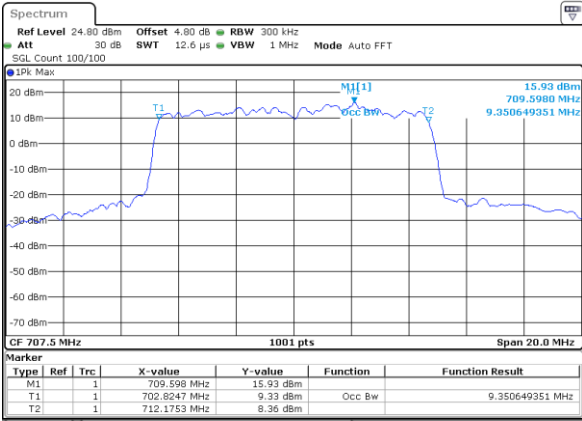




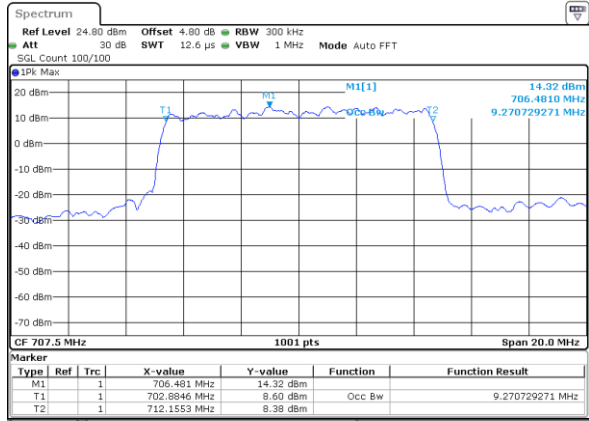
FR1 n12 / 10MHz / CP OFDM

QPSK



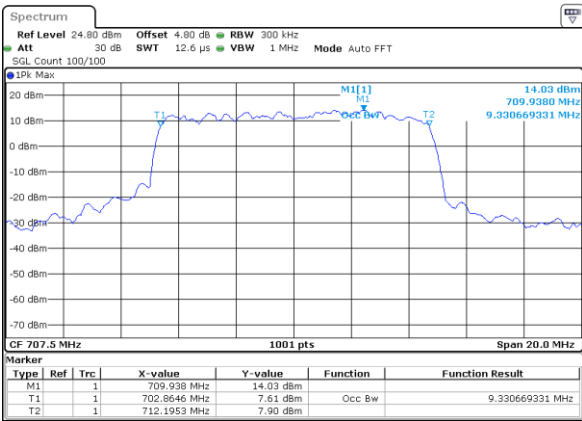
Date: 18 JUN 2022 03:31:05

16QAM



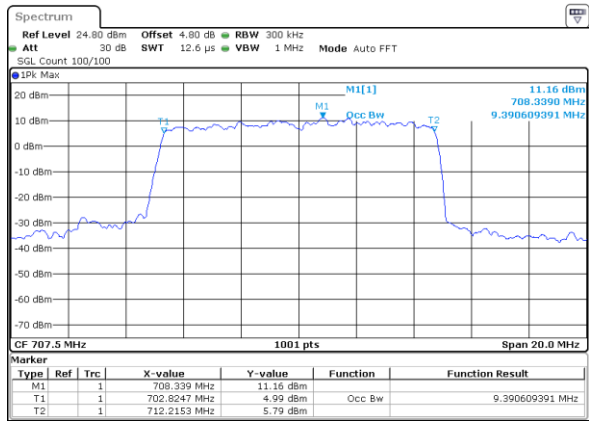
Date: 18 JUN 2022 03:31:32

64QAM



Date: 18 JUN 2022 03:31:58

256QAM

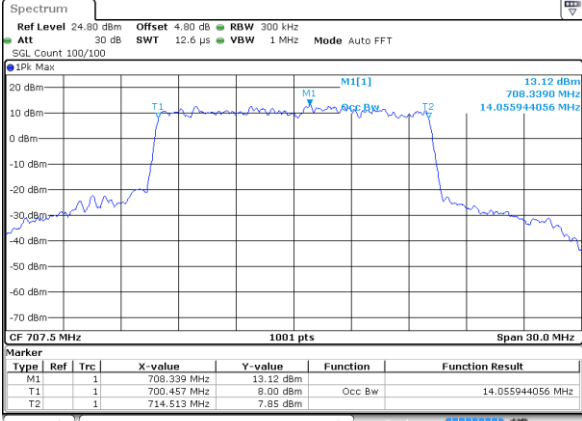


Date: 18 JUN 2022 03:32:26



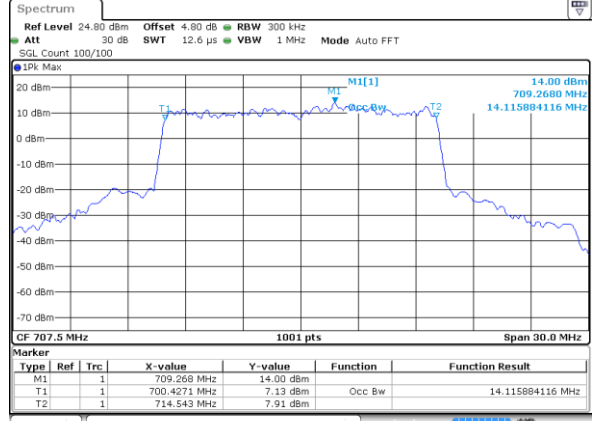
FR1 n12 / 15MHz / CP OFDM

QPSK



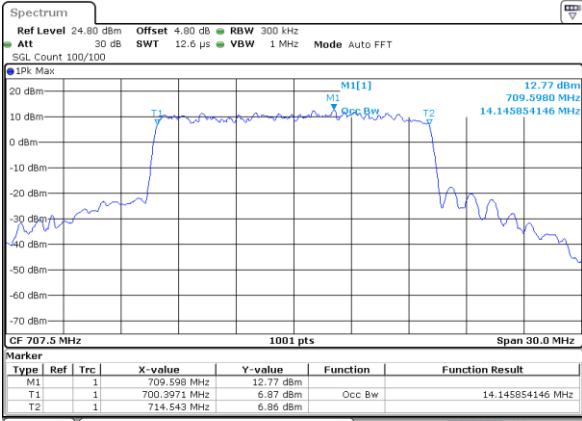
Date: 18 JUN 2022 03:59:43

16QAM



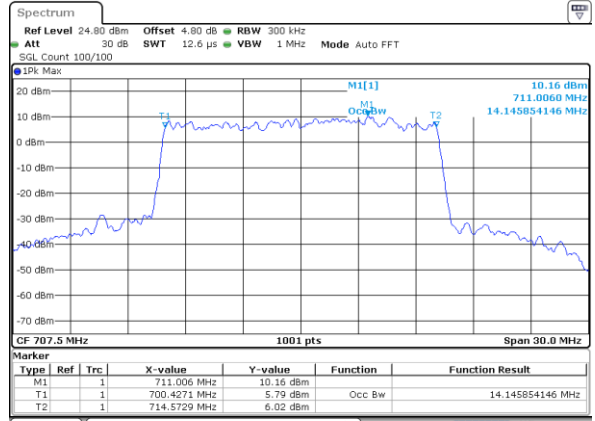
Date: 18 JUN 2022 04:00:04

64QAM



Date: 18 JUN 2022 04:00:34

256QAM



Date: 18 JUN 2022 04:01:01

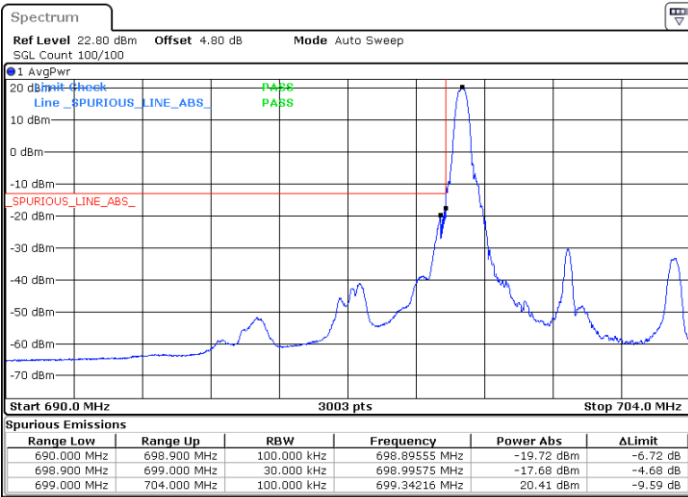


# Conducted Band Edge

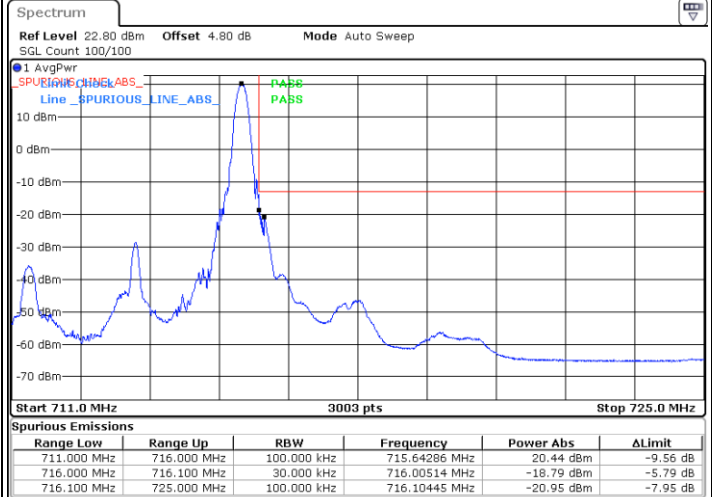
FR1 n12 / 5MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



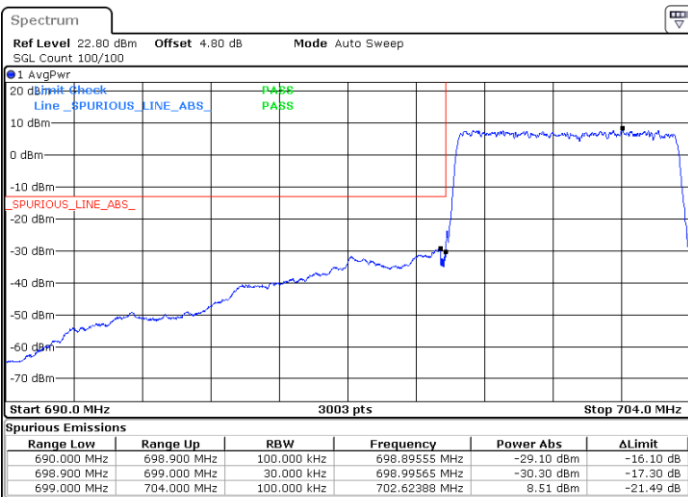
Date: 18 JUN 2022 02:45:53



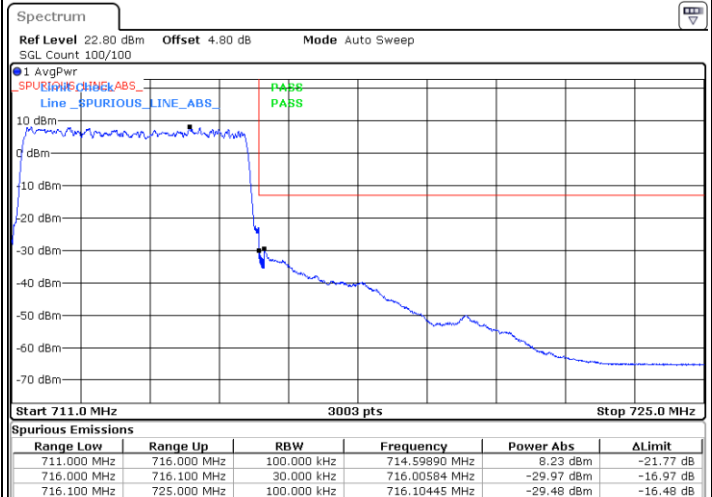
Date: 18 JUN 2022 03:10:31

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 JUN 2022 02:53:47



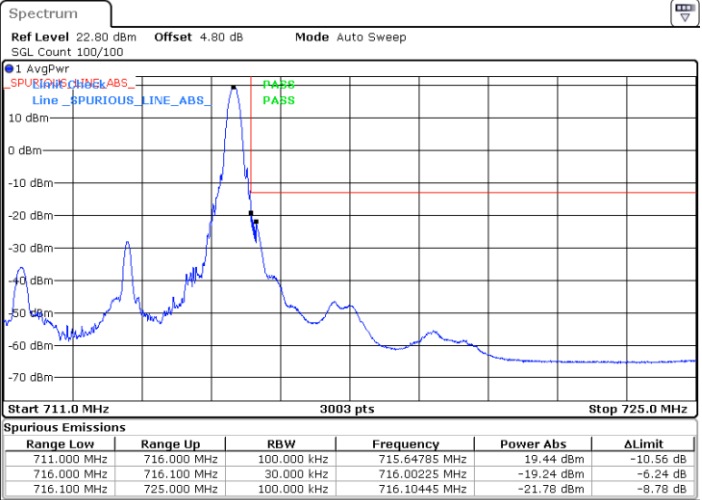
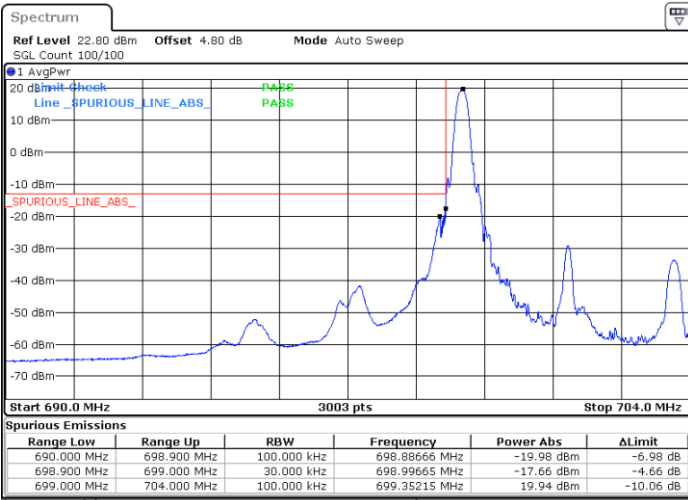
Date: 18 JUN 2022 03:08:07



FR1 n12 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

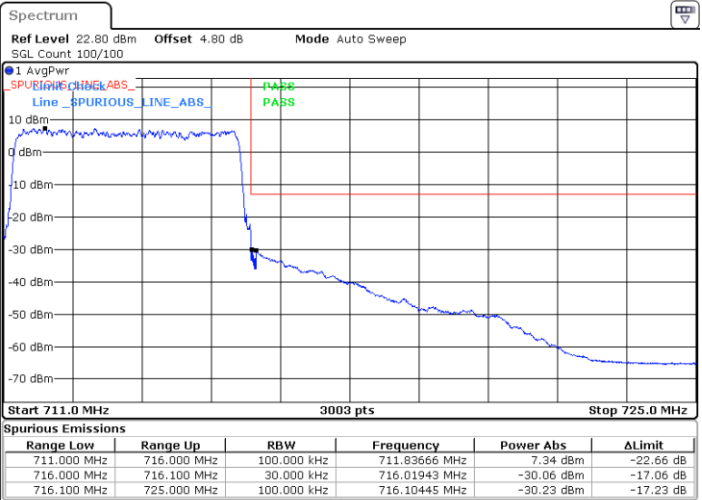
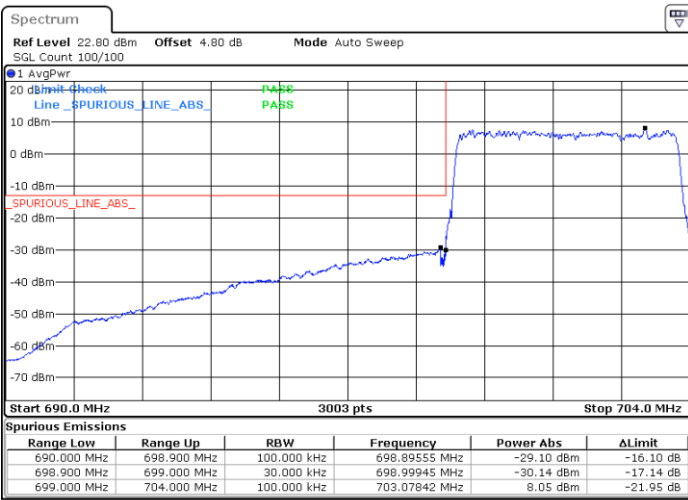


Date: 18 JUN 2022 02:44:57

Date: 18 JUN 2022 03:09:44

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 JUN 2022 02:49:39

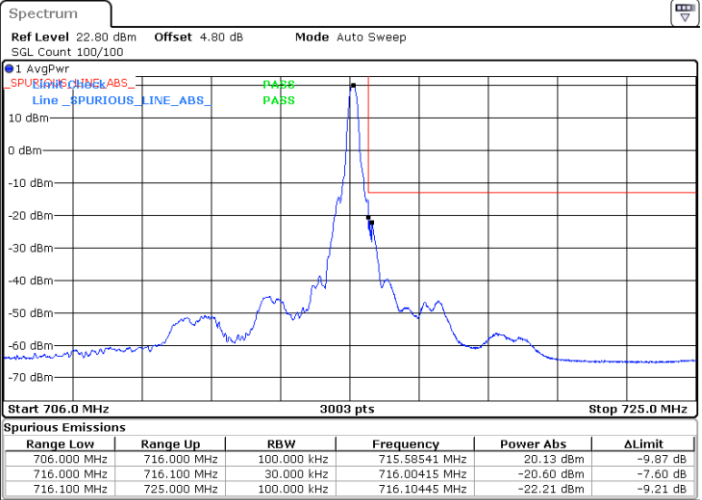
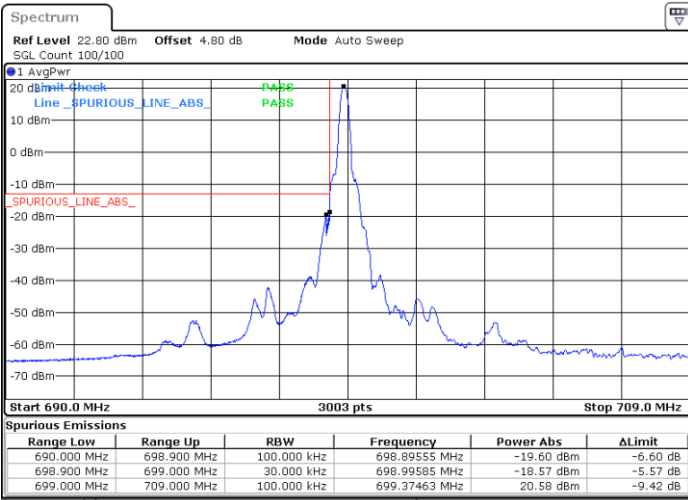
Date: 18 JUN 2022 03:08:49



FR1 n12 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

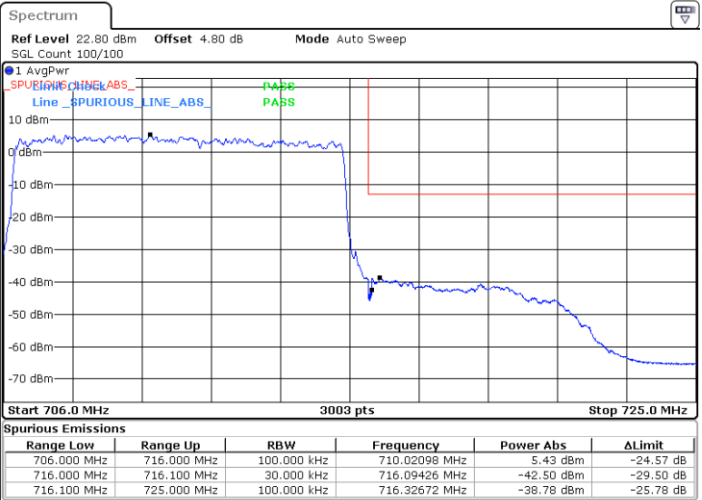
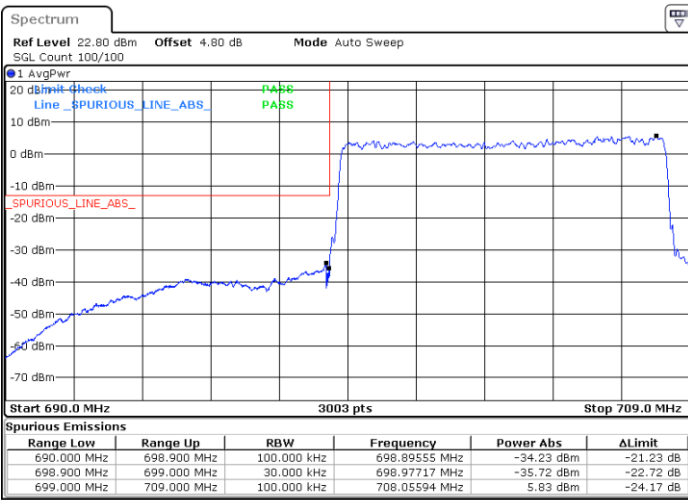


Date: 18 JUN 2022 03:15:28

Date: 18 JUN 2022 03:40:37

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 JUN 2022 03:16:19

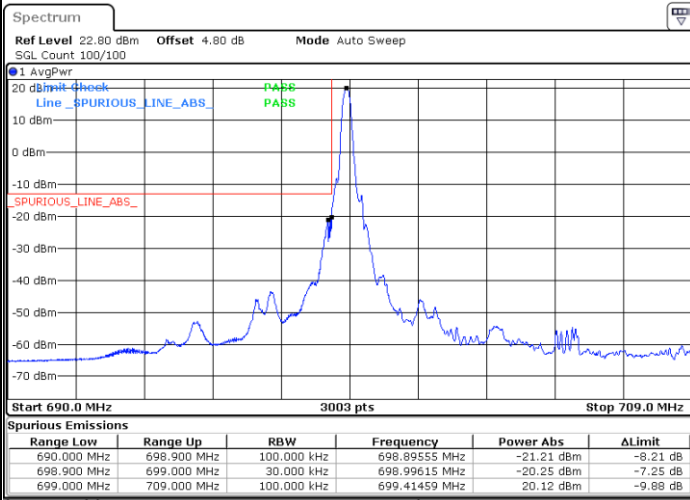
Date: 18 JUN 2022 03:35:01



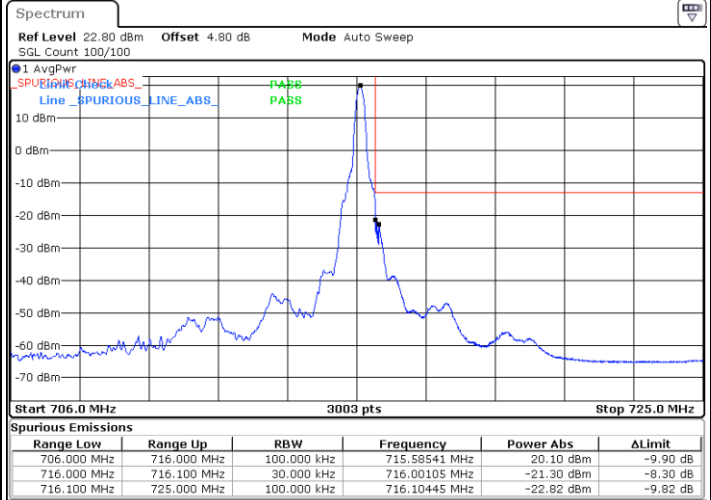
FR1 n12 / 10MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



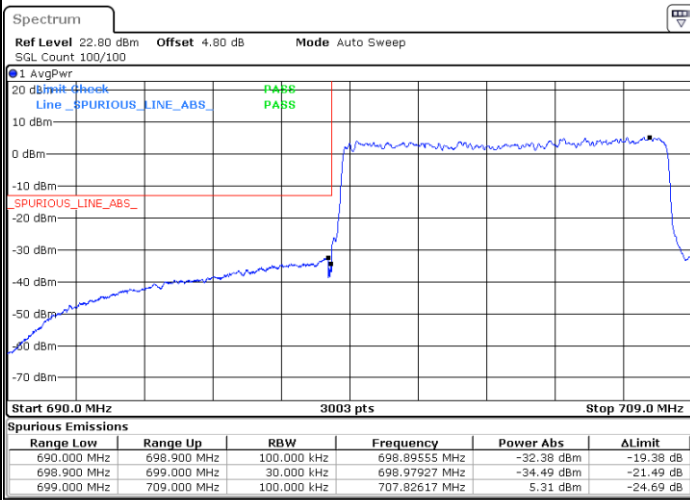
Date: 18 JUN 2022 03:14:39



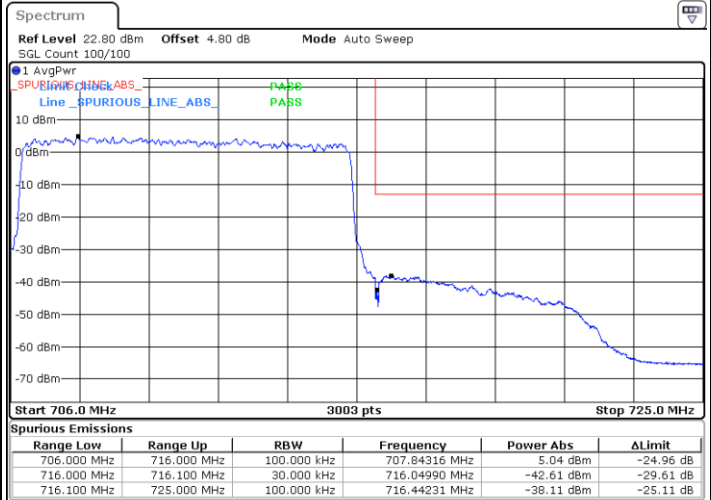
Date: 18 JUN 2022 03:36:51

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 JUN 2022 03:17:13



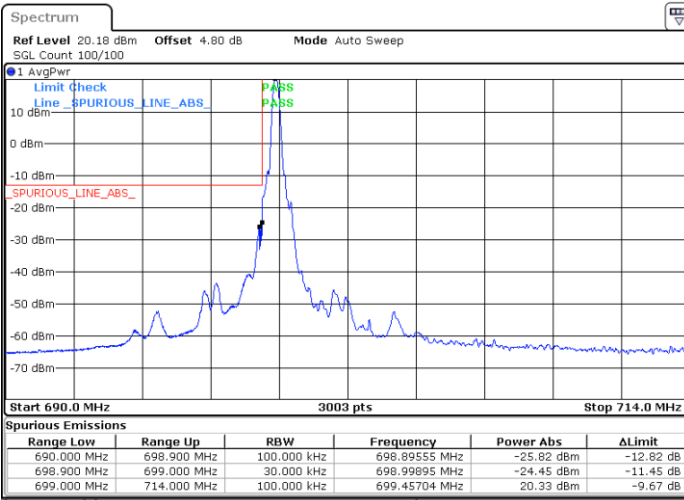
Date: 18 JUN 2022 03:35:45



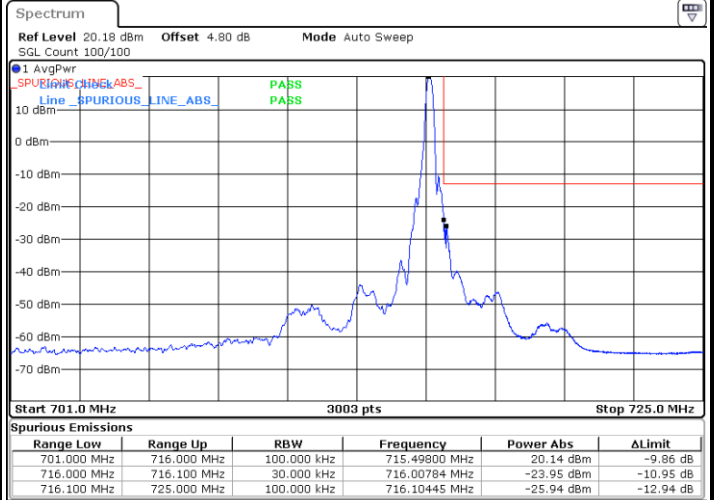
FR1 n12 / 15MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



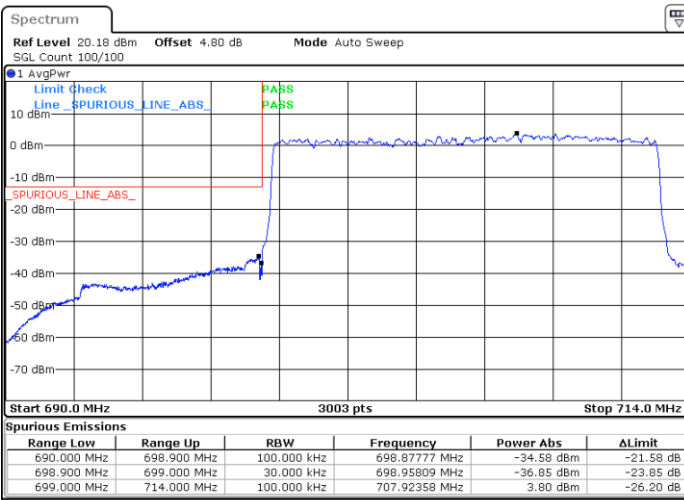
Date: 18 JUN 2022 03:51:10



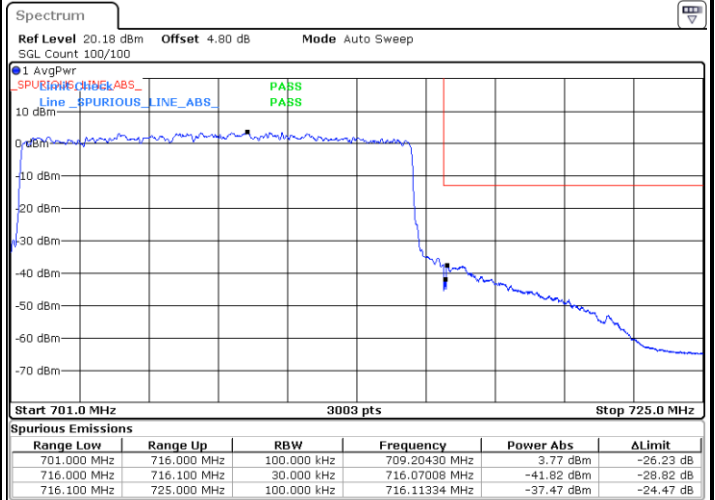
Date: 18 JUN 2022 04:06:37

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 JUN 2022 03:53:49



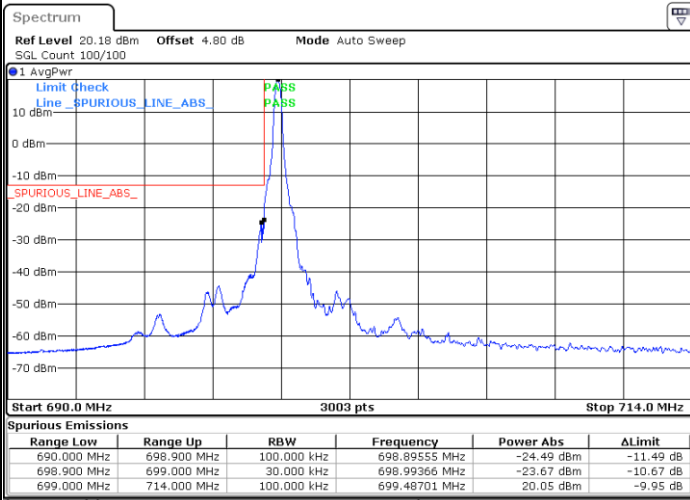
Date: 18 JUN 2022 04:03:35



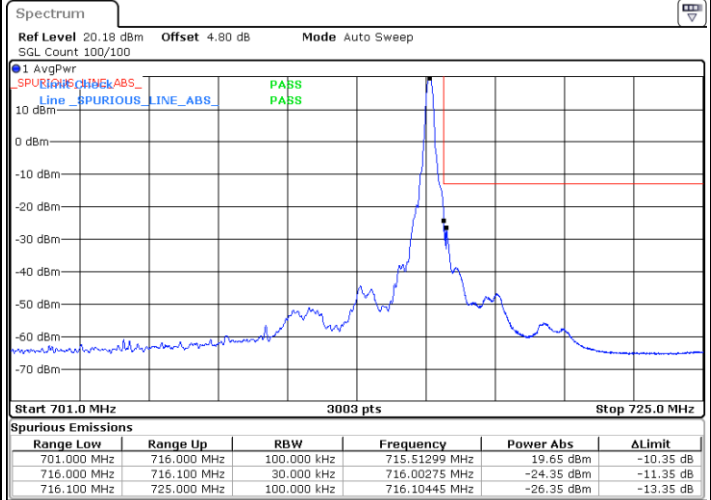
FR1 n12 / 15MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



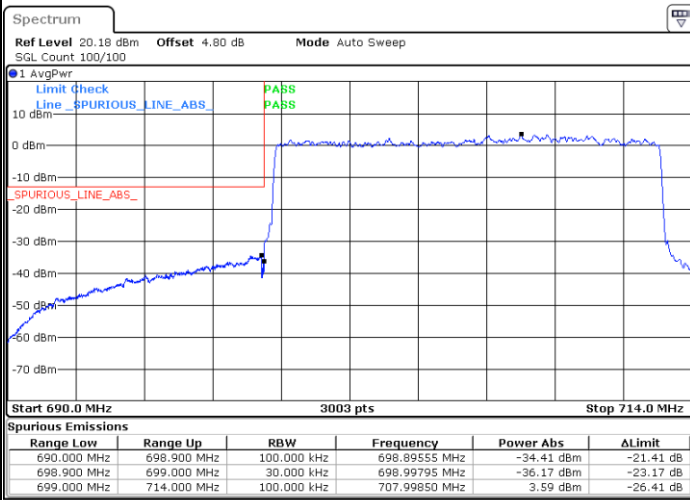
Date: 18 JUN 2022 03:52:20



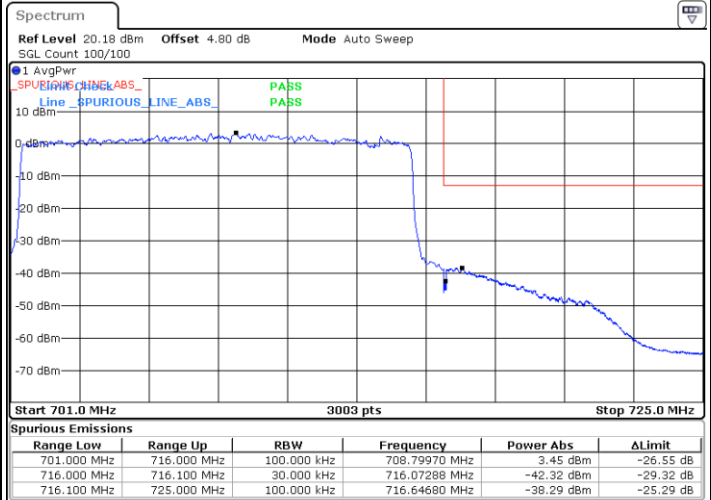
Date: 18 JUN 2022 04:05:24

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 JUN 2022 03:53:08



Date: 18 JUN 2022 04:04:21



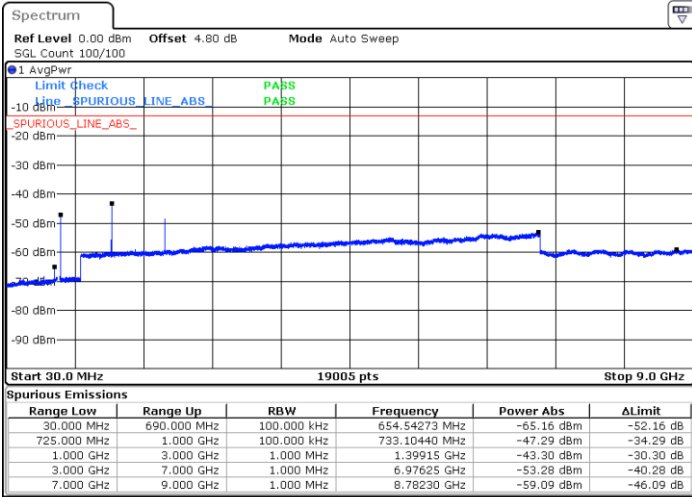


# Conducted Spurious Emission

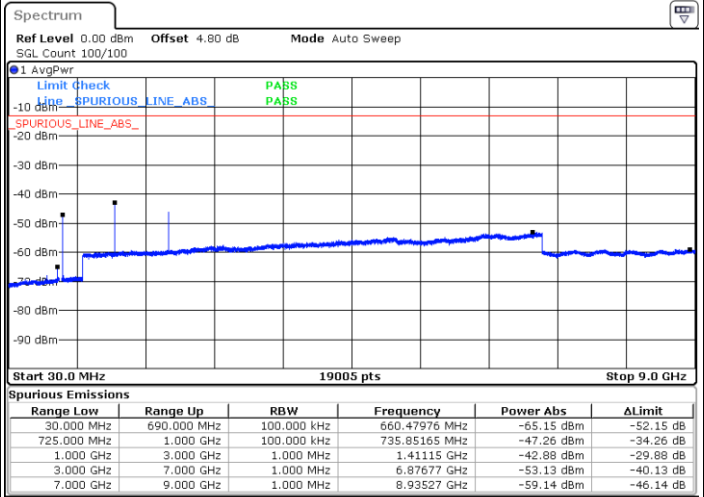
FR1 n12 / 5MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

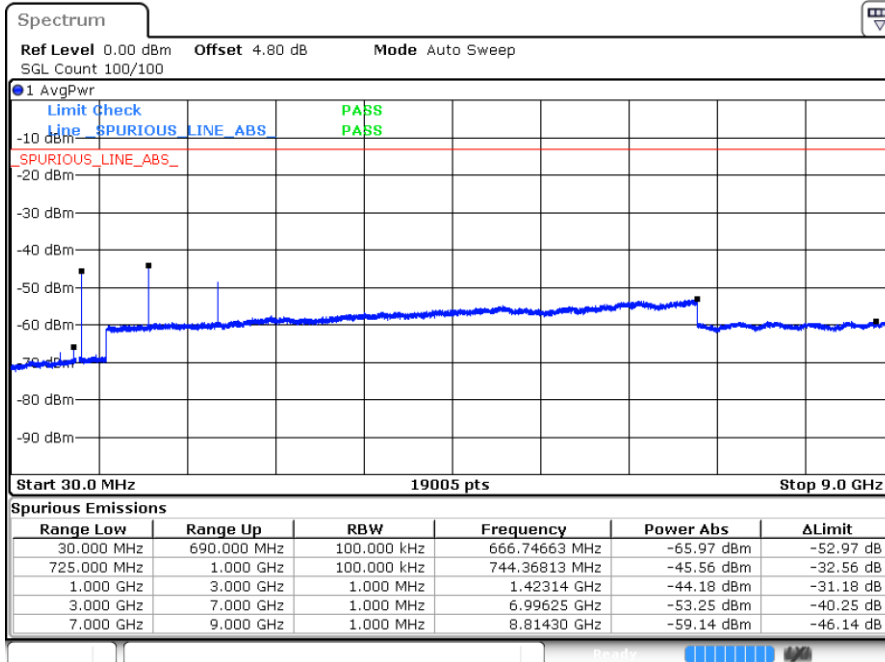


Date: 18 JUN 2022 02:56:37



Date: 18 JUN 2022 02:59:43

Highest Channel / 1RB1



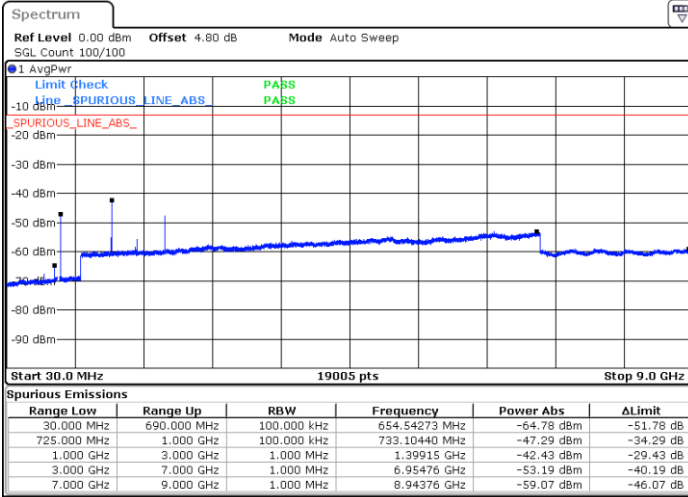
Date: 18 JUN 2022 03:11:29



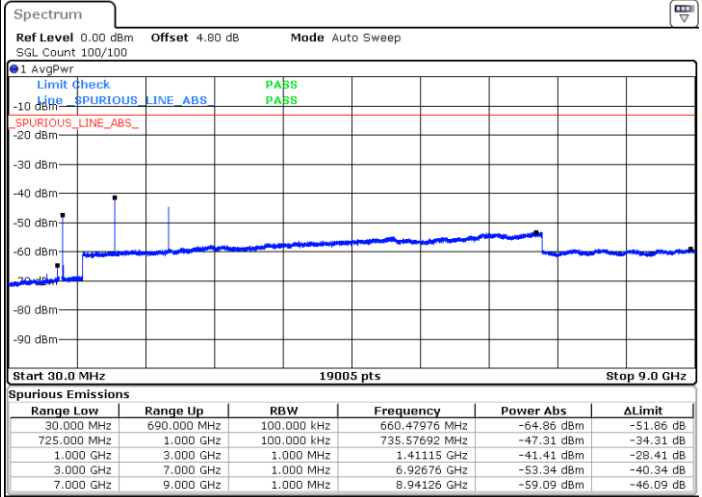
FR1 n12 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

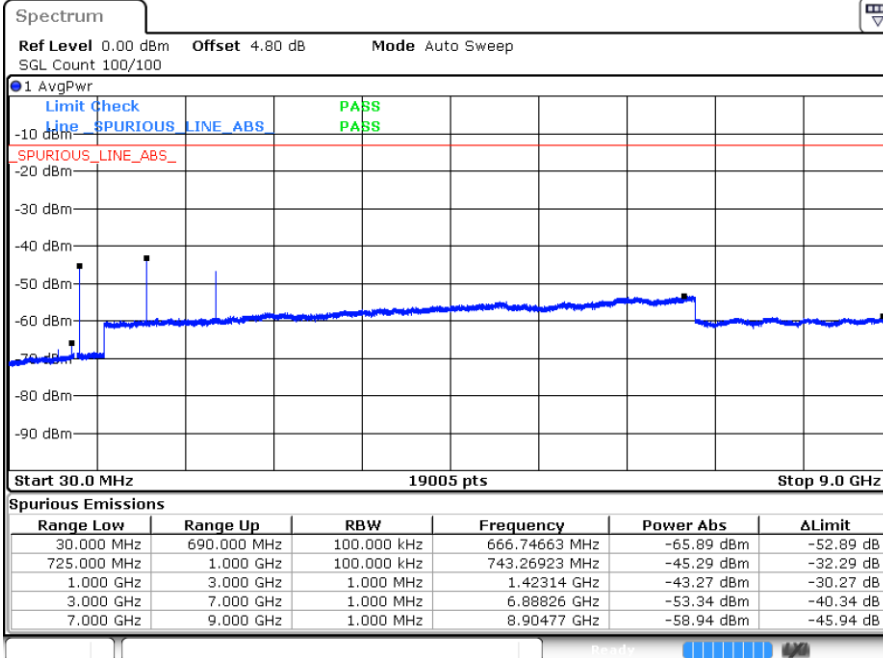


Date: 18 JUN 2022 02:57:53



Date: 18 JUN 2022 02:59:05

Highest Channel / 1RB1



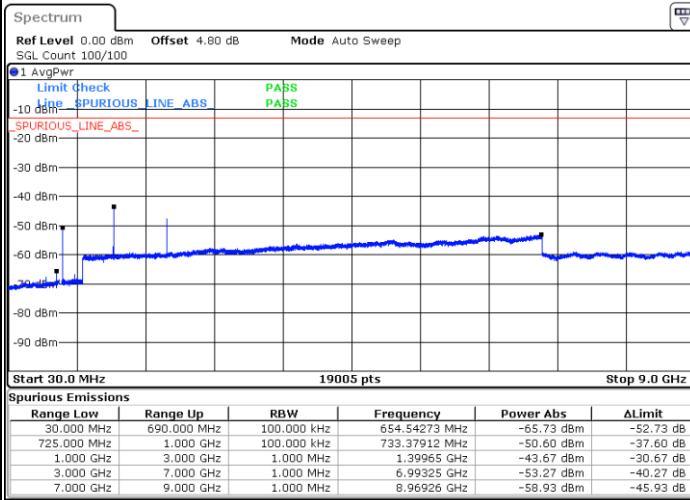
Date: 18 JUN 2022 03:12:54



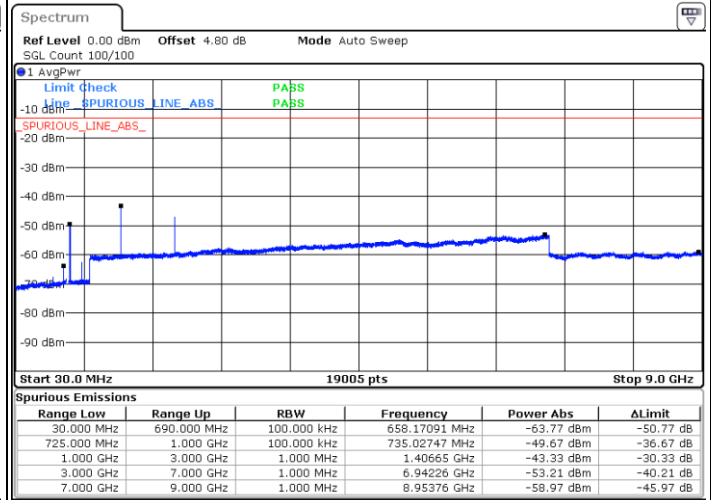
FR1 n12 / 10MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

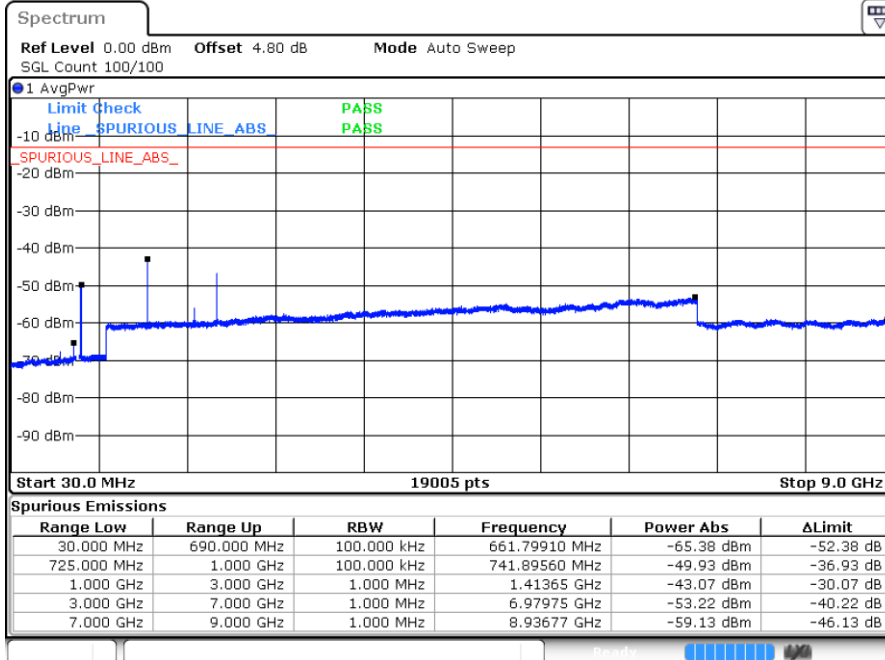


Date: 18 JUN 2022 03:21:51



Date: 18 JUN 2022 03:23:33

Highest Channel / 1RB1



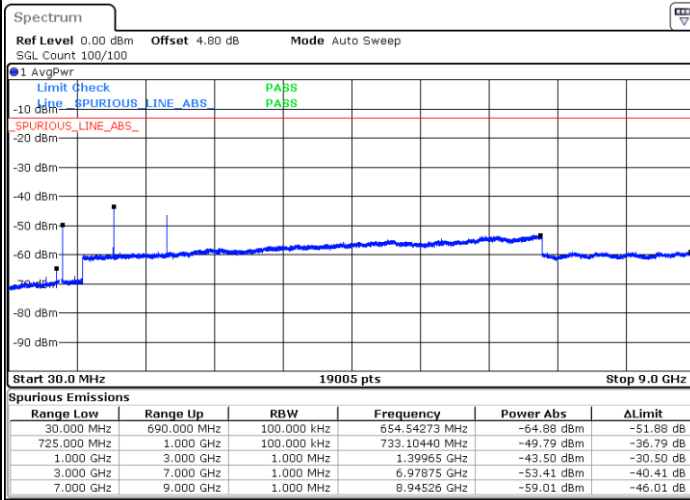
Date: 18 JUN 2022 03:45:54



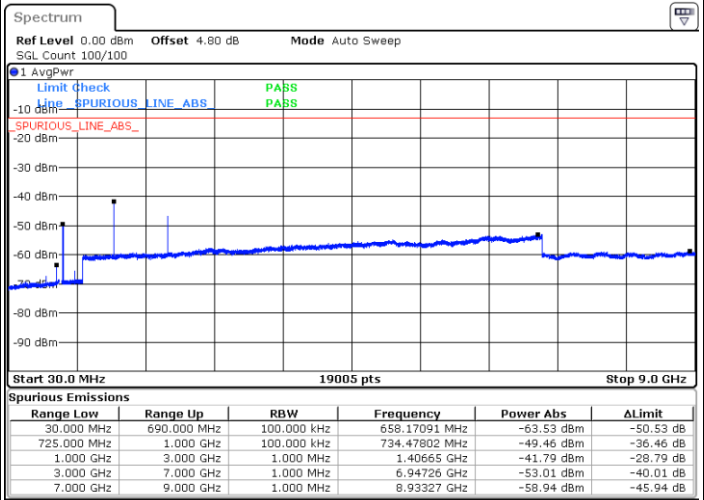
FR1 n12 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

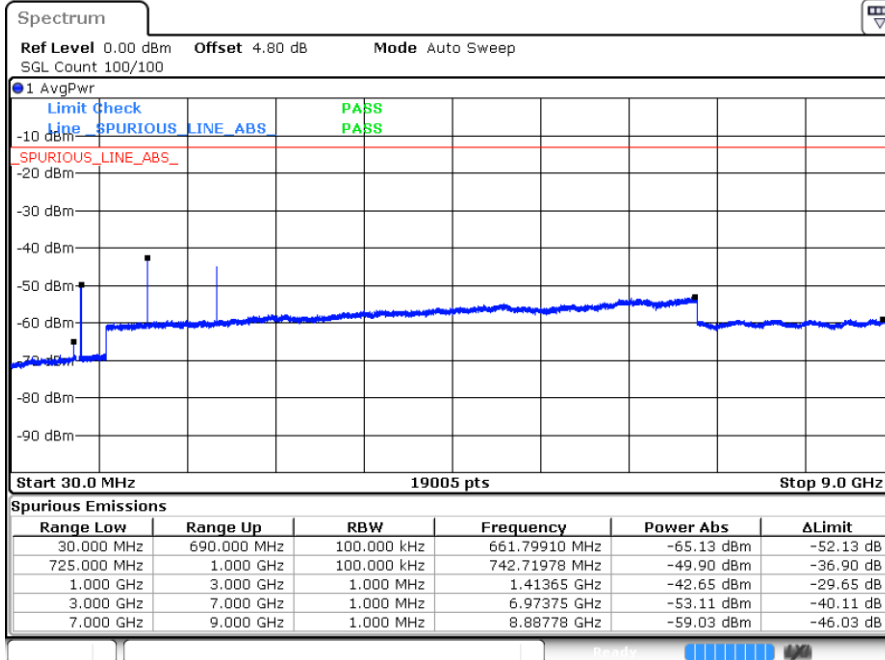


Date: 18 JUN 2022 03:19:01



Date: 18 JUN 2022 03:28:42

Highest Channel / 1RB1



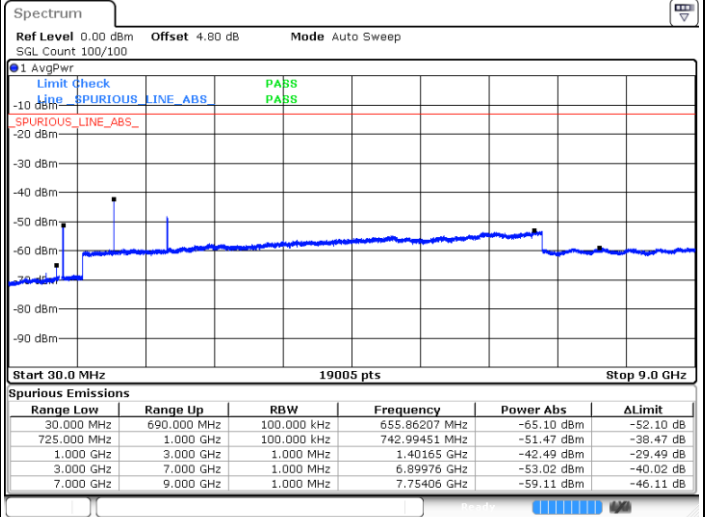
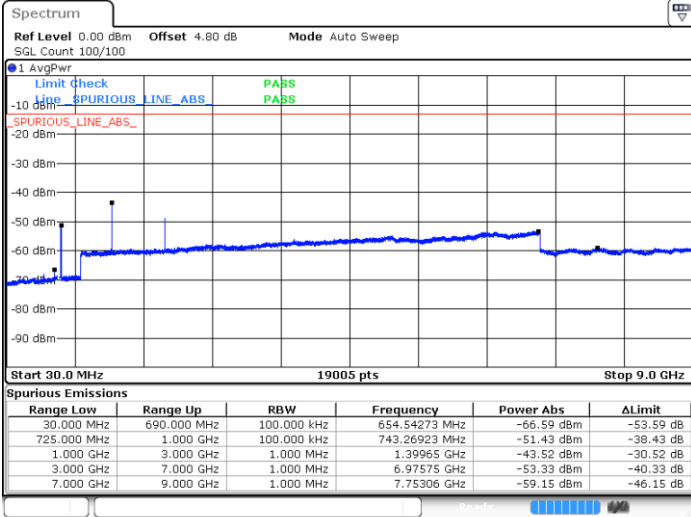
Date: 18 JUN 2022 03:49:37



FR1 n12 / 15MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB1

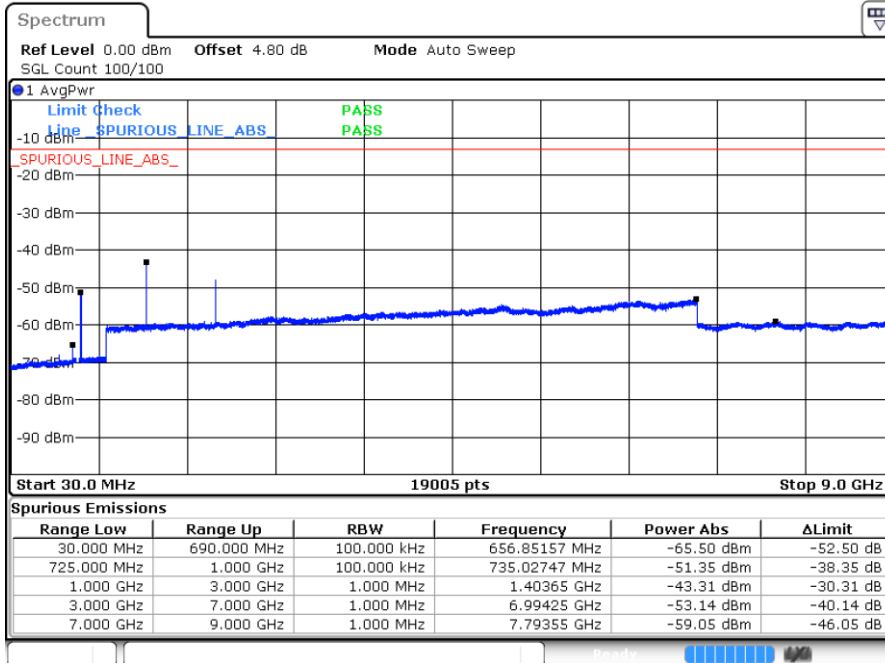
Middle Channel / 1RB1



Date: 18 JUN 2022 03:54:29

Date: 18 JUN 2022 03:59:13

Highest Channel / 1RB1



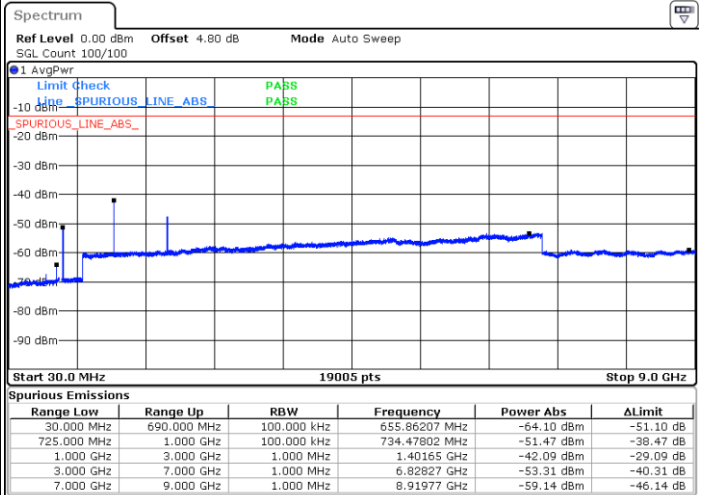
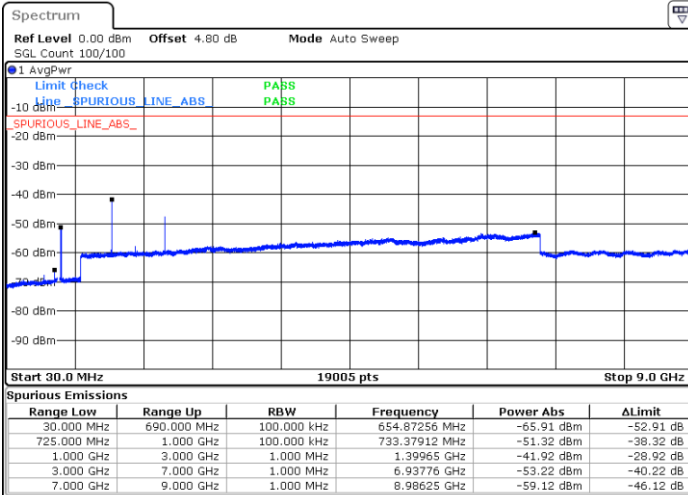
Date: 18 JUN 2022 04:07:37



FR1 n12 / 15MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

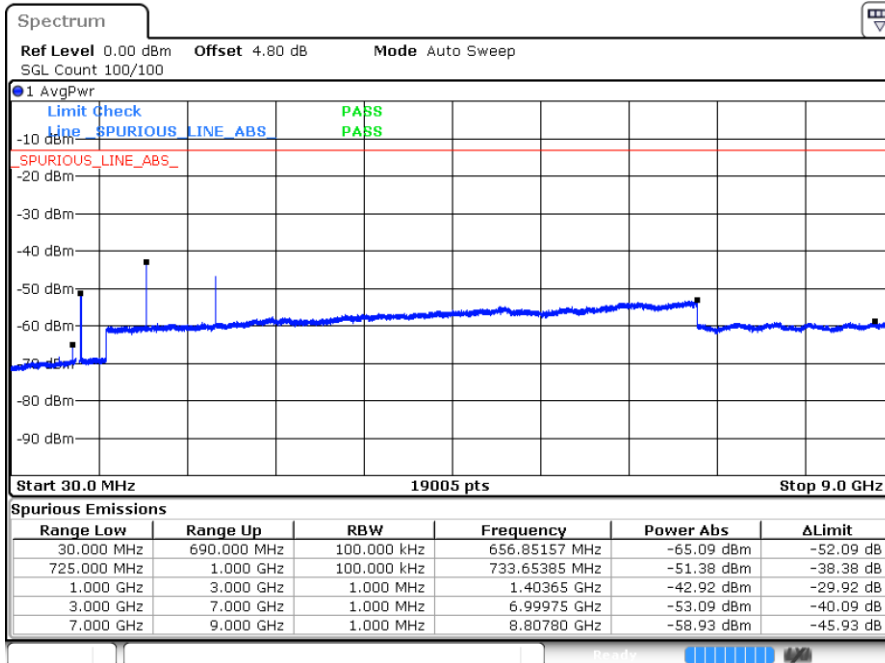
Middle Channel / 1RB1



Date: 18 JUN 2022 03:56:56

Date: 18 JUN 2022 03:58:21

Highest Channel / 1RB1



Date: 18 JUN 2022 04:09:33



Frequency Stability

Test Conditions		FR1 n12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0028	
0	Normal Voltage	0.0035	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0025	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0008	
20	Battery End Point	0.0016	

Note:

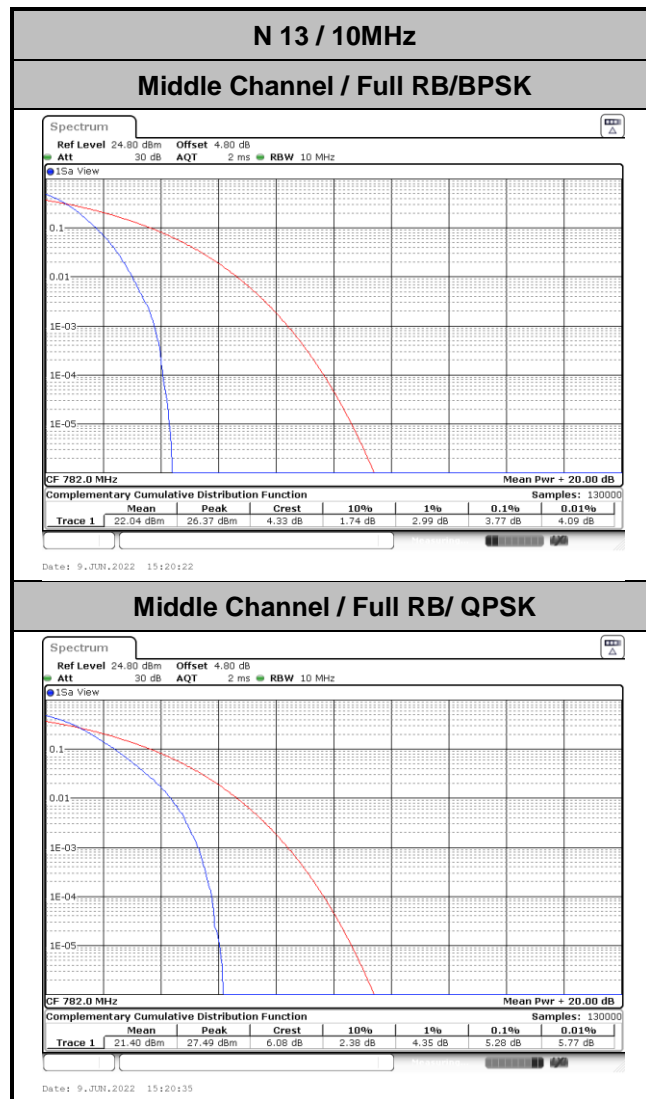
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



FR n13

**Peak-to-Average Ratio**

Mode	N 13 / 10MHz			
Mod.	BPSK	QPSK		Limit: 13dB
RB Size	Full RB	Full RB		Result
Middle CH	3.77	5.28		PASS

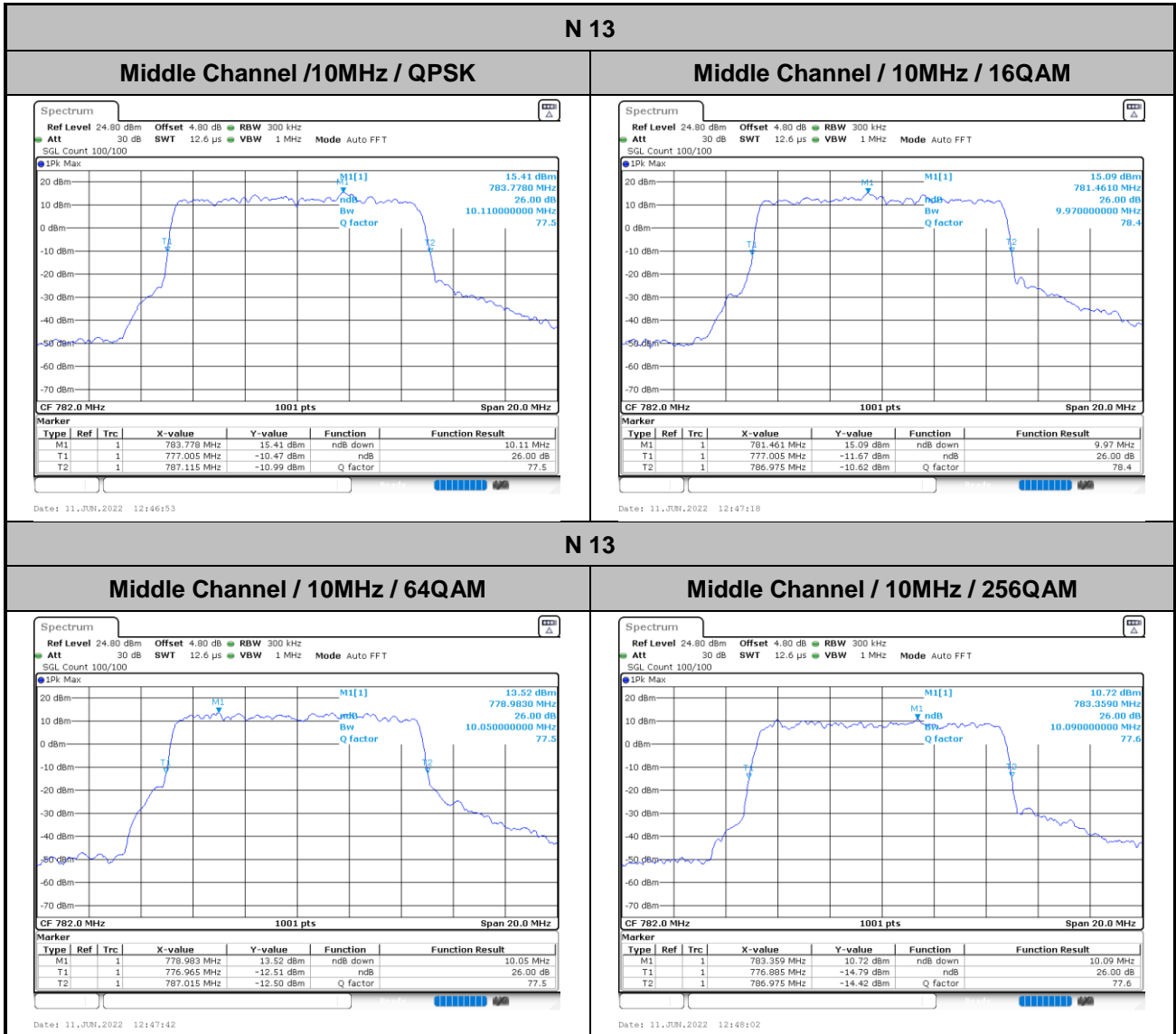






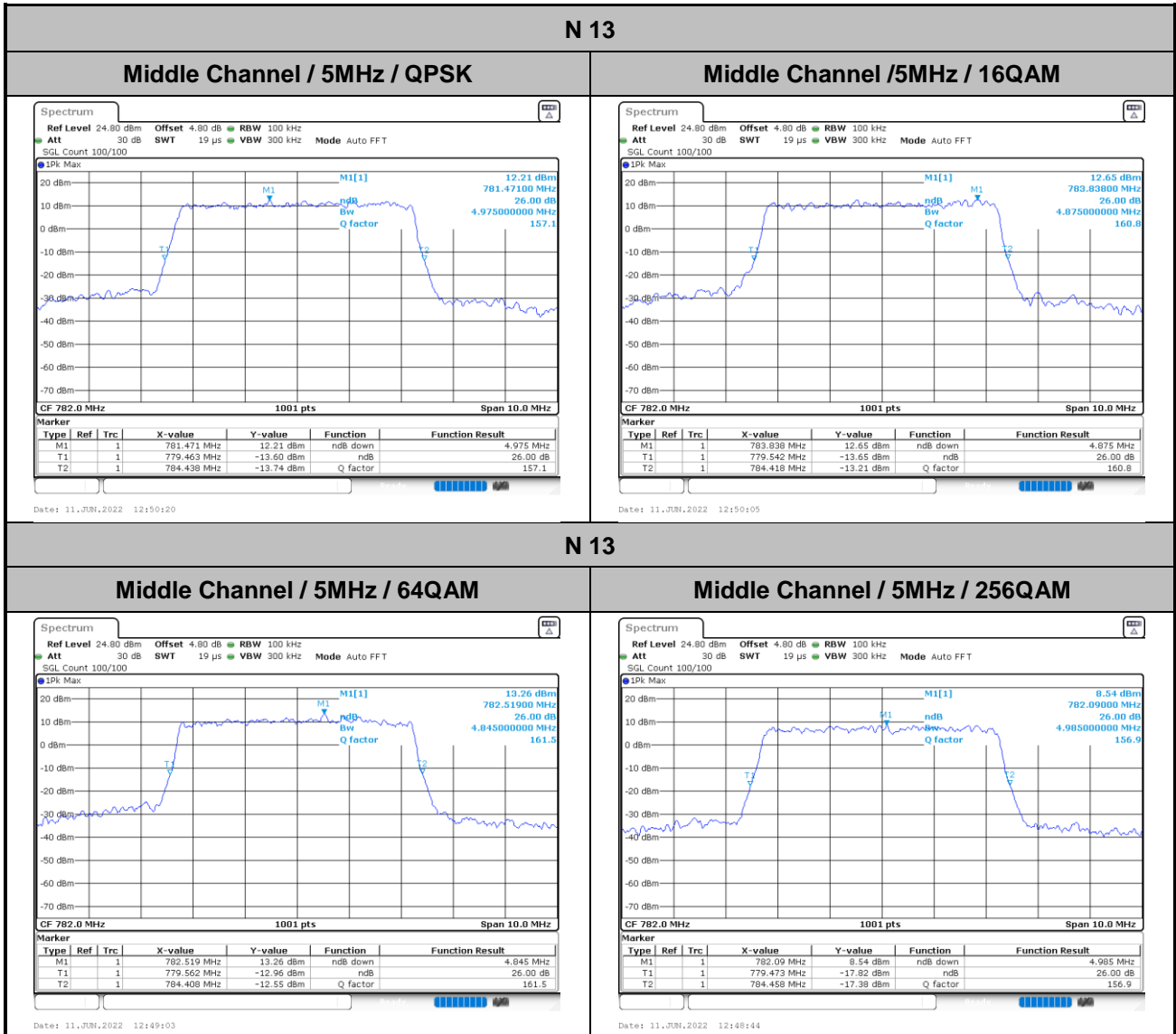
## 26dB Bandwidth

<b>Mode</b>	<b>N 13 : 26dB BW(MHz)</b>			
<b>BW</b>	<b>10MHz</b>			
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>	<b>64QAM</b>	<b>256QAM</b>
<b>Middle CH</b>	10.11	9.97	10.05	10.09





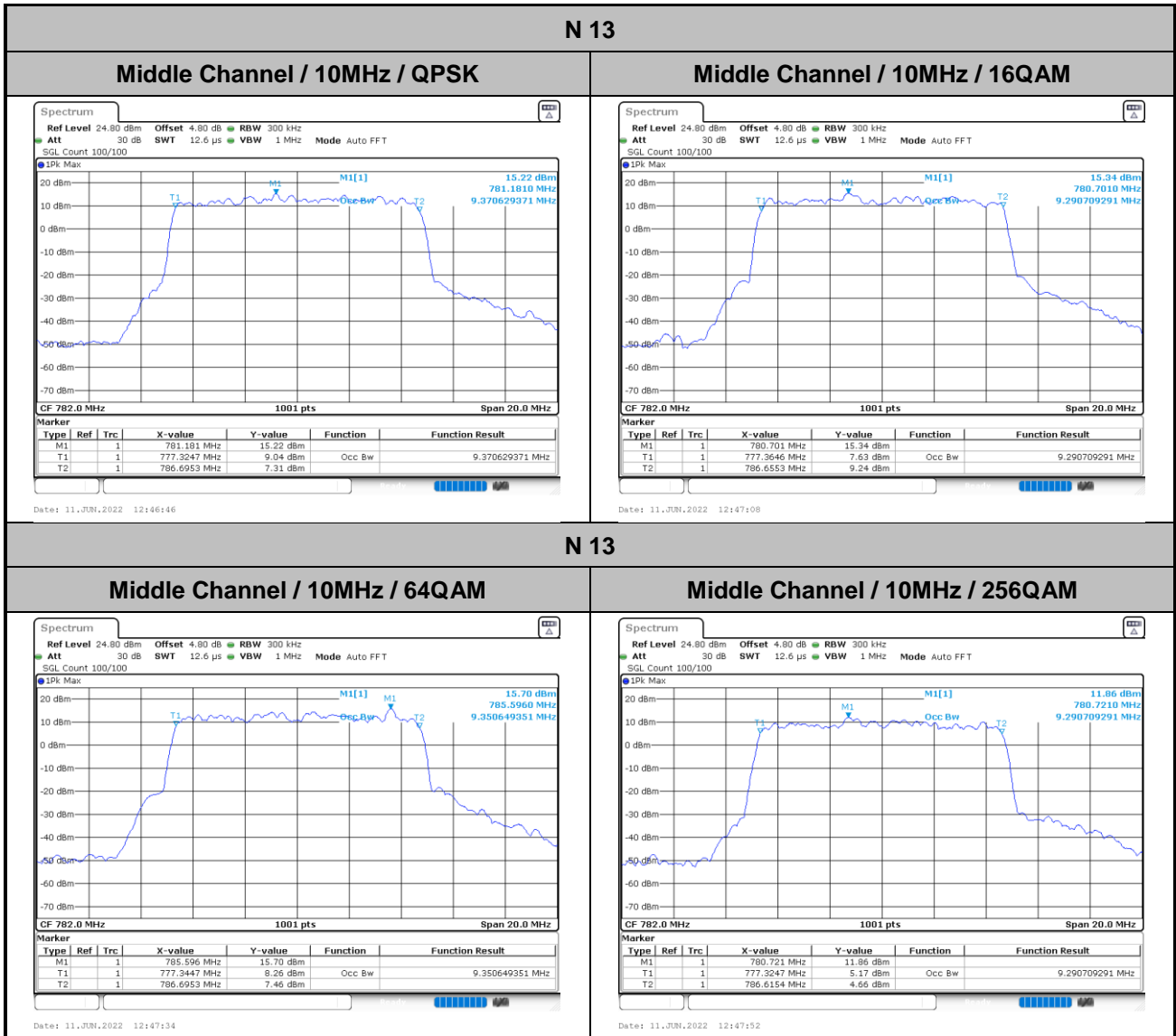
Mode	N 13 : 26dB BW(MHz)				
BW	5MHz				
Mod.		QPSK	16QAM	64QAM	256QAM
Middle CH		4.98	4.88	4.85	4.99





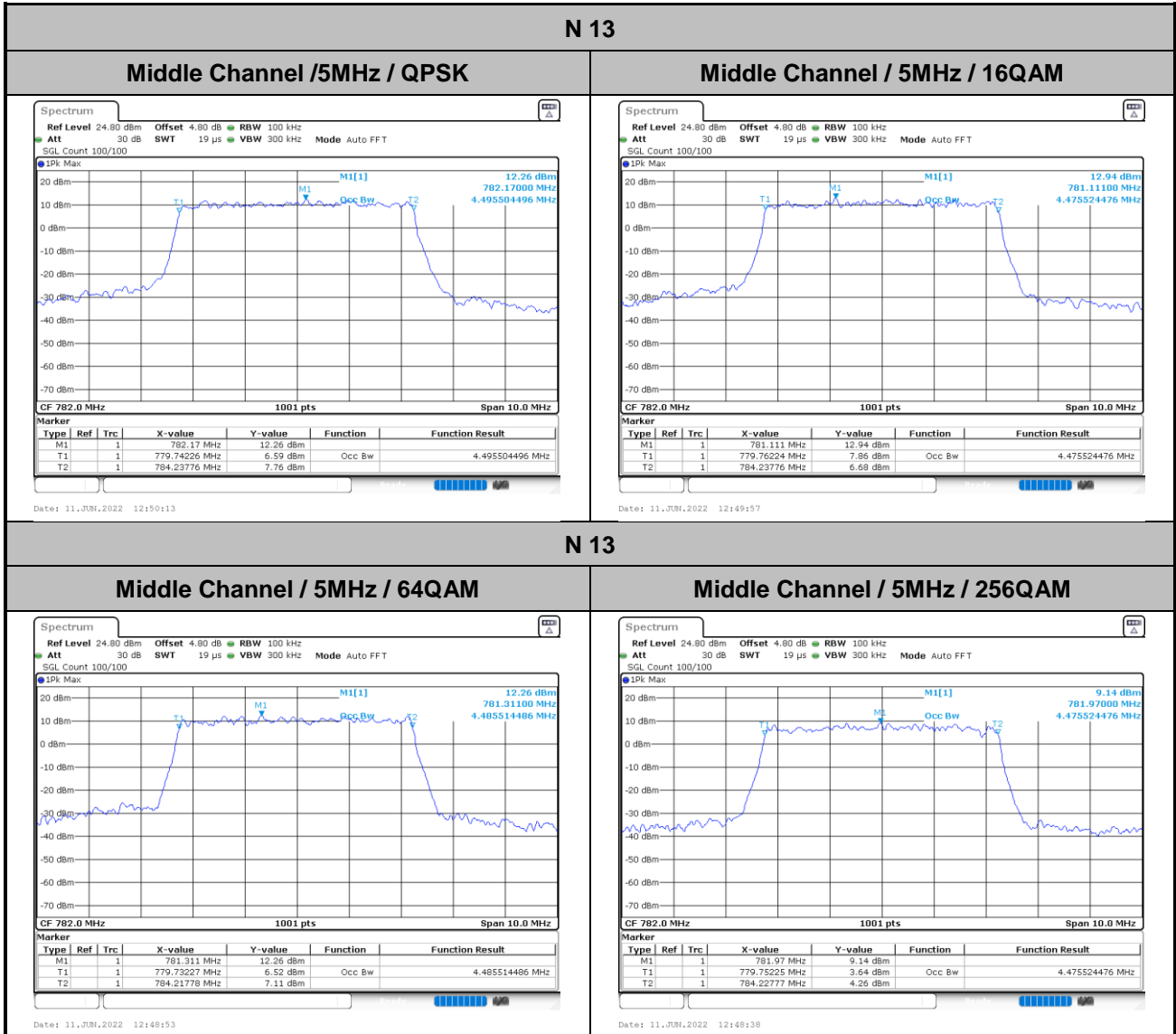
# Occupied Bandwidth

Mode	N 13 : 99%OBW(MHz)			
BW	10MHz			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	9.37	9.29	9.35	9.29



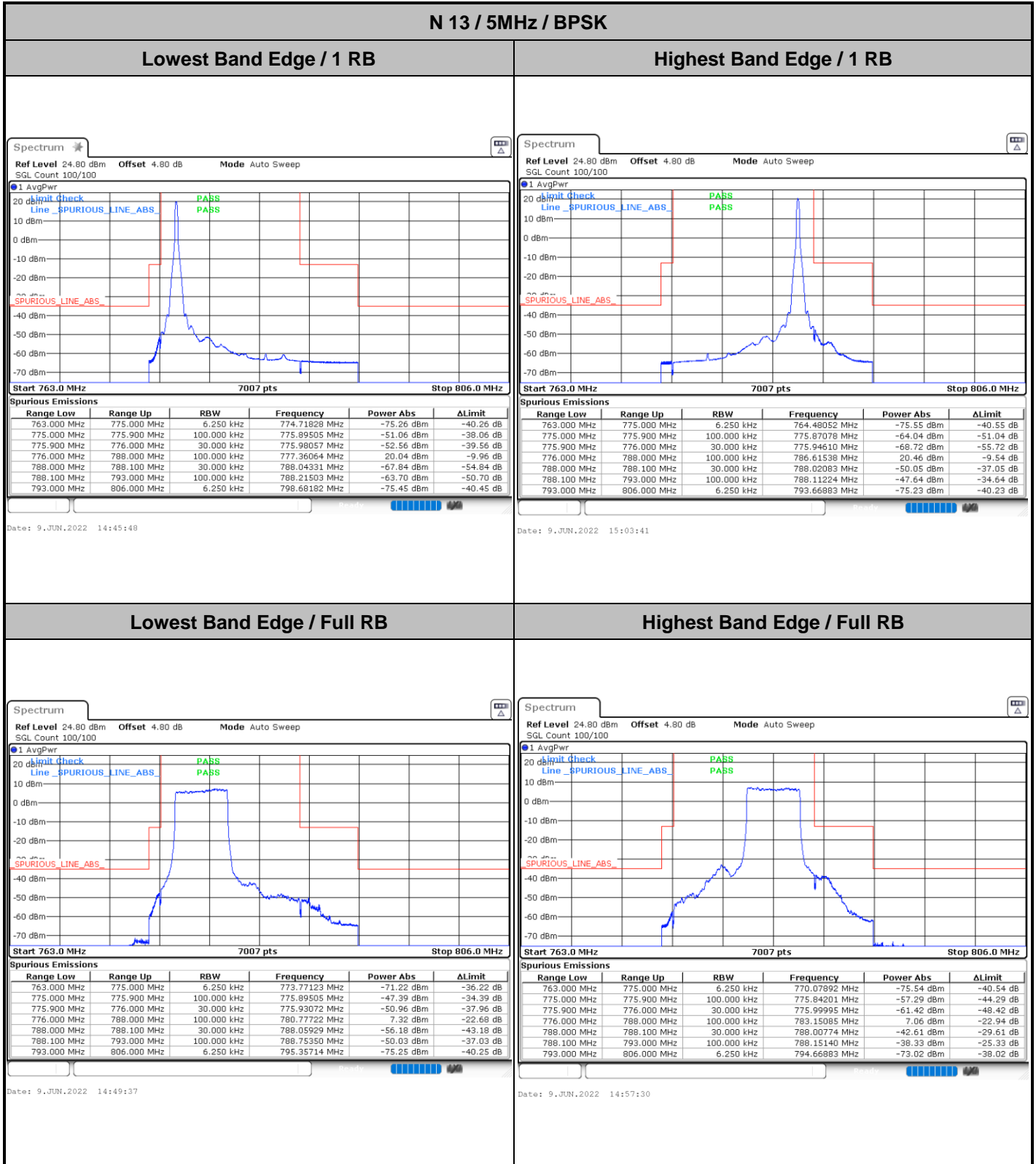


Mode	N 13 : 99%OBW(MHz)			
BW	5MHz			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	4.50	4.48	4.49	4.48





# Conducted Band Edge

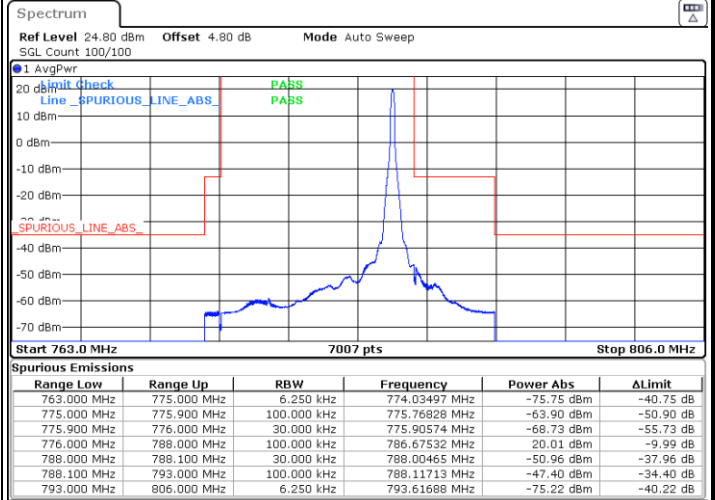
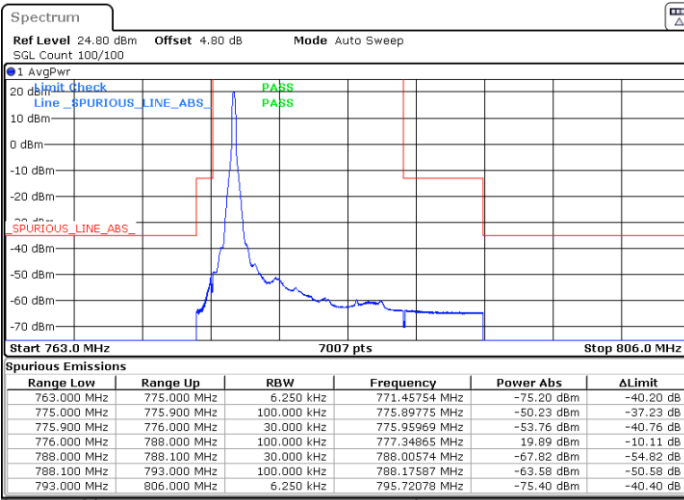




N 13 / 5MHz / QPSK

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

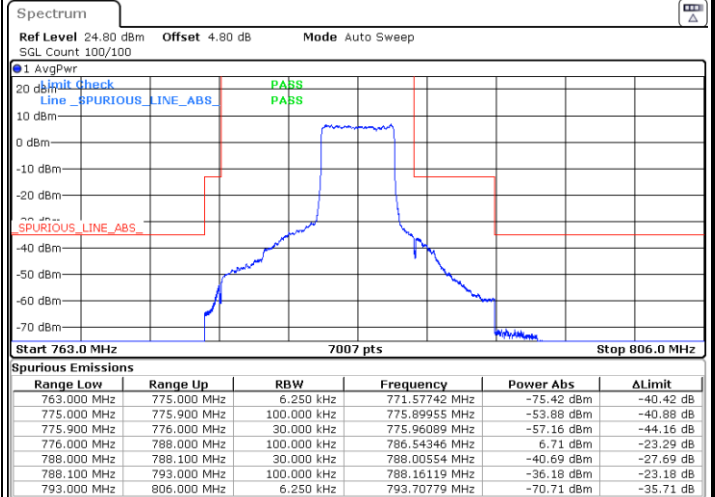
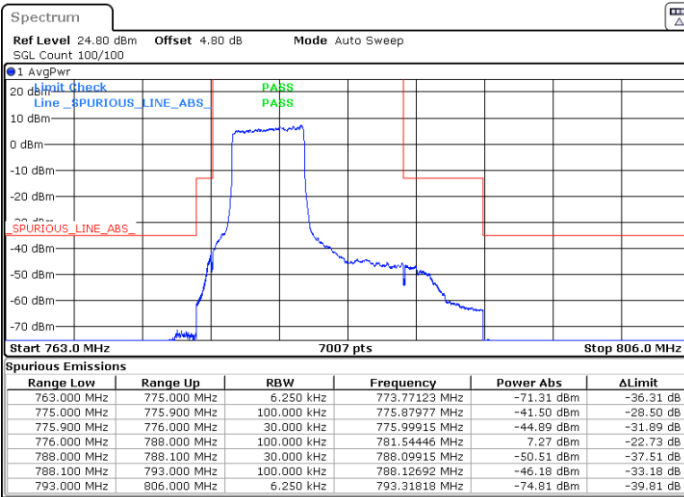


Date: 9 JUN.2022 14:46:57

Date: 9 JUN.2022 15:02:01

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9 JUN.2022 14:48:16

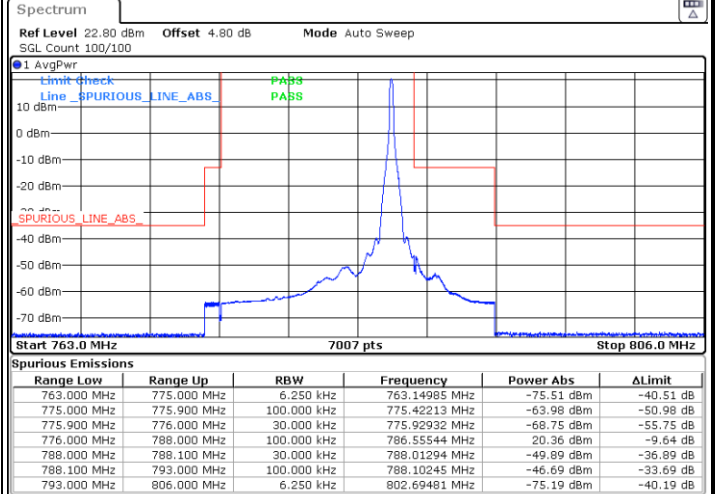
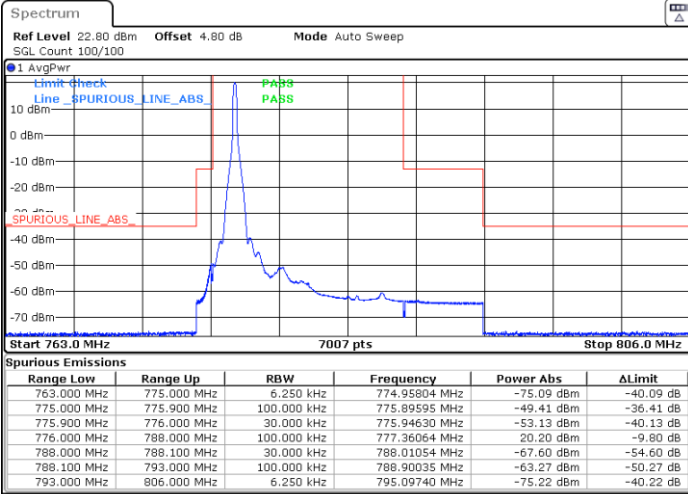
Date: 9 JUN.2022 14:59:58



N 13 / 10MHz / BPSK

middle Band Edge / 1 RB

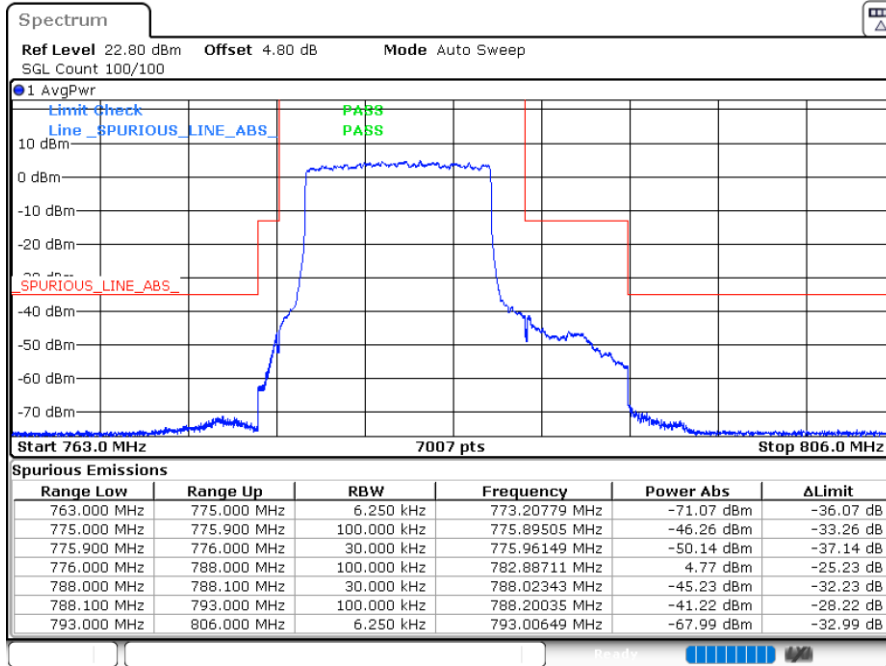
middle Band Edge / 1 RB



Date: 9.JUN.2022 15:13:12

Date: 9.JUN.2022 15:17:02

Middle Band Edge / Full RB

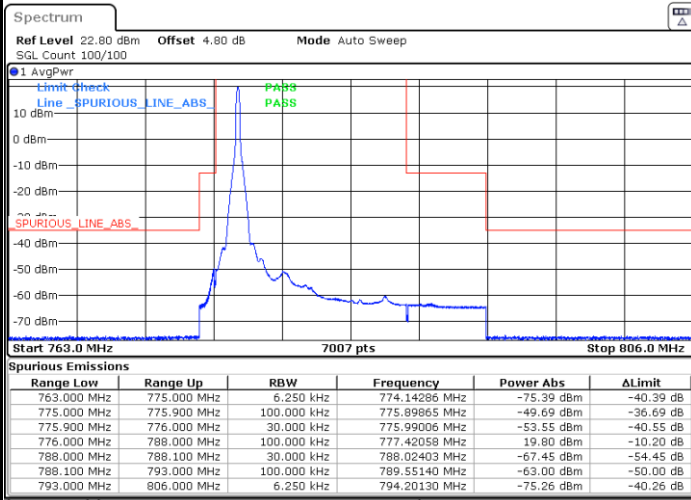


Date: 9.JUN.2022 15:18:13



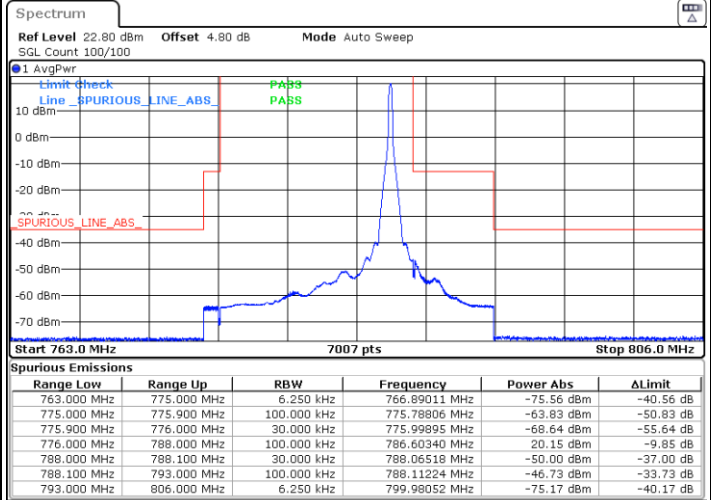
N 13 / 10MHz / QPSK

middle Band Edge / 1 RB



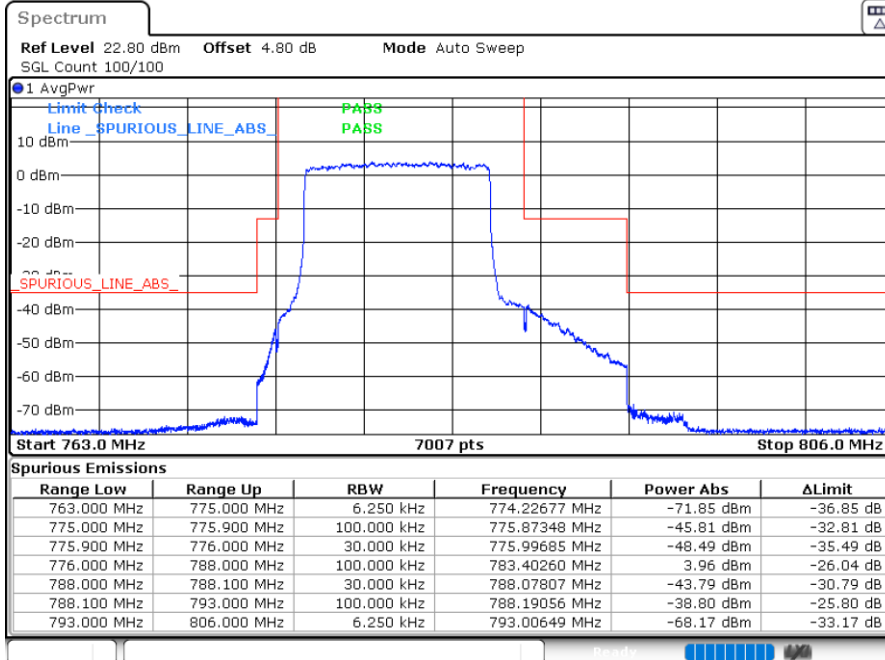
Date: 9.JUN.2022 15:14:36

middle Band Edge / 1 RB



Date: 9.JUN.2022 15:15:50

Middle Band Edge / Full RB

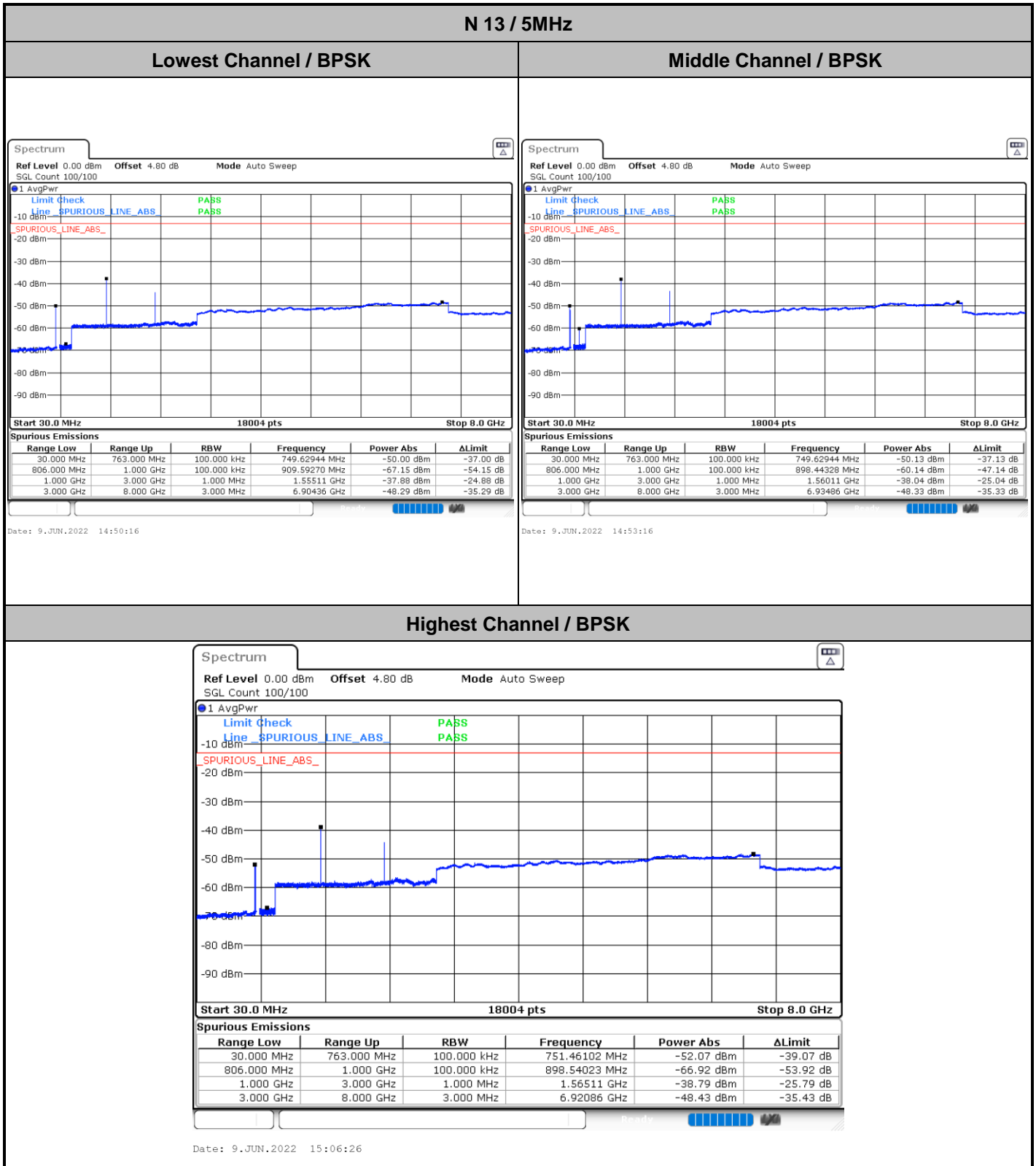


Date: 9.JUN.2022 15:19:23





# Conducted Spurious Emission

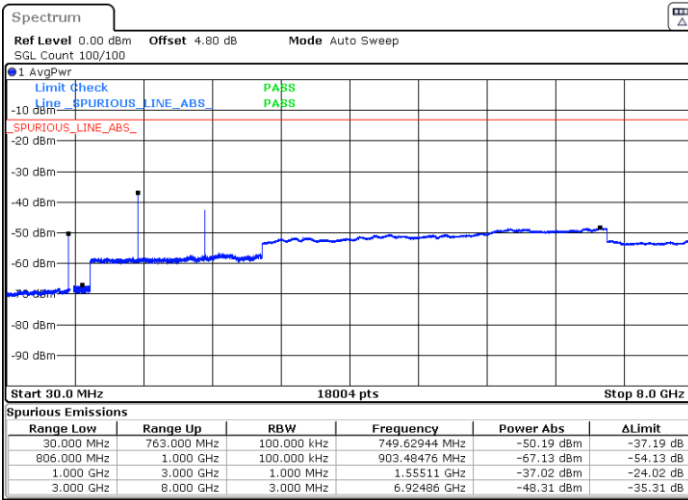




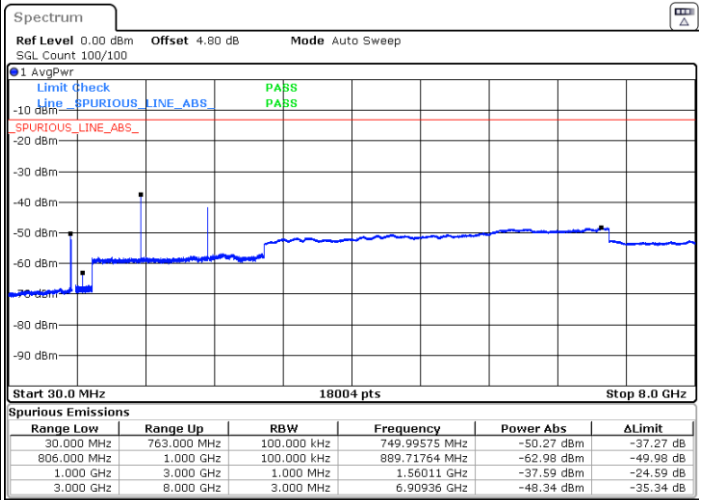
N 13 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

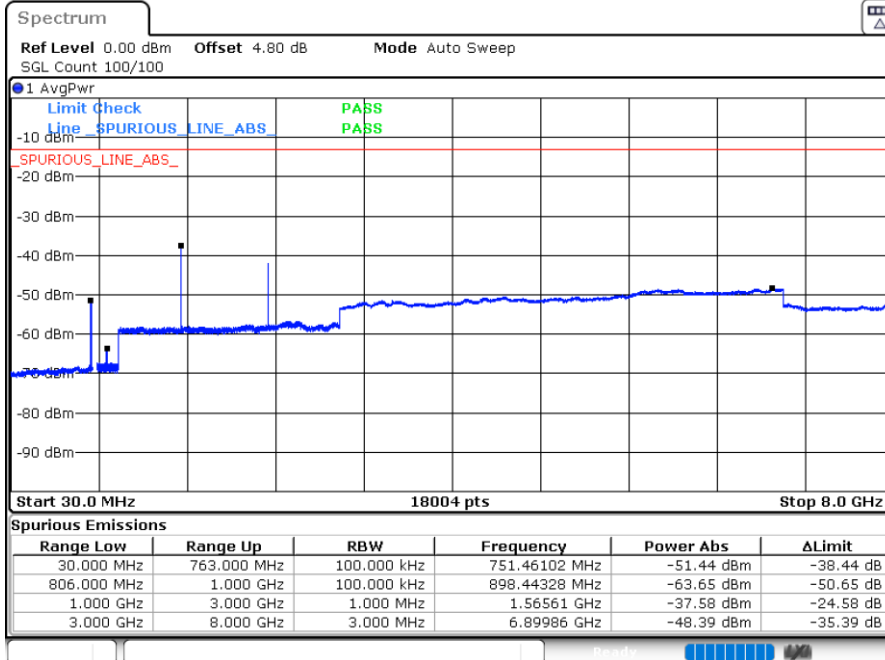


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Highest Channel / QPSK

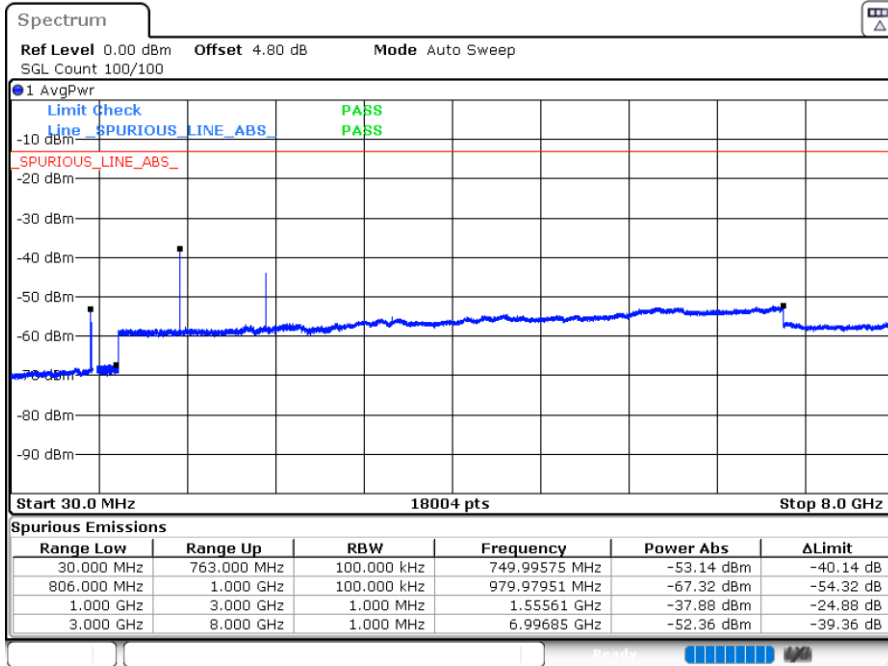


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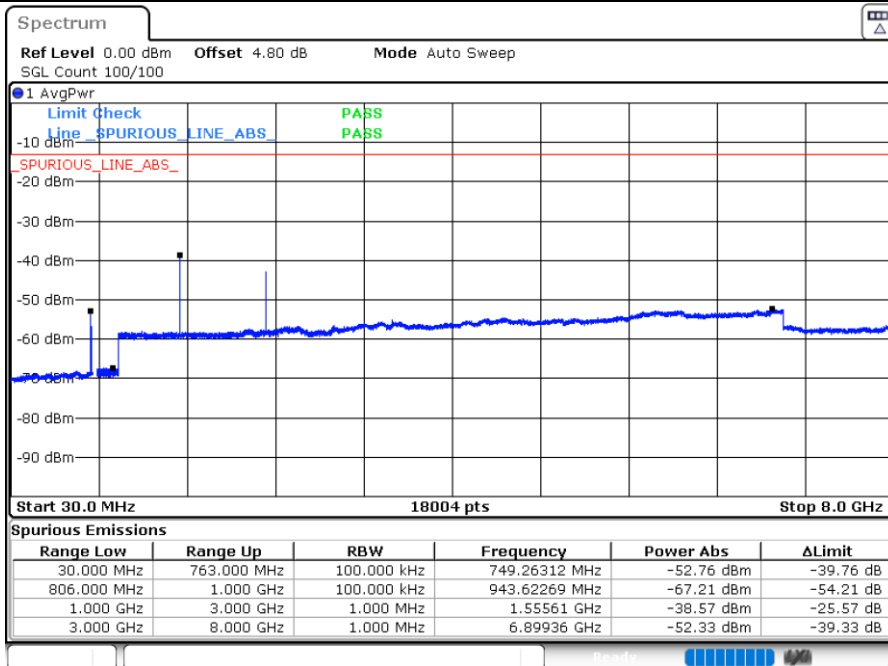
N 13 / 10MHz

Middle Channel / BPSK



N 13 / 10MHz

Middle Channel / QPSK





Frequency Stability

Test Conditions		N 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0012	PASS
40	Normal Voltage	0.0023	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0021	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0025	
20	Normal Voltage	0.0031	
20	Battery End Point	0.0035	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# FR1 n25

## Peak-to-Average Ratio

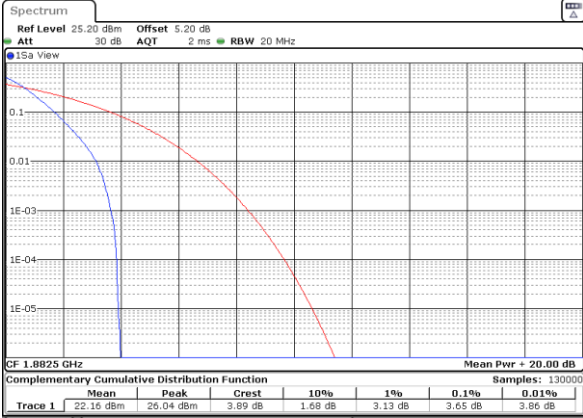
Mode	FR1 n25 / 20MHz / DFT-S OFDM		
Mod.	PI/2 BPSK	QPSK	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	3.65	4.93	PASS



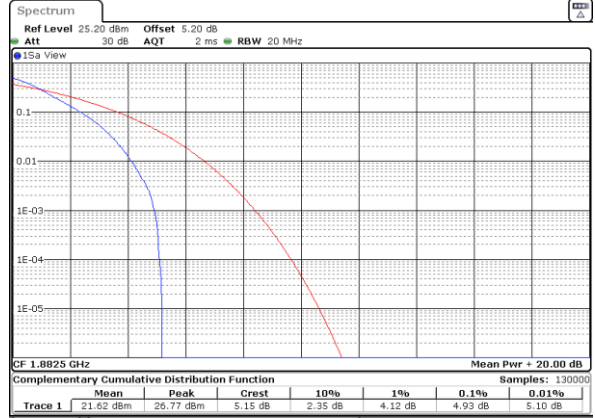
FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

QPSK



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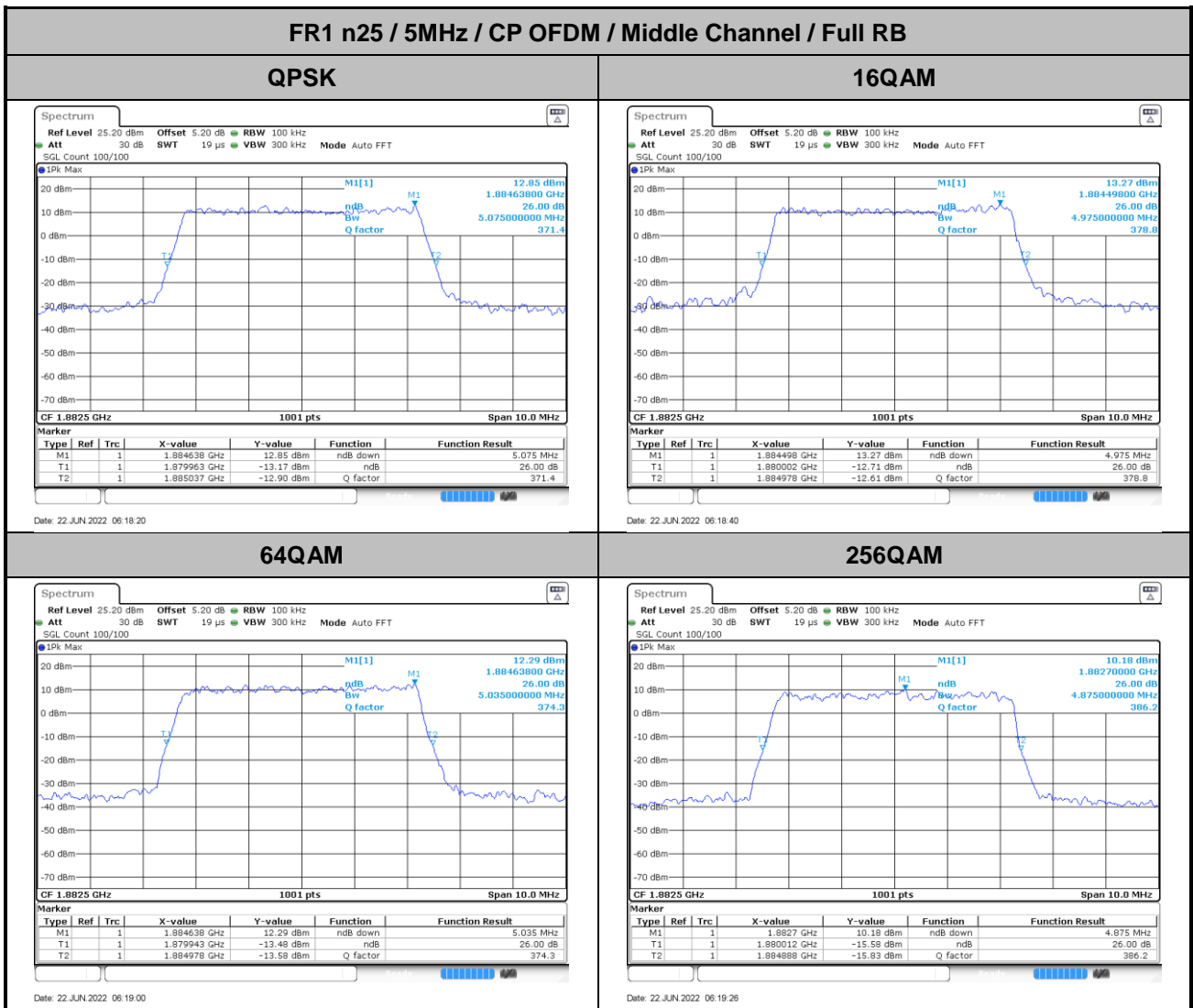


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## 26dB Bandwidth

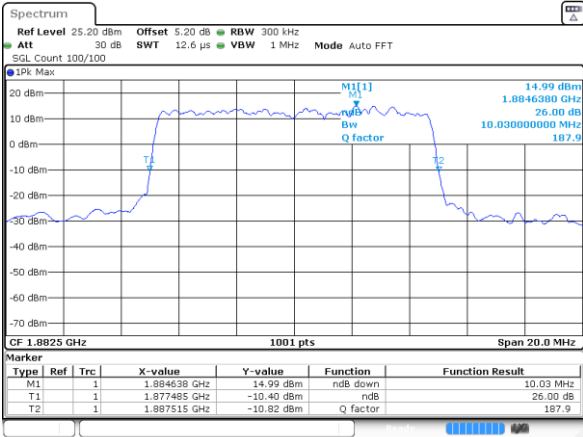
Mode	FR1 n25 : 26dBW (MHz) / DFT OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	5.08	4.98	10.03	10.07	15.14	14.84	21.50	21.18
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	5.04	4.88	10.09	10.21	14.96	14.99	21.14	21.06





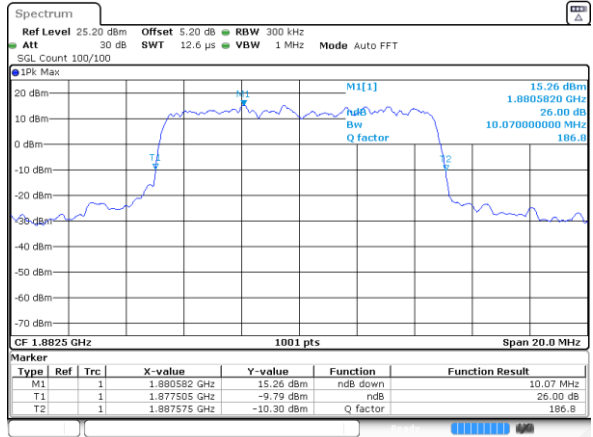
FR1 n25 / 10MHz / CP OFDM / Middle Channel / Full RB

QPSK



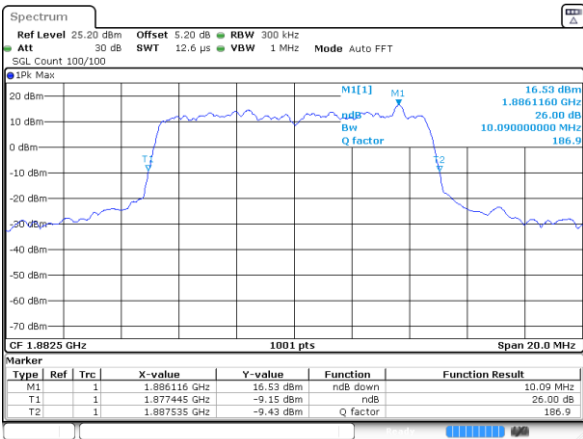
Date: 22 JUN 2022 06:35:40

16QAM



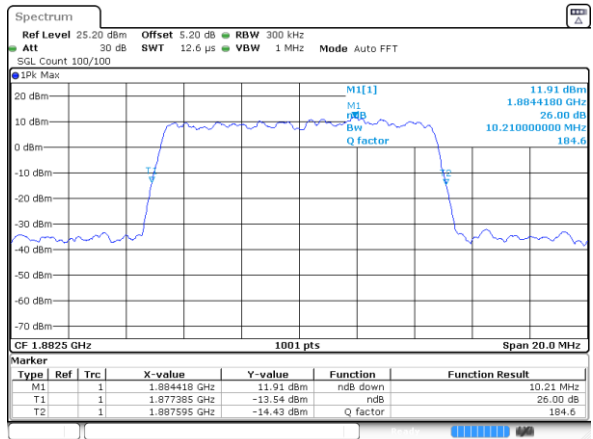
Date: 22 JUN 2022 06:37:25

64QAM



Date: 22 JUN 2022 06:38:13

256QAM



Date: 22 JUN 2022 06:39:21