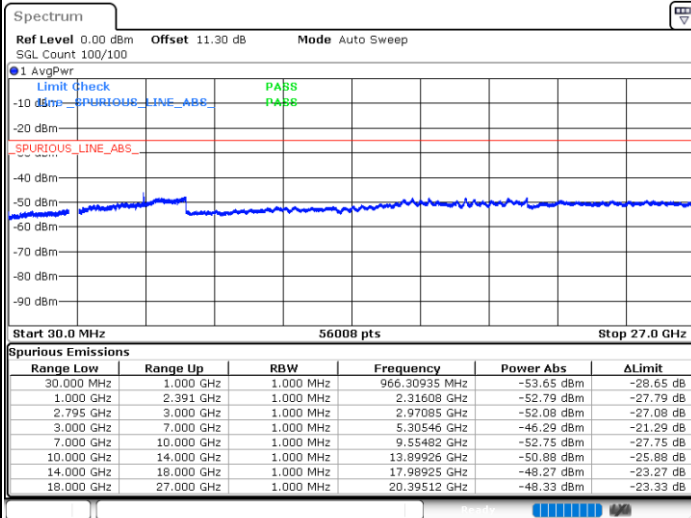




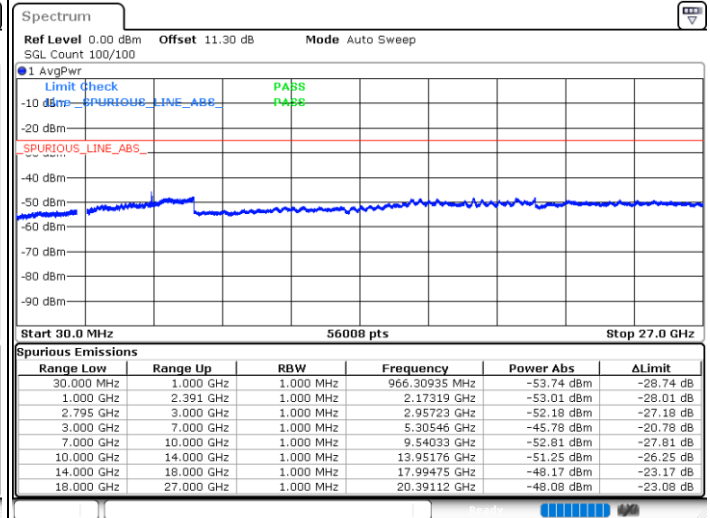
FR1 n41 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB

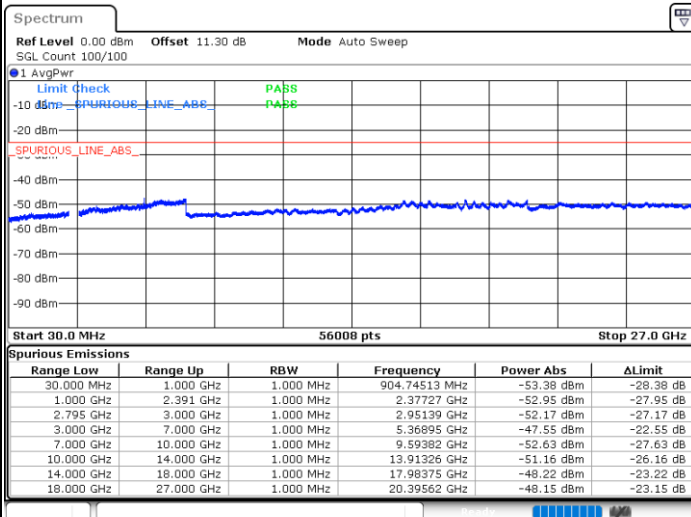


Date: 17.DEC.2020 03:30:06



Date: 17.DEC.2020 03:32:41

Highest Channel / 1RB



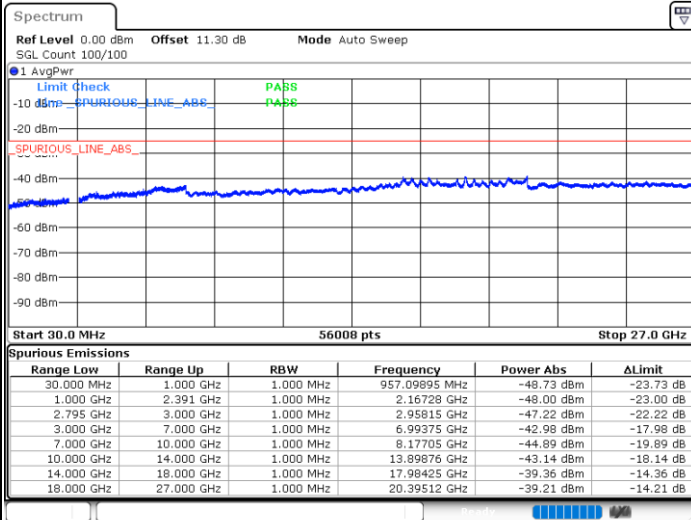
Date: 17.DEC.2020 03:46:12



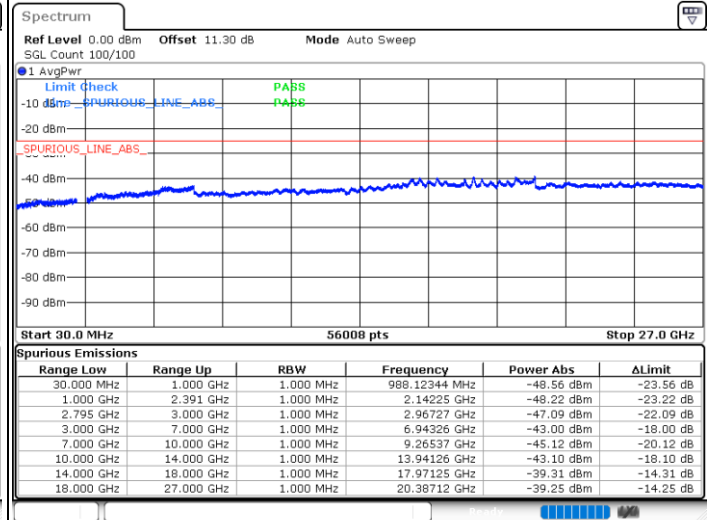
FR1 n41 / 50MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

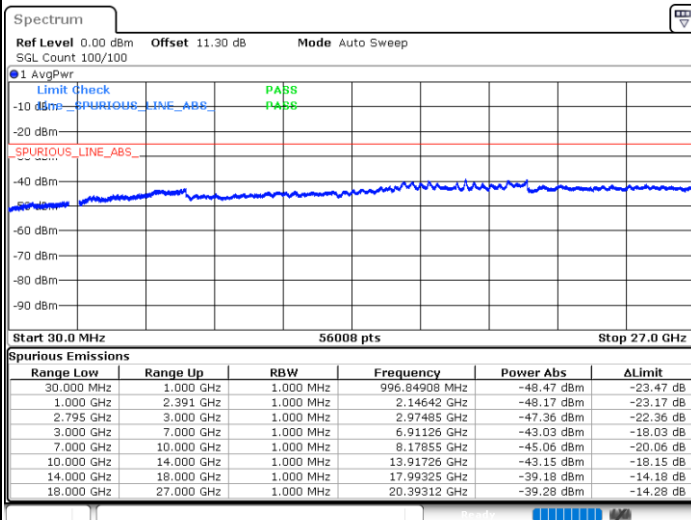


Date: 17.DEC.2020 03:19:23



Date: 17.DEC.2020 03:08:41

Highest Channel / 1RB



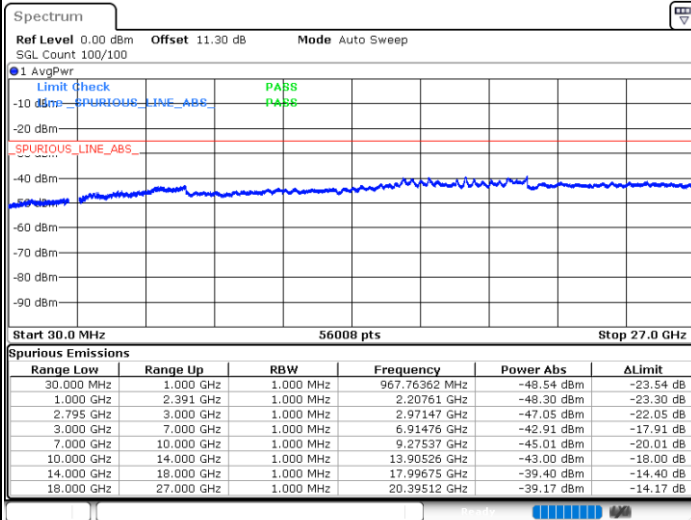
Date: 17.DEC.2020 03:05:39



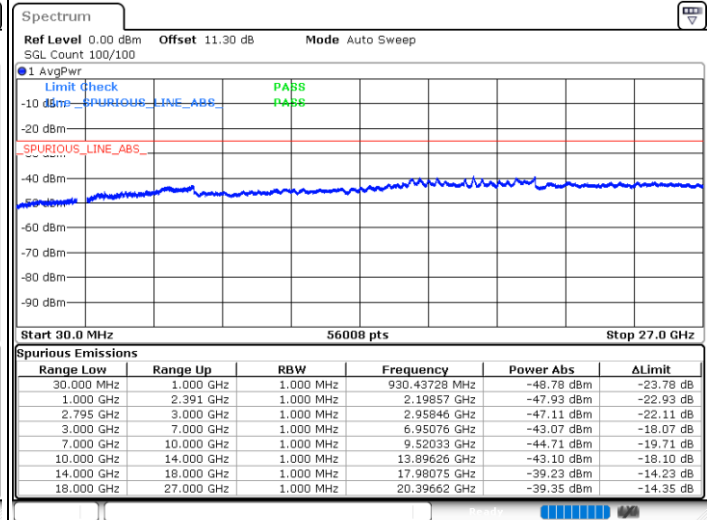
FR1 n41 / 50MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB

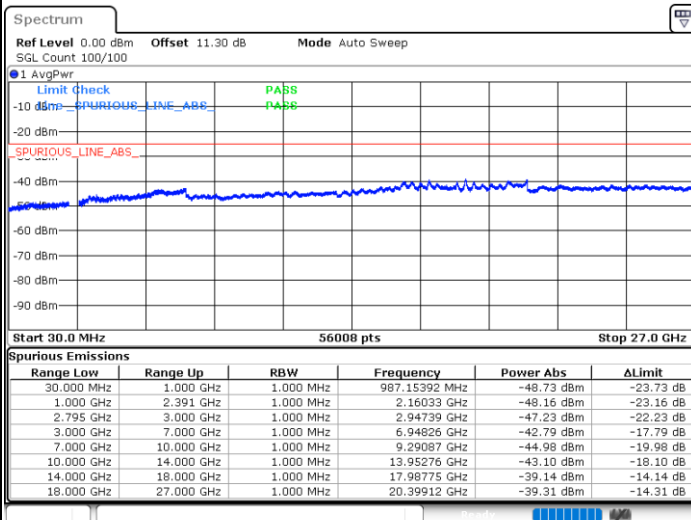


Date: 17.DEC.2020 03:16:01



Date: 17.DEC.2020 03:11:54

Highest Channel / 1RB

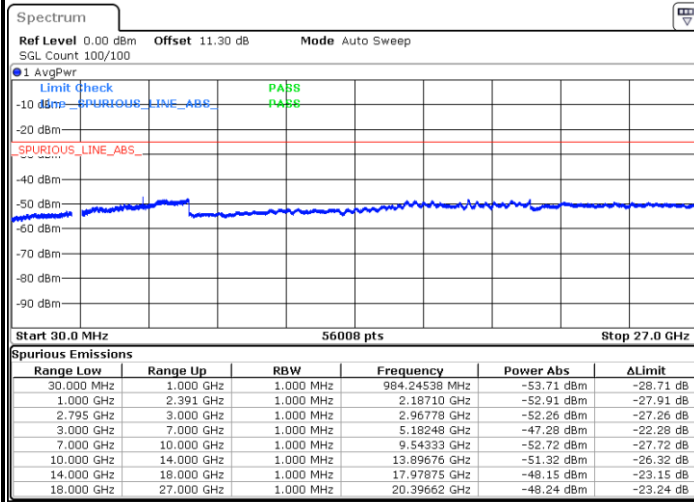


Date: 17.DEC.2020 03:03:22



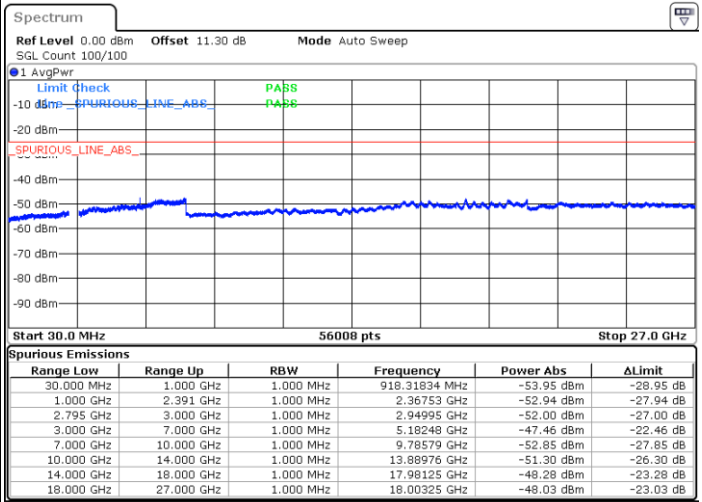
FR1 n41 / 100MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB



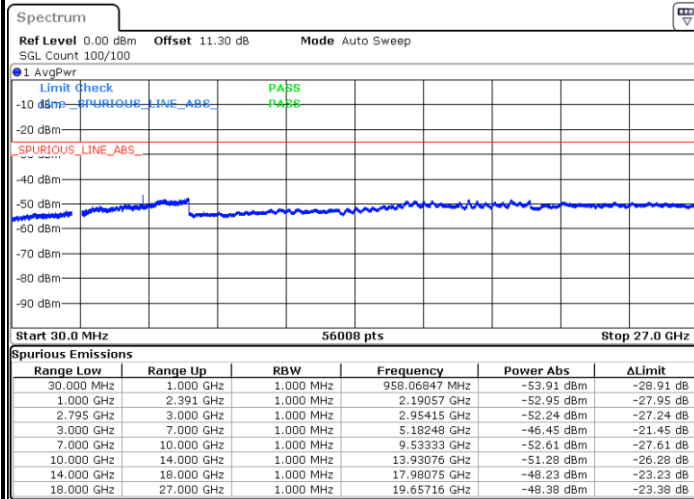
Date: 17.DEC.2020 01:37:53

Middle Channel / 1RB



Date: 17.DEC.2020 01:29:03

Highest Channel / 1RB

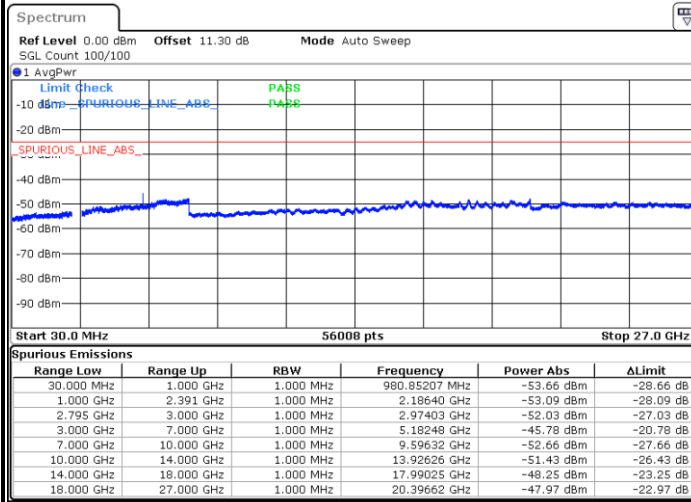


Date: 17.DEC.2020 01:25:38



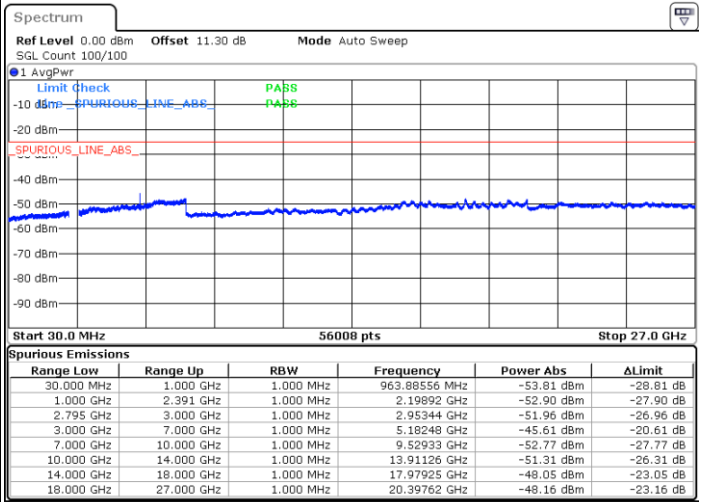
FR1 n41 / 100MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



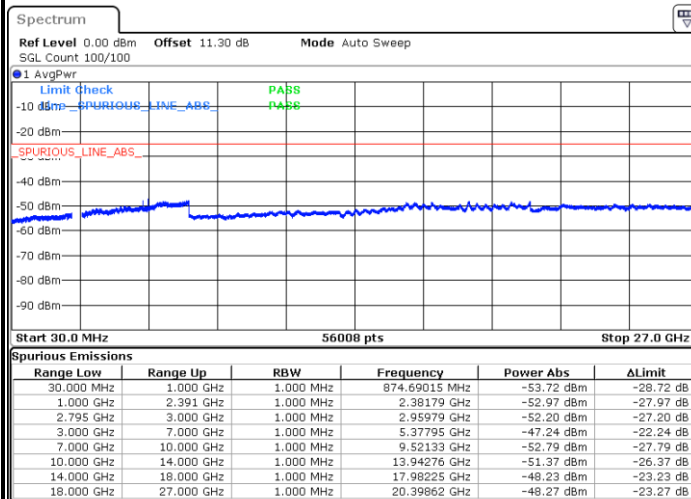
Date: 17.DEC.2020 01:35:19

Middle Channel / 1RB



Date: 17.DEC.2020 01:32:30

Highest Channel / 1RB



Date: 17.DEC.2020 01:24:39

**Frequency Stability**

Test Conditions		NR n41 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0021	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0013	
10	Normal Voltage	0.0025	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0015	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0012	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0022	

Note:

1. Normal Voltage =7.74 V. ; Battery End Point (BEP) =7.2 V. ; Maximum Voltage =8.9 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



5G NR n41 UL_MIMO

Peak-to-Average Ratio

Mode	FR1 UL-MIMO n41 / 20MHz / CP-OFDM (ANT3)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.42	7.54			PASS
Middle CH	7.28	7.42			
Highest CH	7.57	7.62			

Mode	FR1 UL-MIMO n41 / 20MHz / CP-OFDM (ANT0)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.68	7.57			PASS
Middle CH	7.07	7.59			
Highest CH	8.00	7.51			



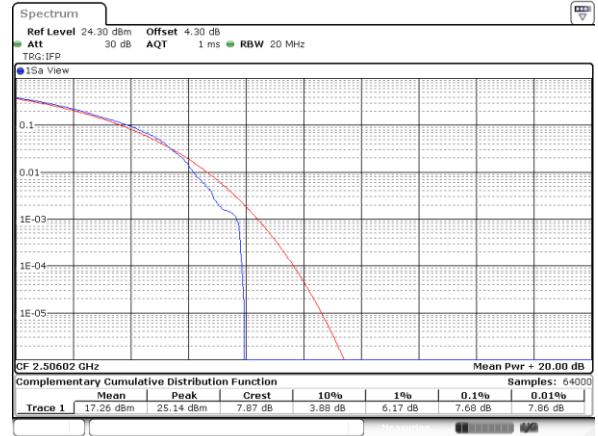
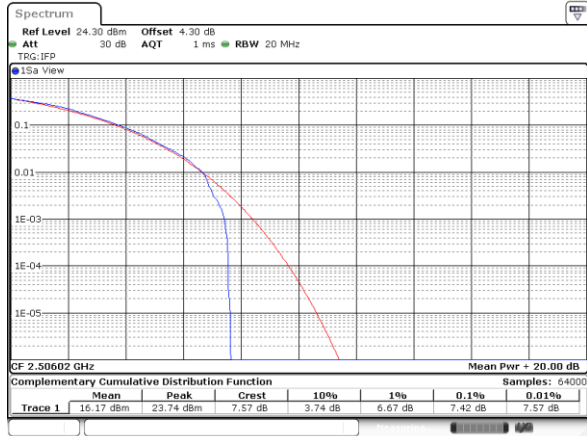
FR1 UL-MIMO n41 / 20MHz / CP-OFDM

QPSK(ANT3)

QPSK(ANT0)

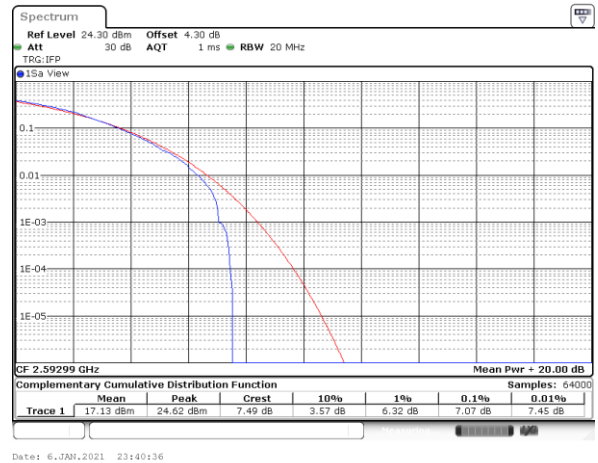
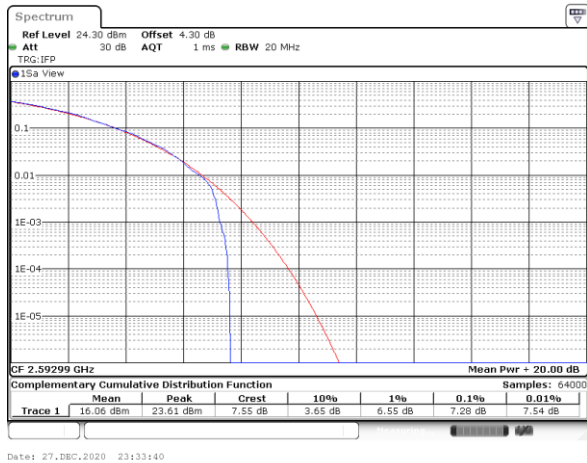
Lowest Channel / 1RB

Lowest Channel / 1RB



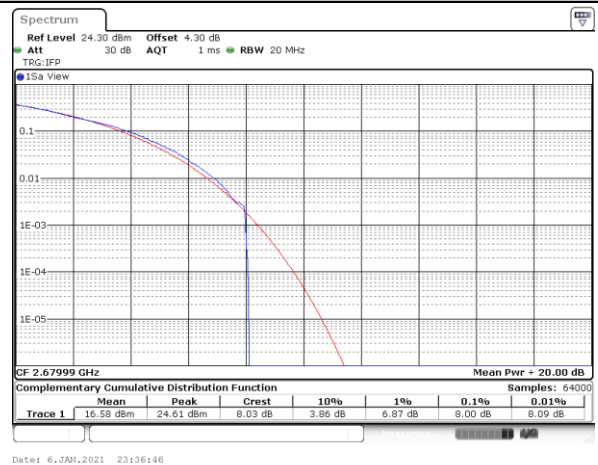
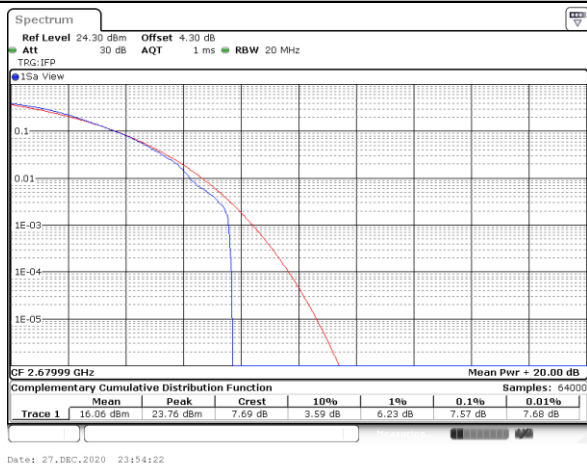
Middle Channel / 1 RB

Middle Channel / 1 RB



Highest Channel / 1 RB

Highest Channel / 1 RB

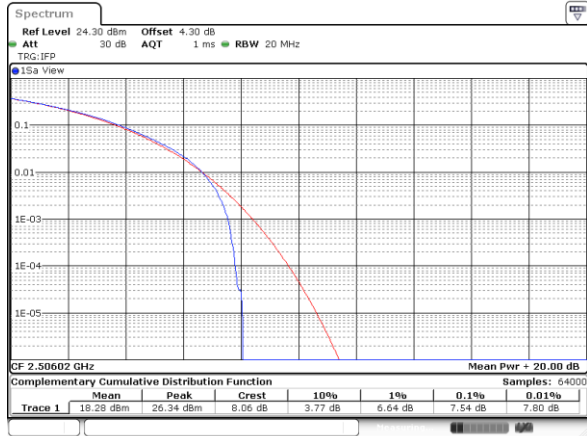




FR1 UL-MIMO n41 / 20MHz / CP-OFDM

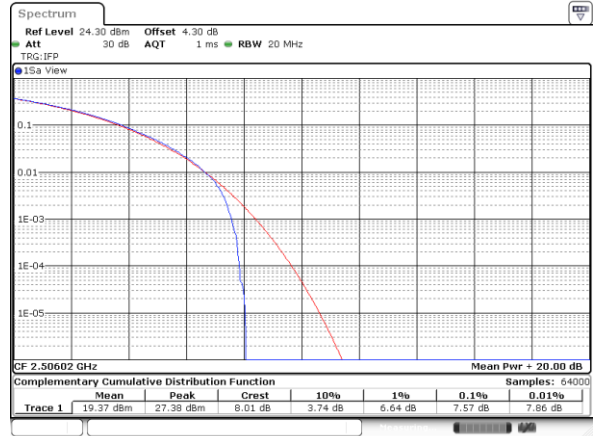
QPSK(ANT3)

Lowest Channel / Full RB

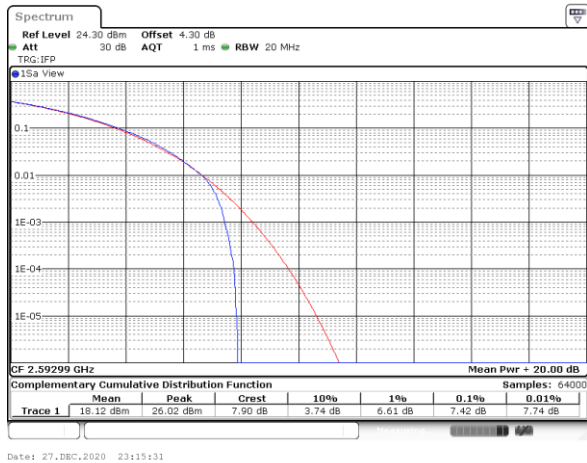


QPSK(ANT0)

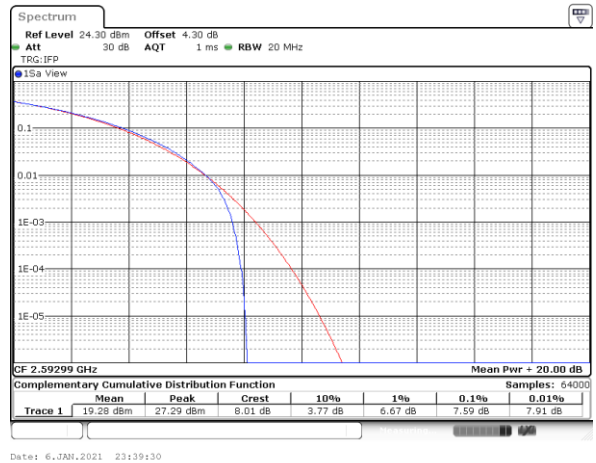
Lowest Channel / Full RB



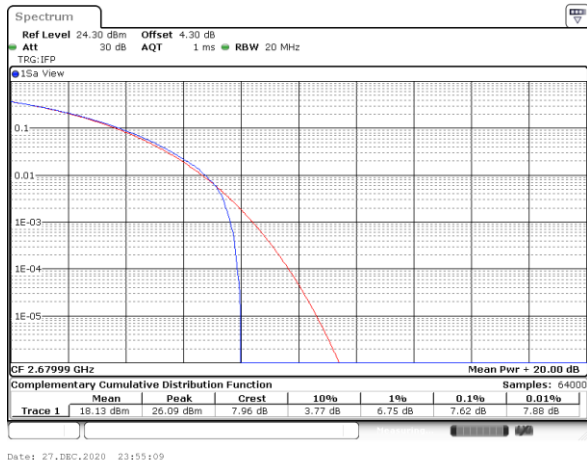
Middle Channel / Full RB



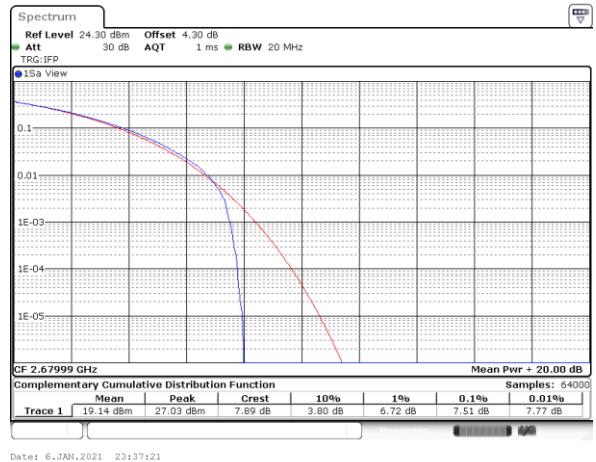
Middle Channel / Full RB



Highest Channel / Full RB



Highest Channel / Full RB



**26dB Bandwidth**

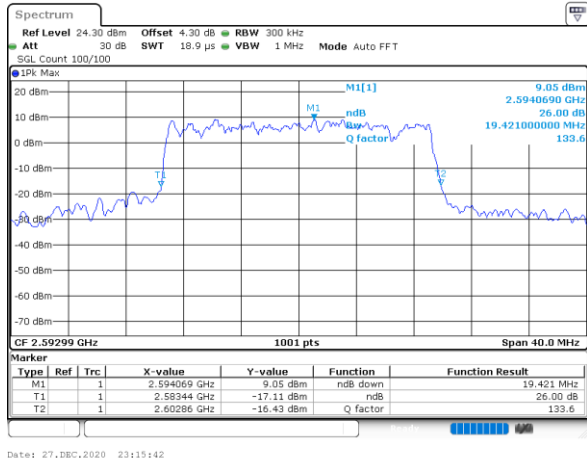
Mode	FR1 UL-MIMO n41 : 26dB BW(MHz) / CP-OFDM							
	ANT3				ANT0			
BW	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	19.42	19.54	19.14	19.06	18.98	19.1	19.02	19.46
BW	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	30.39	30.21	30.09	30.15	30.33	30.21	30.27	30.03
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	40.36	40.2	40.28	40.2	40.28	40.28	40.28	40.28
BW	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	49.65	49.75	49.65	49.85	49.75	49.45	49.65	49.55
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	79.92	80.08	80.08	79.92	79.92	79.92	79.92	79.92
BW	90MHz	90MHz	90MHz	90MHz	90MHz	90MHz	90MHz	90MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	90.27	90.27	90.27	90.27	90.45	90.45	90.27	90.45
BW	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	100.5	100.5	100.3	100.5	100.5	100.5	100.3	100.3



FR1 UL-MIMO n41 / 20MHz / CP-OFDM (ANT3)

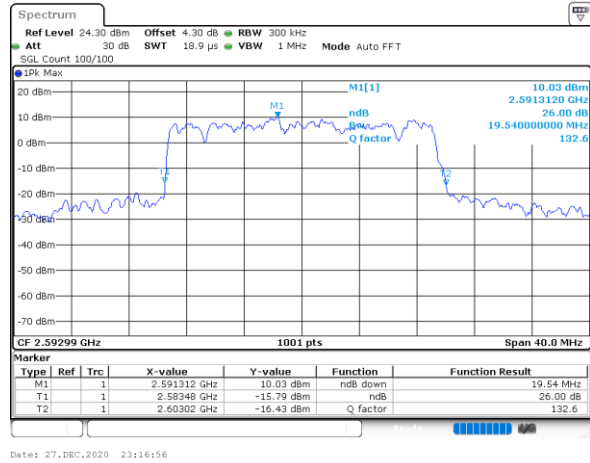
QPSK

Middle Channel



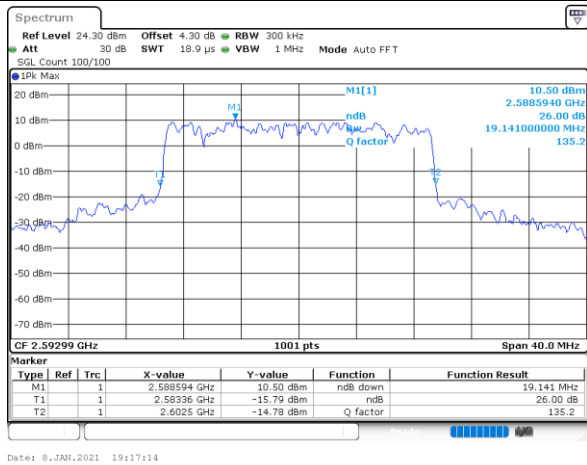
16QAM

Middle Channel



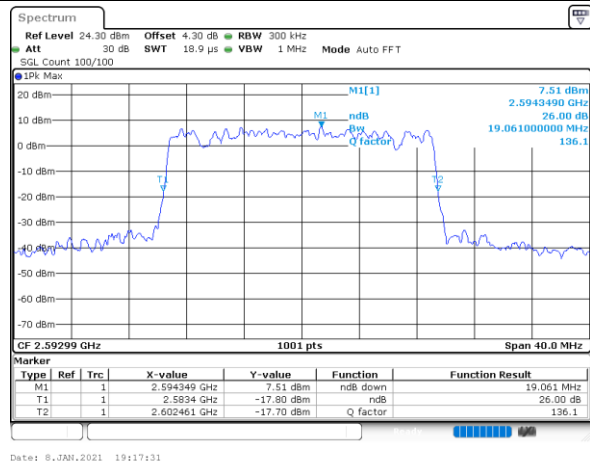
64QAM

Middle Channel



256QAM

Middle Channel

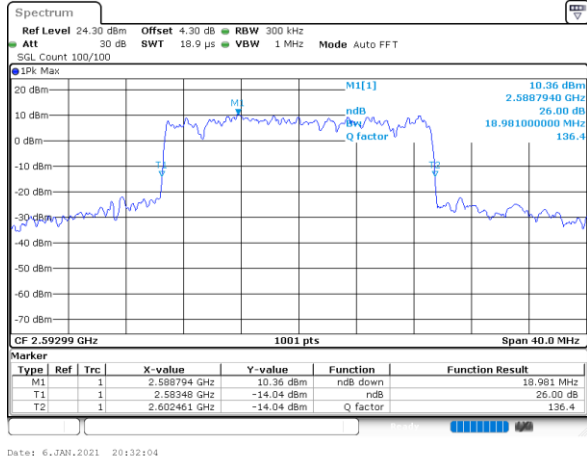




FR1 UL-MIMO n41 / 20MHz / CP-OFDM (ANT0)

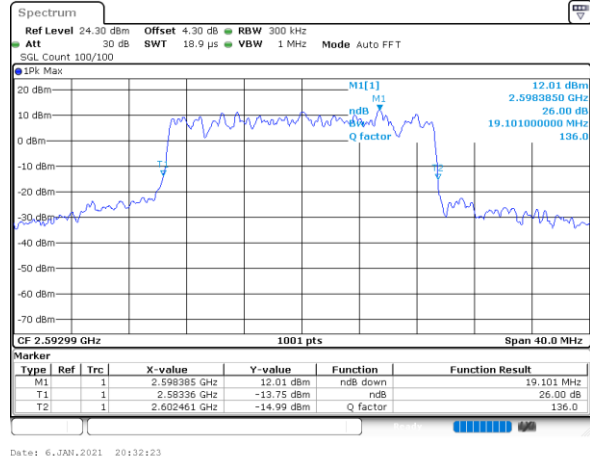
QPSK

Middle Channel



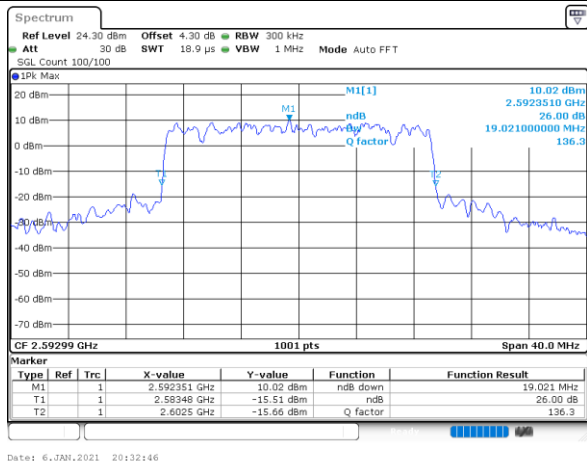
16QAM

Middle Channel



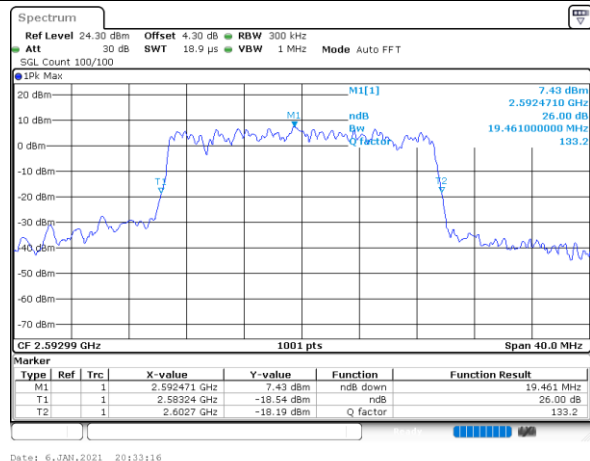
64QAM

Middle Channel



256QAM

Middle Channel

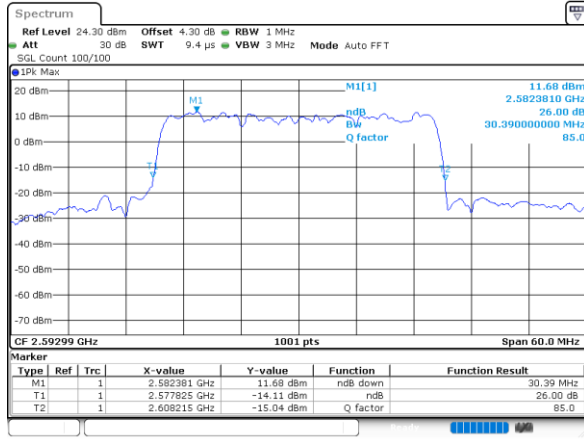




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (ANT3)

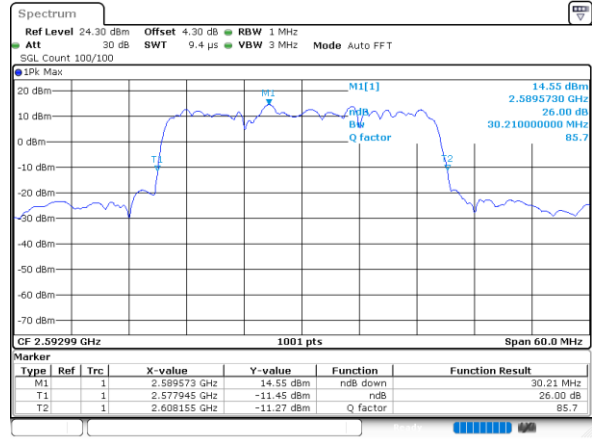
QPSK

Middle Channel



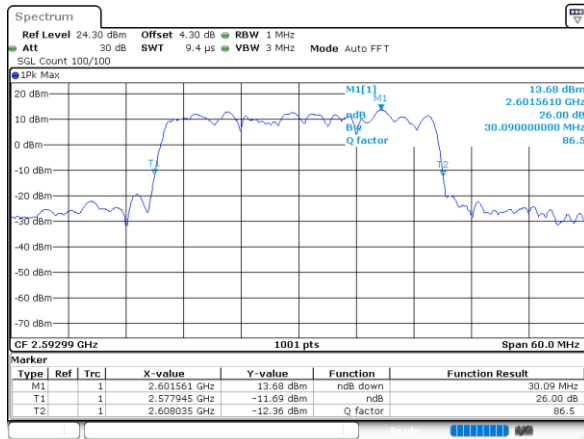
16QAM

Middle Channel



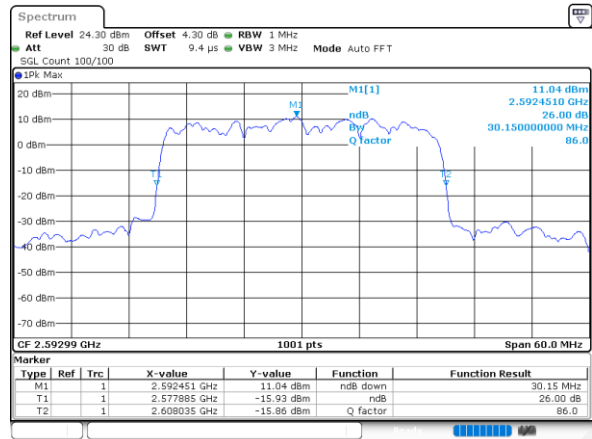
64QAM

Middle Channel



256QAM

Middle Channel

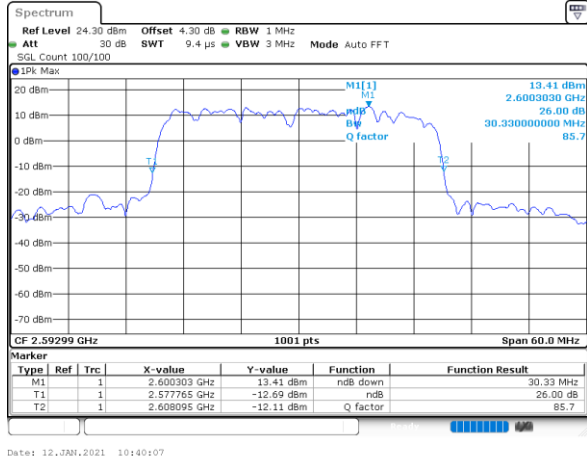




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (ANT0)

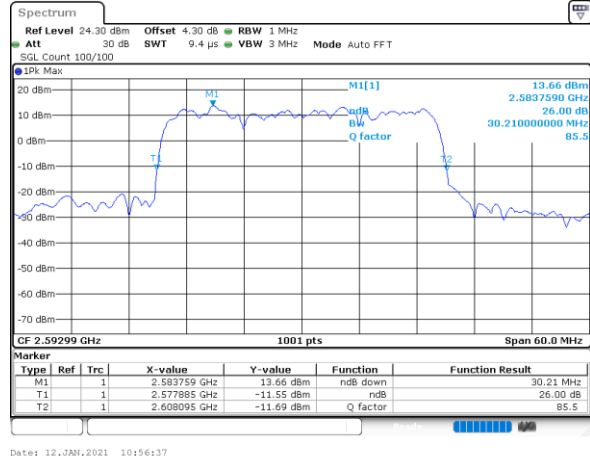
QPSK

Middle Channel



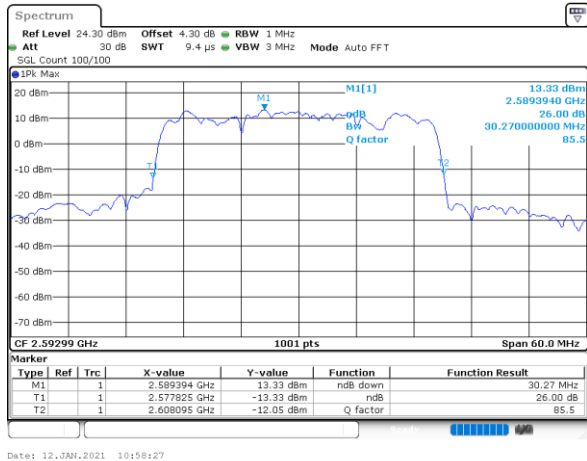
16QAM

Middle Channel



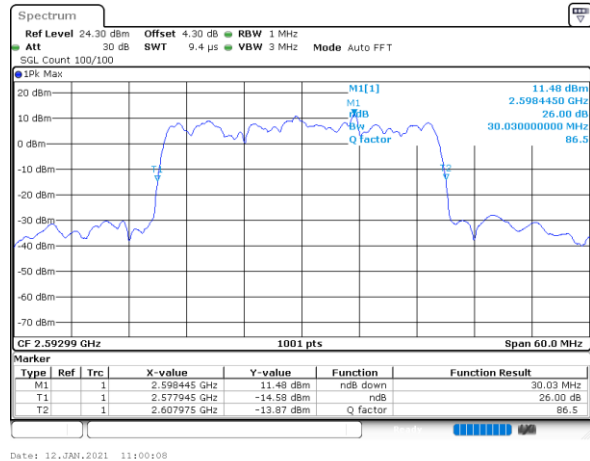
64QAM

Middle Channel



256QAM

Middle Channel





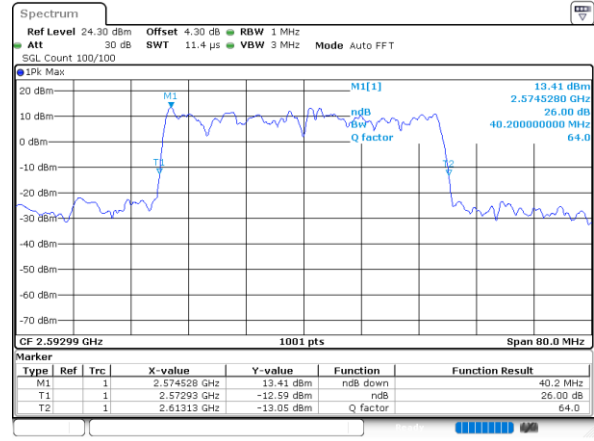
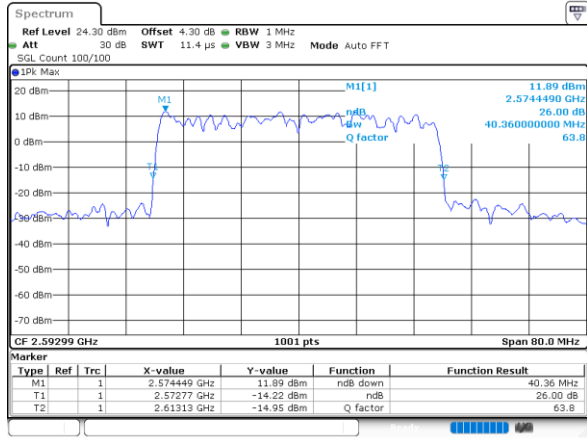
FR1 UL-MIMO n41 / 40MHz / CP-OFDM (ANT3)

QPSK

16QAM

Middle Channel

Middle Channel

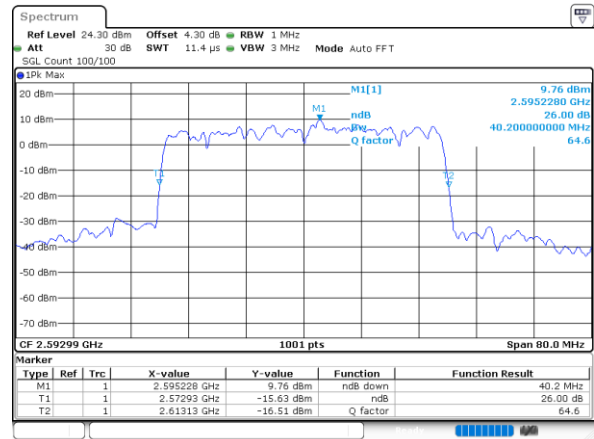
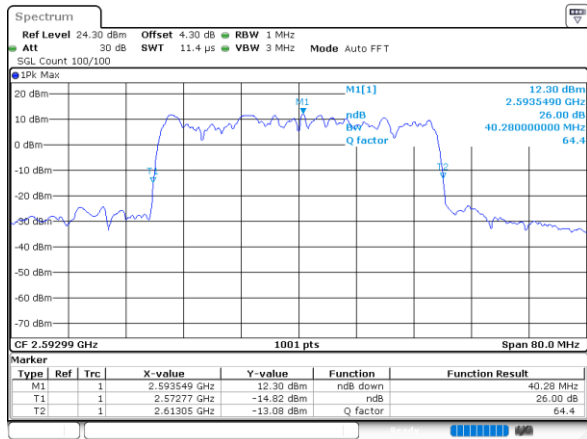


64QAM

256QAM

Middle Channel

Middle Channel





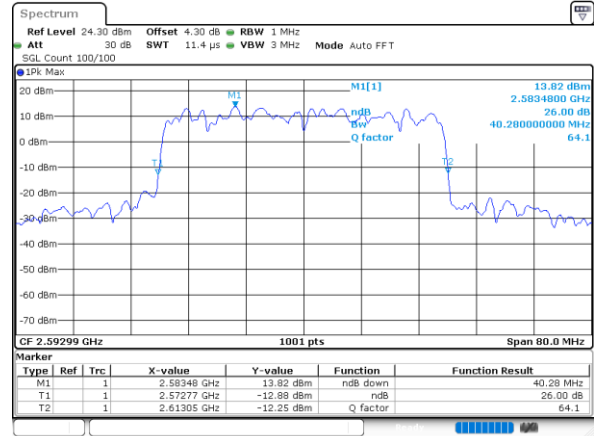
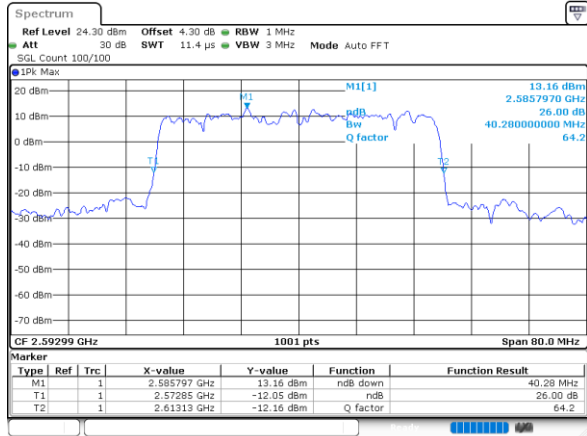
FR1 UL-MIMO n41 / 40MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

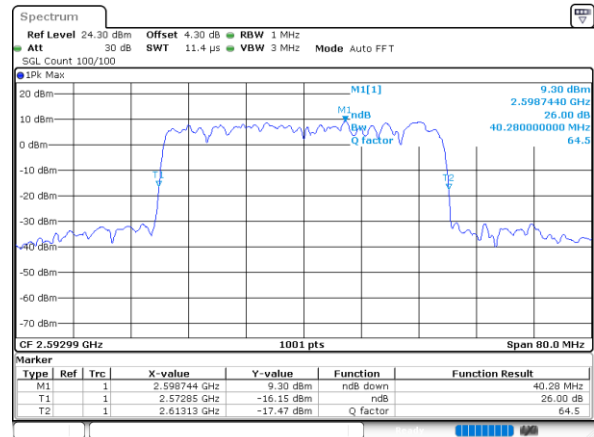
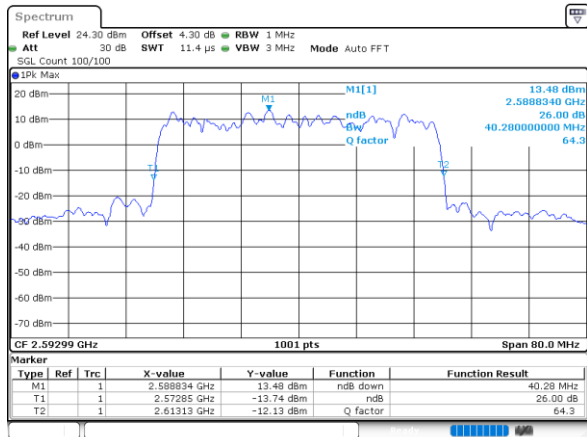


64QAM

256QAM

Middle Channel

Middle Channel

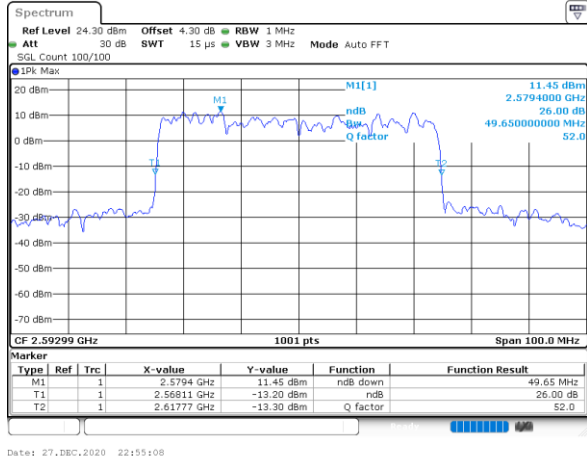




FR1 UL-MIMO n41 / 50MHz / CP-OFDM (ANT3)

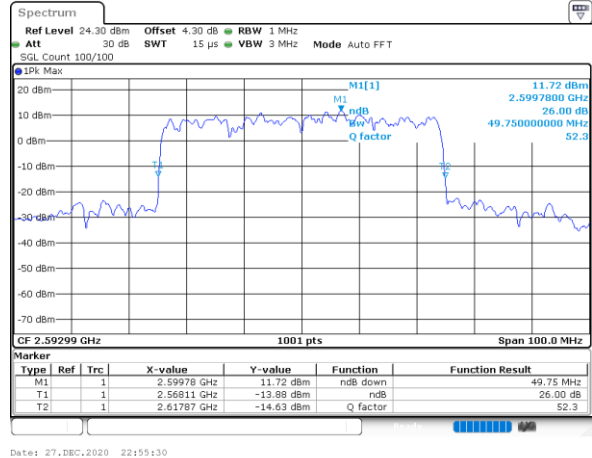
QPSK

Middle Channel



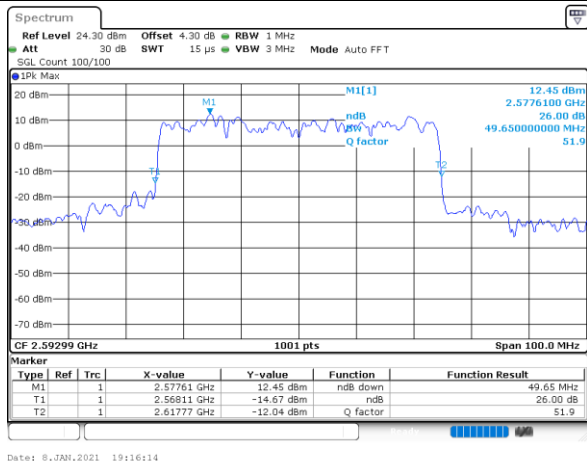
16QAM

Middle Channel



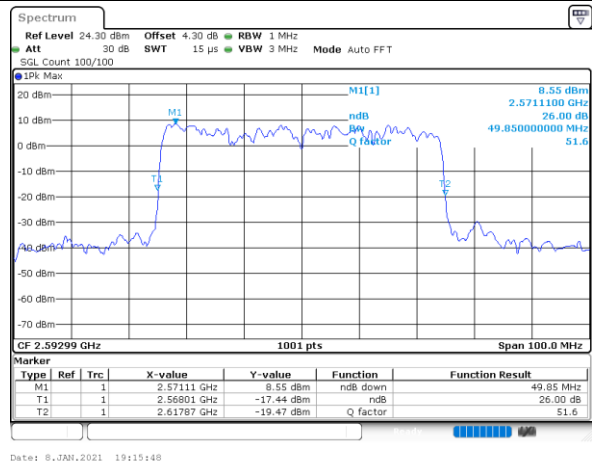
64QAM

Middle Channel



256QAM

Middle Channel





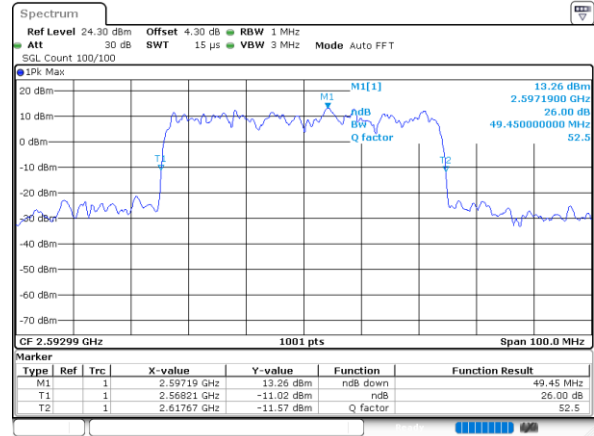
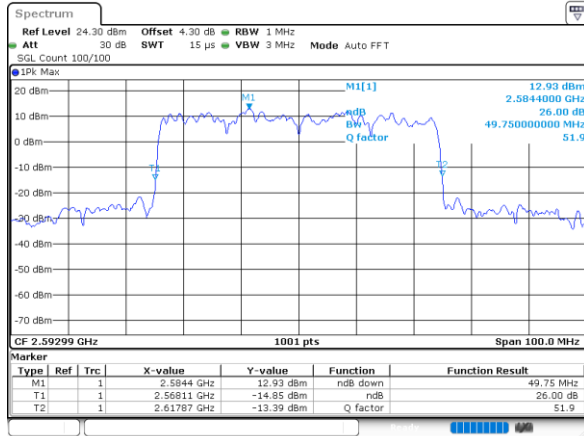
FR1 UL-MIMO n41 / 50MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

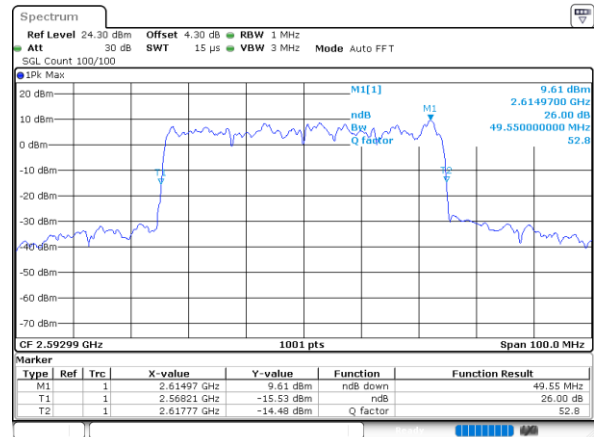
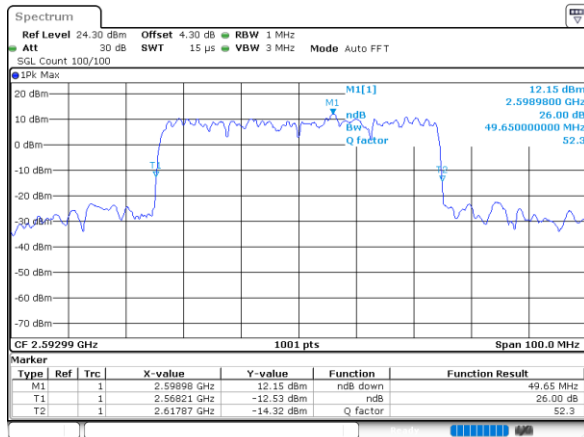


64QAM

256QAM

Middle Channel

Middle Channel

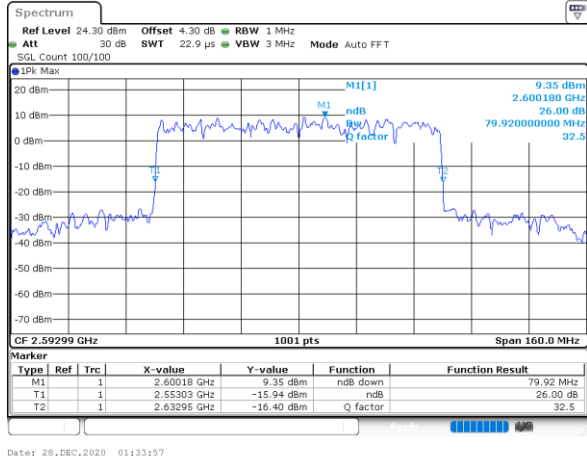




FR1 UL-MIMO n41 / 80MHz / CP-OFDM (ANT3)

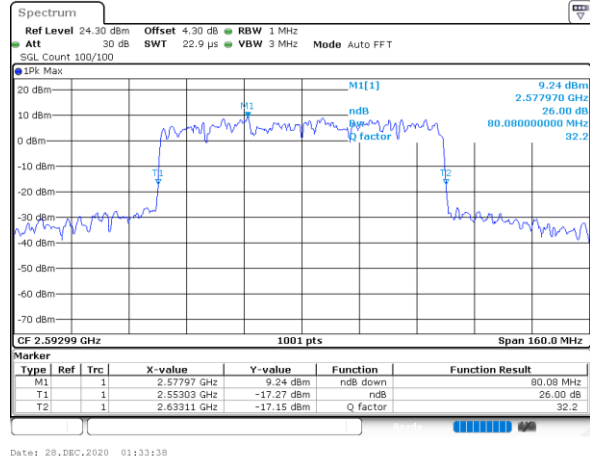
QPSK

Middle Channel



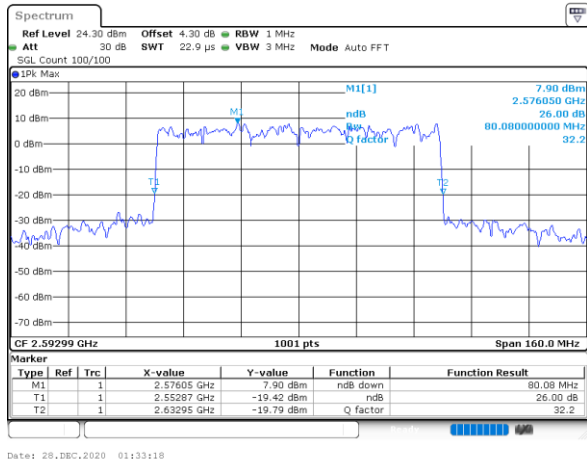
16QAM

Middle Channel



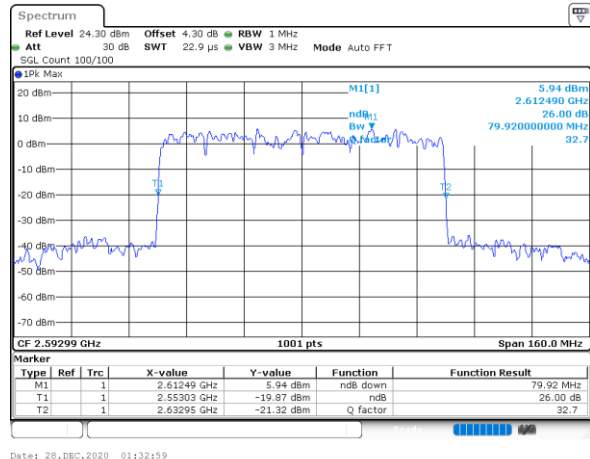
64QAM

Middle Channel



256QAM

Middle Channel





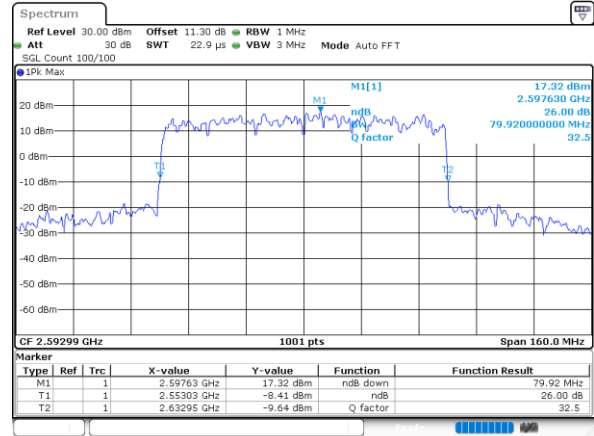
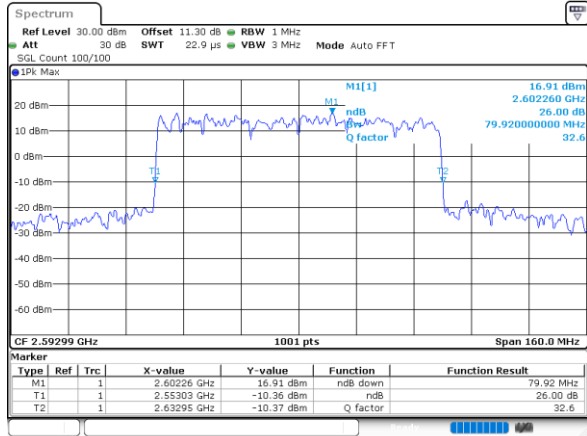
FR1 UL-MIMO n41 / 80MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

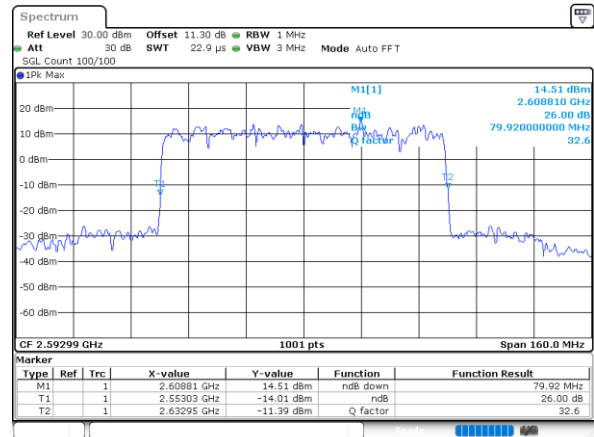
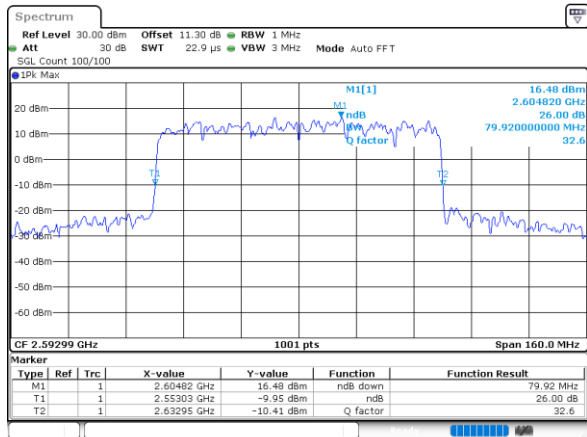


64QAM

256QAM

Middle Channel

Middle Channel

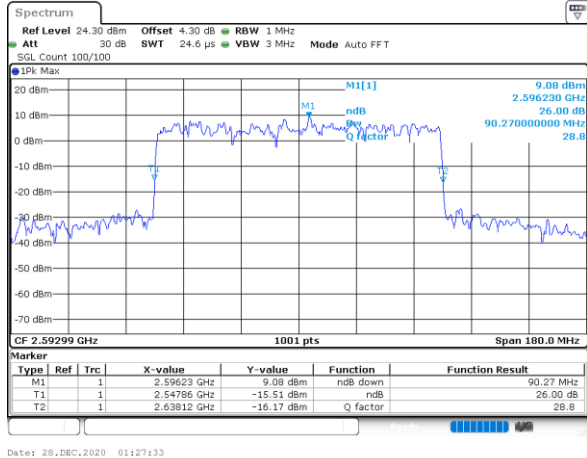




FR1 UL-MIMO n41 / 90MHz / CP-OFDM (ANT3)

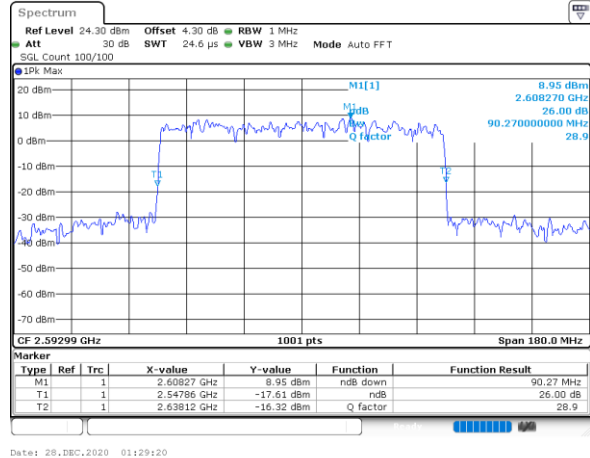
QPSK

Middle Channel



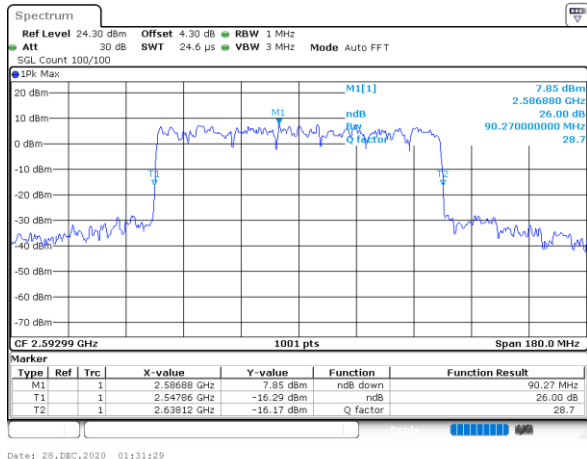
16QAM

Middle Channel



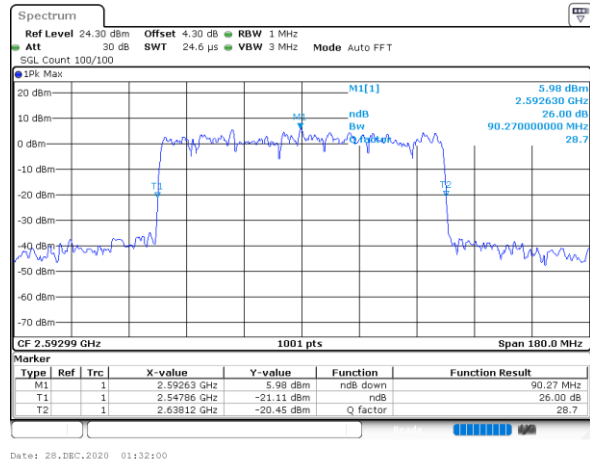
64QAM

Middle Channel



256QAM

Middle Channel





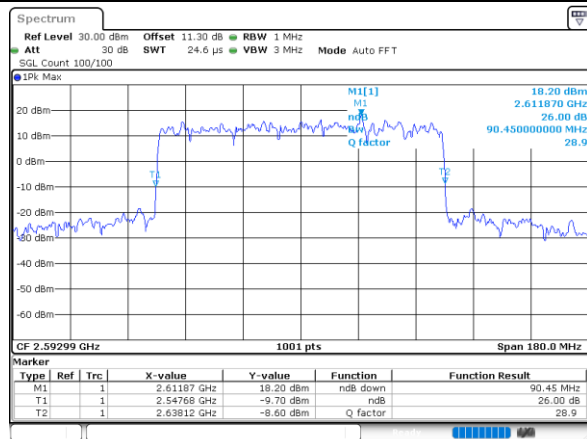
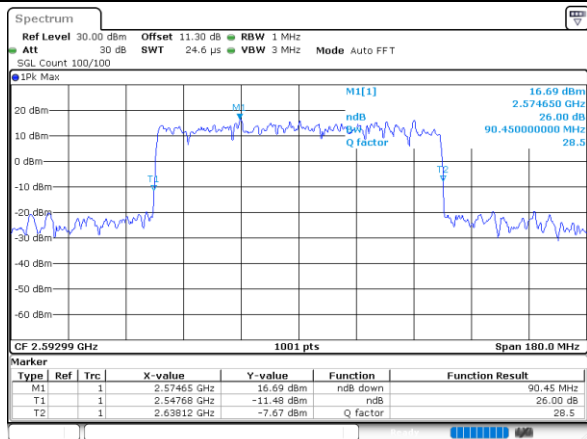
FR1 UL-MIMO n41 / 90MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

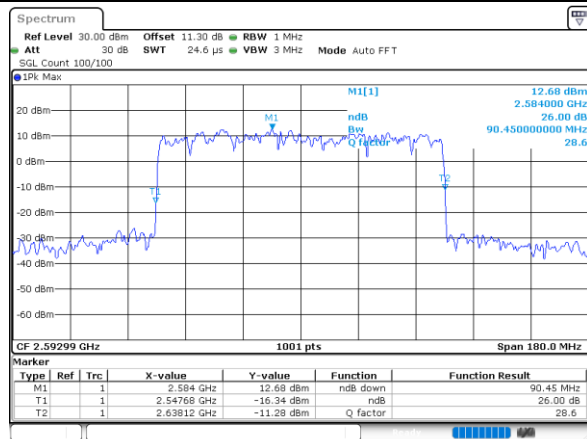
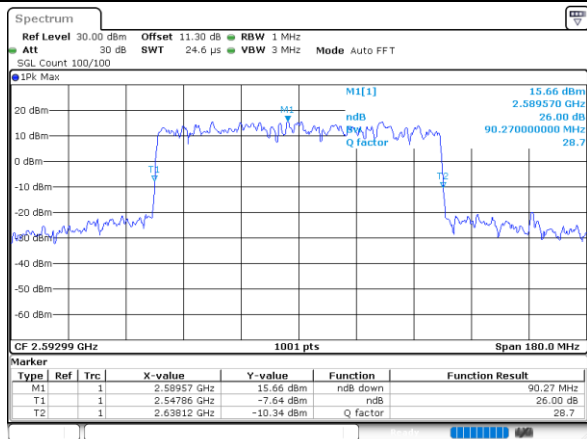


64QAM

256QAM

Middle Channel

Middle Channel

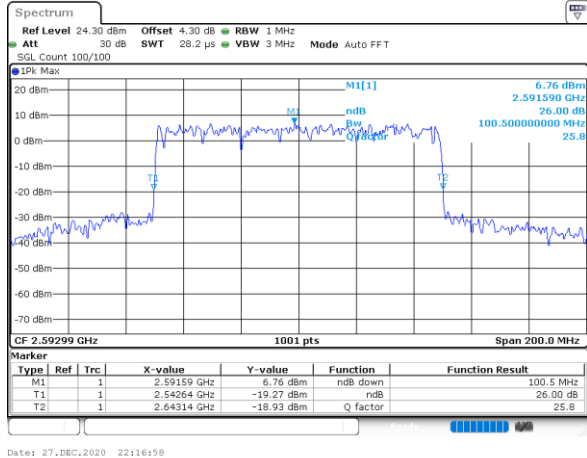




FR1 UL-MIMO n41 / 100MHz / CP-OFDM (ANT3)

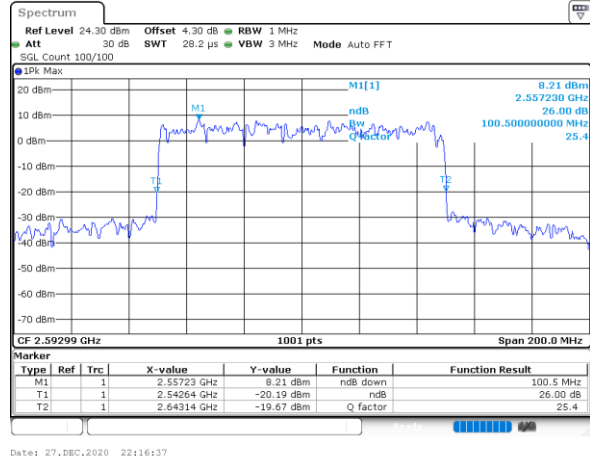
QPSK

Middle Channel



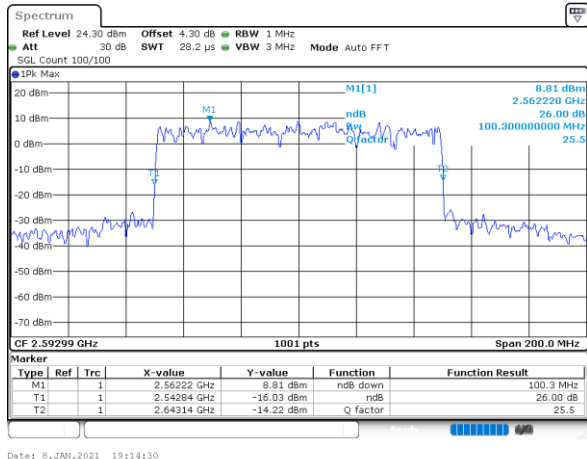
16QAM

Middle Channel



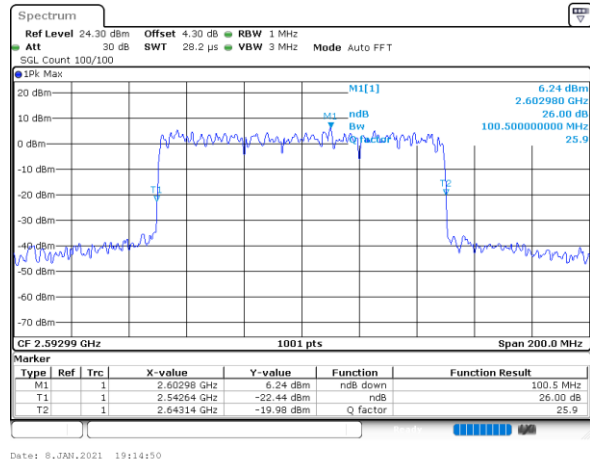
64QAM

Middle Channel



256QAM

Middle Channel





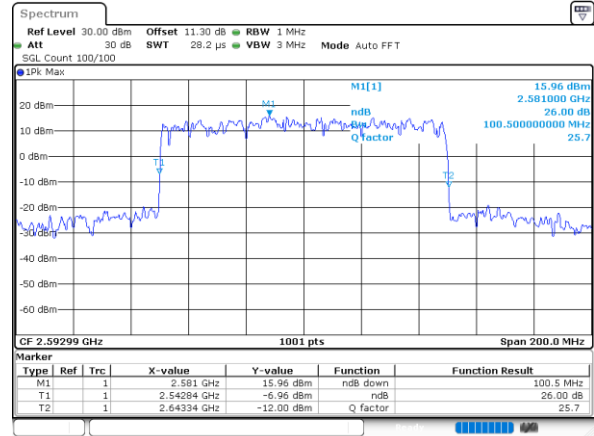
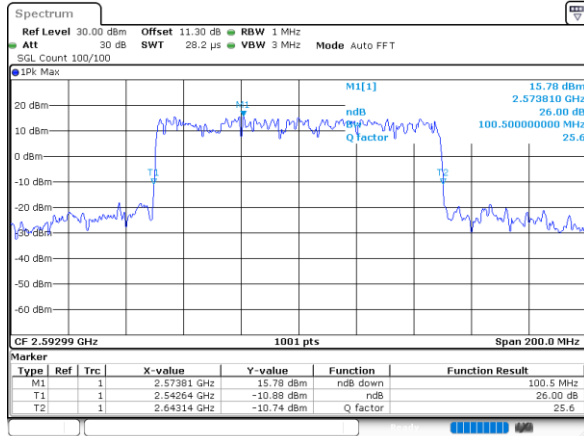
FR1 UL-MIMO n41 / 100MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

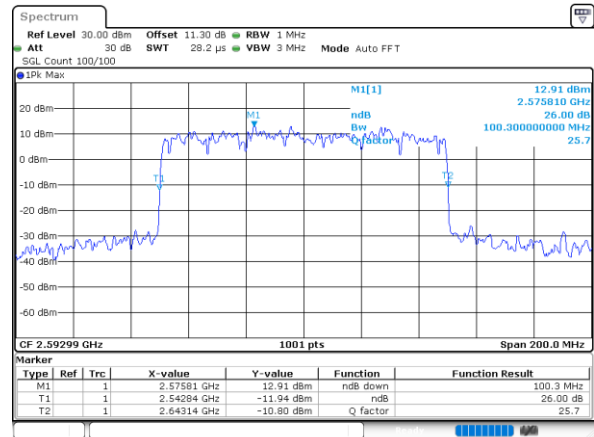
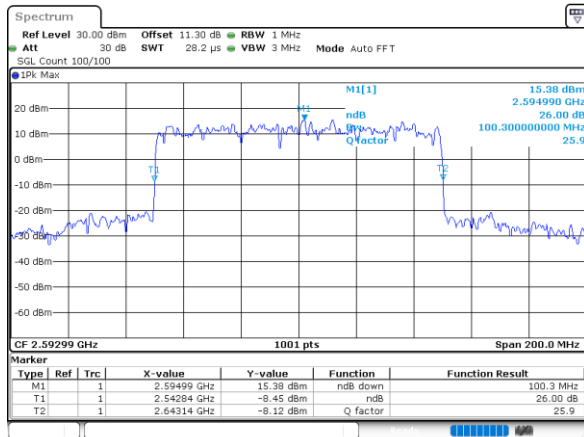


64QAM

256QAM

Middle Channel

Middle Channel





Occupied Bandwidth

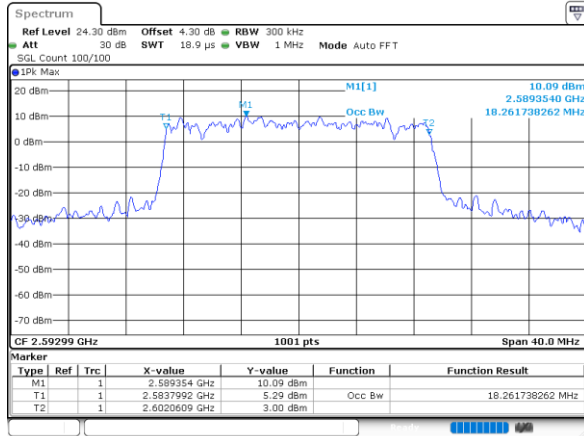
Mode	FR1 UL-MIMO n41 : OBW(MHz) / CP-OFDM							
	ANT3				ANT0			
BW	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	18.26	18.22	18.18	18.06	18.06	18.26	18.14	18.18
BW	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	28.23	28.17	28.35	28.17	28.23	28.11	28.23	28.17
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	37.8	37.8	37.96	37.96	37.96	38.04	37.96	37.72
BW	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	47.55	47.55	47.55	47.45	47.65	47.45	47.85	47.55
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	77.04	77.04	77.52	77.04	77.2	77.04	77.04	77.52
BW	90MHz	90MHz	90MHz	90MHz	90MHz	90MHz	90MHz	90MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	87.03	87.03	87.39	87.39	87.03	87.57	86.85	87.39
BW	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	97.1	97.3	97.3	97.5	97.1	97.3	97.5	97.5



FR1 UL-MIMO n41 / 20MHz / CP-OFDM (ANT3)

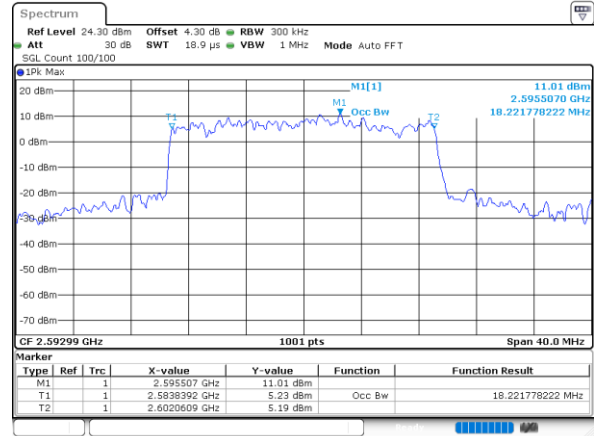
QPSK

Middle Channel



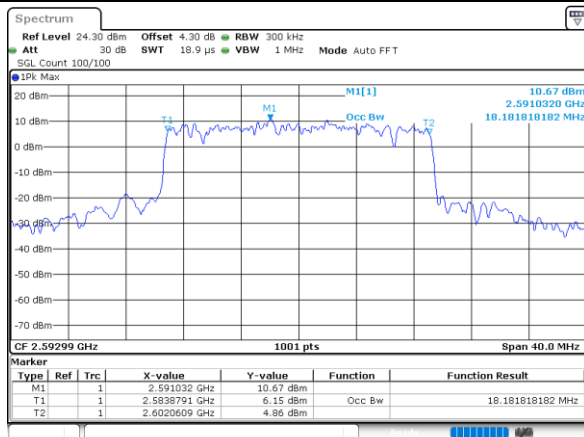
16QAM

Middle Channel



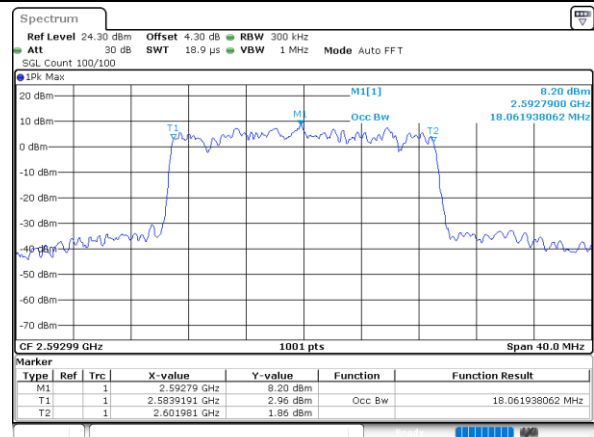
64QAM

Middle Channel



256QAM

Middle Channel

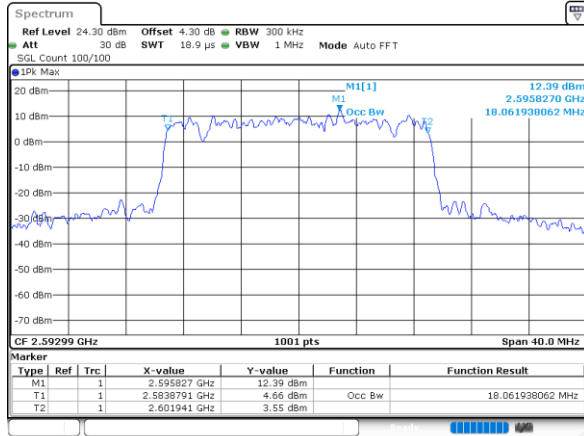




FR1 UL-MIMO n41 / 20MHz / CP-OFDM (ANT0)

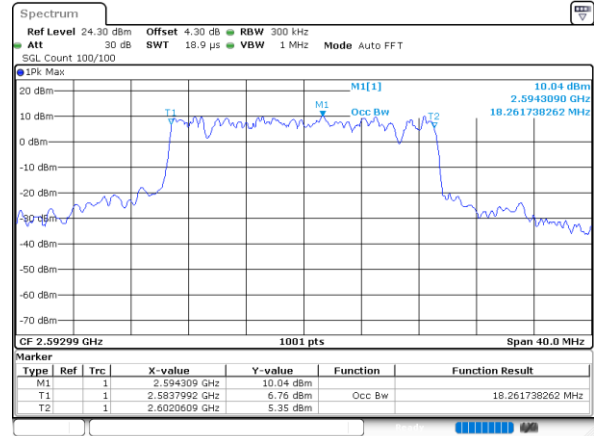
QPSK

Middle Channel



16QAM

Middle Channel



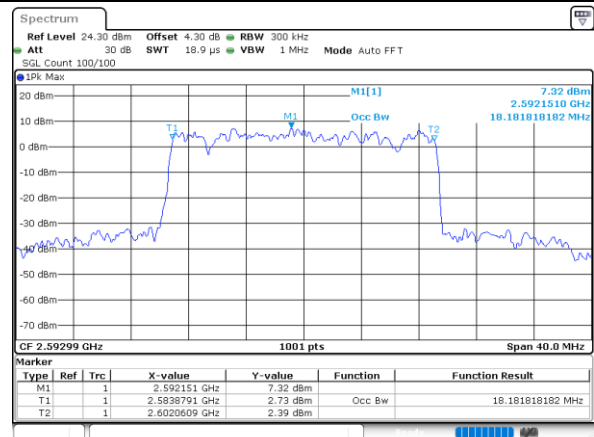
64QAM

Middle Channel



256QAM

Middle Channel

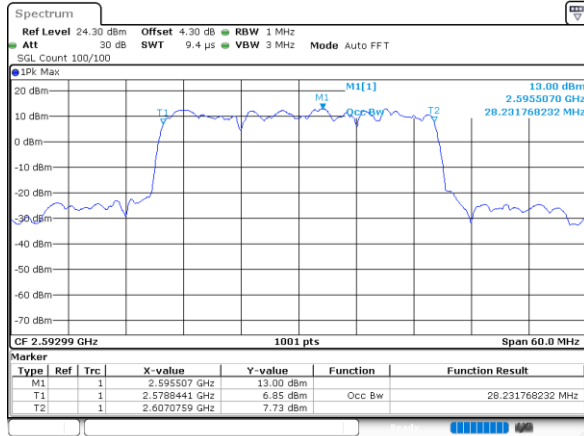




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (ANT3)

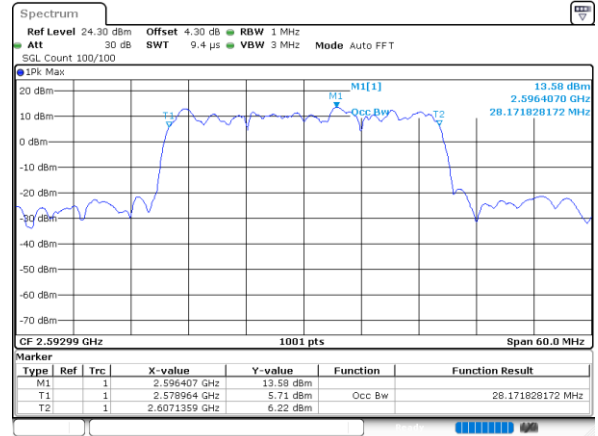
QPSK

Middle Channel



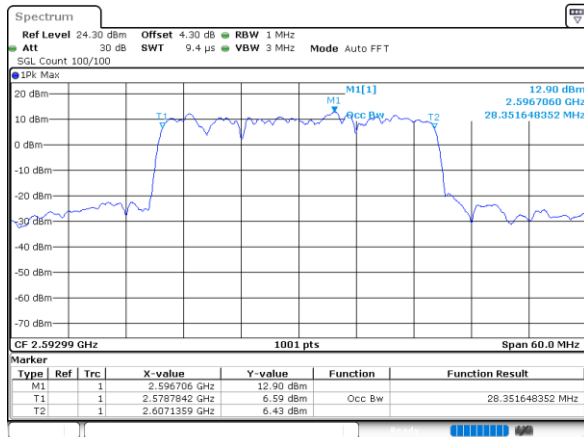
16QAM

Middle Channel



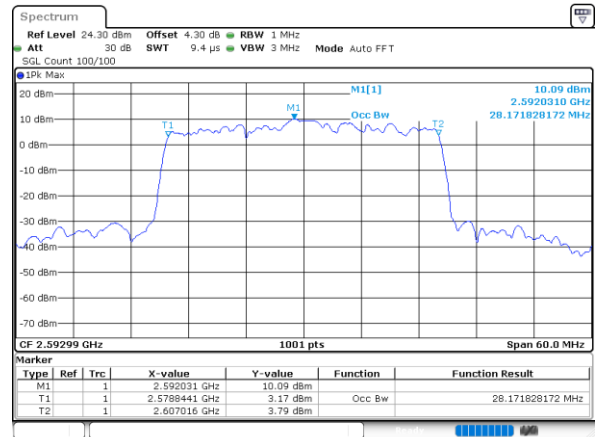
64QAM

Middle Channel



256QAM

Middle Channel





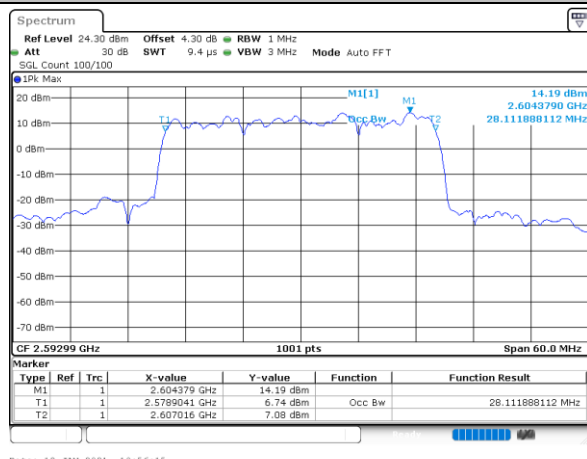
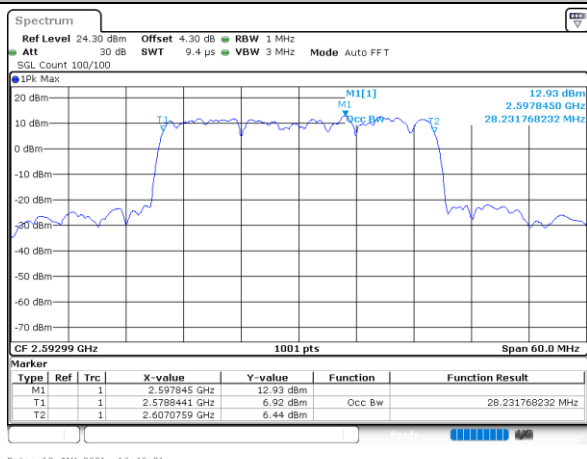
FR1 UL-MIMO n41 / 30MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

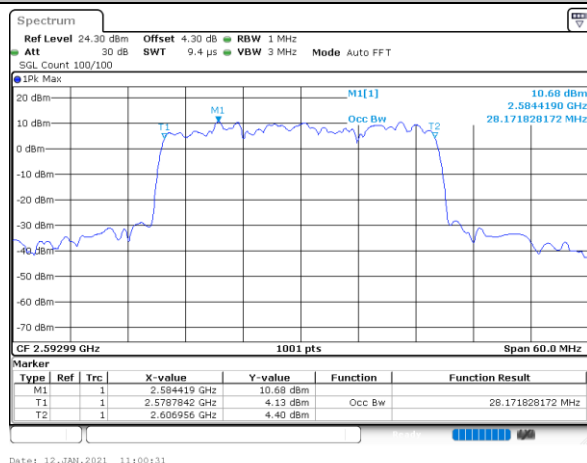
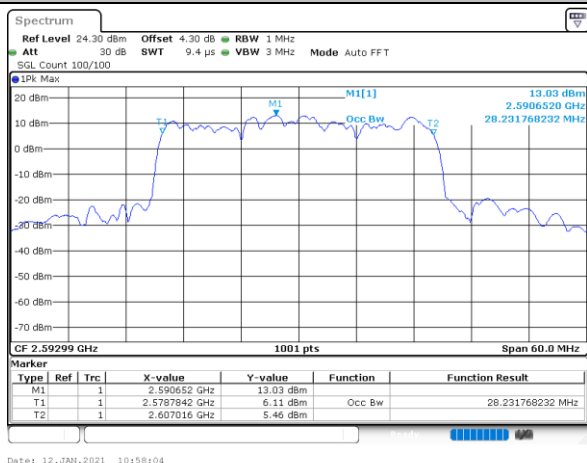


64QAM

256QAM

Middle Channel

Middle Channel

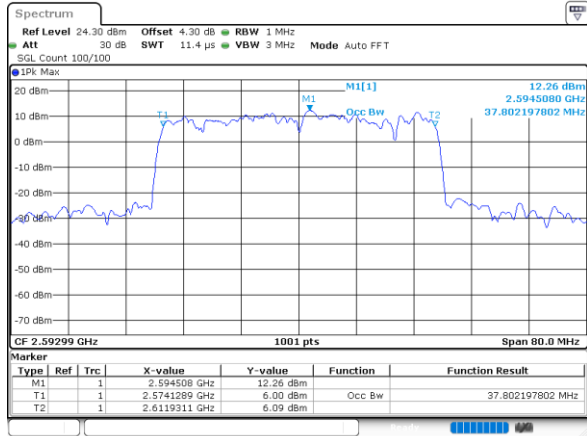




FR1 UL-MIMO n41 / 40MHz / CP-OFDM (ANT3)

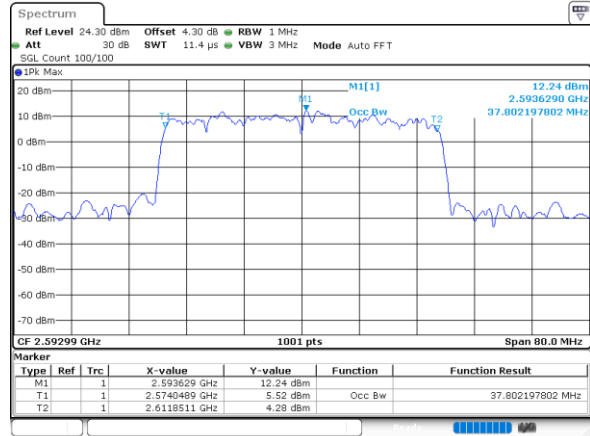
QPSK

Middle Channel



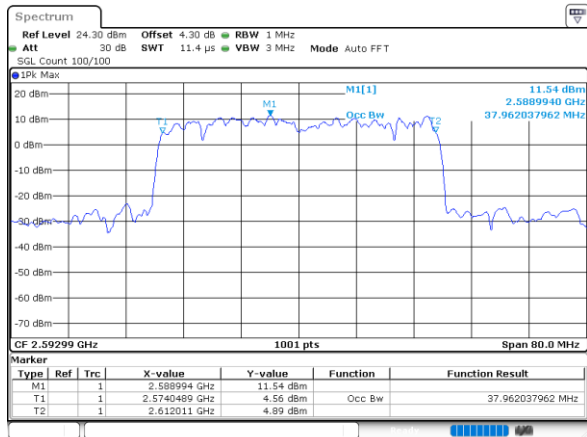
16QAM

Middle Channel



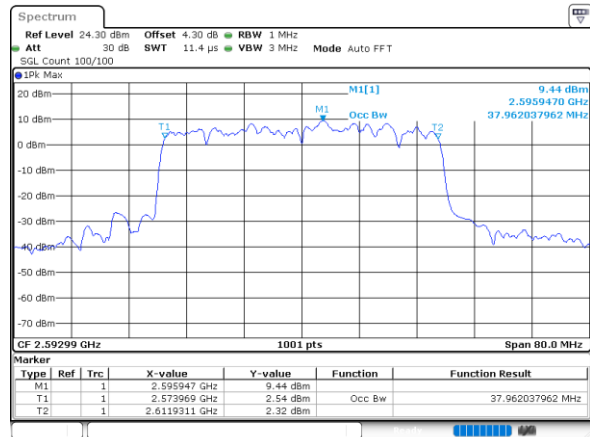
64QAM

Middle Channel



256QAM

Middle Channel

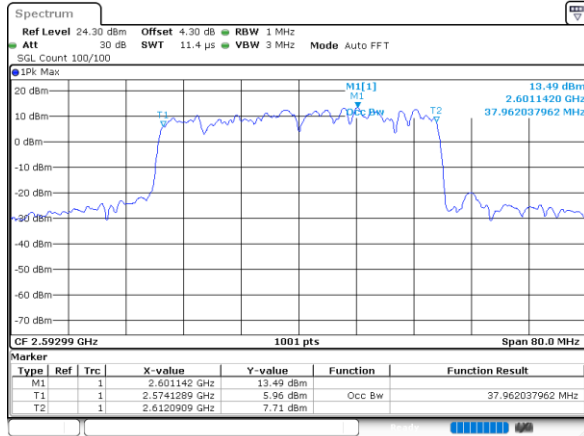




FR1 UL-MIMO n41 / 40MHz / CP-OFDM (ANT0)

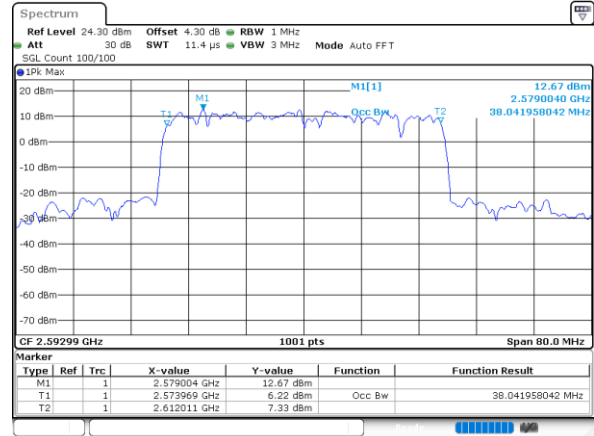
QPSK

Middle Channel



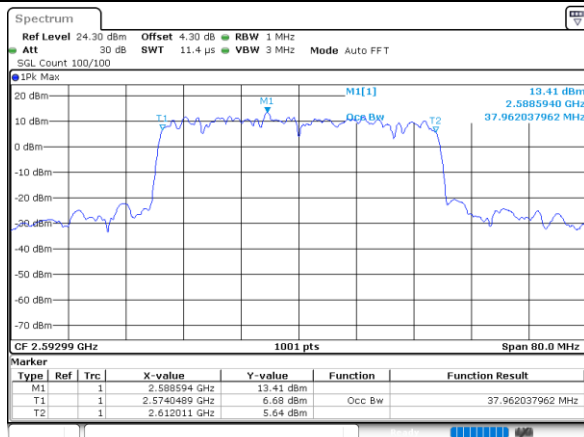
16QAM

Middle Channel



64QAM

Middle Channel



256QAM

Middle Channel

