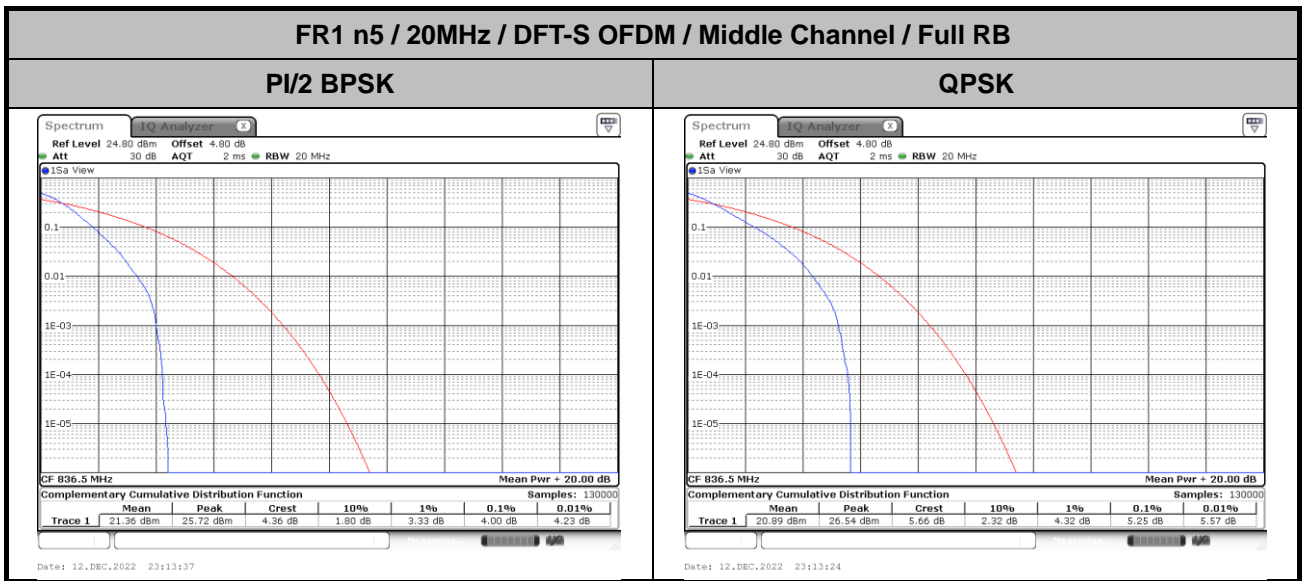




FR1 n5(EN-DC_48A_n5A)

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	4.00	5.25			PASS





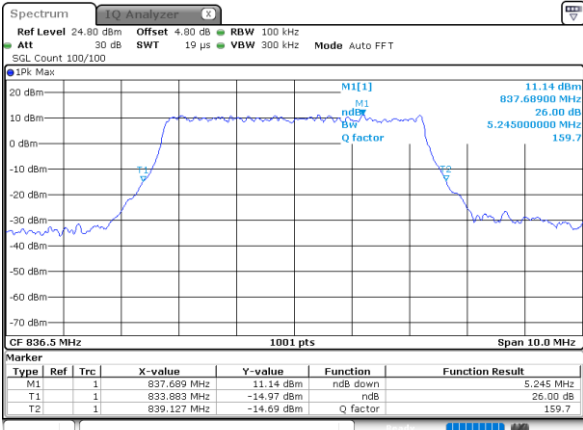
26dB Bandwidth

Mode	FR1 n5 : 26dBW (MHz) / CP OFDM			
BW	5M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	5.25	5.08	5.25	5.06
BW	10M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	10.19	10.13	10.25	10.05
BW	15M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	15.05	15.08	15.08	15.11
BW	20M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	19.98	19.9	20.06	19.82



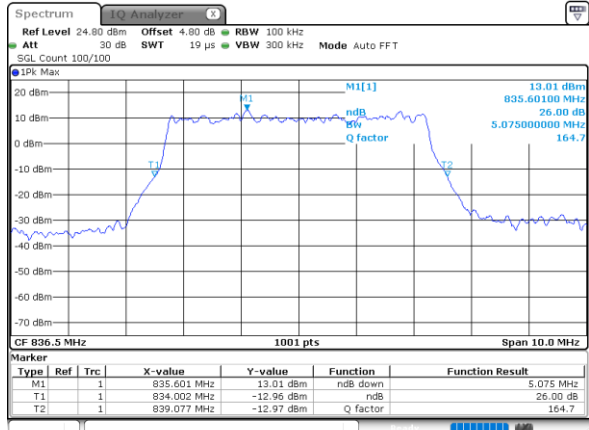
FR1 n5 / 5MHz / CP / Middle Channel / Full RB

QPSK



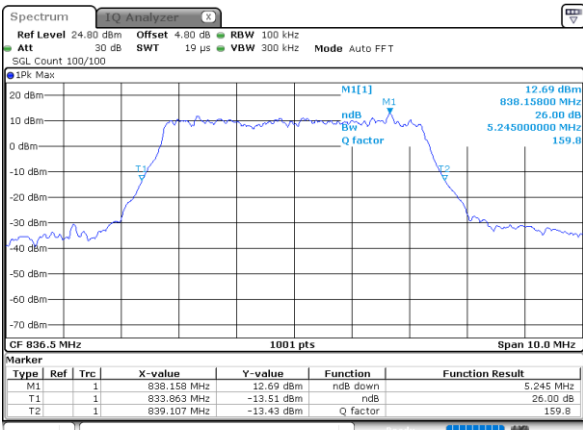
Date: 12.DEC.2022 23:41:50

16QAM



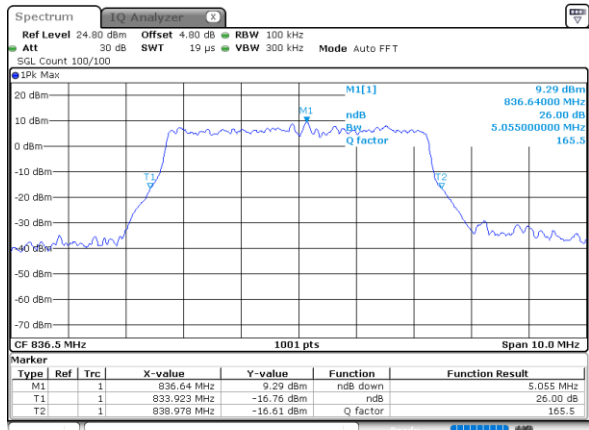
Date: 12.DEC.2022 23:42:45

64QAM



Date: 12.DEC.2022 23:43:03

256QAM

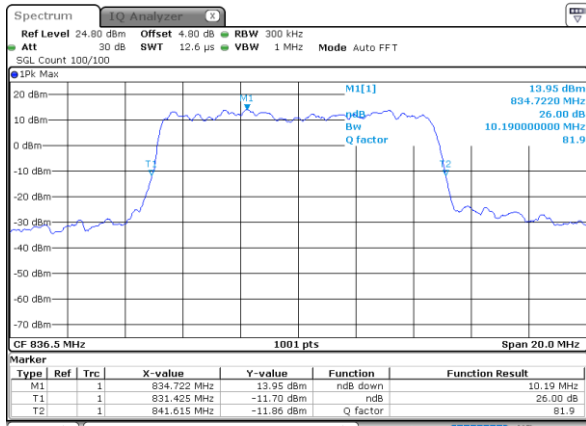


Date: 12.DEC.2022 23:43:25



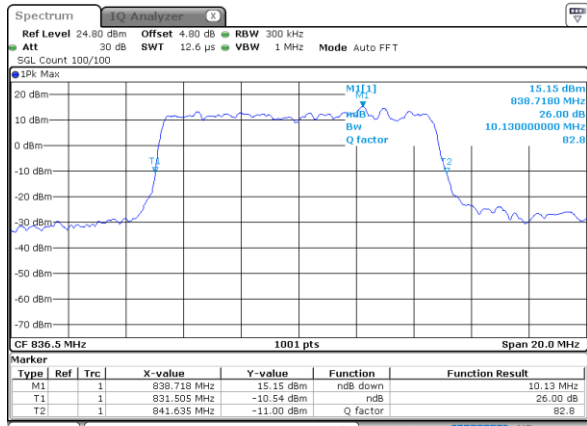
FR1 n5 / 10MHz / CP / Middle Channel / Full RB

QPSK



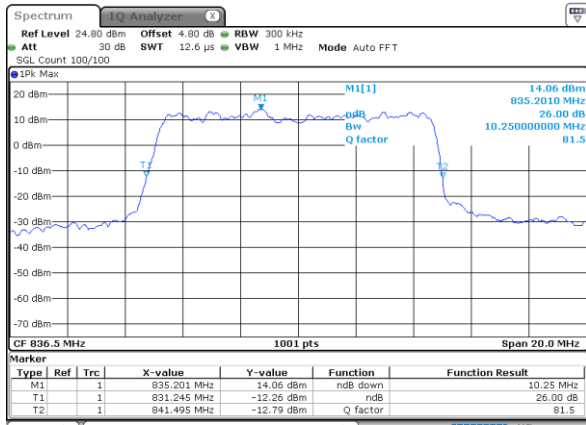
Date: 12.DEC.2022 23:26:15

16QAM



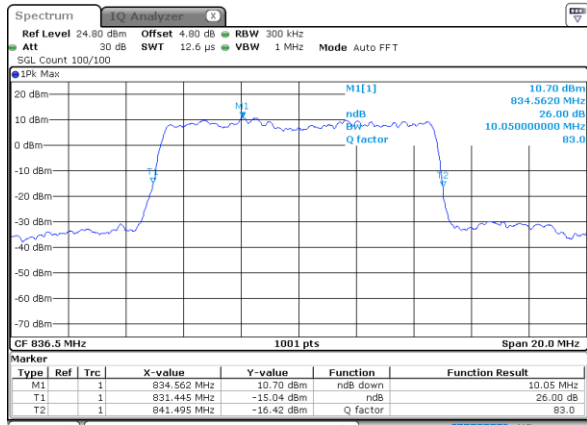
Date: 12.DEC.2022 23:26:134

64QAM



Date: 12.DEC.2022 23:26:51

256QAM

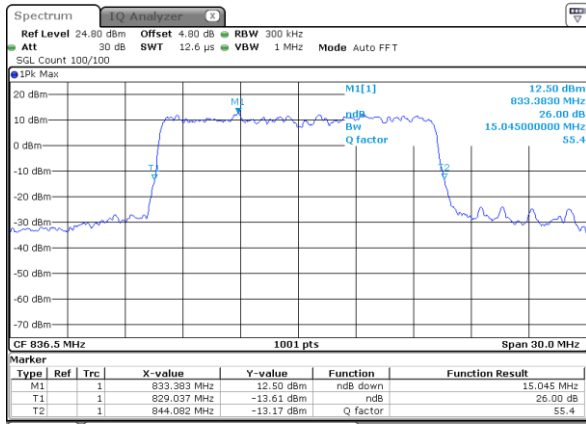


Date: 12.DEC.2022 23:27:08



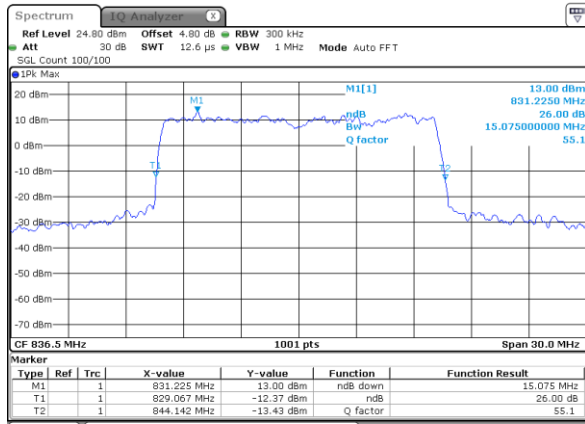
FR1 n5 / 15MHz / CP / Middle Channel / Full RB

QPSK



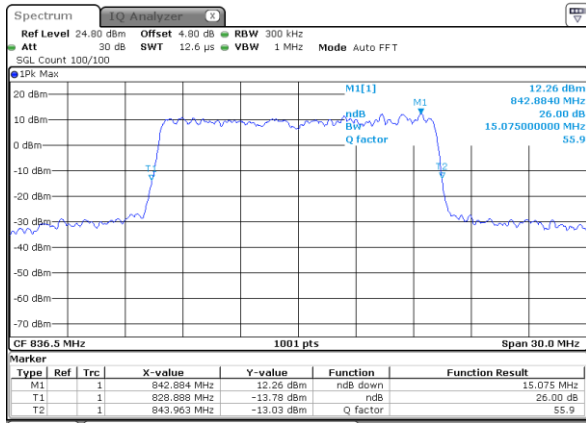
Date: 12. DEC. 2022 23:24:01

16QAM



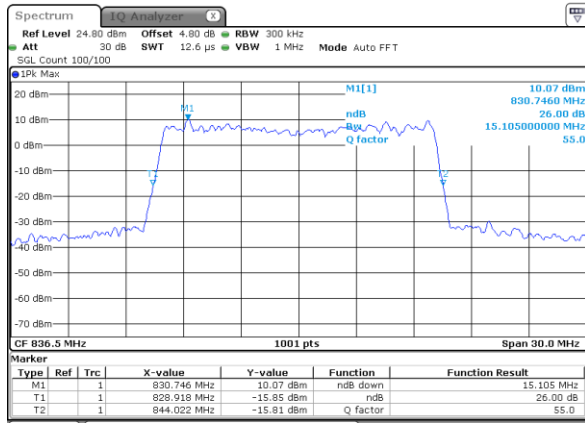
Date: 12. DEC. 2022 23:24:18

64QAM



Date: 12. DEC. 2022 23:25:20

256QAM

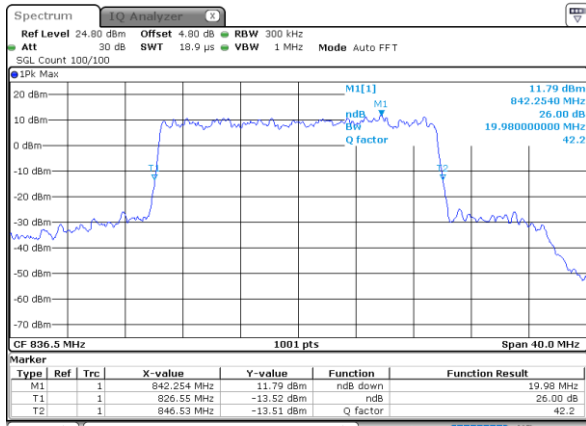


Date: 12. DEC. 2022 23:25:41



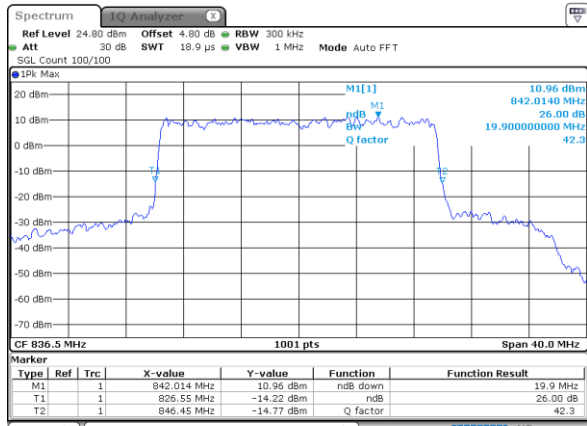
FR1 n5 / 20MHz / CP / Middle Channel / Full RB

QPSK



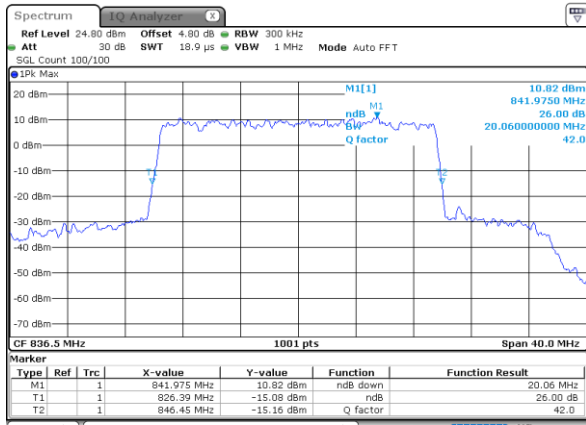
Date: 12.DEC.2022 23:08:14

16QAM



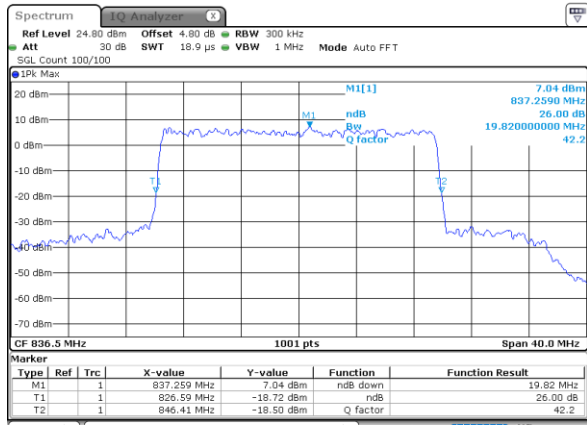
Date: 12.DEC.2022 23:08:14

64QAM



Date: 12.DEC.2022 23:08:52

256QAM



Date: 12.DEC.2022 23:09:15



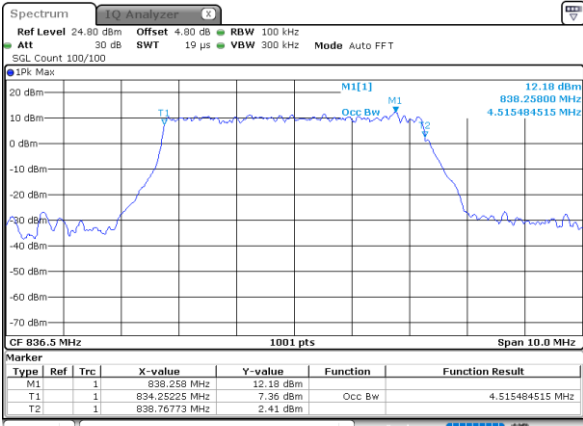
Occupied Bandwidth

Mode	FR1 n5 : 99%OBW (MHz) / CP OFDM			
BW	5M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	4.52	4.50	4.50	4.48
BW	10M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	9.37	9.33	9.39	9.29
BW	15M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	14.12	14.15	14.15	14.15
BW	20M			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	18.90	18.98	18.98	19.02



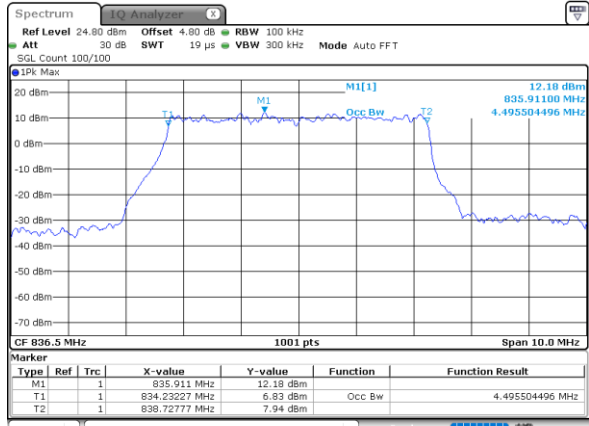
FR1 n5 / 5MHz / CP / Middle Channel / Full RB

QPSK



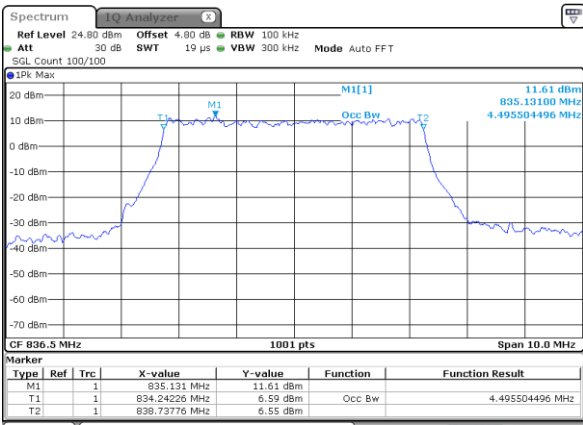
Date: 12. DEC. 2022 23:41:44

16QAM



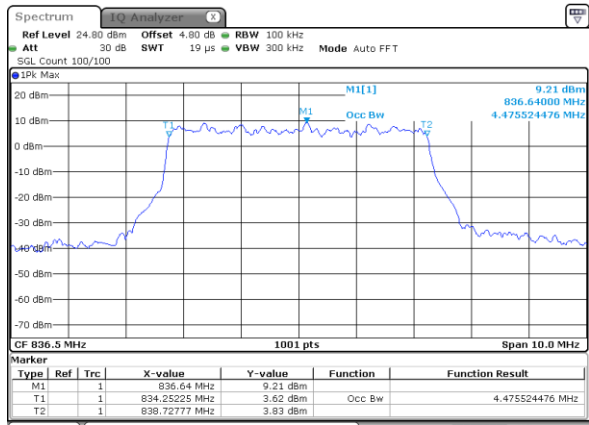
Date: 12. DEC. 2022 23:42:136

64QAM



Date: 12. DEC. 2022 23:42:57

256QAM

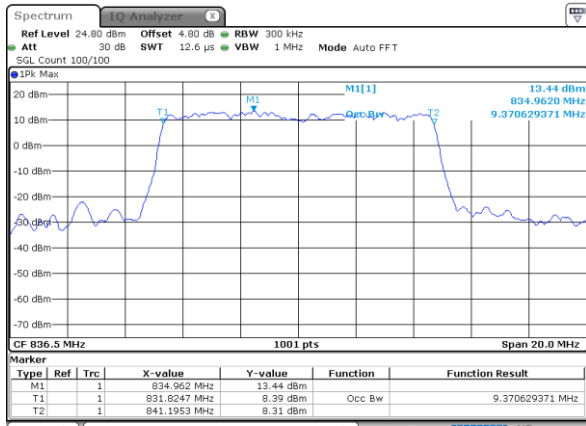


Date: 12. DEC. 2022 23:43:19



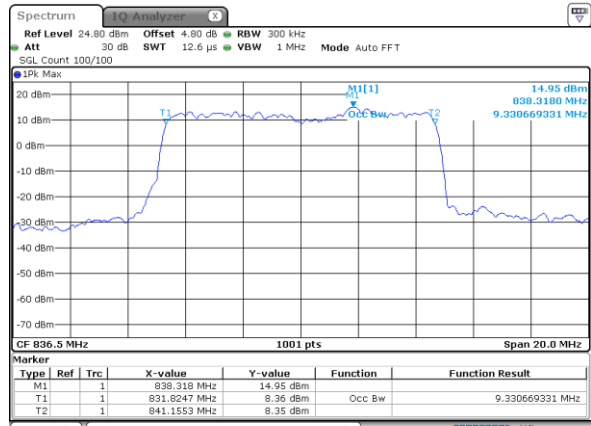
FR1 n5 / 10MHz / CP / Middle Channel / Full RB

QPSK



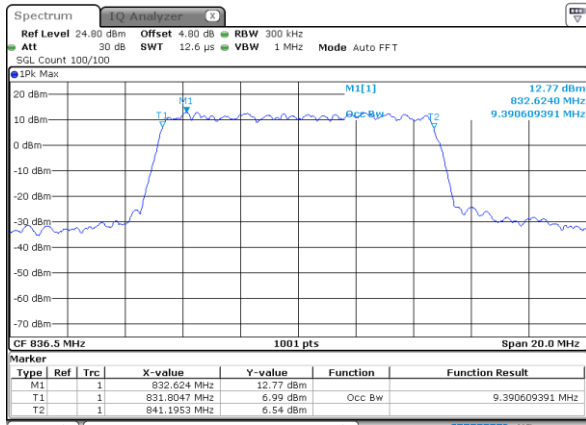
Date: 12. DEC. 2022 23:26:08

16QAM



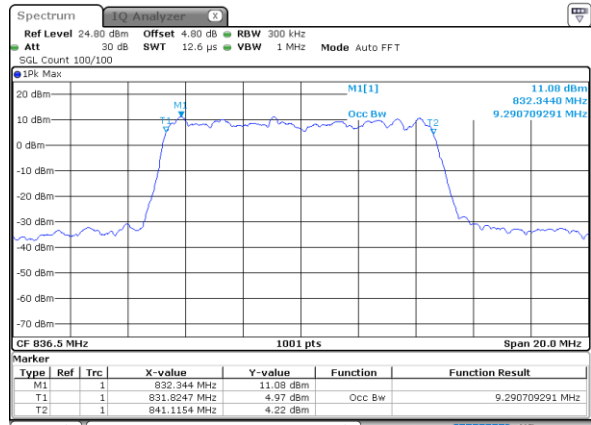
Date: 12. DEC. 2022 23:26:27

64QAM



Date: 12. DEC. 2022 23:26:45

256QAM

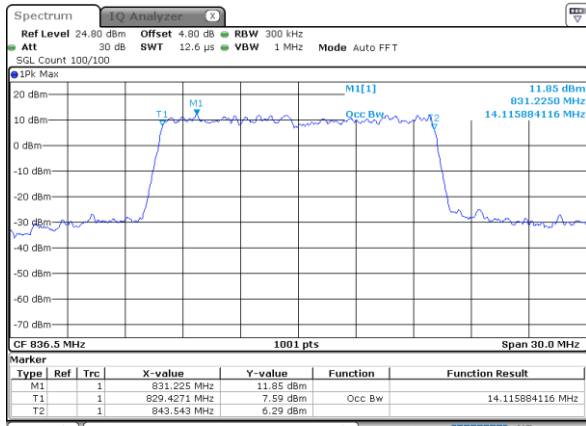


Date: 12. DEC. 2022 23:27:03



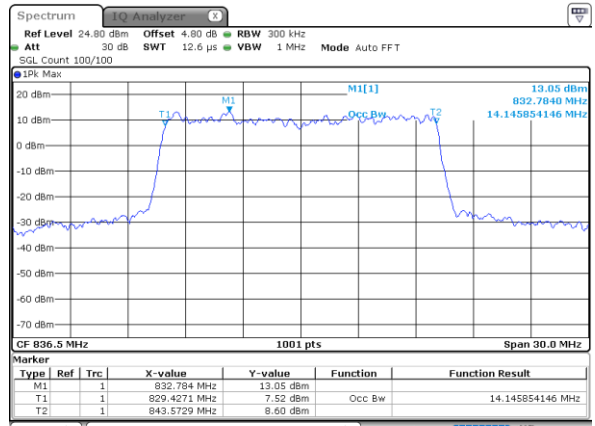
FR1 n5 / 15MHz / CP / Middle Channel / Full RB

QPSK



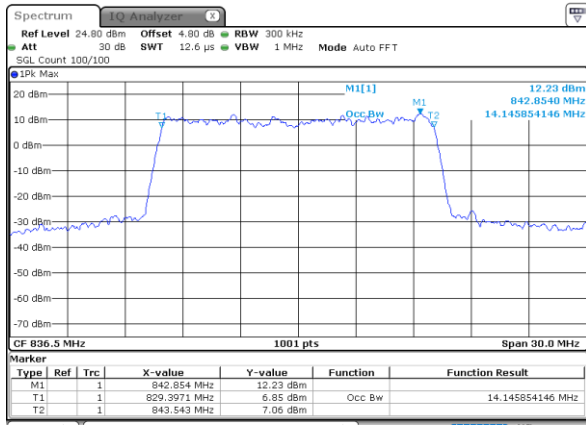
Date: 12. DEC. 2022 23:23:55

16QAM



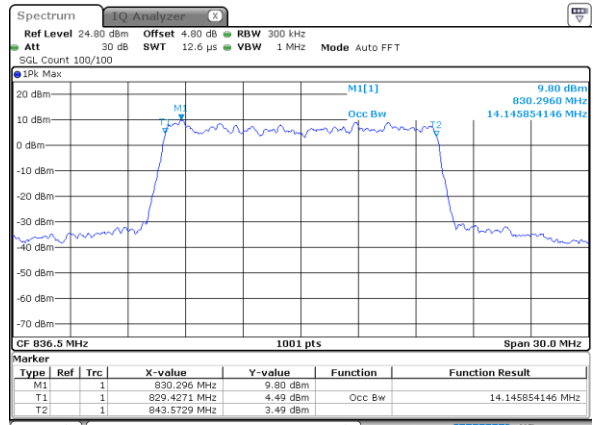
Date: 12. DEC. 2022 23:24:13

64QAM



Date: 12. DEC. 2022 23:25:14

256QAM

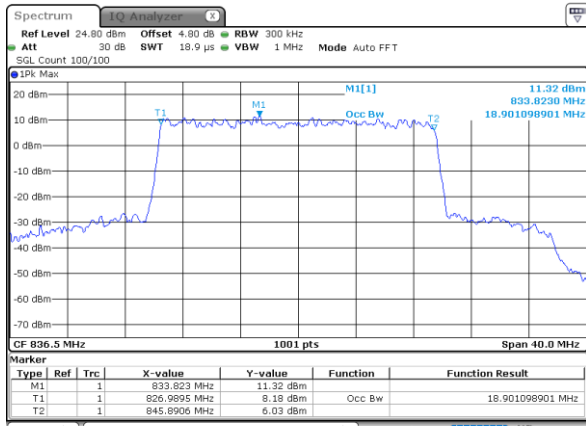


Date: 12. DEC. 2022 23:25:35



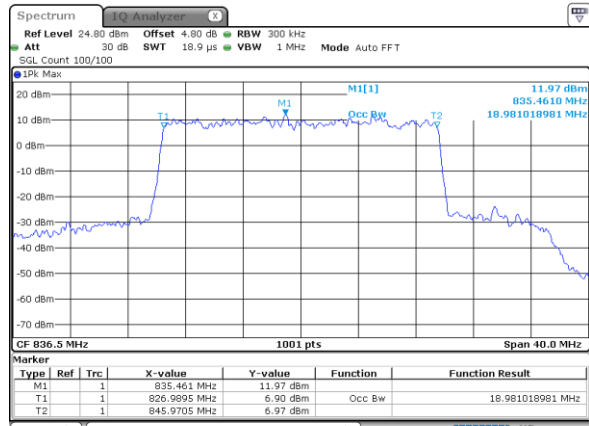
FR1 n5 / 20MHz / CP / Middle Channel / Full RB

QPSK



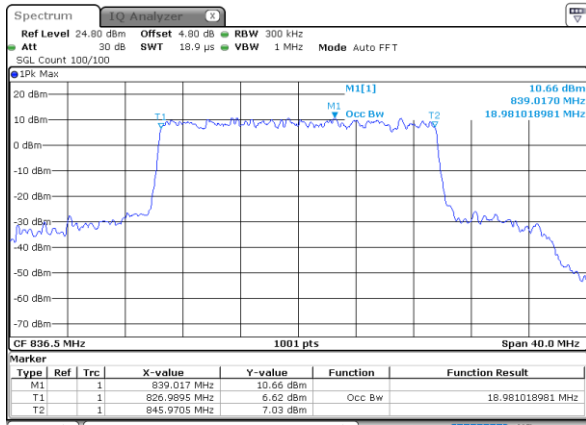
Date: 12. DEC. 2022 23:08:06

16QAM



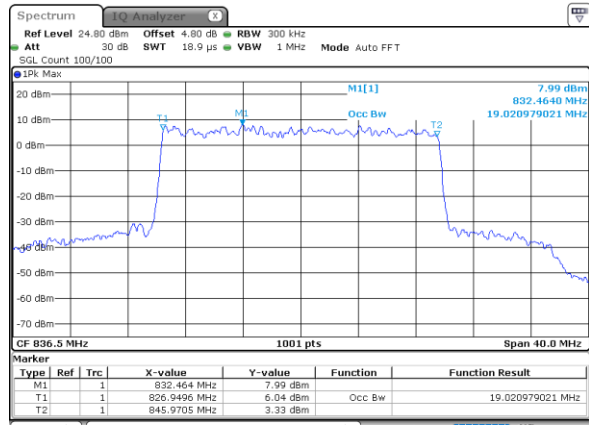
Date: 12. DEC. 2022 23:08:28

64QAM



Date: 12. DEC. 2022 23:08:45

256QAM



Date: 12. DEC. 2022 23:09:08

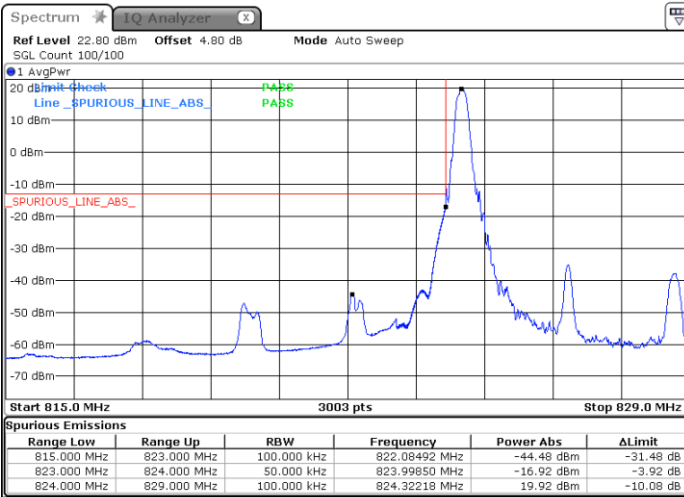


Conducted Band Edge

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

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

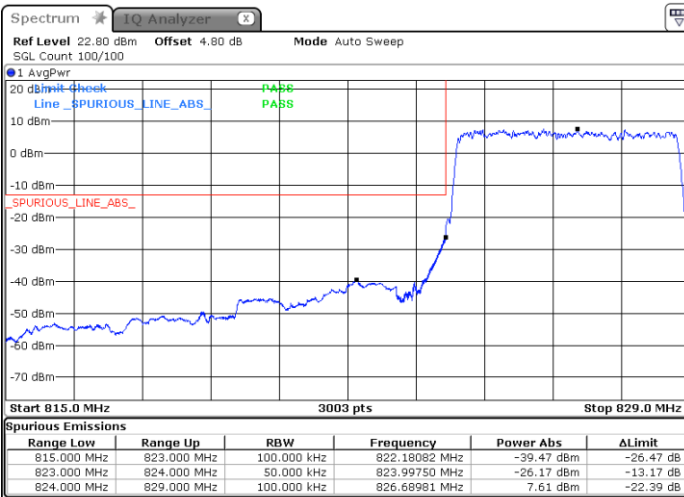


Date: 13.DEC.2022 01:00:55

Date: 13.DEC.2022 01:07:49

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 13.DEC.2022 01:03:51

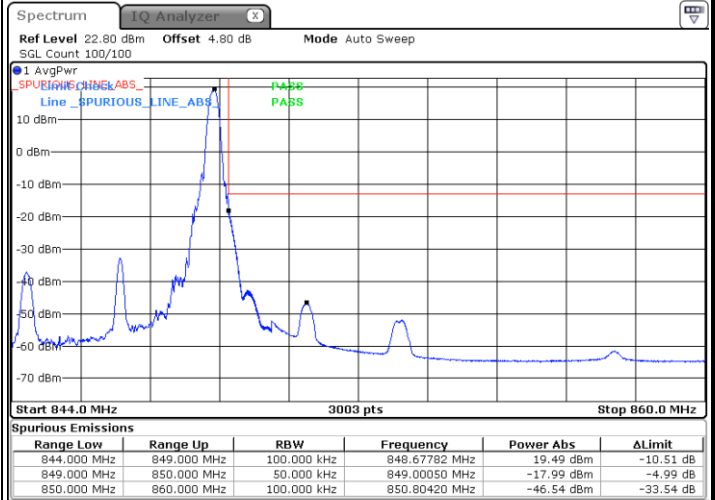
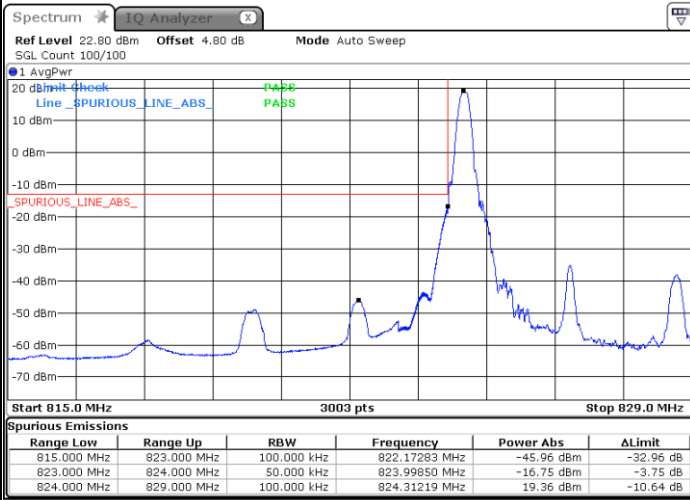
Date: 13.DEC.2022 01:05:07



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

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

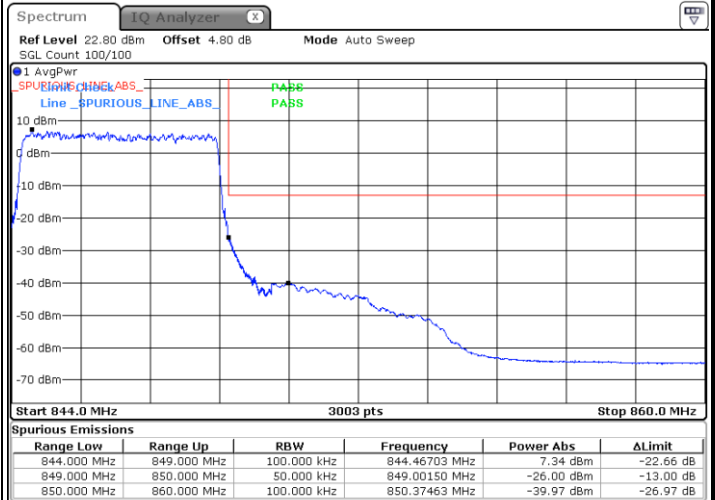
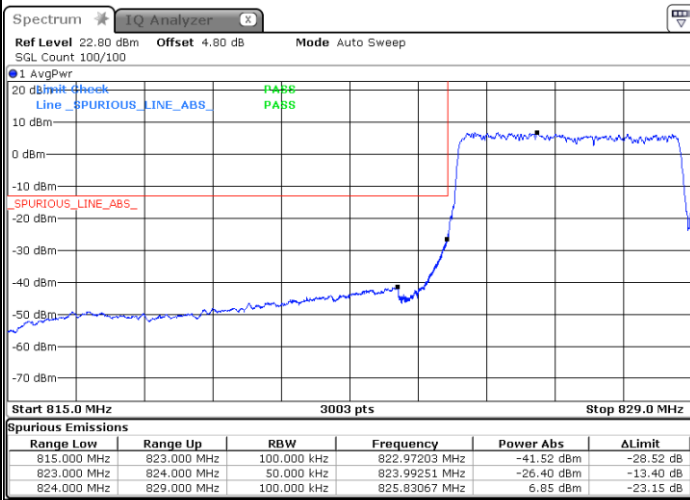


Date: 13.DEC.2022 01:01:55

Date: 13.DEC.2022 01:07:03

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 13.DEC.2022 01:03:01

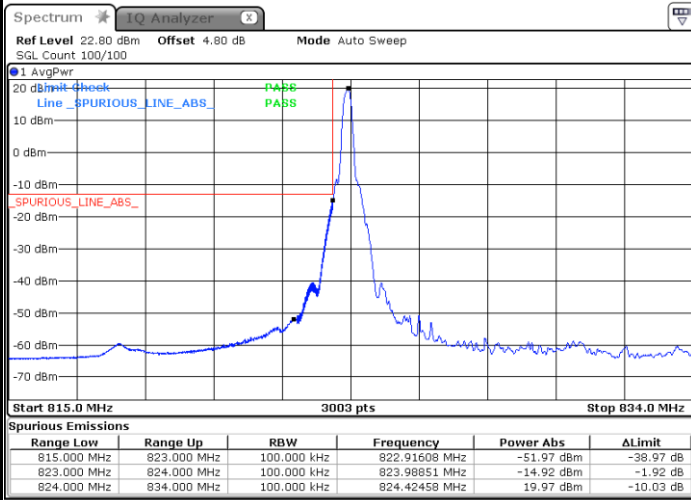
Date: 13.DEC.2022 01:06:08



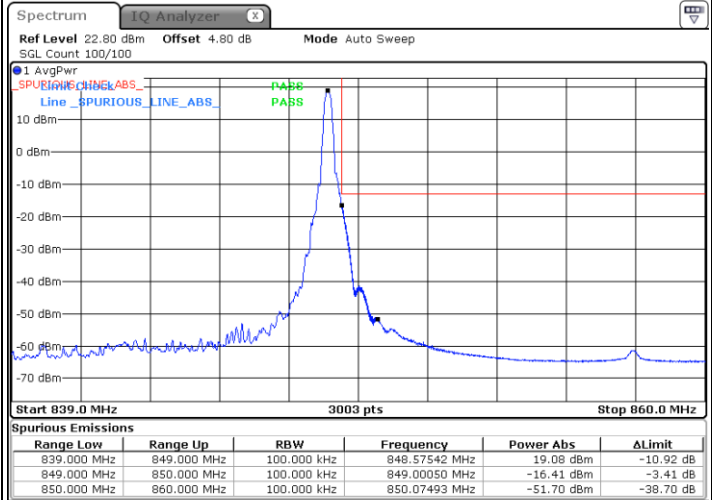
FR1 n5 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



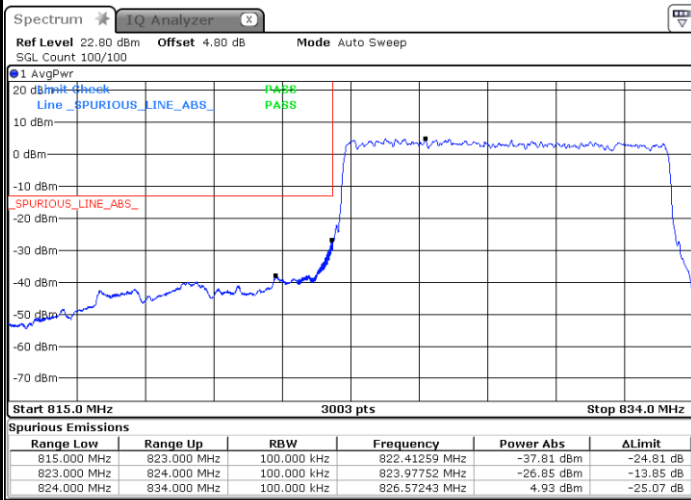
Date: 12.DEC.2022 23:31:54



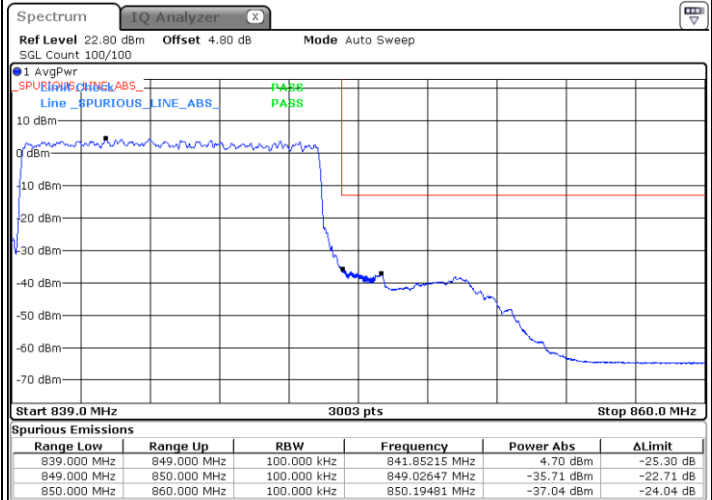
Date: 12.DEC.2022 23:38:19

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 23:34:40



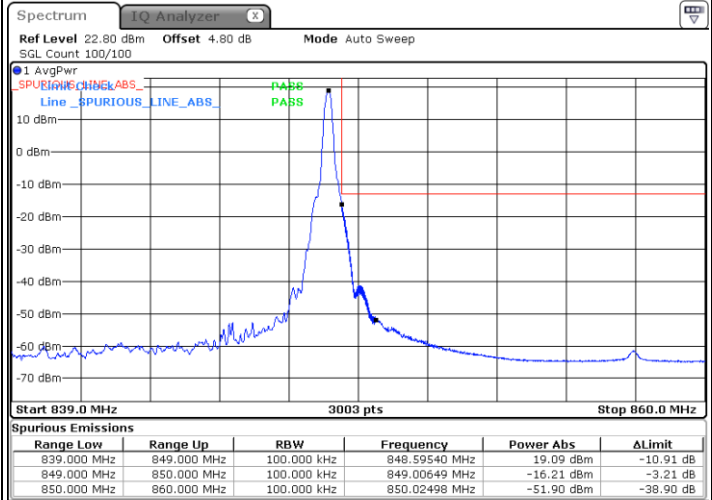
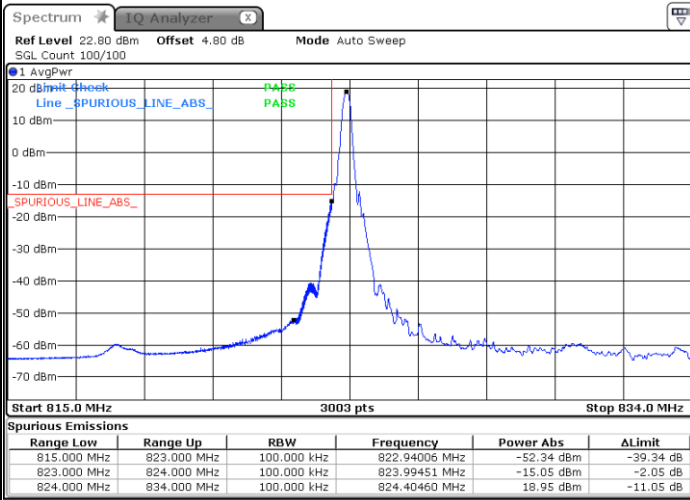
Date: 12.DEC.2022 23:35:43



FR1 n5 / 10MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

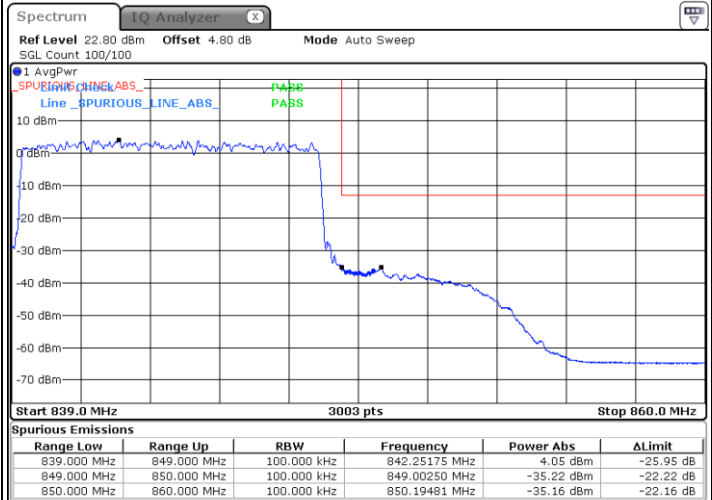
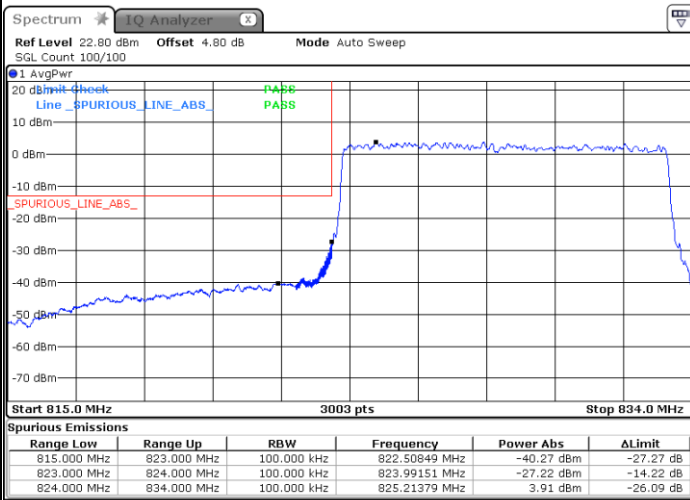


Date: 12.DEC.2022 23:32:49

Date: 12.DEC.2022 23:37:32

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 23:33:38

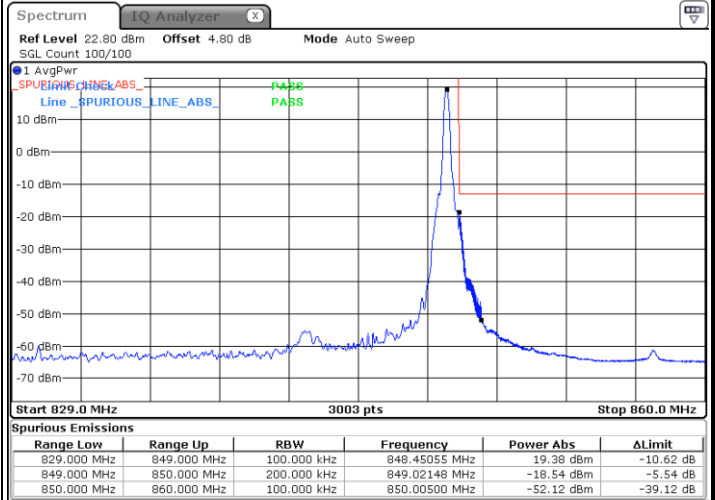
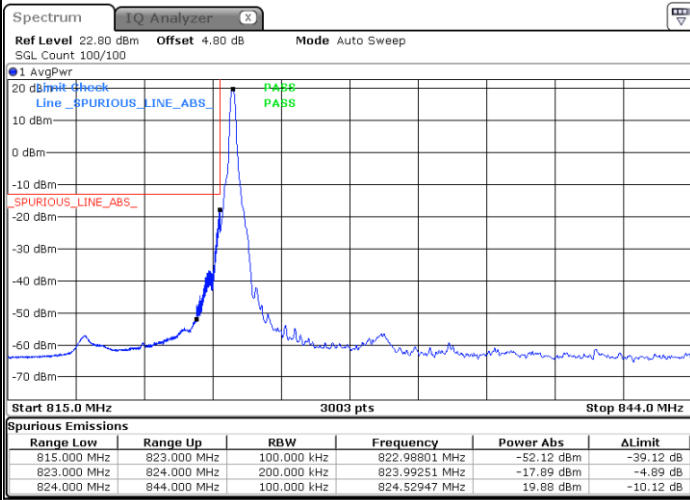
Date: 12.DEC.2022 23:36:33



FR1 n5 / 20MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

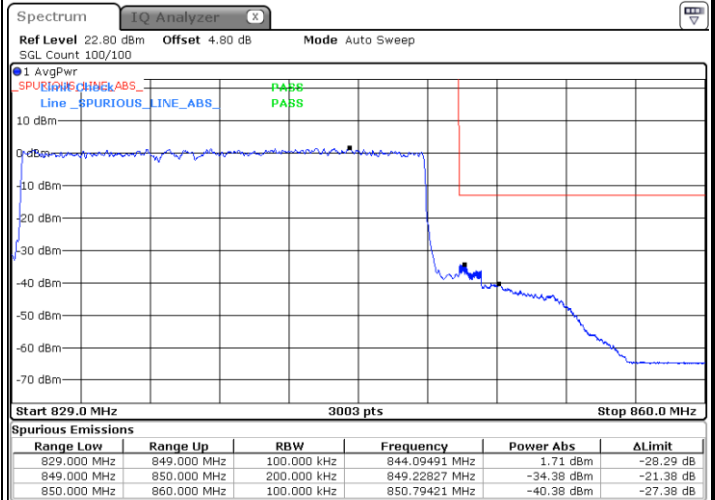
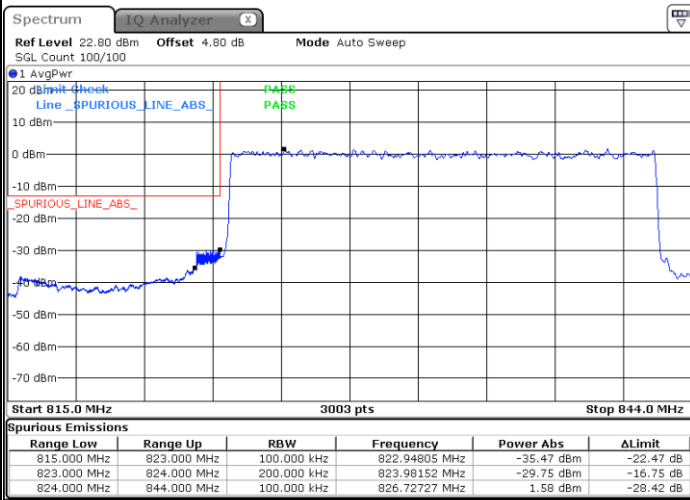


Date: 12.DEC.2022 23:16:00

Date: 12.DEC.2022 23:21:41

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 23:14:22

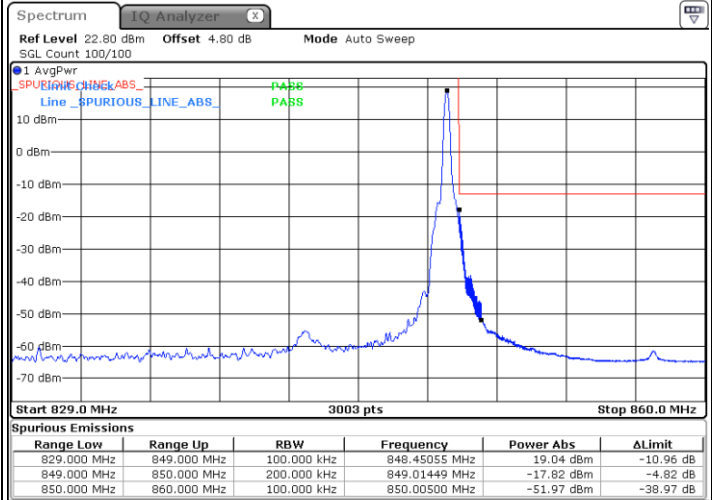
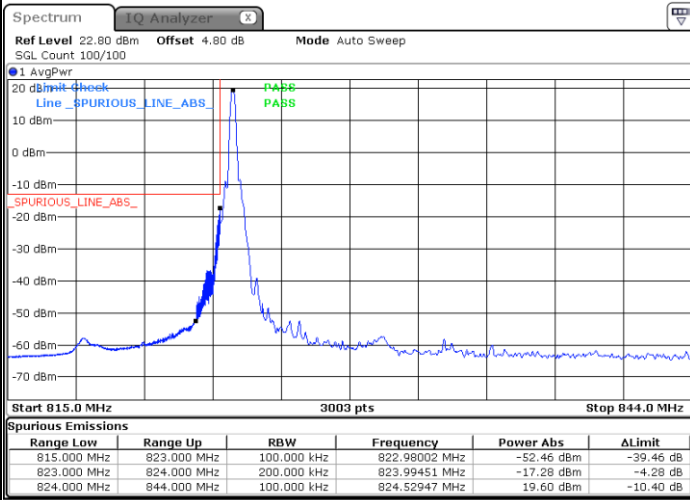
Date: 12.DEC.2022 23:22:21



FR1 n5 / 20MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

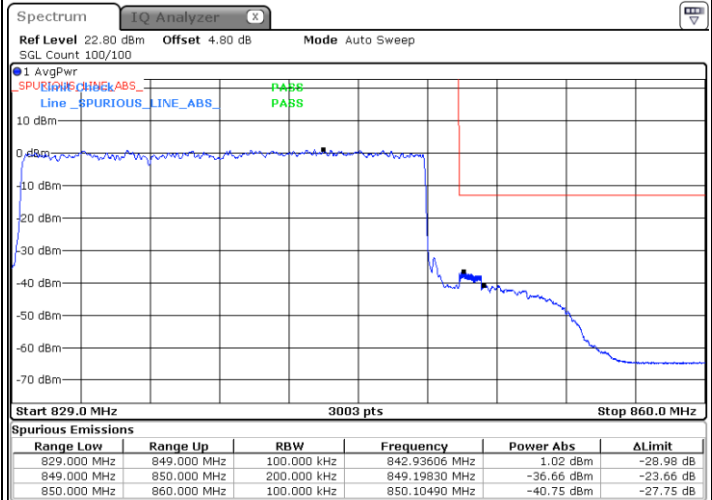
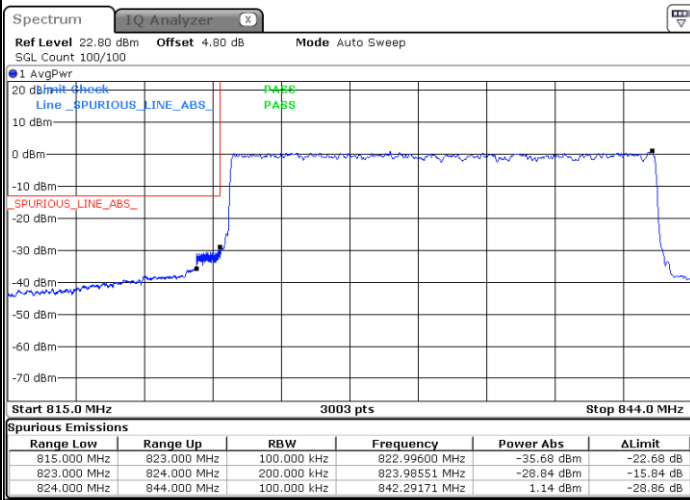


Date: 12.DEC.2022 23:15:29

Date: 12.DEC.2022 23:21:03

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.DEC.2022 23:14:54

Date: 12.DEC.2022 23:23:03

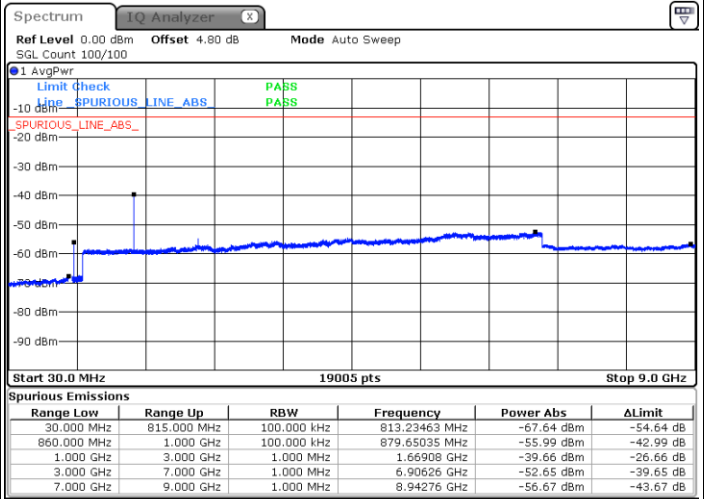
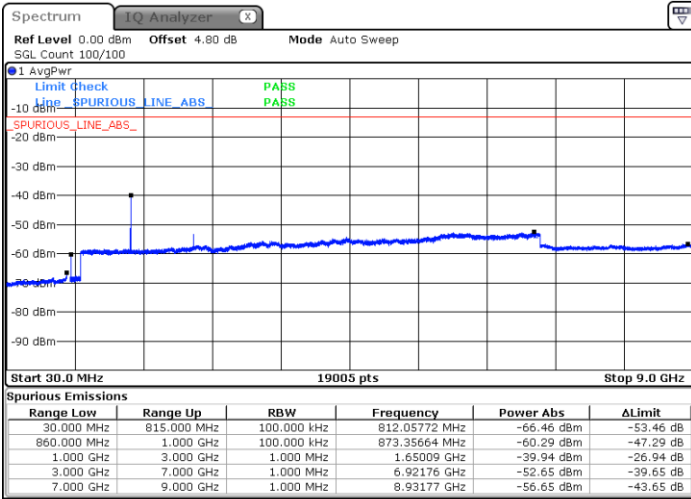


Conducted Spurious Emission

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

Lowest Channel / 1RB1

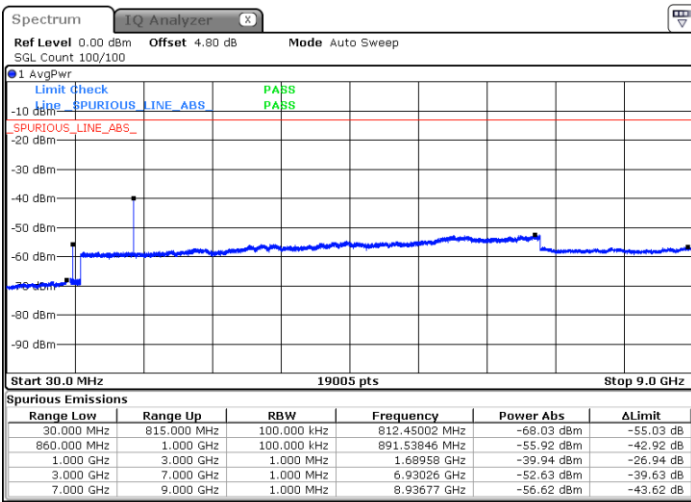
Middle Channel / 1RB1



Date: 13.DEC.2022 01:00:02

Date: 12.DEC.2022 23:44:59

Highest Channel / 1RB1



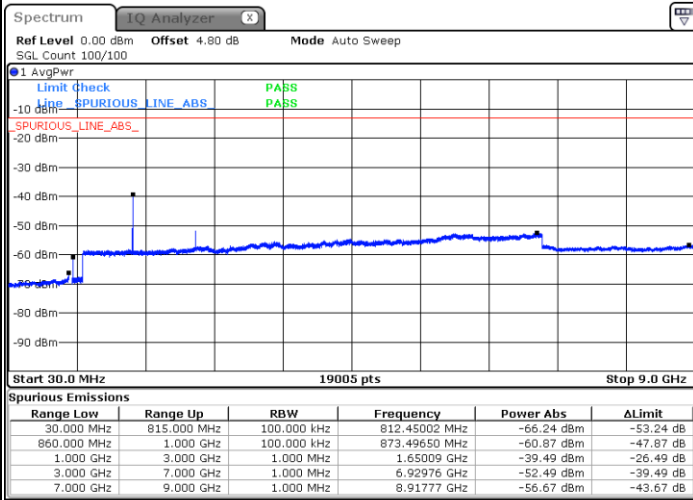
Date: 13.DEC.2022 01:08:29



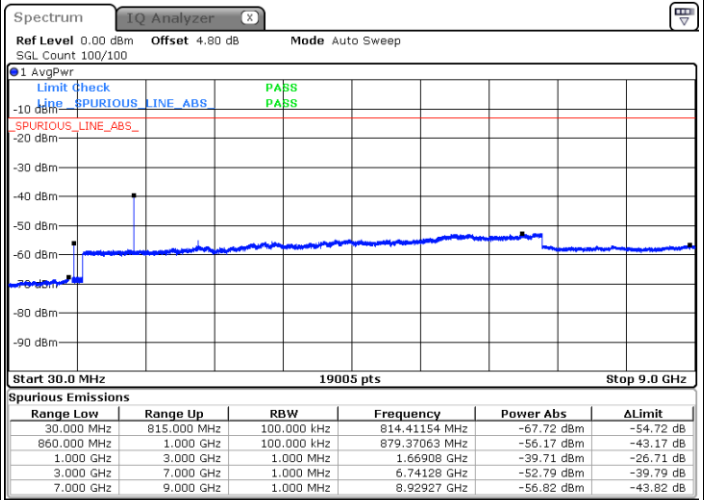
FR1 n5 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

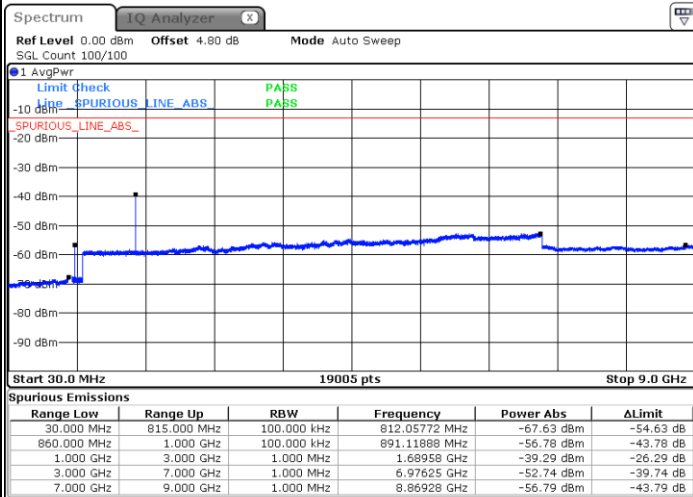


Date: 13.DEC.2022 00:58:21



Date: 13.DEC.2022 00:57:29

Highest Channel / 1RB1



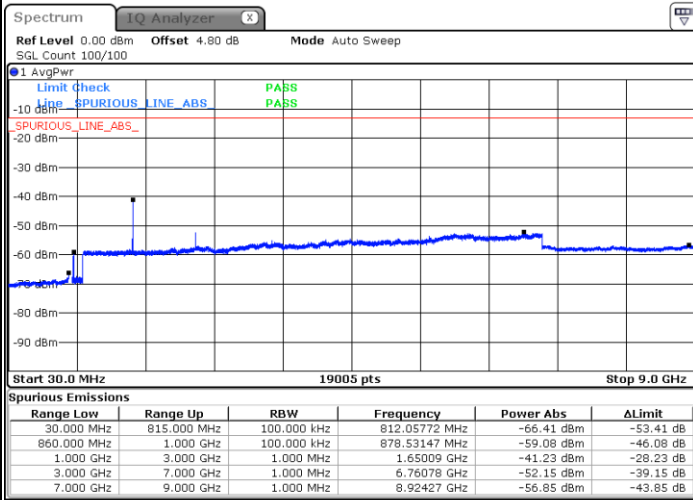
Date: 13.DEC.2022 01:09:02



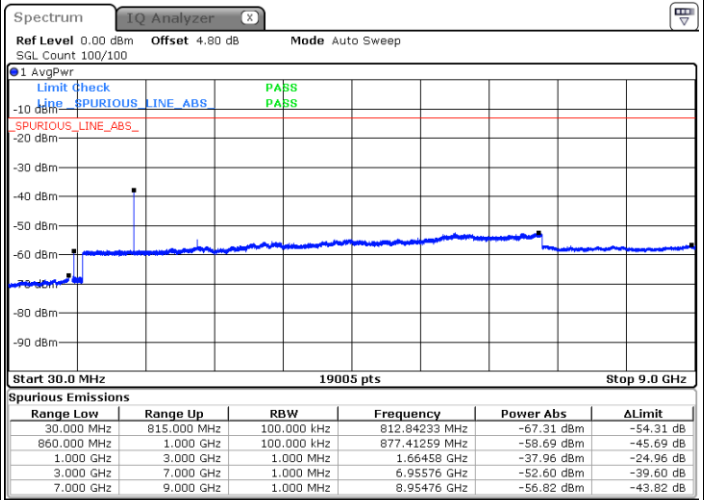
FR1 n5 / 10MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

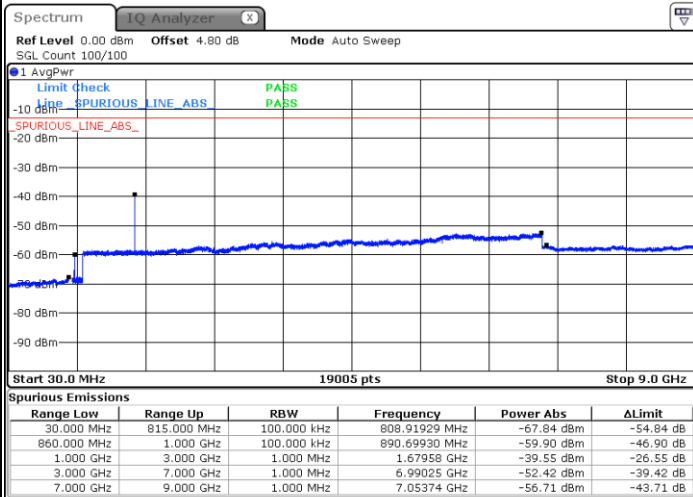


Date: 12.DEC.2022 23:31:08



Date: 12.DEC.2022 23:28:12

Highest Channel / 1RB1



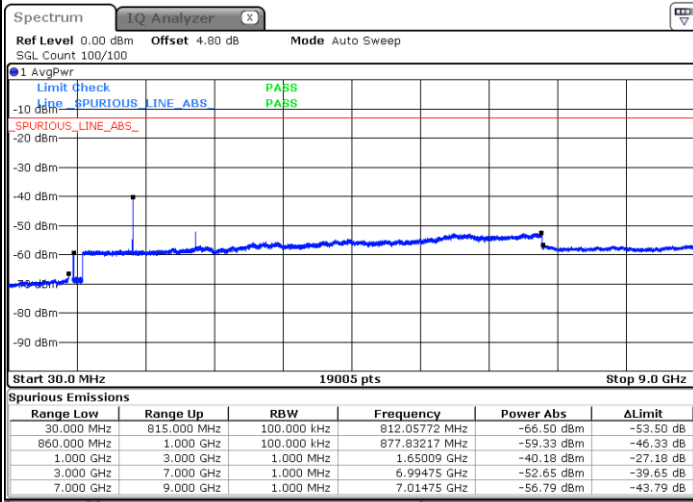
Date: 12.DEC.2022 23:39:30



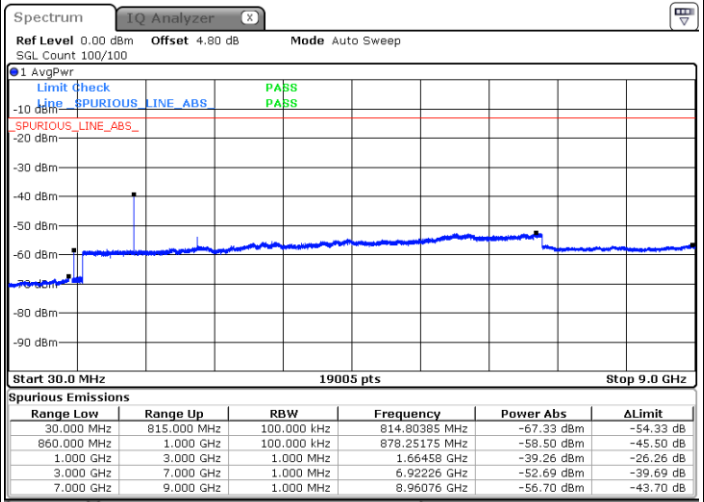
FR1 n5 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

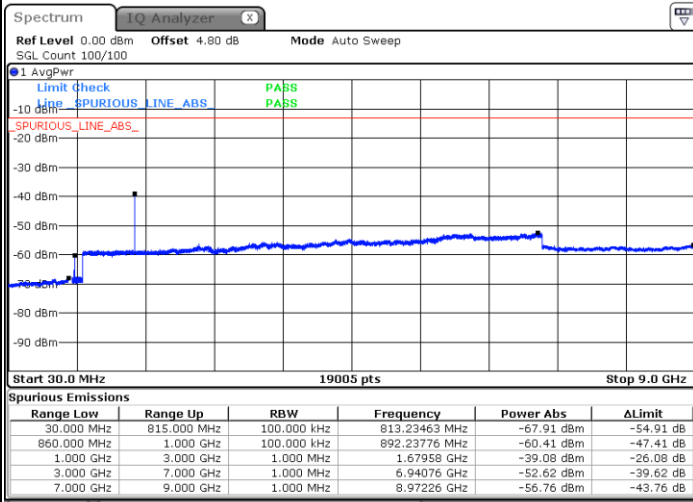


Date: 12.DEC.2022 23:30:29



Date: 12.DEC.2022 23:29:46

Highest Channel / 1RB1



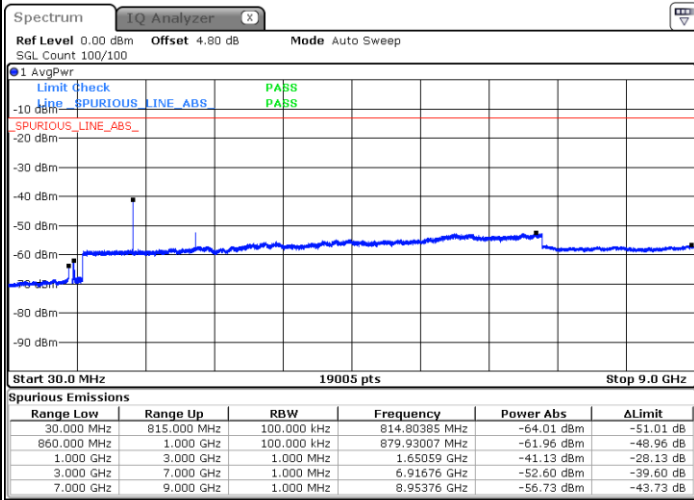
Date: 12.DEC.2022 23:40:10



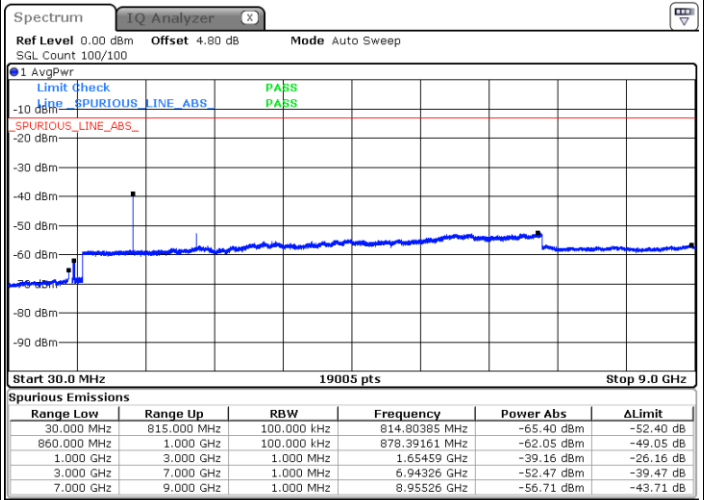
FR1 n5 / 20MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

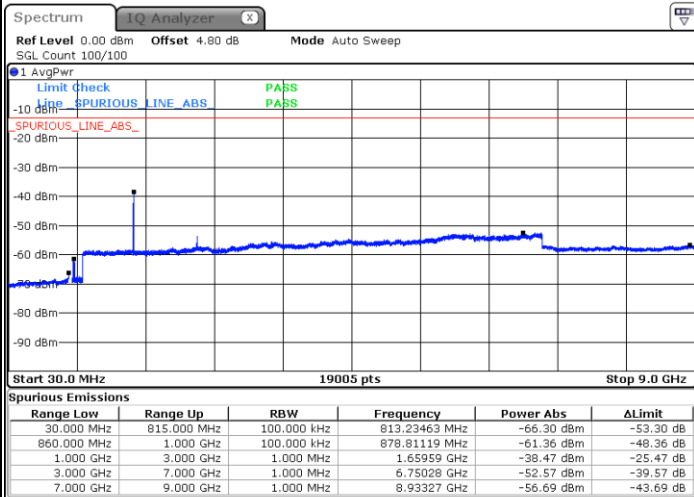


Date: 12.DEC.2022 23:17:19



Date: 12.DEC.2022 23:11:24

Highest Channel / 1RB1



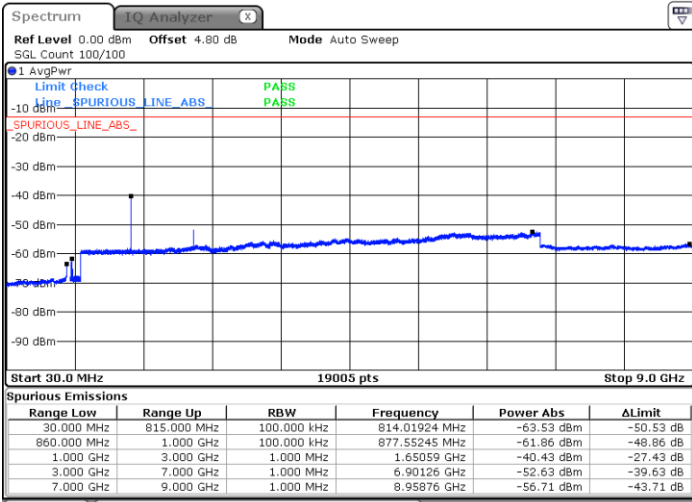
Date: 12.DEC.2022 23:20:18



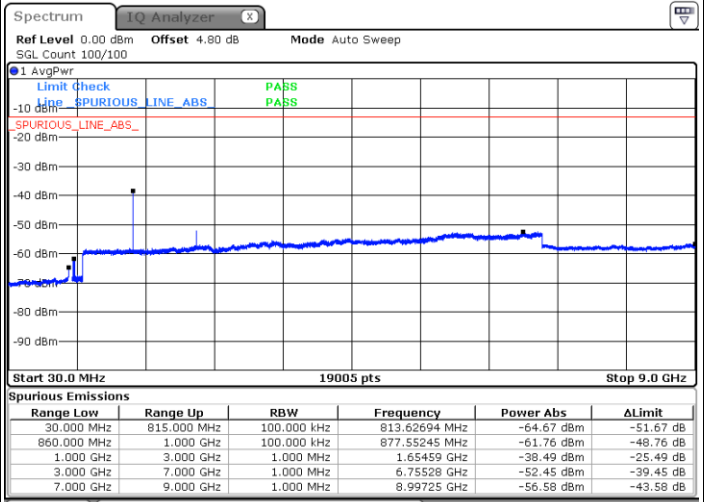
FR1 n5 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

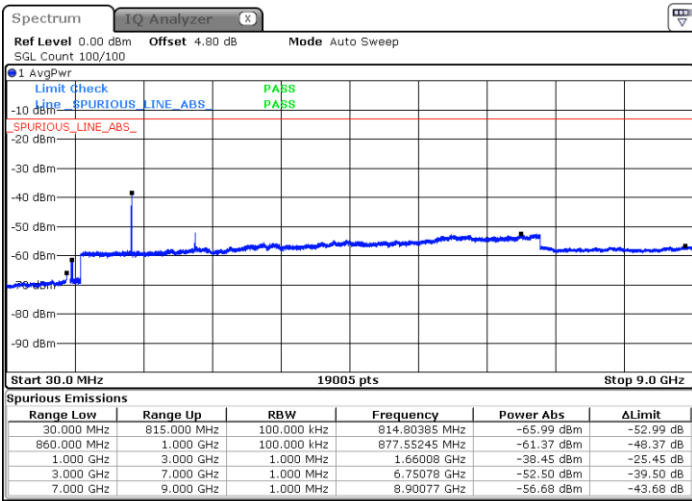


Date: 12.DEC.2022 23:18:50



Date: 12.DEC.2022 23:13:06

Highest Channel / 1RB1



Date: 12.DEC.2022 23:19:50



Frequency Stability

Test Conditions		FR1 n5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0031	PASS
40	Normal Voltage	0.0019	
30	Normal Voltage	0.0026	
20(Ref.)	Normal Voltage	0.0005	
10	Normal Voltage	0.0014	
0	Normal Voltage	0.0020	
-10	Normal Voltage	0.0029	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0038	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0013	

Note:

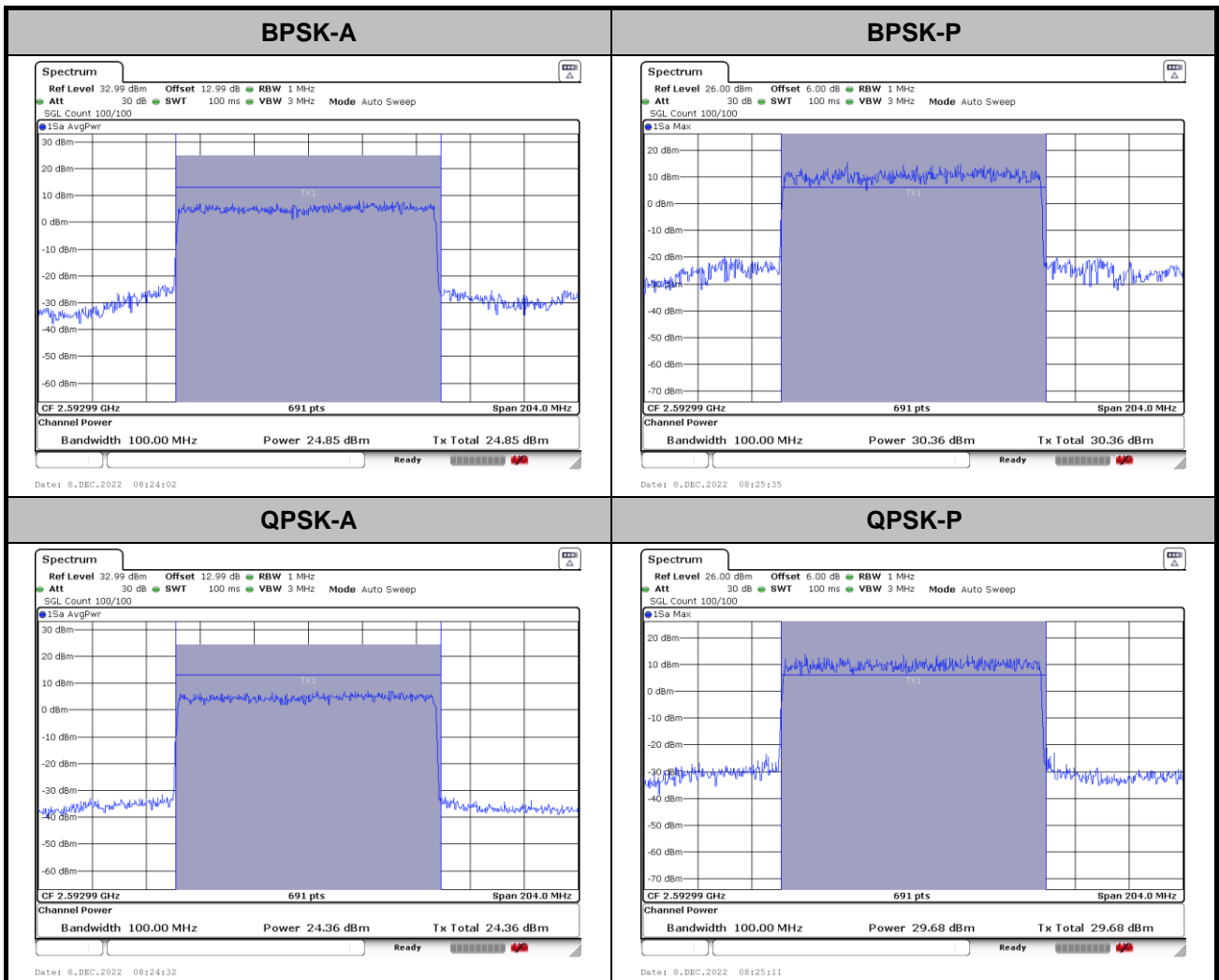
1. Normal Voltage =3.89 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



FR1 n41(Main PA)

Peak-to-Average Ratio

Mode	FR1 n41 / 20MHz / DFT-S OFDM				
Mod.	20M				Limit: 13dB
RB Size	BPSK	QPSK			Result
Middle CH	5.51	5.32			PASS





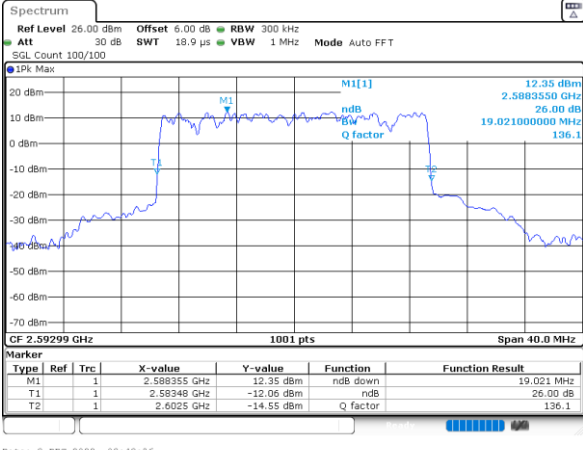
26dB Bandwidth

Mode	FR1 n41 : 26dB BW(20 MHz) /CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	19.02	19.34	19.30	19.30
Mode	FR1 n41 : 26dB BW(30 MHz) /CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	29.21	29.25	29.01	29.09
Mode	FR1 n41 : 26dB BW(40 MHz) /CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	40.12	40.28	40.28	40.2
Mode	FR1 n41 : 26dB BW(50 MHz) /CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	49.85	49.75	49.75	49.65
Mode	FR1 n41 : 26dB BW(60 MHz) /CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	60.3	60.42	60.78	60.18
Mode	FR1 n41 : 26dB BW(70 MHz) /CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	70.25	70.25	70.01	70.01
Mode	FR1 n41 : 26dB BW(80 MHz) /CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	79.92	79.92	79.92	79.92
Mode	FR1 n41 : 26dB BW(90 MHz) /CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	92.07	92.43	92.25	92.61
Mode	FR1 n41 : 26dB BW(100 MHz) /CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	102.9	102.3	102.3	102.3



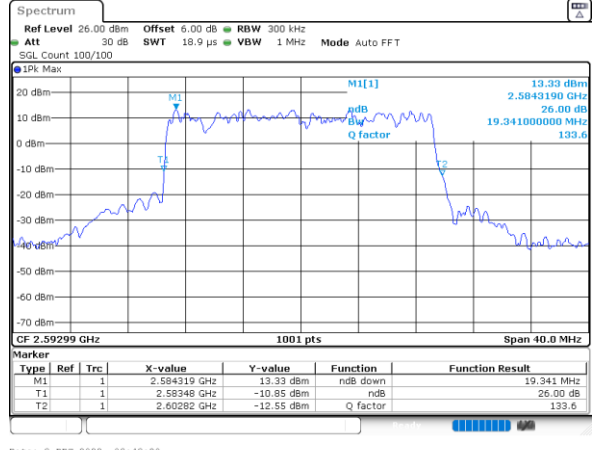
20MHz CP

QPSK



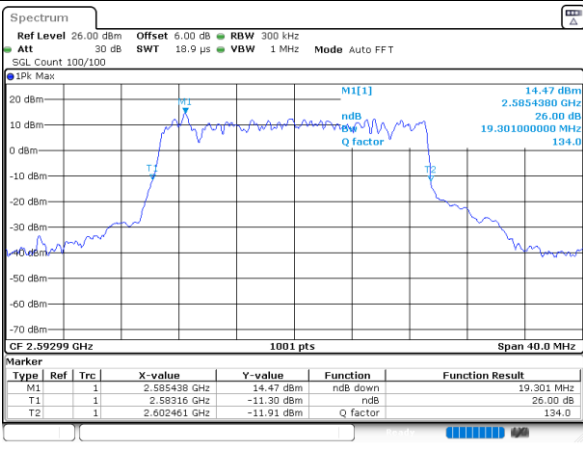
Date: 8,DEC,2022 08:48:136

16QAM



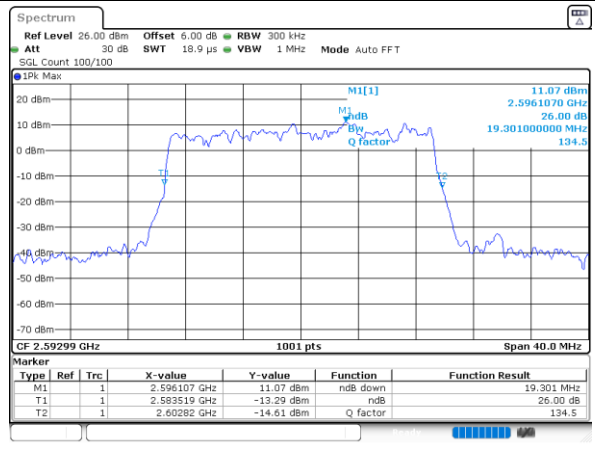
Date: 8,DEC,2022 08:48:20

64QAM



Date: 8,DEC,2022 08:48:105

256QAM

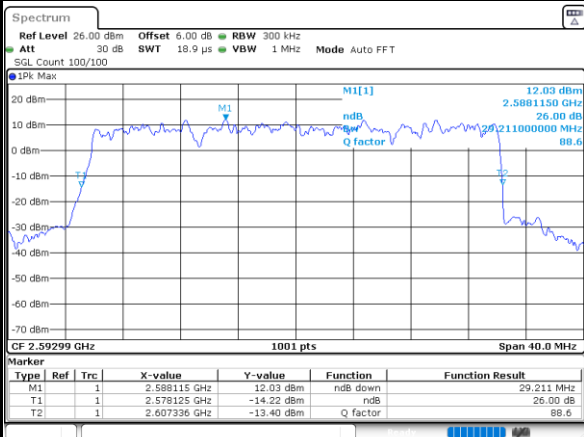


Date: 8,DEC,2022 08:47:50



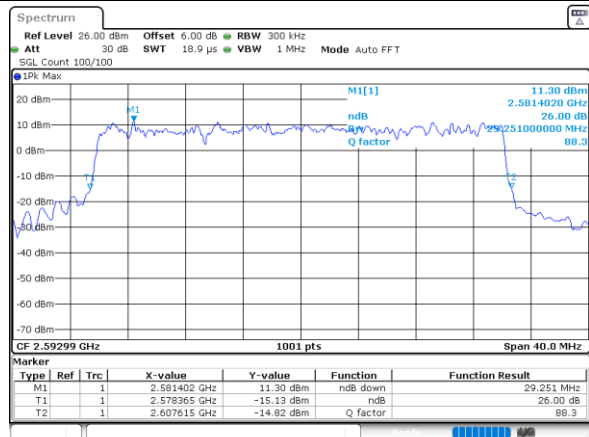
30MHz CP

QPSK



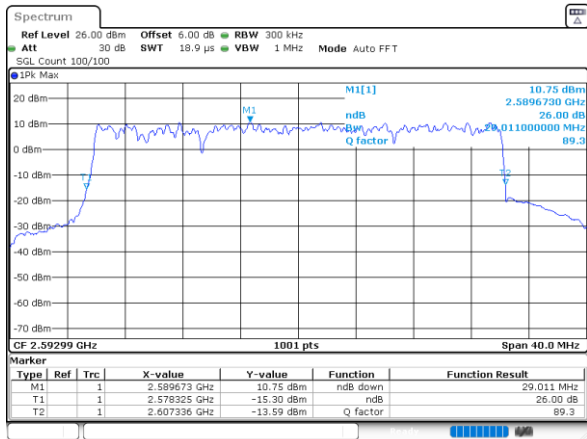
Date: 8,DEC,2022 08:43:54

16QAM



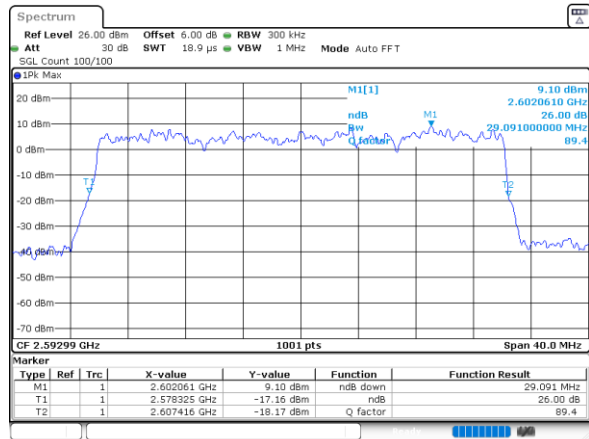
Date: 8,DEC,2022 08:44:11

64QAM



Date: 8,DEC,2022 08:44:27

256QAM

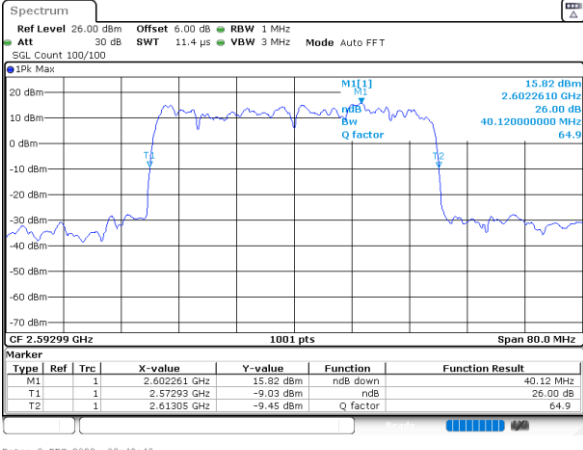


Date: 8,DEC,2022 08:45:28



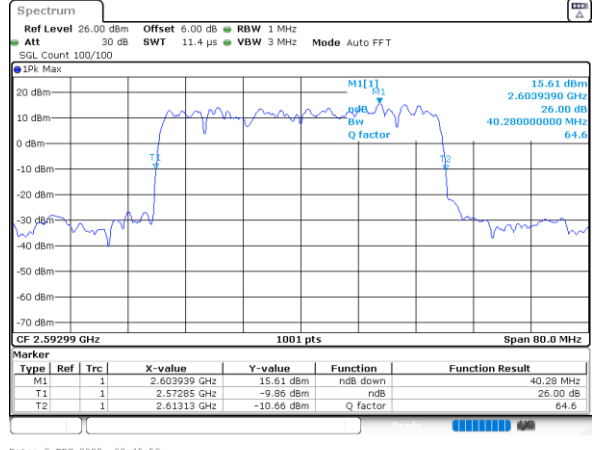
40MHz CP

QPSK



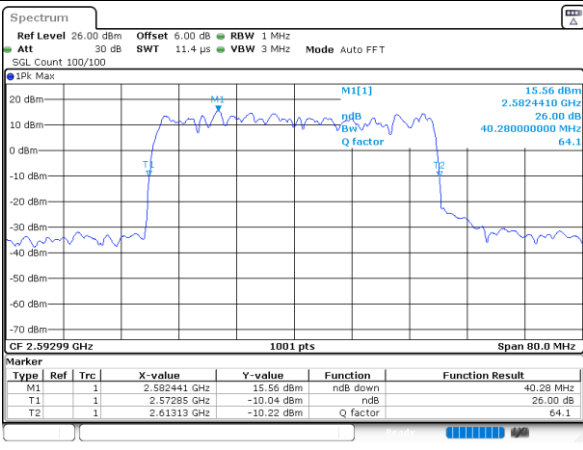
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16QAM



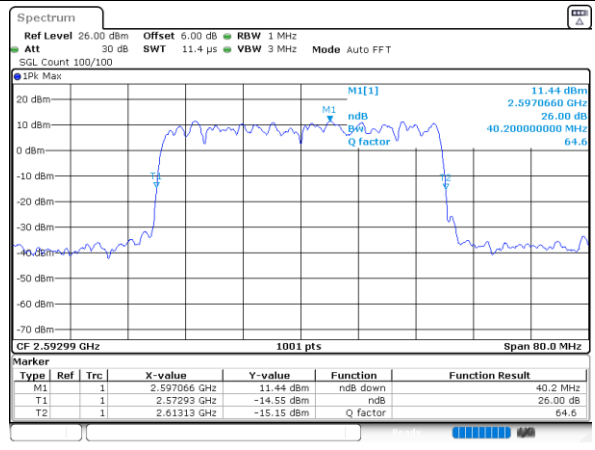
Date: 8,DEC,2022 08:49:58

64QAM



Date: 8,DEC,2022 08:50:12

256QAM

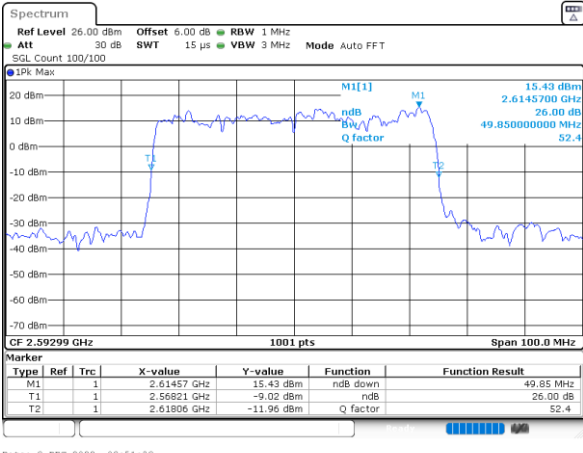


Date: 8,DEC,2022 08:50:28



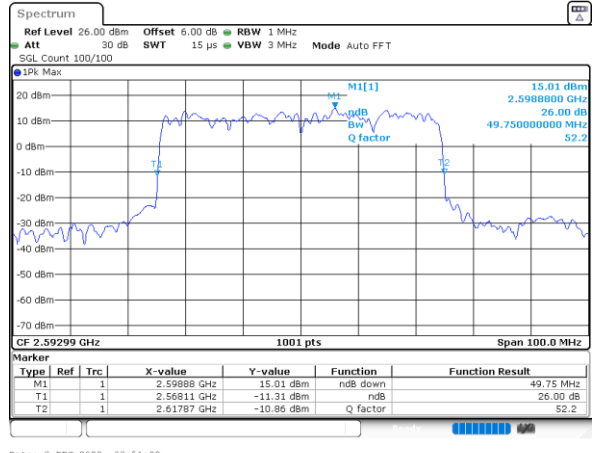
50MHz CP

QPSK



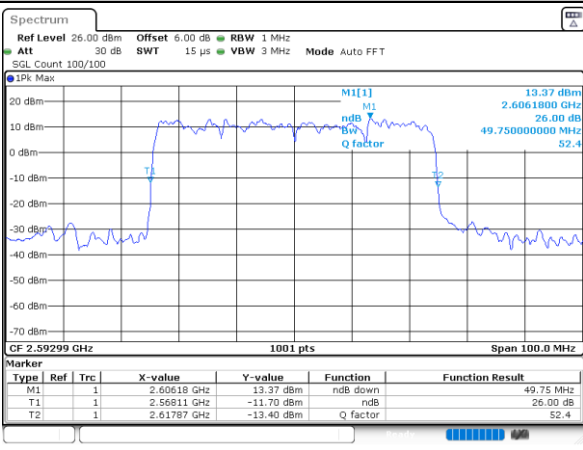
Date: 8,DEC,2022 08:51:38

16QAM



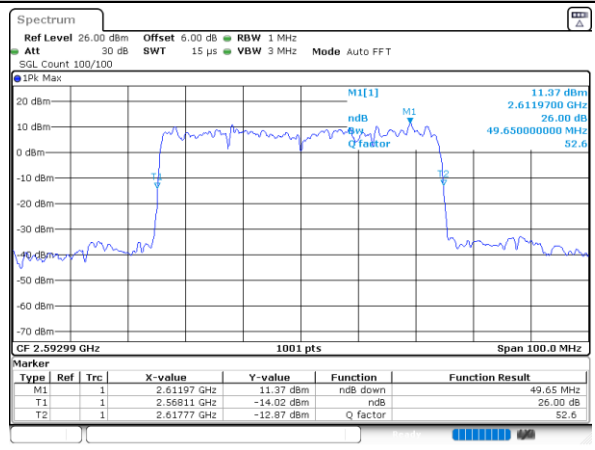
Date: 8,DEC,2022 08:51:22

64QAM



Date: 8,DEC,2022 08:51:05

256QAM

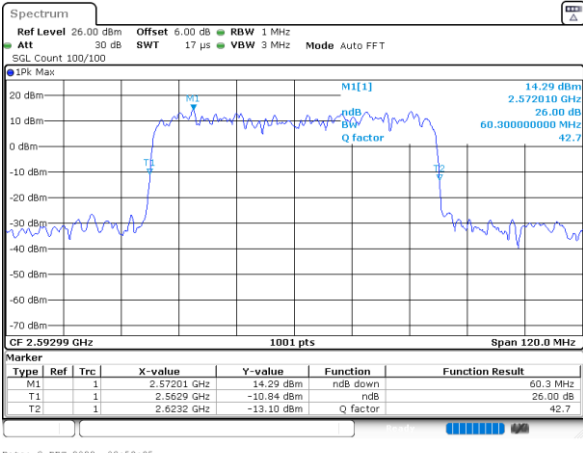


Date: 8,DEC,2022 08:50:50



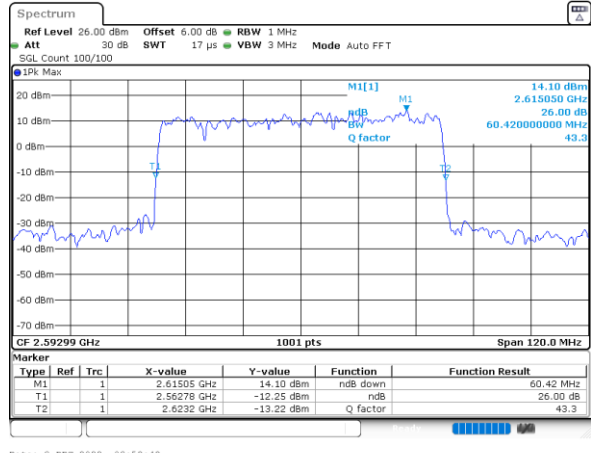
60MHz CP

QPSK



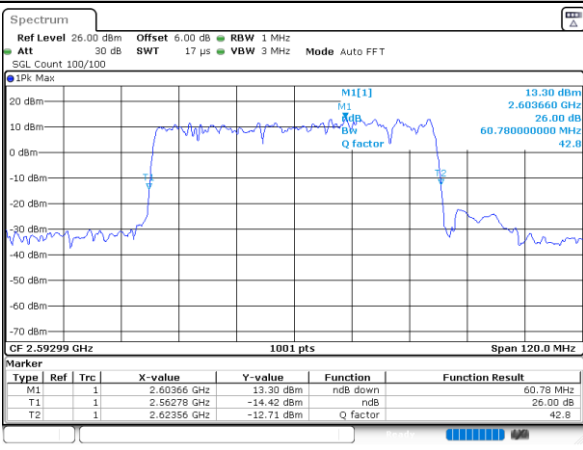
Date: 8,DEC,2022 08:52:25

16QAM



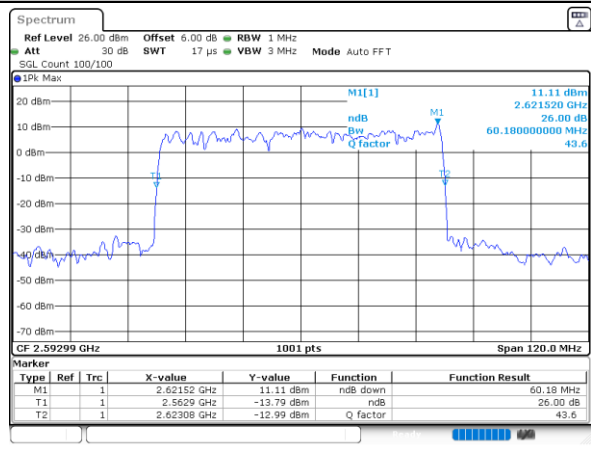
Date: 8,DEC,2022 08:52:42

64QAM



Date: 8,DEC,2022 08:52:57

256QAM

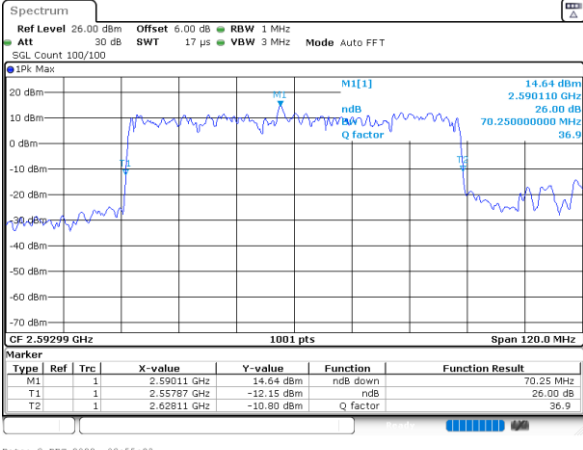


Date: 8,DEC,2022 08:53:13



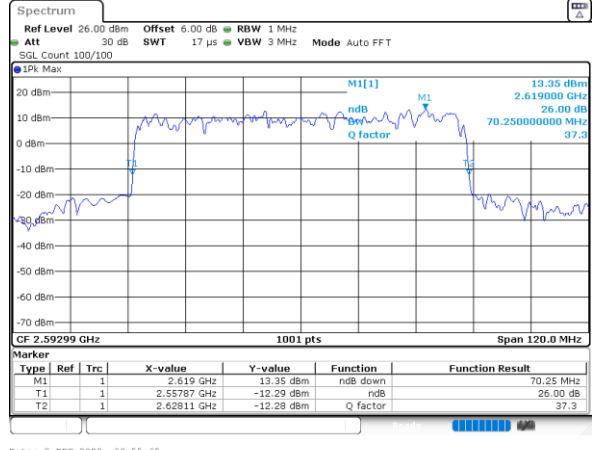
70MHz CP

QPSK



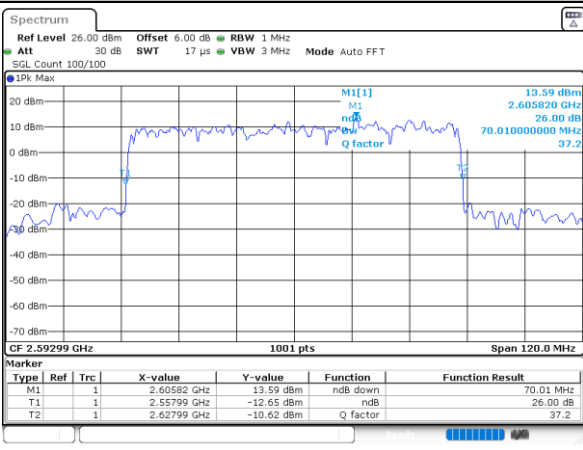
Date: 8,DEC,2022 08:55:23

16QAM



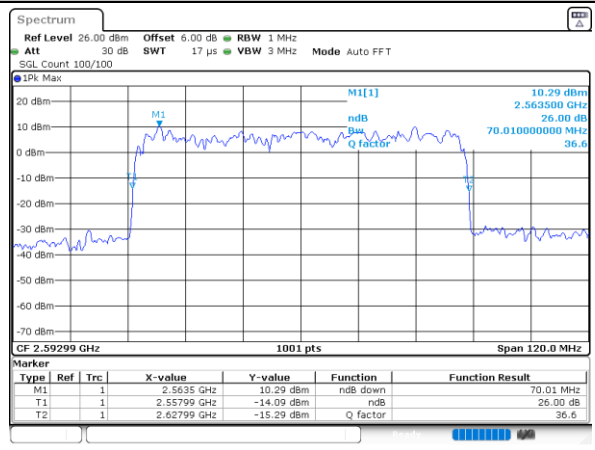
Date: 8,DEC,2022 08:55:05

64QAM



Date: 8,DEC,2022 08:54:49

256QAM

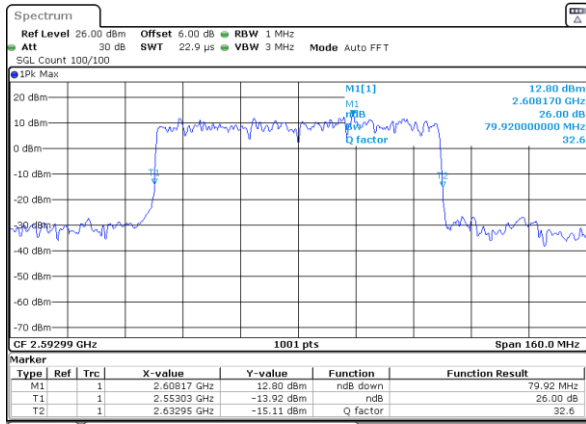


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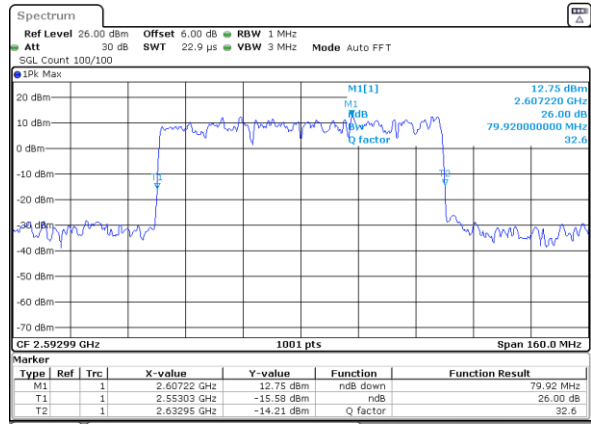
80MHz CP

QPSK



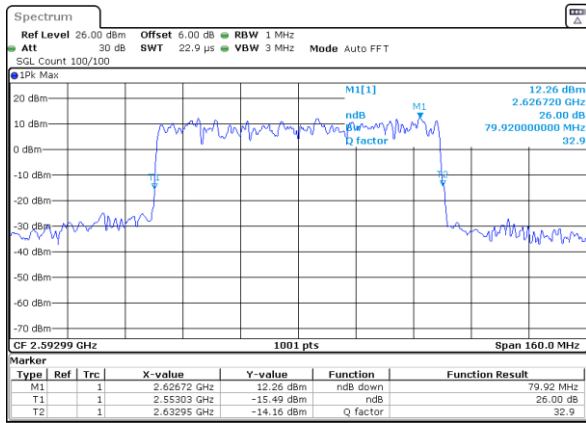
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16QAM



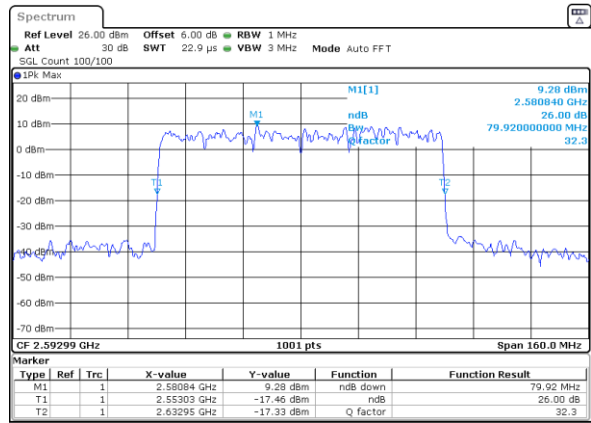
Date: 8,DEC,2022 08:56:06

64QAM



Date: 8,DEC,2022 08:56:24

256QAM



Date: 8,DEC,2022 08:56:42