

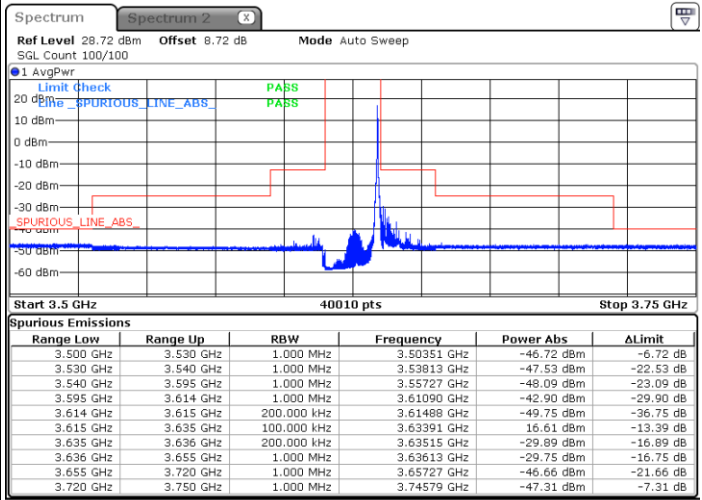
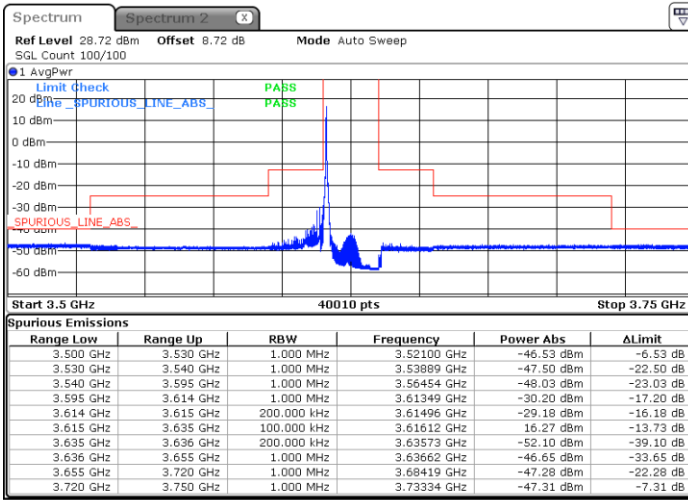


LTE Band 48 / 20MHz

64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax

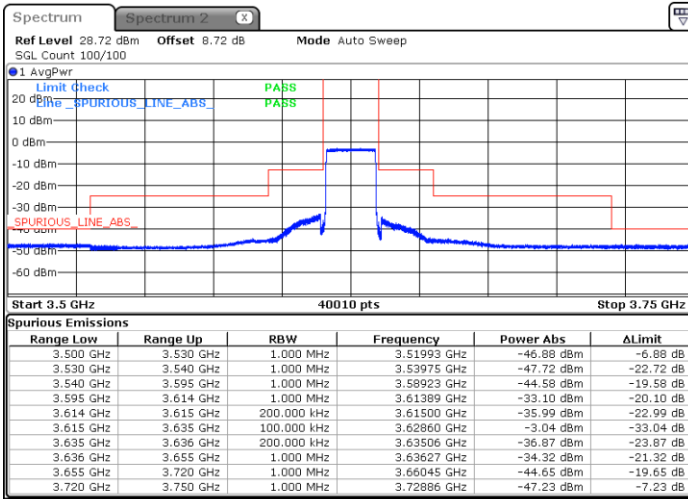


Date: 29_SEP.2022 08:04:10

Date: 29_SEP.2022 08:08:42

Middle Channel / FullIRB

N/A



Date: 29_SEP.2022 05:01:17

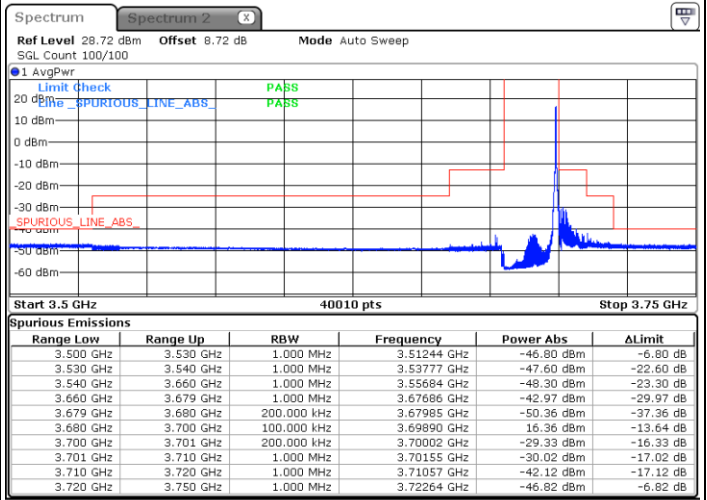
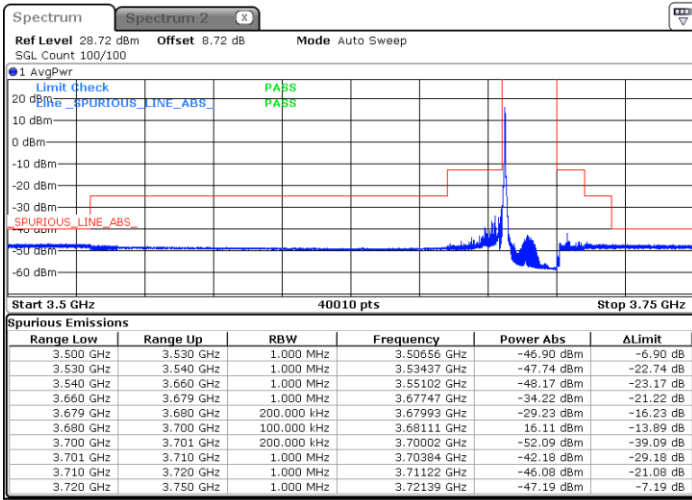


LTE Band 48 / 20MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

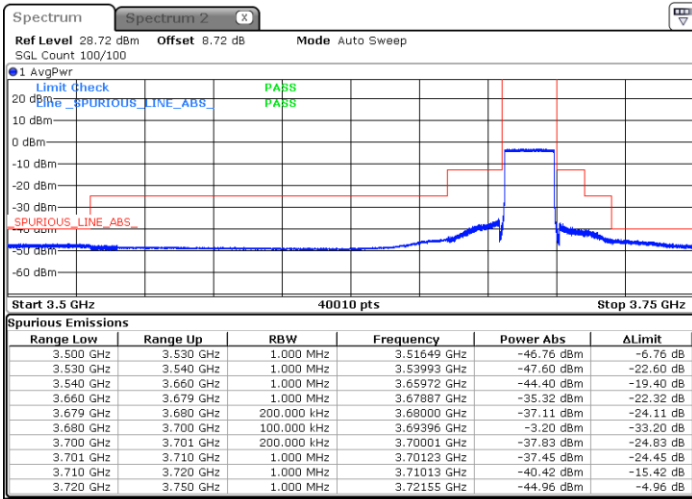


Date: 29_SEP.2022 08:40:46

Date: 29_SEP.2022 08:49:41

Highest Channel / FullIRB

N/A



Date: 29_SEP.2022 08:36:23

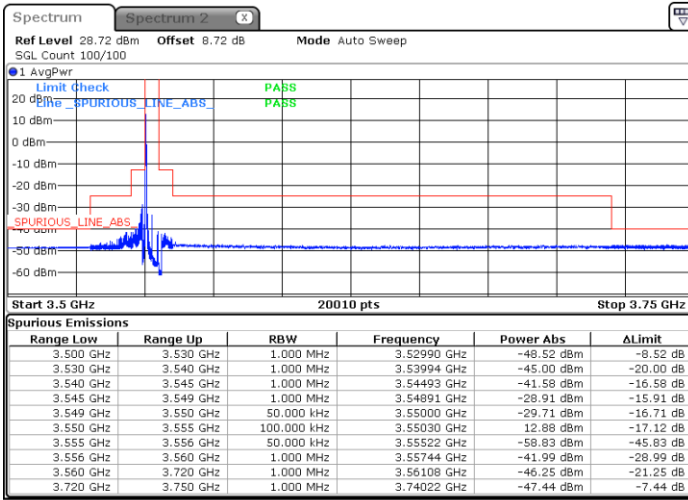


LTE Band 48 / 5MHz

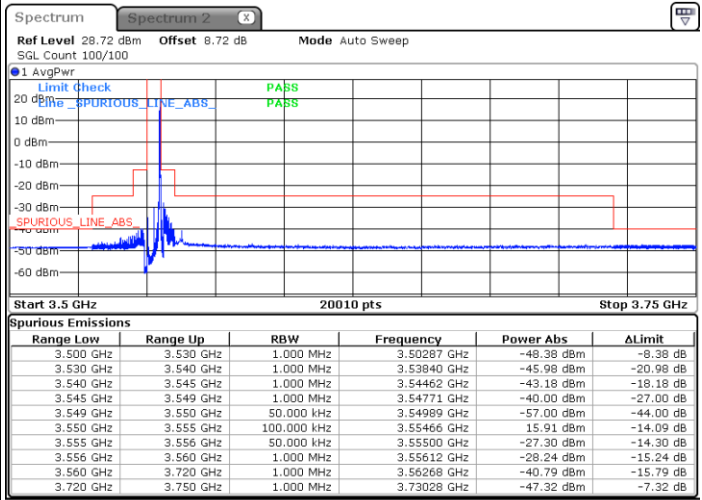
256QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



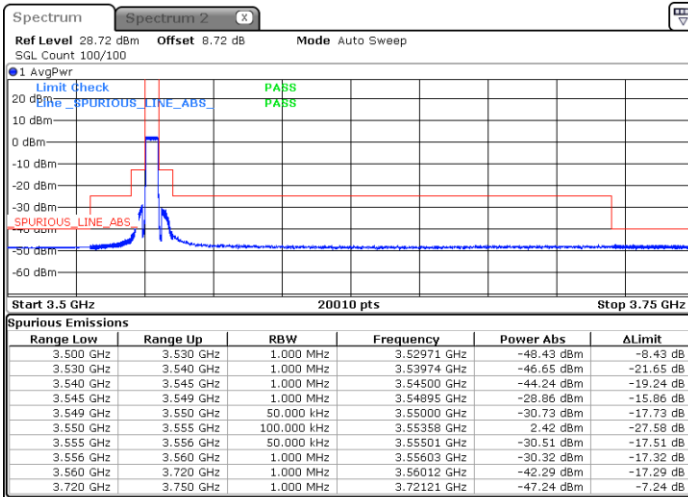
Date: 28.SEP.2022 23:56:49



Date: 29.SEP.2022 00:15:04

Lowest Channel / FullIRB

N/A



Date: 29.SEP.2022 00:26:03

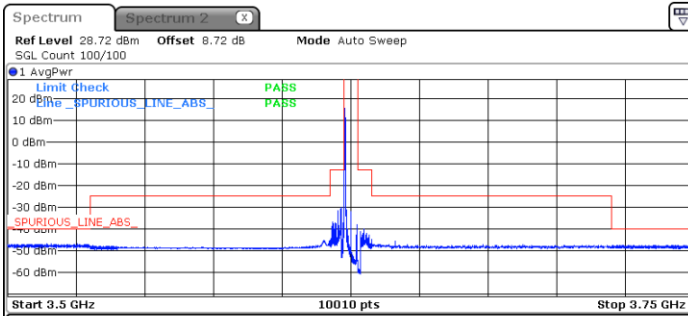


LTE Band 48 / 5MHz

256QAM

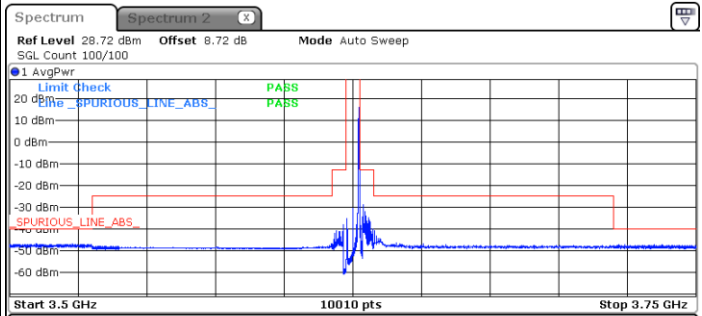
Middle Channel / 1RB0

Middle Channel / 1RBmax



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.51437 GHz	-46.93 dBm	-6.93 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53088 GHz	-47.70 dBm	-22.70 dB
3.540 GHz	3.618 GHz	1.000 MHz	3.61514 GHz	-45.17 dBm	-20.17 dB
3.618 GHz	3.622 GHz	1.000 MHz	3.62143 GHz	-30.11 dBm	-17.11 dB
3.622 GHz	3.623 GHz	50.000 kHz	3.62249 GHz	-28.47 dBm	-15.47 dB
3.623 GHz	3.627 GHz	100.000 kHz	3.62284 GHz	15.52 dBm	-14.48 dB
3.627 GHz	3.629 GHz	50.000 kHz	3.62773 GHz	-58.32 dBm	-45.32 dB
3.629 GHz	3.633 GHz	1.000 MHz	3.62985 GHz	-40.10 dBm	-27.10 dB
3.633 GHz	3.720 GHz	1.000 MHz	3.63272 GHz	-44.98 dBm	-19.98 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72622 GHz	-47.49 dBm	-7.49 dB

Date: 29_SEP.2022 00:45:26

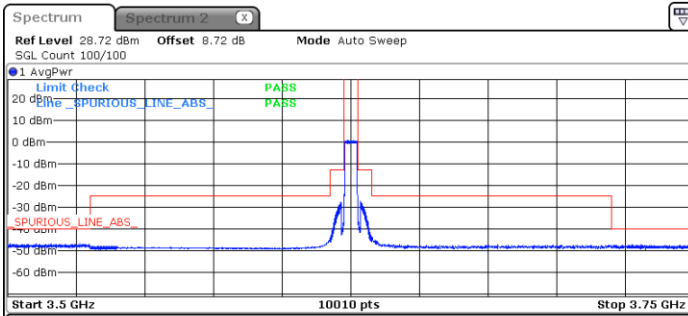


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50997 GHz	-47.03 dBm	-7.03 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53282 GHz	-48.02 dBm	-23.02 dB
3.540 GHz	3.618 GHz	1.000 MHz	3.61723 GHz	-47.08 dBm	-22.08 dB
3.618 GHz	3.622 GHz	1.000 MHz	3.62147 GHz	-38.11 dBm	-25.11 dB
3.622 GHz	3.623 GHz	50.000 kHz	3.62246 GHz	-58.08 dBm	-45.08 dB
3.623 GHz	3.627 GHz	100.000 kHz	3.62717 GHz	15.75 dBm	-14.25 dB
3.627 GHz	3.629 GHz	50.000 kHz	3.62751 GHz	-28.26 dBm	-15.26 dB
3.629 GHz	3.633 GHz	1.000 MHz	3.62875 GHz	-28.82 dBm	-15.82 dB
3.633 GHz	3.720 GHz	1.000 MHz	3.63281 GHz	-40.85 dBm	-15.85 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.73476 GHz	-47.41 dBm	-7.41 dB

Date: 29_SEP.2022 00:46:42

Middle Channel / FullIRB

N/A



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.51056 GHz	-46.97 dBm	-6.97 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53286 GHz	-47.96 dBm	-22.96 dB
3.540 GHz	3.618 GHz	1.000 MHz	3.61738 GHz	-44.88 dBm	-19.88 dB
3.618 GHz	3.622 GHz	1.000 MHz	3.62131 GHz	-27.59 dBm	-14.59 dB
3.622 GHz	3.623 GHz	50.000 kHz	3.62250 GHz	-32.45 dBm	-19.45 dB
3.623 GHz	3.627 GHz	100.000 kHz	3.62402 GHz	0.70 dBm	-29.30 dB
3.627 GHz	3.629 GHz	50.000 kHz	3.62751 GHz	-31.36 dBm	-18.36 dB
3.629 GHz	3.633 GHz	1.000 MHz	3.62852 GHz	-27.19 dBm	-14.19 dB
3.633 GHz	3.720 GHz	1.000 MHz	3.63272 GHz	-43.72 dBm	-18.72 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.73062 GHz	-47.36 dBm	-7.36 dB

Date: 29_SEP.2022 00:28:17

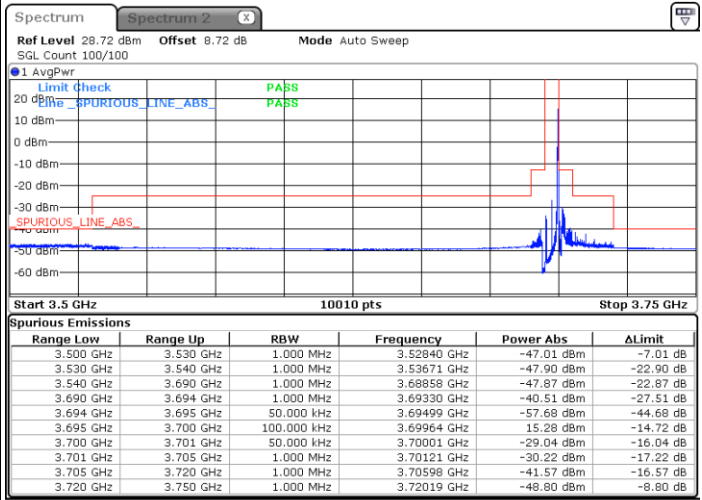
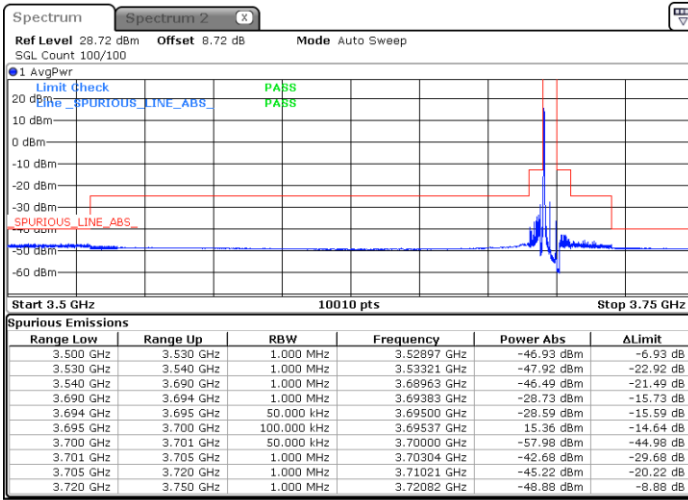


LTE Band 48 / 5MHz

256QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

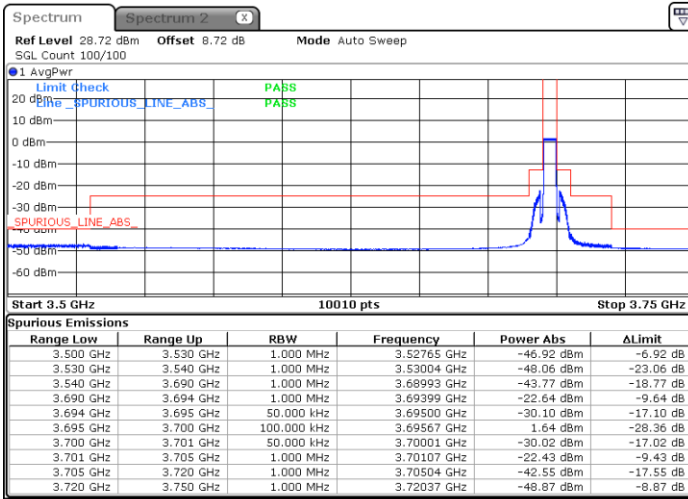


Date: 29_SEP.2022 02:42:44

Date: 29_SEP.2022 02:32:48

Highest Channel / FullIRB

N/A



Date: 29_SEP.2022 02:34:11

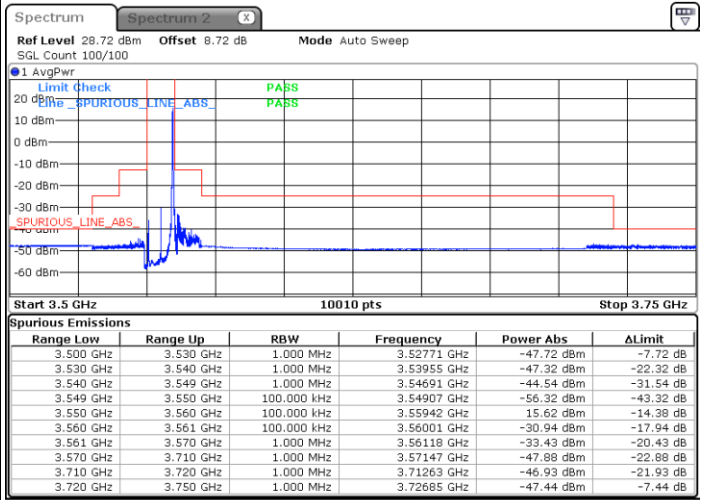
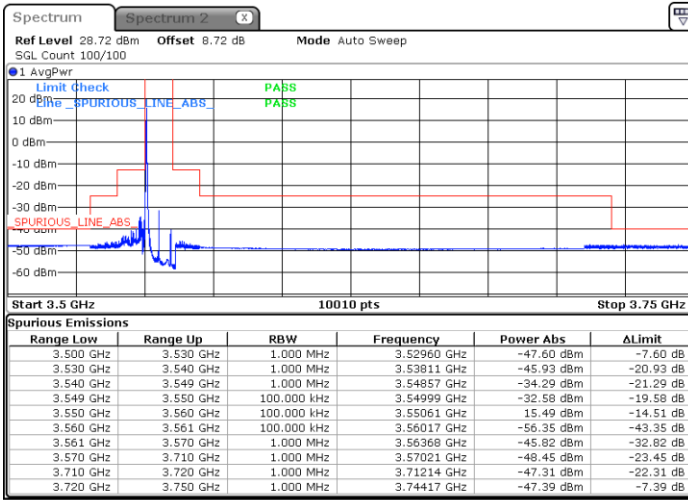


LTE Band 48 / 10MHz

256QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

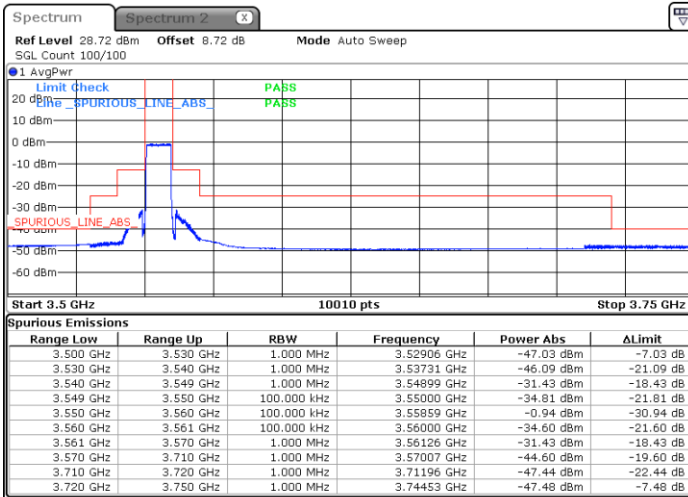


Date: 29_SEP.2022 03:43:15

Date: 29_SEP.2022 03:44:48

Lowest Channel / FullIRB

N/A



Date: 29_SEP.2022 03:52:52

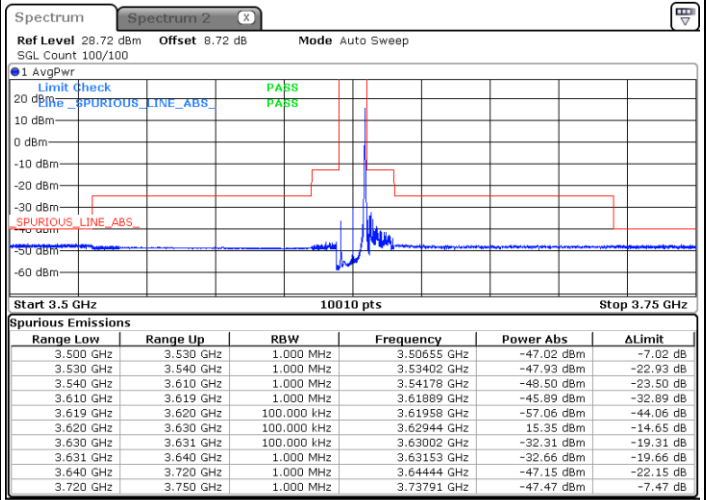
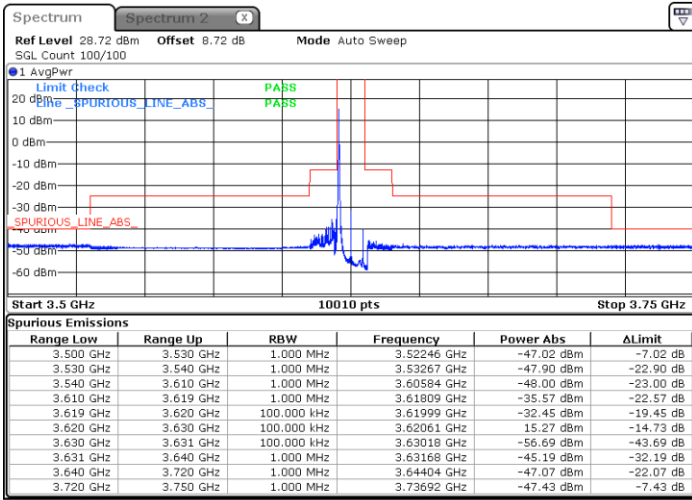


LTE Band 48 / 10MHz

256QAM

MiddleChannel / 1RB0

Middle Channel / 1RBmax

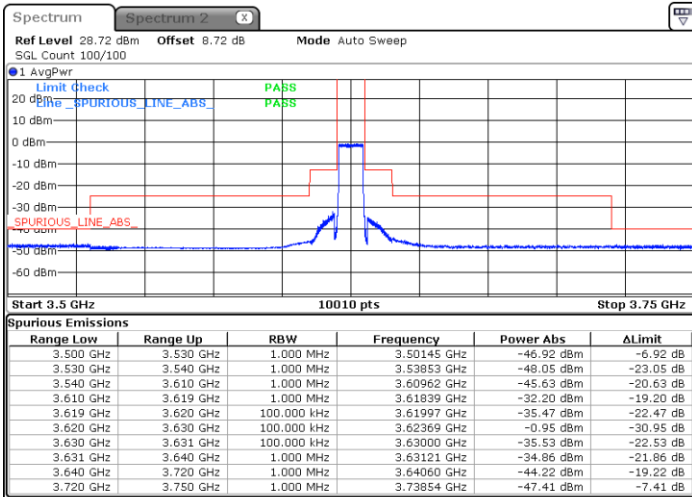


Date: 29_SEP.2022 02:48:55

Date: 29_SEP.2022 03:02:07

Middle Channel / FullIRB

N/A



Date: 29_SEP.2022 02:47:56

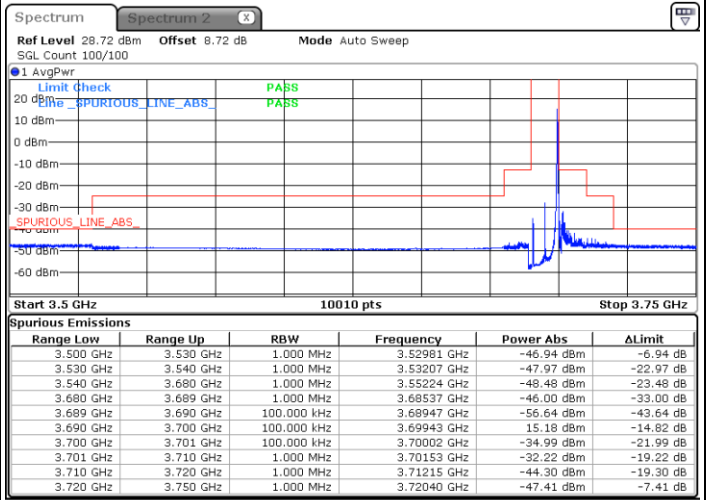
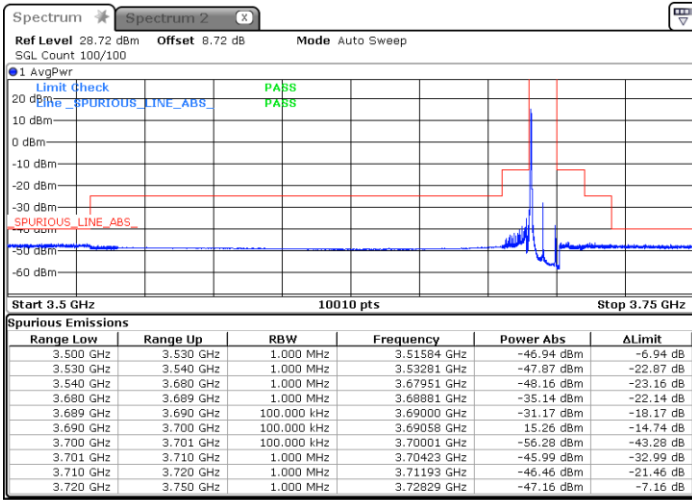


LTE Band 48 / 10MHz

256QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

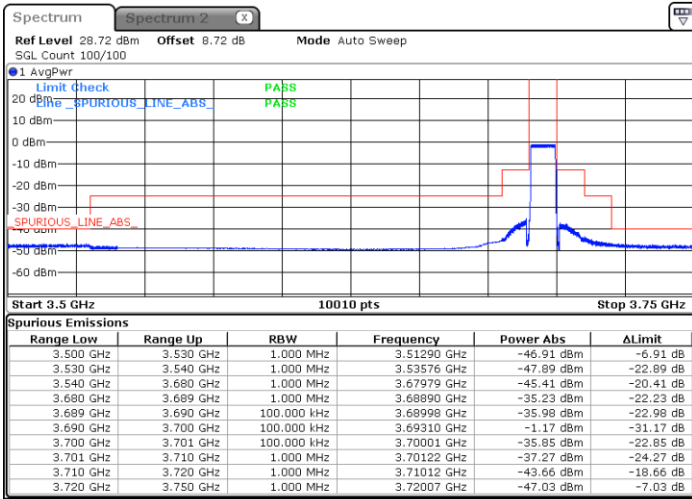


Date: 29_SEP.2022 03:26:40

Date: 29_SEP.2022 03:37:44

Highest Channel / FullIRB

N/A



Date: 29_SEP.2022 03:57:27

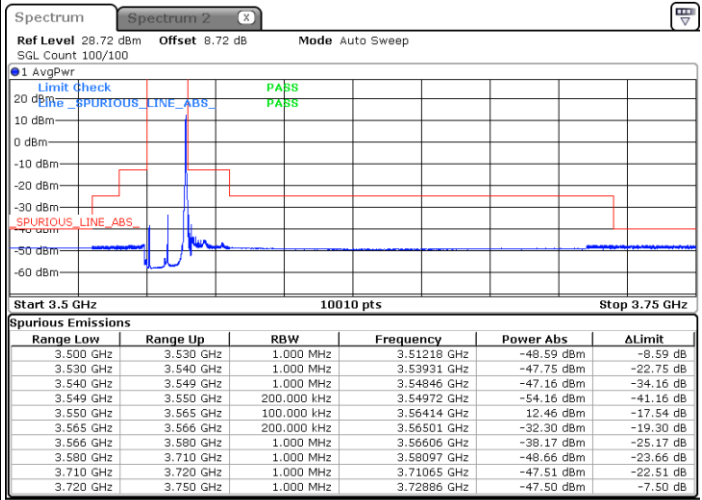
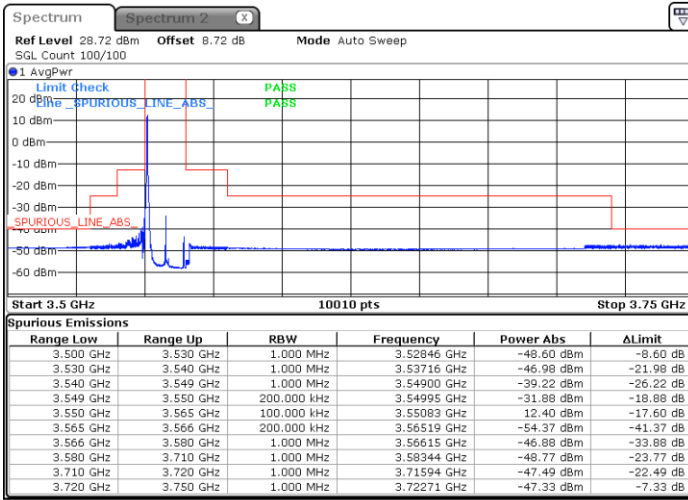


LTE Band 48 / 15MHz

256QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

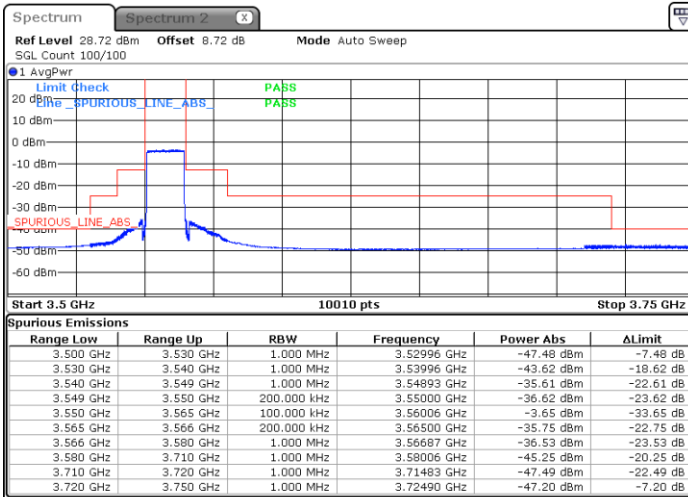


Date: 29_SEP.2022 04:24:57

Date: 29_SEP.2022 04:41:52

Lowest Channel / FullRB

N/A



Date: 29_SEP.2022 04:27:14

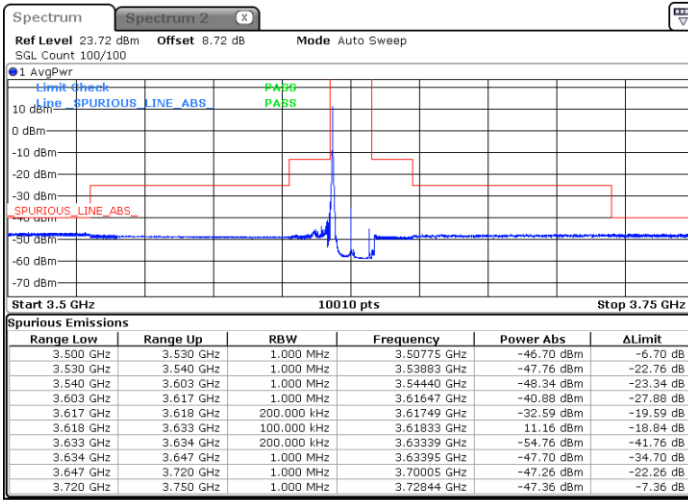


LTE Band 48 / 15MHz

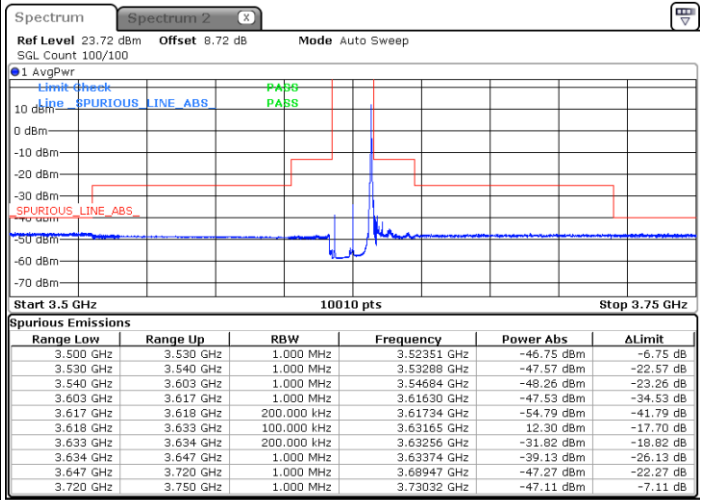
256QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



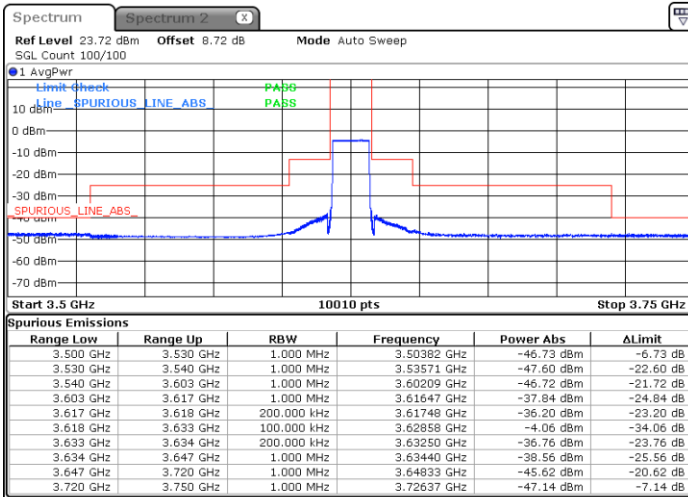
Date: 29_SEP.2022 04:04:37



Date: 29_SEP.2022 04:12:18

Middle Channel / FullIRB

N/A



Date: 29_SEP.2022 04:03:27

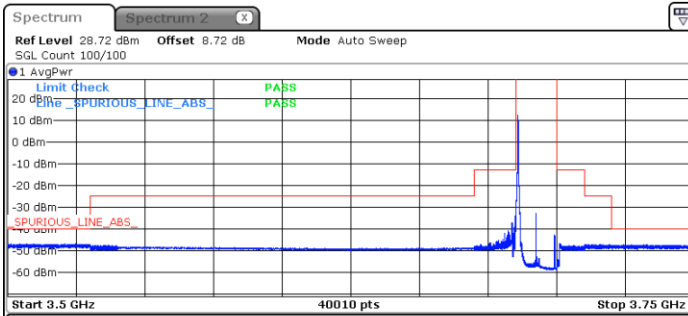


LTE Band 48 / 15MHz

256QAM

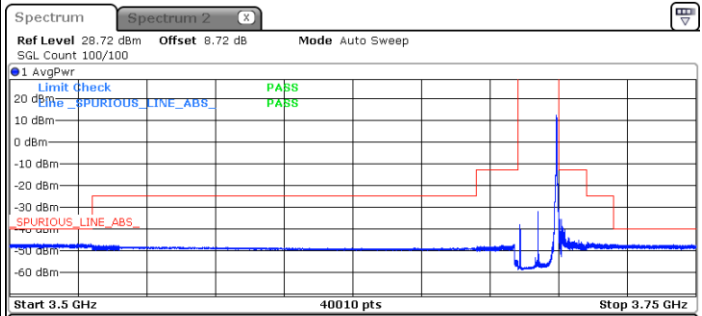
Highest Channel / 1RB0

Highest Channel / 1RBmax



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50132 GHz	-46.84 dBm	-6.84 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53527 GHz	-47.65 dBm	-22.65 dB
3.540 GHz	3.670 GHz	1.000 MHz	3.54489 GHz	-48.36 dBm	-23.36 dB
3.670 GHz	3.684 GHz	1.000 MHz	3.68357 GHz	-37.39 dBm	-24.39 dB
3.684 GHz	3.685 GHz	200.000 kHz	3.68500 GHz	-32.21 dBm	-19.21 dB
3.685 GHz	3.700 GHz	100.000 kHz	3.68584 GHz	12.29 dBm	-17.71 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70034 GHz	-54.26 dBm	-41.26 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70117 GHz	-46.95 dBm	-33.95 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71180 GHz	-47.11 dBm	-22.11 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.73301 GHz	-47.22 dBm	-7.22 dB

Date: 29_SEP.2022 04:48:14

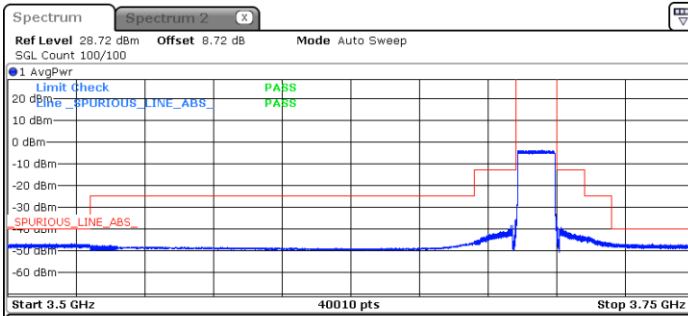


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50880 GHz	-46.74 dBm	-6.74 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53082 GHz	-47.50 dBm	-22.50 dB
3.540 GHz	3.670 GHz	1.000 MHz	3.54954 GHz	-48.37 dBm	-23.37 dB
3.670 GHz	3.684 GHz	1.000 MHz	3.68364 GHz	-47.17 dBm	-34.17 dB
3.684 GHz	3.685 GHz	200.000 kHz	3.68472 GHz	-54.58 dBm	-41.58 dB
3.685 GHz	3.700 GHz	100.000 kHz	3.69914 GHz	12.27 dBm	-17.73 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70000 GHz	-31.48 dBm	-18.48 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70103 GHz	-35.72 dBm	-22.72 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71031 GHz	-46.20 dBm	-21.20 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72039 GHz	-47.20 dBm	-7.20 dB

Date: 29_SEP.2022 04:46:59

Highest Channel / FullIRB

N/A



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50650 GHz	-46.96 dBm	-6.96 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53103 GHz	-47.56 dBm	-22.56 dB
3.540 GHz	3.670 GHz	1.000 MHz	3.66885 GHz	-46.46 dBm	-21.46 dB
3.670 GHz	3.684 GHz	1.000 MHz	3.68395 GHz	-38.49 dBm	-25.49 dB
3.684 GHz	3.685 GHz	200.000 kHz	3.68498 GHz	-35.84 dBm	-22.84 dB
3.685 GHz	3.700 GHz	100.000 kHz	3.69463 GHz	-3.87 dBm	-33.87 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70001 GHz	-35.91 dBm	-22.91 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70152 GHz	-39.29 dBm	-26.29 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71043 GHz	-43.58 dBm	-18.58 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72045 GHz	-46.71 dBm	-6.71 dB

Date: 29_SEP.2022 04:56:38

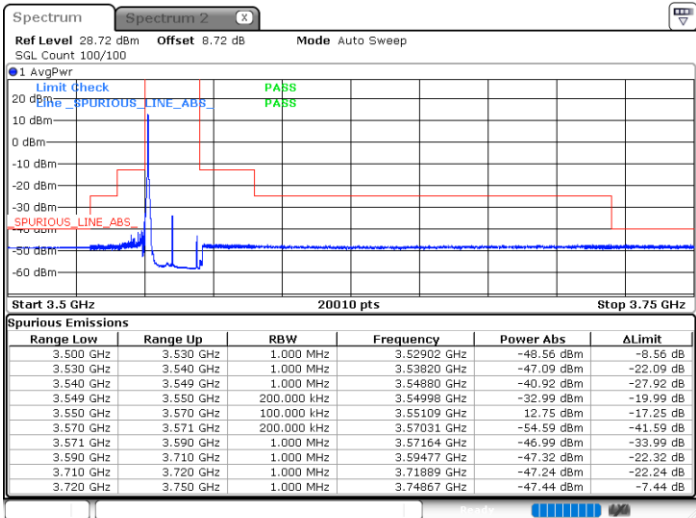


LTE Band 48 / 20MHz

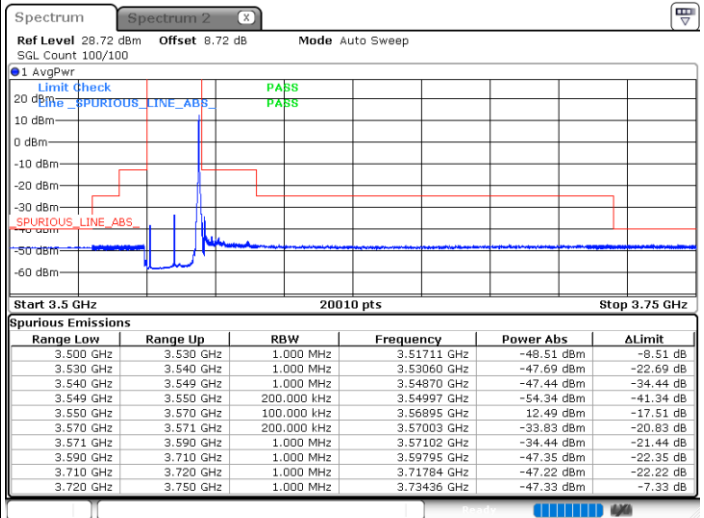
256QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



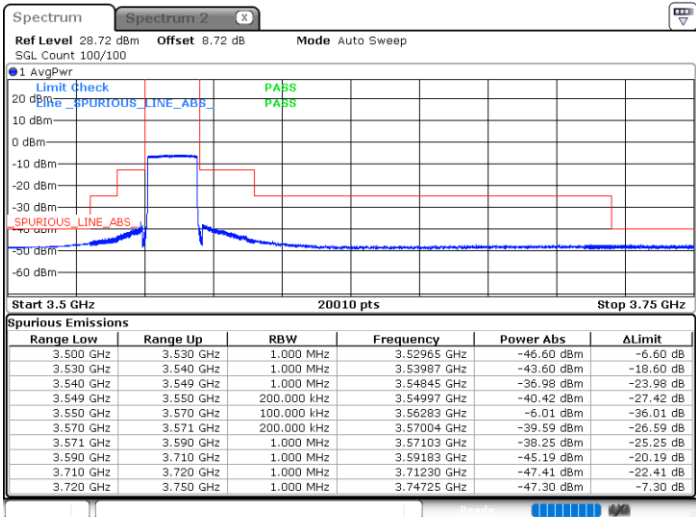
Date: 29_SEP.2022 08:19:39



Date: 29_SEP.2022 08:16:46

Lowest Channel / FullIRB

N/A



Date: 29_SEP.2022 08:32:00

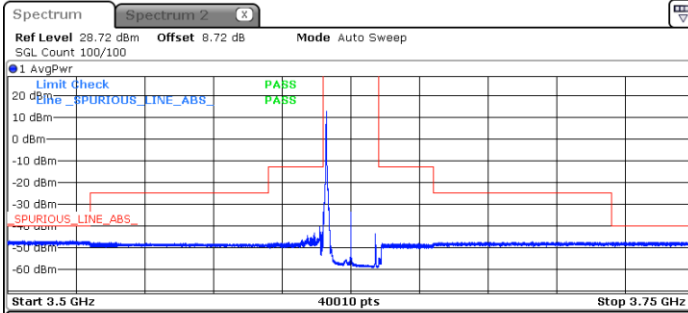


LTE Band 48 / 20MHz

256QAM

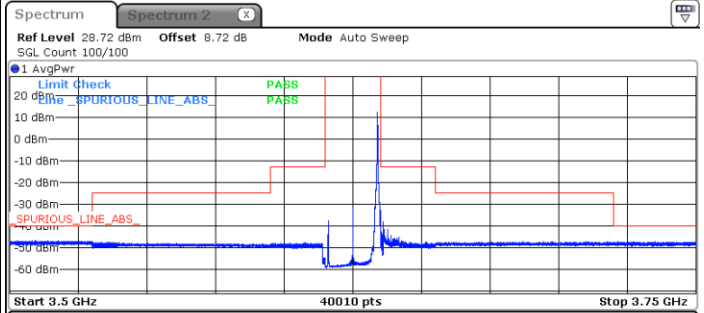
Middle Channel / 1RB0

Middle Channel / 1RBmax



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50983 GHz	-46.90 dBm	-6.90 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53139 GHz	-47.69 dBm	-22.69 dB
3.540 GHz	3.595 GHz	1.000 MHz	3.54130 GHz	-48.07 dBm	-23.07 dB
3.595 GHz	3.614 GHz	1.000 MHz	3.61356 GHz	-40.40 dBm	-27.40 dB
3.614 GHz	3.615 GHz	200.000 kHz	3.61496 GHz	-33.69 dBm	-20.69 dB
3.615 GHz	3.635 GHz	100.000 kHz	3.61609 GHz	12.62 dBm	-17.38 dB
3.635 GHz	3.636 GHz	200.000 kHz	3.63539 GHz	-54.88 dBm	-41.88 dB
3.636 GHz	3.655 GHz	1.000 MHz	3.64416 GHz	-48.16 dBm	-35.16 dB
3.655 GHz	3.720 GHz	1.000 MHz	3.70363 GHz	-47.31 dBm	-22.31 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72645 GHz	-47.50 dBm	-7.50 dB

Date: 29_SEP.2022 05:06:31

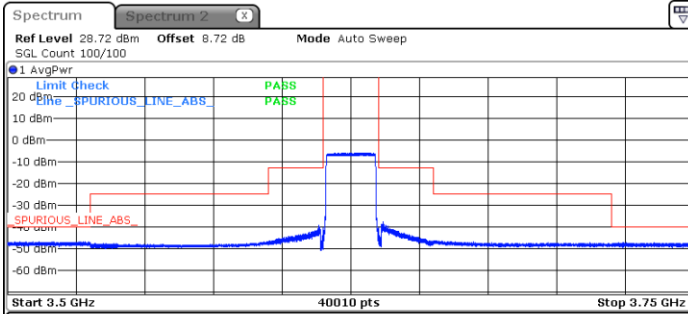


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.51385 GHz	-46.96 dBm	-6.96 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53200 GHz	-47.57 dBm	-22.57 dB
3.540 GHz	3.595 GHz	1.000 MHz	3.54079 GHz	-48.05 dBm	-23.05 dB
3.595 GHz	3.614 GHz	1.000 MHz	3.60765 GHz	-47.83 dBm	-34.83 dB
3.614 GHz	3.615 GHz	200.000 kHz	3.61438 GHz	-54.80 dBm	-41.80 dB
3.615 GHz	3.635 GHz	100.000 kHz	3.63394 GHz	12.45 dBm	-17.55 dB
3.635 GHz	3.636 GHz	200.000 kHz	3.63502 GHz	-32.73 dBm	-19.73 dB
3.636 GHz	3.655 GHz	1.000 MHz	3.63618 GHz	-38.28 dBm	-25.28 dB
3.655 GHz	3.720 GHz	1.000 MHz	3.71120 GHz	-47.23 dBm	-22.23 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72143 GHz	-47.18 dBm	-7.18 dB

Date: 29_SEP.2022 08:10:04

Middle Channel / FullIRB

N/A



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50447 GHz	-46.89 dBm	-6.89 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53175 GHz	-47.67 dBm	-22.67 dB
3.540 GHz	3.595 GHz	1.000 MHz	3.59340 GHz	-46.99 dBm	-21.99 dB
3.595 GHz	3.614 GHz	1.000 MHz	3.61321 GHz	-39.45 dBm	-26.45 dB
3.614 GHz	3.615 GHz	200.000 kHz	3.61499 GHz	-40.36 dBm	-27.36 dB
3.615 GHz	3.635 GHz	100.000 kHz	3.62024 GHz	-5.95 dBm	-35.95 dB
3.635 GHz	3.636 GHz	200.000 kHz	3.63510 GHz	-40.54 dBm	-27.54 dB
3.636 GHz	3.655 GHz	1.000 MHz	3.63662 GHz	-37.83 dBm	-24.83 dB
3.655 GHz	3.720 GHz	1.000 MHz	3.65580 GHz	-46.53 dBm	-21.53 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72246 GHz	-47.35 dBm	-7.35 dB

Date: 29_SEP.2022 05:05:12

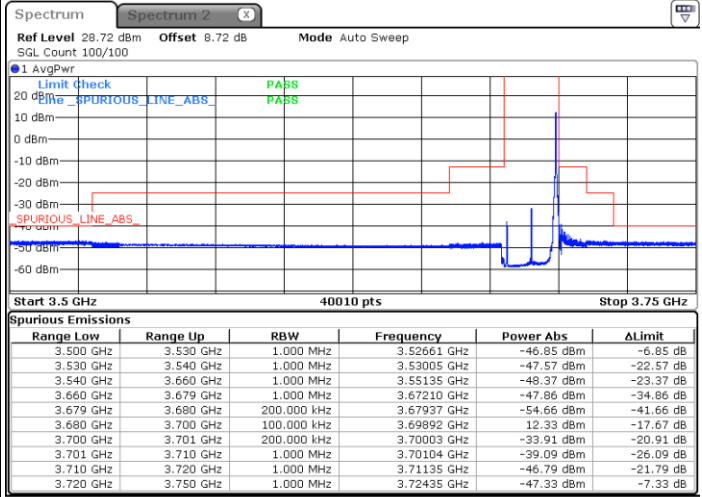
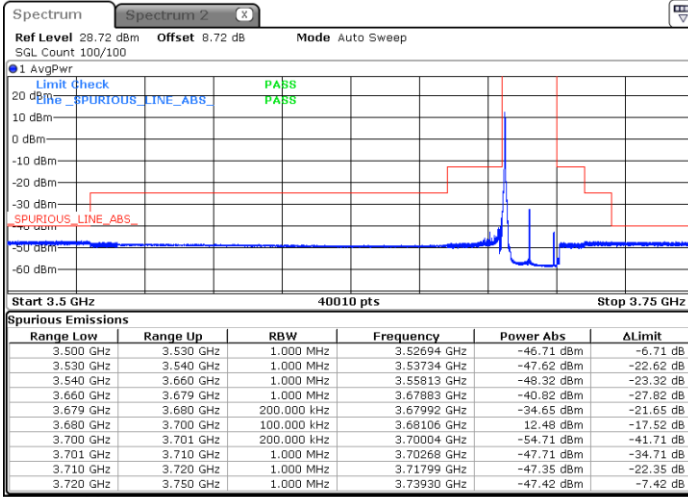


LTE Band 48 / 20MHz

256QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

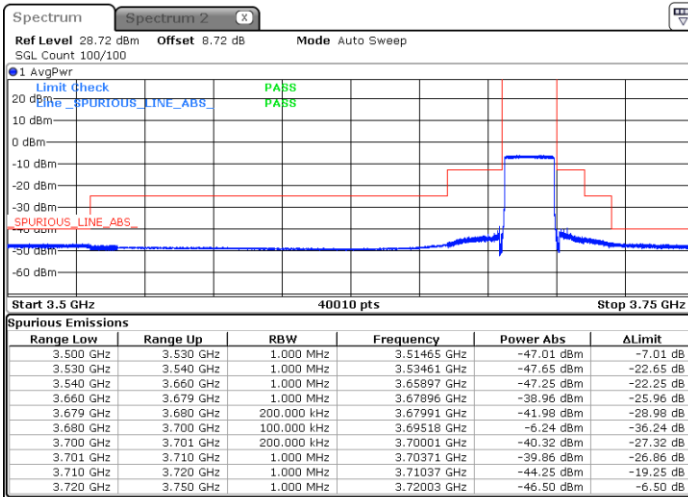


Date: 29_SEP.2022 08:39:20

Date: 29_SEP.2022 08:51:06

Highest Channel / FullIRB

N/A



Date: 29_SEP.2022 08:37:53



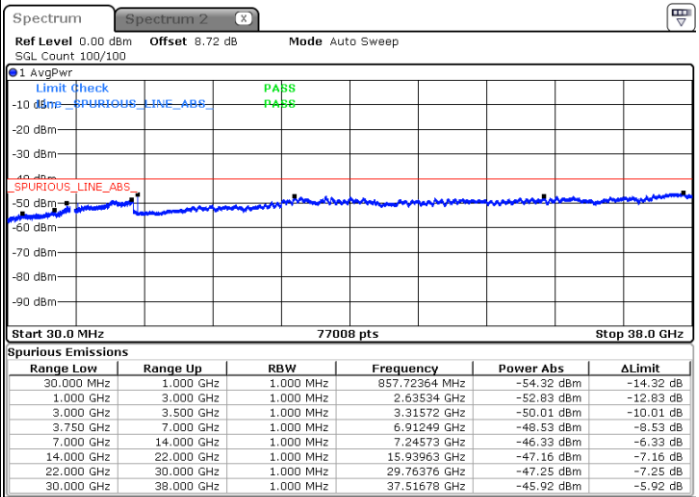
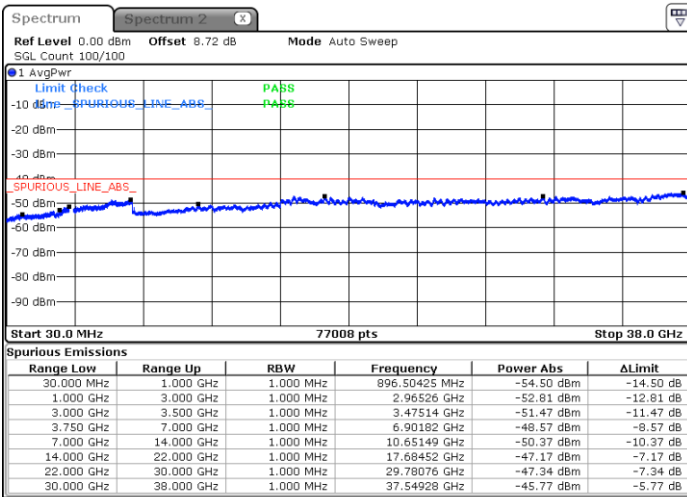
Conducted Spurious Emission

LTE Band 48 / 5MHz

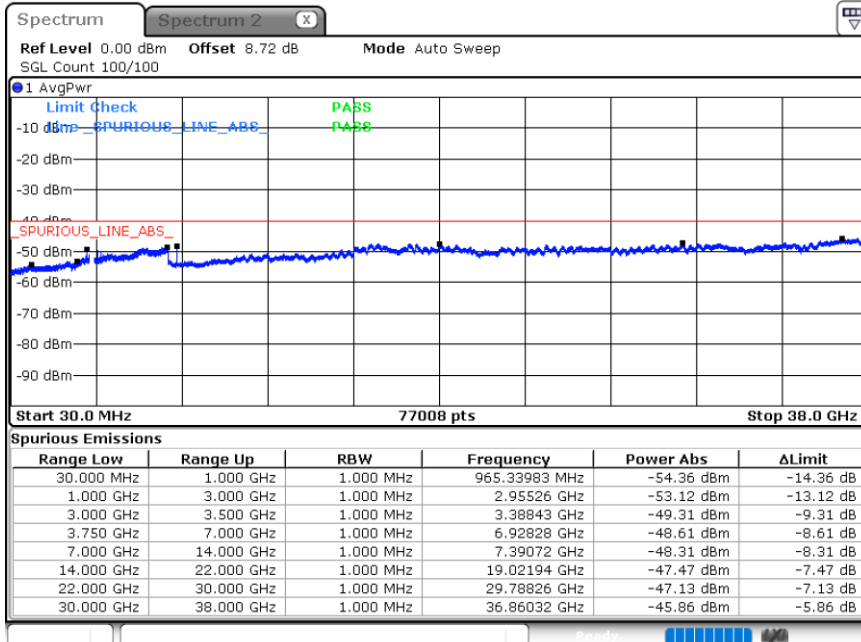
QPSK / 1RB0

Lowest Channel

Middle Channel



Highest Channel



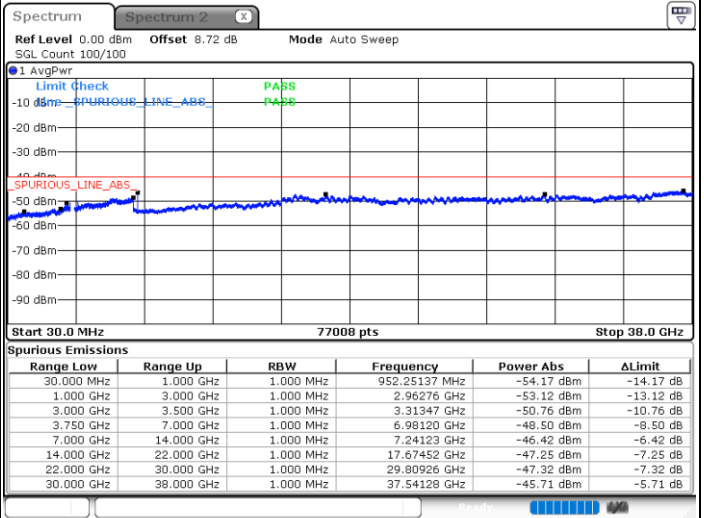
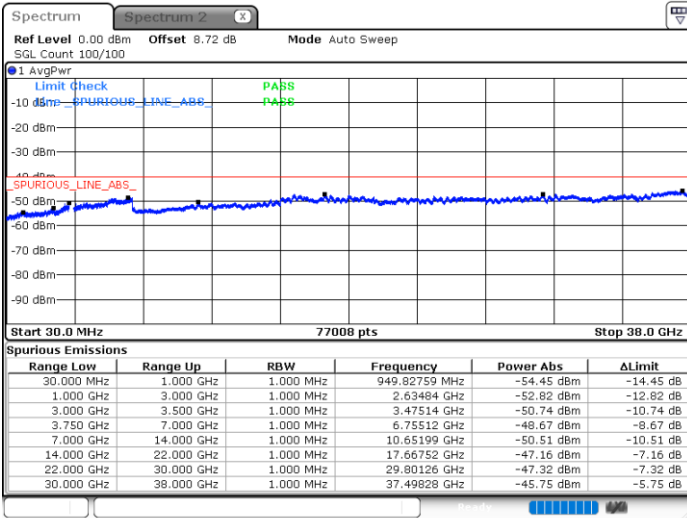


LTE Band 48 / 10MHz

QPSK / 1RB0

Lowest Channel

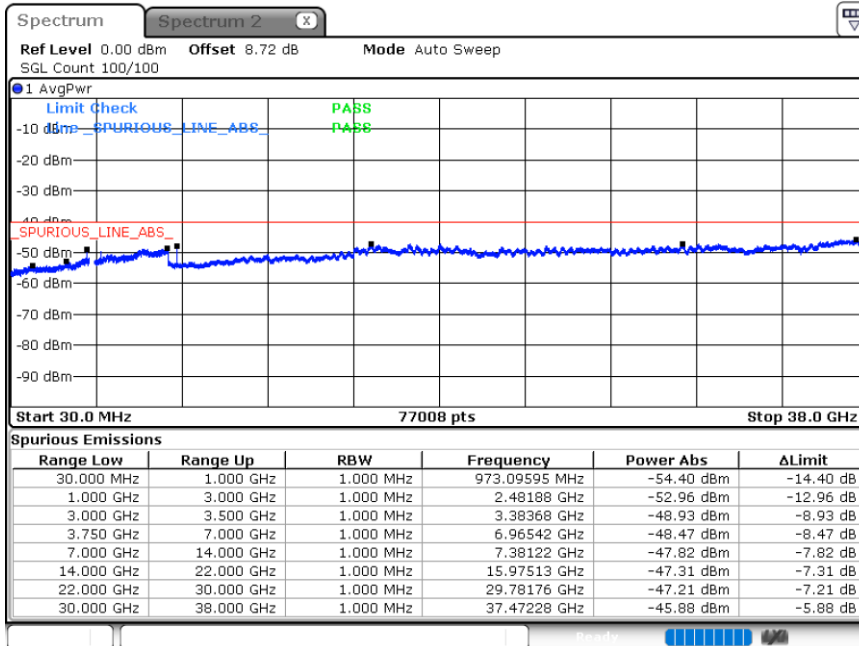
Middle Channel



Date: 29.SEP.2022 10:24:43

Date: 29.SEP.2022 10:26:44

Highest Channel



Date: 29.SEP.2022 10:33:50

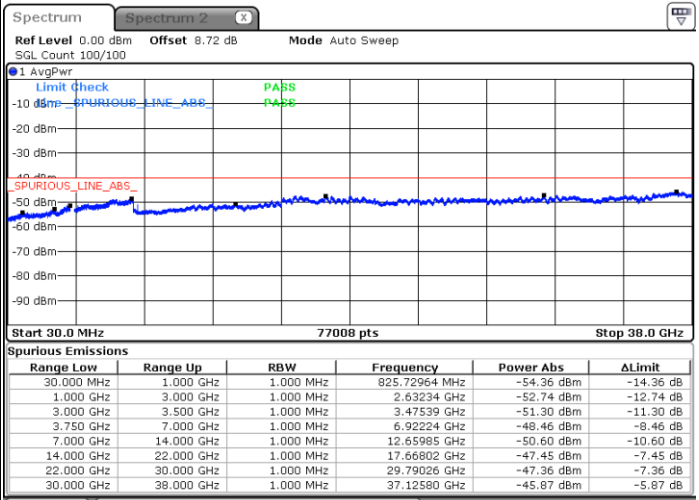
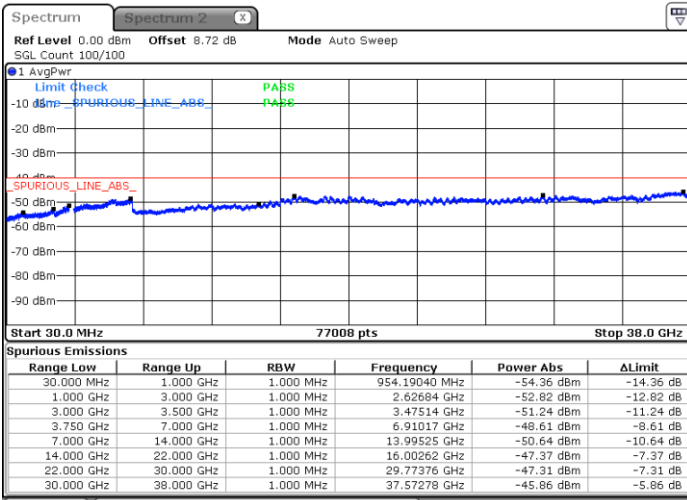


LTE Band 48 / 15MHz

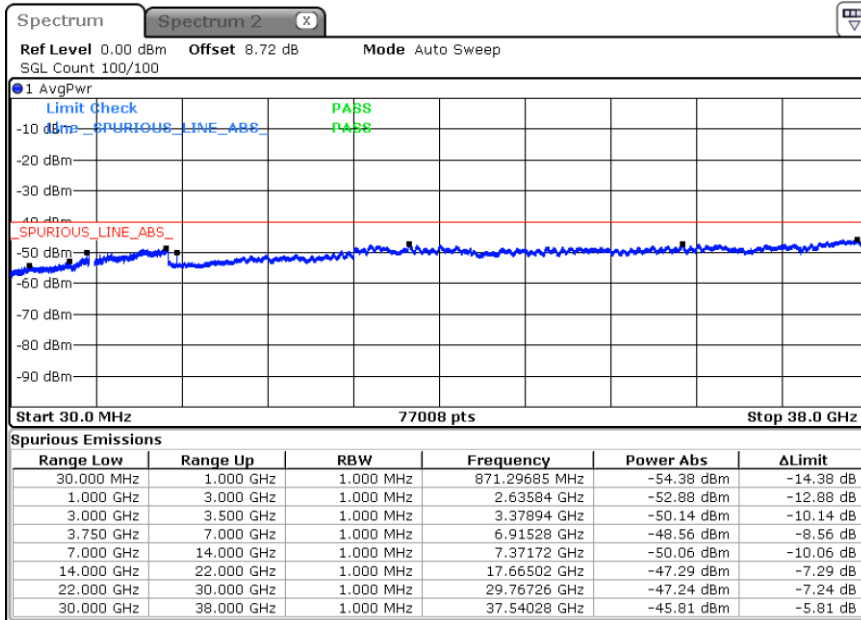
QPSK / 1RB0

Lowest Channel

Middle Channel



Highest Channel



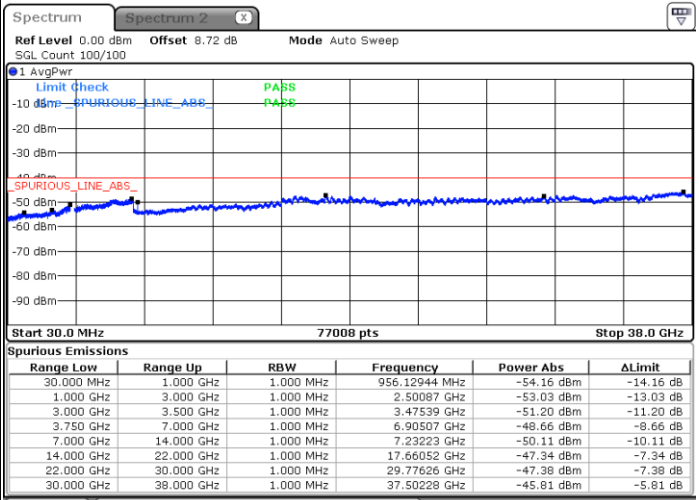
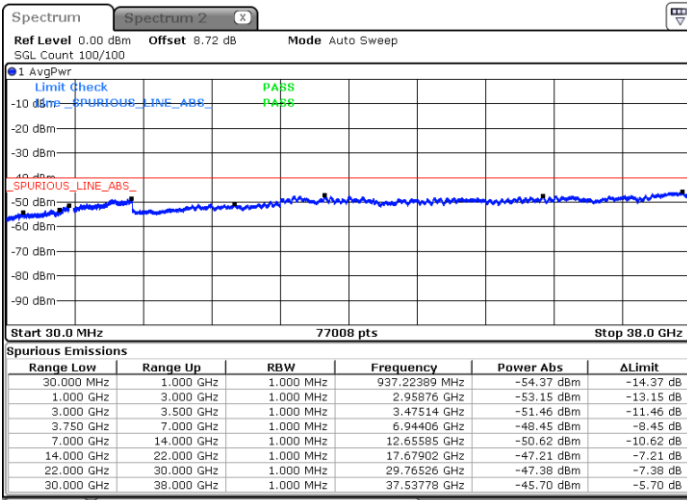


LTE Band 48 / 20MHz

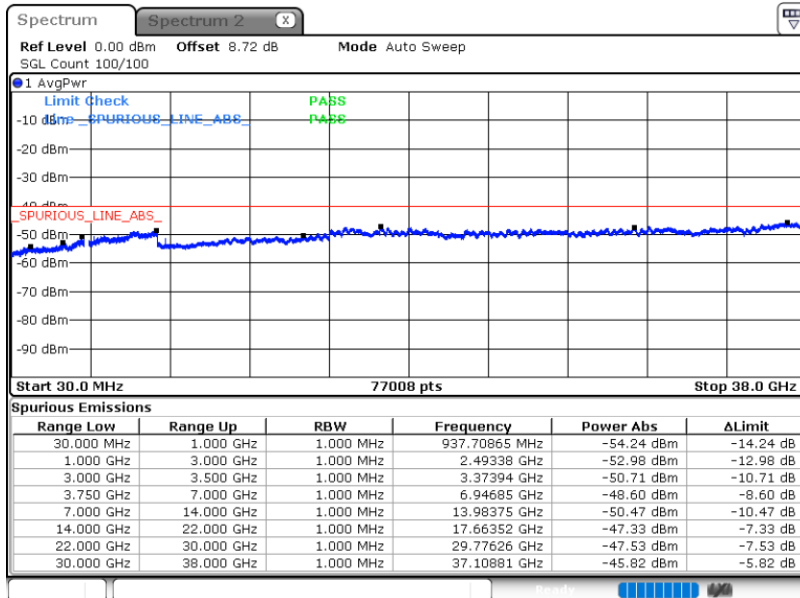
QPSK / 1RB0

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	0.0031	PASS
40	Normal Voltage	0.0028	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0015	
-20	Normal Voltage	0.0029	
-30	Normal Voltage	0.0024	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.88 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.27 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 :	Zhaohui Liang	Temperature :	22~25°C
		Relative Humidity :	48~52%

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

LTE Band 48 / 20MHz / QPSK(Ant.10)									
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	7332.00	-58.01	-40	-18.01	-66.25	-61.31	8.30	11.60	H
	10998.00	-55.04	-40	-15.04	-68.83	-56.56	10.48	12.00	H
	14664.00	-54.26	-40	-14.26	-69.37	-55.96	11.80	13.50	H
	7332.00	-57.39	-40	-17.39	-66.38	-60.69	8.30	11.60	V
	10998.00	-53.91	-40	-13.91	-68.46	-55.43	10.48	12.00	V
	14664.00	-55.25	-40	-15.25	-70.34	-56.95	11.80	13.50	V

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