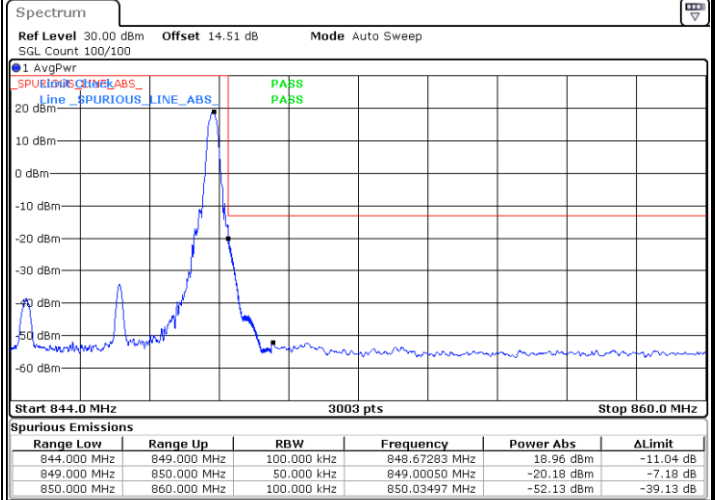
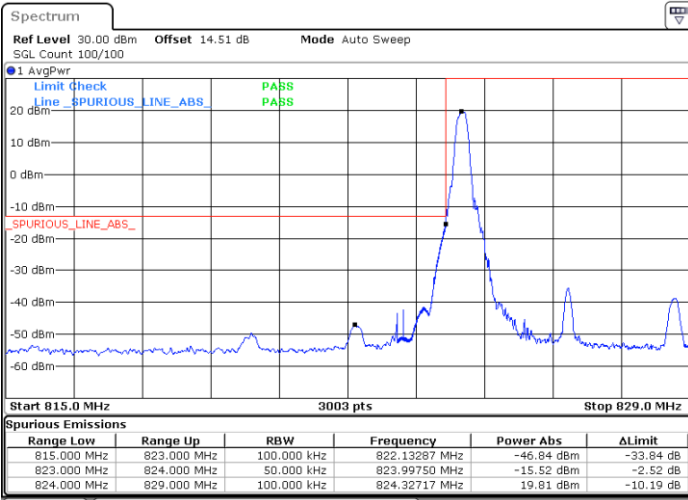




FR1 n5 / 5MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0

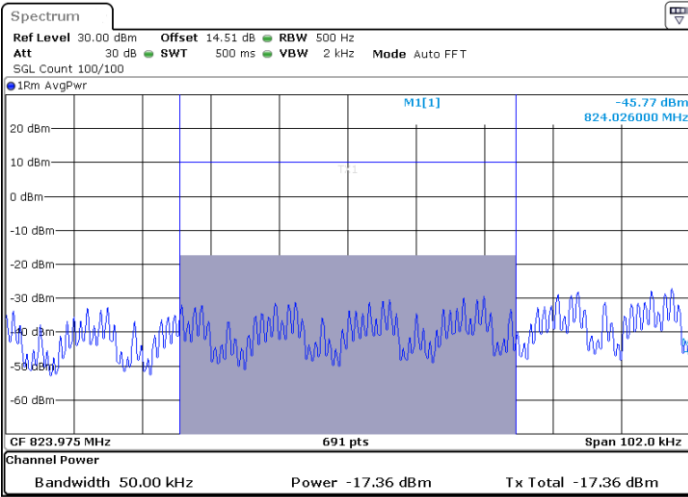
Highest Band Edge / 1RBmax



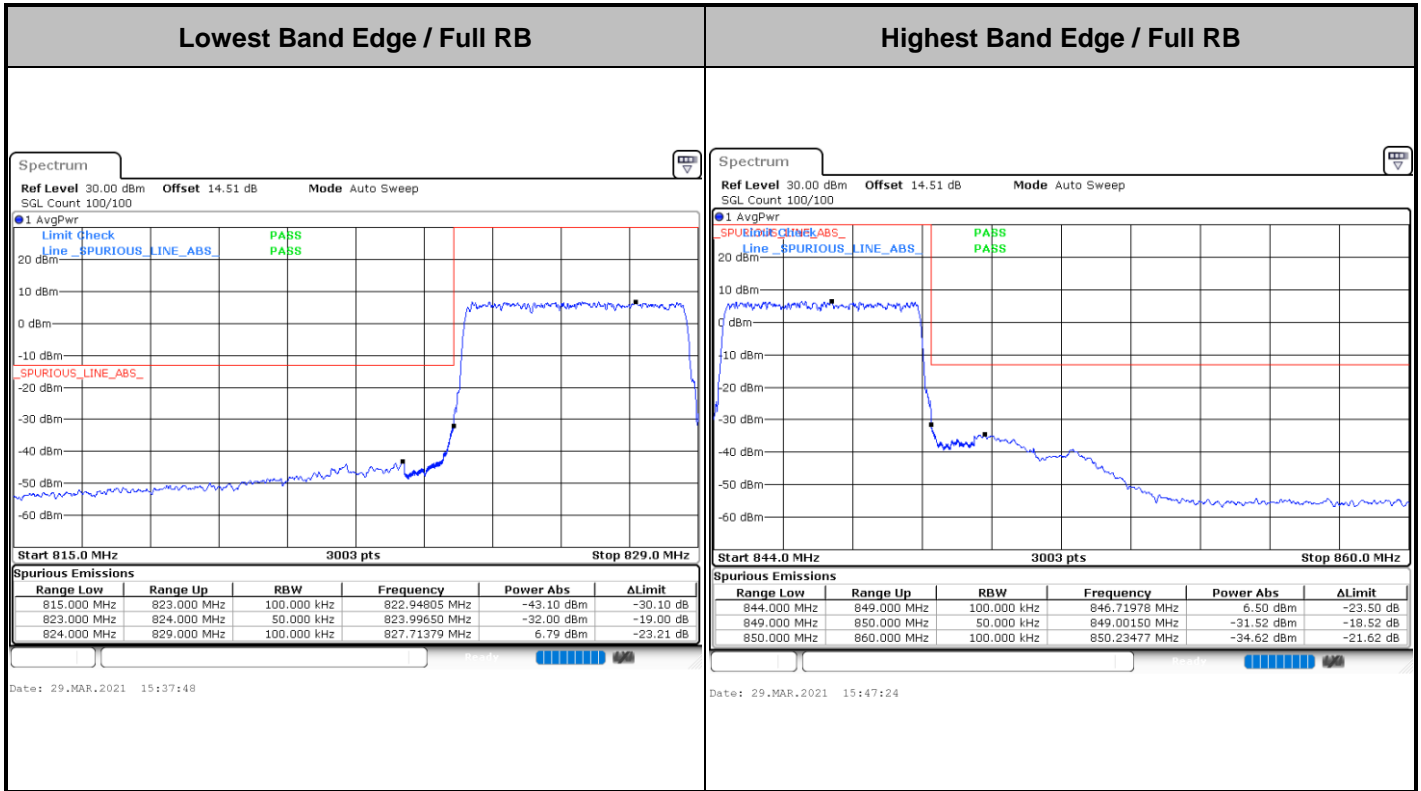
Date: 30.MAR.2021 11:33:18

Date: 29.MAR.2021 15:49:31

Channel Power -17.36dBm < -13dBm (Pass)



Date: 30.MAR.2021 11:35:39

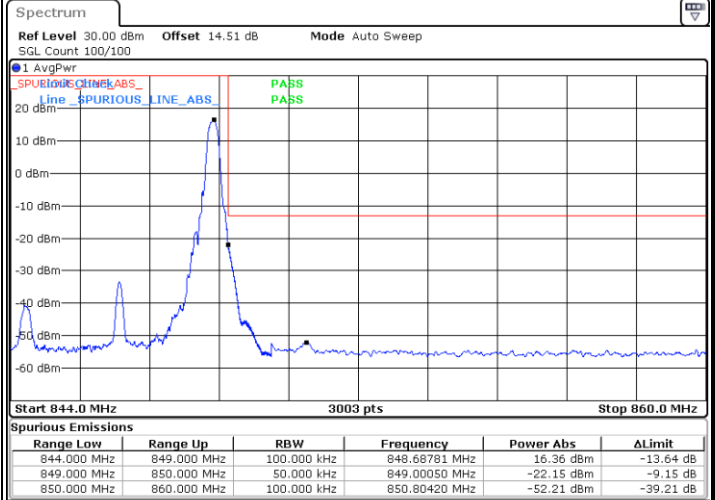
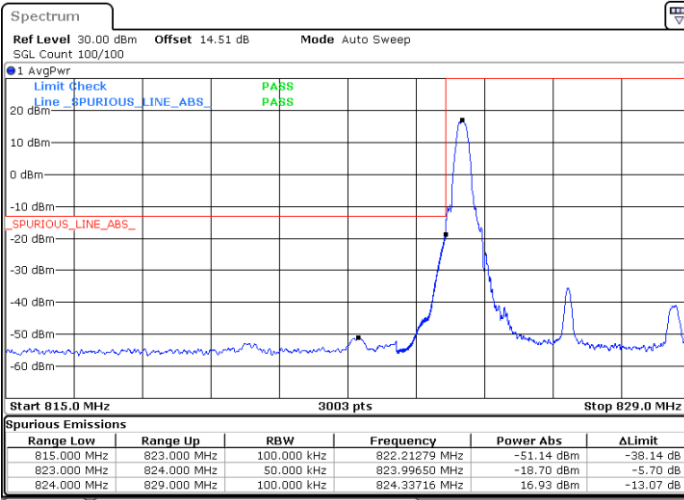




FR1 n5 / 5MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

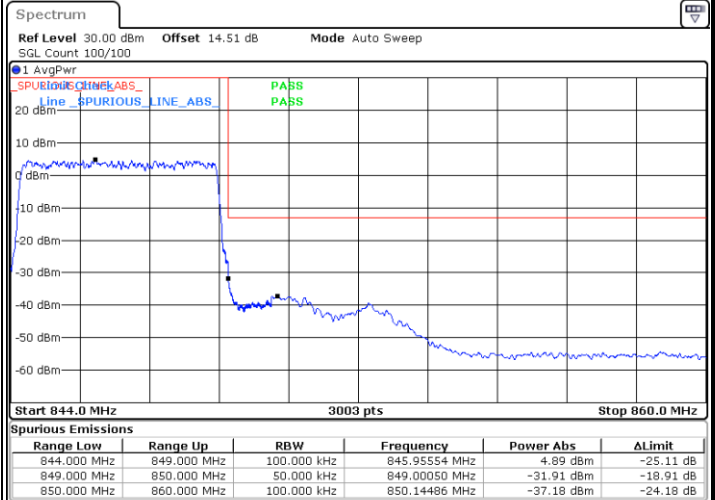
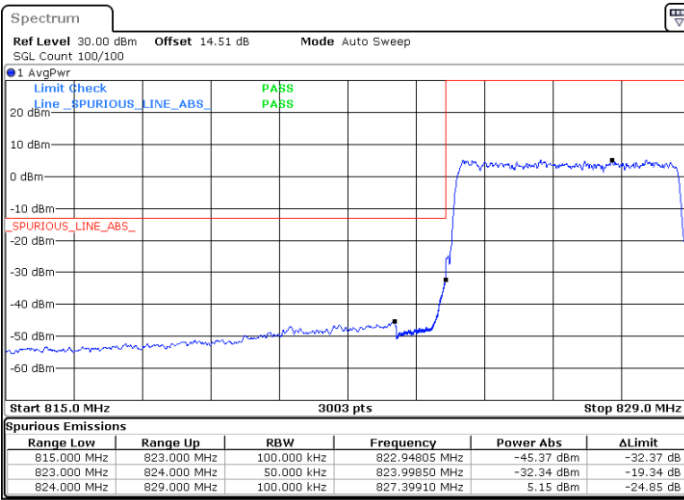


Date: 29.MAR.2021 15:38:49

Date: 29.MAR.2021 15:49:01

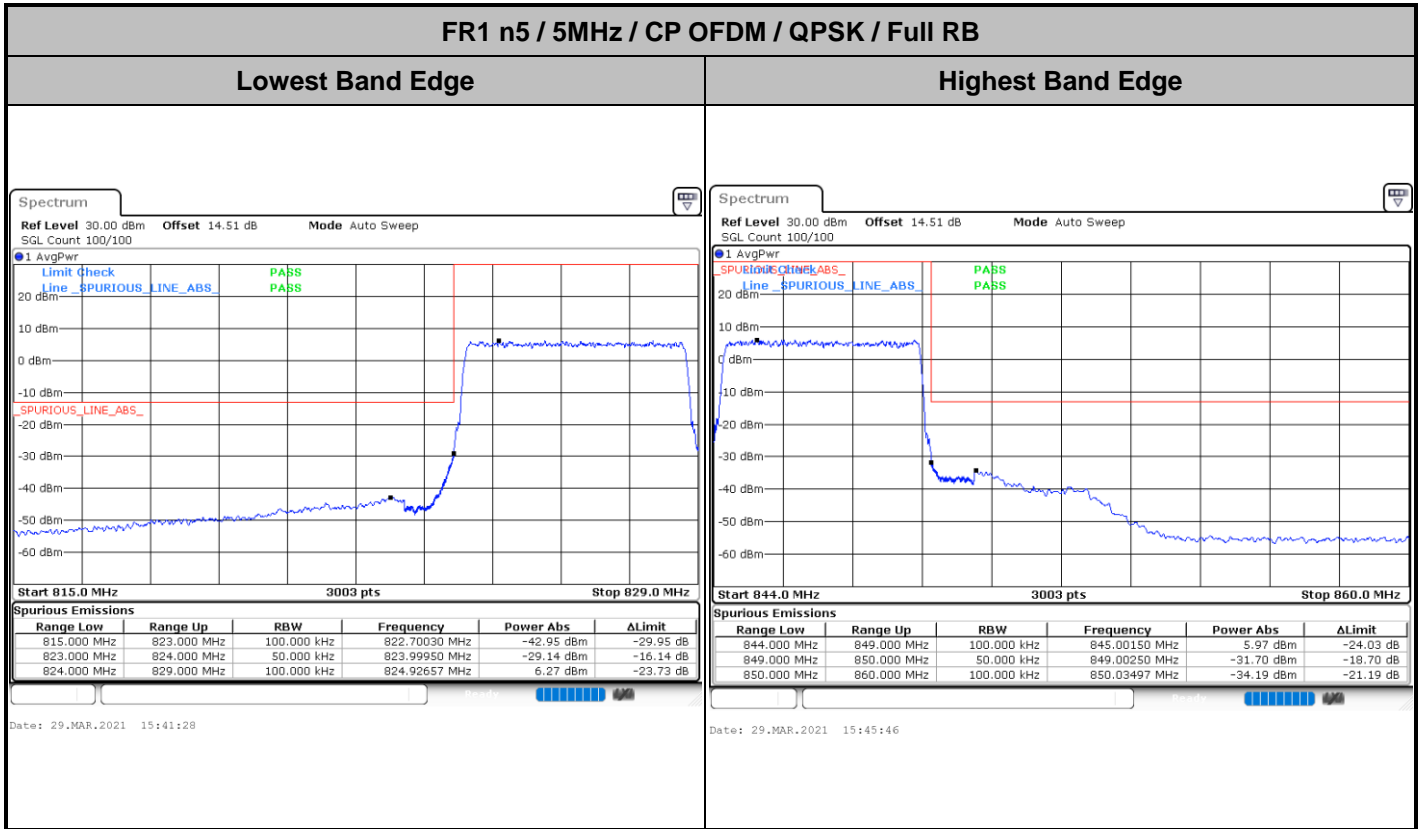
Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 29.MAR.2021 15:38:18

Date: 29.MAR.2021 15:48:25

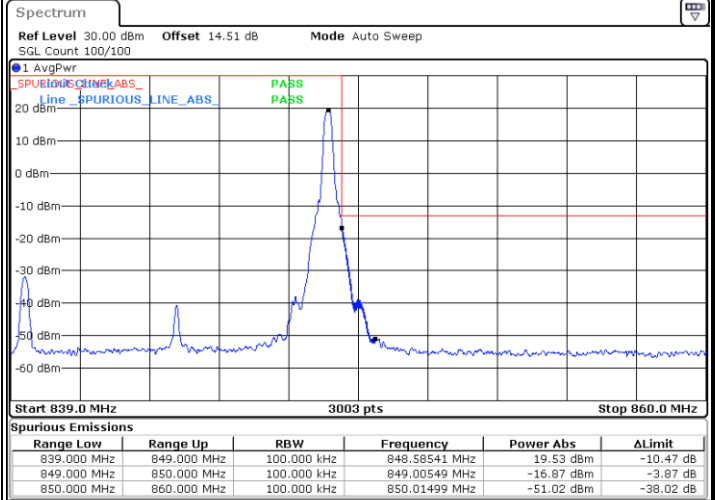
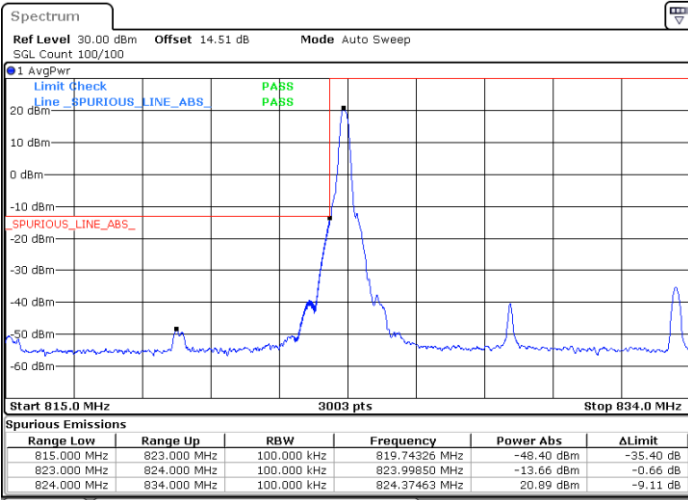




FR1 n5 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

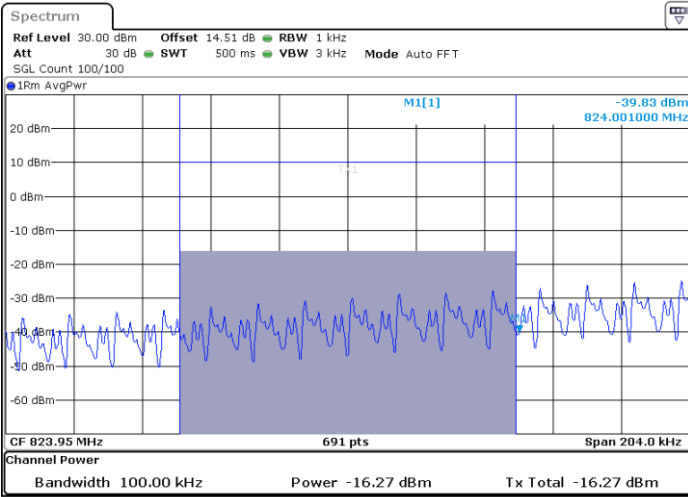
Highest Band Edge / 1RBmax



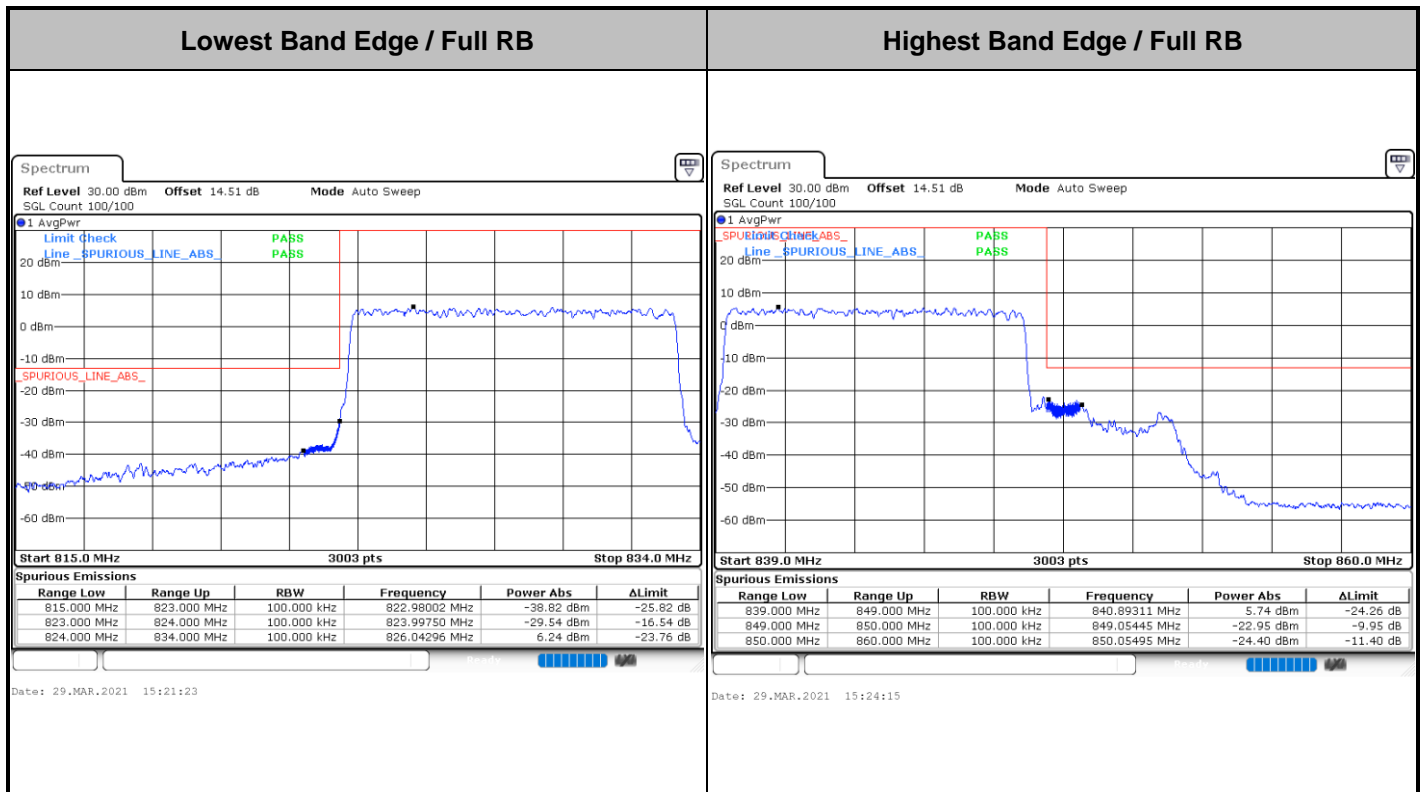
Date: 29.MAR.2021 15:18:02

Date: 29.MAR.2021 15:28:12

Channel Power -16.27dBm < -13dBm (Pass)



Date: 30.MAR.2021 11:40:57

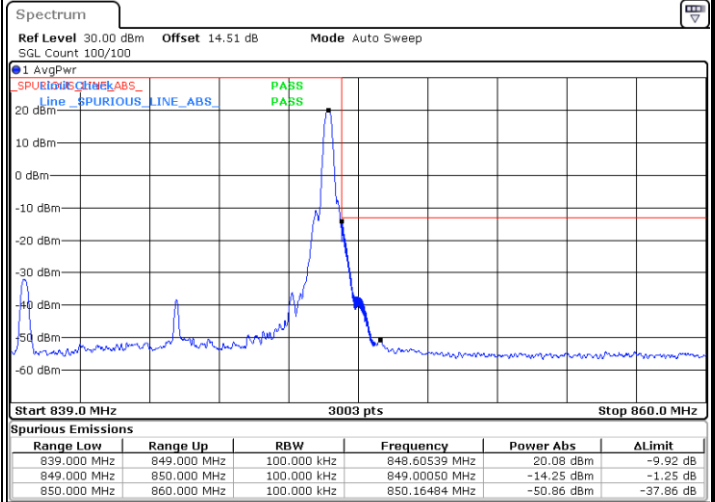
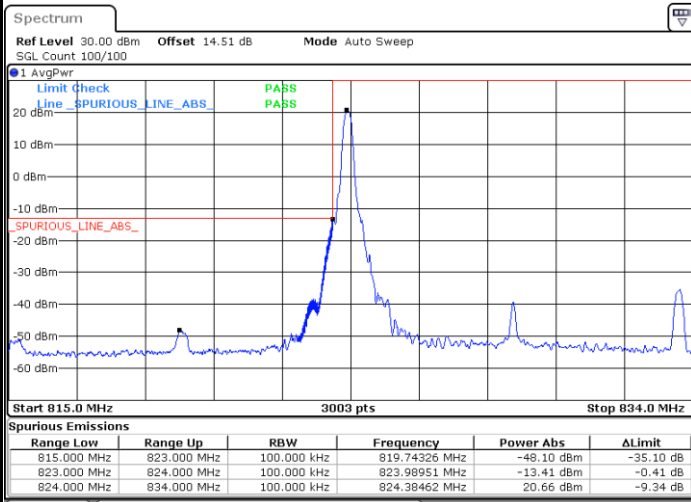




FR1 n5 / 10MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

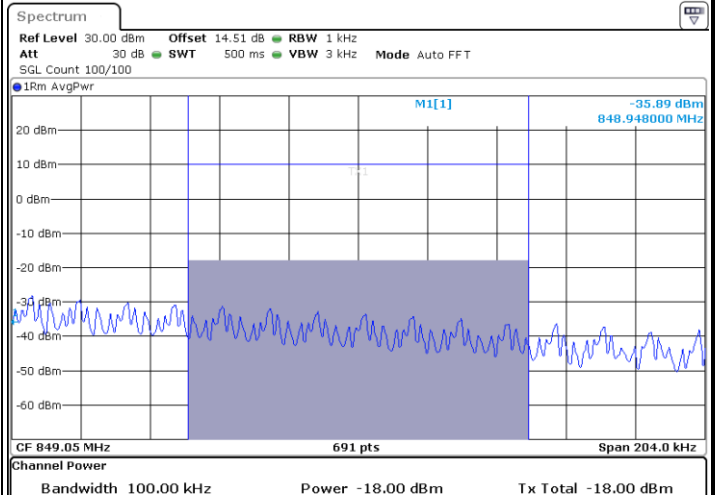
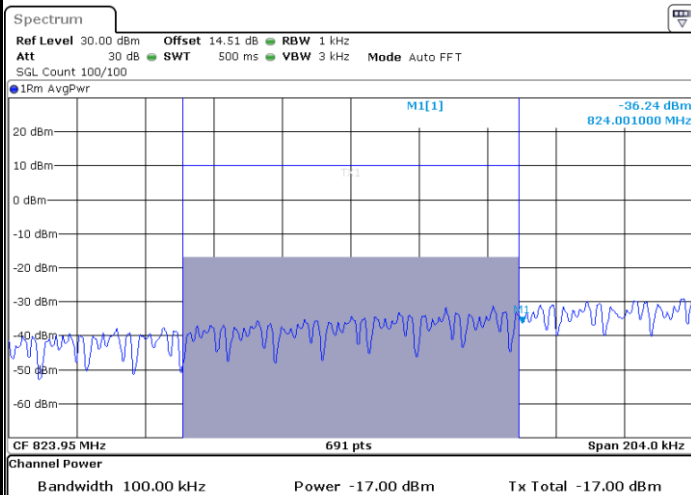


Date: 29.MAR.2021 15:18:20

Date: 29.MAR.2021 15:27:49

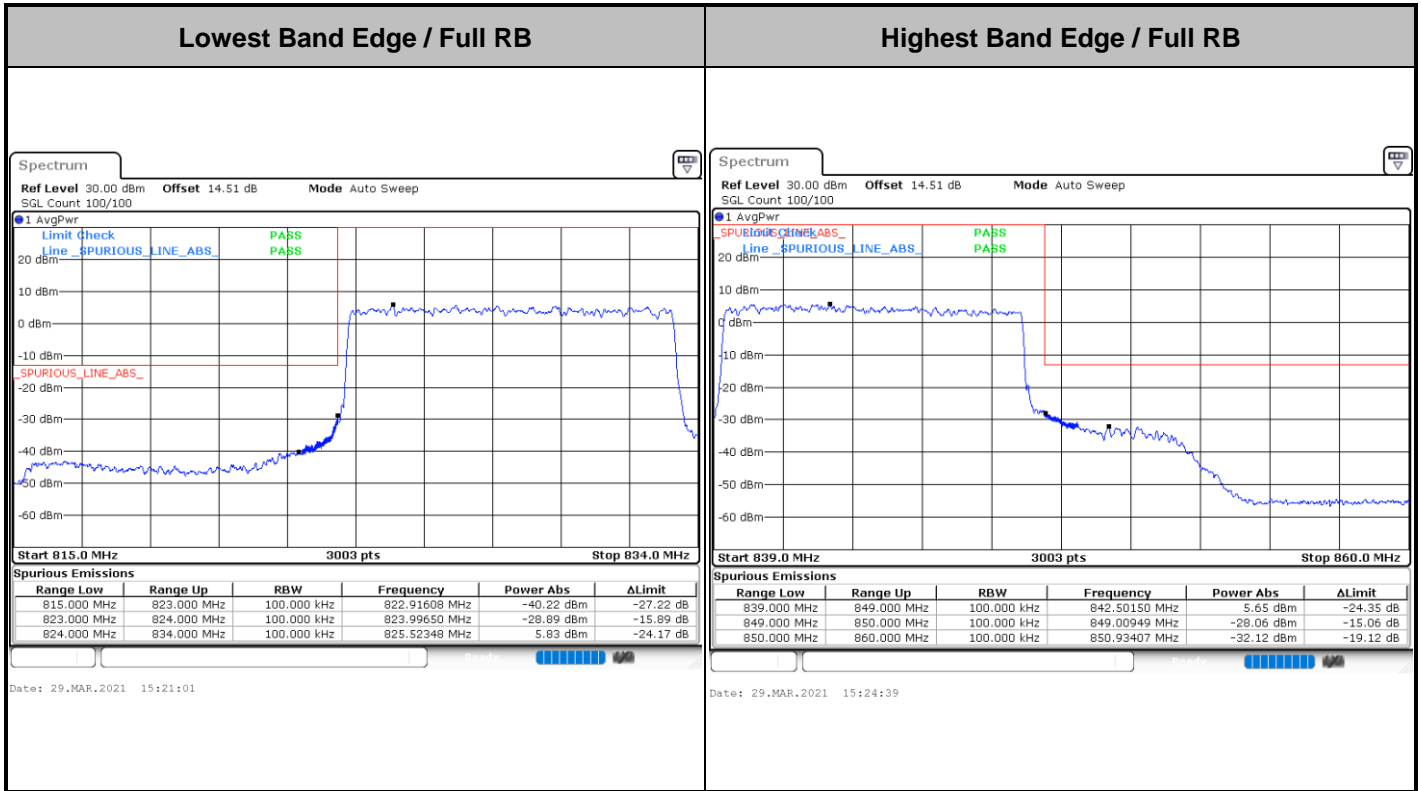
Channel Power -17.00dBm < -13dBm (Pass)

Channel Power -18.00dBm < -13dBm (Pass)



Date: 30.MAR.2021 11:42:14

Date: 30.MAR.2021 11:46:28

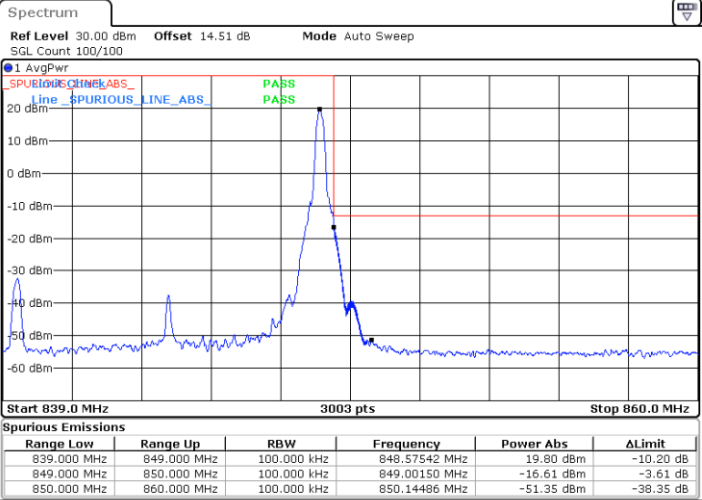
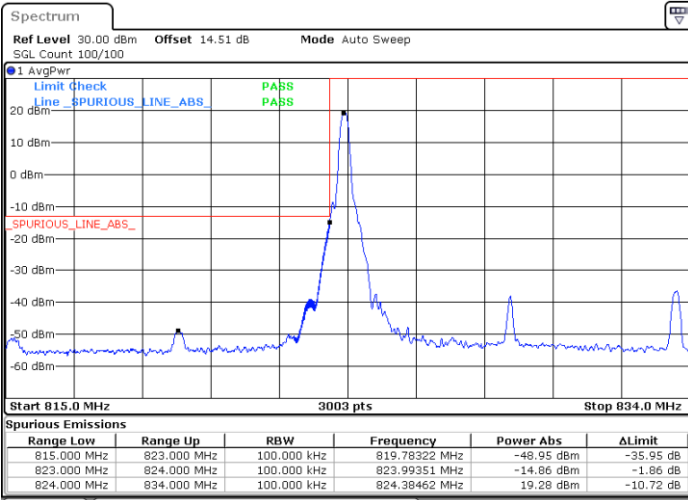




FR1 n5 / 10MHz / DFT-s-OFDM / 16QAM

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	819.78322 MHz	-48.95 dBm	-35.95 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99351 MHz	-14.86 dBm	-1.86 dB
824.000 MHz	834.000 MHz	100.000 kHz	824.38462 MHz	19.28 dBm	-10.72 dB

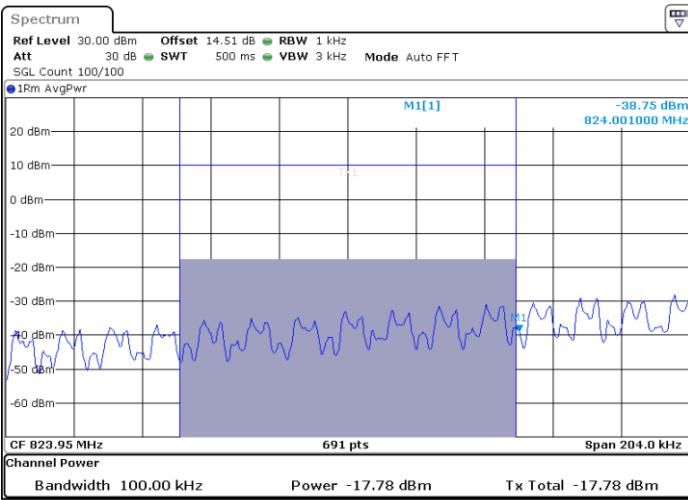
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	848.57542 MHz	19.80 dBm	-10.20 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.00150 MHz	-16.61 dBm	-3.61 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.14486 MHz	-51.35 dBm	-38.35 dB

Date: 29.MAR.2021 15:18:43

Date: 29.MAR.2021 15:27:29

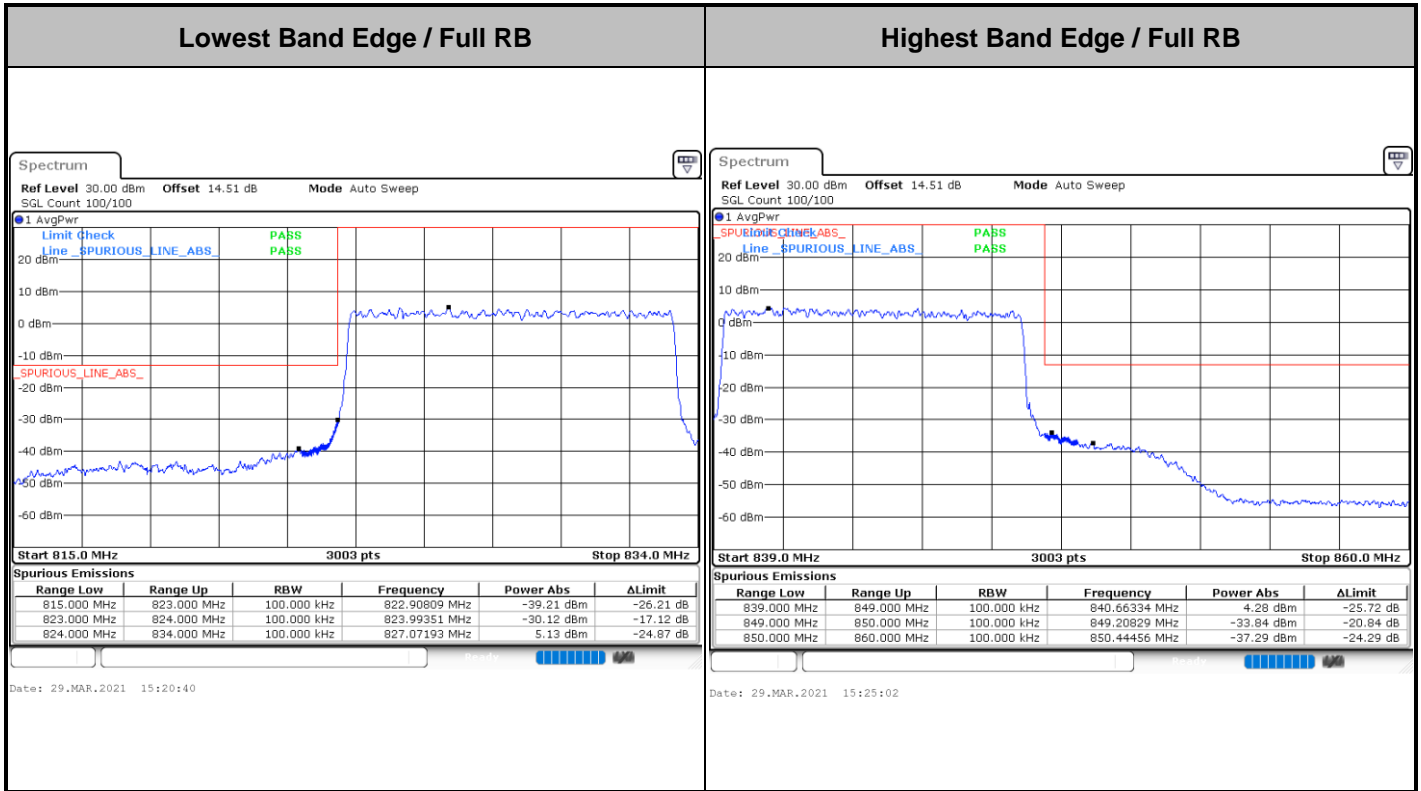
Channel Power -17.78dBm < -13dBm (Pass)



Channel Power

Bandwidth	Power	Tx Total
100.00 kHz	-17.78 dBm	-17.78 dBm

Date: 30.MAR.2021 11:43:19

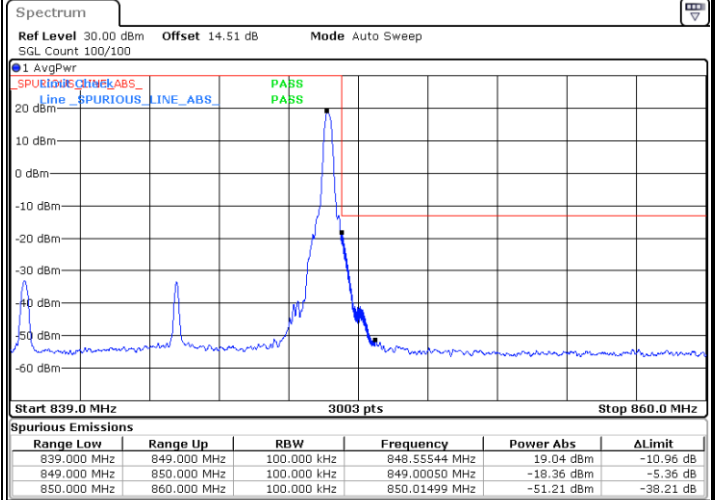
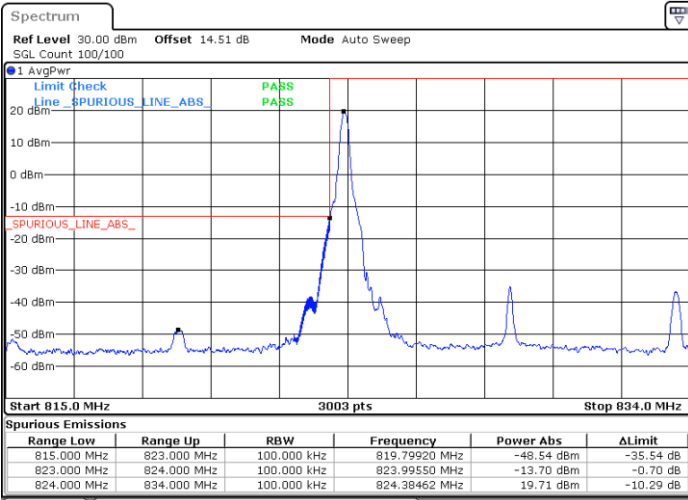




FR1 n5 / 10MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / 1RB0

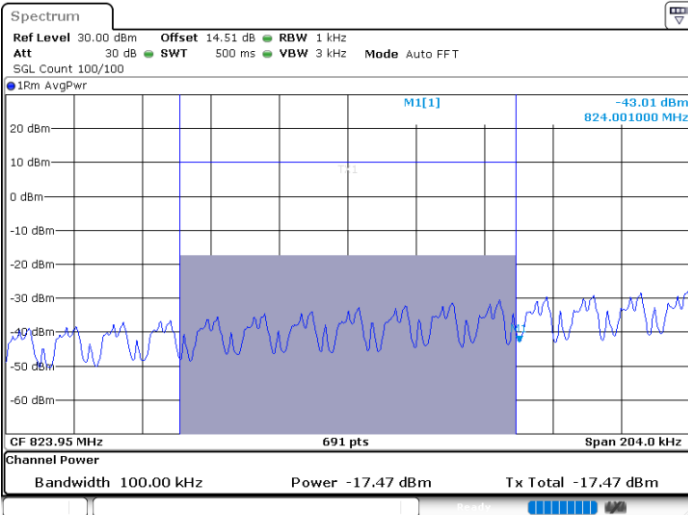
Highest Band Edge / 1RBmax



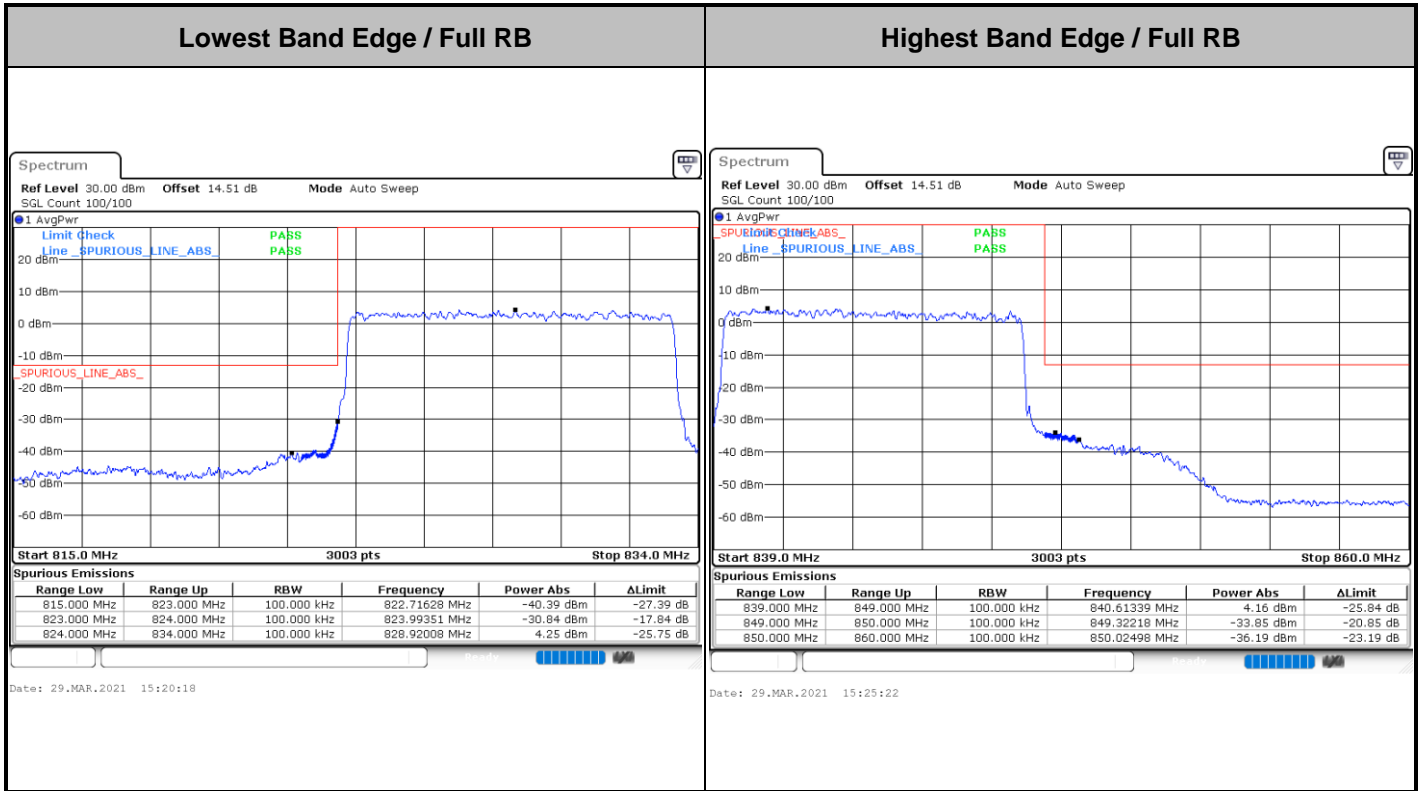
Date: 29.MAR.2021 15:19:04

Date: 29.MAR.2021 15:27:07

Channel Power -17.47dBm < -13dBm (Pass)



Date: 30.MAR.2021 11:44:19

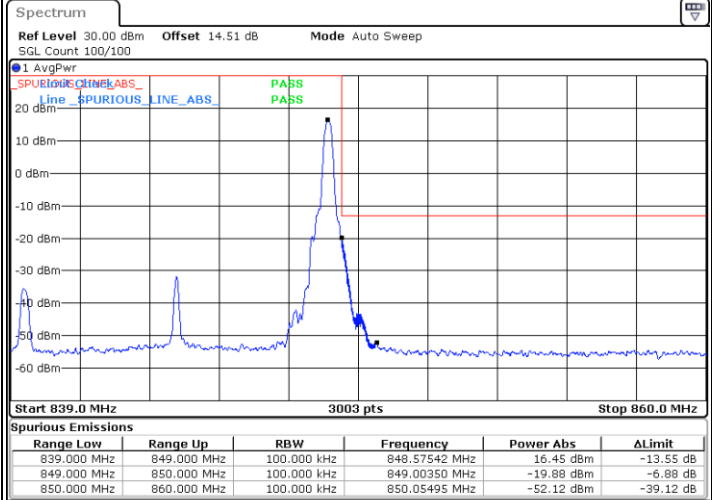
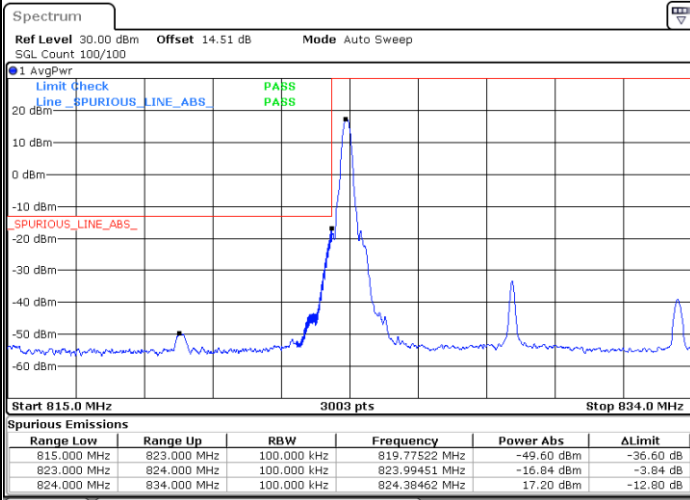




FR1 n5 / 10MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

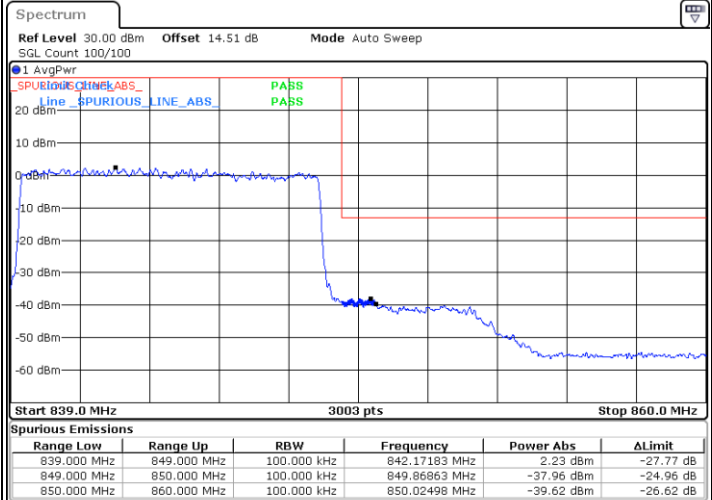
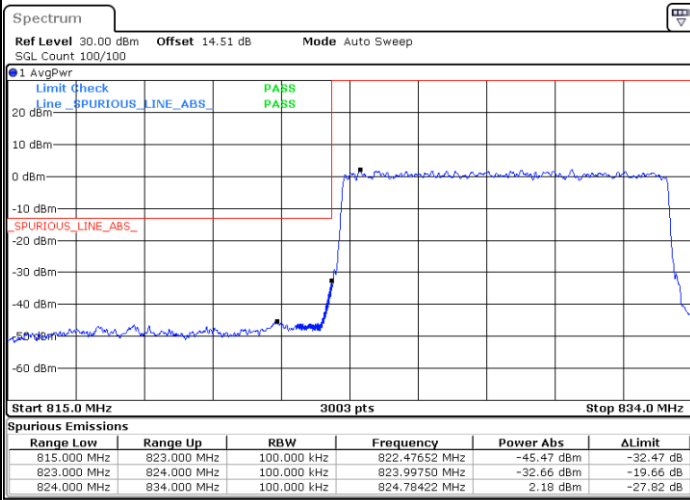


Date: 29.MAR.2021 15:19:30

Date: 29.MAR.2021 15:26:28

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 29.MAR.2021 15:19:51

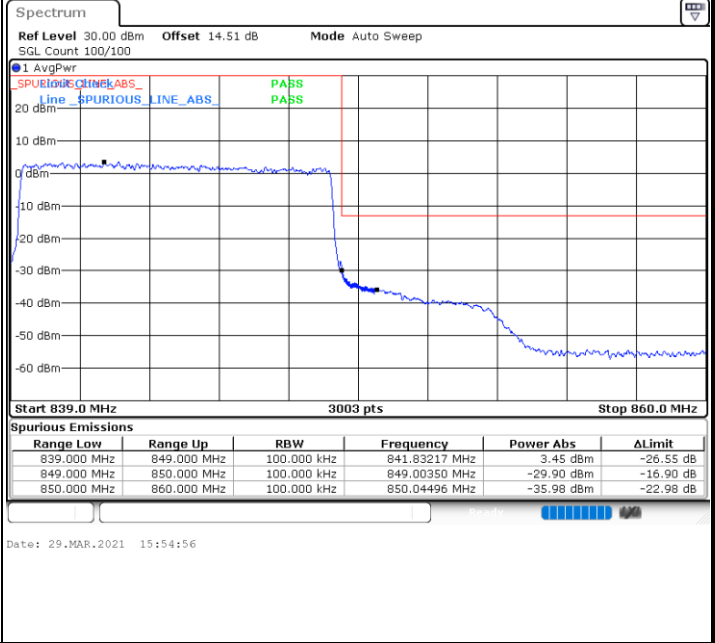
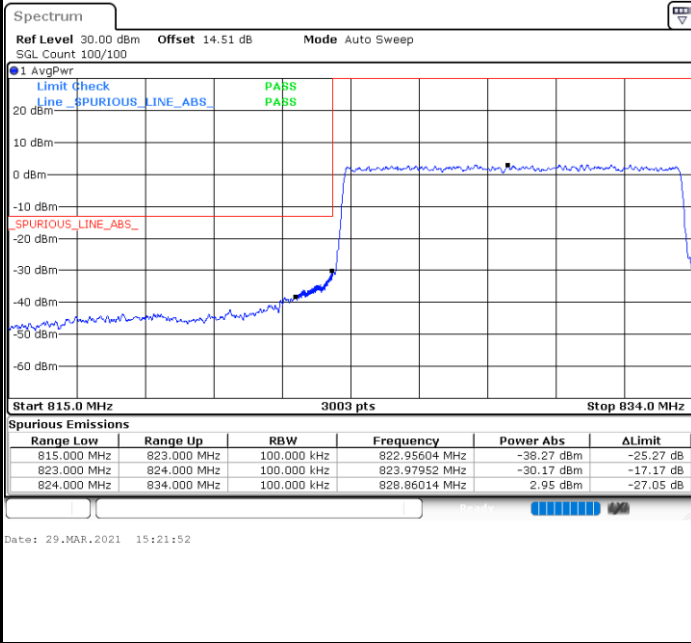
Date: 29.MAR.2021 15:25:58



FR1 n5 / 10MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge

Highest Band Edge

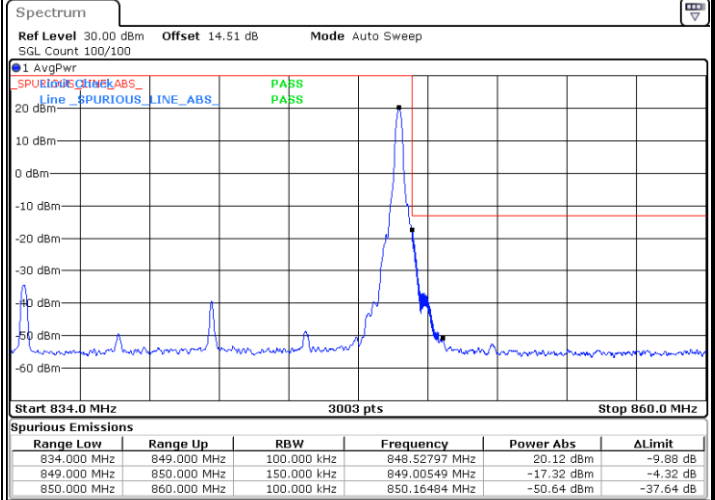
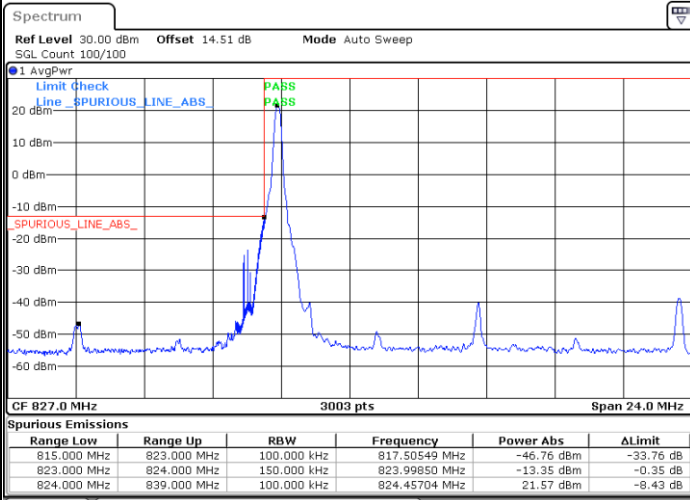




FR1 n5 / 15MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

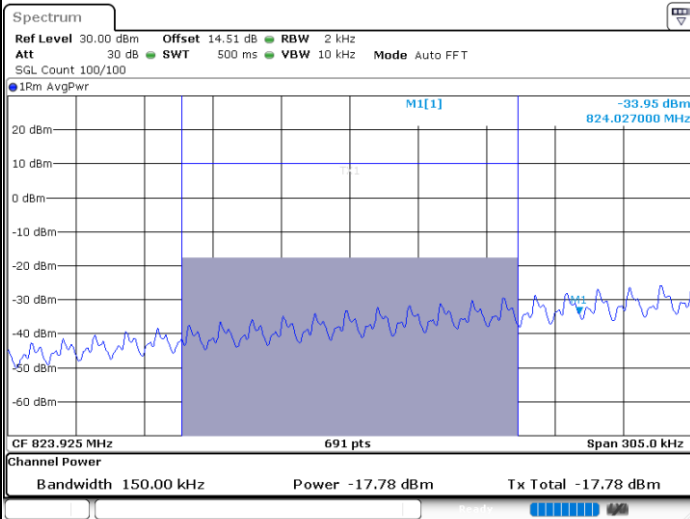
Highest Band Edge / 1RBmax



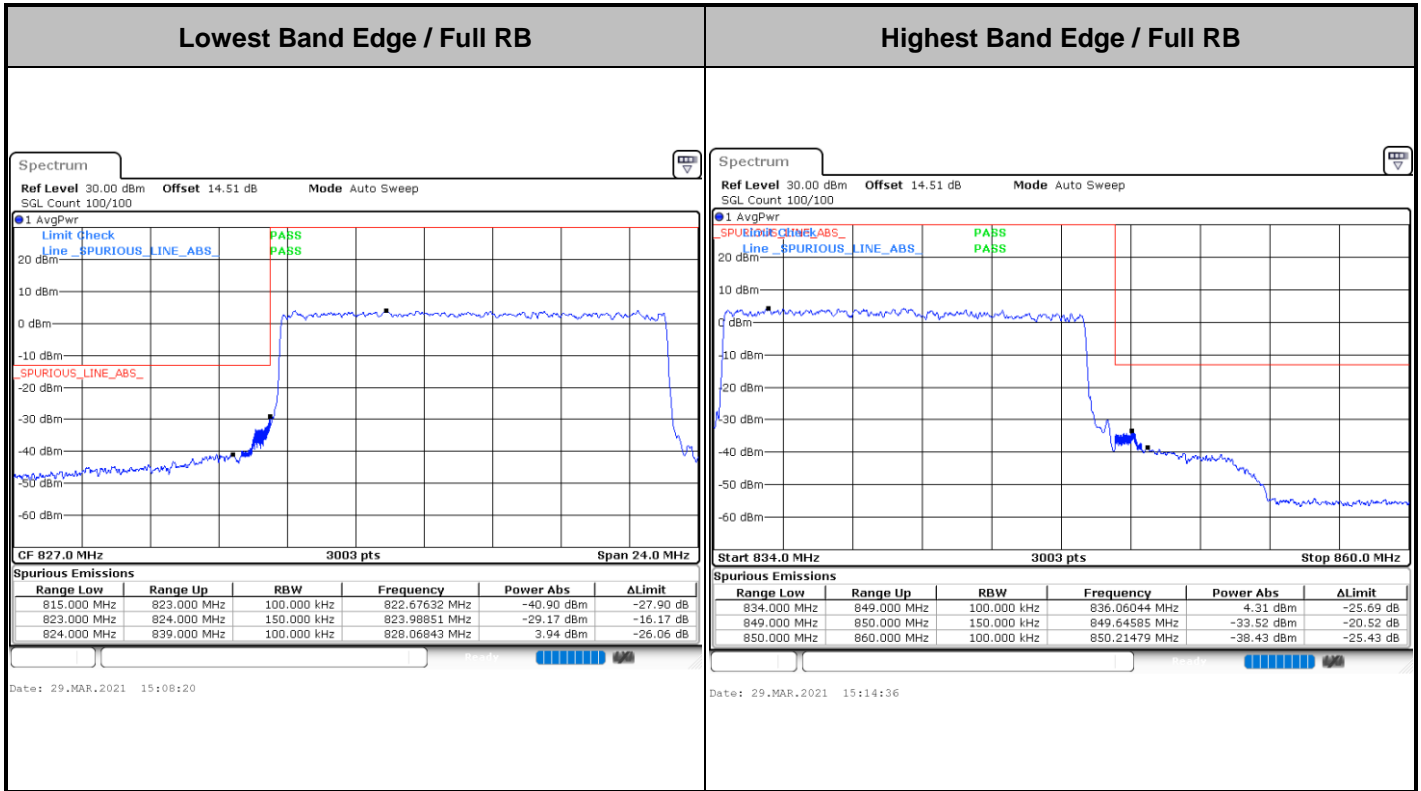
Date: 29.MAR.2021 15:10:38

Date: 29.MAR.2021 15:17:02

Channel Power -17.78dBm < -13dBm (Pass)



Date: 30.MAR.2021 11:51:16

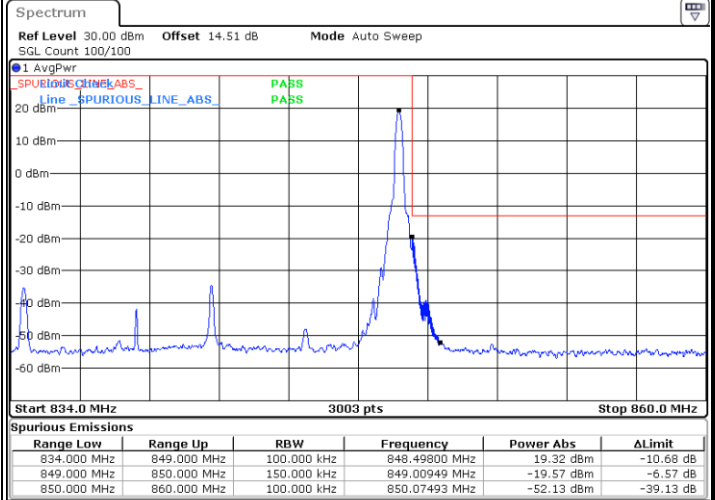
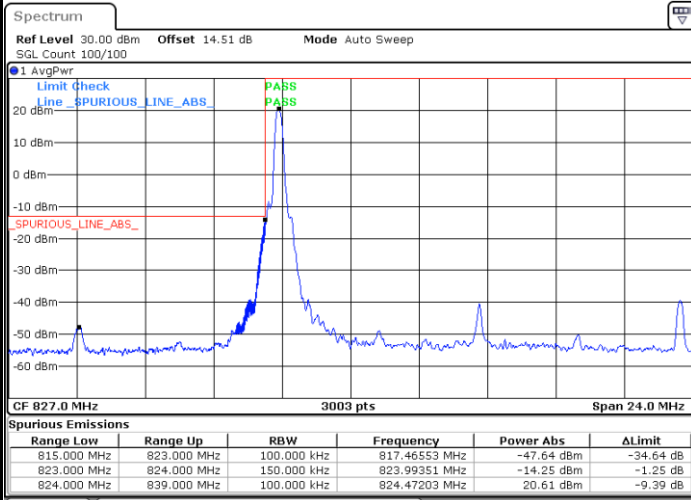




FR1 n5 / 15MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

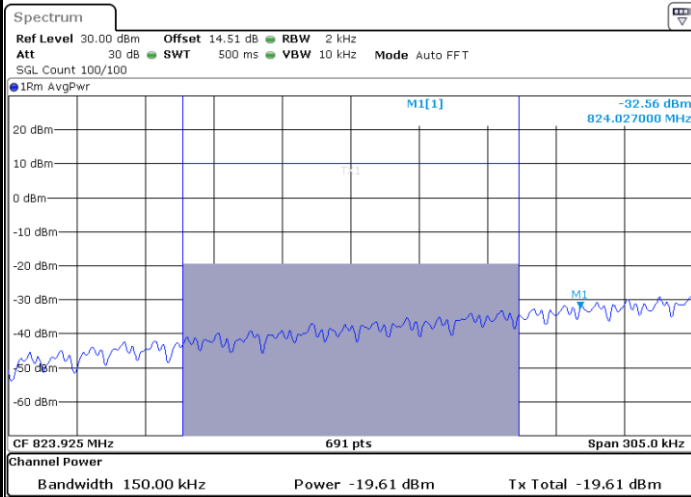
Highest Band Edge / 1RBmax



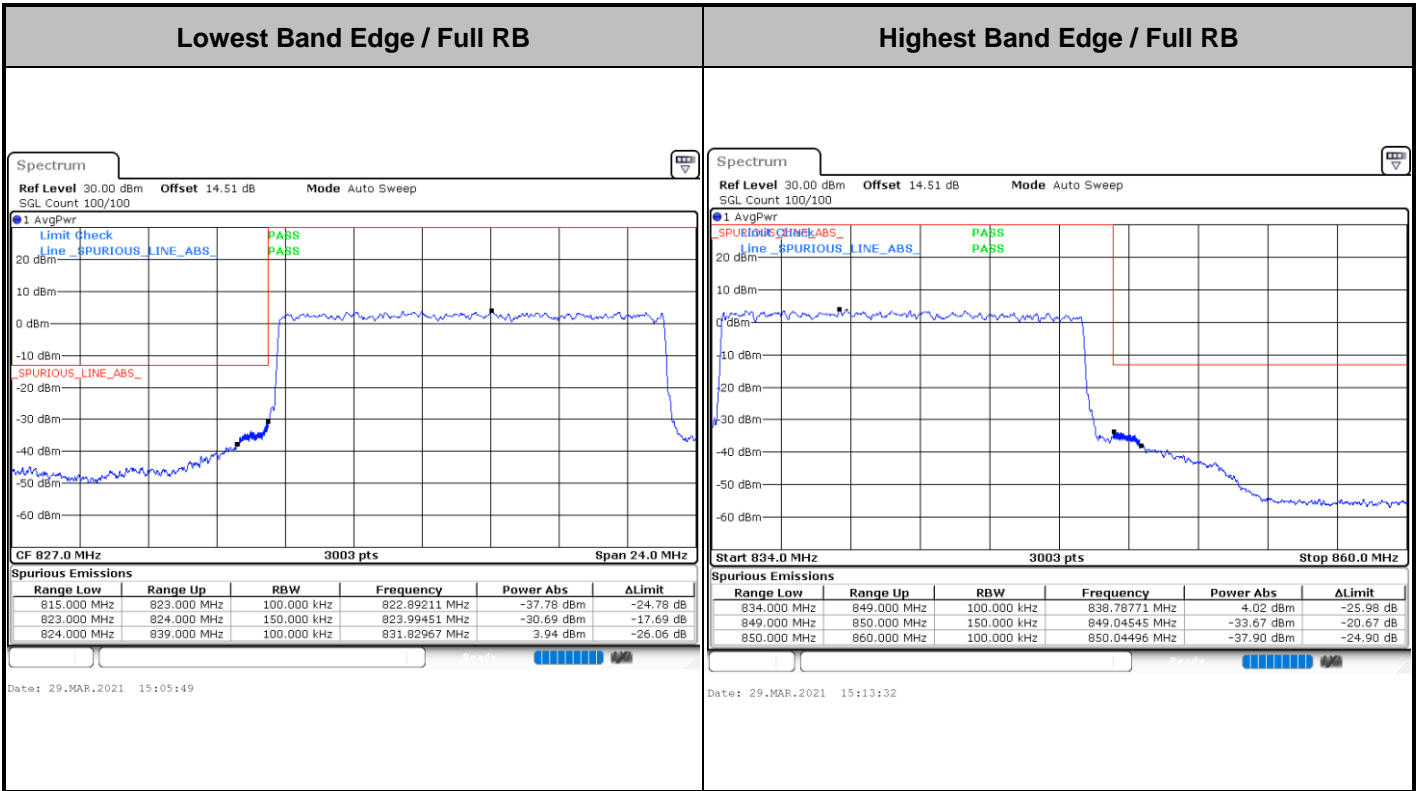
Date: 29.MAR.2021 15:10:17

Date: 30.MAR.2021 11:57:02

Channel Power -19.61dBm < -13dBm (Pass)



Date: 30.MAR.2021 11:52:23

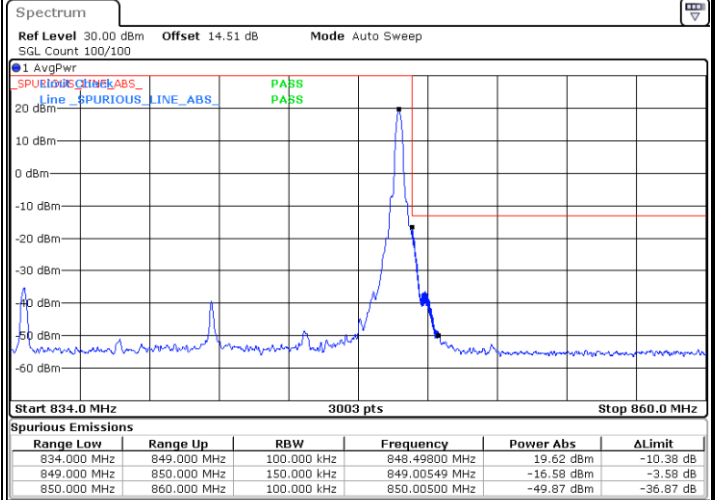
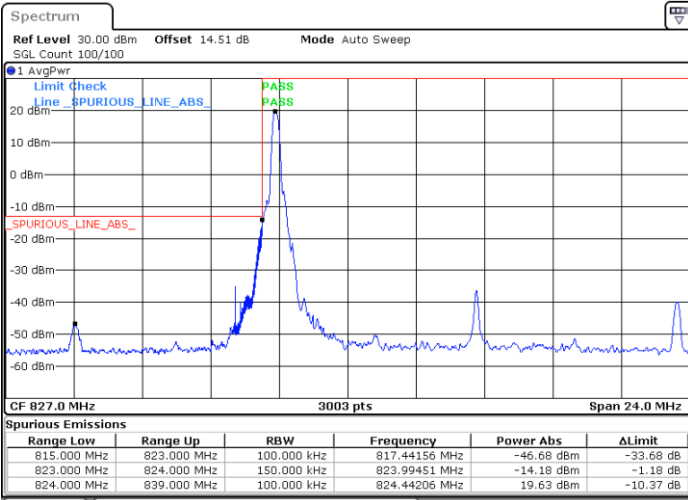




FR1 n5 / 15MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / 1RB0

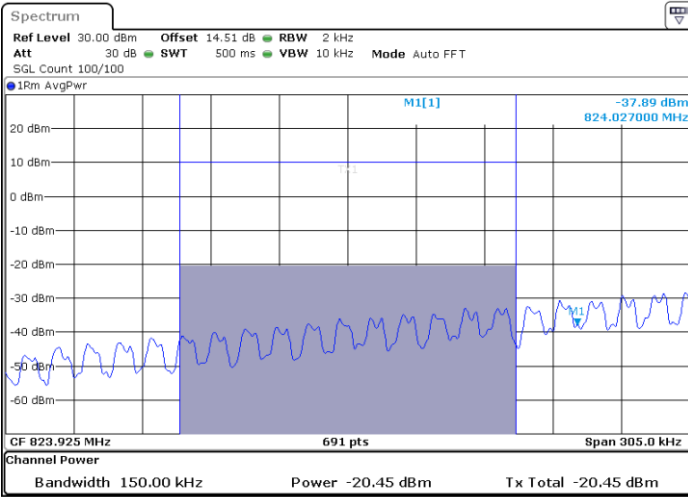
Highest Band Edge / 1RBmax



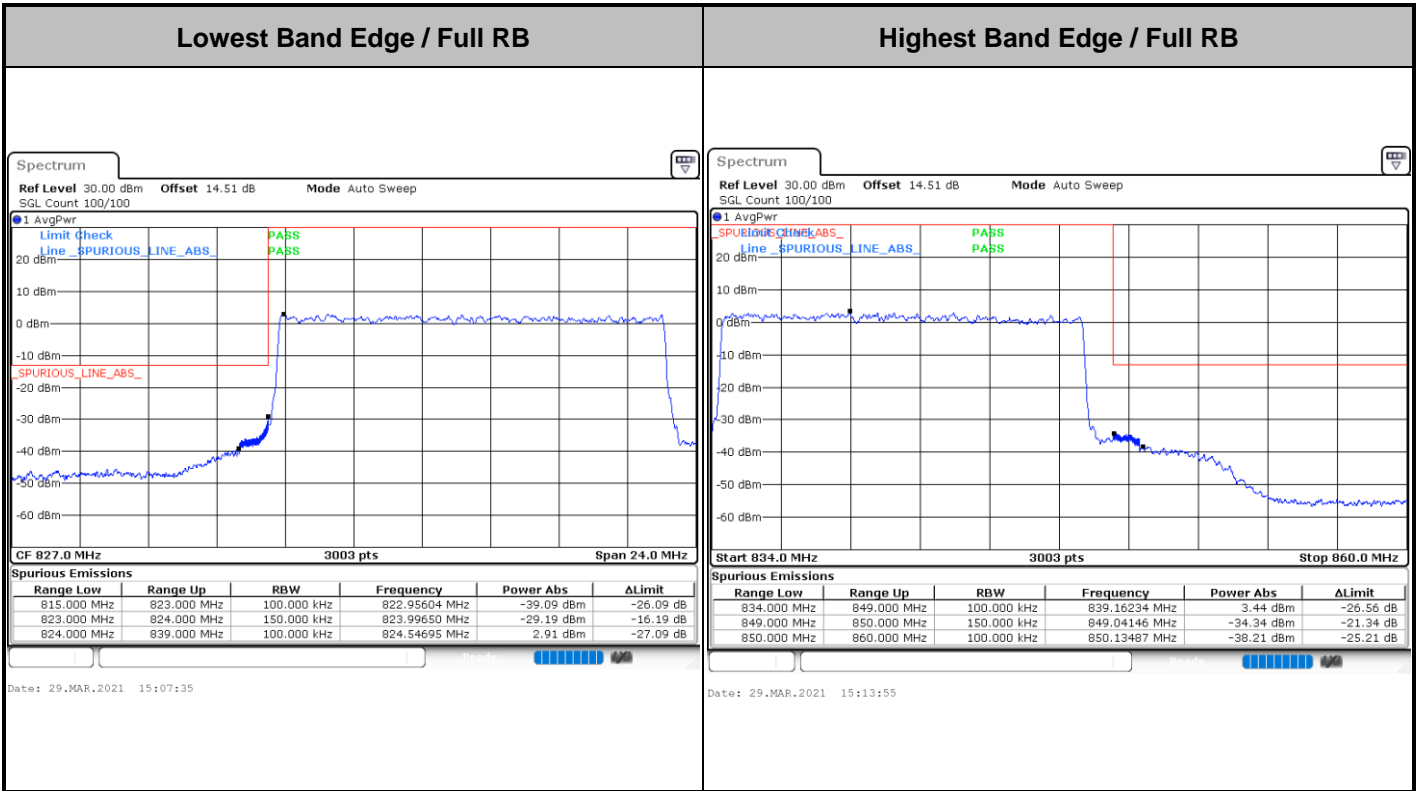
Date: 29.MAR.2021 15:09:56

Date: 29.MAR.2021 15:16:25

Channel Power -20.45dBm < -13dBm (Pass)



Date: 30.MAR.2021 11:54:35

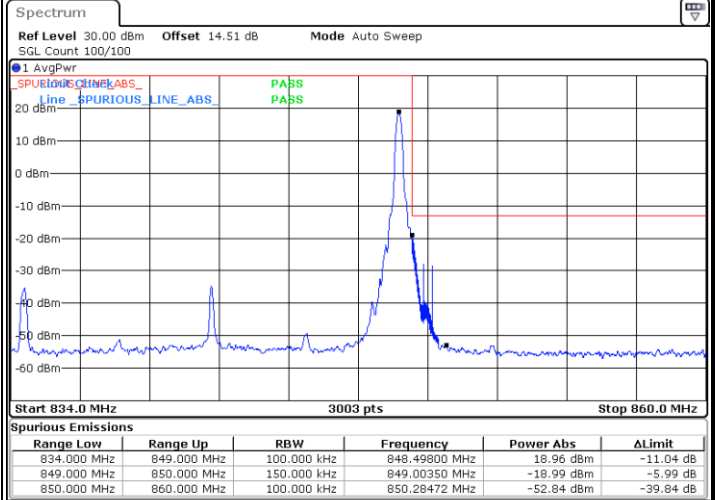
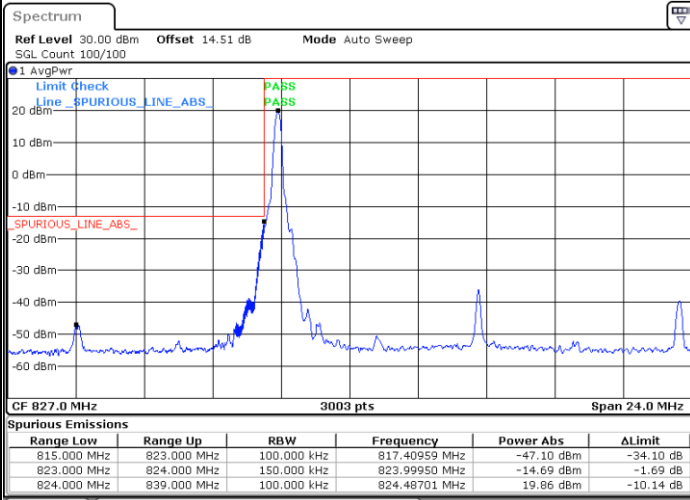




FR1 n5 / 15MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / 1RB0

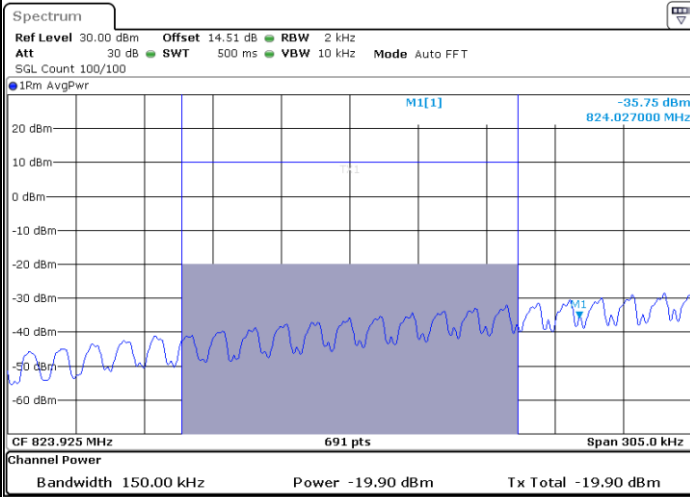
Highest Band Edge / 1RBmax



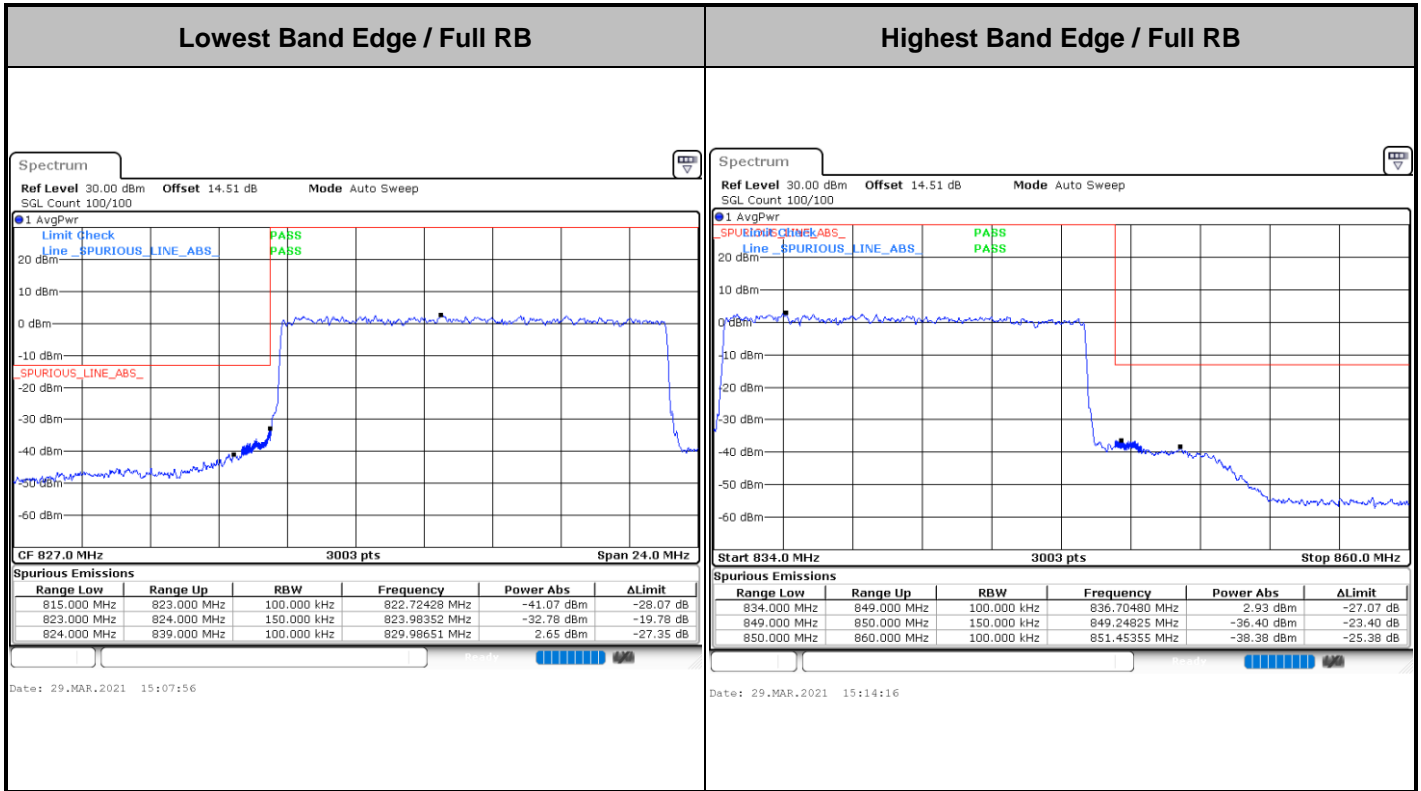
Date: 29.MAR.2021 15:09:34

Date: 29.MAR.2021 15:16:02

Channel Power -19.90dBm < -13dBm (Pass)



Date: 30.MAR.2021 11:55:33

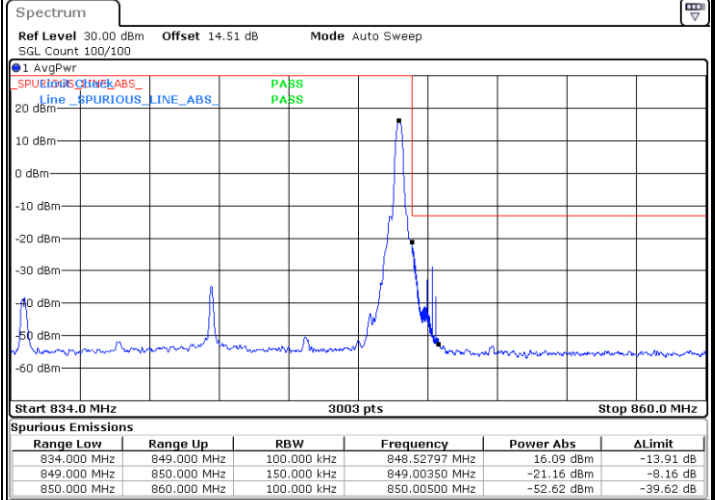
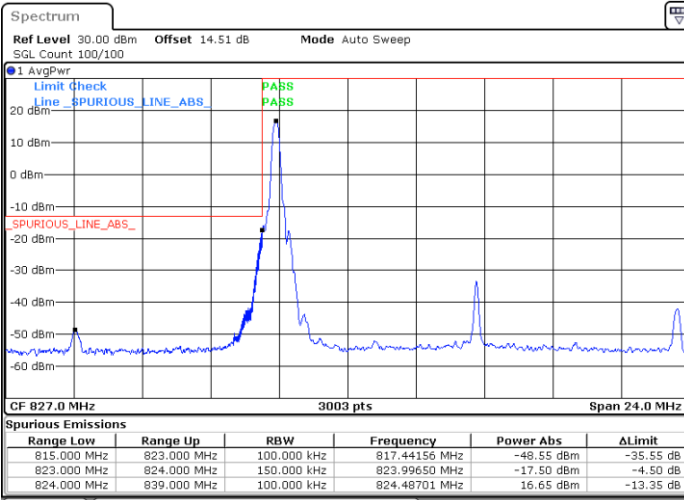




FR1 n5 / 15MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

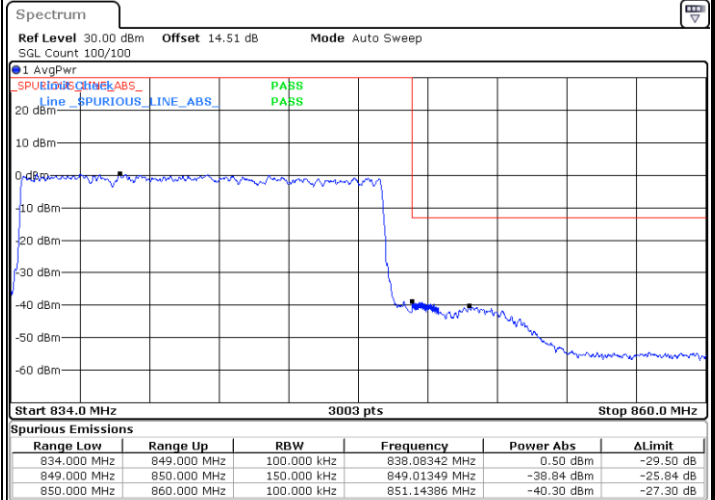
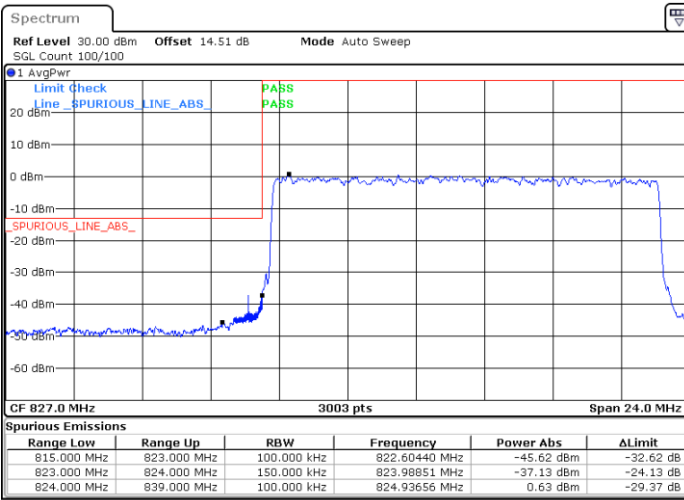


Date: 29.MAR.2021 15:09:10

Date: 29.MAR.2021 15:15:38

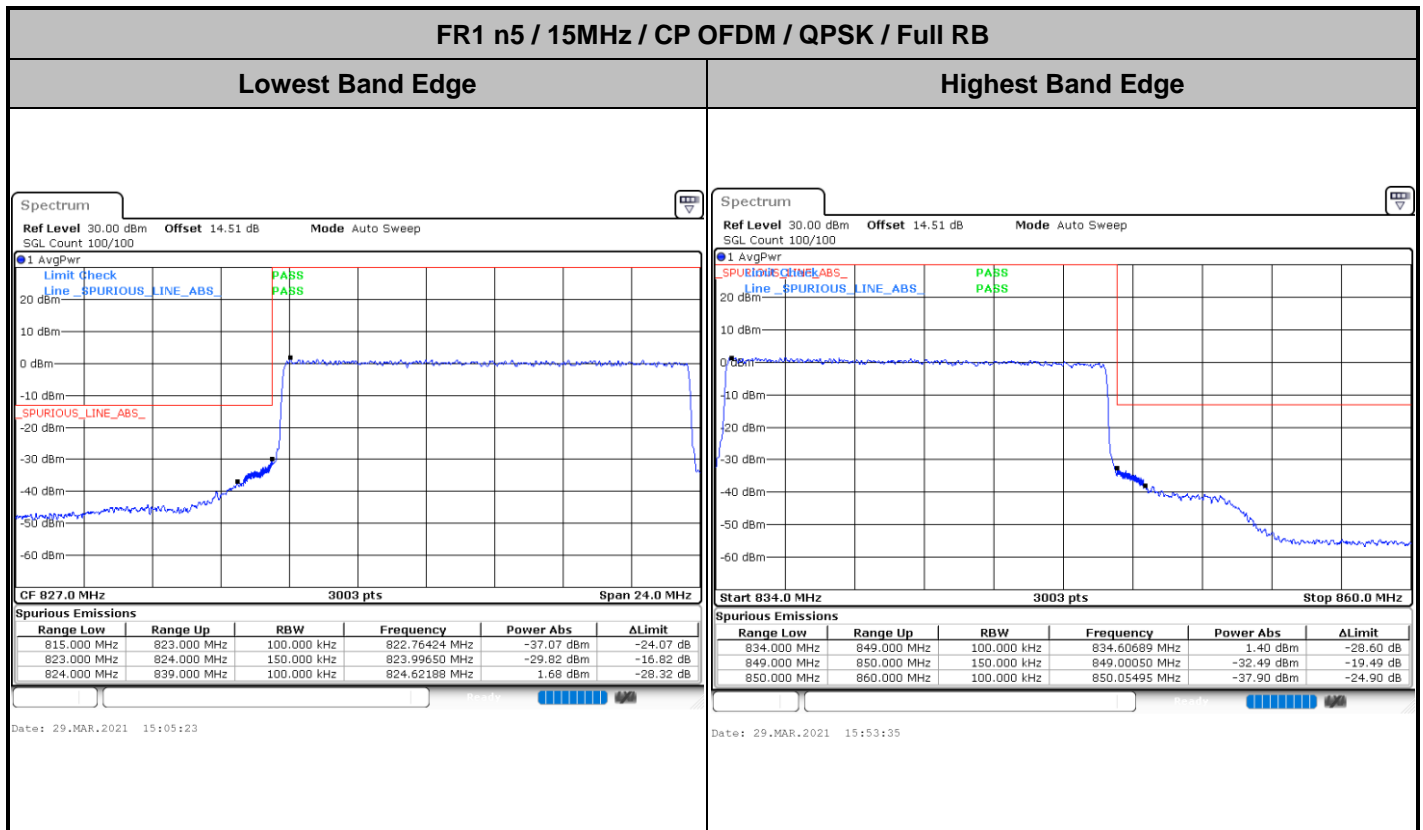
Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 29.MAR.2021 15:08:46

Date: 29.MAR.2021 15:15:03

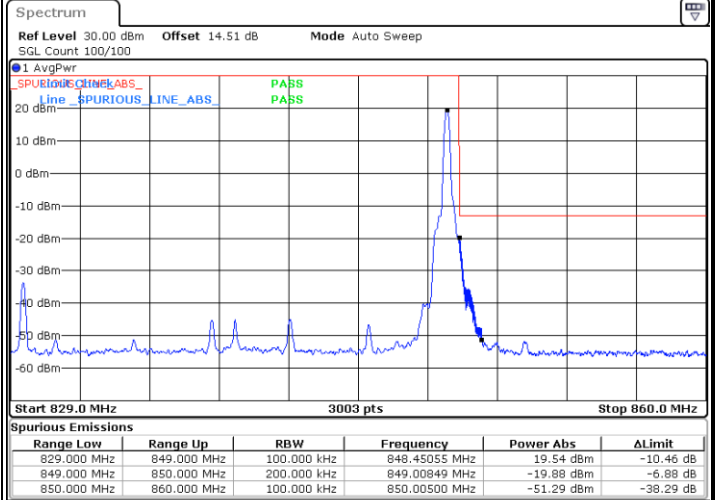
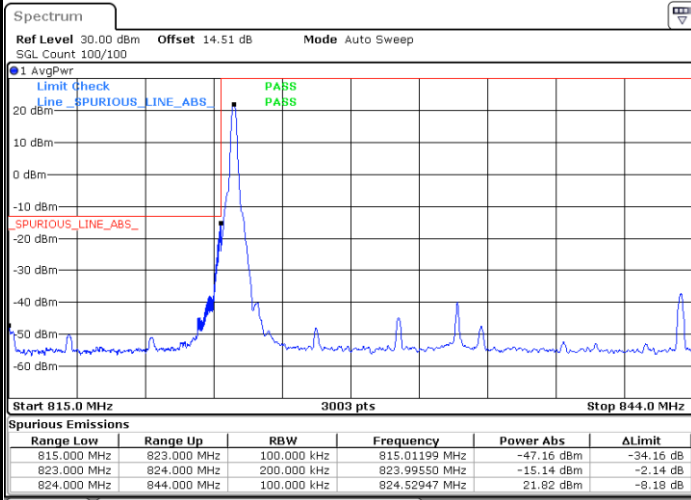




FR1 n5 / 20MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

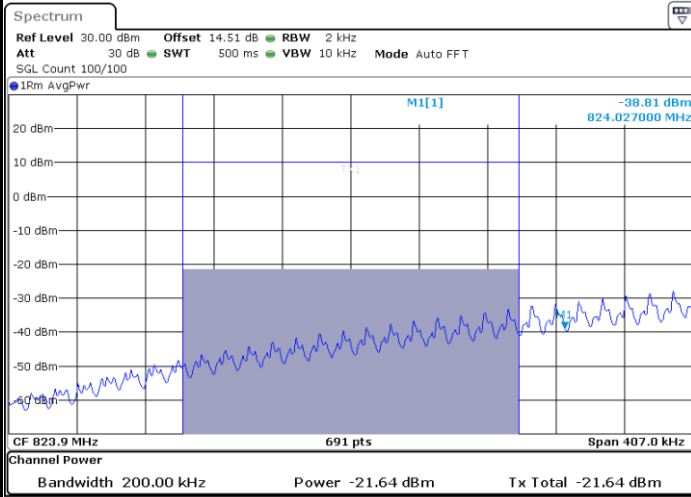
Highest Band Edge / 1RBmax



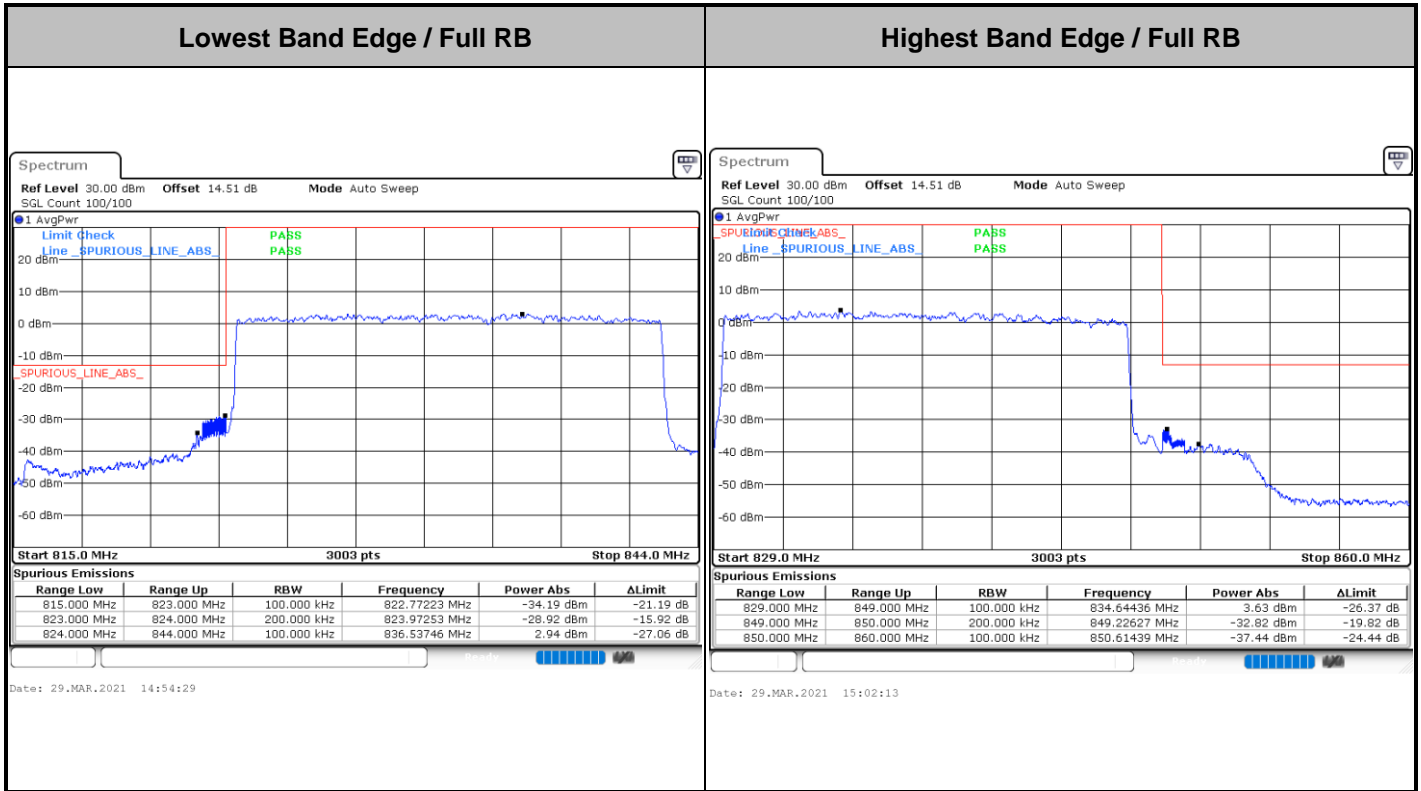
Date: 30.MAR.2021 11:58:47

Date: 29.MAR.2021 15:02:36

Channel Power -21.64dBm < -13dBm (Pass)



Date: 30.MAR.2021 12:01:07

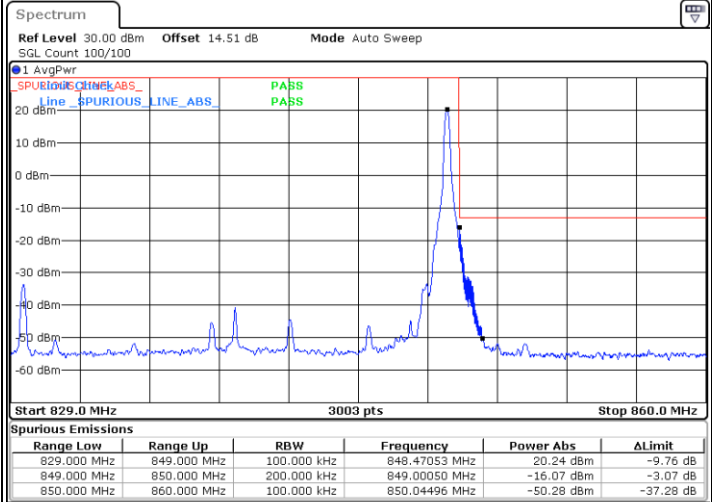
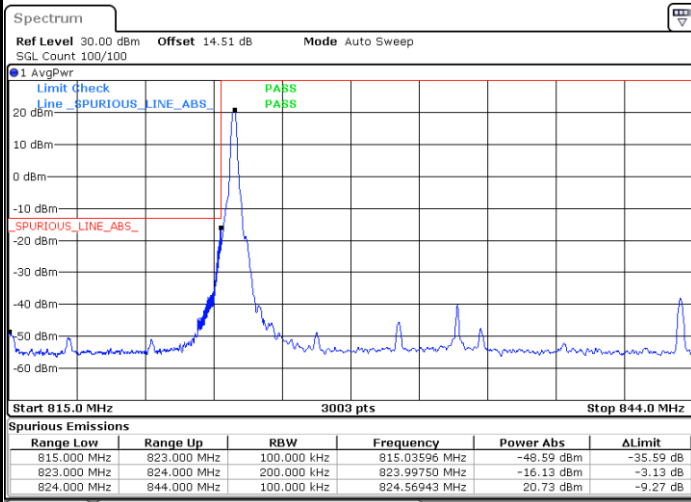




FR1 n5 / 20MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

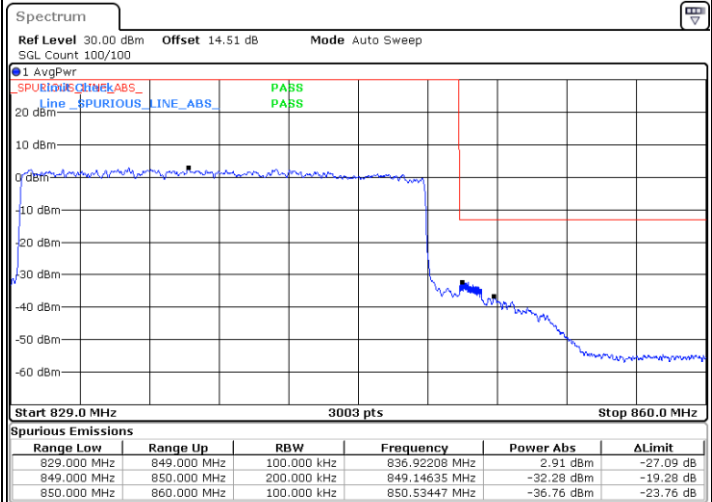
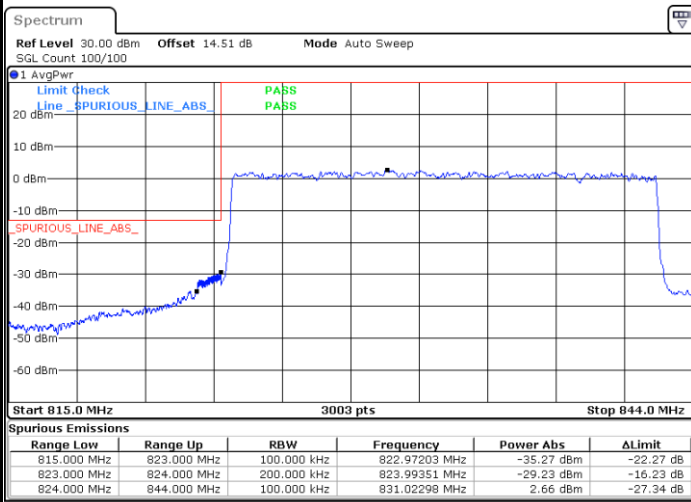


Date: 29.MAR.2021 14:53:39

Date: 29.MAR.2021 15:02:55

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 29.MAR.2021 14:54:50

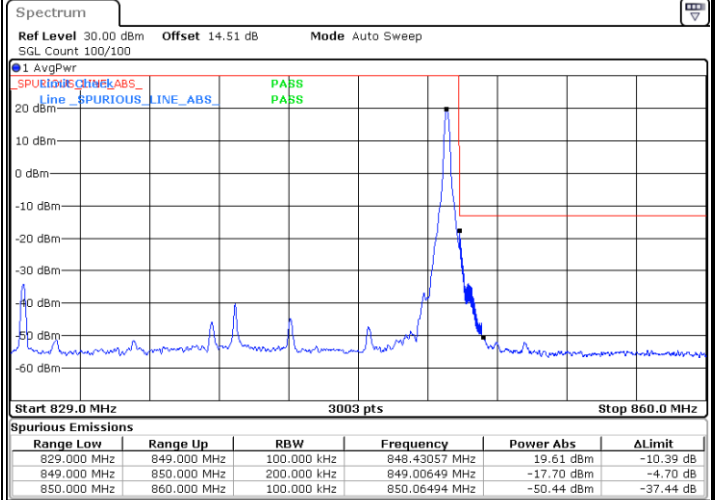
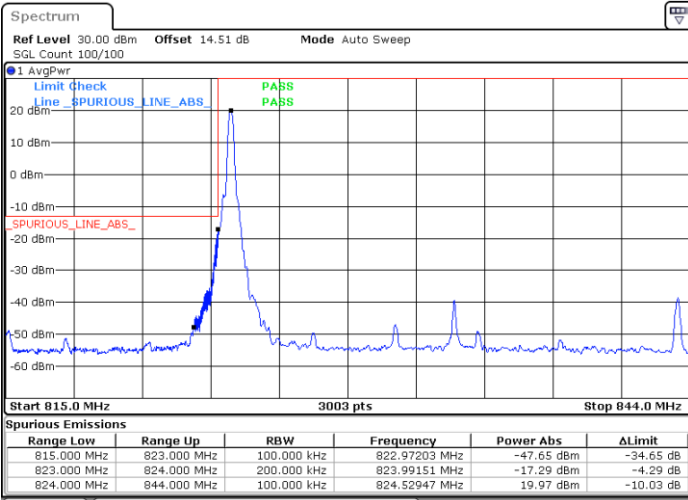
Date: 29.MAR.2021 15:01:56



FR1 n5 / 20MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

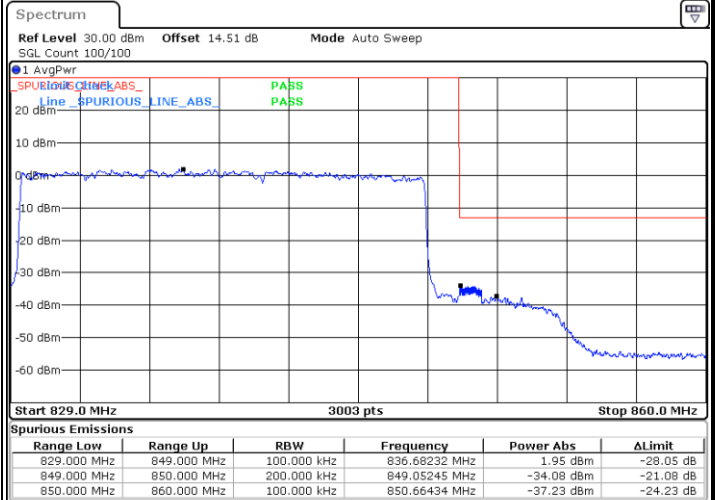
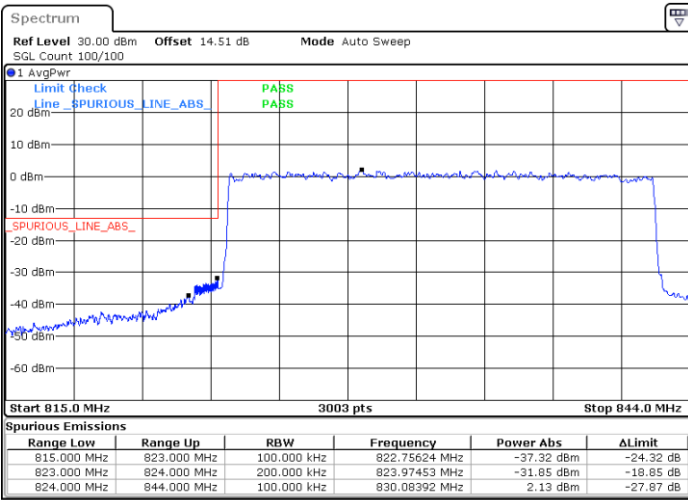


Date: 29.MAR.2021 14:53:10

Date: 29.MAR.2021 15:03:15

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 29.MAR.2021 14:55:14

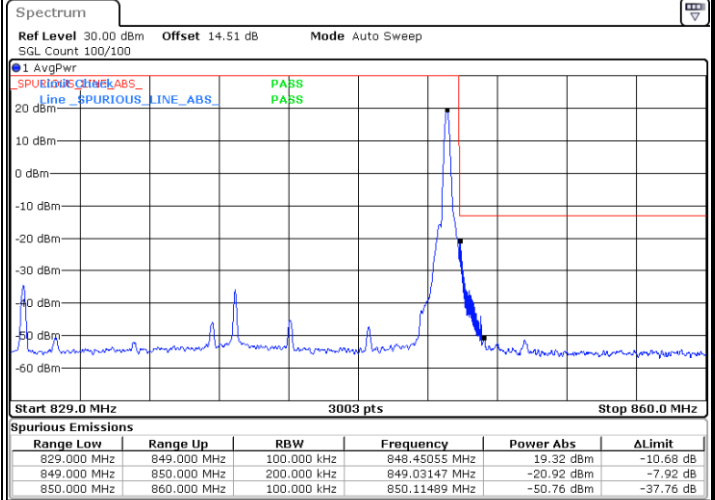
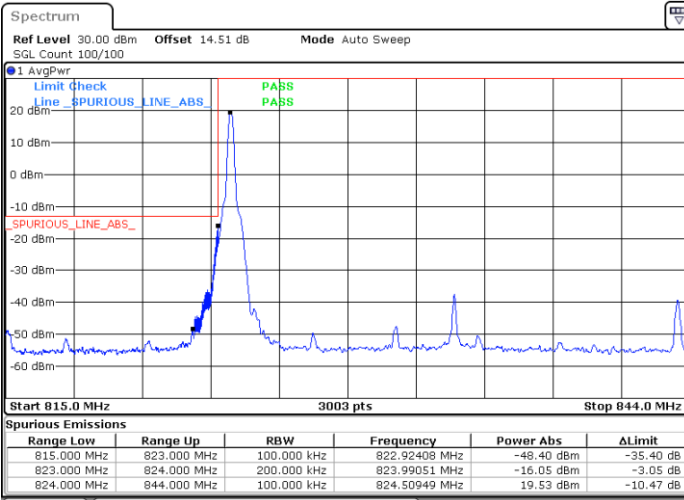
Date: 29.MAR.2021 15:01:38



FR1 n5 / 20MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

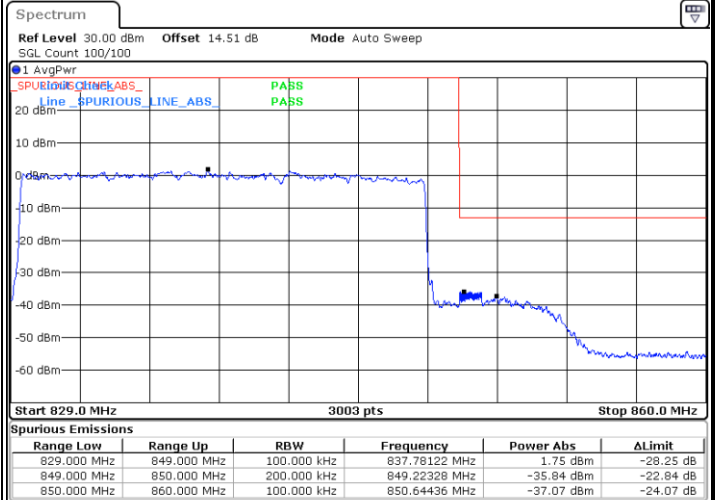
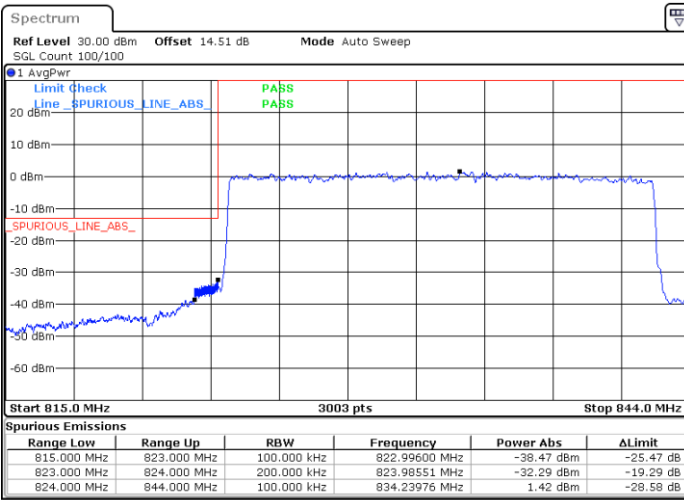


Date: 29.MAR.2021 14:52:43

Date: 29.MAR.2021 15:03:34

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 29.MAR.2021 14:55:40

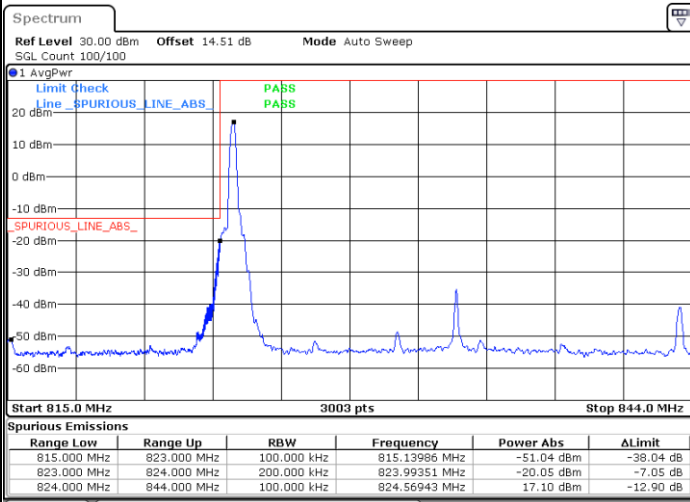
Date: 29.MAR.2021 15:01:20



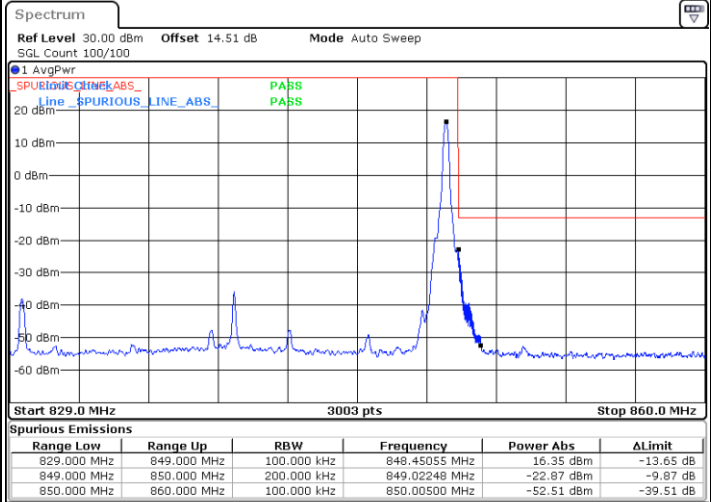
FR1 n5 / 20MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



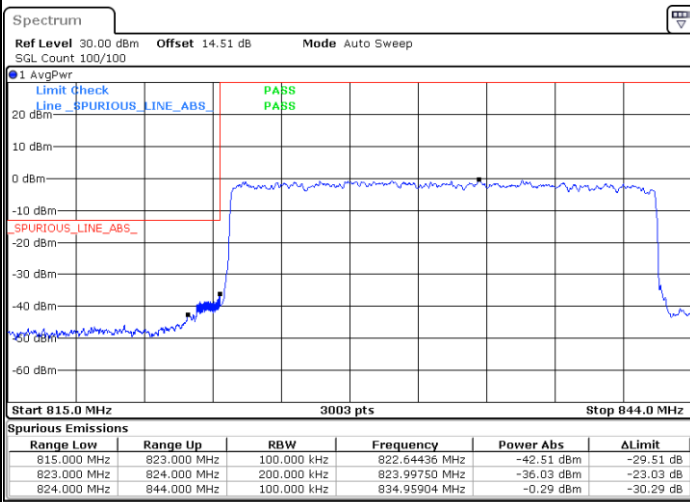
Date: 29.MAR.2021 14:52:19



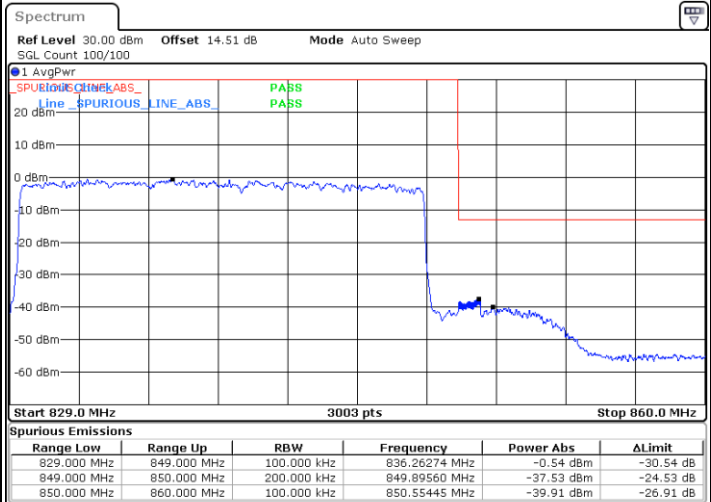
Date: 29.MAR.2021 15:03:59

Lowest Band Edge / Full RB

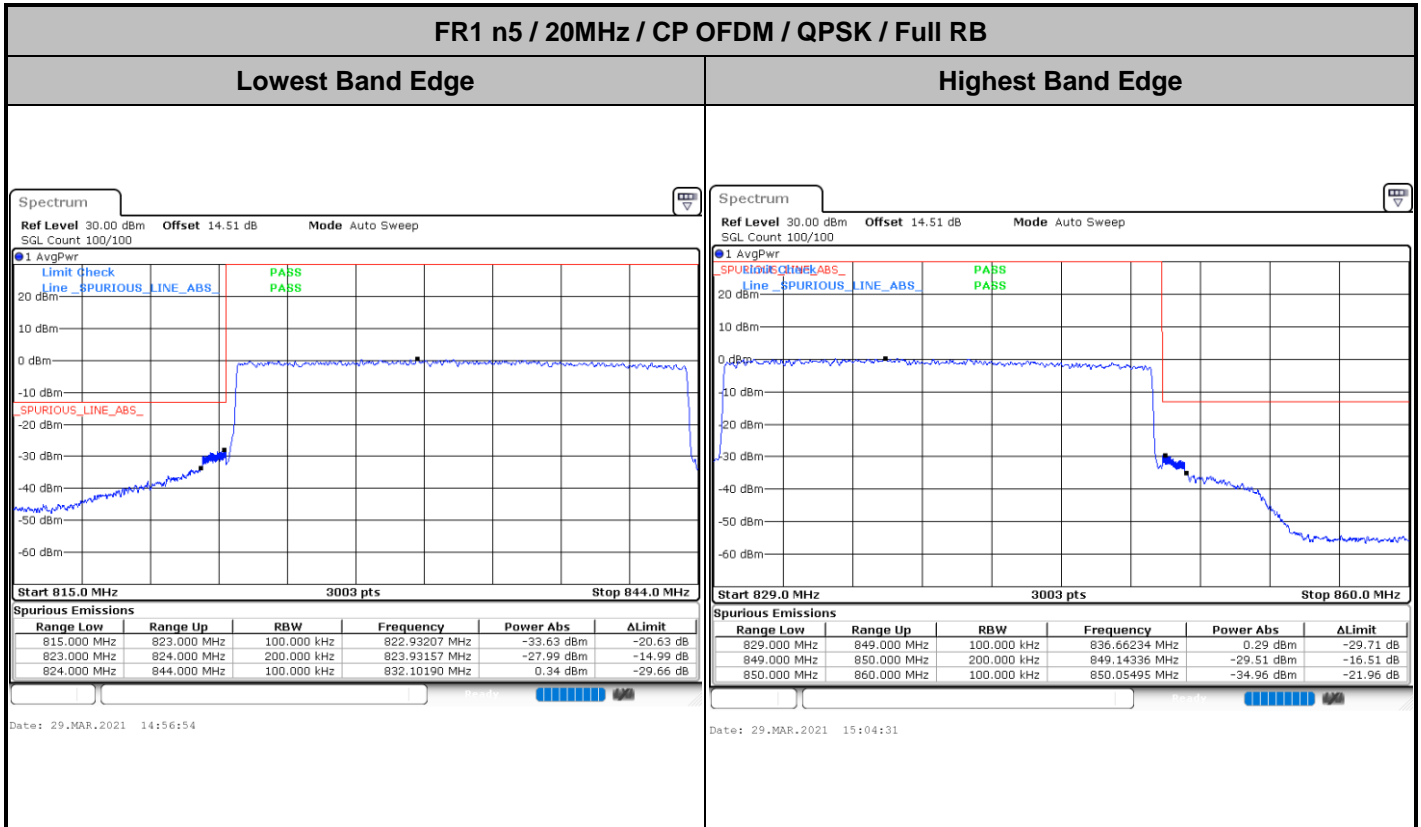
Highest Band Edge / Full RB



Date: 29.MAR.2021 14:56:17



Date: 29.MAR.2021 15:00:53



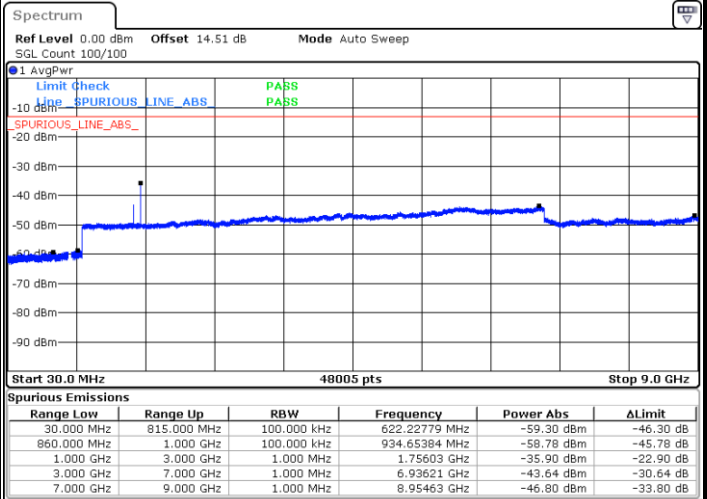
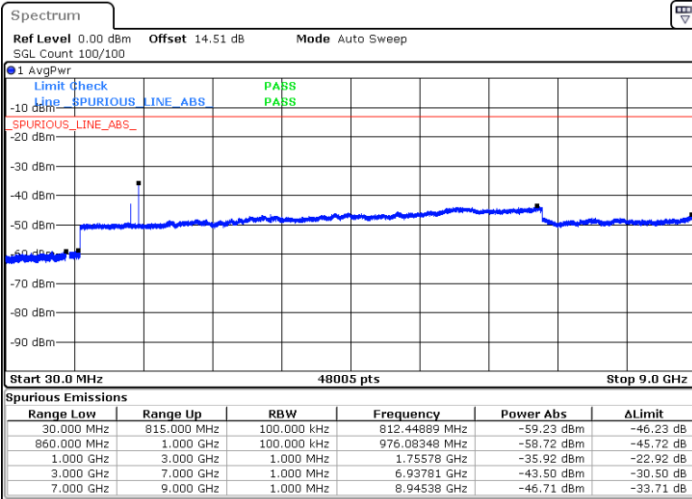


Conducted Spurious Emission

FR1 n5 / 5MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

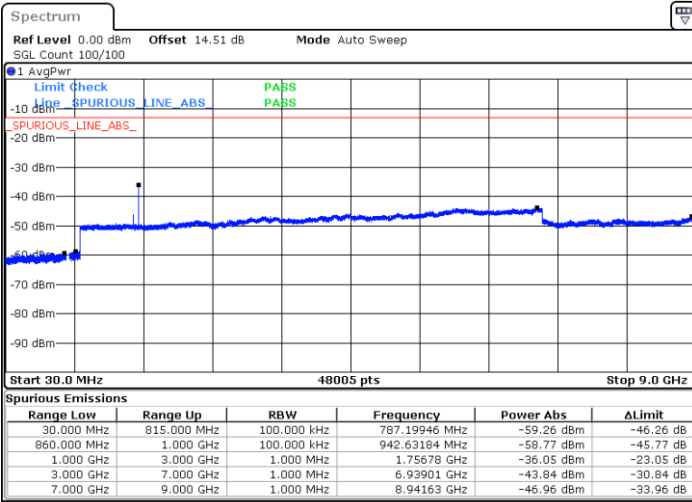
Middle Channel



Date: 29.MAR.2021 15:42:26

Date: 29.MAR.2021 15:43:08

Highest Channel



Date: 29.MAR.2021 15:51:43



Frequency Stability

Test Conditions		FR1 n5 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0203	PASS
40	Normal Voltage	0.0241	
30	Normal Voltage	0.0208	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0206	
-20	Normal Voltage	0.0206	
-30	Normal Voltage	0.0220	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0035	
20	Battery End Point	0.0225	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.67 V. ; Maximum Voltage =4.26 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



FR1 n5

<Sub>

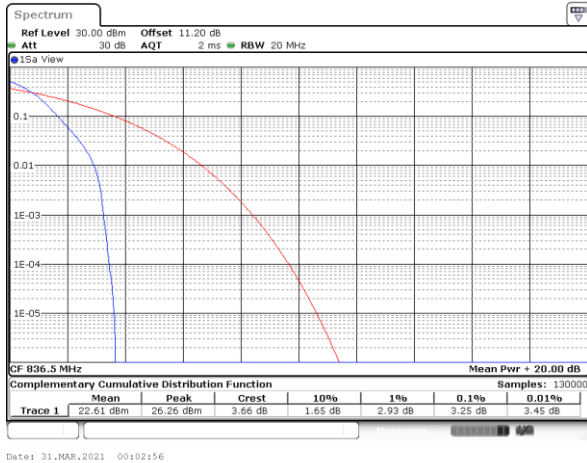
Peak-to-Average Ratio

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	3.25	4.38	5.51	5.88	PASS
Mode	FR1 n5 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.61				PASS



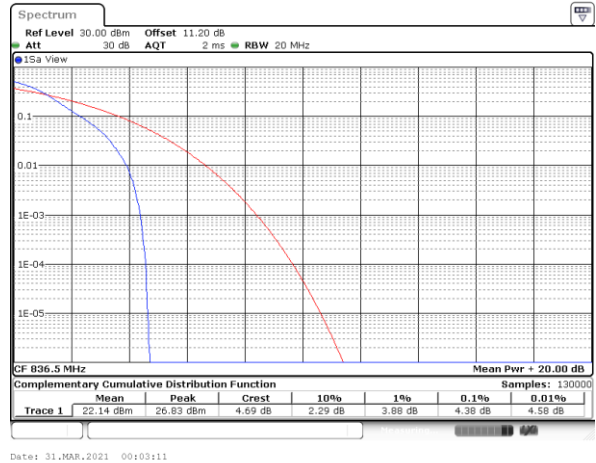
FR1 n5 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



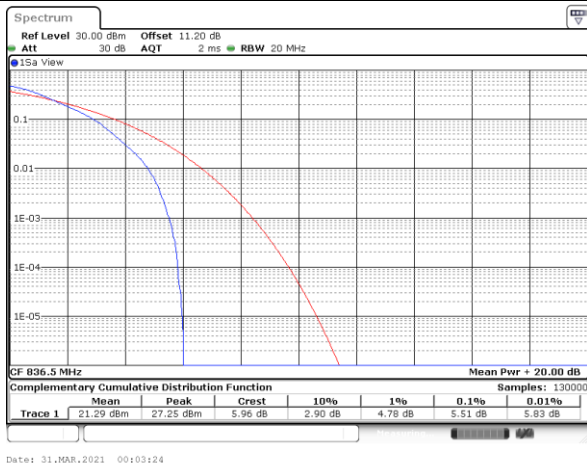
Date: 31.MAR.2021 00:02:56

QPSK



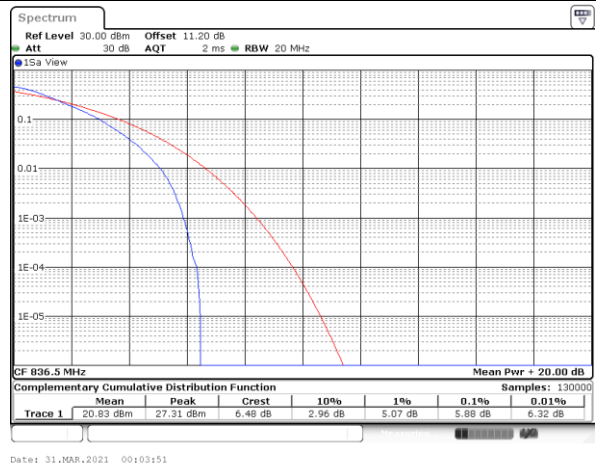
Date: 31.MAR.2021 00:03:11

16QAM



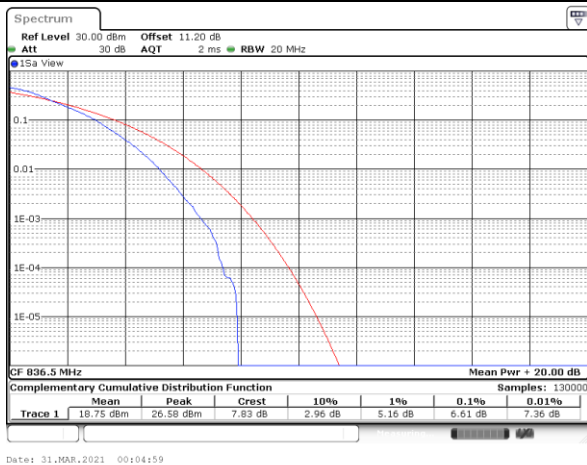
Date: 31.MAR.2021 00:03:24

64QAM



Date: 31.MAR.2021 00:03:51

256QAM



Date: 31.MAR.2021 00:04:59



26dB Bandwidth

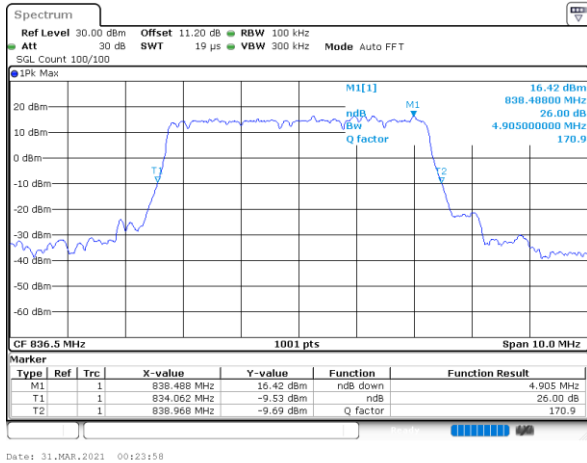
Mode	FR1 n5 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.91		9.43		14.12		18.90	

Mode	FR1 n5 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	5.01	4.95	9.91	9.79	14.90	14.96	19.78	19.86
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.99	4.92	9.73	9.81	14.87	14.99	19.78	19.90



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

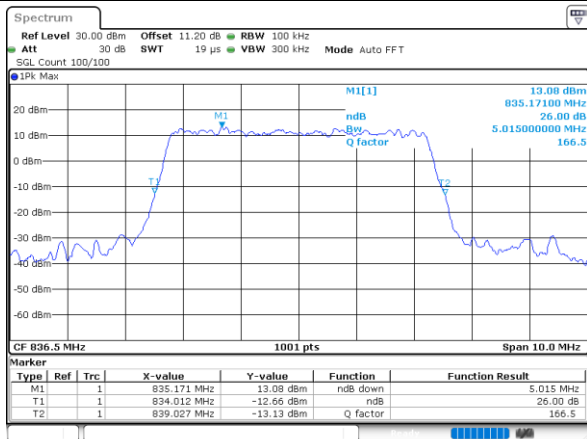
PI/2 BPSK



Date: 31.MAR.2021 00:23:58

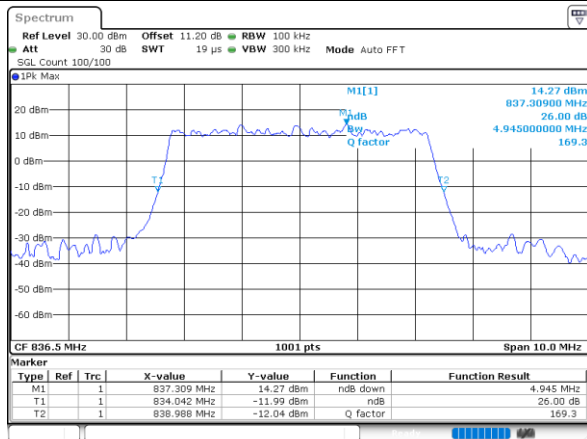
FR1 n5 / 5MHz / CP OFDM / Middle Channel / Full RB

QPSK



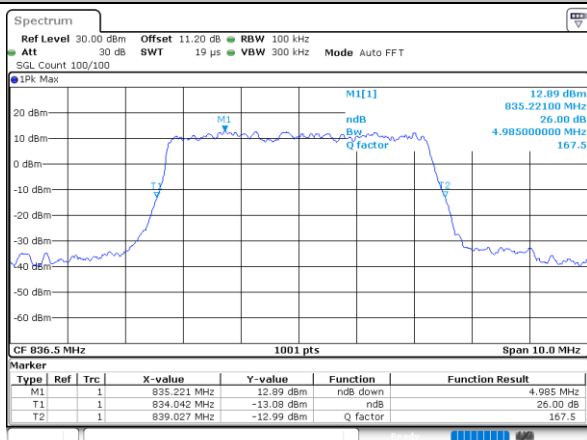
Date: 31.MAR.2021 00:22:31

16QAM



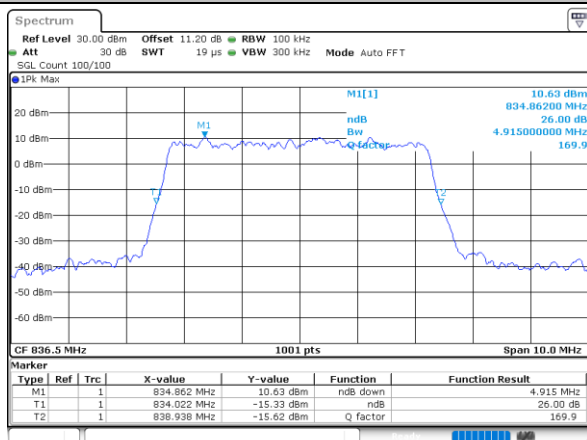
Date: 31.MAR.2021 00:22:09

64QAM



Date: 31.MAR.2021 00:21:53

256QAM

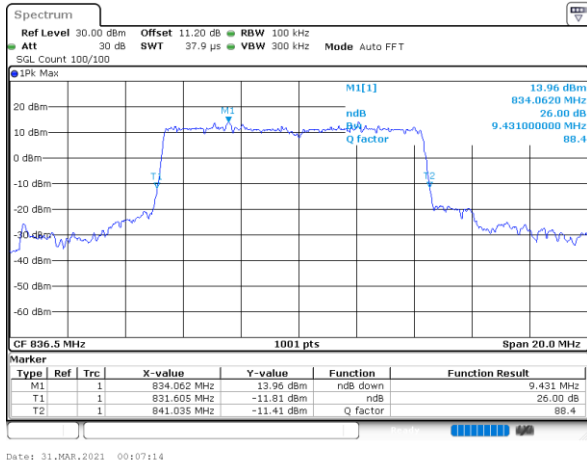


Date: 31.MAR.2021 00:21:36



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

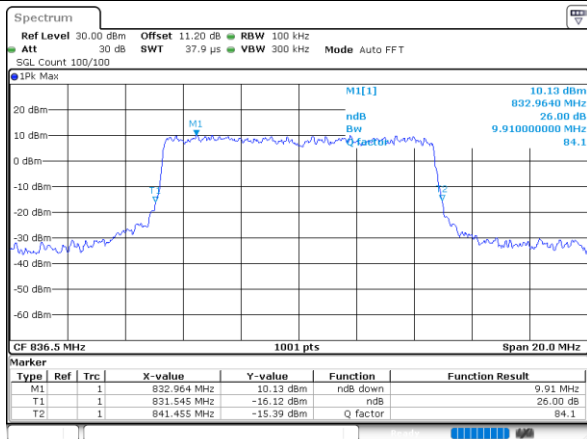
PI/2 BPSK



Date: 31.MAR.2021 00:07:14

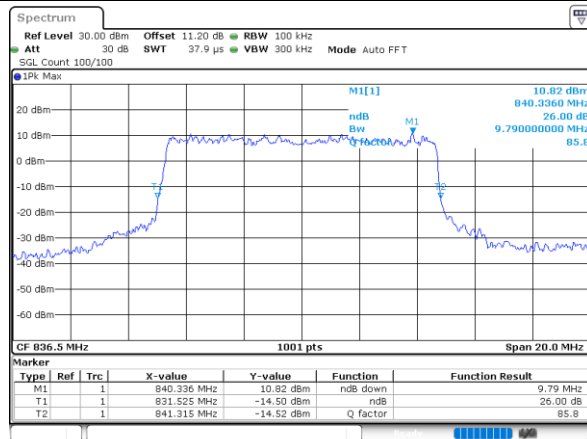
FR1 n5 / 10MHz / CP OFDM / Middle Channel / Full RB

QPSK



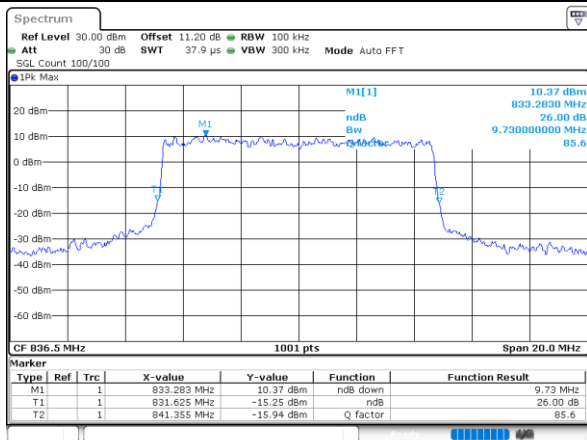
Date: 31.MAR.2021 00:07:42

16QAM



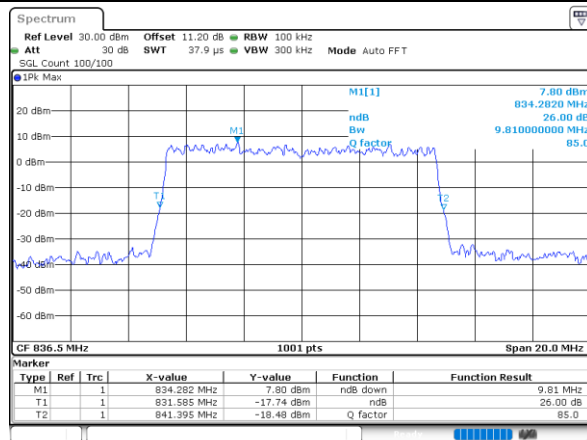
Date: 31.MAR.2021 00:10:10

64QAM



Date: 31.MAR.2021 00:20:27

256QAM



Date: 31.MAR.2021 00:20:46