

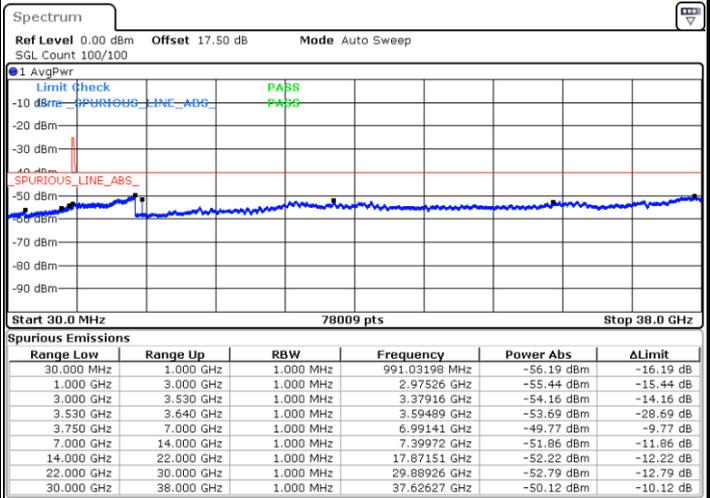
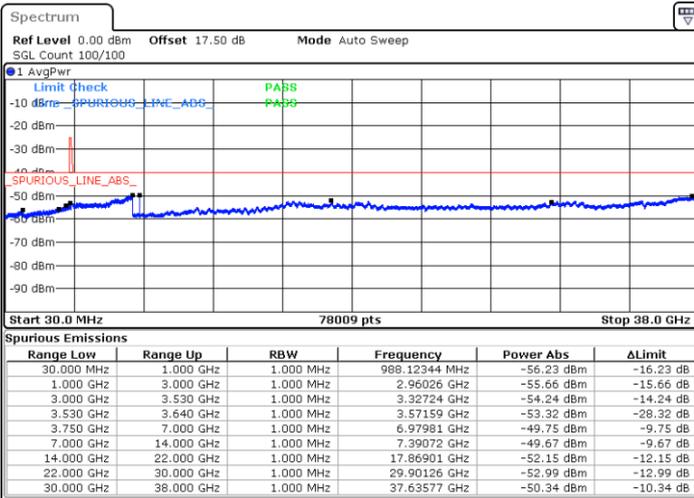


LTE Band 48 / 5MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

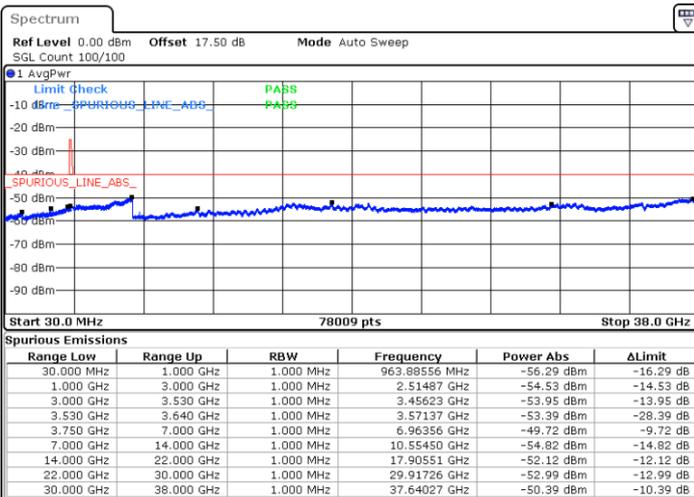


Date: 21.JUL.2020 00:30:37

Date: 21.JUL.2020 00:50:42

Highest Channel / FullIRB

N/A



Date: 21.JUL.2020 00:40:39

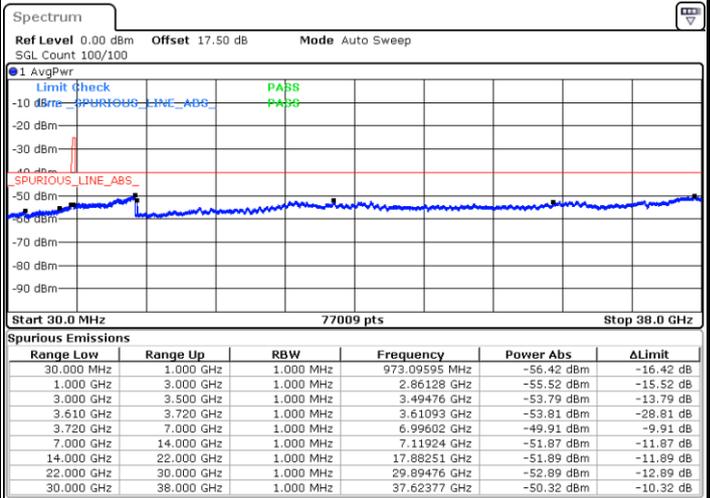
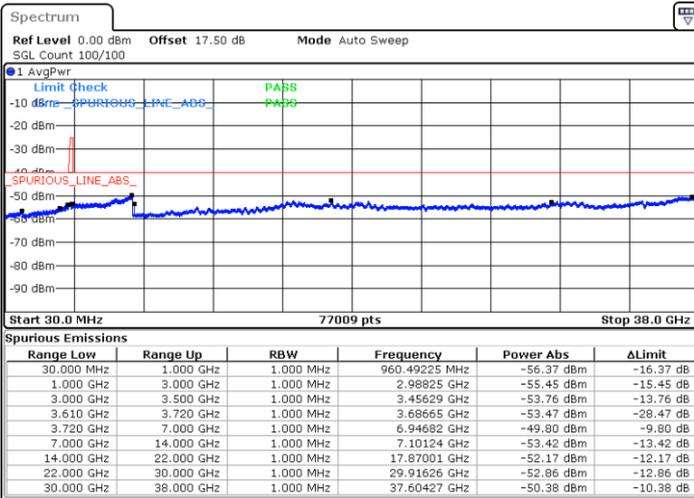


LTE Band 48 / 10MHz

64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

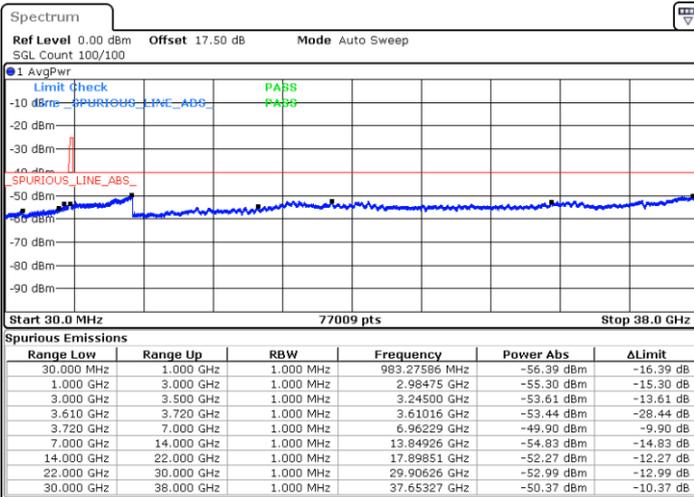


Date: 21.JUL.2020 00:51:49

Date: 21.JUL.2020 01:11:54

Lowest Channel / FullIRB

N/A



Date: 21.JUL.2020 01:01:52

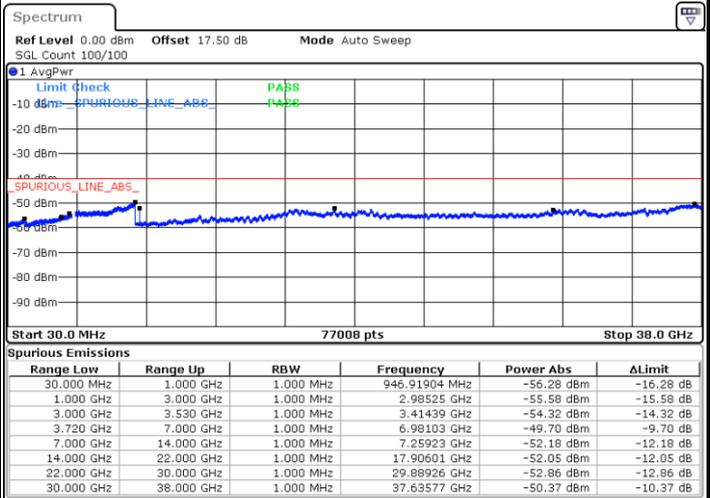
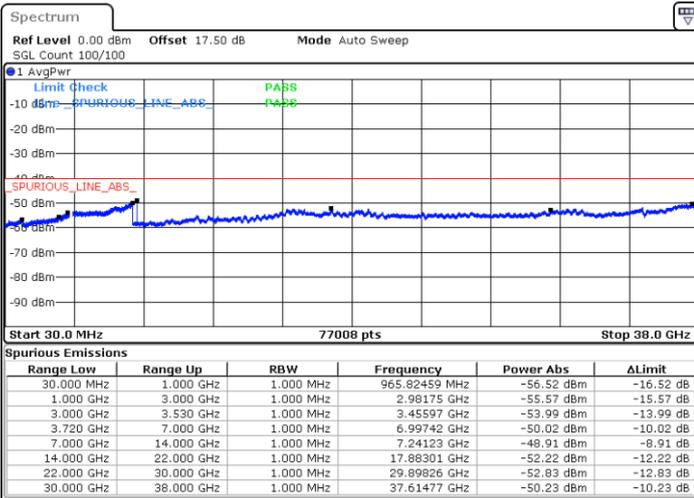


LTE Band 48 / 10MHz

64QAM

MiddleChannel / 1RB0

Middle Channel / 1RBmax

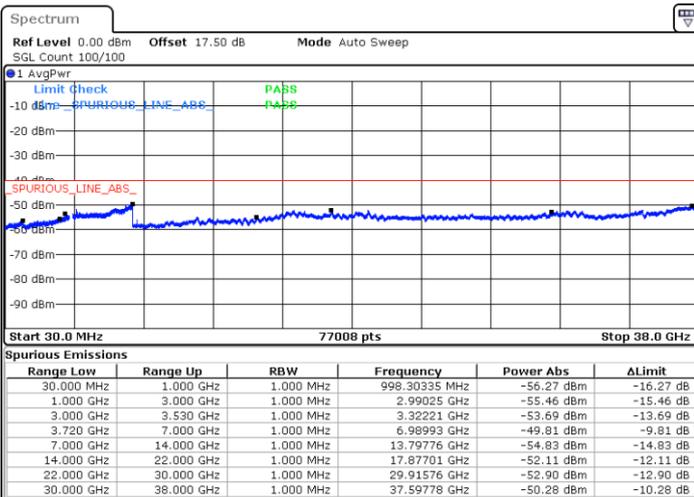


Date: 21.JUL.2020 00:57:23

Date: 21.JUL.2020 01:17:28

Middle Channel / FullIRB

N/A



Date: 21.JUL.2020 01:07:26

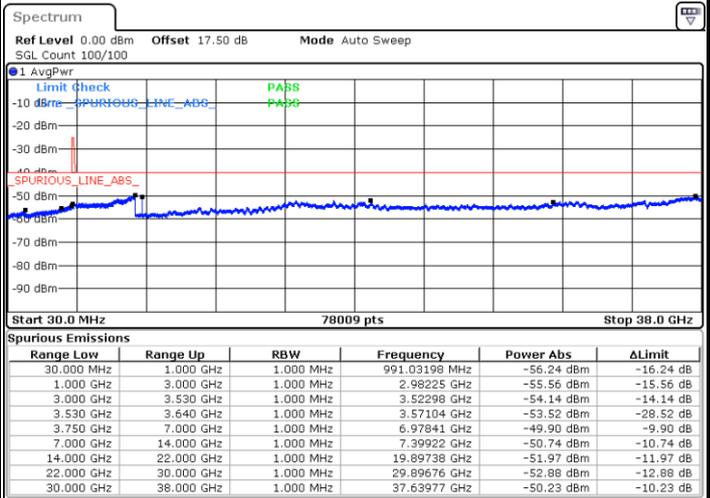
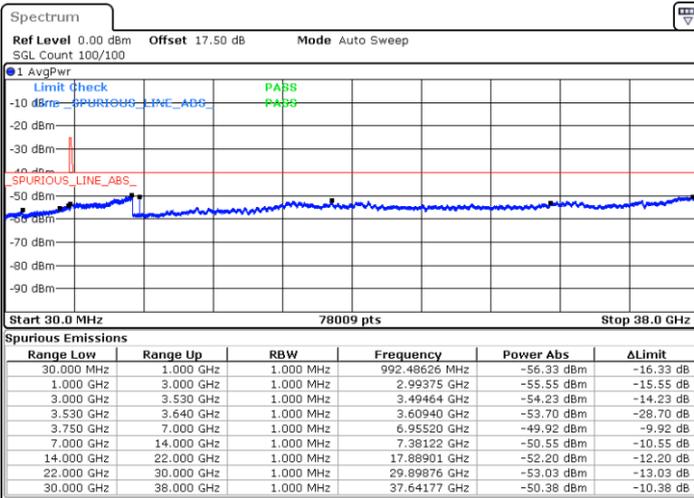


LTE Band 48 / 10MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

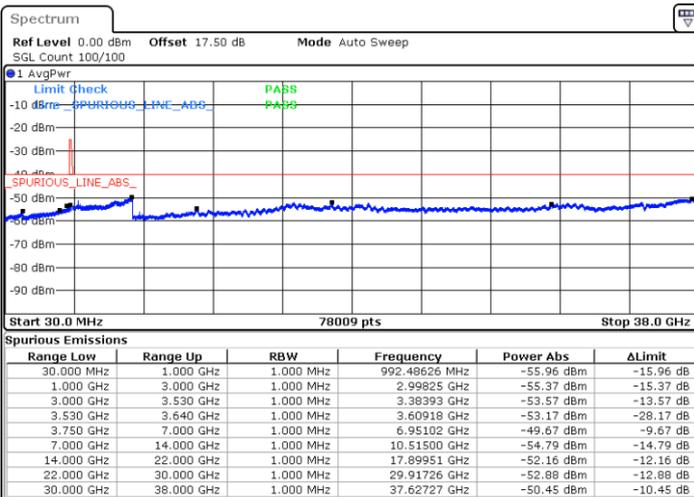


Date: 21.JUL.2020 00:58:30

Date: 21.JUL.2020 01:18:35

Highest Channel / FullIRB

N/A



Date: 21.JUL.2020 01:08:33

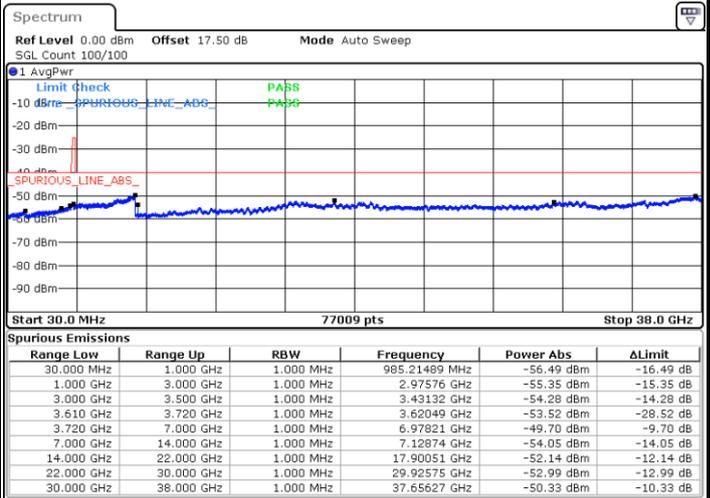
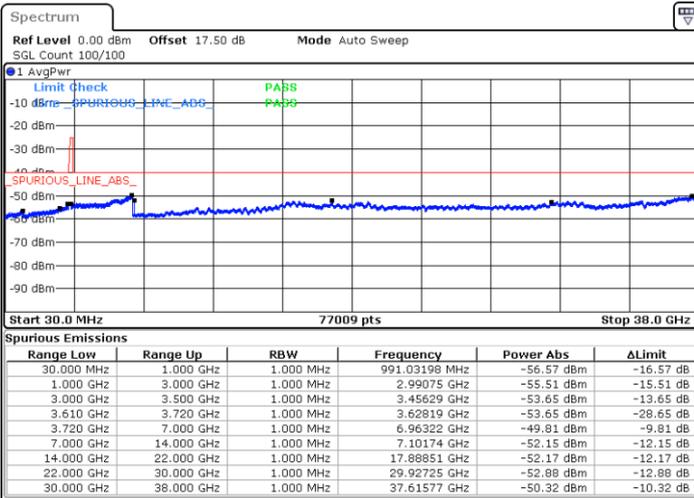


LTE Band 48 / 15MHz

64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

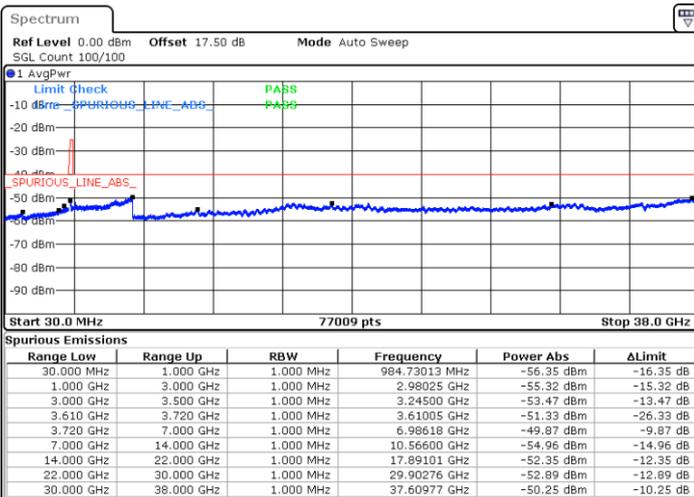


Date: 21.JUL.2020 01:24:11

Date: 21.JUL.2020 01:44:17

Lowest Channel / FullIRB

N/A



Date: 21.JUL.2020 01:34:14

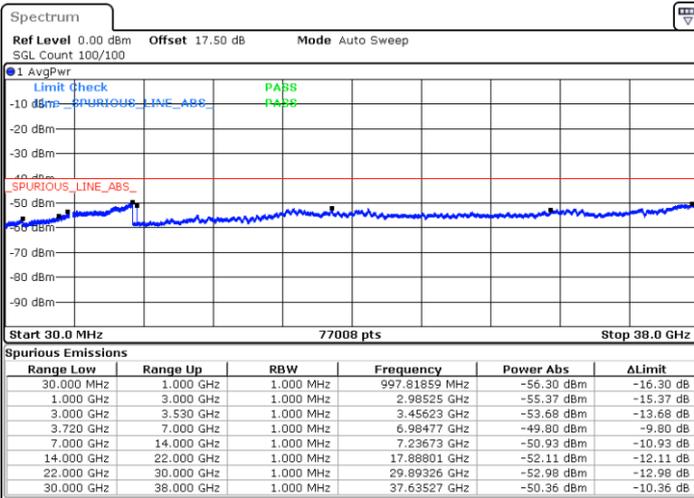


LTE Band 48 / 15MHz

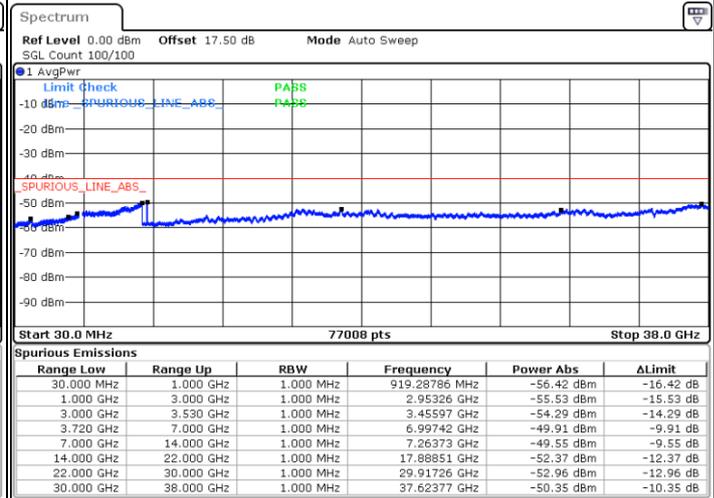
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



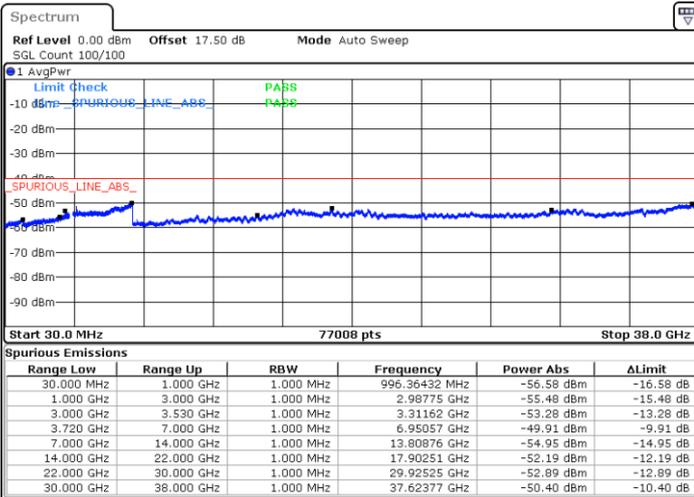
Date: 21.JUL.2020 01:25:18



Date: 21.JUL.2020 01:45:23

Middle Channel / FullIRB

N/A



Date: 21.JUL.2020 01:35:20

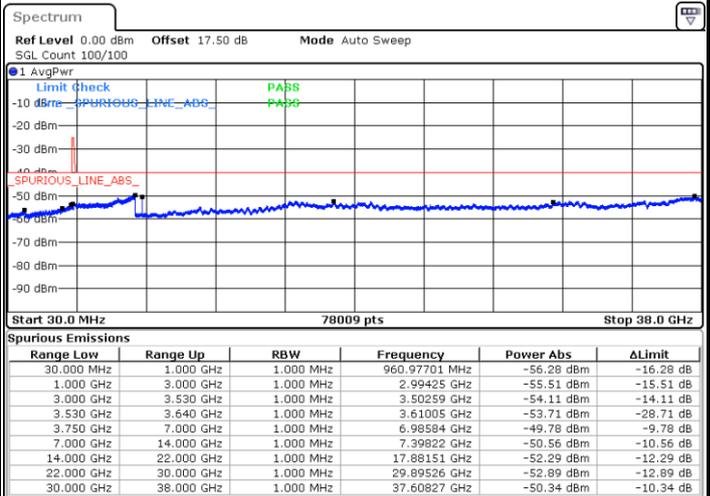
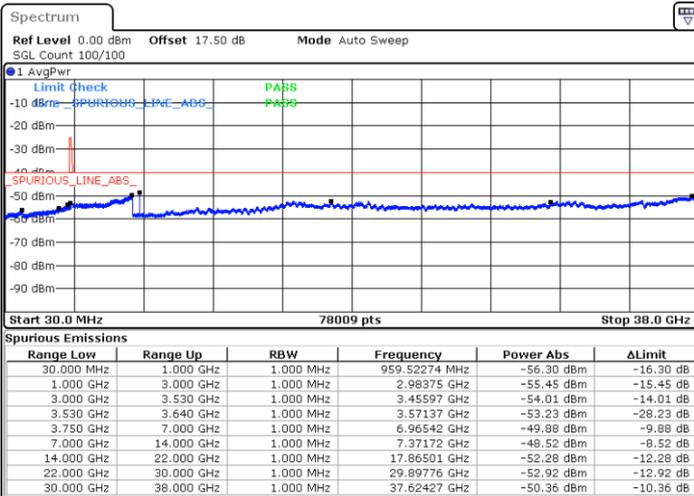


LTE Band 48 / 15MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

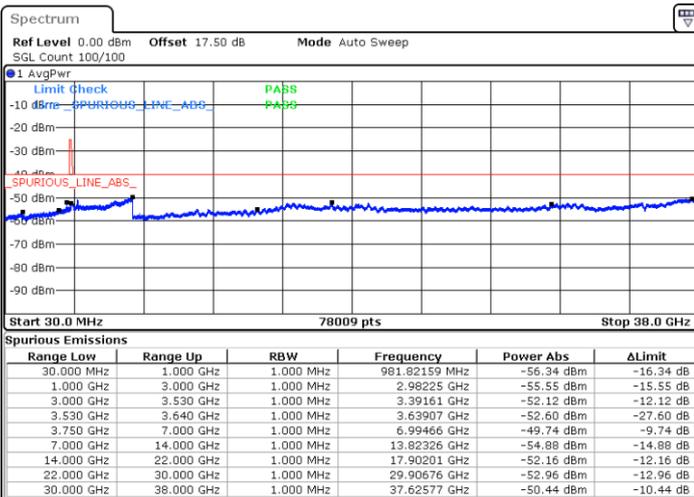


Date: 21.JUL.2020 01:30:52

Date: 21.JUL.2020 01:50:57

Highest Channel / FullIRB

N/A



Date: 21.JUL.2020 01:40:55

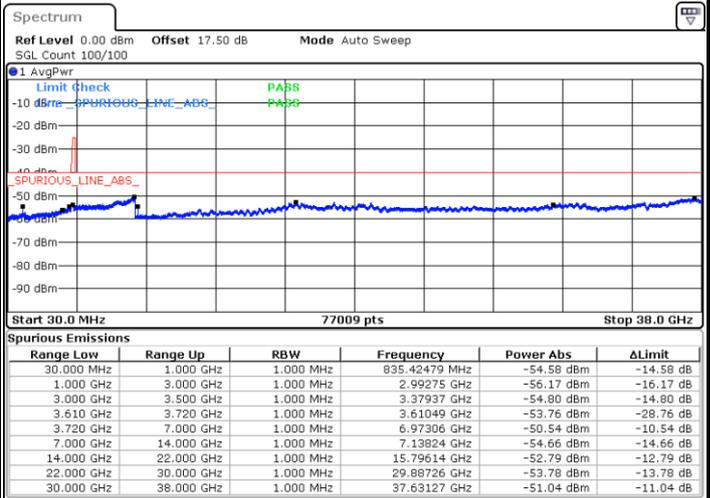
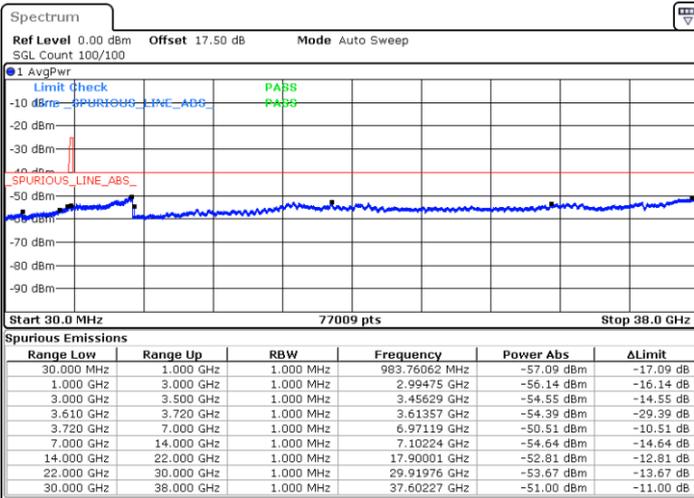


LTE Band 48 / 20MHz

64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

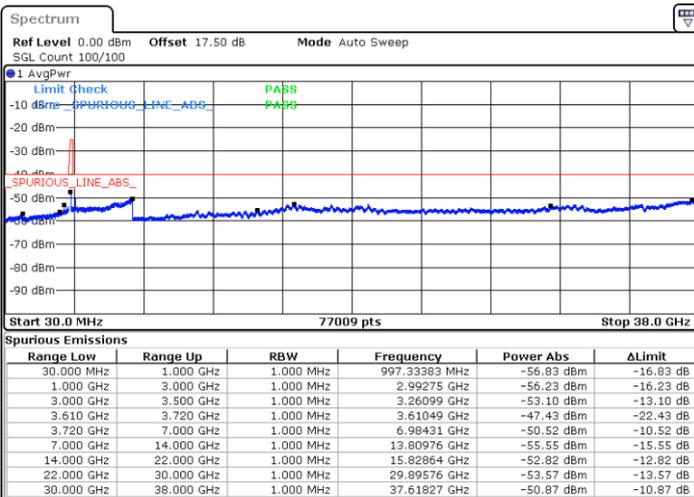


Date: 22 JUL 2020 17:24:26

Date: 22 JUL 2020 17:34:28

Lowest Channel / FullIRB

N/A



Date: 22 JUL 2020 20:17:52

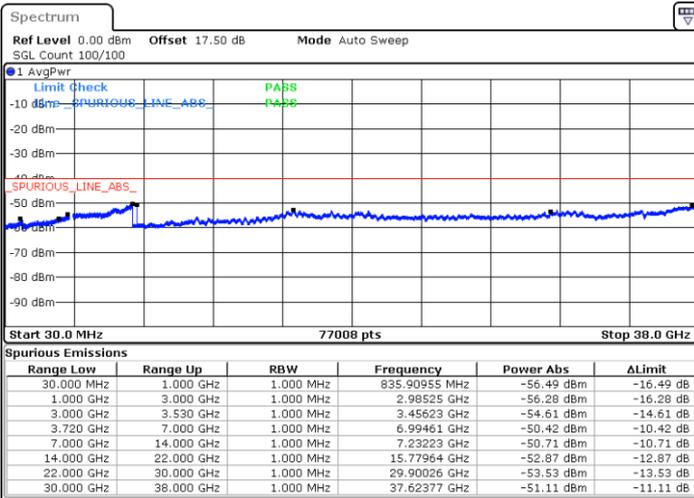


LTE Band 48 / 20MHz

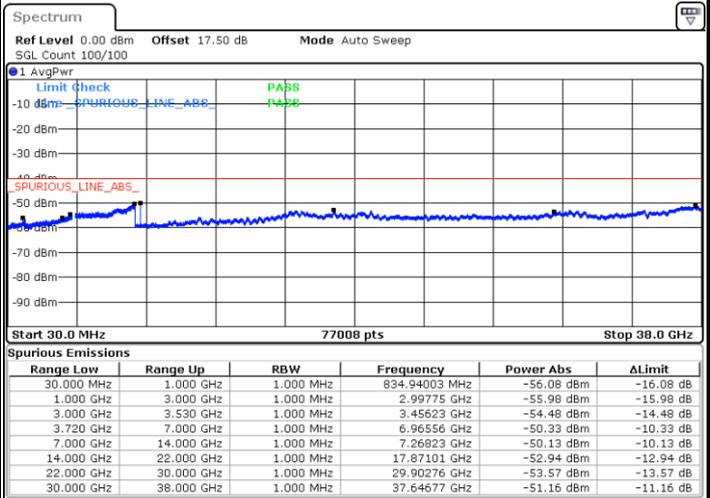
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



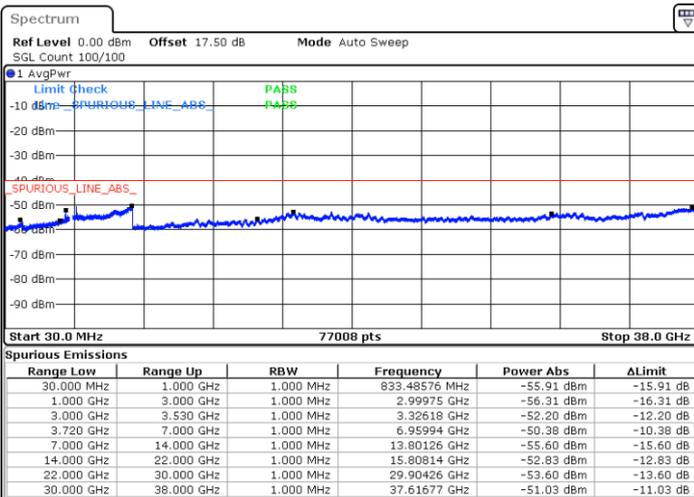
Date: 22 JUL 2020 17:29:59



Date: 22 JUL 2020 17:40:00

Middle Channel / FullIRB

N/A



Date: 22 JUL 2020 17:19:58

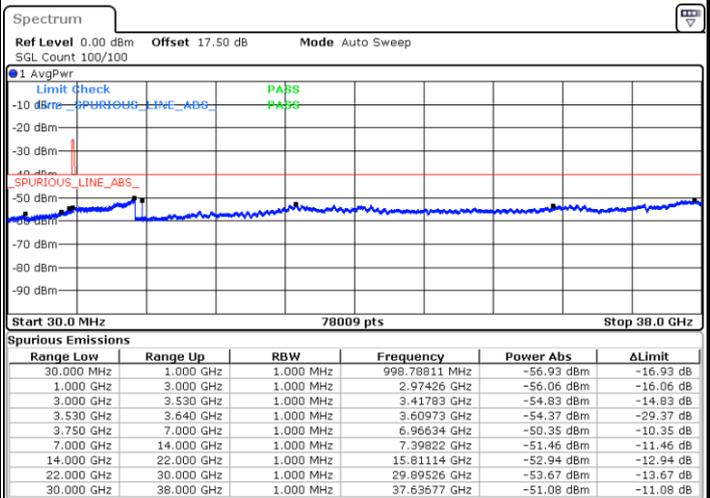
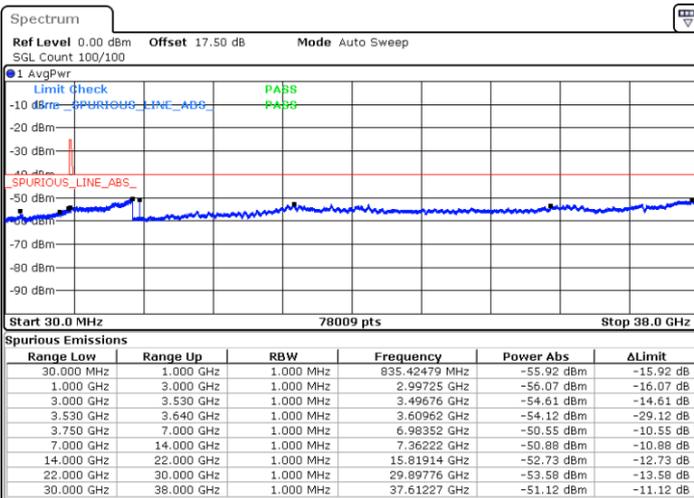


LTE Band 48 / 20MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

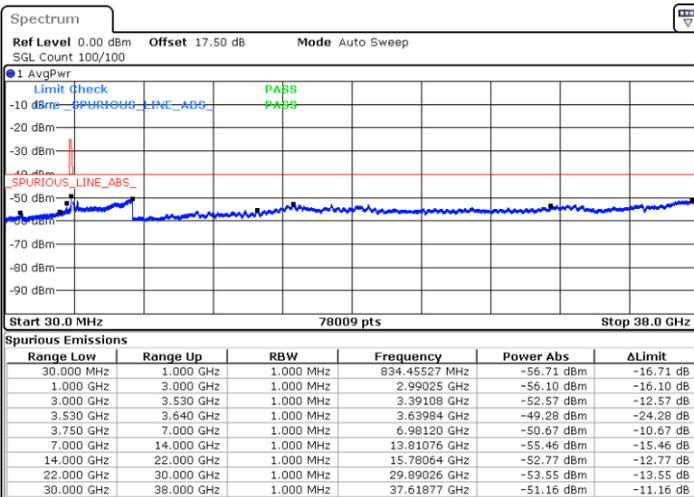


Date: 22 JUL 2020 17:31:06

Date: 22 JUL 2020 17:41:07

Highest Channel / FullIRB

N/A



Date: 22 JUL 2020 17:21:04



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	0.0001	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0034	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0009	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.25 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## Appendix B. Test Results of EIRP and Radiated Test

### EIRP

#### <Reporting Only>

LTE Band 48 / 5MHz (Average) (GT - LC = -7.9 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	12	0	16.70	0.0468	8.80	0.0076
Middle		12	0	16.56	0.0453	8.66	0.0073
Highest		12	0	16.63	0.0460	8.73	0.0075
Lowest	16QAM	1	12	16.78	0.0476	8.88	0.0077
Middle		1	12	16.65	0.0462	8.75	0.0075
Highest		1	12	16.74	0.0472	8.84	0.0077
Lowest	64QAM	12	0	16.72	0.0470	8.82	0.0076
Middle		12	0	16.63	0.0460	8.73	0.0075
Highest		12	0	16.67	0.0465	8.77	0.0075

LTE Band 48 / 10MHz (Average) (GT - LC = -7.9 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	25	12	16.70	0.0468	8.80	0.0076
Middle		25	12	16.60	0.0457	8.70	0.0074
Highest		25	12	16.65	0.0462	8.75	0.0075
Lowest	16QAM	1	0	16.76	0.0474	8.86	0.0077
Middle		1	0	16.60	0.0457	8.70	0.0074
Highest		1	0	16.67	0.0465	8.77	0.0075
Lowest	64QAM	25	12	16.78	0.0476	8.88	0.0077
Middle		25	12	16.68	0.0466	8.78	0.0076
Highest		25	12	16.72	0.0470	8.82	0.0076

LTE Band 48 / 15MHz (Average) (GT - LC = -7.9 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	36	0	16.67	0.0465	8.77	0.0075
Middle		36	0	16.56	0.0453	8.66	0.0073
Highest		36	0	16.55	0.0452	8.65	0.0073
Lowest	16QAM	1	0	16.74	0.0472	8.84	0.0077
Middle		1	0	16.58	0.0455	8.68	0.0074
Highest		1	0	16.69	0.0467	8.79	0.0076
Lowest	64QAM	36	0	16.70	0.0468	8.80	0.0076
Middle		36	0	16.62	0.0459	8.72	0.0074
Highest		36	0	16.58	0.0455	8.68	0.0074



LTE Band 48 / 20MHz (Average) (GT - LC = -7.9 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	50	0	16.68	0.0466	8.78	0.0076
Middle		50	0	16.58	0.0455	8.68	0.0074
Highest		50	0	16.57	0.0454	8.67	0.0074
Lowest	16QAM	1	0	16.82	0.0481	8.92	0.0078
Middle		1	0	16.62	0.0459	8.72	0.0074
Highest		1	0	16.71	0.0469	8.81	0.0076
Lowest	64QAM	50	0	16.75	0.0473	8.85	0.0077
Middle		50	0	16.64	0.0461	8.74	0.0075
Highest		50	0	16.61	0.0458	8.71	0.0074



**EIRP Power**

LTE Band 48 / Conducted Power (dBm/10MHz)									
BW	1.4MHz			3MHz			5MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	-	-	-	-	-	-	16.70	16.78	16.72
Middle CH	-	-	-	-	-	-	16.56	16.65	16.63
Highest CH	-	-	-	-	-	-	16.63	16.74	16.67
LTE Band 48 / Conducted Power (dBm/10MHz)									
BW	10MHz			15MHz			20MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	16.70	16.76	16.78	16.67	16.74	16.70	16.68	16.82	16.75
Middle CH	16.60	16.60	16.68	16.56	16.58	16.62	16.58	16.62	16.64
Highest CH	16.65	16.67	16.72	16.55	16.69	16.58	16.57	16.71	16.61

LTE Band 48 / EIRP Power (dBm/10MHz)									
BW	1.4MHz			3MHz			5MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	-	-	-	-	-	-	8.80	8.88	8.82
Middle CH	-	-	-	-	-	-	8.66	8.75	8.73
Highest CH	-	-	-	-	-	-	8.73	8.84	8.77
LTE Band 48 / EIRP Power (dBm/10MHz)									
BW	10MHz			15MHz			20MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	8.80	8.86	8.88	8.77	8.84	8.80	8.78	8.92	8.85
Middle CH	8.70	8.70	8.78	8.66	8.68	8.72	8.68	8.72	8.74
Highest CH	8.75	8.77	8.82	8.65	8.79	8.68	8.67	8.81	8.71
Antenna Gain	-7.9 dBi								
Limit	23dBm / 10MHz								
Result	PASS								



Radiated Spurious Emission

LTE Band 48

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)
Lowest	7102	-58.53	-40	-18.53	-60.51	-68.49	1.78	11.74	H
	10653	-58.90	-40	-18.90	-61.17	-67.33	2.47	10.90	H
	14204	-57.16	-40	-17.16	-64.22	-66.00	2.87	11.71	H
	21307	-53.59	-40	-13.59	-75.45	-70.31	1.98	18.70	H
	24858	-51.43	-40	-11.43	-76.09	-67.44	2.07	18.07	H
	28410	-50.92	-40	-10.92	-76.44	-68.17	2.32	19.56	H
	7102	-58.92	-40	-18.92	-60.51	-68.88	1.78	11.74	V
	10653	-58.99	-40	-18.99	-61.01	-67.42	2.47	10.90	V
	14204	-57.17	-40	-17.17	-63.96	-66.01	2.87	11.71	V
	21307	-52.55	-40	-12.55	-74.27	-69.27	1.98	18.70	V
	24858	-49.40	-40	-9.40	-75.27	-65.41	2.07	18.07	V
	28410	-48.53	-40	-8.53	-75.87	-65.78	2.32	19.56	V
Middle	7232	-58.00	-40	-18.00	-60.38	-67.68	1.85	11.53	H
	10848	-58.81	-40	-18.81	-61.14	-67.14	2.57	10.90	H
	14464	-57.10	-40	-17.10	-64.37	-65.33	2.85	11.09	H
	18080	-54.45	-40	-14.45	-72.56	-70.68	1.76	17.98	H
	21696	-54.41	-40	-14.41	-75.93	-71.20	1.99	18.78	H
	25312	-51.32	-40	-11.32	-76.48	-67.92	2.14	18.74	H
	7232	-58.31	-40	-18.31	-60.42	-67.99	1.85	11.53	V
	10848	-59.06	-40	-19.06	-61.18	-67.39	2.57	10.90	V
	14464	-57.88	-40	-17.88	-64.32	-66.11	2.85	11.09	V
	18080	-55.24	-40	-15.24	-72.42	-71.47	1.76	17.98	V
	21696	-53.72	-40	-13.72	-75.23	-70.51	1.99	18.78	V
	25312	-49.35	-40	-9.35	-75.77	-65.95	2.14	18.74	V



Highest	7362	-59.09	-40	-19.09	-61.42	-68.50	1.92	11.32	H
	11043	-58.19	-40	-18.19	-60.66	-66.51	2.63	10.95	H
	14724	-56.33	-40	-16.33	-65.17	-65.13	2.91	11.72	H
	18405	-54.70	-40	-14.70	-73.02	-70.75	1.87	17.92	H
	22086	-52.63	-40	-12.63	-74.8	-69.42	2.08	18.87	H
	25767	-50.31	-40	-10.31	-76.3	-67.33	2.03	19.05	H
	7362	-59.40	-40	-19.40	-61.55	-68.81	1.92	11.32	V
	11043	-58.43	-40	-18.43	-60.74	-66.75	2.63	10.95	V
	14724	-58.08	-40	-18.08	-65.25	-66.88	2.91	11.72	V
	18405	-55.07	-40	-15.07	-72.51	-71.12	1.87	17.92	V
	22086	-52.72	-40	-12.72	-74.89	-69.51	2.08	18.87	V
	25767	-48.42	-40	-8.42	-75.6	-65.44	2.03	19.05	V

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

————THE END————