

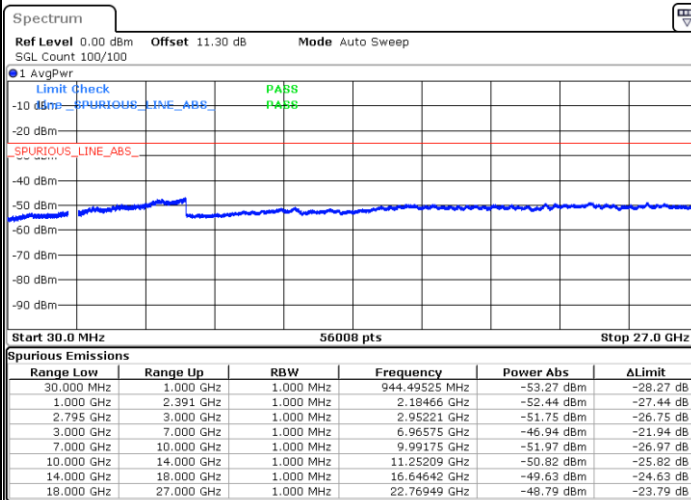


Conducted Spurious Emission

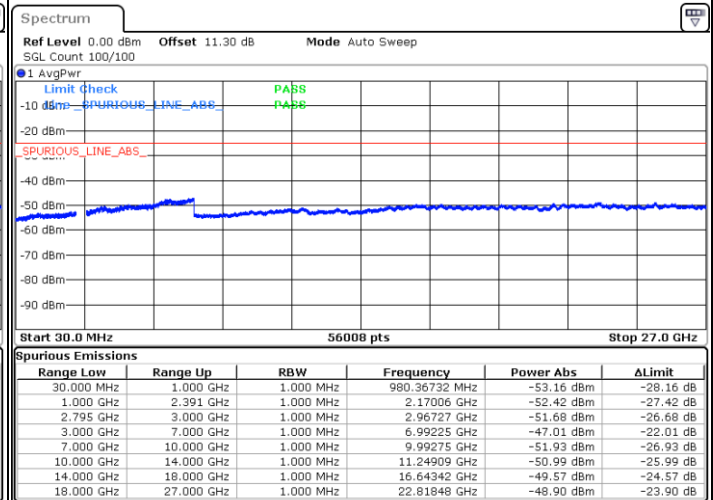
FR1 n41 / 10MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

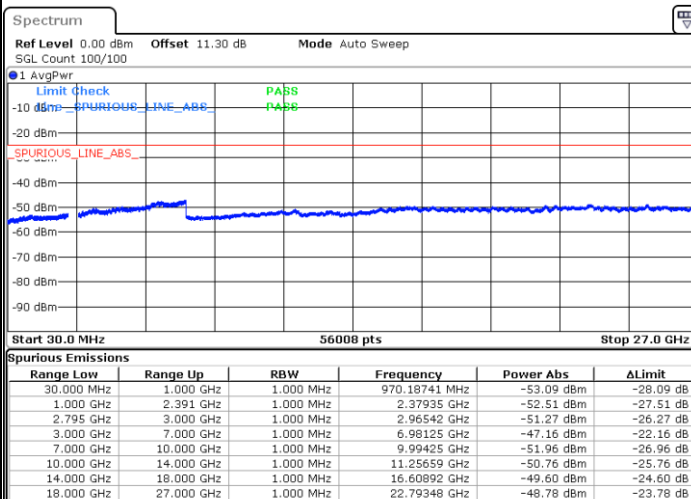


Date: 22.JAN.2021 00:16:11



Date: 22.JAN.2021 00:19:39

Highest Channel / 1RB

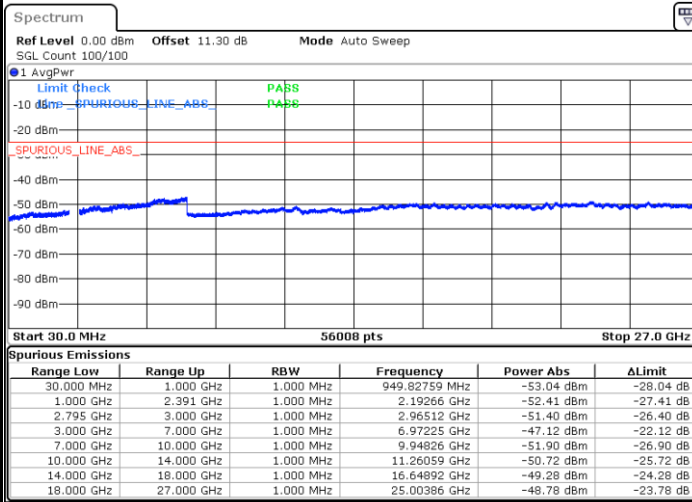


Date: 22.JAN.2021 00:22:00



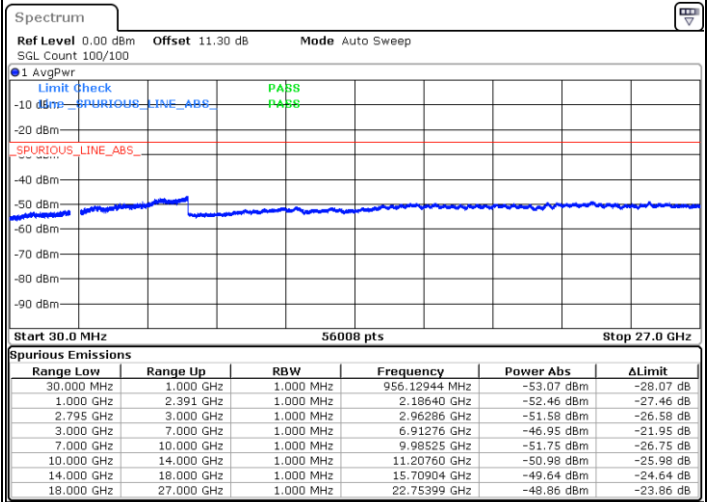
FR1 n41 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



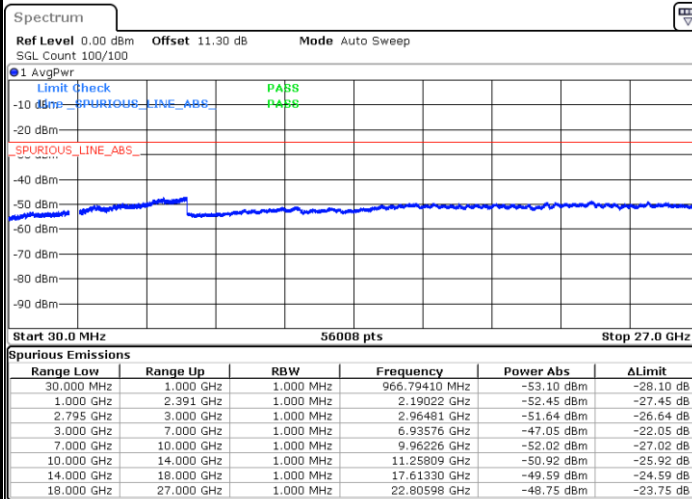
Date: 22.JAN.2021 00:17:08

Middle Channel / 1RB



Date: 22.JAN.2021 00:18:27

Highest Channel / 1RB

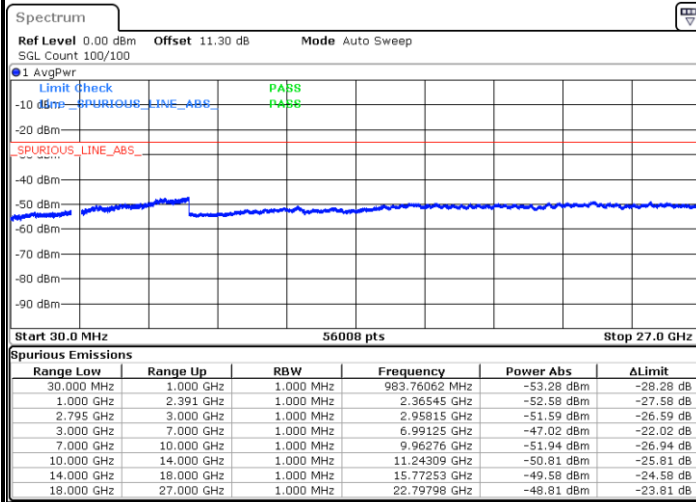


Date: 22.JAN.2021 00:23:55



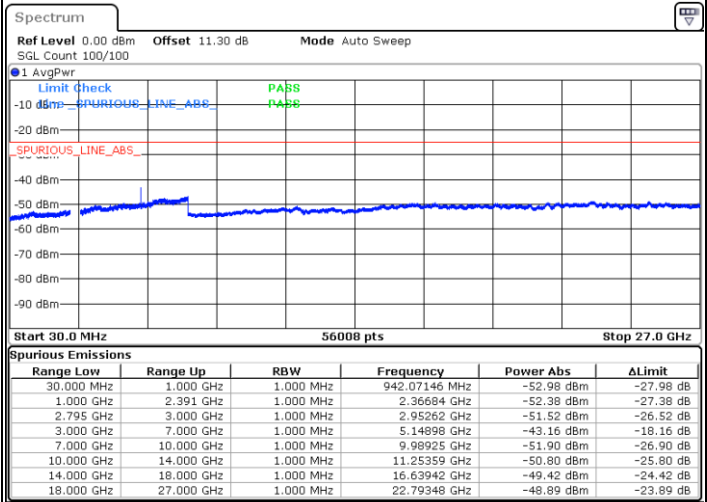
FR1 n41 / 40MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB



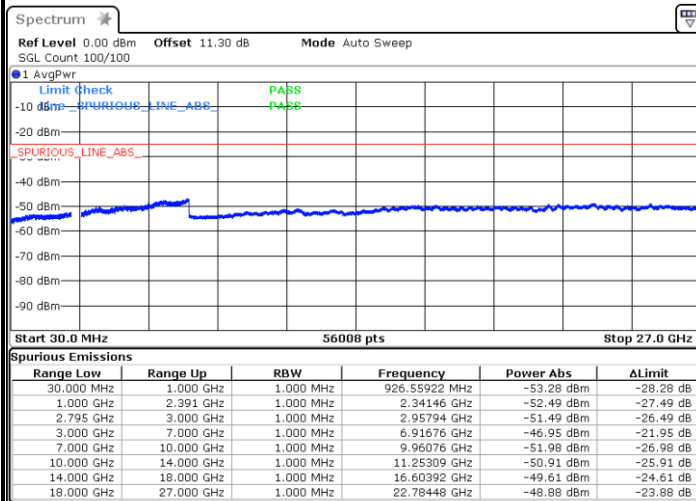
Date: 21.JAN.2021 23:24:42

Middle Channel / 1RB



Date: 21.JAN.2021 22:52:24

Highest Channel / 1RB

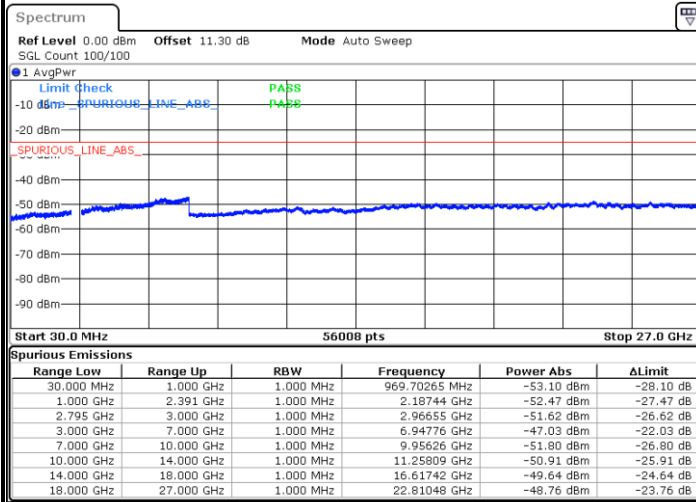


Date: 21.JAN.2021 23:20:07



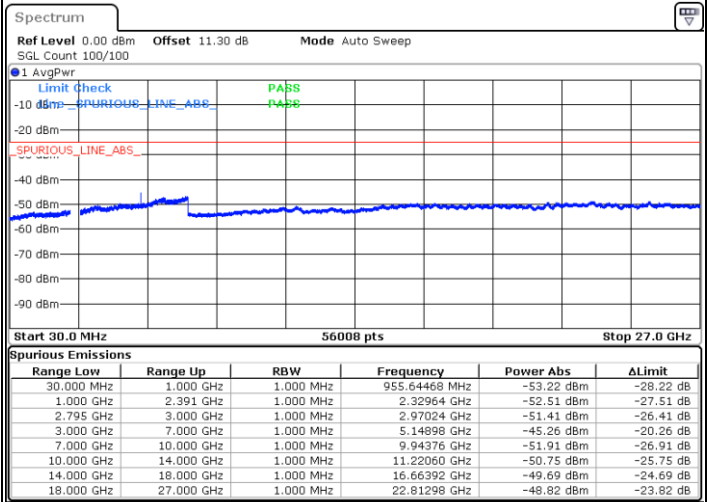
FR1 n41 / 40MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



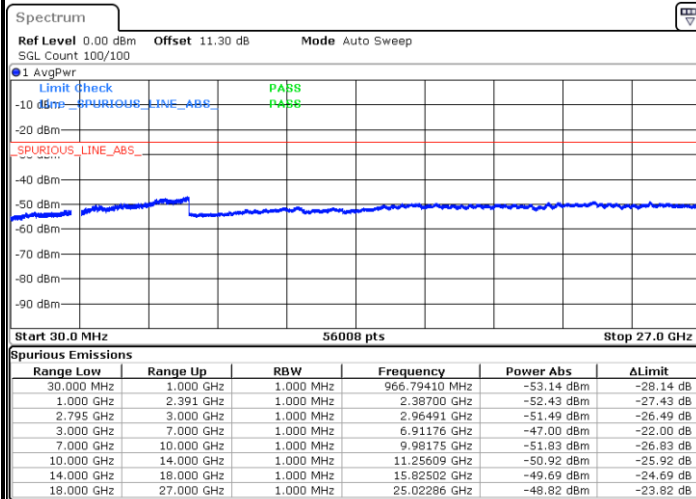
Date: 21.JAN.2021 23:22:32

Middle Channel / 1RB



Date: 21.JAN.2021 22:40:12

Highest Channel / 1RB

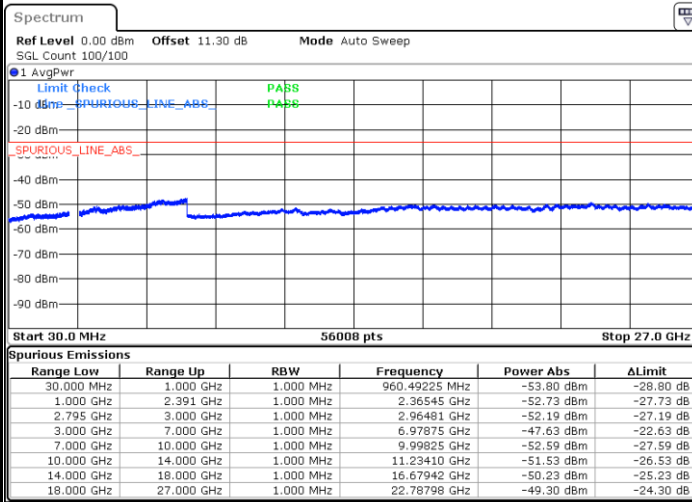


Date: 21.JAN.2021 23:21:07



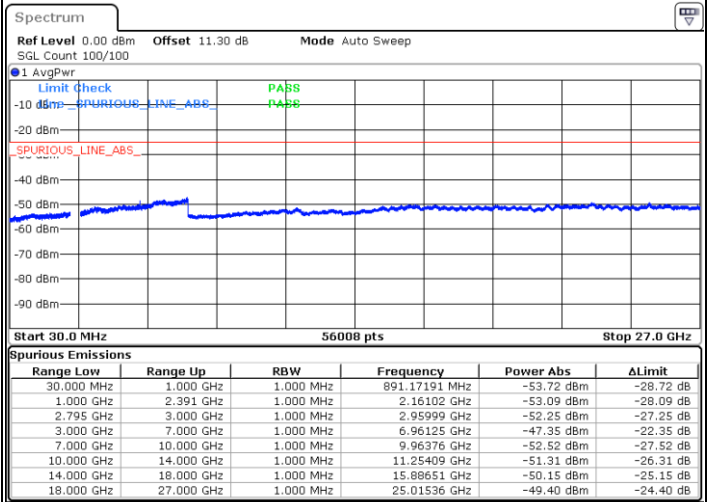
FR1 n41 / 80MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB



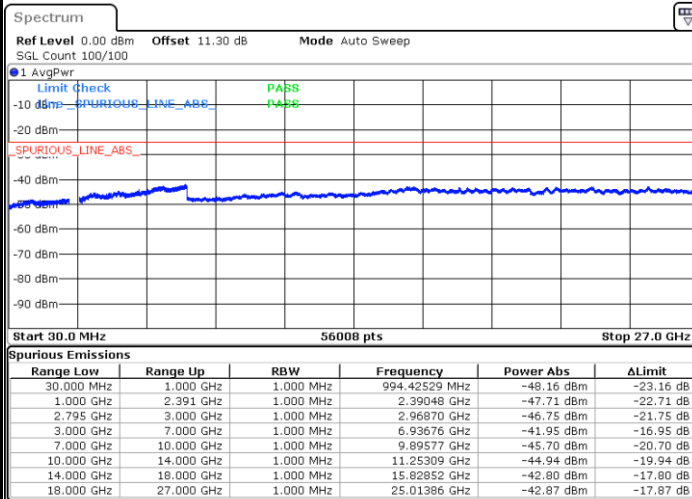
Date: 15.JAN.2021 03:13:20

Middle Channel / 1RB



Date: 15.JAN.2021 03:02:38

Highest Channel / 1RB

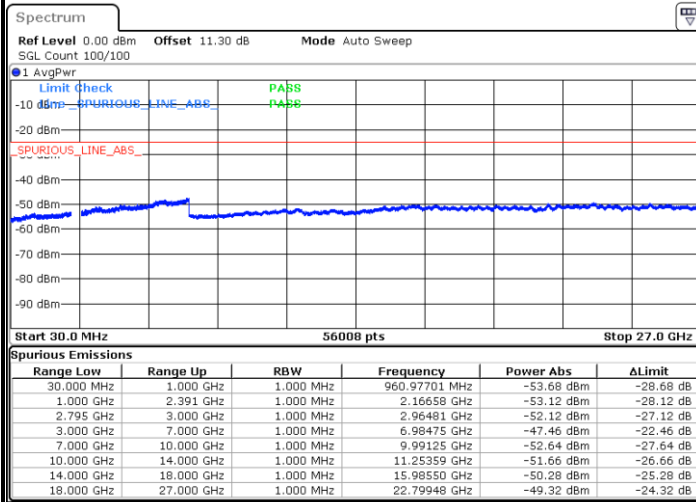


Date: 21.JAN.2021 17:48:09



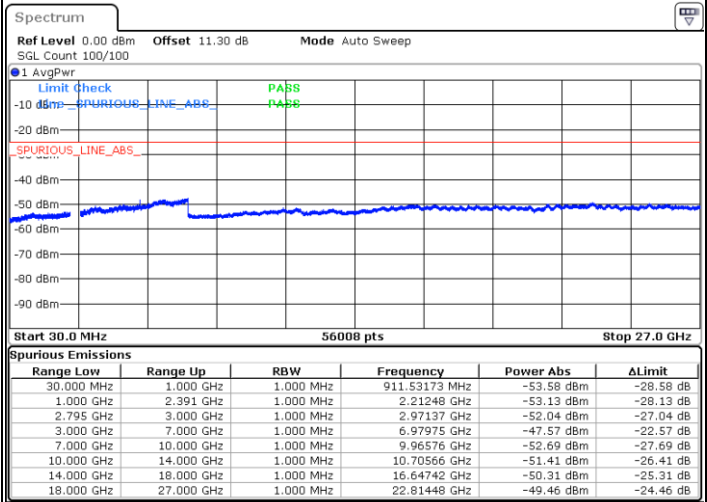
FR1 n41 / 80MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



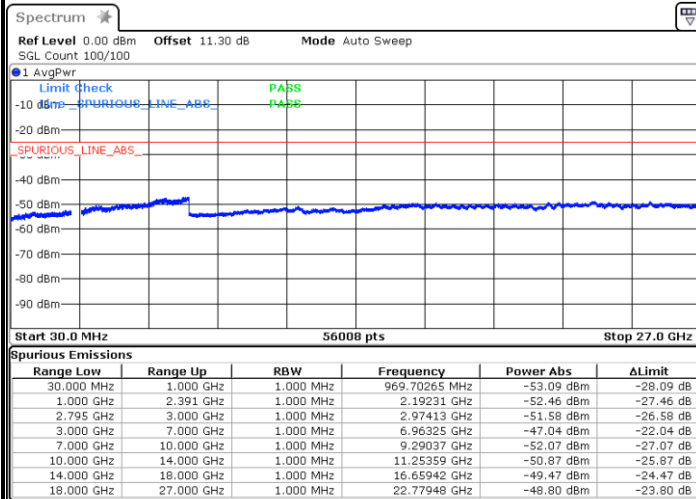
Date: 15.JAN.2021 03:09:47

Middle Channel / 1RB



Date: 15.JAN.2021 03:07:05

Highest Channel / 1RB



Date: 21.JAN.2021 17:46:32

**Frequency Stability**

Test Conditions		NR n41 (BPSK) / 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	0.0012	
20(Ref.)	Normal Voltage	0.0013	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0021	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0029	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0033	

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.

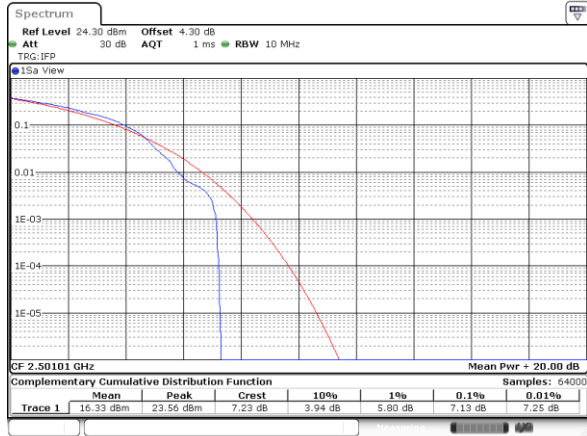


5G NR n41 UL_MIMO HPUE -SCS 15K

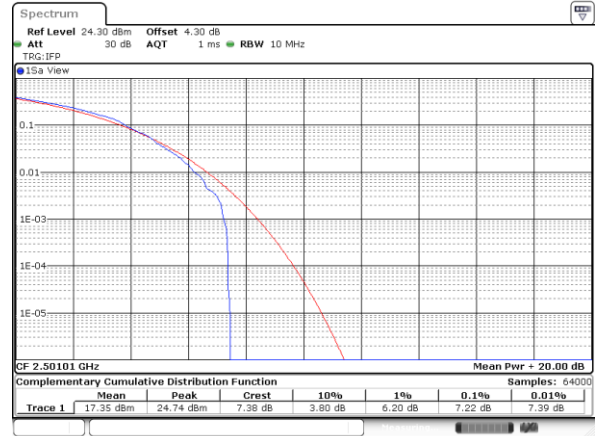
Peak-to-Average Ratio

Mode	FR1 UL-MIMO n41 / 10MHz / CP-OFDM (M2)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.13	8.7			PASS
Middle CH	7.04	8.7			
Highest CH	7.19	8.2			

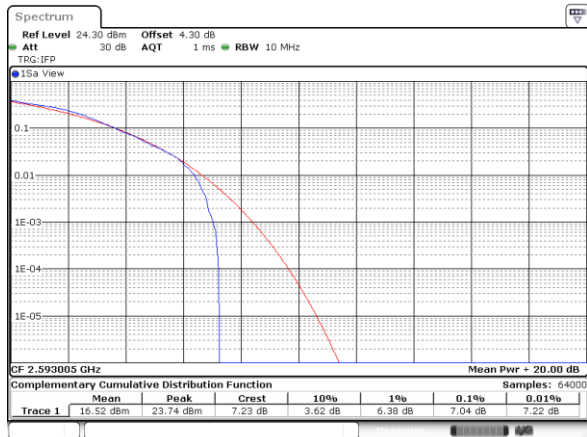
Mode	FR1 UL-MIMO n41 / 10MHz / CP-OFDM (M)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.22	8.55			PASS
Middle CH	7.33	8.67			
Highest CH	7.19	8.64			

FR1 UL-MIMO n41 / 20MHz / CP-OFDM
QPSK(M2)
QPSK(M)
Lowest Channel / 1RB
Lowest Channel / 1RB


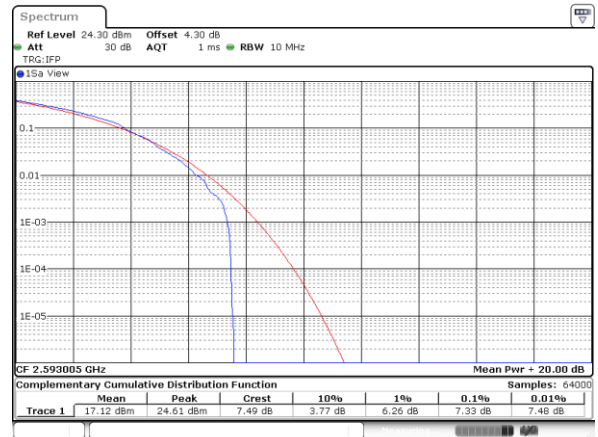
Date: 22_JAN_2021 03:24:37



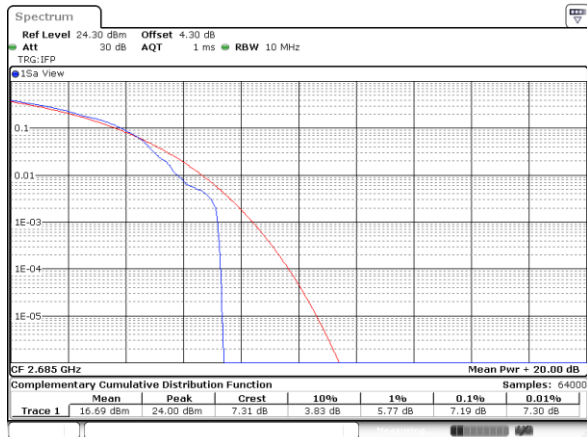
Date: 22_JAN_2021 03:48:05

Middle Channel / 1 RB
Middle Channel / 1 RB


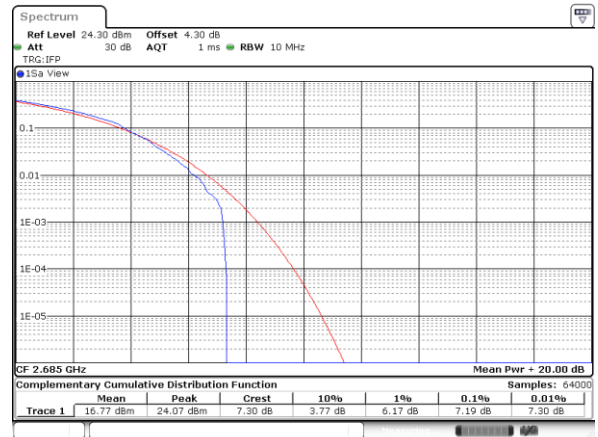
Date: 22_JAN_2021 03:23:19



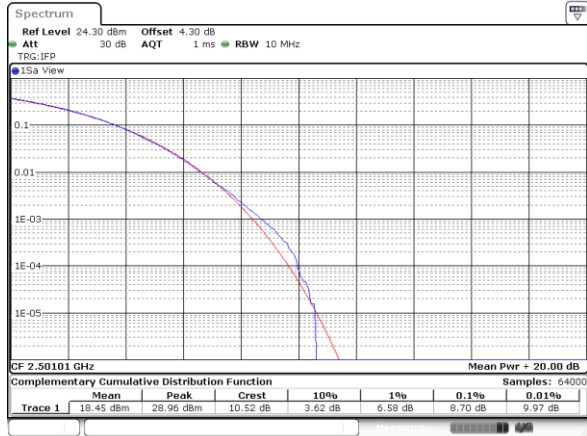
Date: 22_JAN_2021 03:47:15

Highest Channel / 1 RB
Highest Channel / 1 RB


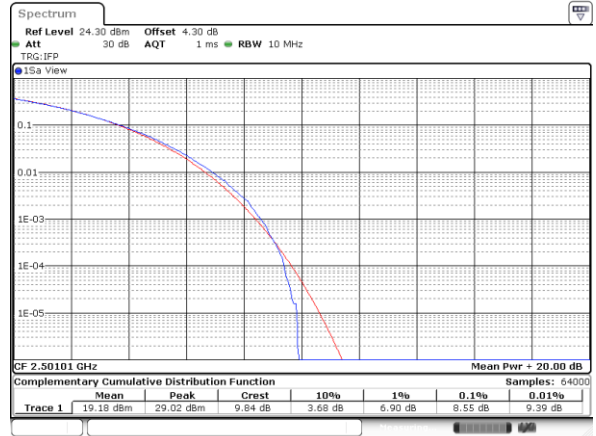
Date: 22_JAN_2021 03:28:44



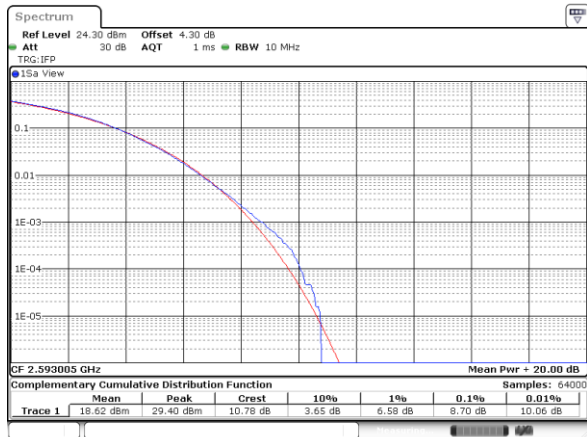
Date: 22_JAN_2021 03:42:42

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


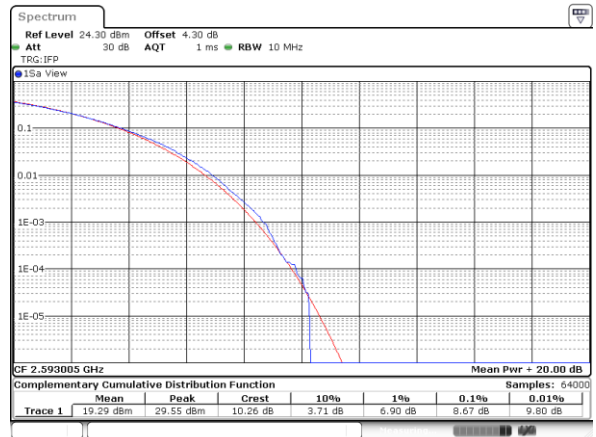
Date: 22.JAN.2021 03:16:21

QPSK(M)
Lowest Channel / Full RB


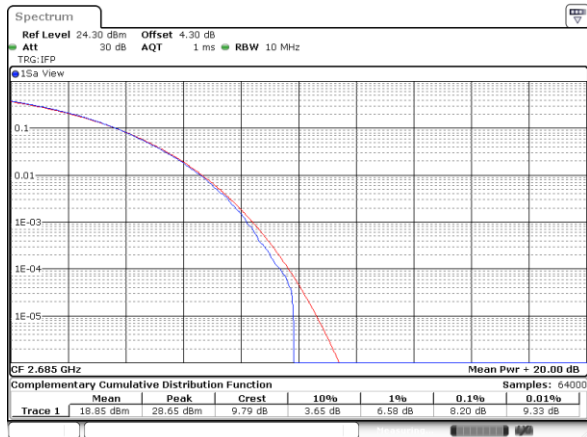
Date: 22.JAN.2021 03:15:26

Middle Channel / Full RB


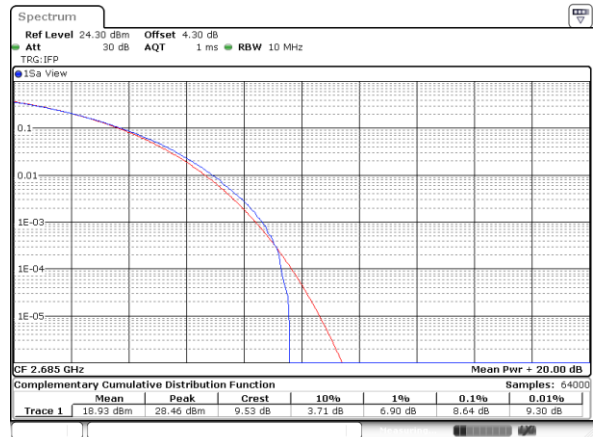
Date: 22.JAN.2021 03:21:36

Middle Channel / Full RB


Date: 22.JAN.2021 03:45:37

Highest Channel / Full RB


Date: 22.JAN.2021 03:27:09

Highest Channel / Full RB


Date: 22.JAN.2021 03:44:42

**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	9.63	9.79	9.69	9.69	9.71	9.67	9.63	9.67

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	14.87	14.93	14.84	14.81	14.84	14.93	14.93	14.87

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	29.37	29.43	29.37	29.43	29.37	29.43	29.43	29.37

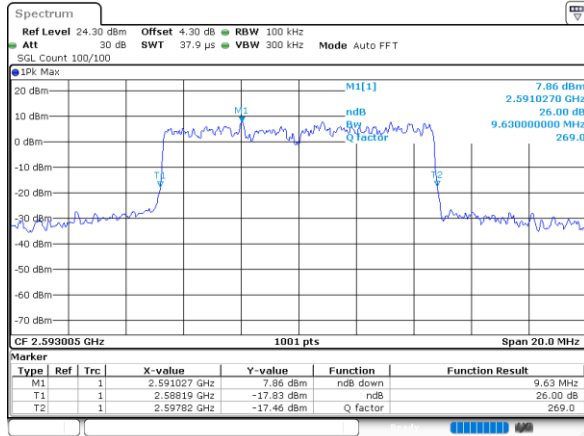
Mode	FR1 UL-MIMO n41 : 26dB BW(MHz) / CP-OFDM							
	M2				M			
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	41.08	40.84	40.92	40.92	40.84	40.84	40.92	41.08



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

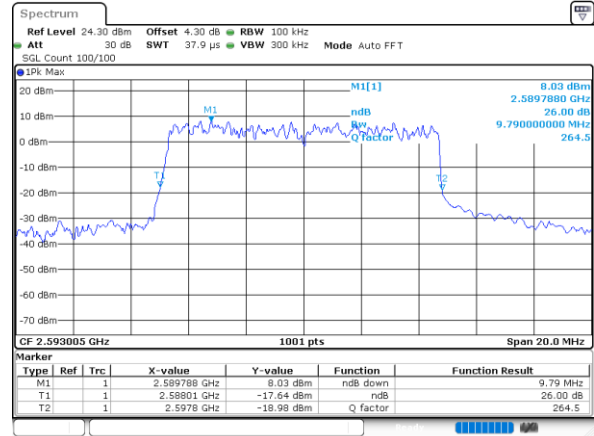
QPSK

Middle Channel



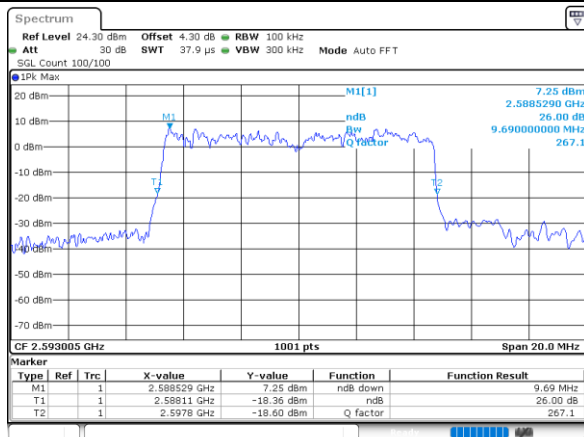
16QAM

Middle Channel



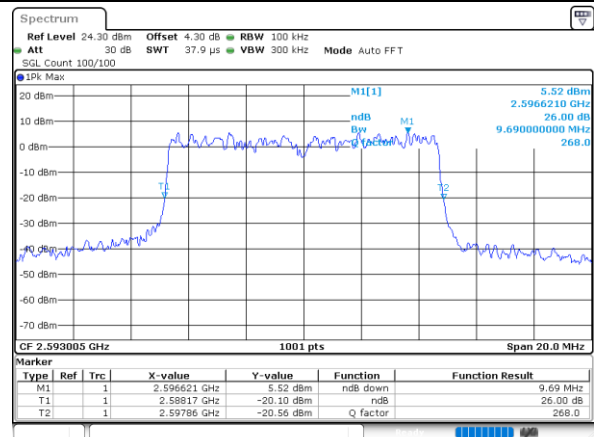
64QAM

Middle Channel



256QAM

Middle Channel

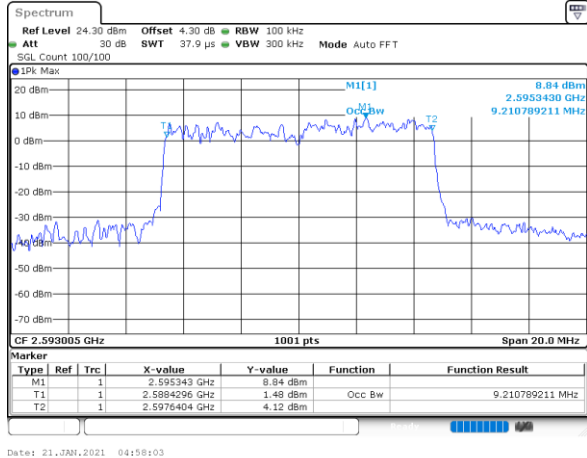




FR1 UL-MIMO n41 / 10MHz / CP-OFDM (M)

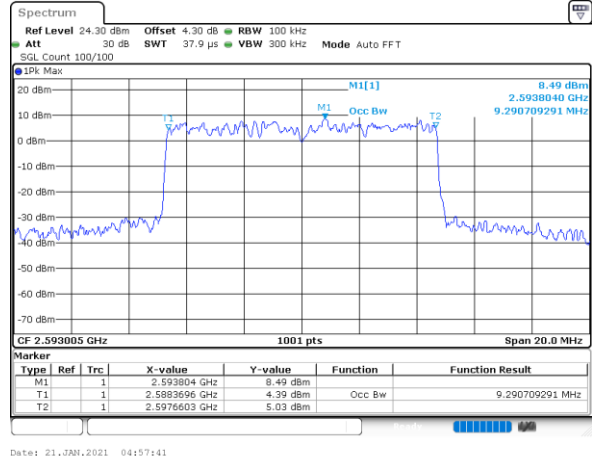
QPSK

Middle Channel



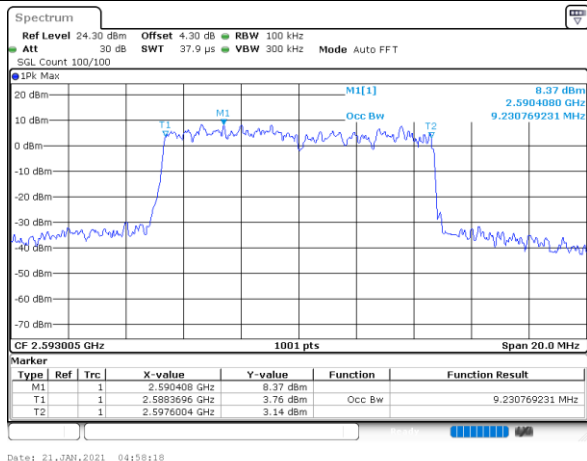
16QAM

Middle Channel



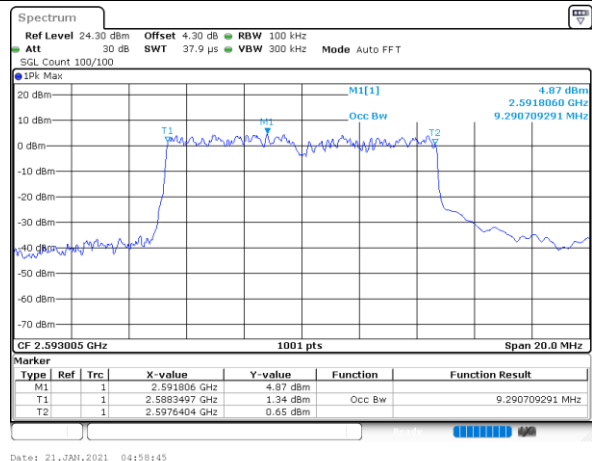
64QAM

Middle Channel



256QAM

Middle Channel





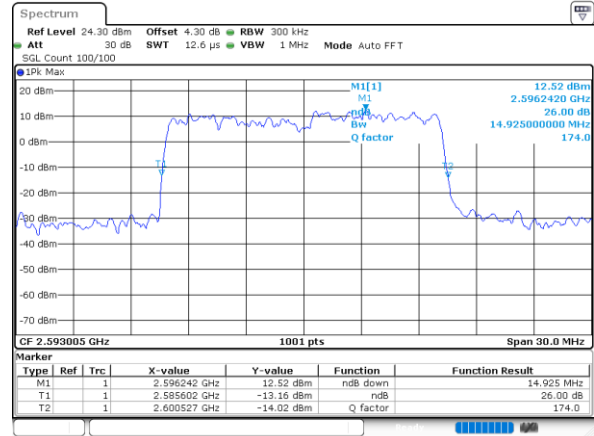
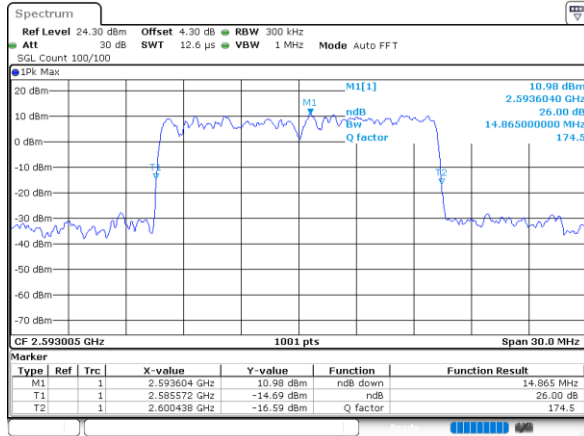
FR1 UL-MIMO n41 / 15MHz / CP-OFDM (M2)

QPSK

16QAM

Middle Channel

Middle Channel

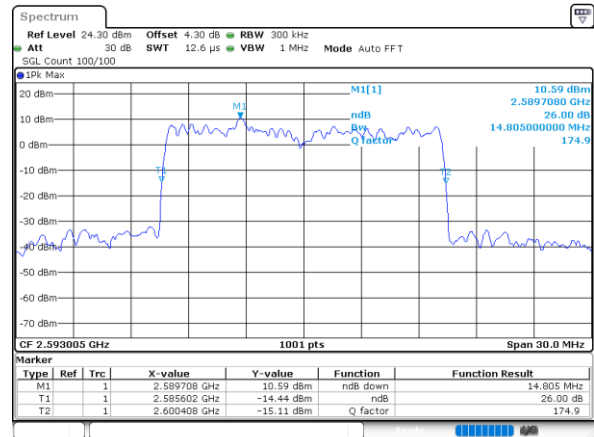
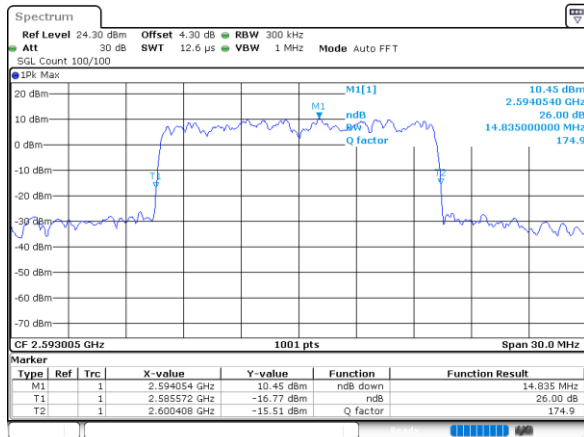


64QAM

256QAM

Middle Channel

Middle Channel

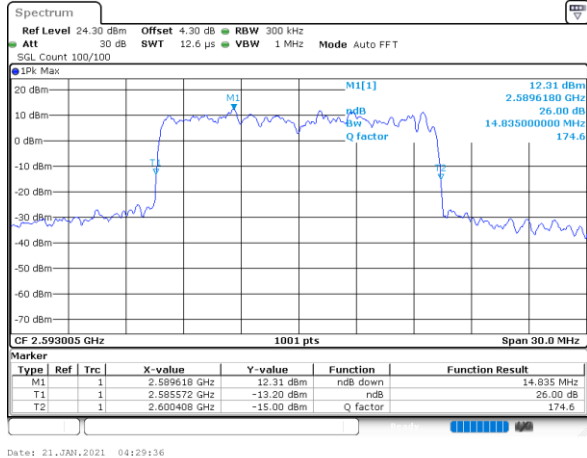




FR1 UL-MIMO n41 / 15MHz / CP-OFDM (M)

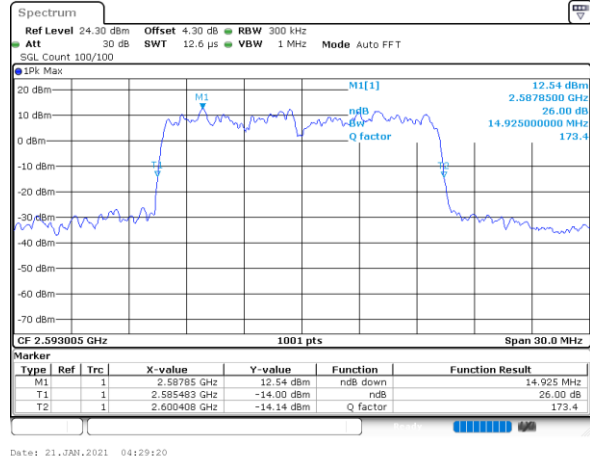
QPSK

Middle Channel



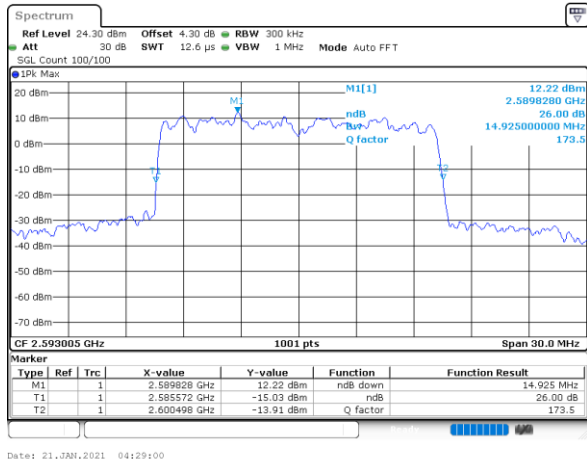
16QAM

Middle Channel



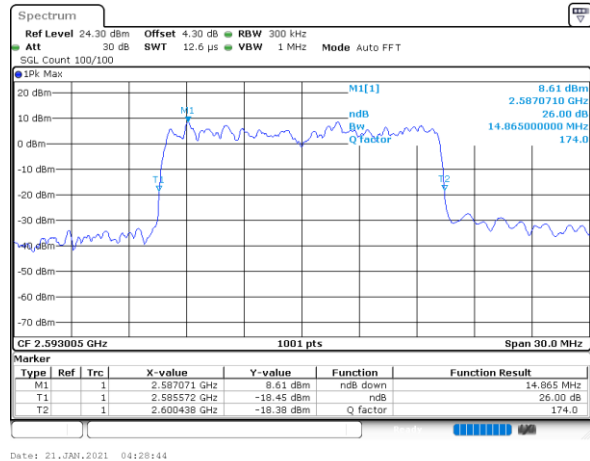
64QAM

Middle Channel



256QAM

Middle Channel

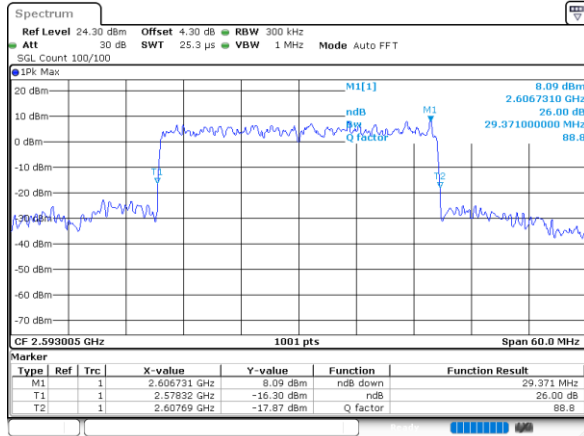




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (M2)

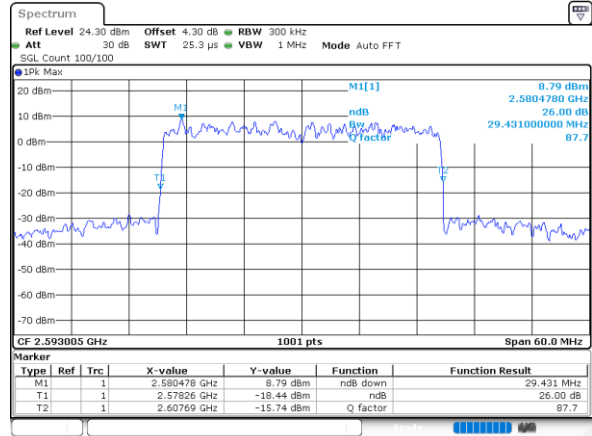
QPSK

Middle Channel



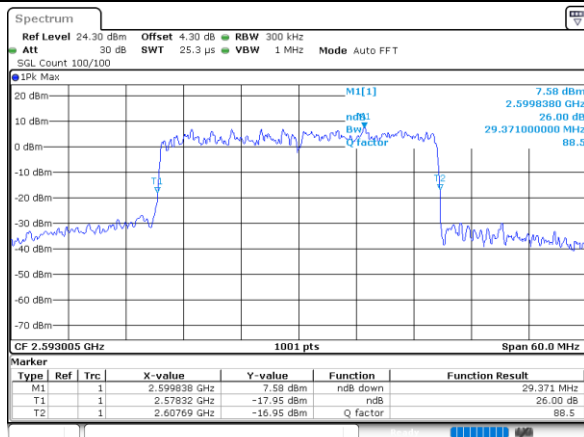
16QAM

Middle Channel



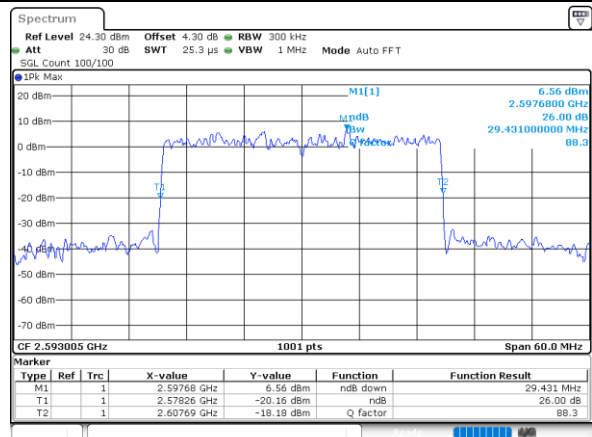
64QAM

Middle Channel



256QAM

Middle Channel

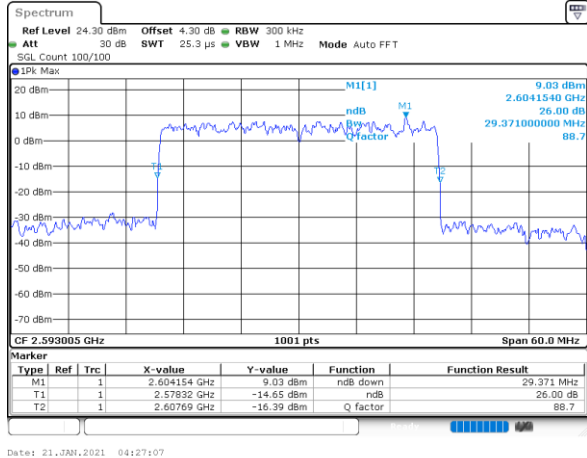




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (M)

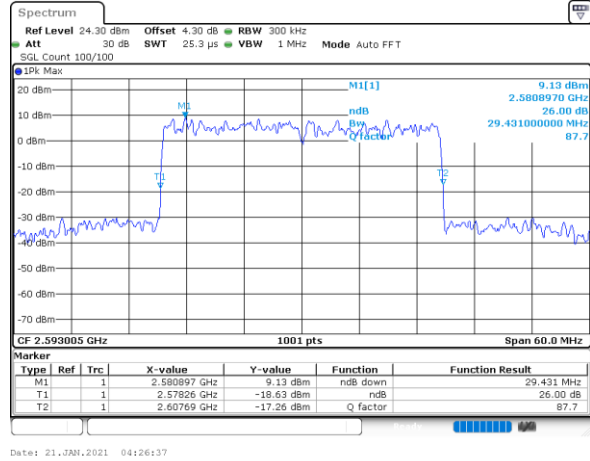
QPSK

Middle Channel



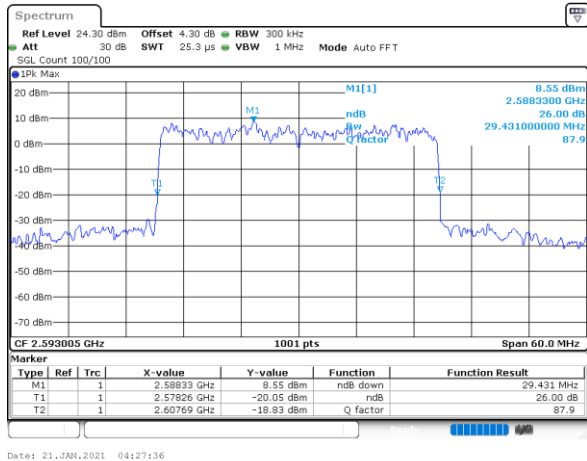
16QAM

Middle Channel



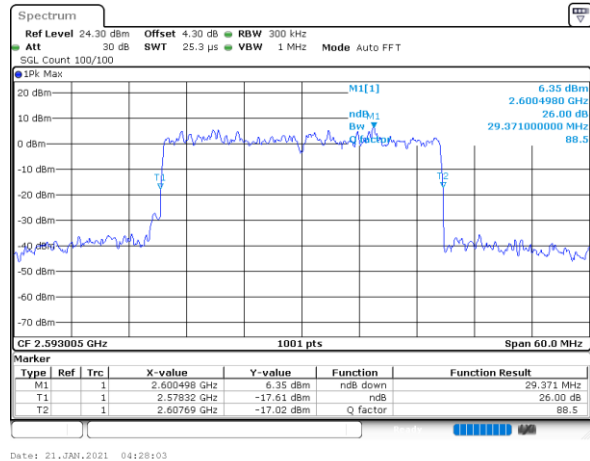
64QAM

Middle Channel



256QAM

Middle Channel

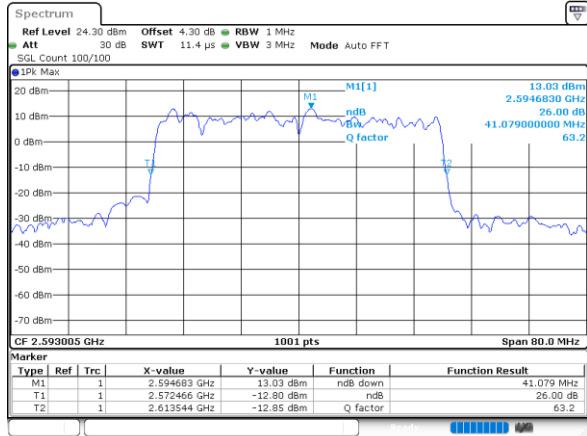




FR1 UL-MIMO n41 / 40MHz / CP-OFDM (M2)

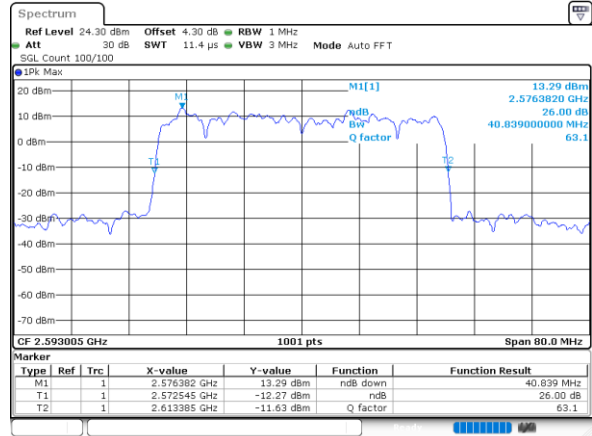
QPSK

Middle Channel



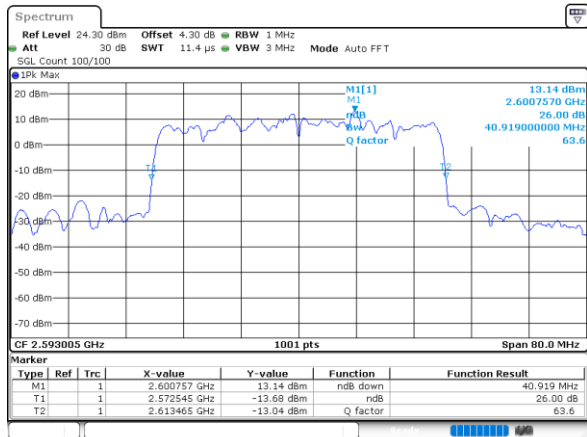
16QAM

Middle Channel



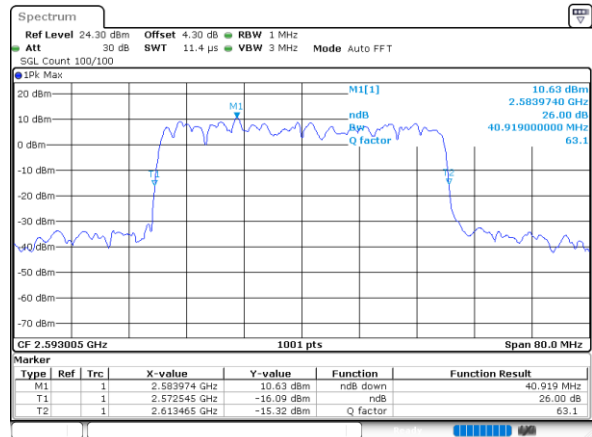
64QAM

Middle Channel



256QAM

Middle Channel





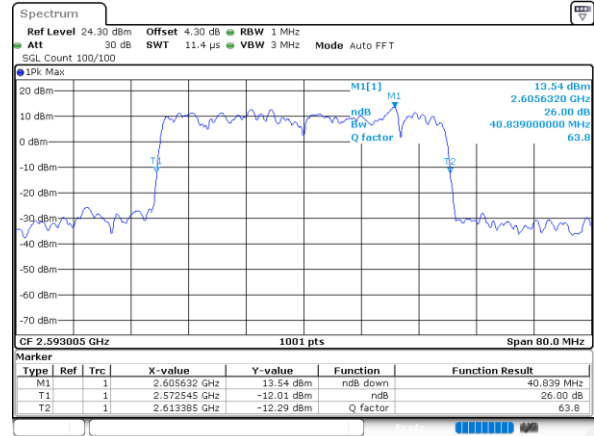
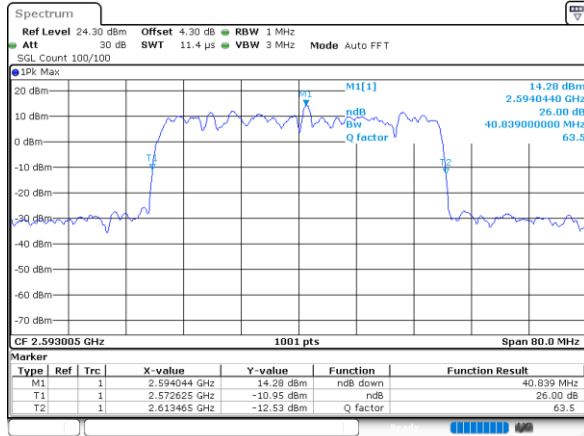
FR1 UL-MIMO n41 / 40MHz / CP-OFDM (M)

QPSK

16QAM

Middle Channel

Middle Channel

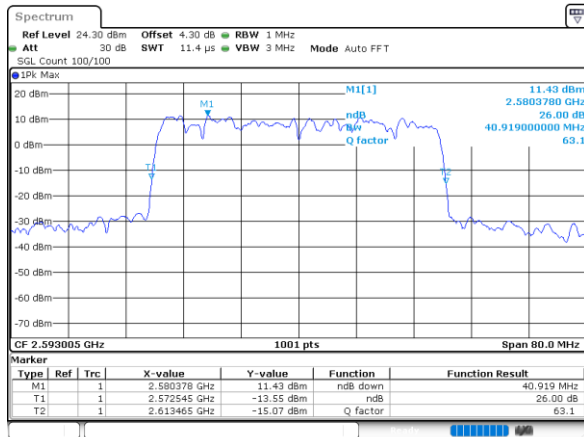


64QAM

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	9.23	9.29	9.25	9.29	9.21	9.29	9.23	9.29

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	14.09	14.21	14.15	14.18	14.18	14.15	14.06	14.06

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	28.47	28.59	28.47	28.35	28.47	28.59	28.47	28.47

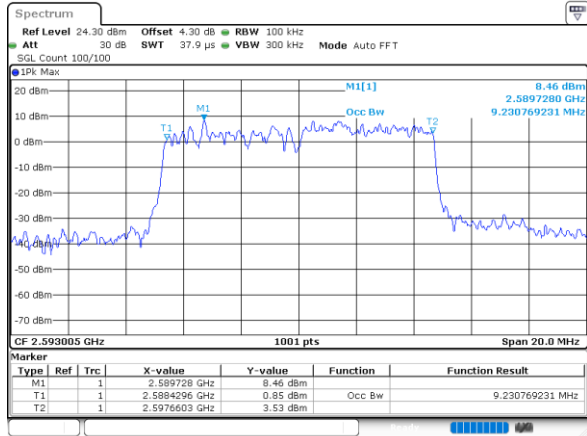
Mode	FR1 UL-MIMO n41 : OBW(MHz) / CP-OFDM							
	M2				M			
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	38.84	38.68	38.60	38.28	38.68	38.68	38.52	38.76



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

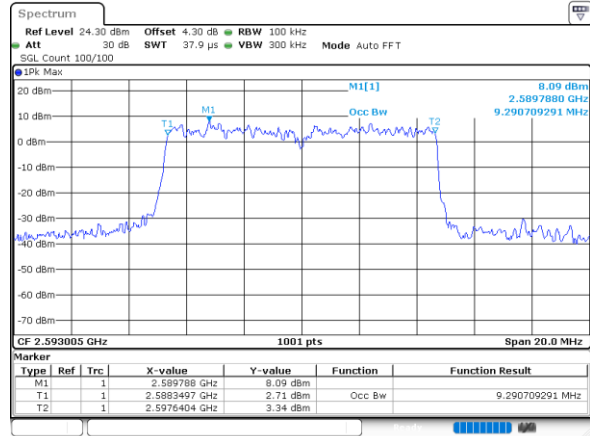
QPSK

Middle Channel



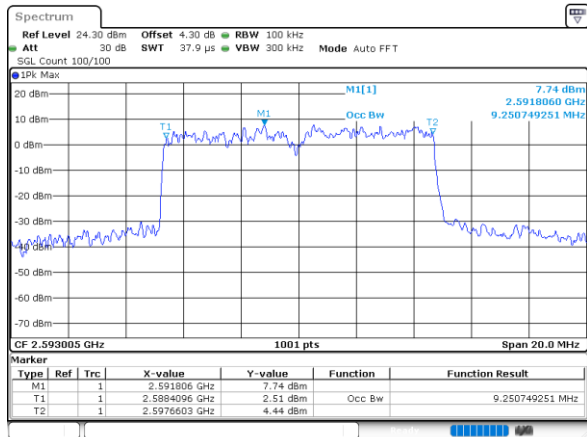
16QAM

Middle Channel



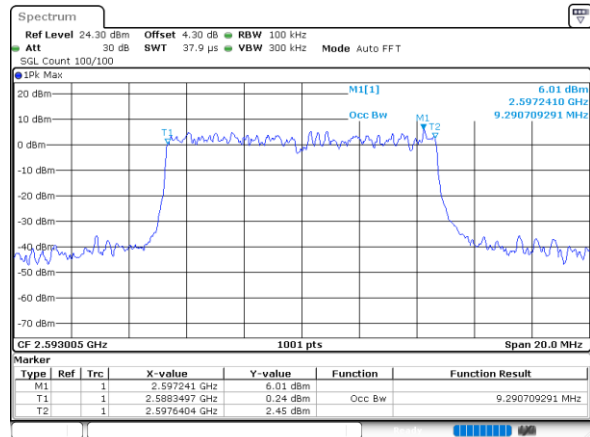
64QAM

Middle Channel



256QAM

Middle Channel

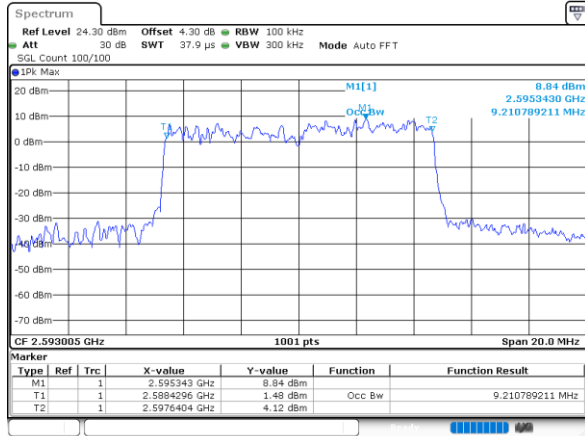




FR1 UL-MIMO n41 / 10MHz / CP-OFDM (M)

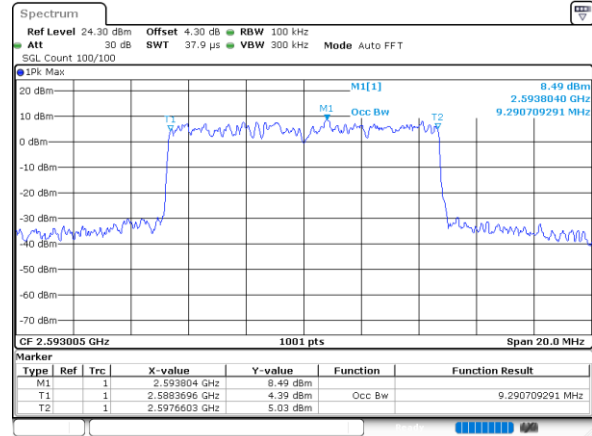
QPSK

Middle Channel



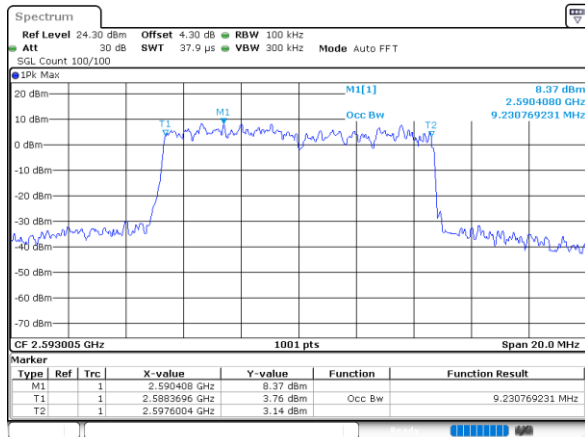
16QAM

Middle Channel



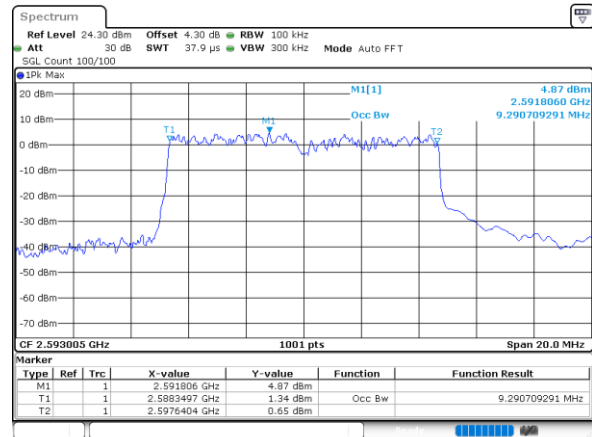
64QAM

Middle Channel



256QAM

Middle Channel

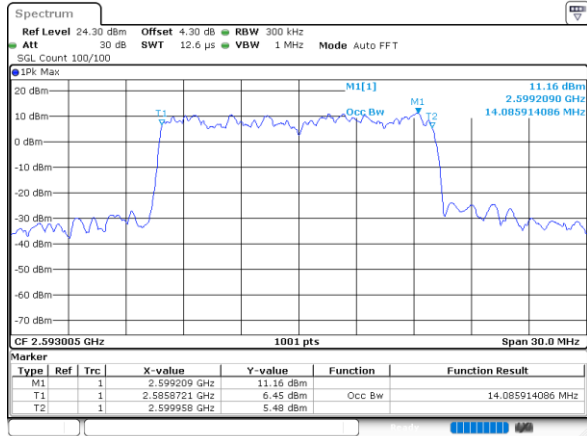




FR1 UL-MIMO n41 / 15MHz / CP-OFDM (M2)

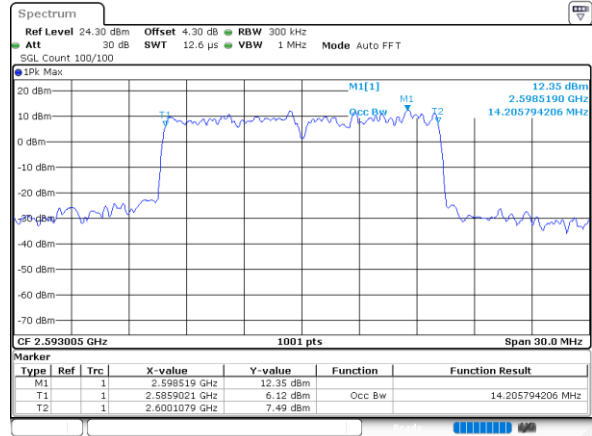
QPSK

Middle Channel



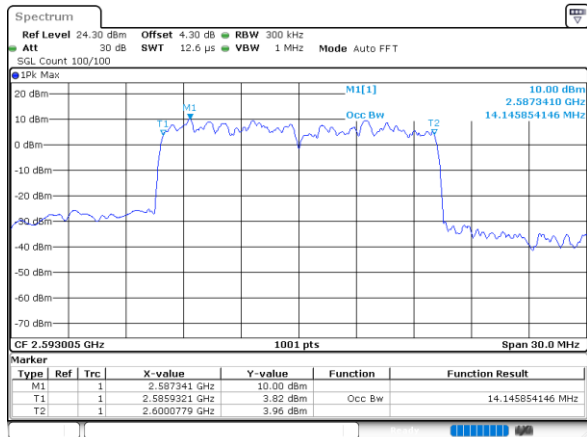
16QAM

Middle Channel



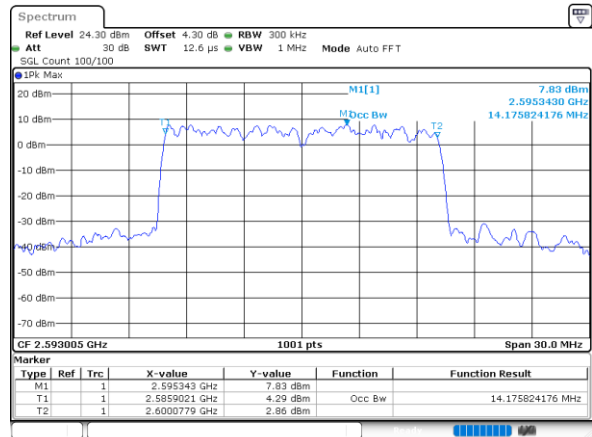
64QAM

Middle Channel



256QAM

Middle Channel

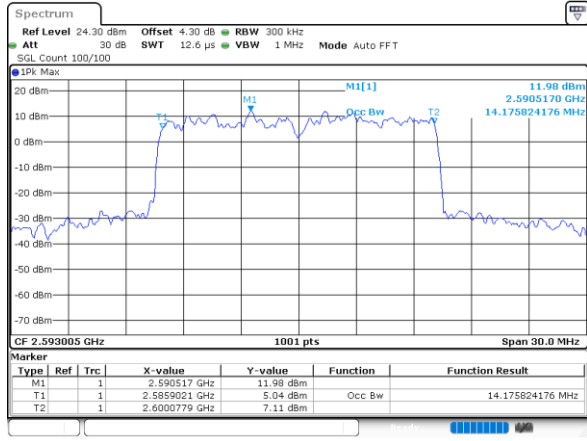




FR1 UL-MIMO n41 / 15MHz / CP-OFDM (M)

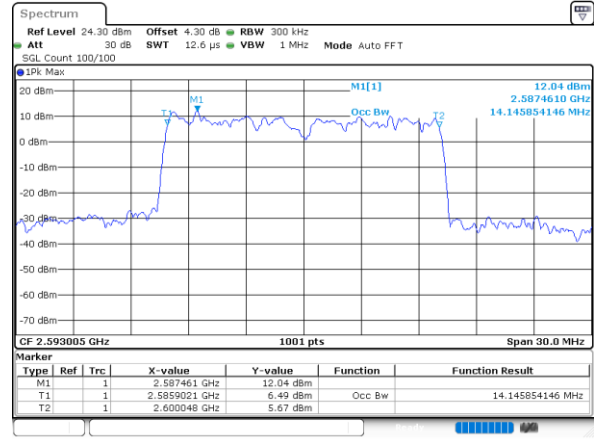
QPSK

Middle Channel



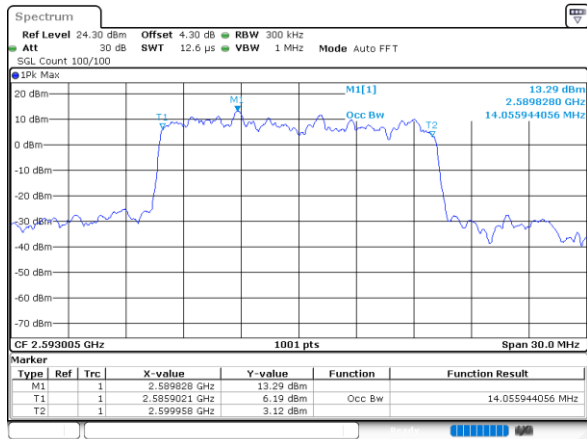
16QAM

Middle Channel



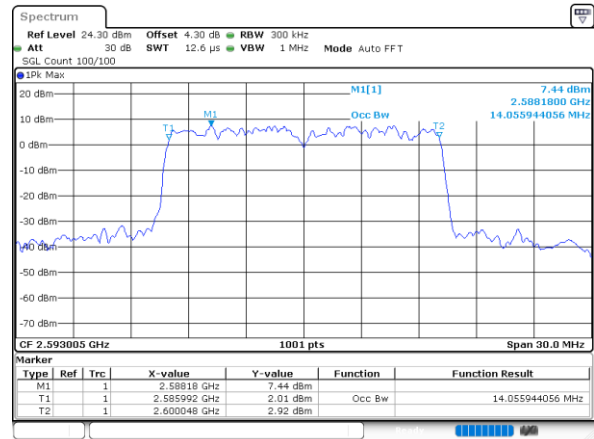
64QAM

Middle Channel



256QAM

Middle Channel

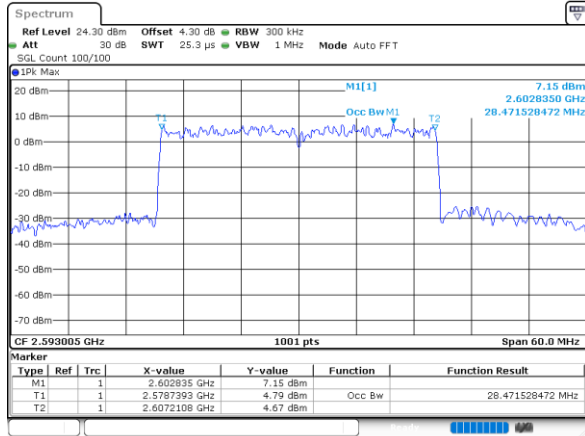




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (M2)

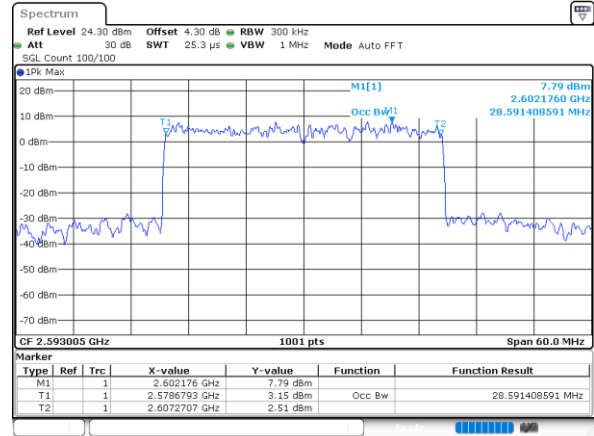
QPSK

Middle Channel



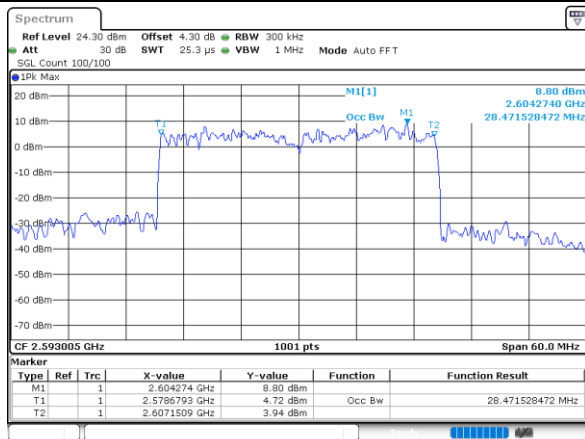
16QAM

Middle Channel



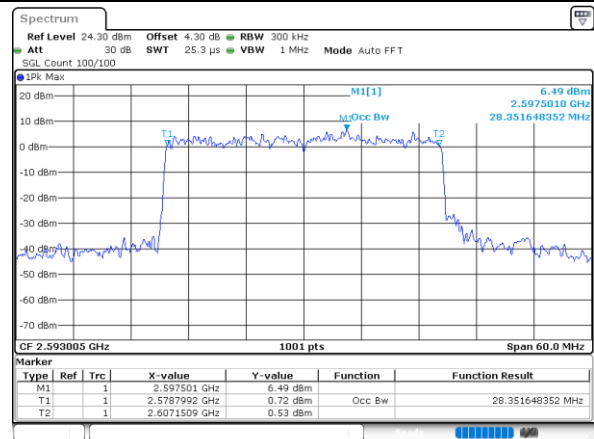
64QAM

Middle Channel



256QAM

Middle Channel

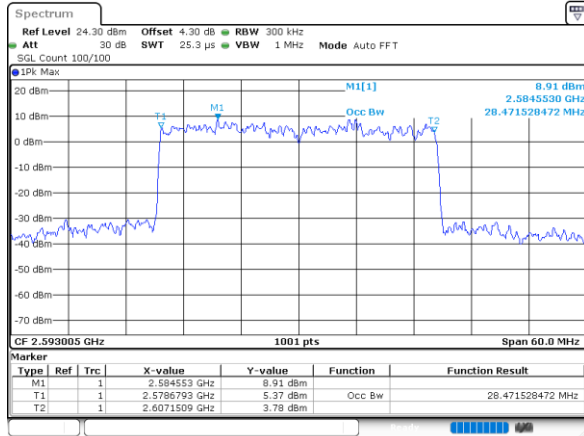




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (M)

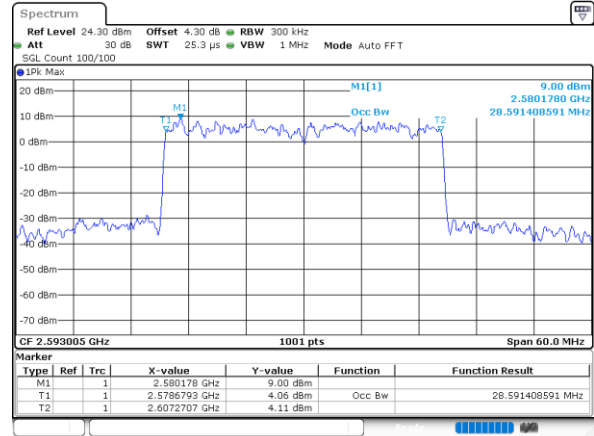
QPSK

Middle Channel



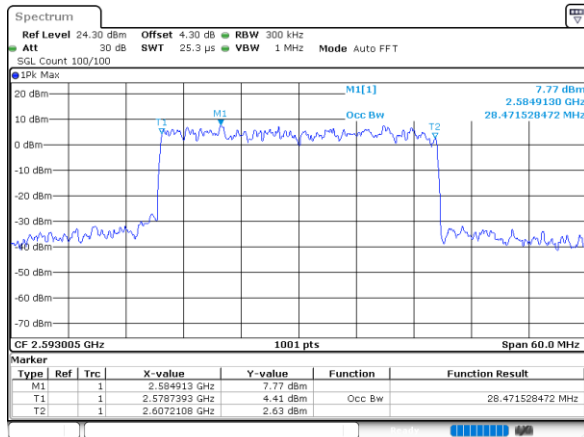
16QAM

Middle Channel



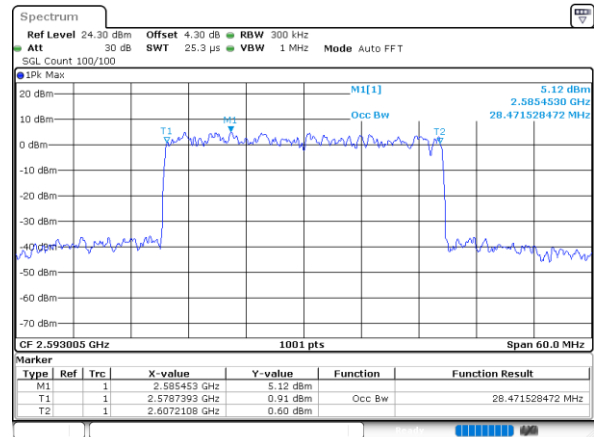
64QAM

Middle Channel



256QAM

Middle Channel

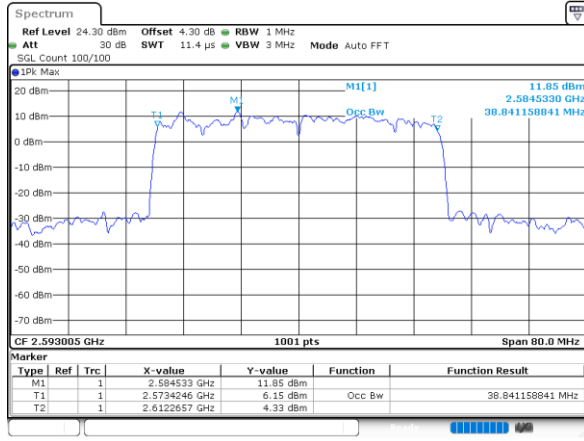




FR1 UL-MIMO n41 / 40MHz / CP-OFDM (M2)

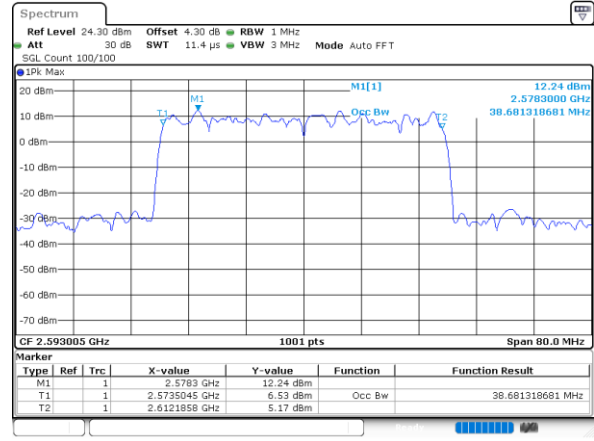
QPSK

Middle Channel



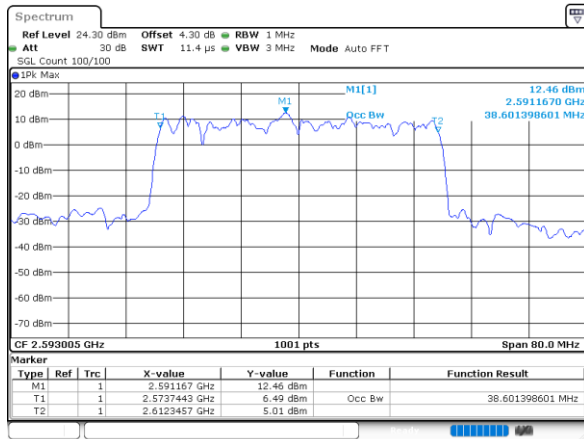
16QAM

Middle Channel



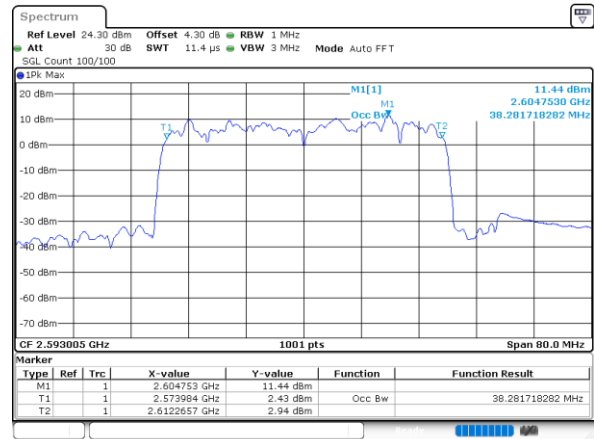
64QAM

Middle Channel



256QAM

Middle Channel

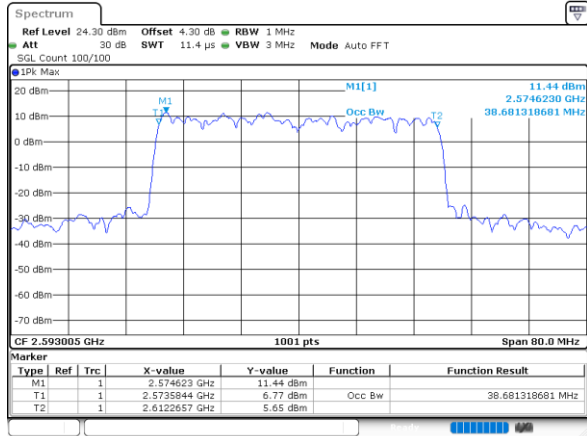




FR1 UL-MIMO n41 / 40MHz / CP-OFDM (M)

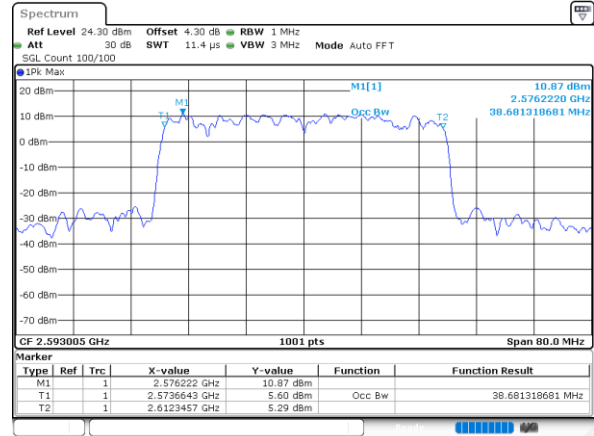
QPSK

Middle Channel



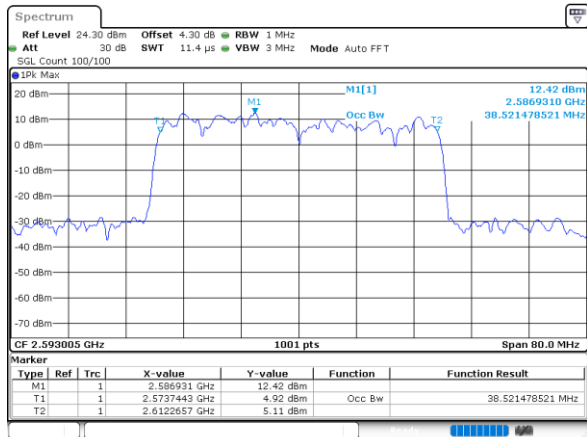
16QAM

Middle Channel



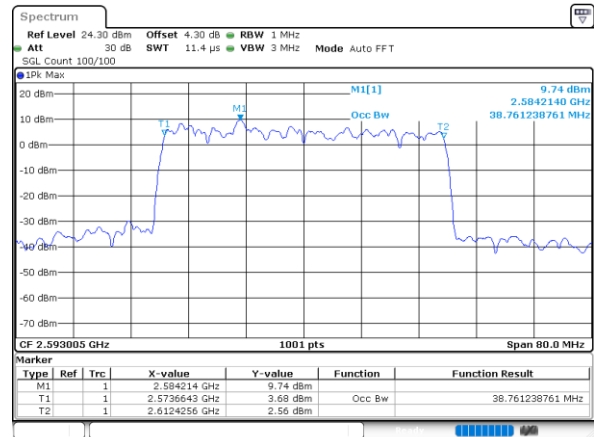
64QAM

Middle Channel



256QAM

Middle Channel



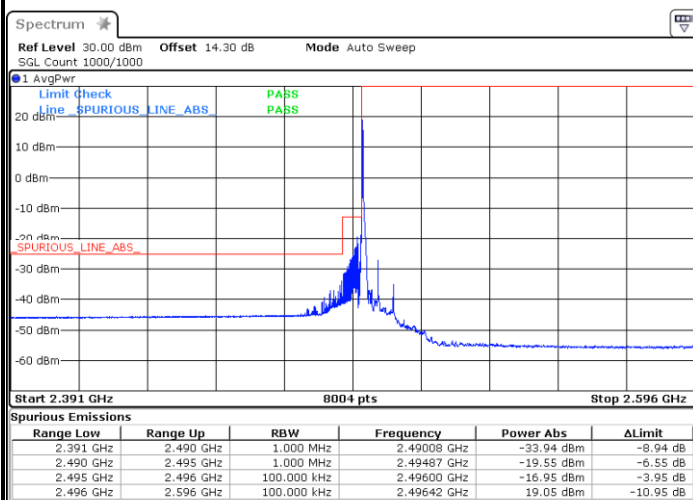


Conducted Band Edge

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

Lowest Band Edge / 1 RB

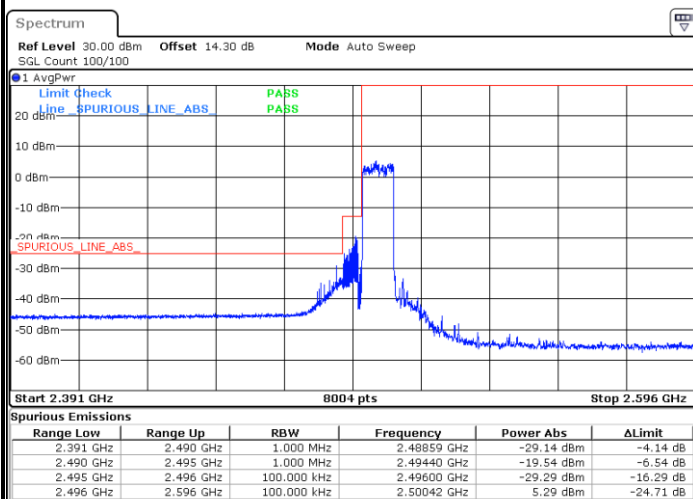
Channel Power < -13dBm Pass



Date: 21.JAN.2021 02:51:38

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



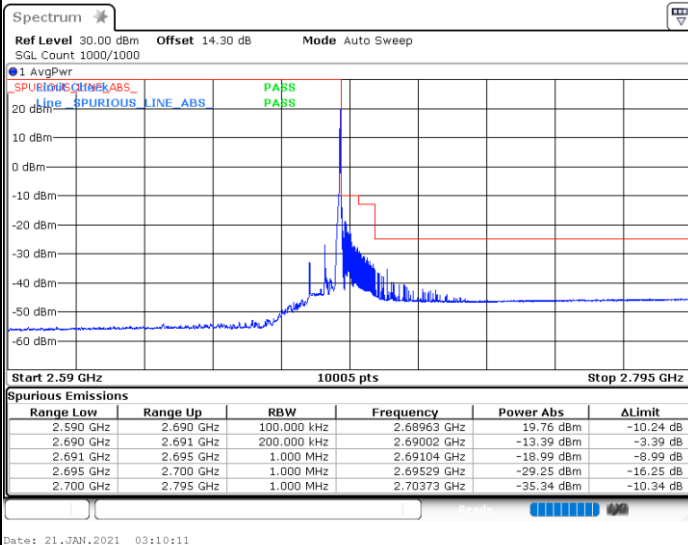
Date: 21.JAN.2021 02:50:26



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

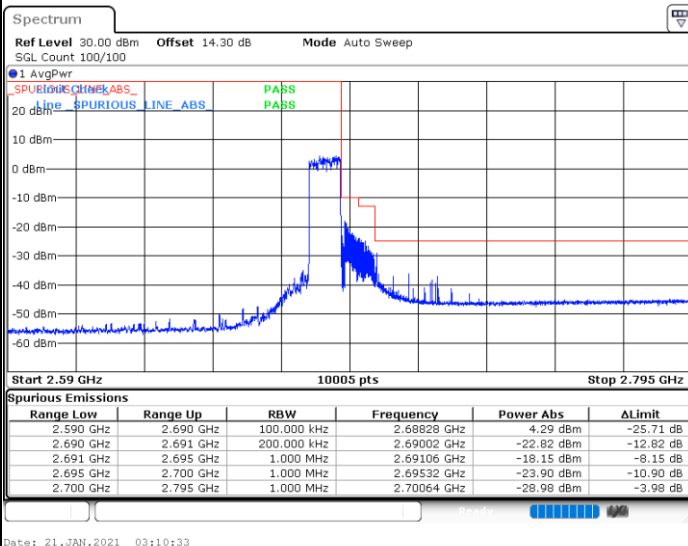
Highest Band Edge / 1 RB

Channel Power < -10dBm Pass



Highest Band Edge / Full RB

Channel Power < -10dBm Pass

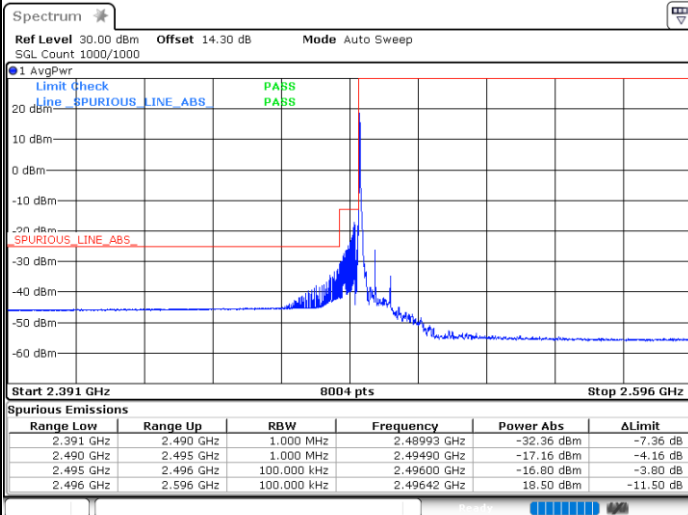




FR1 UL-MIMO n41 / 10MHz / CP-OFDM QPSK (M)

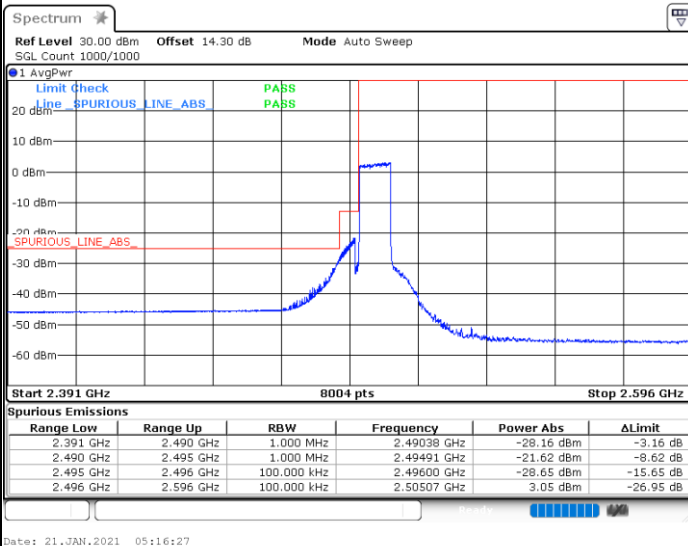
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

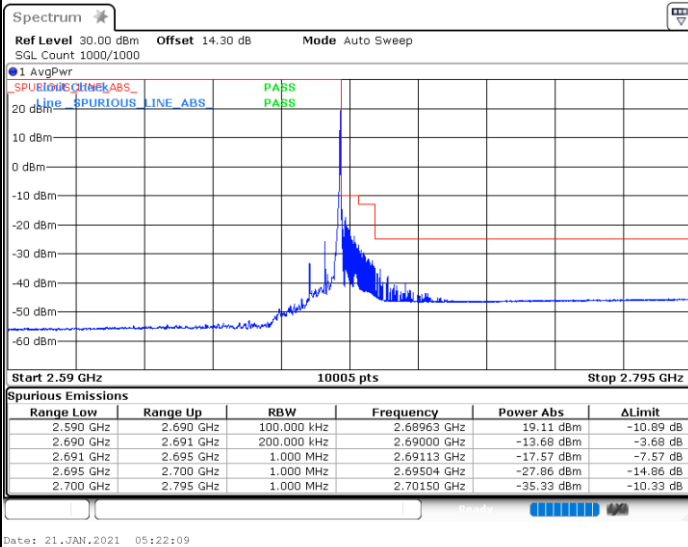




FR1 UL-MIMO n41 / 10MHz / CP-OFDM QPSK (M)

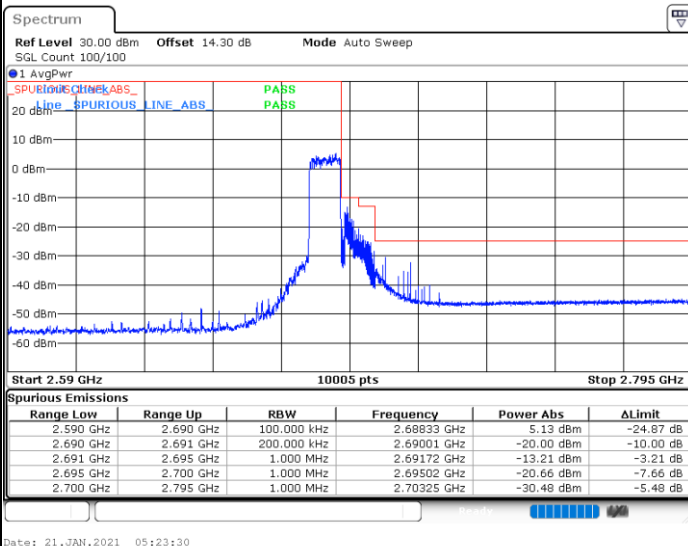
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

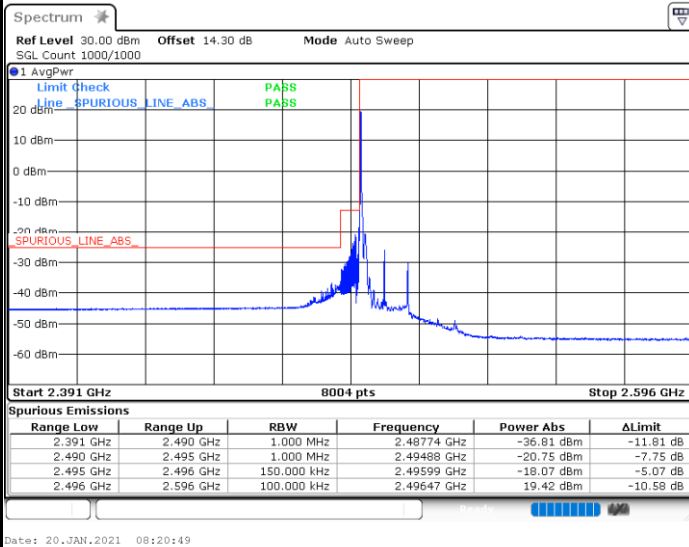




FR1 UL-MIMO n41 / 15MHz / CP-OFDM QPSK (M2)

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

