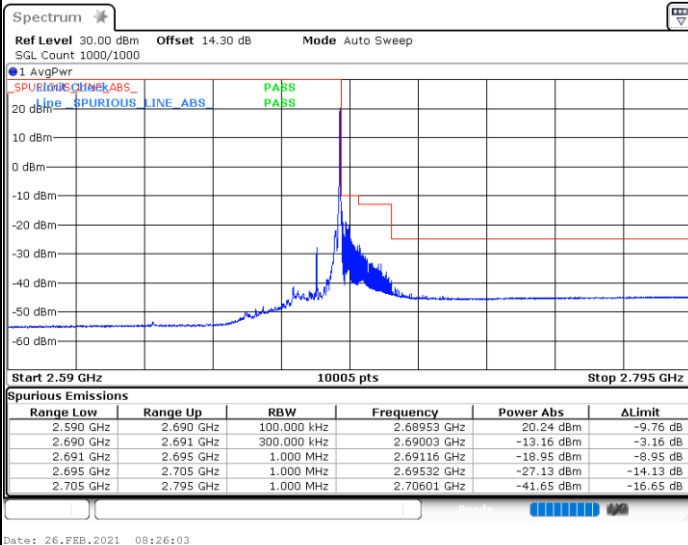




FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M2)

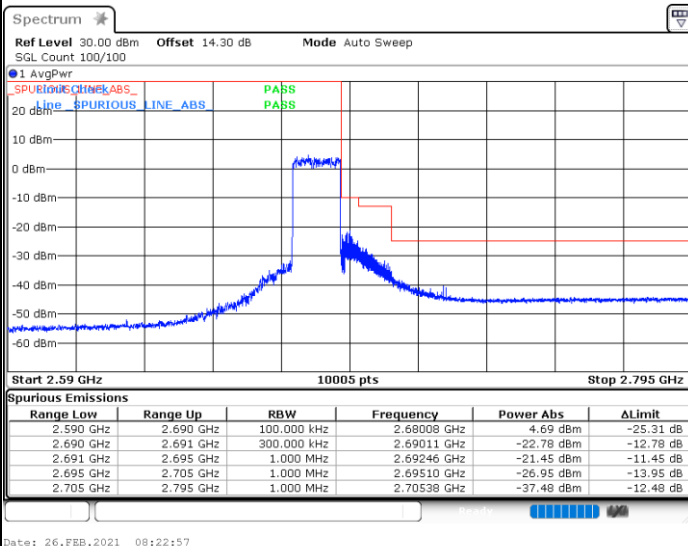
Highest Band Edge / 1 RB

Channel Power < -10dBm Pass



Highest Band Edge / Full RB

Channel Power < -10dBm Pass

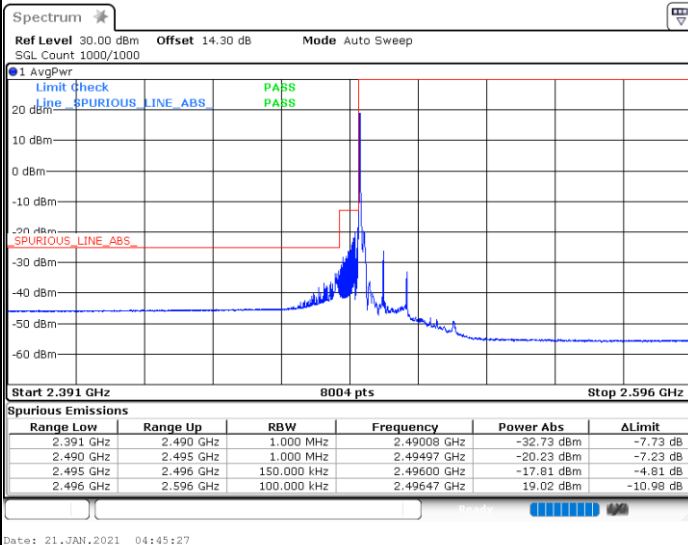




FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M)

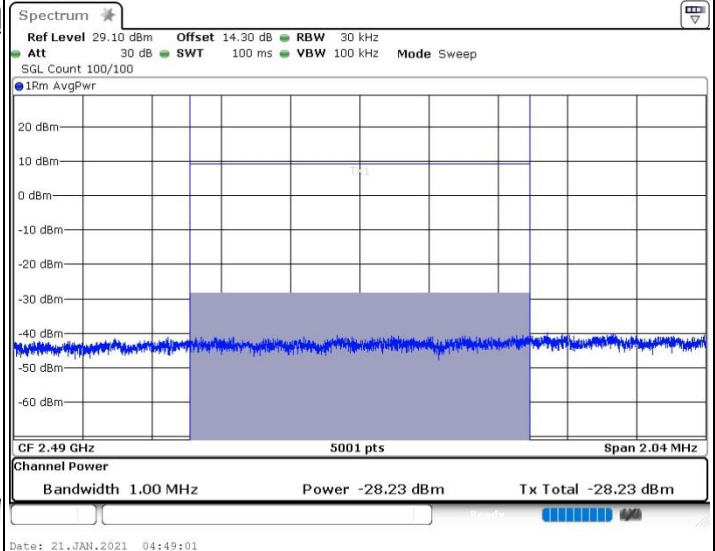
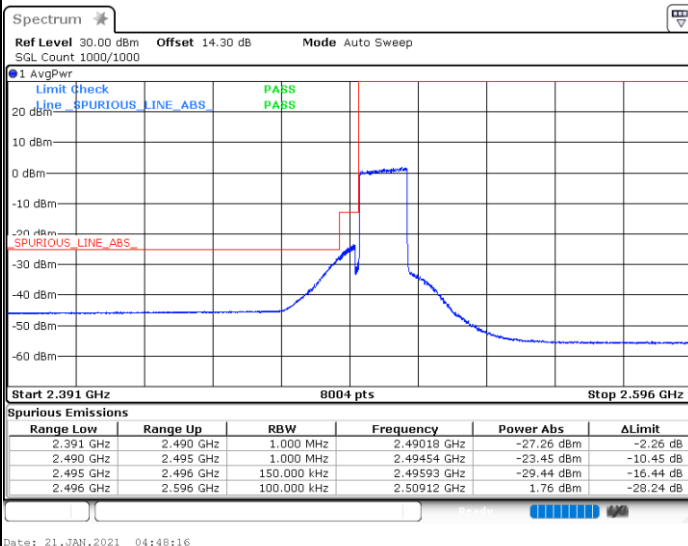
Lowest Band Edge / 1 RB

Channel Power < -25dBm Pass



Lowest Band Edge / Full RB

Channel Power < -25dBm Pass

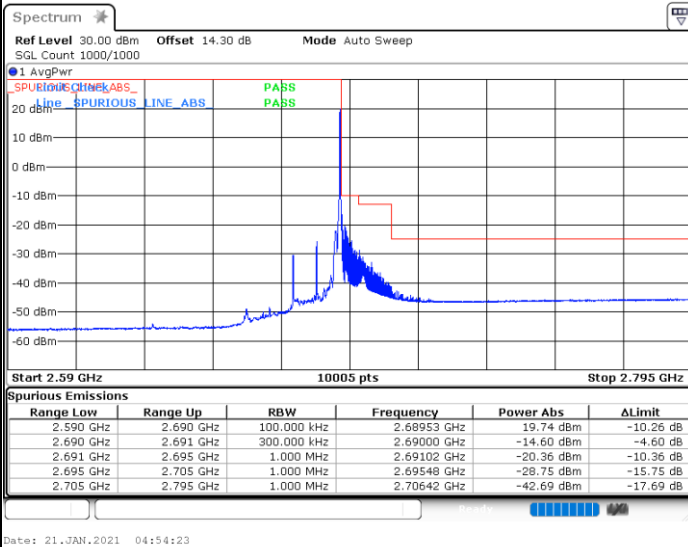




FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M)

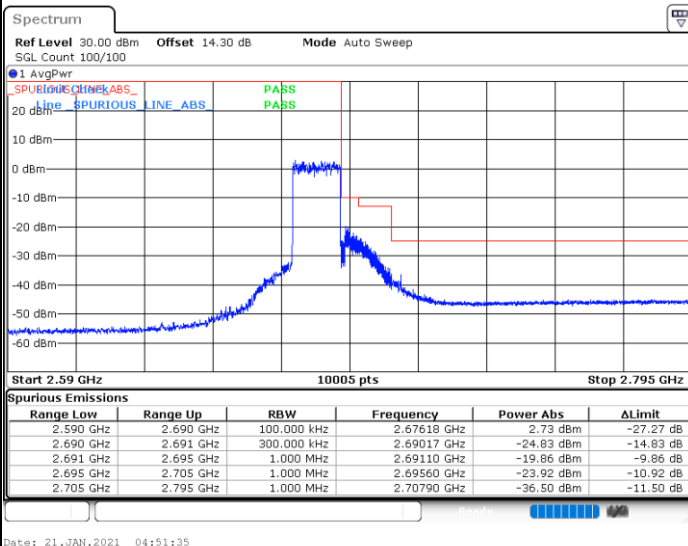
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

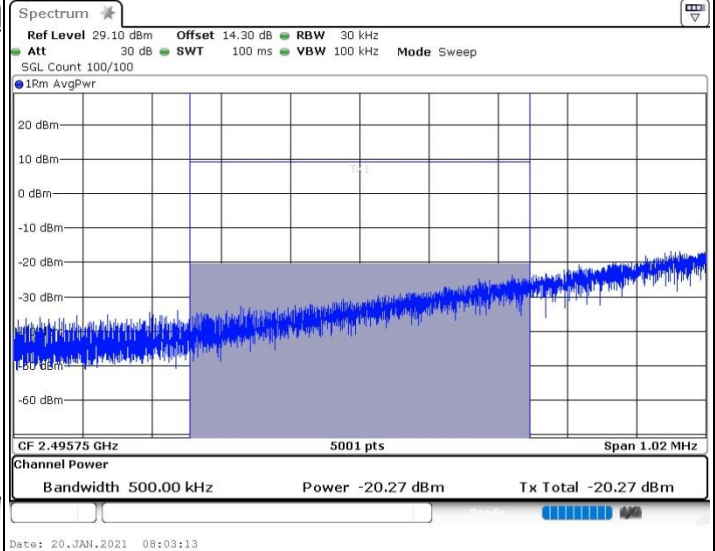
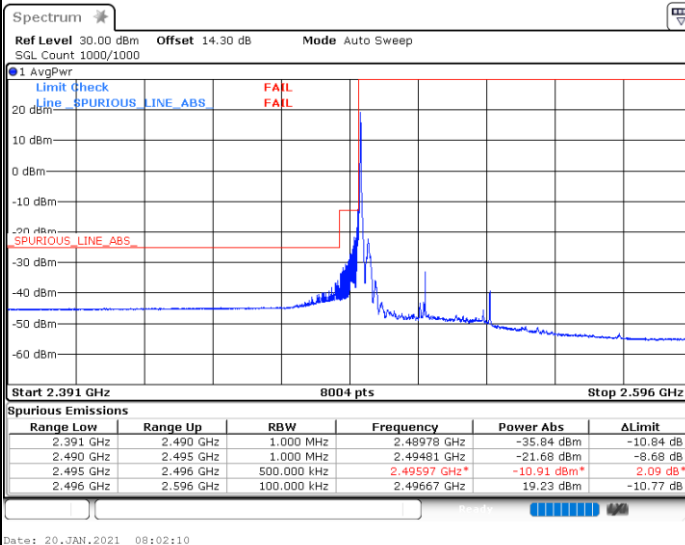




FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M2)

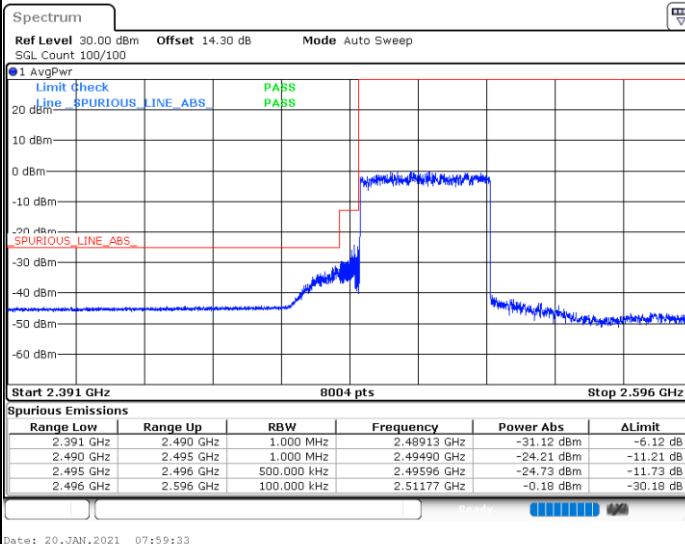
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

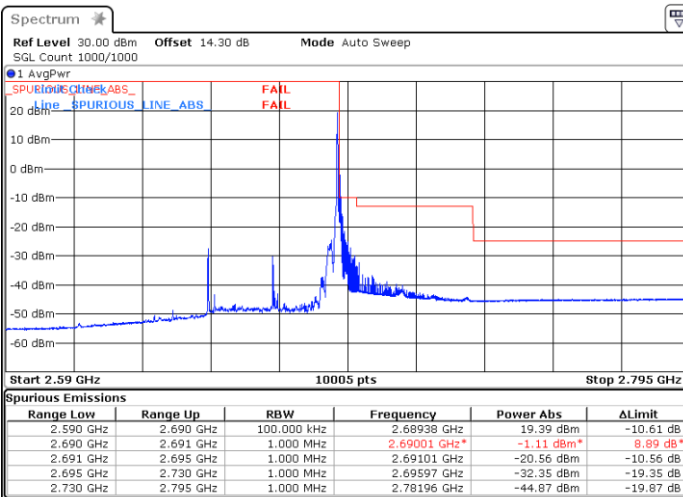
Channel Power < -13dBm Pass



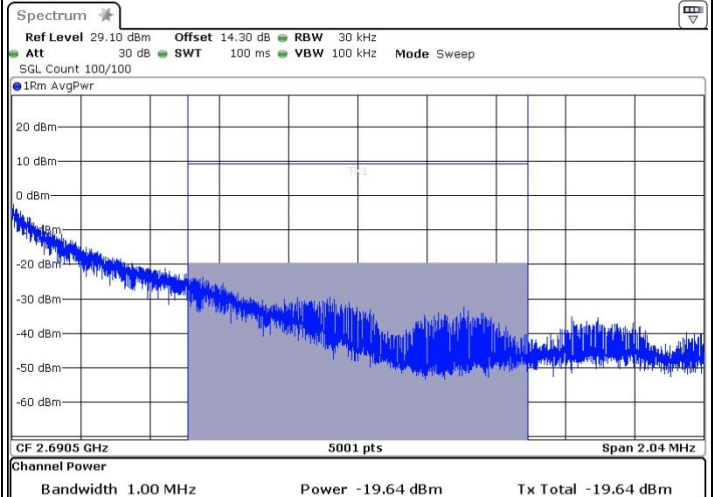


FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M2)

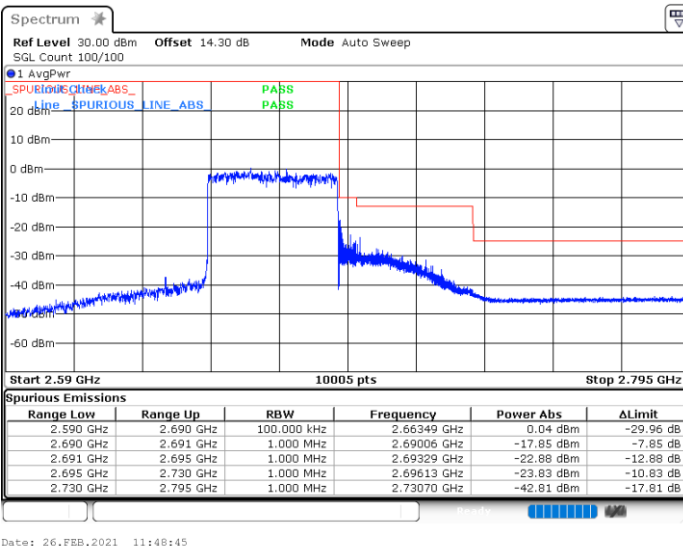
Highest Band Edge / 1 RB



Channel Power < -10dBm Pass



Highest Band Edge / Full RB



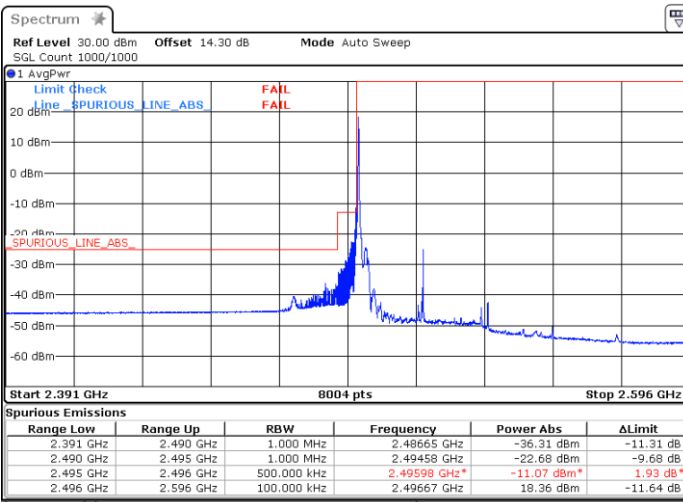
Channel Power < -10dBm Pass

/

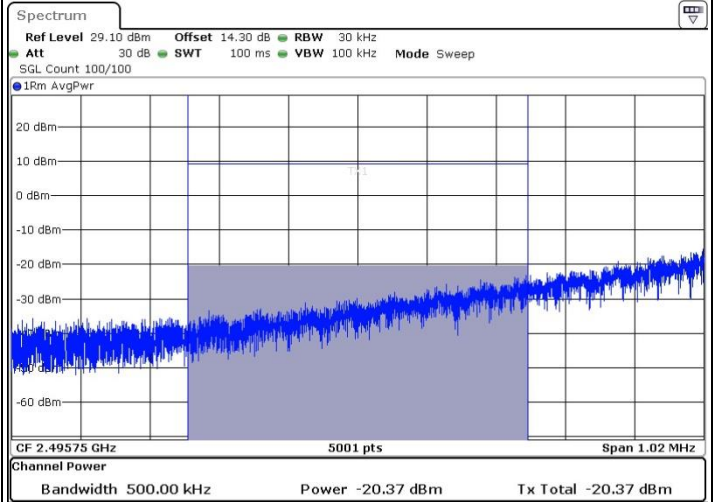


FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M)

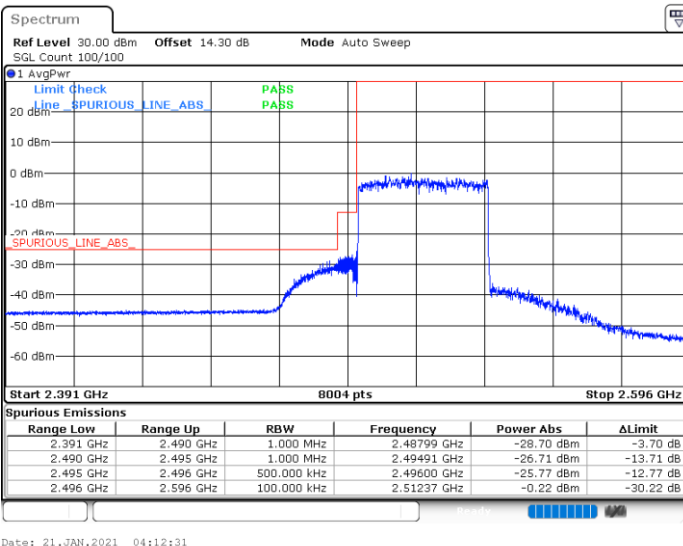
Lowest Band Edge / 1 RB



Channel Power < -13dBm Pass



Lowest Band Edge / Full RB



Channel Power < -13dBm Pass

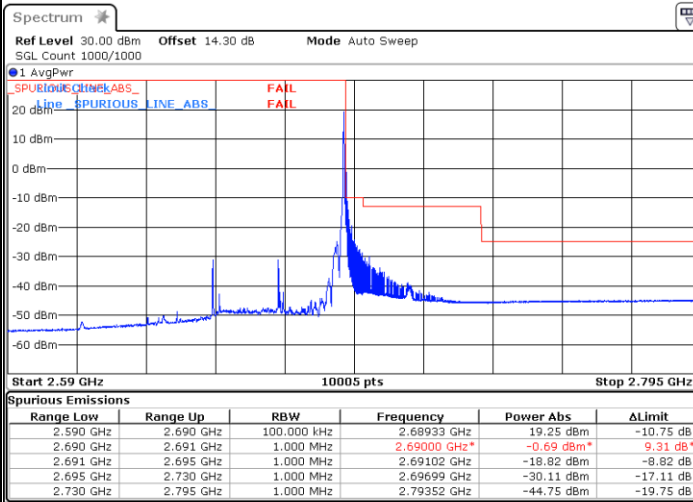
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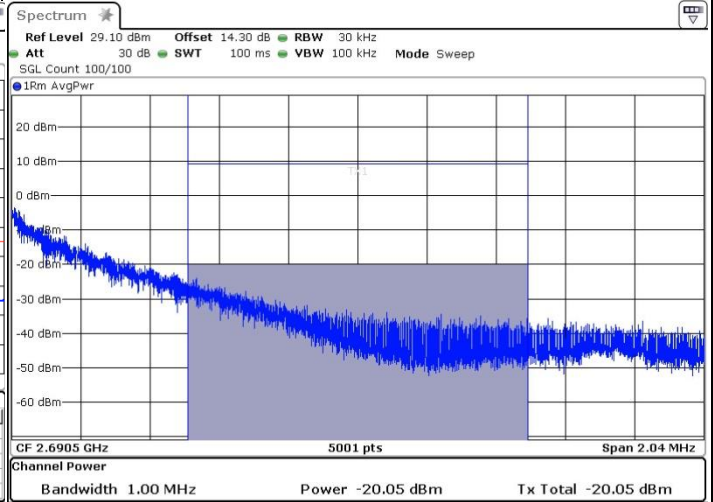
FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M)

Highest Band Edge / 1 RB

Channel Power < -10dBm Pass



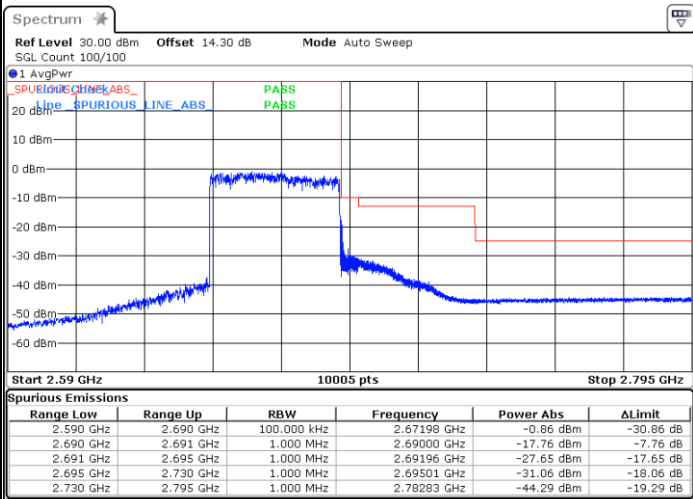
Date: 26.FEB.2021 13:38:55



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

Highest Band Edge / Full RB

Channel Power < -10dBm Pass



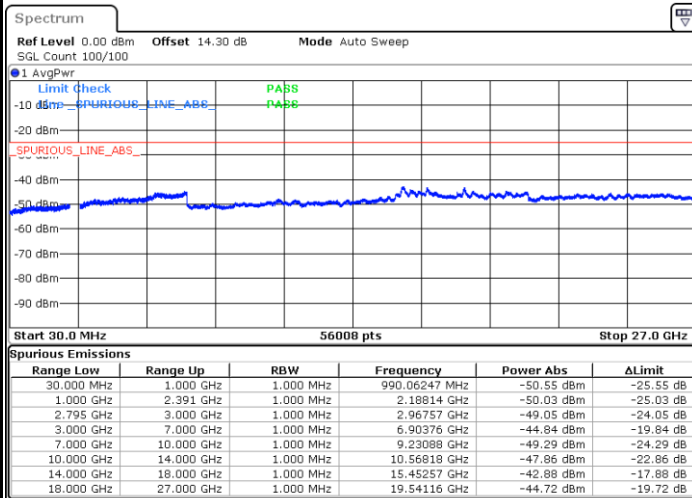
Date: 26.FEB.2021 13:45:56



Conducted Spurious Emission

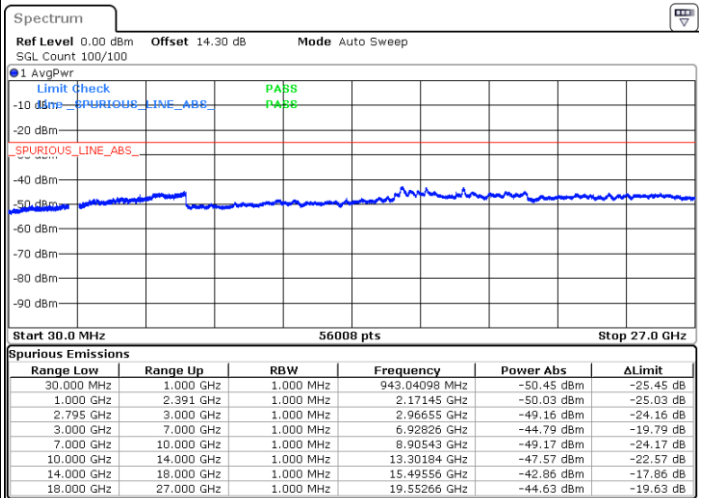
FR1 UL-MIMO n41 / 10MHz / CP-OFDM QPSK (M2)

Lowest Channel / 1RB



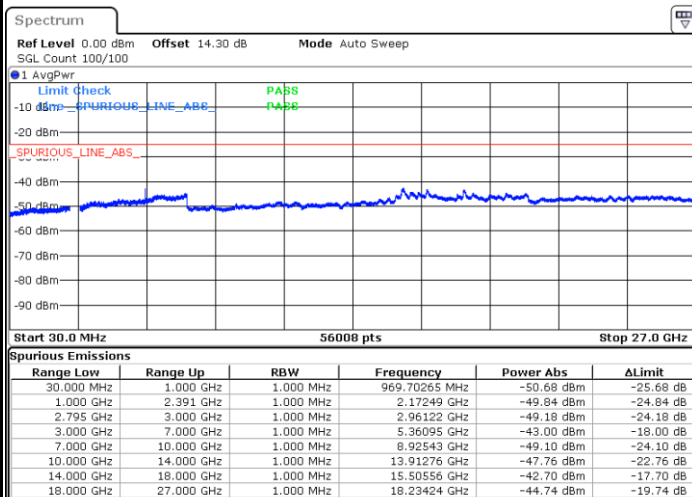
Date: 21.JAN.2021 03:32:07

Middle Channel / 1RB



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

Highest Channel / 1RB

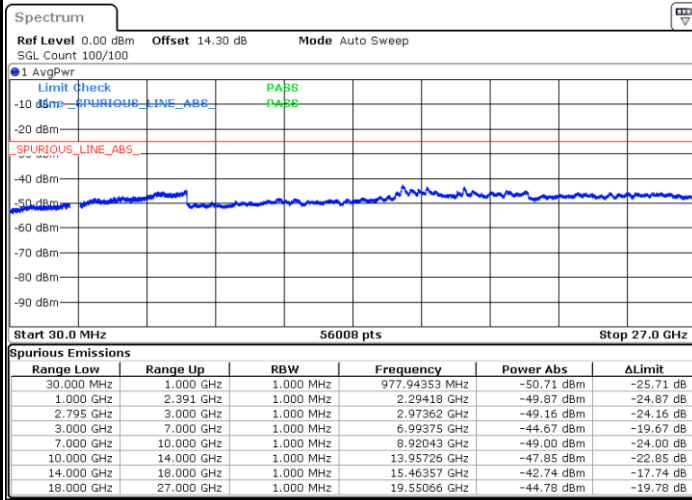


Date: 21.JAN.2021 03:12:57



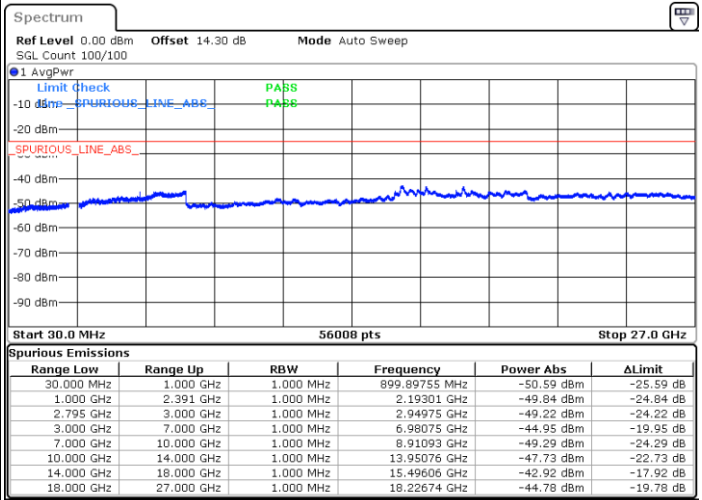
FR1 UL-MIMO n41 / 10MHz / CP-OFDM QPSK (M)

Lowest Channel / 1RB



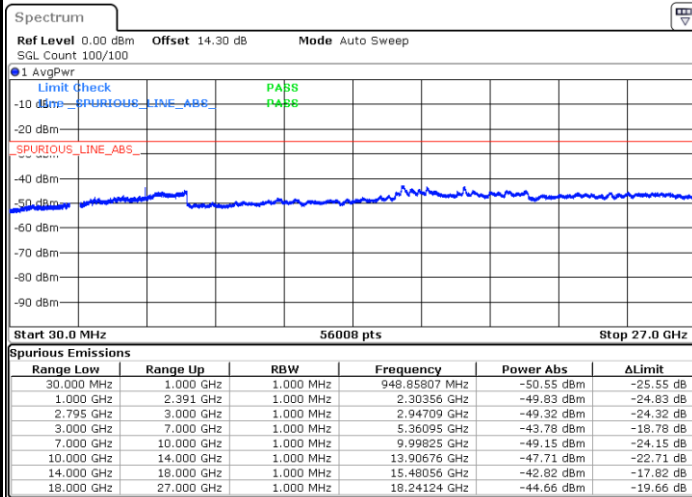
Date: 21.JAN.2021 05:17:24

Middle Channel / 1RB



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

Highest Channel / 1RB

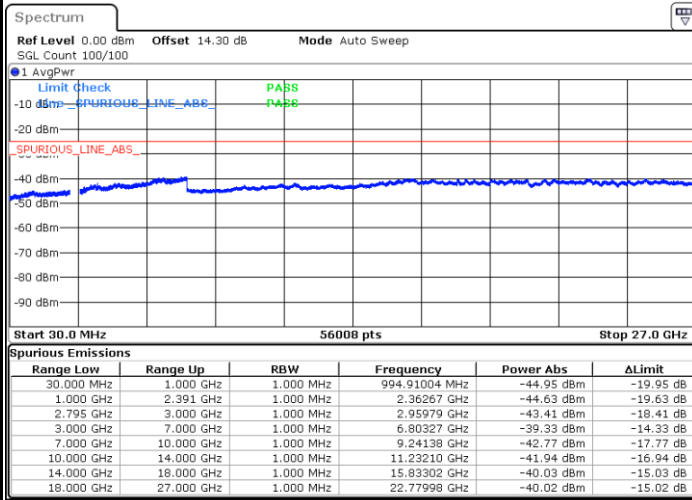


Date: 21.JAN.2021 05:20:35



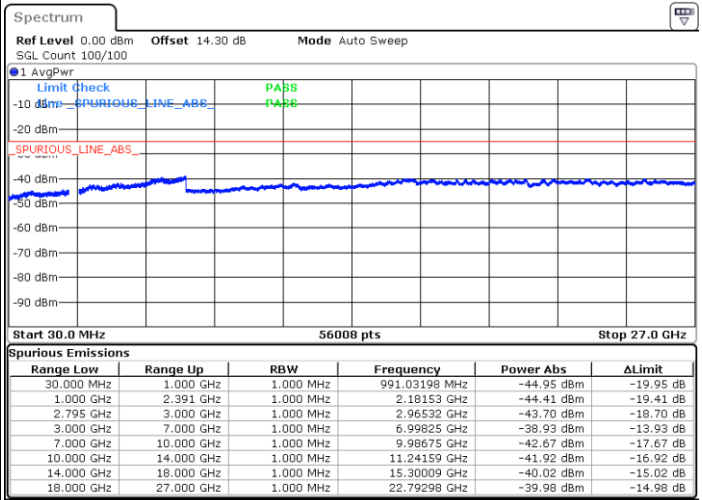
FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M2)

Lowest Channel / 1RB



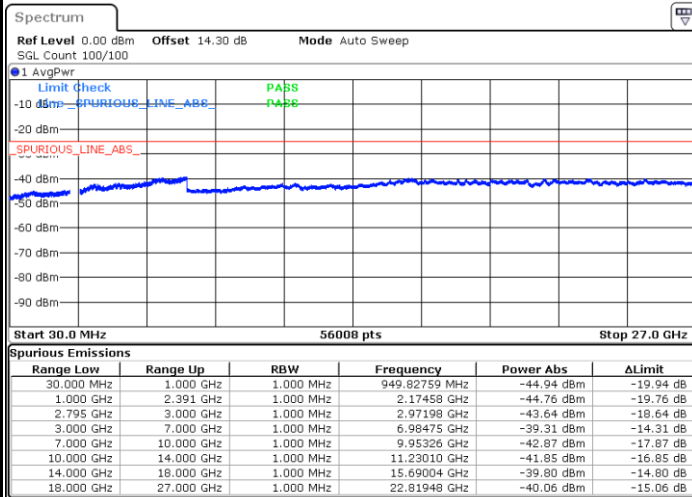
Date: 20.JAN.2021 08:34:01

Middle Channel / 1RB



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

Highest Channel / 1RB



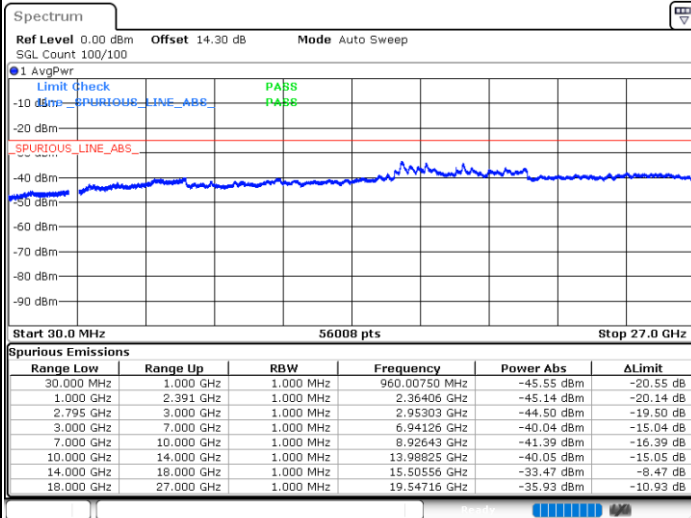
Date: 20.JAN.2021 08:27:38



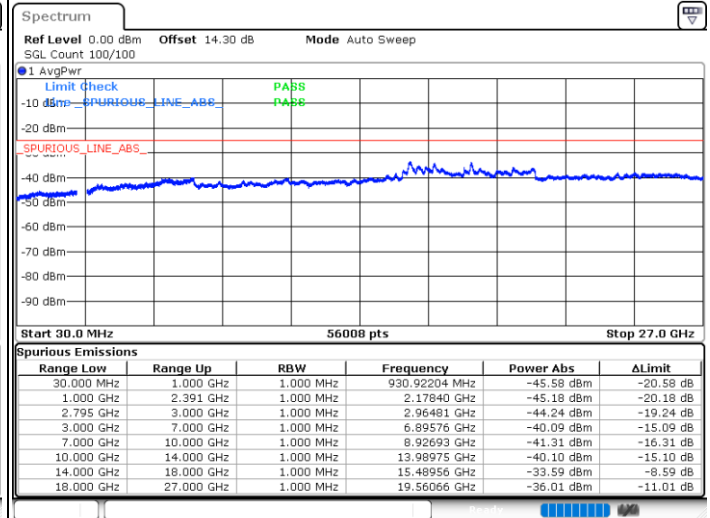
FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M)

Lowest Channel / 1RB

Middle Channel / 1RB

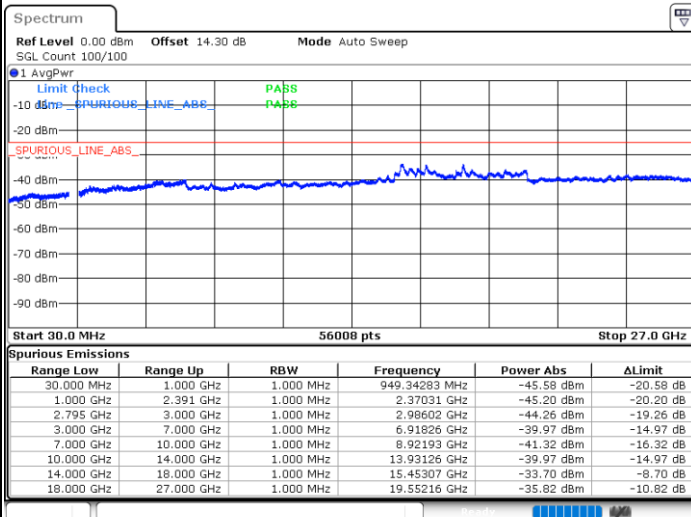


Date: 21.JAN.2021 04:44:23



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

Highest Channel / 1RB

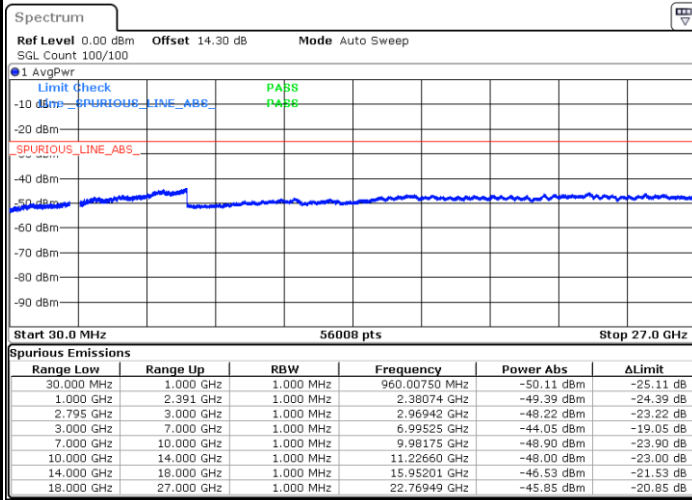


Date: 21.JAN.2021 04:55:32



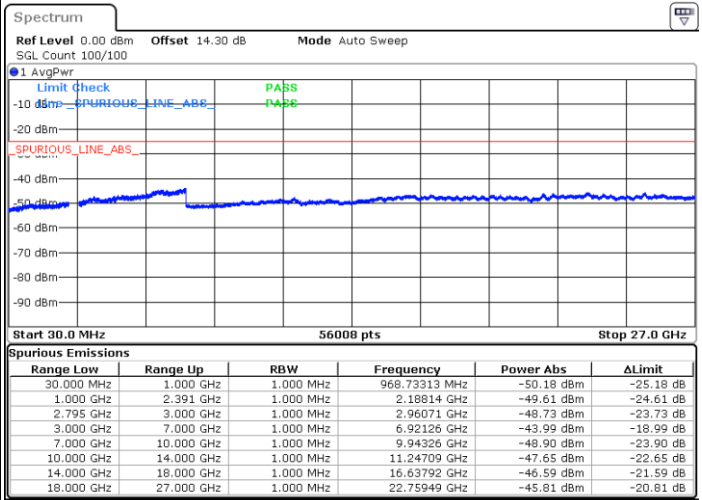
FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M2)

Lowest Channel / 1RB



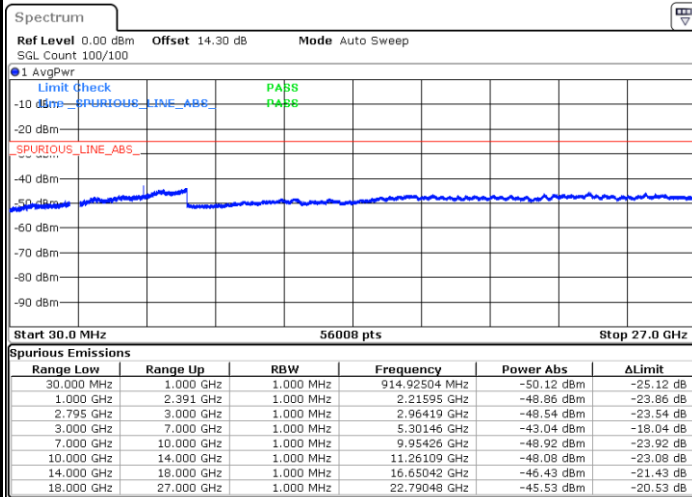
Date: 20.JAN.2021 08:12:26

Middle Channel / 1RB



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

Highest Channel / 1RB



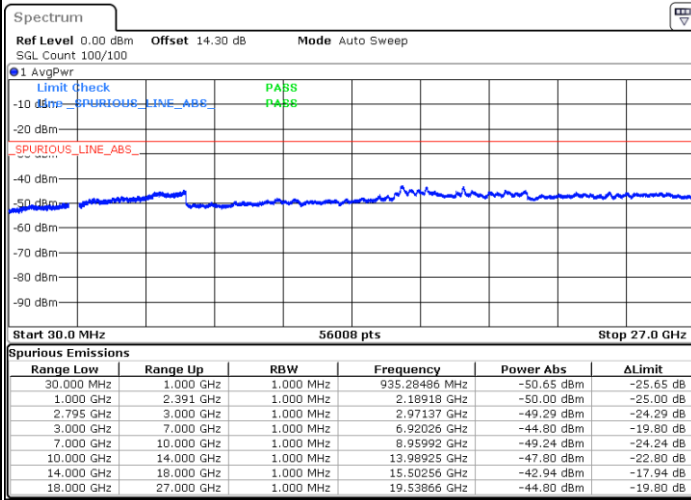
Date: 20.JAN.2021 08:08:31



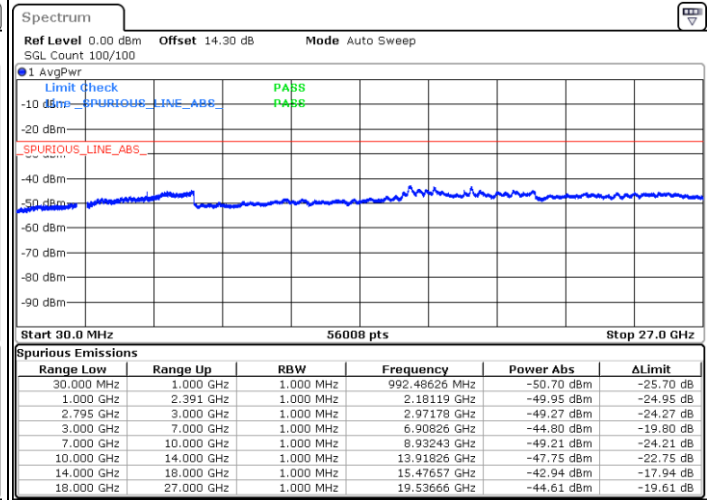
FR1 UL-MIMO n41 / 40MHz / CP-OFDM QPSK (M)

Lowest Channel / 1RB

Middle Channel / 1RB

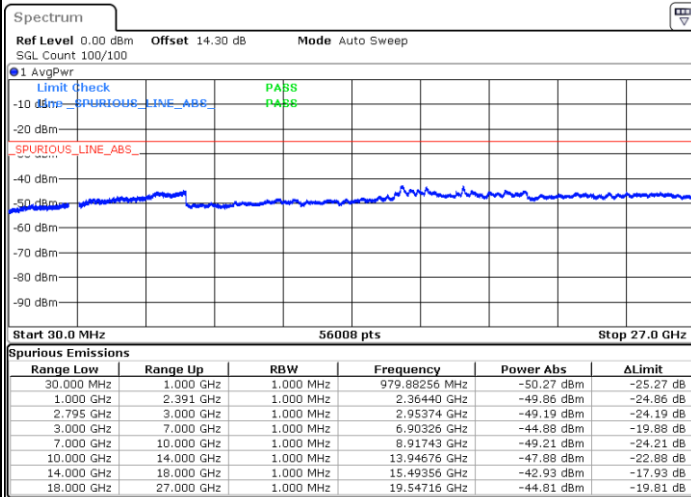


Date: 21.JAN.2021 04:09:40



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			

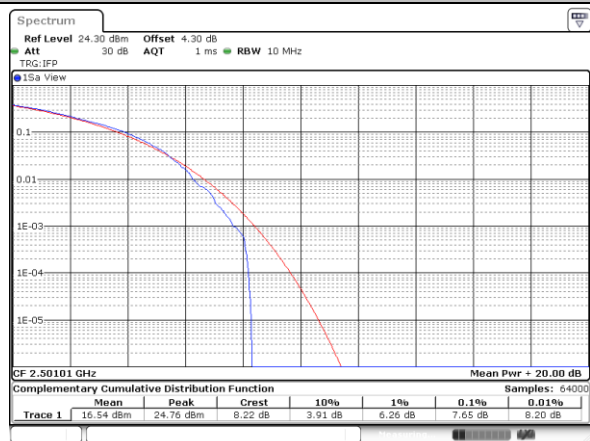
Mode	FR1 UL-MIMO n41 / 10MHz / CP-OFDM (M)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	8.09	8.9			PASS
Middle CH	8.03	8.78			
Highest CH	7.59	8.81			



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

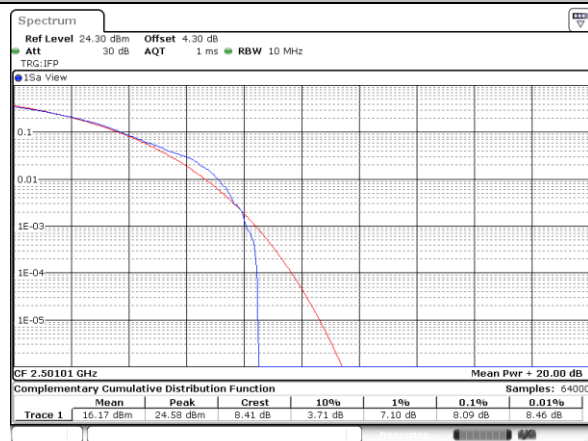
QPSK(M2)

Lowest Channel / 1RB

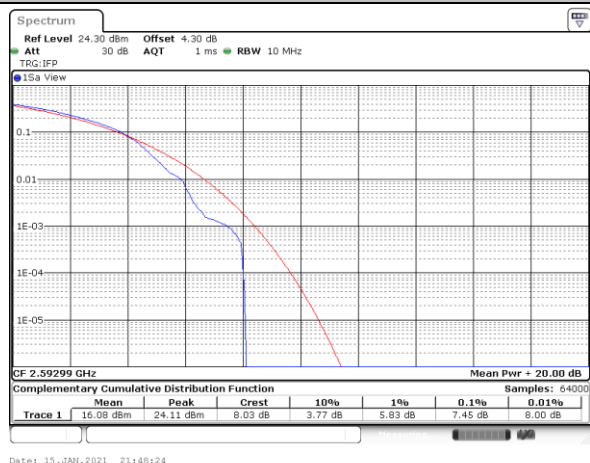


QPSK(M)

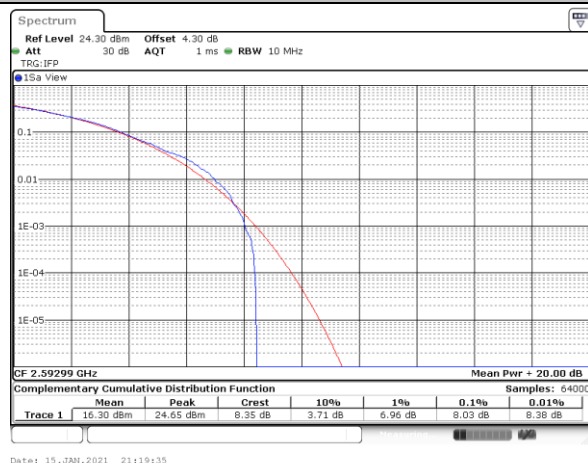
Lowest Channel / 1RB



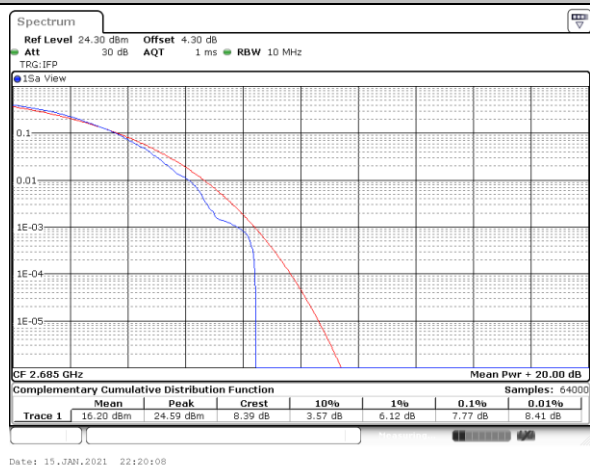
Middle Channel / 1 RB



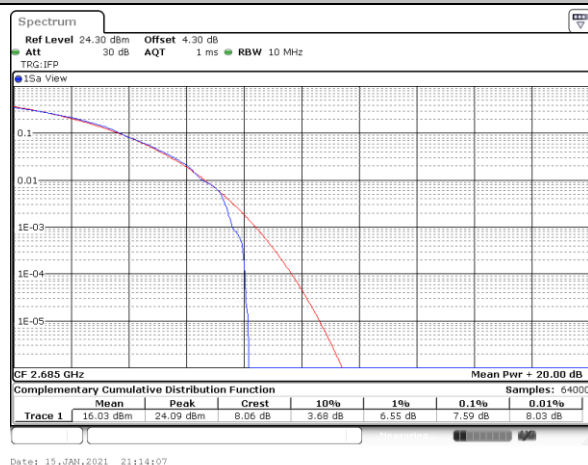
Middle Channel / 1 RB

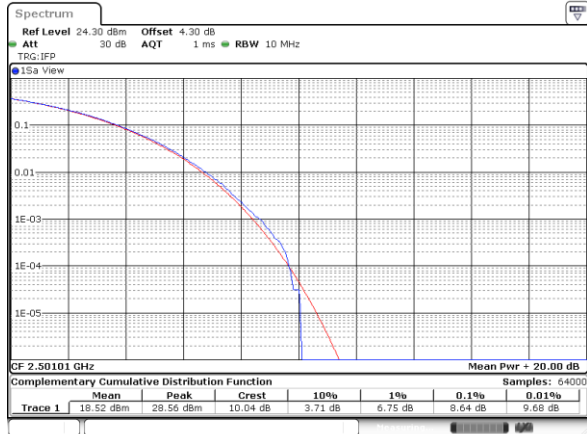


Highest Channel / 1 RB

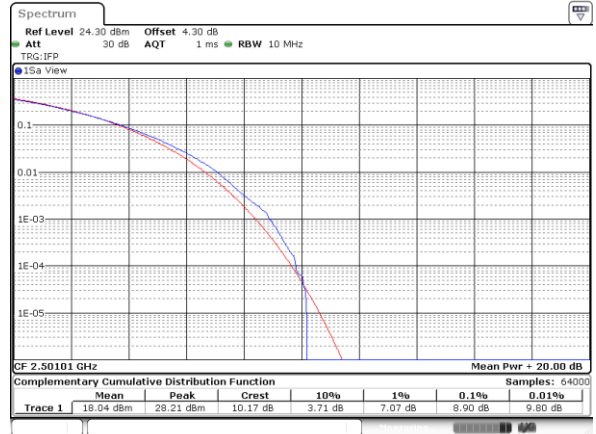


Highest Channel / 1 RB

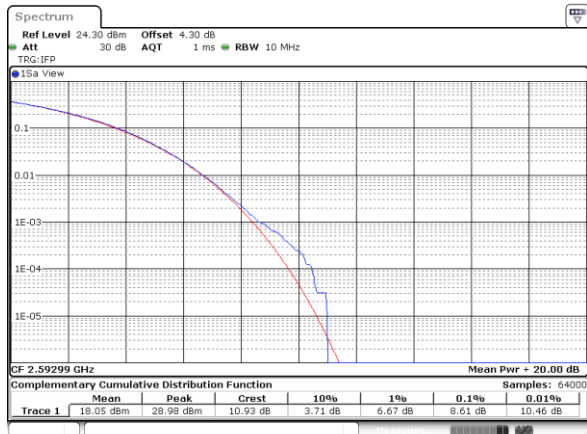


FR1 UL-MIMO n41 / 20MHz / CP-OFDM
QPSK(M2)
Lowest Channel / Full RB


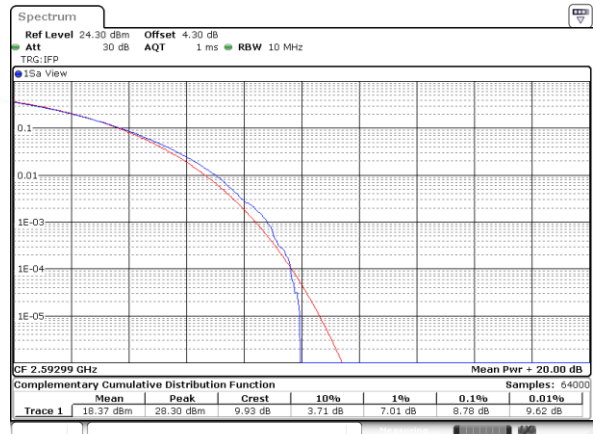
Date: 15, JAN, 2021 21:26:50

QPSK(M)
Lowest Channel / Full RB


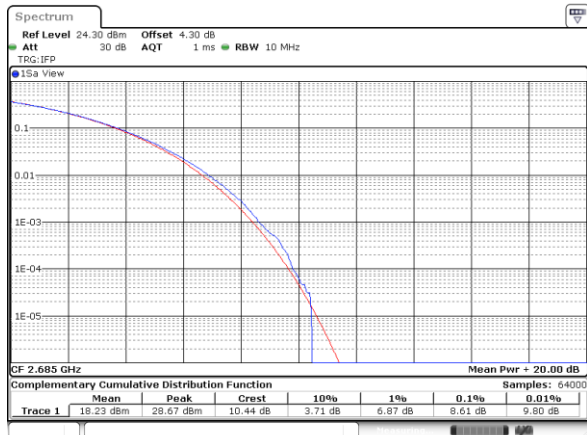
Date: 15, JAN, 2021 21:22:17

Middle Channel / Full RB


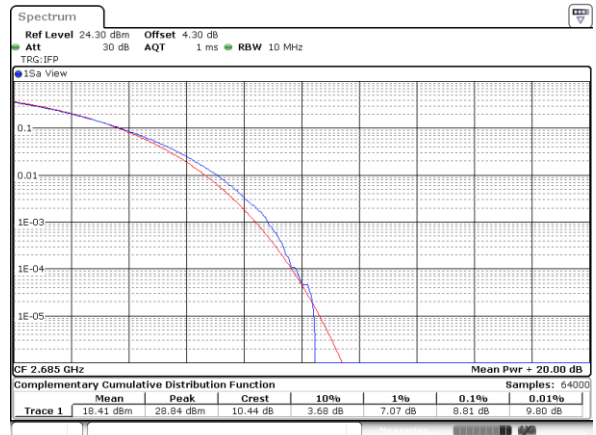
Date: 15, JAN, 2021 21:44:38

Middle Channel / Full RB


Date: 15, JAN, 2021 21:17:40

Highest Channel / Full RB


Date: 15, JAN, 2021 22:22:28

Highest Channel / Full RB


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

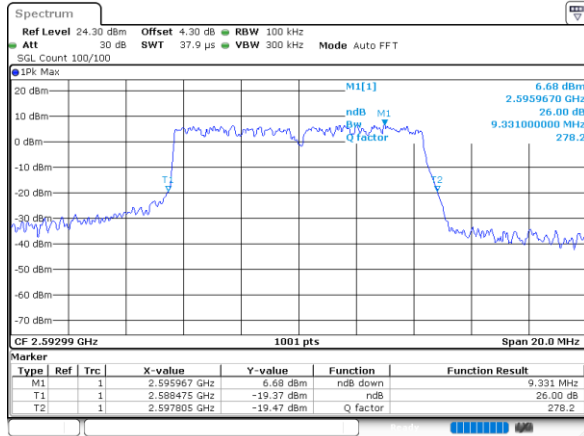
Mode	FR1 UL-MIMO n41 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	80.08	79.92	80.08	79.92	79.92	79.92	79.92	80.08



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

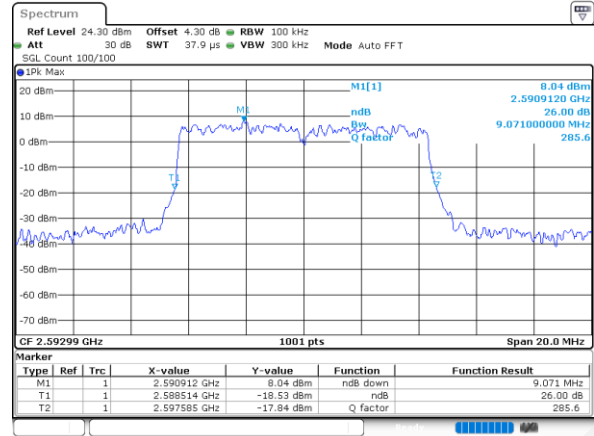
QPSK

Middle Channel



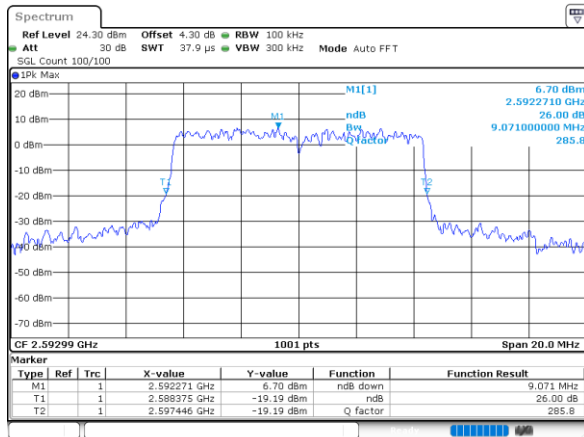
16QAM

Middle Channel



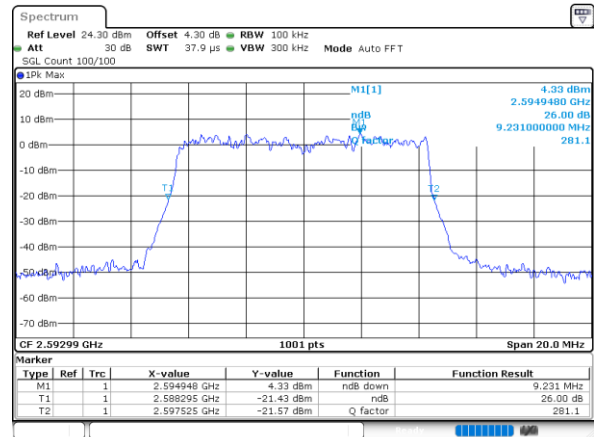
64QAM

Middle Channel



256QAM

Middle Channel

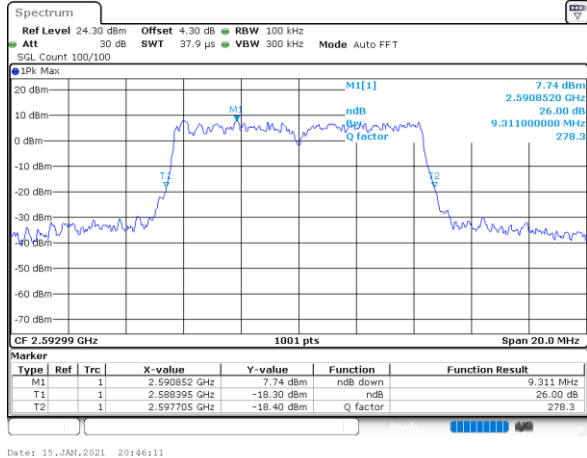




FR1 UL-MIMO n41 / 10MHz / CP-OFDM (M)

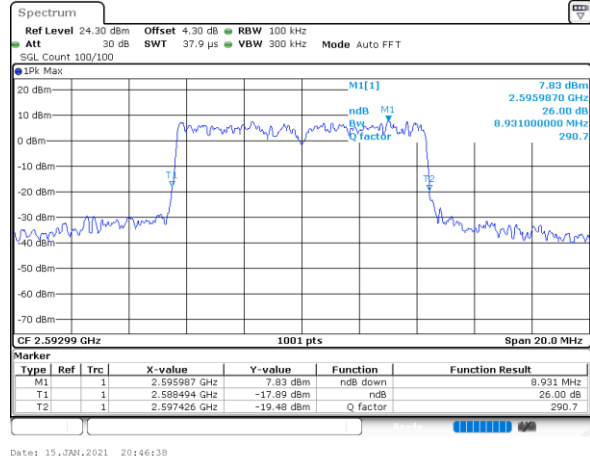
QPSK

Middle Channel



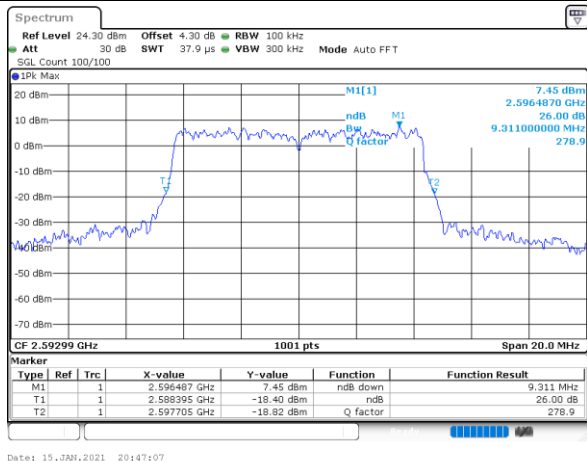
16QAM

Middle Channel



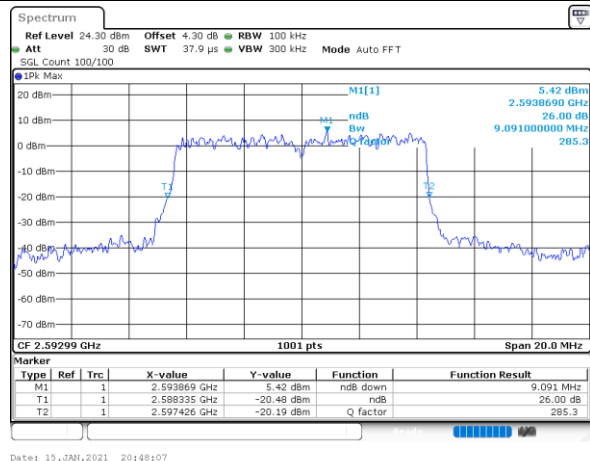
64QAM

Middle Channel



256QAM

Middle Channel

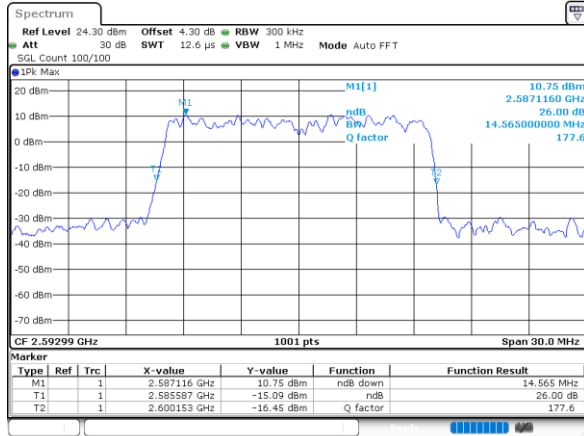




FR1 UL-MIMO n41 / 15MHz / CP-OFDM (M2)

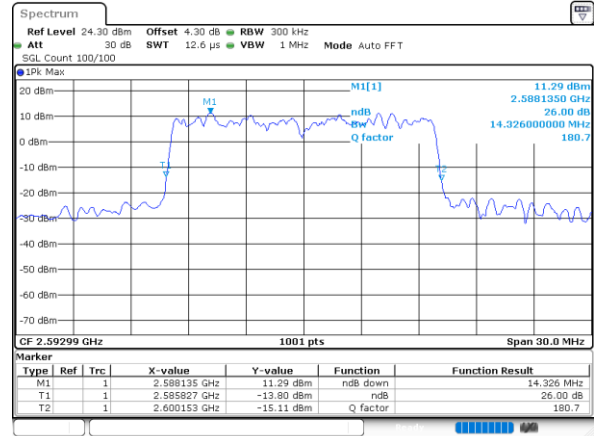
QPSK

Middle Channel



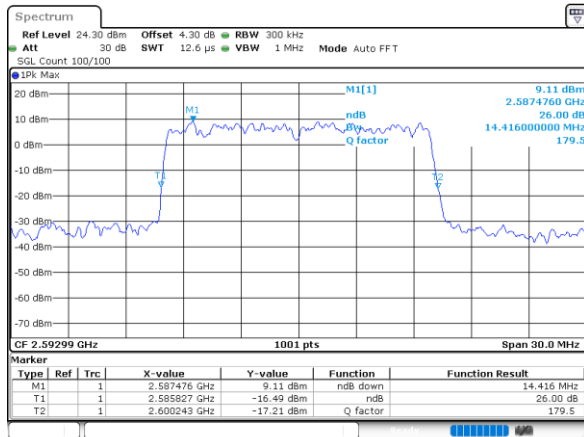
16QAM

Middle Channel



64QAM

Middle Channel



256QAM

Middle Channel

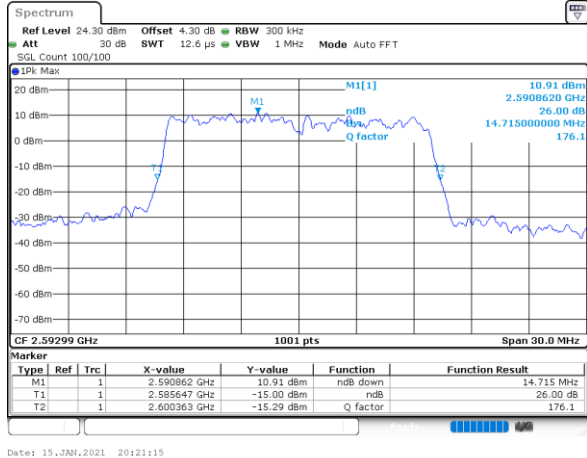




FR1 UL-MIMO n41 / 15MHz / CP-OFDM (M)

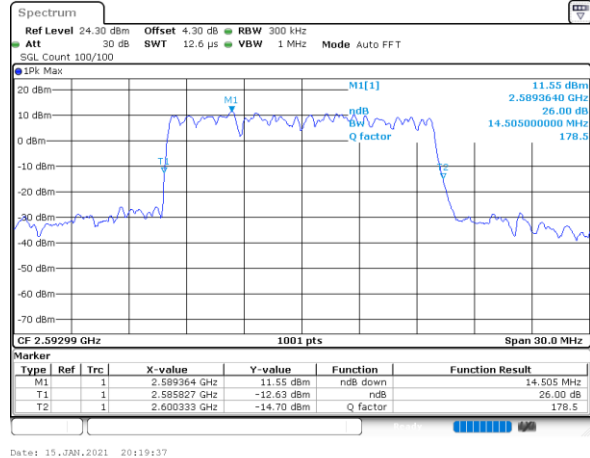
QPSK

Middle Channel



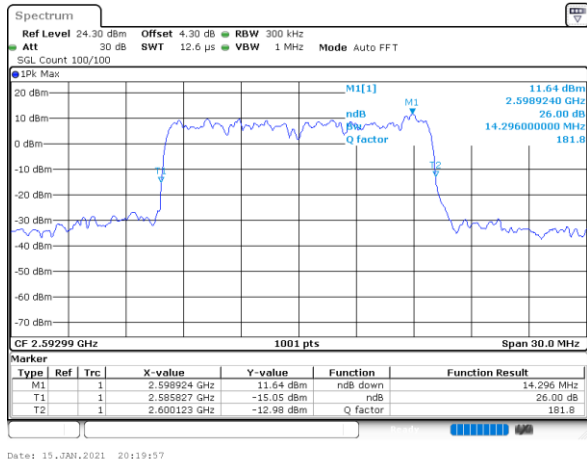
16QAM

Middle Channel



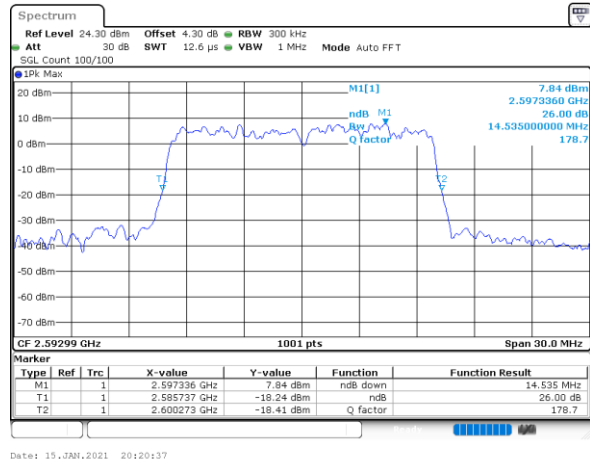
64QAM

Middle Channel



256QAM

Middle Channel

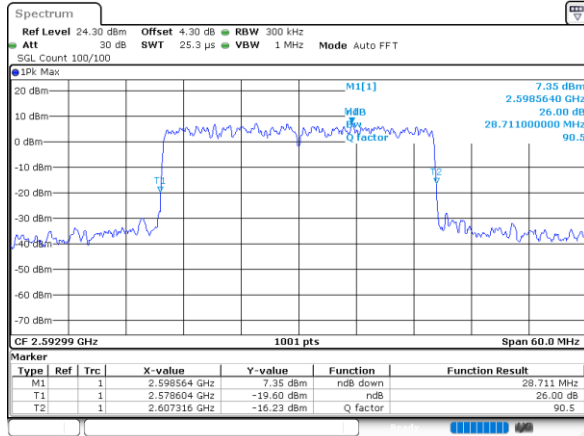




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (M2)

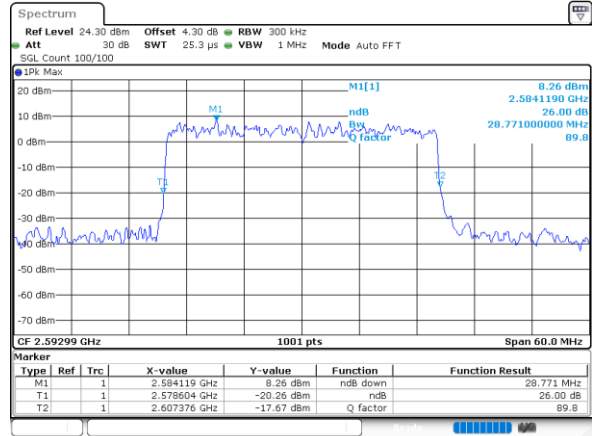
QPSK

Middle Channel



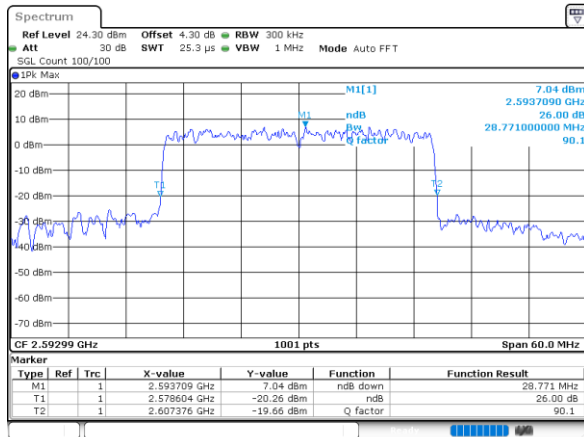
16QAM

Middle Channel



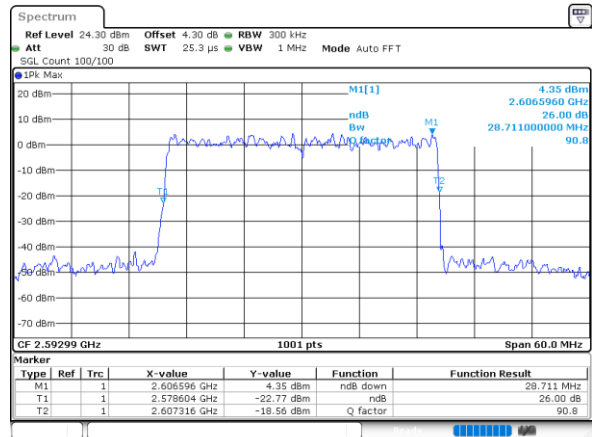
64QAM

Middle Channel



256QAM

Middle Channel

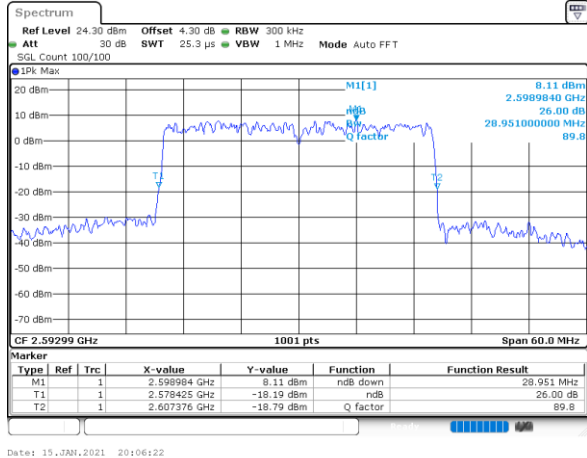




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (M)

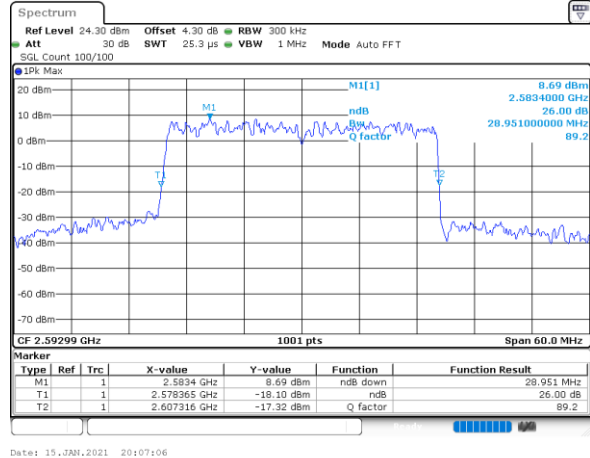
QPSK

Middle Channel



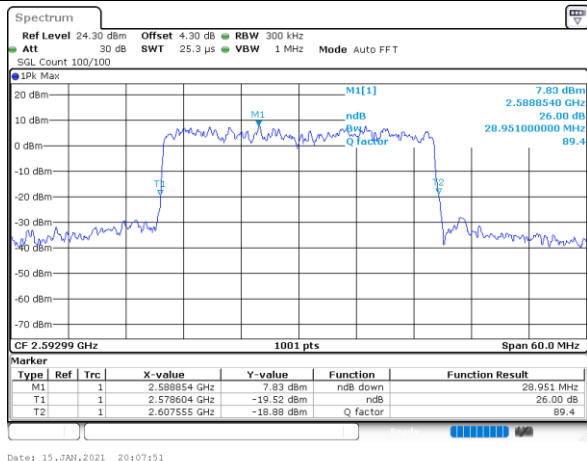
16QAM

Middle Channel



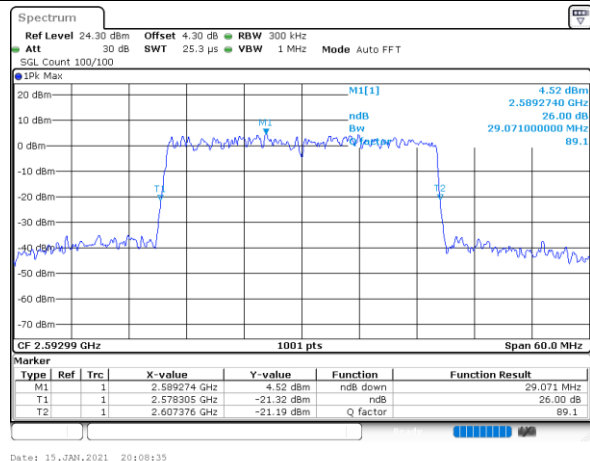
64QAM

Middle Channel



256QAM

Middle Channel

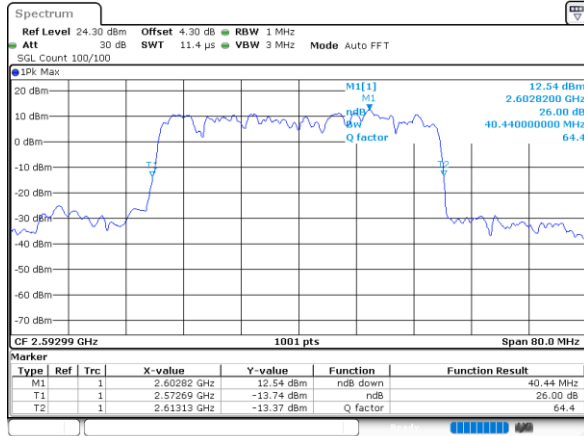




FR1 UL-MIMO n41 / 40MHz / CP-OFDM (M2)

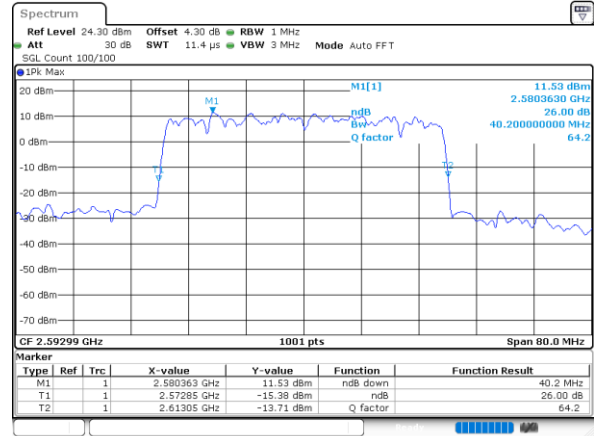
QPSK

Middle Channel



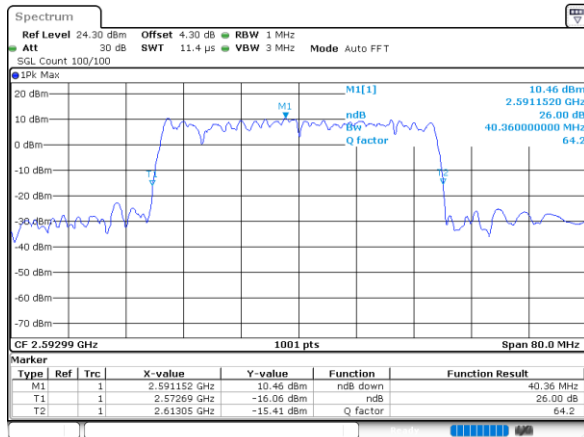
16QAM

Middle Channel



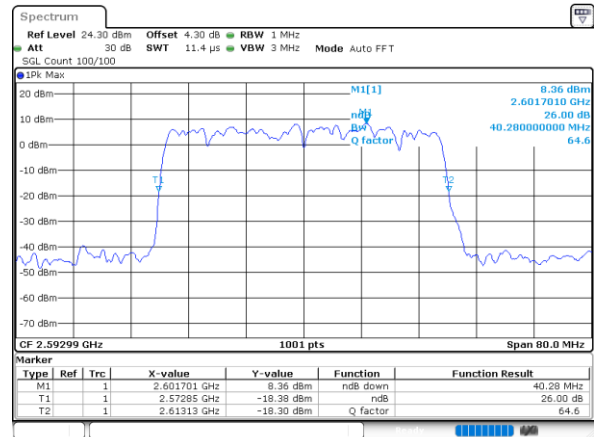
64QAM

Middle Channel



256QAM

Middle Channel

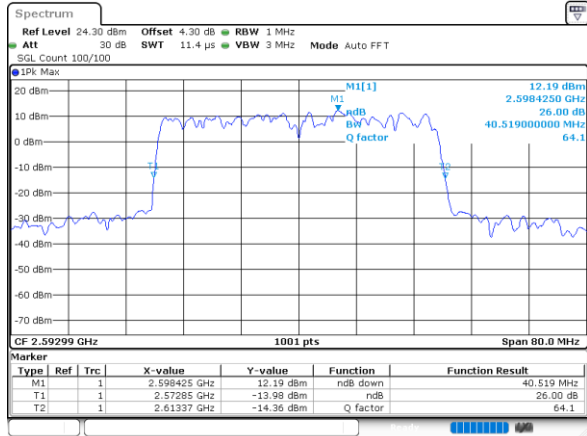




FR1 UL-MIMO n41 / 40MHz / CP-OFDM (M)

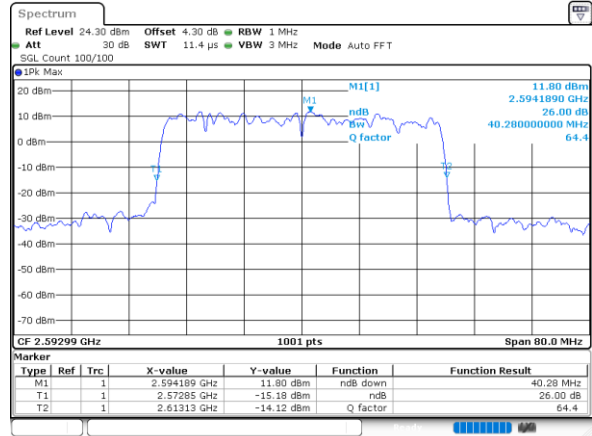
QPSK

Middle Channel



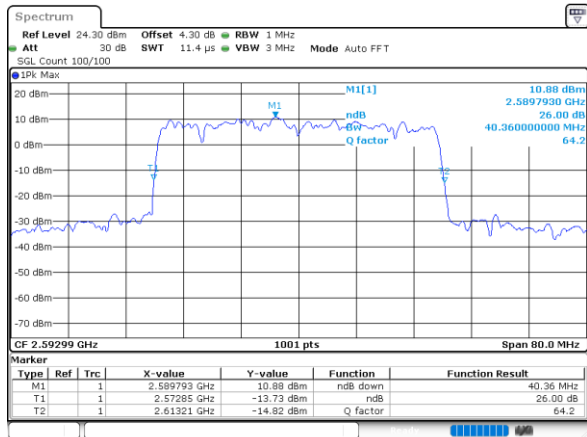
16QAM

Middle Channel



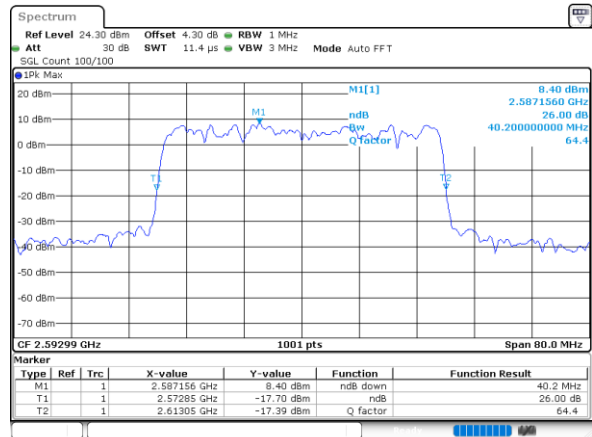
64QAM

Middle Channel



256QAM

Middle Channel

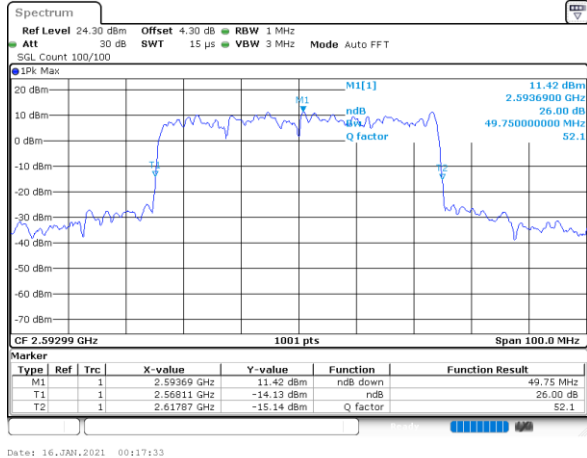




FR1 UL-MIMO n41 / 50MHz / CP-OFDM (M2)

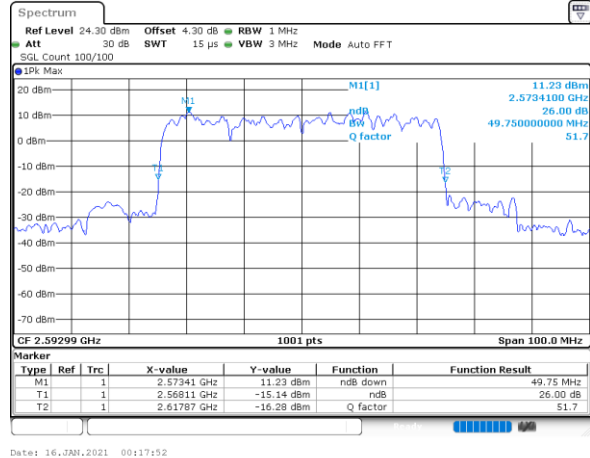
QPSK

Middle Channel



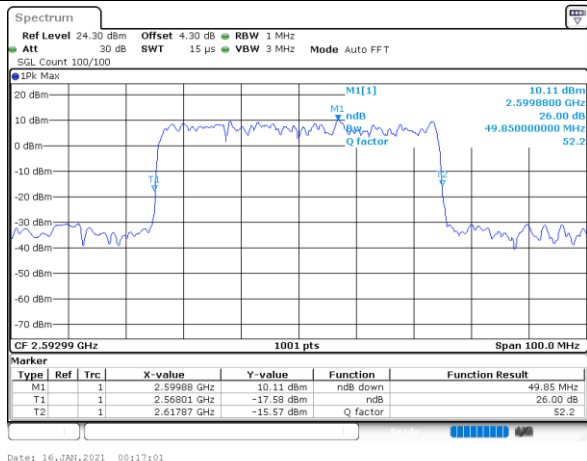
16QAM

Middle Channel



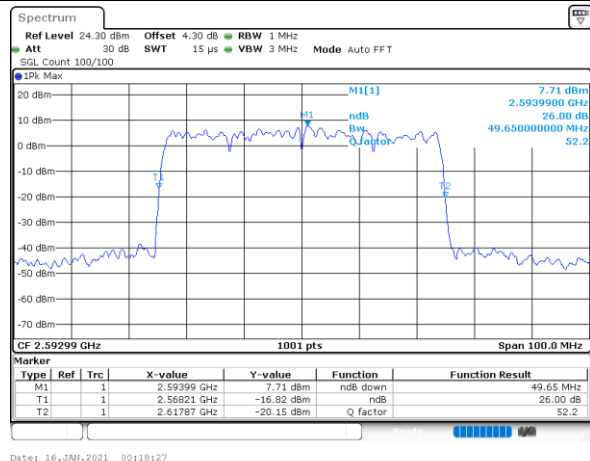
64QAM

Middle Channel



256QAM

Middle Channel





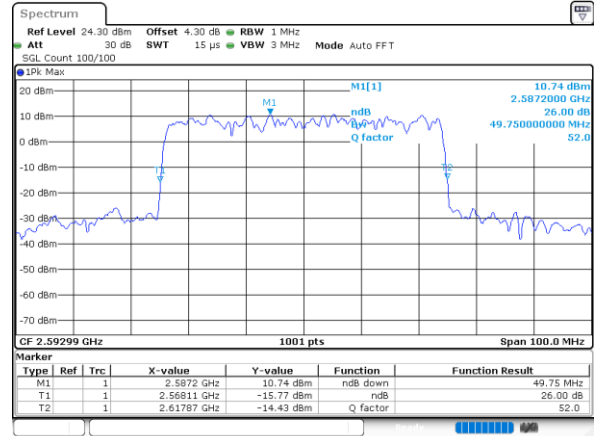
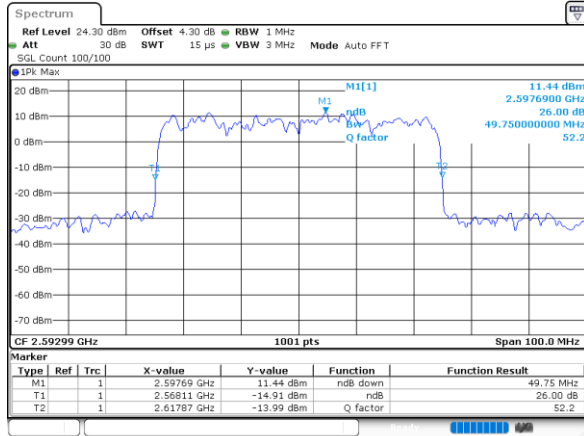
FR1 UL-MIMO n41 / 50MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel

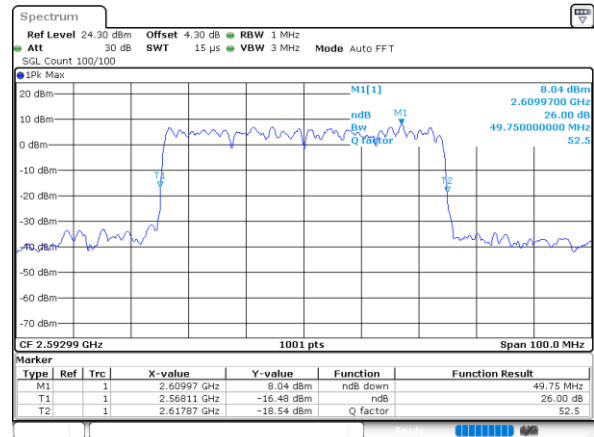
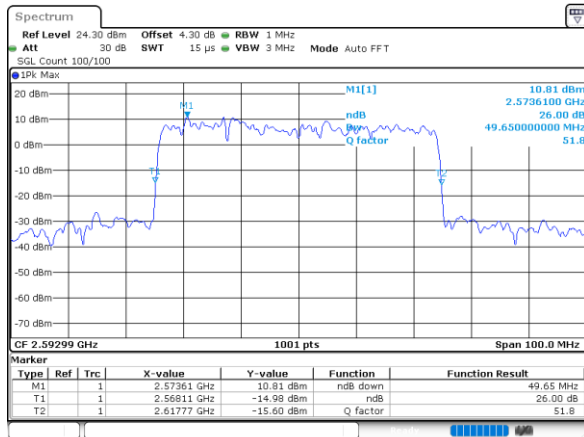


64QAM

256QAM

Middle Channel

Middle Channel

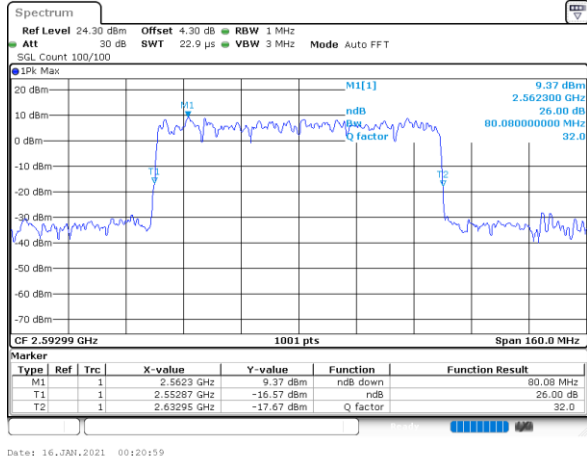




FR1 UL-MIMO n41 / 80MHz / CP-OFDM (M2)

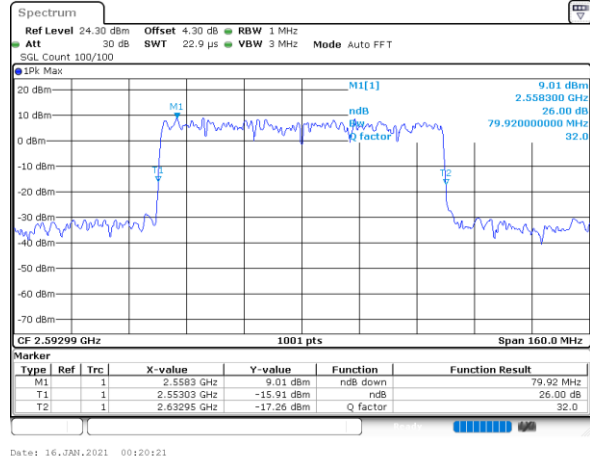
QPSK

Middle Channel



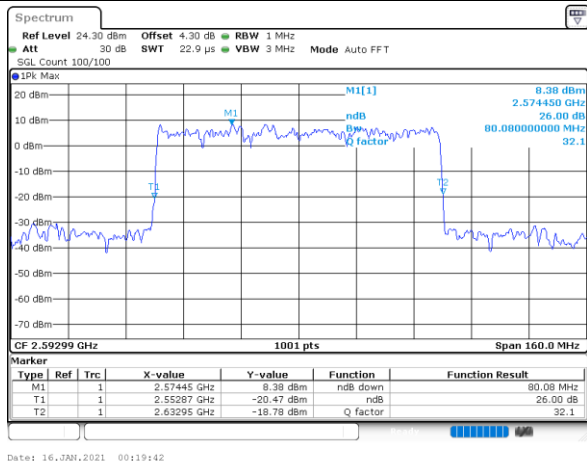
16QAM

Middle Channel



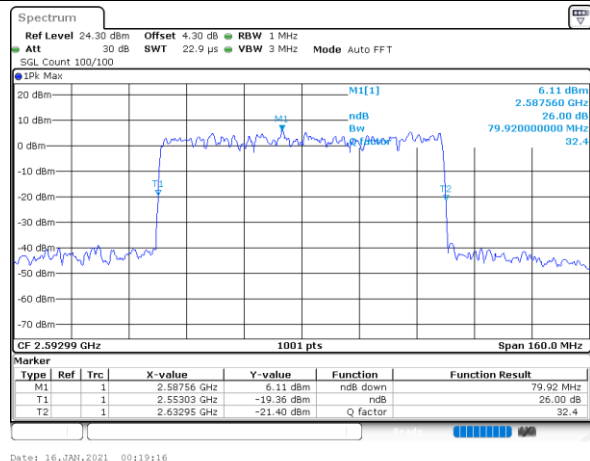
64QAM

Middle Channel



256QAM

Middle Channel





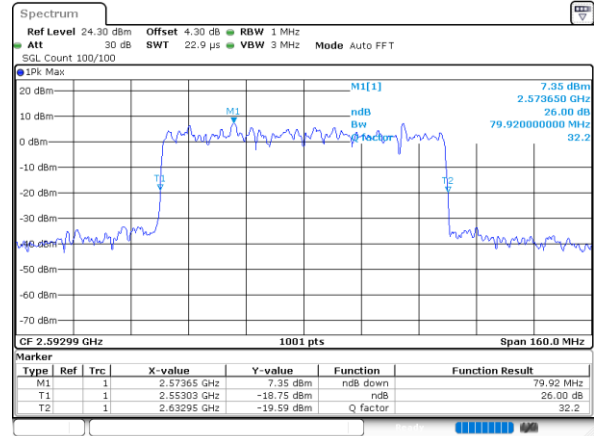
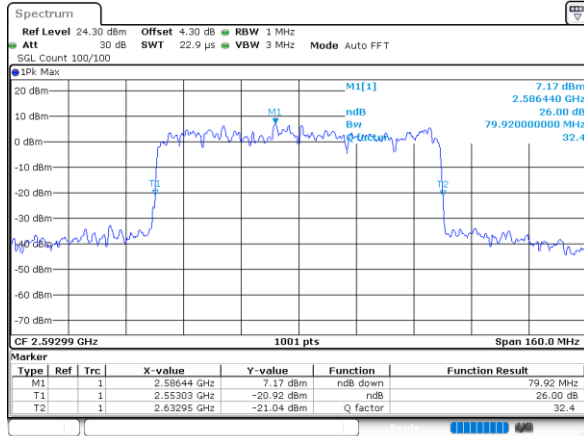
FR1 UL-MIMO n41 / 80MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel

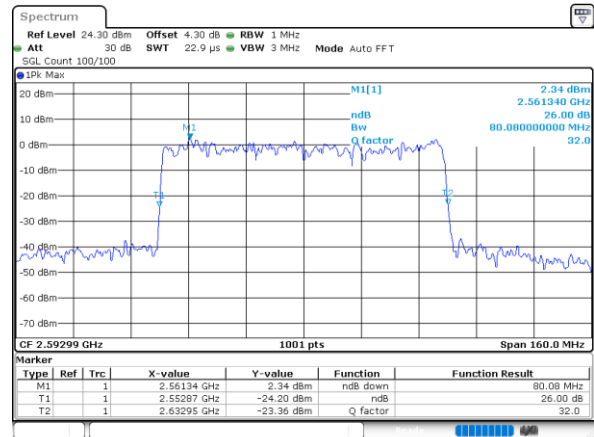
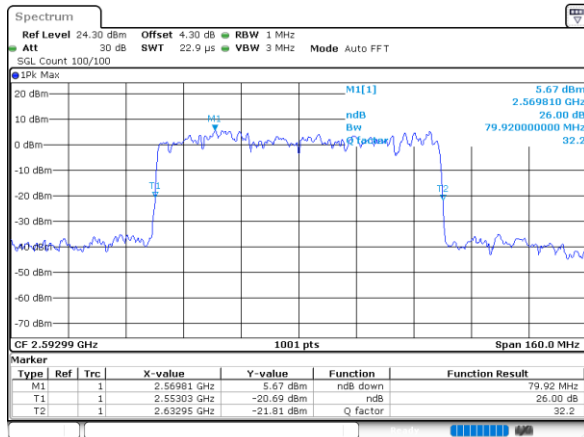


64QAM

256QAM

Middle Channel

Middle Channel



**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

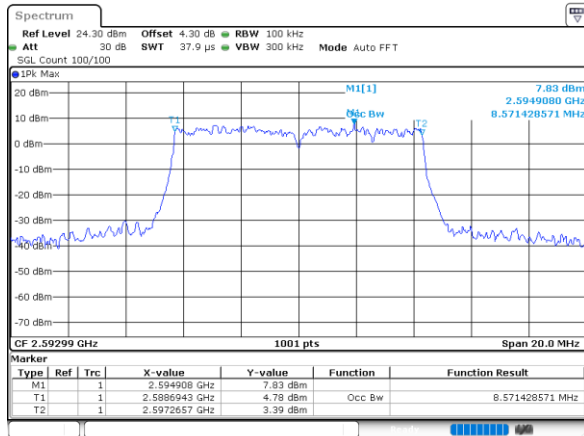
Mode	FR1 UL-MIMO n41 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	77.36	77.52	77.20	77.52	77.68	77.68	77.52	77.52



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

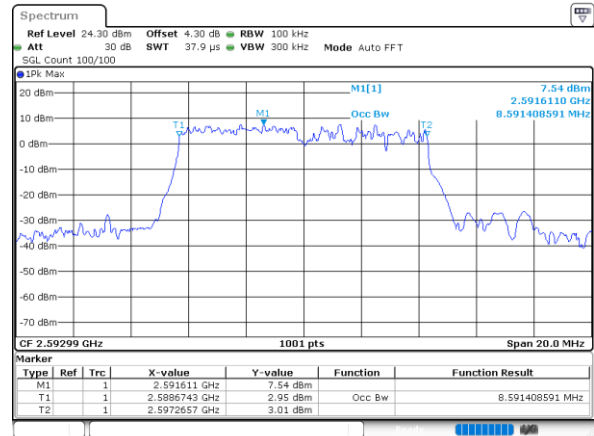
QPSK

Middle Channel



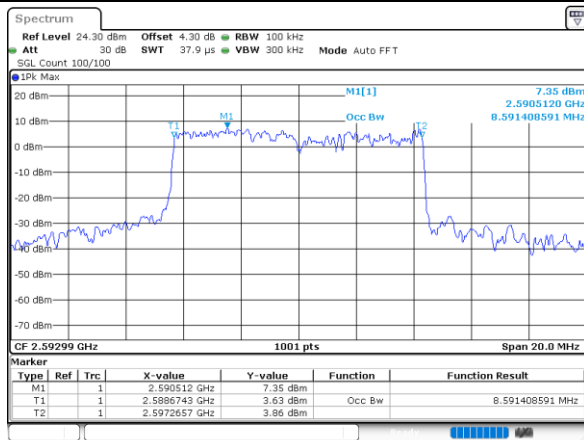
16QAM

Middle Channel



64QAM

Middle Channel



256QAM

Middle Channel

