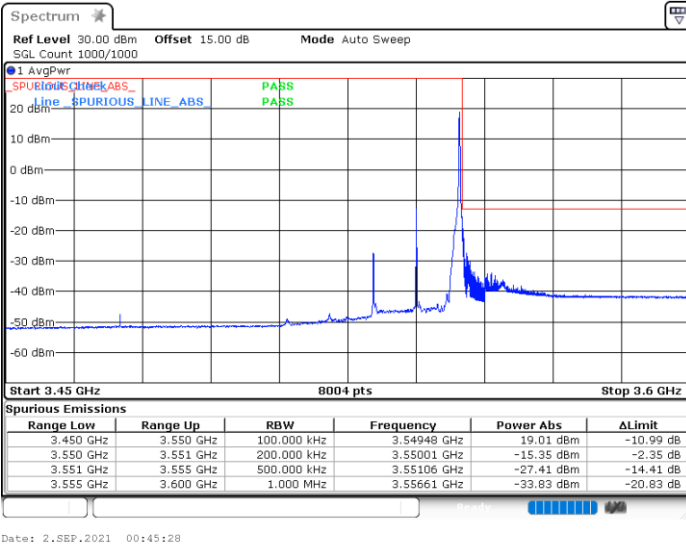


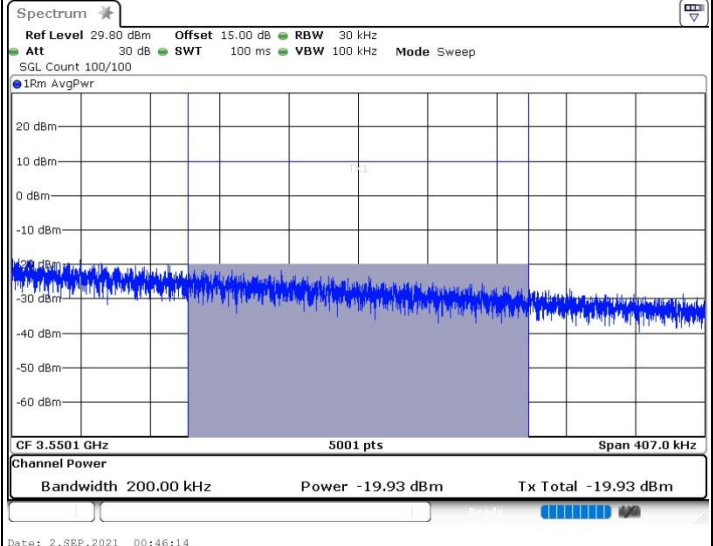


FR1 UL-MIMO n77 / 20MHz / CP-OFDM QPSK (Port 1)

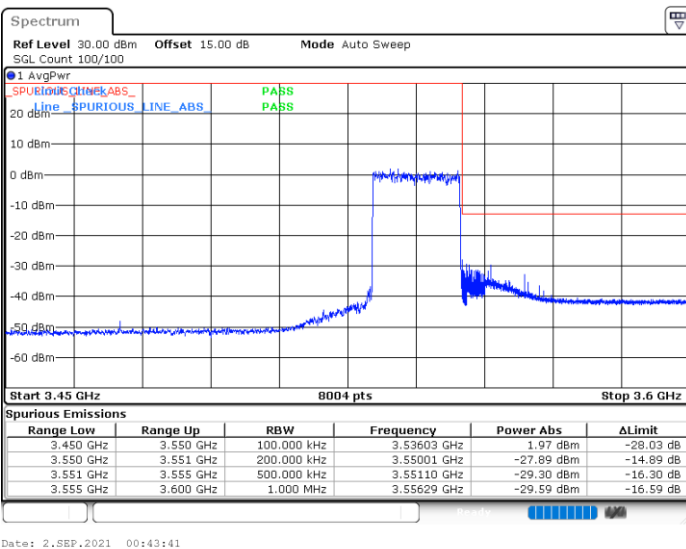
Highest Band Edge / 1 RB



Channel Power < -13dBm Pass



Highest Band Edge / Full RB



Channel Power < -13dBm Pass

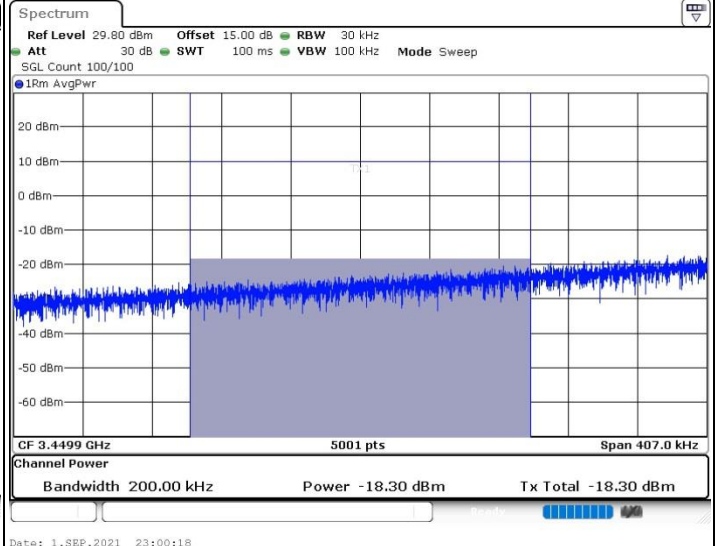
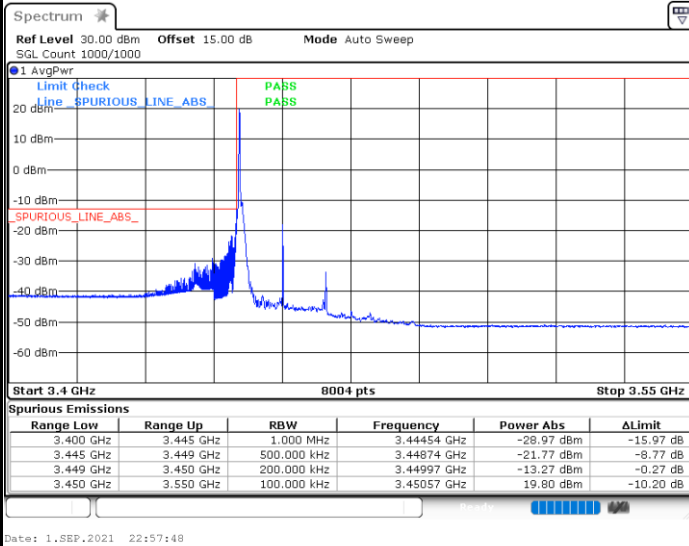
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FR1 UL-MIMO n77 / 20MHz / CP-OFDM QPSK (Port 2)

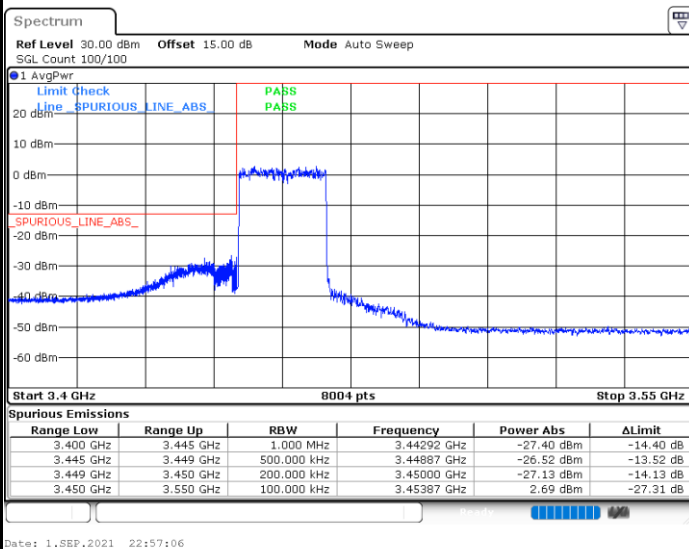
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

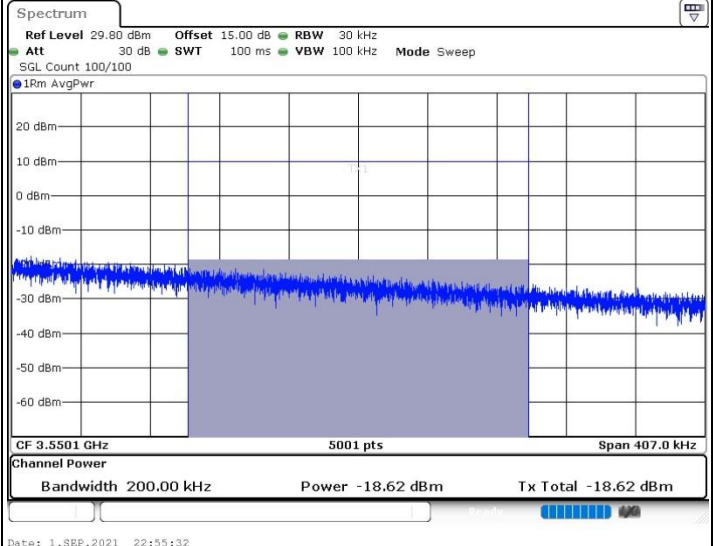
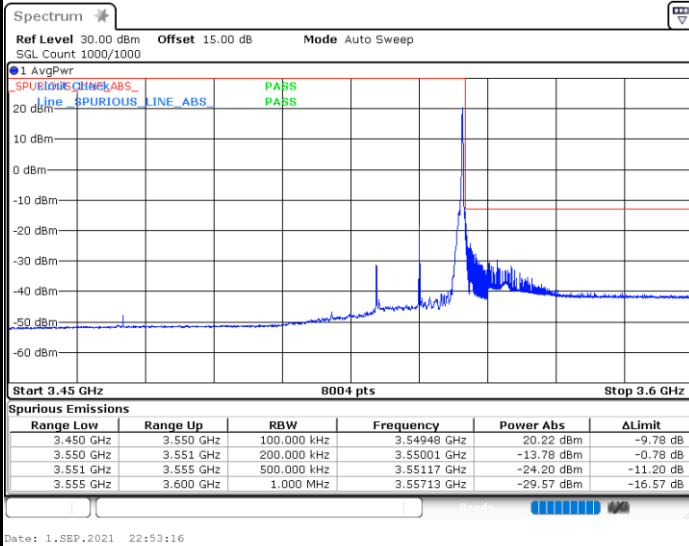




FR1 UL-MIMO n77 / 20MHz / CP-OFDM QPSK (Port 2)

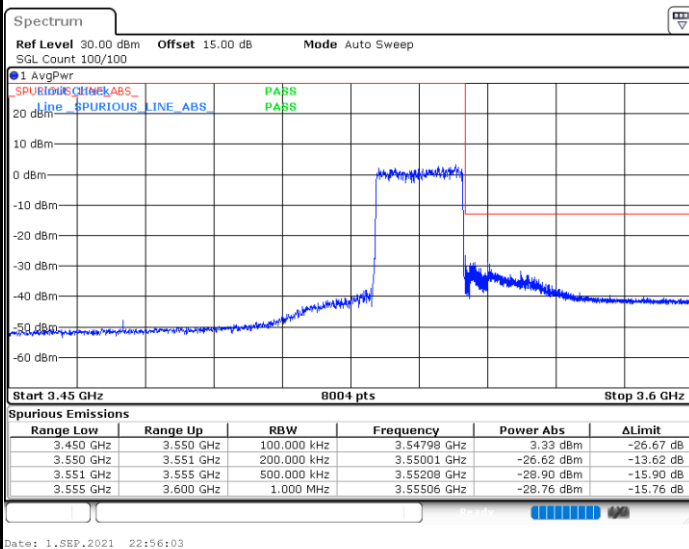
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

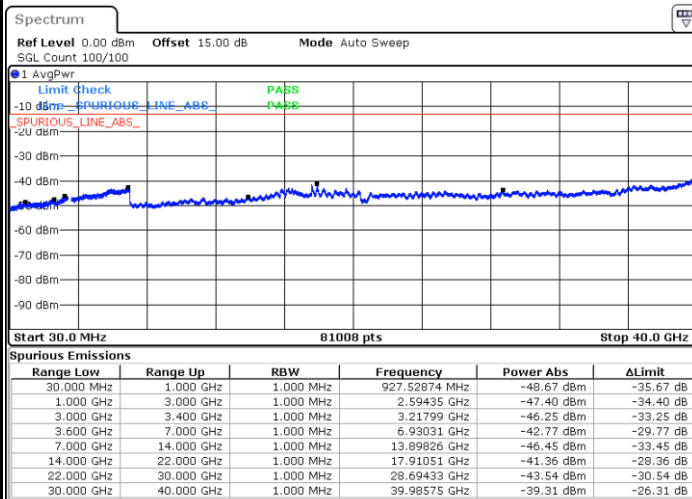




Conducted Spurious Emission

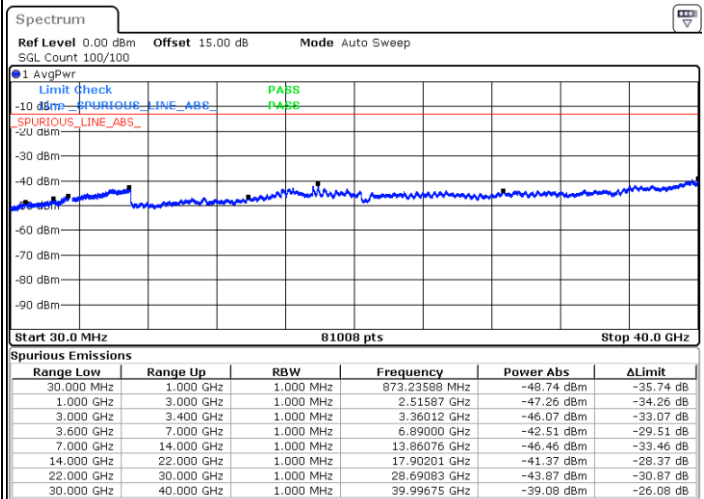
FR1 UL-MIMO n77 / 10MHz / CP-OFDM QPSK (Port 1)

Lowest Channel / 1RB



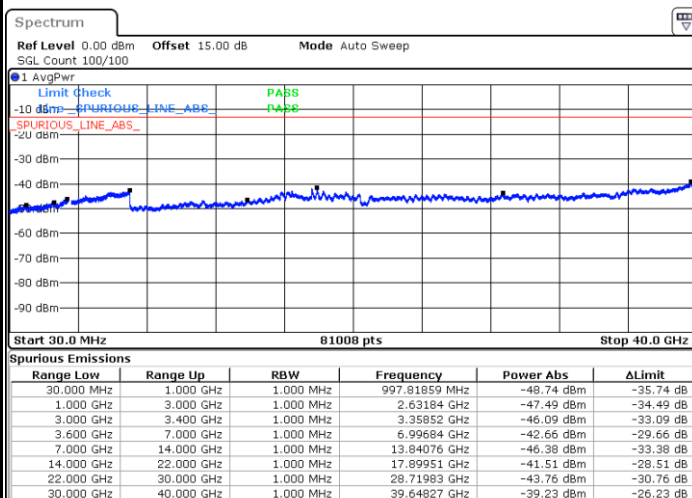
Date: 27.SEP.2021 16:53:31

Middle Channel / 1RB



Date: 27.SEP.2021 17:06:46

Highest Channel / 1RB

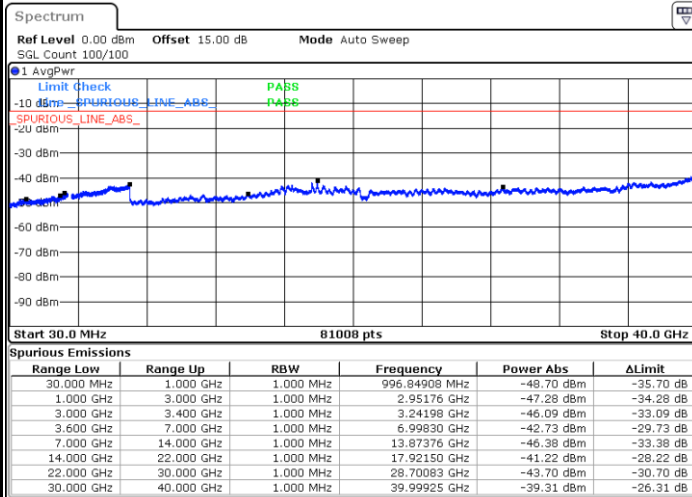


Date: 27.SEP.2021 17:10:22



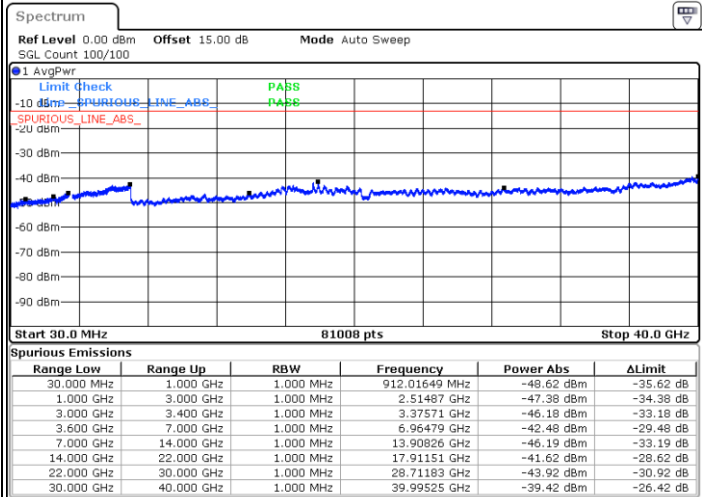
FR1 UL-MIMO n77 / 10MHz / CP-OFDM QPSK (Port 2)

Lowest Channel / 1RB



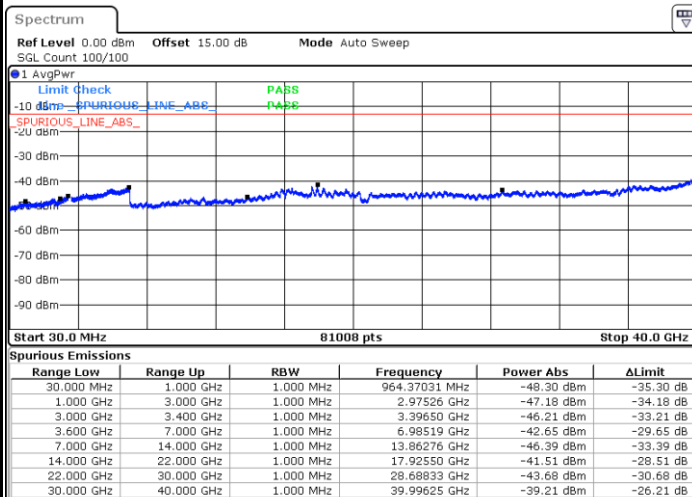
Date: 27.SEP.2021 16:58:48

Middle Channel / 1RB



Date: 27.SEP.2021 17:01:19

Highest Channel / 1RB



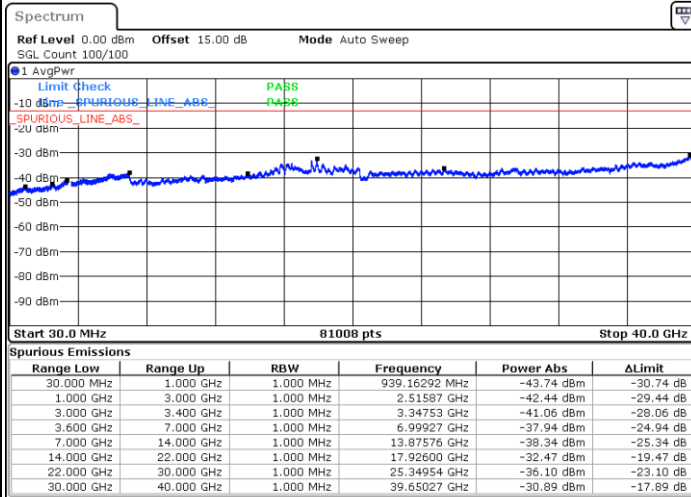
Date: 27.SEP.2021 17:09:16



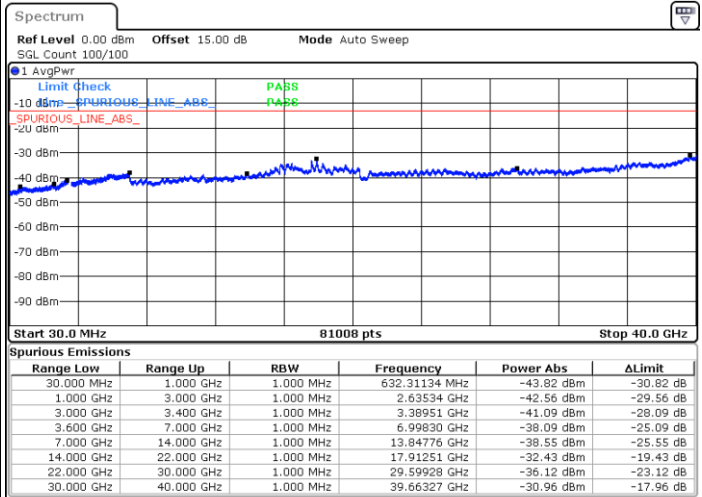
FR1 UL-MIMO n77 / 15MHz / CP-OFDM QPSK (Port 1)

Lowest Channel / 1RB

Middle Channel / 1RB

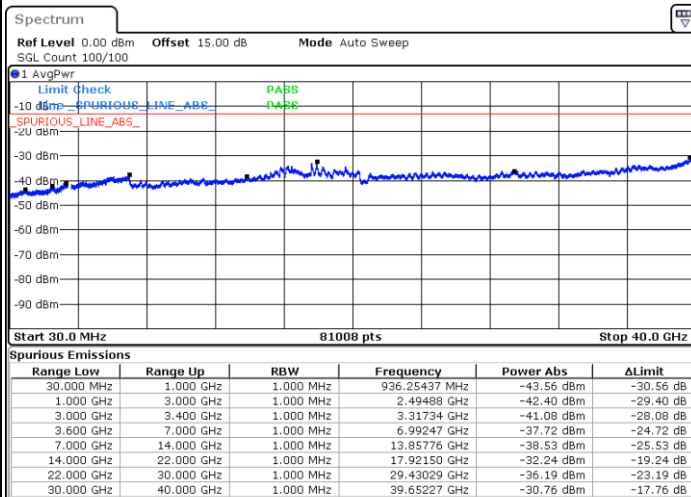


Date: 29.SEP.2021 11:44:13



Date: 29.SEP.2021 11:42:38

Highest Channel / 1RB



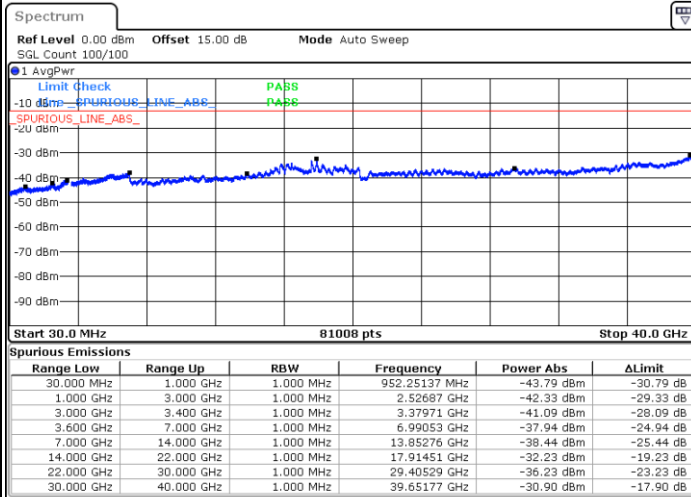
Date: 29.SEP.2021 11:34:23



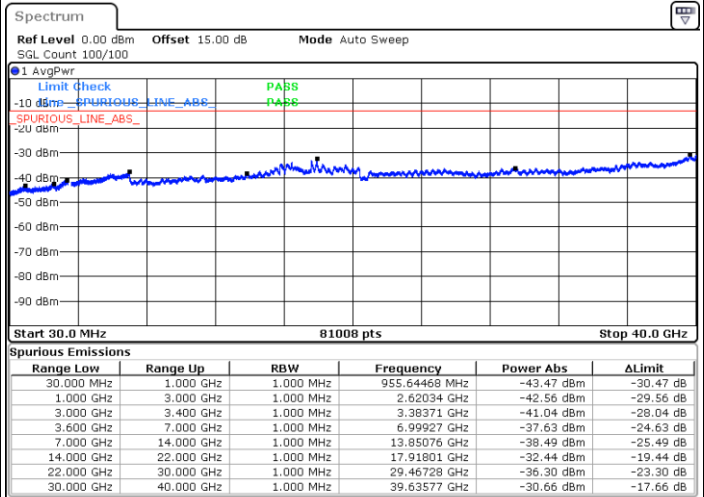
FR1 UL-MIMO n77 / 15MHz / CP-OFDM QPSK (Port 2)

Lowest Channel / 1RB

Middle Channel / 1RB

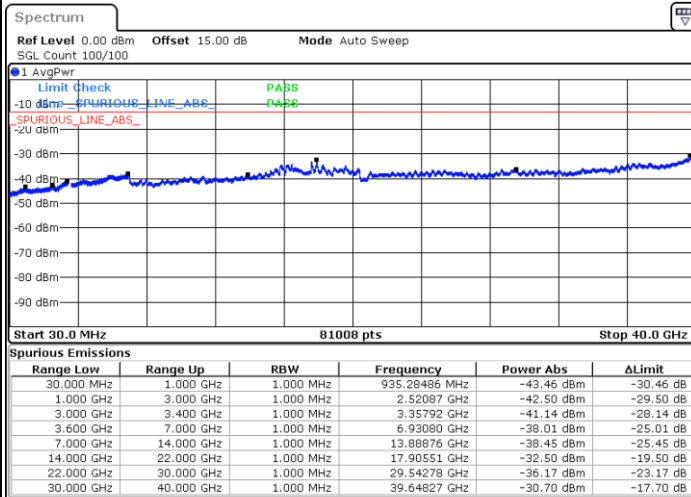


Date: 29.SEP.2021 11:45:48

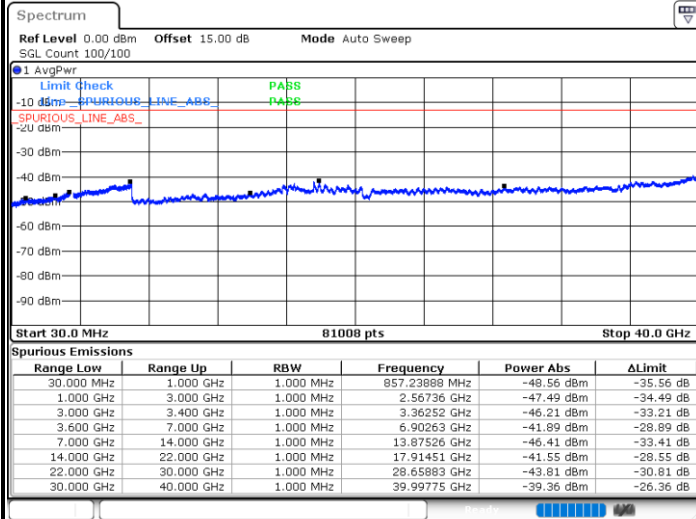


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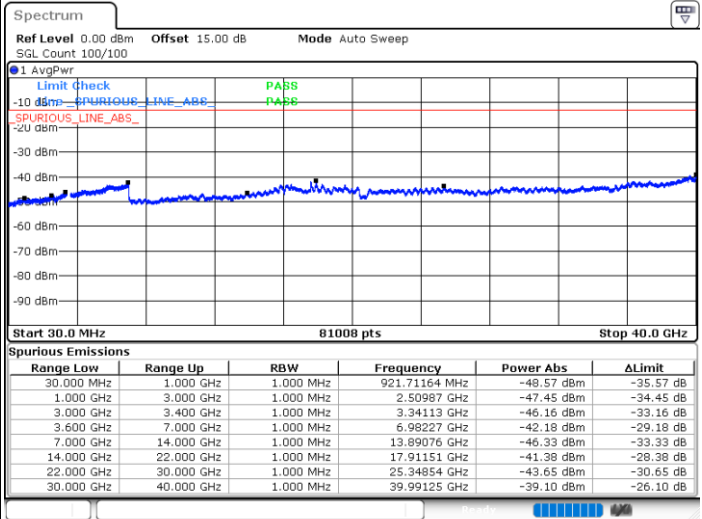
Highest Channel / 1RB



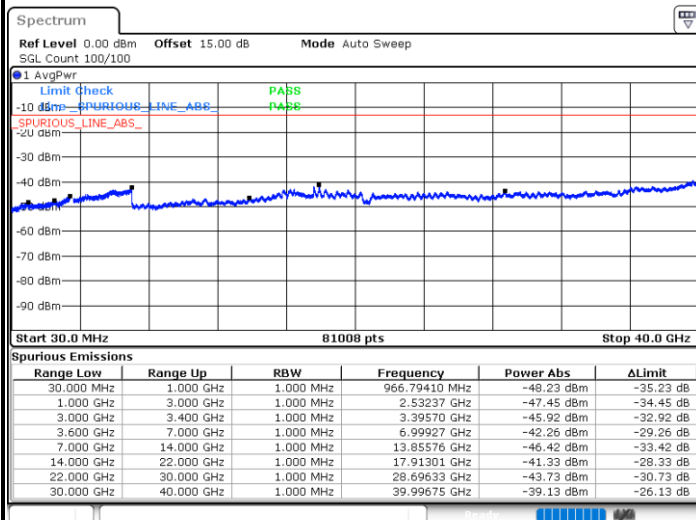
Date: 29.SEP.2021 11:39:53

**FR1 UL-MIMO n77 / 20MHz / CP-OFDM QPSK (Port 1)****Lowest Channel / 1RB**

Date: 27.SEP.2021 16:46:21

Middle Channel / 1RB

Date: 27.SEP.2021 16:47:57

Highest Channel / 1RB

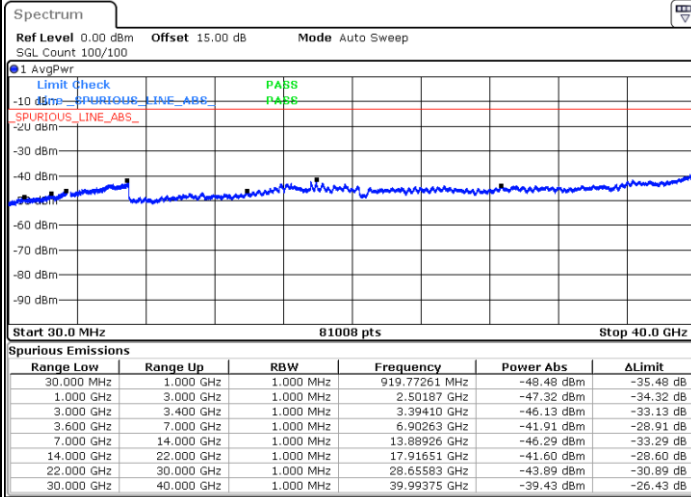
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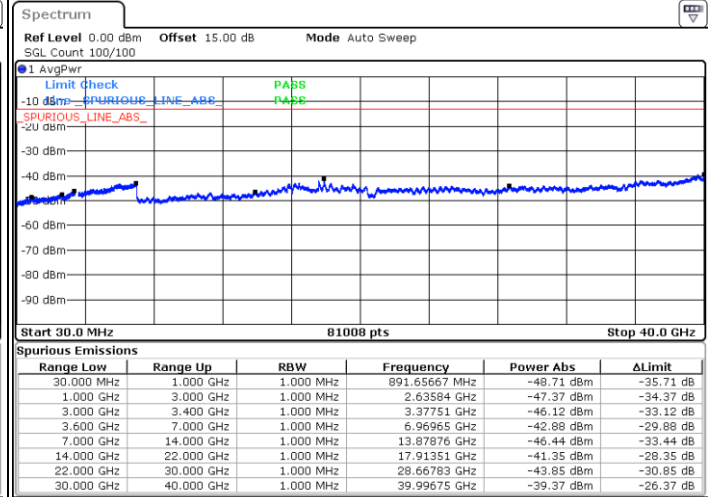
FR1 UL-MIMO n77 / 20MHz / CP-OFDM QPSK (Port 2)

Lowest Channel / 1RB

Middle Channel / 1RB

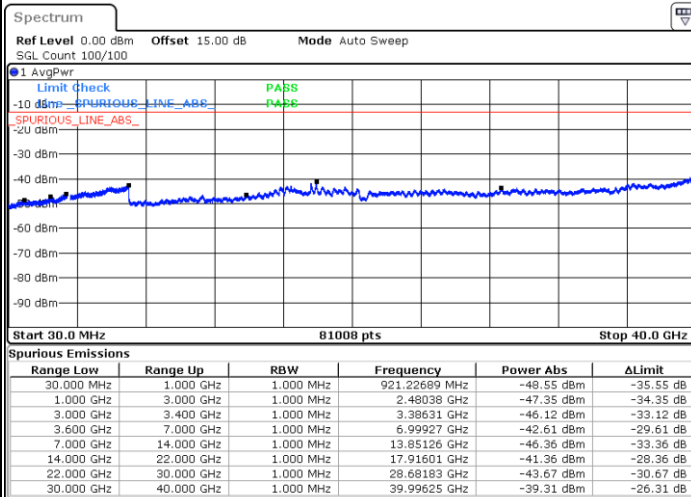


Date: 27.SEP.2021 16:45:14



Date: 27.SEP.2021 16:50:54

Highest Channel / 1RB



Date: 27.SEP.2021 16:49:48

Frequency Stability

Test Conditions		NR UL-MIMO n77 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0029	PASS
40	Normal Voltage	0.0047	
30	Normal Voltage	0.0043	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0099	
0	Normal Voltage	0.0054	
-10	Normal Voltage	0.0091	
-20	Normal Voltage	0.0015	
-30	Normal Voltage	0.0041	
20	Maximum Voltage	0.0088	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0059	

Note:

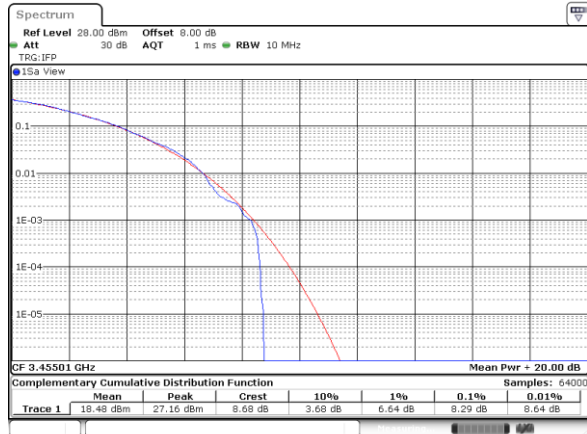
1. Normal Voltage =3.3 V. ; Battery End Point (BEP) =3.14 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

FR1 n77 UL-MIMO(30kHz)

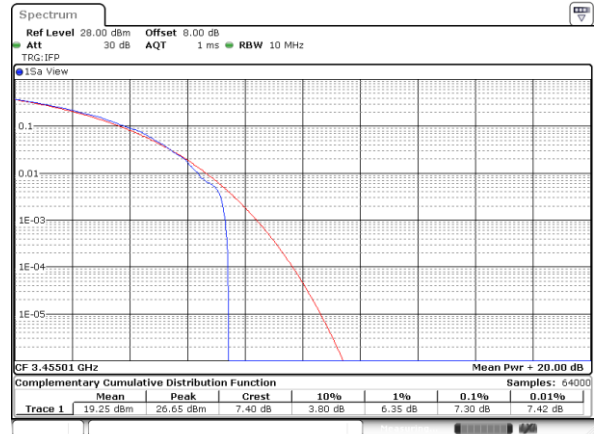
Peak-to-Average Ratio

Mode	FR1 UL-MIMO n77 / 10MHz / CP-OFDM (Port 1)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	8.29	8.46			PASS
Middle CH	7.39	8.43			
Highest CH	7.51	8.41			

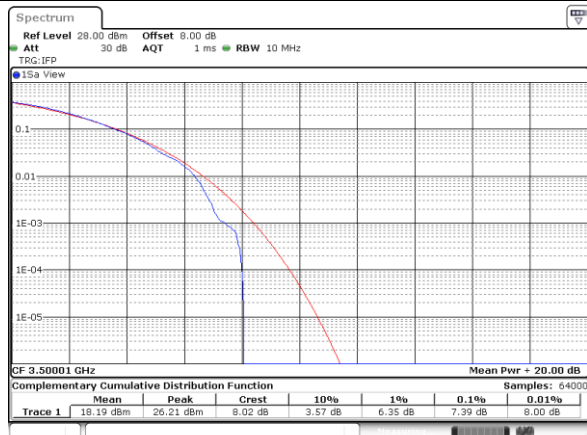
Mode	FR1 UL-MIMO n77 / 10MHz / CP-OFDM (Port 2)				
Mod.	QPSK	QPSK			Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.30	7.97			PASS
Middle CH	7.42	8.32			
Highest CH	7.91	8.29			

FR1 UL-MIMO n77 / 10MHz / CP-OFDM
QPSK(Port 1)
QPSK(Port 2)
Lowest Channel / 1RB
Lowest Channel / 1RB


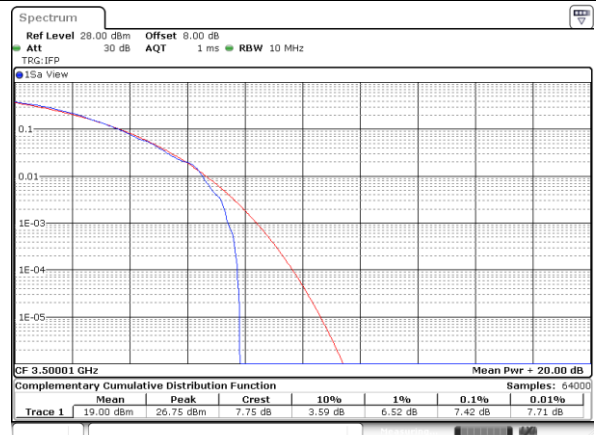
Date: 29.AUG.2021 00:18:24



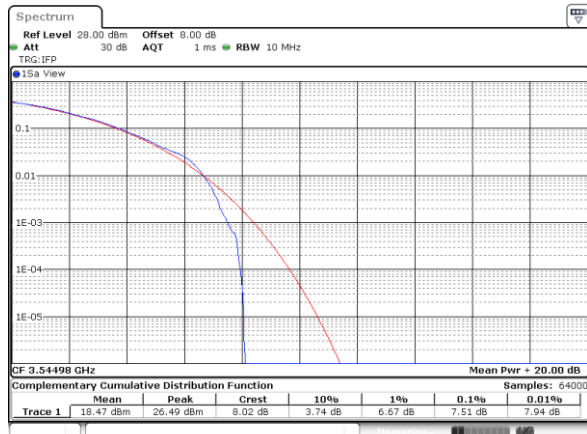
Date: 29.AUG.2021 00:15:56

Middle Channel / 1 RB
Middle Channel / 1 RB


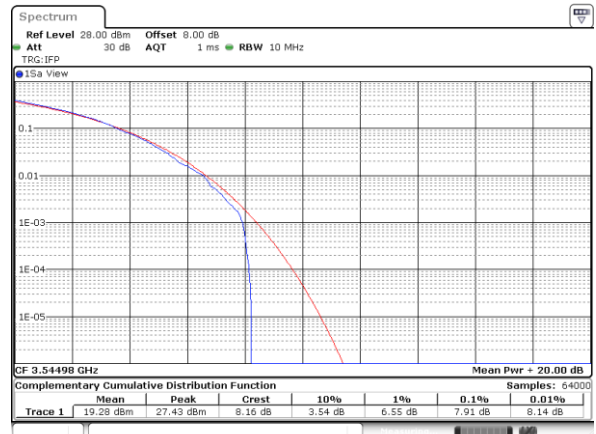
Date: 29.AUG.2021 00:17:43



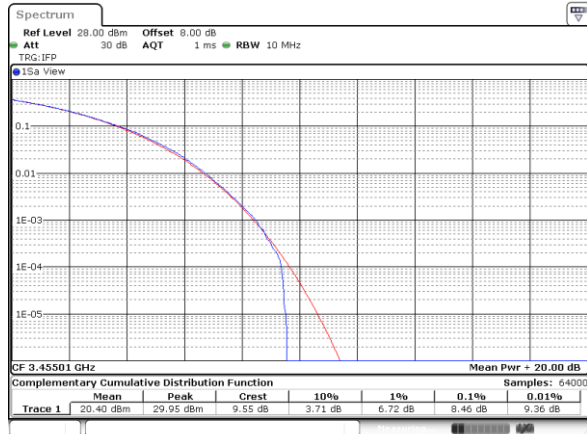
Date: 29.AUG.2021 00:15:11

Highest Channel / 1 RB
Highest Channel / 1 RB


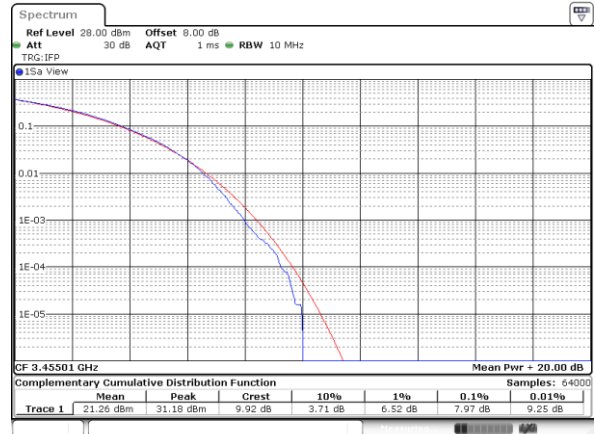
Date: 29.AUG.2021 00:21:35



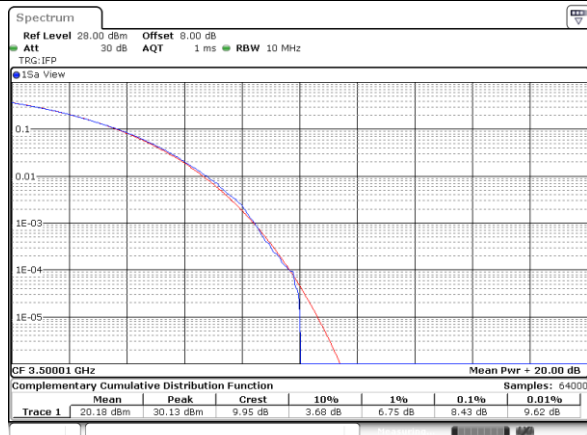
Date: 29.AUG.2021 01:01:59

FR1 UL-MIMO n77 / 10MHz / CP-OFDM
QPSK(Port 1)
QPSK(Port 2)
Lowest Channel / Full RB
Lowest Channel / Full RB


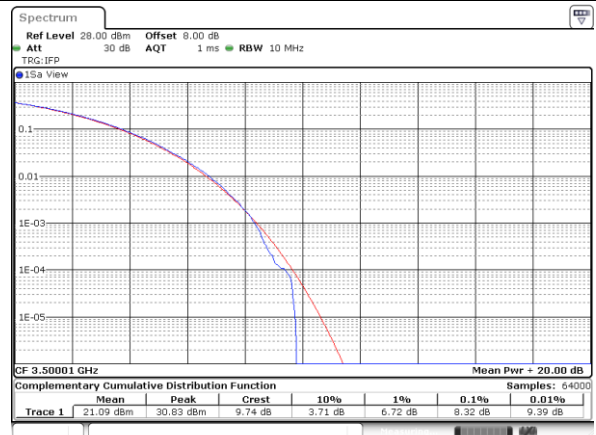
Date: 29.AUG.2021 00:19:51



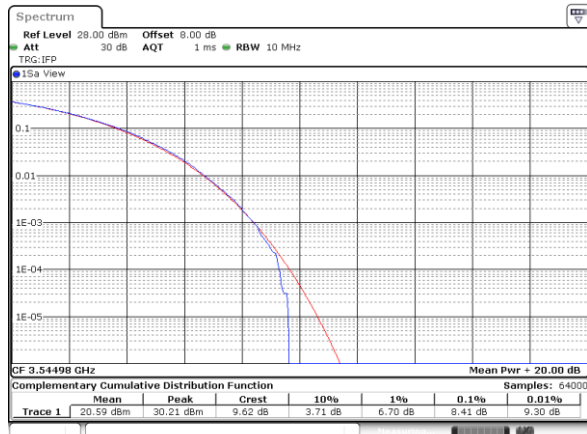
Date: 29.AUG.2021 00:19:09

Middle Channel / Full RB
Middle Channel / Full RB


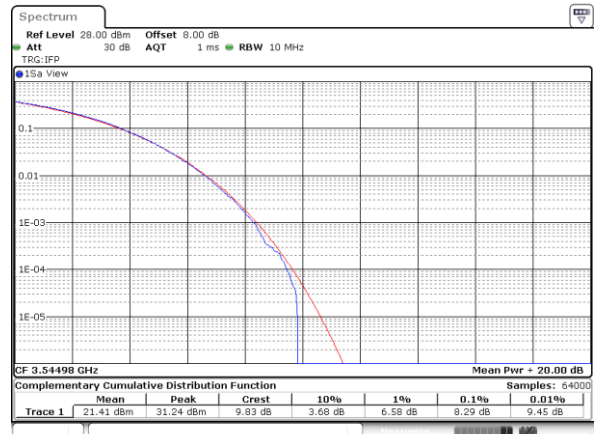
Date: 29.AUG.2021 00:16:17



Date: 29.AUG.2021 00:15:51

Highest Channel / Full RB
Highest Channel / Full RB


Date: 29.AUG.2021 00:20:26



Date: 29.AUG.2021 01:00:14

26dB Bandwidth

Mode	FR1 UL-MIMO n77 : 26dB BW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	9.21	9.05	9.03	9.07	9.09	9.27	9.25	9.11

Mode	FR1 UL-MIMO n77 : 26dB BW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	14.33	14.27	14.24	14.33	14.36	14.33	14.30	14.30

Mode	FR1 UL-MIMO n77 : 26dB BW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	18.98	19.34	19.50	19.46	19.06	19.26	19.46	19.02

Mode	FR1 UL-MIMO n77 : 26dB BW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	40.28	40.10	41.12	40.28	40.20	40.36	40.28	40.12

Mode	FR1 UL-MIMO n77 : 26dB BW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	49.75	49.75	49.75	49.75	49.75	49.65	49.85	49.75

Mode	FR1 UL-MIMO n77 : 26dB BW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	60MHz	60MHz	60MHz	60MHz	60MHz	60MHz	60MHz	60MHz



Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	60.3	60.78	60.3	60.3	60.30	60.42	60.18	60.42

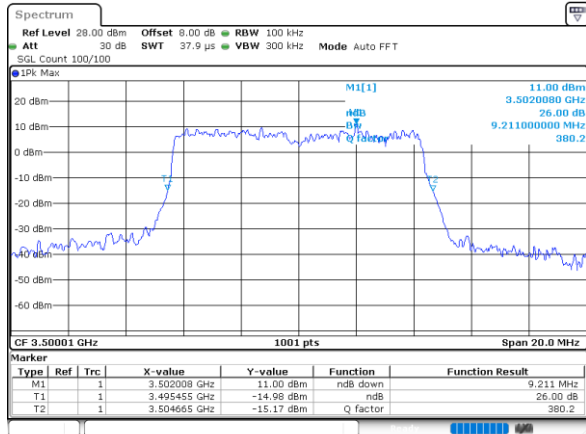
Mode	FR1 UL-MIMO n77 : 26dB BW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	79.92	79.92	79.92	80.08	79.92	79.92	79.92	80.08

Mode	FR1 UL-MIMO n77 : 26dB BW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	100.70	100.30	100.30	100.30	100.30	100.30	100.30	100.30

FR1 UL-MIMO n77 / 10MHz / CP-OFDM (Port 1)

QPSK

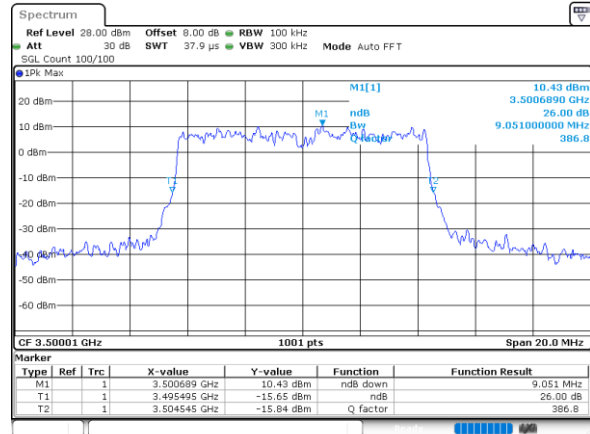
Middle Channel



Date: 29.AUG.2021 00:06:26

16QAM

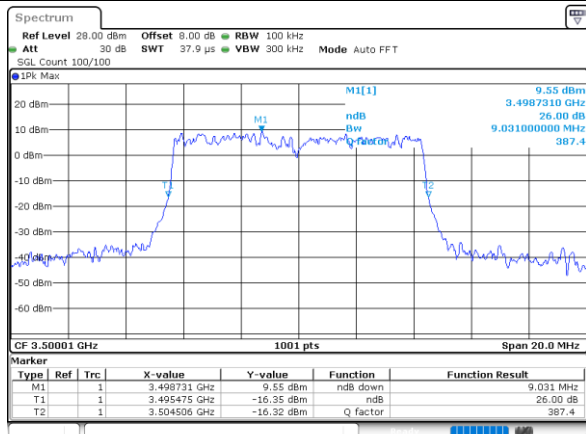
Middle Channel



Date: 29.AUG.2021 00:06:42

64QAM

Middle Channel



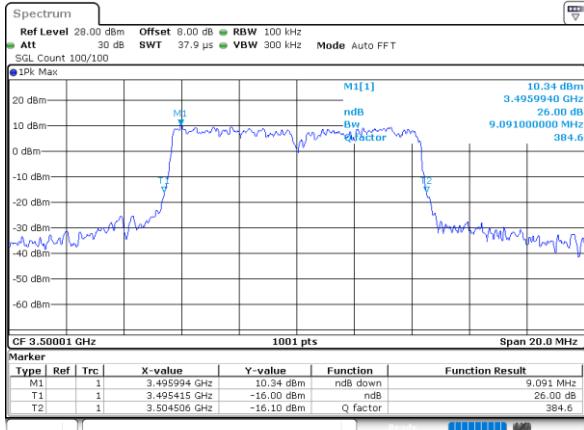
Date: 29.AUG.2021 00:07:09

256QAM

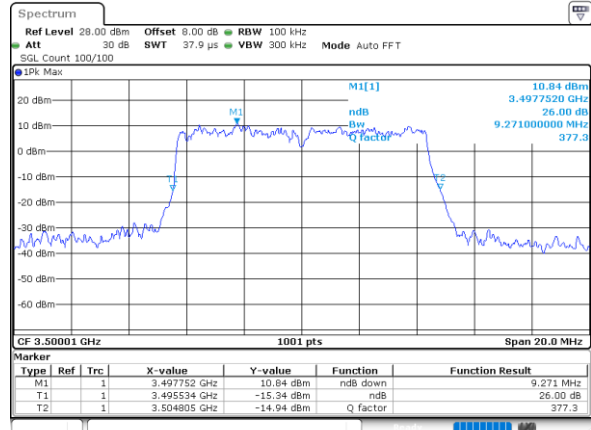
Middle Channel



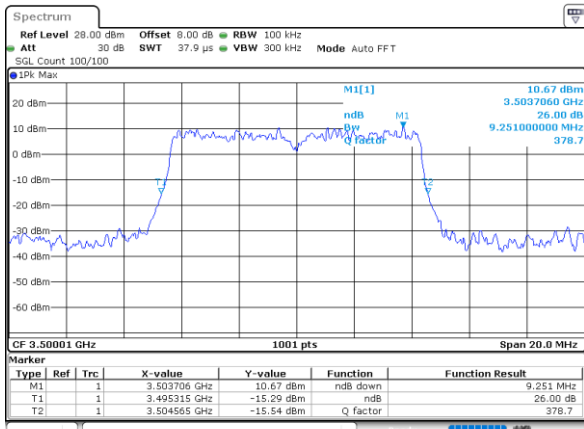
Date: 29.AUG.2021 00:07:22

FR1 UL-MIMO n77 / 10MHz / CP-OFDM (Port 2)
QPSK
Middle Channel


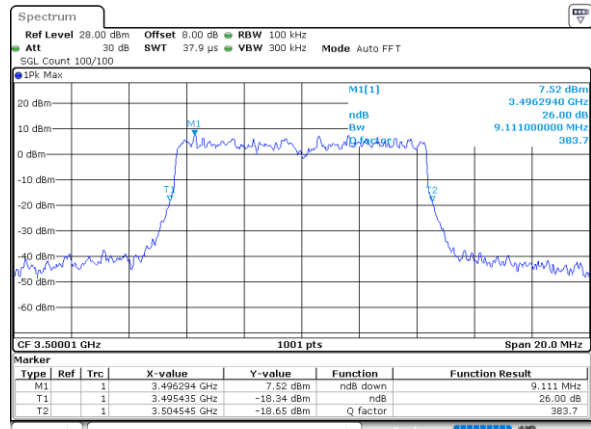
Date: 29.AUG.2021 01:03:29

16QAM
Middle Channel


Date: 29.AUG.2021 01:03:48

64QAM
Middle Channel


Date: 29.AUG.2021 01:04:03

256QAM
Middle Channel


Date: 29.AUG.2021 01:04:15

FR1 UL-MIMO n77 / 15MHz / CP-OFDM (Port 1)

QPSK

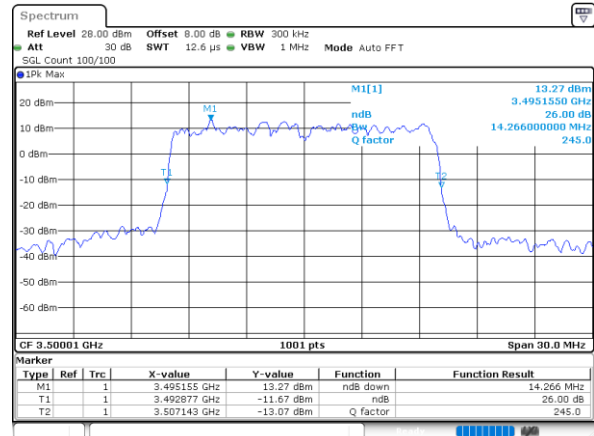
Middle Channel



Date: 29.AUG.2021 00:08:42

16QAM

Middle Channel



Date: 29.AUG.2021 00:08:23

64QAM

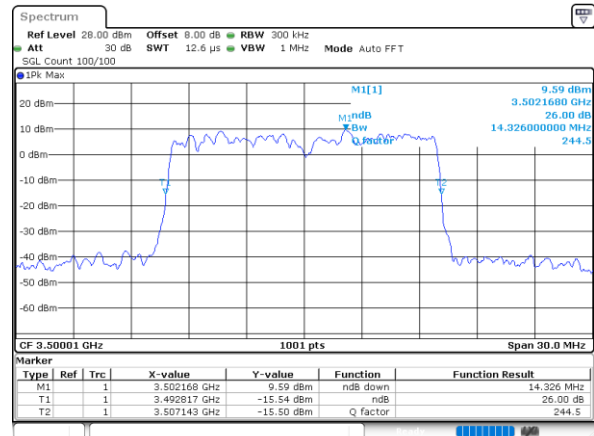
Middle Channel



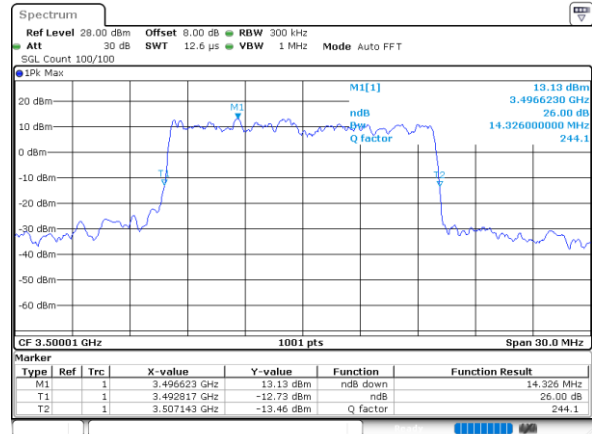
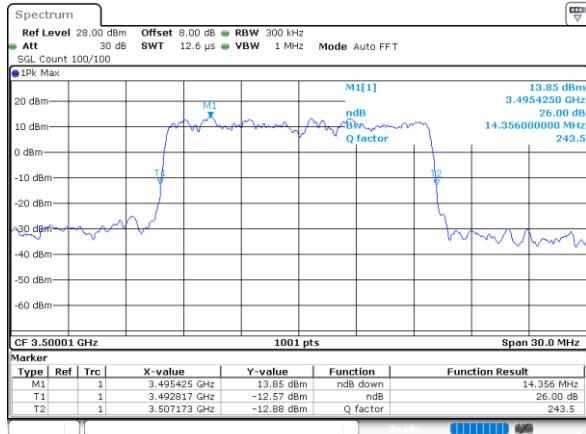
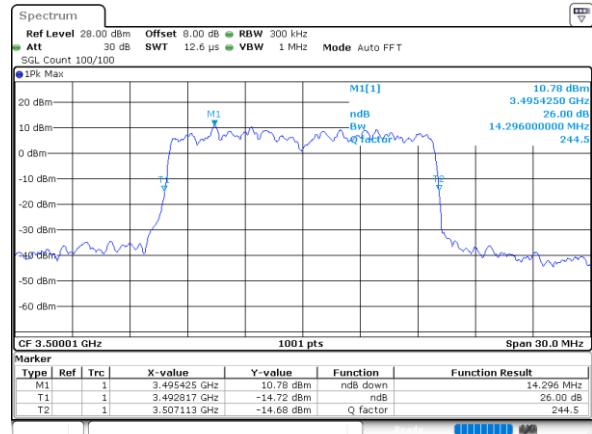
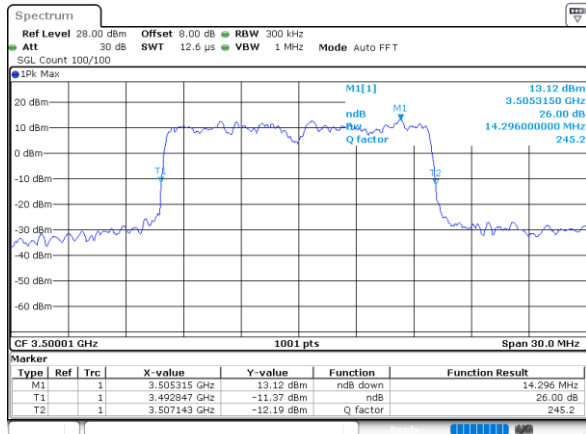
Date: 29.AUG.2021 00:08:10

256QAM

Middle Channel



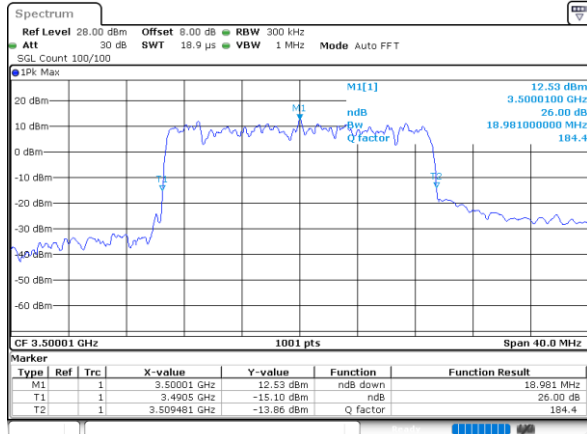
Date: 29.AUG.2021 00:07:56

FR1 UL-MIMO n77 / 15MHz / CP-OFDM (Port 2)
QPSK
16QAM
Middle Channel
Middle Channel

64QAM
256QAM
Middle Channel
Middle Channel


FR1 UL-MIMO n77 / 20MHz / CP-OFDM (Port 1)

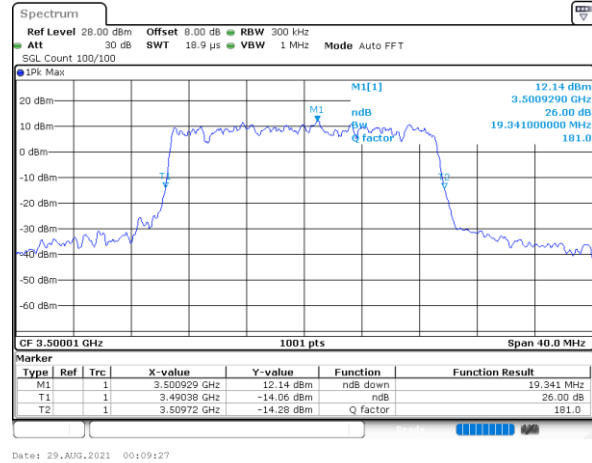
QPSK

Middle Channel



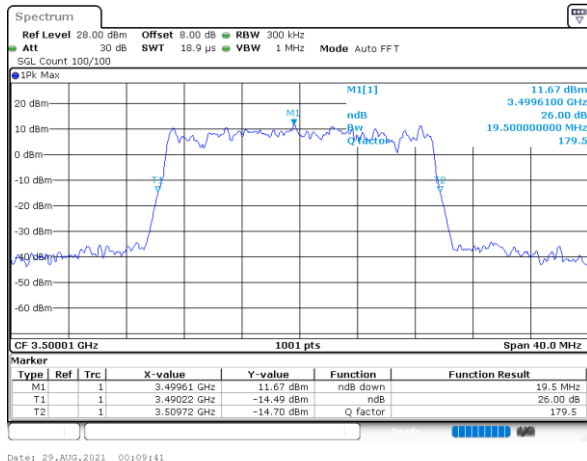
16QAM

Middle Channel



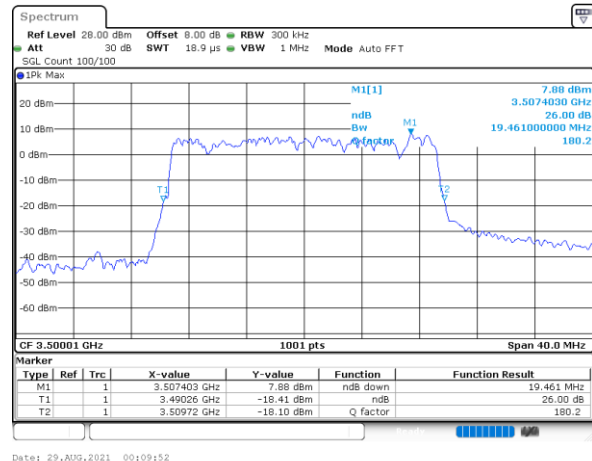
64QAM

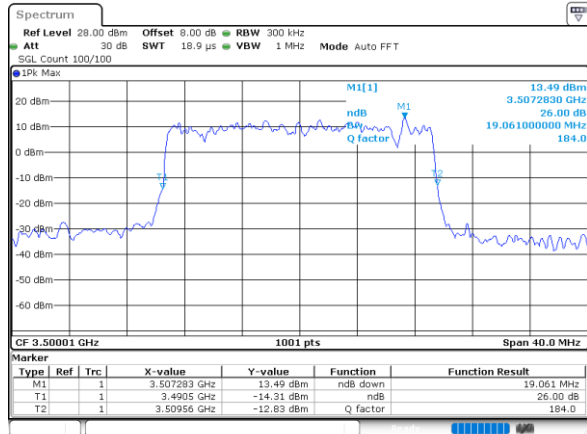
Middle Channel



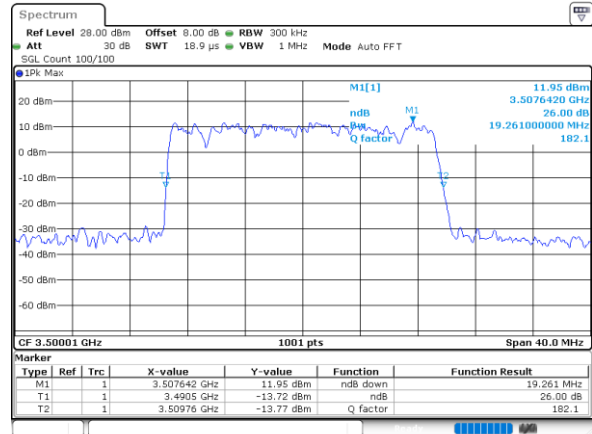
256QAM

Middle Channel

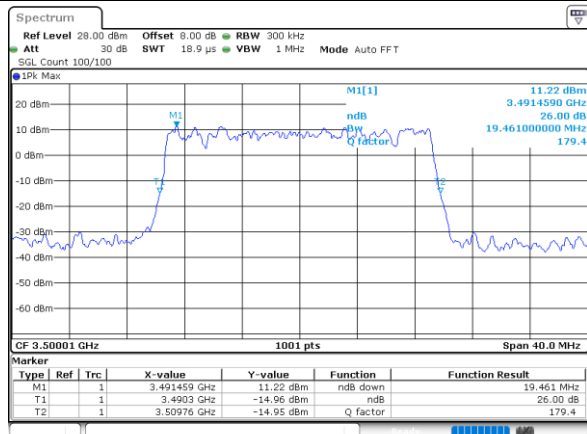


FR1 UL-MIMO n77 / 20MHz / CP-OFDM (Port 2)
QPSK
Middle Channel


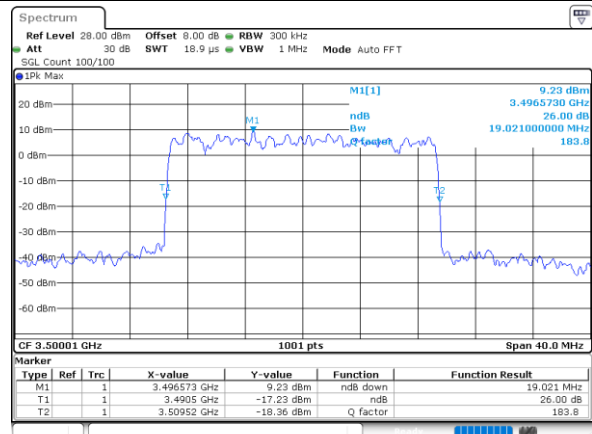
Date: 29.AUG.2021 01:05:44

16QAM
Middle Channel


Date: 29.AUG.2021 01:05:57

64QAM
Middle Channel


Date: 29.AUG.2021 01:06:10

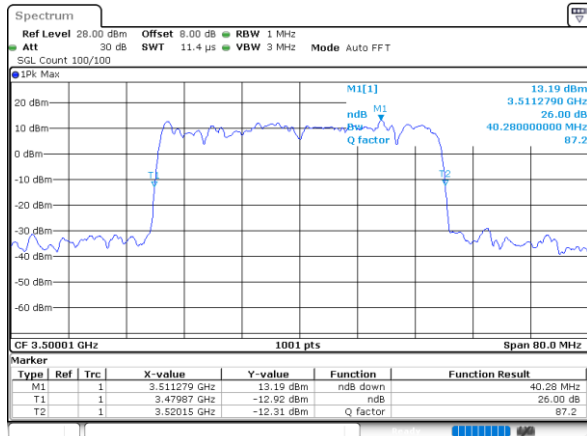
256QAM
Middle Channel


Date: 29.AUG.2021 01:06:23

FR1 UL-MIMO n77 / 40MHz / CP-OFDM (Port 1)

QPSK

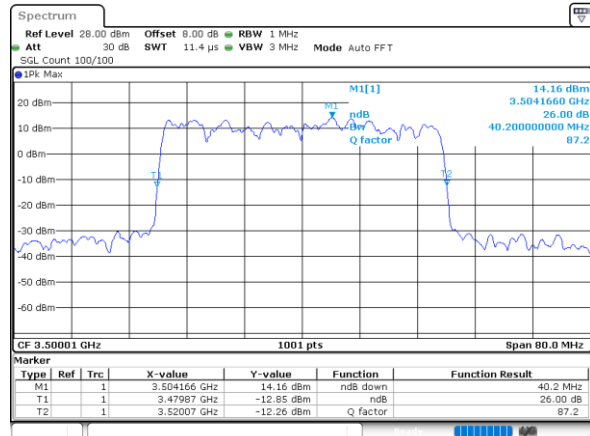
Middle Channel



Date: 29.AUG.2021 00:11:02

16QAM

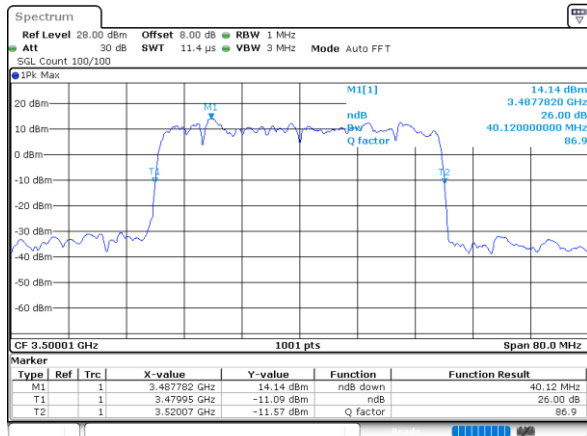
Middle Channel



Date: 29.AUG.2021 00:10:48

64QAM

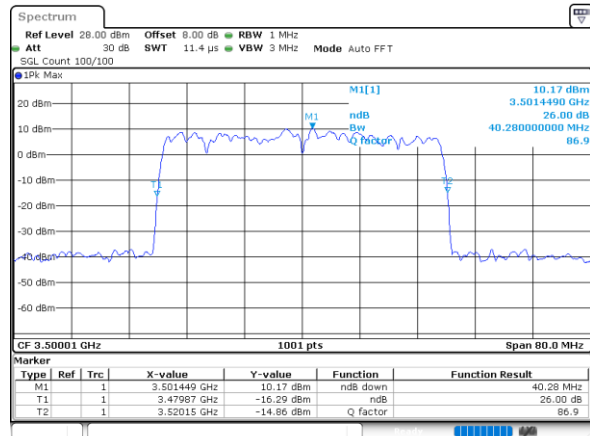
Middle Channel



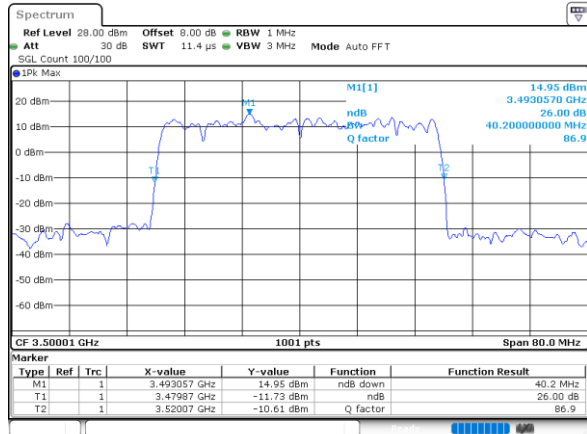
Date: 29.AUG.2021 00:10:34

256QAM

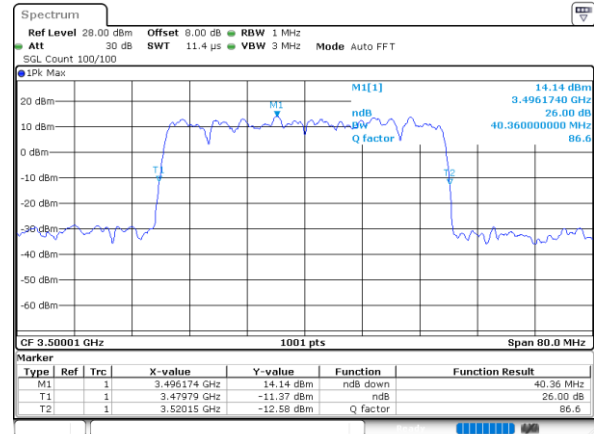
Middle Channel



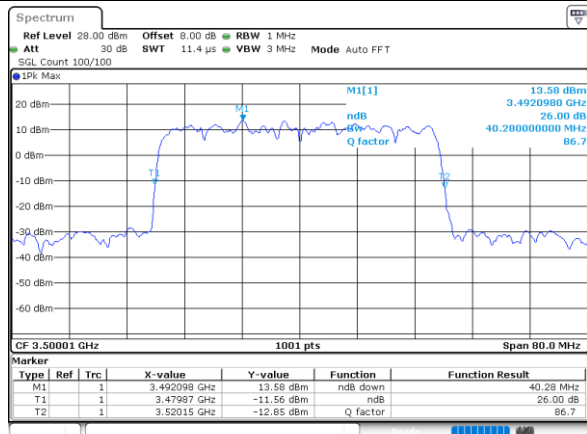
Date: 29.AUG.2021 00:10:19

FR1 UL-MIMO n77 / 40MHz / CP-OFDM (Port 2)
QPSK
Middle Channel


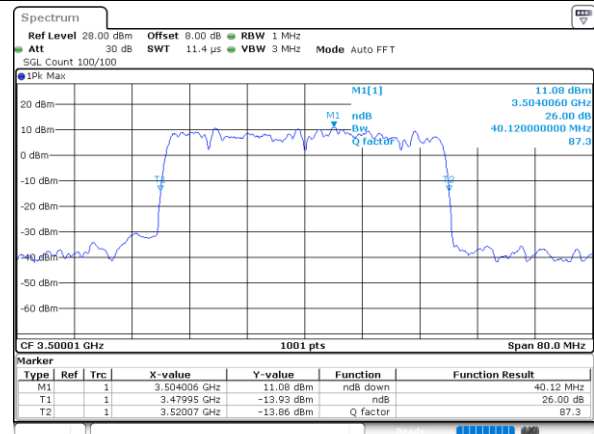
Date: 29.AUG.2021 01:08:14

16QAM
Middle Channel


Date: 29.AUG.2021 01:08:01

64QAM
Middle Channel


Date: 29.AUG.2021 01:07:48

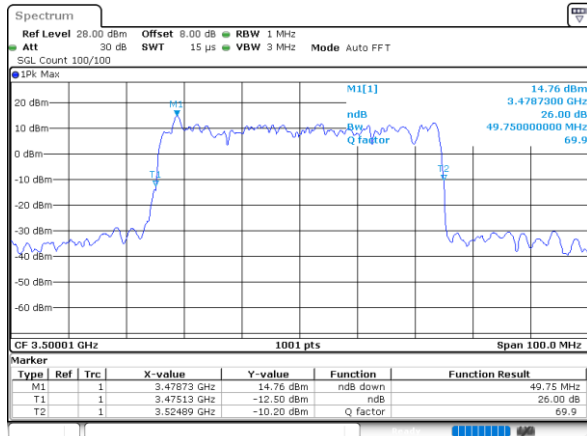
256QAM
Middle Channel


Date: 29.AUG.2021 01:07:30

FR1 UL-MIMO n77 / 50MHz / CP-OFDM (Port 1)

QPSK

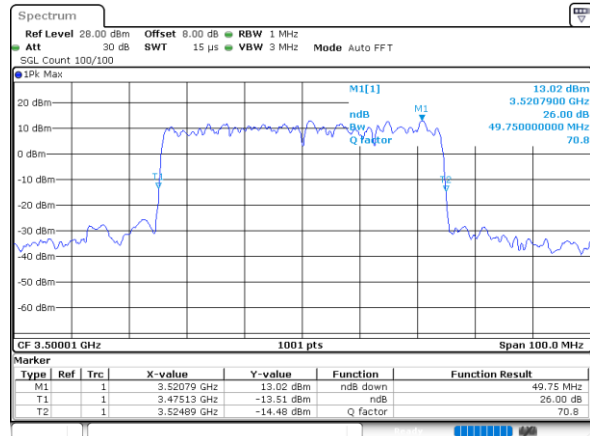
Middle Channel



Date: 29.AUG.2021 00:11:22

16QAM

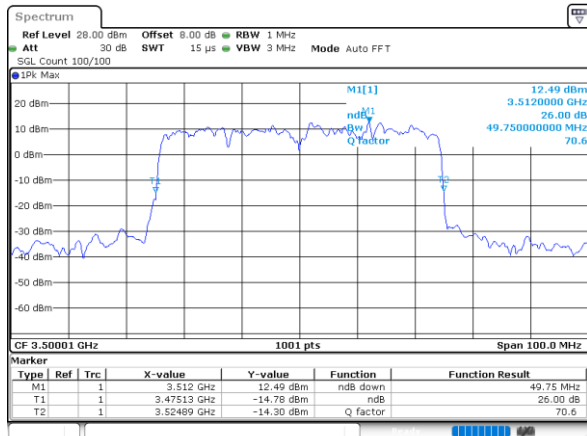
Middle Channel



Date: 29.AUG.2021 00:11:38

64QAM

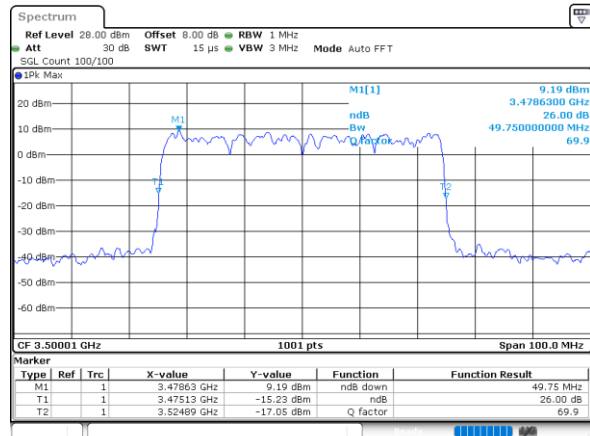
Middle Channel



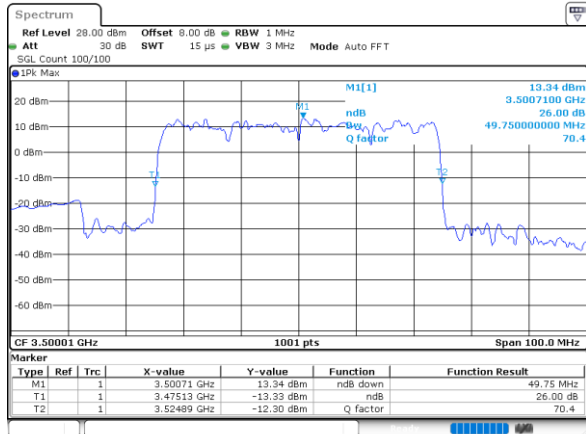
Date: 29.AUG.2021 00:11:51

256QAM

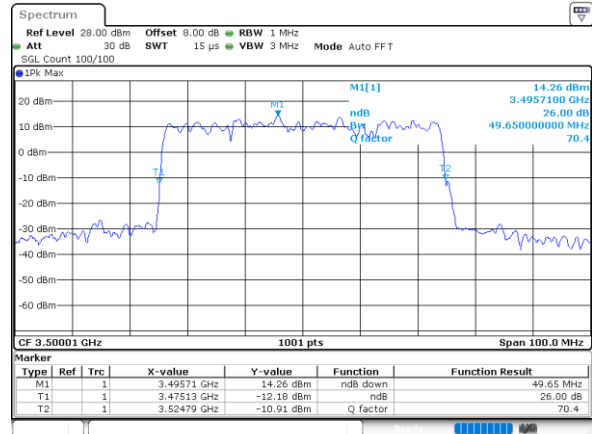
Middle Channel



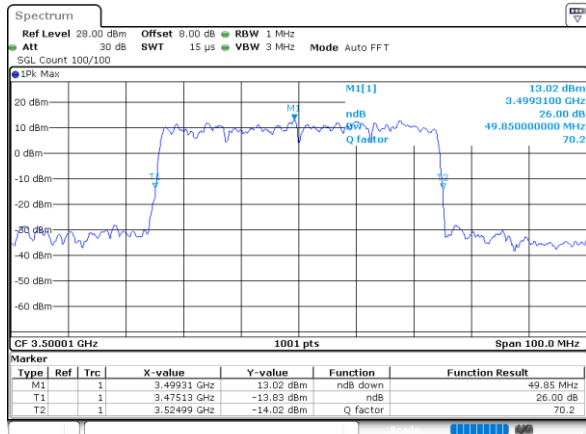
Date: 29.AUG.2021 00:12:06

FR1 UL-MIMO n77 / 50MHz / CP-OFDM (Port 2)
QPSK
16QAM
Middle Channel
Middle Channel


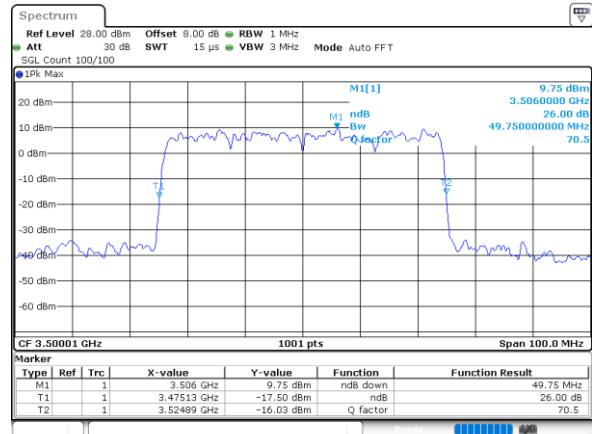
Date: 29.AUG.2021 01:08:36



Date: 29.AUG.2021 01:08:55

64QAM
256QAM
Middle Channel
Middle Channel


Date: 29.AUG.2021 01:09:12

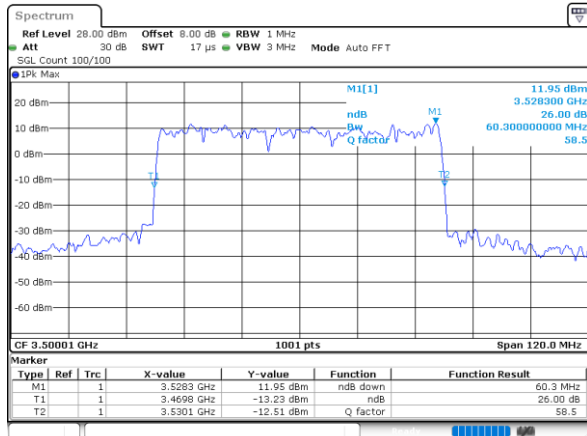


Date: 29.AUG.2021 01:24:44

FR1 UL-MIMO n77 / 60MHz / CP-OFDM (Port 1)

QPSK

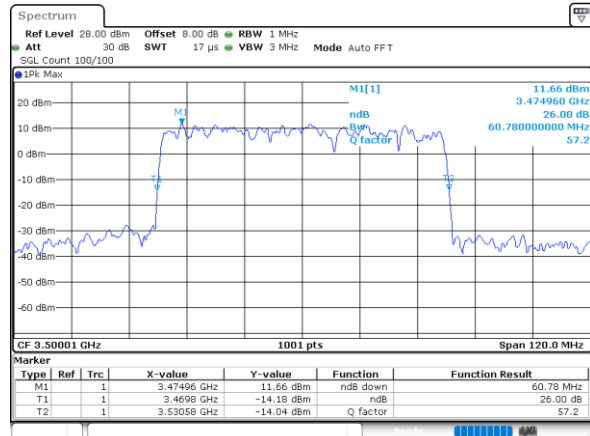
Middle Channel



Date: 29.AUG.2021 00:13:12

16QAM

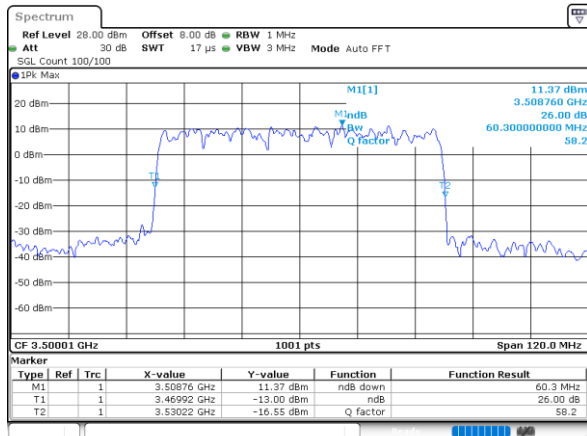
Middle Channel



Date: 29.AUG.2021 00:12:57

64QAM

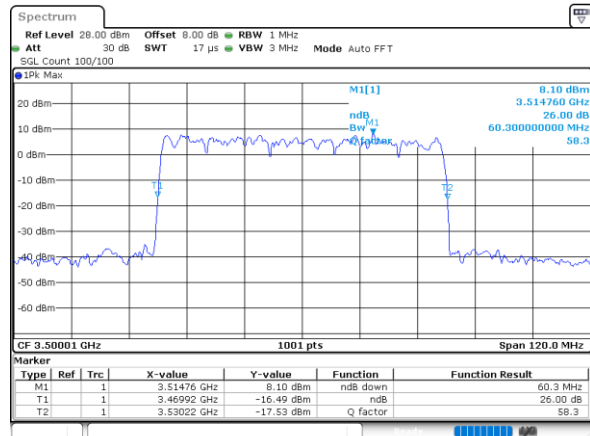
Middle Channel



Date: 29.AUG.2021 00:12:45

256QAM

Middle Channel



Date: 29.AUG.2021 00:12:29

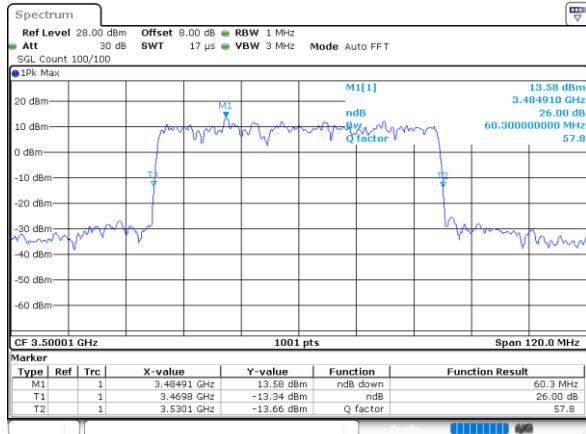
FR1 UL-MIMO n77 / 60MHz / CP-OFDM (Port 2)

QPSK

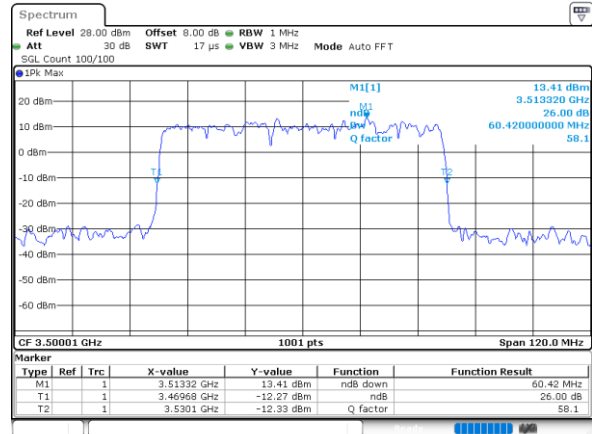
16QAM

Middle Channel

Middle Channel



Date: 29.AUG.2021 01:26:07



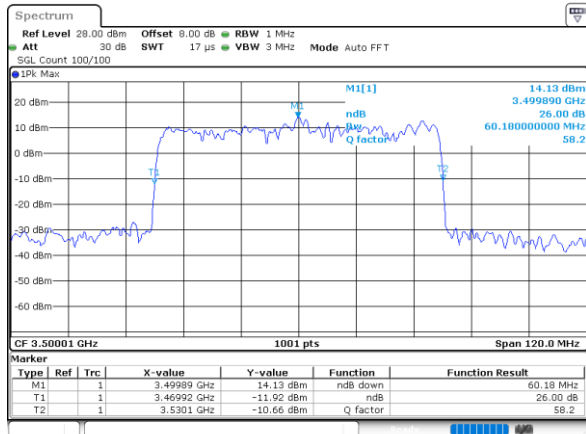
Date: 29.AUG.2021 01:25:54

64QAM

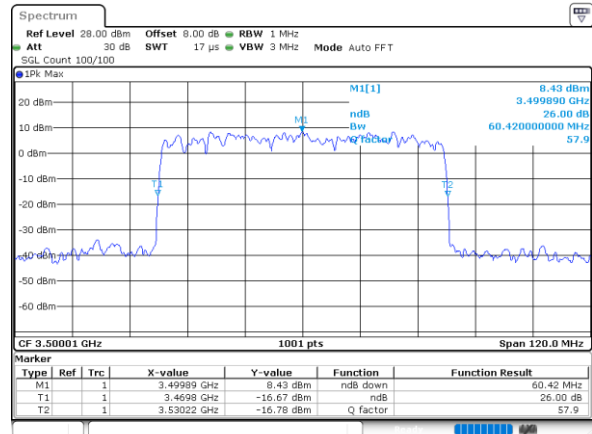
256QAM

Middle Channel

Middle Channel



Date: 29.AUG.2021 01:25:42



Date: 29.AUG.2021 01:25:26

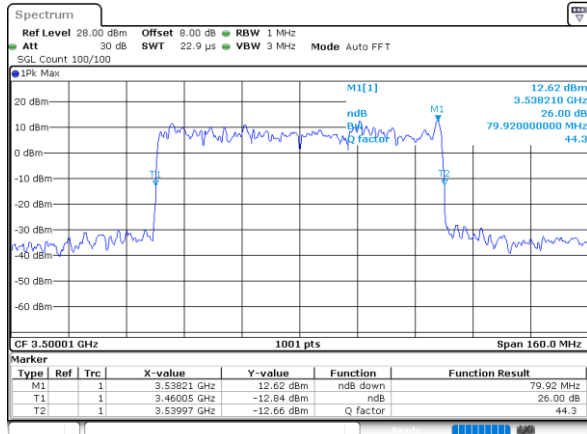
FR1 UL-MIMO n77 / 80MHz / CP-OFDM (Port 1)

QPSK

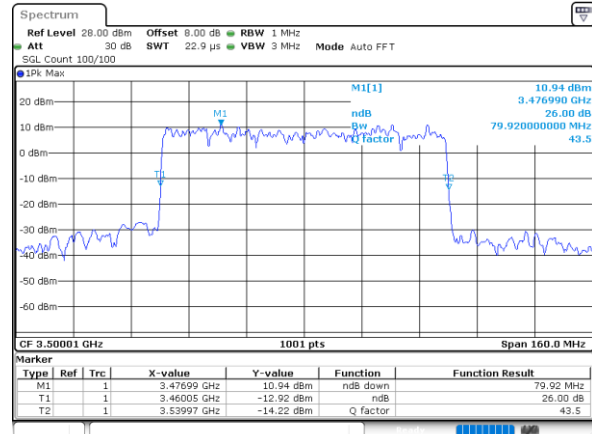
16QAM

Middle Channel

Middle Channel



Date: 29.AUG.2021 00:13:40



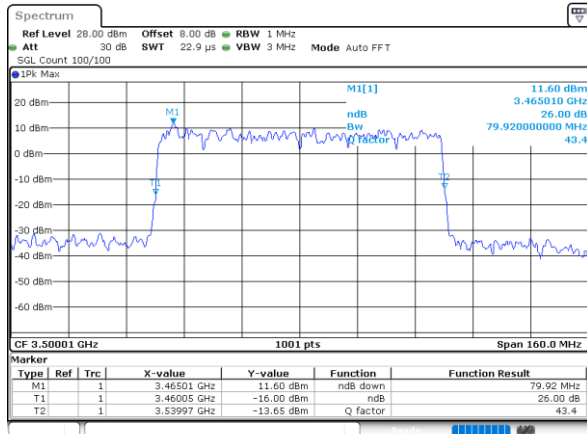
Date: 29.AUG.2021 00:13:51

64QAM

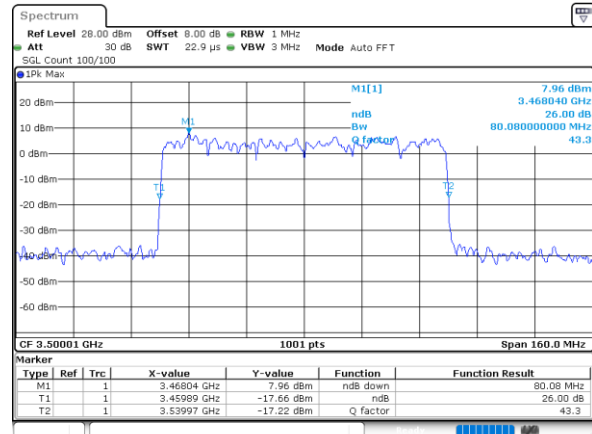
256QAM

Middle Channel

Middle Channel



Date: 29.AUG.2021 00:14:08



Date: 29.AUG.2021 00:14:25

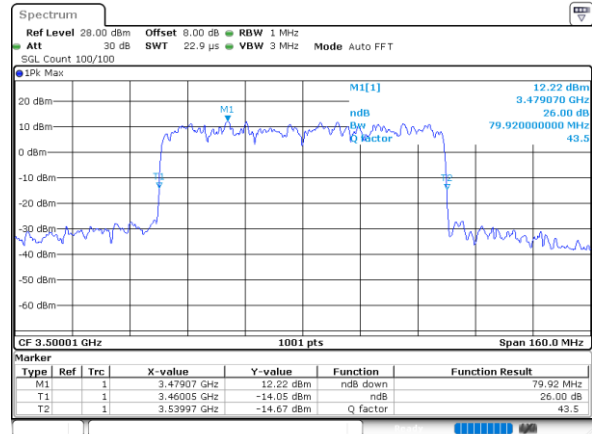
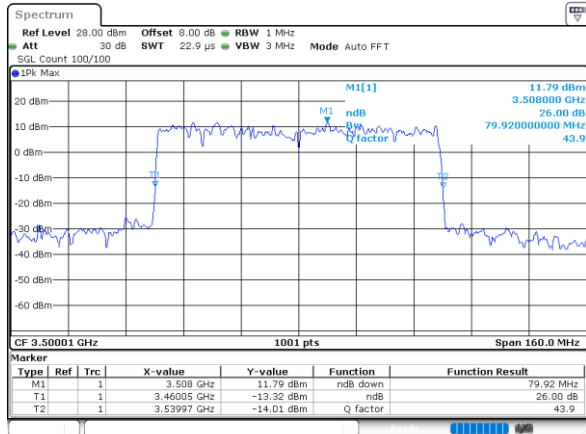
FR1 UL-MIMO n77 / 80MHz / CP-OFDM (Port 2)

QPSK

16QAM

Middle Channel

Middle Channel

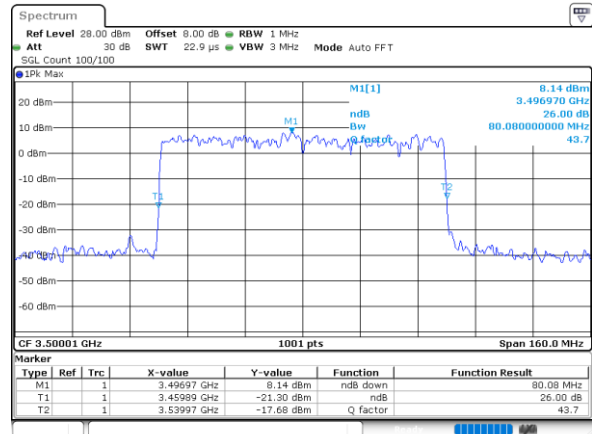
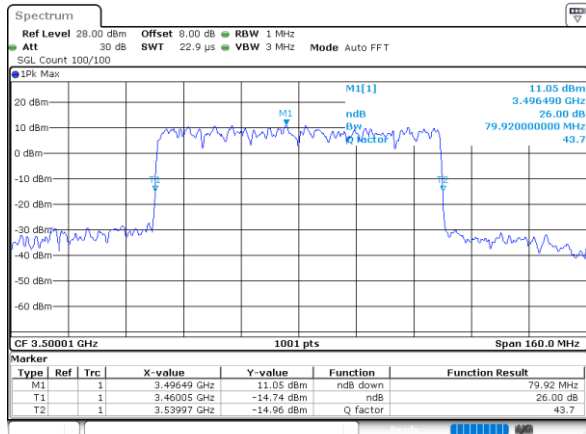


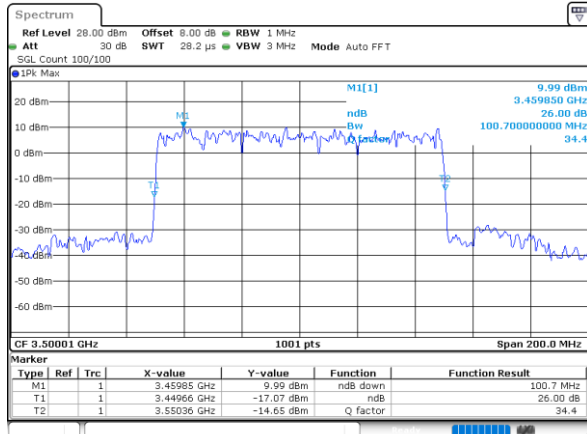
64QAM

256QAM

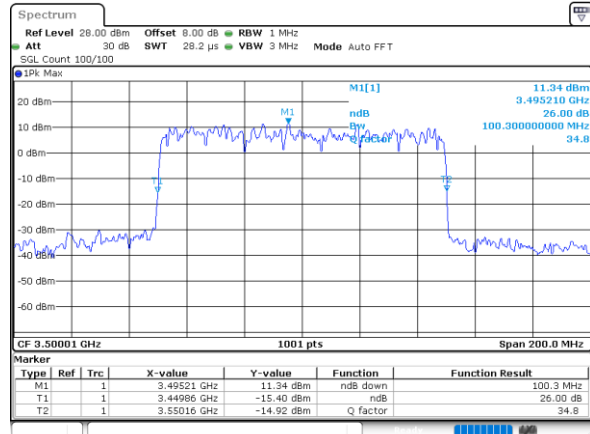
Middle Channel

Middle Channel

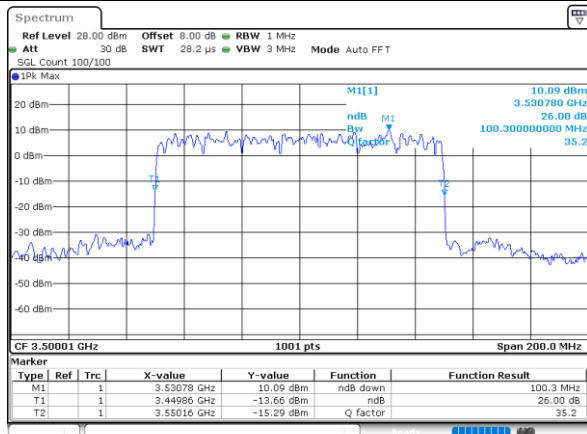


FR1 UL-MIMO n77 / 100MHz / CP-OFDM (Port 1)
QPSK
16QAM
Middle Channel
Middle Channel


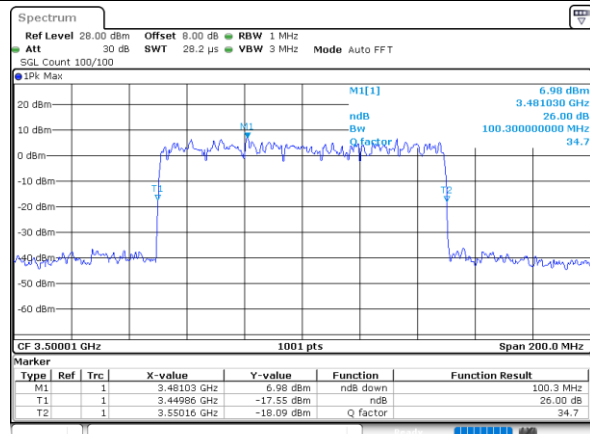
Date: 29.AUG.2021 00:15:40



Date: 29.AUG.2021 00:15:27

64QAM
256QAM
Middle Channel
Middle Channel


Date: 29.AUG.2021 00:15:11

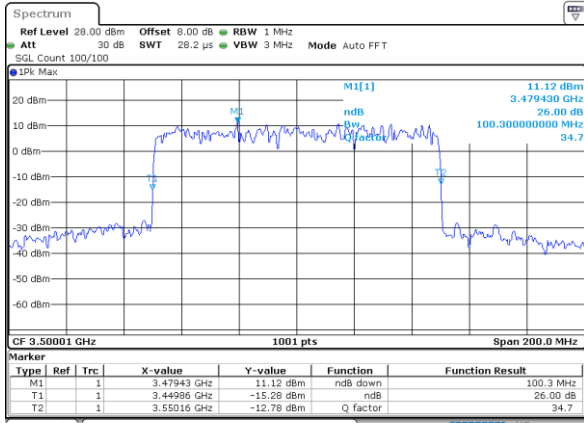


Date: 29.AUG.2021 00:14:52

FR1 UL-MIMO n77 / 100MHz / CP-OFDM (Port 2)

QPSK

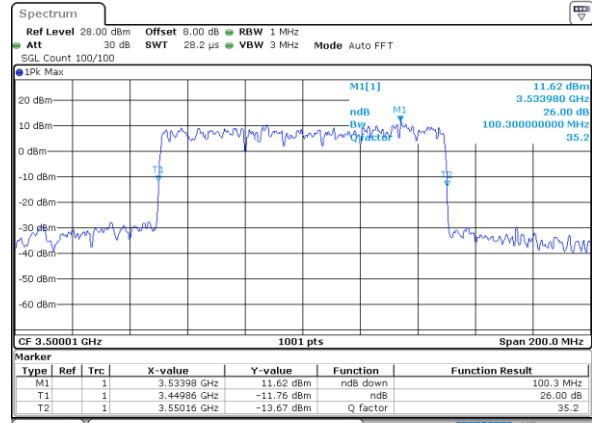
Middle Channel



Date: 29.AUG.2021 01:28:13

16QAM

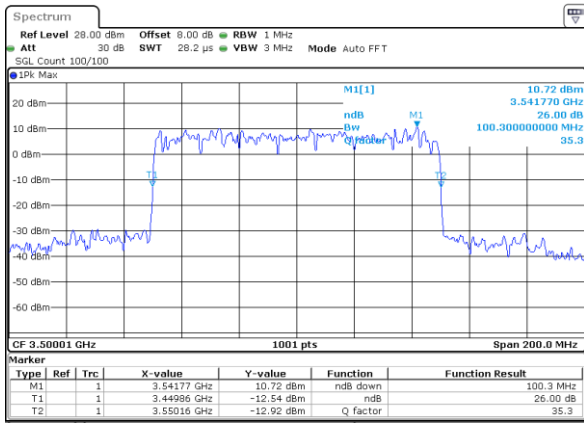
Middle Channel



Date: 29.AUG.2021 01:27:57

64QAM

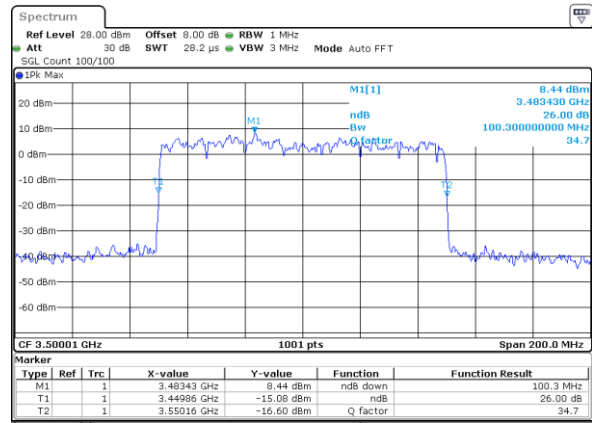
Middle Channel



Date: 29.AUG.2021 01:27:43

256QAM

Middle Channel



Date: 29.AUG.2021 01:27:28

Occupied Bandwidth

Mode	FR1 UL-MIMO n77 : OBW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz	10MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	8.57	8.59	8.57	8.57	8.57	8.57	8.59	8.59

Mode	FR1 UL-MIMO n77 : OBW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz	15MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	13.55	13.61	13.61	13.58	13.37	13.58	13.58	13.61

Mode	FR1 UL-MIMO n77 : OBW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	18.18	18.22	18.22	18.22	18.34	18.18	18.22	18.30

Mode	FR1 UL-MIMO n77 : OBW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz	40MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	37.96	38.20	37.96	38.36	38.04	38.12	37.88	38.04

Mode	FR1 UL-MIMO n77 : OBW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	47.15	47.85	47.65	47.65	47.65	46.95	47.75	47.55

Mode	FR1 UL-MIMO n77 : OBW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	60MHz	60MHz	60MHz	60MHz	60MHz	60MHz	60MHz	60MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	57.90	58.02	58.14	58.14	58.02	57.90	57.78	58.38



Mode	FR1 UL-MIMO n77 : OBW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz	80MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	77.36	77.52	77.36	77.52	77.52	77.68	77.20	77.20

Mode	FR1 UL-MIMO n77 : OBW(MHz) / CP-OFDM							
	Port 1				Port 2			
BW	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz	100MHz
Mod.	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Middle CH	97.10	97.30	97.50	97.50	97.10	97.10	96.70	96.90



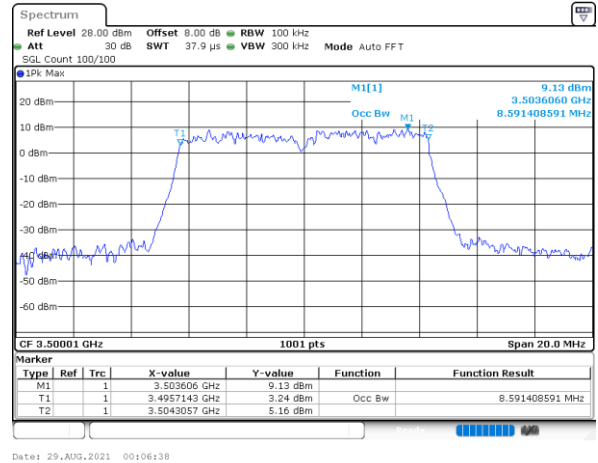
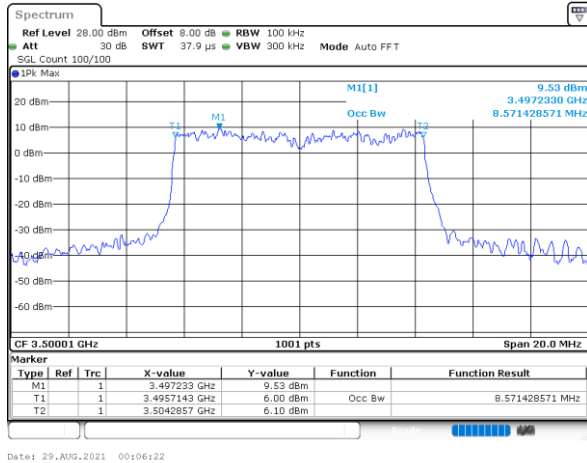
FR1 UL-MIMO n77 / 10MHz / CP-OFDM (Port 1)

QPSK

16QAM

Middle Channel

Middle Channel

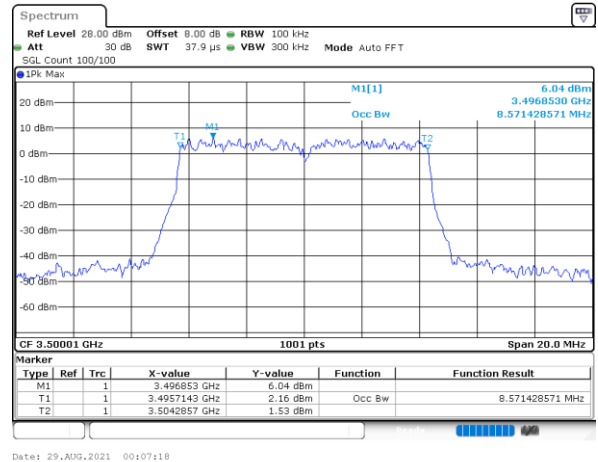
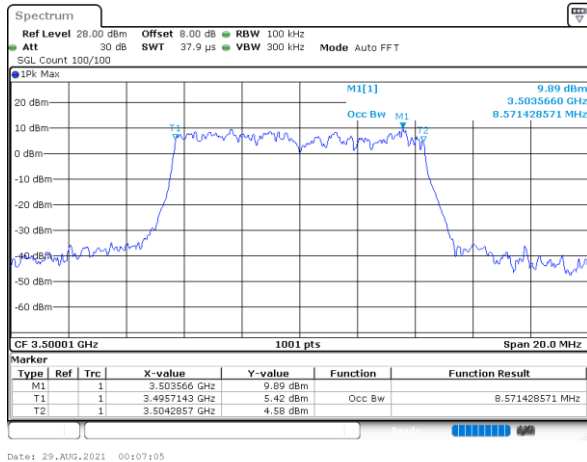


64QAM

256QAM

Middle Channel

Middle Channel



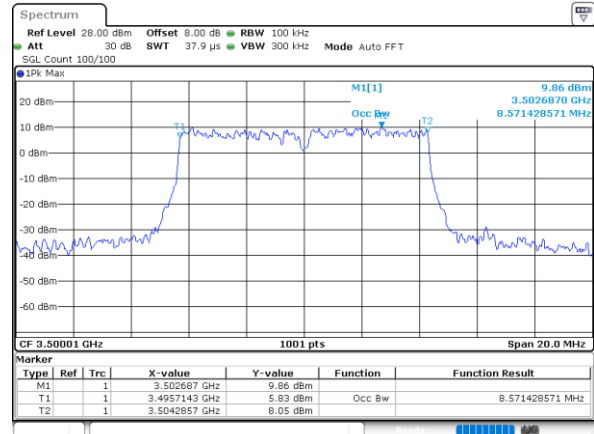
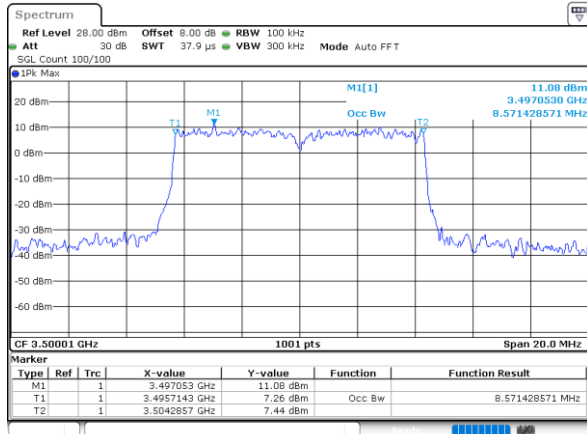
FR1 UL-MIMO n77 / 10MHz / CP-OFDM (Port 2)

QPSK

16QAM

Middle Channel

Middle Channel



64QAM

256QAM

Middle Channel

Middle Channel

