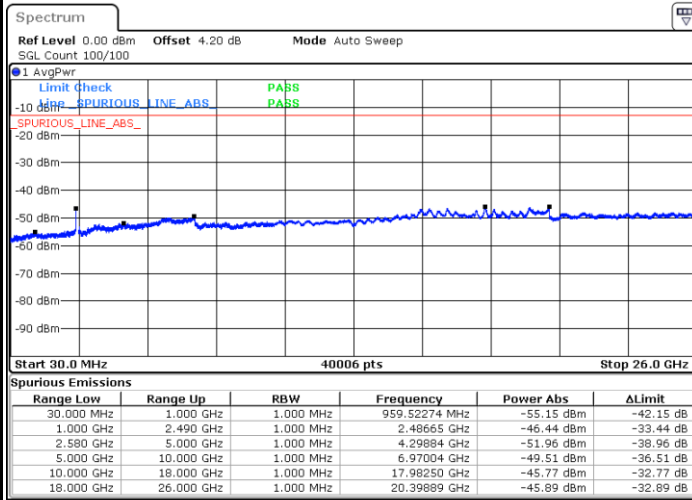




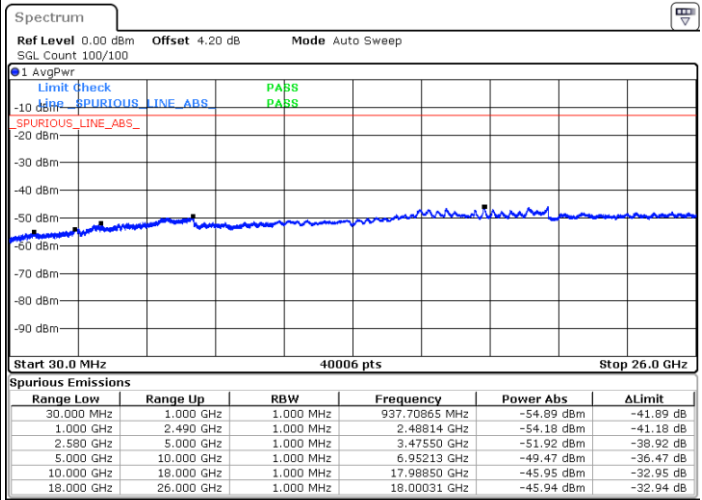
FR1 n7 / 20MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB



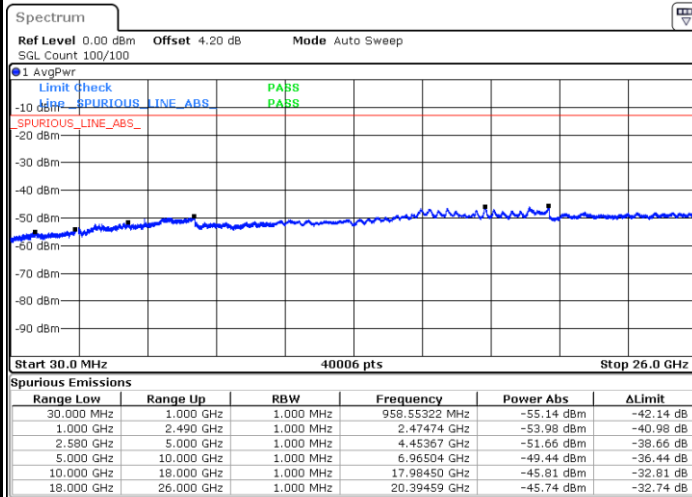
Date: 24.NOV.2020 06:36:30

Middle Channel / 1RB



Date: 24.NOV.2020 06:43:35

Highest Channel / 1RB

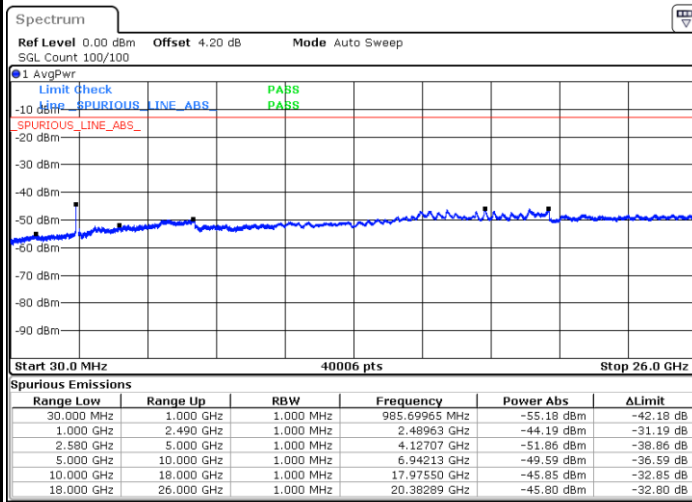


Date: 24.NOV.2020 06:47:29



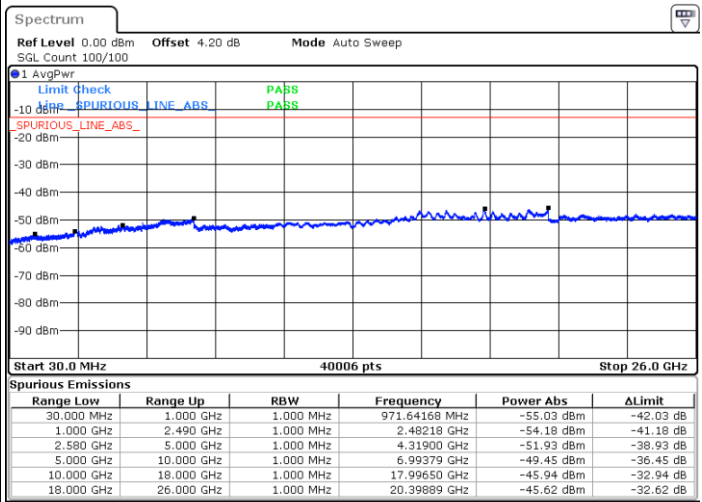
FR1 n7 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



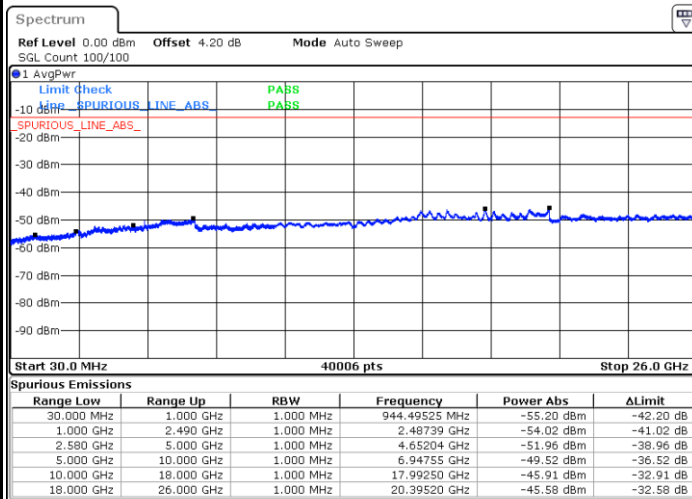
Date: 24.NOV.2020 06:34:54

Middle Channel / 1RB



Date: 24.NOV.2020 06:45:10

Highest Channel / 1RB



Date: 24.NOV.2020 06:46:25

**Frequency Stability**

Test Conditions		NR n7 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0022	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0016	
20	Battery End Point	0.0013	

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 SA

Peak-to-Average Ratio

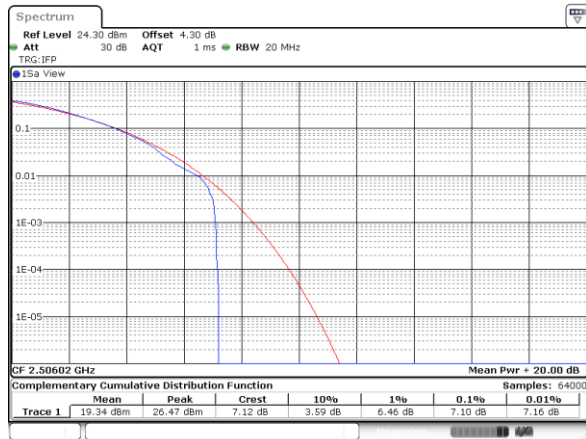
Mode	FR1 UL-MIMO n41 / 20MHz / CP-OFDM				Limit: 13dB Result
	ANT3		ANT0		
Mod.	QPSK	QPSK	QPSK	QPSK	
RB Size	1RB	Full RB	1RB	Full RB	
Lowest CH	7.1	6.96	6.96	6.9	PASS
Middle CH	7.22	7.01	7.04	6.96	
Highest CH	6.84	6.9	7.13	7.01	



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

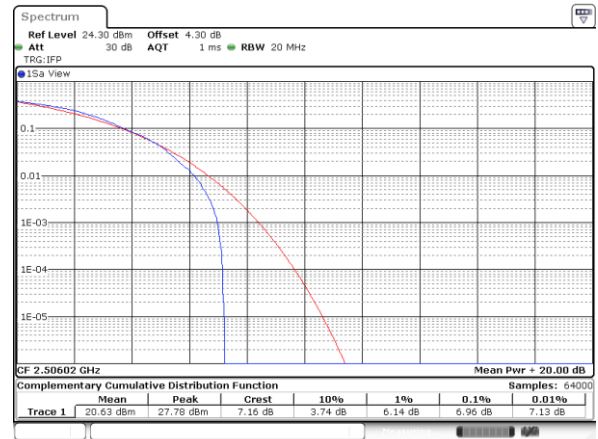
QPSK(ANT3)

Lowest Channel / 1RB

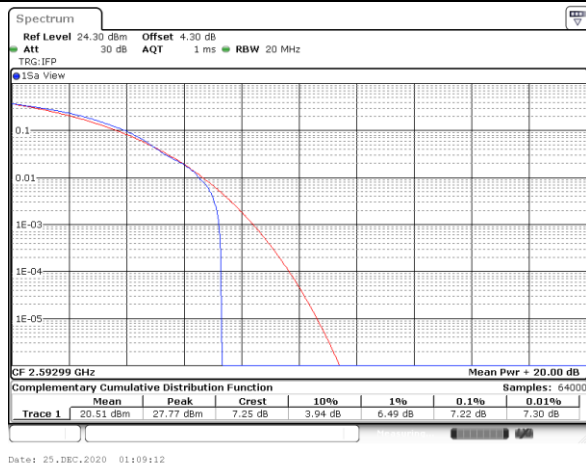


QPSK(ANT0)

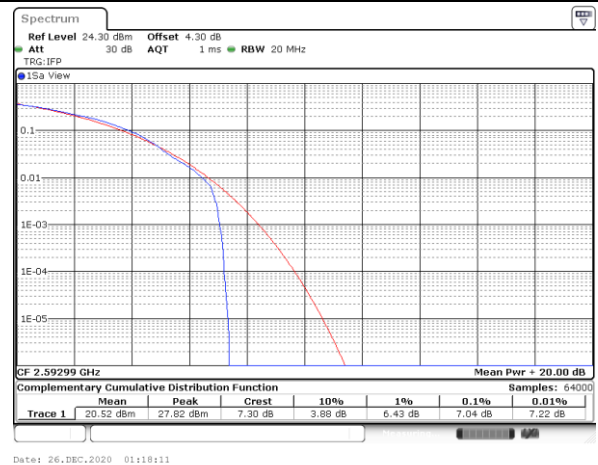
Lowest Channel / 1RB



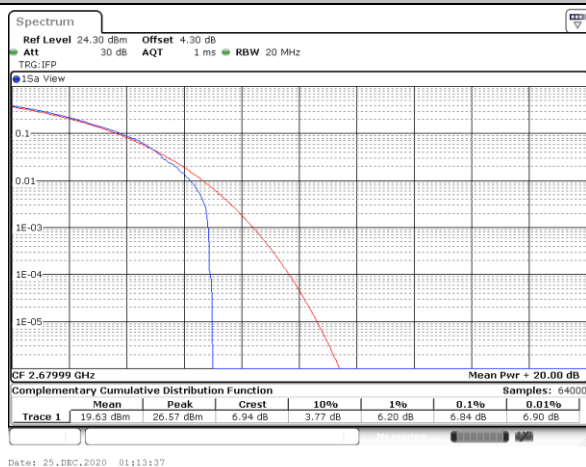
Middle Channel / 1 RB



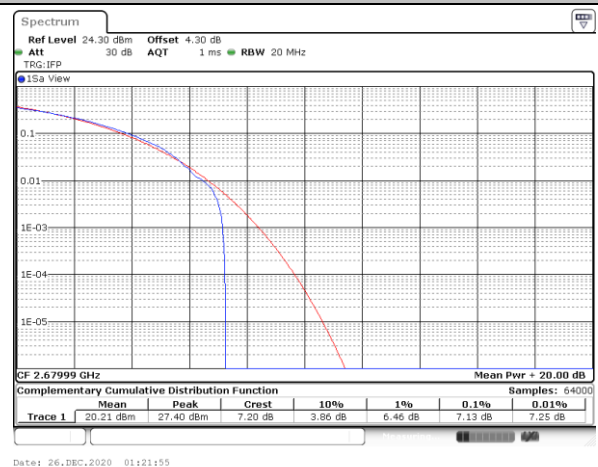
Middle Channel / 1 RB



Highest Channel / 1 RB



Highest Channel / 1 RB

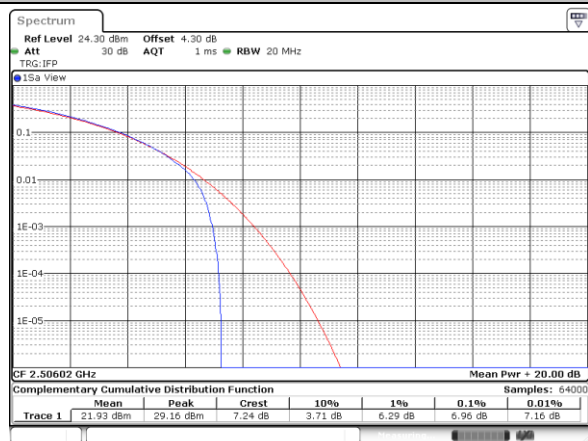




FR1 UL-MIMO n41 / 20MHz / CP-OFDM

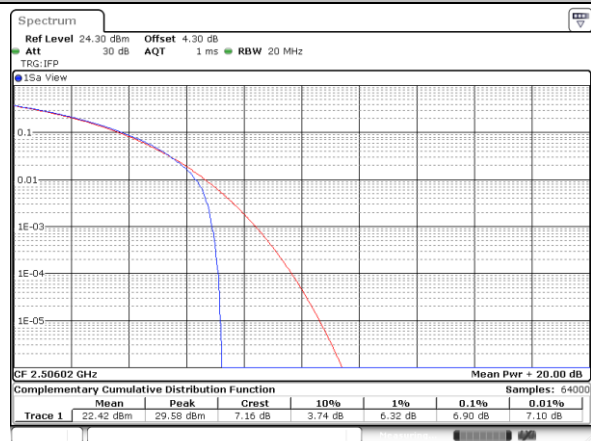
QPSK(ANT3)

Lowest Channel / Full RB

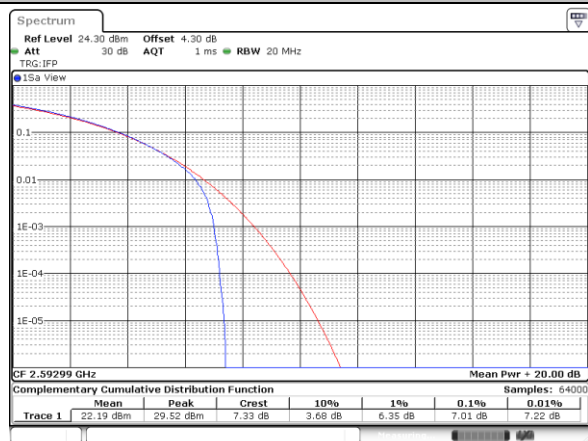


QPSK(ANT0)

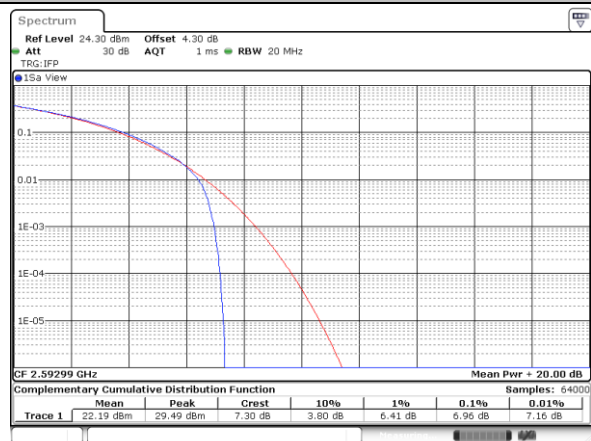
Lowest Channel / Full RB



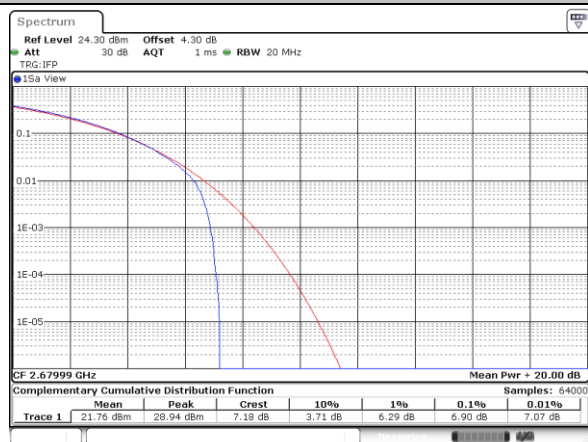
Middle Channel / Full RB



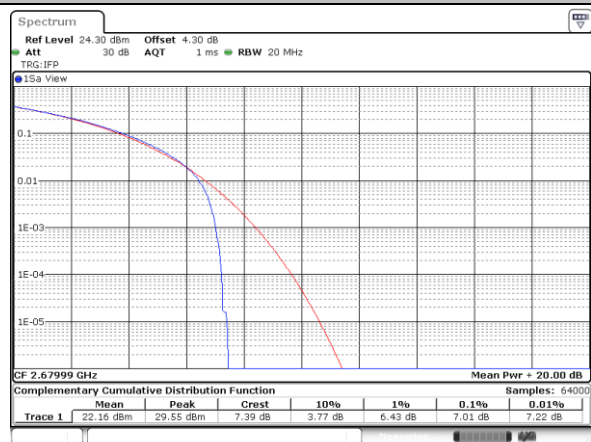
Middle Channel / Full RB



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	19.14	19.1	19.06	18.98	19.62	19.22	19.26	19.18
	ANT3				ANT0			
BW	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	28.95	29.19	28.65	28.83	29.13	29.01	28.83	28.89
	ANT3				ANT0			
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	40.28	40.12	40.04	40.2	40.2	40.12	40.28	40.51
	ANT3				ANT0			
BW	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	49.65	49.75	49.75	49.75	49.75	49.75	49.75	49.75
	ANT3				ANT0			
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	79.92	79.92	79.92	79.92	79.92	80.08	79.92	79.92
	ANT3				ANT0			
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	90.63	90.27	90.45	90.27	90.45
	ANT3				ANT0			
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	100.1	100.3	100.5	100.3



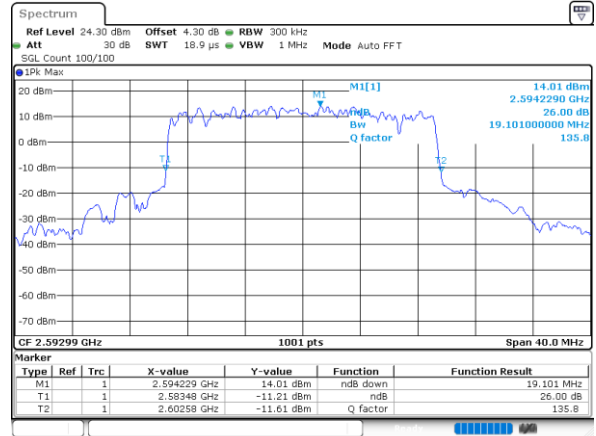
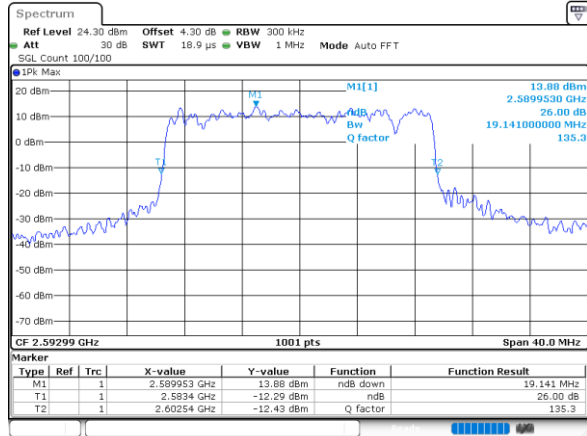
FR1 UL-MIMO n41 / 20MHz / CP-OFDM (ANT3)

QPSK

16QAM

Middle Channel

Middle Channel

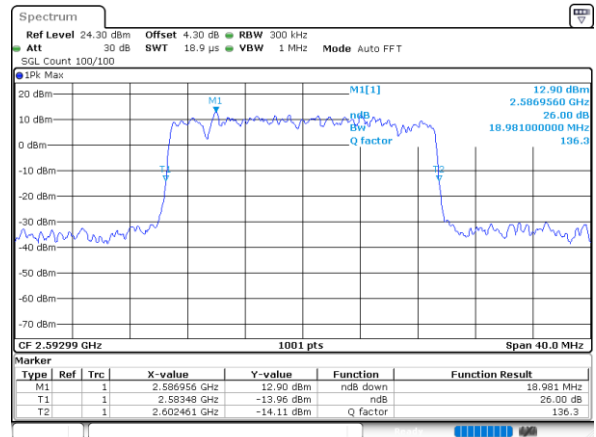
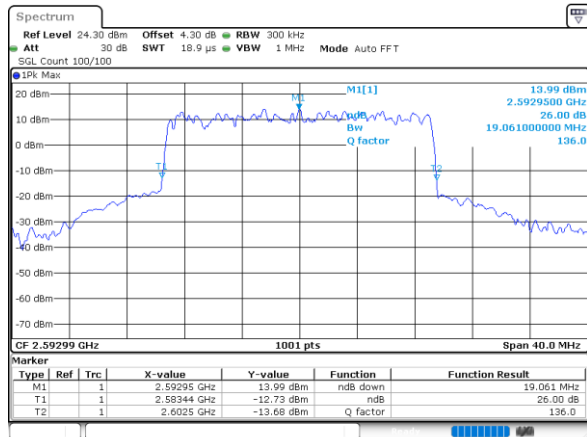


64QAM

256QAM

Middle Channel

Middle Channel

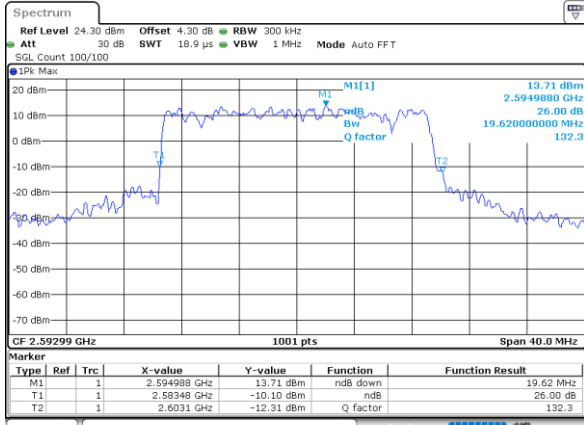




FR1 UL-MIMO n41 / 20MHz / CP-OFDM (ANT0)

QPSK

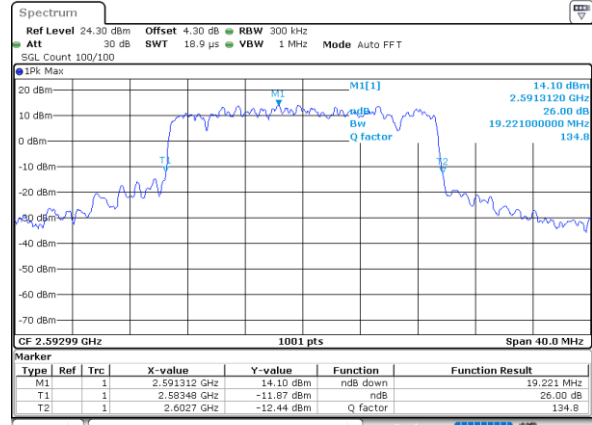
Middle Channel



Date: 26,DEC,2020 00:54:05

16QAM

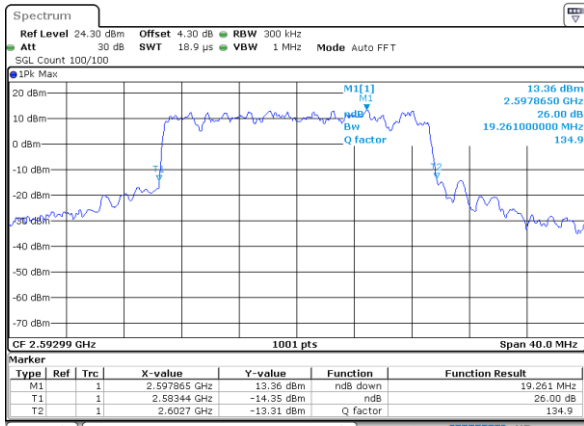
Middle Channel



Date: 26,DEC,2020 00:53:51

64QAM

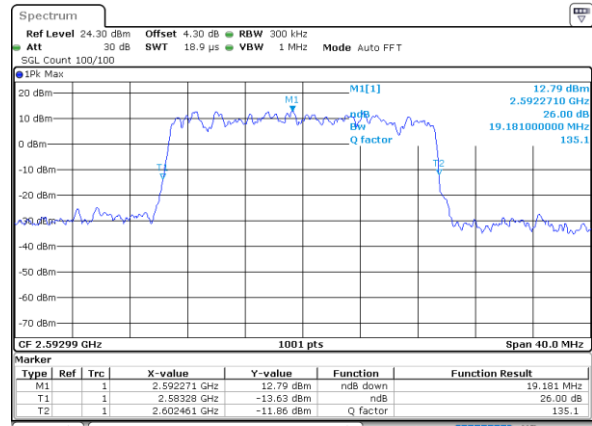
Middle Channel



Date: 26,DEC,2020 00:53:27

256QAM

Middle Channel



Date: 26,DEC,2020 00:53:10



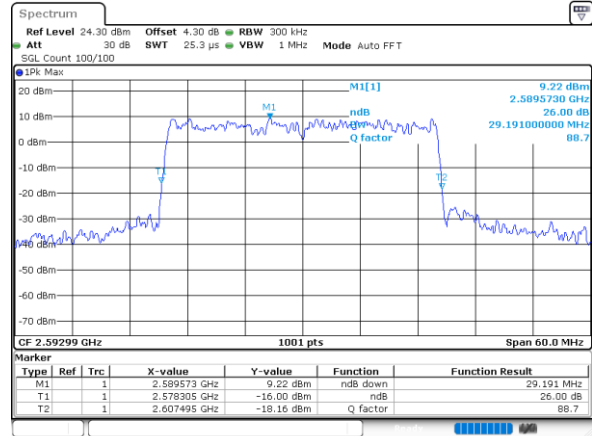
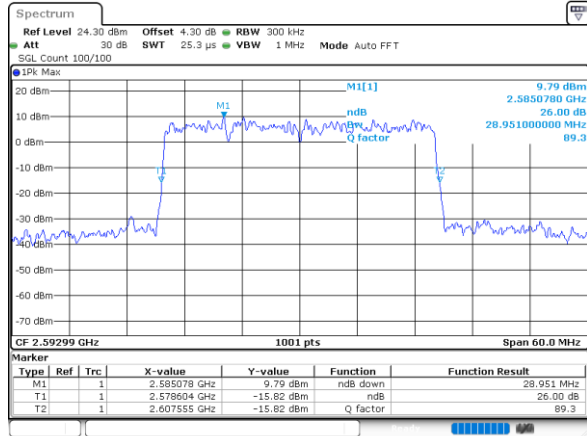
FR1 UL-MIMO n41 / 30MHz / CP-OFDM (ANT3)

QPSK

16QAM

Middle Channel

Middle Channel

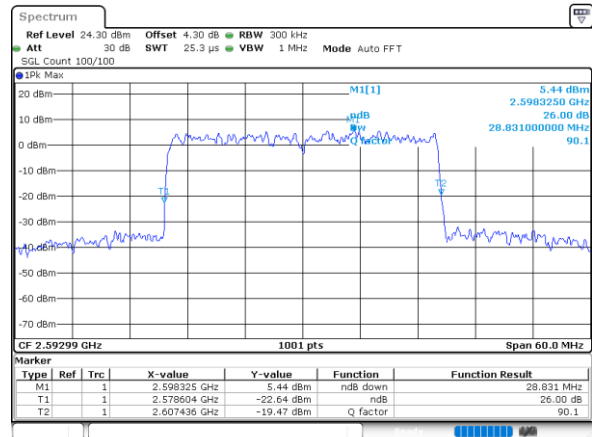
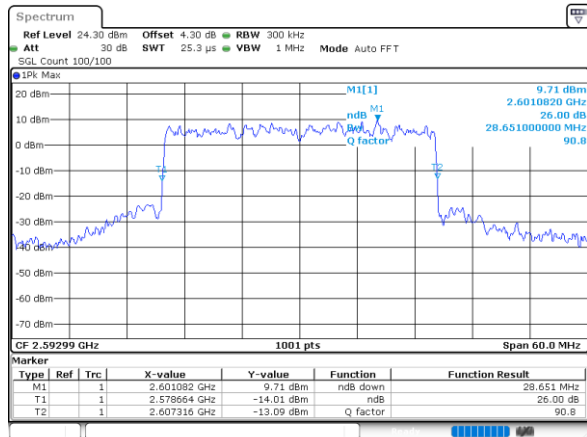


64QAM

256QAM

Middle Channel

Middle Channel

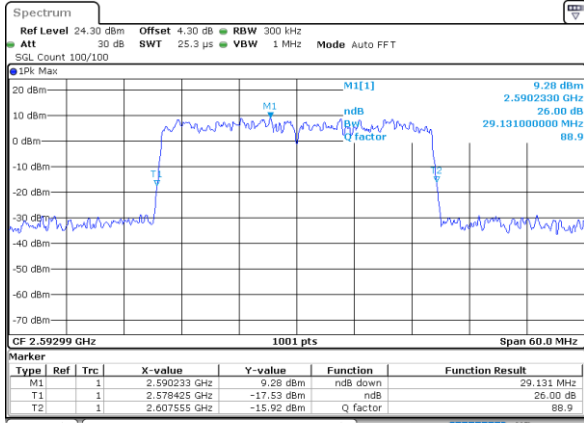




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (ANT0)

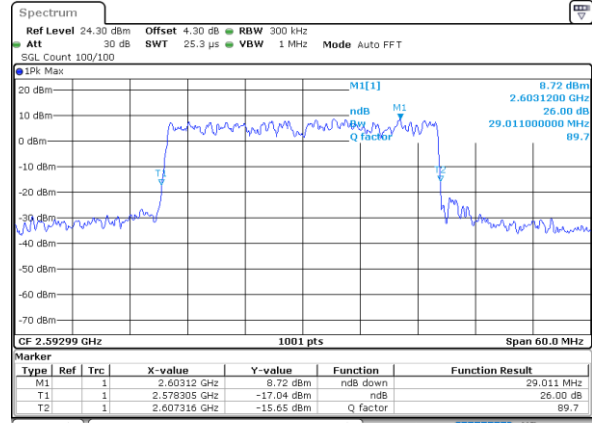
QPSK

Middle Channel



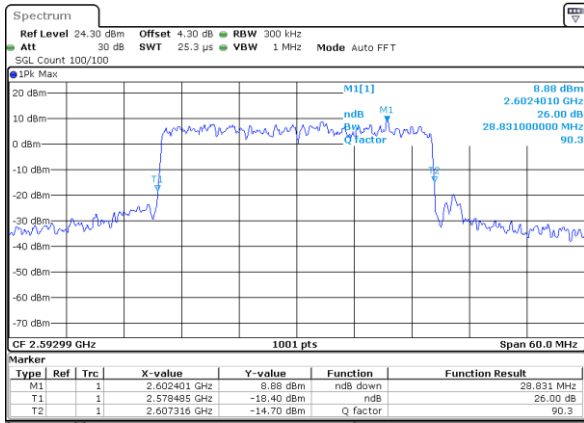
16QAM

Middle Channel



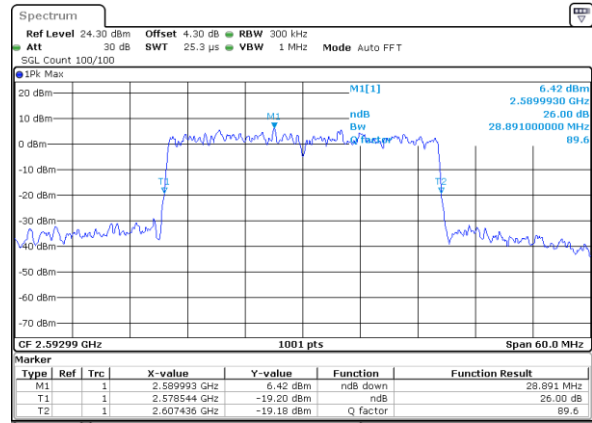
64QAM

Middle Channel



256QAM

Middle Channel





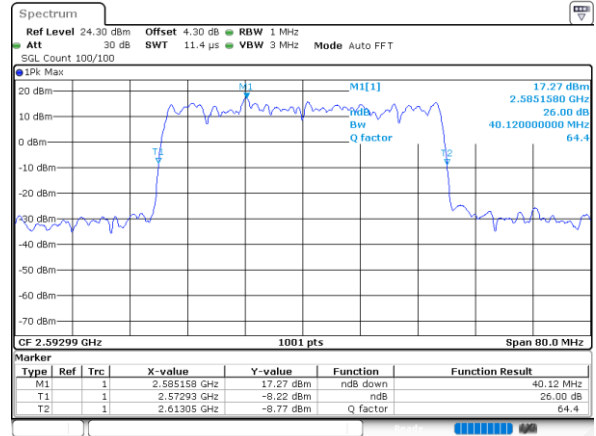
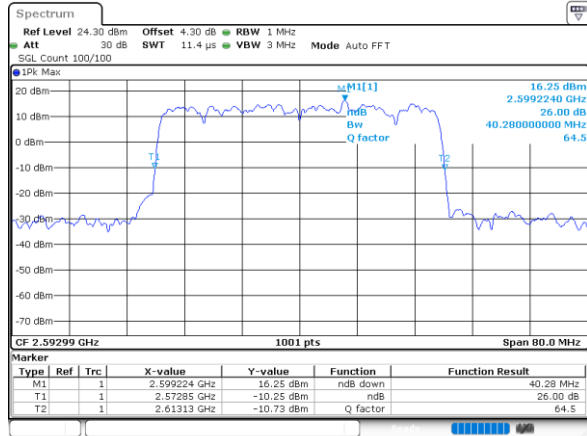
FR1 UL-MIMO n41 / 40MHz / CP-OFDM (ANT3)

QPSK

16QAM

Middle Channel

Middle Channel

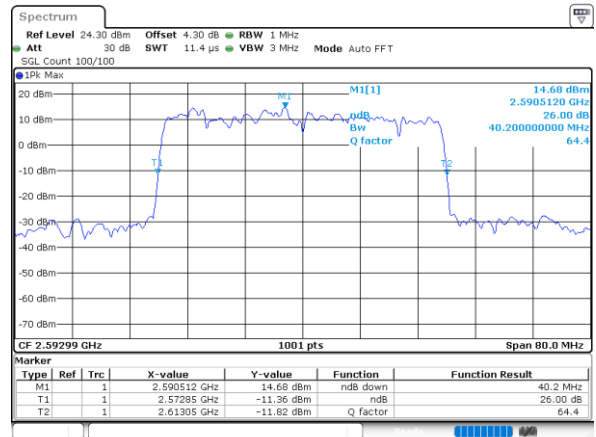
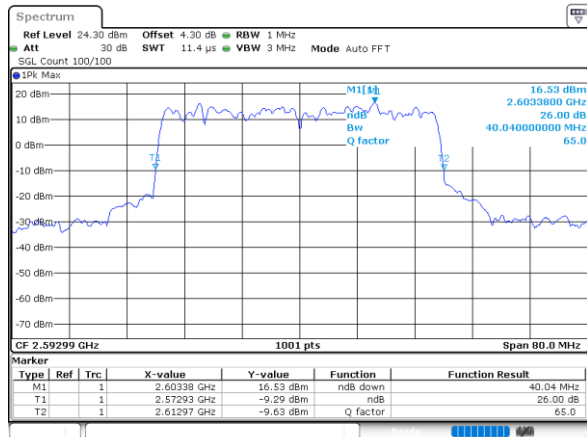


64QAM

256QAM

Middle Channel

Middle Channel





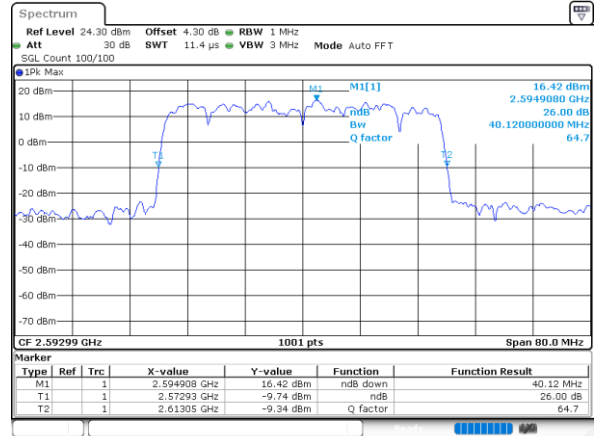
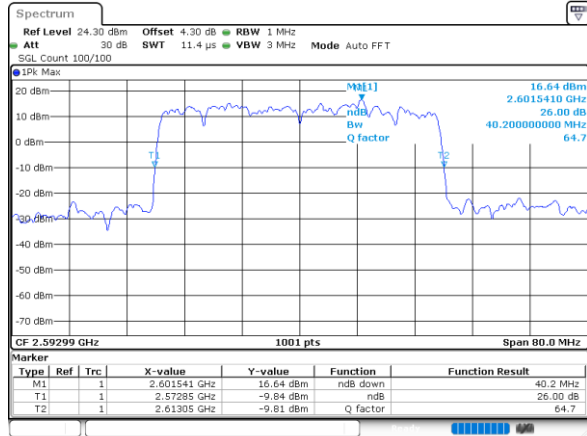
FR1 UL-MIMO n41 / 40MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

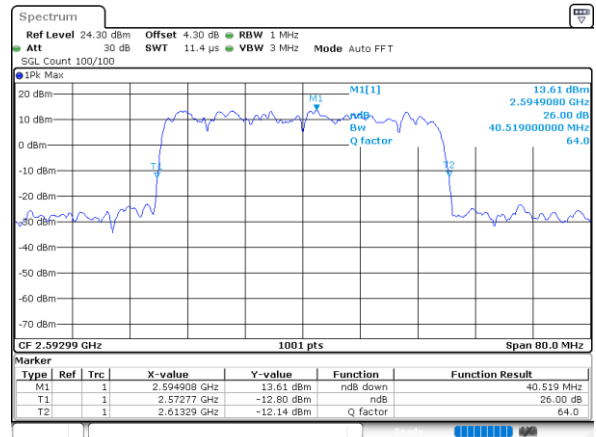
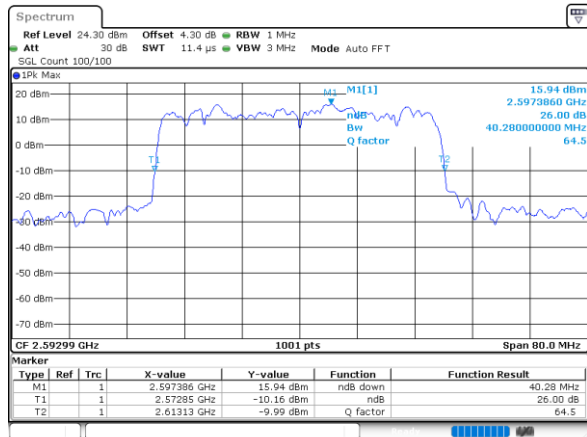


64QAM

256QAM

Middle Channel

Middle Channel

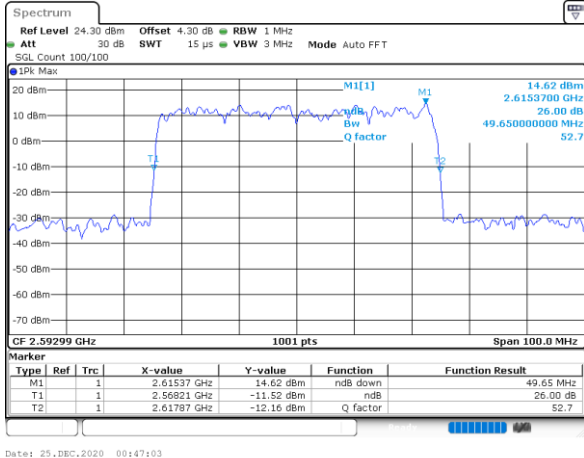




FR1 UL-MIMO n41 / 50MHz / CP-OFDM (ANT3)

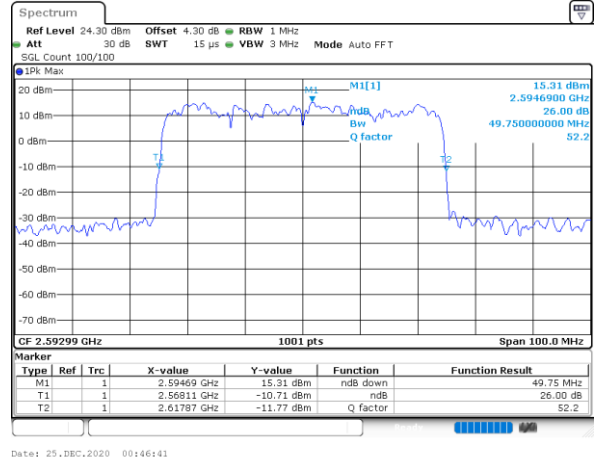
QPSK

Middle Channel



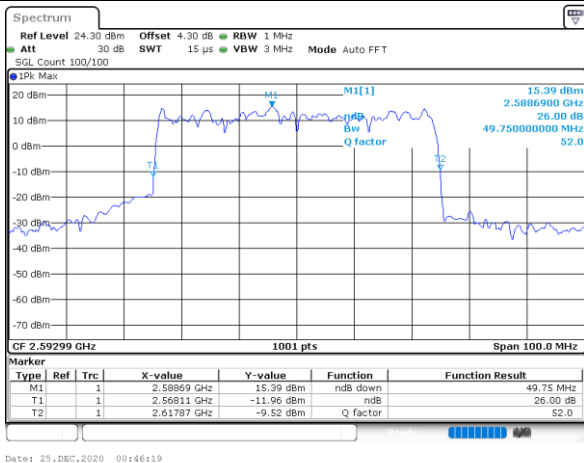
16QAM

Middle Channel



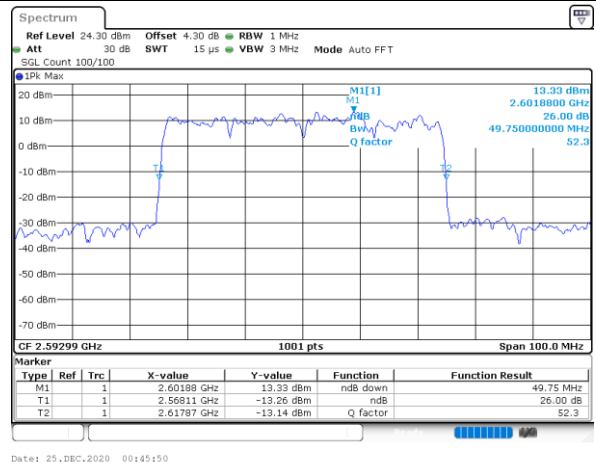
64QAM

Middle Channel



256QAM

Middle Channel





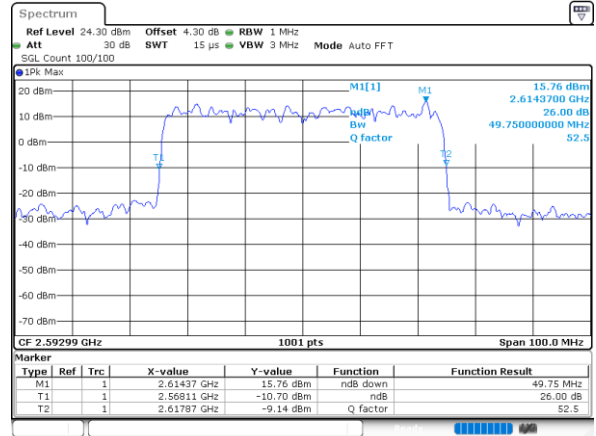
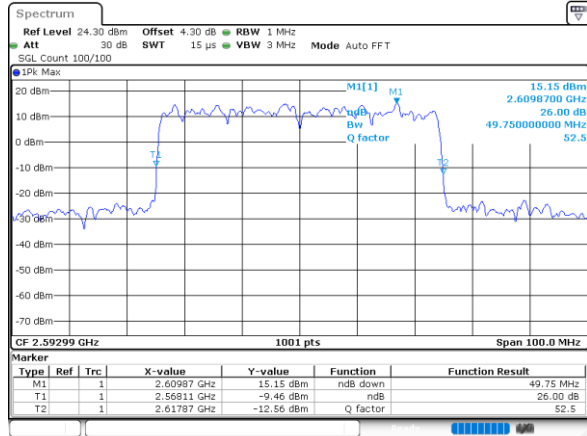
FR1 UL-MIMO n41 / 50MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

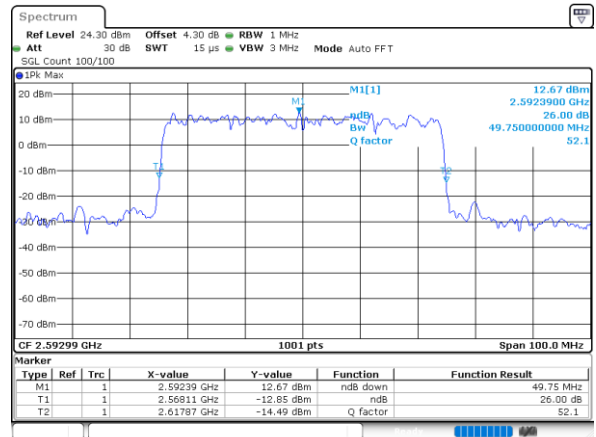
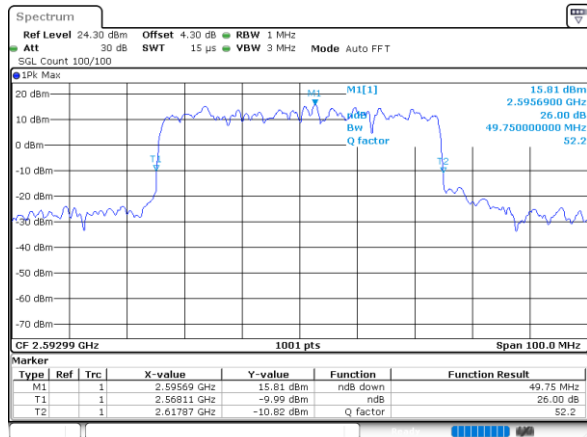


64QAM

256QAM

Middle Channel

Middle Channel

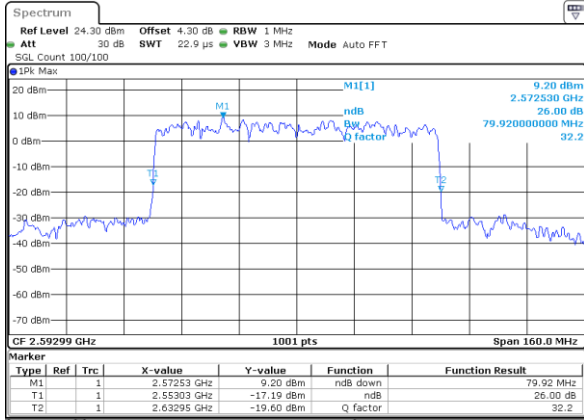




FR1 UL-MIMO n41 / 80MHz / CP-OFDM (ANT3)

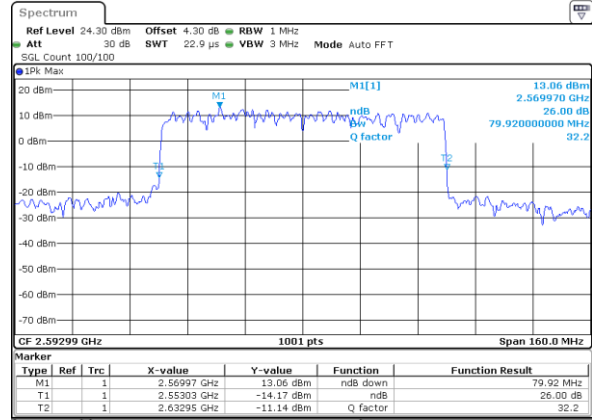
QPSK

Middle Channel



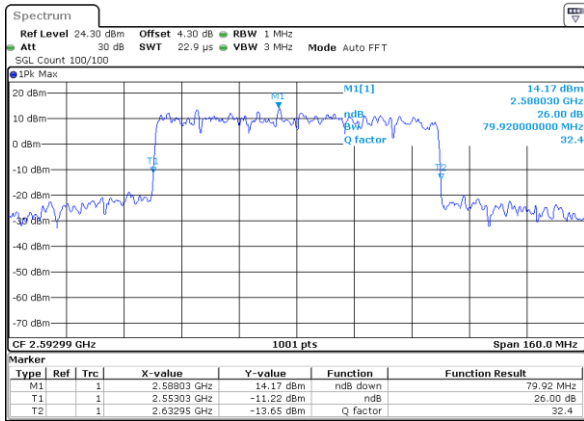
16QAM

Middle Channel



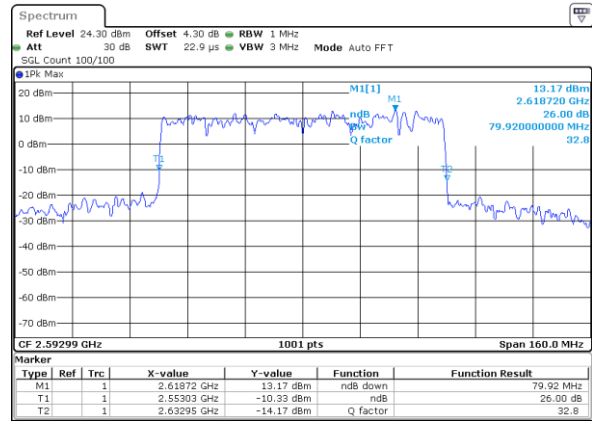
64QAM

Middle Channel



256QAM

Middle Channel





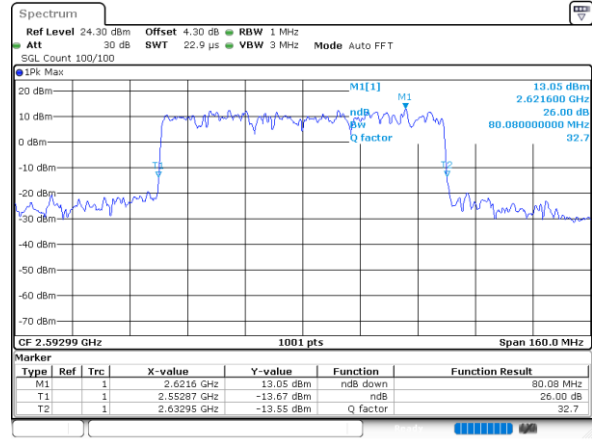
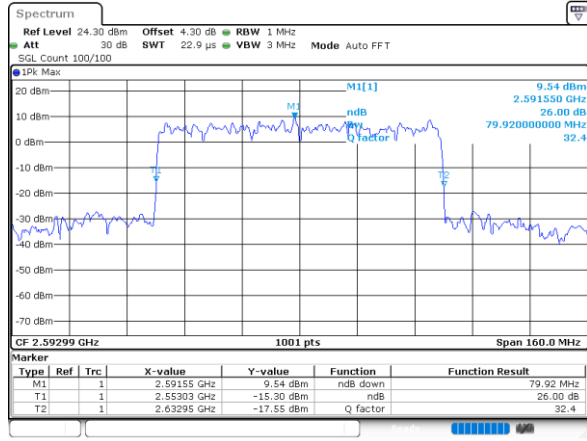
FR1 UL-MIMO n41 / 80MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

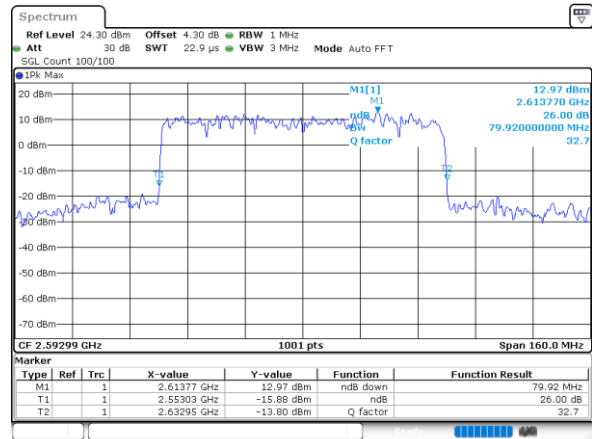
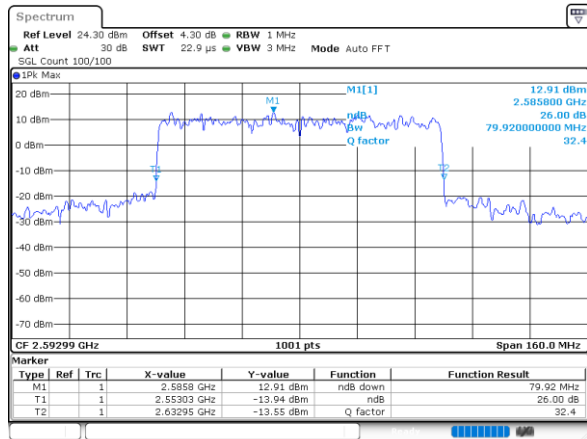


64QAM

256QAM

Middle Channel

Middle Channel

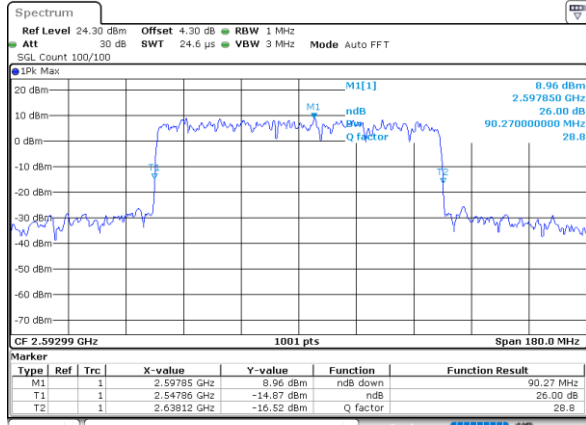




FR1 UL-MIMO n41 / 90MHz / CP-OFDM (ANT3)

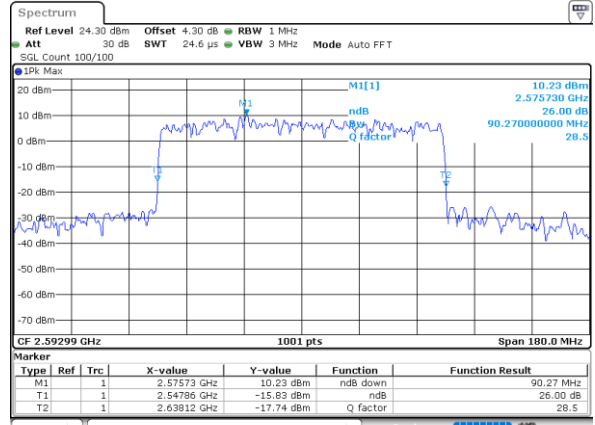
QPSK

Middle Channel



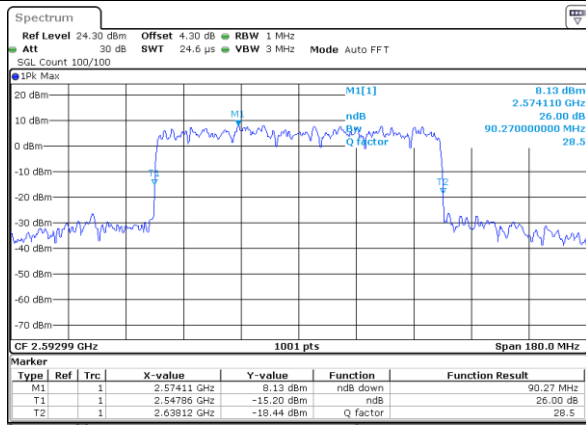
16QAM

Middle Channel



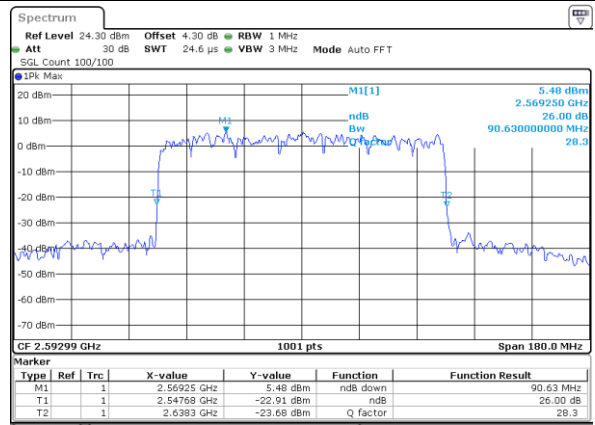
64QAM

Middle Channel



256QAM

Middle Channel

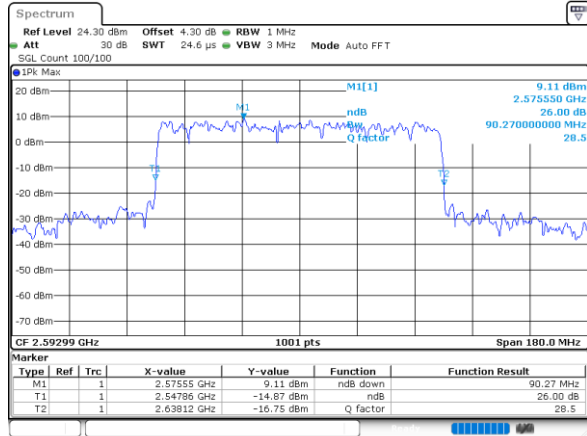




FR1 UL-MIMO n41 / 90MHz / CP-OFDM (ANT0)

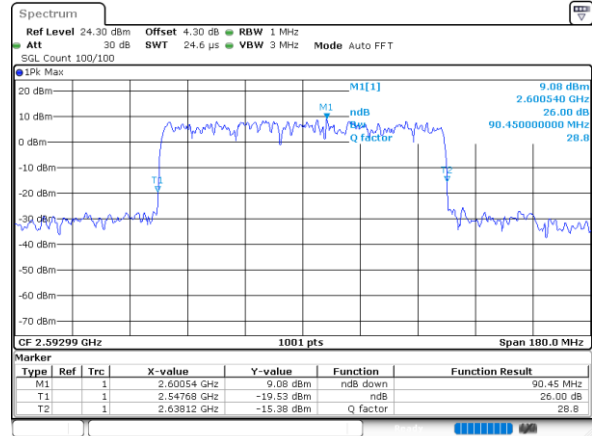
QPSK

Middle Channel



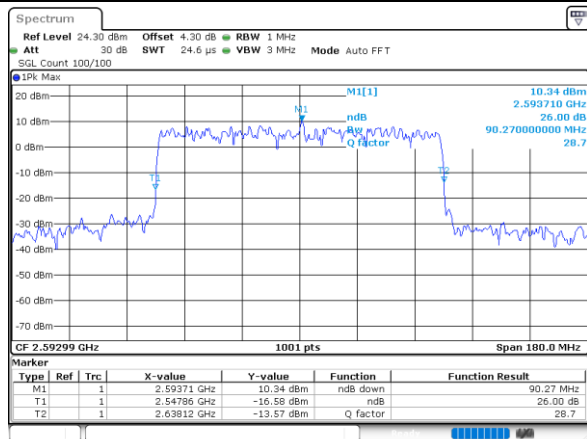
16QAM

Middle Channel



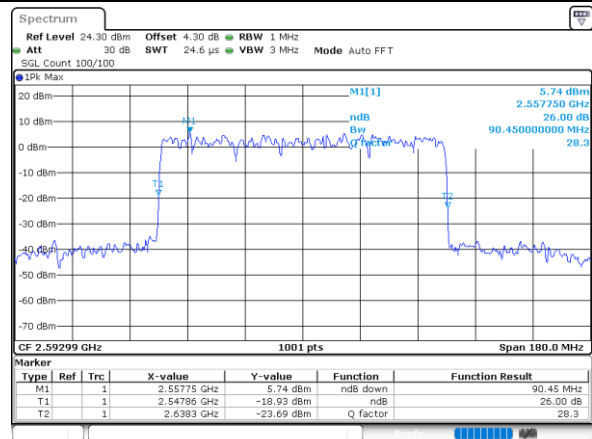
64QAM

Middle Channel



256QAM

Middle Channel

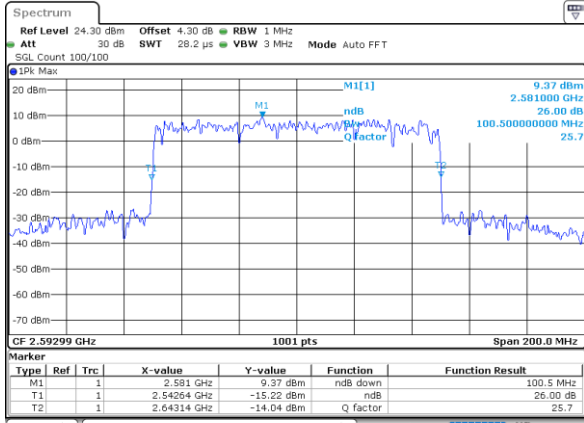




FR1 UL-MIMO n41 / 100MHz / CP-OFDM (ANT3)

QPSK

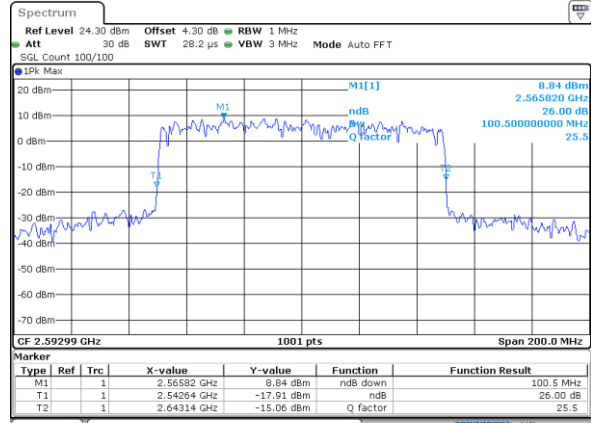
Middle Channel



Date: 24,DEC,2020 22:07:36

16QAM

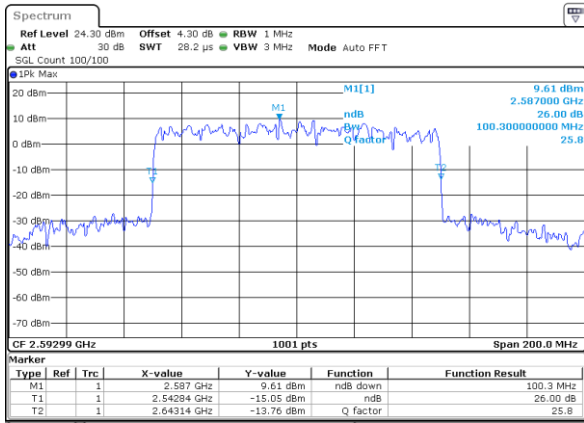
Middle Channel



Date: 24,DEC,2020 22:08:10

64QAM

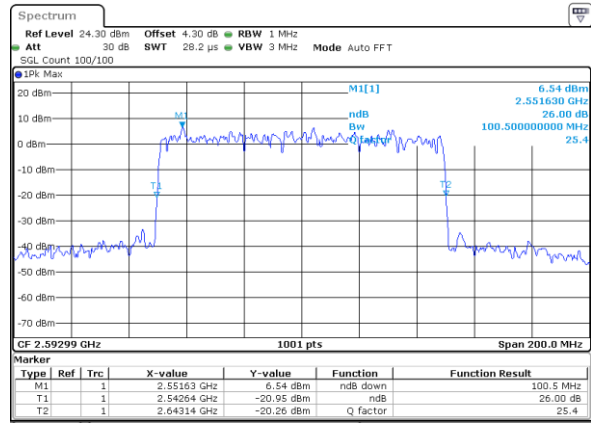
Middle Channel



Date: 24,DEC,2020 22:08:55

256QAM

Middle Channel



Date: 24,DEC,2020 22:09:19



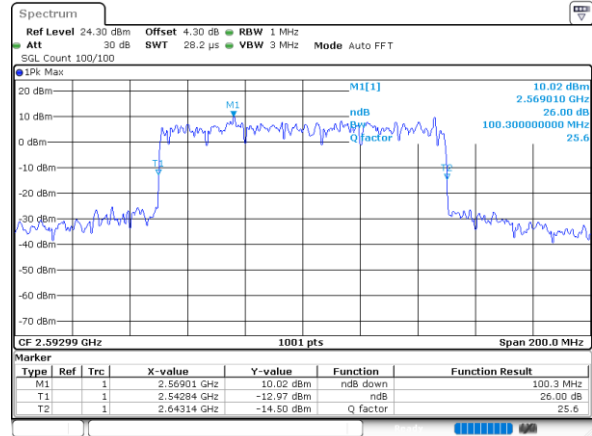
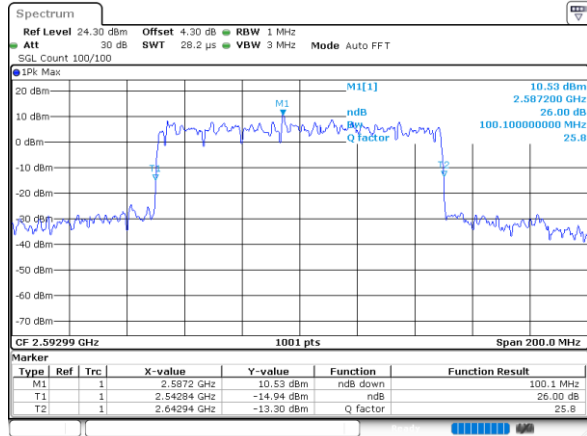
FR1 UL-MIMO n41 / 100MHz / CP-OFDM (ANT0)

QPSK

16QAM

Middle Channel

Middle Channel

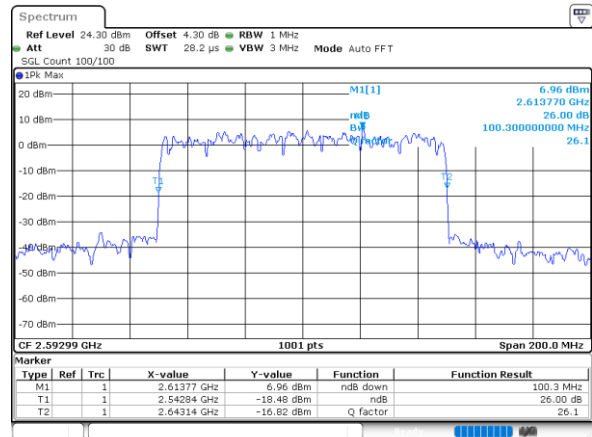
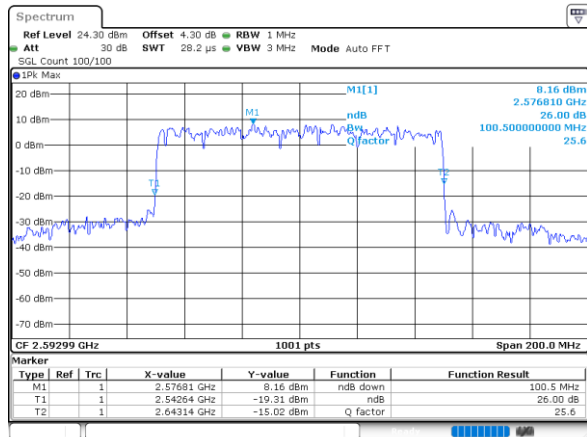


64QAM

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	18.14	18.26	18.14	18.26	18.26	18.22	18.22	18.22
	ANT3				ANT0			
BW	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz	30MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	27.81	27.81	27.75	27.87	27.75	27.81	27.81	27.75
	ANT3				ANT0			
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	37.8	37.64	37.8	38.12	38.12	37.96	38.12	37.96
	ANT3				ANT0			
BW	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	47.65	47.45	47.45	47.75	47.95	47.35	47.45	47.35
	ANT3				ANT0			
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	76.88	77.36	77.36	77.68	77.52	77.2	77.36	76.88
	ANT3				ANT0			
BW	90MHz	90MHz	90MHz	90MHz	90MHz	90MHz	90MHz	90MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	87.03	87.39	87.39	87.39	87.03	87.57	87.57	87.21
	ANT3				ANT0			
BW	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	97.5	97.3	97.9	97.3	97.7	97.7	97.3	97.5



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

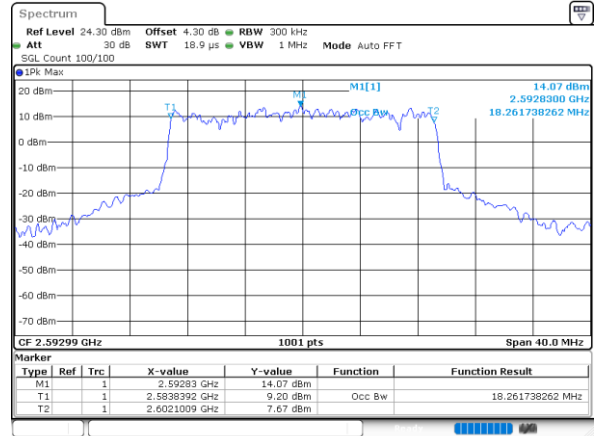
QPSK

Middle Channel



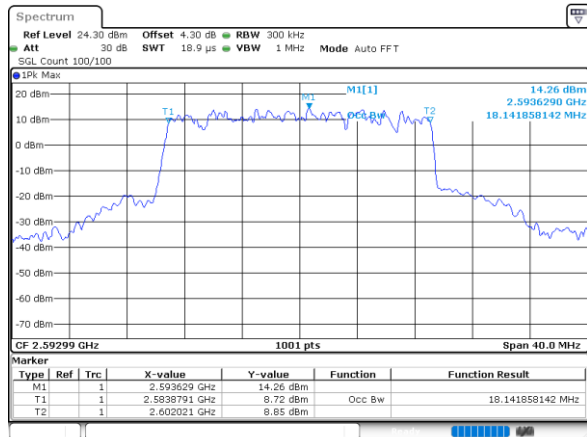
16QAM

Middle Channel



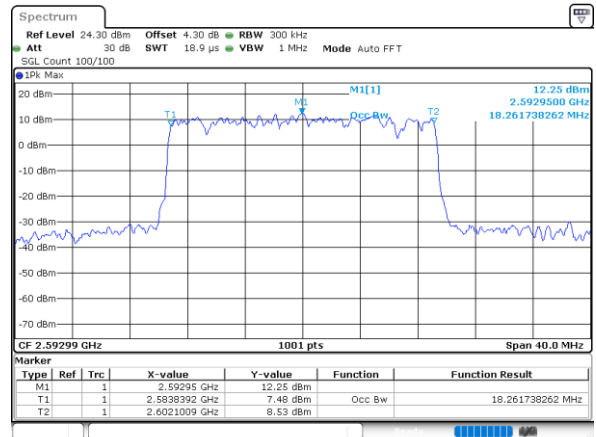
64QAM

Middle Channel



256QAM

Middle Channel

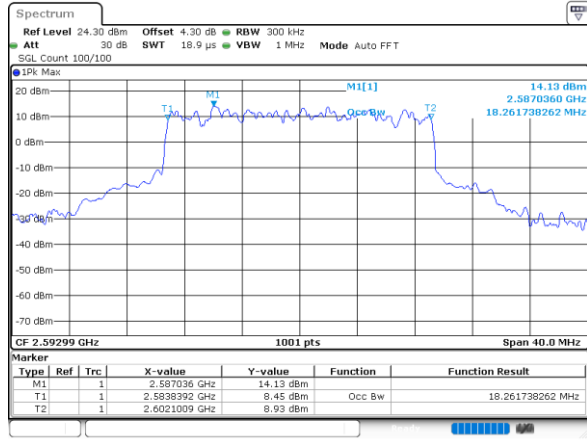




FR1 UL-MIMO n41 / 20MHz / CP-OFDM (ANT0)

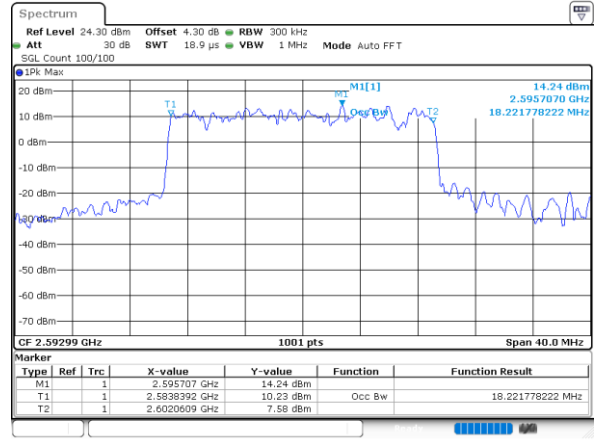
QPSK

Middle Channel



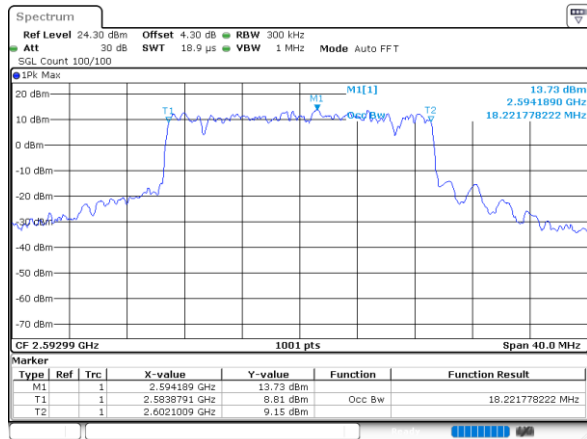
16QAM

Middle Channel



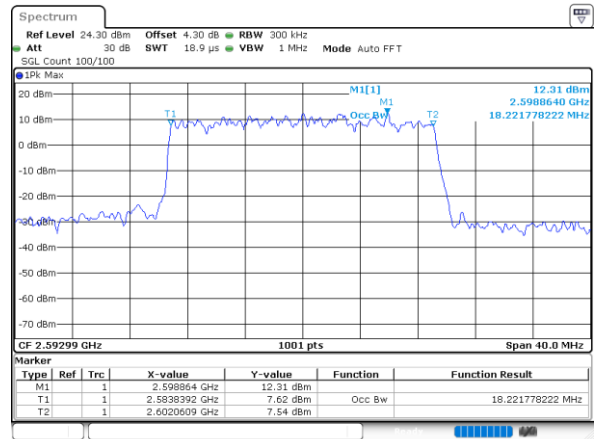
64QAM

Middle Channel



256QAM

Middle Channel





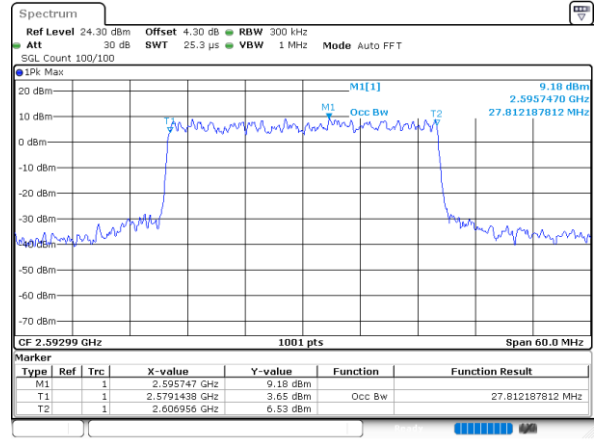
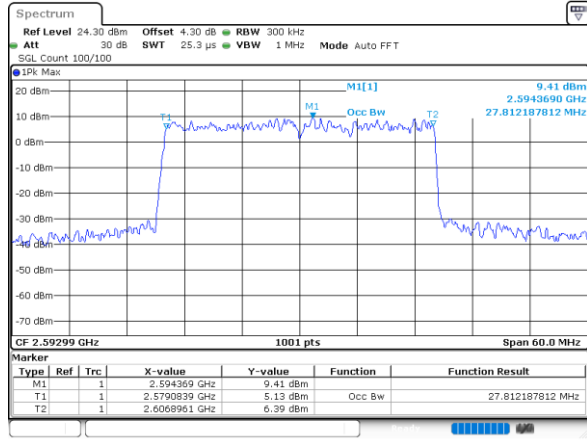
FR1 UL-MIMO n41 / 30MHz / CP-OFDM (ANT3)

QPSK

16QAM

Middle Channel

Middle Channel

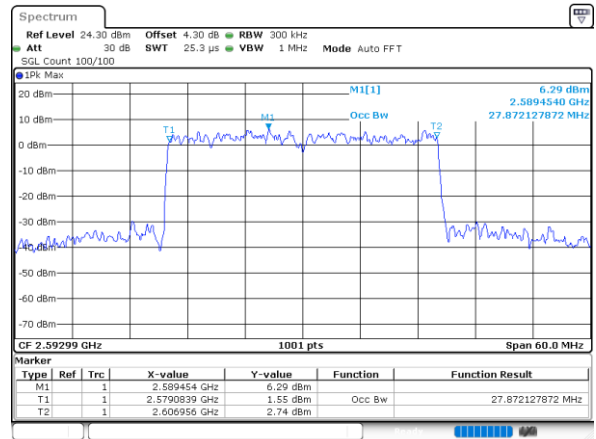
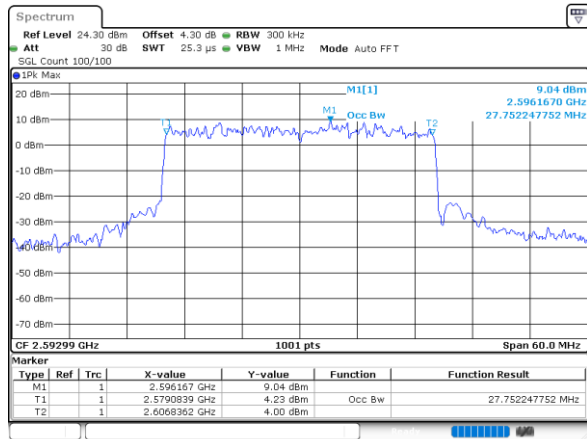


64QAM

256QAM

Middle Channel

Middle Channel

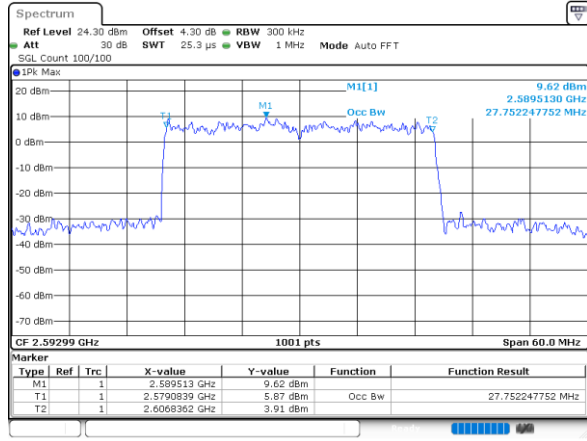




FR1 UL-MIMO n41 / 30MHz / CP-OFDM (ANT0)

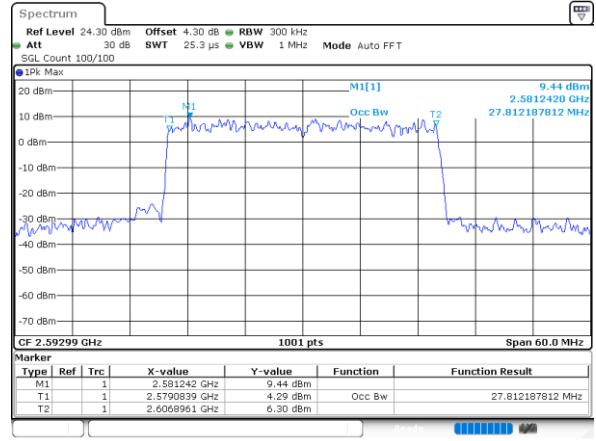
QPSK

Middle Channel



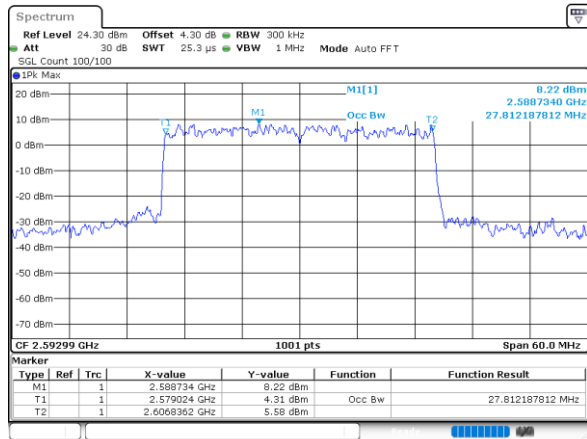
16QAM

Middle Channel



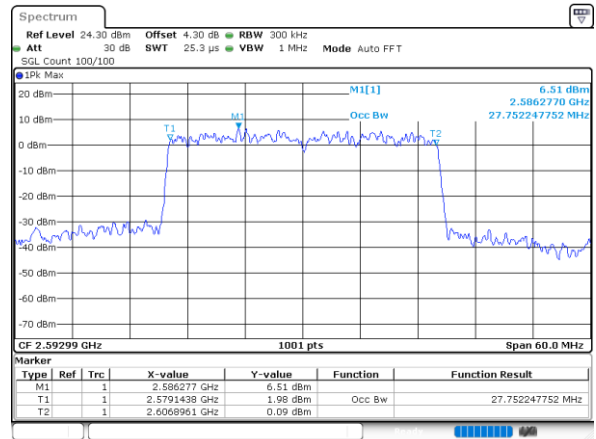
64QAM

Middle Channel



256QAM

Middle Channel

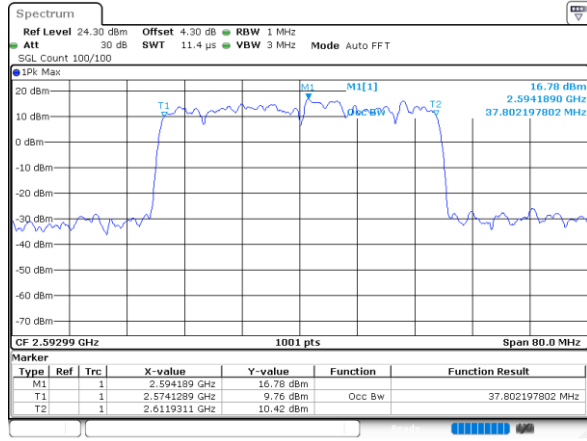




FR1 UL-MIMO n41 / 40MHz / CP-OFDM (ANT3)

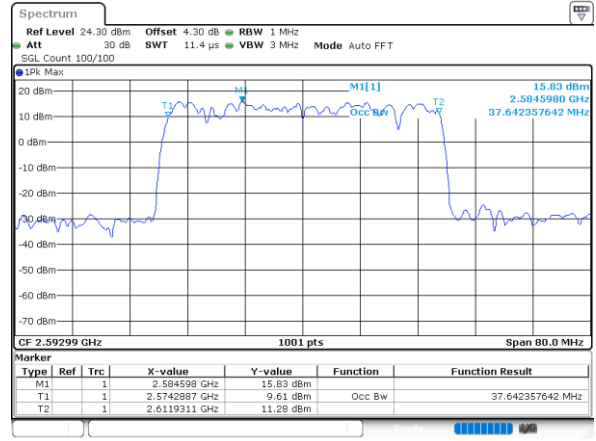
QPSK

Middle Channel



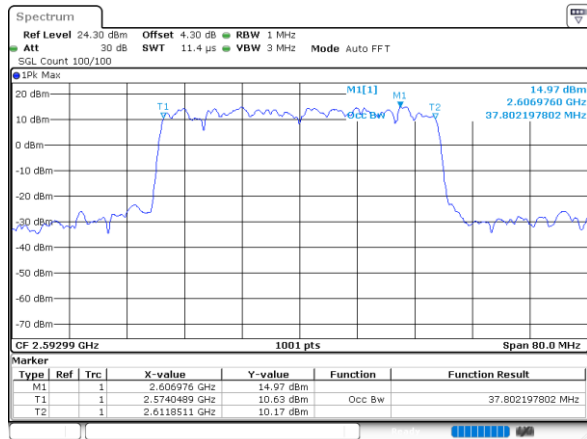
16QAM

Middle Channel



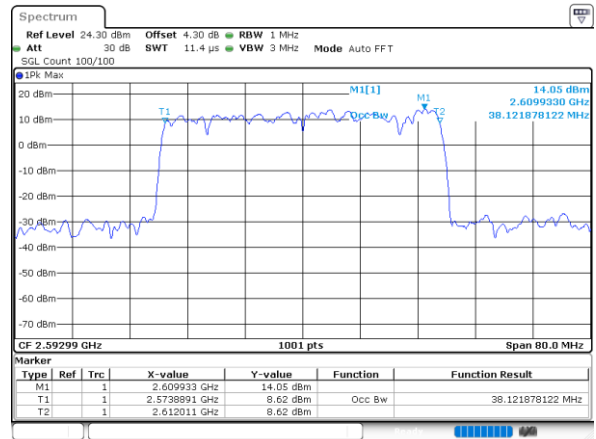
64QAM

Middle Channel



256QAM

Middle Channel

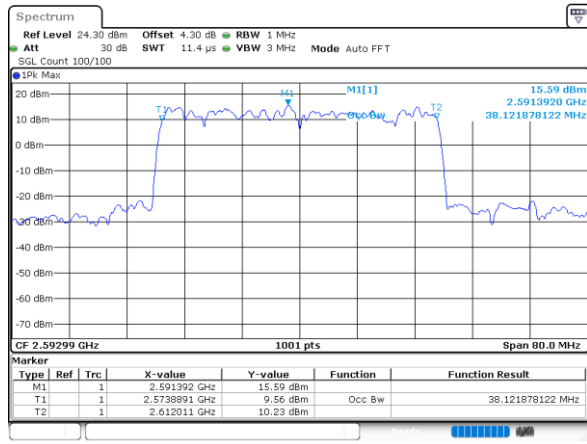




FR1 UL-MIMO n41 / 40MHz / CP-OFDM (ANT0)

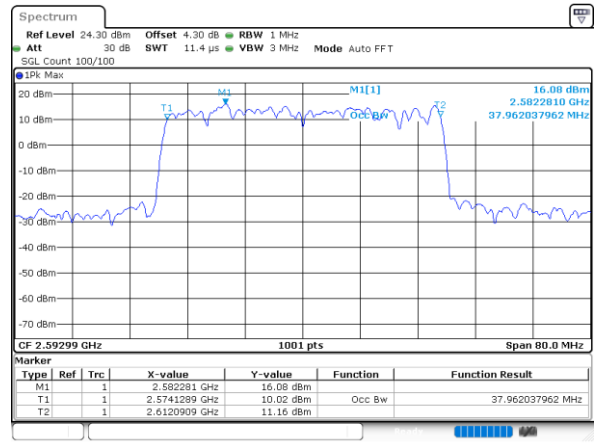
QPSK

Middle Channel



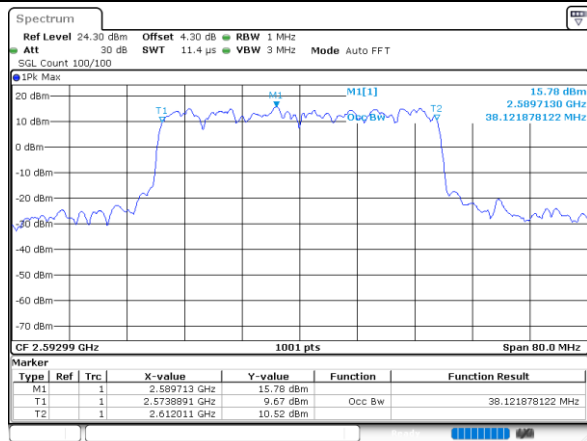
16QAM

Middle Channel



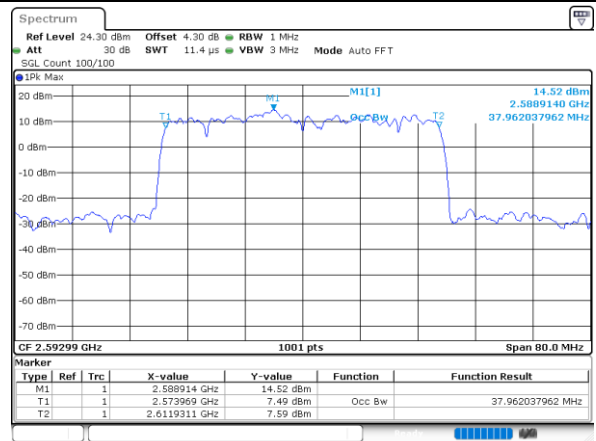
64QAM

Middle Channel



256QAM

Middle Channel

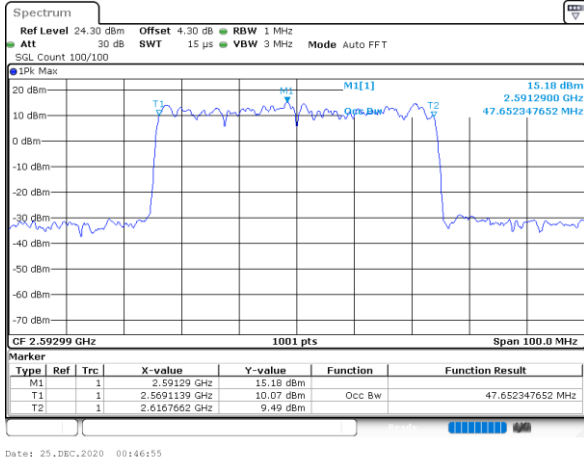




FR1 UL-MIMO n41 / 50MHz / CP-OFDM (ANT3)

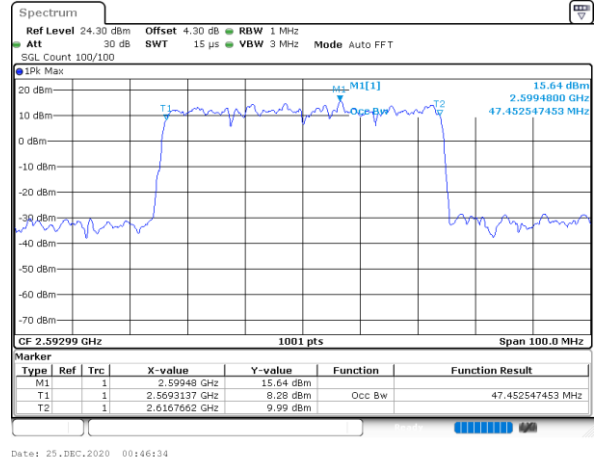
QPSK

Middle Channel



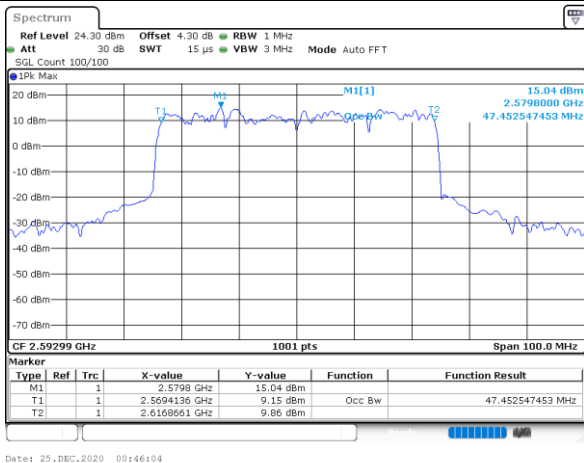
16QAM

Middle Channel



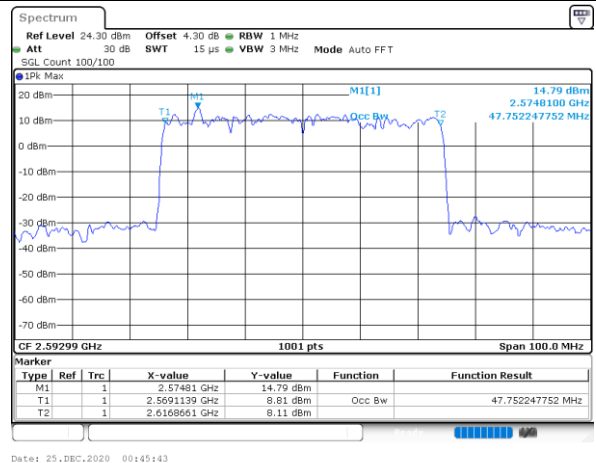
64QAM

Middle Channel



256QAM

Middle Channel

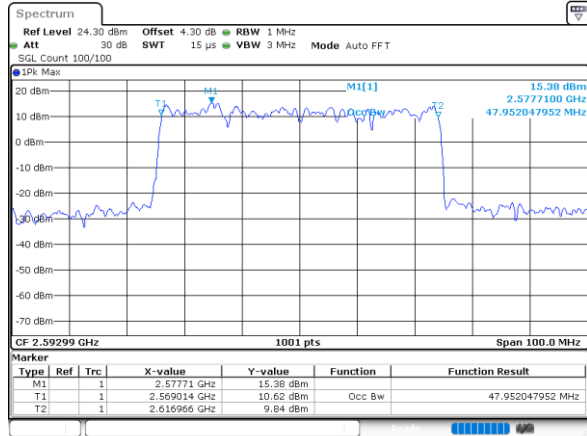




FR1 UL-MIMO n41 / 50MHz / CP-OFDM (ANT0)

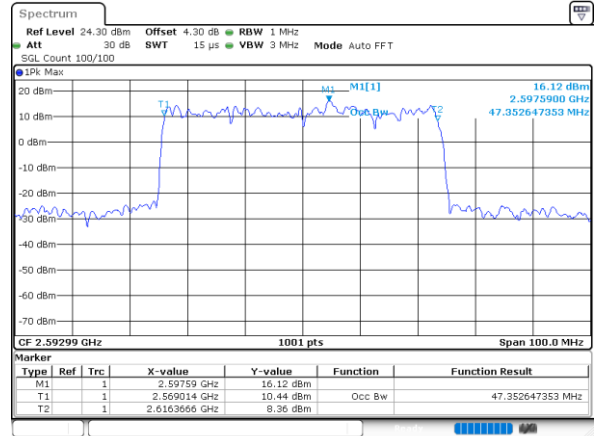
QPSK

Middle Channel



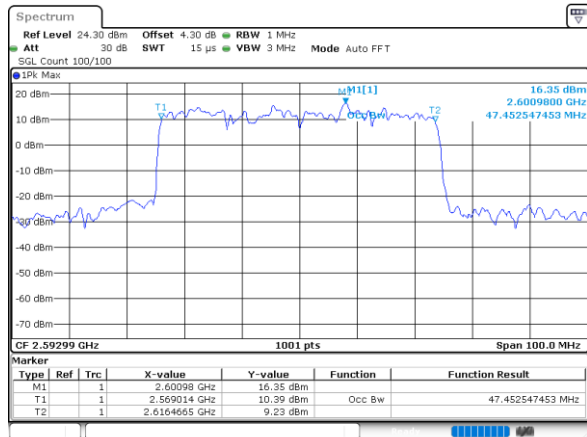
16QAM

Middle Channel



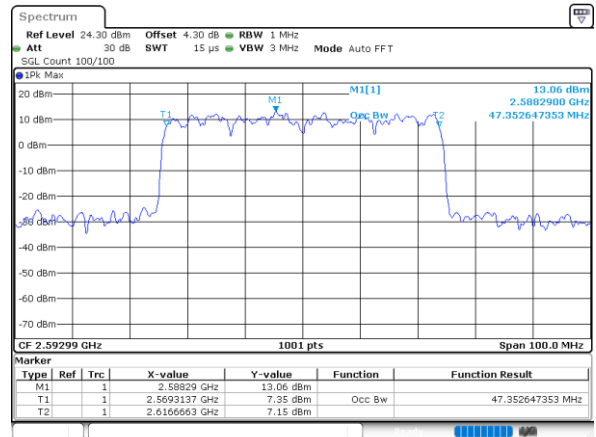
64QAM

Middle Channel



256QAM

Middle Channel

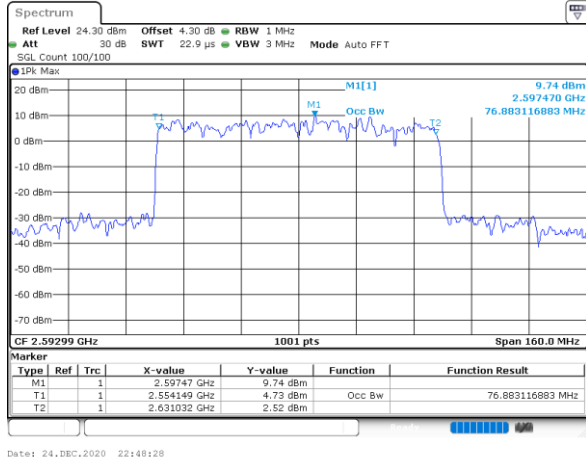




FR1 UL-MIMO n41 / 80MHz / CP-OFDM (ANT3)

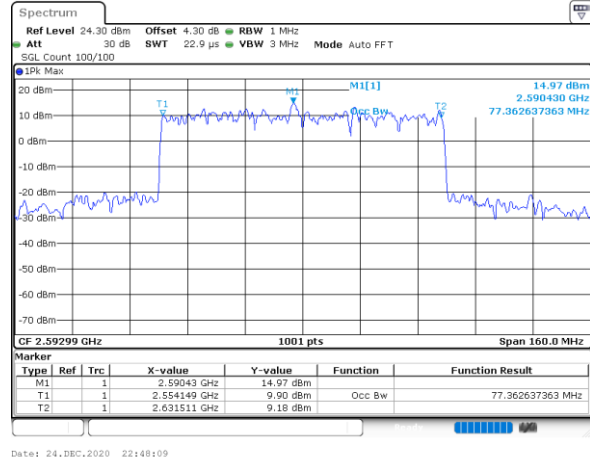
QPSK

Middle Channel



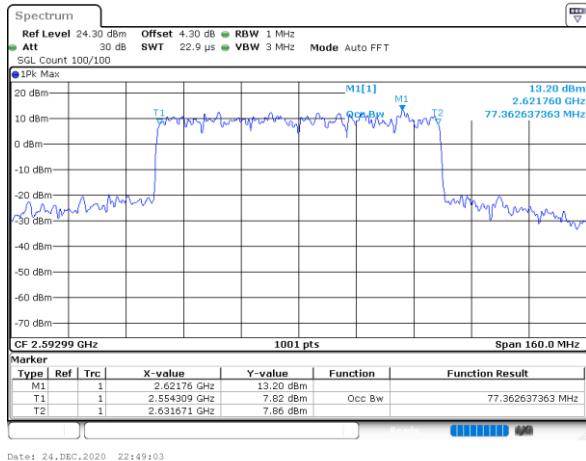
16QAM

Middle Channel



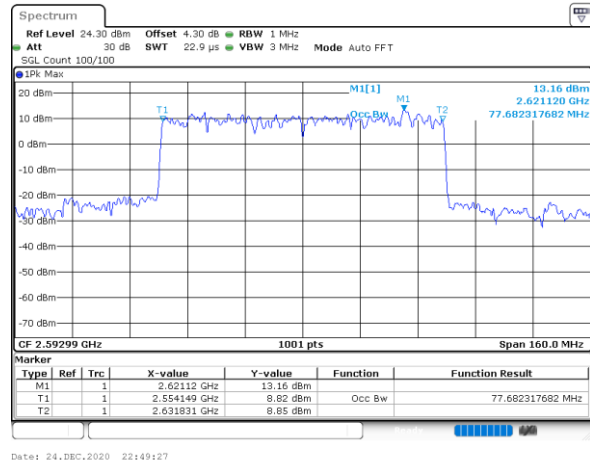
64QAM

Middle Channel



256QAM

Middle Channel

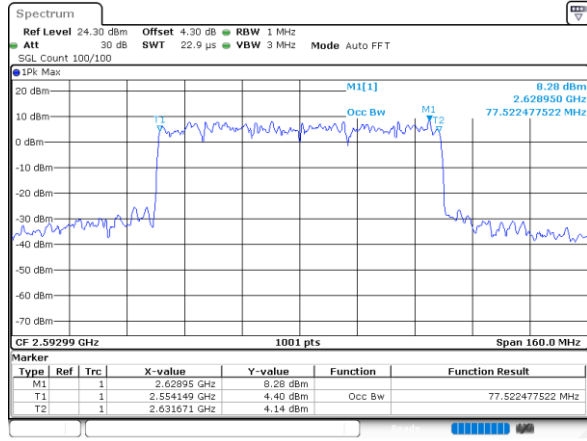




FR1 UL-MIMO n41 / 80MHz / CP-OFDM (ANT0)

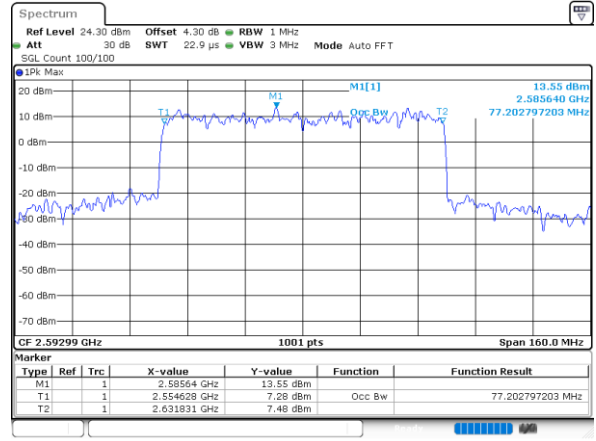
QPSK

Middle Channel



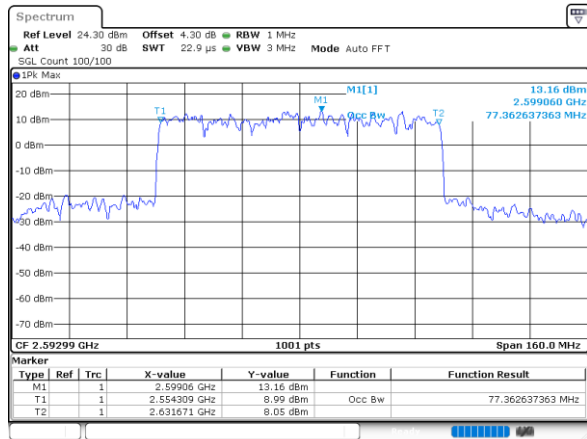
16QAM

Middle Channel



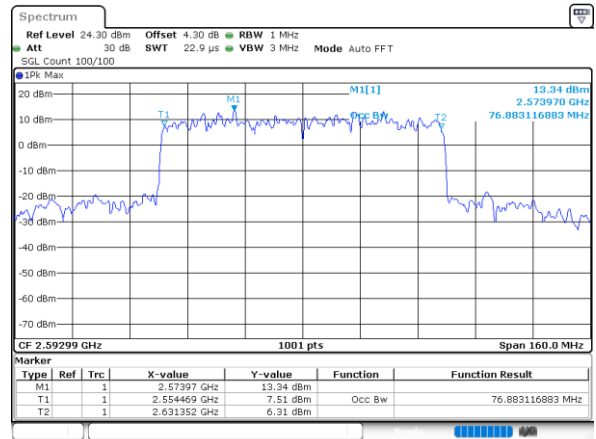
64QAM

Middle Channel



256QAM

Middle Channel

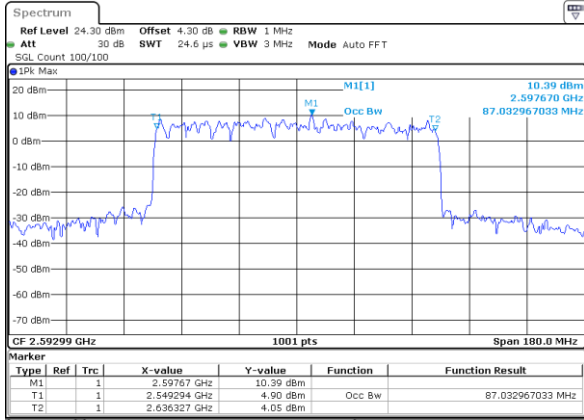




FR1 UL-MIMO n41 / 90MHz / CP-OFDM (ANT3)

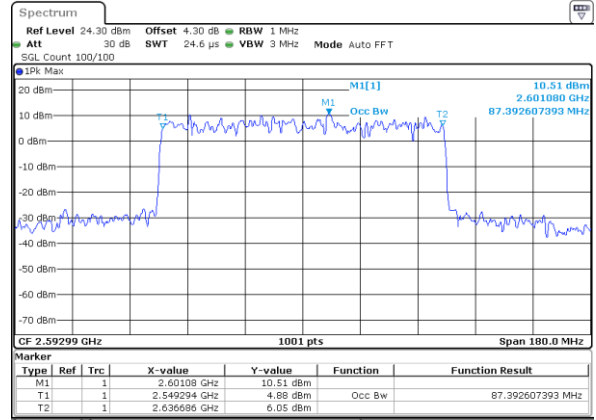
QPSK

Middle Channel



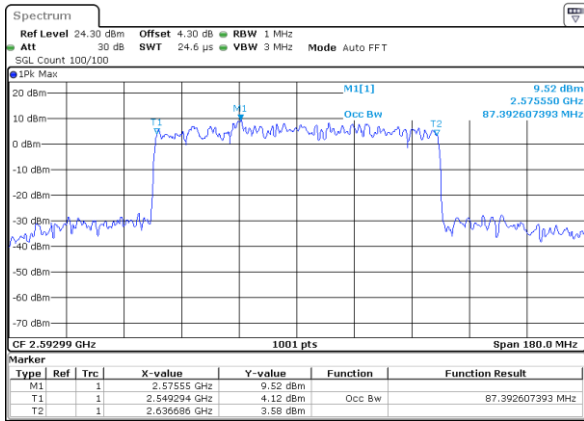
16QAM

Middle Channel



64QAM

Middle Channel



256QAM

Middle Channel

