

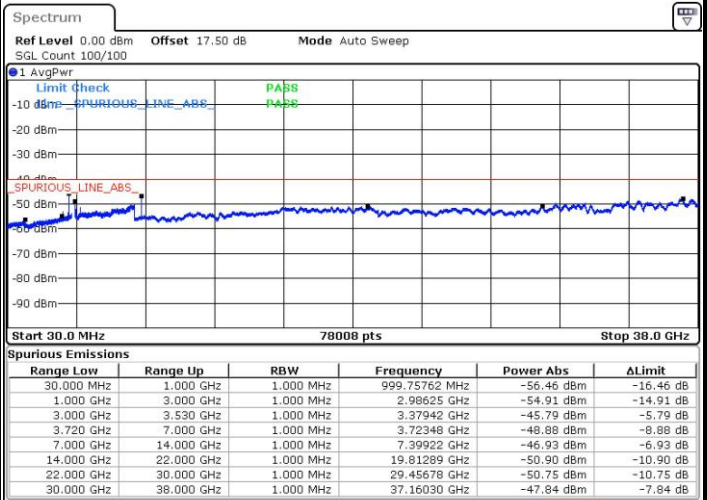
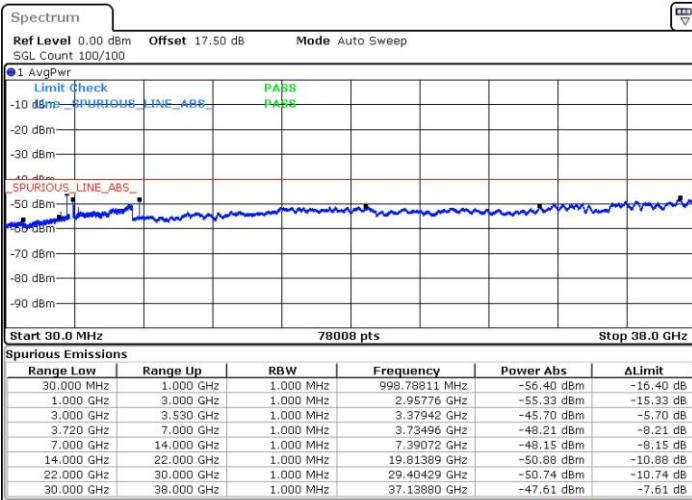


LTE Band 48 / 5MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

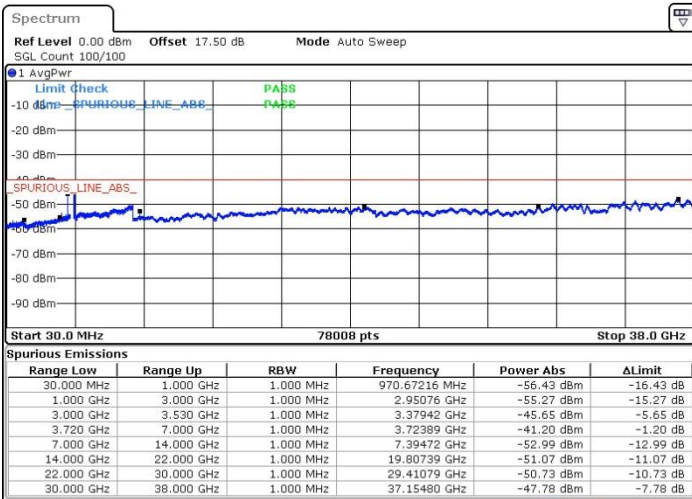


Date: 28 FEB 2019 22:20:23

Date: 28 FEB 2019 22:52:32

Highest Channel / FullIRB

N/A



Date: 1 MAR 2019 00:43:43

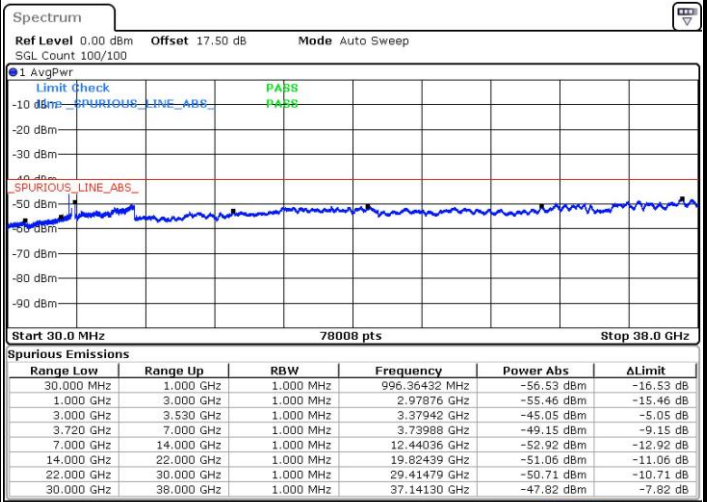
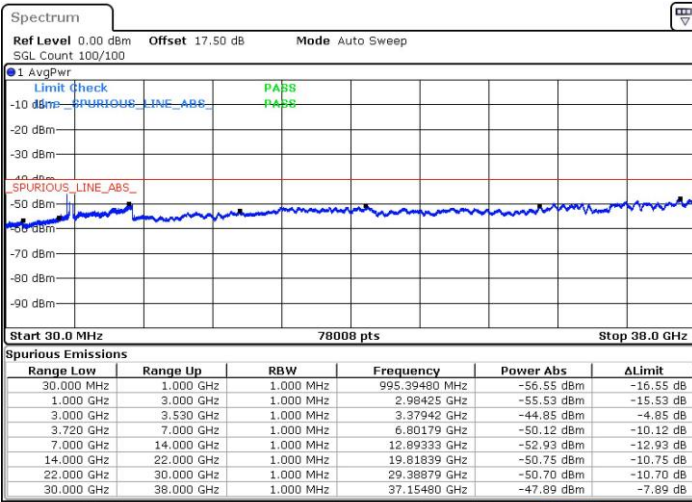


LTE Band 48 / 10MHz

64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

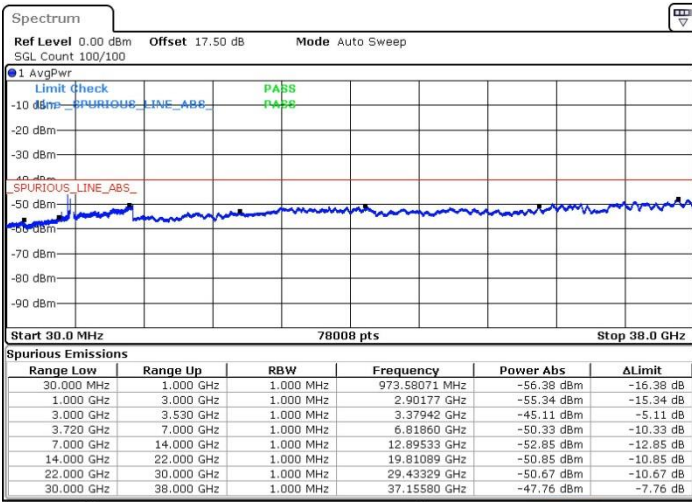


Date: 28 FEB 2019 22:53:34

Date: 28 FEB 2019 23:12:01

Lowest Channel / FullIRB

N/A



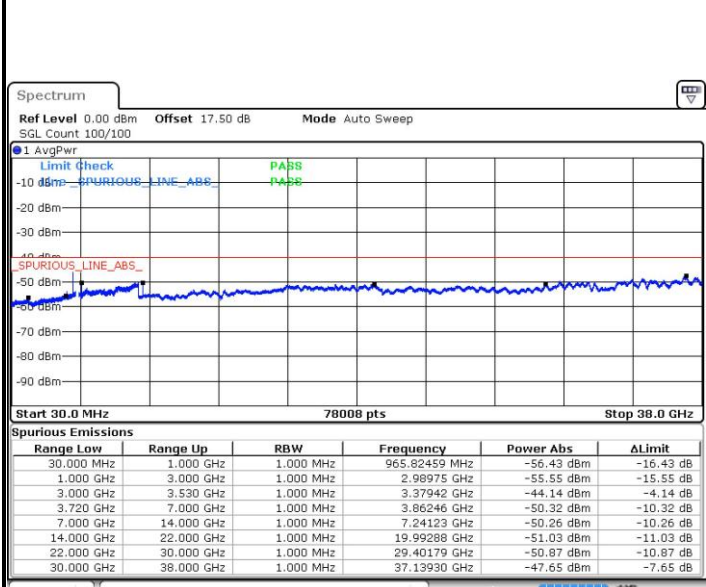
Date: 28 FEB 2019 23:02:48



LTE Band 48 / 10MHz

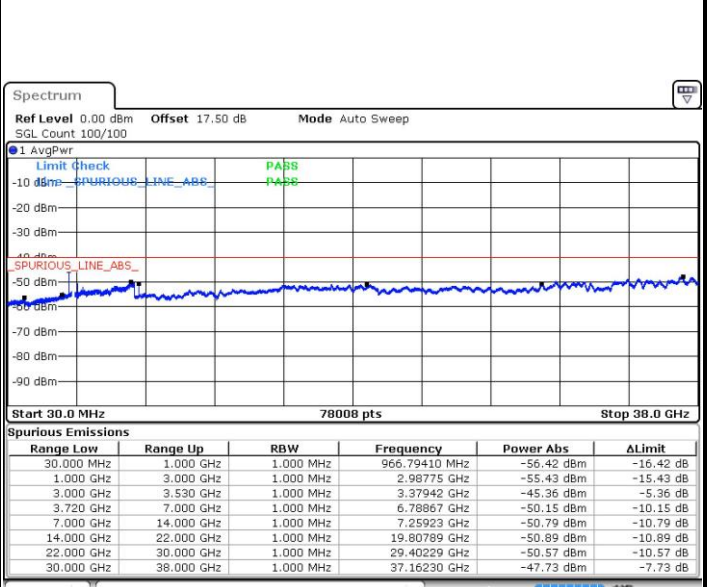
64QAM

MiddleChannel / 1RB0



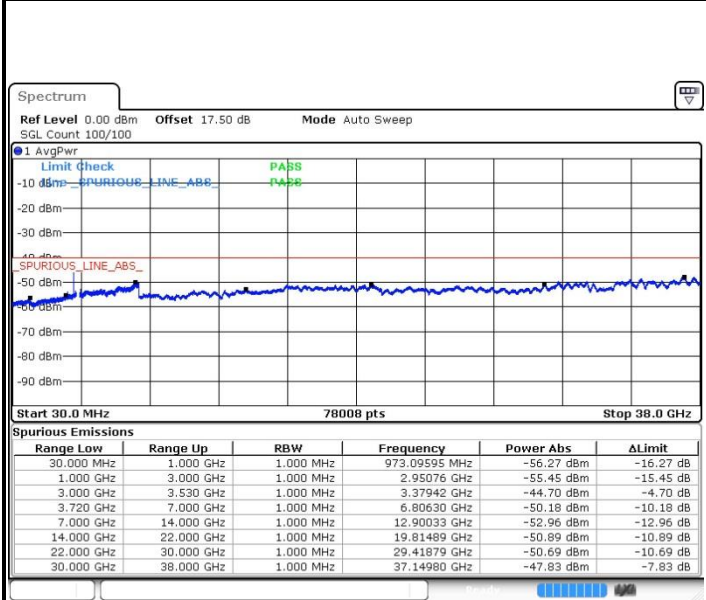
Date: 28 FEB 2019 22:58:41

Middle Channel / 1RBmax



Date: 28 FEB 2019 23:17:07

Middle Channel / FullIRB



Date: 28 FEB 2019 23:07:54

N/A



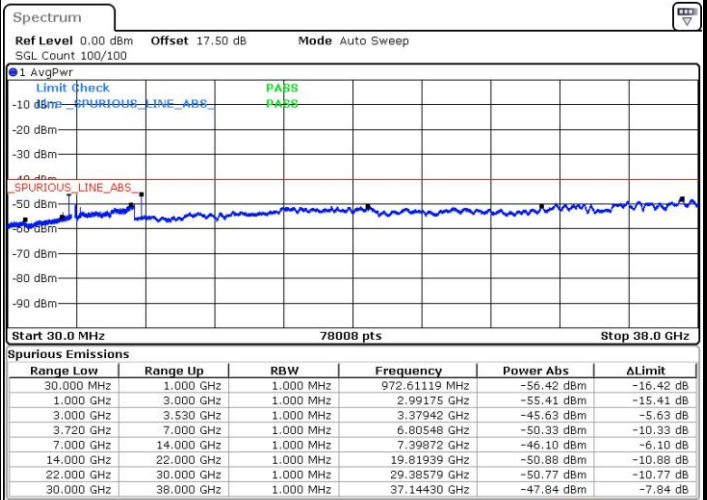
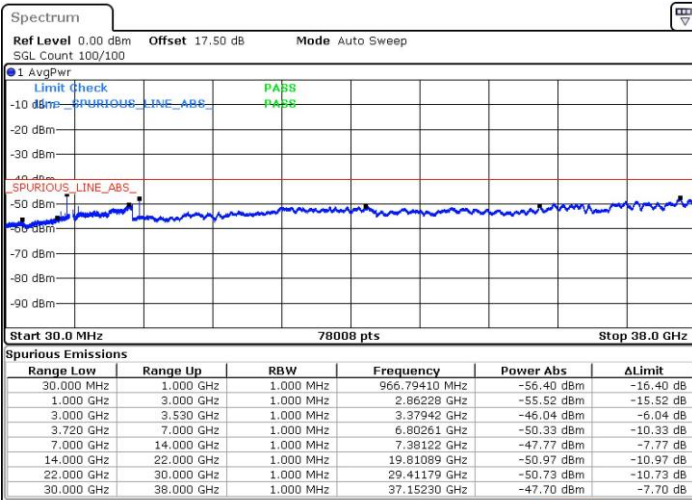


LTE Band 48 / 10MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

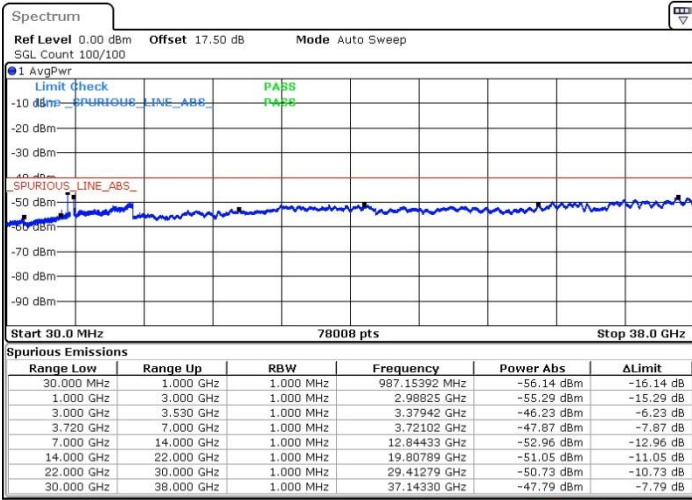


Date: 28 FEB 2019 22:59:43

Date: 28 FEB 2019 23:18:09

Highest Channel / FullIRB

N/A



Date: 28 FEB 2019 23:08:56

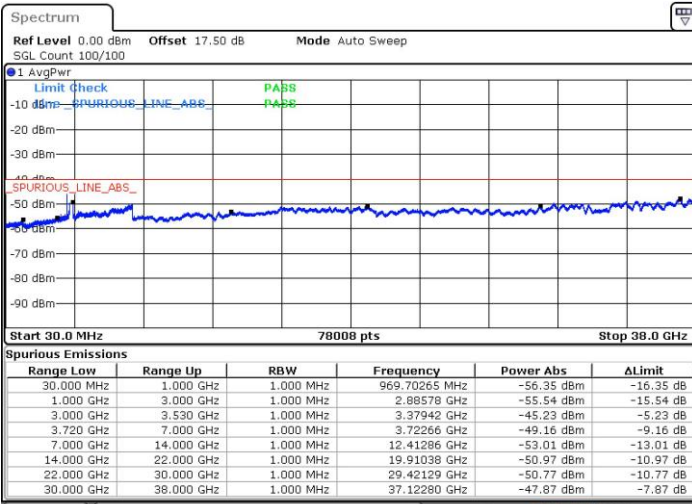


LTE Band 48 / 15MHz

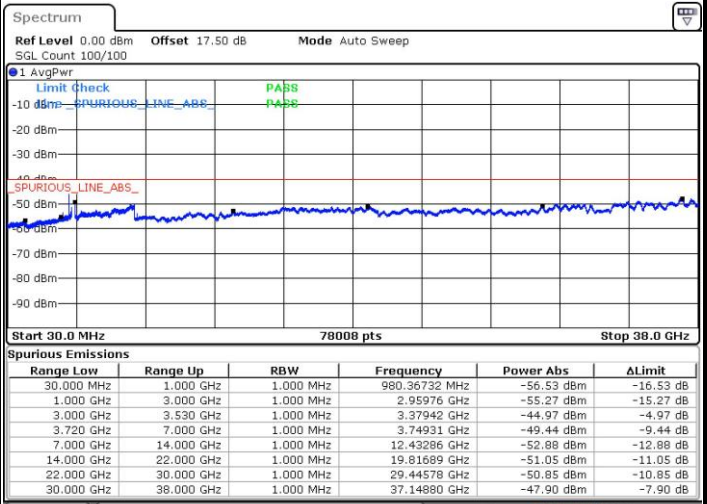
64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



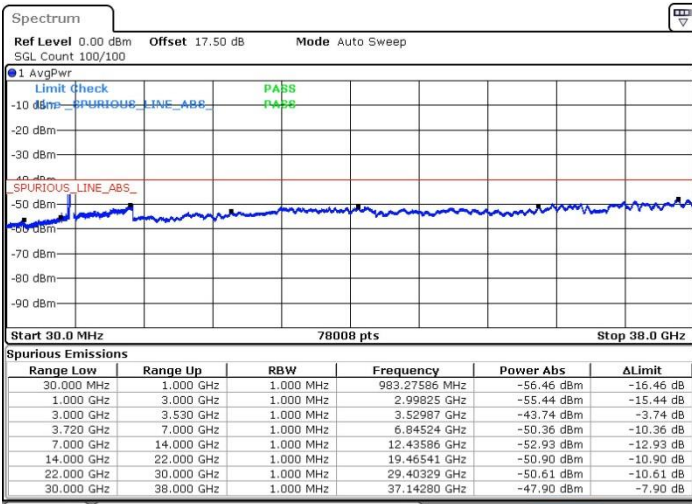
Date: 28 FEB 2019 23:23:18



Date: 28 FEB 2019 23:41:44

Lowest Channel / FullIRB

N/A



Date: 28 FEB 2019 23:32:31

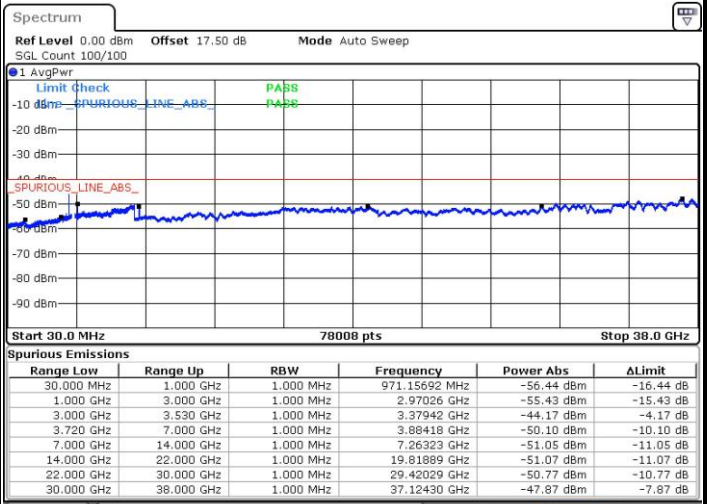
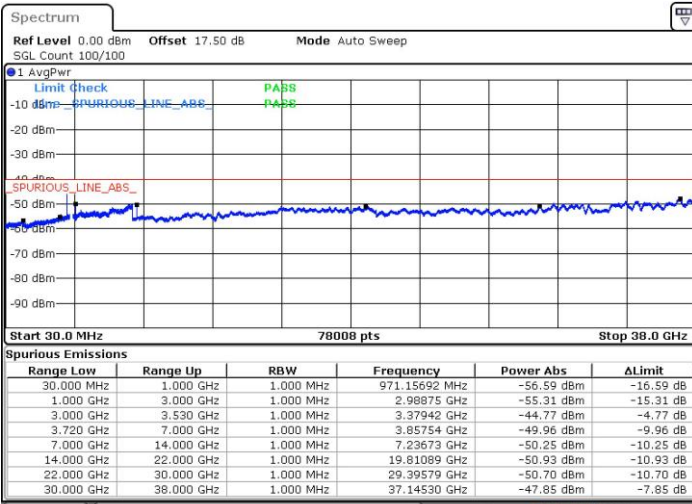


LTE Band 48 / 15MHz

64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax

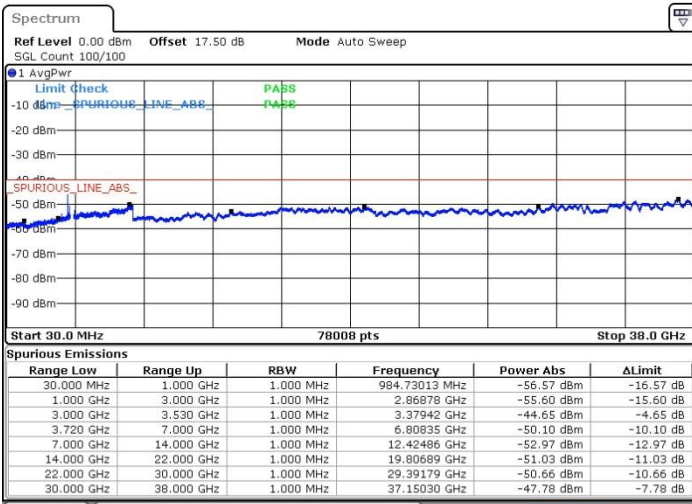


Date: 28 FEB 2019 23:24:19

Date: 28 FEB 2019 23:42:45

Middle Channel / FullIRB

N/A



Date: 28 FEB 2019 23:33:32

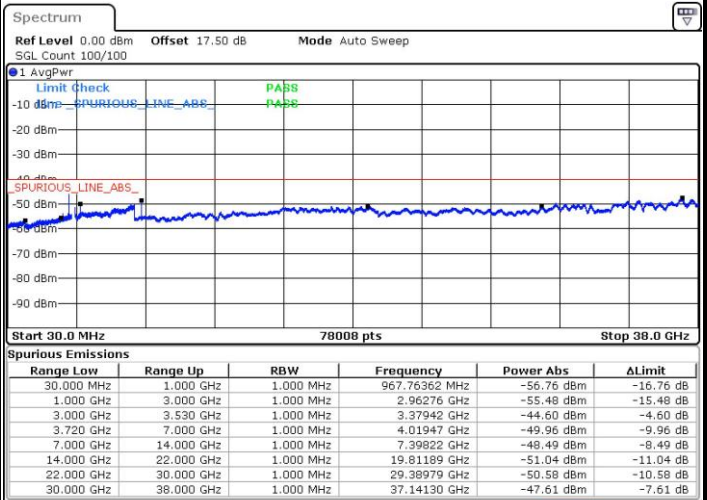
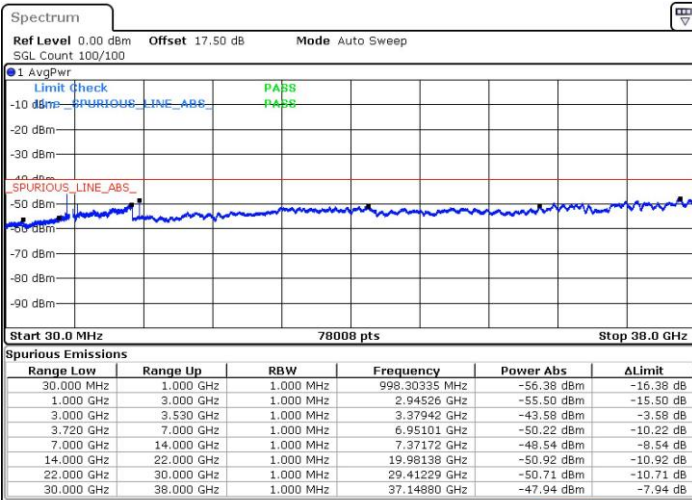


LTE Band 48 / 15MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

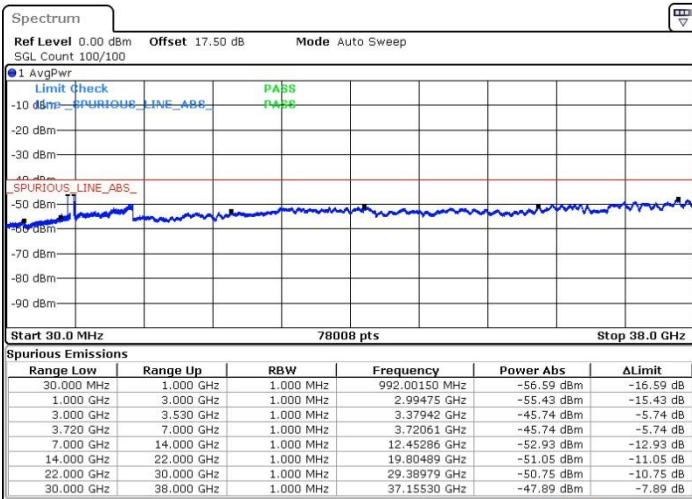


Date: 28 FEB 2019 23:29:26

Date: 28 FEB 2019 23:47:52

Highest Channel / FullIRB

N/A



Date: 1 MAR 2019 00:51:53

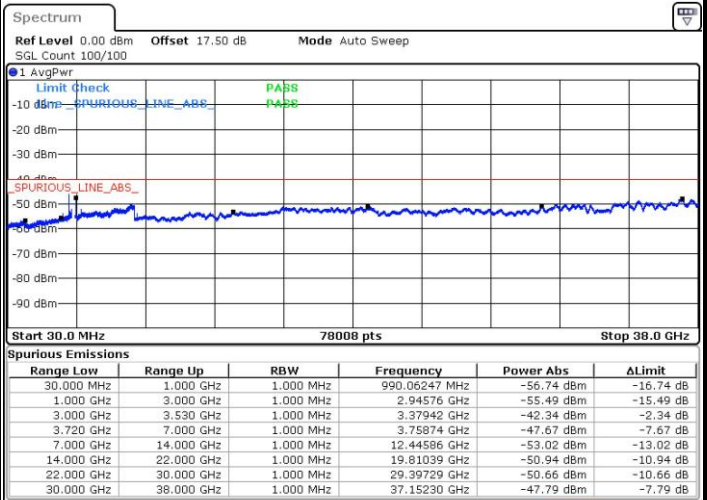
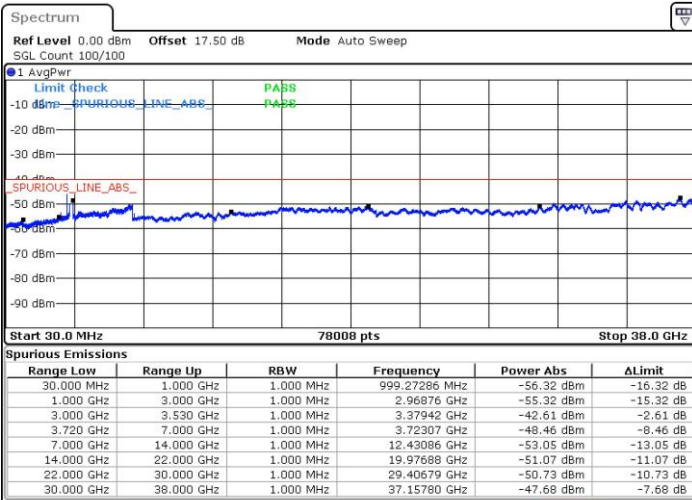


LTE Band 48 / 20MHz

64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

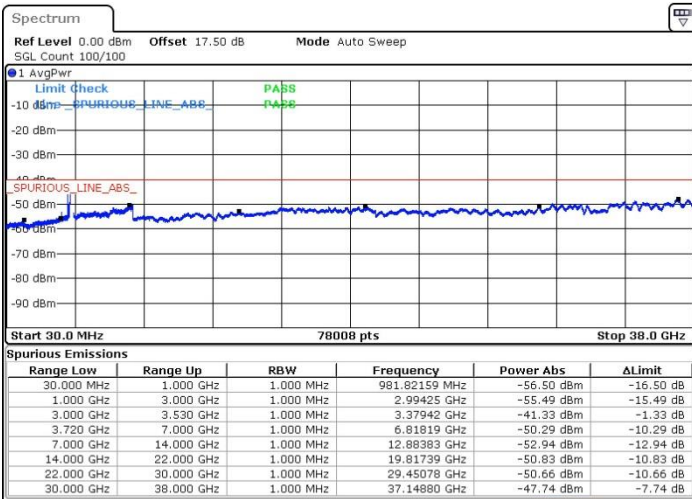


Date: 28 FEB 2019 23:58:07

Date: 1.MAR 2019 00:07:20

Lowest Channel / FullIRB

N/A



Date: 28 FEB 2019 23:48:54

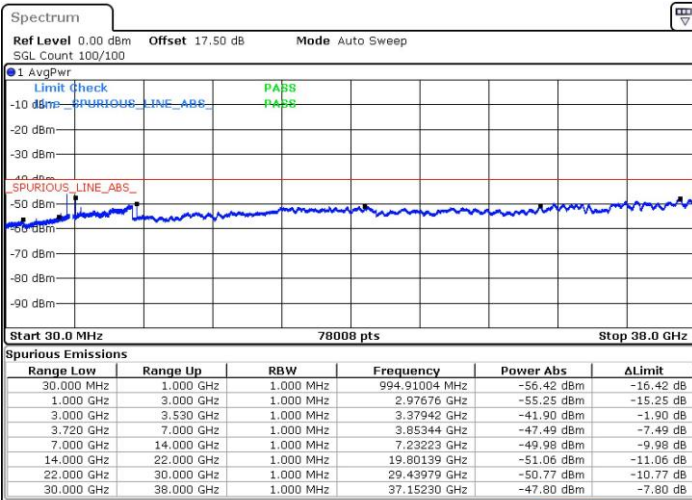


LTE Band 48 / 20MHz

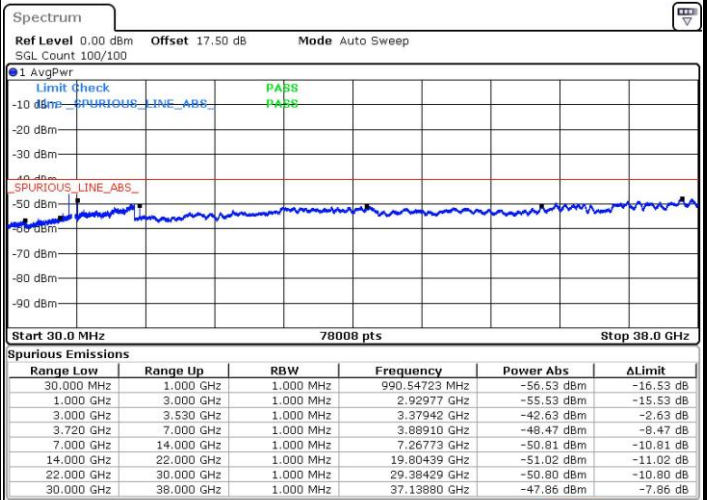
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



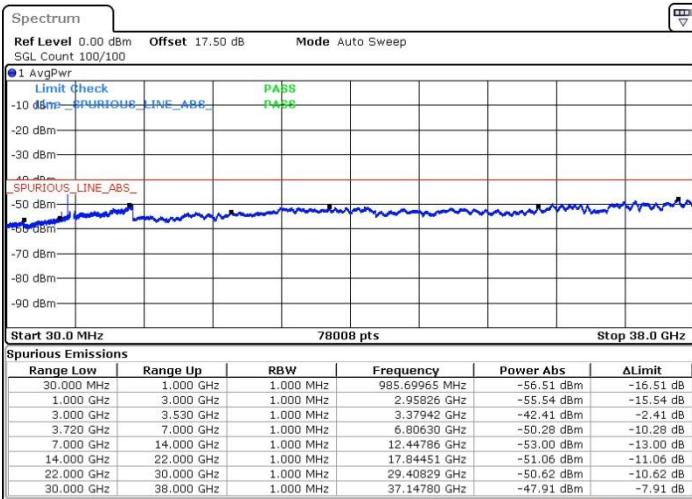
Date: 1.MAR.2019 00:03:14



Date: 1.MAR.2019 00:12:27

Middle Channel / FullIRB

N/A



Date: 28.FEB.2019 23:54:00

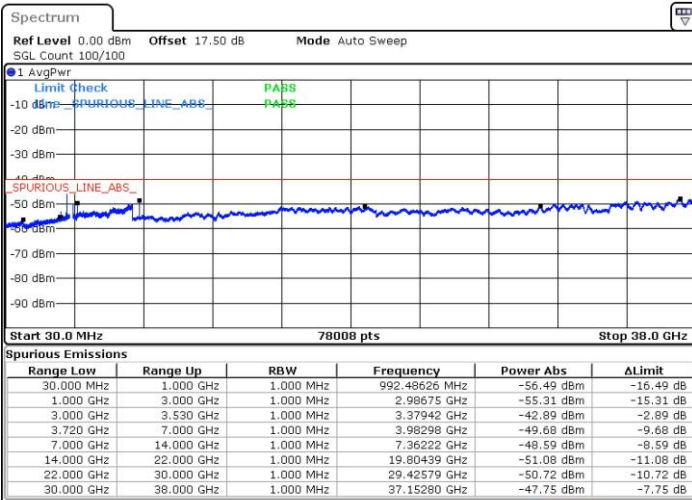


LTE Band 48 / 20MHz

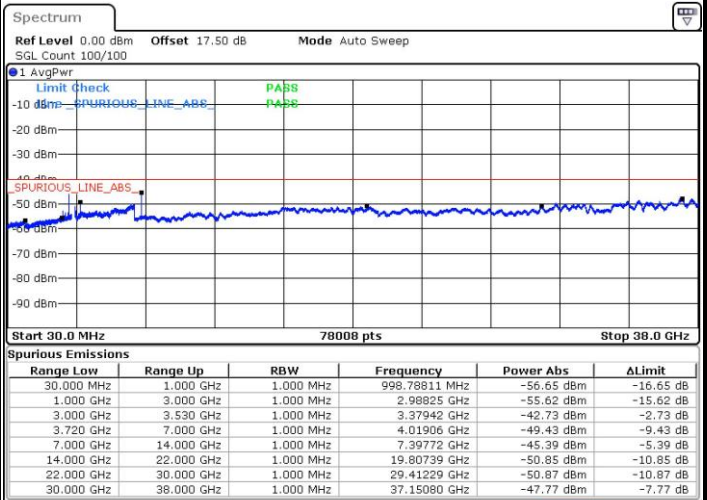
64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



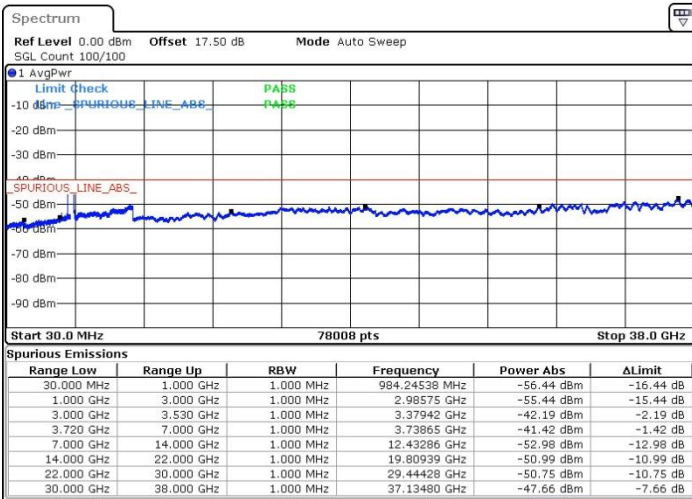
Date: 1.MAR.2019 00:04:15



Date: 1.MAR.2019 00:13:28

Highest Channel / FullIRB

N/A



Date: 28 FEB.2019 23:55:02



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	0.0003	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0057	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0063	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0062	
-20	Normal Voltage	0.0060	
-30	Normal Voltage	0.0057	
20	Maximum Voltage	0.0057	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0061	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of ERP/EIRP and Radiated Test

ERP/EIRP

LTE Band 48 / 5MHz (Average) (GT - LC = 0 dB)									
Channel	Mode	RB		Conducted		EIRP			
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)	EIRP (dBm/10MHz)	EIRP Limit (dBm/10MHz)
Lowest	QPSK	1	12	22.35	0.1718	22.35	0.1718	22.35	23.00
Middle		1	12	22.76	0.1888	22.76	0.1888	22.76	23.00
Highest		1	12	22.03	0.1596	22.03	0.1596	22.03	23.00
Lowest	16QAM	1	12	21.67	0.1469	21.67	0.1469	21.67	23.00
Middle		1	12	22.08	0.1614	22.08	0.1614	22.08	23.00
Highest		1	12	21.34	0.1361	21.34	0.1361	21.34	23.00
Lowest	64QAM	1	12	20.54	0.1132	20.54	0.1132	20.54	23.00
Middle		1	12	20.95	0.1245	20.95	0.1245	20.95	23.00
Highest		1	12	20.20	0.1047	20.20	0.1047	20.20	23.00

LTE Band 48 / 10MHz (Average) (GT - LC = 0 dB)									
Channel	Mode	RB		Conducted		EIRP			
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)	EIRP (dBm/10MHz)	EIRP Limit (dBm/10MHz)
Lowest	QPSK	1	49	22.34	0.1714	22.34	0.1714	22.34	23.00
Middle		1	49	22.77	0.1892	22.77	0.1892	22.77	23.00
Highest		1	49	22.13	0.1633	22.13	0.1633	22.13	23.00
Lowest	16QAM	1	49	21.68	0.1472	21.68	0.1472	21.68	23.00
Middle		1	49	22.05	0.1603	22.05	0.1603	22.05	23.00
Highest		1	49	21.40	0.1380	21.40	0.1380	21.40	23.00
Lowest	64QAM	1	49	20.55	0.1135	20.55	0.1135	20.55	23.00
Middle		1	49	20.91	0.1233	20.91	0.1233	20.91	23.00
Highest		1	49	20.28	0.1067	20.28	0.1067	20.28	23.00

LTE Band 48 / 15MHz (Average) (GT - LC = 0 dB)									
Channel	Mode	RB		Conducted		EIRP			
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)	EIRP (dBm/10MHz)	EIRP Limit (dBm/10MHz)
Lowest	QPSK	1	0	22.58	0.1811	22.58	0.1811	22.58	23.00
Middle		1	0	22.98	0.1986	22.98	0.1986	22.98	23.00
Highest		1	0	22.23	0.1671	22.23	0.1671	22.23	23.00
Lowest	16QAM	1	0	21.85	0.1531	21.85	0.1531	21.85	23.00
Middle		1	0	22.24	0.1675	22.24	0.1675	22.24	23.00
Highest		1	0	21.47	0.1403	21.47	0.1403	21.47	23.00
Lowest	64QAM	1	0	20.71	0.1178	20.71	0.1178	20.71	23.00
Middle		1	0	21.06	0.1276	21.06	0.1276	21.06	23.00
Highest		1	0	20.30	0.1072	20.30	0.1072	20.30	23.00

LTE Band 48 / 20MHz (Average) (GT - LC = 0 dB)									
Channel	Mode	RB		Conducted		EIRP			
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)	EIRP (dBm/10MHz)	EIRP Limit (dBm/10MHz)
Lowest	QPSK	1	0	22.57	0.1807	22.57	0.1807	22.57	23.00
Middle		1	0	22.93	0.1963	22.93	0.1963	22.93	23.00
Highest		1	0	22.17	0.1648	22.17	0.1648	22.17	23.00
Lowest	16QAM	1	0	21.91	0.1552	21.91	0.1552	21.91	23.00
Middle		1	0	22.23	0.1671	22.23	0.1671	22.23	23.00
Highest		1	0	21.49	0.1409	21.49	0.1409	21.49	23.00
Lowest	64QAM	1	0	20.74	0.1186	20.74	0.1186	20.74	23.00
Middle		1	0	21.07	0.1279	21.07	0.1279	21.07	23.00
Highest		1	0	20.33	0.1079	20.33	0.1079	20.33	23.00



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	7100	-59.31	-40	-19.31	-63.92	-69.28	1.77	11.74	H
	10655	-57.62	-40	-17.62	-61.51	-66.05	2.47	10.90	H
	14205	-56.07	-40	-16.07	-65.56	-64.91	2.87	11.71	H
	21307	-50.58	-40	-10.58	-76.48	-67.30	1.98	18.70	H
	24857	-53.41	-40	-13.41	-79.76	-69.42	2.07	18.07	H
	28408	-51.06	-40	-11.06	-79.57	-68.30	2.32	19.56	H
									H
	7100	-60.13	-40	-20.13	-64.35	-70.10	1.77	11.74	V
	10655	-57.64	-40	-17.64	-61.27	-66.07	2.47	10.90	V
	14205	-55.48	-40	-15.48	-64.69	-64.32	2.87	11.71	V
	21307	-55.43	-40	-15.43	-74.22	-72.15	1.98	18.70	V
	24857	-56.76	-40	-16.76	-79.42	-72.77	2.07	18.07	V
	28408	-54.18	-40	-14.18	-79.48	-71.42	2.32	19.56	V
									V



Middle	7230	-55.85	-40	-15.85	-60.8	-65.54	1.84	11.53	H
	10850	-58.43	-40	-18.43	-61.97	-66.76	2.57	10.90	H
	14462	-56.99	-40	-16.99	-66.78	-65.23	2.85	11.09	H
	21696	-51.51	-40	-11.51	-77.14	-68.30	1.99	18.78	H
	25312	-51.23	-40	-11.23	-79.3	-67.83	2.14	18.74	H
	28933	-51.71	-40	-11.71	-80.19	-68.43	2.36	19.08	H
									H
	7230	-54.92	-40	-14.92	-59.61	-64.61	1.84	11.53	V
	10850	-58.78	-40	-18.78	-62.12	-67.11	2.57	10.90	V
	14462	-57.55	-40	-17.55	-66.52	-65.79	2.85	11.09	V
	21696	-58.86	-40	-18.86	-77.73	-75.65	1.99	18.78	V
	25312	-54.87	-40	-14.87	-79.23	-71.47	2.14	18.74	V
	28933	-54.03	-40	-14.03	-80.08	-70.75	2.36	19.08	V
									V
Highest	7360	-57.55	-40	-17.55	-62.68	-66.96	1.91	11.32	H
	11045	-57.99	-40	-17.99	-61.36	-66.31	2.63	10.95	H
	14724	-56.06	-40	-16.06	-67.37	-64.86	2.91	11.72	H
	18400	-53.02	-40	-13.02	-72.8	-69.07	1.87	17.92	H
	22084	-53.02	-40	-13.02	-77.39	-69.81	2.08	18.87	H
	25770	-50.77	-40	-10.77	-79.5	-67.79	2.03	19.05	H
									H
	7360	-56.78	-40	-16.78	-61.73	-66.19	1.91	11.32	V
	11045	-58.43	-40	-18.43	-61.63	-66.75	2.63	10.95	V
	14724	-57.19	-40	-17.19	-66.86	-65.99	2.91	11.72	V
	18400	-60.45	-40	-20.45	-72.87	-76.50	1.87	17.92	V
	22084	-59.24	-40	-19.24	-77.35	-76.03	2.08	18.87	V
	25770	-54.38	-40	-14.38	-79.51	-71.40	2.03	19.05	V
									V

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