

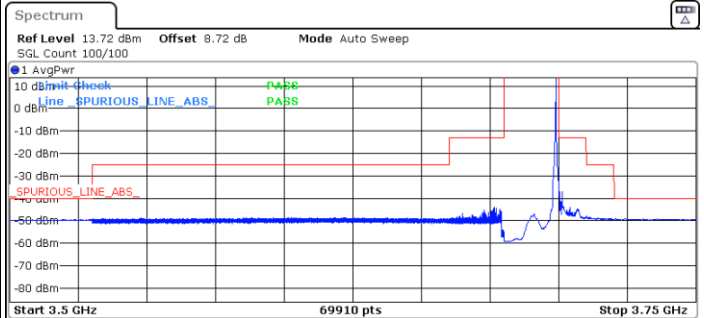
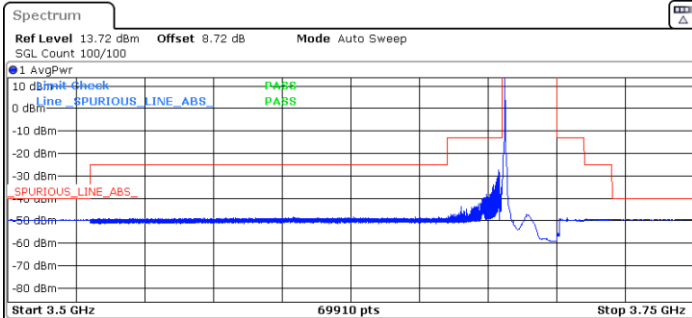


LTE Band 48 / 20MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



Start 3.5 GHz 69910 pts Stop 3.75 GHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52915 GHz	-49.60 dBm	-9.60 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53553 GHz	-48.90 dBm	-23.90 dB
3.540 GHz	3.660 GHz	1.000 MHz	3.60417 GHz	-48.33 dBm	-23.33 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67893 GHz	-27.46 dBm	-14.46 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.68000 GHz	-31.65 dBm	-18.65 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.68109 GHz	15.55 dBm	-14.45 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70034 GHz	-55.69 dBm	-42.69 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70381 GHz	-48.71 dBm	-35.71 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71064 GHz	-49.23 dBm	-24.23 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.74926 GHz	-49.28 dBm	-9.28 dB

Start 3.5 GHz 69910 pts Stop 3.75 GHz

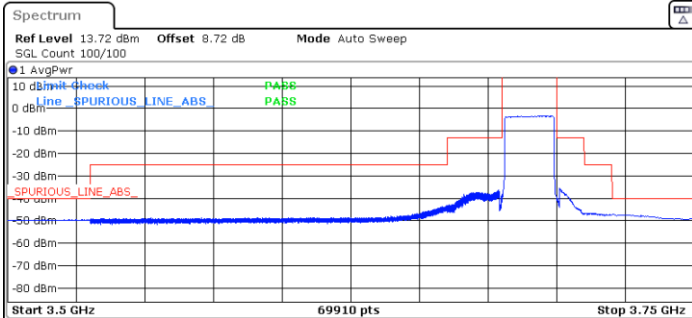
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.51920 GHz	-49.55 dBm	-9.55 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53476 GHz	-49.00 dBm	-24.00 dB
3.540 GHz	3.660 GHz	1.000 MHz	3.64494 GHz	-48.53 dBm	-23.53 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67653 GHz	-44.05 dBm	-31.05 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.67963 GHz	-53.97 dBm	-40.97 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.69891 GHz	15.63 dBm	-14.37 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70000 GHz	-32.37 dBm	-19.37 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70113 GHz	-37.24 dBm	-24.24 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71005 GHz	-47.96 dBm	-22.96 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72045 GHz	-49.12 dBm	-9.12 dB

Date: 29 SEP.2022 06:03:46

Date: 29 SEP.2022 06:11:14

Highest Channel / Full RB

N/A



Start 3.5 GHz 69910 pts Stop 3.75 GHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52882 GHz	-49.62 dBm	-9.62 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53941 GHz	-49.03 dBm	-24.03 dB
3.540 GHz	3.660 GHz	1.000 MHz	3.65971 GHz	-43.13 dBm	-18.13 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67884 GHz	-36.45 dBm	-23.45 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.67999 GHz	-38.33 dBm	-25.33 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.69416 GHz	-3.29 dBm	-33.29 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70001 GHz	-39.50 dBm	-26.50 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70104 GHz	-35.54 dBm	-22.54 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71035 GHz	-46.60 dBm	-21.60 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72074 GHz	-47.14 dBm	-7.14 dB

Date: 29 SEP.2022 06:18:42

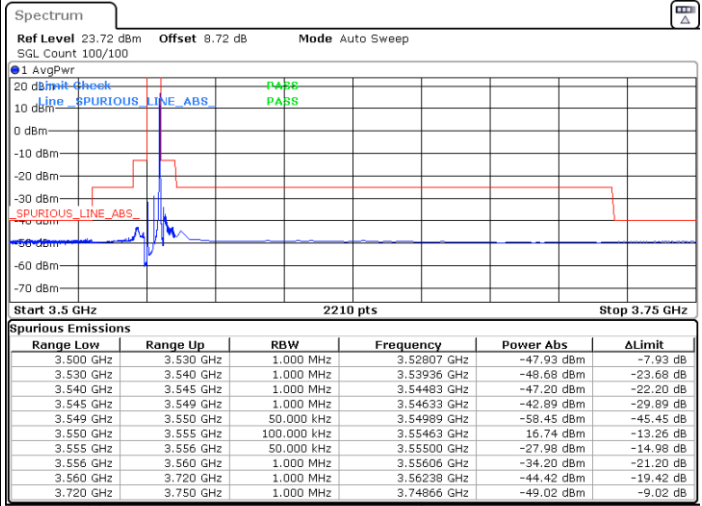
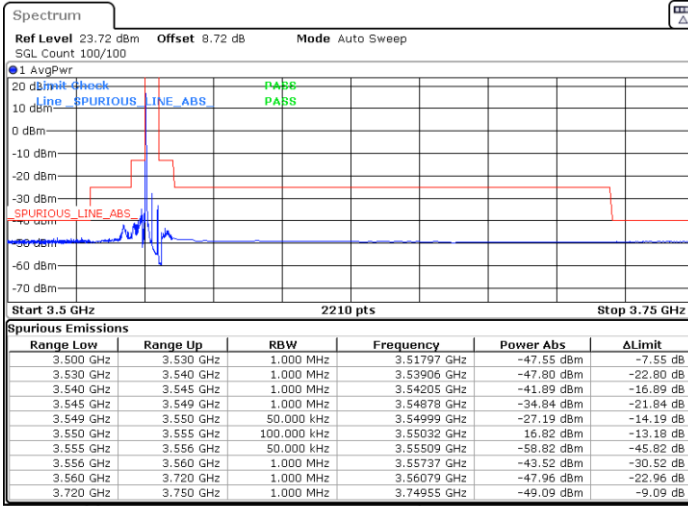


LTE Band 48 / 5MHz

256QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

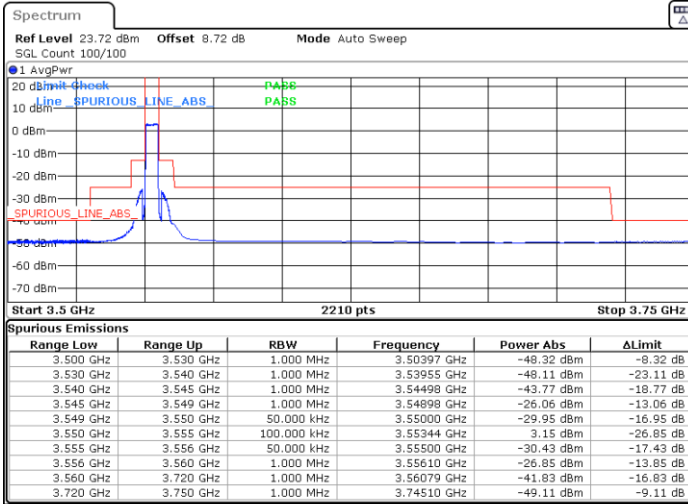


Date: 29 SEP. 2022 02:23:35

Date: 29 SEP. 2022 02:29:06

Lowest Channel / Full RB

N/A



Date: 29 SEP. 2022 02:34:31

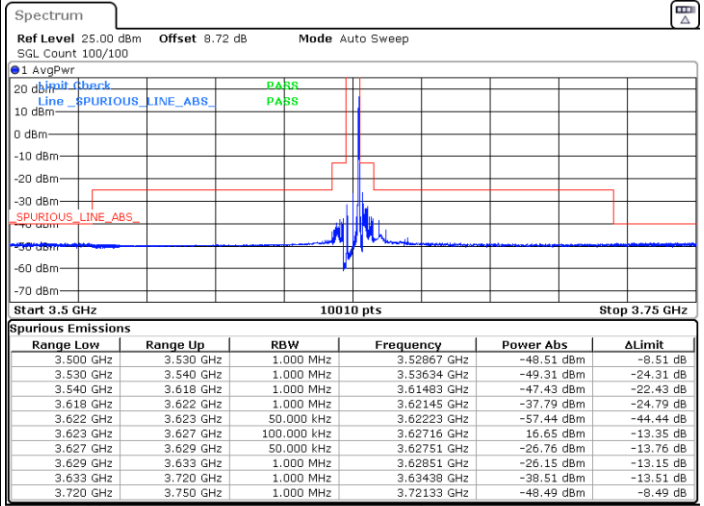
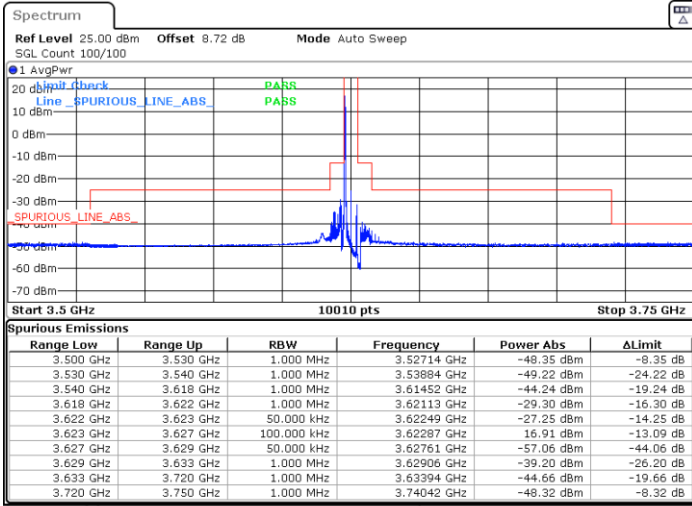


LTE Band 48 / 5MHz

256QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax

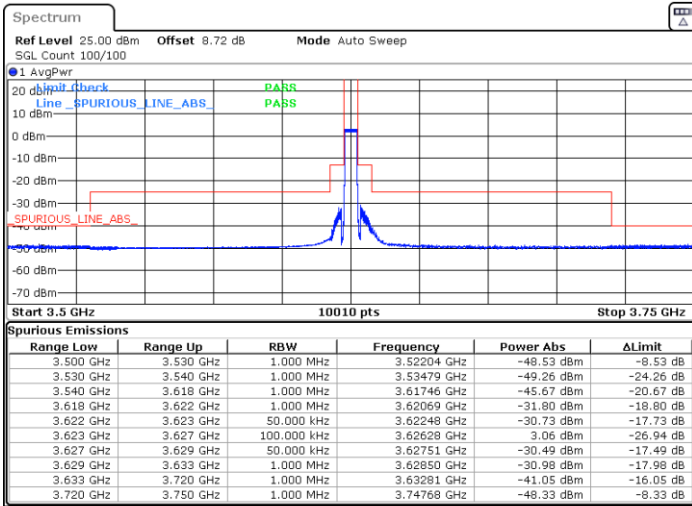


Date: 29 SEP. 2022 02:41:08

Date: 29 SEP. 2022 02:46:30

Middle Channel / Full RB

N/A



Date: 29 SEP. 2022 02:51:52

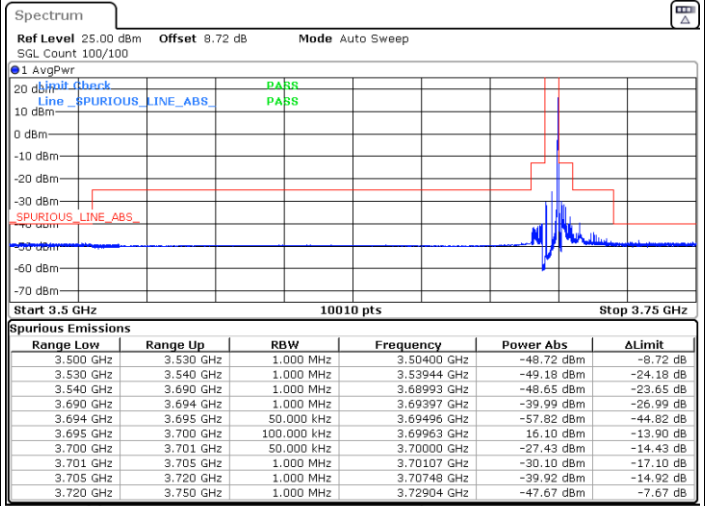
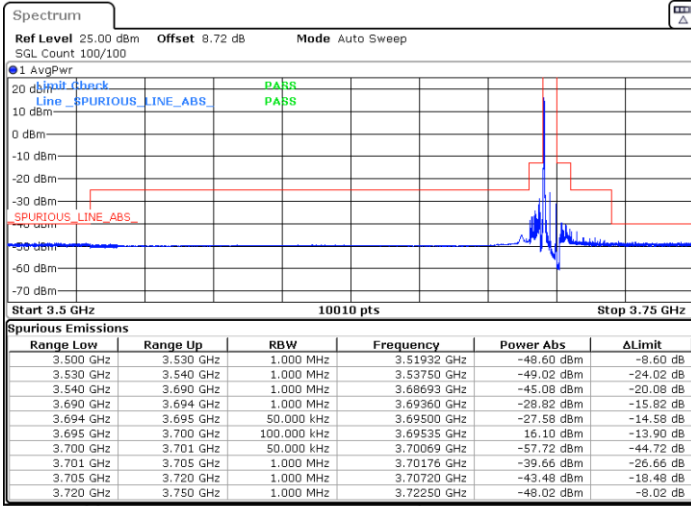


LTE Band 48 / 5MHz

256QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

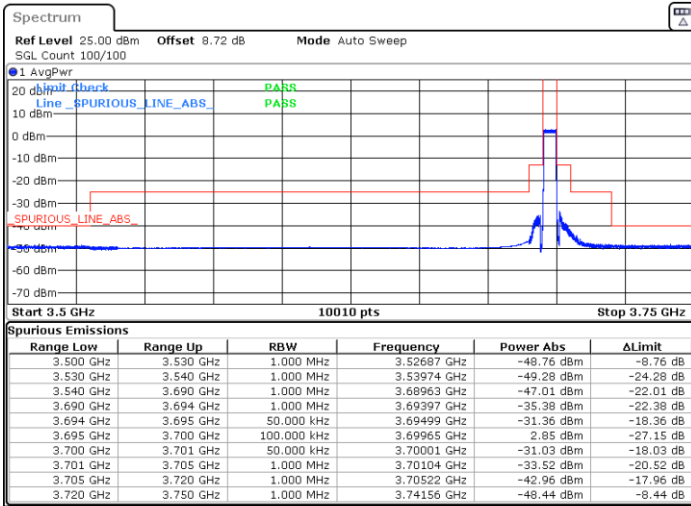


Date: 29 SEP. 2022 02:57:17

Date: 29 SEP. 2022 03:02:41

Highest Channel / Full RB

N/A



Date: 29 SEP. 2022 03:08:05

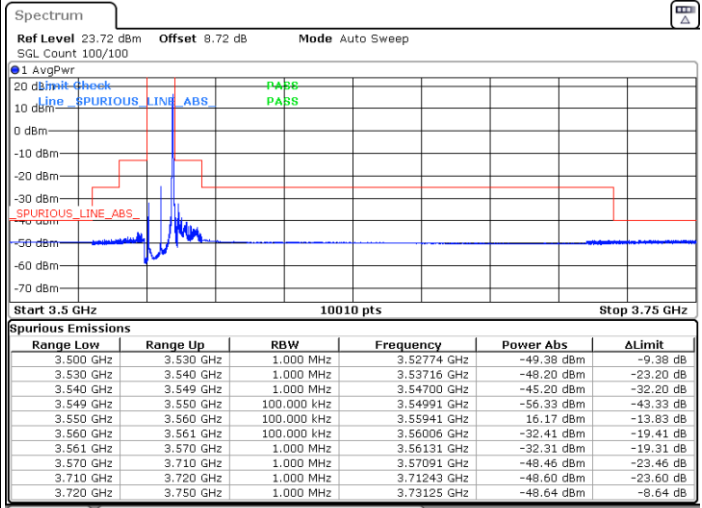
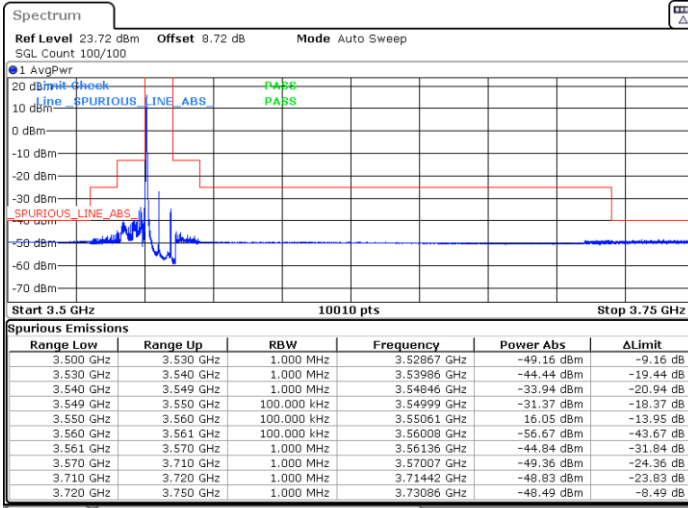


LTE Band 48 / 10MHz

256QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

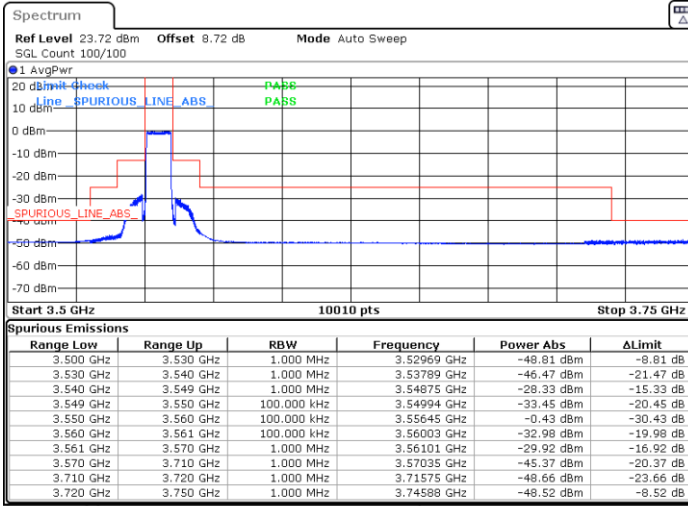


Date: 29 SEP. 2022 03:21:14

Date: 29 SEP. 2022 03:26:38

Lowest Channel / Full RB

N/A



Date: 29 SEP. 2022 03:32:03

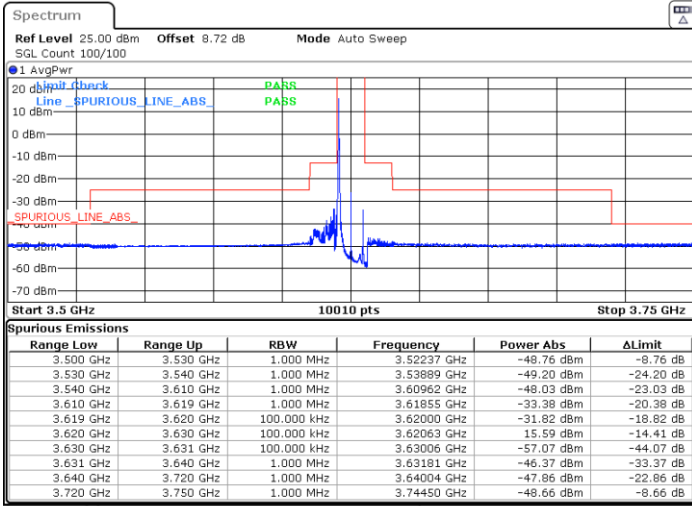


LTE Band 48 / 10MHz

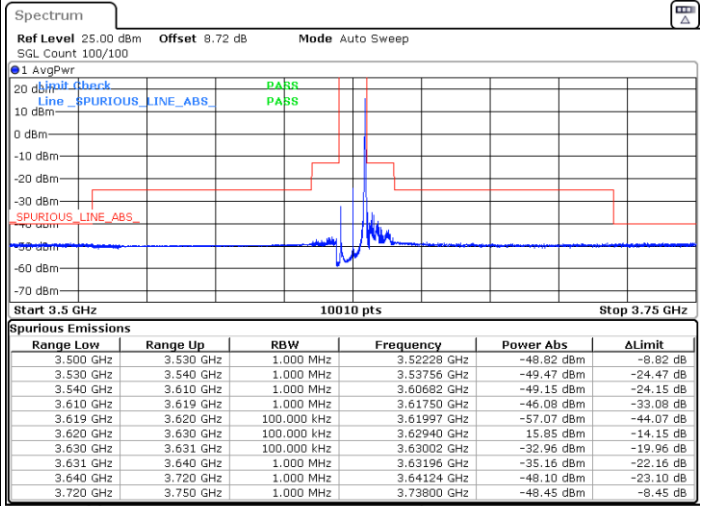
256QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



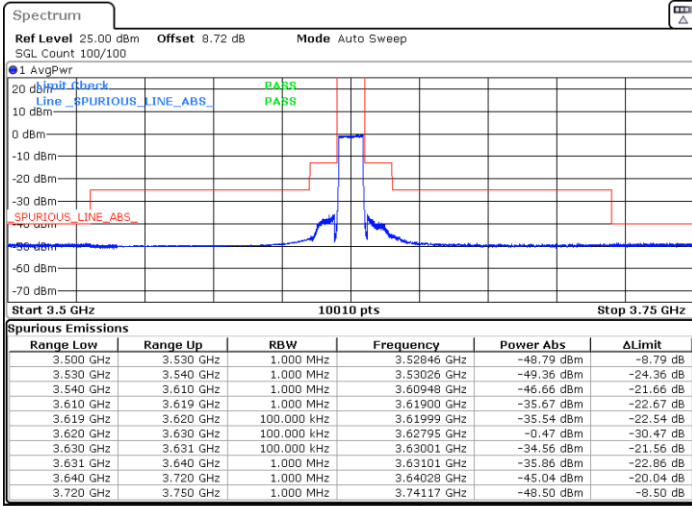
Date: 29 SEP. 2022 10:02:09



Date: 29 SEP. 2022 03:45:17

Middle Channel / Full RB

N/A



Date: 29 SEP. 2022 03:50:38

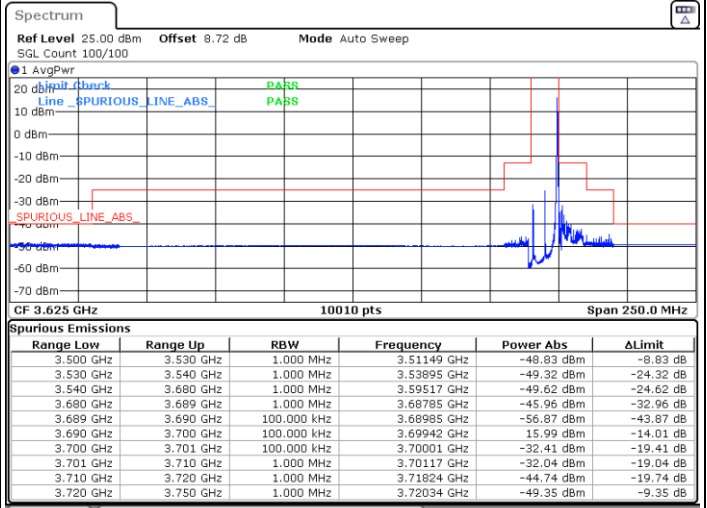
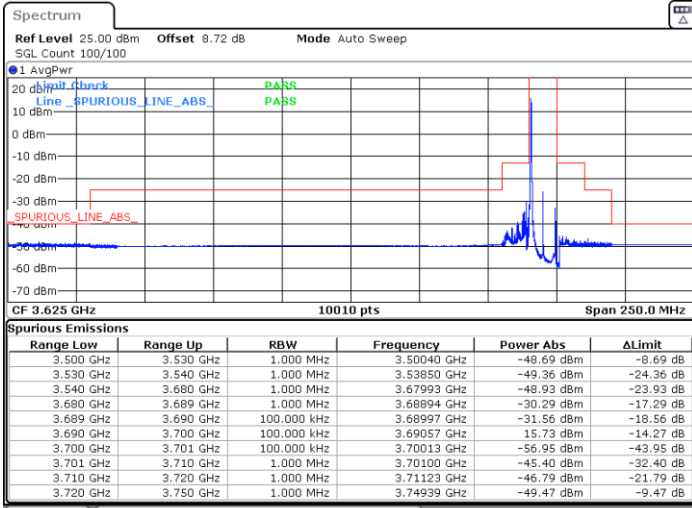


LTE Band 48 / 10MHz

256QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

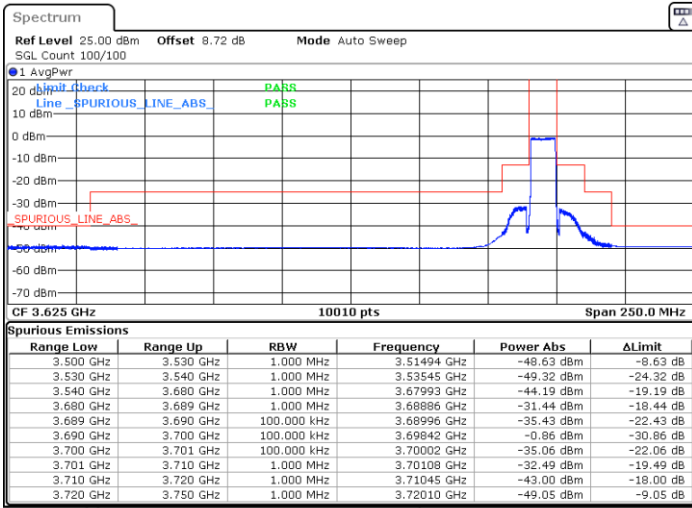


Date: 29 SEP.2022 04:05:10

Date: 29 SEP.2022 04:15:37

Highest Channel / Full RB

N/A



Date: 29 SEP.2022 04:26:01

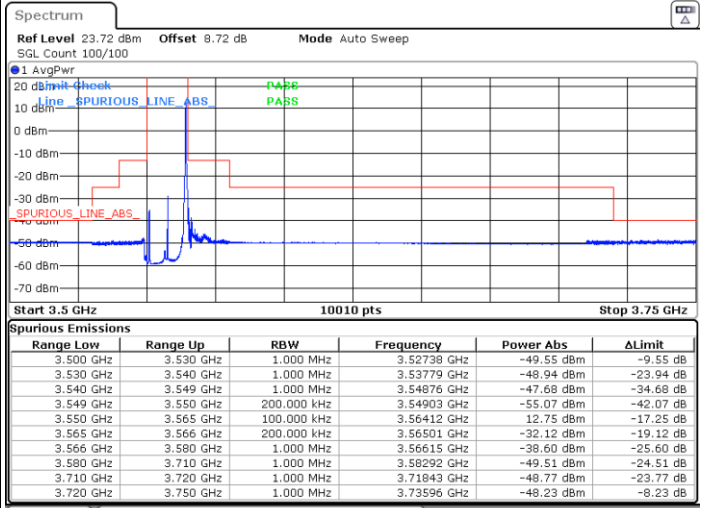
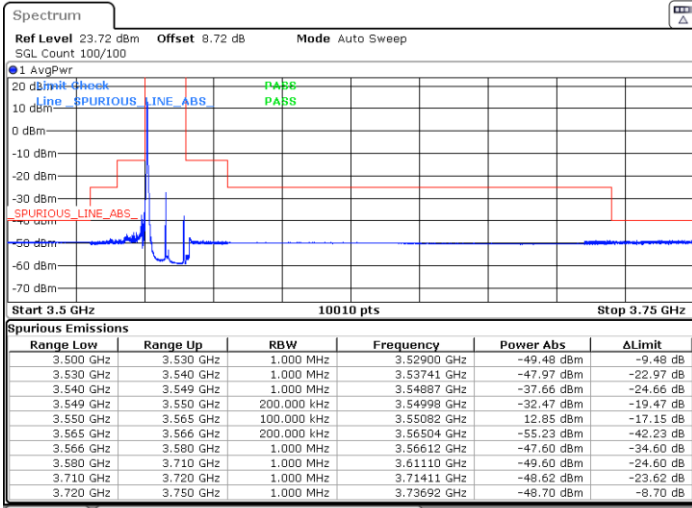


LTE Band 48 / 15MHz

256QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

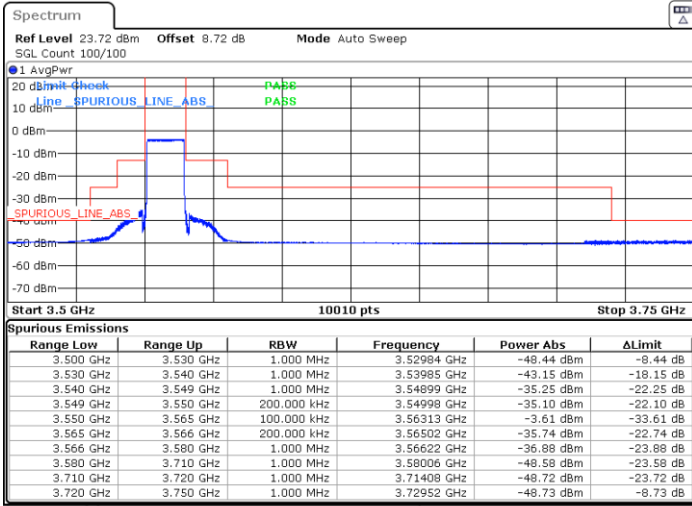


Date: 29 SEP. 2022 04:35:06

Date: 29 SEP. 2022 04:40:31

Lowest Channel / Full RB

N/A



Date: 29 SEP. 2022 04:45:56



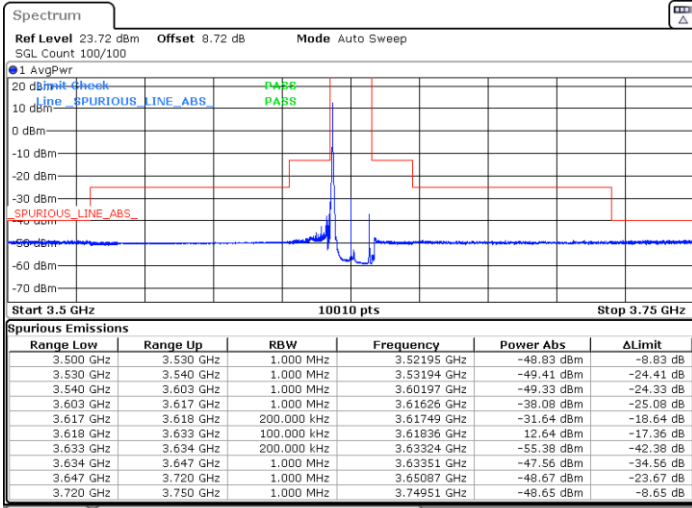


LTE Band 48 / 15MHz

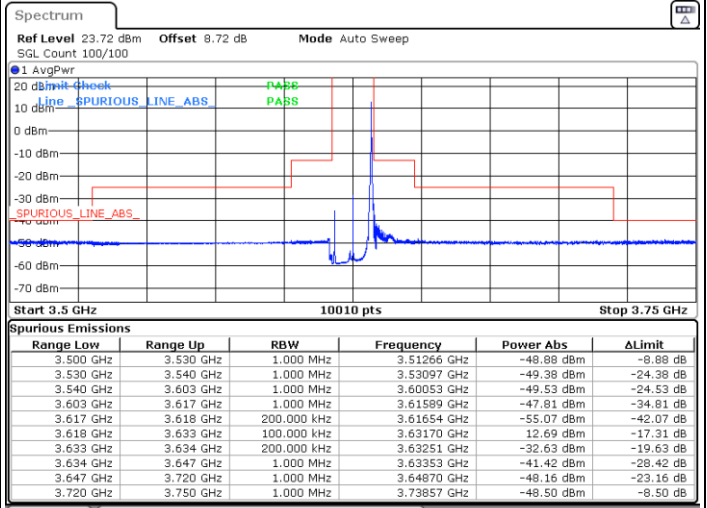
256QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



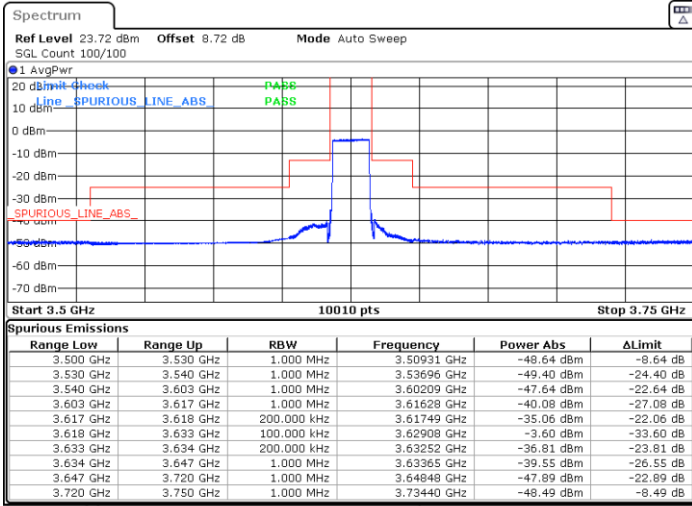
Date: 29 SEP. 2022 04:51:17



Date: 29 SEP. 2022 04:57:54

Middle Channel / Full RB

N/A



Date: 29 SEP. 2022 05:03:16

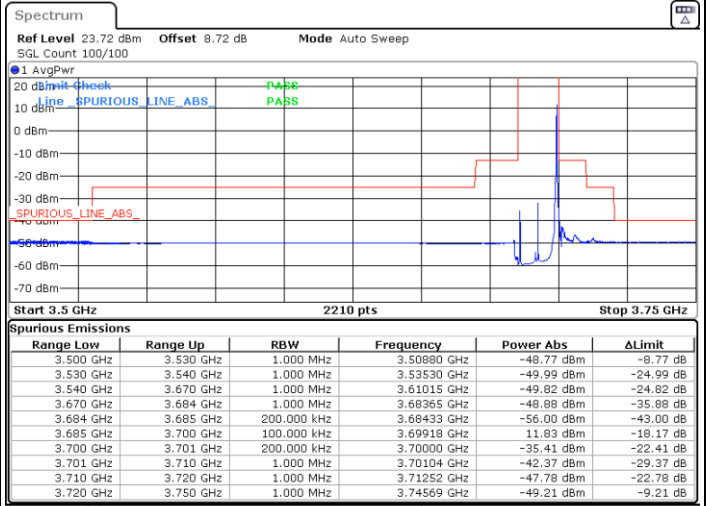
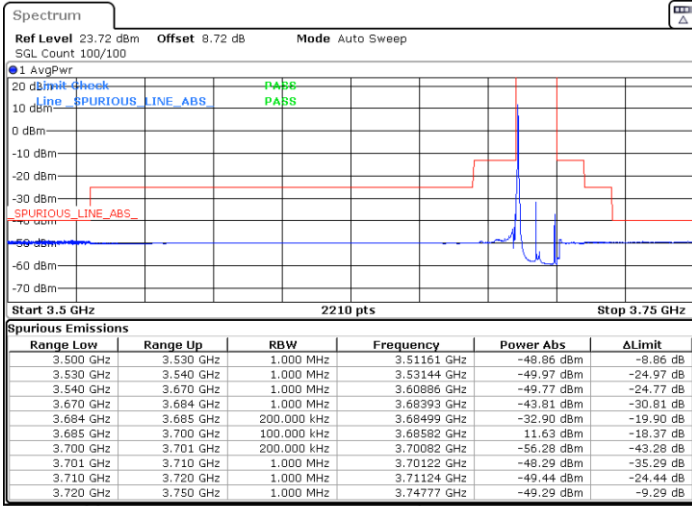


LTE Band 48 / 15MHz

256QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

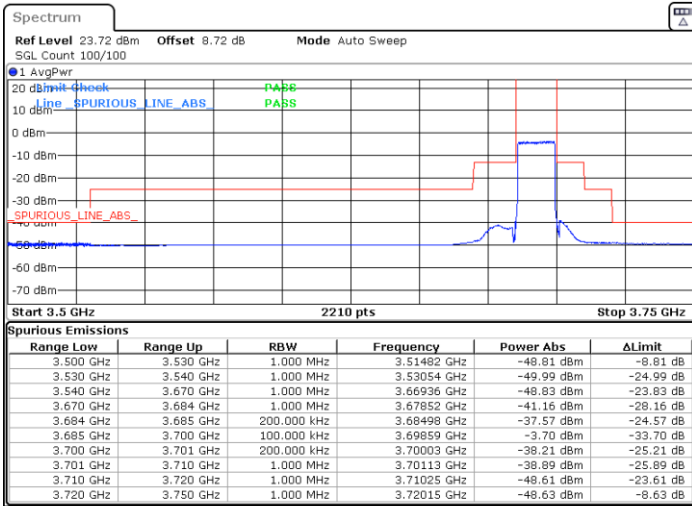


Date: 29 SEP.2022 05:08:39

Date: 29 SEP.2022 05:14:07

Highest Channel / Full RB

N/A



Date: 29 SEP.2022 05:19:31

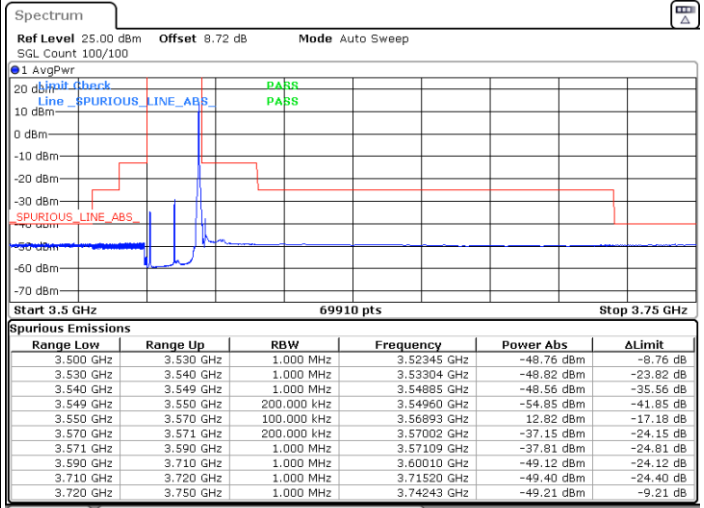
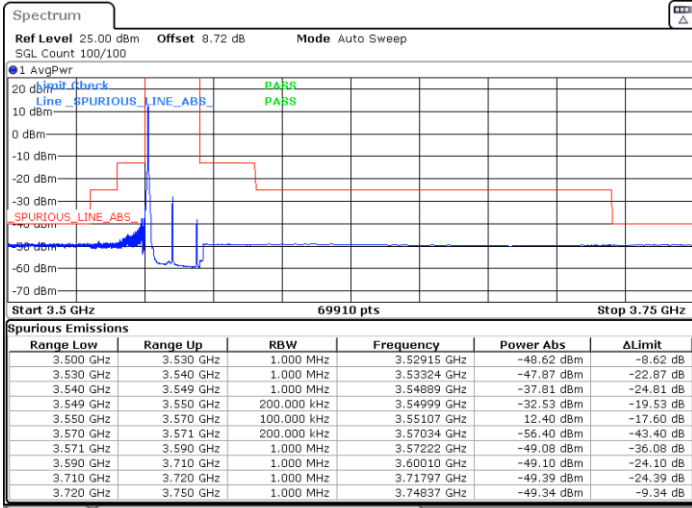


LTE Band 48 / 20MHz

256QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

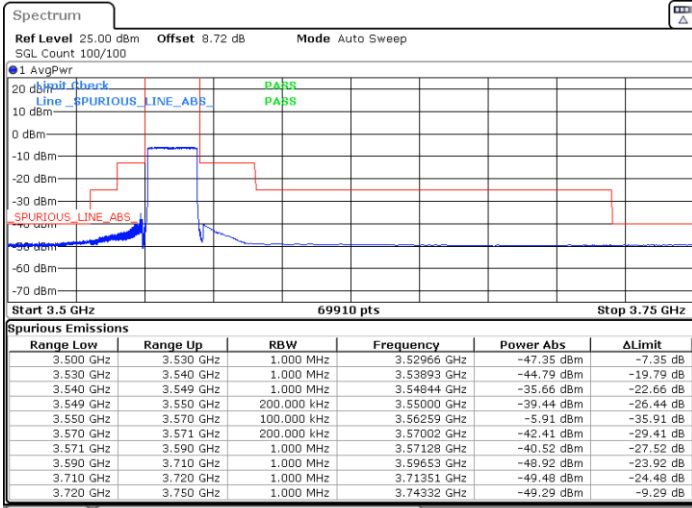


Date: 29 SEP. 2022 05:26:56

Date: 29 SEP. 2022 05:32:23

Lowest Channel / Full RB

N/A



Date: 29 SEP. 2022 05:37:54

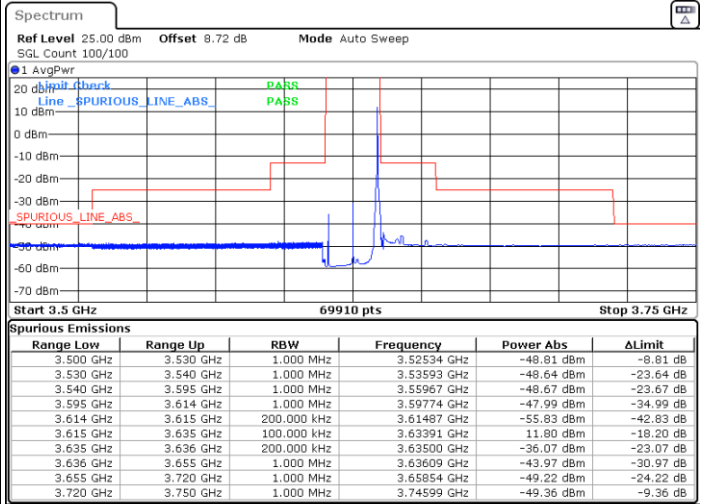
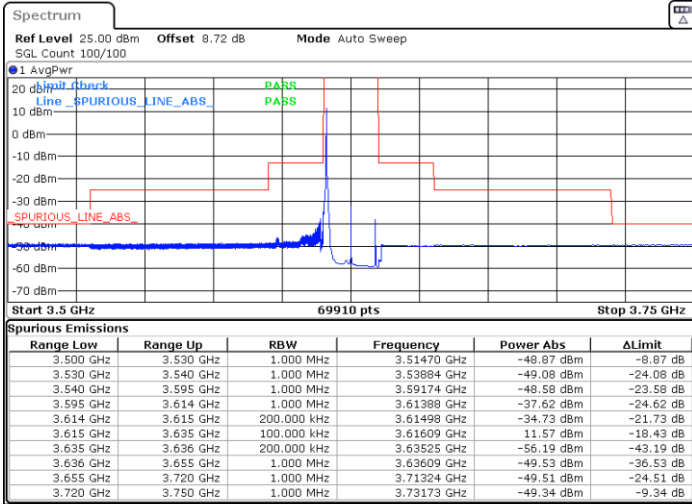


LTE Band 48 / 20MHz

256QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax

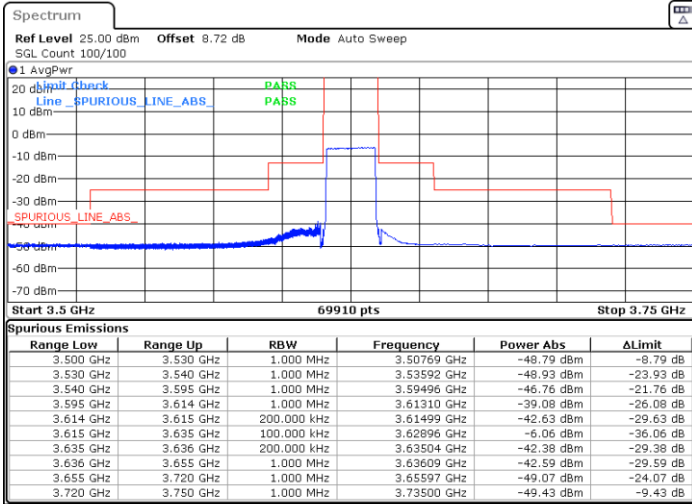


Date: 29 SEP. 2022 05:44:34

Date: 29 SEP. 2022 05:49:59

Middle Channel / Full RB

N/A



Date: 29 SEP. 2022 05:55:24

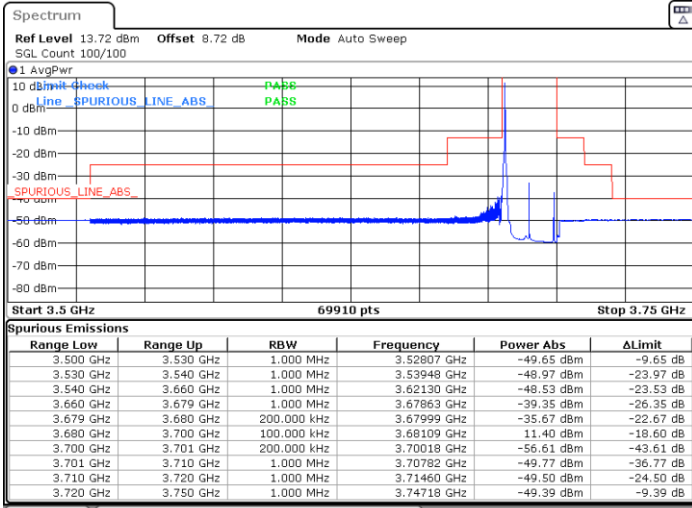


LTE Band 48 / 20MHz

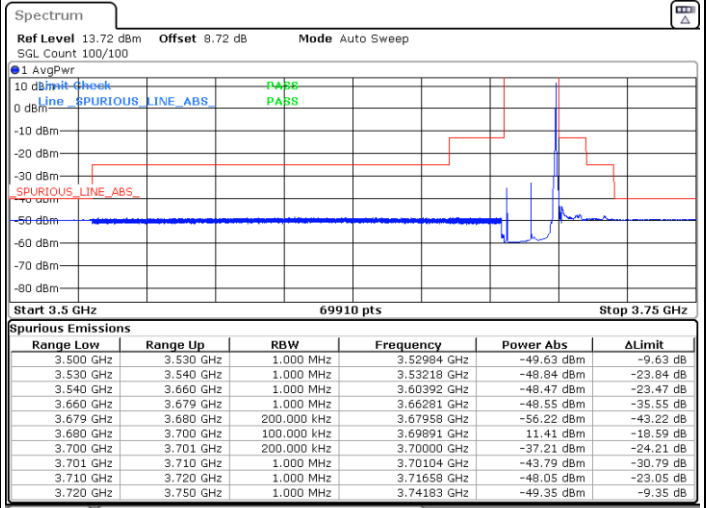
256QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



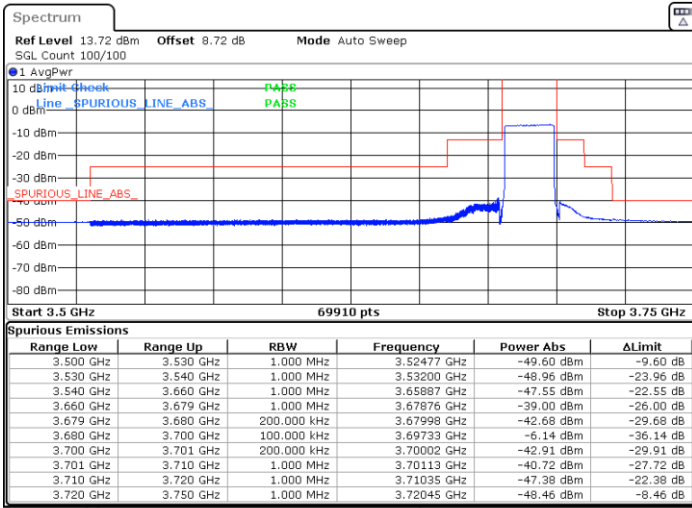
Date: 29 SEP.2022 06:05:38



Date: 29 SEP.2022 06:13:06

Highest Channel / Full RB

N/A



Date: 29 SEP.2022 06:20:33



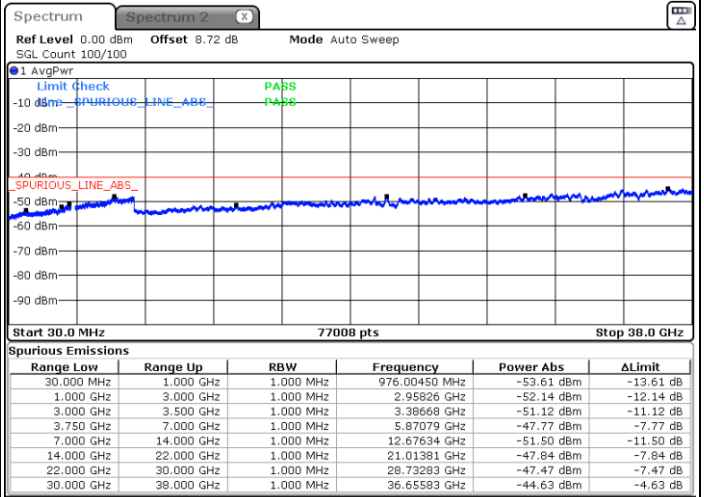
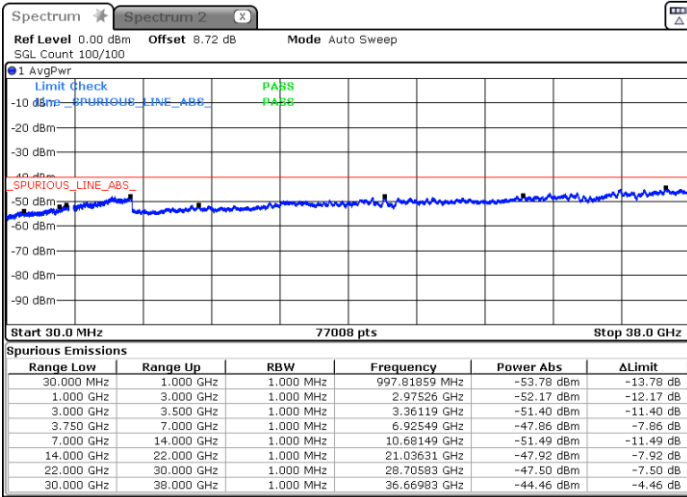
# Conducted Spurious Emission

## LTE Band 48 / 5MHz

### QPSK / 1RB0

#### Lowest Channel

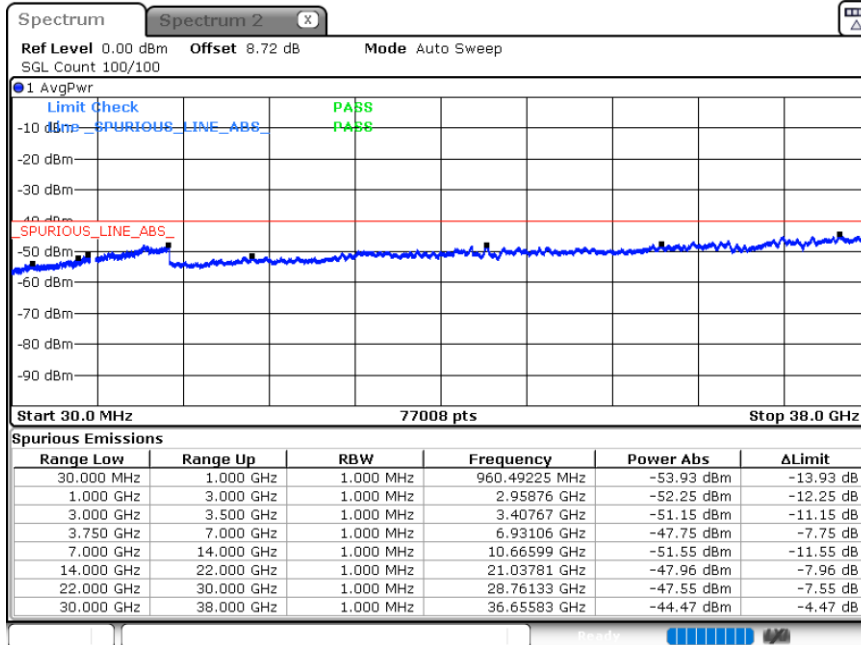
#### Middle Channel



Date: 29.SEP.2022 17:05:54

Date: 29.SEP.2022 17:07:08

#### Highest Channel



Date: 29.SEP.2022 17:08:23

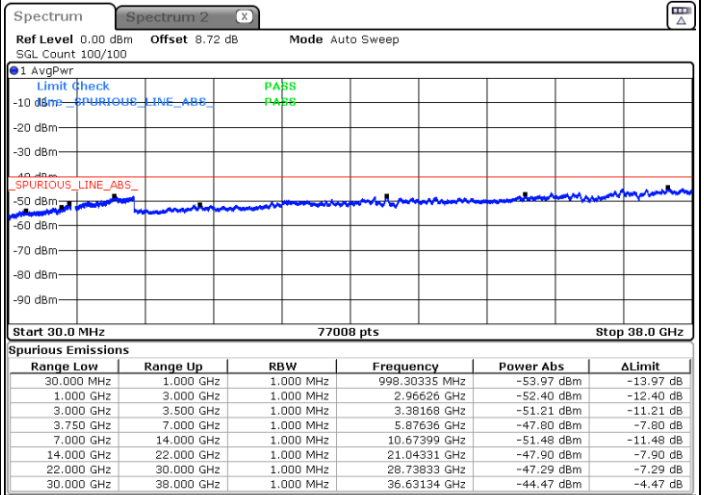
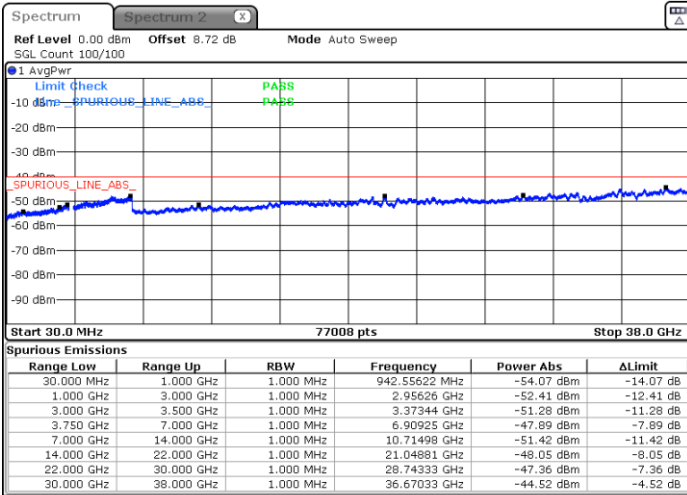


LTE Band 48 / 10MHz

QPSK / 1RB0

Lowest Channel

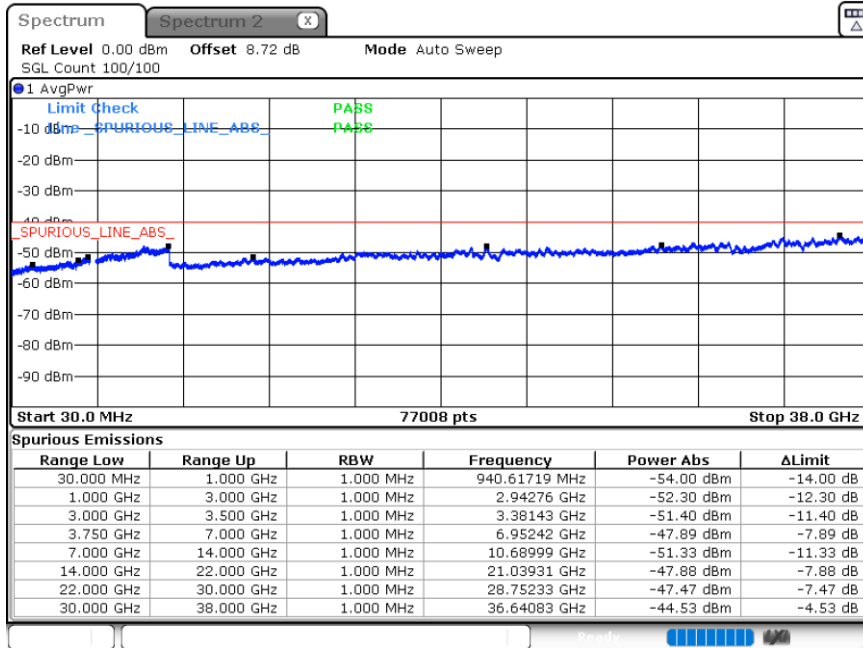
Middle Channel



Date: 29.SEP.2022 17:09:35

Date: 29.SEP.2022 17:10:44

Highest Channel



Date: 29.SEP.2022 17:12:08

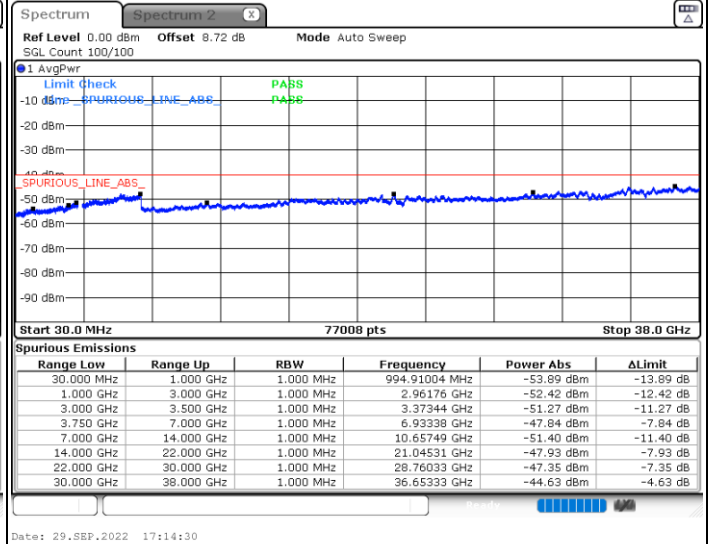
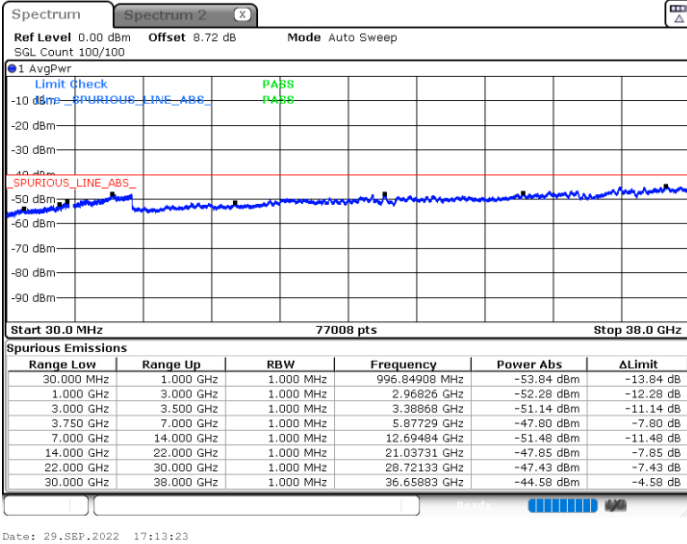


LTE Band 48 / 15MHz

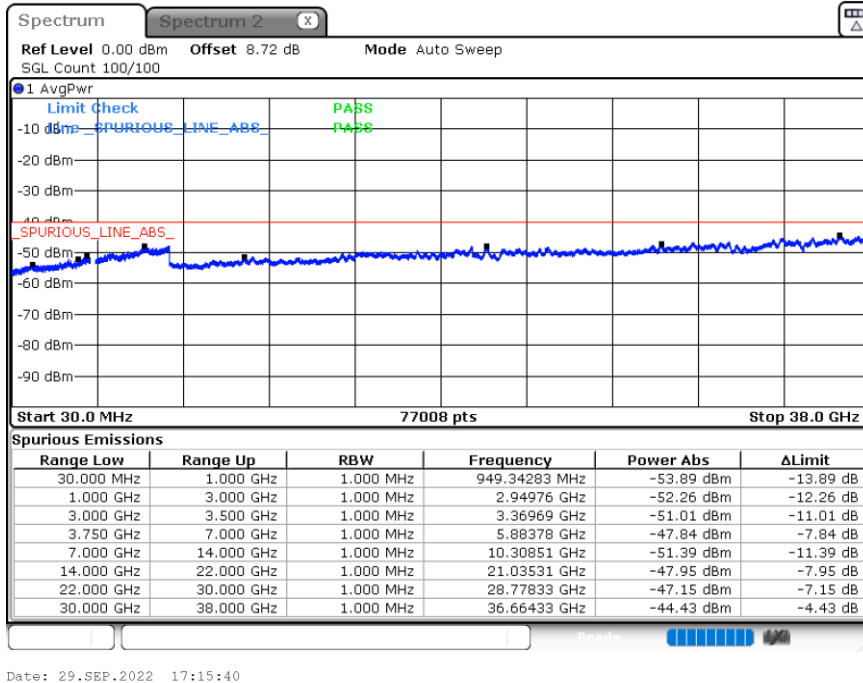
QPSK / 1RB0

Lowest Channel

Middle Channel



Highest Channel





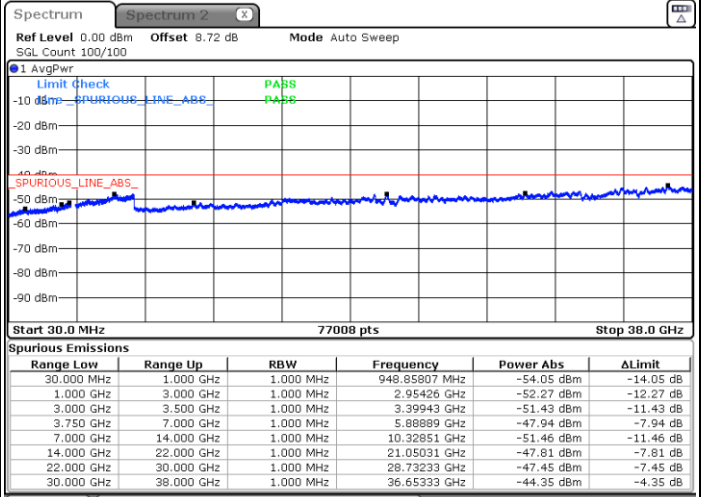
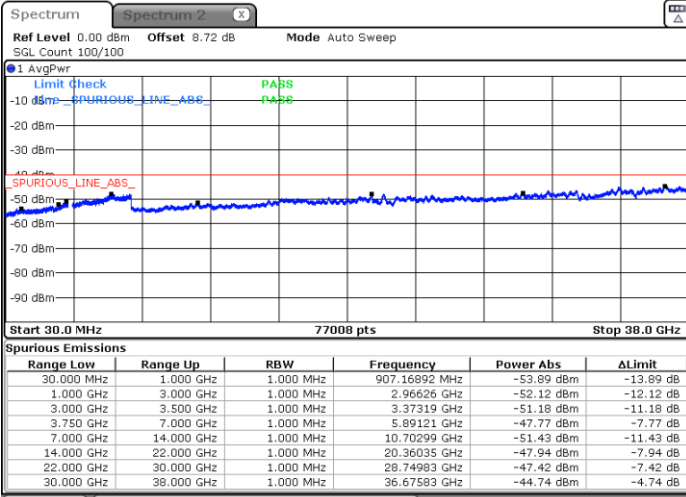


LTE Band 48 / 20MHz

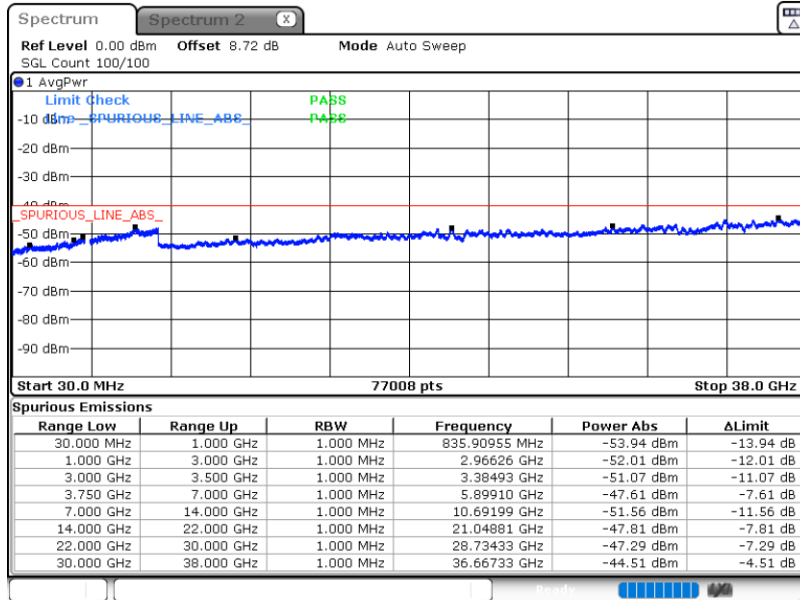
QPSK / 1RB0

Lowest Channel

Middle Channel



Highest Channel





Frequency Stability

Test Conditions		LTE Band 48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0035	PASS
40	Normal Voltage	0.0029	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0033	
20	Battery End Point	0.0026	

Note:

1. Normal Voltage =3.89 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.48 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

Test Engineer :	Zhicheng Li	Temperature :	22~25°C
		Relative Humidity :	48~52%

Note: Pre-scanned harmonic for all the supported antennas, choose the worst antenna perform final test and record in the report.

LTE Band 48 / 20MHz / QPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	6982.00	-60.49	-40	-20.49	-65.57	-63.79	8.30	11.60	H
	10473.00	-58.18	-40	-18.18	-68.70	-59.70	10.48	12.00	H
	13964.00	-57.01	-40	-17.01	-68.08	-58.71	11.80	13.50	H
	6982.00	-60.72	-40	-20.72	-66.01	-64.02	8.30	11.60	V
	10473.00	-59.02	-40	-19.02	-68.74	-60.54	10.48	12.00	V
	13964.00	-56.20	-40	-16.20	-67.95	-57.90	11.80	13.50	V

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