



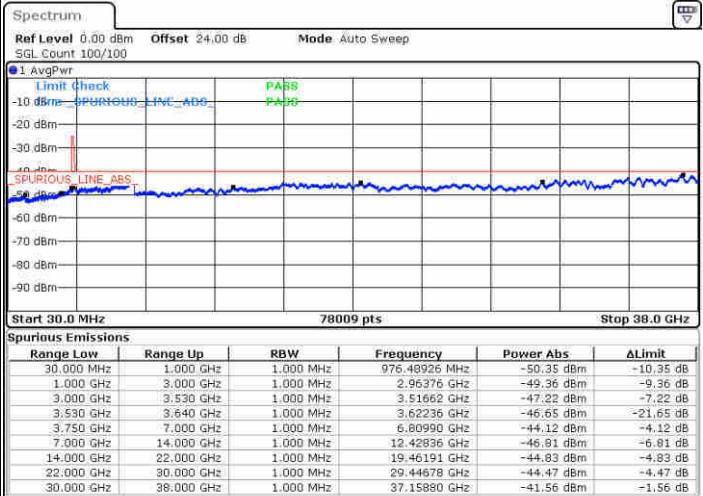
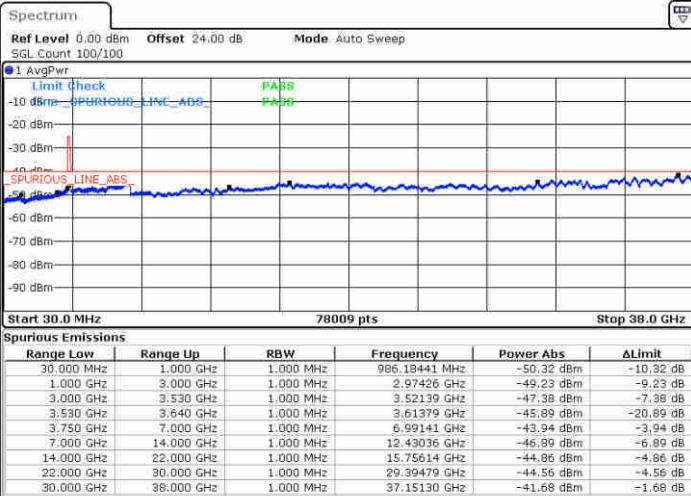


LTE Band 48 / 10MHz

QPSK

Highest Channel / 1RB0

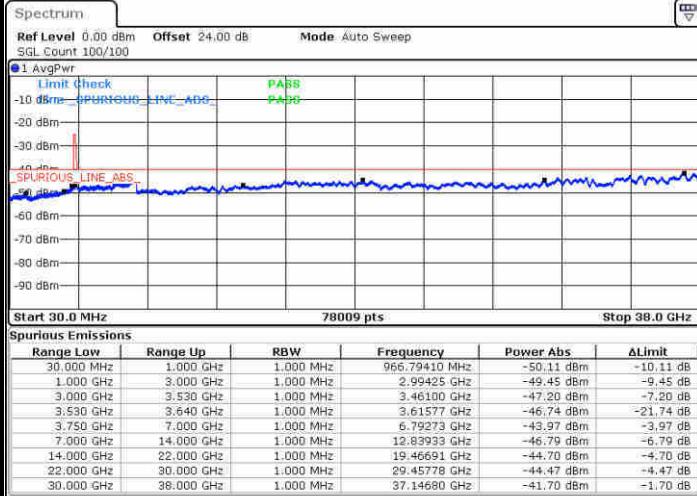
Highest Channel / 1RBmax



Date: 13/FEB/2020 00:14:24

Date: 13/FEB/2020 00:16:49

Highest Channel / FullRB



Date: 13/FEB/2020 00:18:40

N/A

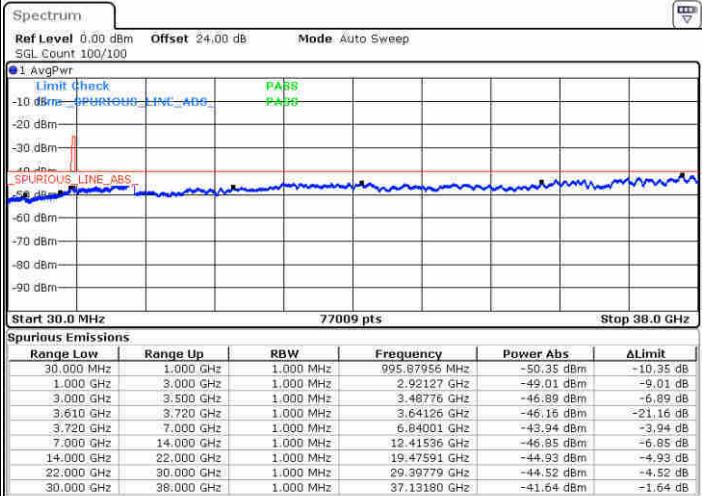
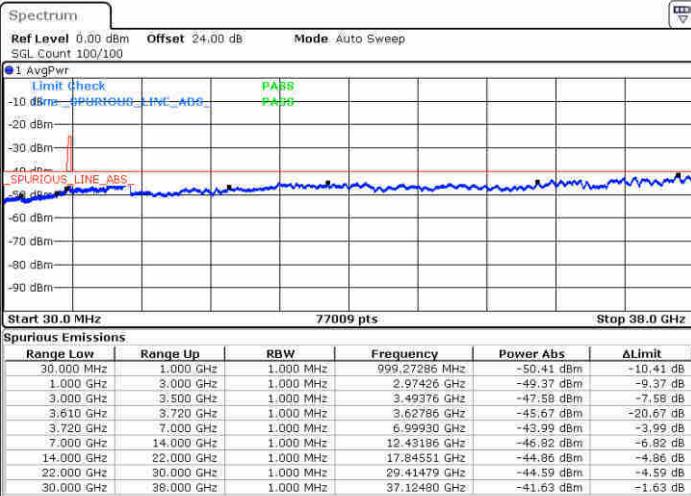


LTE Band 48 / 15MHz

QPSK

Lowest Channel / 1RB0

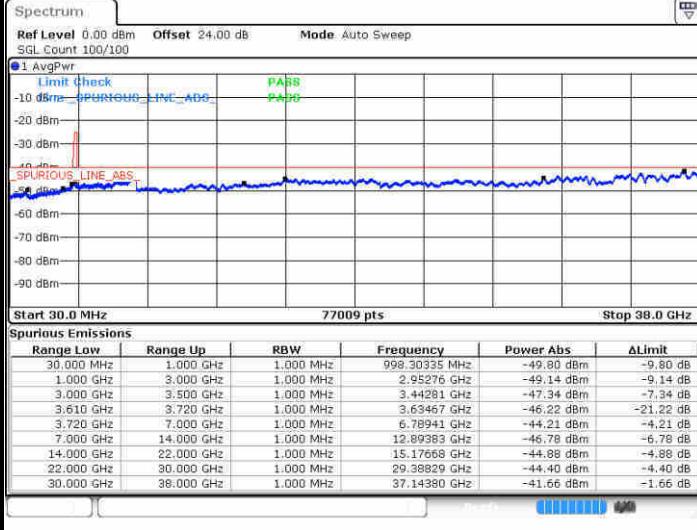
Lowest Channel / 1RBmax



Date: 13/FEB/2020 01:23:12

Date: 13/FEB/2020 01:27:41

Lowest Channel / FullRB



Date: 13/FEB/2020 01:29:48

N/A

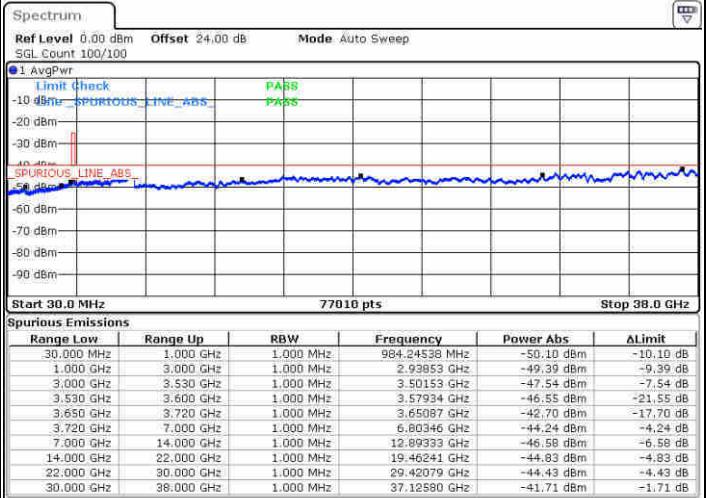
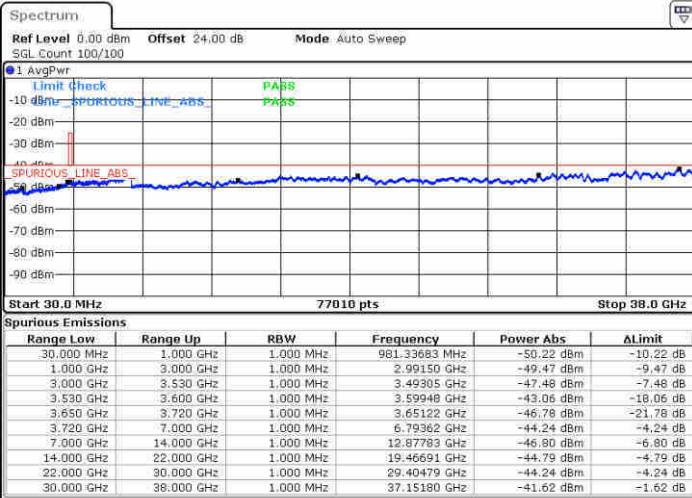


LTE Band 48 / 15MHz

QPSK

Middle Channel / 1RB0

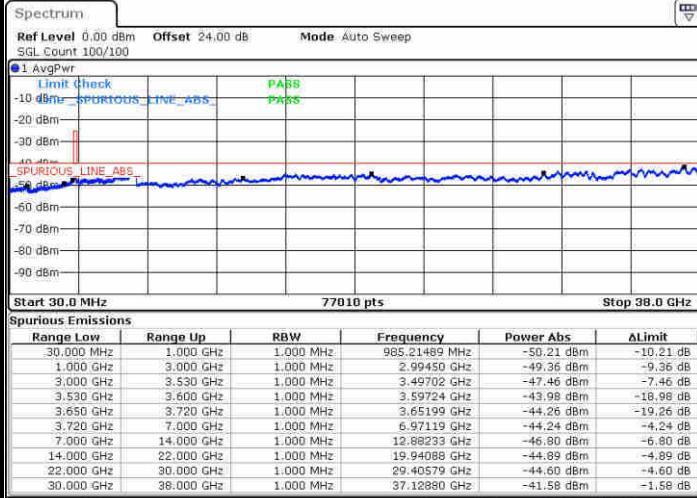
Middle Channel / 1RBmax



Date: 13 FEB 2020 03:38:25

Date: 13 FEB 2020 03:41:44

Middle Channel / FullRB



Date: 13 FEB 2020 03:44:21

N/A

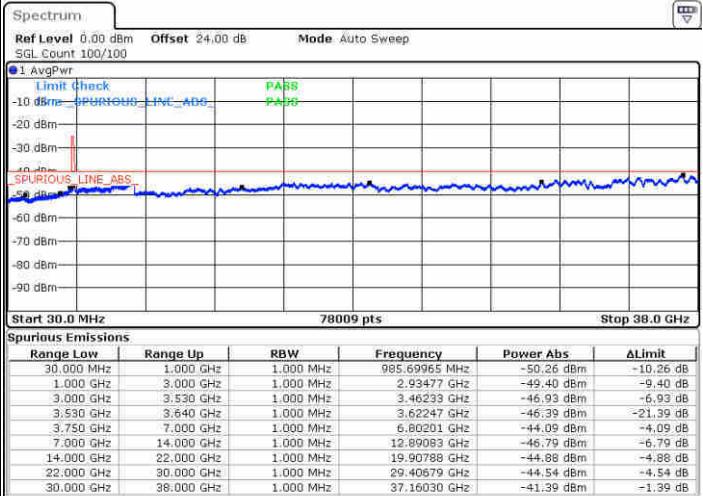
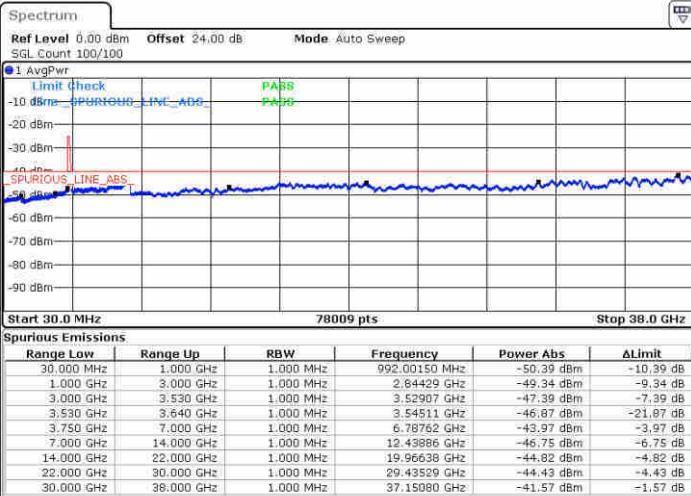


LTE Band 48 / 15MHz

QPSK

Highest Channel / 1RB0

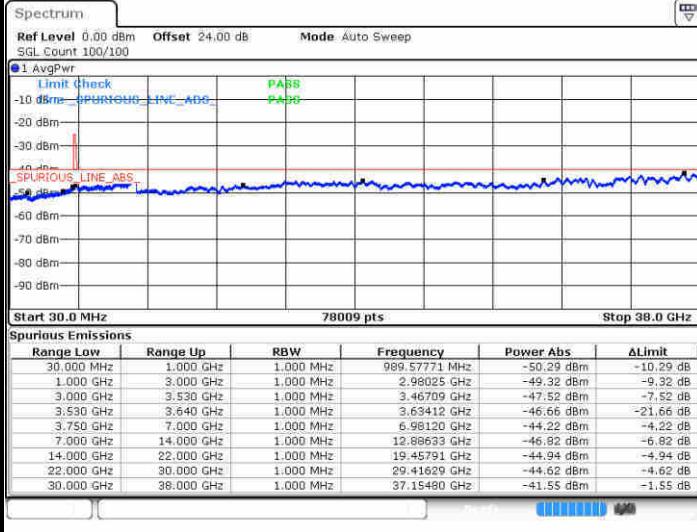
Highest Channel / 1RBmax



Date: 13/FEB/2020 04:43:09

Date: 13/FEB/2020 04:45:59

Highest Channel / FullRB



Date: 13/FEB/2020 04:48:56

N/A

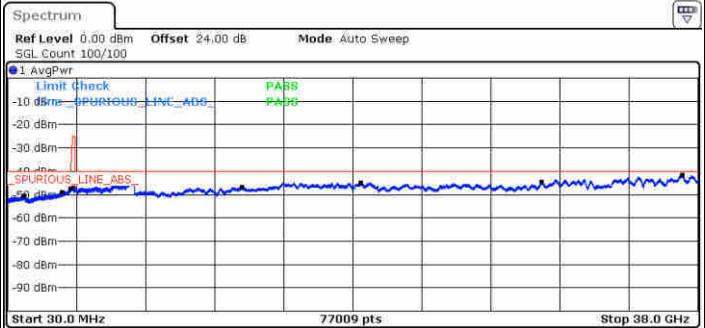
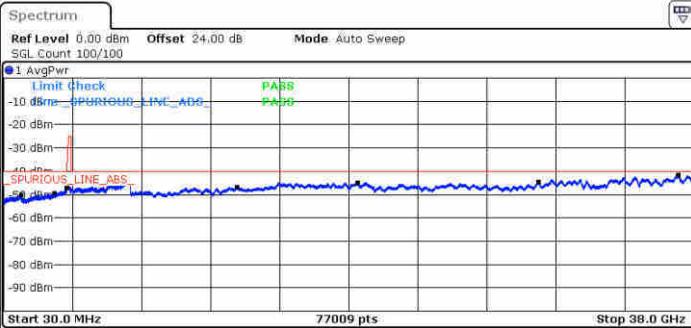


LTE Band 48 / 20MHz

QPSK

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



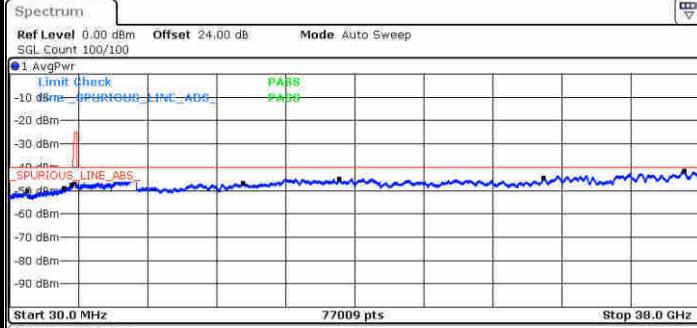
Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	988.12344 MHz	-50.25 dBm	-10.25 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.83029 GHz	-49.33 dBm	-9.33 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.47478 GHz	-47.01 dBm	-7.01 dB
3.610 GHz	3.720 GHz	1.000 MHz	3.62808 GHz	-45.22 dBm	-20.22 dB
3.720 GHz	7.000 GHz	1.000 MHz	6.81049 GHz	-44.16 dBm	-4.16 dB
7.000 GHz	14.000 GHz	1.000 MHz	12.84283 GHz	-46.79 dBm	-6.79 dB
14.000 GHz	22.000 GHz	1.000 MHz	19.47441 GHz	-44.87 dBm	-4.87 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.43629 GHz	-44.46 dBm	-4.46 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.15230 GHz	-41.59 dBm	-1.59 dB

Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	981.94653 MHz	-50.38 dBm	-10.38 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99175 GHz	-49.20 dBm	-9.20 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.49226 GHz	-47.40 dBm	-7.40 dB
3.610 GHz	3.720 GHz	1.000 MHz	3.64566 GHz	-46.02 dBm	-21.02 dB
3.720 GHz	7.000 GHz	1.000 MHz	6.86015 GHz	-44.23 dBm	-4.23 dB
7.000 GHz	14.000 GHz	1.000 MHz	12.89933 GHz	-46.69 dBm	-6.69 dB
14.000 GHz	22.000 GHz	1.000 MHz	19.46891 GHz	-44.82 dBm	-4.82 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.40779 GHz	-44.54 dBm	-4.54 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.14980 GHz	-41.47 dBm	-1.47 dB

Date: 13/FEB/2020 05:46:59

Date: 13/FEB/2020 05:49:14

Lowest Channel / FullRB



Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	982.79110 MHz	-50.27 dBm	-10.27 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98875 GHz	-49.02 dBm	-9.02 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.46479 GHz	-47.65 dBm	-7.65 dB
3.610 GHz	3.720 GHz	1.000 MHz	3.61016 GHz	-46.17 dBm	-21.17 dB
3.720 GHz	7.000 GHz	1.000 MHz	6.78800 GHz	-44.00 dBm	-4.00 dB
7.000 GHz	14.000 GHz	1.000 MHz	12.87983 GHz	-46.68 dBm	-6.68 dB
14.000 GHz	22.000 GHz	1.000 MHz	18.15099 GHz	-44.90 dBm	-4.90 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.39829 GHz	-44.49 dBm	-4.49 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.11181 GHz	-41.64 dBm	-1.64 dB

Date: 13/FEB/2020 05:54:04

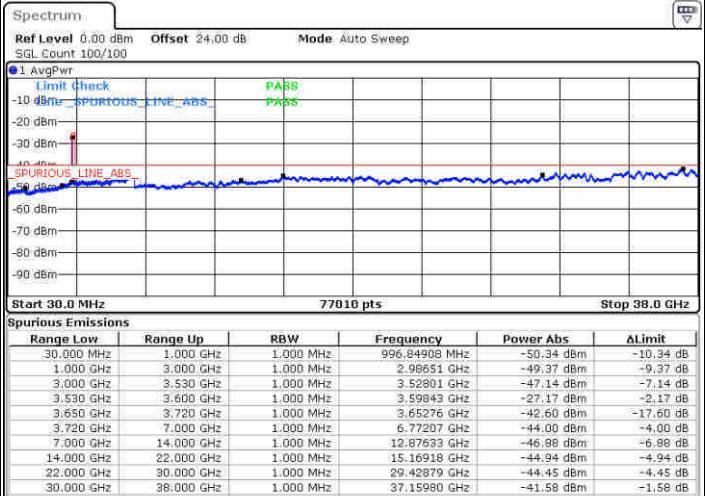
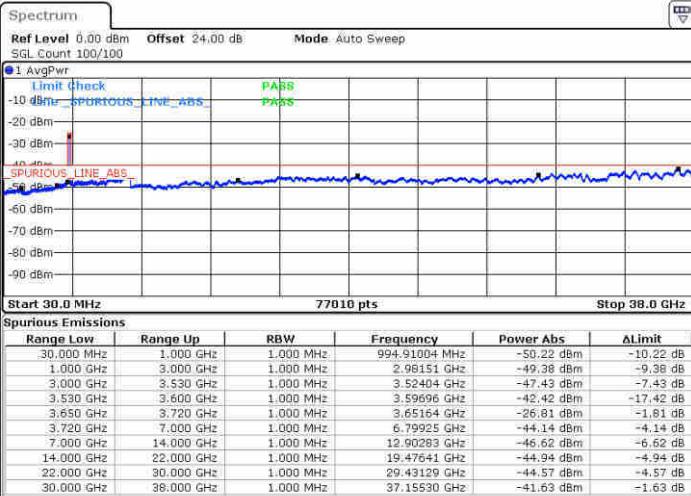


LTE Band 48 / 20MHz

QPSK

Middle Channel / 1RB0

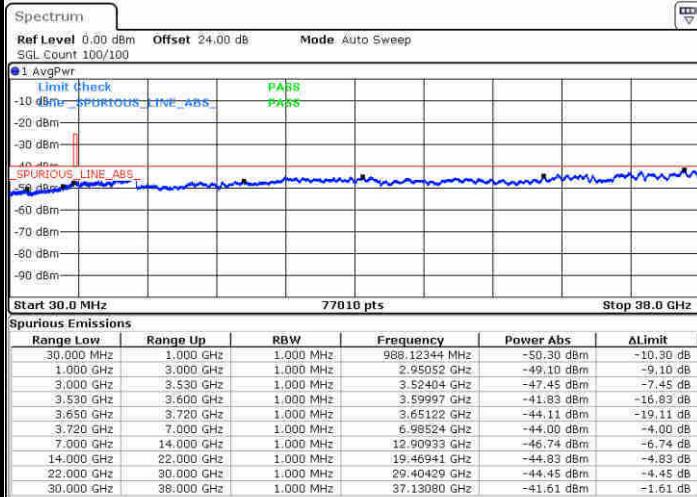
Middle Channel / 1RBmax



Date: 13/FEB/2020 06:43:49

Date: 13/FEB/2020 06:46:54

Middle Channel / FullRB



Date: 13/FEB/2020 06:49:27

N/A

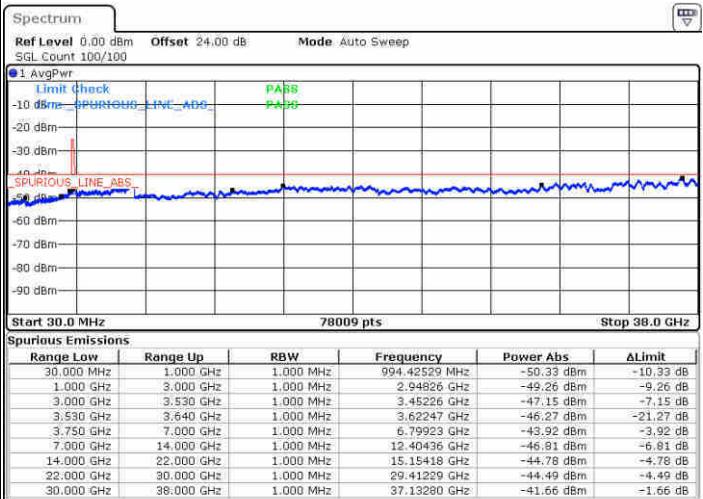
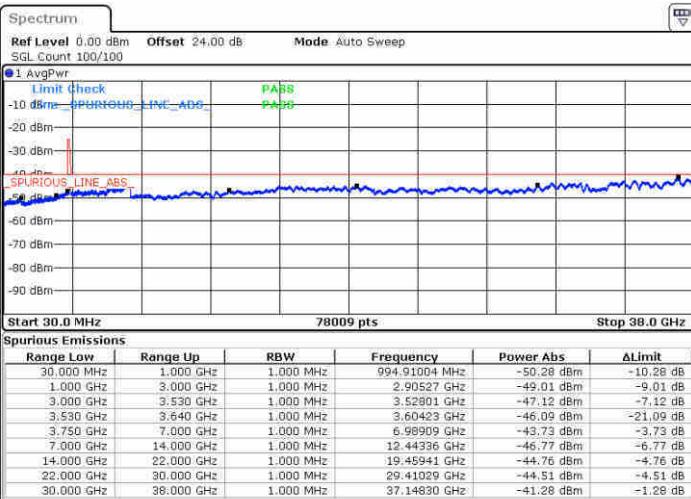


LTE Band 48 / 20MHz

QPSK

Highest Channel / 1RB0

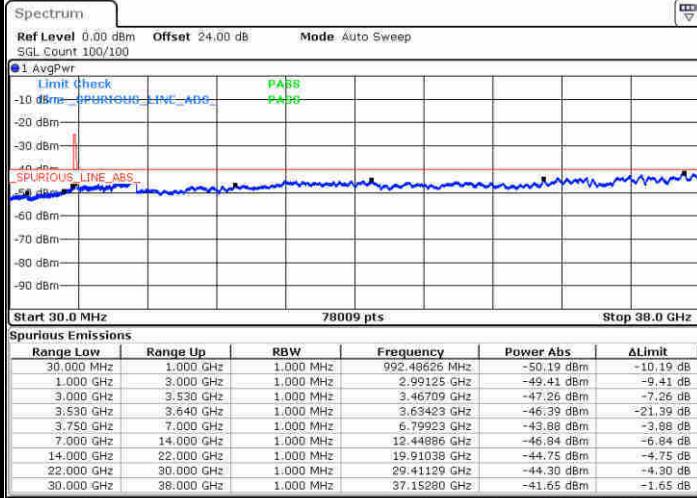
Highest Channel / 1RBmax



Date: 14/FEB/2020 01:58:26

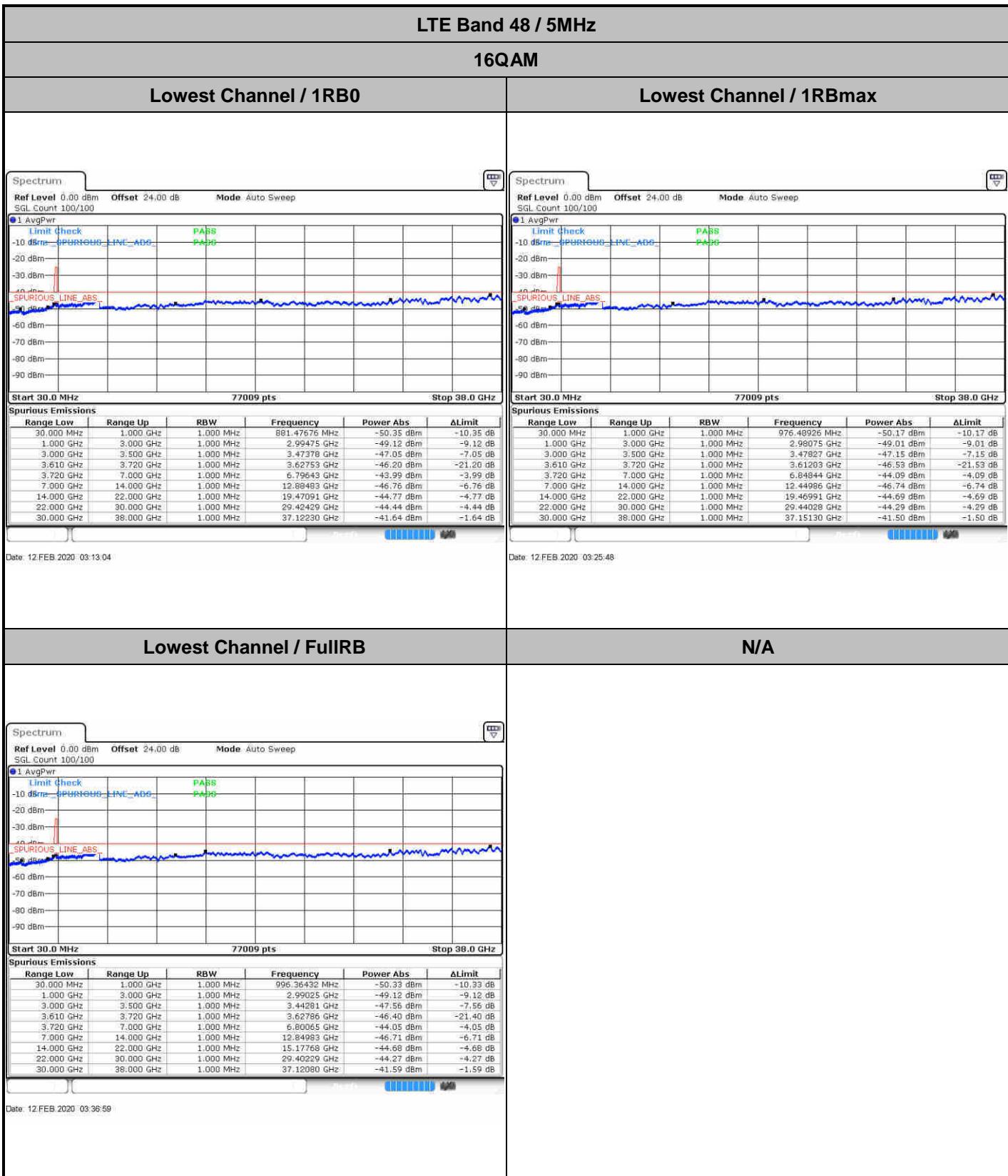
Date: 14/FEB/2020 02:11:05

Highest Channel / FullIRB

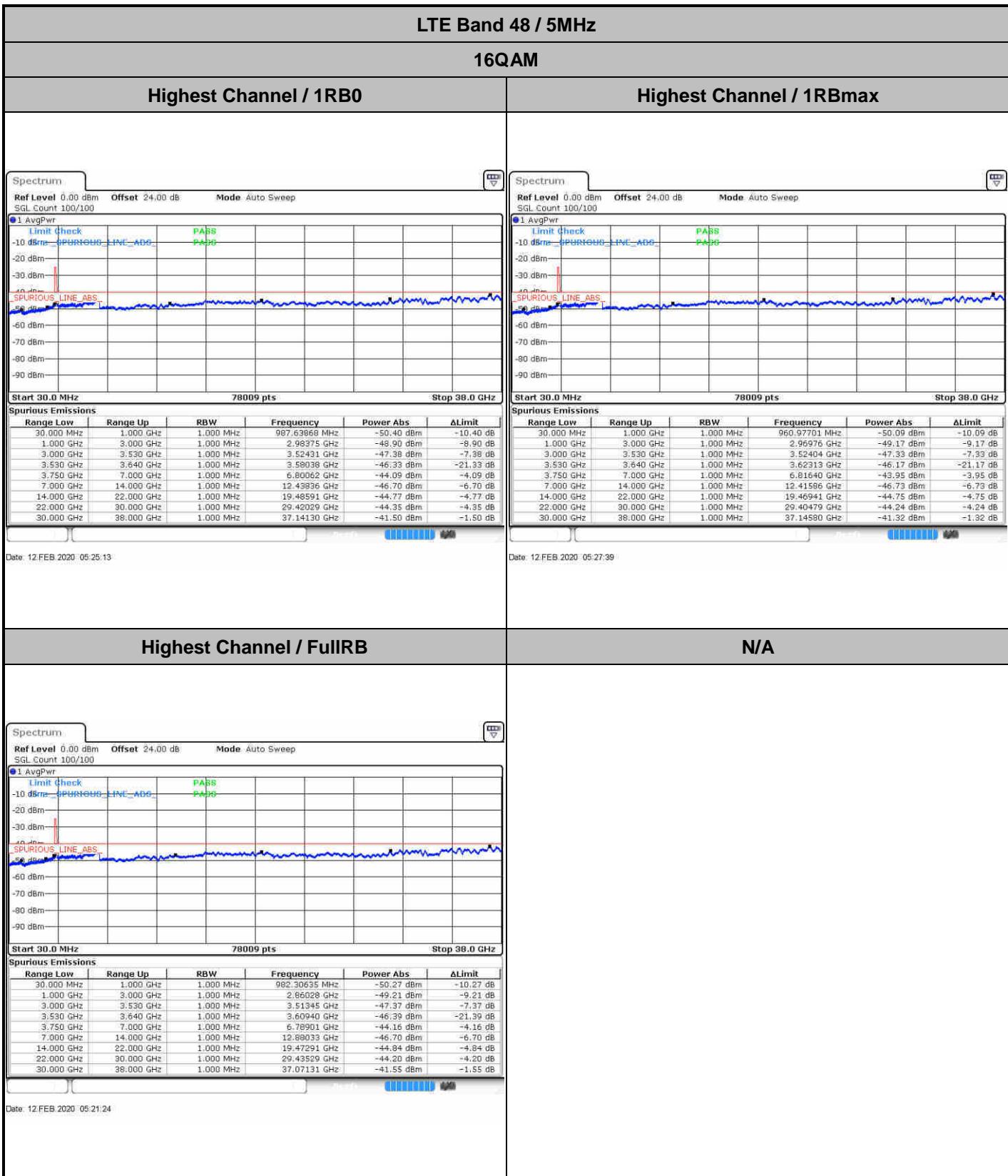


Date: 14/FEB/2020 02:13:51

N/A







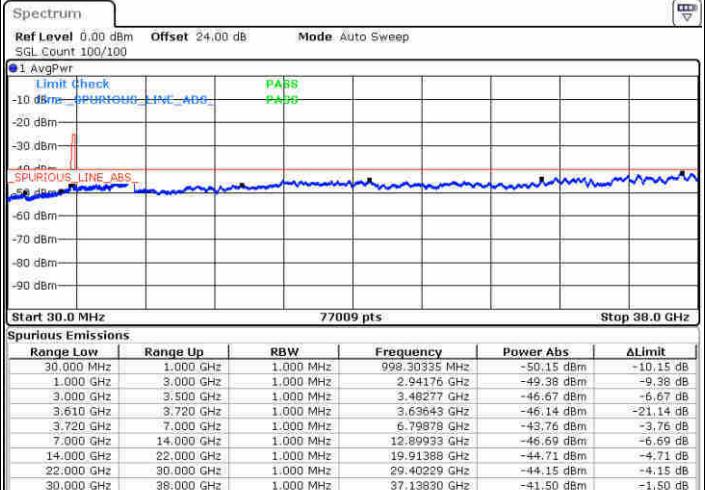
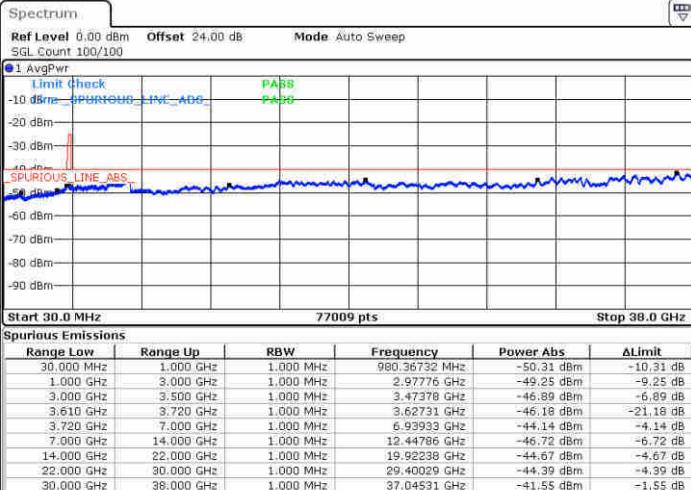


LTE Band 48 / 10MHz

16QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

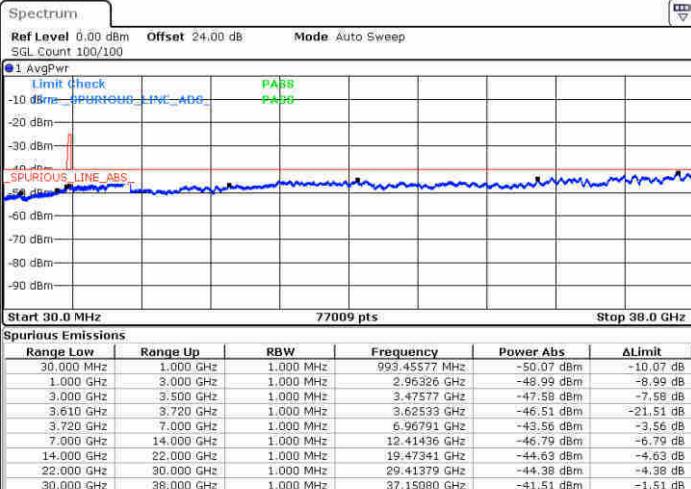


Date: 12.FEB.2020 06:48:23

Date: 12.FEB.2020 06:48:21

Lowest Channel / FullRB

N/A



Date: 12.FEB.2020 06:43:05

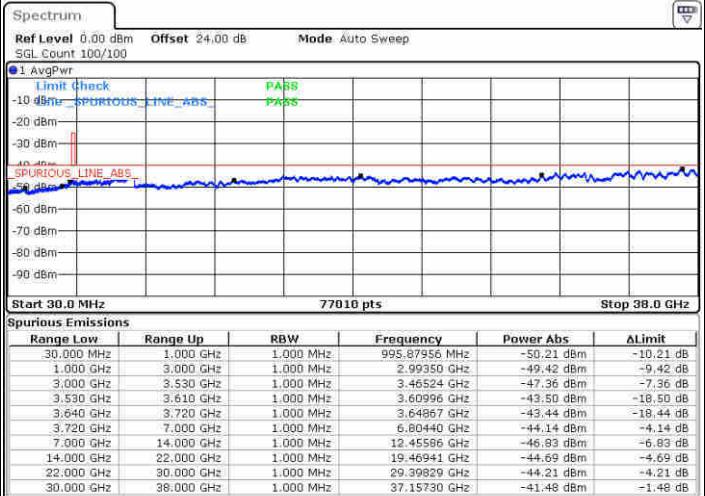
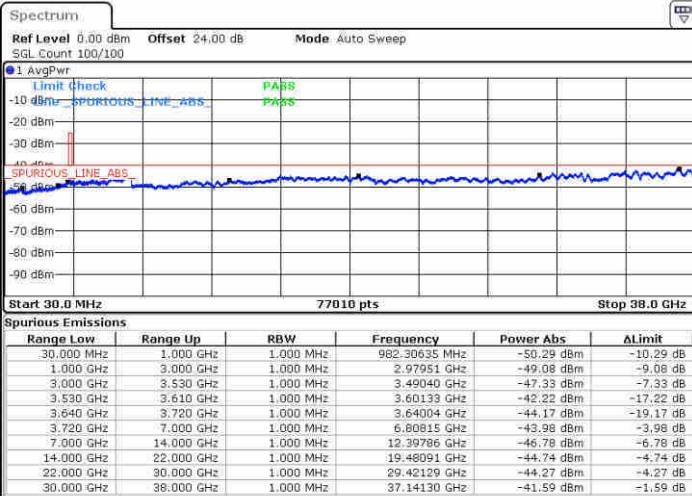


LTE Band 48 / 10MHz

16QAM

MiddleChannel / 1RB0

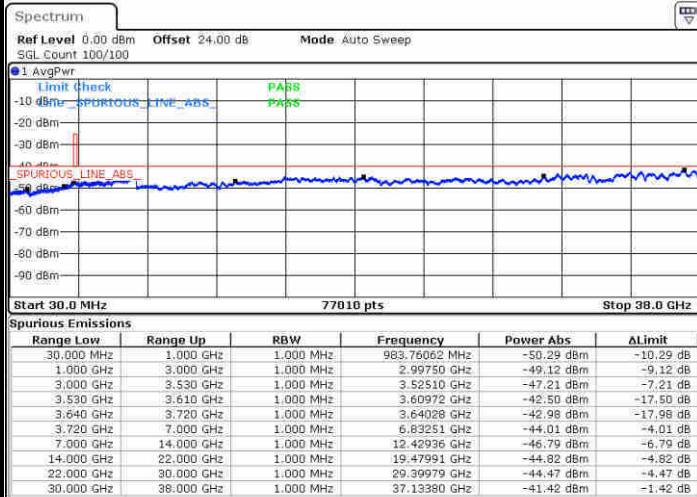
Middle Channel / 1RBmax



Date: 12/FEB/2020 07:27:34

Date: 12/FEB/2020 07:32:10

Middle Channel / FullRB



Date: 12/FEB/2020 07:25:10

N/A

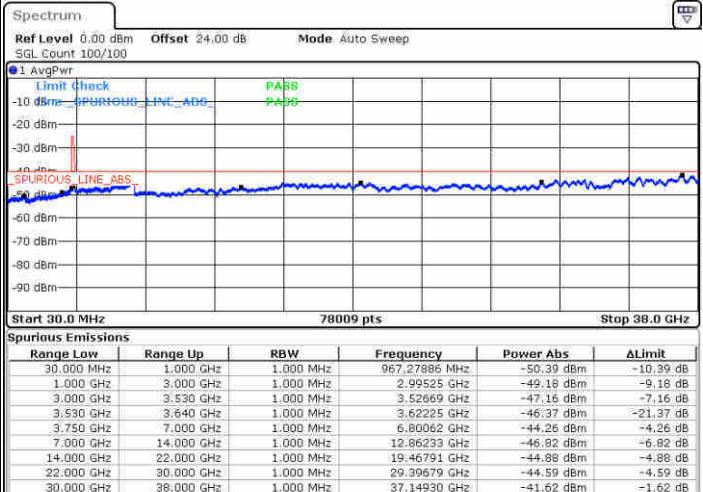
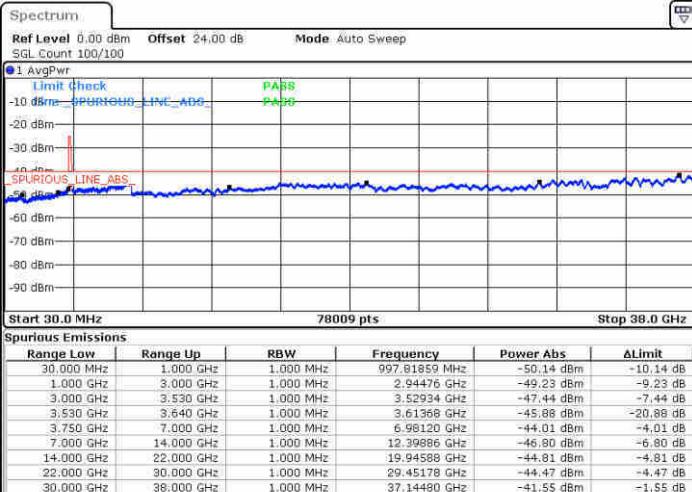


LTE Band 48 / 10MHz

16QAM

Highest Channel / 1RB0

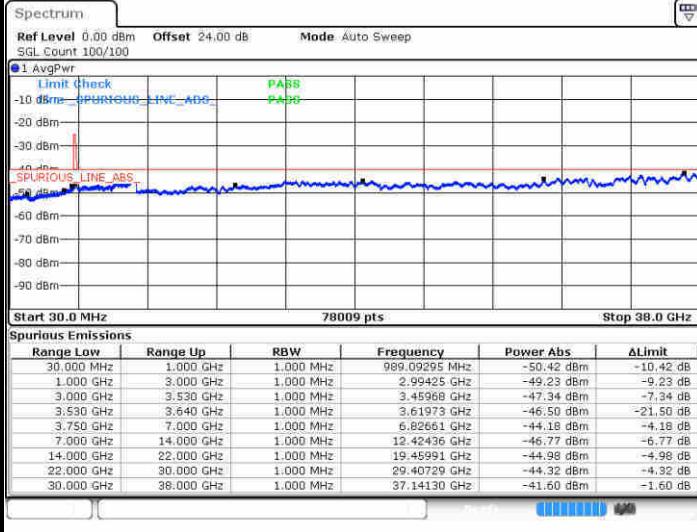
Highest Channel / 1RBmax



Date: 13/FEB/2020 00:26:34

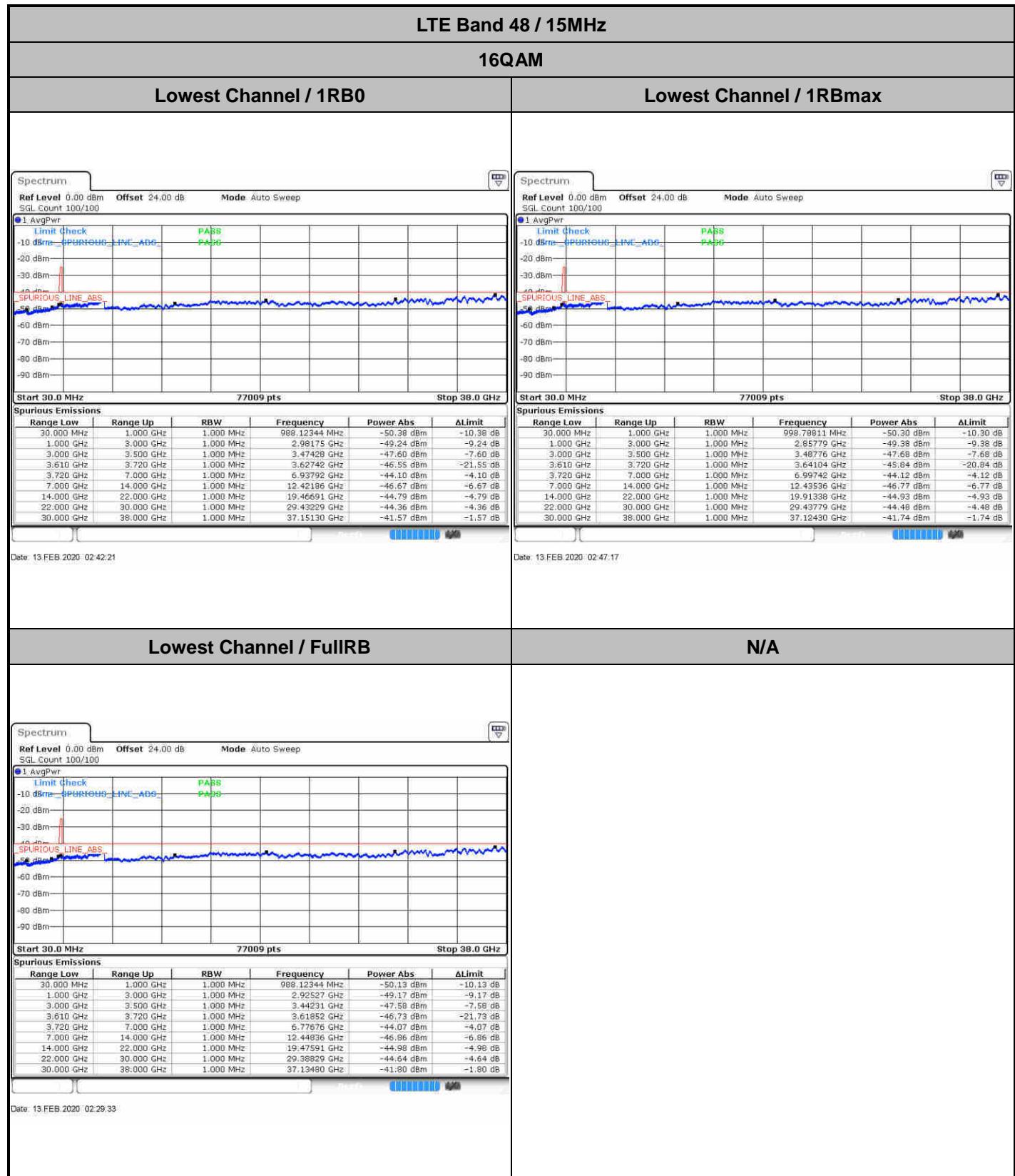
Date: 13/FEB/2020 00:32:37

Highest Channel / FullIRB



Date: 13/FEB/2020 00:23:02

N/A



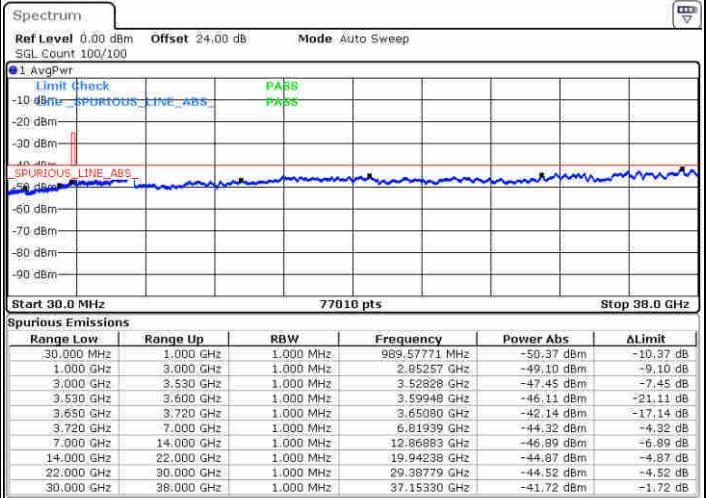
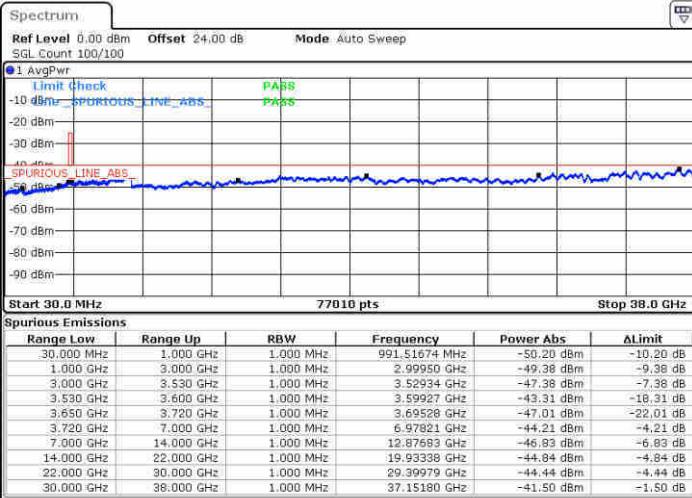


LTE Band 48 / 15MHz

16QAM

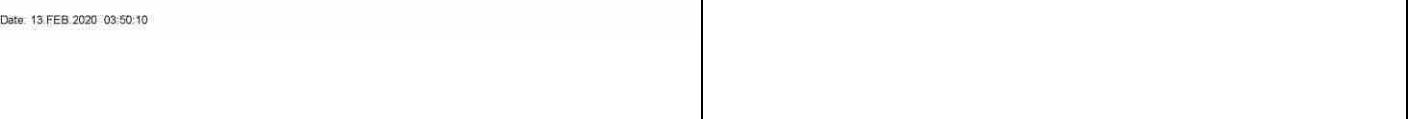
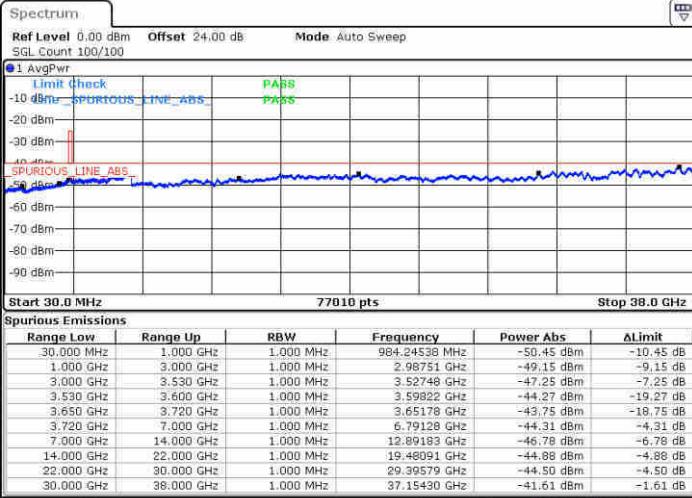
Middle Channel / 1RB0

Middle Channel / 1RBmax



Middle Channel / FullRB

N/A



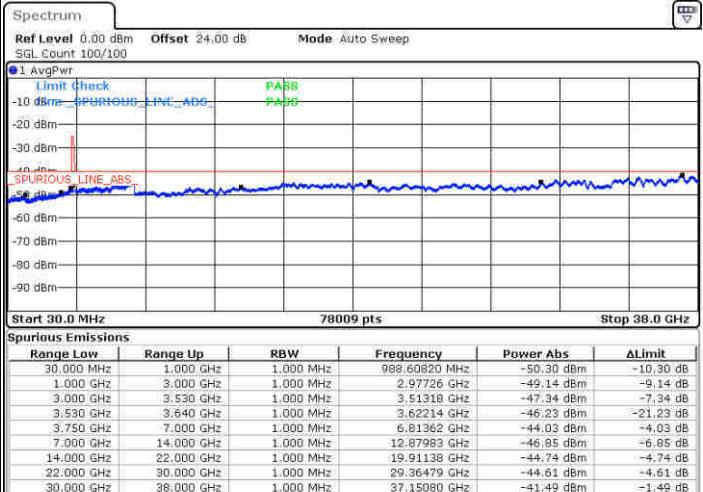
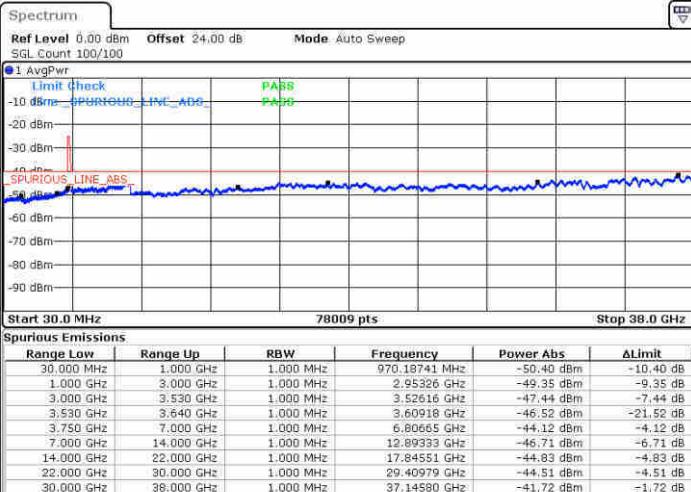


LTE Band 48 / 15MHz

16QAM

Highest Channel / 1RB0

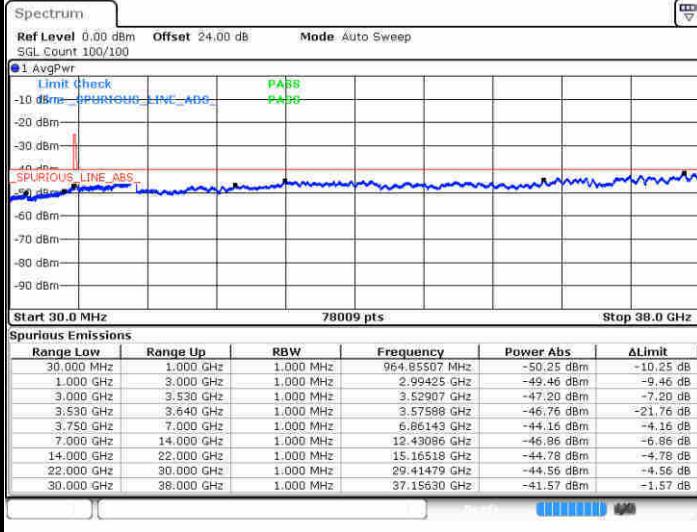
Highest Channel / 1RBmax



Date: 13/FEB/2020 05:14:41

Date: 13/FEB/2020 05:17:35

Highest Channel / FullIRB



Date: 13/FEB/2020 04:53:20

N/A

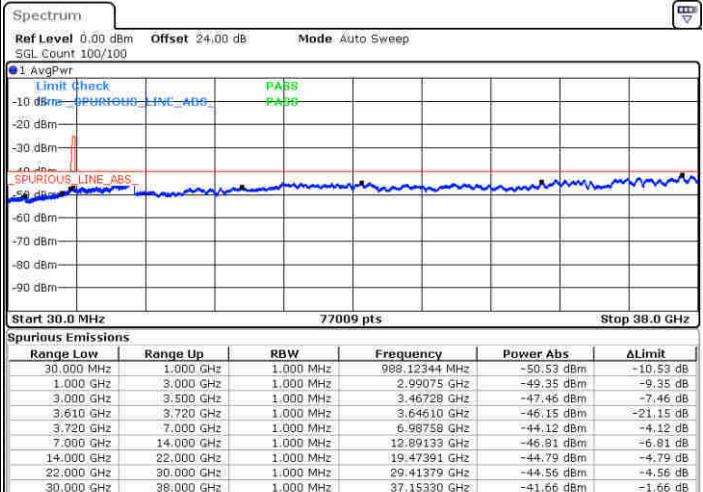
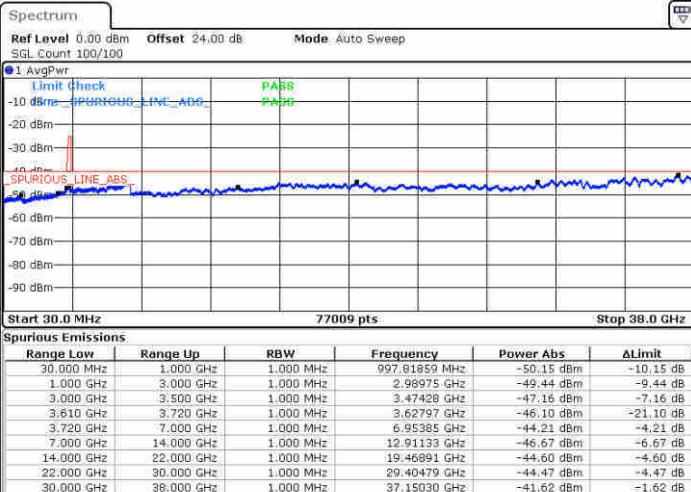


LTE Band 48 / 20MHz

16QAM

Lowest Channel / 1RB0

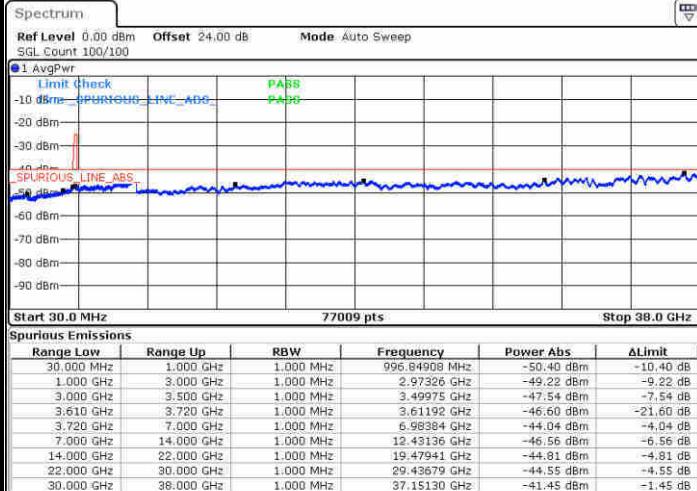
Lowest Channel / 1RBmax



Date: 13 FEB 2020 06:07:18

Date: 13 FEB 2020 06:09:40

Lowest Channel / FullRB



Date: 13 FEB 2020 05:58:57

N/A

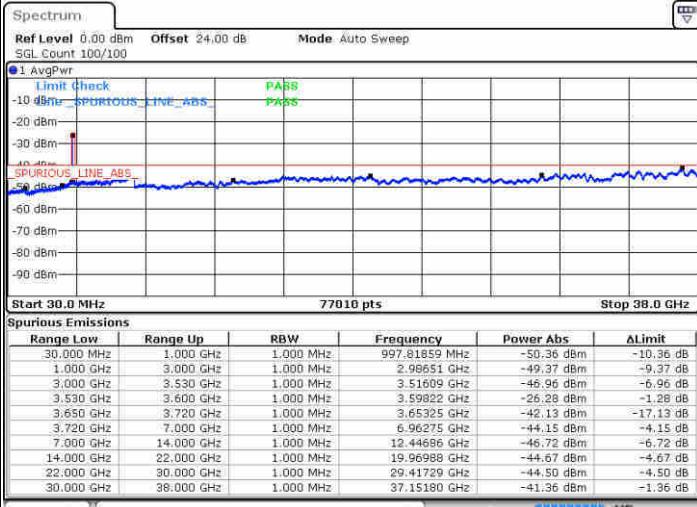
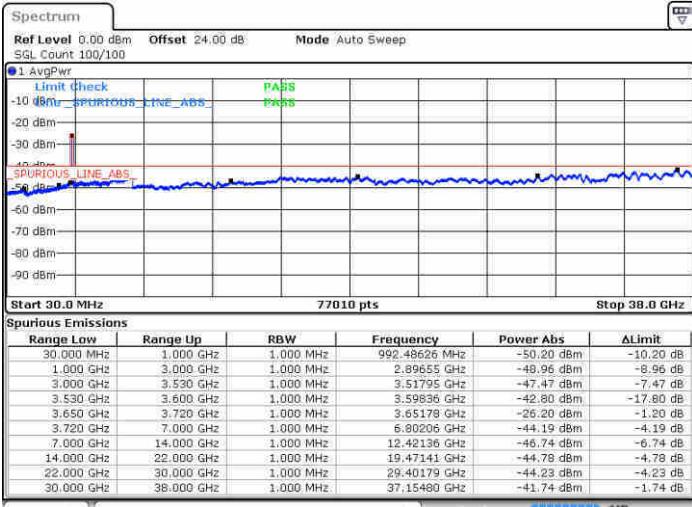


LTE Band 48 / 20MHz

16QAM

Middle Channel / 1RB0

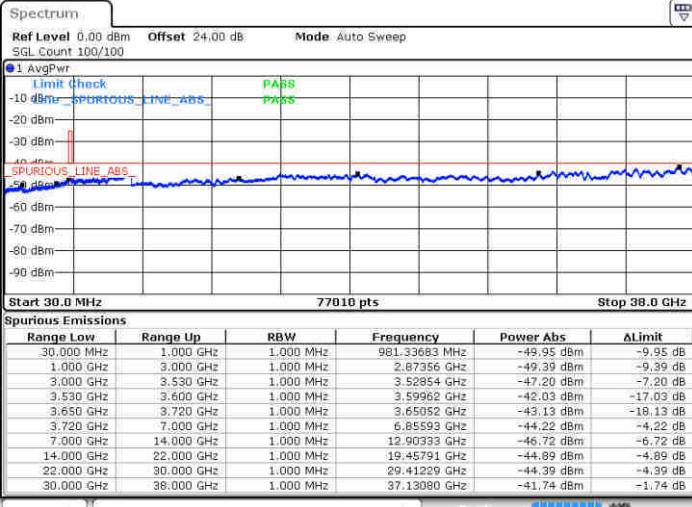
Middle Channel / 1RBmax



Date: 13.FEB.2020 07:15:15

Date: 13.FEB.2020 07:17:48

Middle Channel / FullRB



Date: 13.FEB.2020 06:56:22

N/A

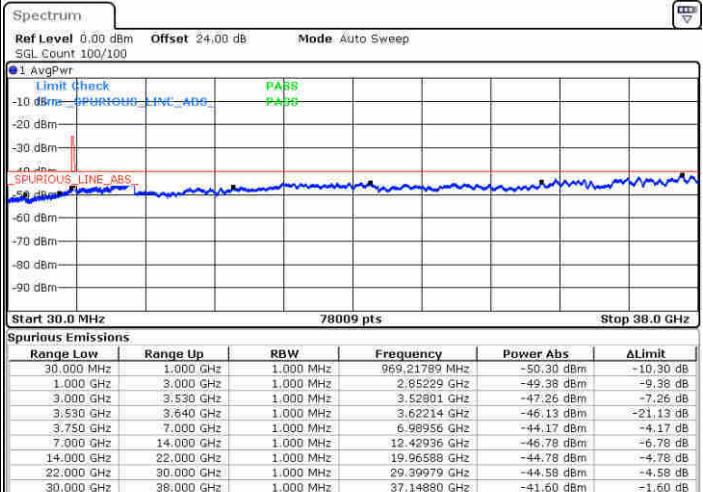
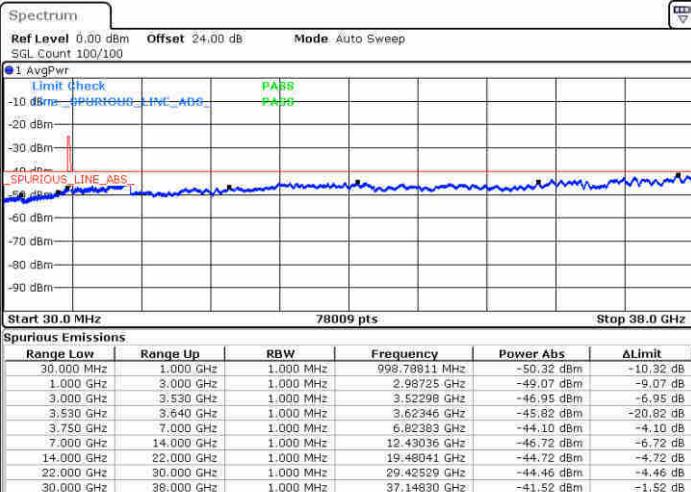


LTE Band 48 / 20MHz

16QAM

Highest Channel / 1RB0

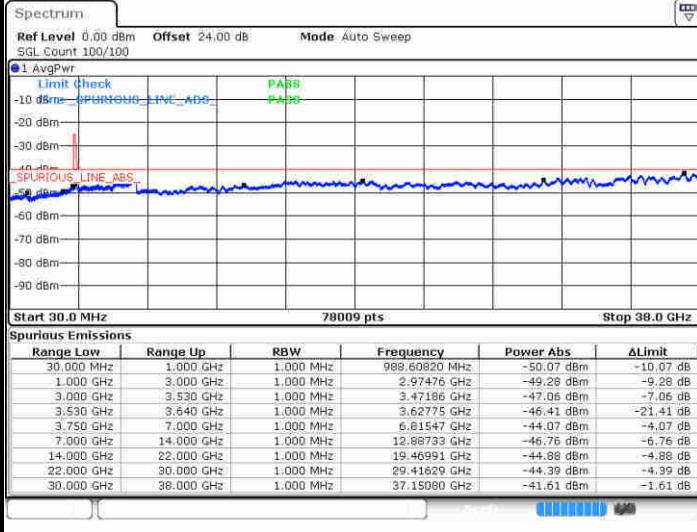
Highest Channel / 1RBmax



Date: 14/FEB/2020 02:40:06

Date: 14/FEB/2020 02:48:23

Highest Channel / FullIRB



Date: 14/FEB/2020 02:21:35

N/A

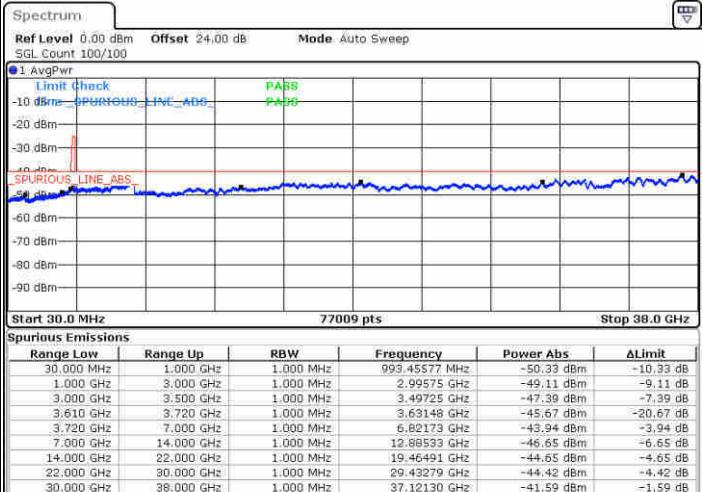
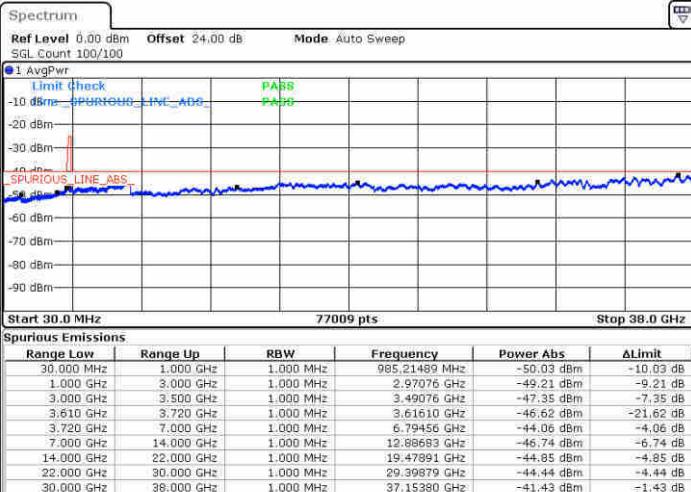


LTE Band 48 / 5MHz

64QAM

Lowest Channel / 1RB0

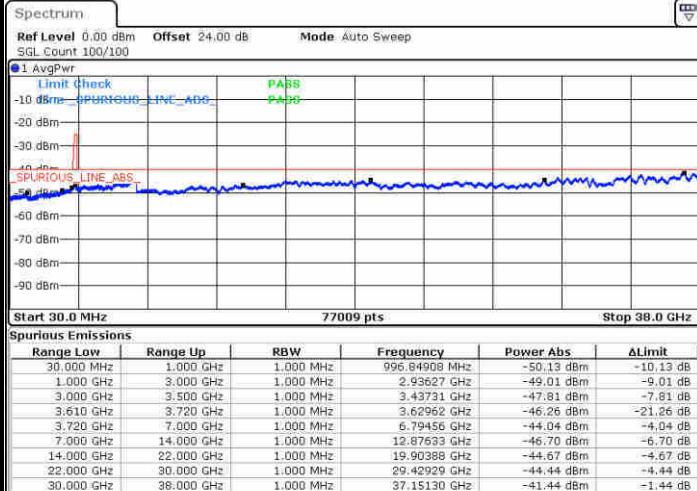
Lowest Channel / 1RBmax



Date: 12/FEB/2020 03:49:46

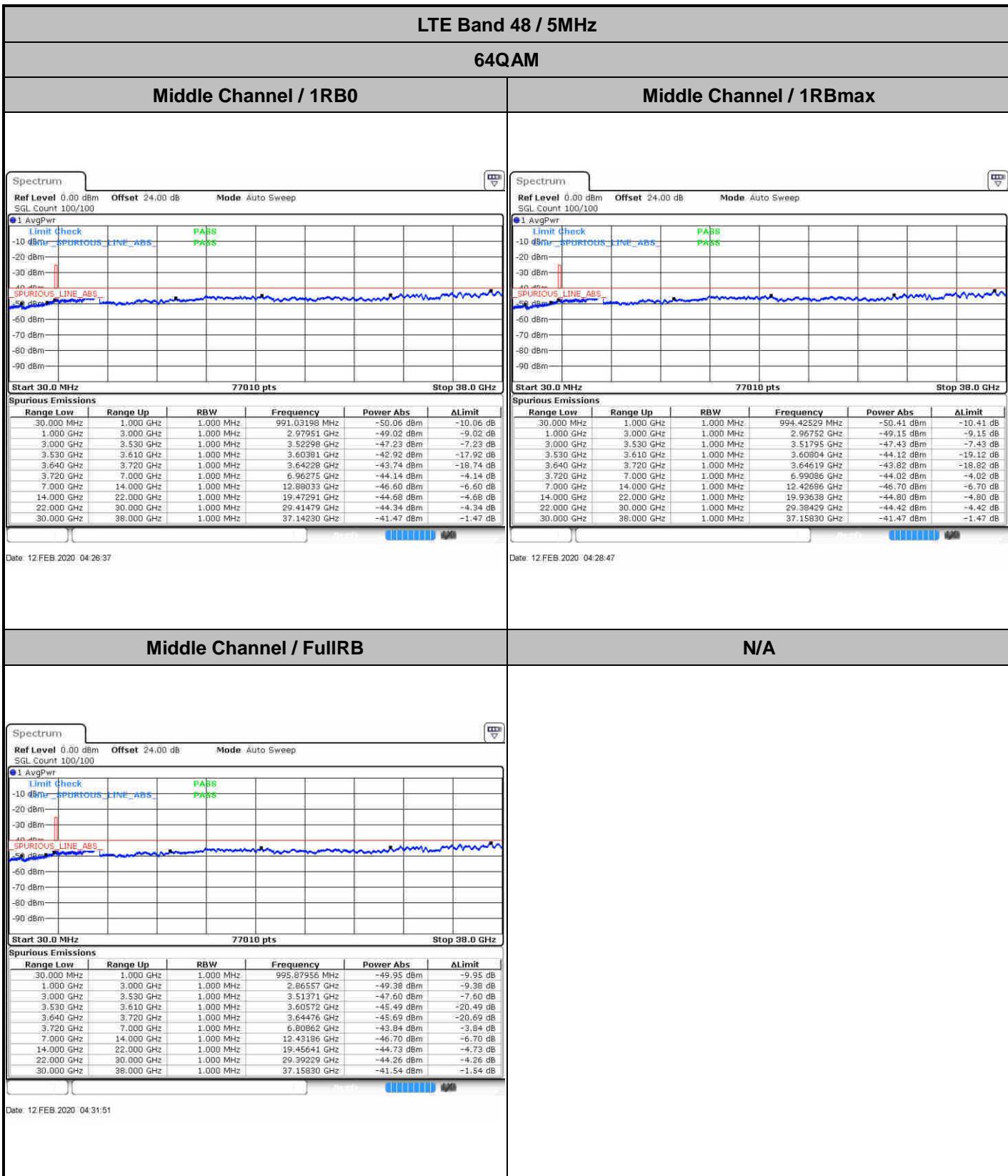
Date: 12/FEB/2020 03:45:39

Lowest Channel / FullRB



Date: 12/FEB/2020 03:43:22

N/A





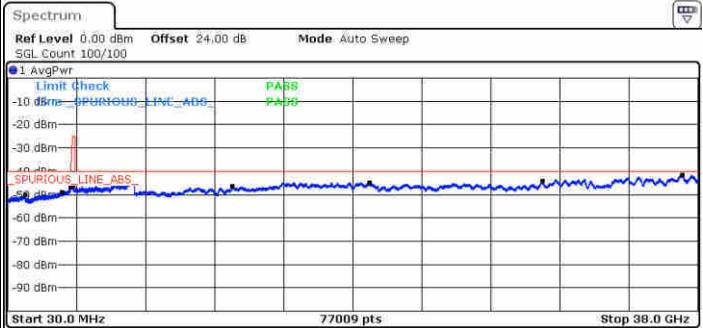
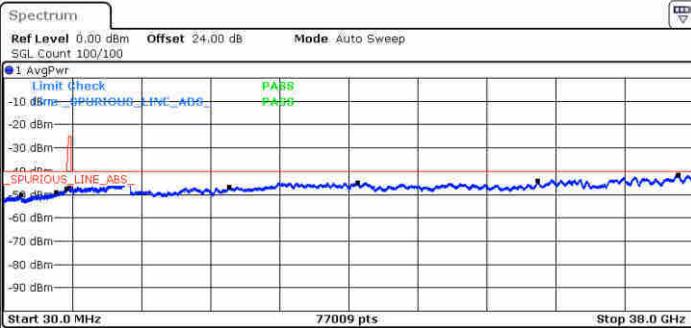


LTE Band 48 / 10MHz

64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	993.45577 MHz	-50.02 dBm	-10.02 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.93177 GHz	-49.16 dBm	-9.16 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.47378 GHz	-47.39 dBm	-7.39 dB
3.610 GHz	3.720 GHz	1.000 MHz	3.62764 GHz	-45.89 dBm	-20.89 dB
3.720 GHz	7.000 GHz	1.000 MHz	6.98337 GHz	-44.01 dBm	-4.01 dB
7.000 GHz	14.000 GHz	1.000 MHz	12.43786 GHz	-46.73 dBm	-6.73 dB
14.000 GHz	22.000 GHz	1.000 MHz	19.47291 GHz	-44.79 dBm	-4.79 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.40879 GHz	-44.27 dBm	-4.27 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.15080 GHz	-41.57 dBm	-1.57 dB

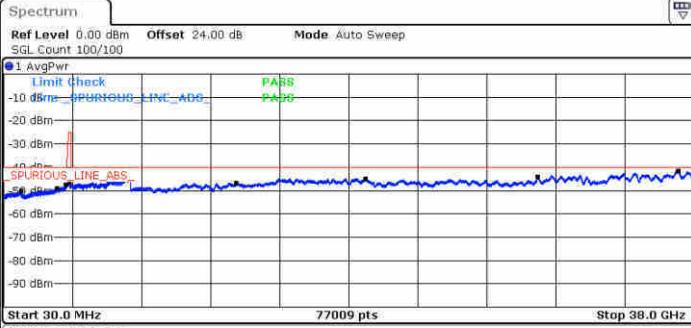
Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	993.45577 MHz	-50.13 dBm	-10.13 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98825 GHz	-49.16 dBm	-9.16 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.48277 GHz	-46.82 dBm	-6.82 dB
3.610 GHz	3.720 GHz	1.000 MHz	3.63621 GHz	-46.14 dBm	-21.14 dB
3.720 GHz	7.000 GHz	1.000 MHz	6.82080 GHz	-44.06 dBm	-4.06 dB
7.000 GHz	14.000 GHz	1.000 MHz	12.40486 GHz	-46.59 dBm	-6.59 dB
14.000 GHz	22.000 GHz	1.000 MHz	19.91088 GHz	-44.85 dBm	-4.85 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.42629 GHz	-44.37 dBm	-4.37 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.12430 GHz	-41.51 dBm	-1.51 dB

Date: 12.FEB.2020 06:53:53

Date: 12.FEB.2020 06:56:44

Lowest Channel / FullRB

N/A



Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	992.46626 MHz	-50.22 dBm	-10.22 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98025 GHz	-49.21 dBm	-9.21 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.45979 GHz	-47.52 dBm	-7.52 dB
3.610 GHz	3.720 GHz	1.000 MHz	3.62159 GHz	-46.56 dBm	-21.56 dB
3.720 GHz	7.000 GHz	1.000 MHz	6.81658 GHz	-44.04 dBm	-4.04 dB
7.000 GHz	14.000 GHz	1.000 MHz	12.83383 GHz	-46.81 dBm	-6.81 dB
14.000 GHz	22.000 GHz	1.000 MHz	19.91288 GHz	-44.85 dBm	-4.85 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.41079 GHz	-44.22 dBm	-4.22 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.14730 GHz	-41.46 dBm	-1.46 dB

Date: 12.FEB.2020 06:51:09

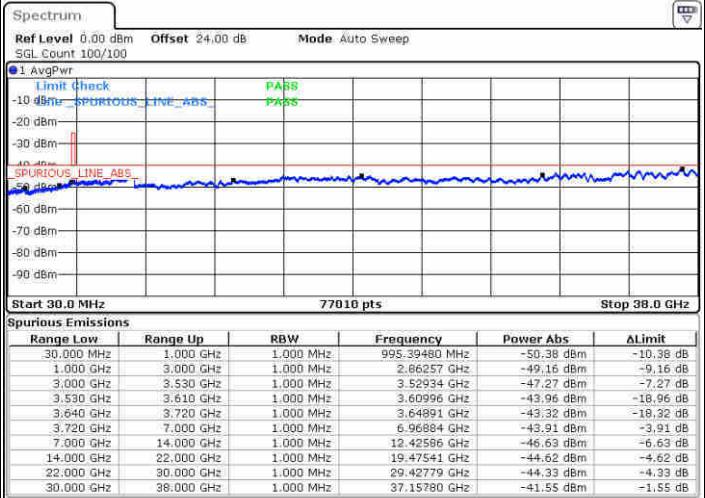
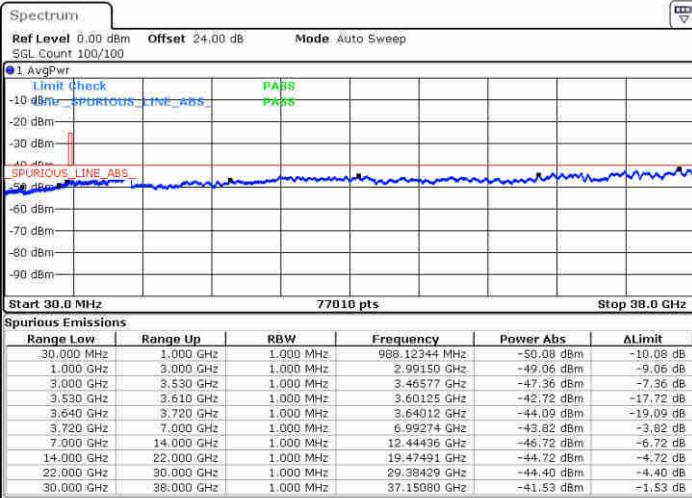


LTE Band 48 / 10MHz

64QAM

MiddleChannel / 1RB0

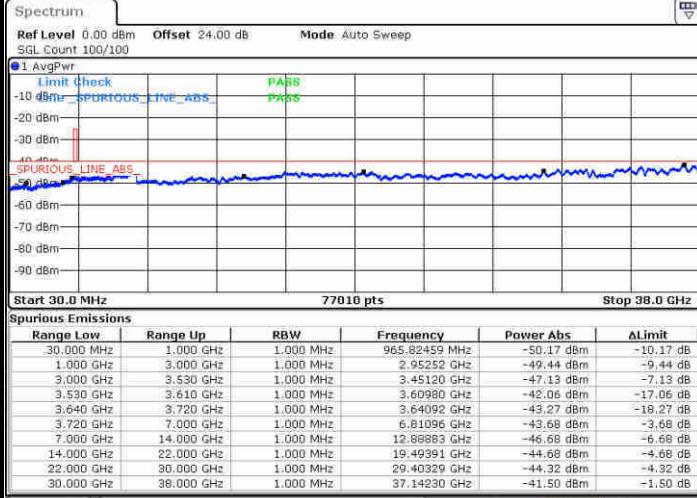
Middle Channel / 1RBmax



Date: 12/FEB/2020 07:35:10

Date: 12/FEB/2020 07:37:29

Middle Channel / FullRB



Date: 12/FEB/2020 07:39:55

N/A

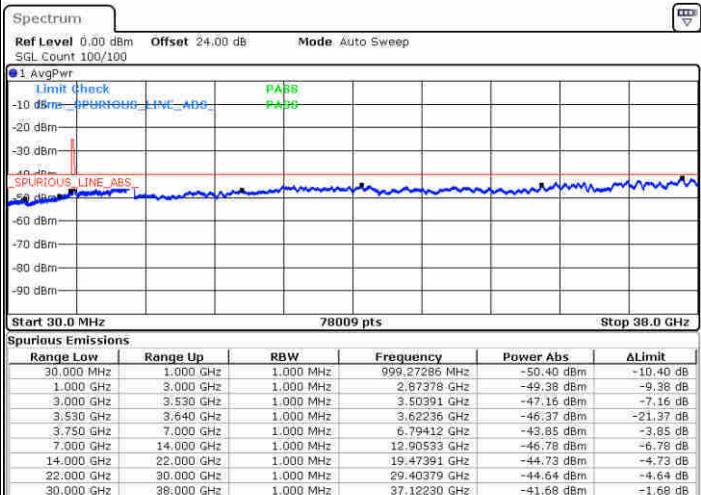
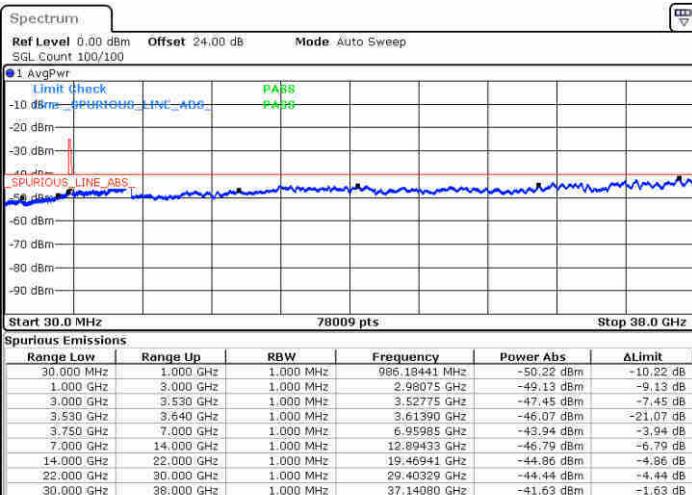


LTE Band 48 / 10MHz

64QAM

Highest Channel / 1RB0

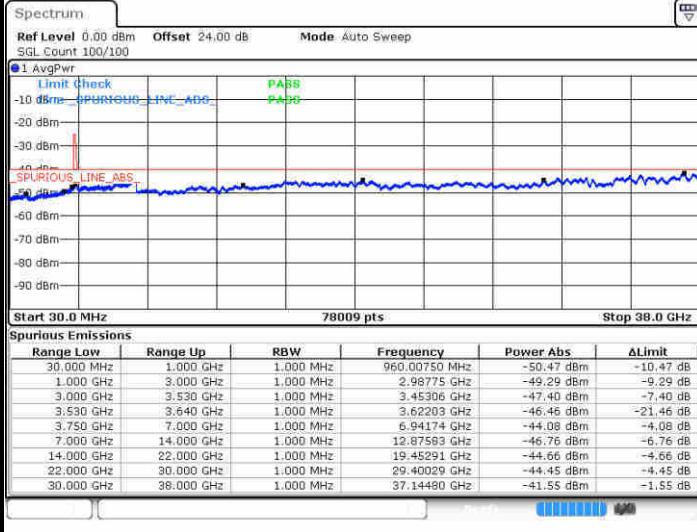
Highest Channel / 1RBmax



Date: 13/FEB/2020 00:38:30

Date: 13/FEB/2020 00:38:29

Highest Channel / FullIRB



Date: 13/FEB/2020 00:41:27

N/A

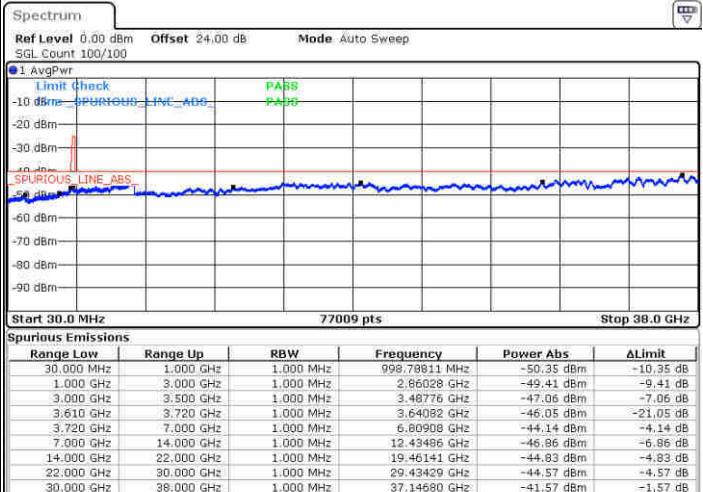
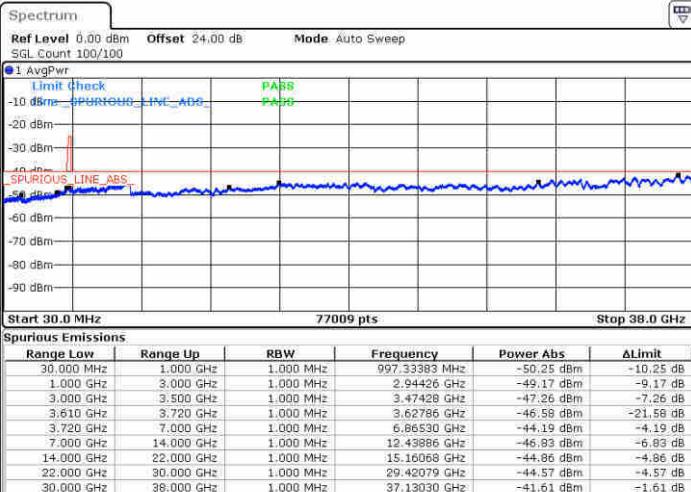


LTE Band 48 / 15MHz

64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

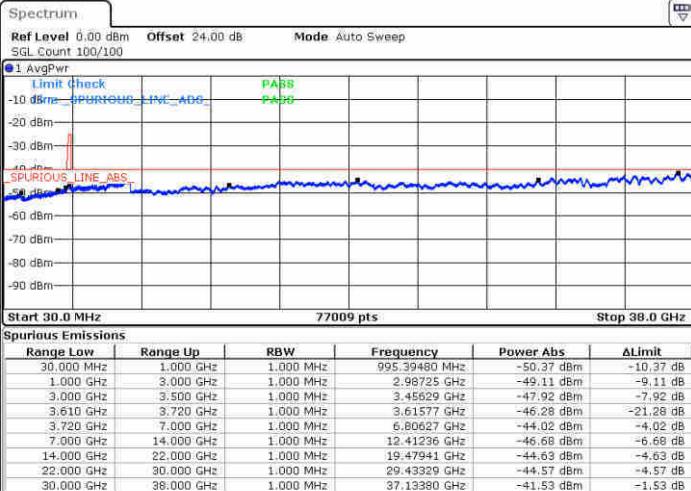


Date: 13 FEB 2020 02:56:59

Date: 13 FEB 2020 02:56:10

Lowest Channel / FullRB

N/A



Date: 13 FEB 2020 03:00:27

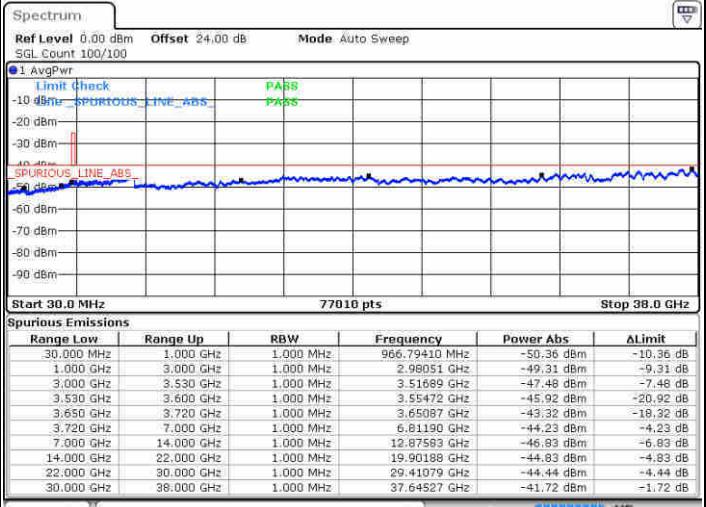
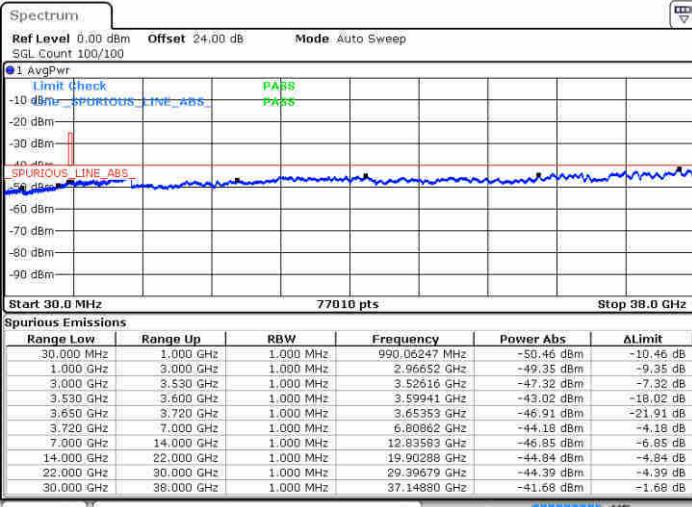


LTE Band 48 / 15MHz

64QAM

Middle Channel / 1RB0

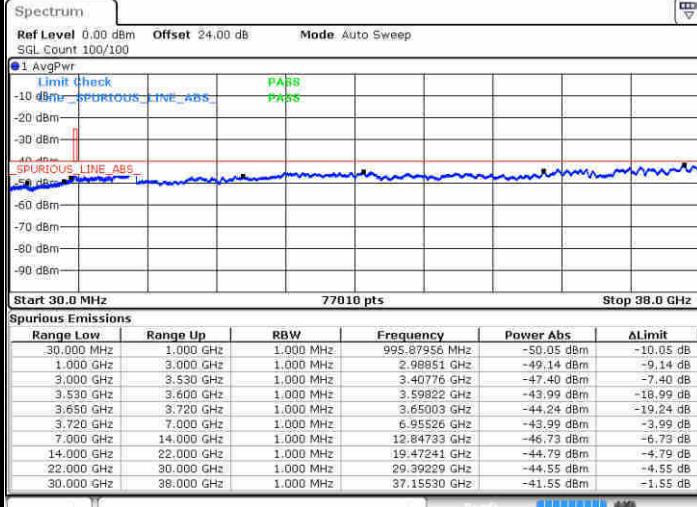
Middle Channel / 1RBmax



Date: 13/FEB/2020 04:05:44

Date: 13/FEB/2020 04:10:16

Middle Channel / FullRB



Date: 13/FEB/2020 04:13:37

N/A

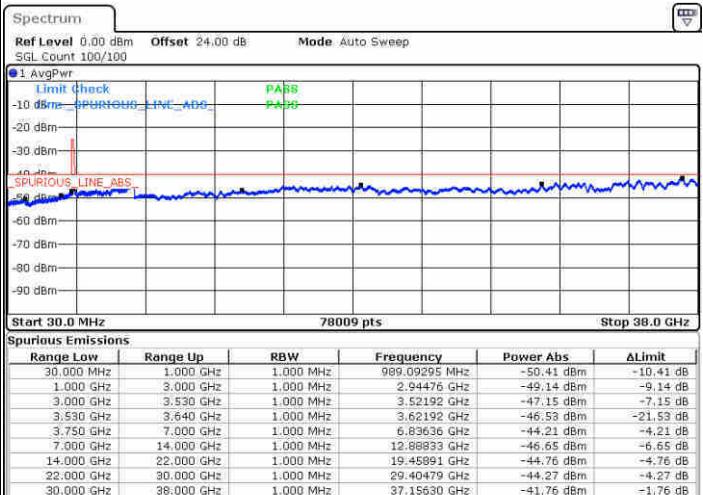
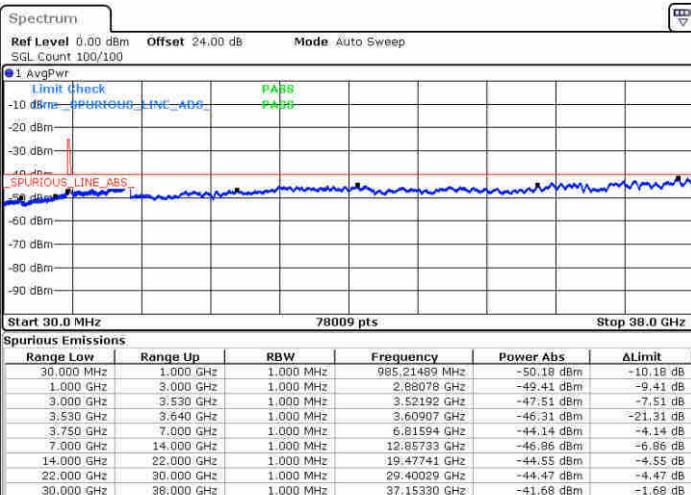


LTE Band 48 / 15MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

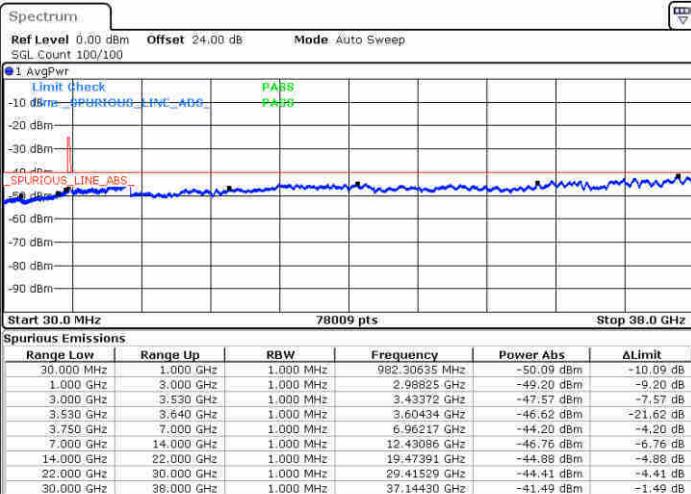


Date: 13/FEB/2020 05:19:59

Date: 13/FEB/2020 05:22:58

Highest Channel / FullIRB

N/A



Date: 13/FEB/2020 05:26:38

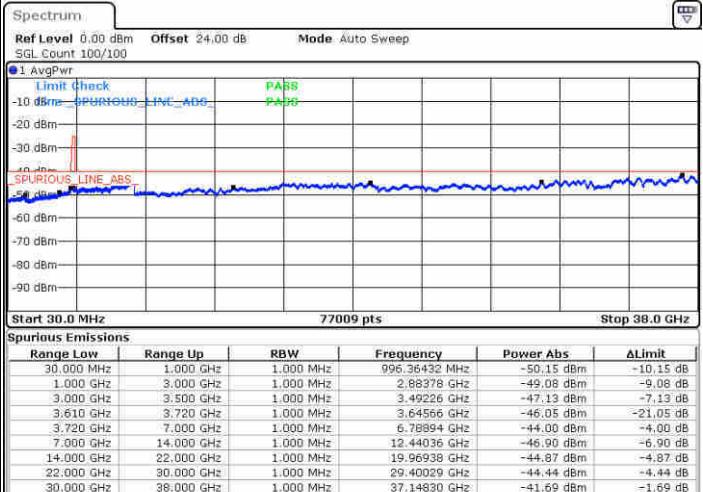
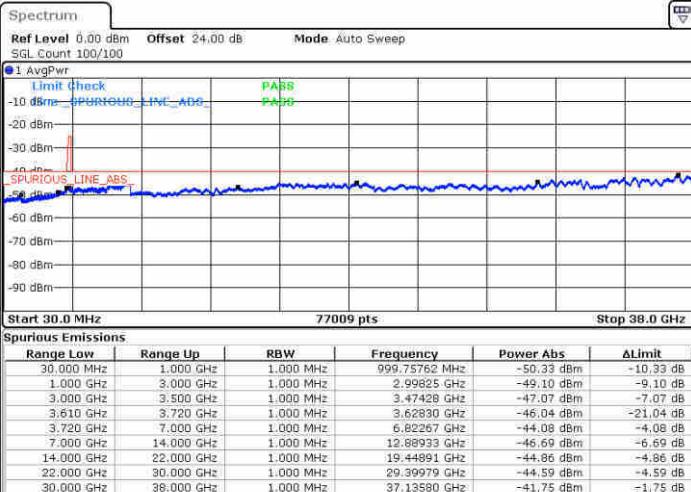


LTE Band 48 / 20MHz

64QAM

Lowest Channel / 1RB0

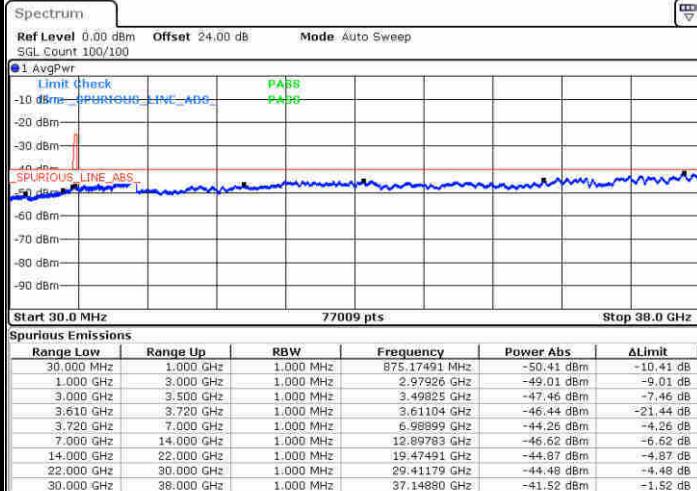
Lowest Channel / 1RBmax



Date: 13 FEB 2020 06:13:18

Date: 13 FEB 2020 06:15:47

Lowest Channel / FullRB



Date: 13 FEB 2020 06:20:48

N/A

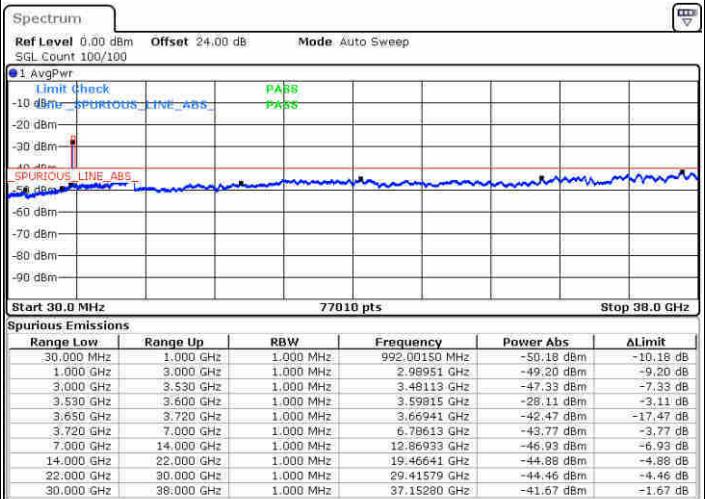
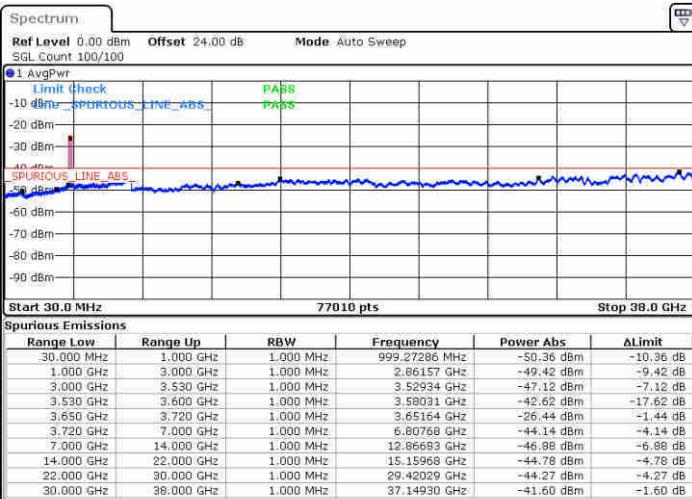


LTE Band 48 / 20MHz

64QAM

Middle Channel / 1RB0

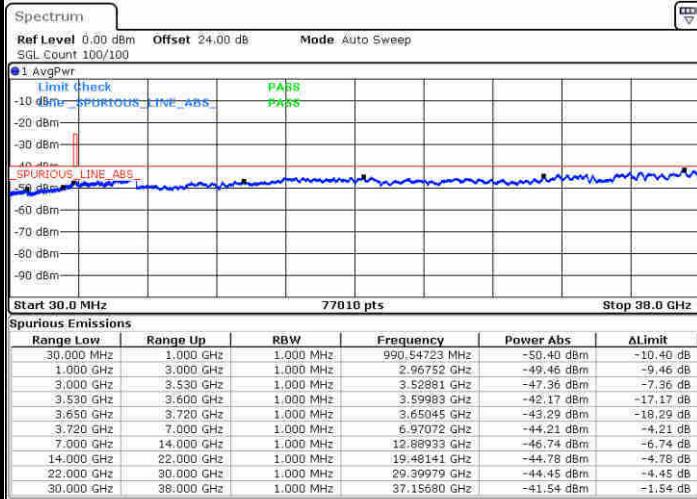
Middle Channel / 1RBmax



Date: 13/FEB/2020 07:20:32

Date: 13/FEB/2020 07:27:44

Middle Channel / FullRB



Date: 13/FEB/2020 07:34:23

N/A

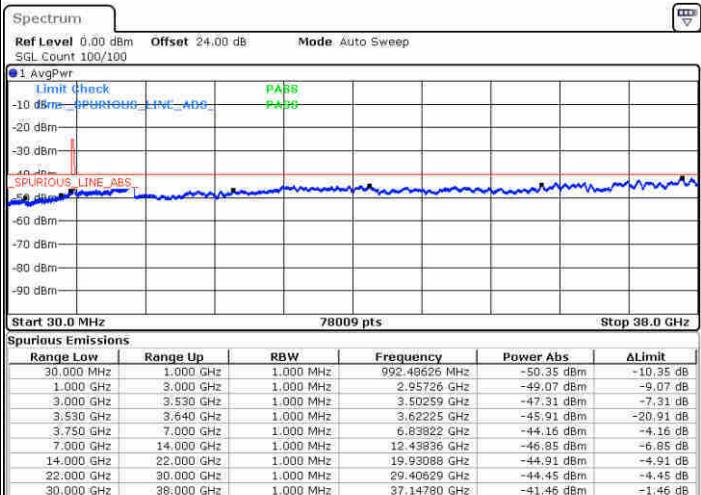
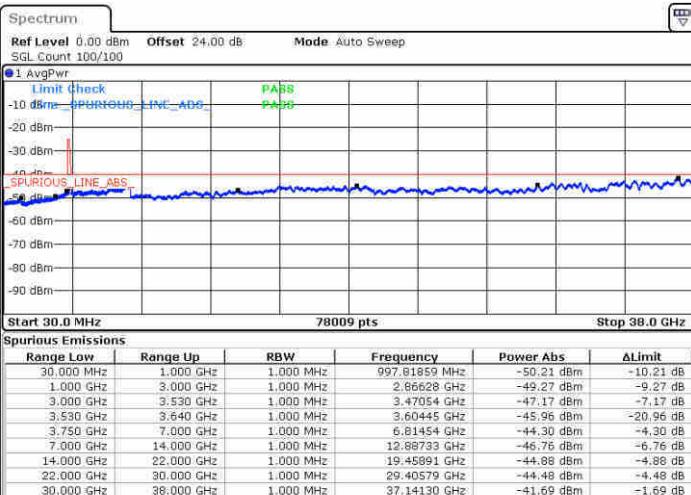


LTE Band 48 / 20MHz

64QAM

Highest Channel / 1RB0

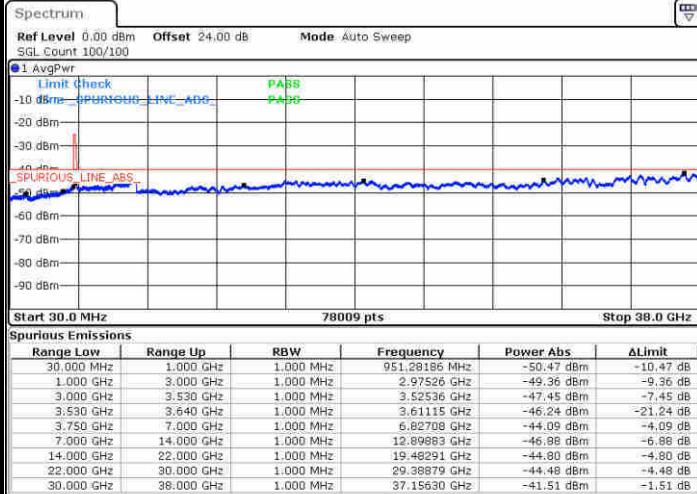
Highest Channel / 1RBmax



Date: 14/FEB/2020 02:54:15

Date: 14/FEB/2020 02:57:18

Highest Channel / FullRB



Date: 14/FEB/2020 02:59:59

N/A



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	0.0011	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0034	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0031	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0036	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0007	

Note:

1. Normal Voltage =110 V. ; Battery End Point (BEP) =100 V. ; Maximum Voltage =120 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



EIRP Power Density

Mode	LTE Band 48 : Conducted Power Density (dBm/MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	14.22	14.96	12.52	11.53	10.5	10.06	9.36	8.79
Middle CH	-	-	-	-	13.83	14.12	11.86	11.72	9.65	9.24	8.93	8.67
Highest CH	-	-	-	-	13.71	13.49	10.52	11.44	10.48	9.25	7.89	8.14

Mode	LTE Band 48 : Conducted Power Density (dBm/MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	14.28	-	12.88	-	9.38	-	9.71	-
Middle CH	-	-	-	-	13.21	-	12.3	-	9.9	-	9.35	-
Highest CH	-	-	-	-	13.07	-	11.09	-	9.29	-	8.79	-

Mode	LTE Band 48 : EIRP Power Density (dBm/MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	29.22	29.96	27.52	26.53	25.5	25.06	24.36	23.79
Middle CH	-	-	-	-	28.83	29.12	26.86	26.72	24.65	24.24	23.93	23.67
Highest CH	-	-	-	-	28.71	28.49	25.52	26.44	25.48	24.25	22.89	23.14

Mode	LTE Band 48 : EIRP Power Density (dBm/MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	29.28	-	27.88	-	24.38	-	24.71	-
Middle CH	-	-	-	-	28.21	-	27.3	-	24.9	-	24.35	-
Highest CH	-	-	-	-	28.07	-	26.09	-	24.29	-	23.79	-

Antenna Gain	15 dBi											
Limit	37dBm / MHz											
Result	Pass											



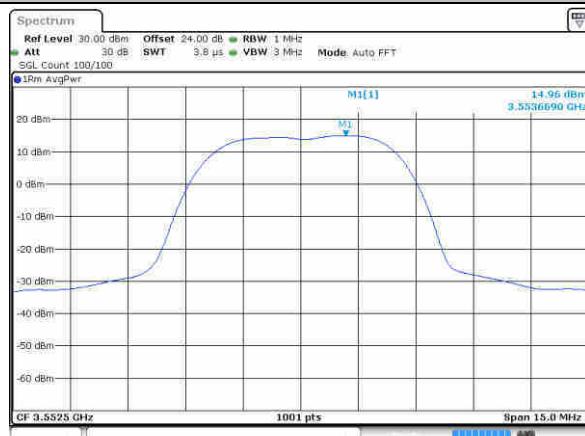
LTE Band 48 / 5MHz

Lowest Channel / 5MHz / Full / QPSK



Date: 12.FEB.2020 03:38:00

Lowest Channel / 5MHz / Full / 16QAM



Date: 12.FEB.2020 03:37:23

Middle Channel / 5MHz / Full / QPSK



Date: 12.FEB.2020 04:09:13

Middle Channel / 5MHz / Full / 16QAM



Date: 12.FEB.2020 04:10:45

Highest Channel / 5MHz / Full / QPSK



Date: 12.FEB.2020 05:17:15

Highest Channel / 5MHz / Full / 16QAM

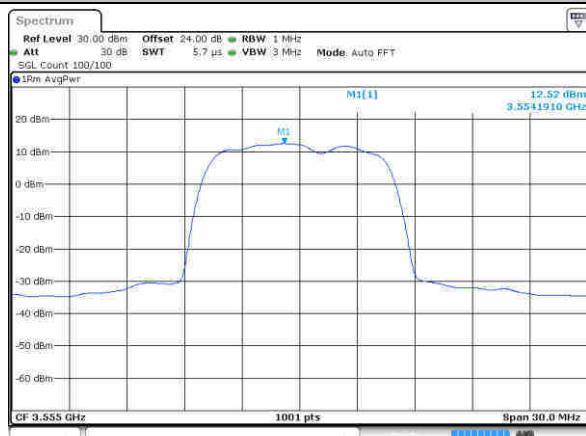


Date: 12.FEB.2020 05:18:31



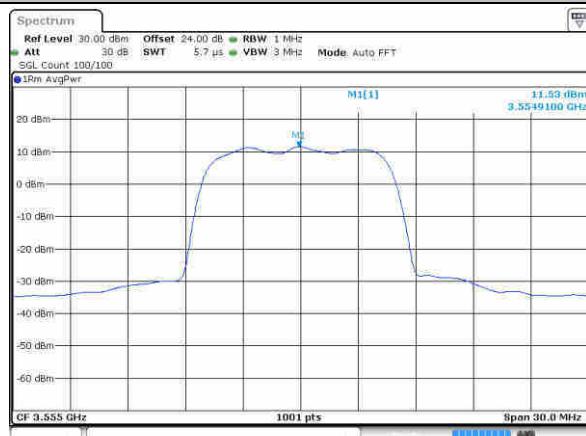
LTE Band 48 / 10MHz

Lowest Channel / 10MHz / Full / QPSK



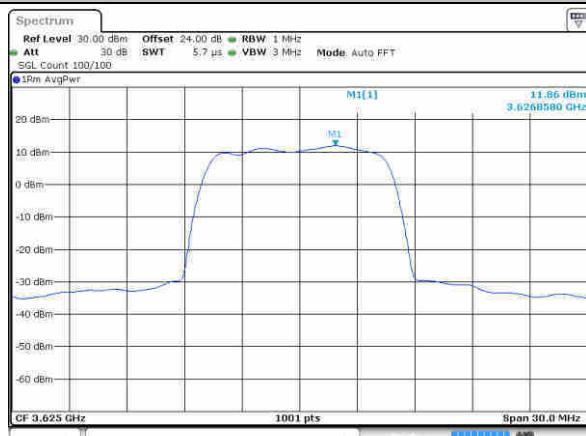
Date: 12-FEB-2020 06:38:48

Lowest Channel / 10MHz / Full / 16QAM



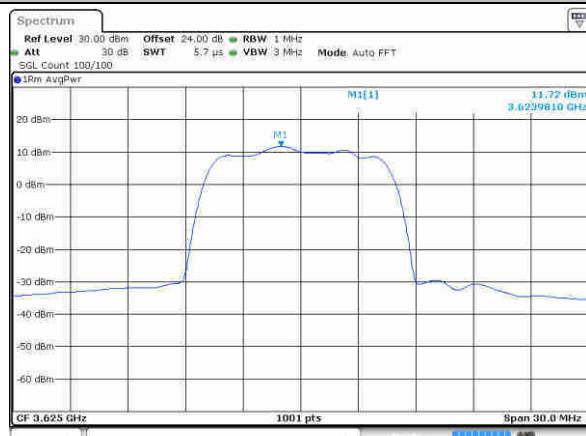
Date: 12-FEB-2020 06:49:28

Middle Channel / 10MHz / Full / QPSK



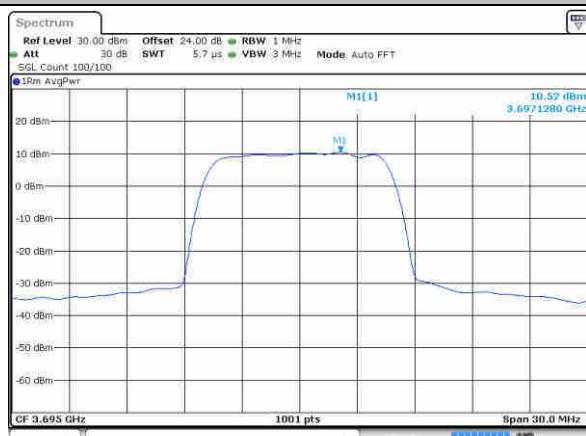
Date: 12-FEB-2020 07:22:03

Middle Channel / 10MHz / Full / 16QAM



Date: 12-FEB-2020 07:23:17

Highest Channel / 10MHz / Full / QPSK



Date: 13-FEB-2020 00:18:58

Highest Channel / 10MHz / Full / 16QAM



Date: 13-FEB-2020 00:23:18