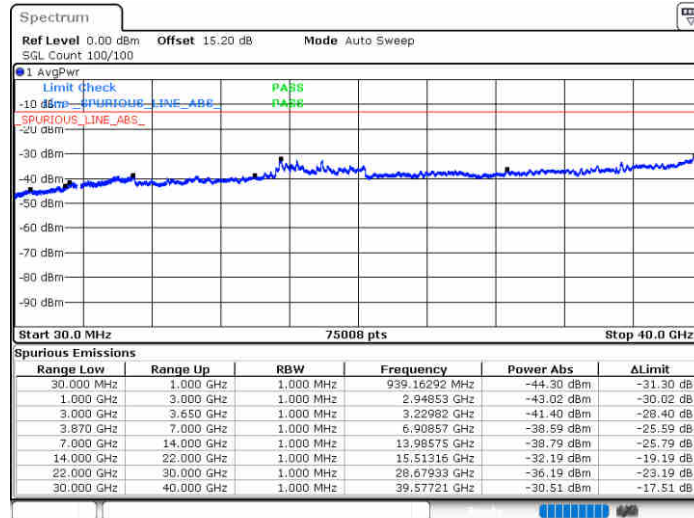


Date: 3.FEB.2021 05:10:26



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

Middle Channel / 1RB

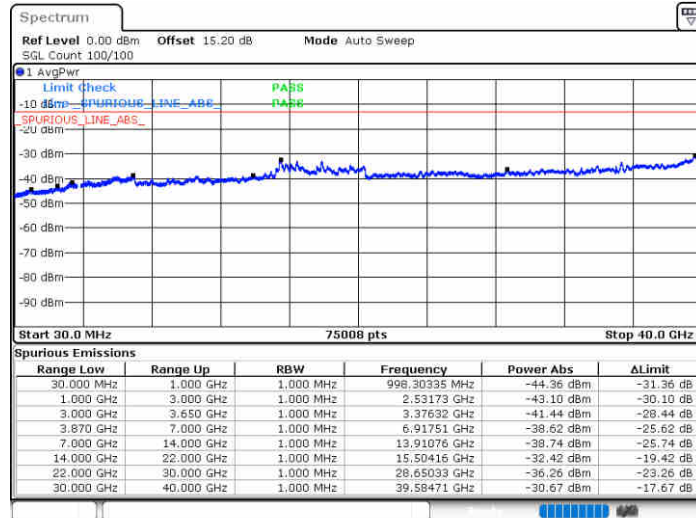


Date: 2.FEB.2021 14:11:41



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