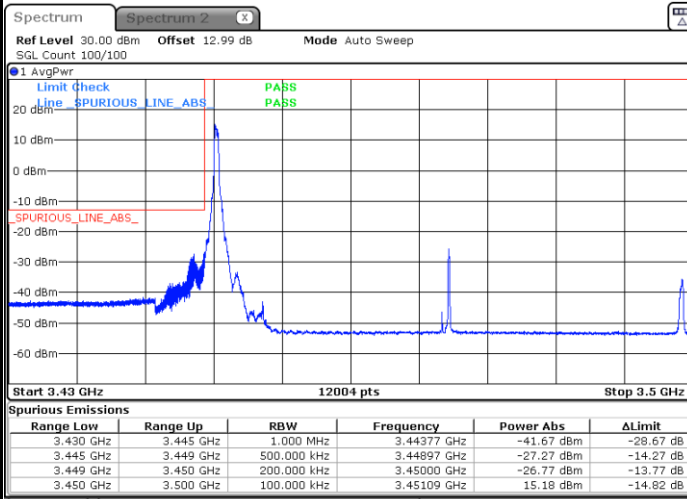




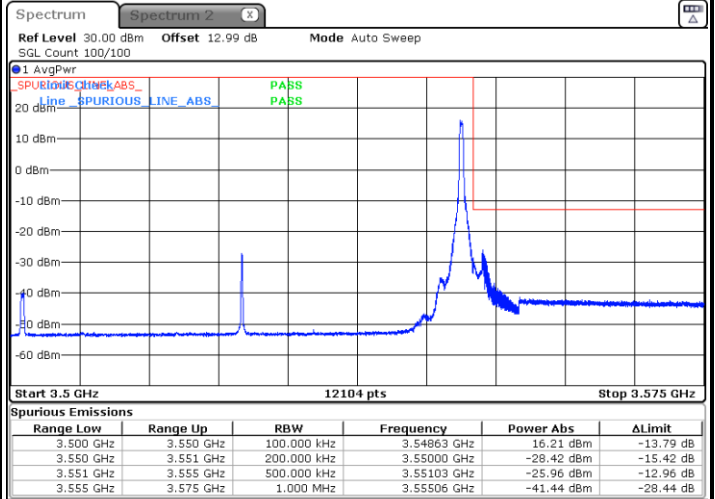
FR1 n77 / 50MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0



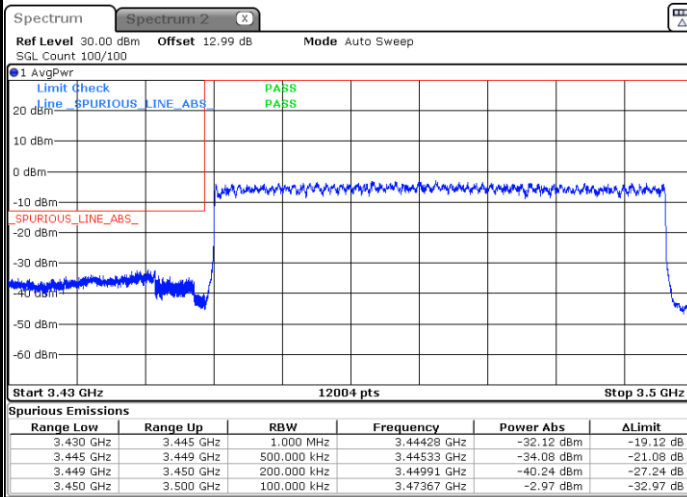
Date: 30.DEC.2021 08:42:28

Highest Band Edge / 1RB24



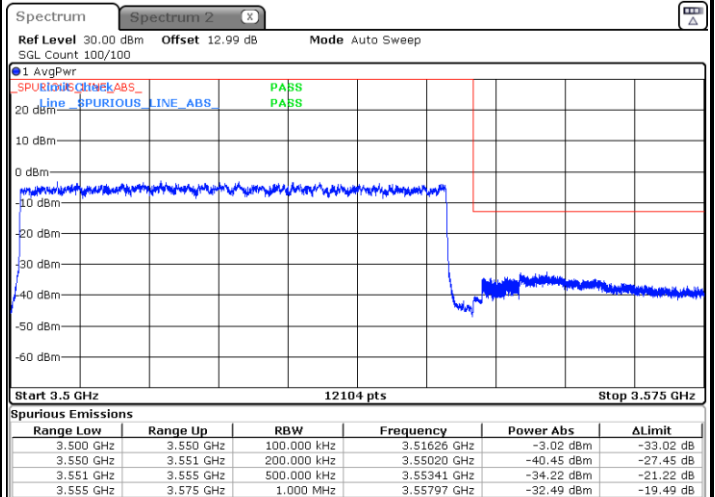
Date: 30.DEC.2021 08:32:37

Lowest Band Edge / Full RB



Date: 30.DEC.2021 08:40:14

Highest Band Edge / Full RB

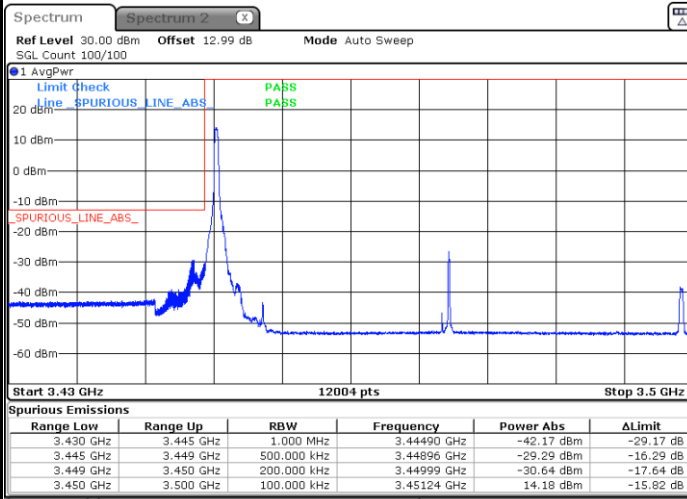


Date: 30.DEC.2021 08:34:47



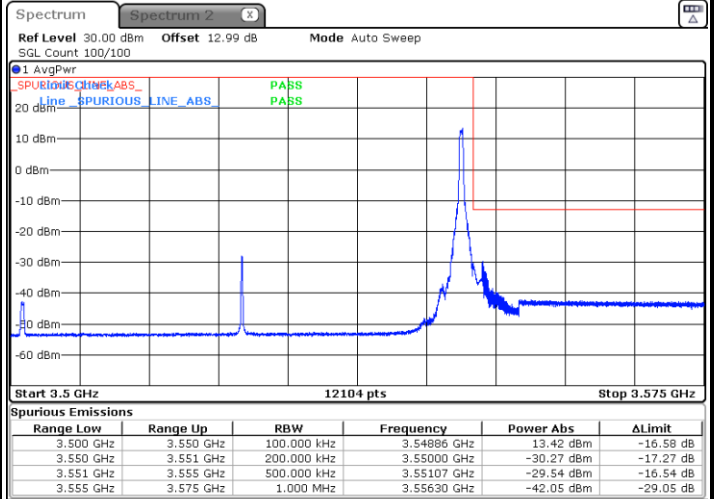
FR1 n77 / 50MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0



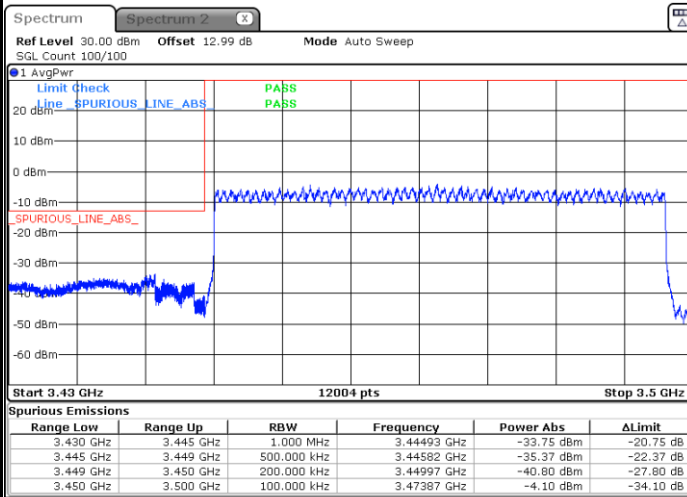
Date: 30.DEC.2021 08:41:46

Highest Band Edge / 1RB24



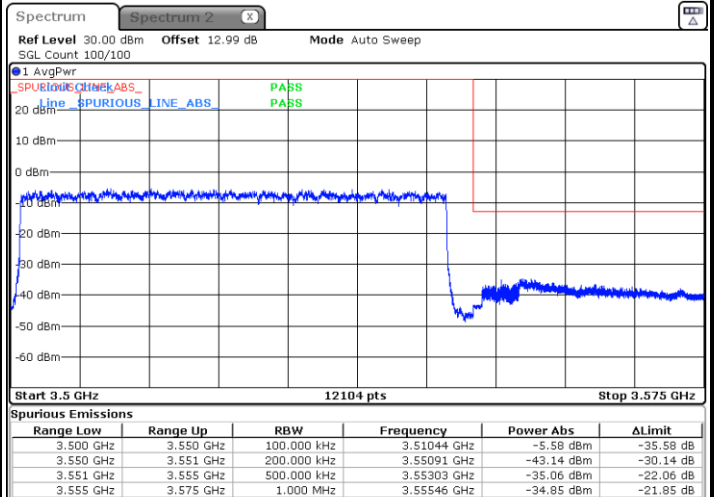
Date: 30.DEC.2021 08:33:22

Lowest Band Edge / Full RB



Date: 30.DEC.2021 08:41:03

Highest Band Edge / Full RB



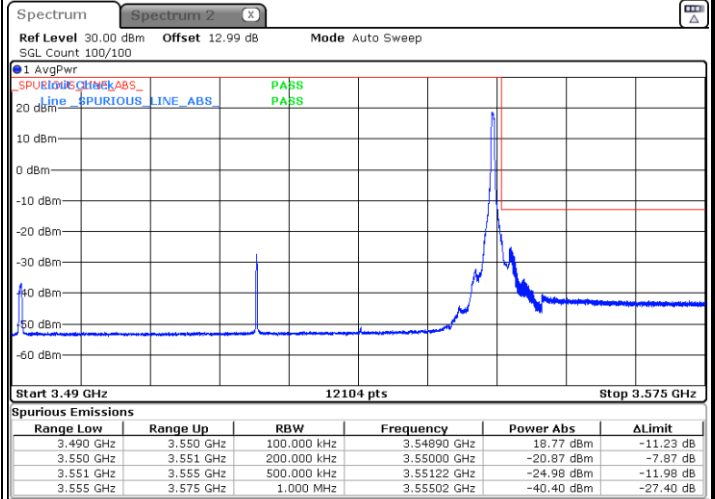
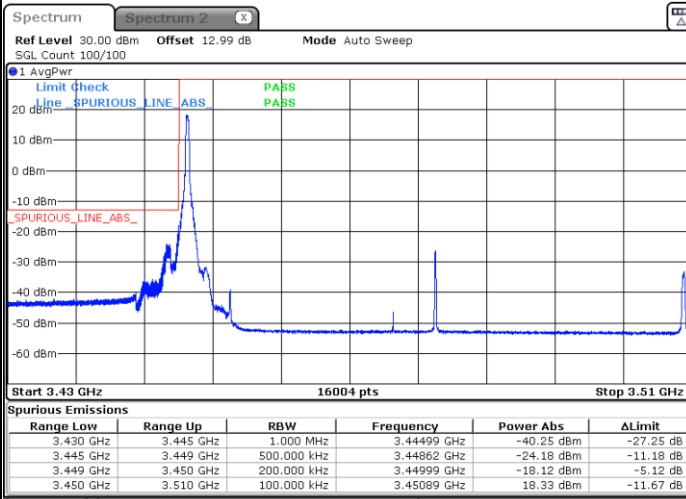
Date: 30.DEC.2021 08:34:04



FR1 n77/ 60MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

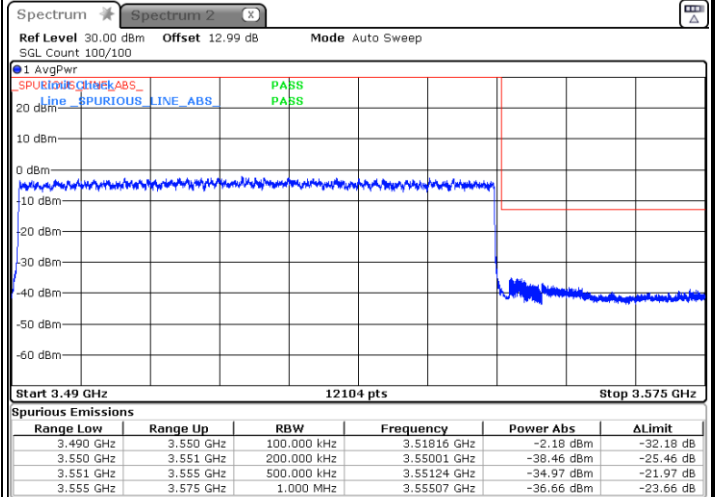
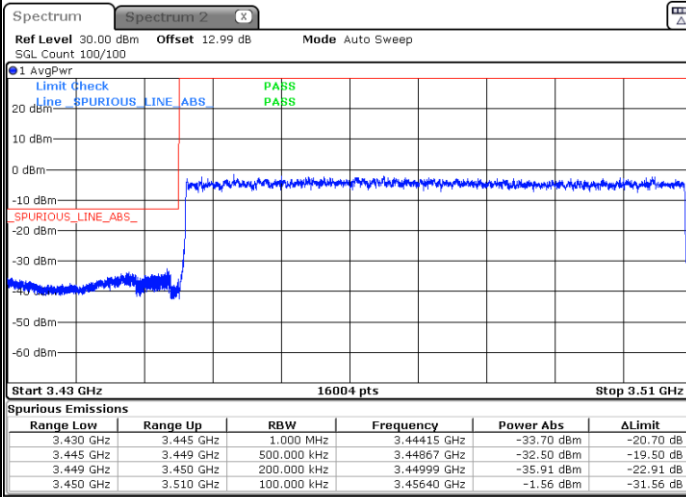


Date: 30.DEC.2021 08:15:58

Date: 30.DEC.2021 08:14:27

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 08:23:47

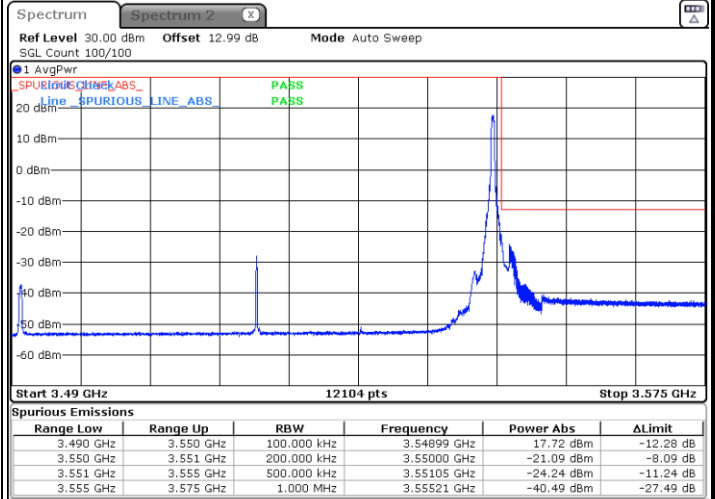
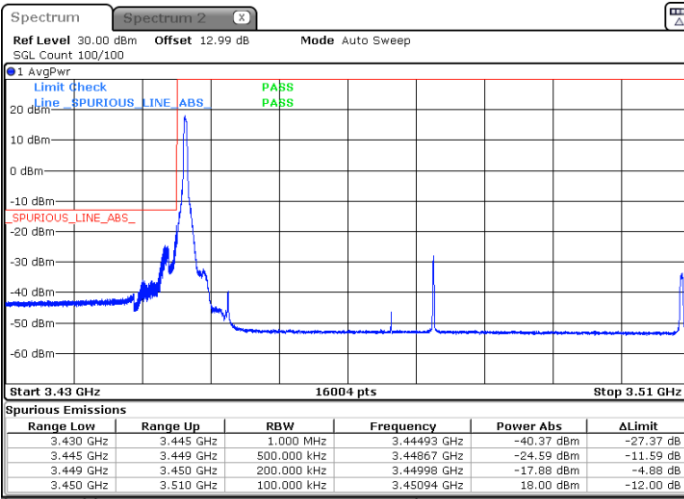
Date: 30.DEC.2021 08:03:19



FR1 n77 / 60MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

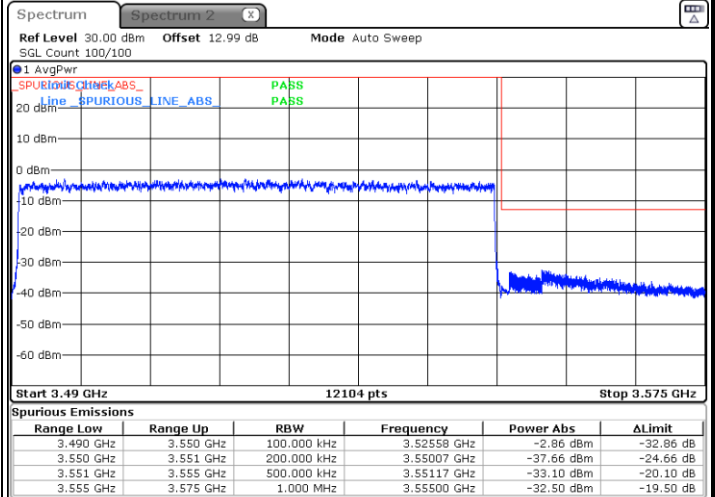
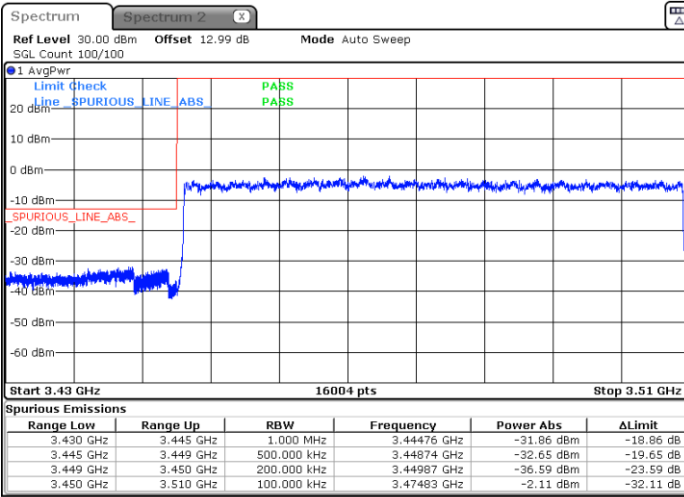


Date: 30.DEC.2021 08:16:55

Date: 30.DEC.2021 08:13:33

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 08:22:37

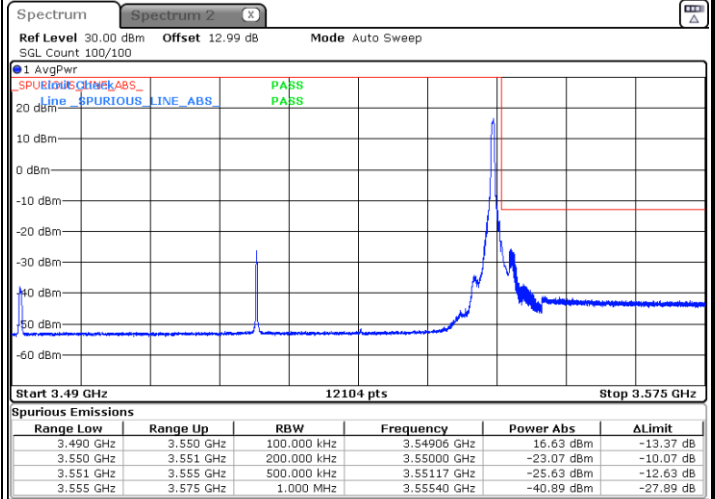
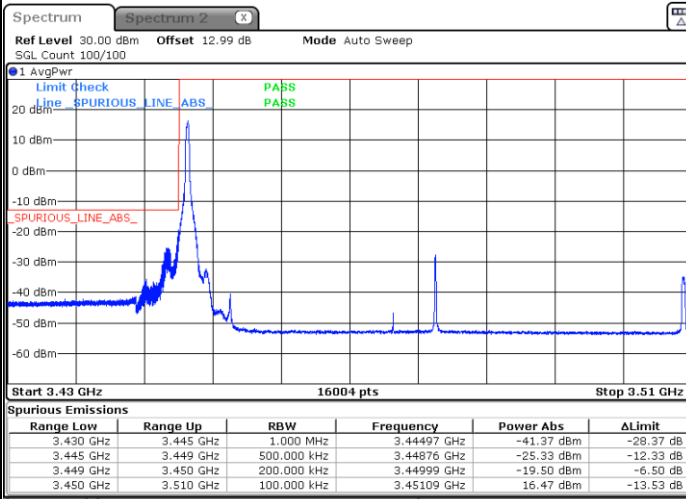
Date: 30.DEC.2021 08:04:15



FR1 n77 / 60MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

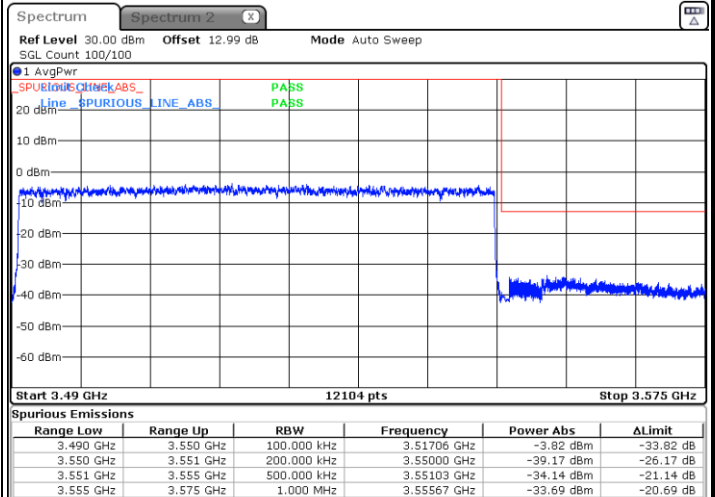
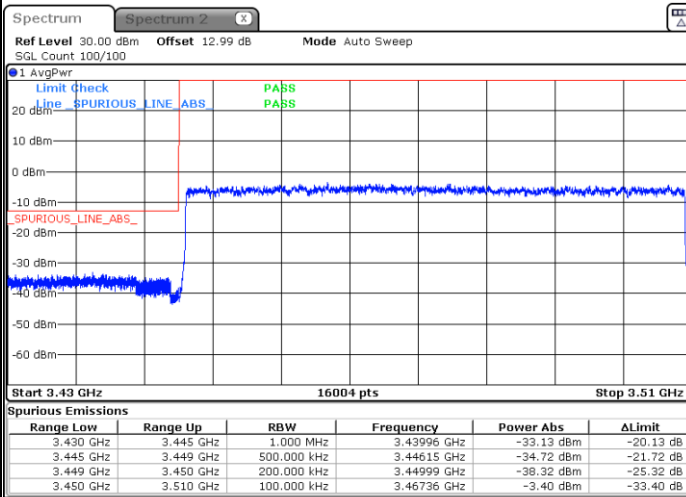


Date: 30.DEC.2021 08:17:55

Date: 30.DEC.2021 08:11:22

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



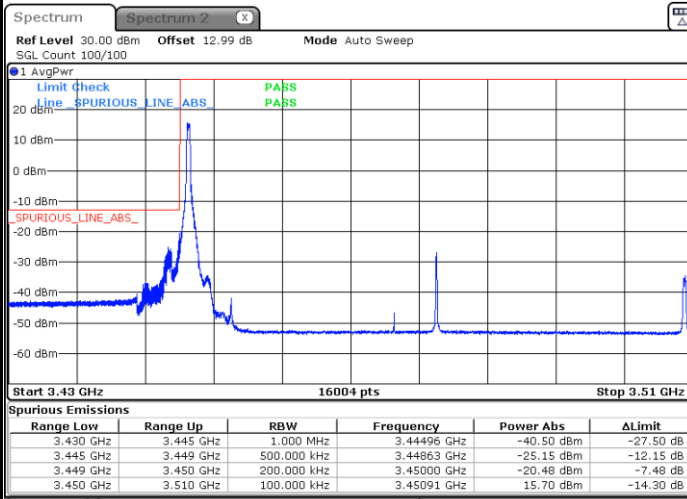
Date: 30.DEC.2021 08:21:54

Date: 30.DEC.2021 08:05:05



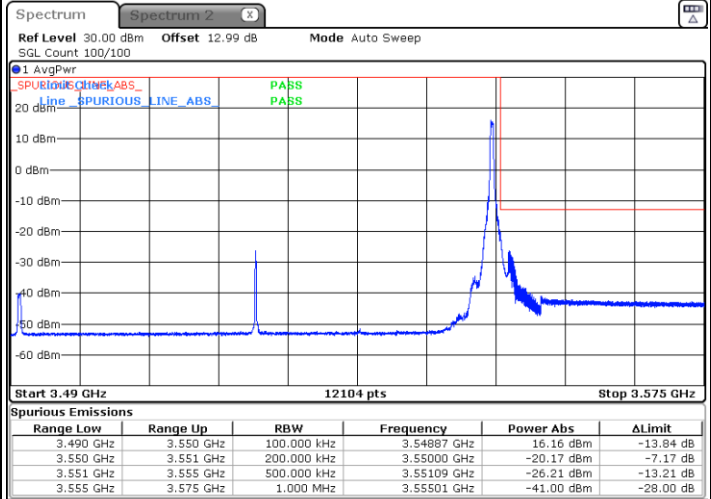
FR1 n77 / 60MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0



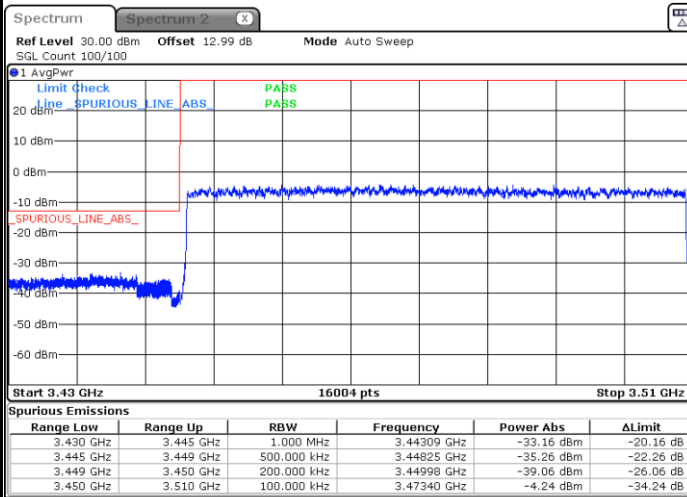
Date: 30.DEC.2021 08:18:37

Highest Band Edge / 1RB24



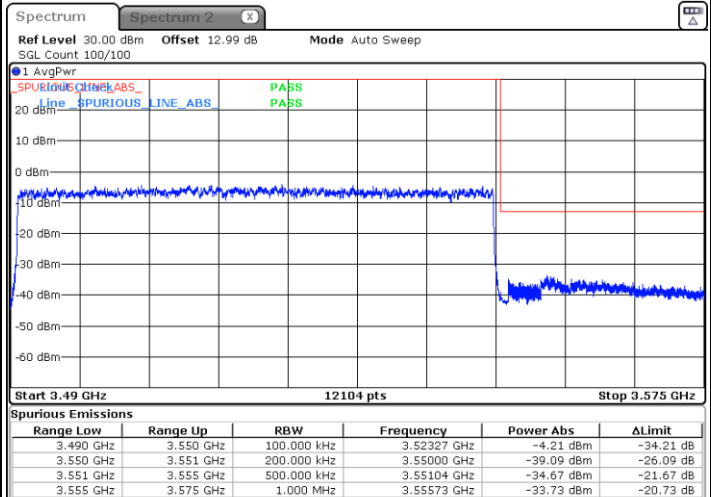
Date: 30.DEC.2021 08:10:14

Lowest Band Edge / Full RB



Date: 30.DEC.2021 08:21:08

Highest Band Edge / Full RB

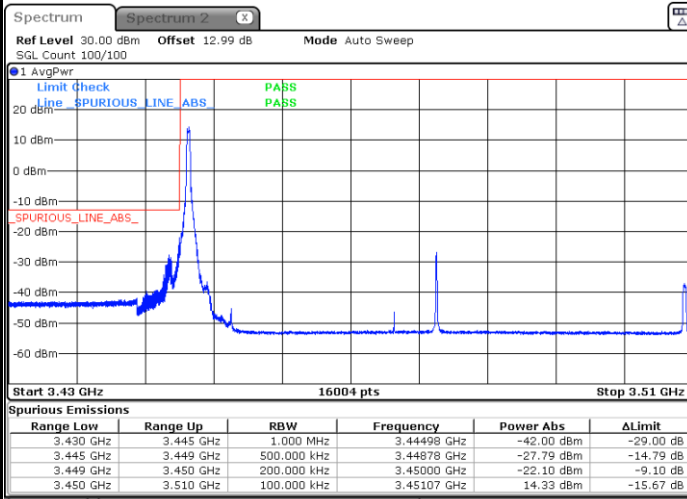


Date: 30.DEC.2021 08:06:25

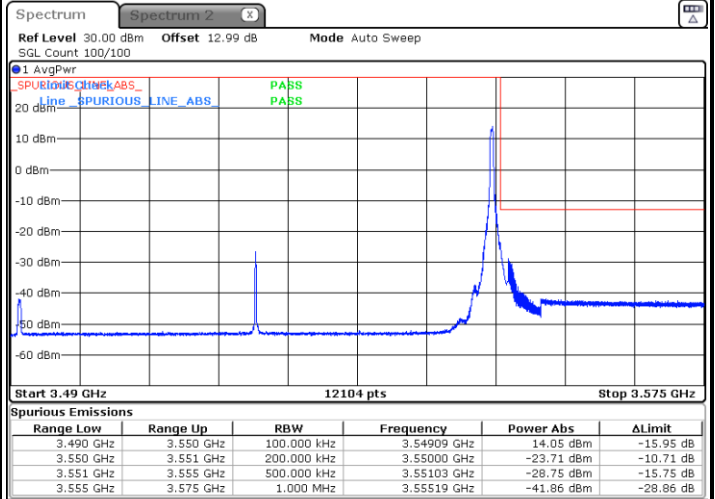


FR1 n77 / 60MHz / DFT-S OFDM / 256QAM

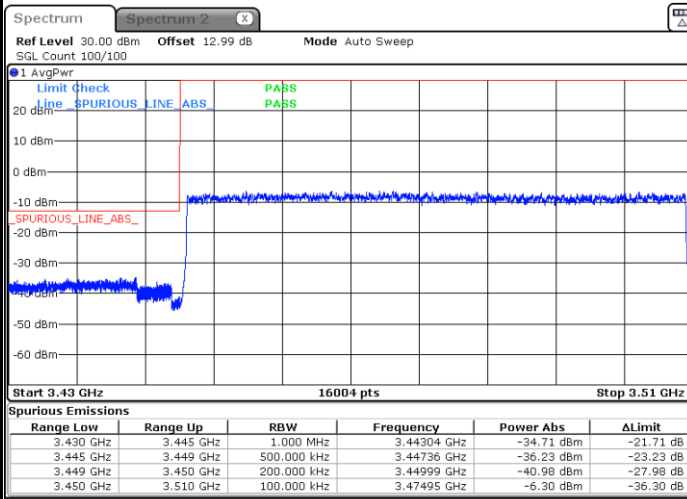
Lowest Band Edge / 1RB0



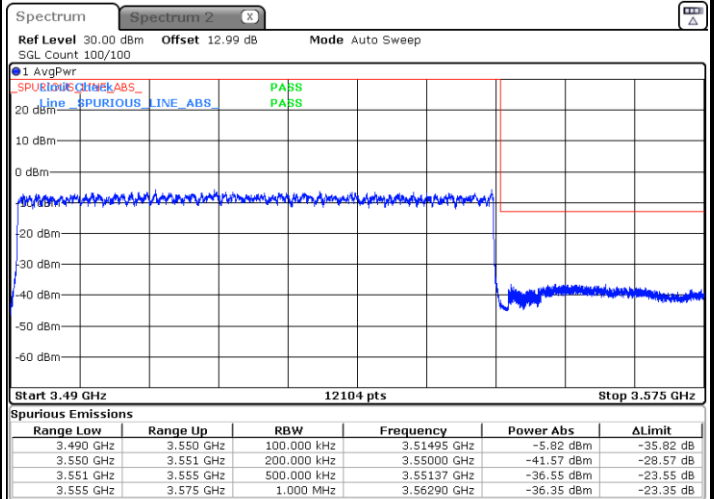
Highest Band Edge / 1RB24



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

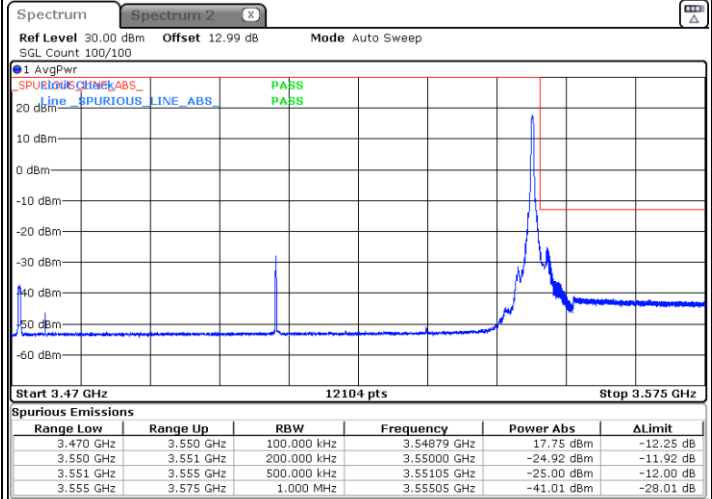
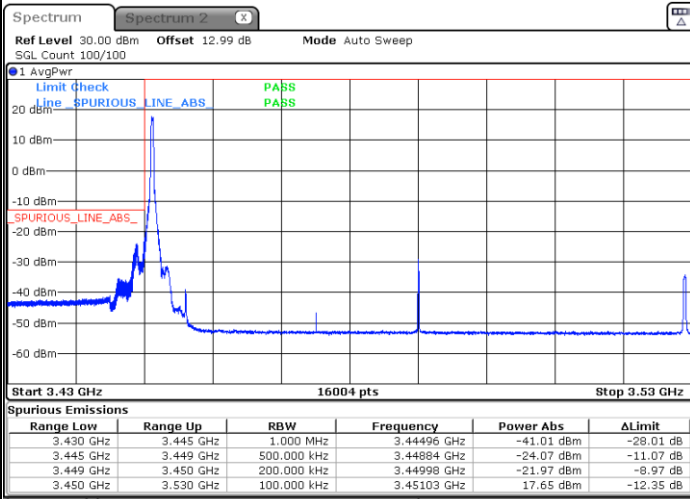




FR1 n77 / 80MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

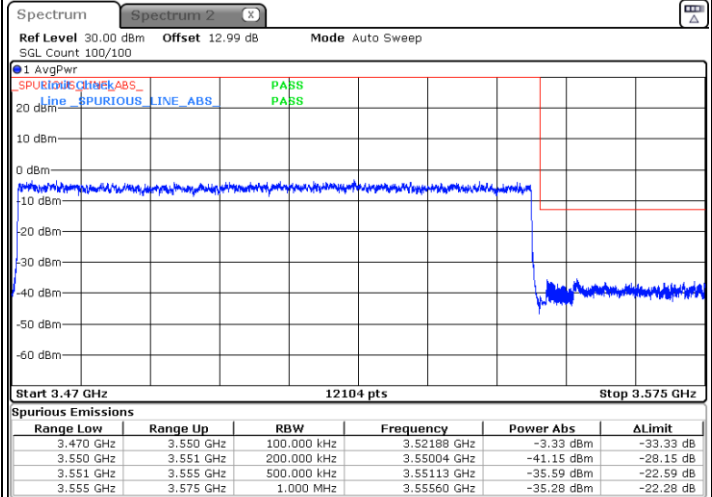
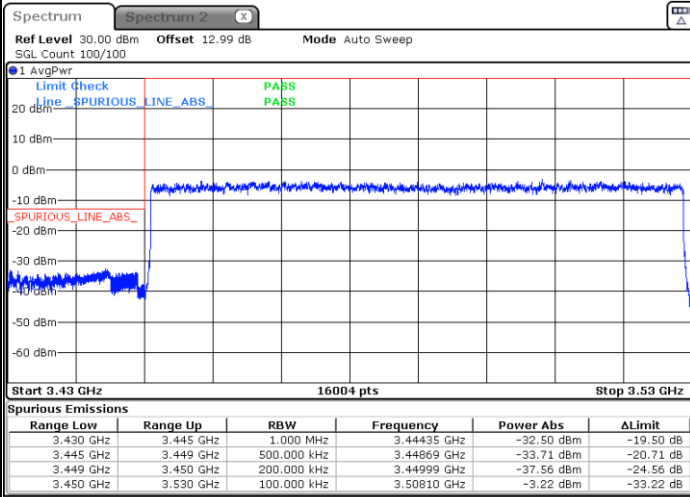


Date: 30.DEC.2021 07:41:59

Date: 30.DEC.2021 07:40:59

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 07:55:35

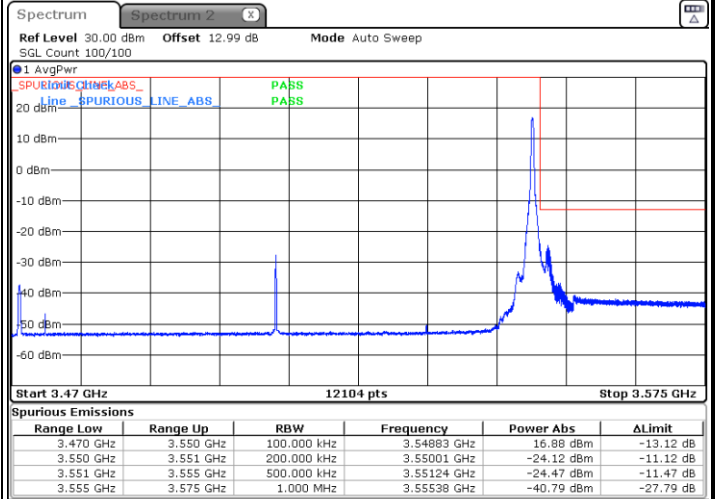
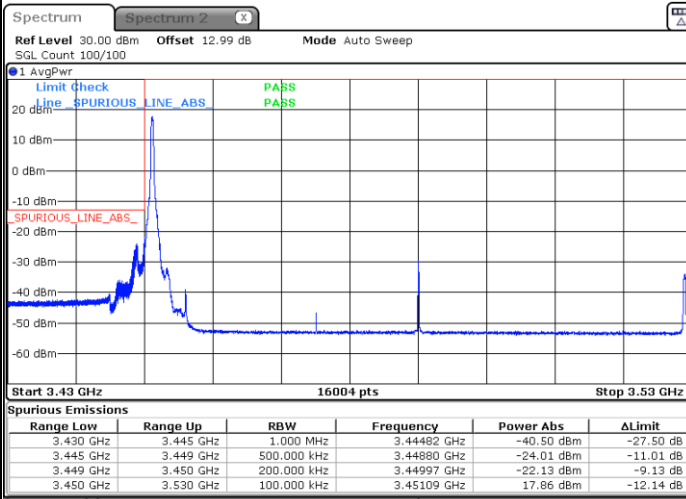
Date: 30.DEC.2021 07:25:44



FR1 n77 / 80MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

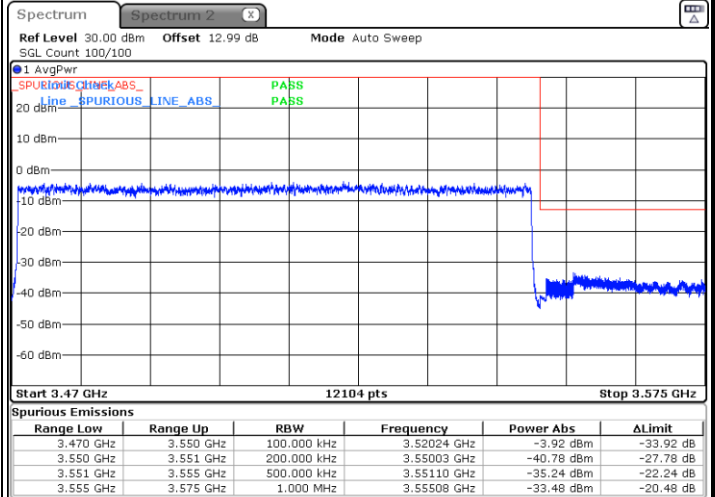
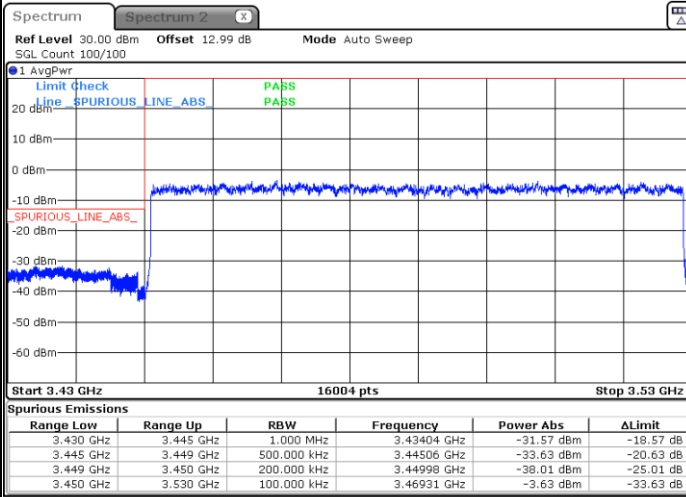


Date: 30.DEC.2021 07:42:39

Date: 30.DEC.2021 07:40:11

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 07:54:27

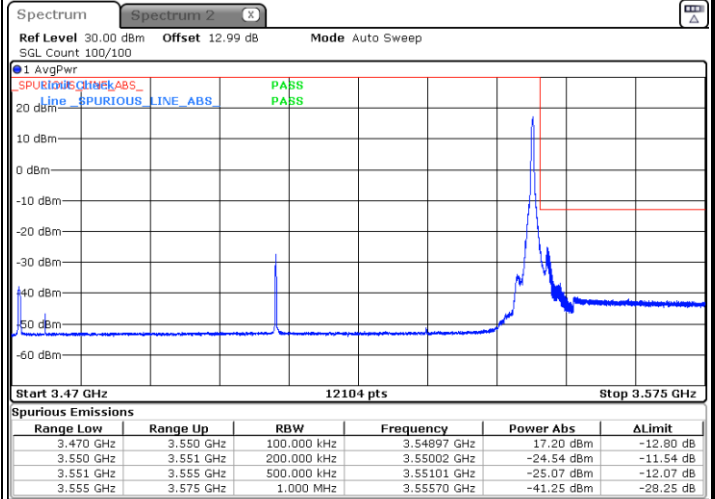
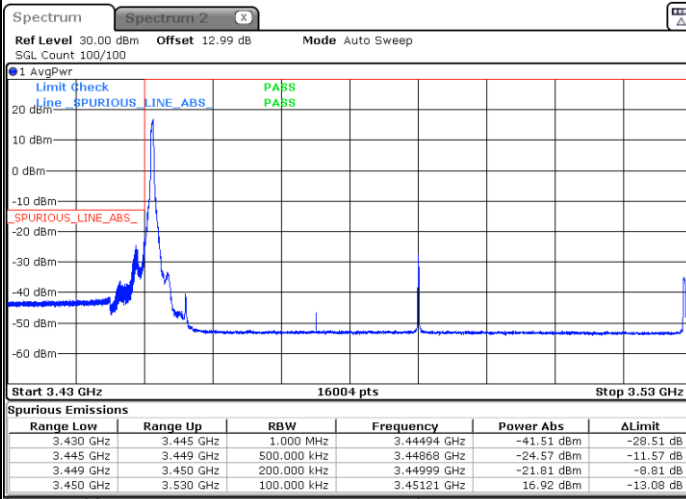
Date: 30.DEC.2021 07:26:36



FR1 n77 / 80MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

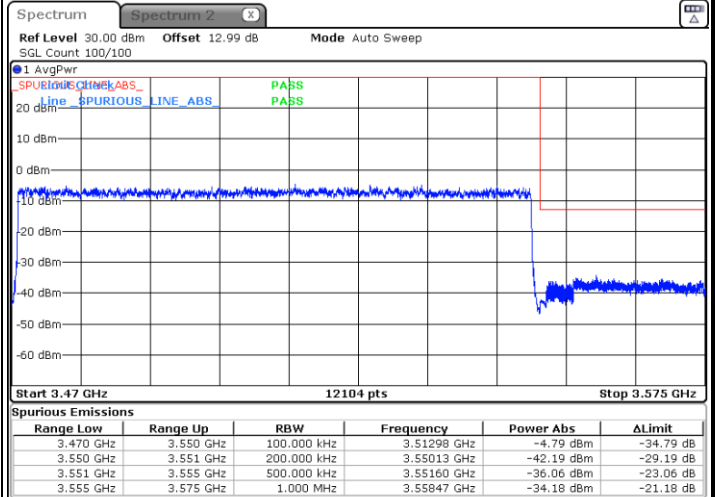
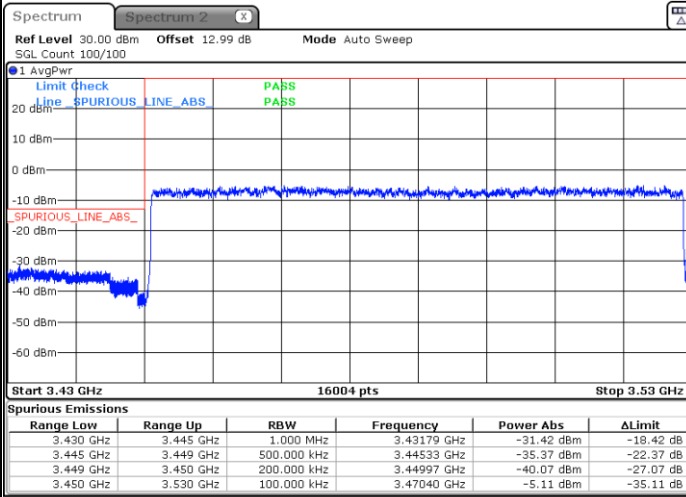


Date: 30.DEC.2021 07:43:22

Date: 30.DEC.2021 07:38:55

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 07:52:56

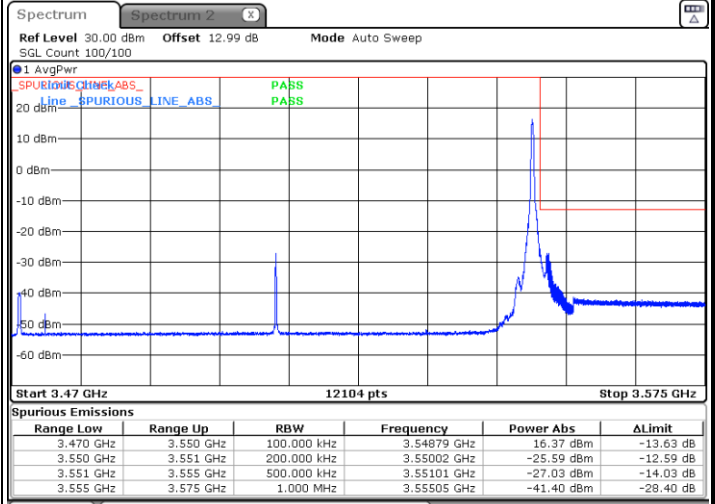
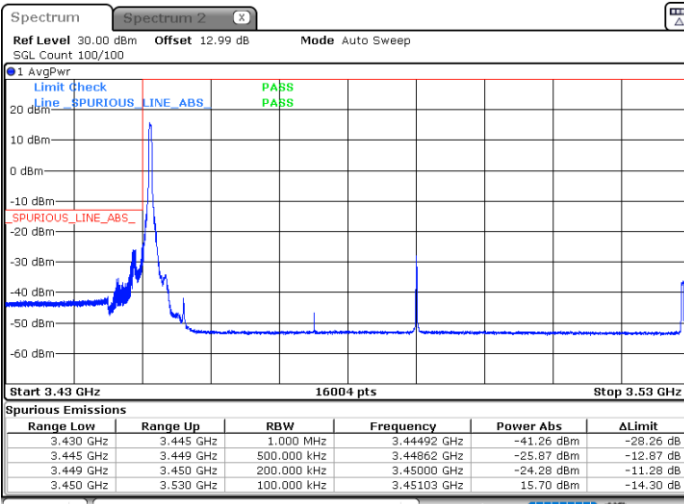
Date: 30.DEC.2021 07:30:09



FR1 n77 / 80MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

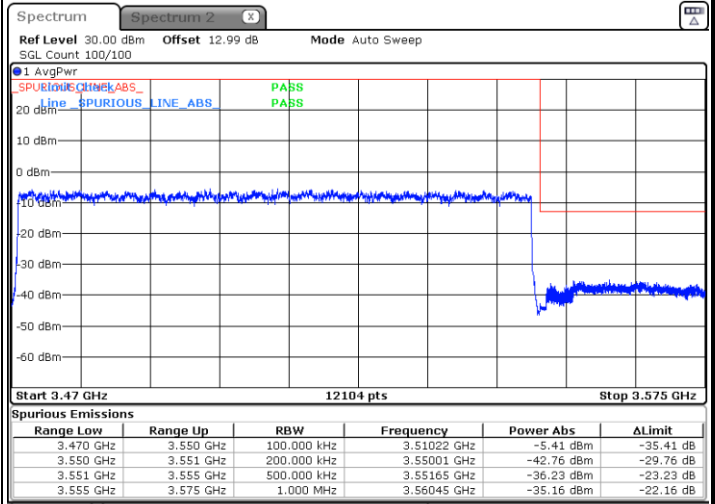
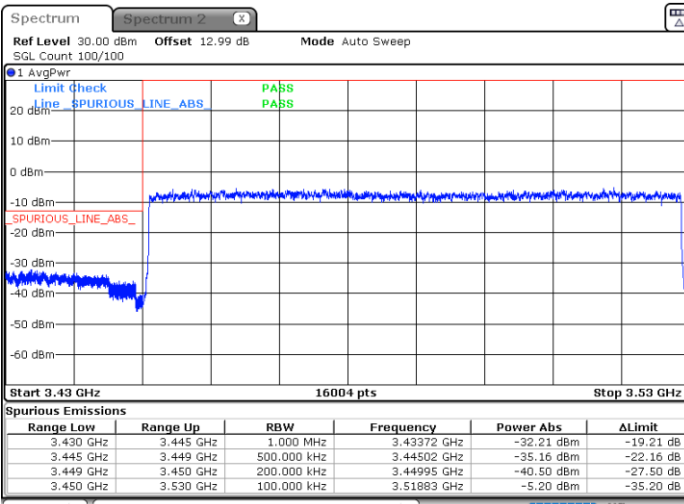


Date: 30.DEC.2021 07:44:03

Date: 30.DEC.2021 07:38:10

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 07:51:55

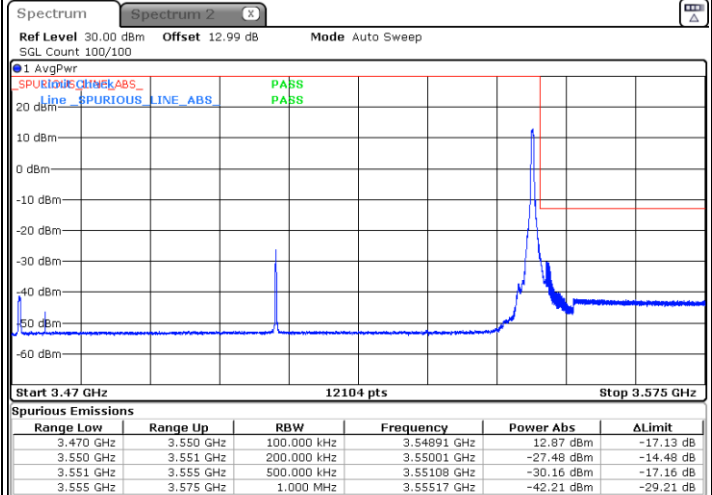
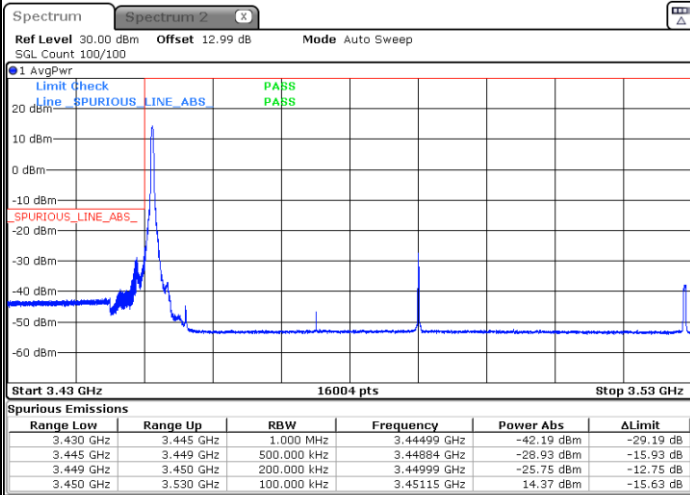
Date: 30.DEC.2021 07:31:20



FR1 n77 / 80MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

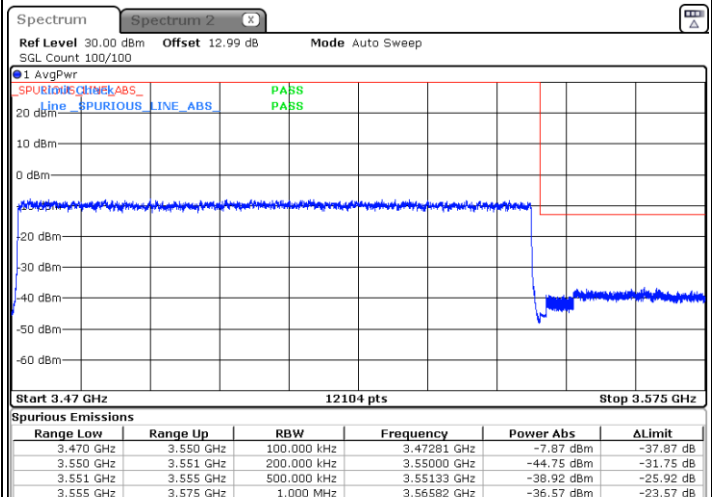
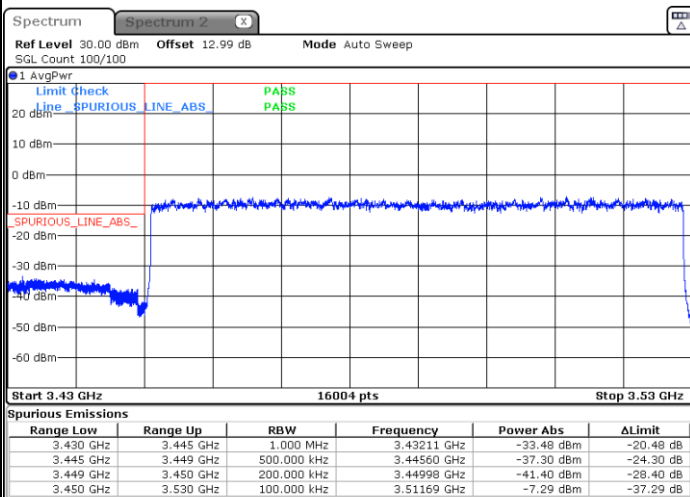


Date: 30.DEC.2021 07:44:49

Date: 30.DEC.2021 07:37:19

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 07:51:01

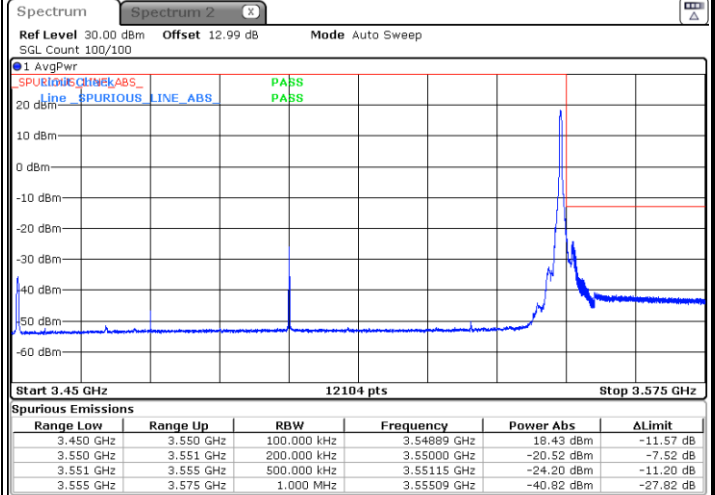
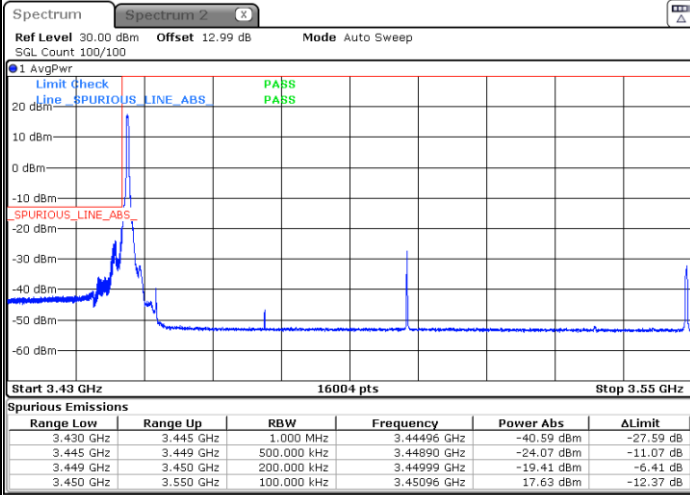
Date: 30.DEC.2021 07:35:06



FR1 n77 / 100MHz / DFT-S OFDM / BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

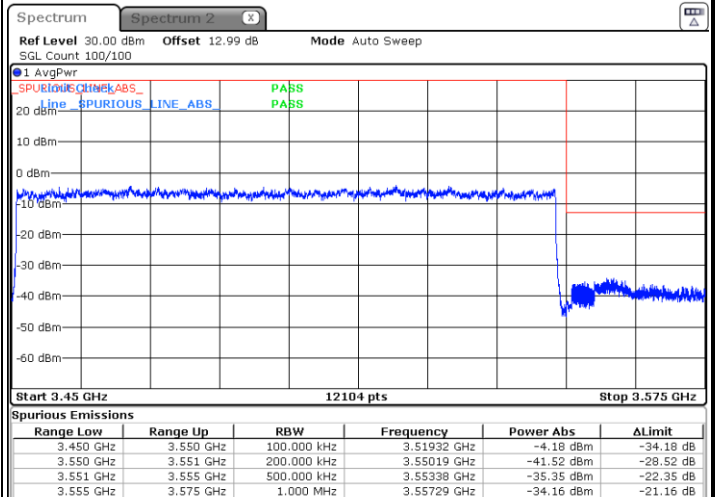
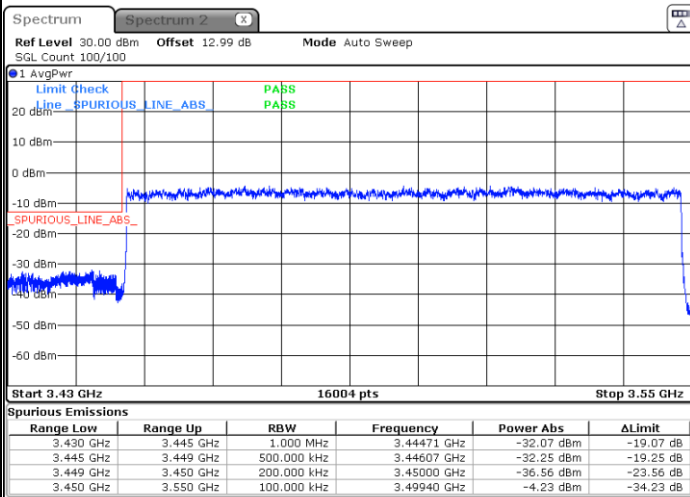


Date: 30.DEC.2021 06:48:22

Date: 30.DEC.2021 07:13:22

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 06:58:33

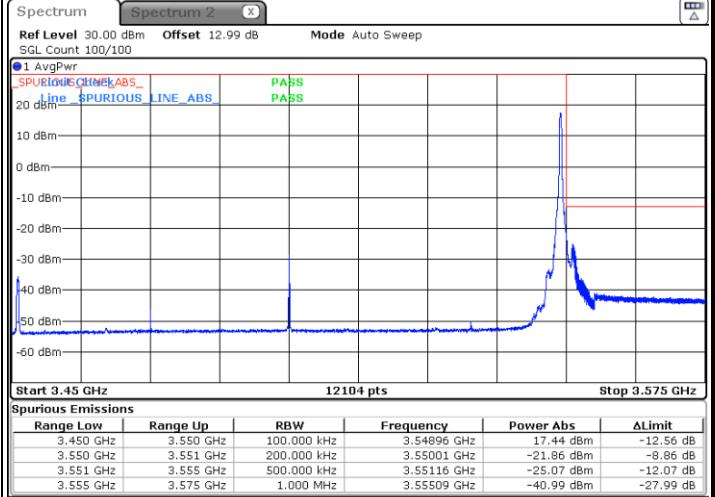
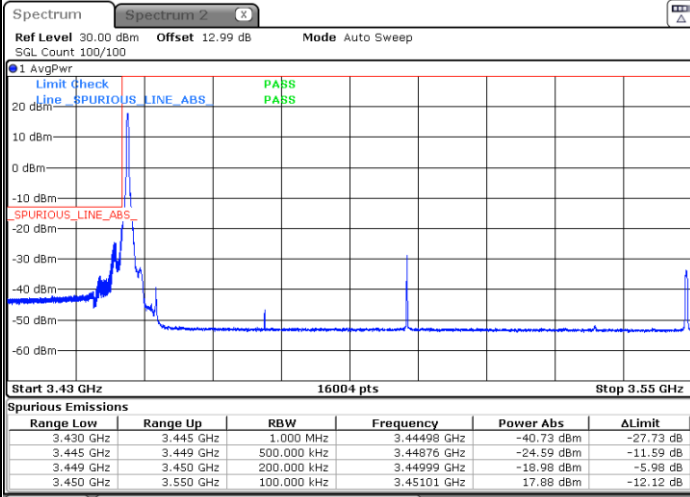
Date: 30.DEC.2021 07:00:03



FR1 n77 / 100MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

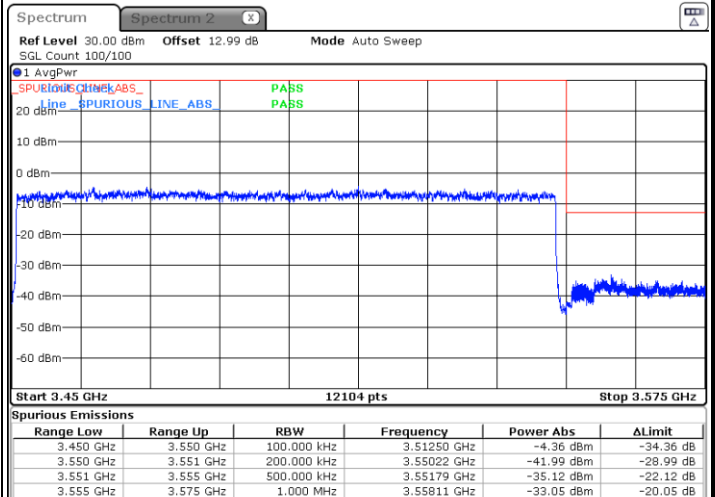
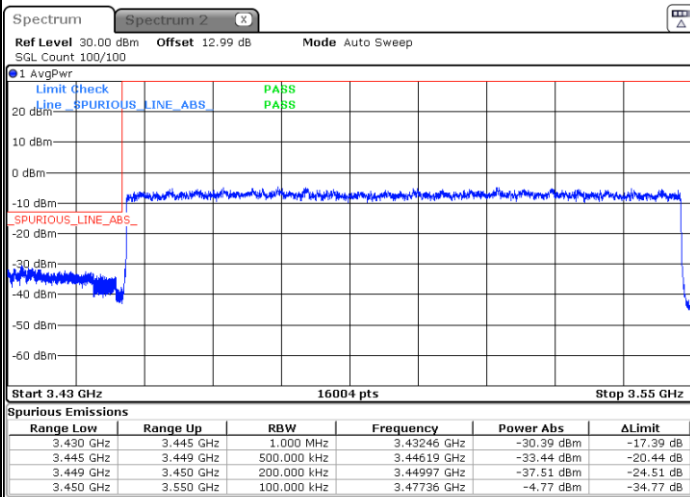


Date: 30.DEC.2021 06:49:39

Date: 30.DEC.2021 07:11:38

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 06:57:47

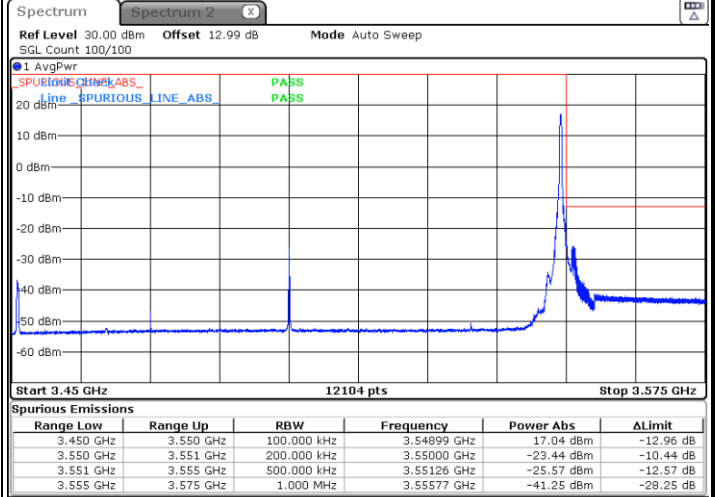
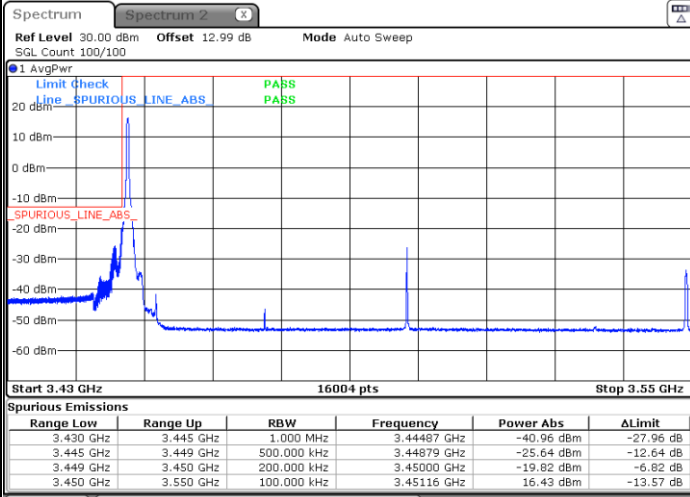
Date: 30.DEC.2021 07:00:57



FR1 n77 / 100MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

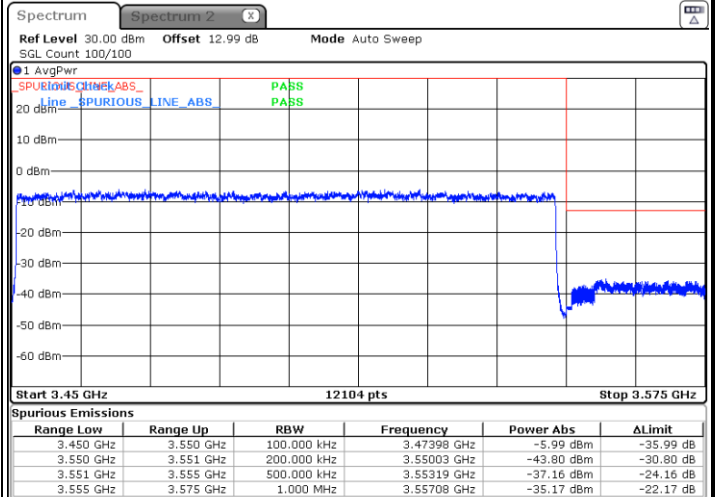
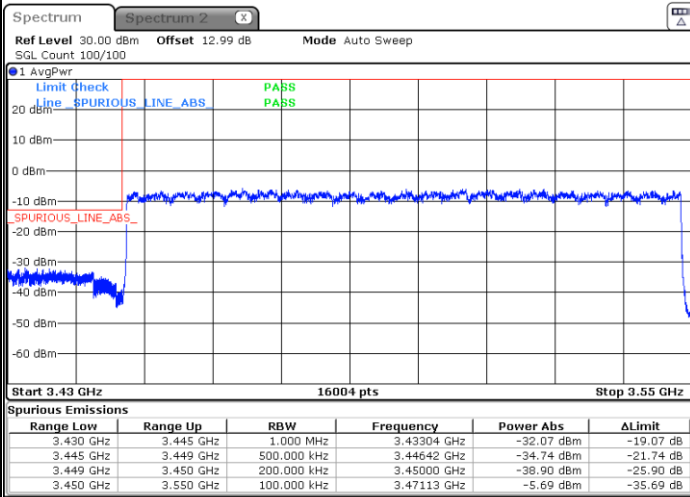


Date: 30.DEC.2021 06:51:21

Date: 30.DEC.2021 07:10:43

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 06:57:00

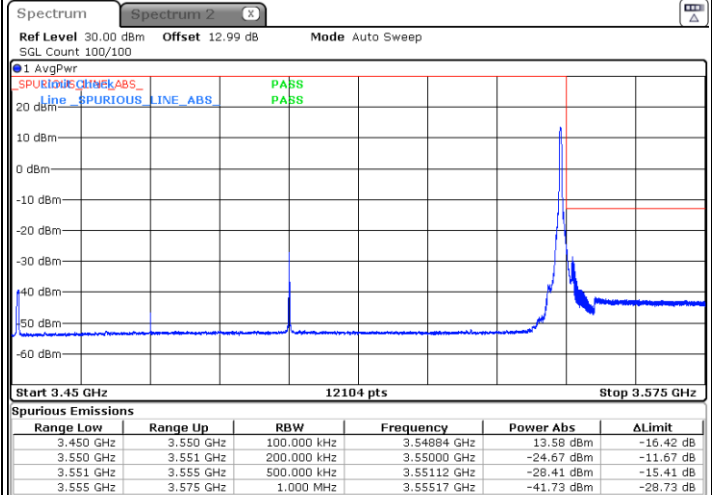
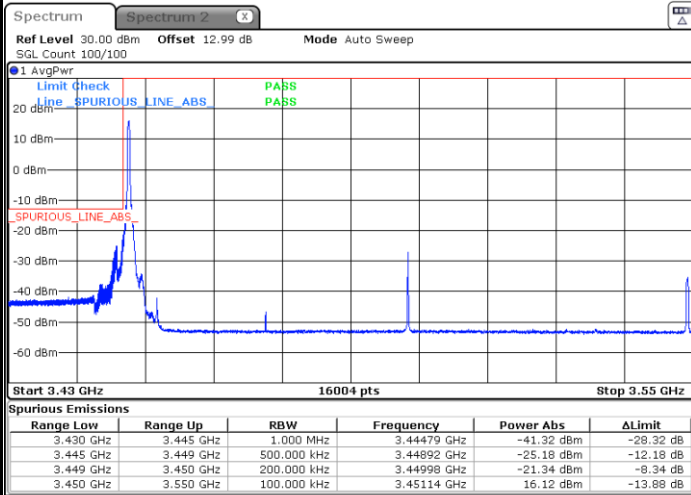
Date: 30.DEC.2021 07:02:04



FR1 n77 / 100MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

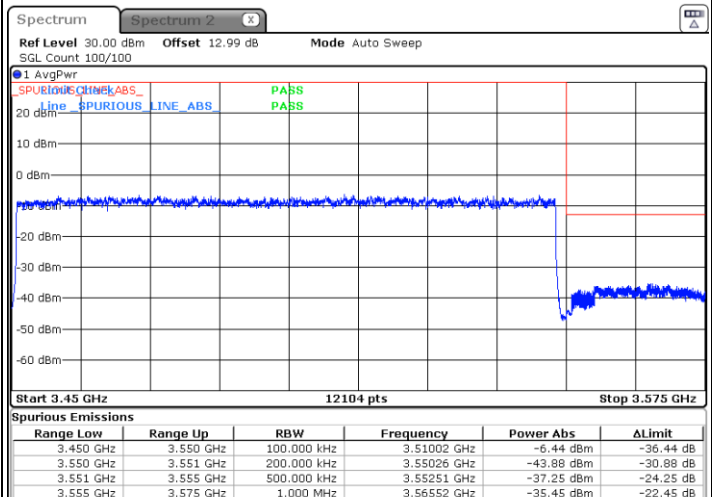
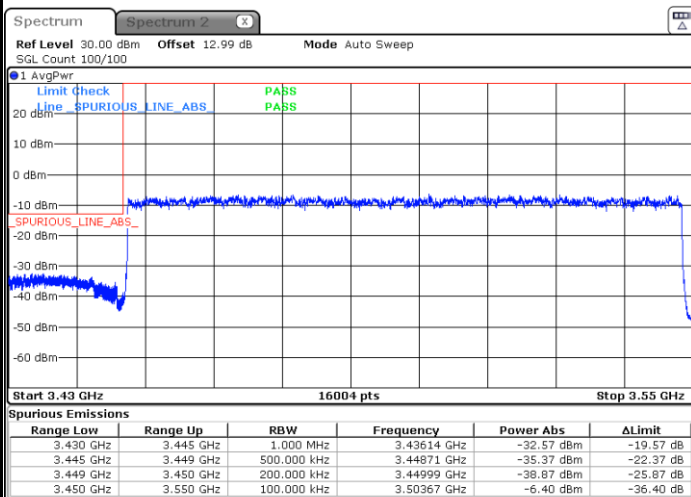


Date: 30.DEC.2021 06:52:08

Date: 30.DEC.2021 07:08:49

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 06:56:07

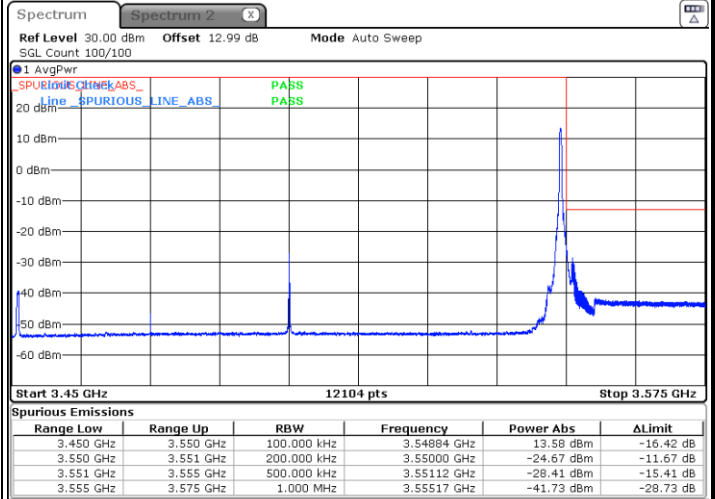
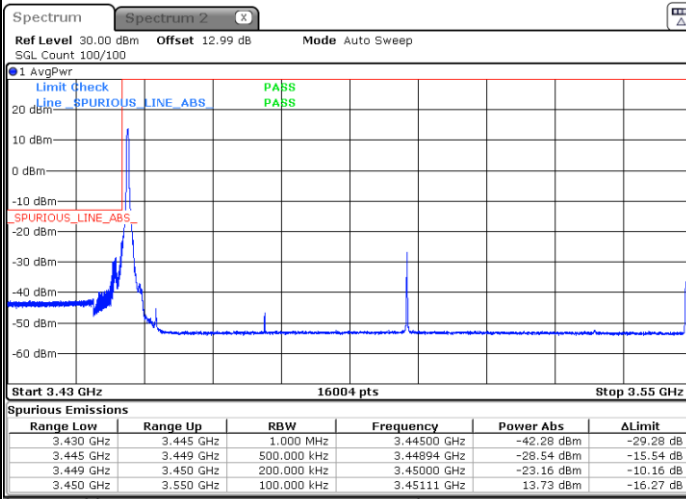
Date: 30.DEC.2021 07:03:18



FR1 n77 /100MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

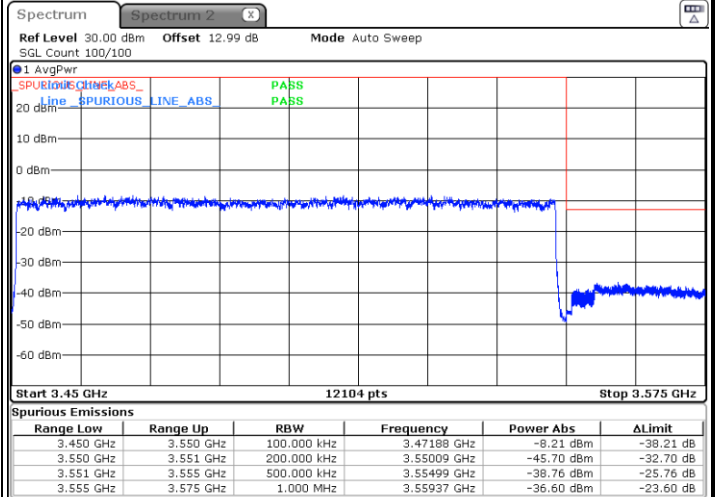
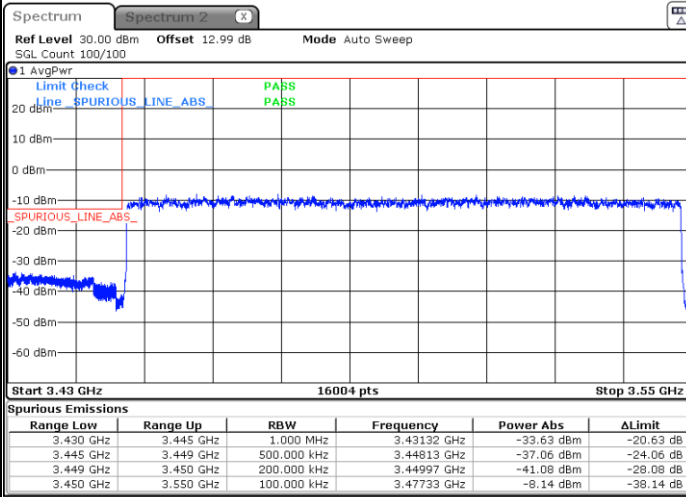


Date: 30.DEC.2021 06:53:29

Date: 30.DEC.2021 07:08:49

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2021 06:54:33

Date: 30.DEC.2021 07:04:08

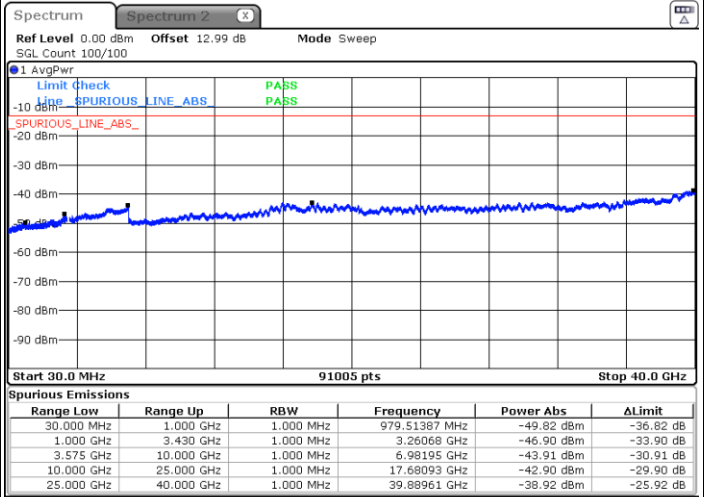
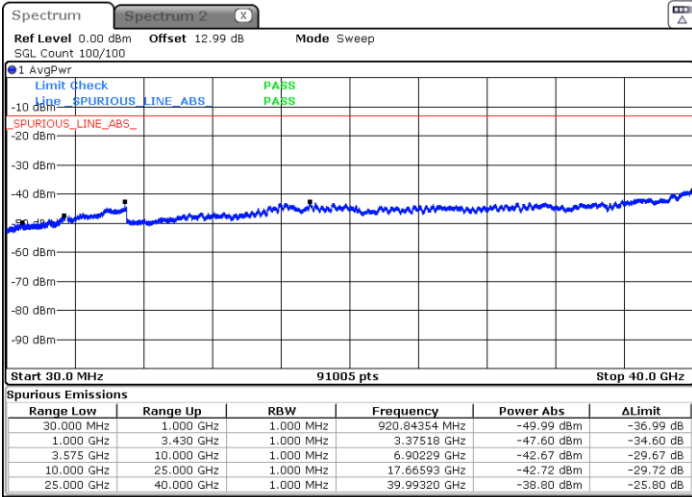


Conducted Spurious Emission

FR1 n77 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

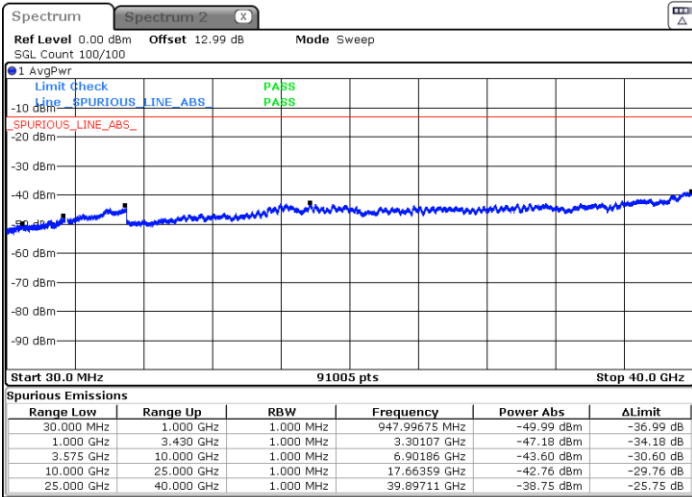
Middle Channel / 1RB1



Date: 30.DEC.2021 09:37:35

Date: 30.DEC.2021 09:36:25

Highest Channel / 1RB1



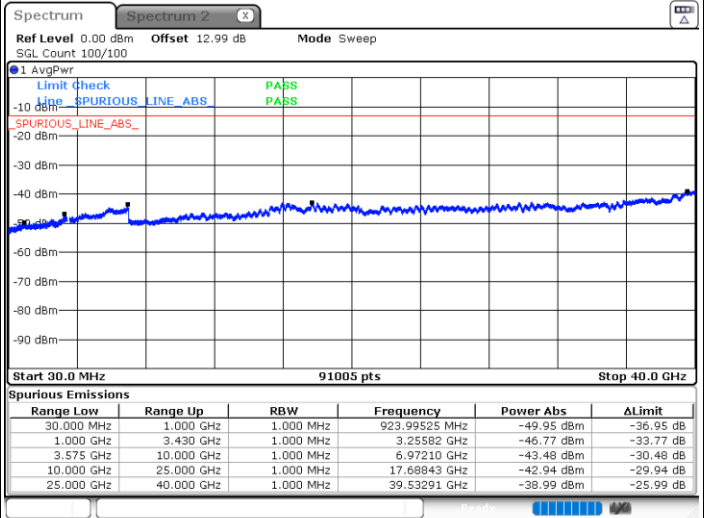
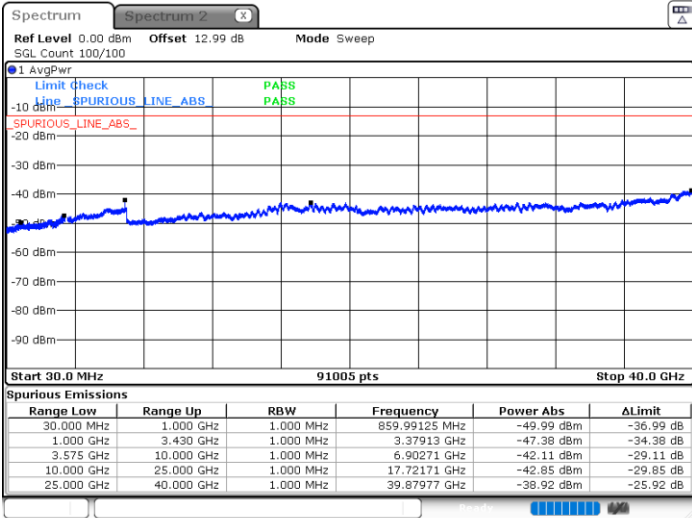
Date: 30.DEC.2021 09:38:59



FR1 n77 / 30MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

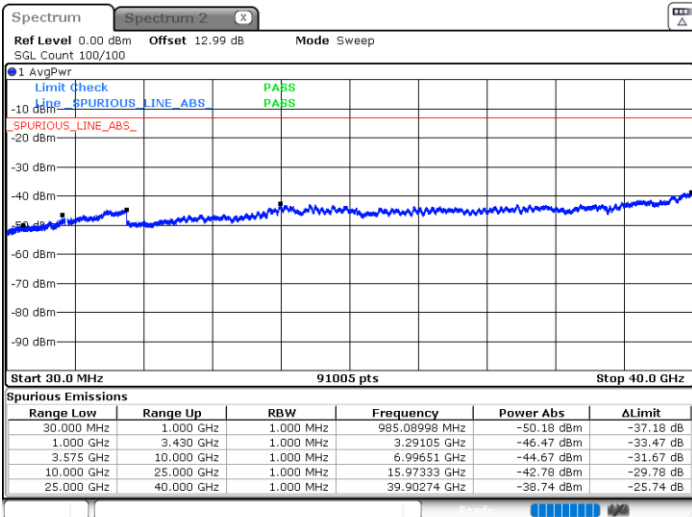
Middle Channel / 1RB1



Date: 30.DEC.2021 09:17:38

Date: 30.DEC.2021 09:16:03

Highest Channel / 1RB1



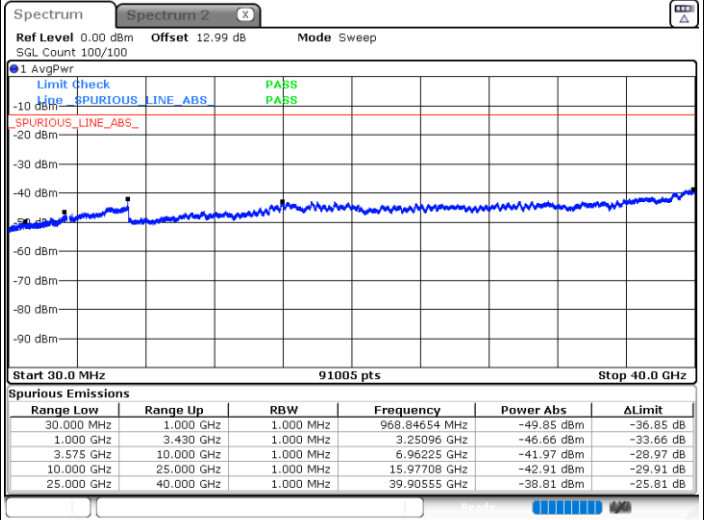
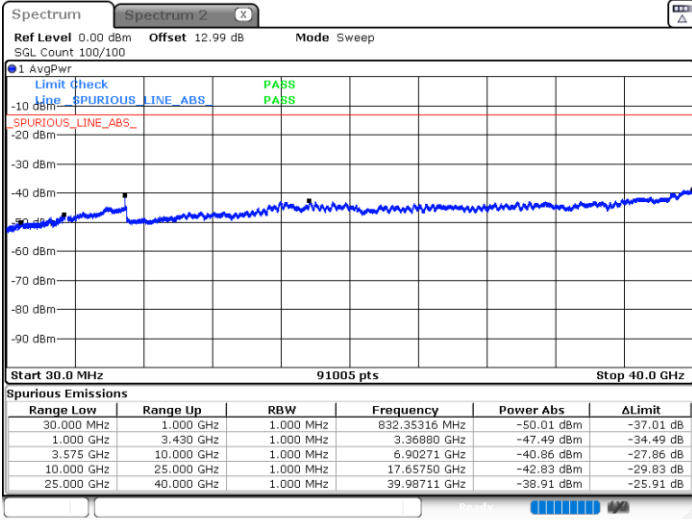
Date: 30.DEC.2021 09:19:18



FR1 n77 / 40MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

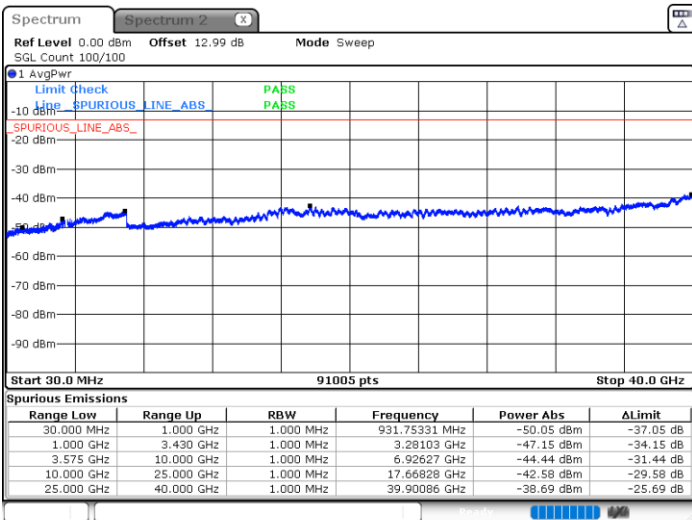
Middle Channel / 1RB1



Date: 30.DEC.2021 08:47:46

Date: 30.DEC.2021 08:46:31

Highest Channel / 1RB1



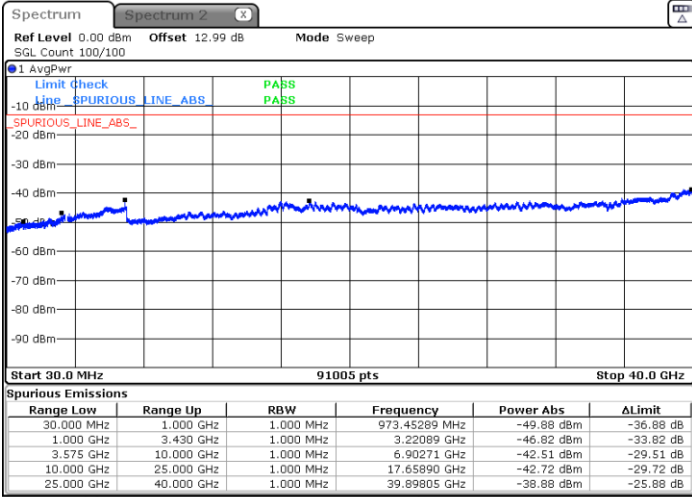
Date: 30.DEC.2021 08:49:13



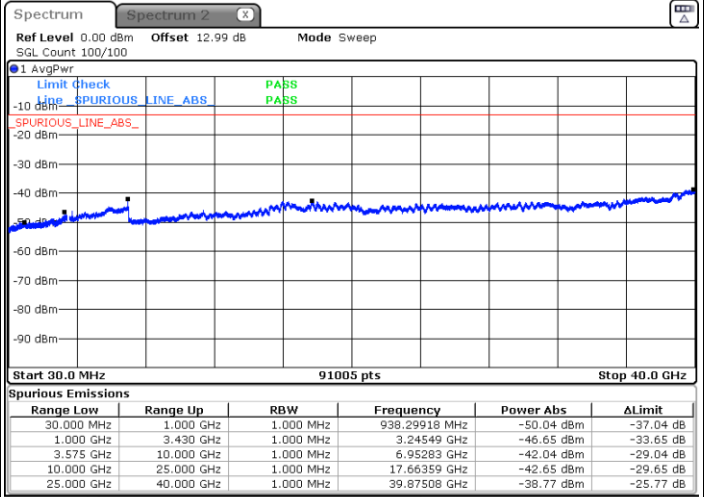
FR1 n77 / 50MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

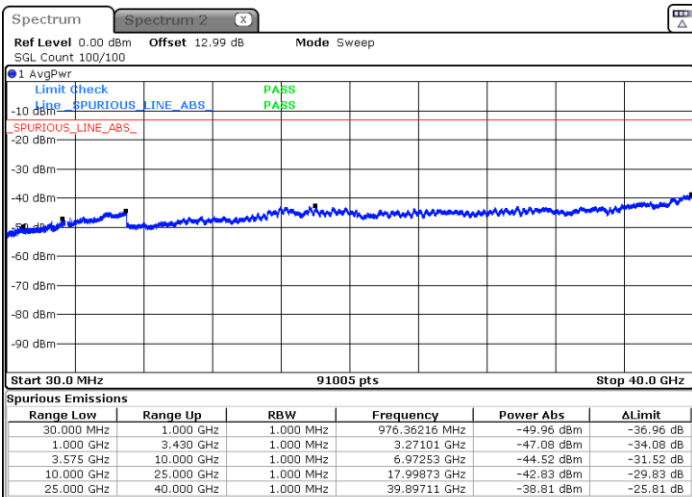


Date: 30.DEC.2021 08:27:14



Date: 30.DEC.2021 08:25:39

Highest Channel / 1RB1



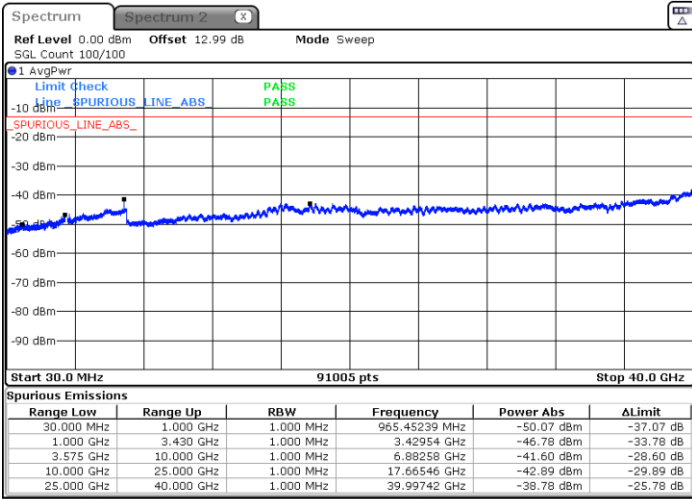
Date: 30.DEC.2021 08:28:33



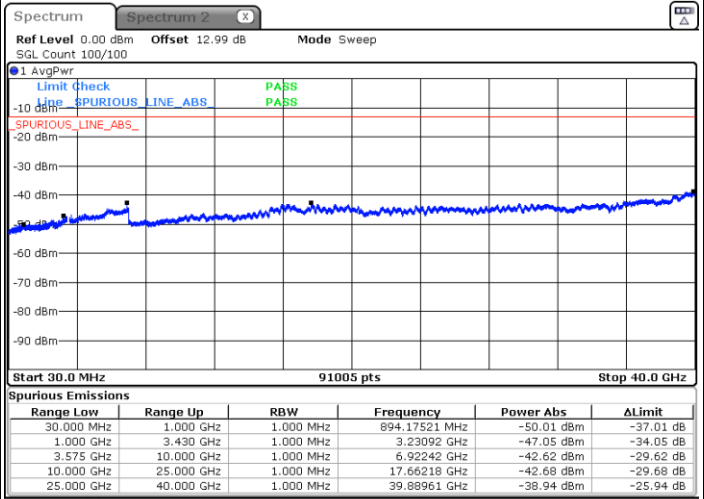
FR1 n77 / 60MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

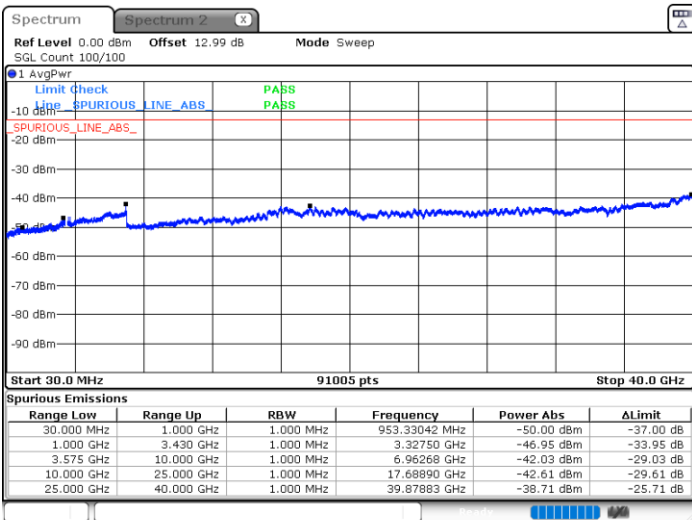


Date: 30.DEC.2021 08:00:02



Date: 30.DEC.2021 07:58:09

Highest Channel / 1RB1



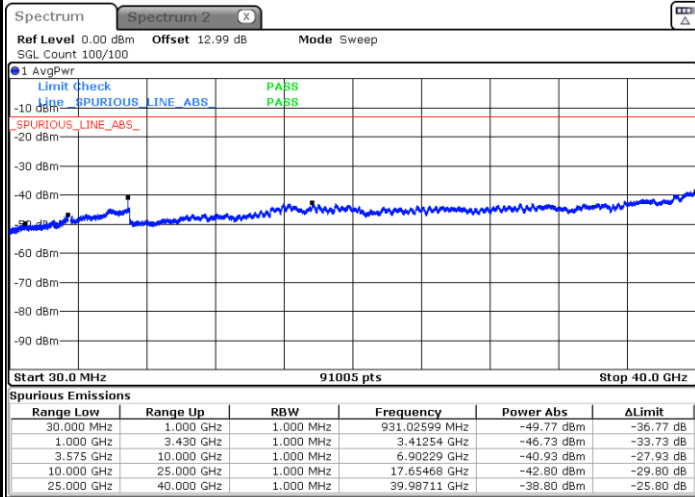
Date: 30.DEC.2021 08:01:26



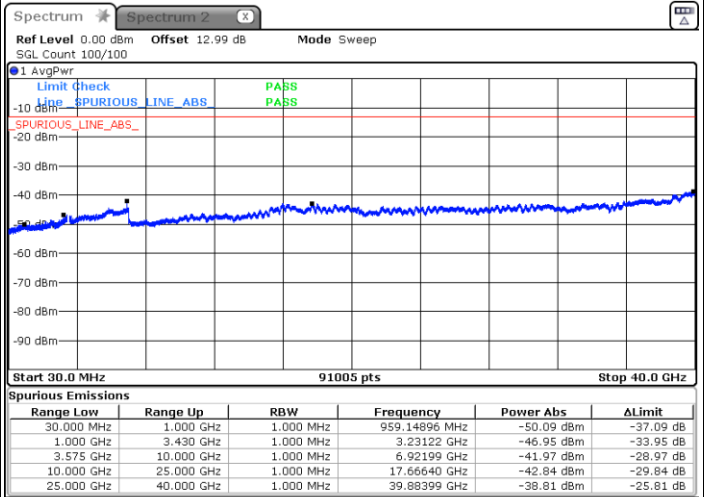
FR1 n77 / 80MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

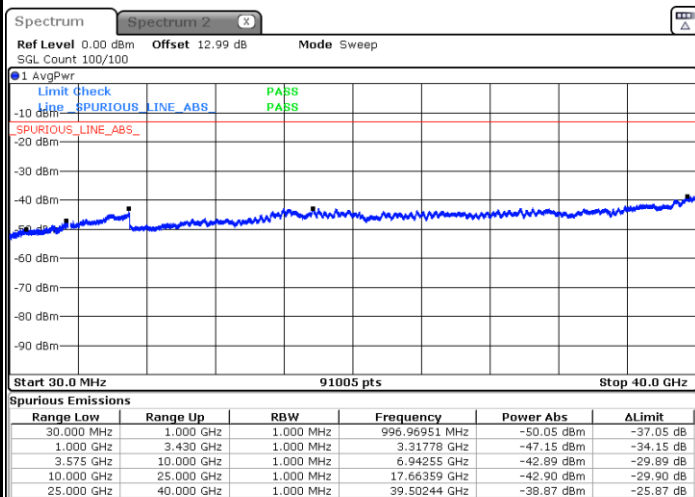


Date: 30.DEC.2021 07:23:37



Date: 30.DEC.2021 07:20:26

Highest Channel / 1RB1

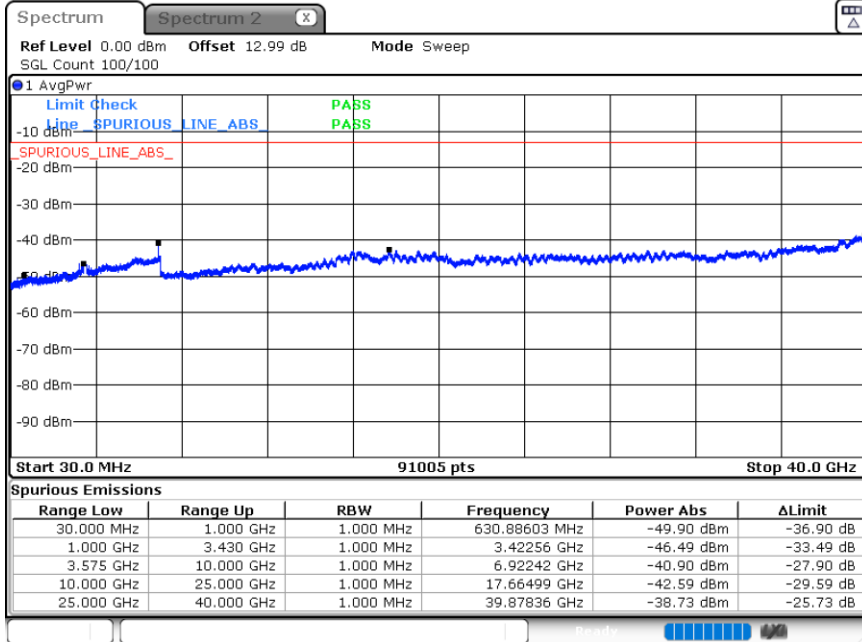


Date: 30.DEC.2021 07:24:57



FR1 n77 / 100MHz / DFT-S OFDM / QPSK

Middle Channel / 1RB1



Date: 30.DEC.2021 07:22:15

Frequency Stability

Test Conditions		FR1 n77 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0021	PASS
40	Normal Voltage	0.0028	
30	Normal Voltage	0.0031	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0035	
-10	Normal Voltage	0.0041	
-20	Normal Voltage	0.0041	
-30	Normal Voltage	0.0052	
20	Maximum Voltage	0.0022	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0121	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Chris Chen	Temperature :	22~23°C
		Relative Humidity :	41~42%

Note: Pre-scanned harmonic for the different antenna combinations for EN-DC mode, we choose the worst antenna mode to test.

EN-DC_41A_n77 / LTE 20MHz + NR 20MHz / QPSK / ANT4(LTE) & ANT5(NR)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	6900	-62.17	-13	-49.17	-72.65	2.76	13.24	H
	10374	-57.56	-13	-44.56	-67.15	3.42	13.01	H
	13806	-57.41	-13	-44.41	-67.02	3.83	13.44	H
	6900	-58.54	-13	-45.54	-68.98	2.80	13.24	V
	10374	-52.72	-13	-39.72	-62.27	3.46	13.01	V
	13806	-55.19	-13	-42.19	-64.75	3.88	13.44	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.