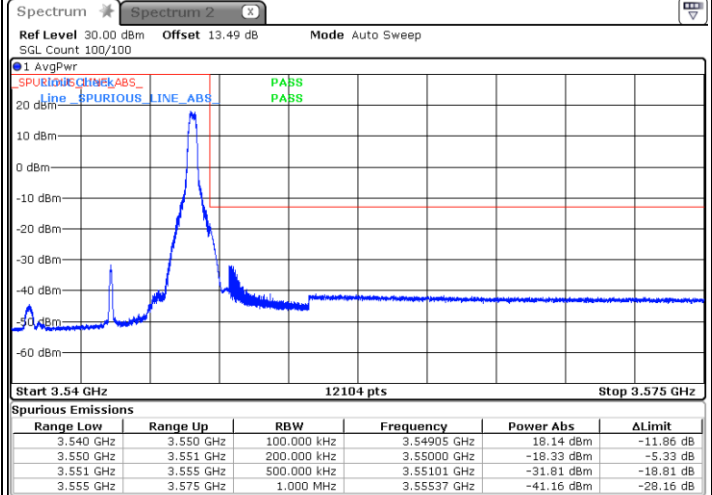
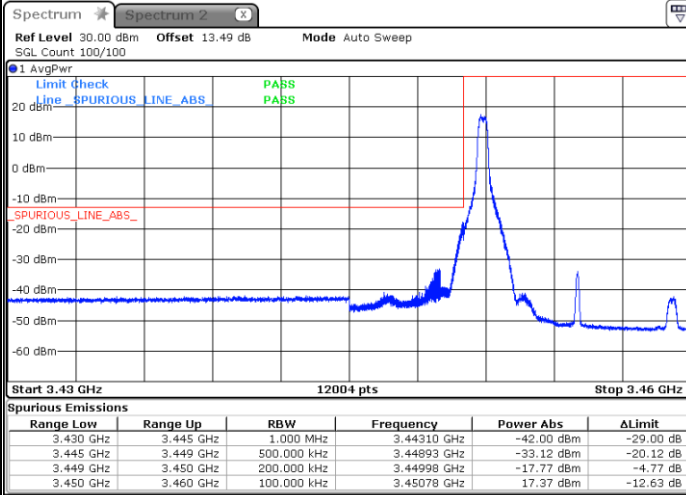




FR1 n77 / 10MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

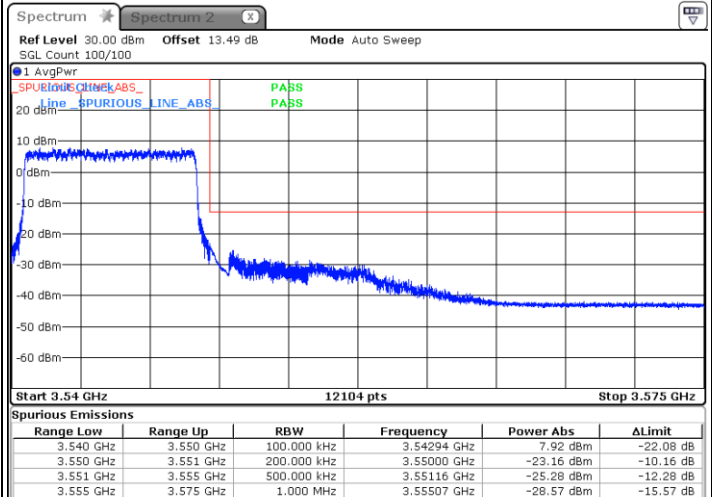
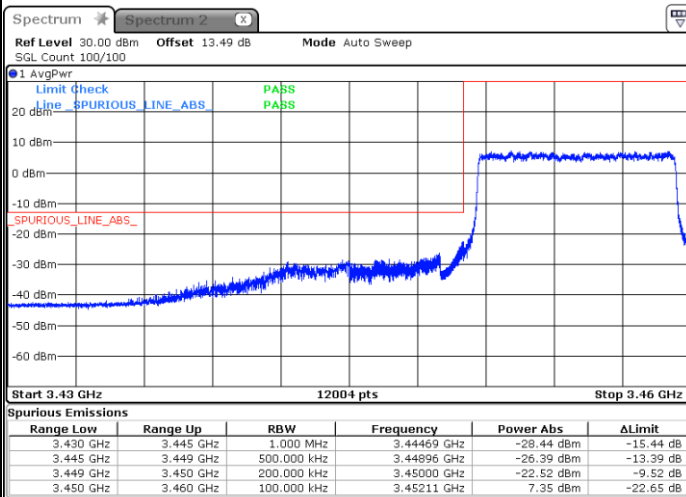


Date: 23.DEC.2022 01:29:42

Date: 23.DEC.2022 01:35:17

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 23.DEC.2022 01:30:47

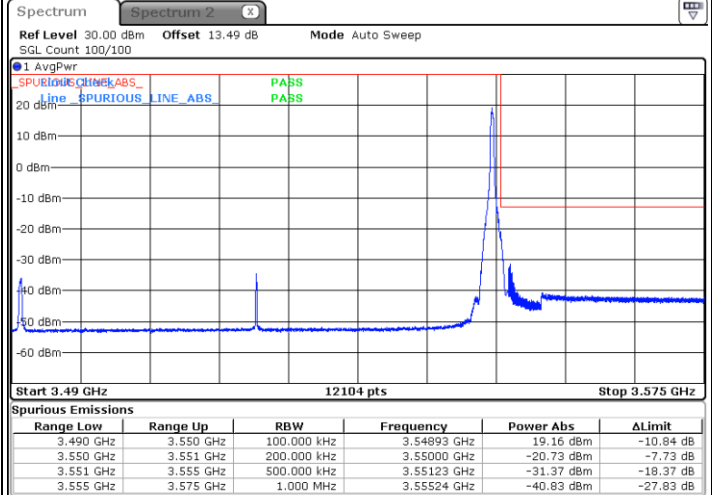
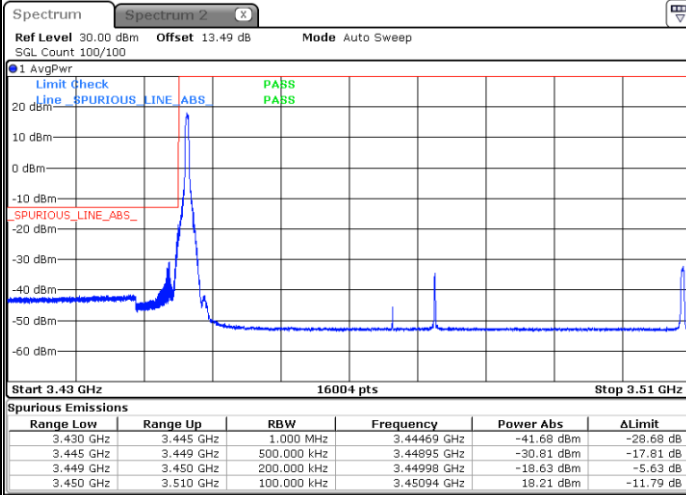
Date: 23.DEC.2022 01:34:17



FR1 n77 / 60MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

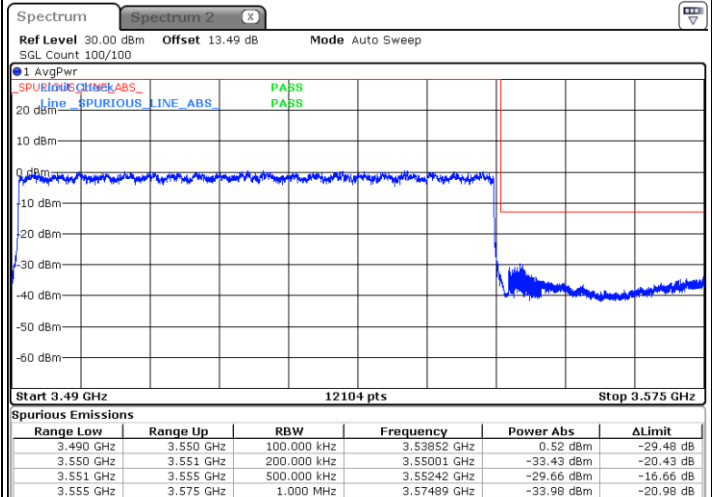
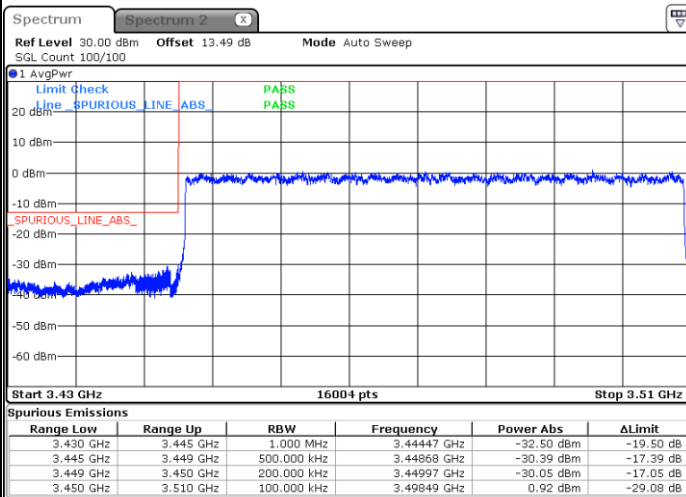


Date: 22.DEC.2022 22:44:28

Date: 22.DEC.2022 22:52:59

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 22.DEC.2022 22:46:28

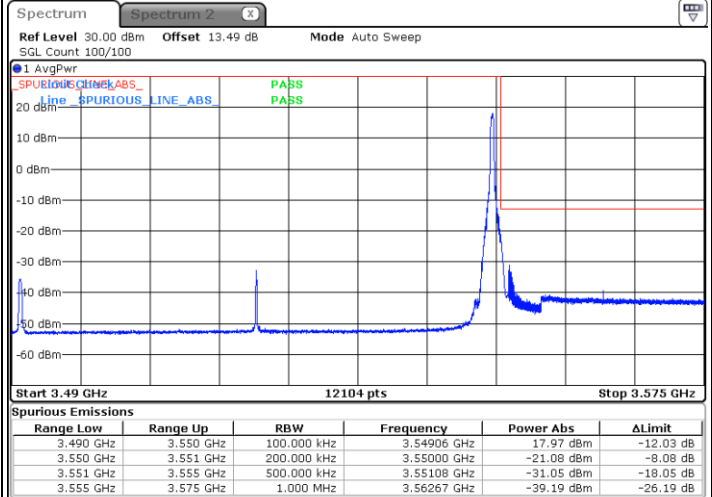
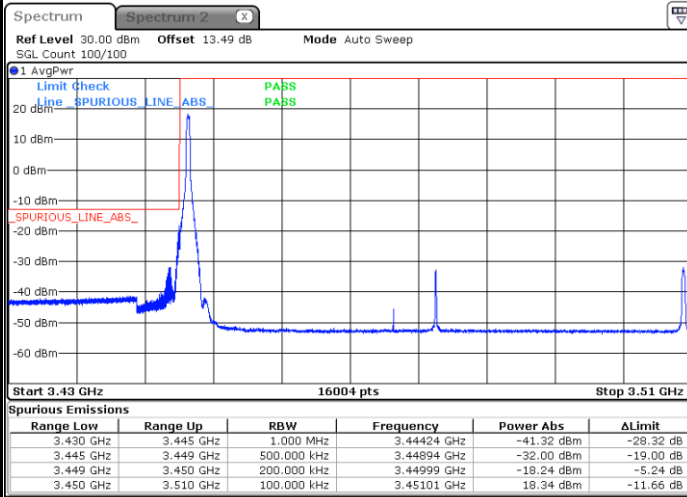
Date: 22.DEC.2022 22:48:30



FR1 n77 / 60MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

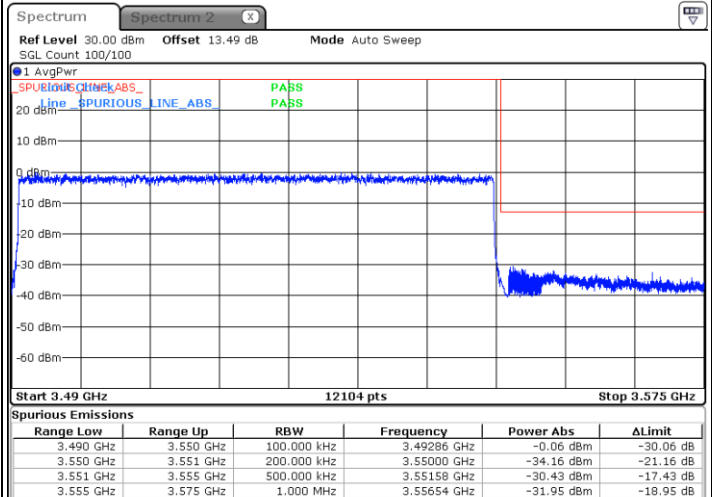
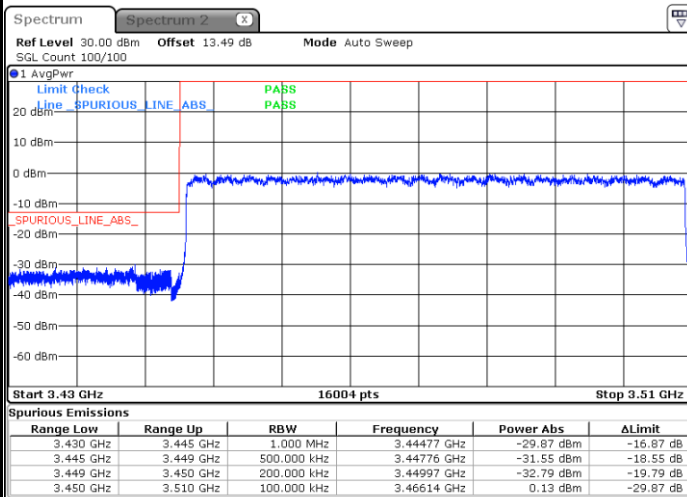


Date: 22.DEC.2022 22:45:10

Date: 22.DEC.2022 22:51:39

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 22.DEC.2022 22:45:49

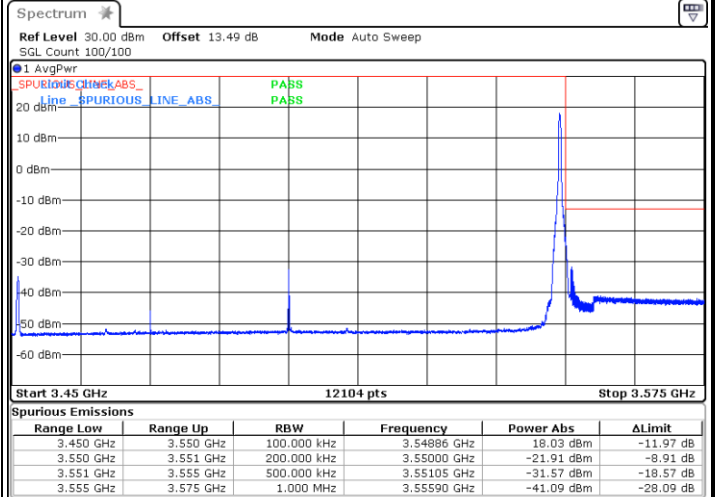
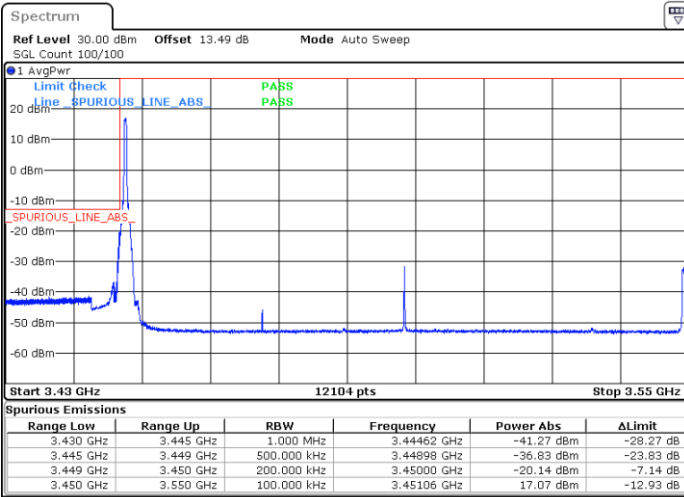
Date: 22.DEC.2022 22:50:39



FR1 n77 / 100MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

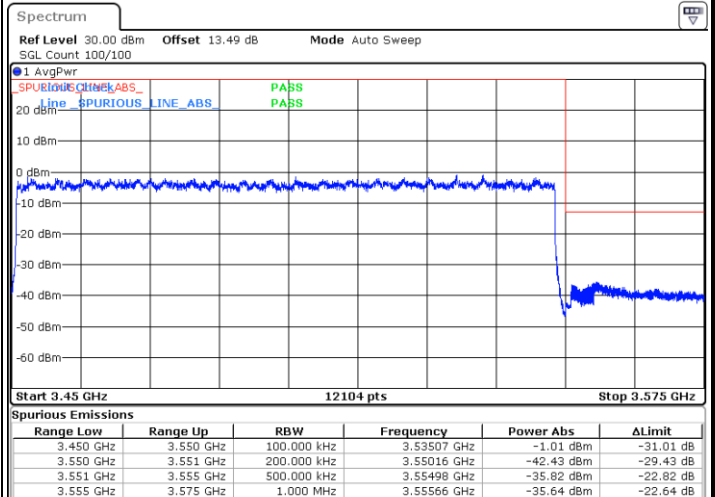
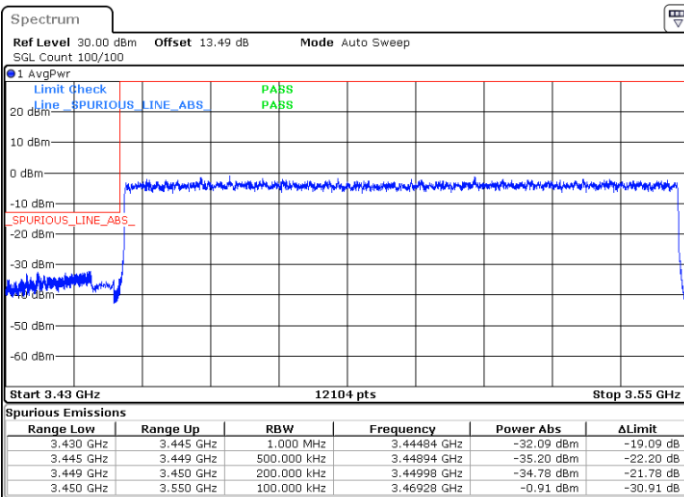


Date: 22.DEC.2022 22:05:46

Date: 22.DEC.2022 22:13:20

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 22.DEC.2022 22:07:38

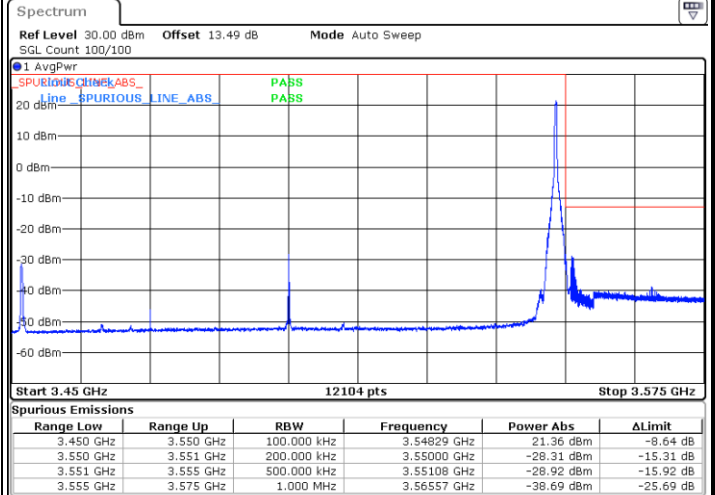
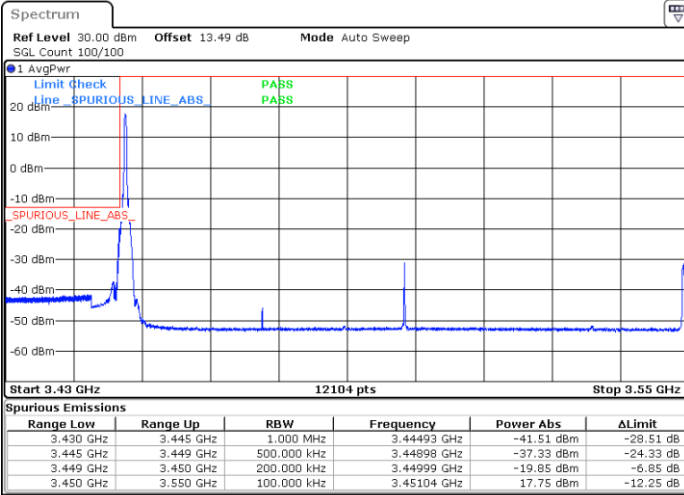
Date: 22.DEC.2022 22:09:50



FR1 n77 / 100MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

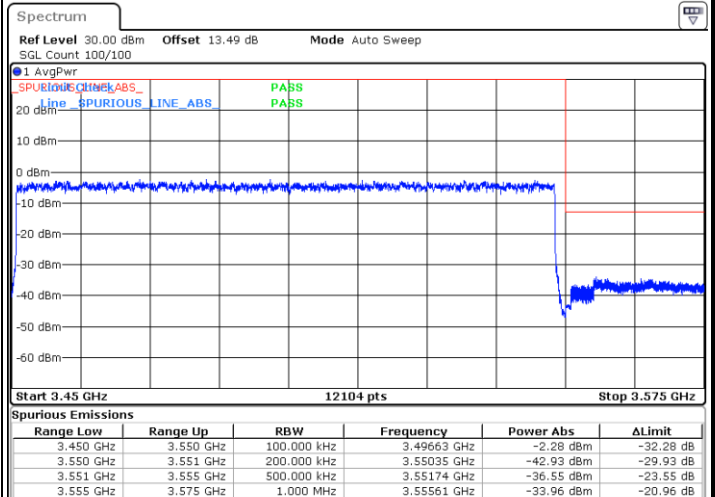
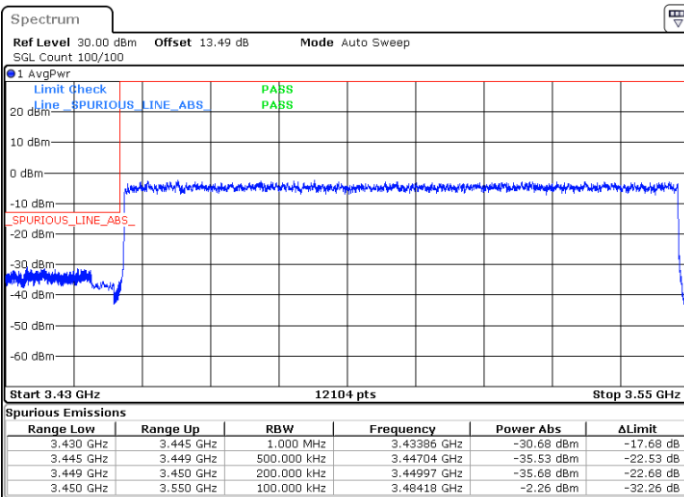


Date: 22.DEC.2022 22:06:22

Date: 22.DEC.2022 22:12:17

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

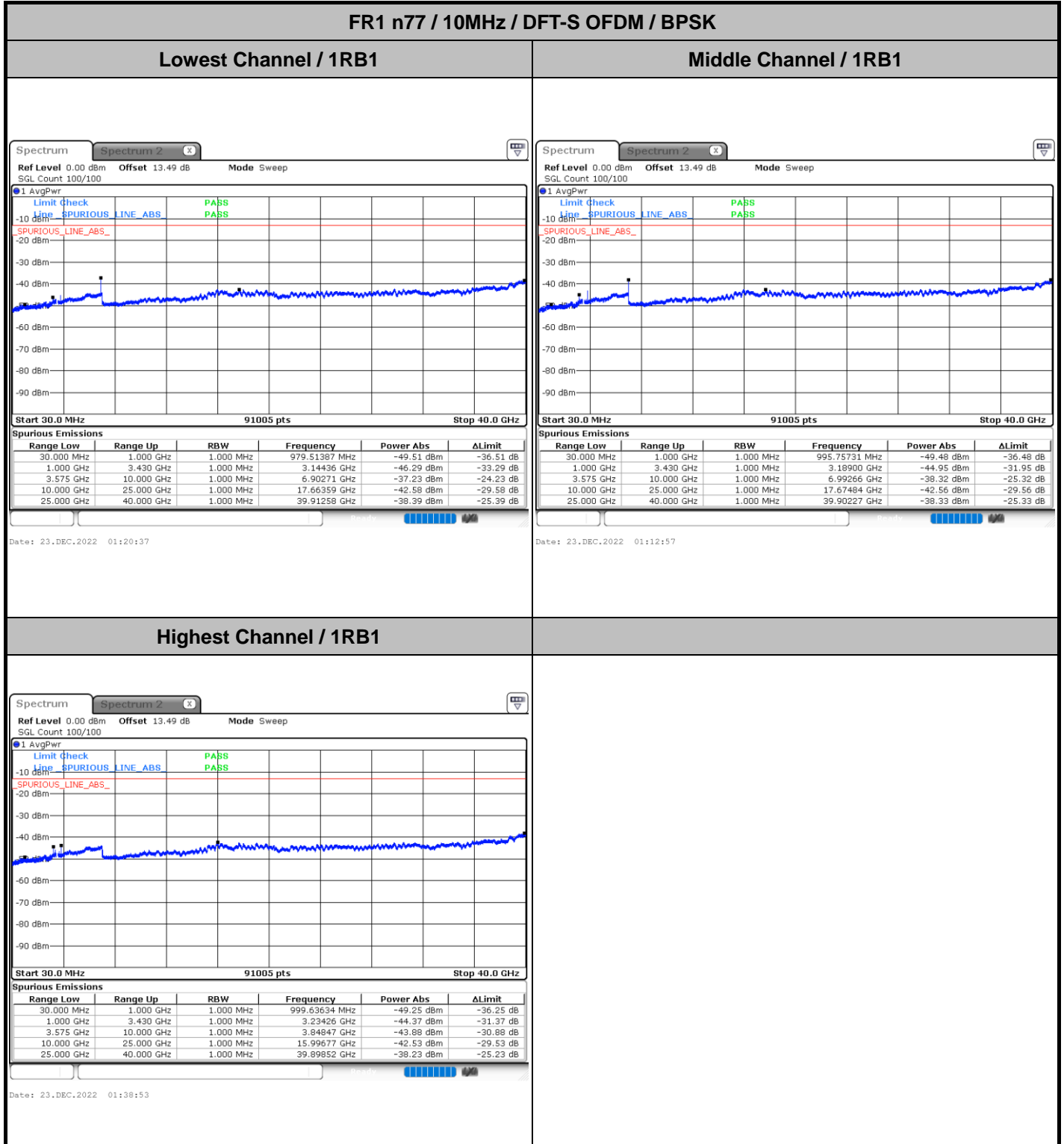


Date: 22.DEC.2022 22:07:00

Date: 22.DEC.2022 22:11:21



# Conducted Spurious Emission

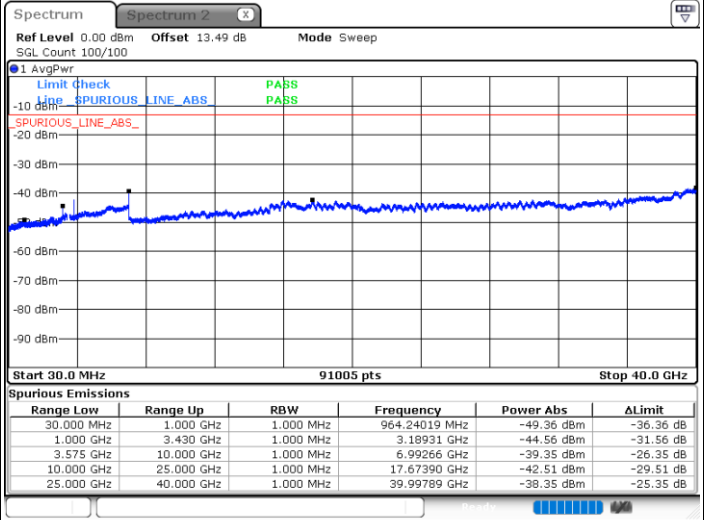
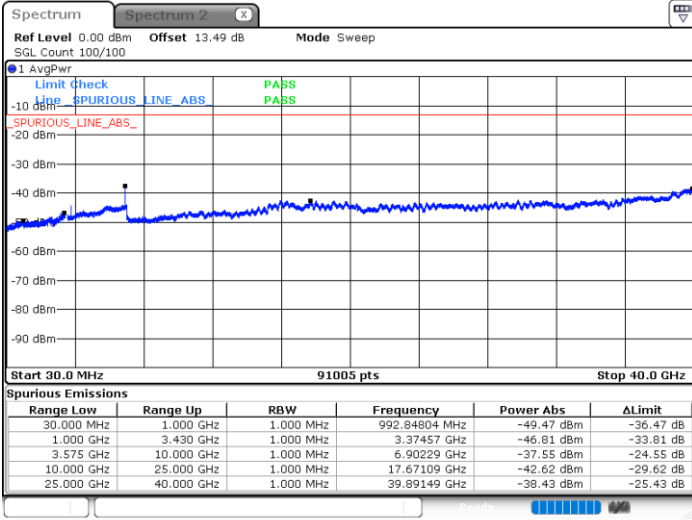




FR1 n77 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

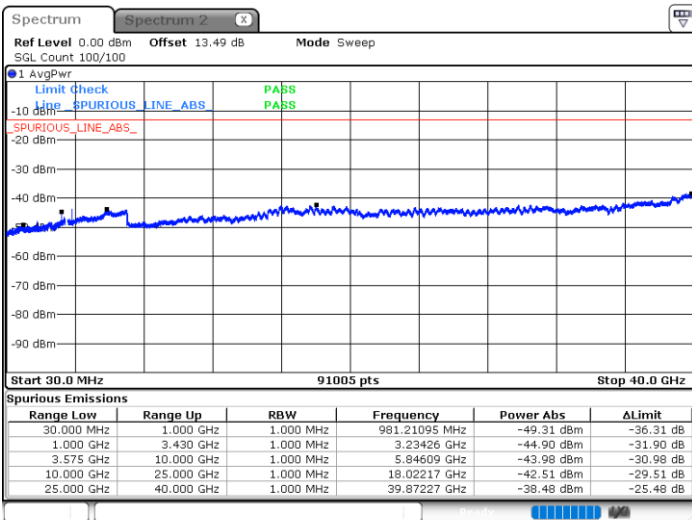
Middle Channel / 1RB1



Date: 23.DEC.2022 01:19:20

Date: 23.DEC.2022 01:14:42

Highest Channel / 1RB1



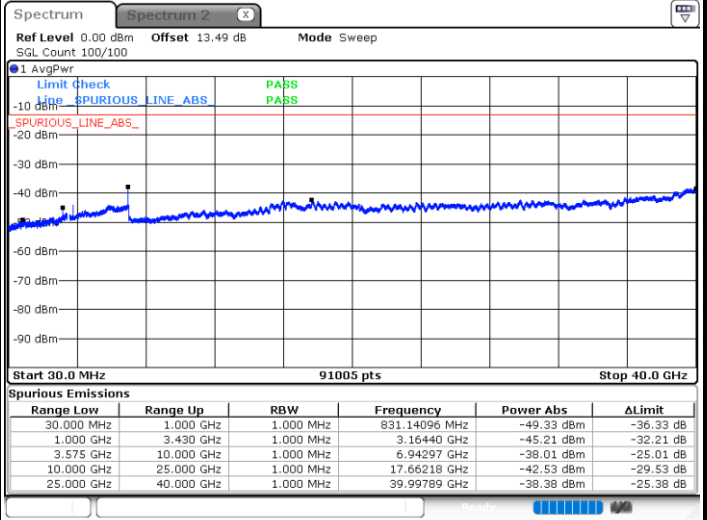
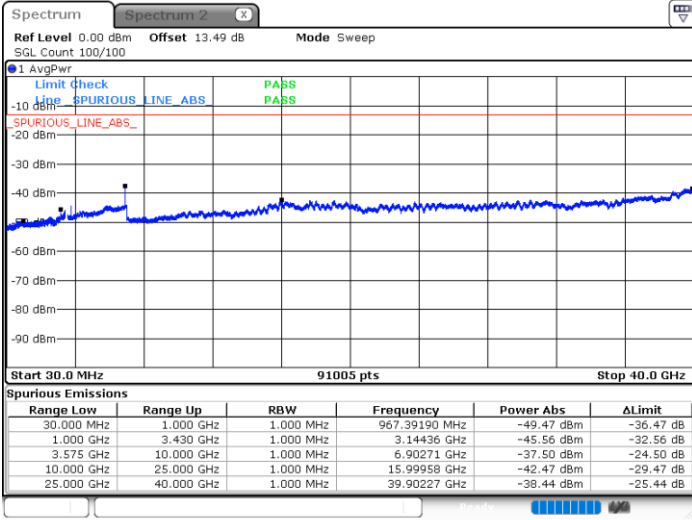
Date: 23.DEC.2022 01:40:07



FR1 n77 /60MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB1

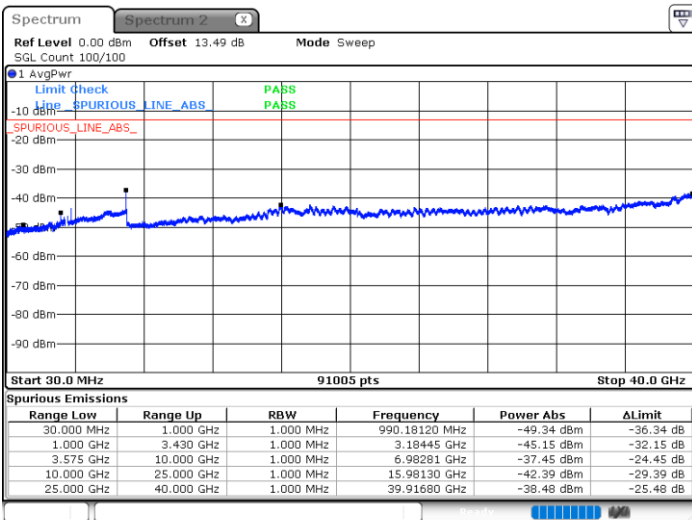
Middle Channel / 1RB1



Date: 22.DEC.2022 22:43:48

Date: 22.DEC.2022 22:38:57

Highest Channel / 1RB1



Date: 22.DEC.2022 22:57:19

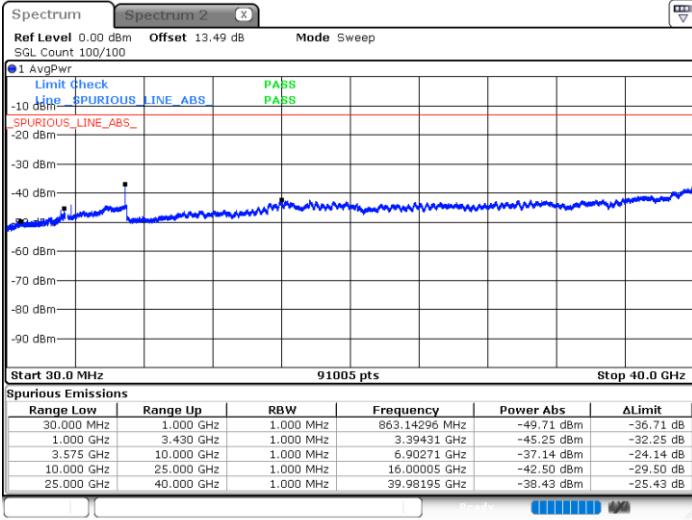




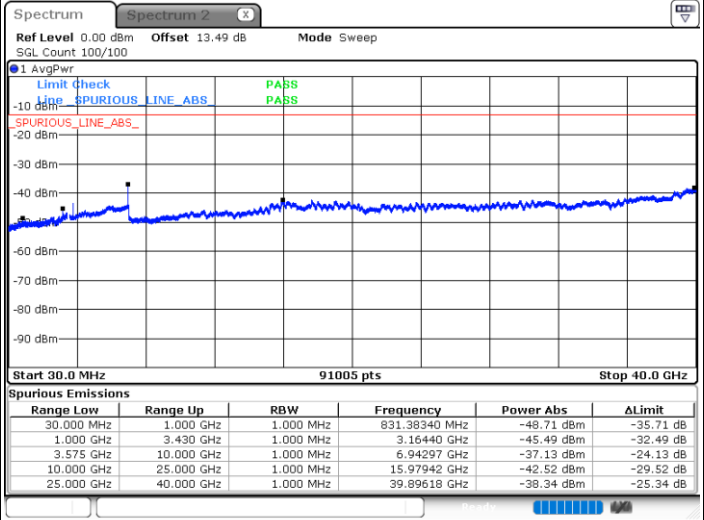
FR1 n77 /60MHz / DFT-S OFDM /QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

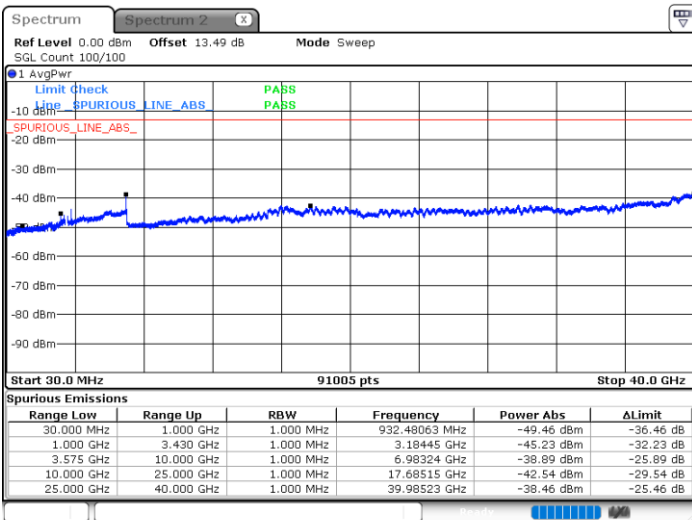


Date: 22.DEC.2022 22:42:38



Date: 22.DEC.2022 22:41:02

Highest Channel / 1RB1

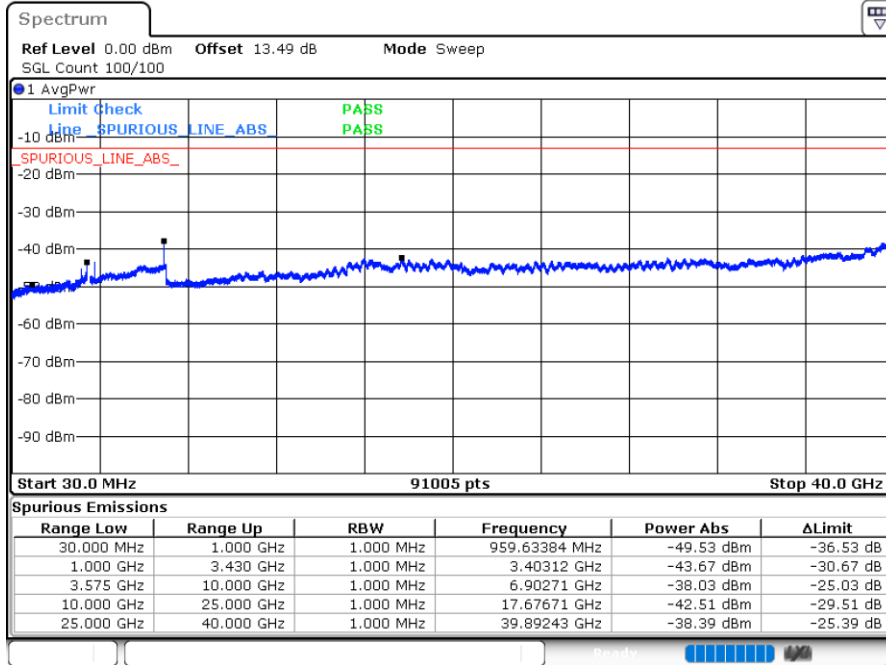


Date: 23.DEC.2022 00:56:23



FR1 n77 / 100MHz / DFT-S OFDM /BPSK

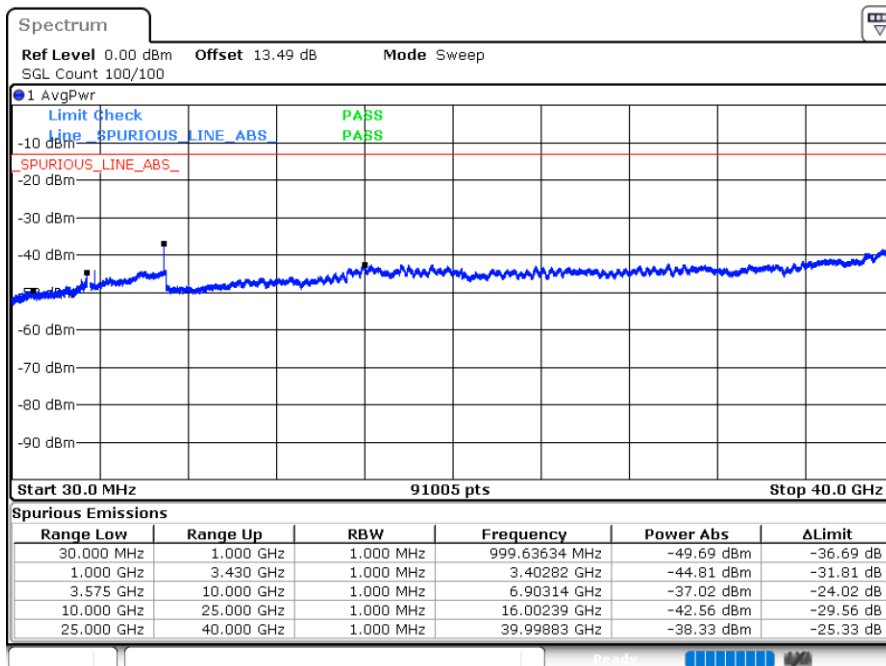
Middle Channel / 1RB1



Date: 22, DEC, 2022 21:58:15

FR1 n77 / 100MHz / DFT-S OFDM / QPSK

Middle Channel / 1RB1



Date: 22, DEC, 2022 21:56:43

## Frequency Stability

Test Conditions		FR1 n77 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0027	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0021	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0038	
0	Normal Voltage	0.0032	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0043	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0016	

**Note:**

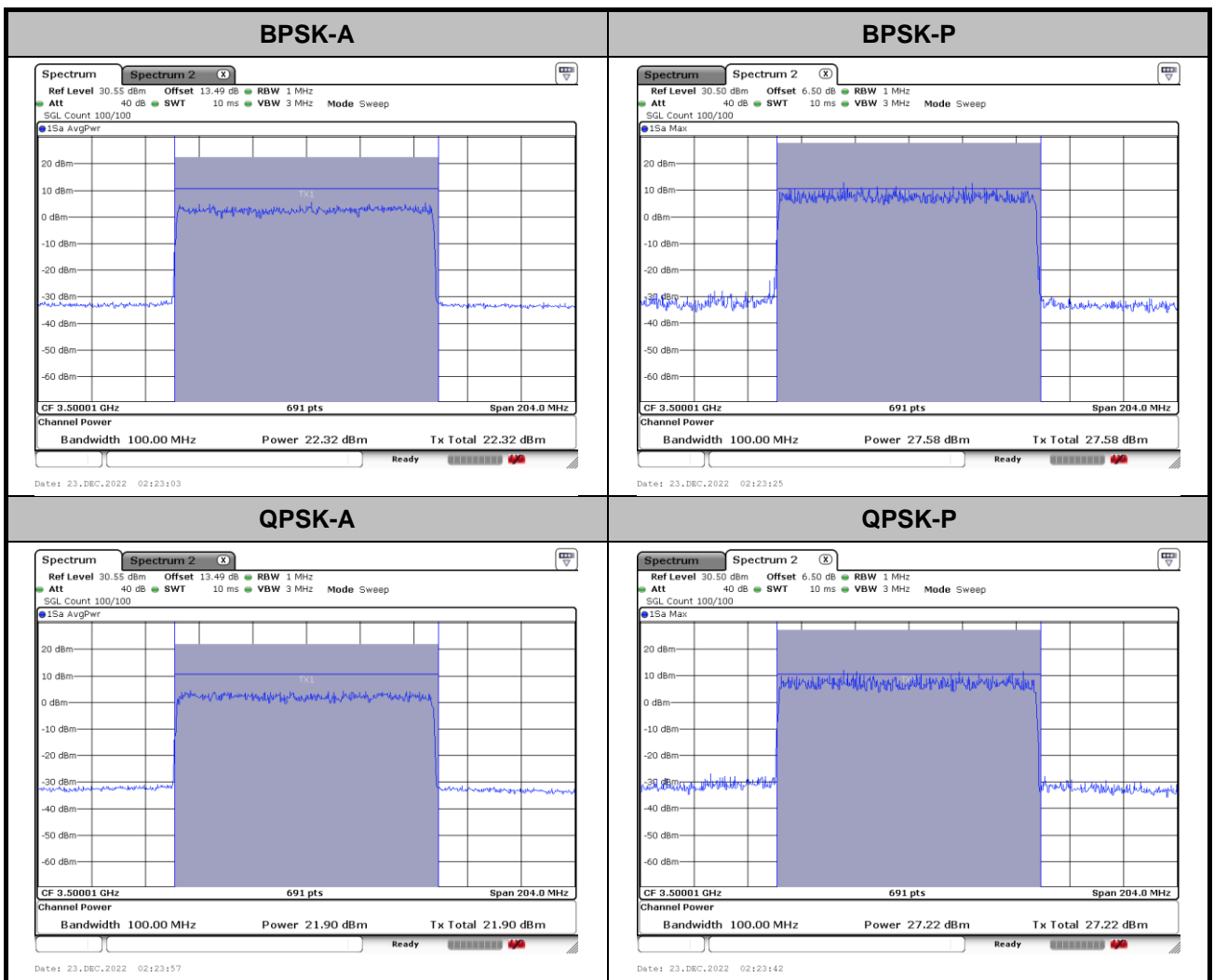
1. Normal Voltage =3.89 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# FR1 n78(DC\_66A\_n78A)

## Peak-to-Average Ratio

Mode	FR1 n78 /100MHz / DFT-S OFDM		
Mod.	100M		Limit: 13dB
RB Size	BPSK	QPSK	Result
Middle CH	5.26	5.32	PASS





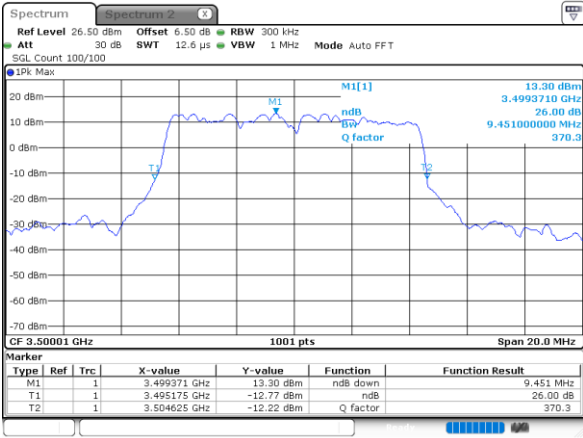
**26dB Bandwidth**

Mode	FR1 n78 : 26dB BW(10 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	9.45	9.81	9.25	9.43
Mode	FR1 n78 : 26dB BW(15MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	14.57	14.45	15.02	14.63
Mode	FR1 n78 : 26dB BW(20 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	20.78	20.38	20.54	20.26
Mode	FR1 n78 : 26dB BW(30 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	28.77	28.77	29.09	29.33
Mode	FR1 n78 : 26dB BW(40 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	40.60	40.52	40.44	40.28
Mode	FR1 n78 : 26dB BW(50 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	49.65	49.85	49.65	49.75
Mode	FR1 n78 : 26dB BW(60 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	62.34	62.58	62.22	62.46
Mode	FR1 n78 : 26dB BW(70 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	72.41	71.77	72.09	72.09
Mode	FR1 n78 : 26dB BW(80 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	82.32	82.32	82.32	82.32
Mode	FR1 n78 : 26dB BW(90 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	92.43	92.25	92.07	92.43
Mode	FR1 n78 : 26dB BW(100 MHz) / CP OFDM			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	102.50	102.50	102.30	102.50



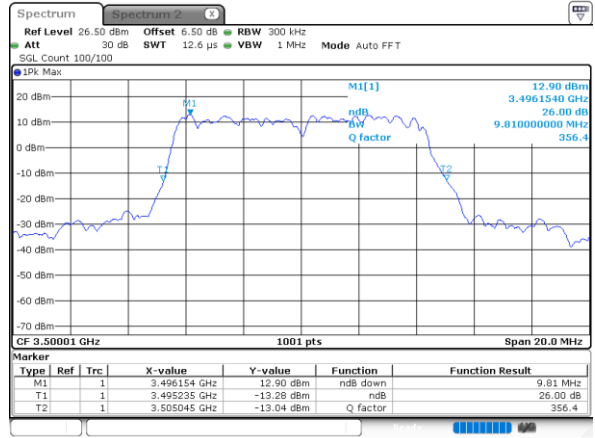
10MHz CP

QPSK



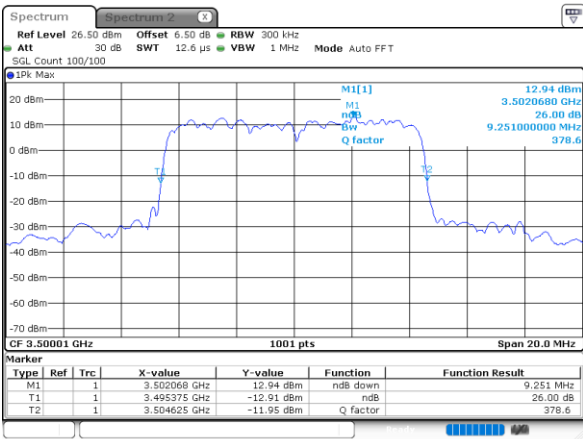
Date: 23. DEC. 2022 03:07:26

16QAM



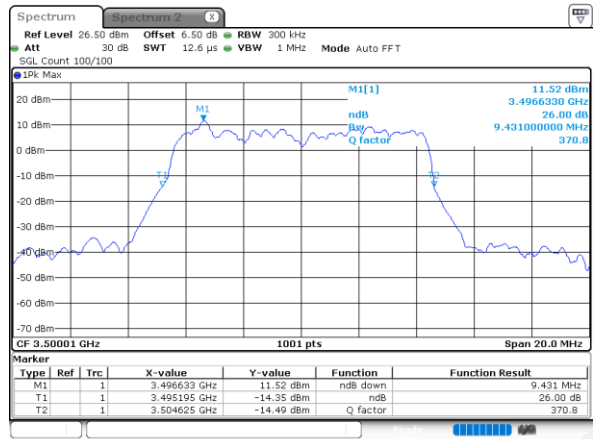
Date: 23. DEC. 2022 03:07:43

64QAM



Date: 23. DEC. 2022 03:08:00

256QAM

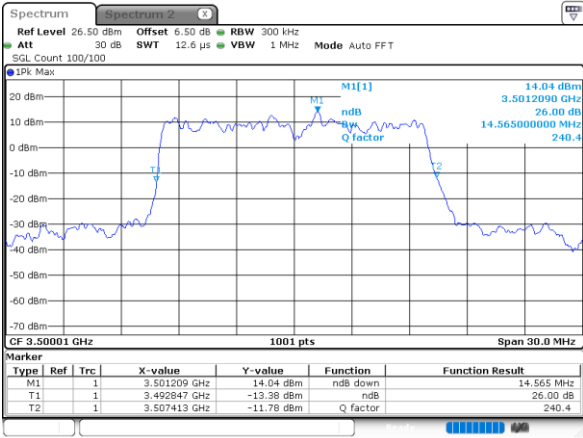


Date: 23. DEC. 2022 03:08:24



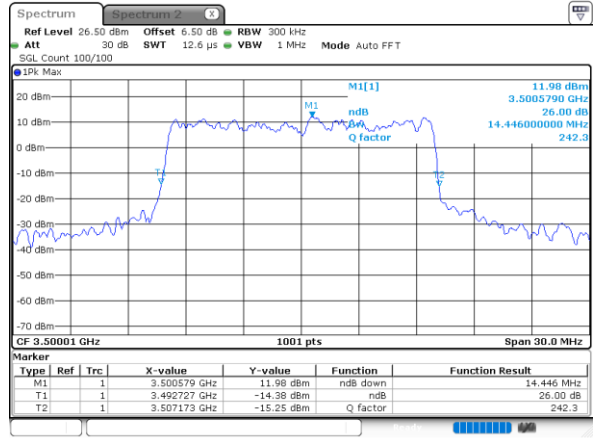
15MHz CP

QPSK



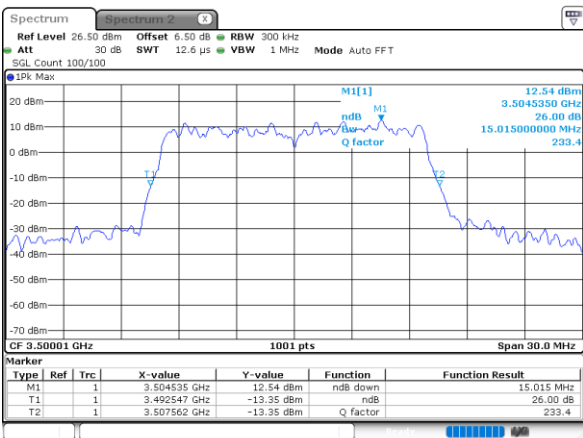
Date: 23. DEC. 2022 03:04:46

16QAM



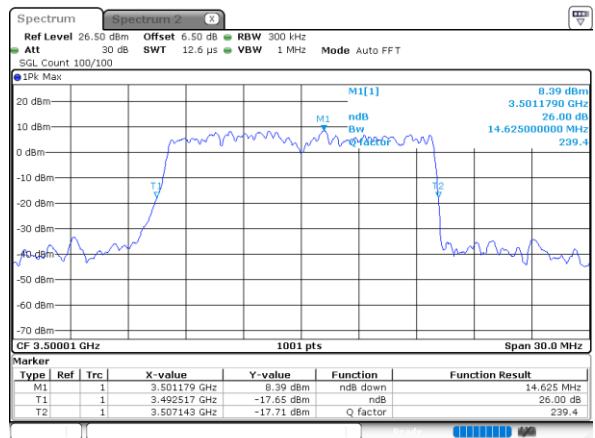
Date: 23. DEC. 2022 03:05:08

64QAM



Date: 23. DEC. 2022 03:05:26

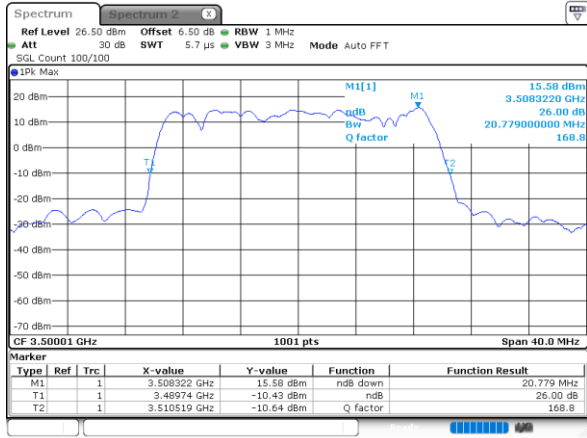
256QAM



Date: 23. DEC. 2022 03:05:52

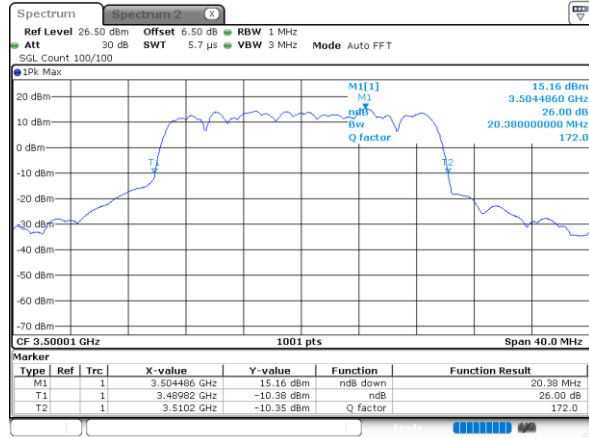
20MHz CP

QPSK



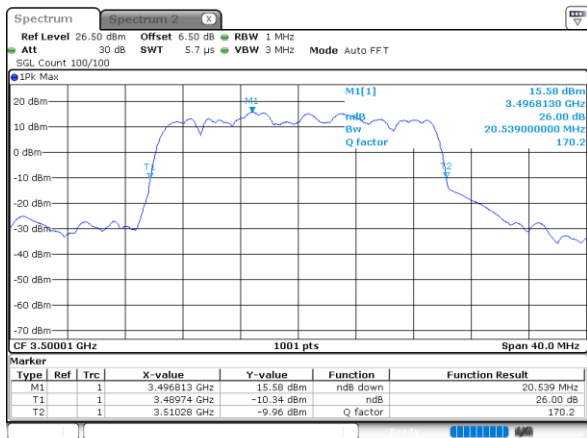
Date: 23. DEC. 2022 02:158:00

16QAM



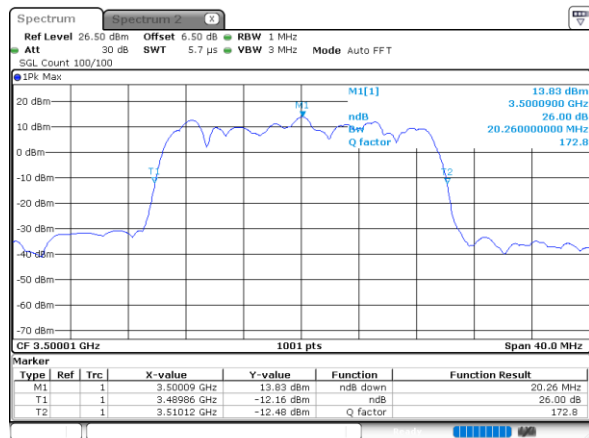
Date: 23. DEC. 2022 02:158:24

64QAM



Date: 23. DEC. 2022 02:158:39

256QAM



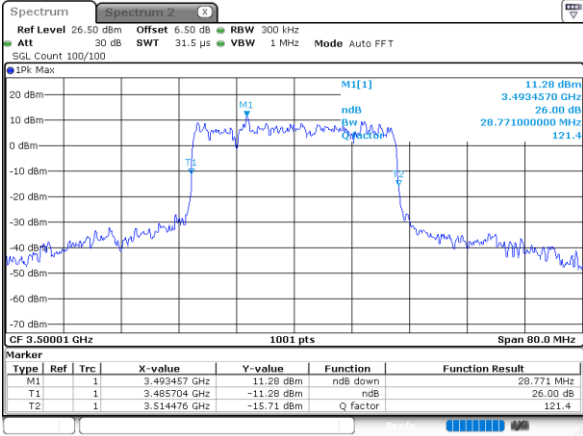
Date: 23. DEC. 2022 02:158:56





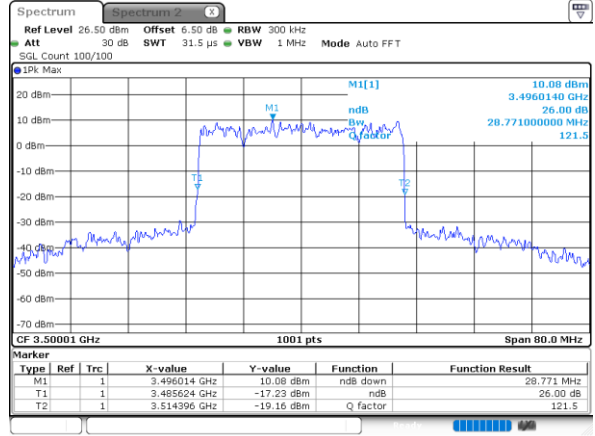
30MHz CP

QPSK



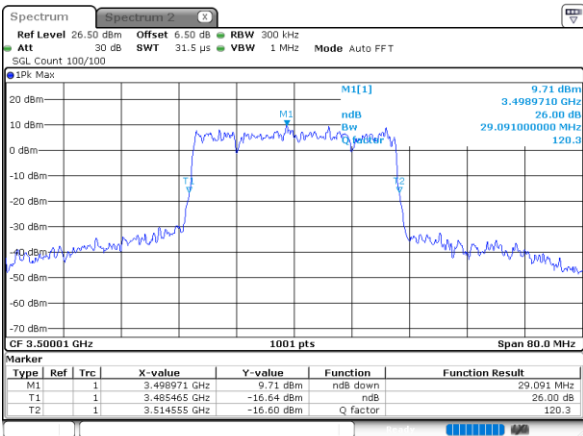
Date: 23. DEC. 2022 02:56:31

16QAM



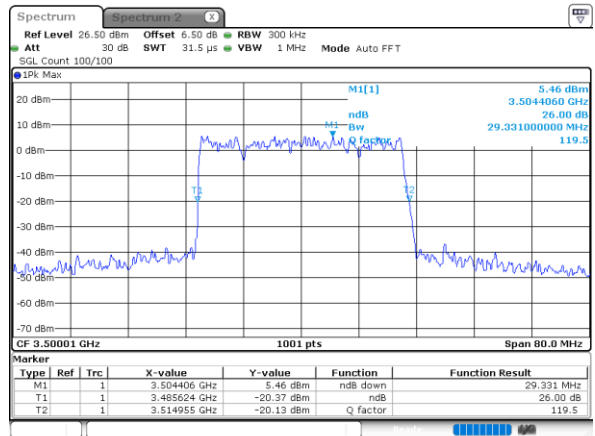
Date: 23. DEC. 2022 02:56:12

64QAM



Date: 23. DEC. 2022 02:55:54

256QAM

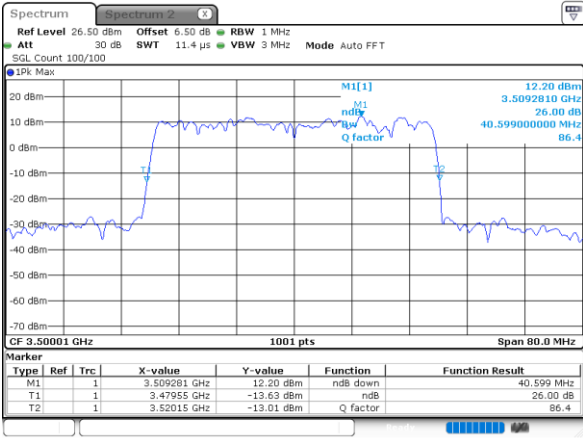


Date: 23. DEC. 2022 02:55:38



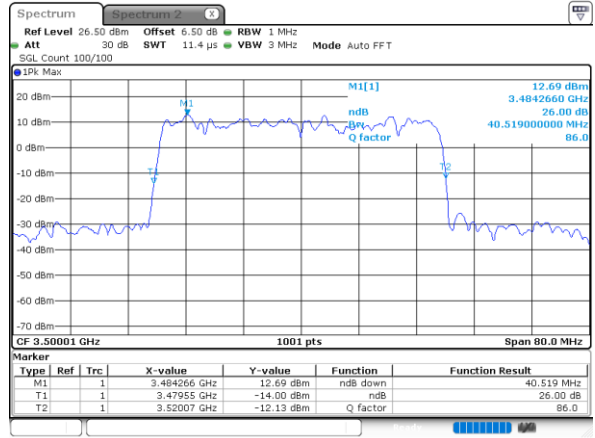
40MHz CP

QPSK



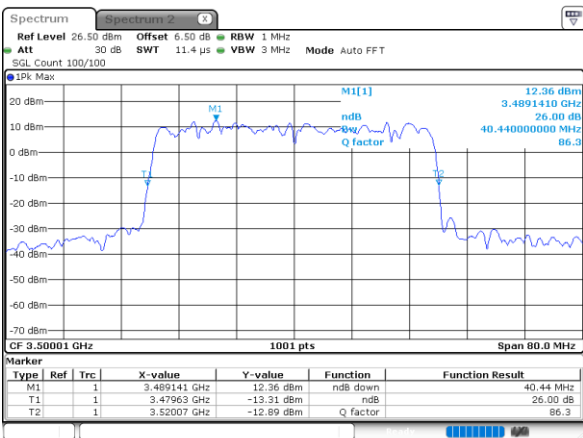
Date: 23. DEC. 2022 02:53:56

16QAM



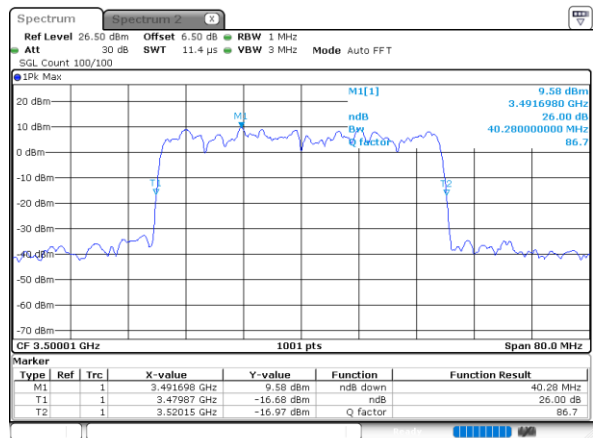
Date: 23. DEC. 2022 02:54:12

64QAM



Date: 23. DEC. 2022 02:54:35

256QAM

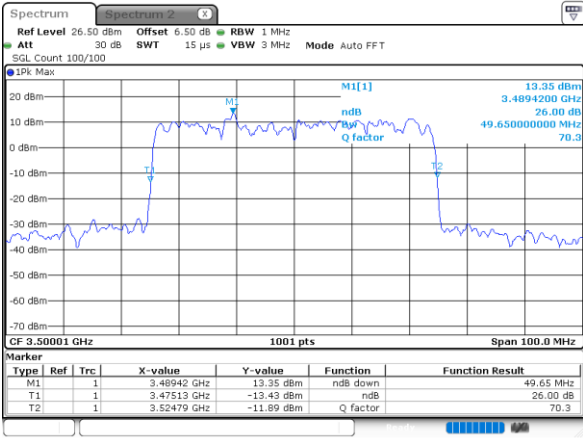


Date: 23. DEC. 2022 02:55:04



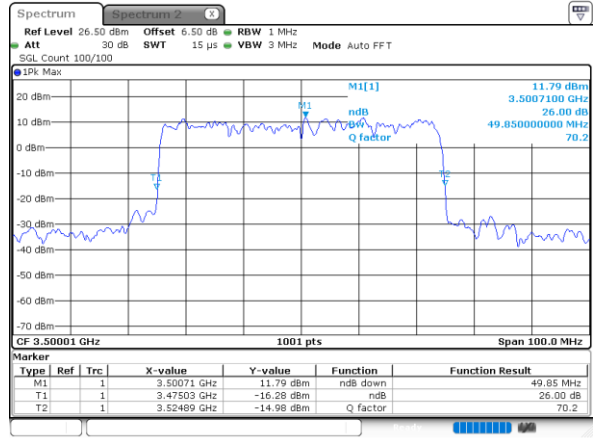
50MHz CP

QPSK



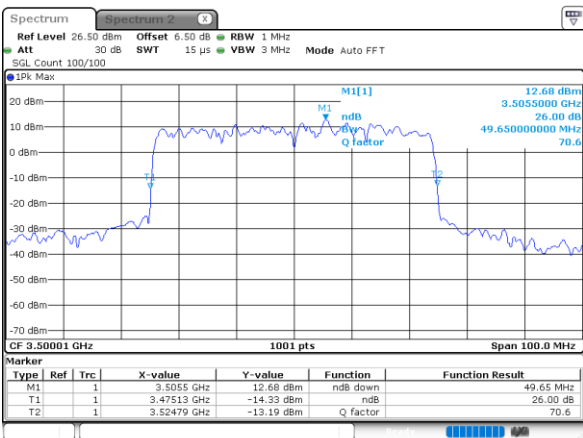
Date: 23. DEC. 2022 02:52:26

16QAM



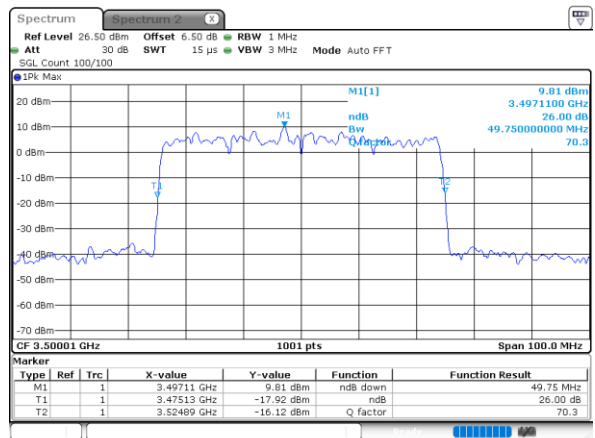
Date: 23. DEC. 2022 02:52:42

64QAM



Date: 23. DEC. 2022 02:53:02

256QAM

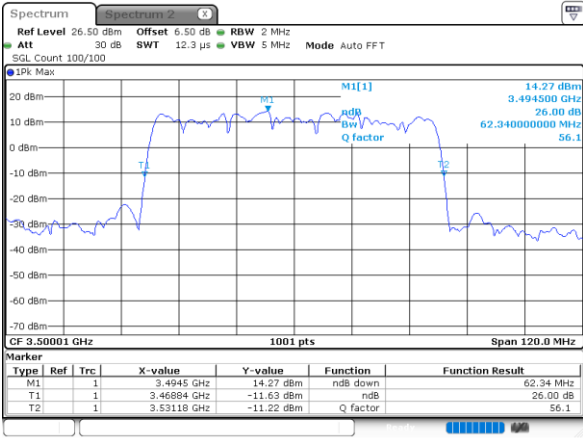


Date: 23. DEC. 2022 02:53:22



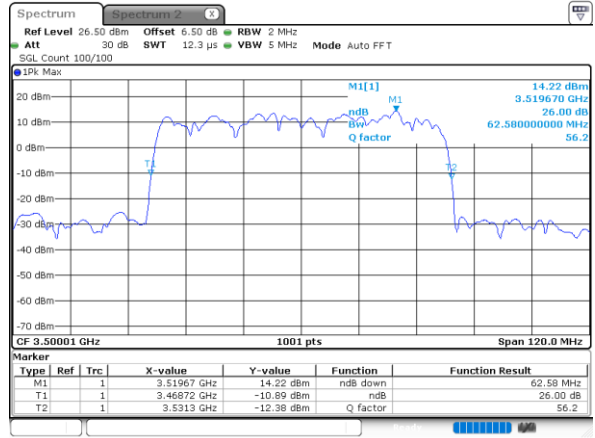
60MHz CP

QPSK



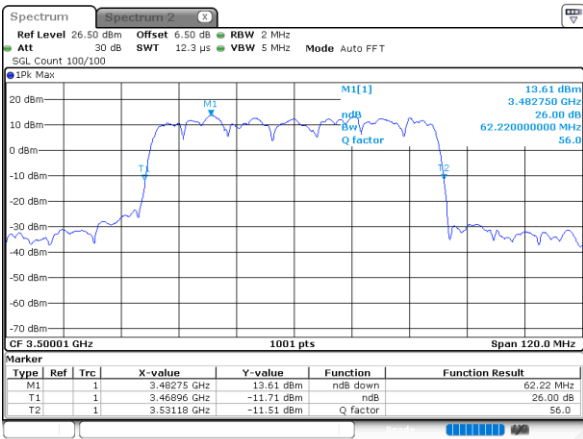
Date: 23. DEC. 2022 02:31:39

16QAM



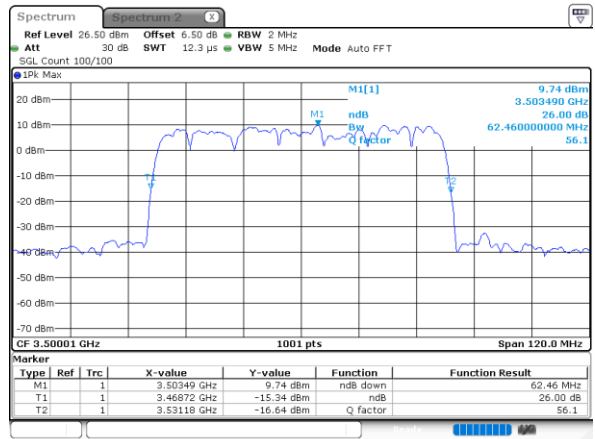
Date: 23. DEC. 2022 02:31:21

64QAM



Date: 23. DEC. 2022 02:31:04

256QAM

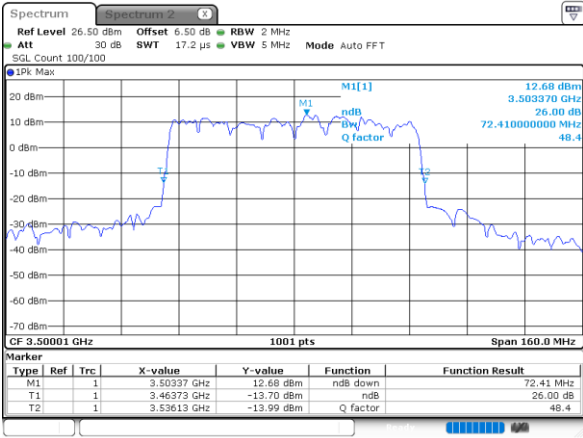


Date: 23. DEC. 2022 02:30:43



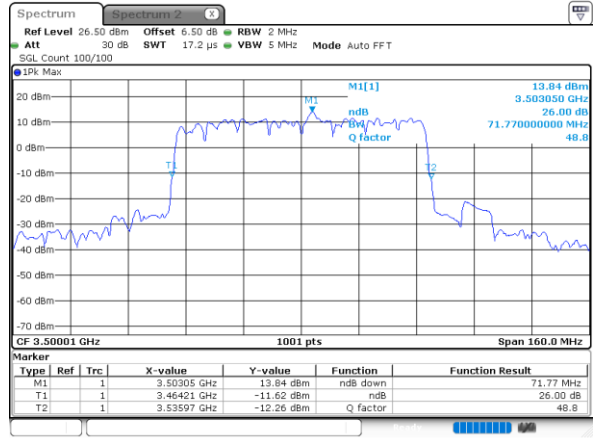
70MHz CP

QPSK



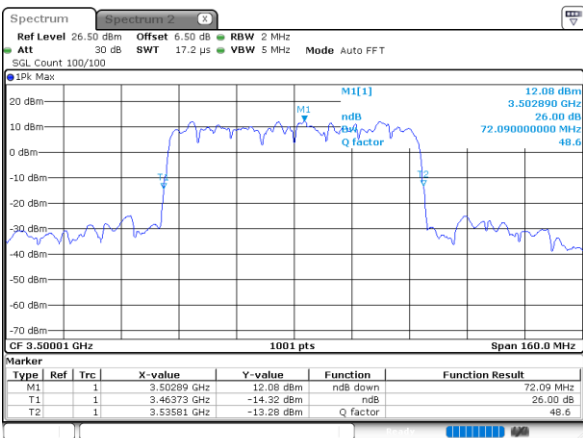
Date: 23. DEC. 2022 02:28:55

16QAM



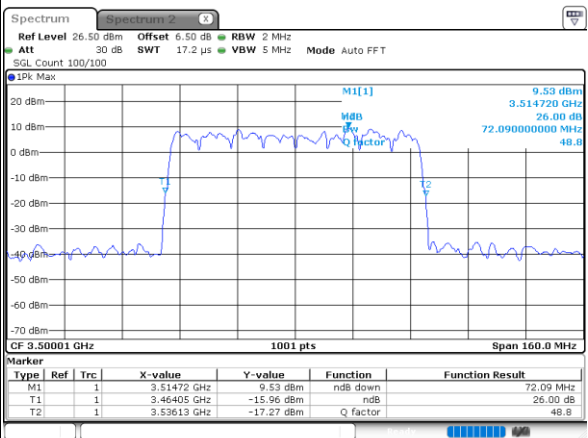
Date: 23. DEC. 2022 02:29:14

64QAM



Date: 23. DEC. 2022 02:29:32

256QAM

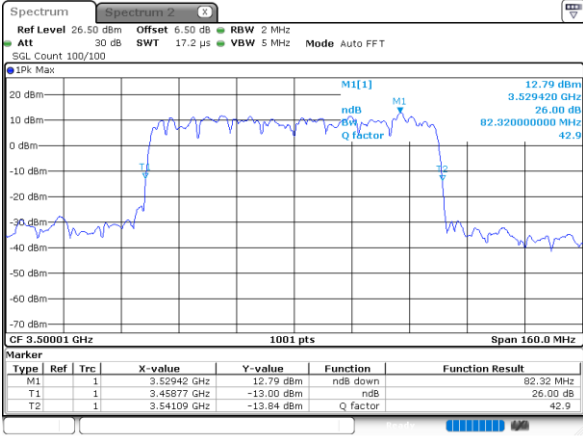


Date: 23. DEC. 2022 02:29:54



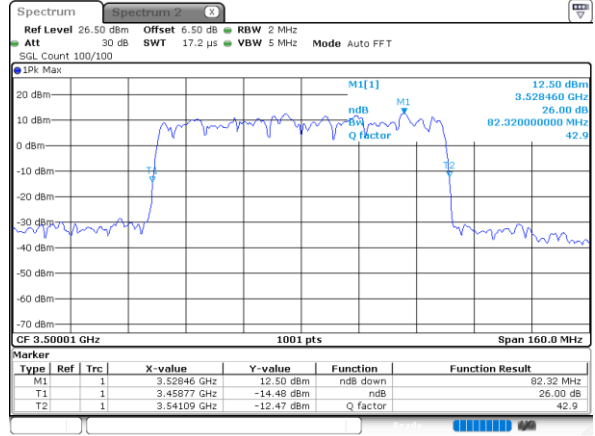
80MHz CP

QPSK



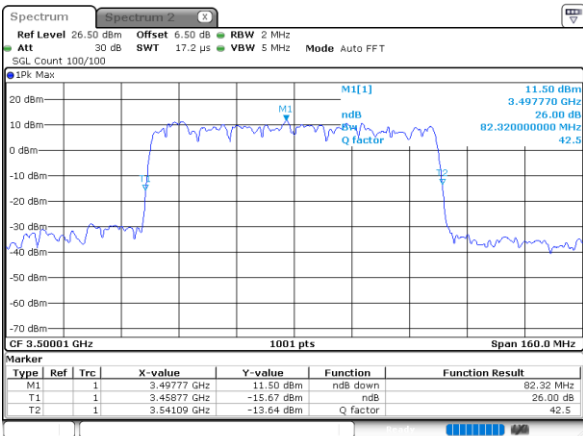
Date: 23. DEC. 2022 02:28:28

16QAM



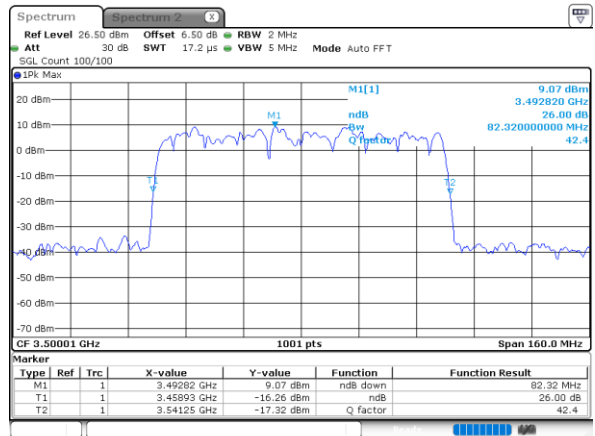
Date: 23. DEC. 2022 02:27:56

64QAM



Date: 23. DEC. 2022 02:27:37

256QAM

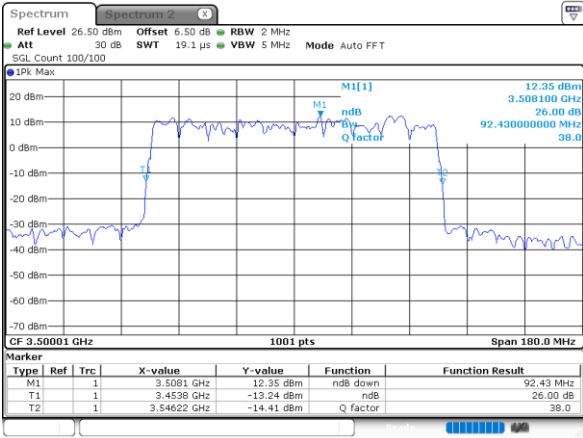


Date: 23. DEC. 2022 02:27:14



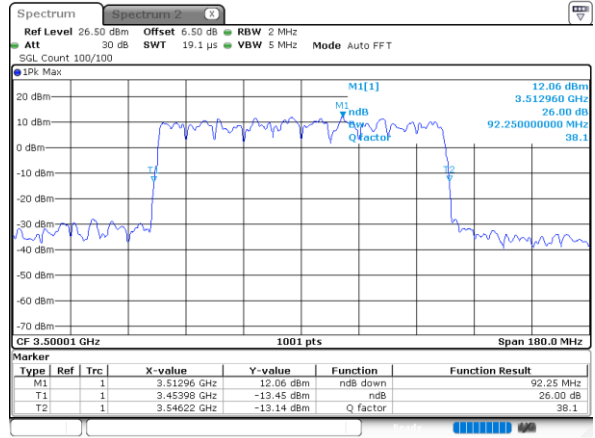
90MHz CP

QPSK



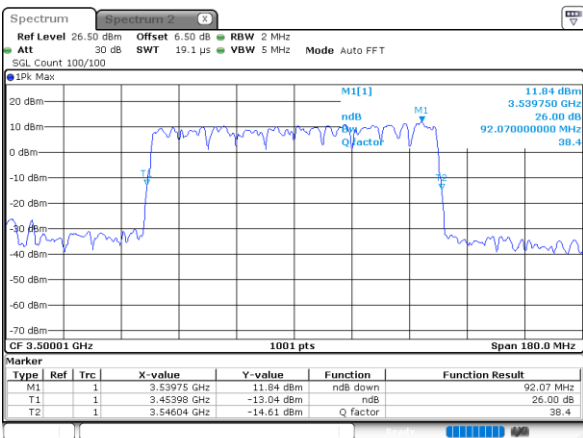
Date: 23. DEC. 2022 02:25:13

16QAM



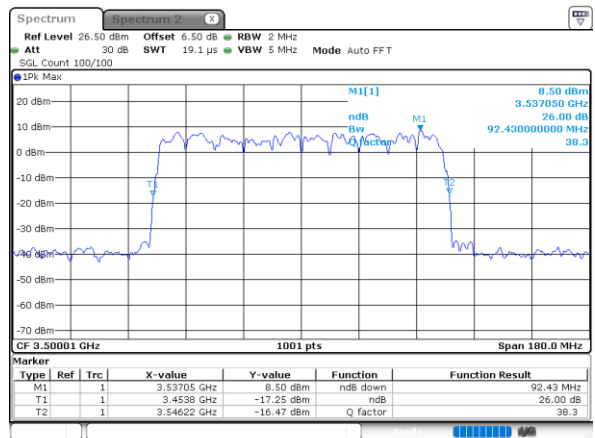
Date: 23. DEC. 2022 02:25:48

64QAM



Date: 23. DEC. 2022 02:26:08

256QAM

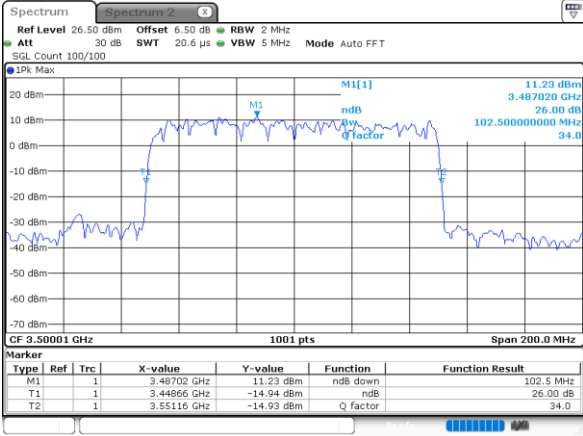


Date: 23. DEC. 2022 02:26:40



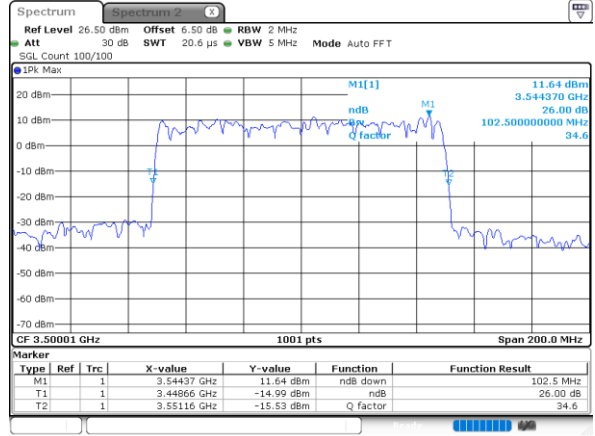
100MHz CP

QPSK



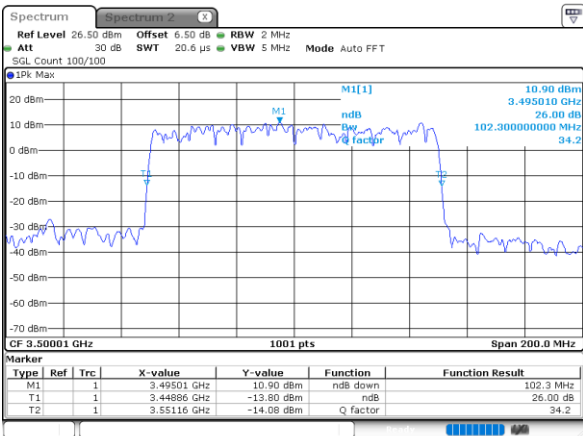
Date: 23.DEC.2022 01:50:27

16QAM



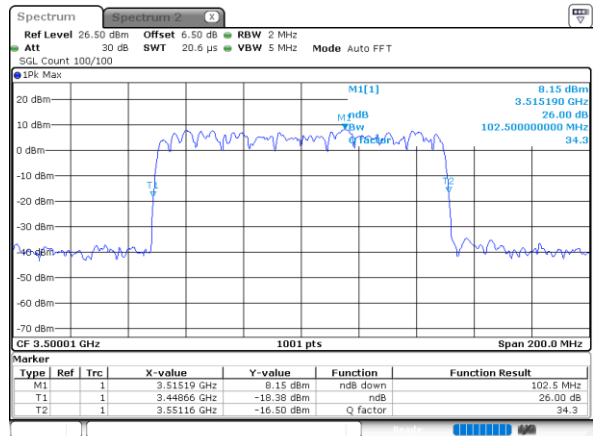
Date: 23.DEC.2022 01:50:46

64QAM



Date: 23.DEC.2022 01:51:08

256QAM



Date: 23.DEC.2022 01:51:30





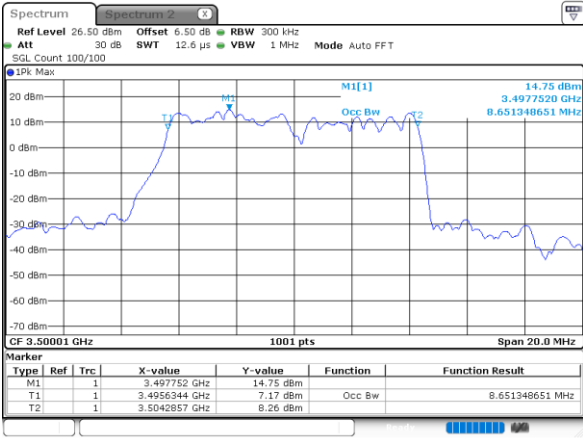
**Occupied Bandwidth**

<b>Mode</b>	<b>FR1 n78 : OB BW(10 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	8.65	8.69	8.81	8.55
<b>Mode</b>	<b>FR1 n78 : OB BW(15 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	13.73	13.61	13.64	13.61
<b>Mode</b>	<b>FR1 n78 : OB BW(20 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	18.78	18.54	18.82	18.82
<b>Mode</b>	<b>FR1 n78 : OB BW(30 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	27.89	27.65	28.05	27.89
<b>Mode</b>	<b>FR1 n78 : OB BW(40 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	38.04	38.12	37.88	38.20
<b>Mode</b>	<b>FR1 n78 : OB BW(50 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	47.35	47.25	47.65	47.75
<b>Mode</b>	<b>FR1 n78 : OB BW(60 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	58.38	58.38	58.74	58.14
<b>Mode</b>	<b>FR1 n78 : OB BW(70 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	68.41	67.93	67.45	68.41
<b>Mode</b>	<b>FR1 n78 : OB BW(80 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	78.00	77.68	77.20	77.16
<b>Mode</b>	<b>FR1 n78 : OB BW(90 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	87.93	87.39	87.75	87.75
<b>Mode</b>	<b>FR1 n78 : OB BW(100 MHz) / CP OFDM</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	97.70	97.90	97.90	97.70



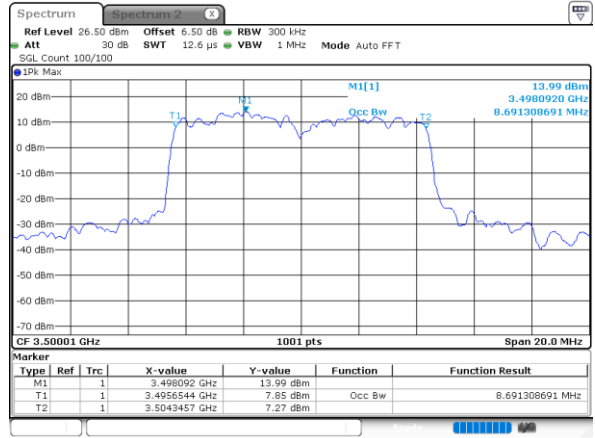
10MHz CP

QPSK



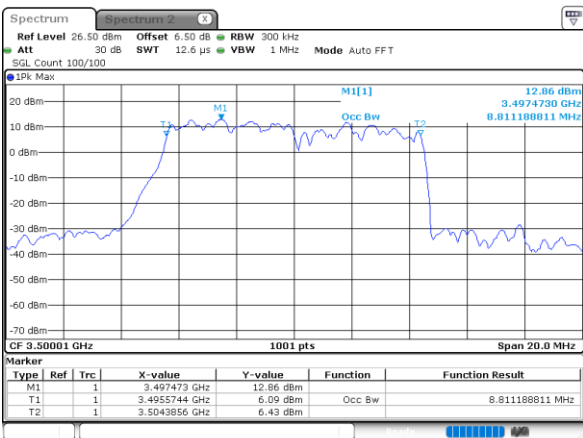
Date: 23. DEC. 2022 03:07:18

16QAM



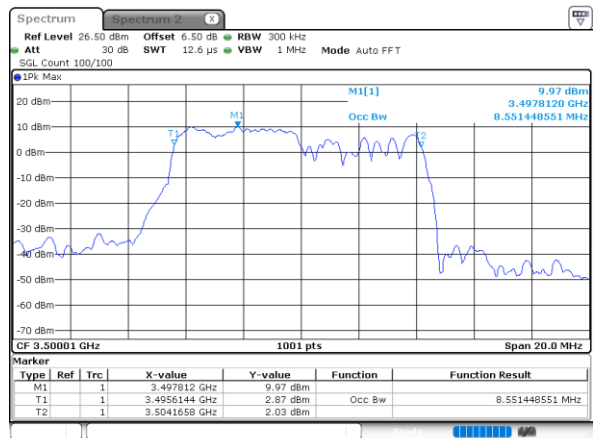
Date: 23. DEC. 2022 03:07:17

64QAM



Date: 23. DEC. 2022 03:07:54

256QAM

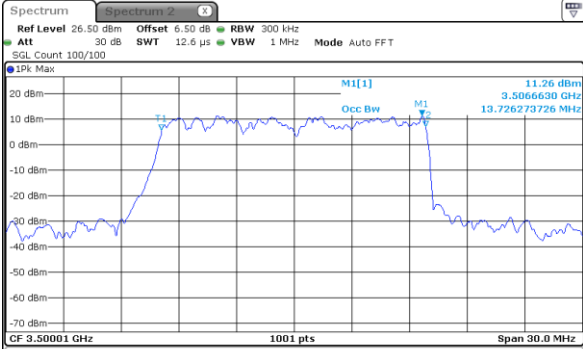


Date: 23. DEC. 2022 03:08:18



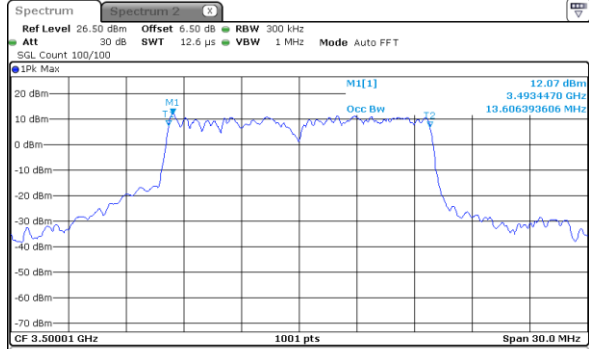
15MHz CP

QPSK



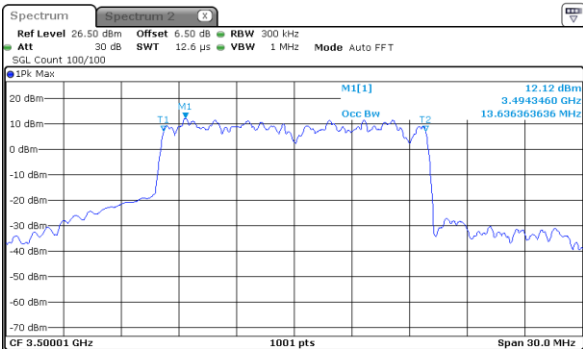
Date: 23.DEC.2022 03:04:40

16QAM



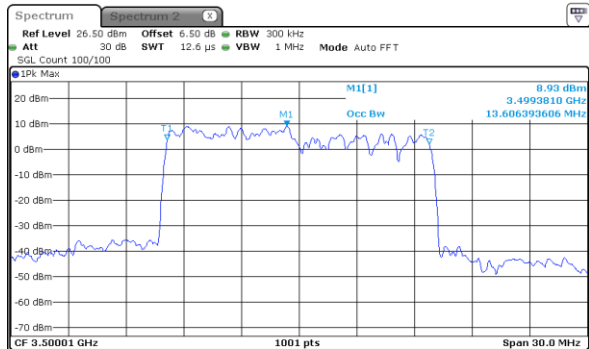
Date: 23.DEC.2022 03:04:59

64QAM



Date: 23.DEC.2022 03:05:19

256QAM

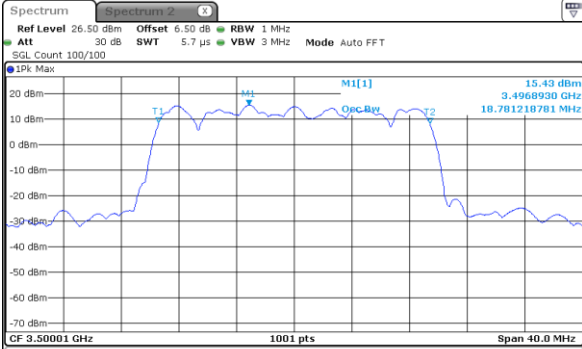


Date: 23.DEC.2022 03:05:37



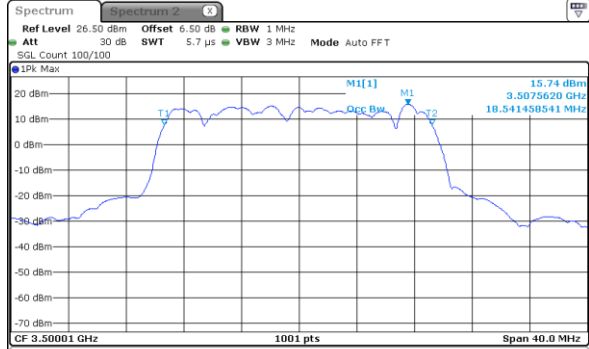
20MHz CP

QPSK



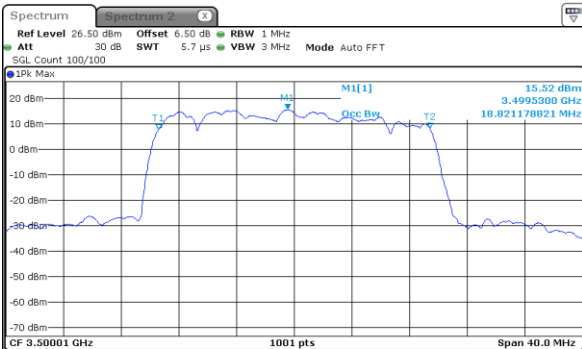
Date: 23.DEC.2022 02:57:51

16QAM



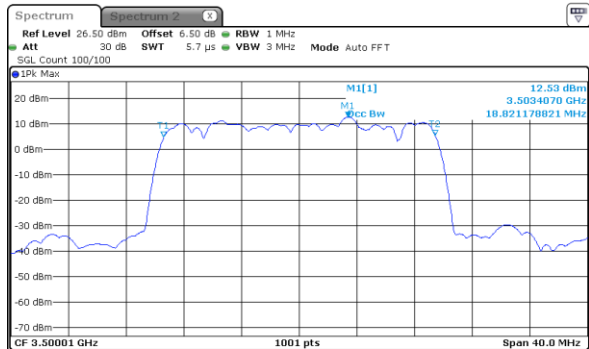
Date: 23.DEC.2022 02:58:17

64QAM



Date: 23.DEC.2022 02:58:33

256QAM

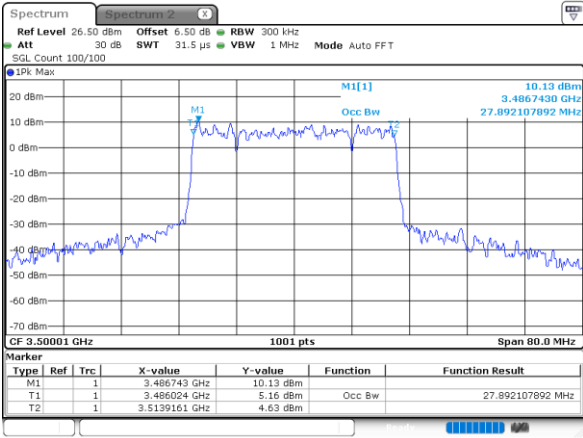


Date: 23.DEC.2022 02:58:50



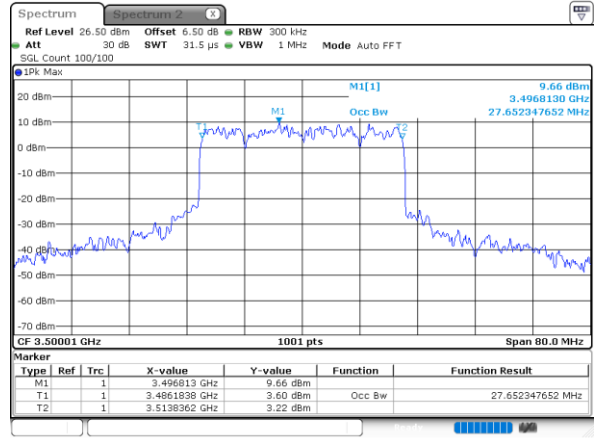
30MHz CP

QPSK



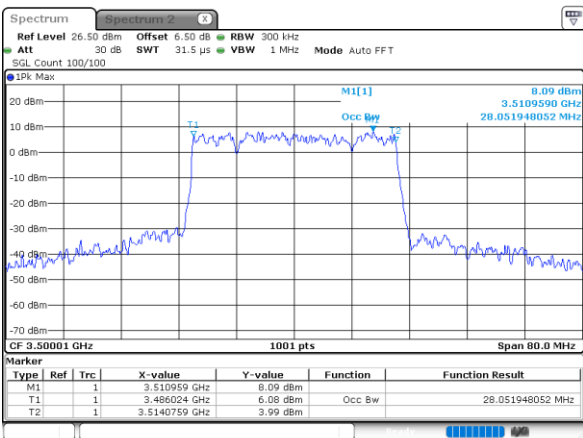
Date: 23. DEC. 2022 02:56:25

16QAM



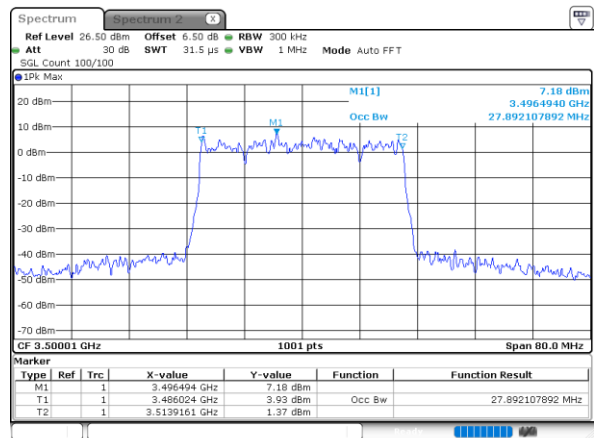
Date: 23. DEC. 2022 02:56:105

64QAM



Date: 23. DEC. 2022 02:55:49

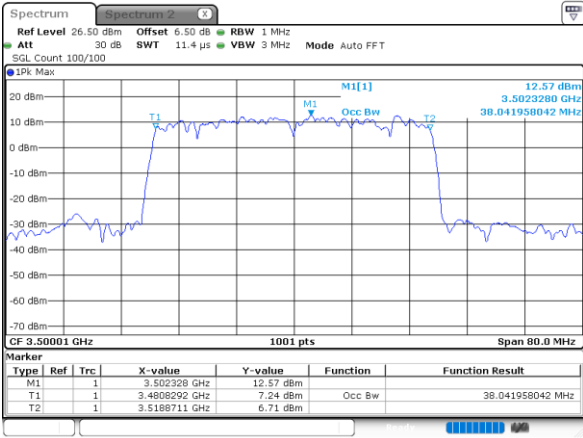
256QAM



Date: 23. DEC. 2022 02:55:132

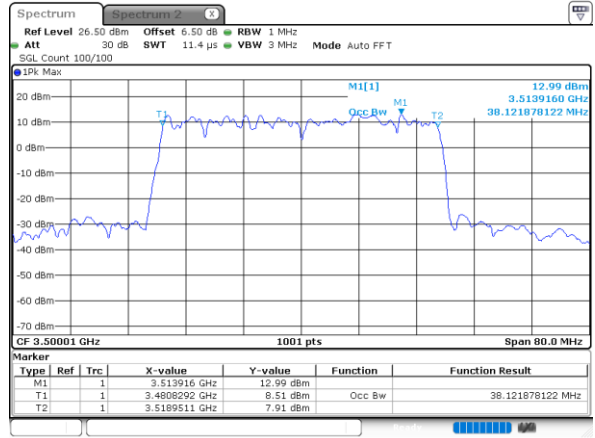
**40MHz CP**

**QPSK**



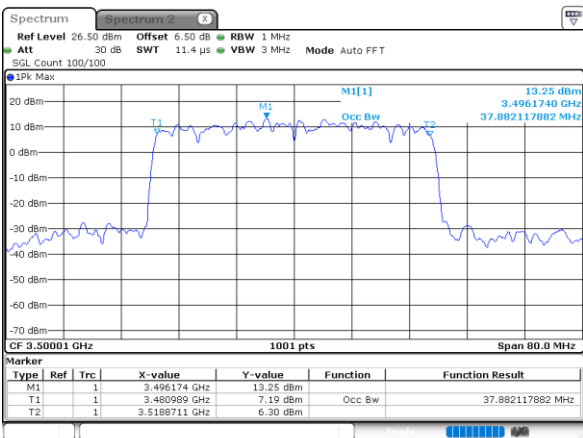
Date: 23. DEC. 2022 02:53:50

**16QAM**



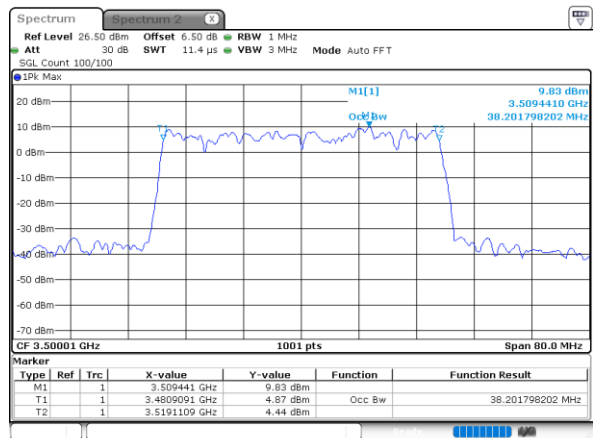
Date: 23. DEC. 2022 02:54:06

**64QAM**



Date: 23. DEC. 2022 02:54:28

**256QAM**

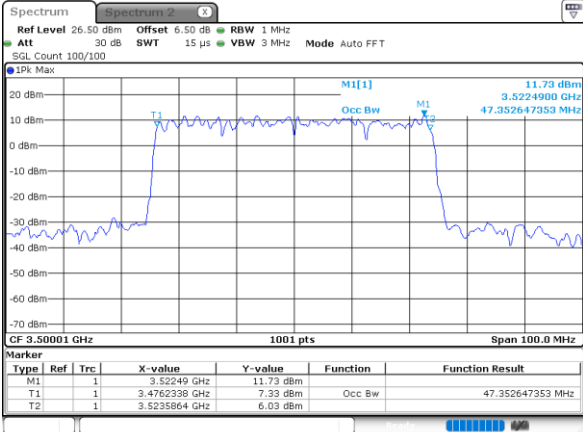


Date: 23. DEC. 2022 02:54:47



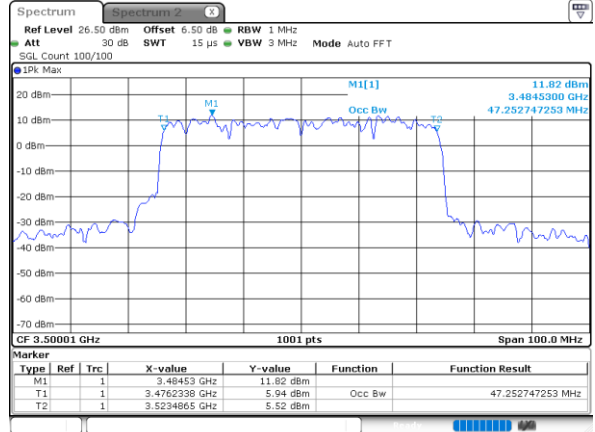
50MHz CP

QPSK



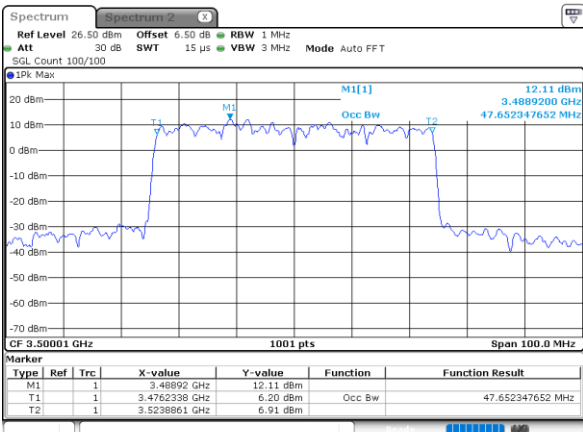
Date: 23. DEC. 2022 02:52:20

16QAM



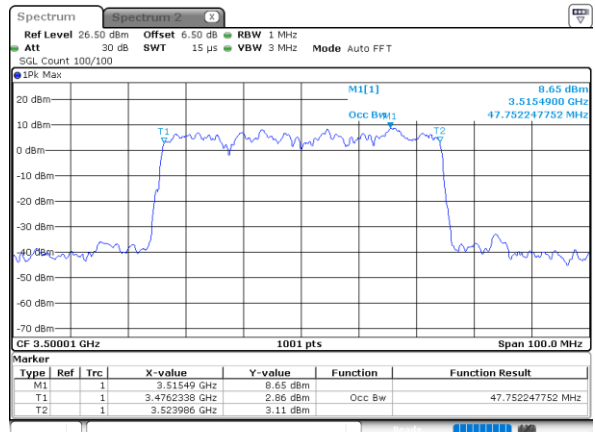
Date: 23. DEC. 2022 02:52:17

64QAM



Date: 23. DEC. 2022 02:52:55

256QAM



Date: 23. DEC. 2022 02:53:17