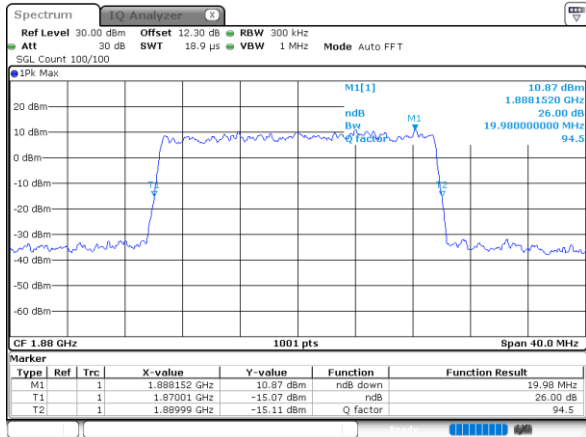


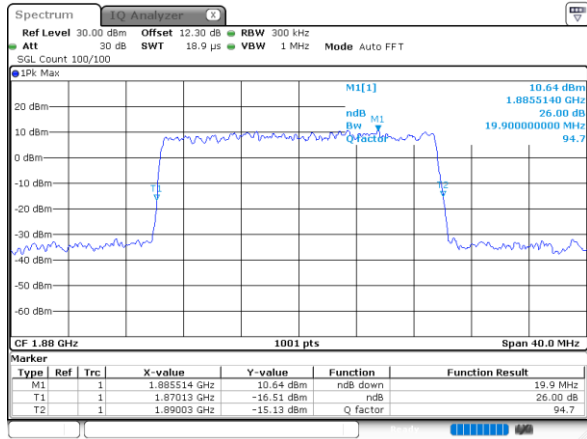


FR1 n2 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

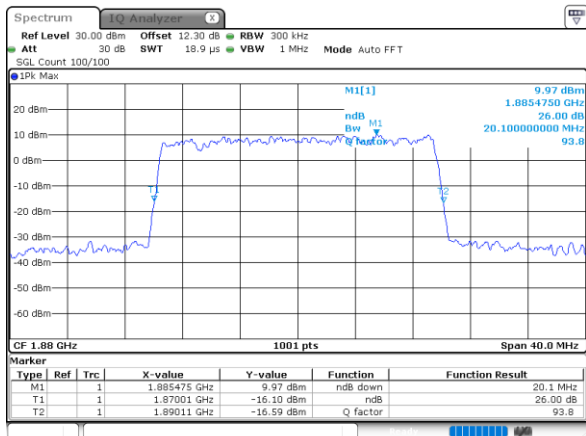
QPSK



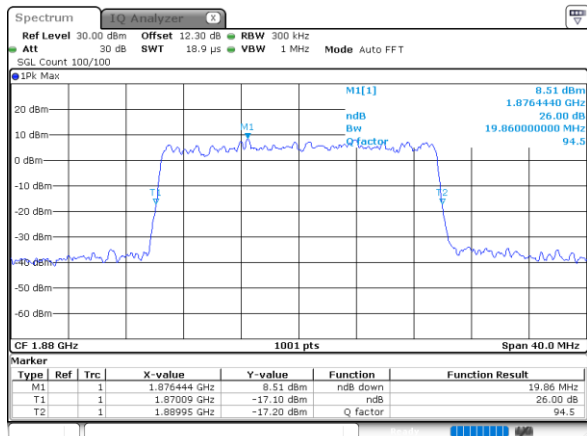
16QAM



64QAM



256QAM





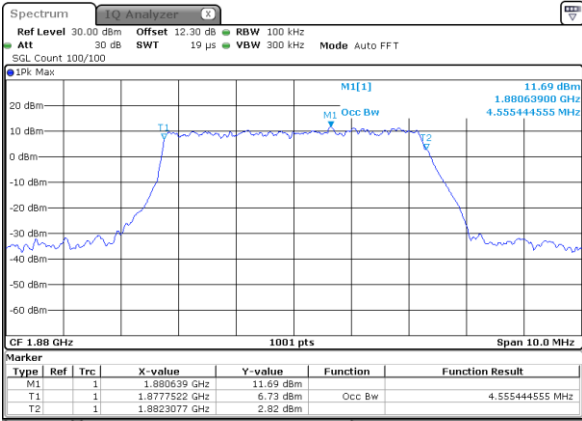
### Occupied Bandwidth

Mode	FR1 n2 : 99%OBW (MHz) / CP OFDM			
<b>BW</b>	<b>5MHz</b>	<b>5MHz</b>	<b>5MHz</b>	<b>5MHz</b>
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	4.56	4.50	4.49	4.48
<b>BW</b>	<b>10MHz</b>	<b>10MHz</b>	<b>10MHz</b>	<b>10MHz</b>
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	9.35	9.37	9.39	9.41
<b>BW</b>	<b>15MHz</b>	<b>15MHz</b>	<b>15MHz</b>	<b>15MHz</b>
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	14.15	14.09	14.12	14.15
<b>BW</b>	<b>20MHz</b>	<b>20MHz</b>	<b>20MHz</b>	<b>20MHz</b>
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	18.90	18.94	18.86	18.90



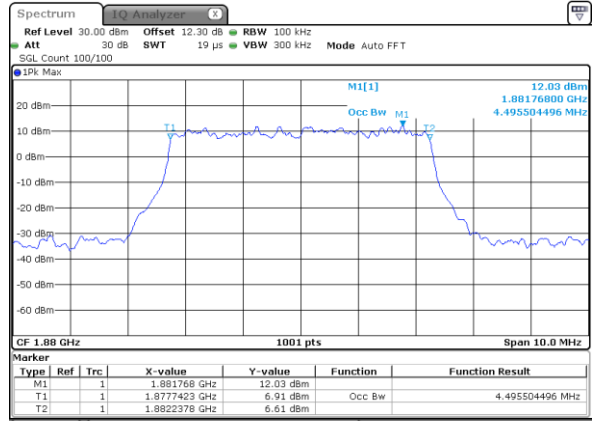
FR1 n2 / 5MHz / CP OFDM / Middle Channel / Full RB

QPSK



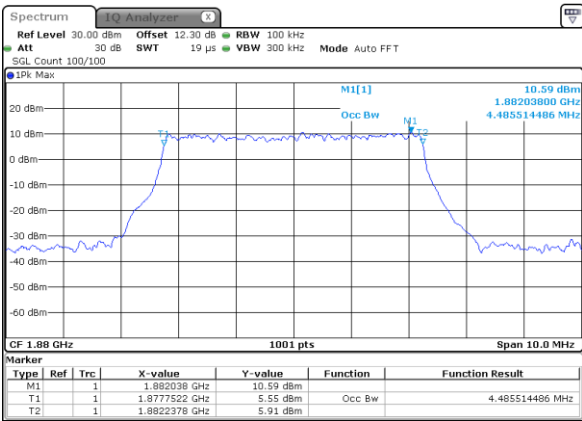
Date: 12.DEC.2022 22:13:00

16QAM



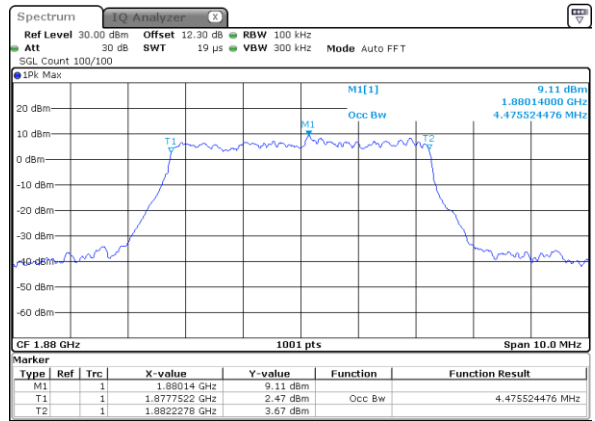
Date: 12.DEC.2022 22:13:30

64QAM



Date: 12.DEC.2022 22:13:51

256QAM

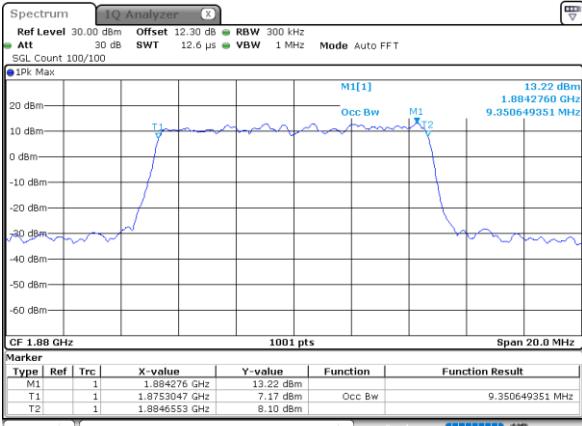


Date: 12.DEC.2022 22:13:19

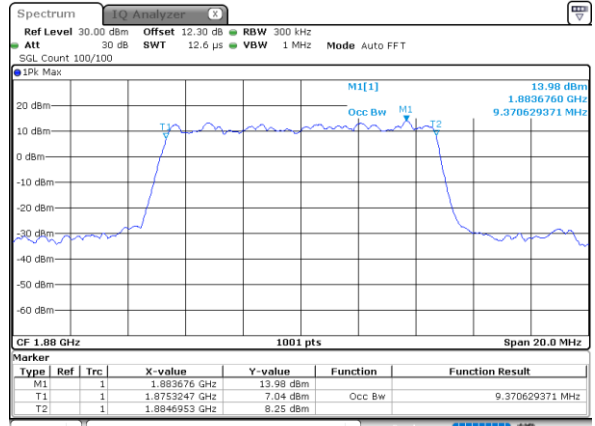


FR1 n2 / 10MHz / CP OFDM / Middle Channel / Full RB

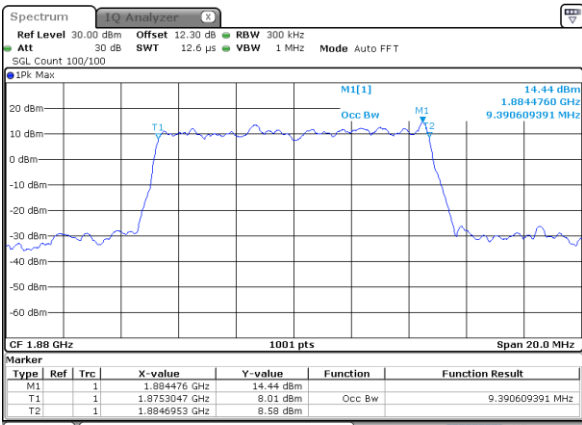
QPSK



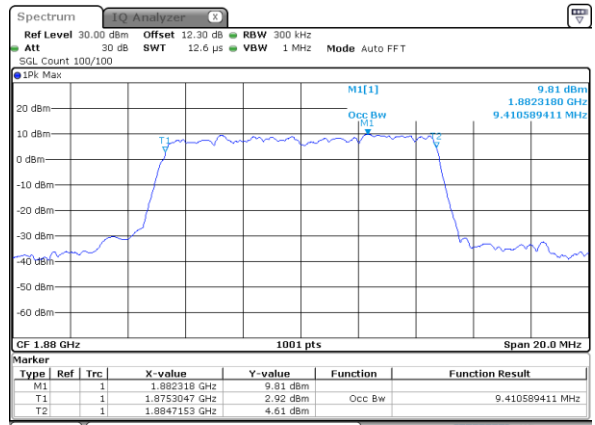
16QAM



64QAM



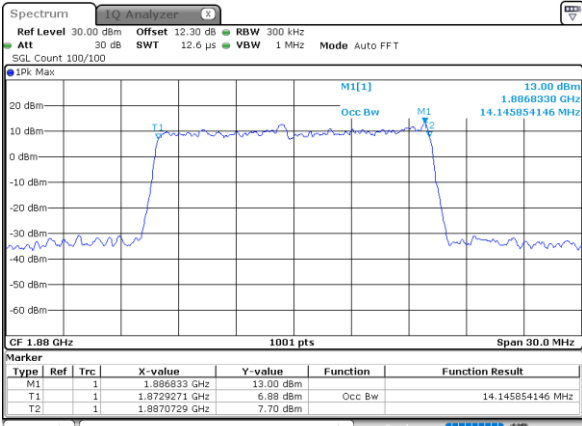
256QAM





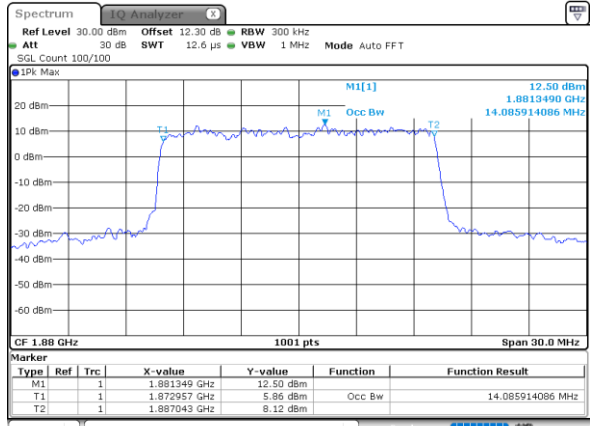
FR1 n2 / 15MHz / CP OFDM / Middle Channel / Full RB

QPSK



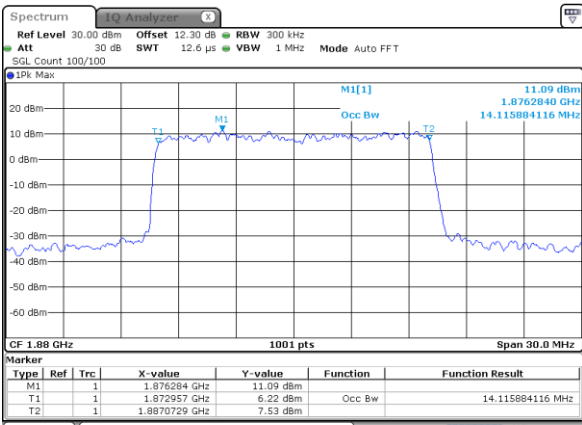
Date: 12.DEC.2022 22:05:09

16QAM



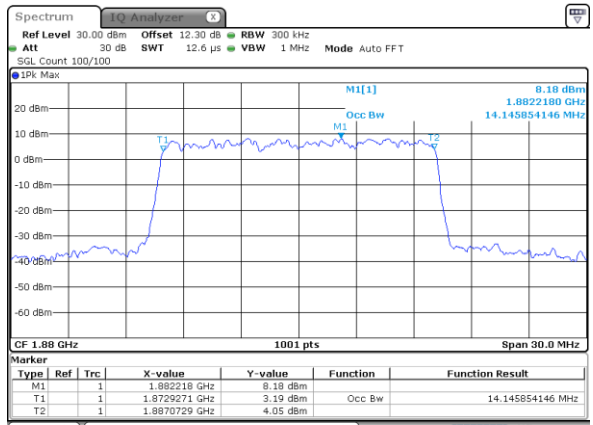
Date: 12.DEC.2022 22:05:28

64QAM



Date: 12.DEC.2022 22:05:52

256QAM

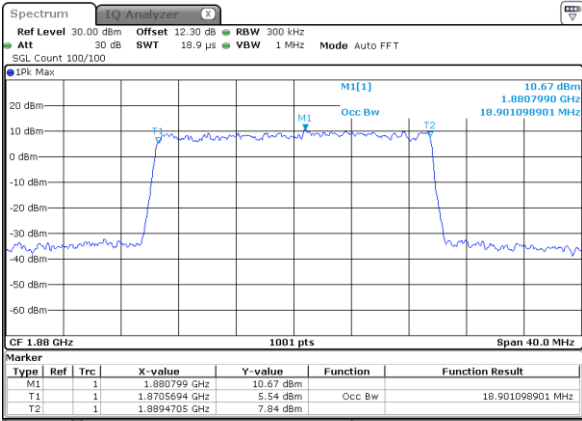


Date: 12.DEC.2022 22:06:48

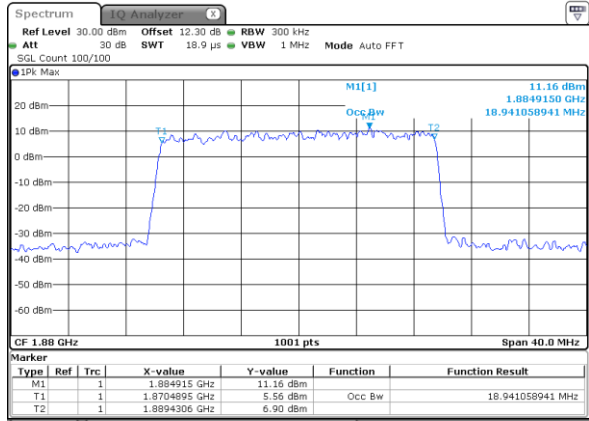


FR1 n2 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

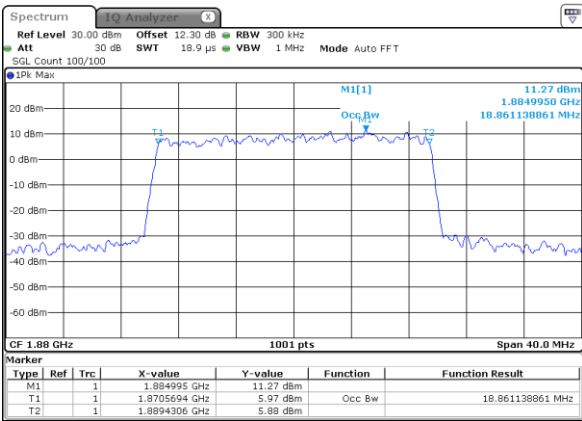
QPSK



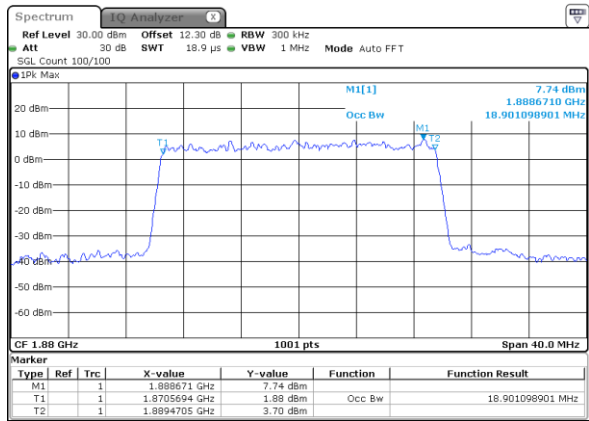
16QAM



64QAM



256QAM



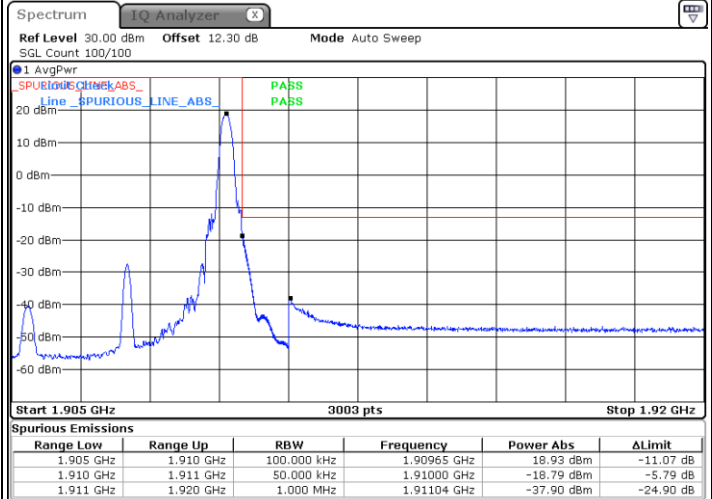
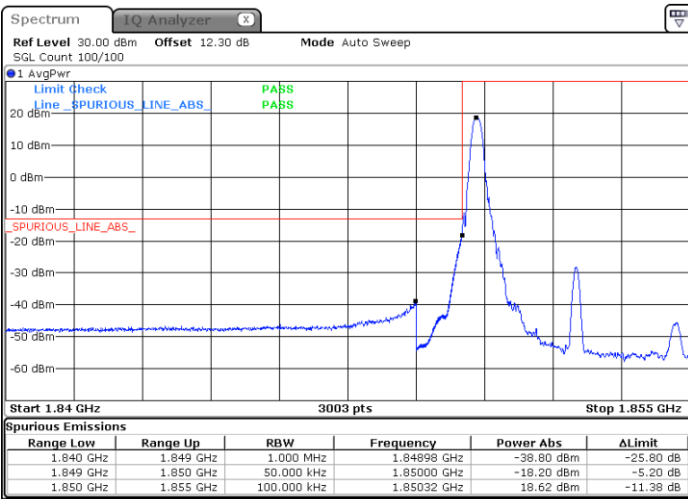


# Conducted Band Edge

FR1 n2 / 5MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

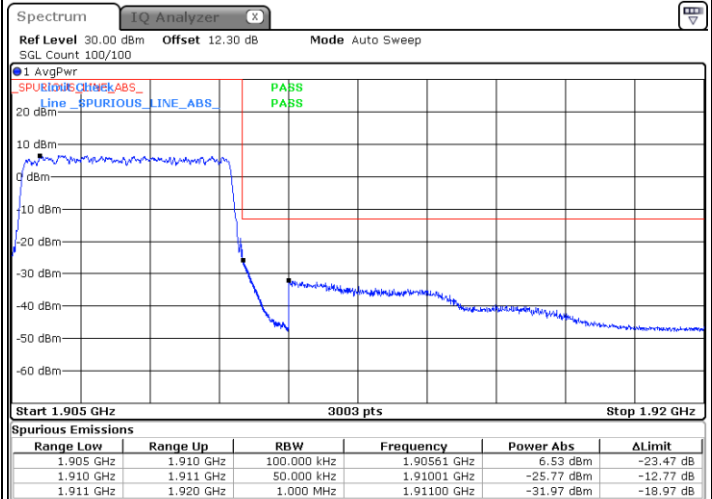
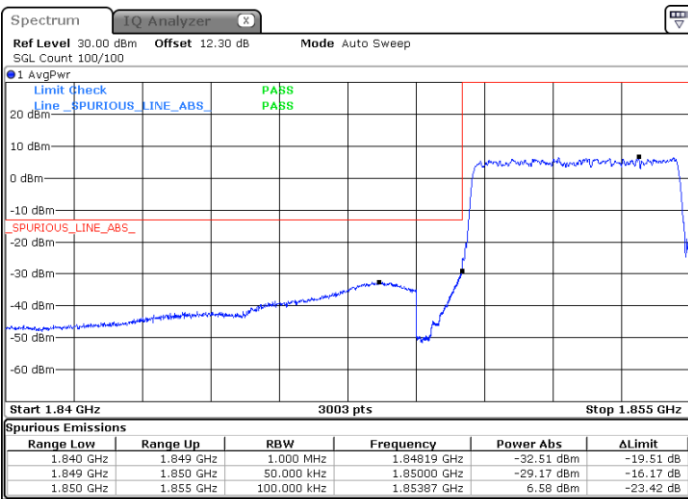


Date: 12.DEC.2022 22:38:29

Date: 12.DEC.2022 22:49:09

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 22:46:02

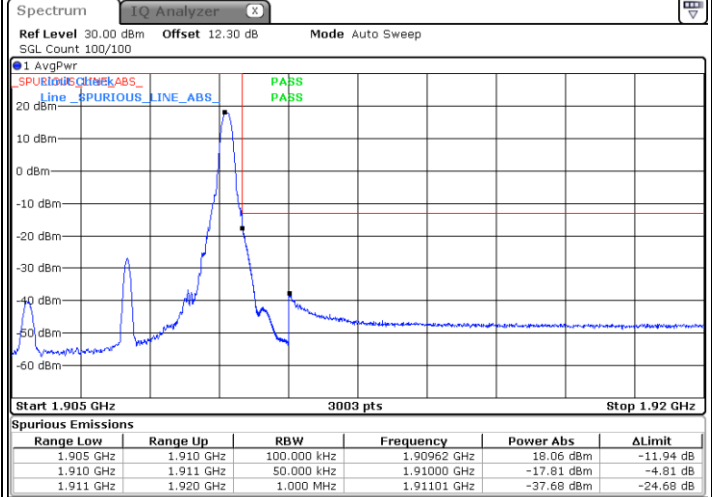
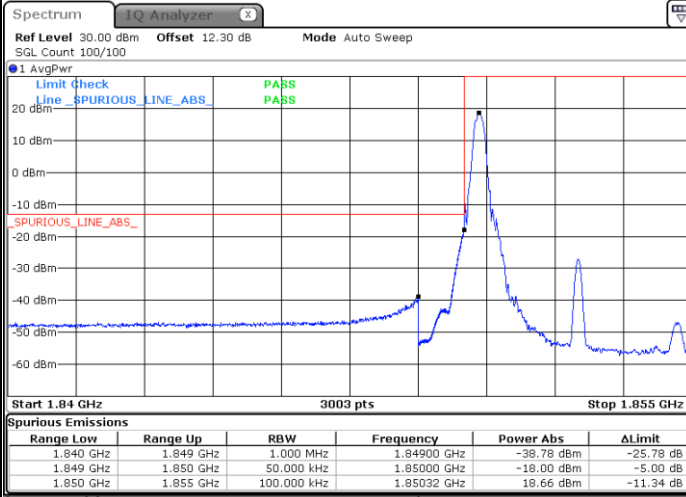
Date: 12.DEC.2022 22:44:44



FR1 n2 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

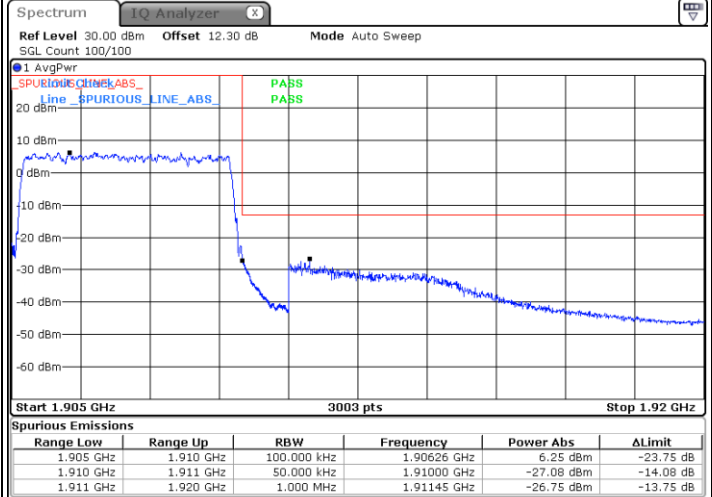
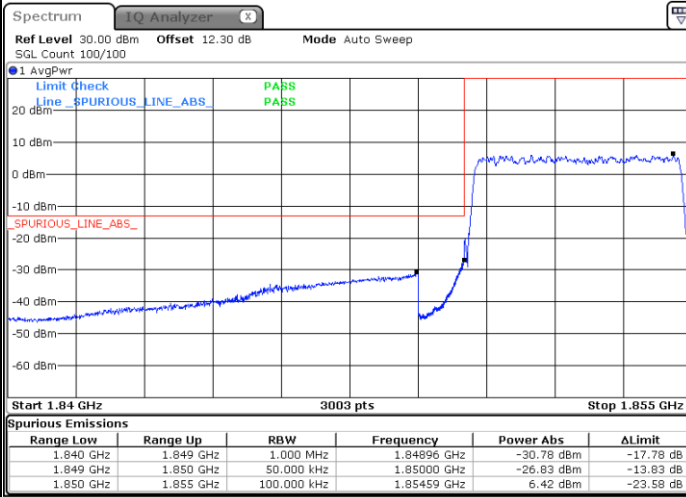


Date: 12.DEC.2022 22:42:06

Date: 12.DEC.2022 22:48:41

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 22:42:52

Date: 12.DEC.2022 22:47:49

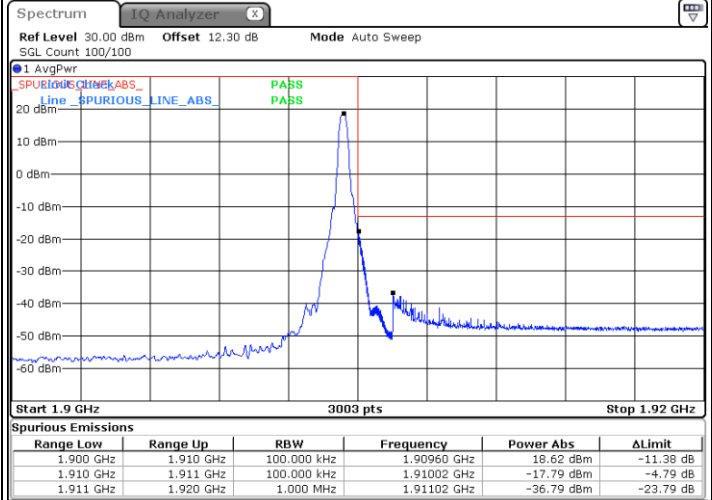
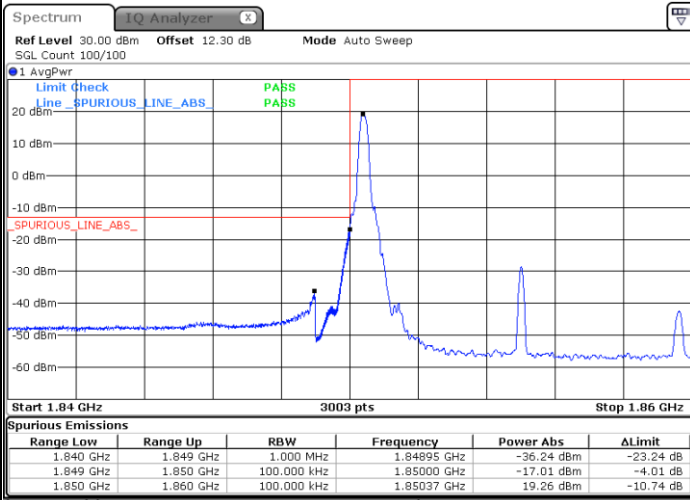




FR1 n2 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

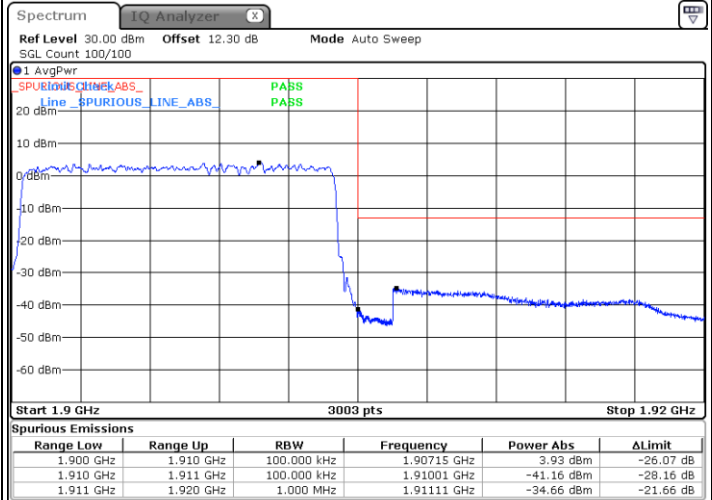
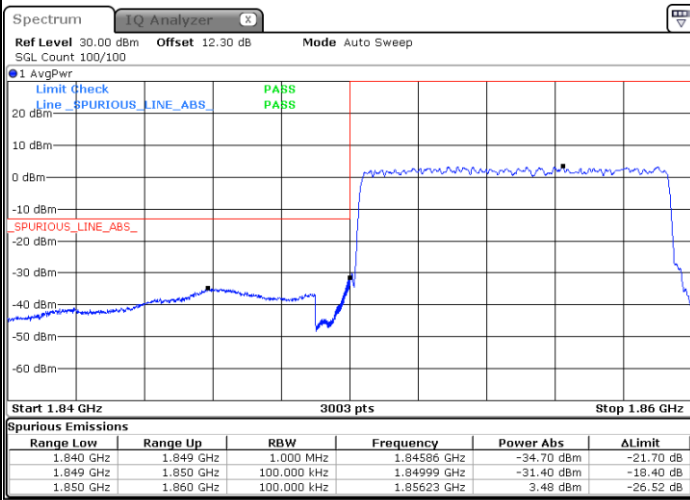


Date: 12.DEC.2022 22:22:27

Date: 12.DEC.2022 22:30:48

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 22:22:49

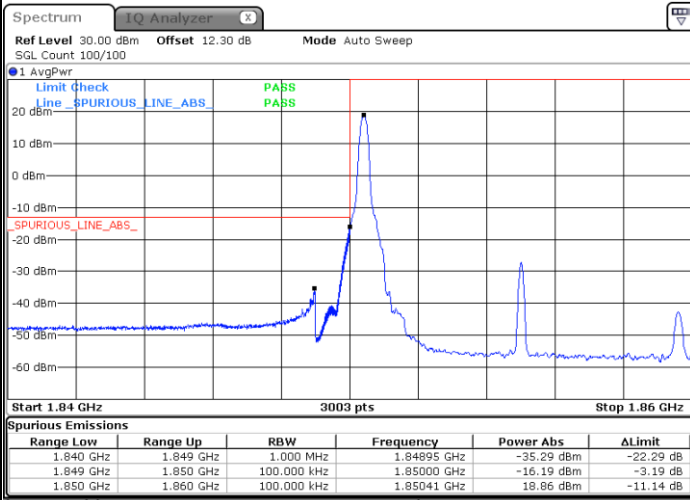
Date: 12.DEC.2022 22:30:24



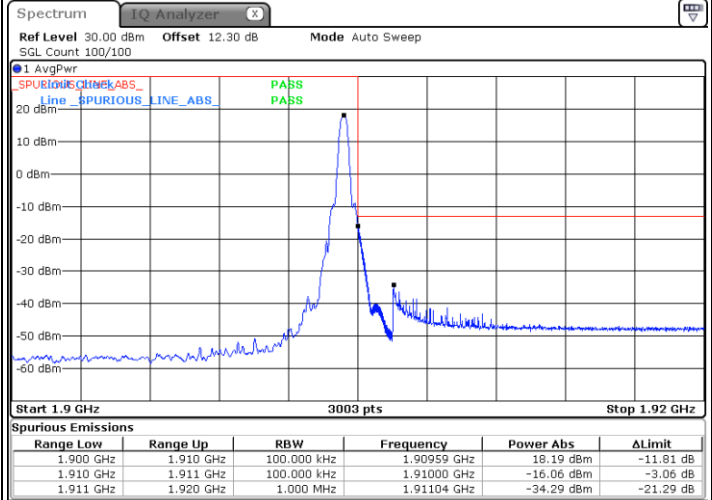
FR1 n2 / 10MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



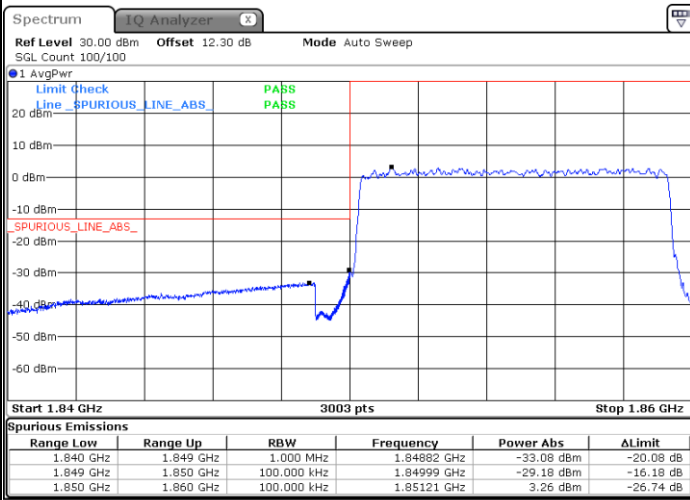
Date: 12.DEC.2022 22:22:01



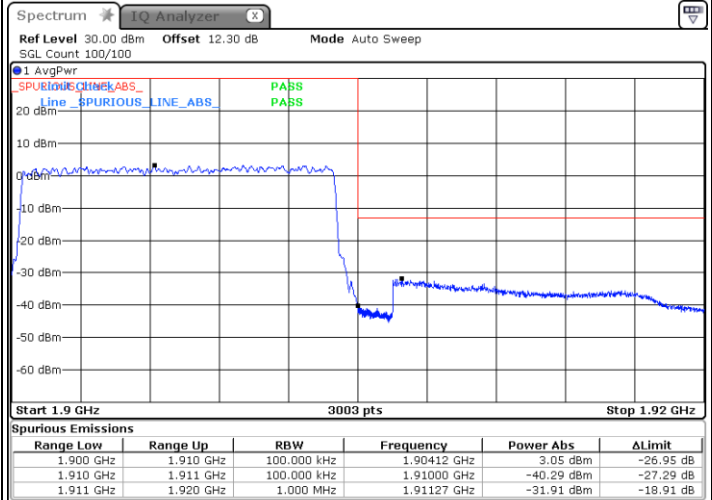
Date: 12.DEC.2022 22:31:05

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 22:23:09



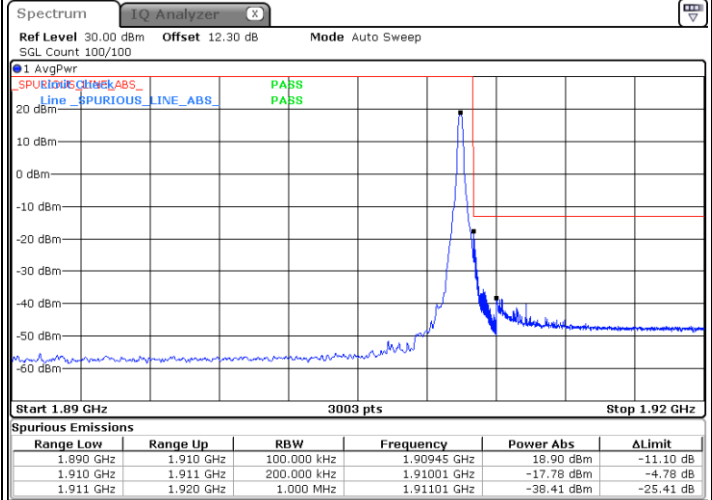
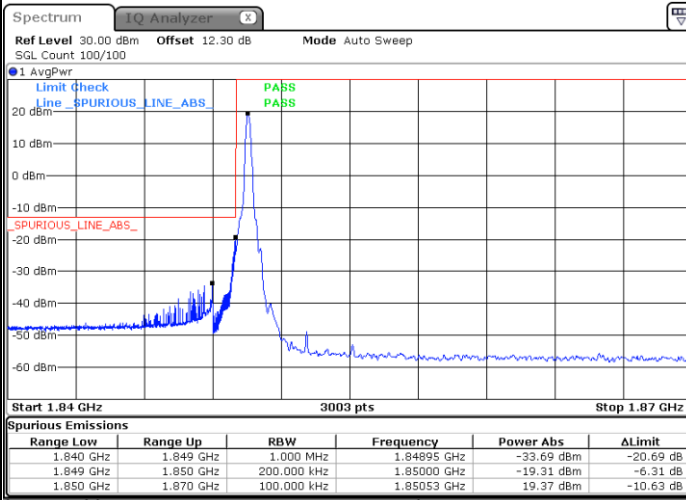
Date: 12.DEC.2022 22:30:05



FR1 n2 / 20MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

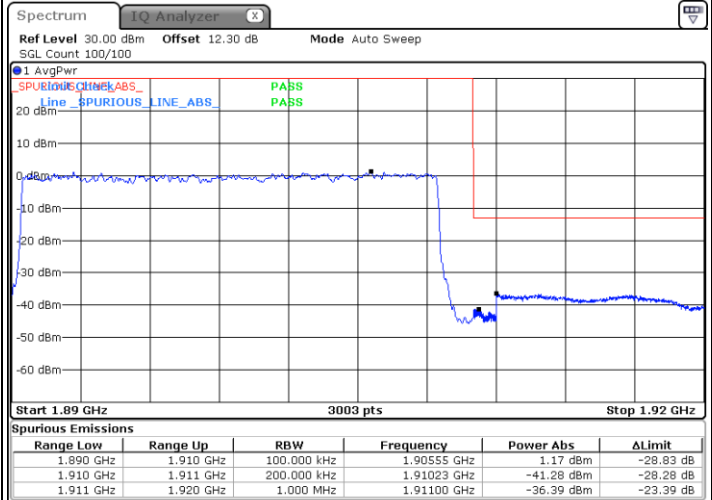
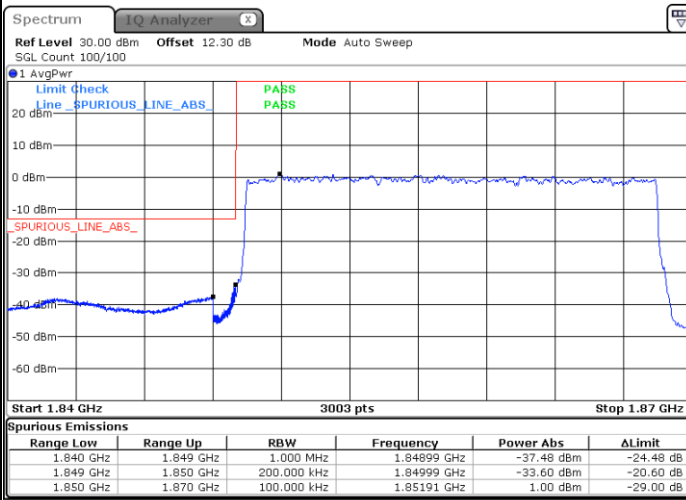


Date: 12.DEC.2022 21:52:53

Date: 12.DEC.2022 22:00:07

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 21:54:29

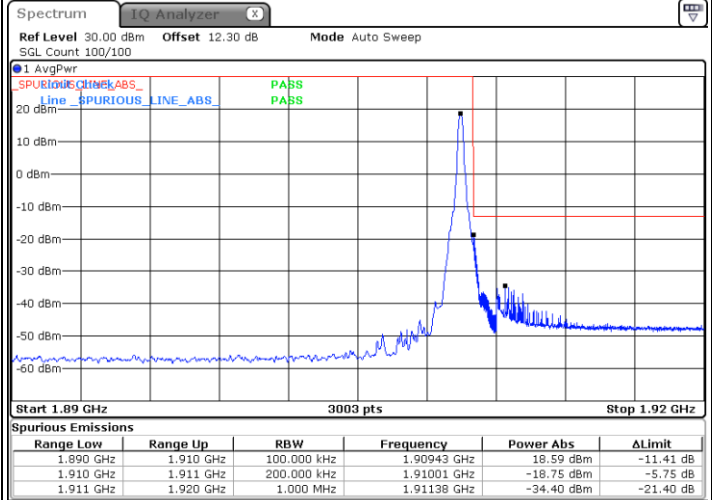
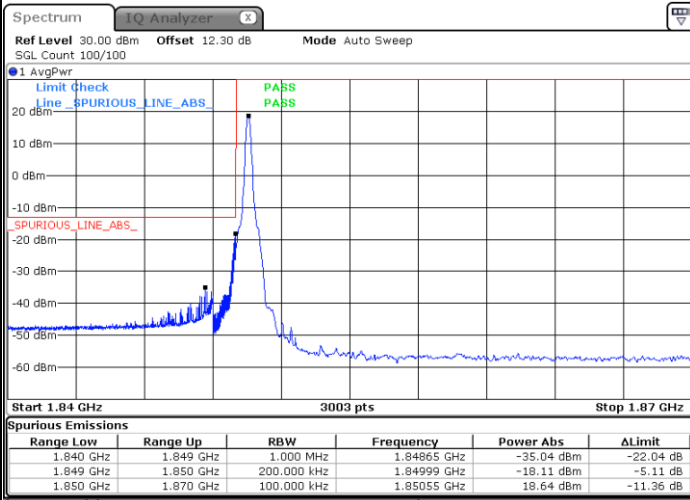
Date: 12.DEC.2022 21:55:00



FR1 n2 / 20MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

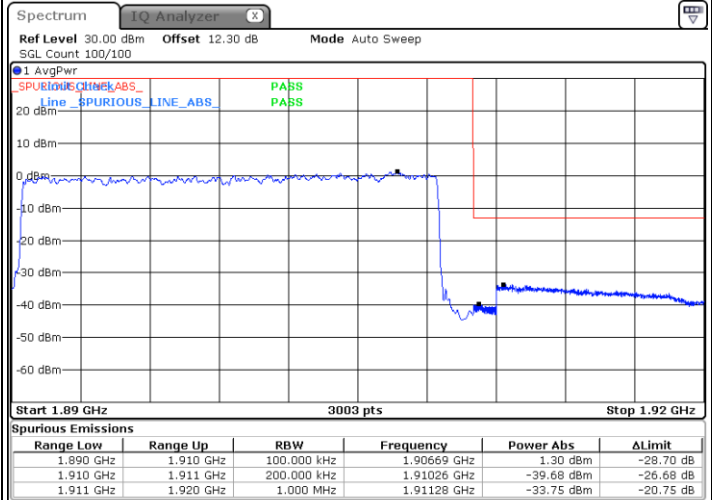
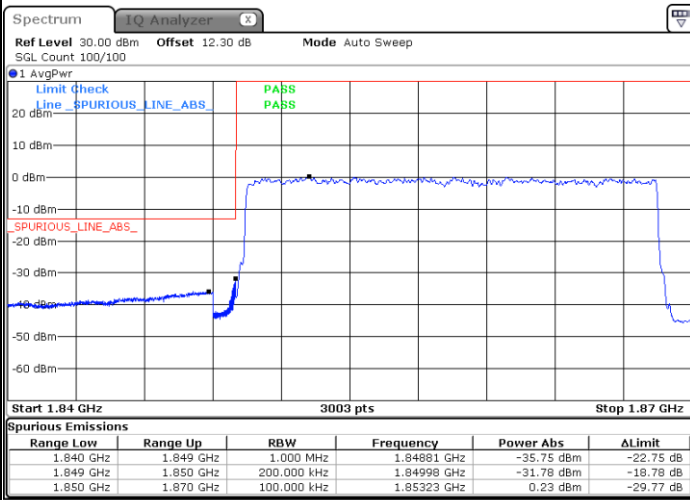


Date: 12.DEC.2022 21:53:12

Date: 12.DEC.2022 21:59:49

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 21:53:46

Date: 12.DEC.2022 21:55:15

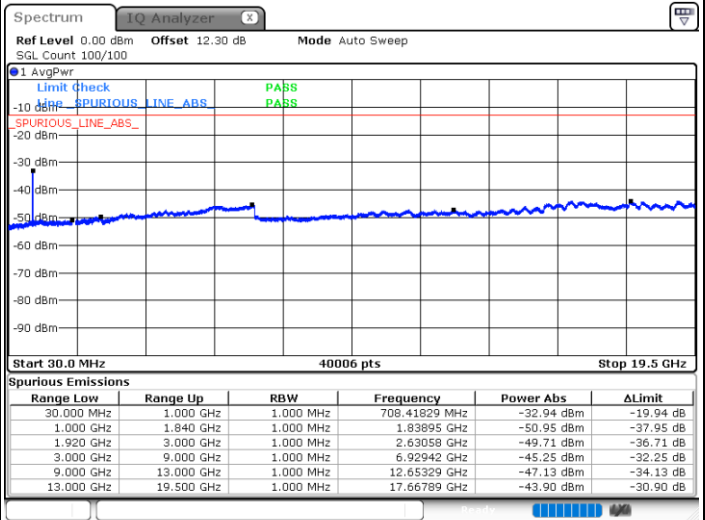
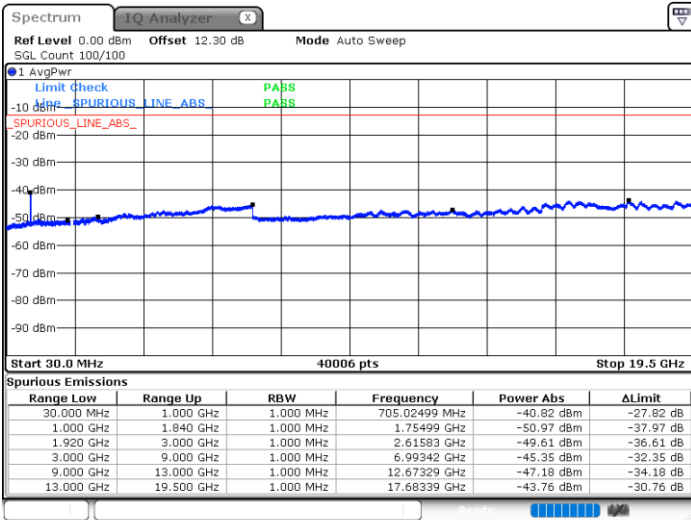


# Conducted Spurious Emission

FR1 n2 / 5MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB1

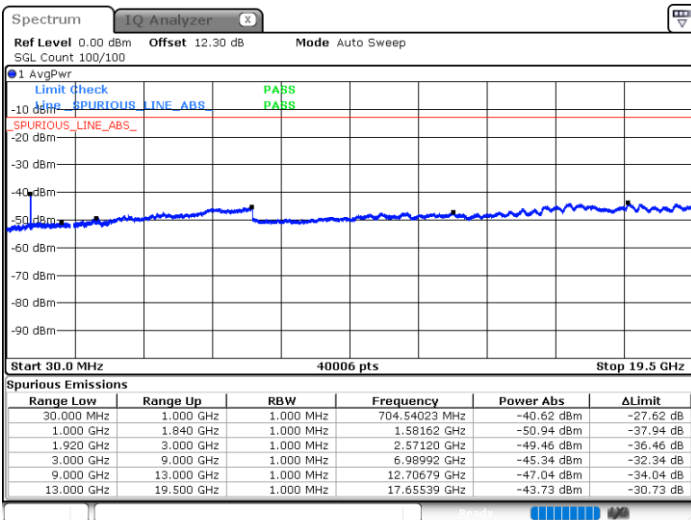
Middle Channel / 1RB1



Date: 12.DEC.2022 22:54:15

Date: 12.DEC.2022 22:35:28

Highest Channel / 1RB1



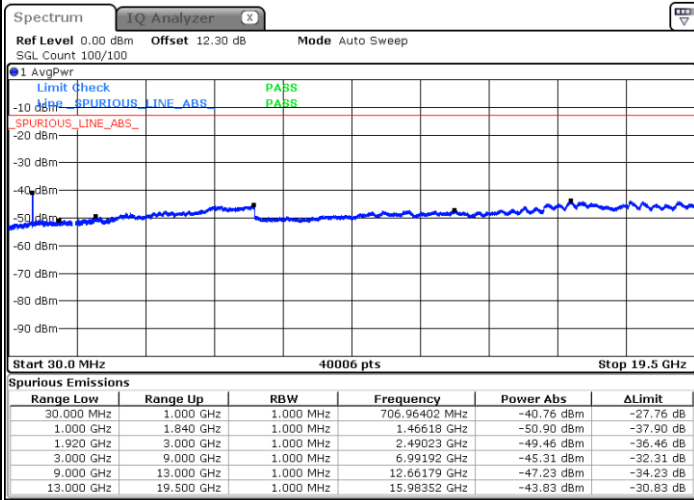
Date: 12.DEC.2022 22:50:28



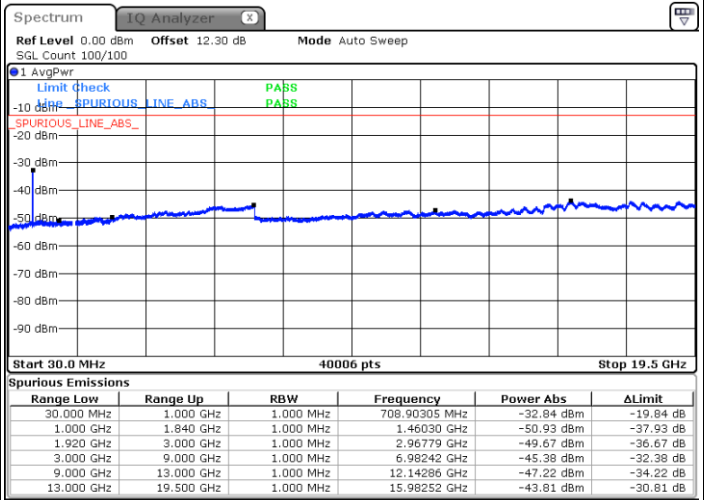
FR1 n2 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

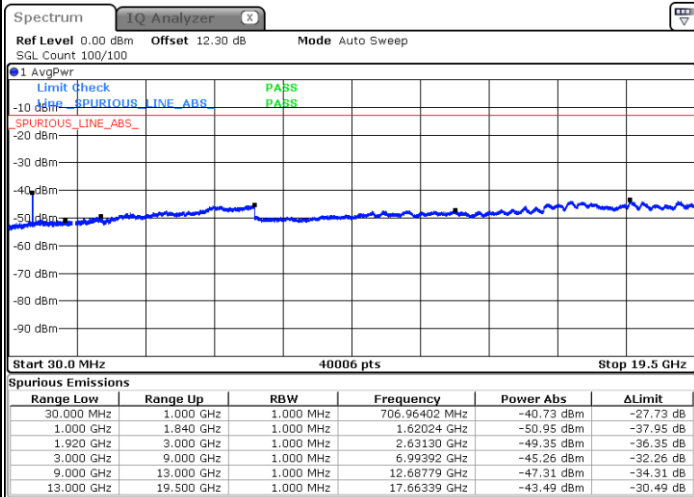


Date: 12.DEC.2022 22:53:26



Date: 12.DEC.2022 22:34:09

Highest Channel / 1RB1



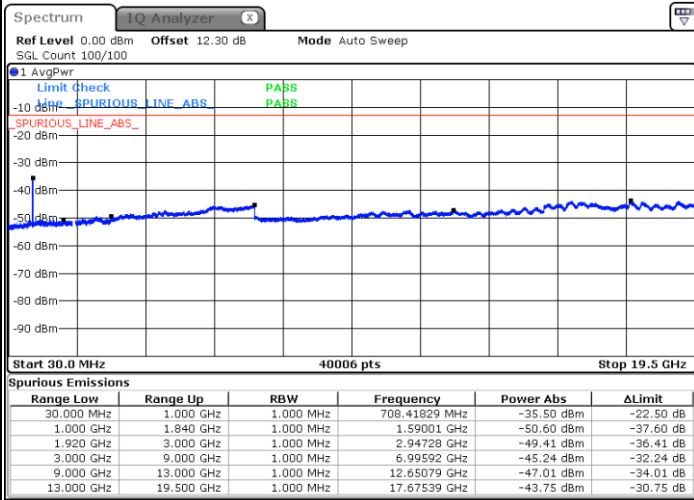
Date: 12.DEC.2022 22:52:14



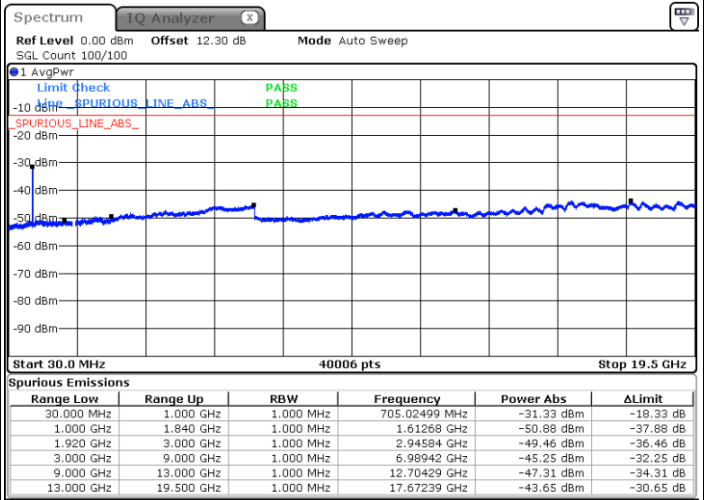
FR1 n2 / 10MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

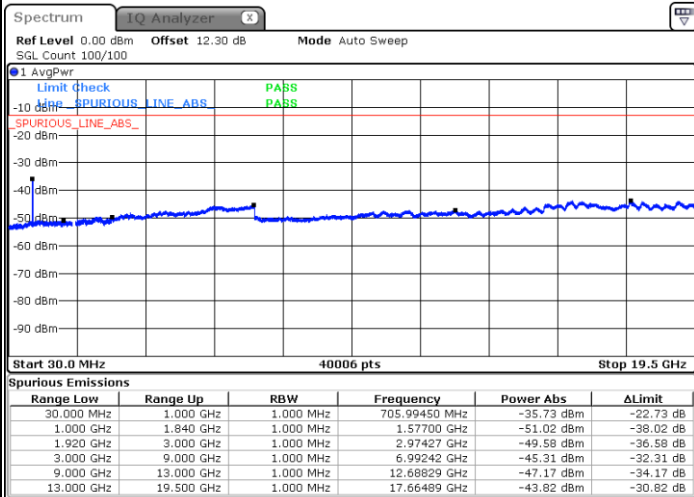


Date: 12.DEC.2022 22:25:01



Date: 12.DEC.2022 22:15:05

Highest Channel / 1RB1



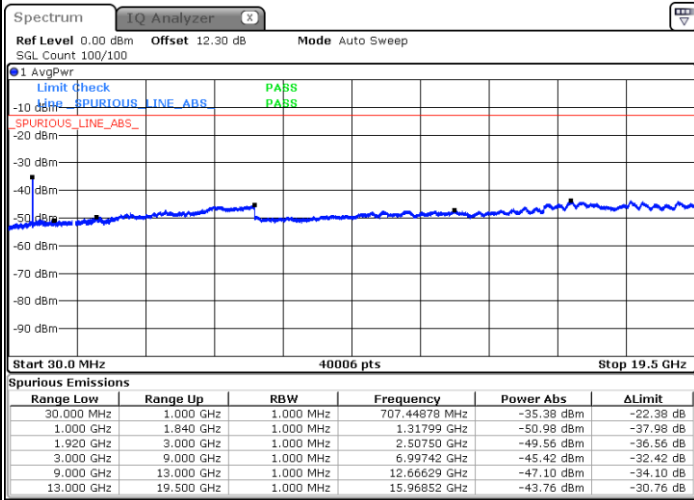
Date: 12.DEC.2022 22:29:25



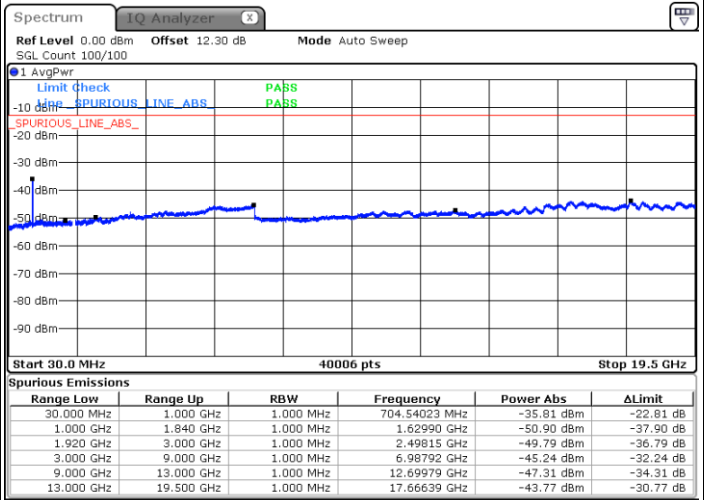
FR1 n2 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

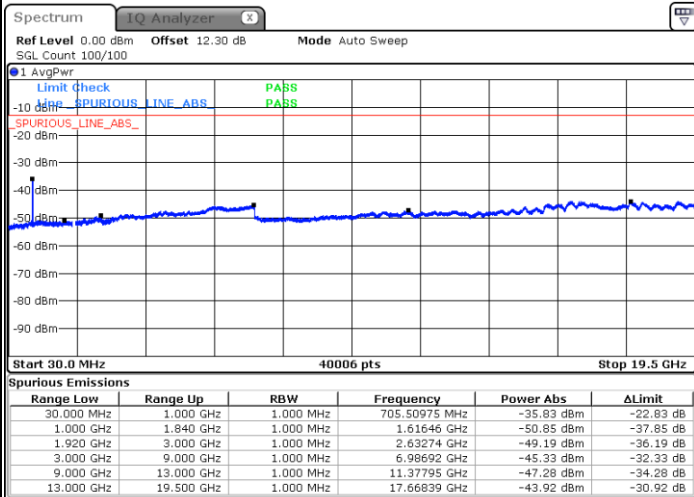


Date: 12.DEC.2022 22:25:54



Date: 12.DEC.2022 22:26:43

Highest Channel / 1RB1



Date: 12.DEC.2022 22:27:45

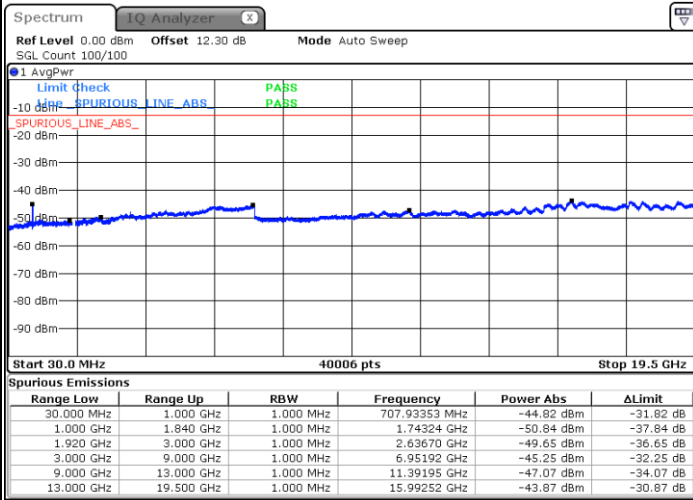




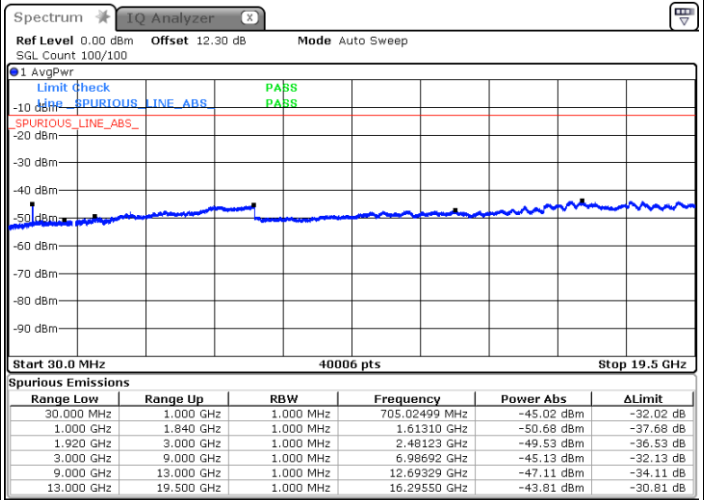
FR1 n2 / 20MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

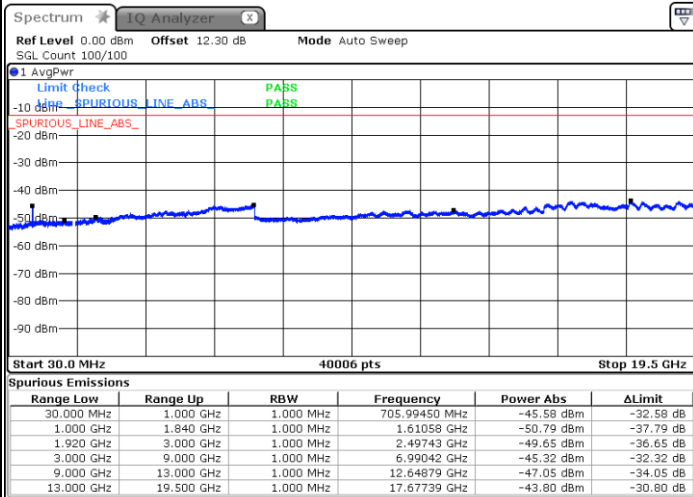


Date: 12.DEC.2022 21:52:15



Date: 12.DEC.2022 21:48:35

Highest Channel / 1RB1



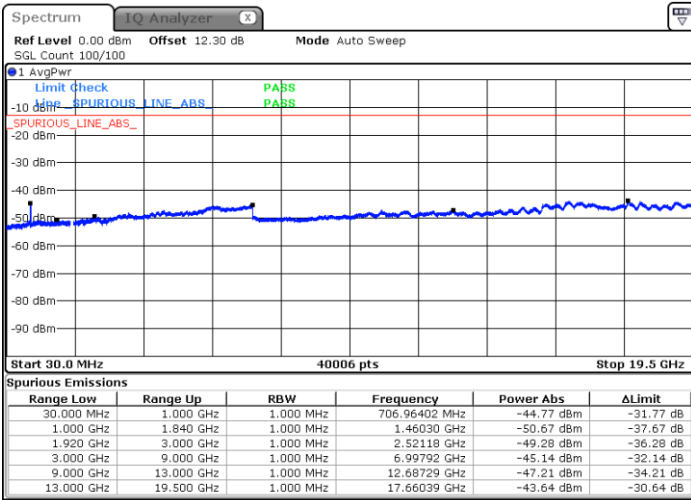
Date: 12.DEC.2022 22:01:58



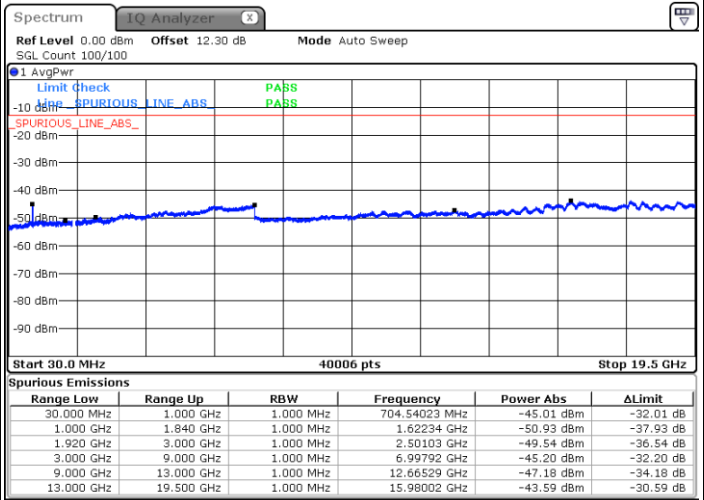
FR1 n2 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

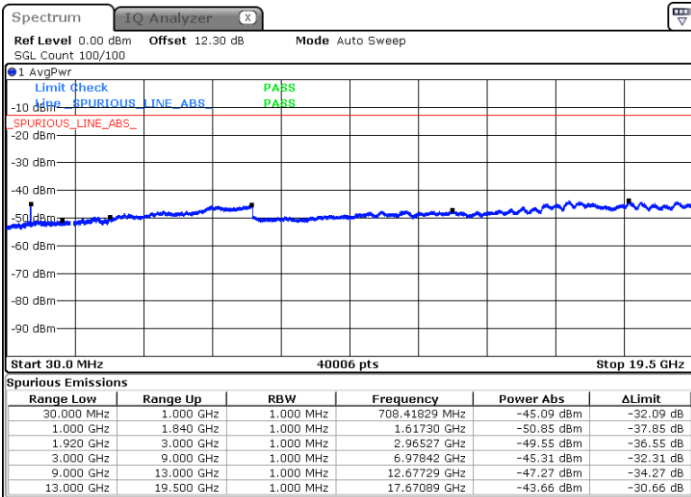


Date: 12.DEC.2022 21:51:28



Date: 12.DEC.2022 21:50:16

Highest Channel / 1RB1



Date: 12.DEC.2022 22:03:05



Frequency Stability

Test Conditions		FR1 n2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
20	Normal Voltage	0.0031	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0010	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0028	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0046	
-20	Normal Voltage	0.0033	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0017	
20	Battery End Point	0.0025	

Note:

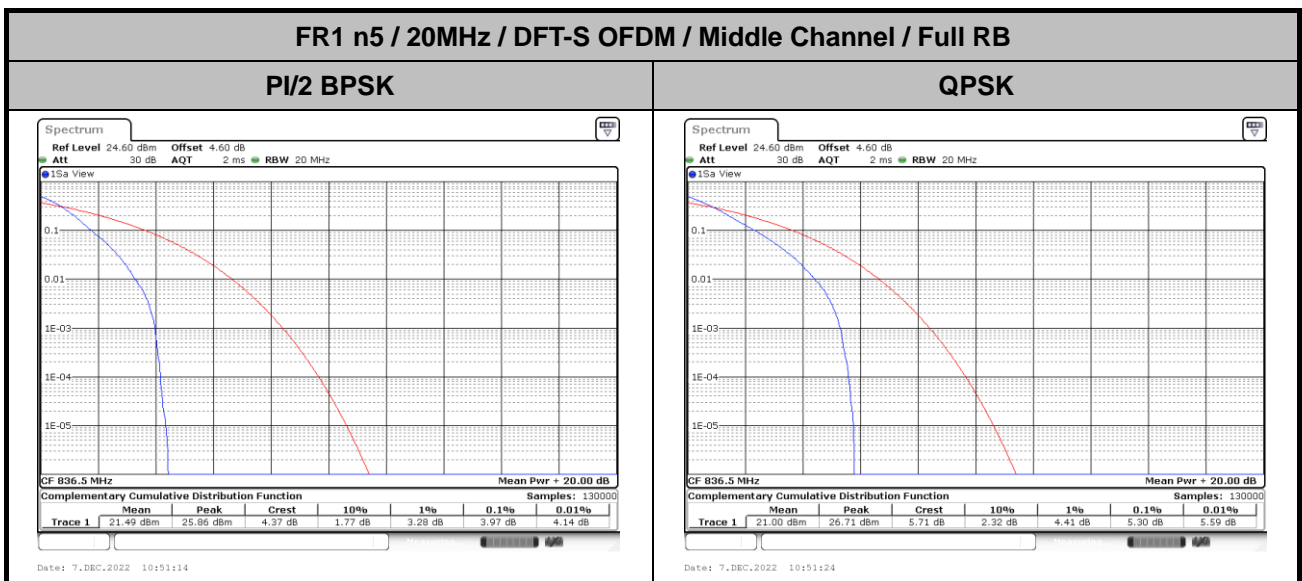
1. Normal Voltage =3.89V. ; Battery End Point (BEP) =3. 4V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# FR1 n5

## Peak-to-Average Ratio

Mode	FR1 n5 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK			Limit: 13dB
RB Size	Full RB	Full RB			Result
Middle CH	3.97	5.30			PASS





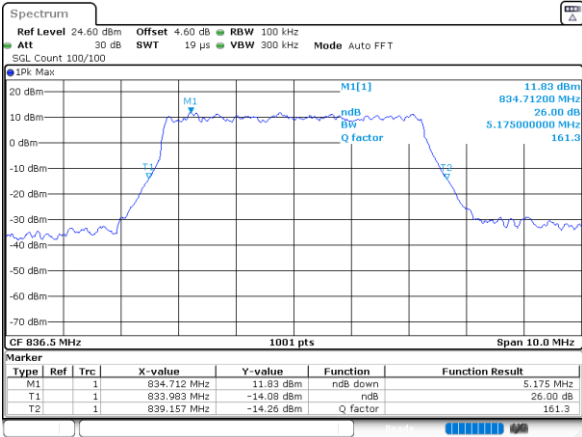
**26dB Bandwidth**

Mode	FR1 n5 : 26dBW (MHz) / CP OFDM			
BW	5M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	5.18	5.09	5.15	5.04
BW	10M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	10.09	10.29	10.31	10.17
BW	15M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	15.02	14.93	15.11	15.05
BW	20M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	19.98	20.02	20.02	19.9

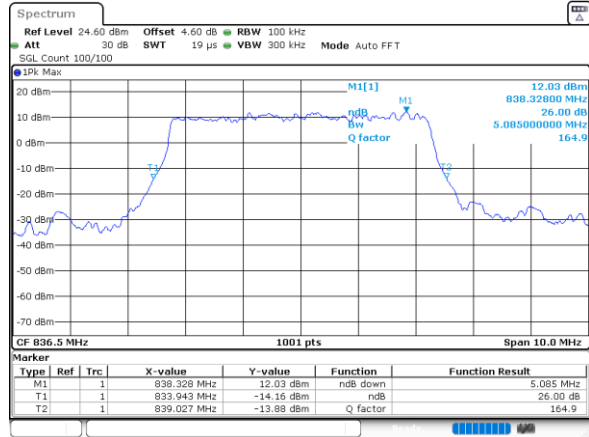


FR1 n5 / 5MHz / CP / Middle Channel / Full RB

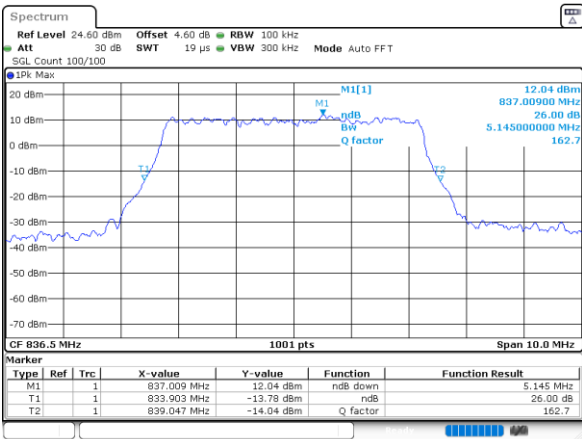
QPSK



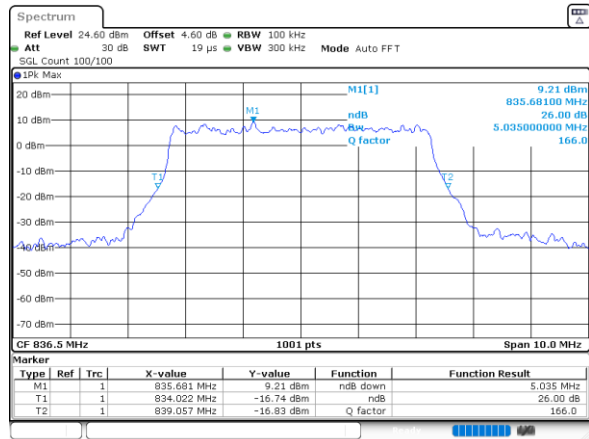
16QAM



64QAM



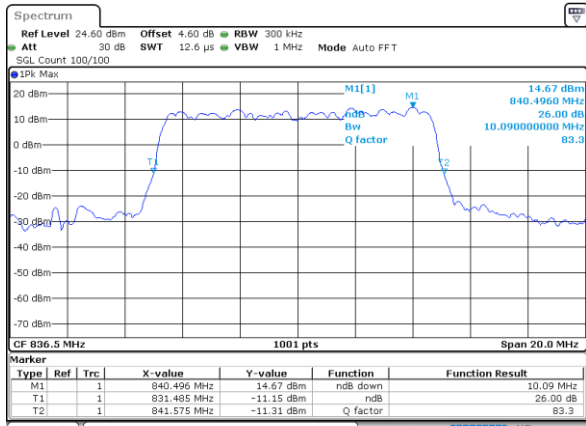
256QAM





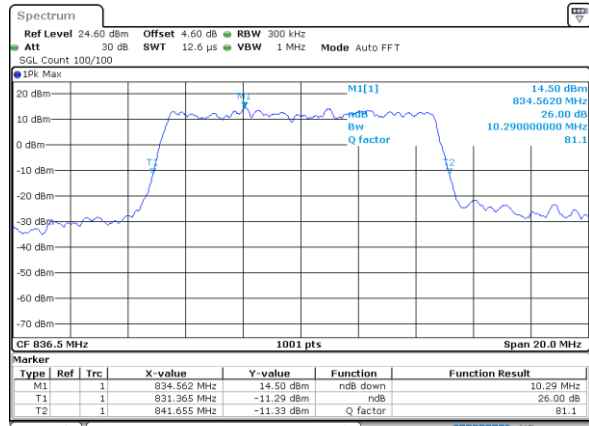
FR1 n5 / 10MHz / CP / Middle Channel / Full RB

QPSK



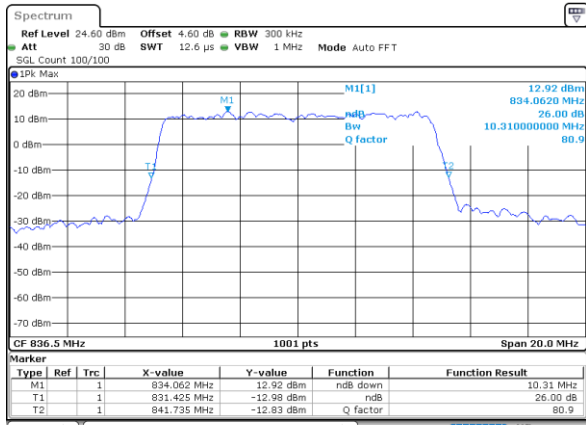
Date: 7,DEC,2022 10:55:35

16QAM



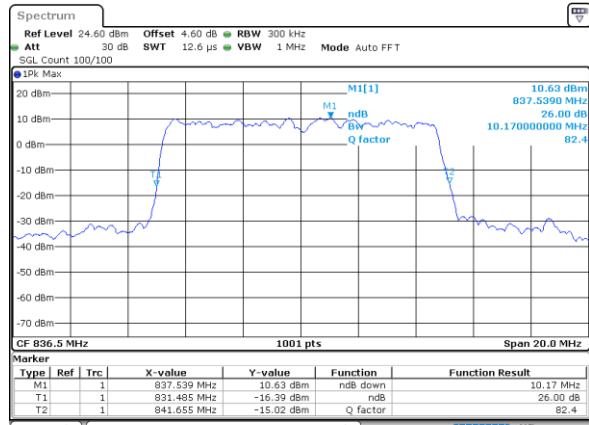
Date: 7,DEC,2022 10:55:50

64QAM



Date: 7,DEC,2022 10:56:04

256QAM

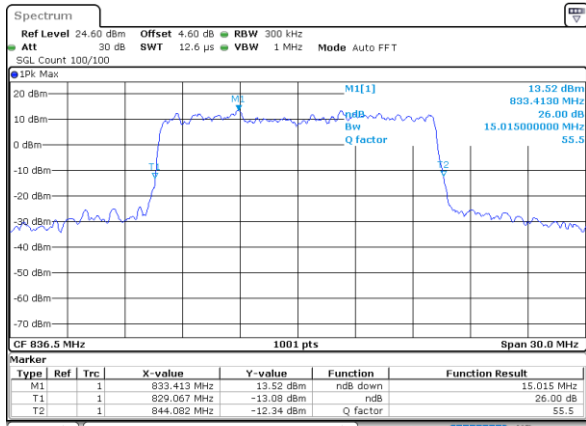


Date: 7,DEC,2022 10:56:19



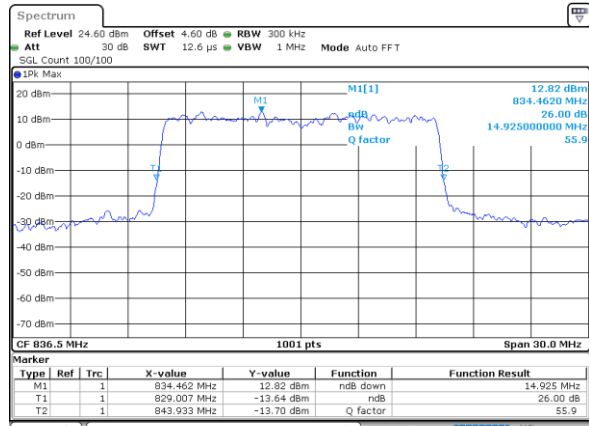
FR1 n5 / 15MHz / CP / Middle Channel / Full RB

QPSK



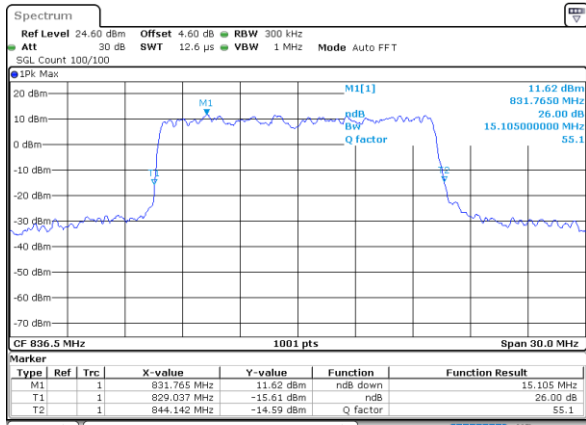
Date: 7,DEC,2022 10:54:54

16QAM



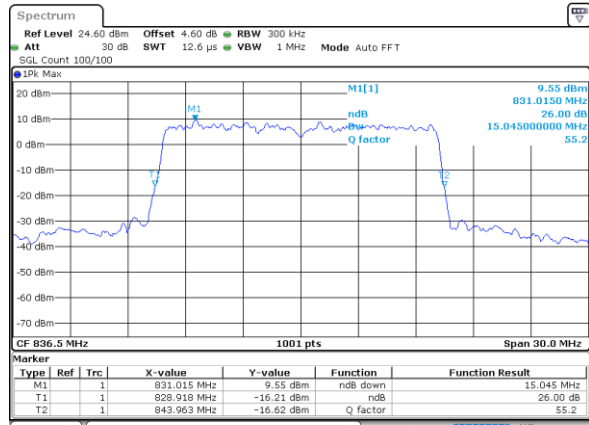
Date: 7,DEC,2022 10:54:41

64QAM



Date: 7,DEC,2022 10:54:27

256QAM



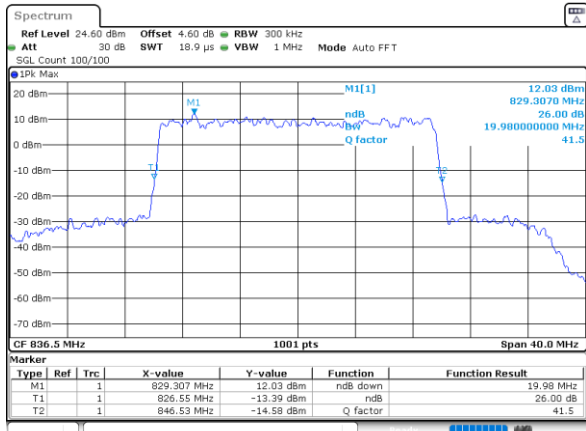
Date: 7,DEC,2022 10:54:13





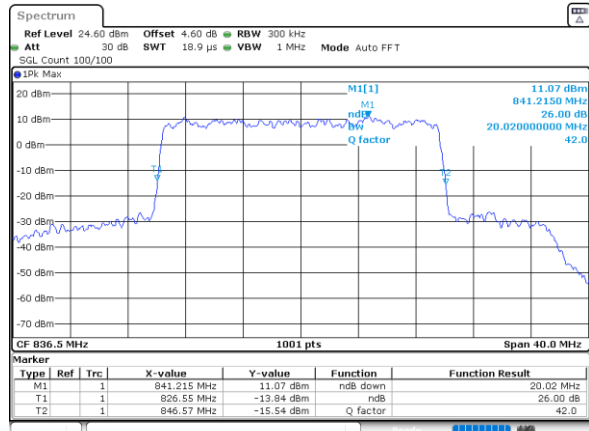
FR1 n5 / 20MHz / CP / Middle Channel / Full RB

QPSK



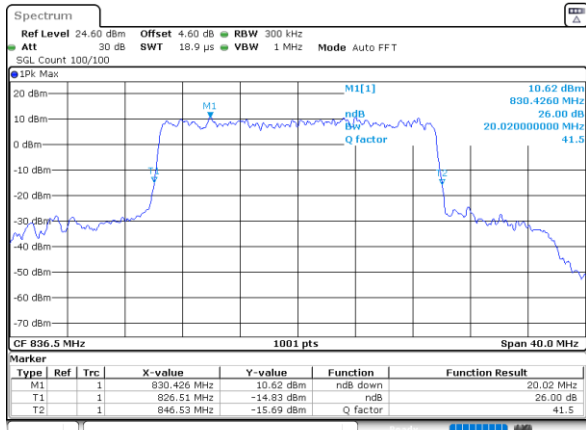
Date: 16, DEC, 2022 08:28:39

16QAM



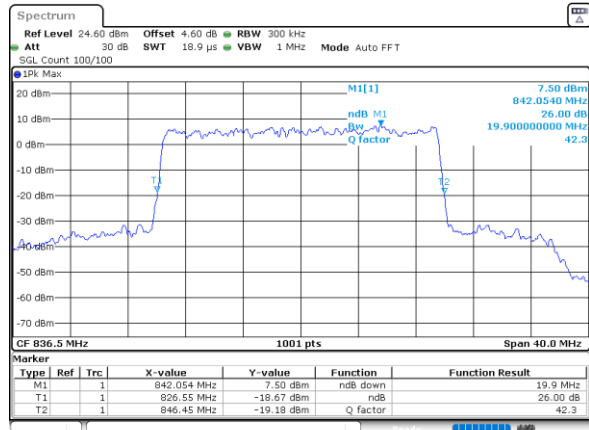
Date: 16, DEC, 2022 08:28:20

64QAM



Date: 16, DEC, 2022 08:28:02

256QAM



Date: 16, DEC, 2022 08:27:47



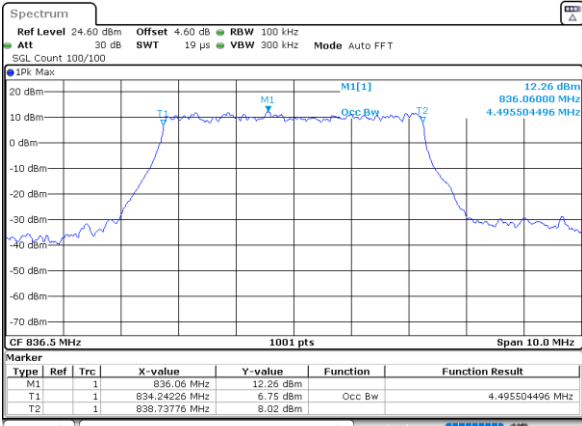
Occupied Bandwidth

Mode	FR1 n5 : 99%OBW (MHz) / CP OFDM			
<b>BW</b>	<b>5M</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	4.50	4.50	4.52	4.51
<b>BW</b>	<b>10M</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	9.35	9.37	9.37	9.41
<b>BW</b>	<b>15M</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	14.15	14.15	14.21	14.12
<b>BW</b>	<b>20M</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	18.94	18.94	18.94	18.98



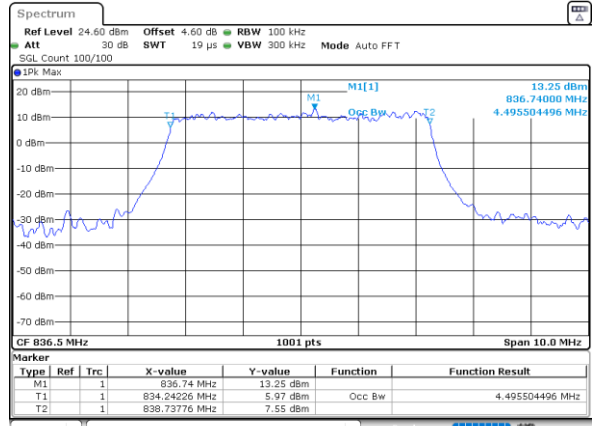
FR1 n5 / 5MHz / CP / Middle Channel / Full RB

QPSK



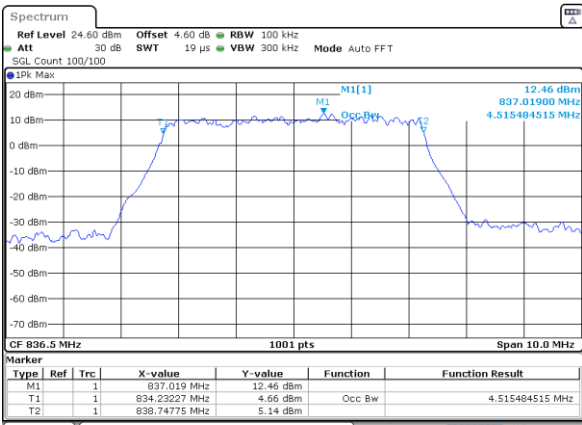
Date: 7,DEC,2022 10:22:10

16QAM



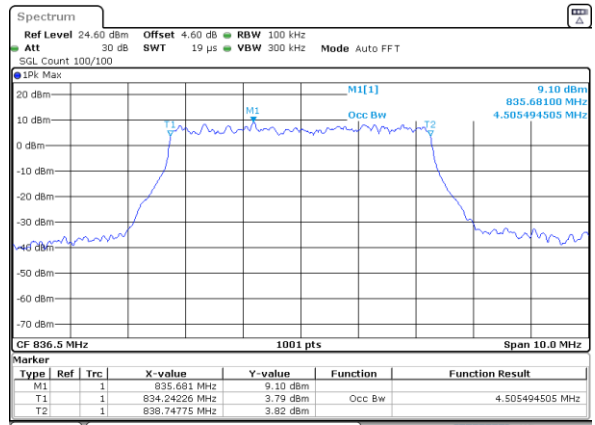
Date: 7,DEC,2022 10:22:22

64QAM



Date: 7,DEC,2022 10:22:36

256QAM

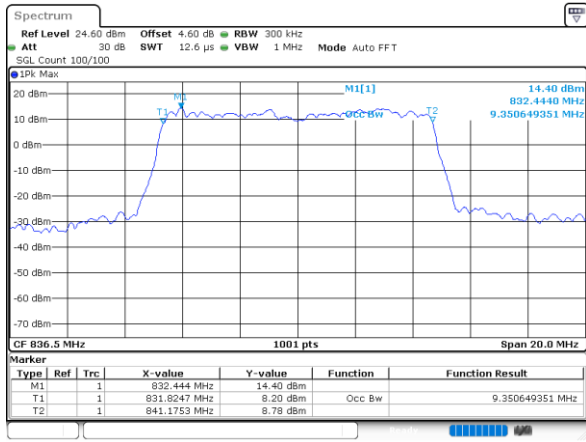


Date: 7,DEC,2022 10:22:50



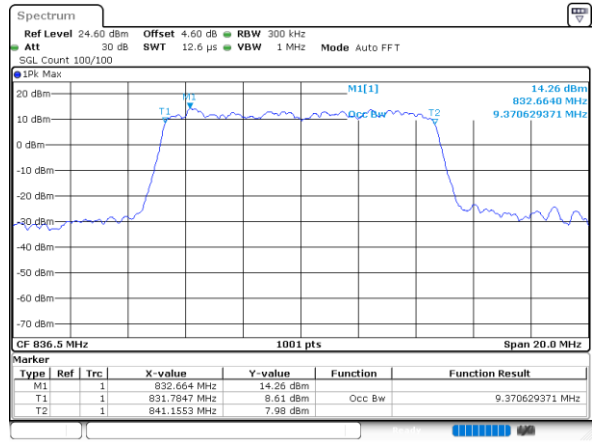
FR1 n5 / 10MHz / CP / Middle Channel / Full RB

QPSK



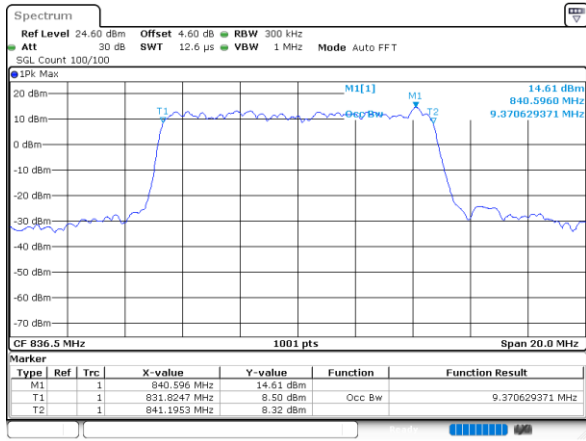
Date: 7,DEC,2022 10:55:30

16QAM



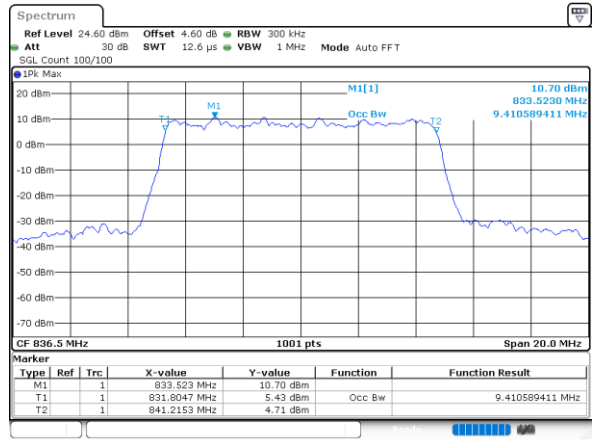
Date: 7,DEC,2022 10:55:45

64QAM



Date: 7,DEC,2022 10:55:59

256QAM

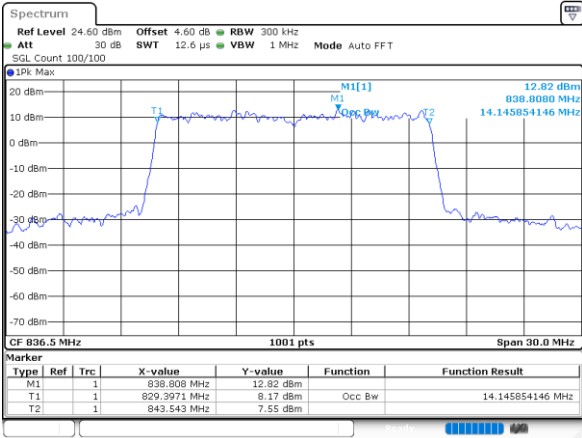


Date: 7,DEC,2022 10:56:13



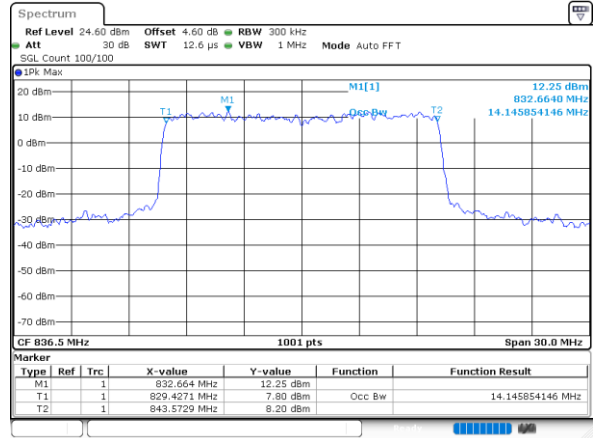
FR1 n5 / 15MHz / CP / Middle Channel / Full RB

QPSK



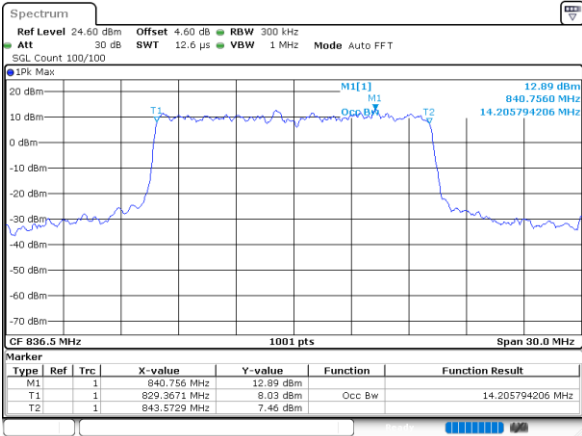
Date: 7,DEC,2022 10:54:49

16QAM



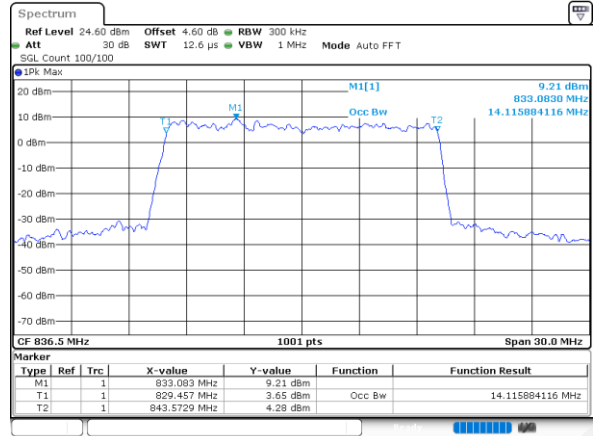
Date: 7,DEC,2022 10:54:35

64QAM



Date: 7,DEC,2022 10:54:22

256QAM

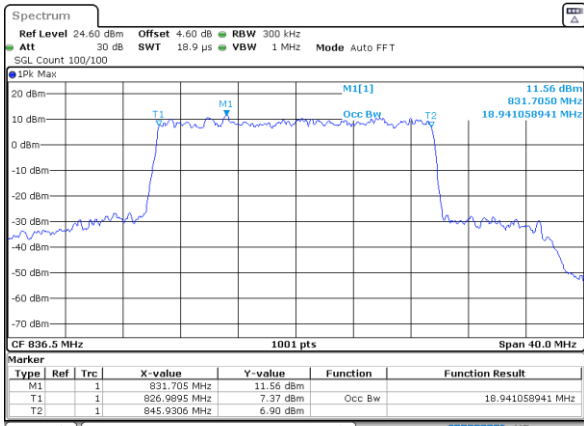


Date: 7,DEC,2022 10:54:04



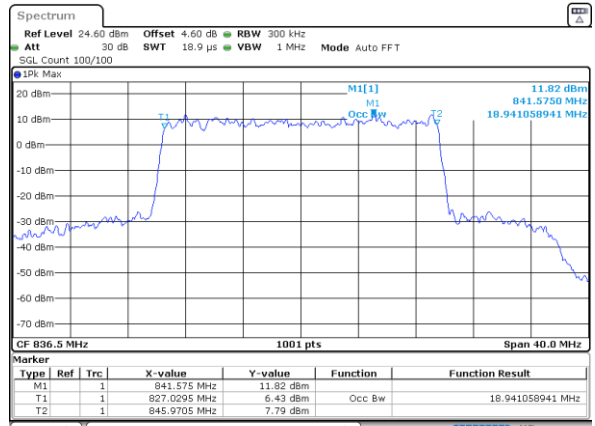
FR1 n5 / 20MHz / CP / Middle Channel / Full RB

QPSK



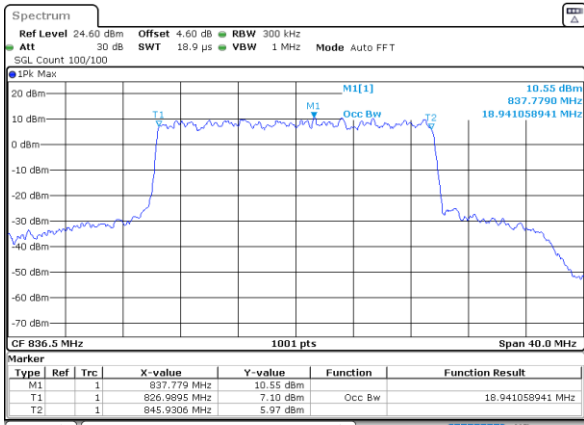
Date: 16, DEC, 2022 08:28:33

16QAM



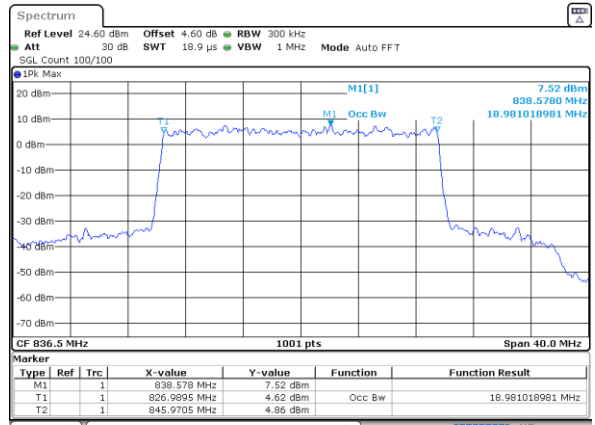
Date: 16, DEC, 2022 08:28:13

64QAM



Date: 16, DEC, 2022 08:27:56

256QAM



Date: 16, DEC, 2022 08:27:41

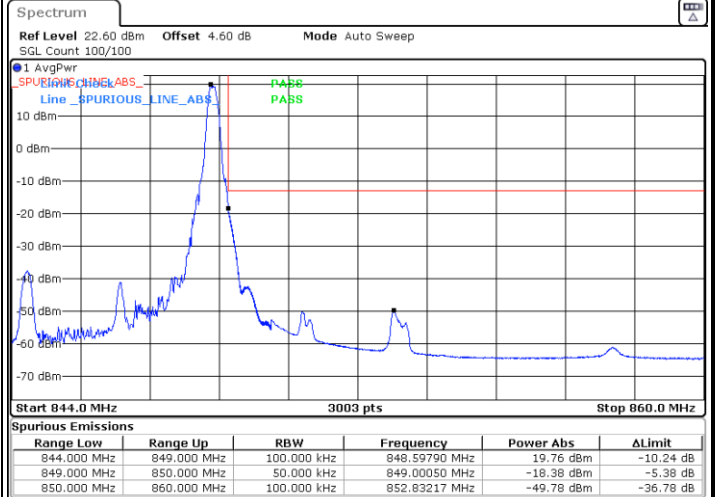
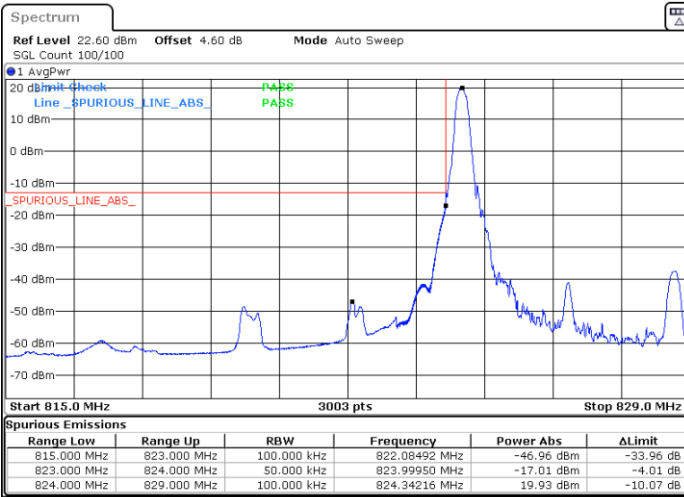


# Conducted Band Edge

FR1 n5 / 5MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

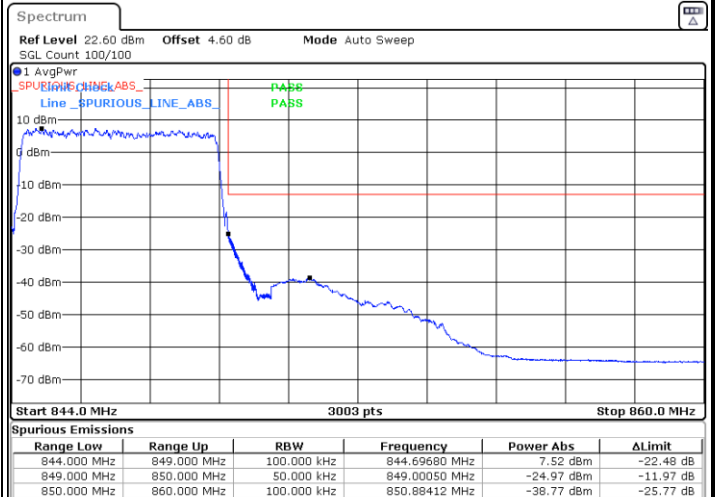
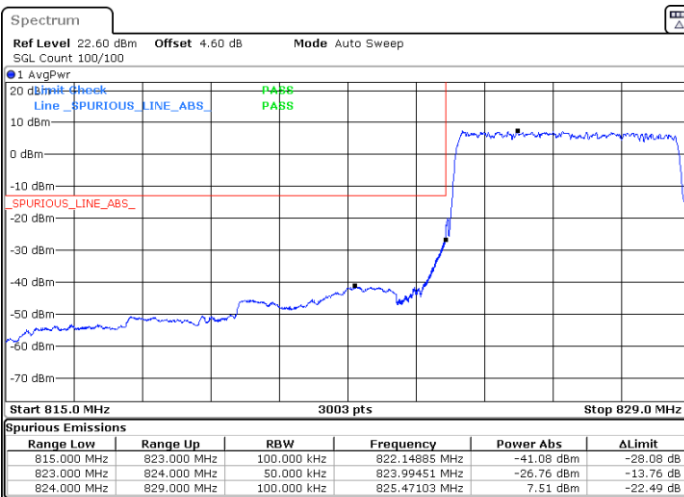


Date: 7.DEC.2022 10:17:24

Date: 7.DEC.2022 10:29:21

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 7.DEC.2022 10:20:21

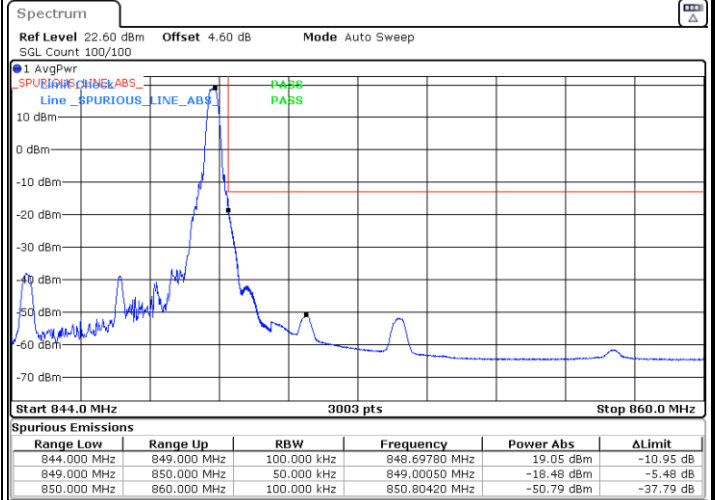
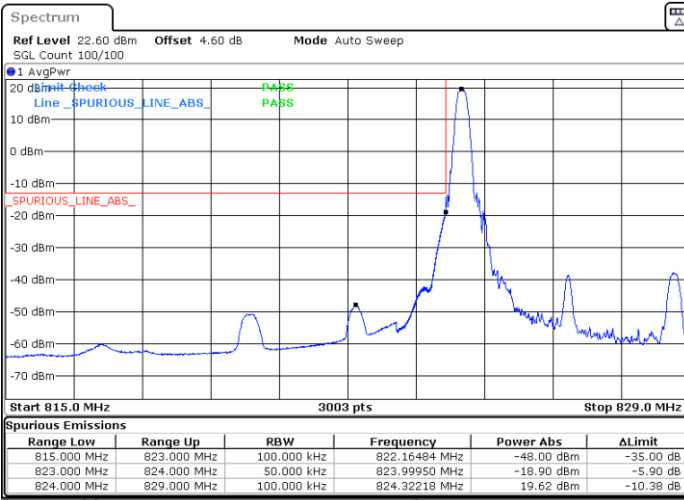
Date: 7.DEC.2022 10:27:00



FR1 n5 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

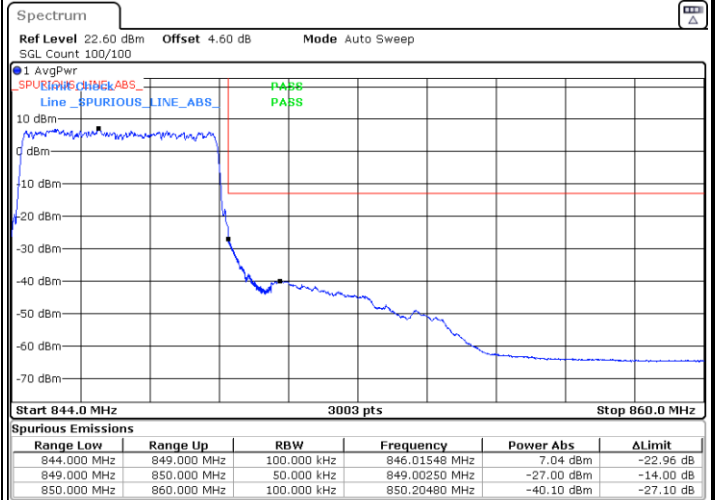
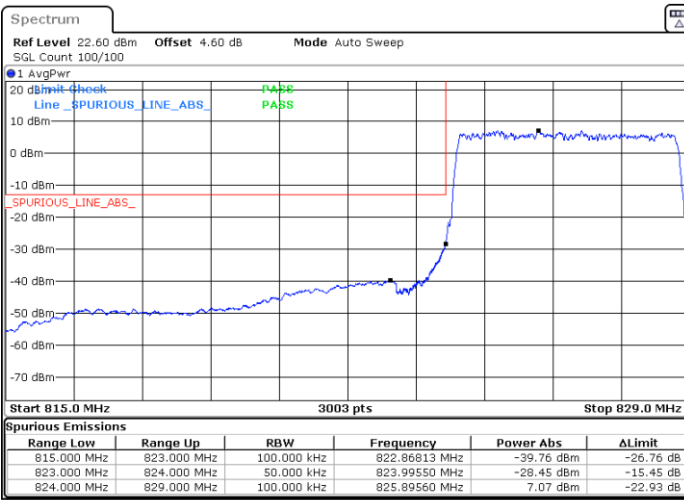


Date: 7.DEC.2022 10:18:05

Date: 7.DEC.2022 10:28:40

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 7.DEC.2022 10:21:02

Date: 7.DEC.2022 10:27:42

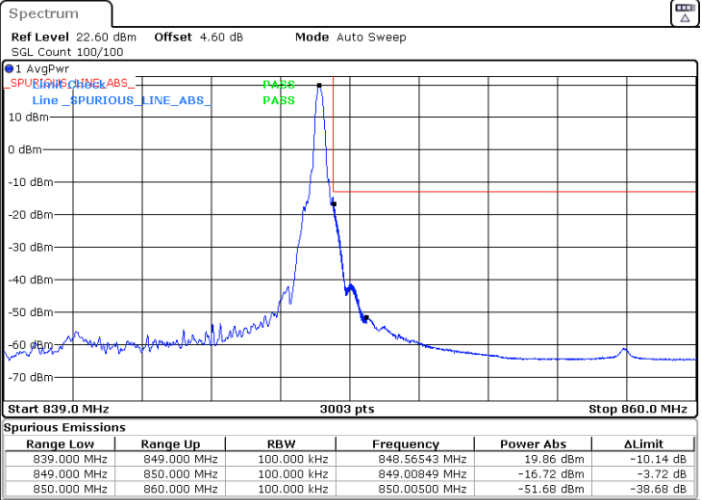
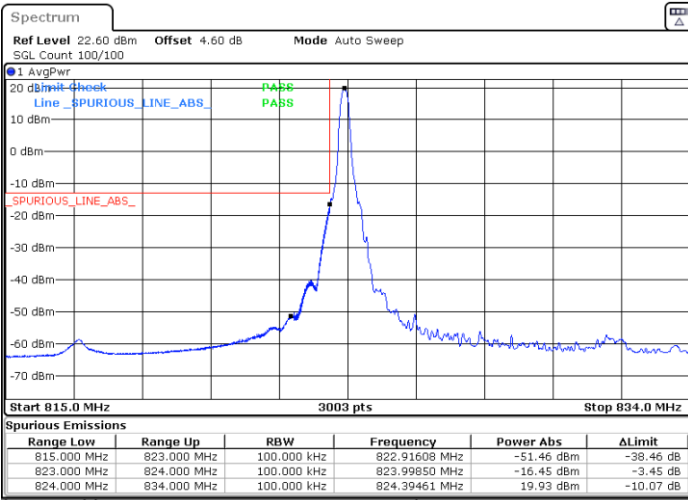




FR1 n5 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

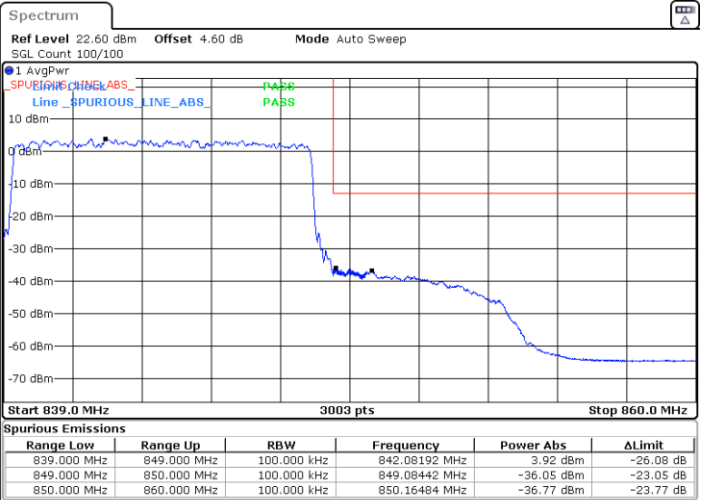
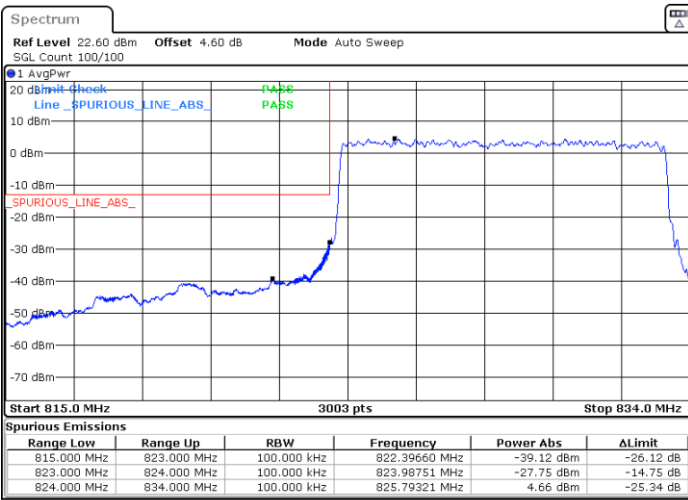


Date: 7.DEC.2022 10:32:02

Date: 7.DEC.2022 10:40:23

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 7.DEC.2022 10:33:50

Date: 7.DEC.2022 10:39:04