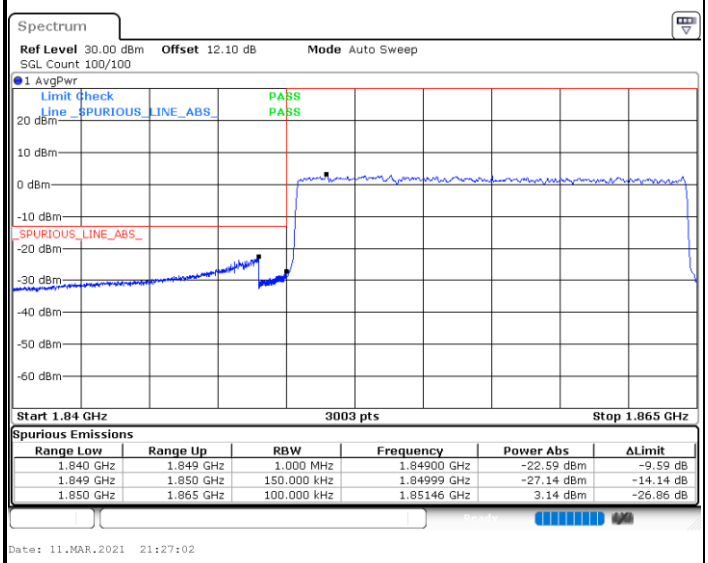
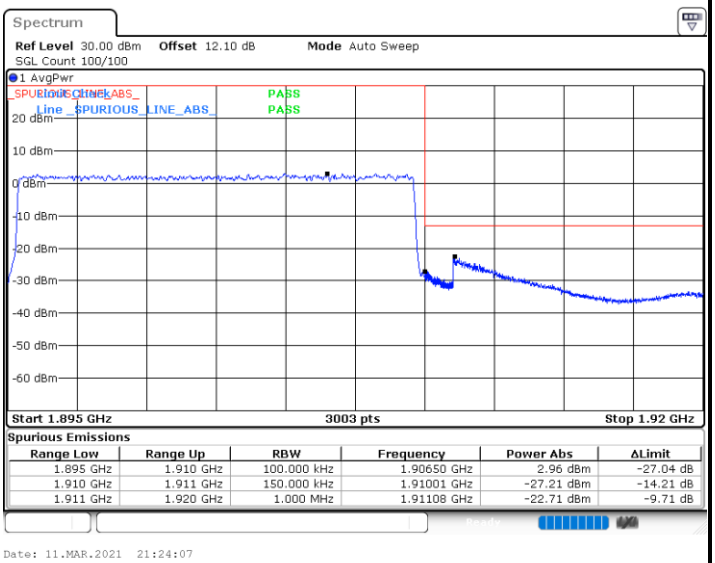
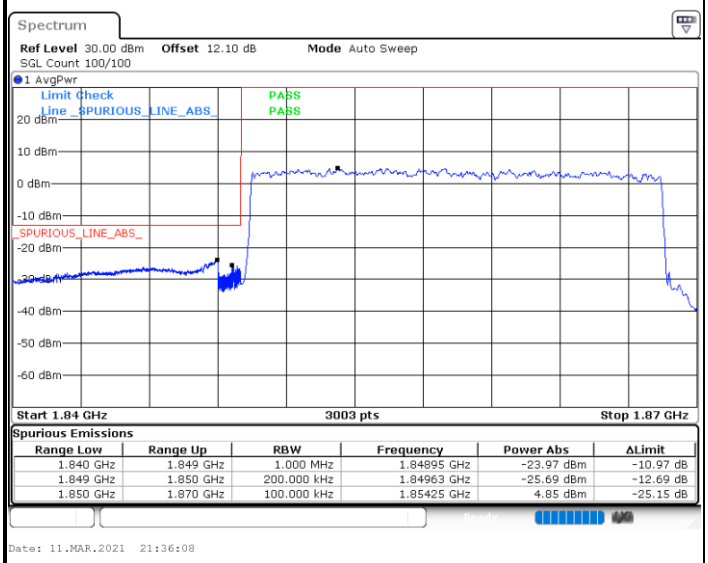
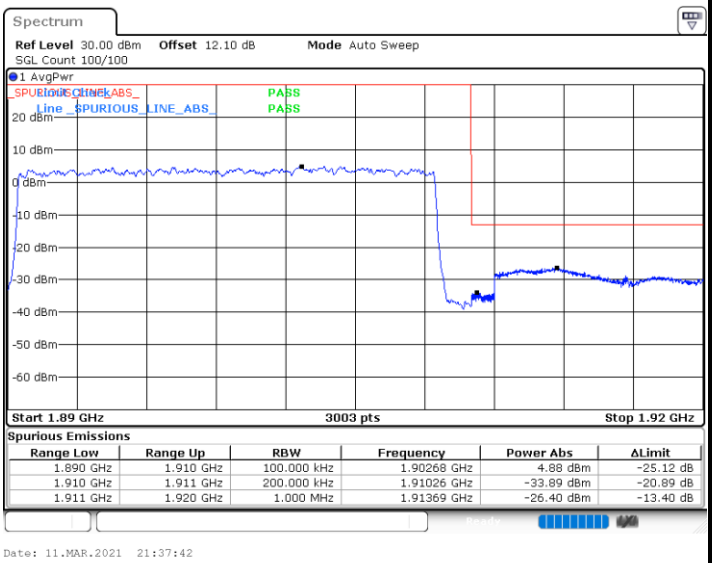
FR1 n2 / 15MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



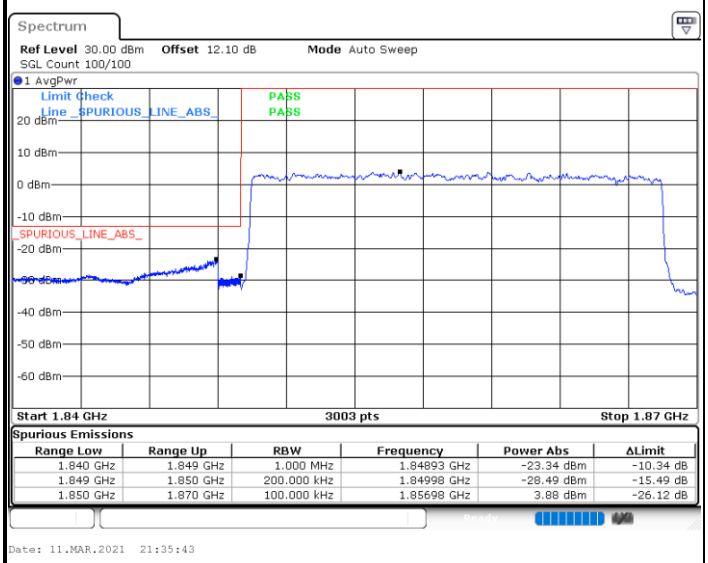


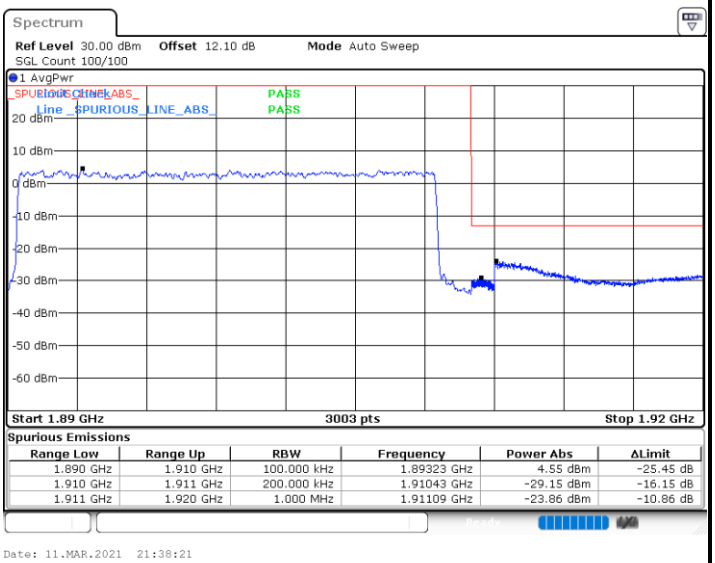
FR1 n2 / 20MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



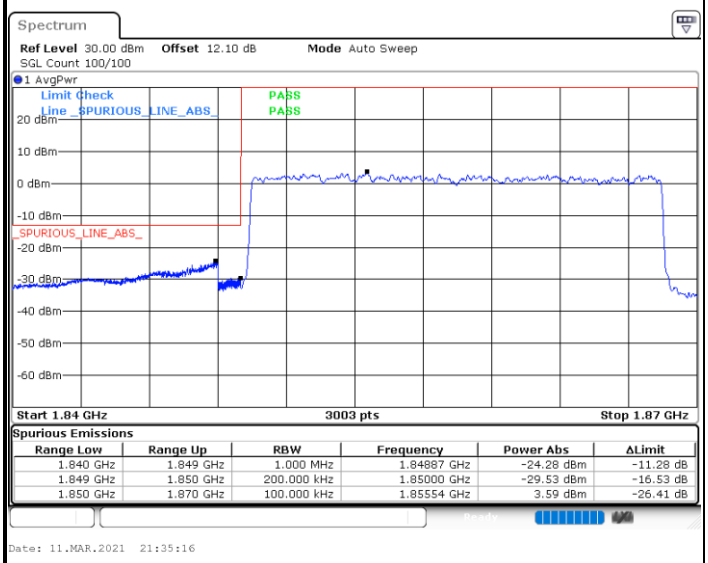


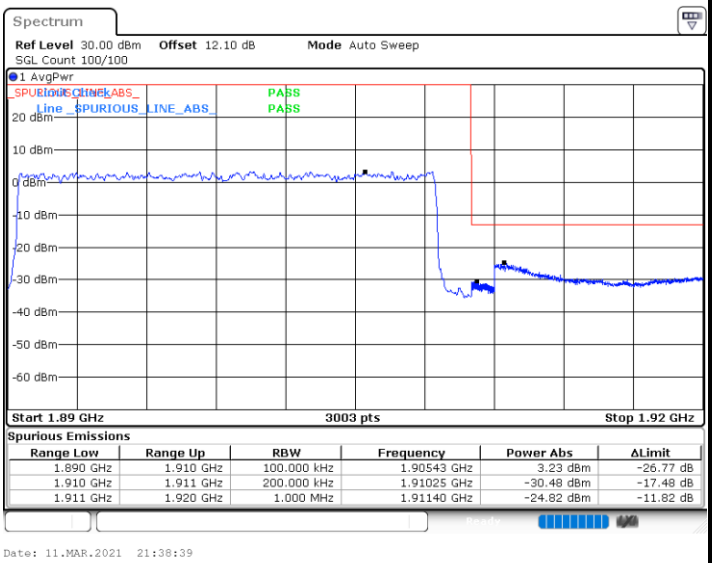
FR1 n2 / 20MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



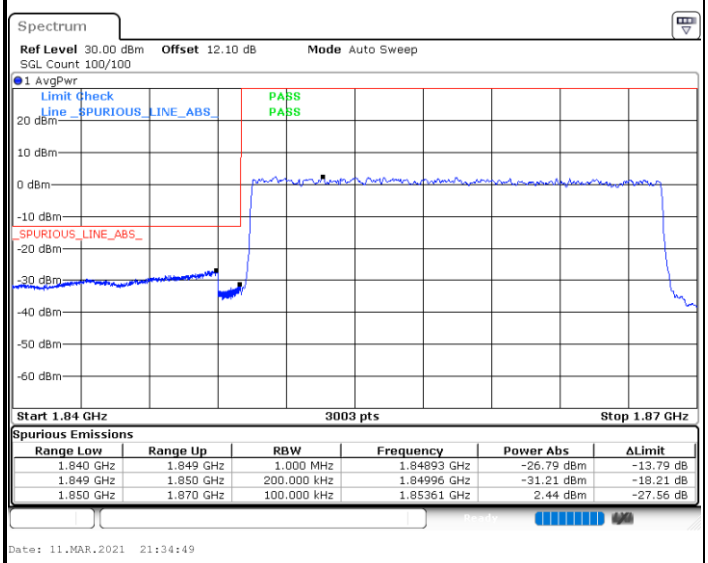


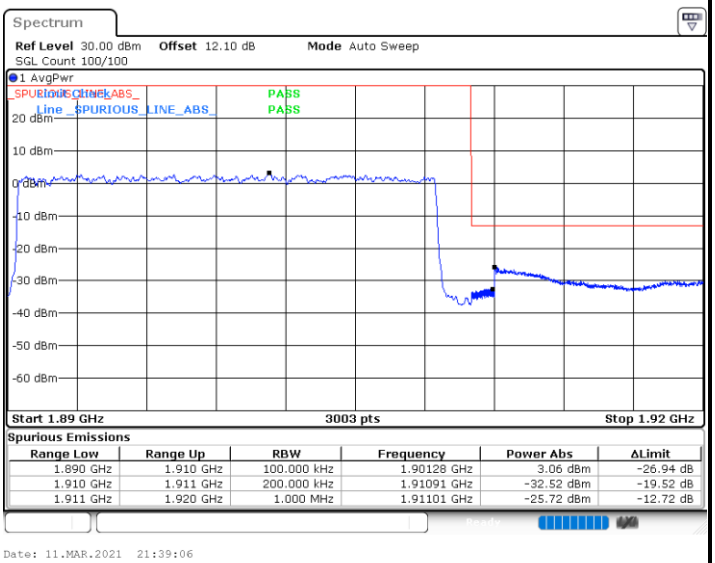
FR1 n2 / 20MHz / DFT-s-OFDM / 16QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



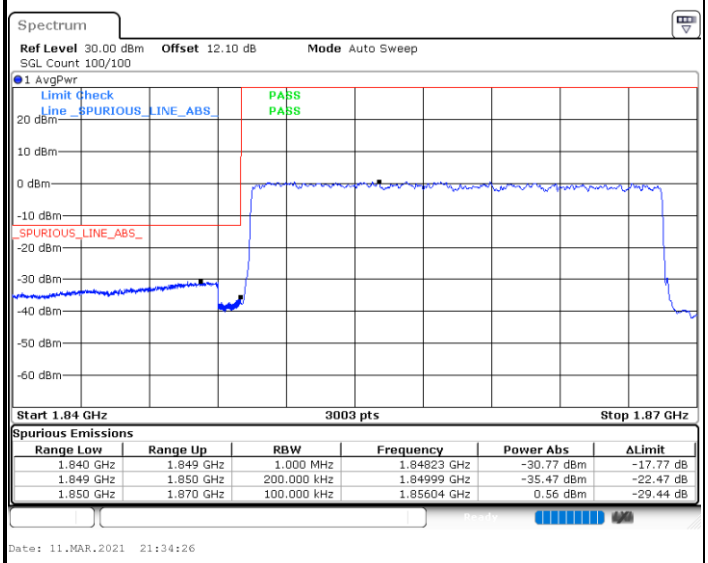


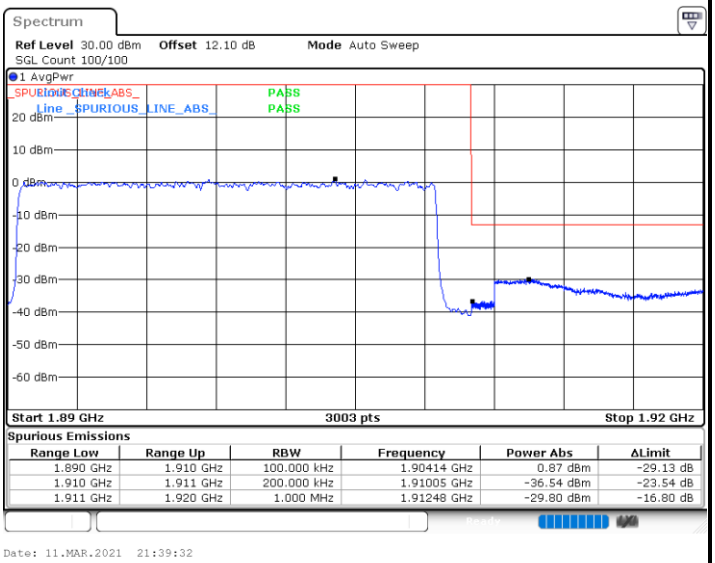
FR1 n2 / 20MHz / DFT-s-OFDM / 64QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



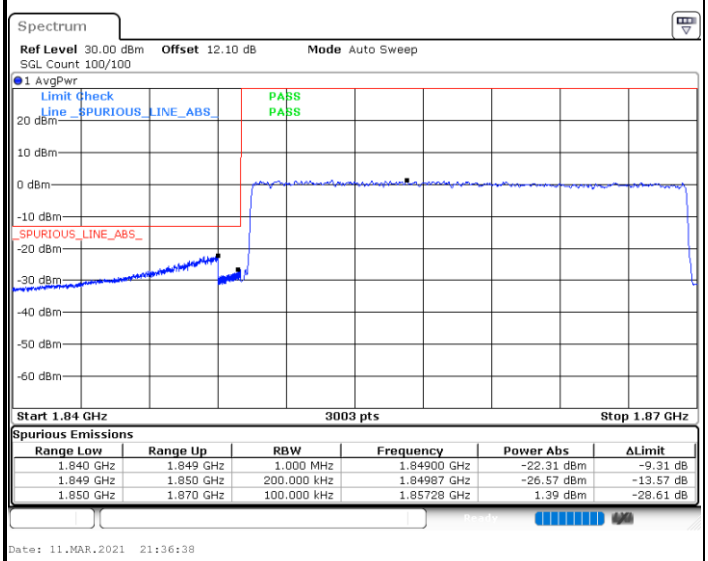


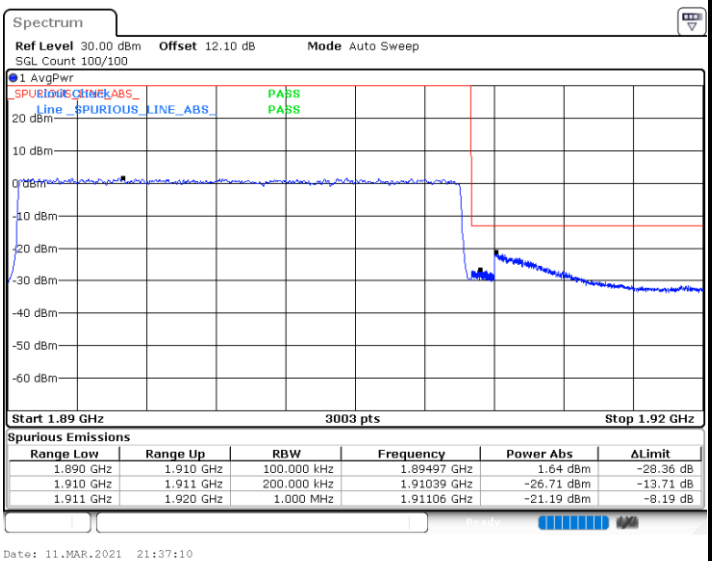
FR1 n2 / 20MHz / DFT-s-OFDM / 256QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**





FR1 n2 / 20MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**

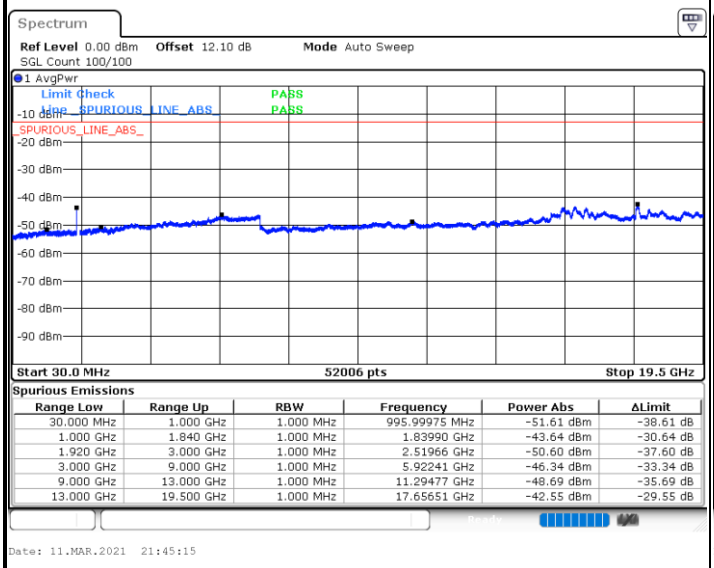




Conducted Spurious Emission

FR1 n2 / 5MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

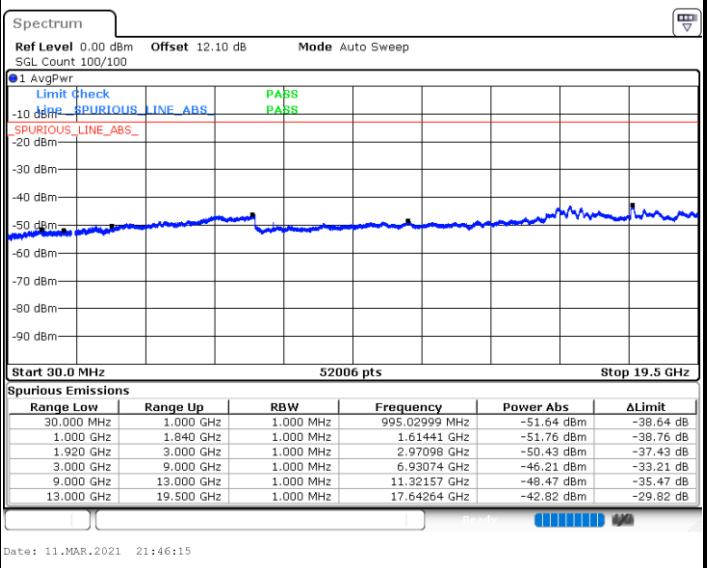


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	995.99975 MHz	-51.61 dBm	-38.61 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83990 GHz	-43.64 dBm	-30.64 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.51966 GHz	-50.60 dBm	-37.60 dB
3.000 GHz	9.000 GHz	1.000 MHz	5.92241 GHz	-46.34 dBm	-33.34 dB
9.000 GHz	13.000 GHz	1.000 MHz	11.29477 GHz	-48.69 dBm	-35.69 dB
13.000 GHz	19.500 GHz	1.000 MHz	17.65651 GHz	-42.55 dBm	-29.55 dB

Date: 11.MAR.2021 21:45:15

Middle Channel

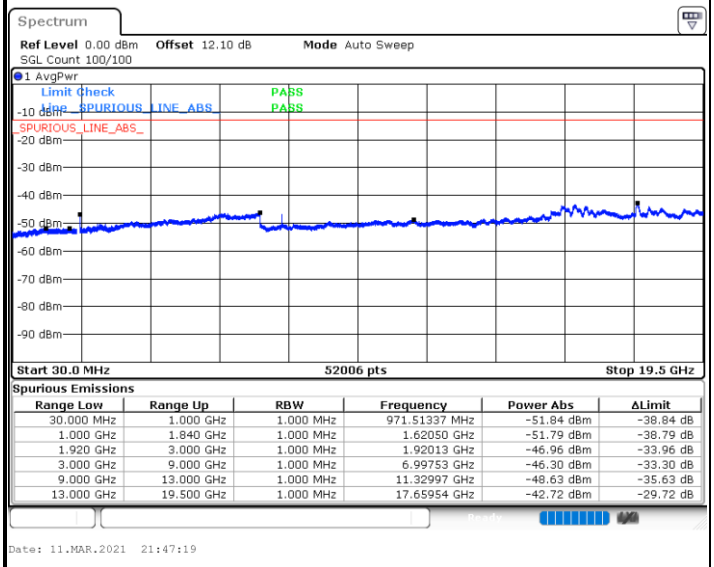


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	995.02999 MHz	-51.64 dBm	-38.64 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.61441 GHz	-51.76 dBm	-38.76 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.97098 GHz	-50.43 dBm	-37.43 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.93074 GHz	-46.21 dBm	-33.21 dB
9.000 GHz	13.000 GHz	1.000 MHz	11.32157 GHz	-48.47 dBm	-35.47 dB
13.000 GHz	19.500 GHz	1.000 MHz	17.64264 GHz	-42.82 dBm	-29.82 dB

Date: 11.MAR.2021 21:46:15

Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	971.51337 MHz	-51.84 dBm	-38.84 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.62050 GHz	-51.79 dBm	-38.79 dB
1.920 GHz	3.000 GHz	1.000 MHz	1.92013 GHz	-46.96 dBm	-33.96 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.99753 GHz	-46.30 dBm	-33.30 dB
9.000 GHz	13.000 GHz	1.000 MHz	11.32997 GHz	-48.63 dBm	-35.63 dB
13.000 GHz	19.500 GHz	1.000 MHz	17.65954 GHz	-42.72 dBm	-29.72 dB

Date: 11.MAR.2021 21:47:19

Frequency Stability

Test Conditions		FR1 n2 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0009	PASS
40	Normal Voltage	0.0152	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0021	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0026	
20	Battery End Point	0.0029	

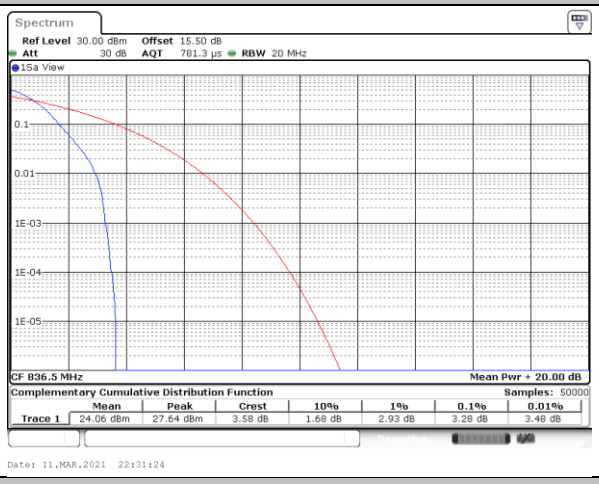
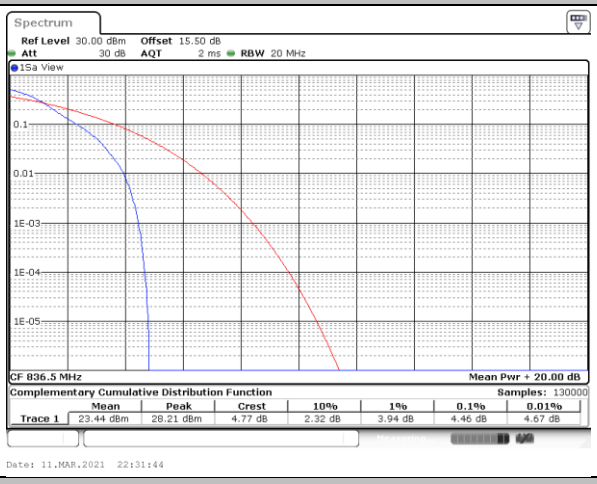
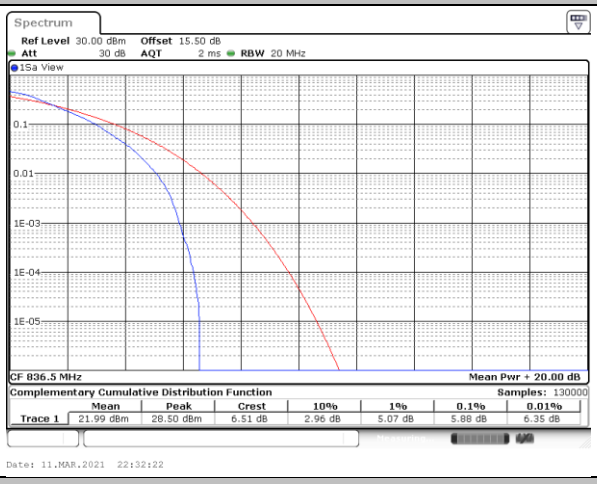
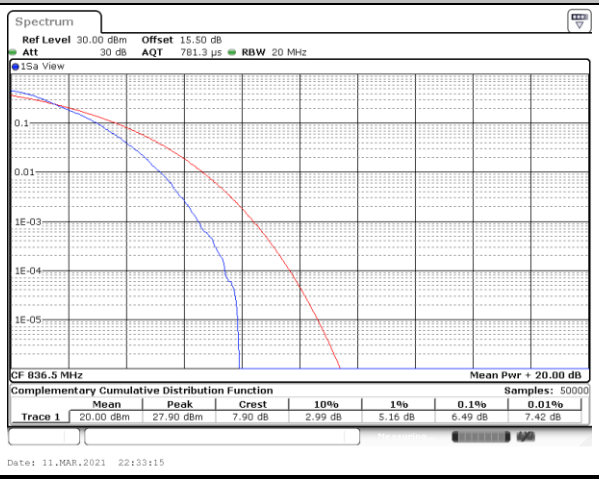
Note:

1. Normal Voltage =12 V.；Battery End Point (BEP) =11.6 V.；Maximum Voltage =12.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

FR1 n5

Peak-to-Average Ratio

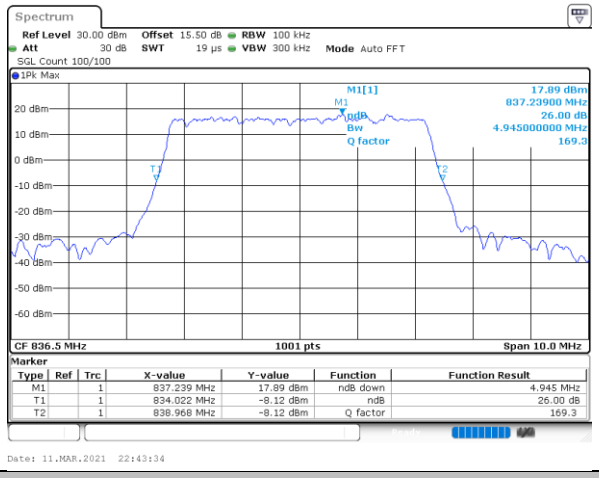
Mode	FR1 n5 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.28	4.46	5.54	5.88	PASS
Mode	FR1 n5 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.49				PASS

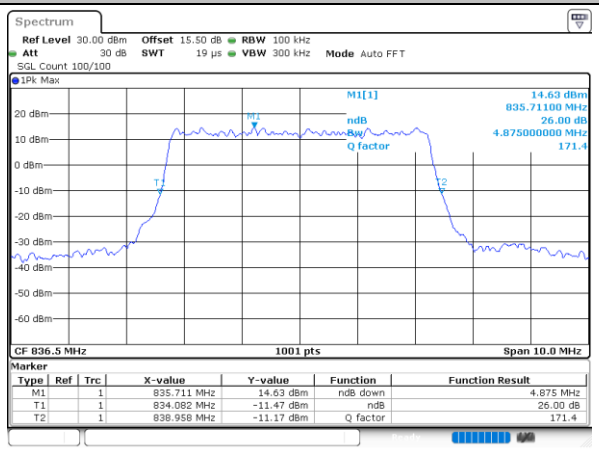
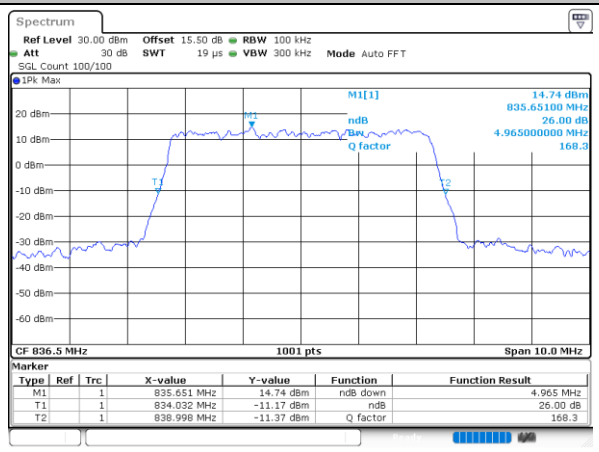
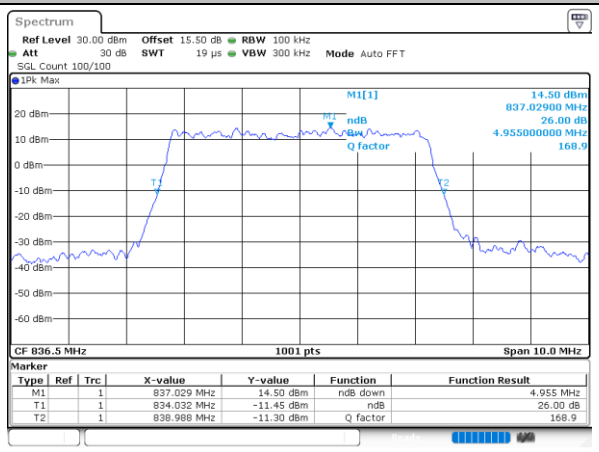
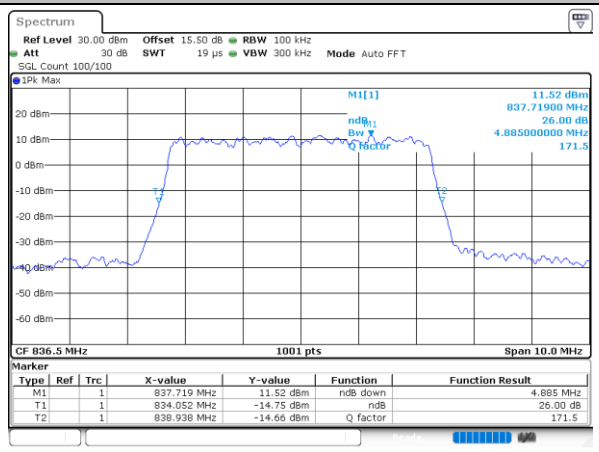
FR1 n5 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	64QAM
	
256QAM	
	

26dB Bandwidth

Mode	FR1 n5 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.95		9.39		14.18		18.70	

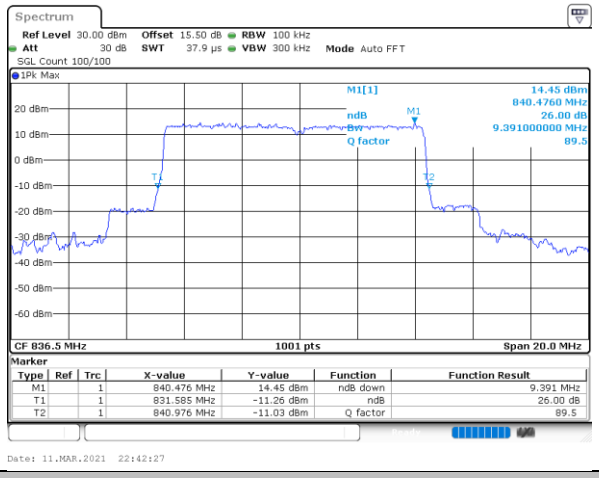
Mode	FR1 n5 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.88	4.97	9.95	9.69	14.84	14.93	19.70	19.86
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.96	4.89	9.69	9.93	14.87	15.02	19.78	19.82

FR1 n5 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n5 / 5MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

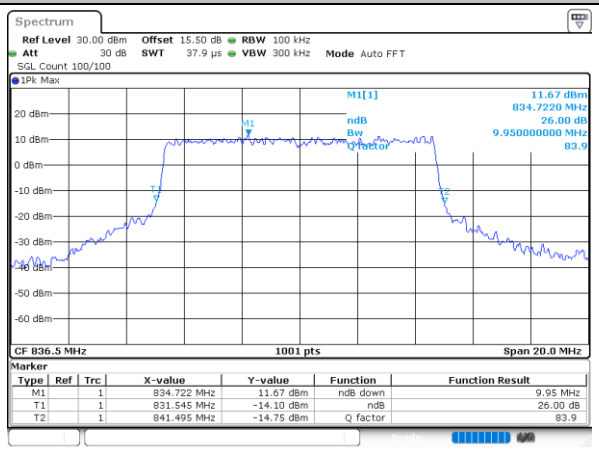
FR1 n5 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

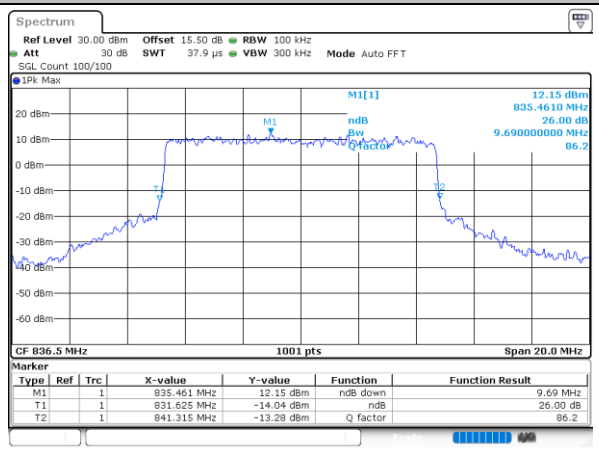


FR1 n5 / 10MHz / CP OFDM / Middle Channel / Full RB

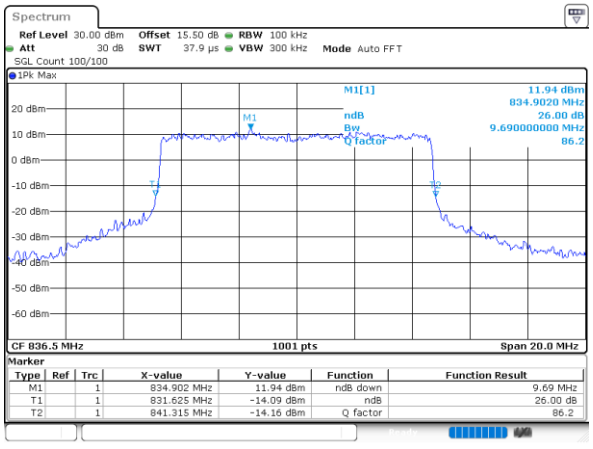
QPSK



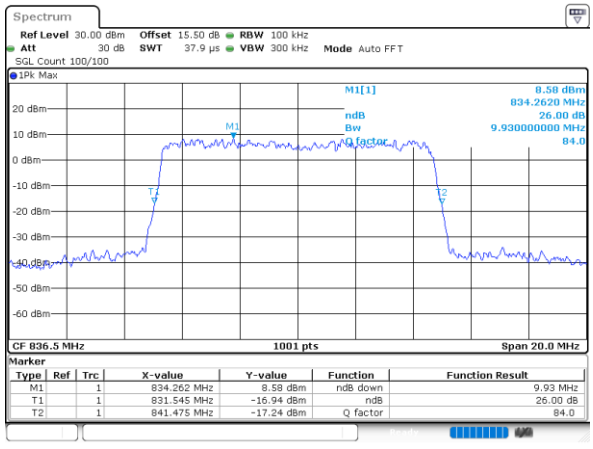
16QAM



64QAM

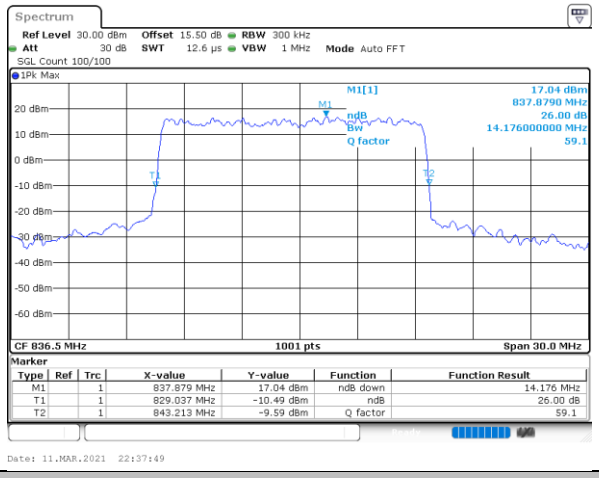


256QAM



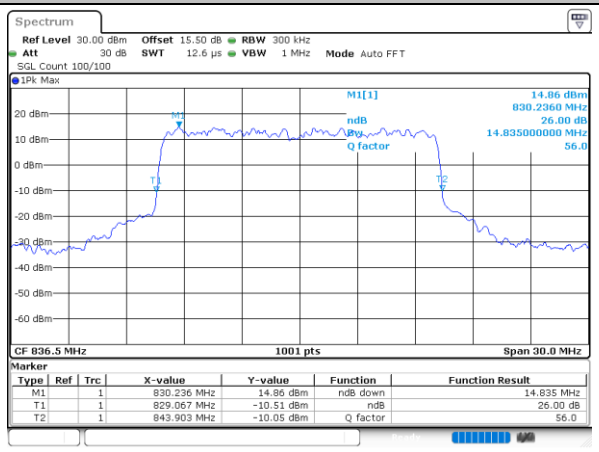
FR1 n5 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

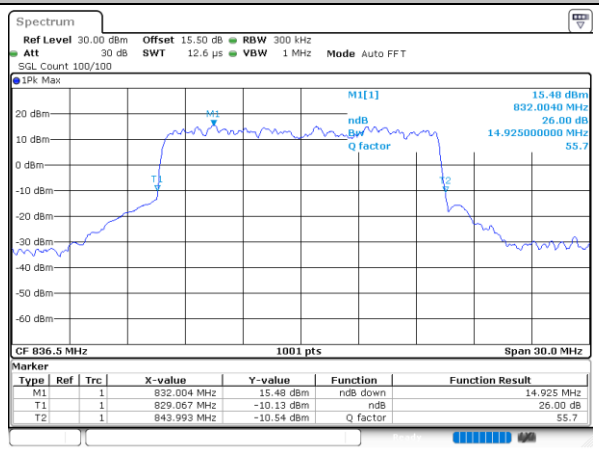


FR1 n5 / 15MHz / CP OFDM / Middle Channel / Full RB

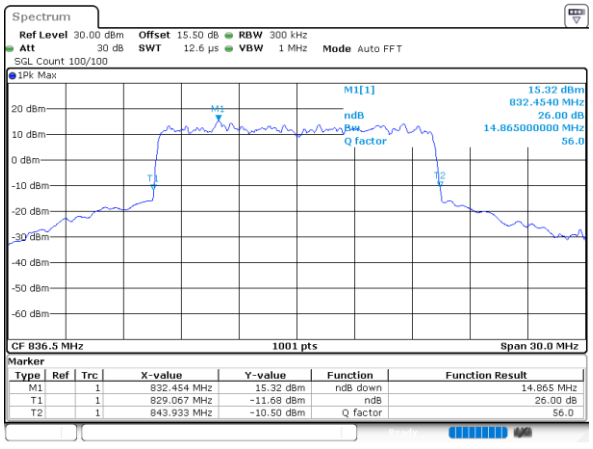
QPSK



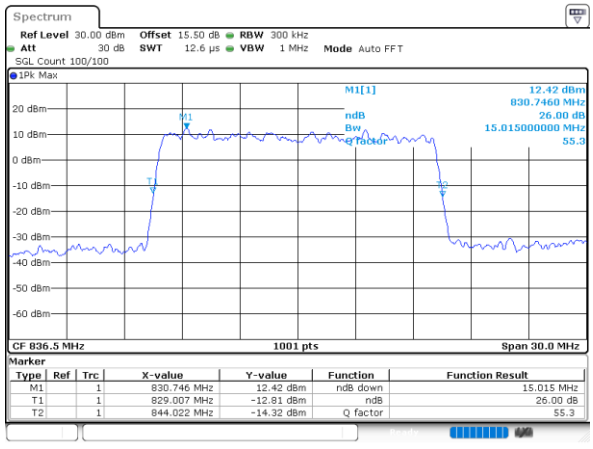
16QAM



64QAM

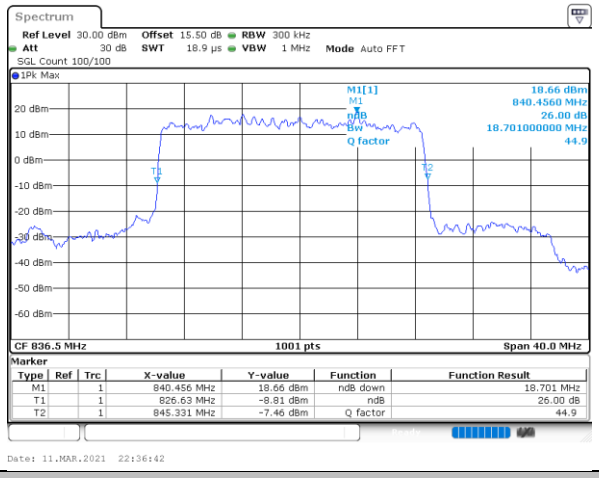


256QAM



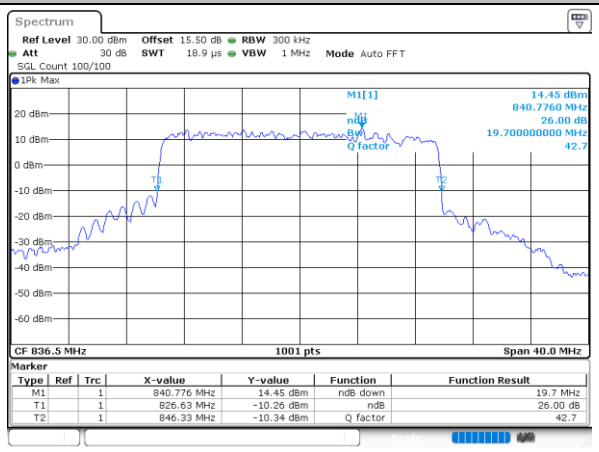
FR1 n5 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

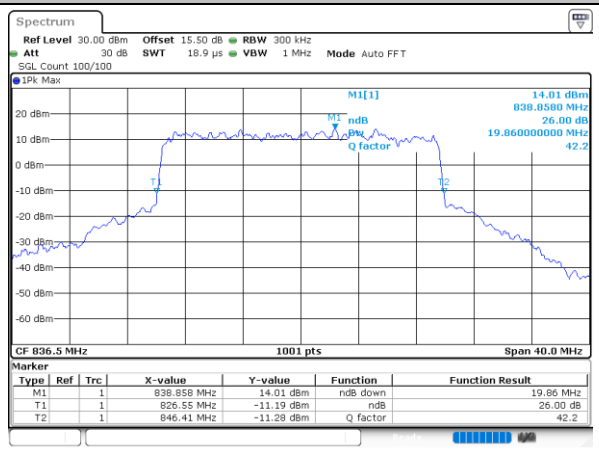


FR1 n5 / 20MHz / CP OFDM / Middle Channel / Full RB

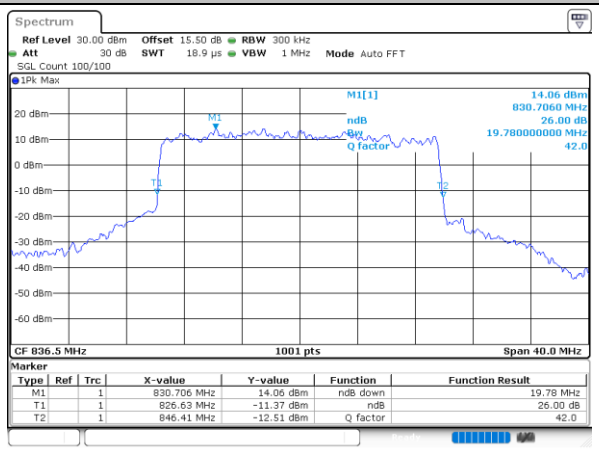
QPSK



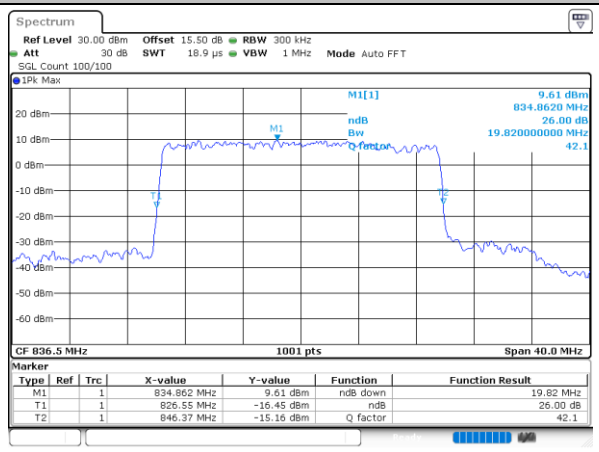
16QAM



64QAM



256QAM



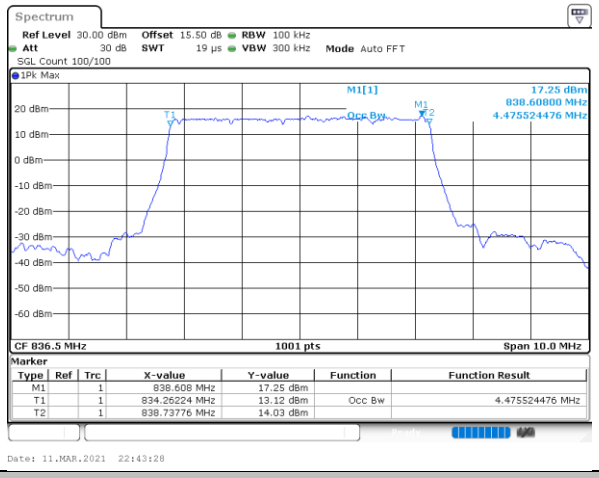
Occupied Bandwidth

Mode	FR1 n5 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.48		8.93		13.49		17.86	

Mode	FR1 n5 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.49	4.49	9.27	9.27	14.09	14.18	18.90	18.90
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.51	4.50	9.29	9.29	14.18	14.12	18.98	18.86

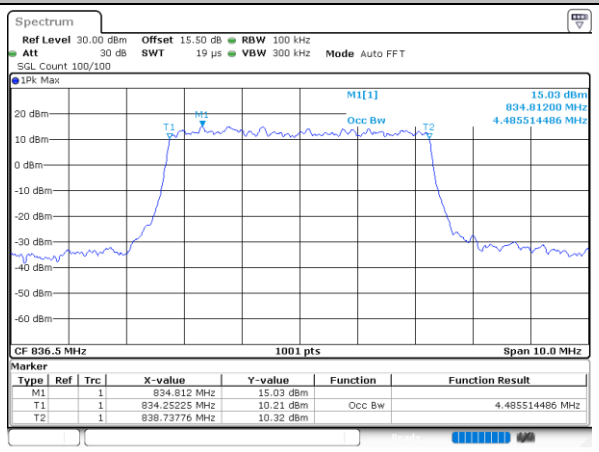
FR1 n5 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

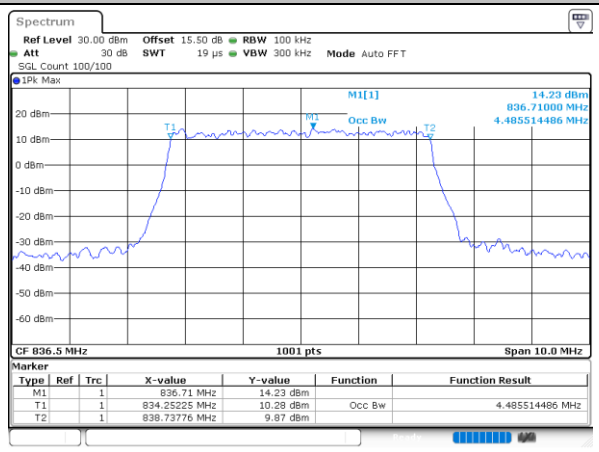


FR1 n5 / 5MHz / CP OFDM / Middle Channel / Full RB

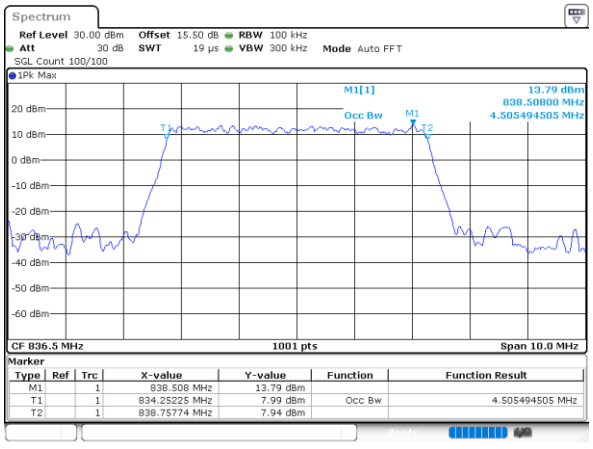
QPSK



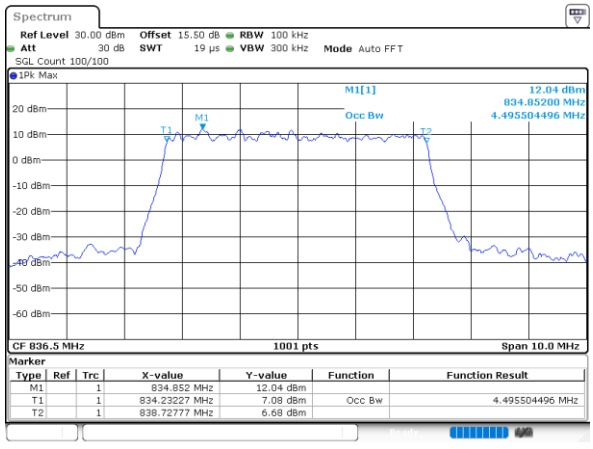
16QAM

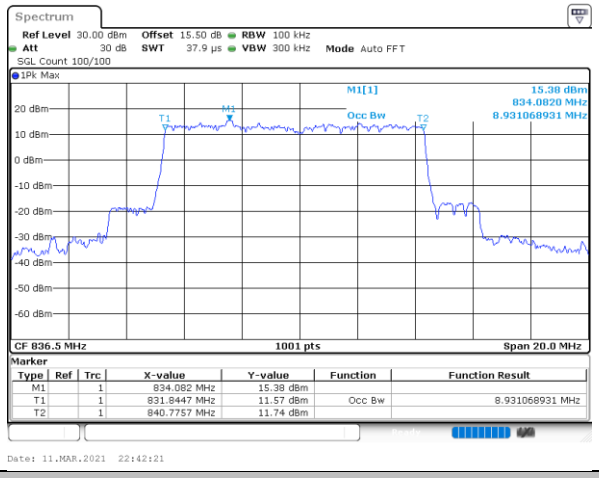


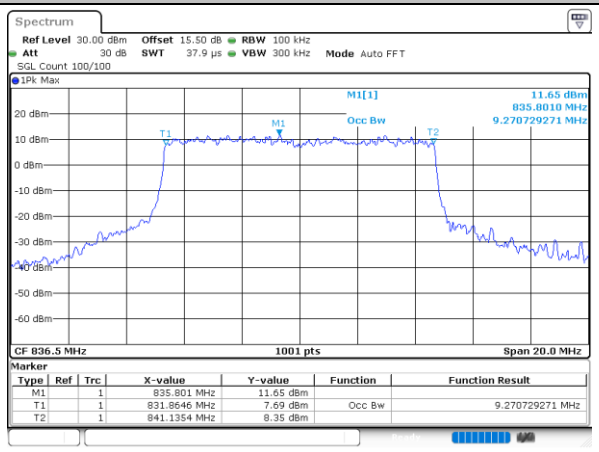
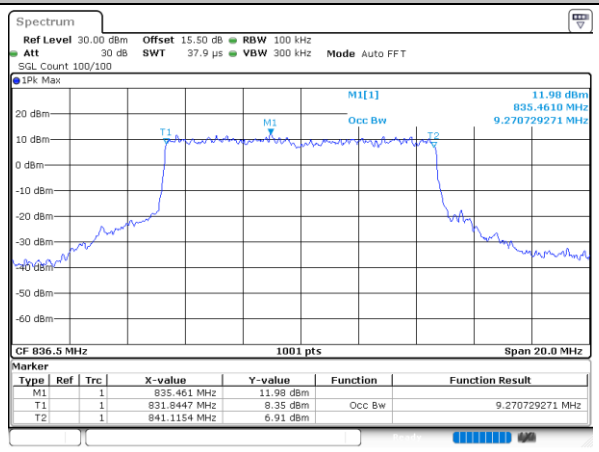
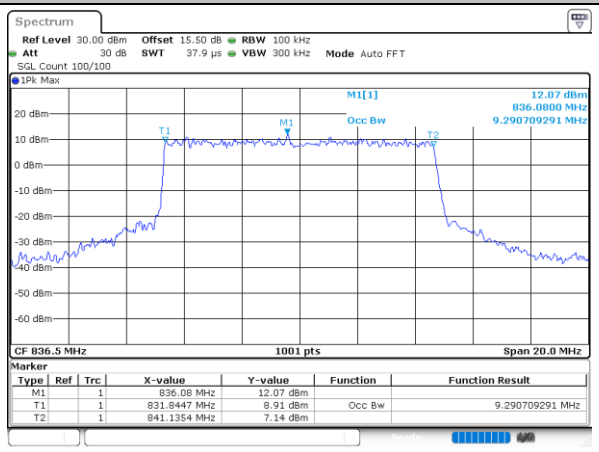
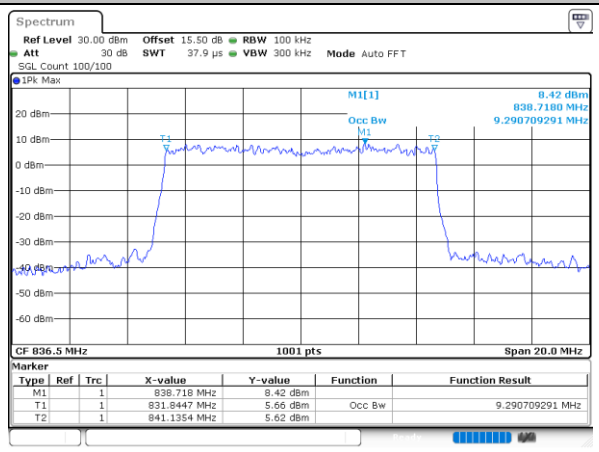
64QAM

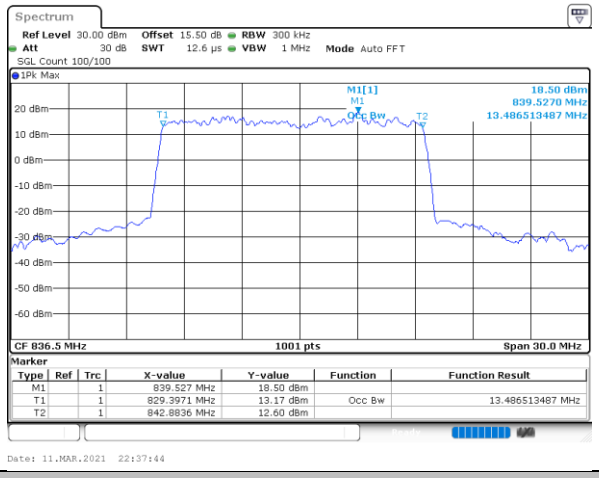


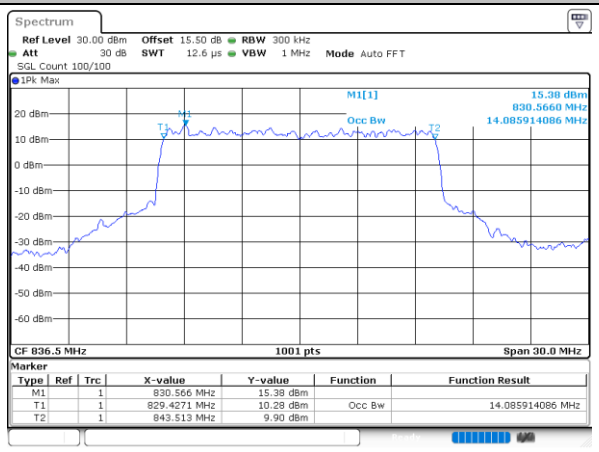
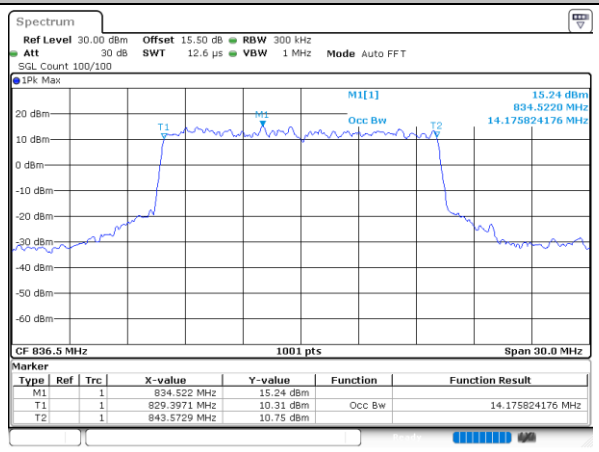
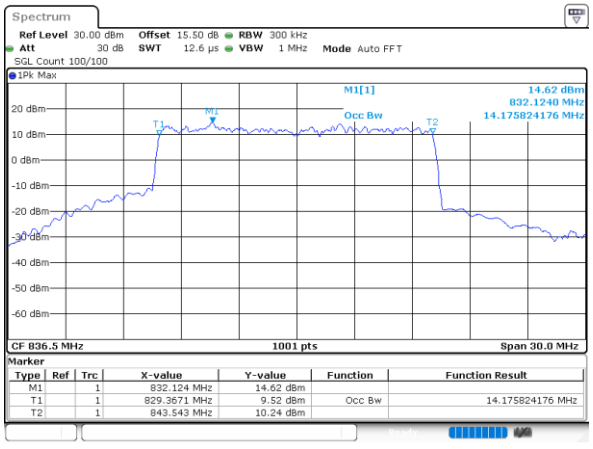
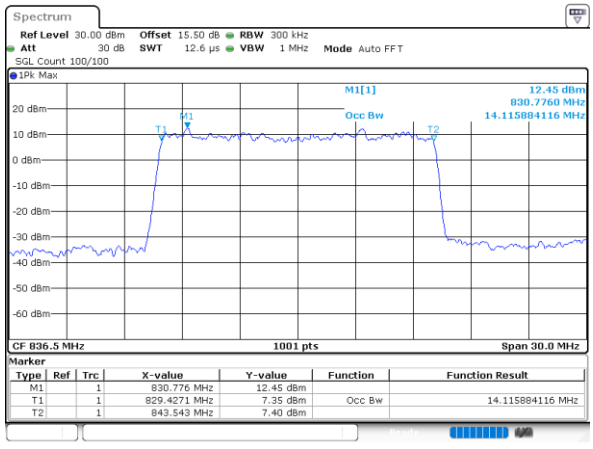
256QAM

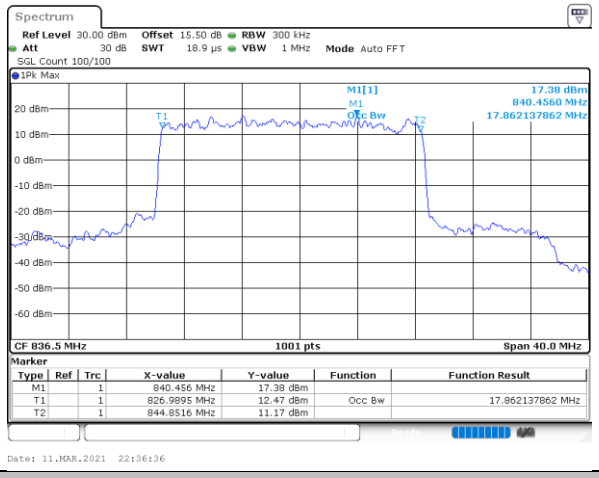


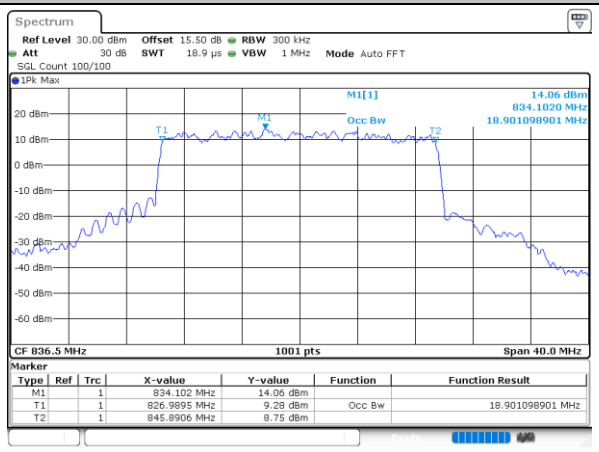
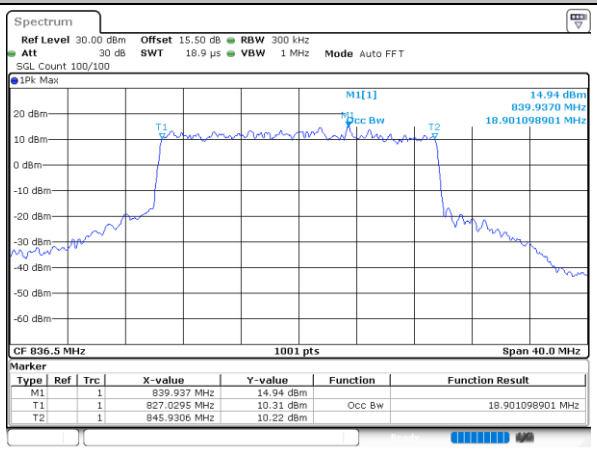
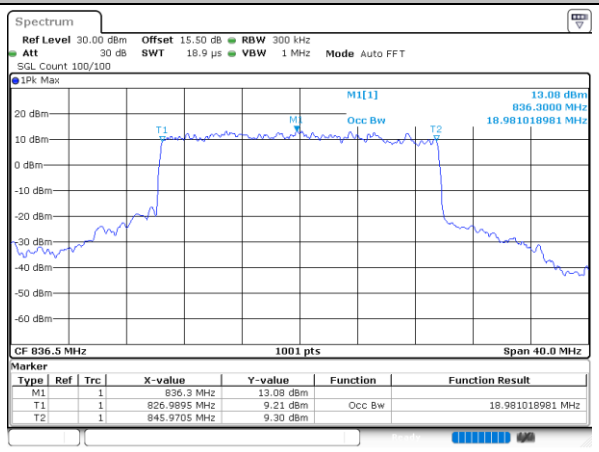
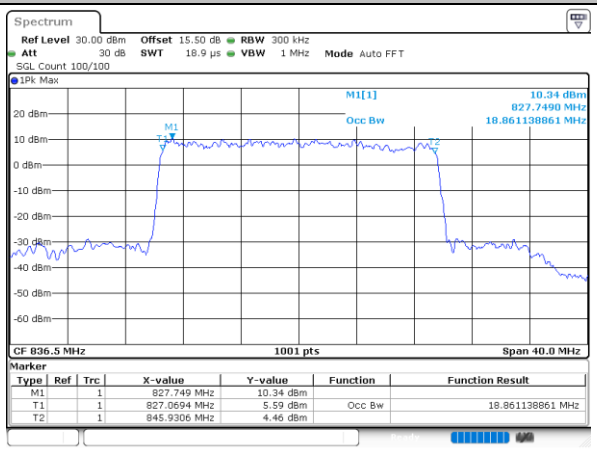
FR1 n5 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n5 / 10MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

FR1 n5 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n5 / 15MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

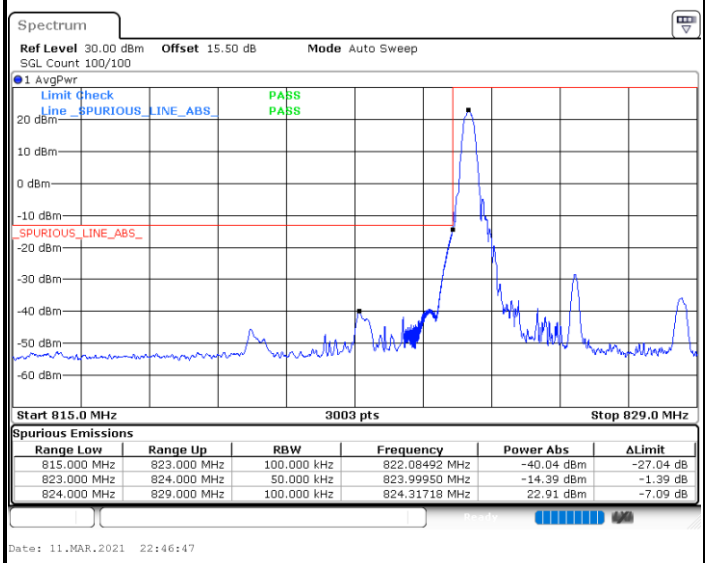
FR1 n5 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n5 / 20MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

Conducted Band Edge

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

Lowest Band Edge / 1RB0

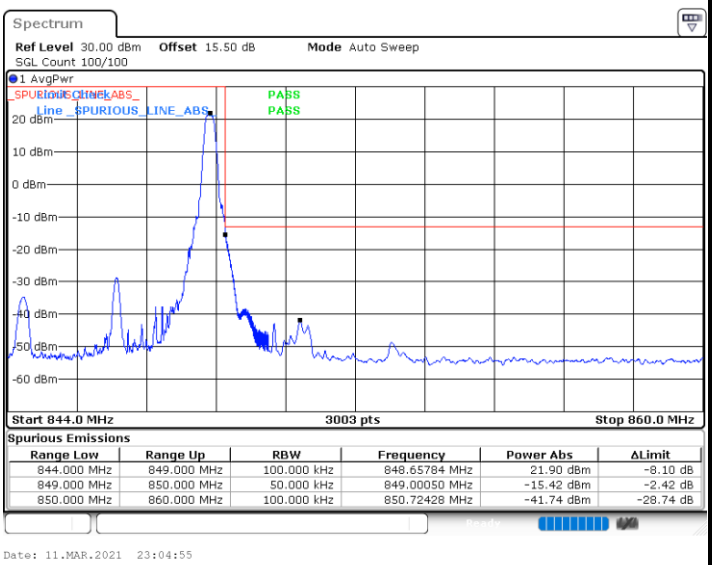


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.08492 MHz	-40.04 dBm	-27.04 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99950 MHz	-14.39 dBm	-1.39 dB
824.000 MHz	829.000 MHz	100.000 kHz	824.31718 MHz	22.91 dBm	-7.09 dB

Date: 11.MAR.2021 22:46:47

Highest Band Edge / 1RBmax

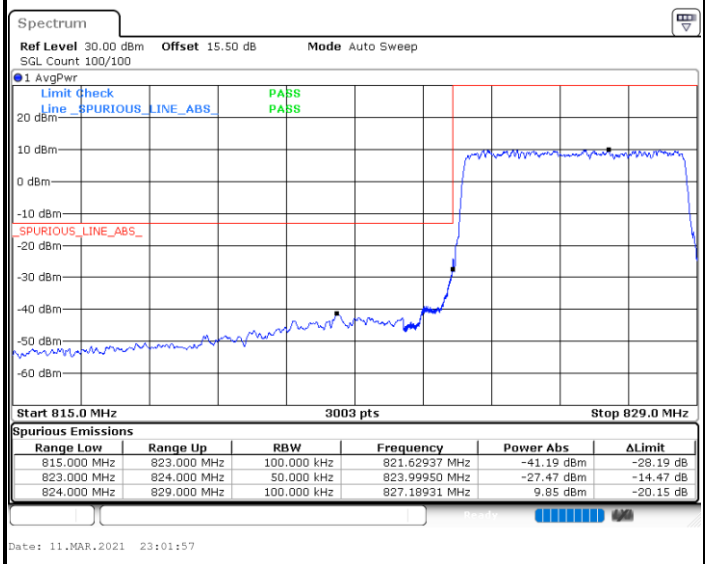


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	848.65784 MHz	21.90 dBm	-8.10 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00050 MHz	-15.42 dBm	-2.42 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.72428 MHz	-41.74 dBm	-28.74 dB

Date: 11.MAR.2021 23:04:55

Lowest Band Edge / Full RB

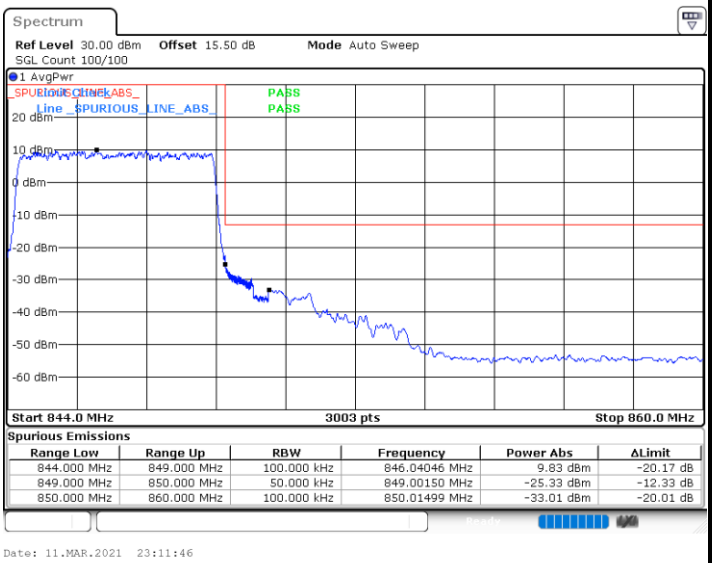


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	821.62937 MHz	-41.19 dBm	-28.19 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99950 MHz	-27.47 dBm	-14.47 dB
824.000 MHz	829.000 MHz	100.000 kHz	827.18931 MHz	9.85 dBm	-20.15 dB

Date: 11.MAR.2021 23:01:57

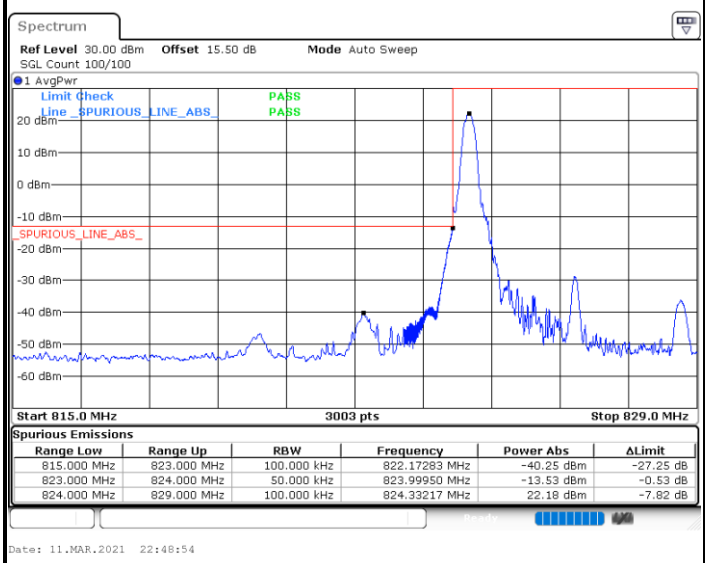
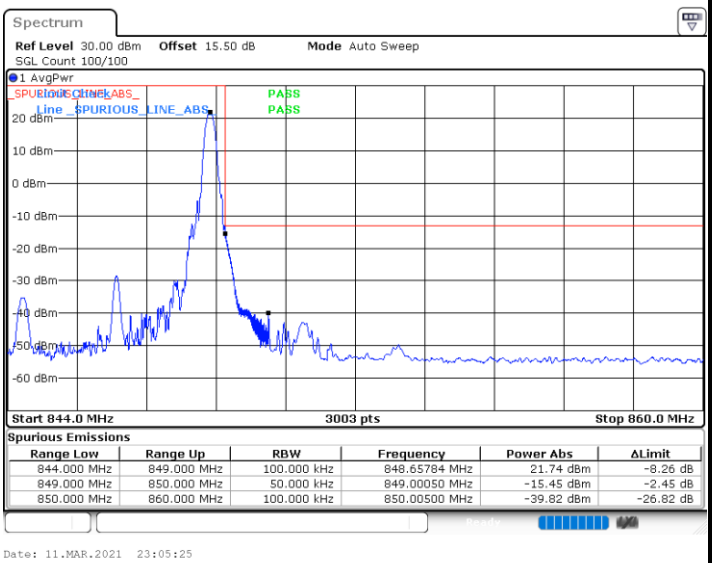
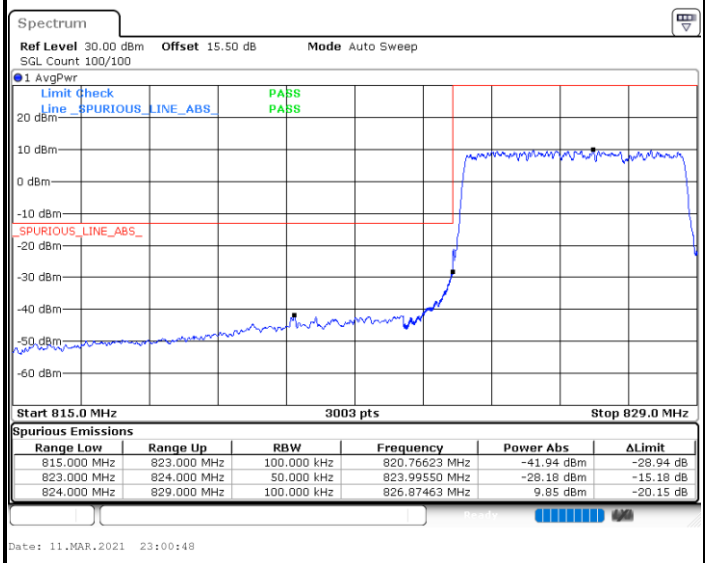
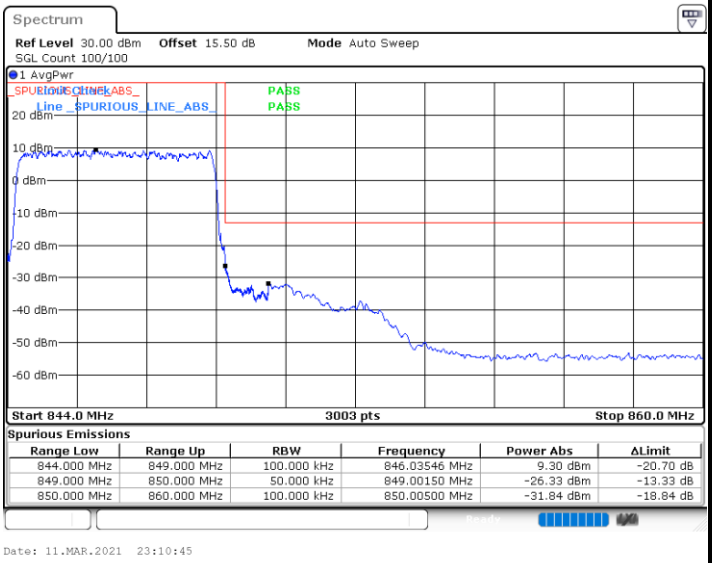
Highest Band Edge / Full RB



Spurious Emissions

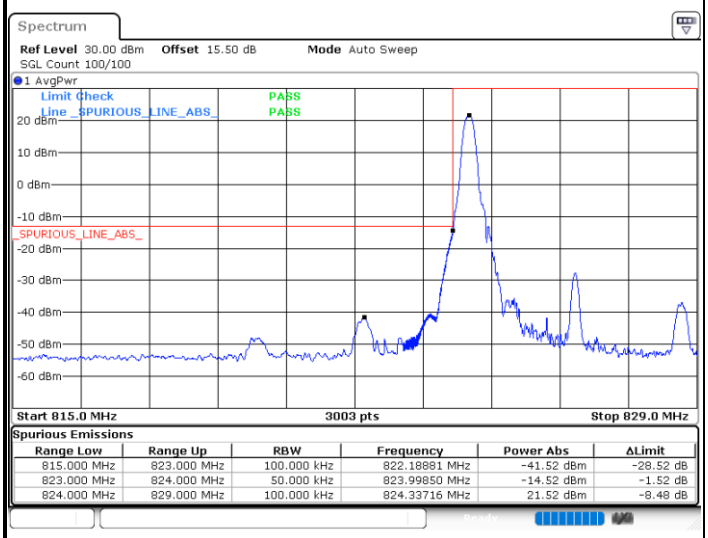
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	846.04046 MHz	9.83 dBm	-20.17 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00150 MHz	-25.33 dBm	-12.33 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.01499 MHz	-33.01 dBm	-20.01 dB

Date: 11.MAR.2021 23:11:46

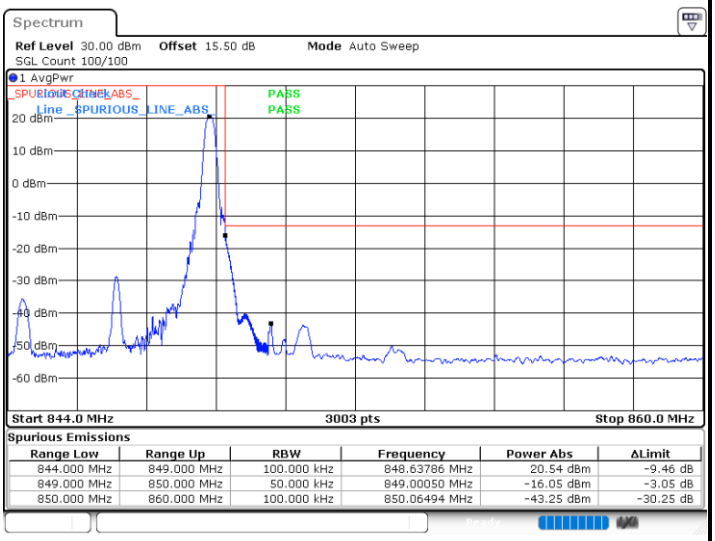
FR1 n5 / 5MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n5 / 5MHz / DFT-S OFDM / 16QAM

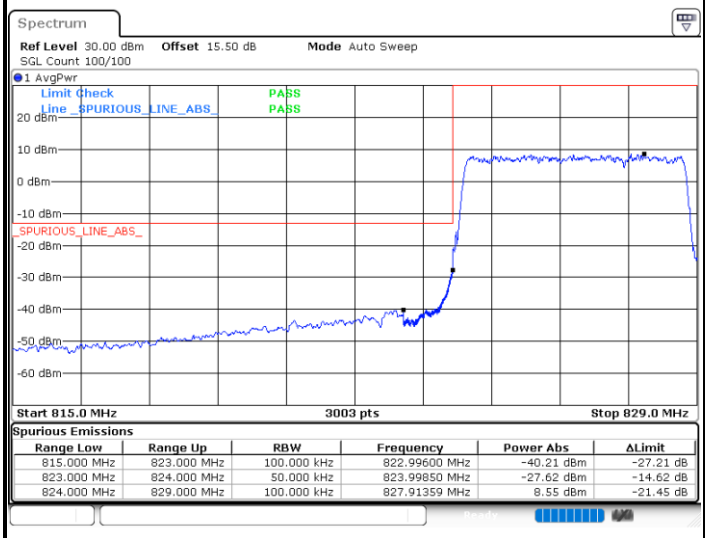
Lowest Band Edge / 1RB0



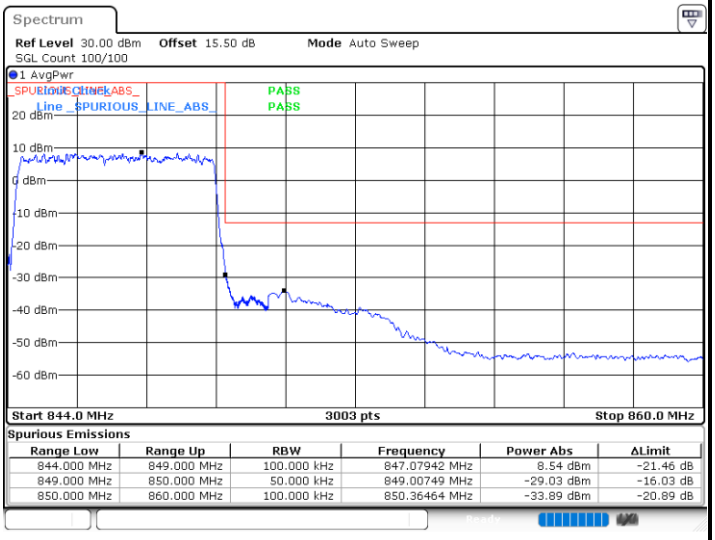
Highest Band Edge / 1RBmax

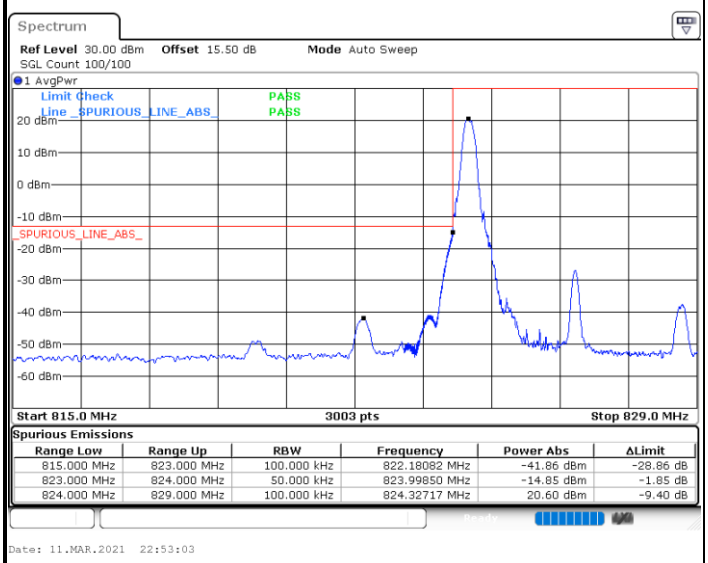
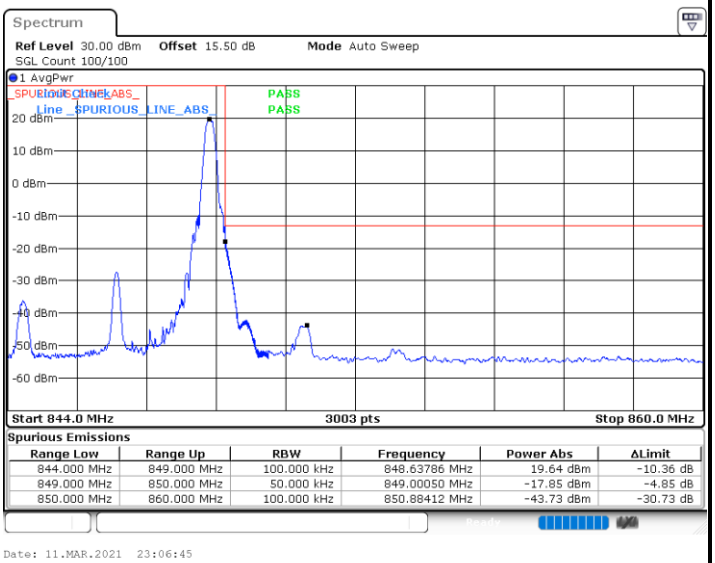
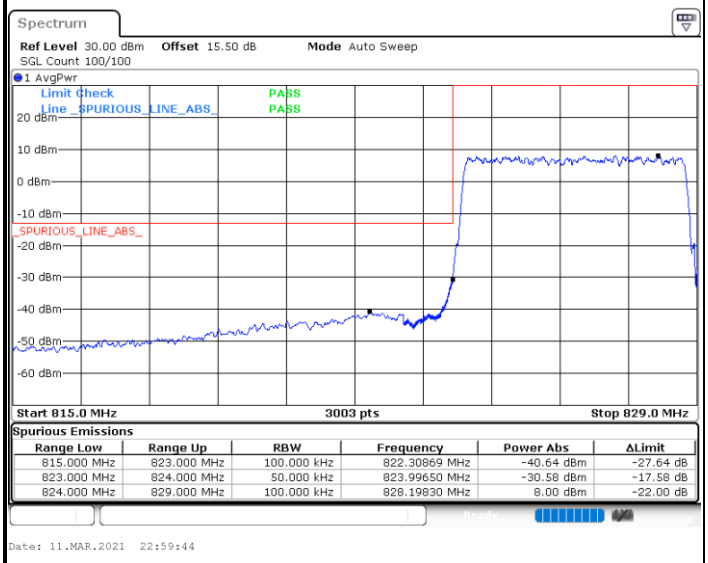
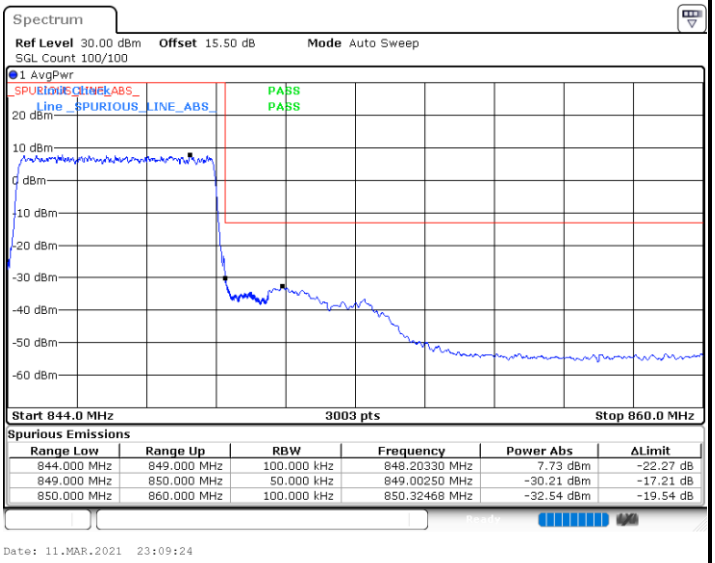


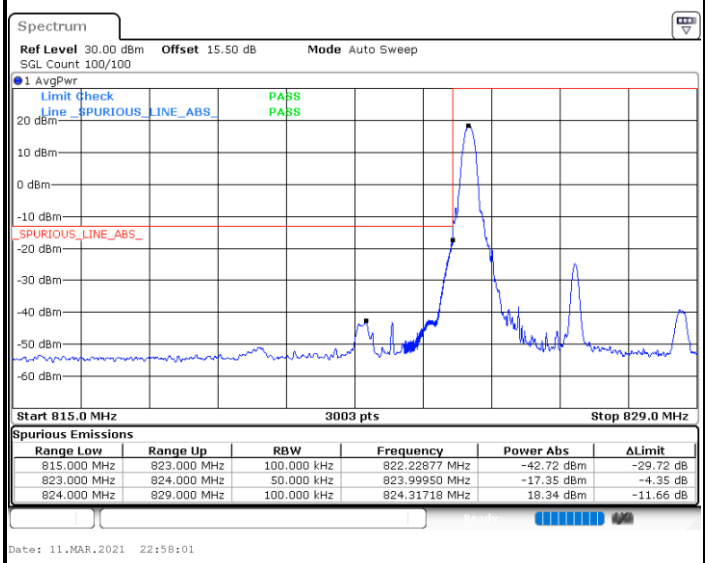
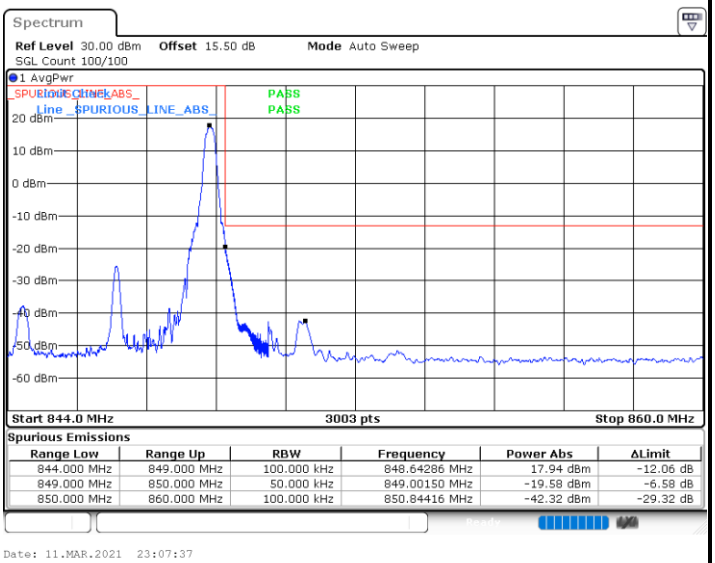
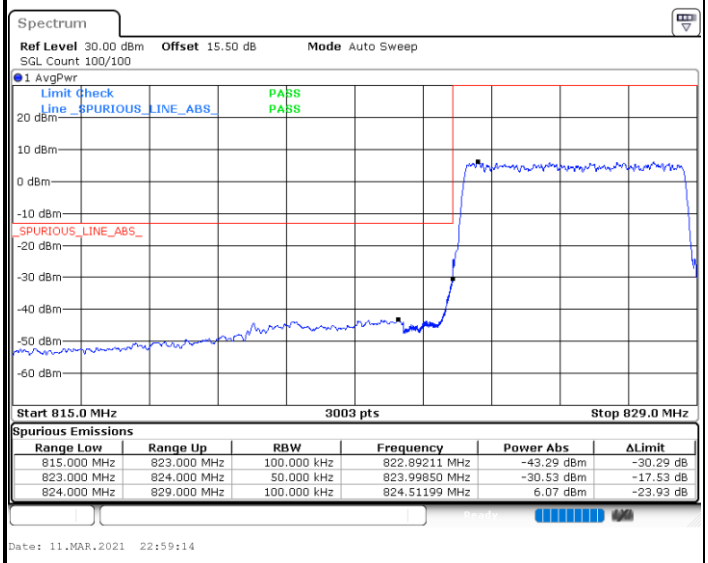
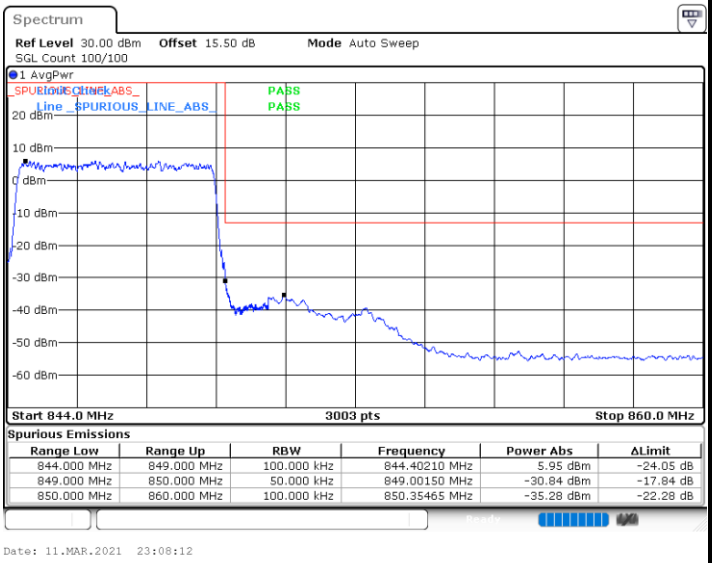
Lowest Band Edge / Full RB



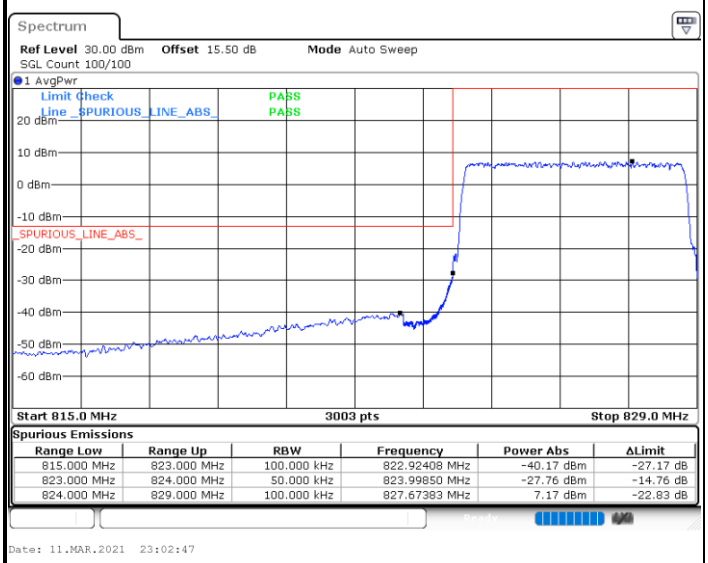
Highest Band Edge / Full RB

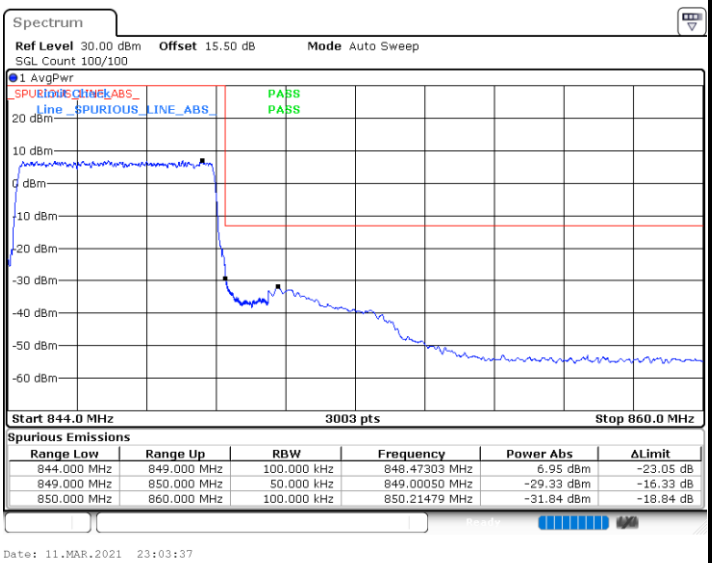


FR1 n5 / 5MHz / DFT-S OFDM / 64QAM	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 815.000 MHz | 823.000 MHz | 100.000 kHz | 822.18082 MHz | -41.86 dBm | -28.86 dB 823.000 MHz | 824.000 MHz | 50.000 kHz | 823.99850 MHz | -14.85 dBm | -1.85 dB 824.000 MHz | 829.000 MHz | 100.000 kHz | 824.32717 MHz | 20.60 dBm | -9.40 dB Date: 11.MAR.2021 22:53:03	 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 844.000 MHz | 849.000 MHz | 100.000 kHz | 848.63786 MHz | 19.64 dBm | -10.36 dB 849.000 MHz | 850.000 MHz | 50.000 kHz | 849.00050 MHz | -17.85 dBm | -4.85 dB 850.000 MHz | 860.000 MHz | 100.000 kHz | 850.88412 MHz | -43.73 dBm | -30.73 dB Date: 11.MAR.2021 23:06:45
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 815.000 MHz | 823.000 MHz | 100.000 kHz | 822.30869 MHz | -40.64 dBm | -27.64 dB 823.000 MHz | 824.000 MHz | 50.000 kHz | 823.99650 MHz | -30.58 dBm | -17.58 dB 824.000 MHz | 829.000 MHz | 100.000 kHz | 828.19830 MHz | 8.00 dBm | -22.00 dB Date: 11.MAR.2021 22:59:44	 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 844.000 MHz | 849.000 MHz | 100.000 kHz | 848.20330 MHz | 7.73 dBm | -22.27 dB 849.000 MHz | 850.000 MHz | 50.000 kHz | 849.00250 MHz | -30.21 dBm | -17.21 dB 850.000 MHz | 860.000 MHz | 100.000 kHz | 850.32468 MHz | -32.54 dBm | -19.54 dB Date: 11.MAR.2021 23:09:24

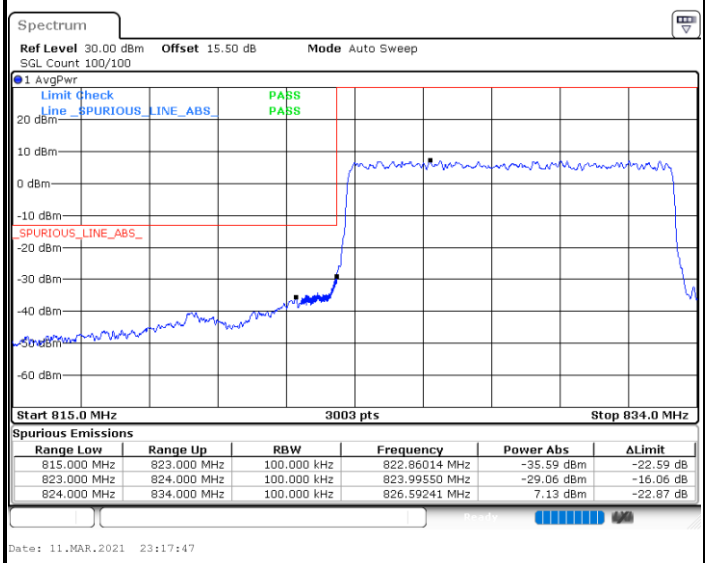
FR1 n5 / 5MHz / DFT-S OFDM / 256QAM	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

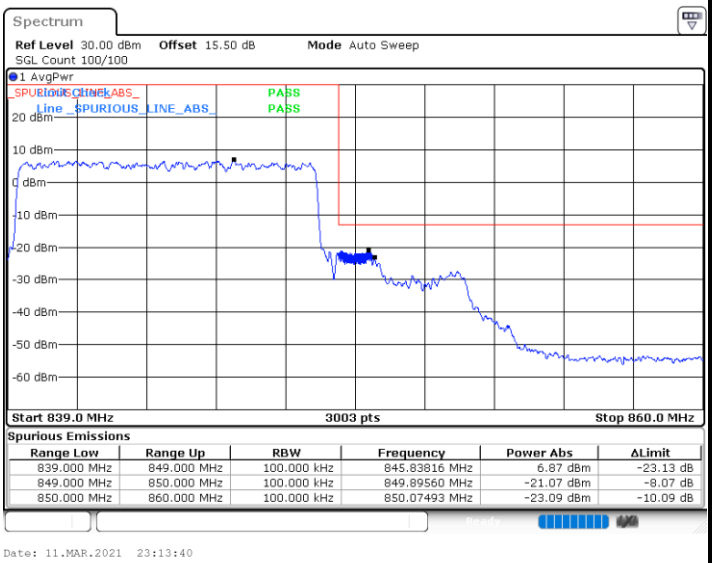
FR1 n5 / 5MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



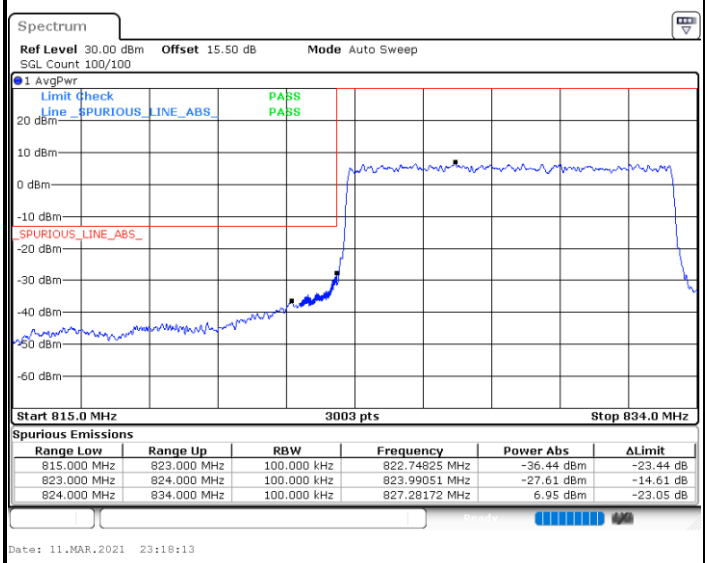


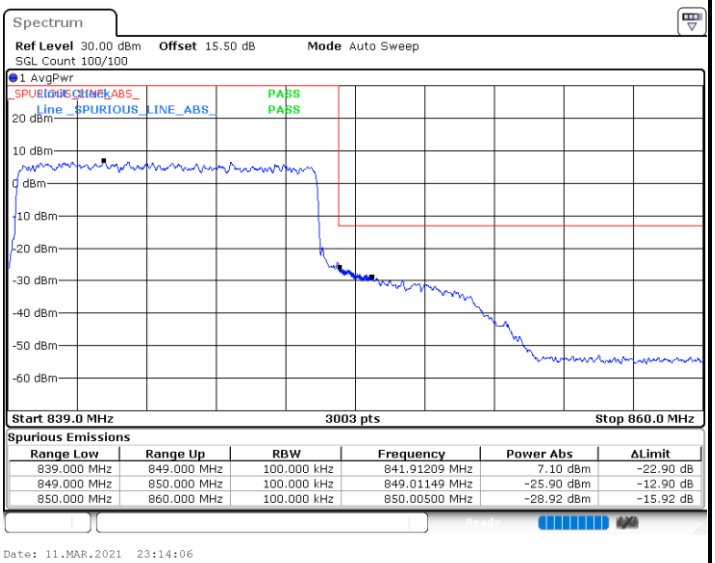
FR1 n5 / 10MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



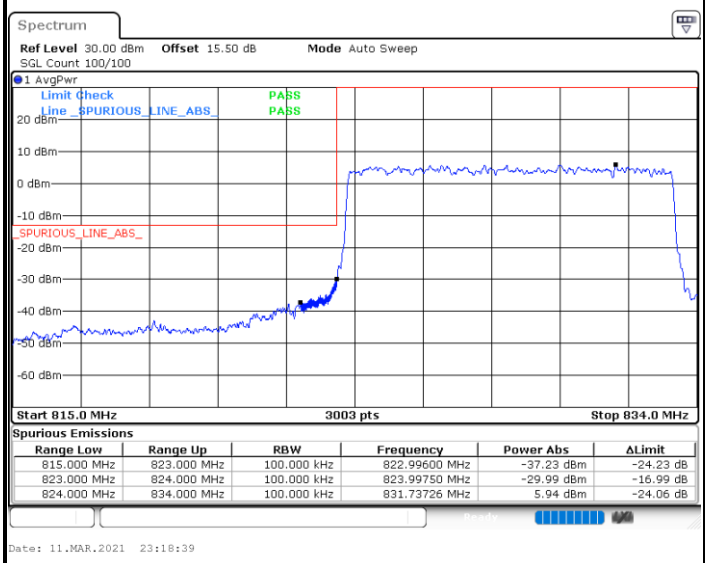


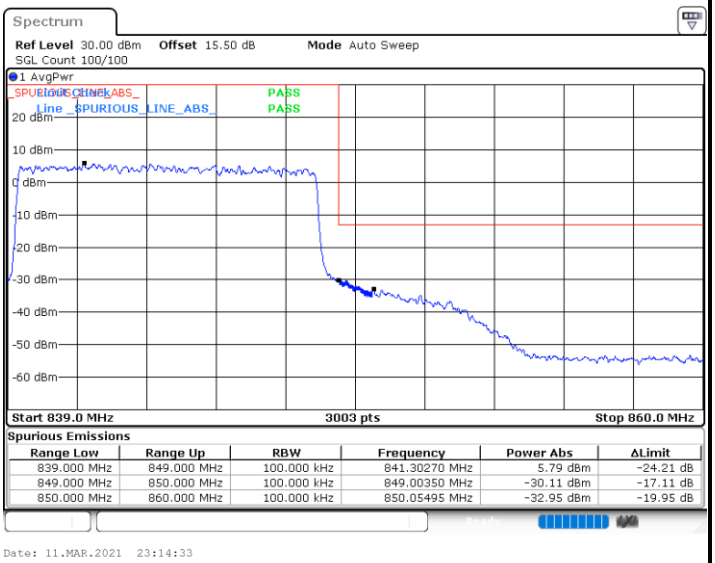
FR1 n5 / 10MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



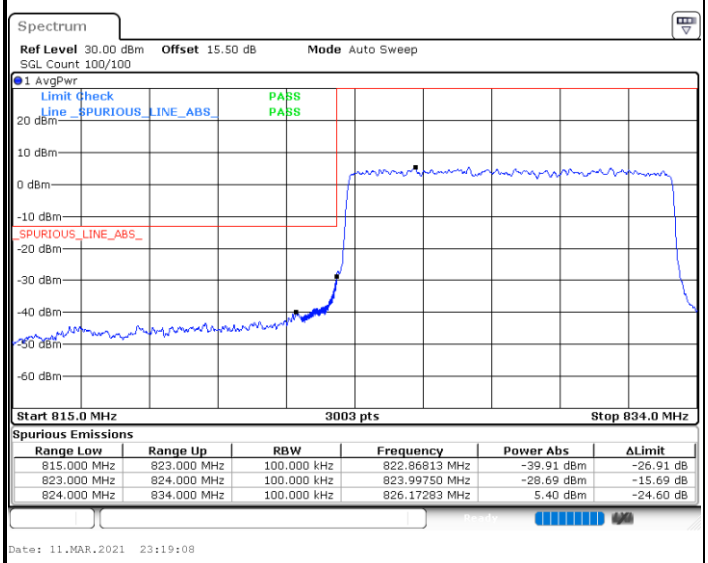


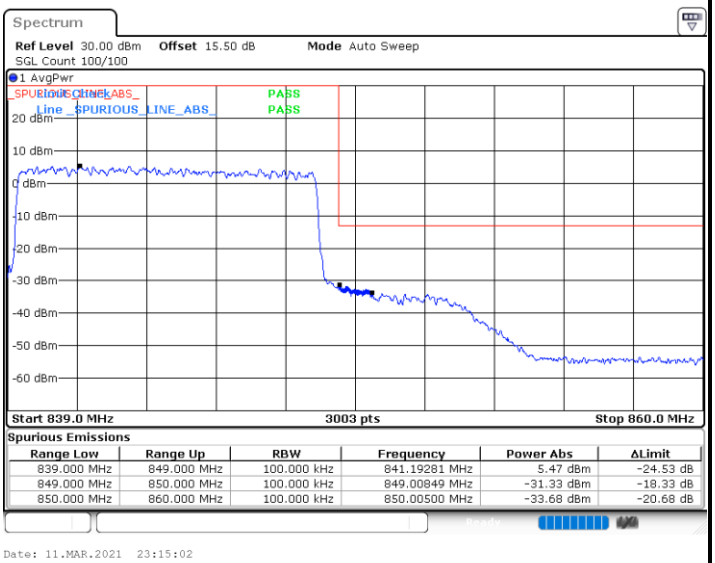
FR1 n5 / 10MHz / DFT-s-OFDM / 16QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



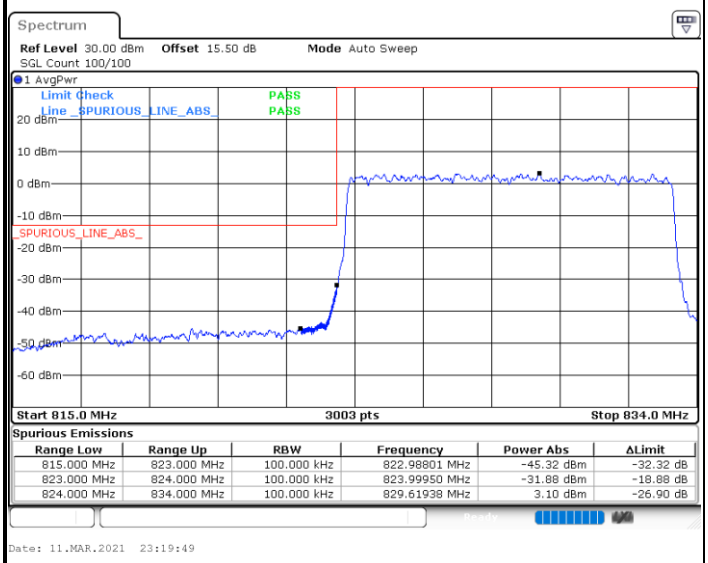


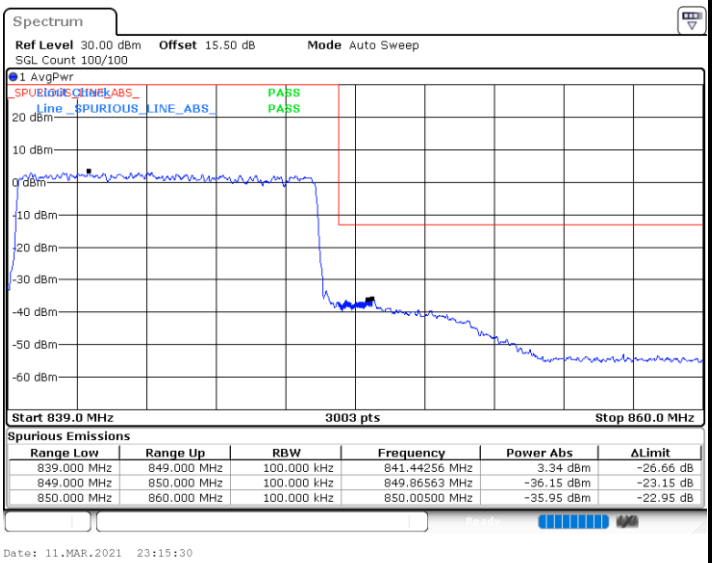
FR1 n5 / 10MHz / DFT-s-OFDM / 64QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



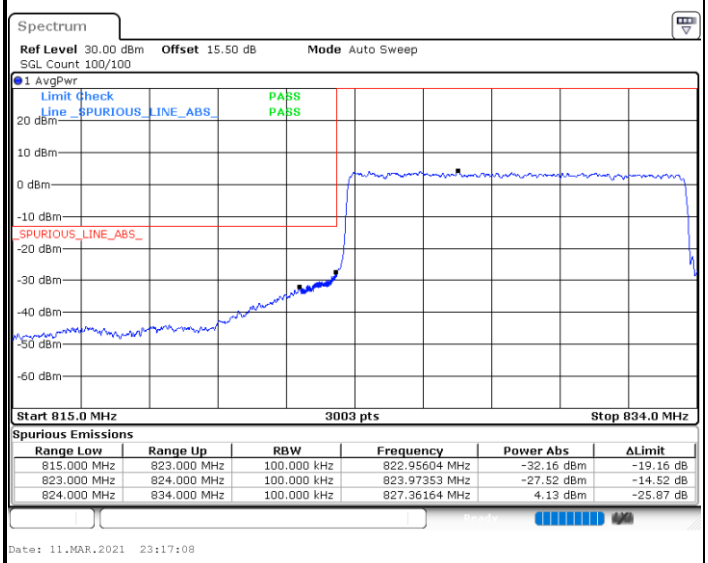


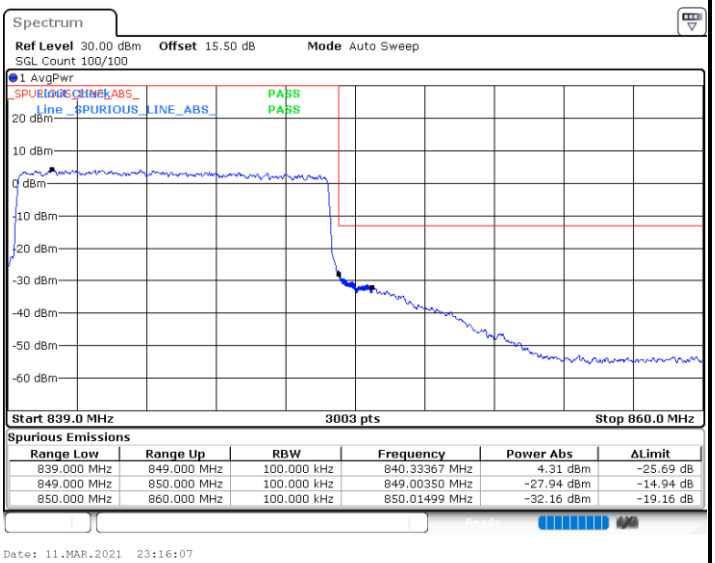
FR1 n5 / 10MHz / DFT-s-OFDM / 256QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



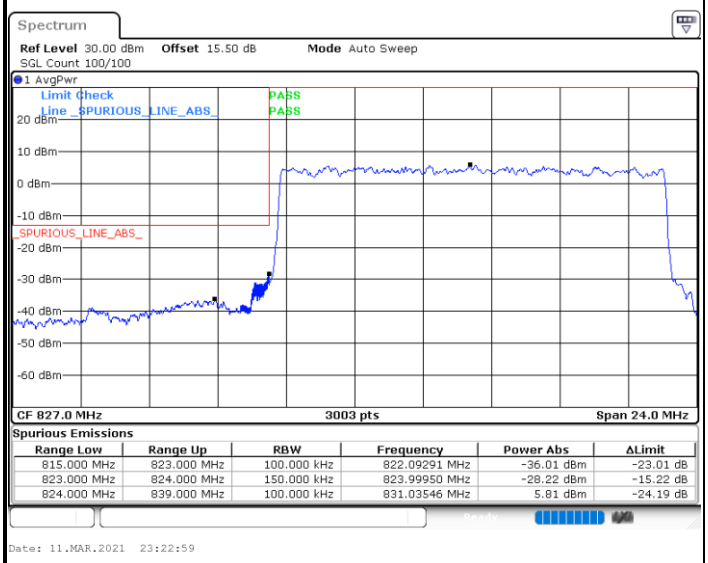


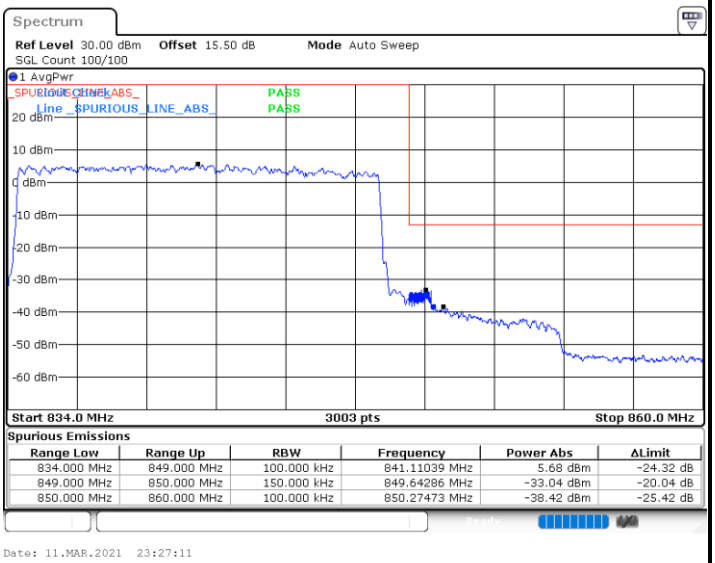
FR1 n5 / 10MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



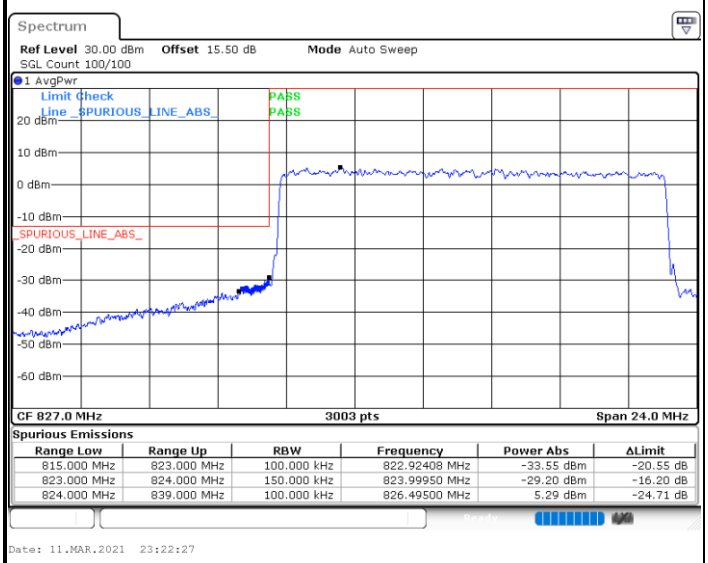


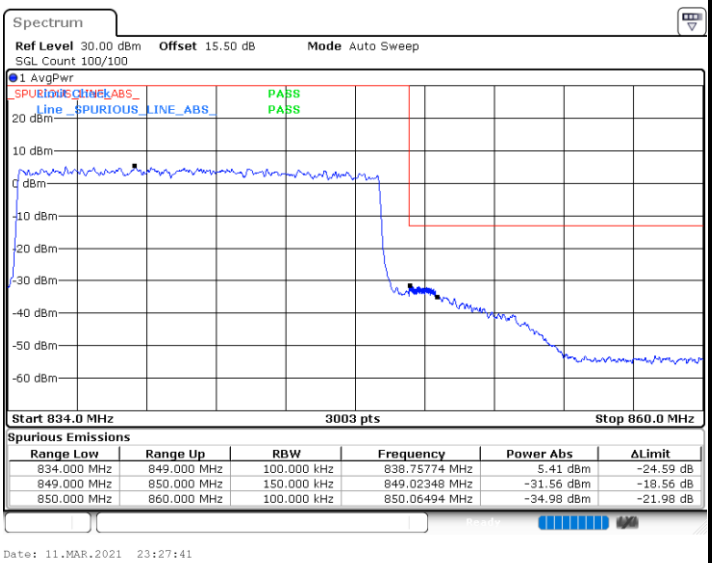
FR1 n5 / 15MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



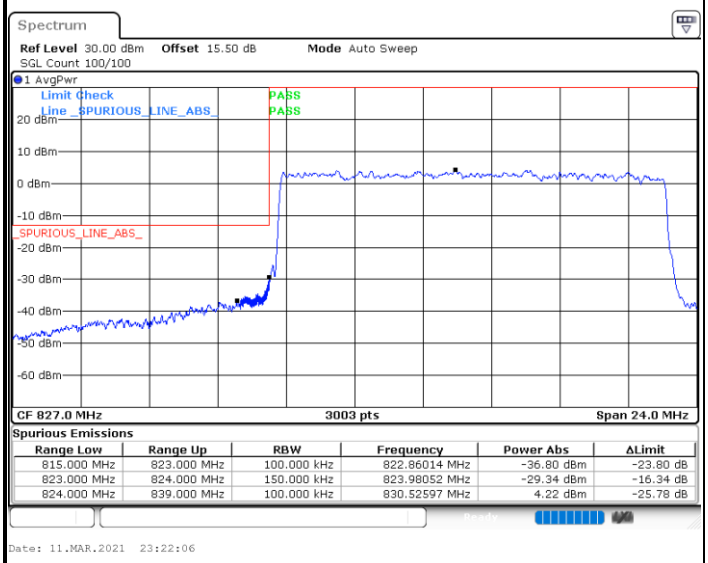


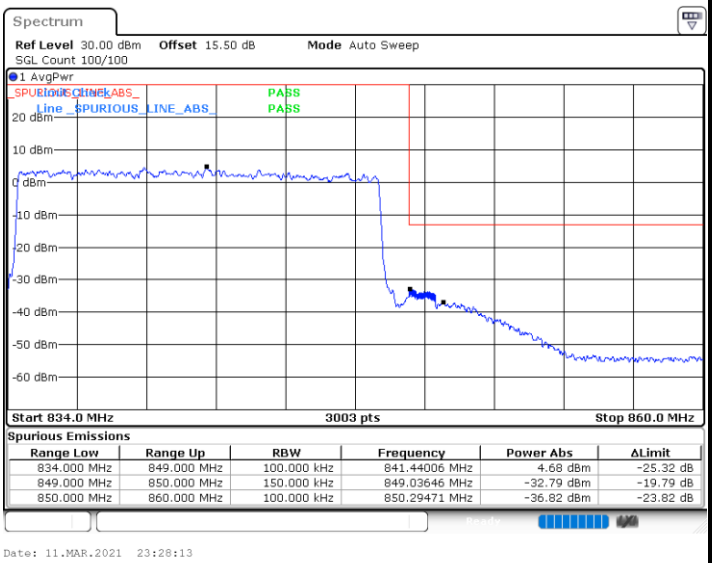
FR1 n5 / 15MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**





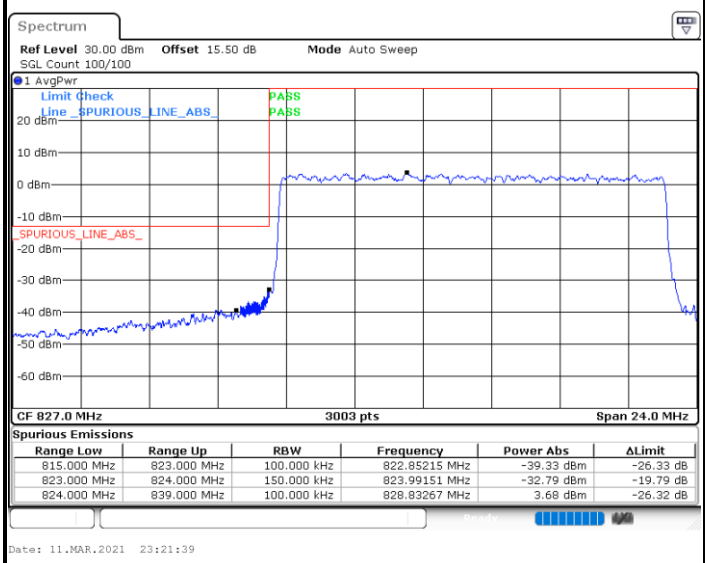
FR1 n5 / 15MHz / DFT-s-OFDM / 16QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



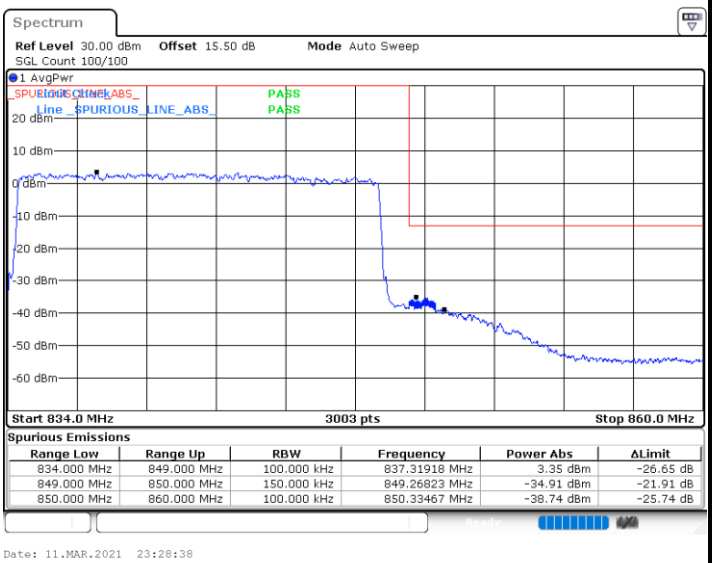


FR1 n5 / 15MHz / DFT-s-OFDM / 64QAM / Full RB

Lowest Band Edge

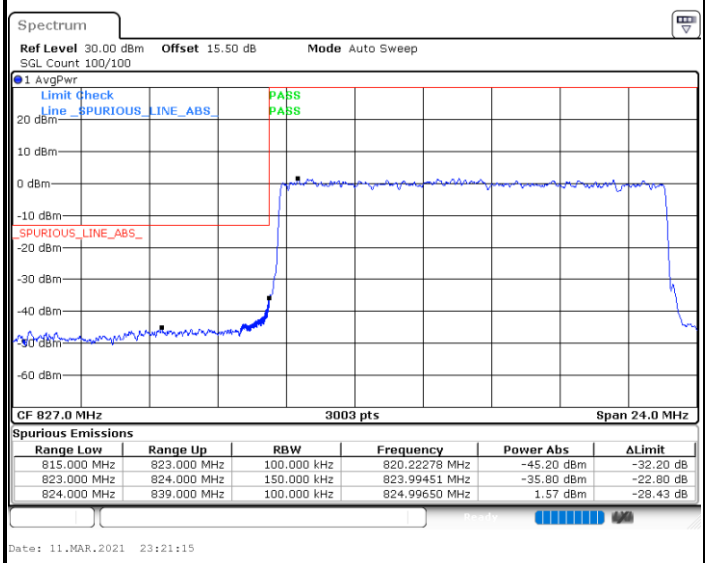


Highest Band Edge

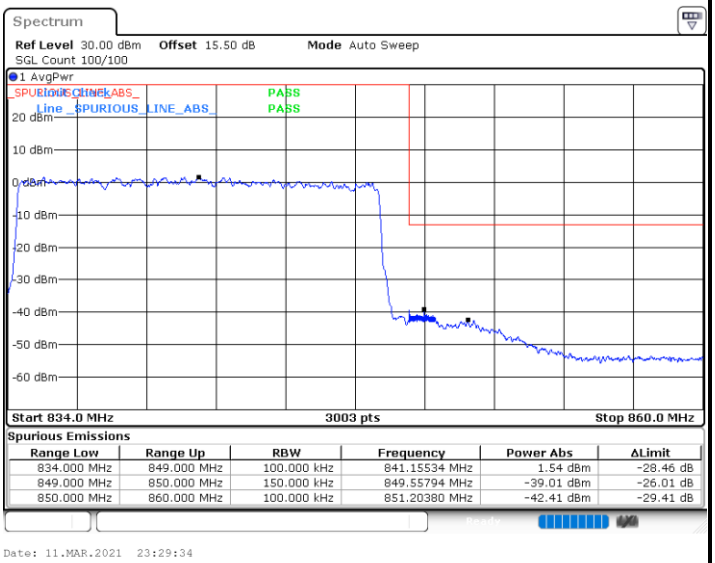


FR1 n5 / 15MHz / DFT-s-OFDM / 256QAM / Full RB

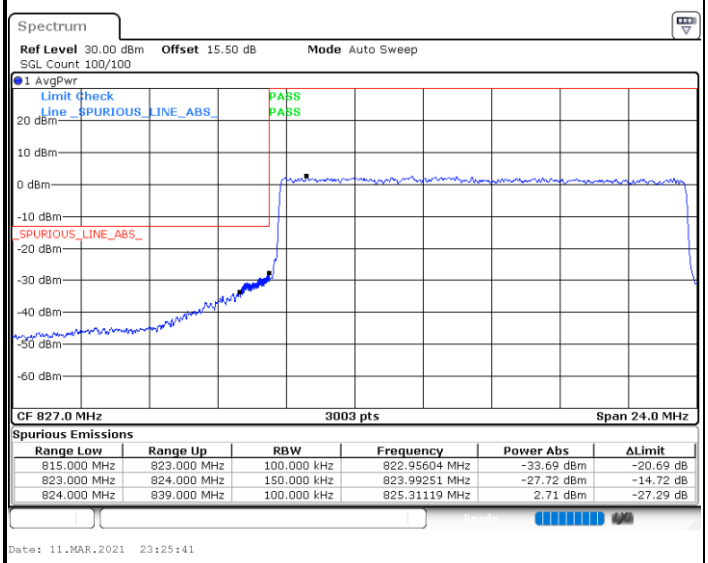
Lowest Band Edge

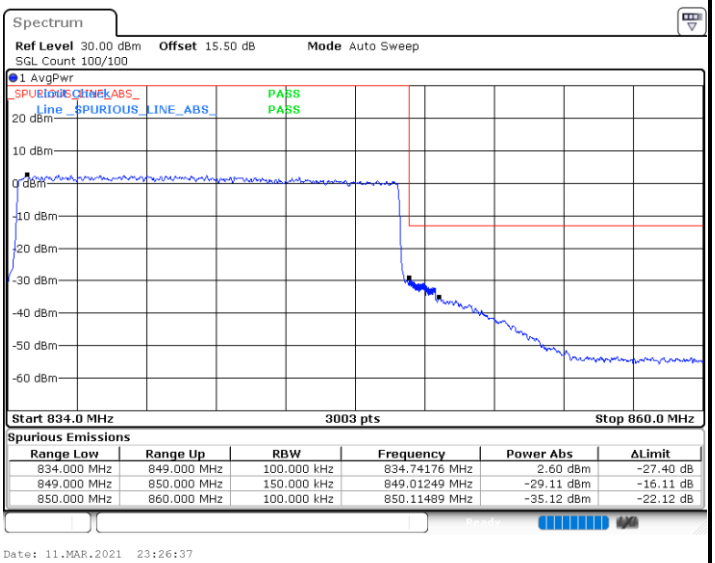


Highest Band Edge

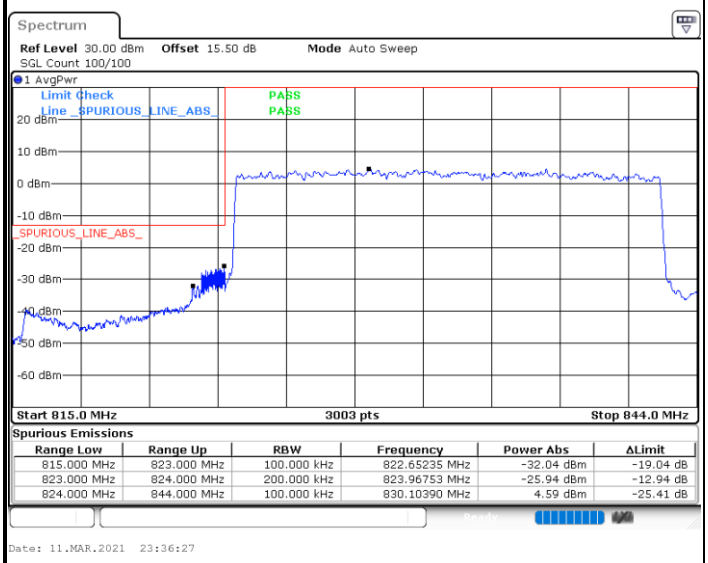


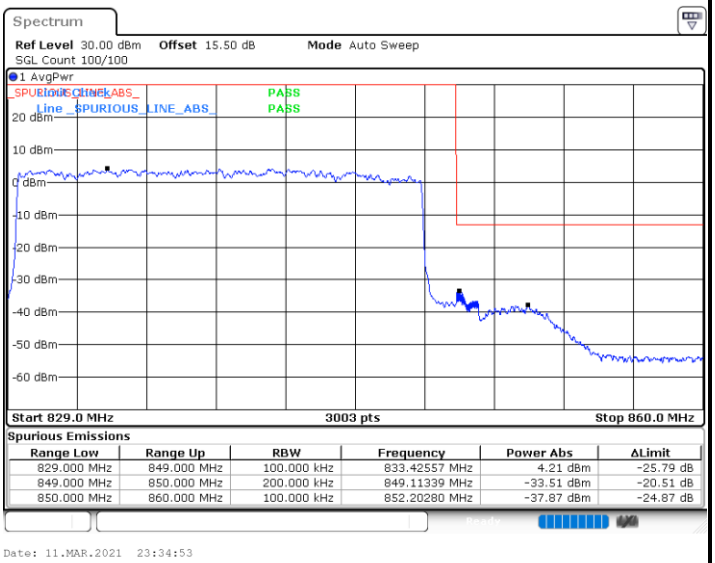
FR1 n5 / 15MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



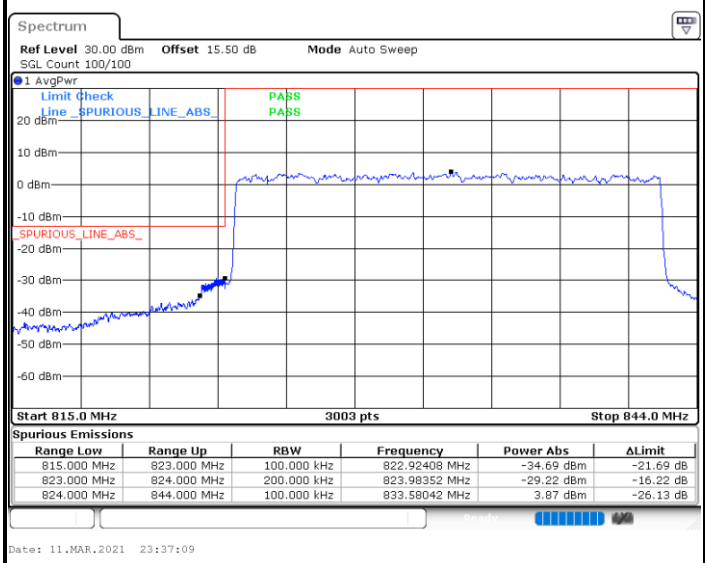


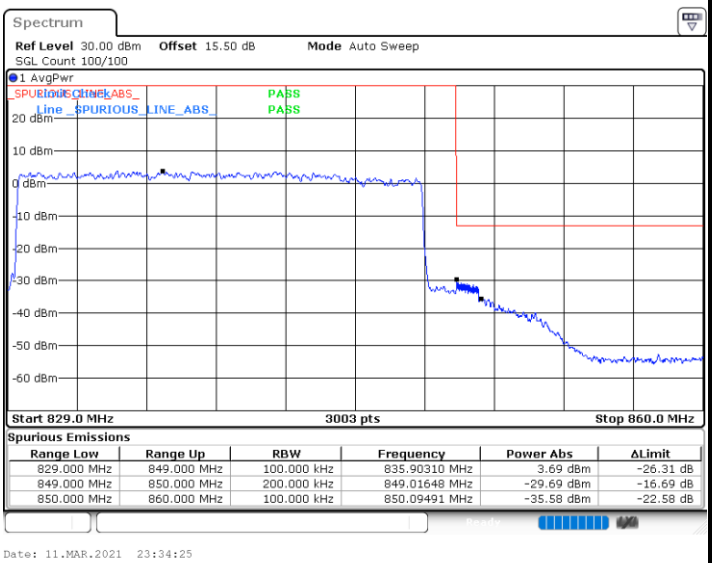
FR1 n5 / 20MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**





FR1 n5 / 20MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**





FR1 n5 / 20MHz / DFT-s-OFDM / 16QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**