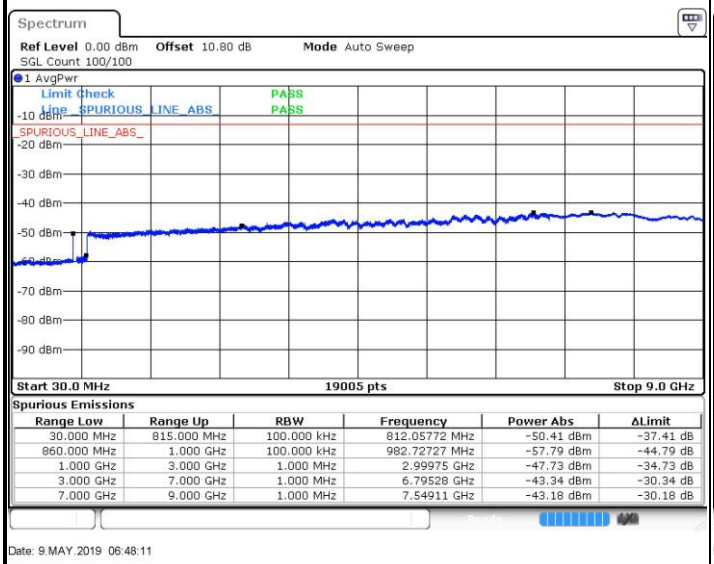
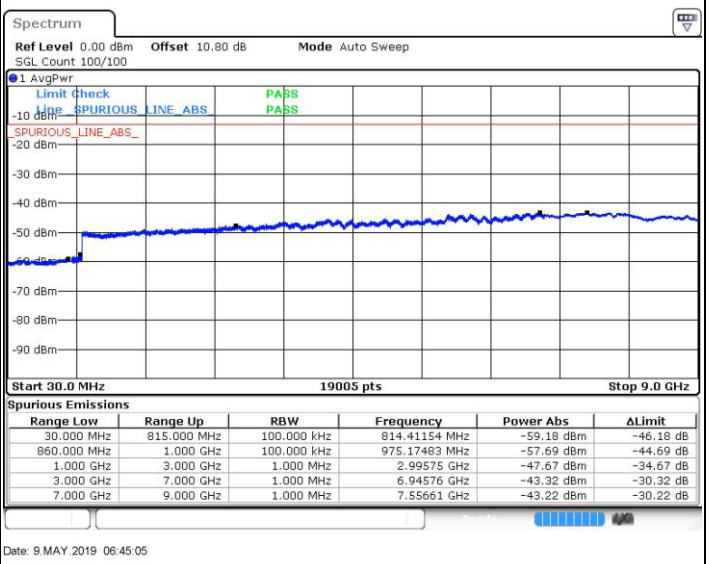
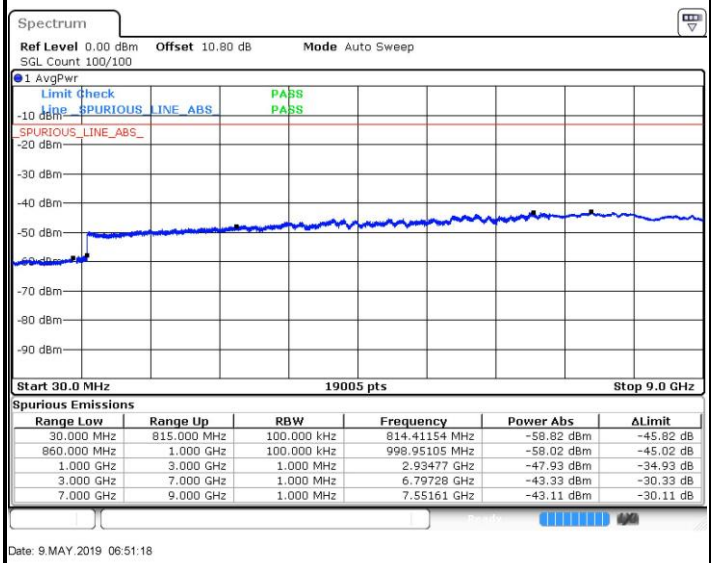
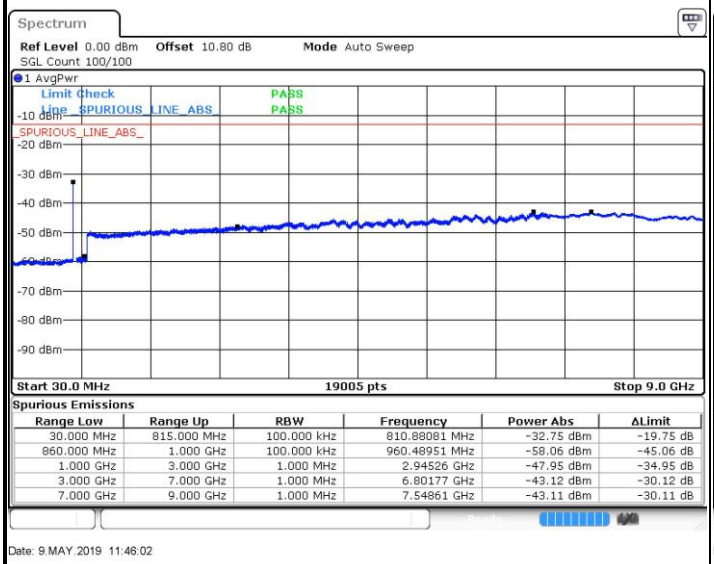
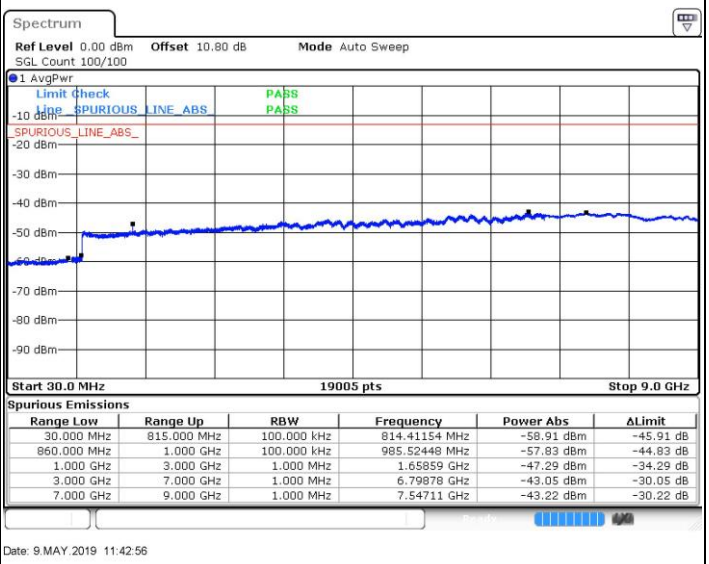
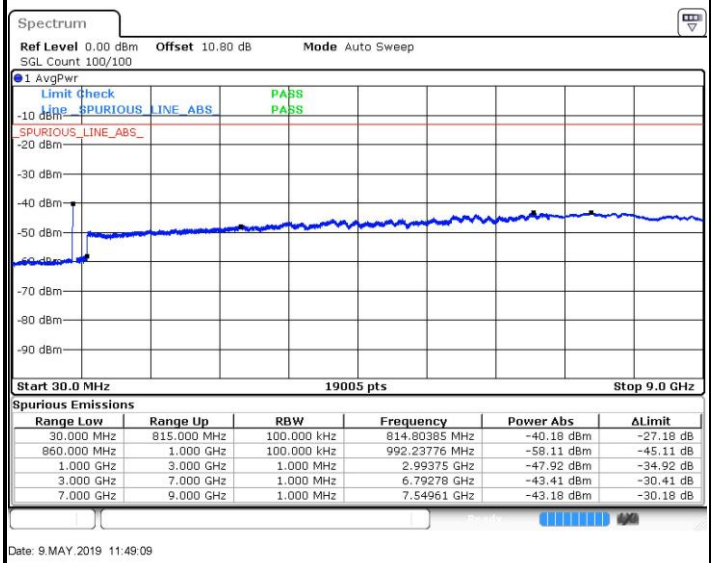
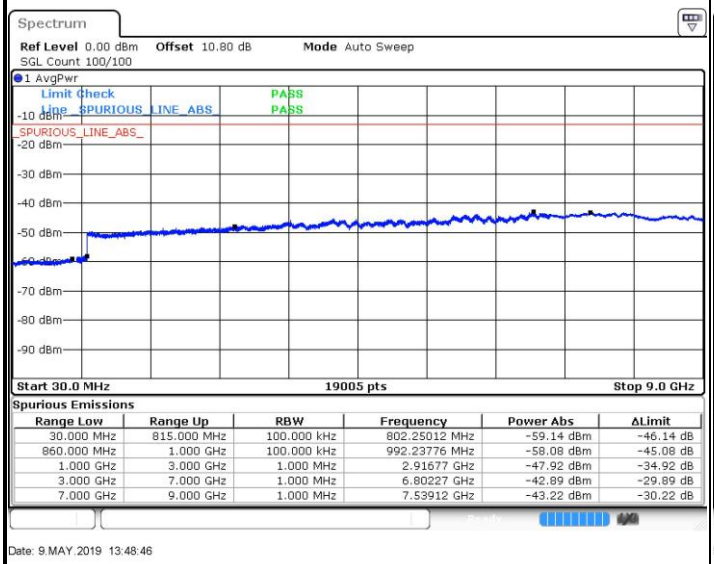
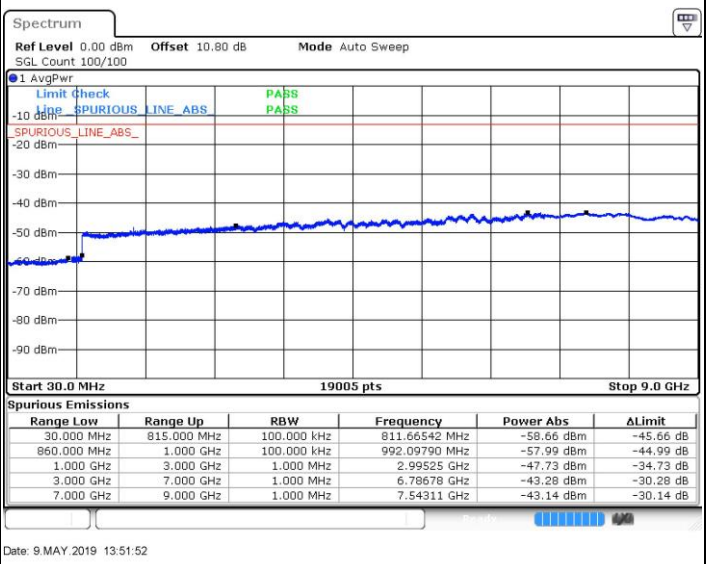
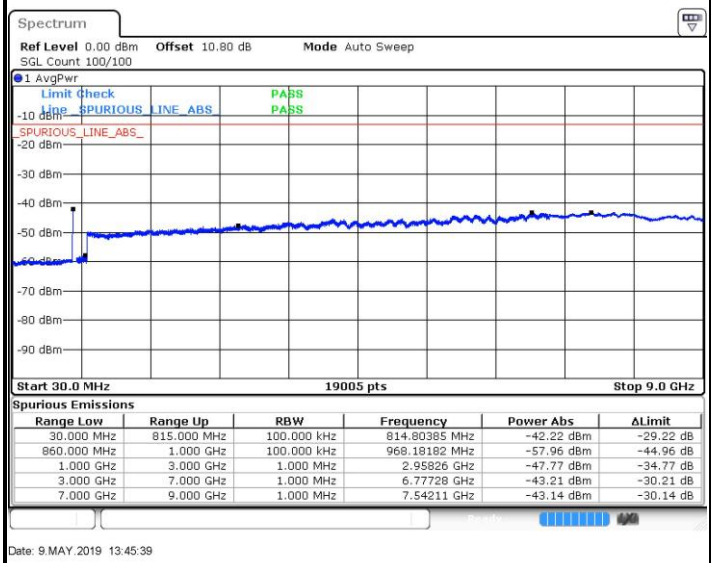
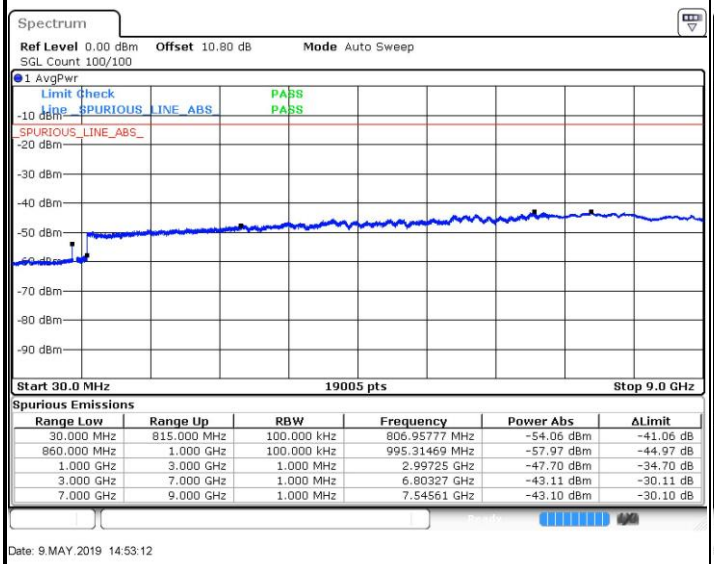
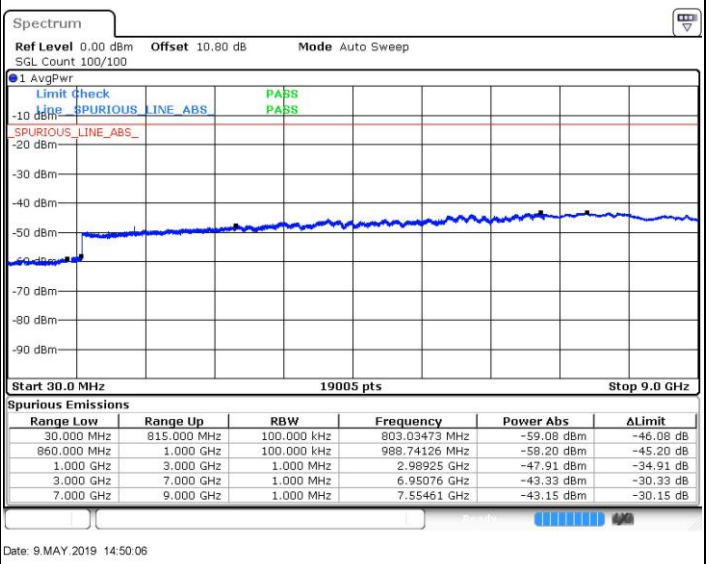
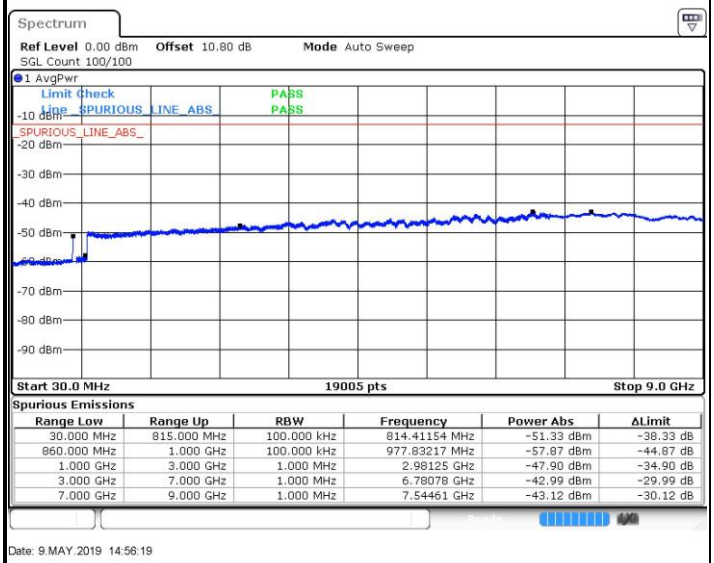
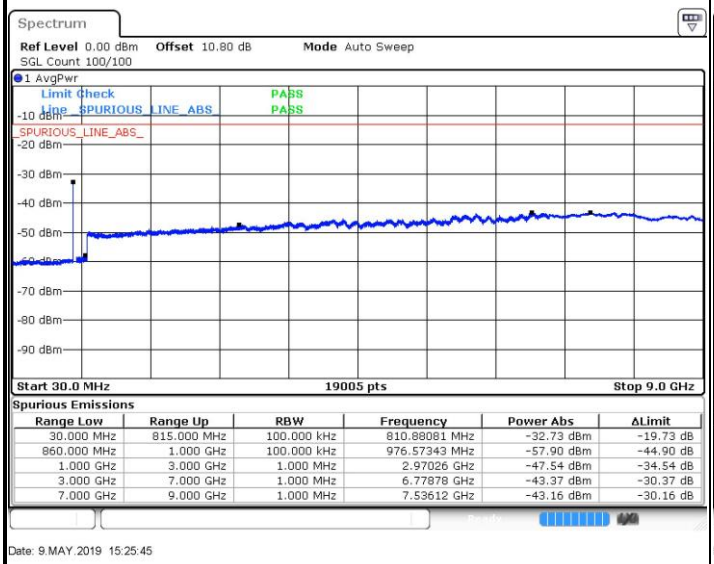
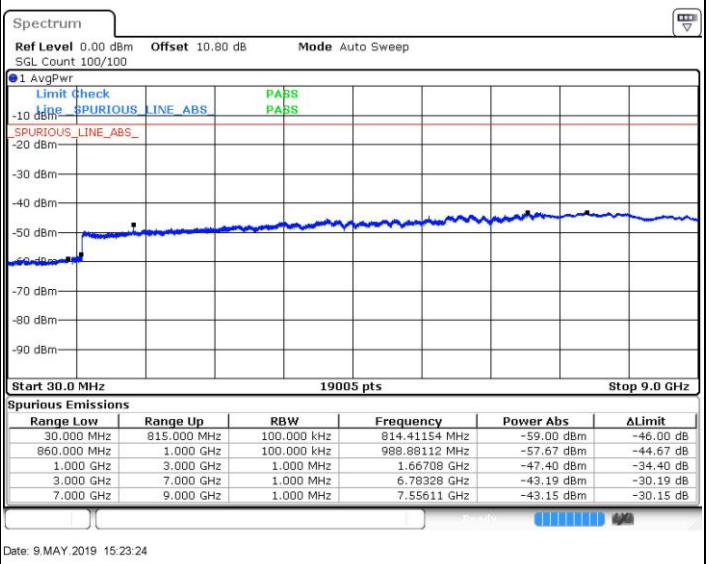
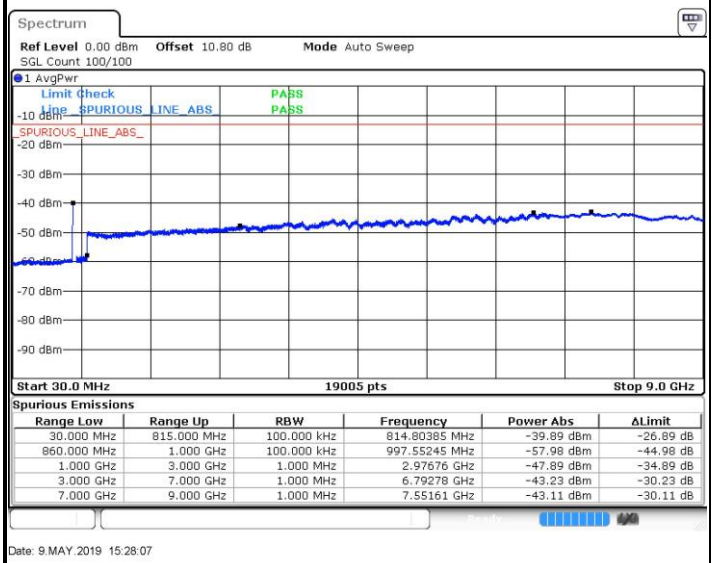
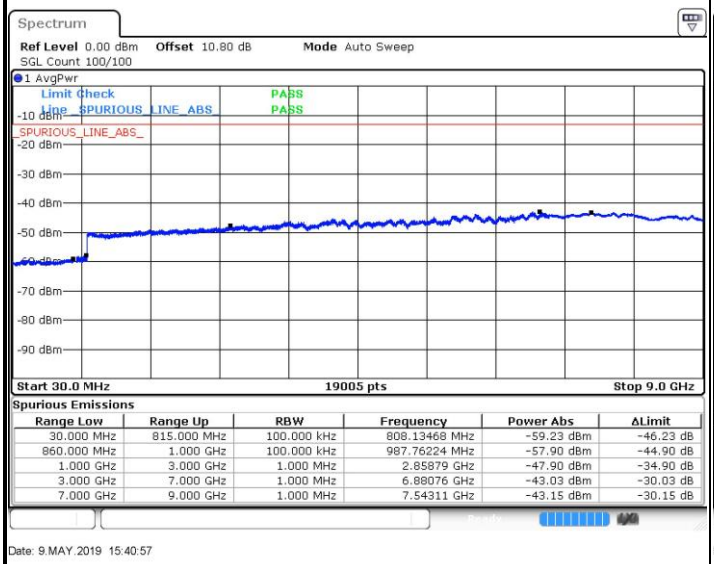
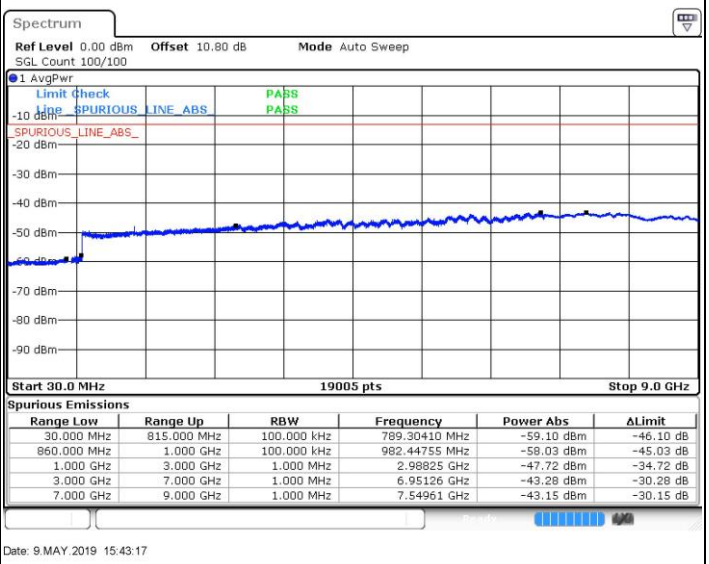
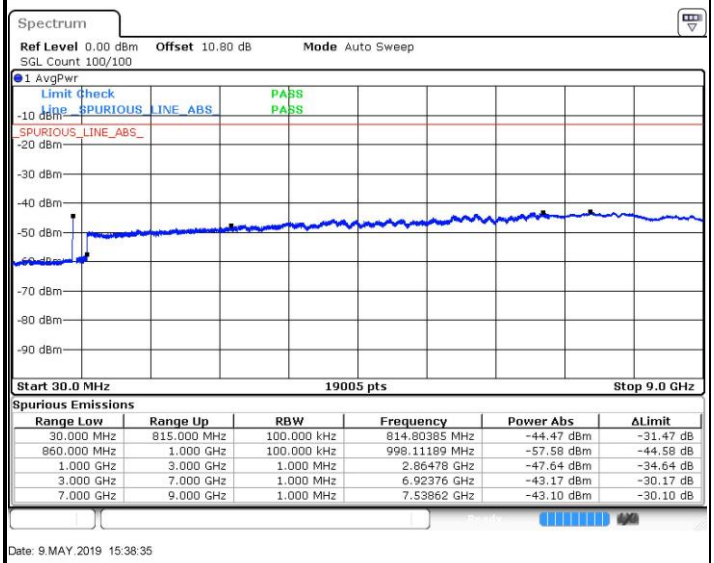
LTE Band 5 / 5MHz+3MHz	
16QAM	
Highest Channel / 1RB0 and 1RB14	Highest Channel / 1RB24 and 1RB0
	
Highest Channel / FullRB	N/A
	Intentionally blank

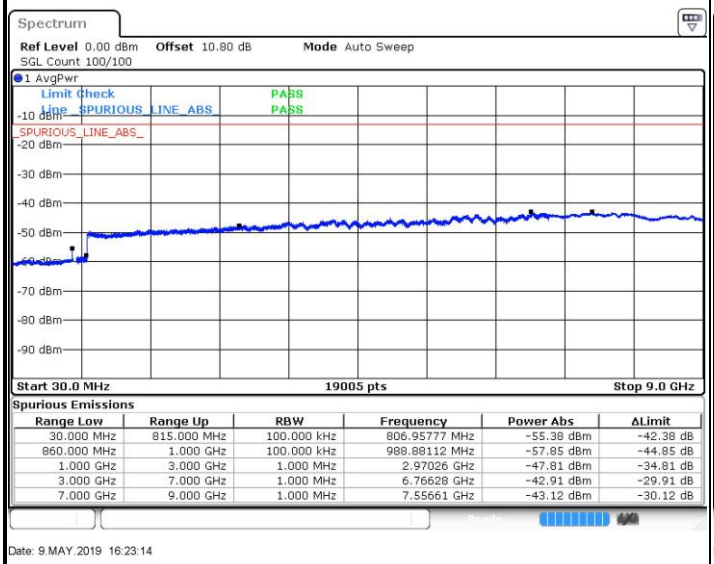
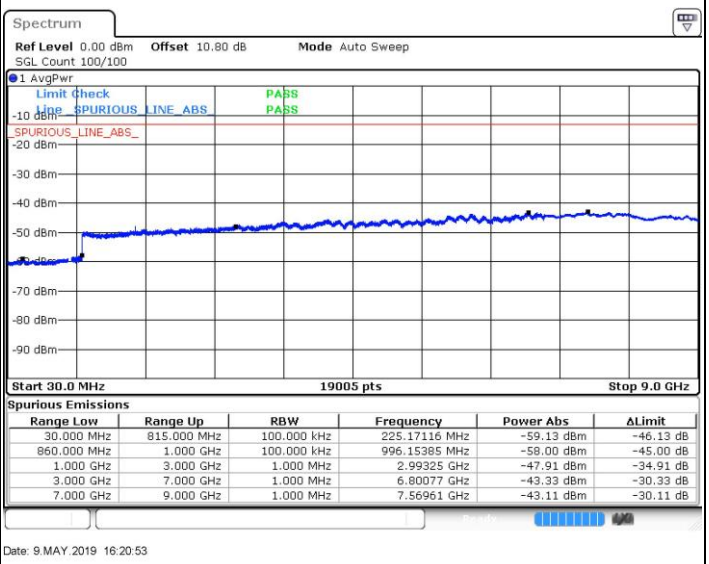
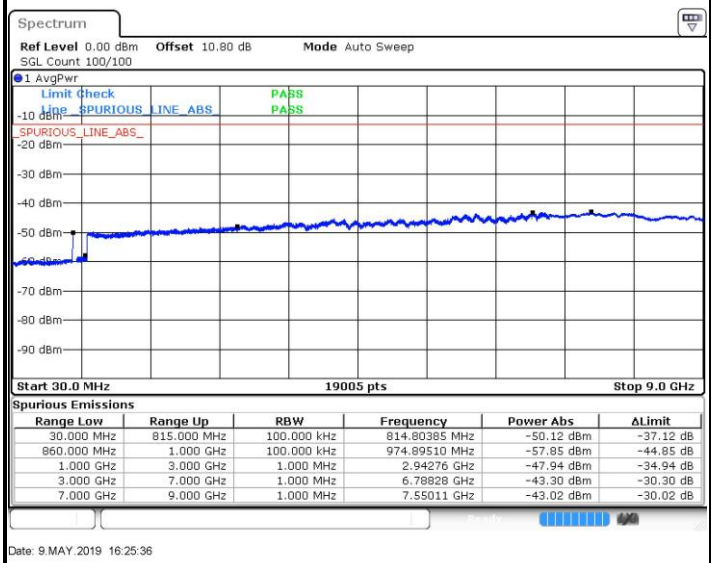
LTE Band 5 / 5MHz+10MHz	
16QAM	
Lowest Channel / 1RB0 and 1RB49	Lowest Channel / 1RB24 and 1RB0
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 815.000 MHz | 100.000 kHz | 810.88081 MHz | -32.75 dBm | -19.75 dB 860.000 MHz | 1.000 GHz | 100.000 kHz | 960.48951 MHz | -58.06 dBm | -45.06 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.94526 GHz | -47.95 dBm | -34.95 dB 3.000 GHz | 7.000 GHz | 1.000 MHz | 6.80177 GHz | -43.12 dBm | -30.12 dB 7.000 GHz | 9.000 GHz | 1.000 MHz | 7.54861 GHz | -43.11 dBm | -30.11 dB Date: 9.MAY.2019 11:46:02	 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 815.000 MHz | 100.000 kHz | 814.41154 MHz | -58.91 dBm | -45.91 dB 860.000 MHz | 1.000 GHz | 100.000 kHz | 985.52448 MHz | -57.83 dBm | -44.83 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 1.65859 GHz | -47.29 dBm | -34.29 dB 3.000 GHz | 7.000 GHz | 1.000 MHz | 6.79878 GHz | -43.05 dBm | -30.05 dB 7.000 GHz | 9.000 GHz | 1.000 MHz | 7.54711 GHz | -43.22 dBm | -30.22 dB Date: 9.MAY.2019 11:42:56
Lowest Channel / FullRB	N/A
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 815.000 MHz | 100.000 kHz | 814.80385 MHz | -40.18 dBm | -27.18 dB 860.000 MHz | 1.000 GHz | 100.000 kHz | 992.23776 MHz | -58.11 dBm | -45.11 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.99375 GHz | -47.92 dBm | -34.92 dB 3.000 GHz | 7.000 GHz | 1.000 MHz | 6.79278 GHz | -43.41 dBm | -30.41 dB 7.000 GHz | 9.000 GHz | 1.000 MHz | 7.54961 GHz | -43.18 dBm | -30.18 dB Date: 9.MAY.2019 11:49:09	**Intentionally blank**

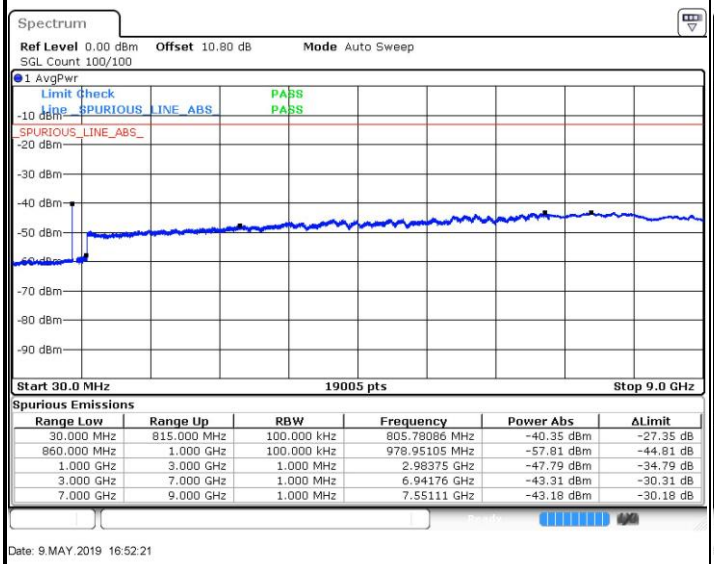
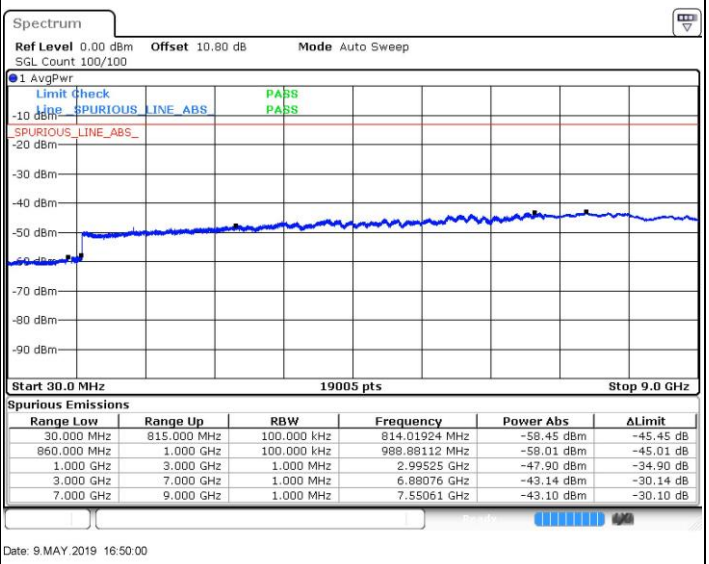
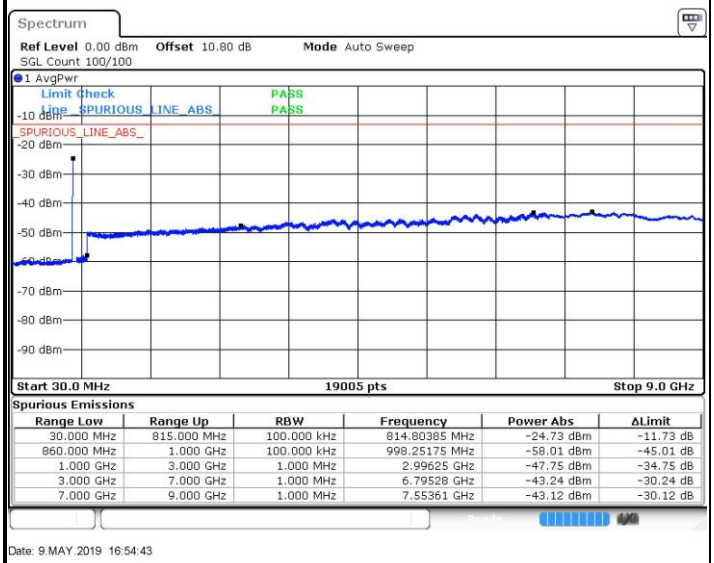
LTE Band 5 / 5MHz+10MHz	
16QAM	
Middle Channel / 1RB0 and 1RB49	Middle Channel / 1RB24 and 1RB0
	
Middle Channel / FullRB	N/A
	**Intentionally blank**

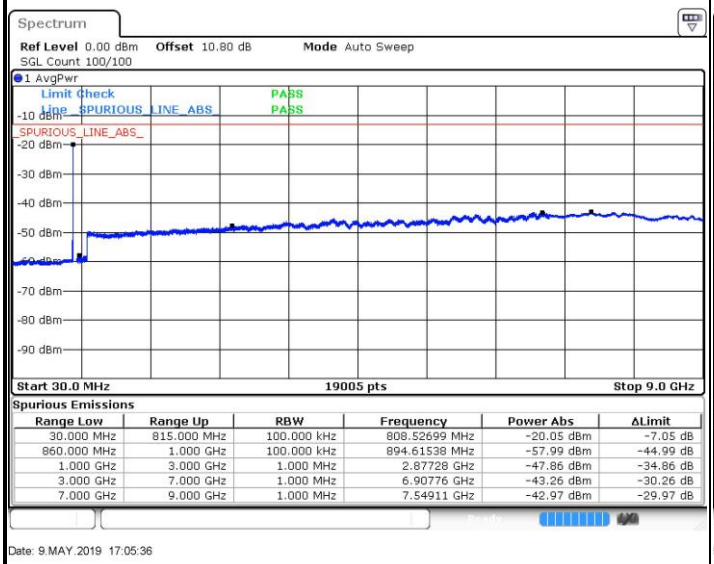
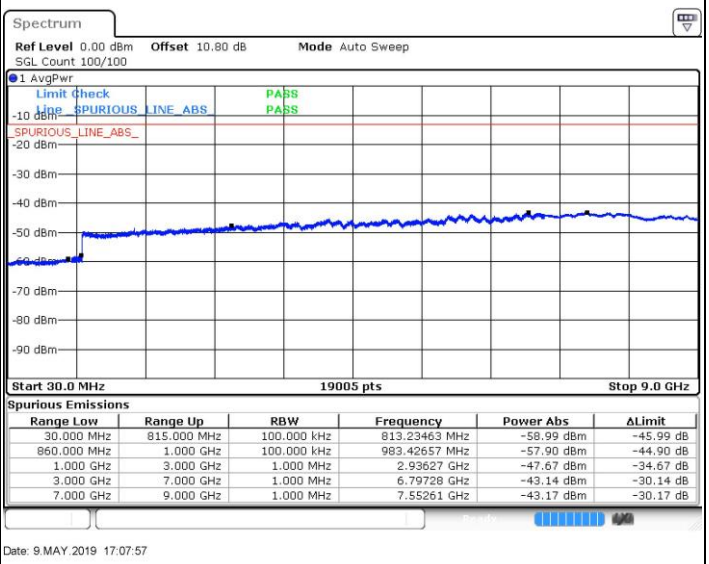
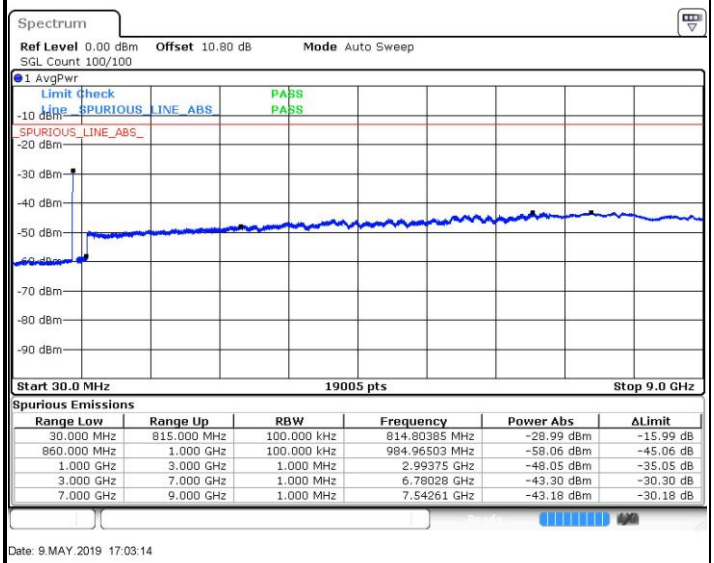
LTE Band 5 / 5MHz+10MHz	
16QAM	
Highest Channel / 1RB0 and 1RB49	Highest Channel / 1RB24 and 1RB0
	
Highest Channel / FullRB	N/A
	Intentionally blank

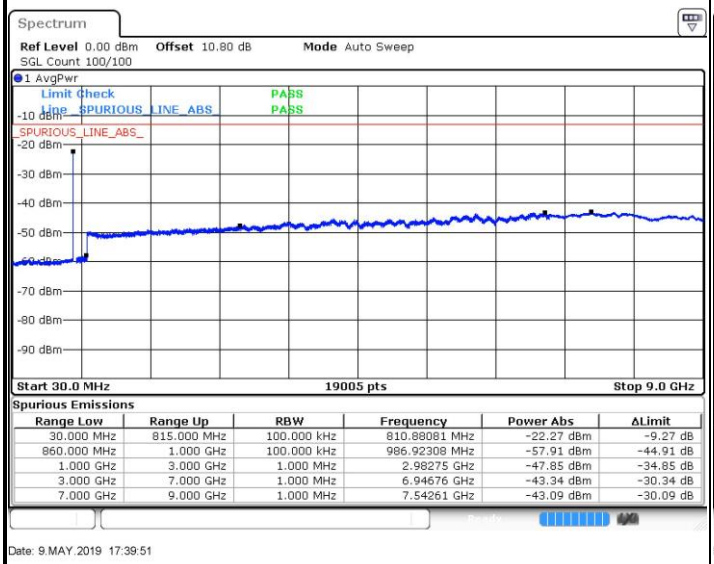
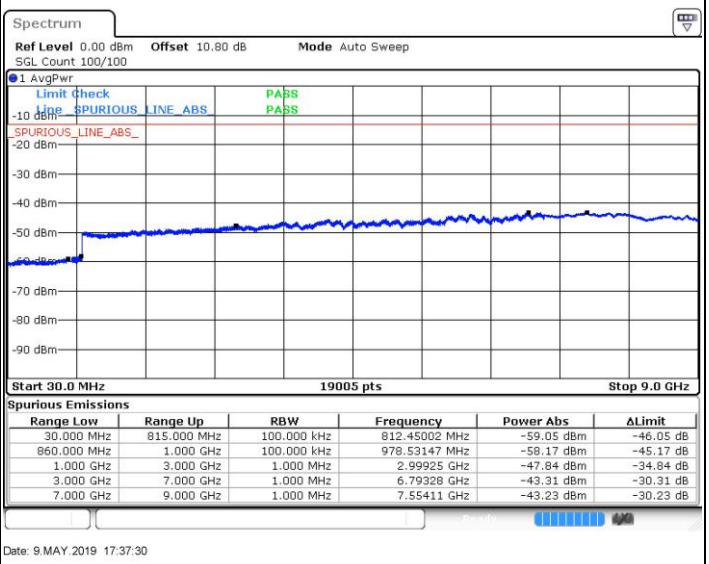
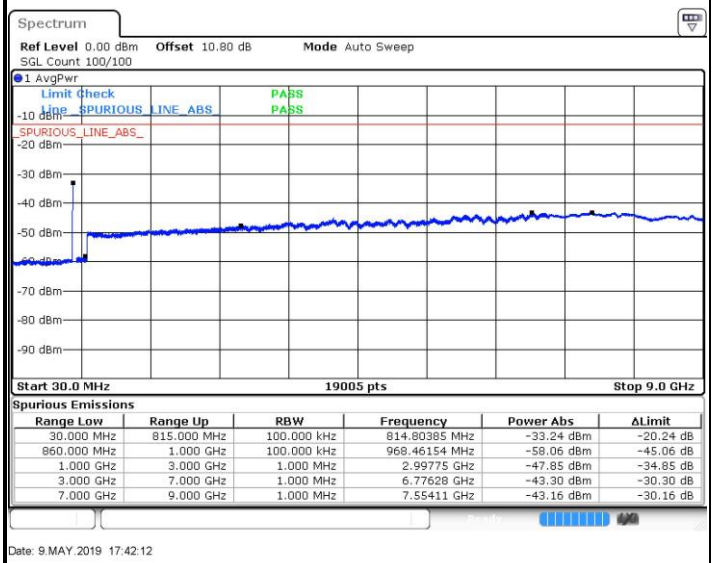
LTE Band 5 / 10MHz+5MHz	
16QAM	
Lowest Channel / 1RB0 and 1RB24	Lowest Channel / 1RB49 and 1RB0
	
Lowest Channel / FullRB	N/A
	**Intentionally blank**

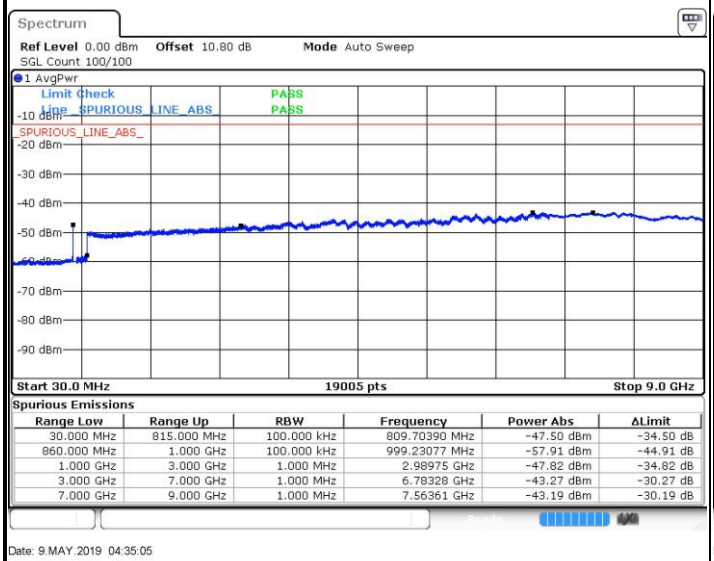
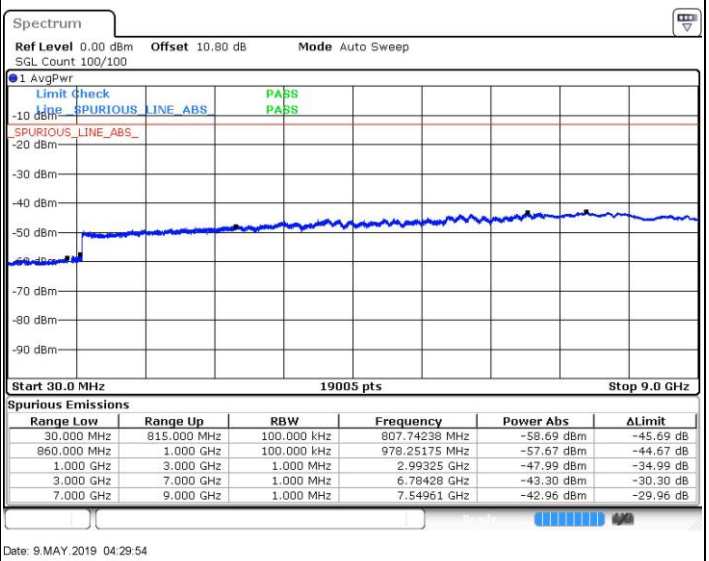
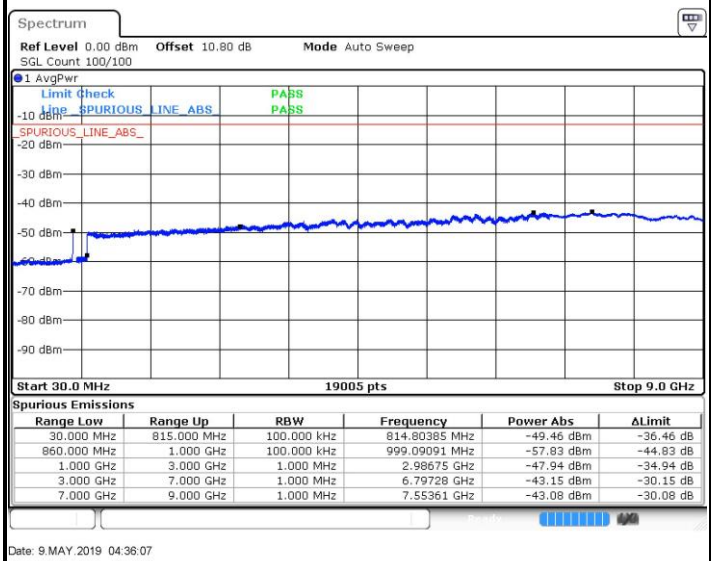
LTE Band 5 / 10MHz+5MHz	
16QAM	
Middle Channel / 1RB0 and 1RB24	Middle Channel / 1RB49 and 1RB0
	
Middle Channel / FullRB	N/A
	Intentionally blank

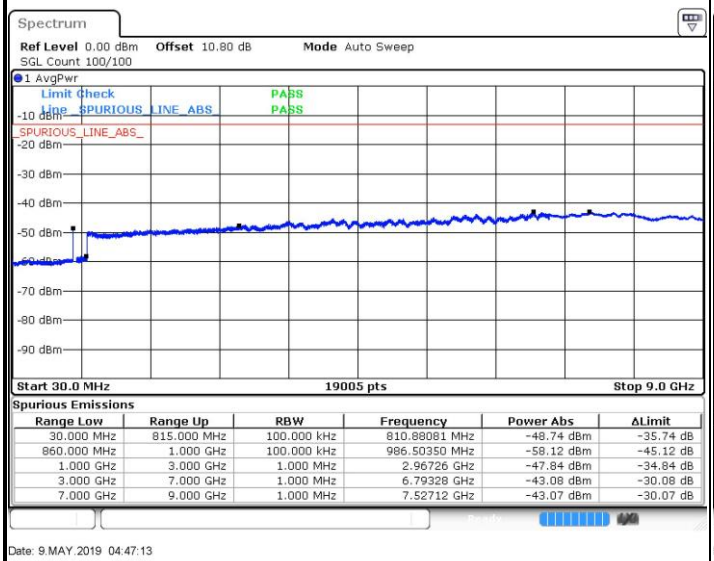
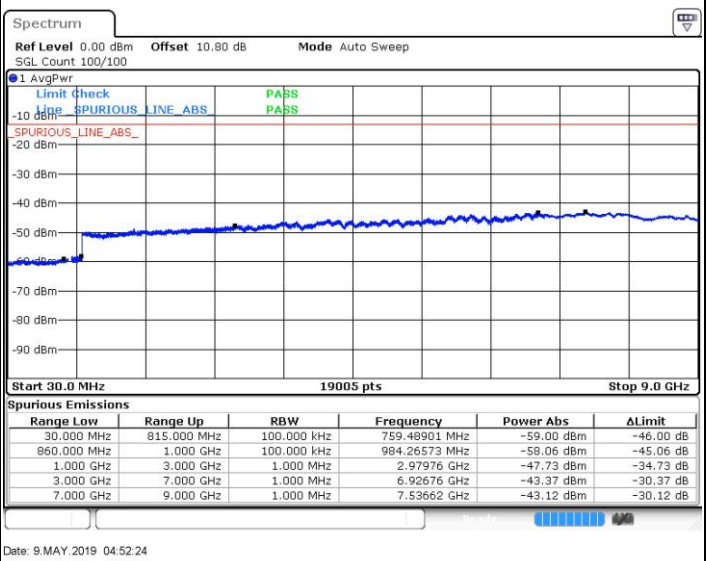
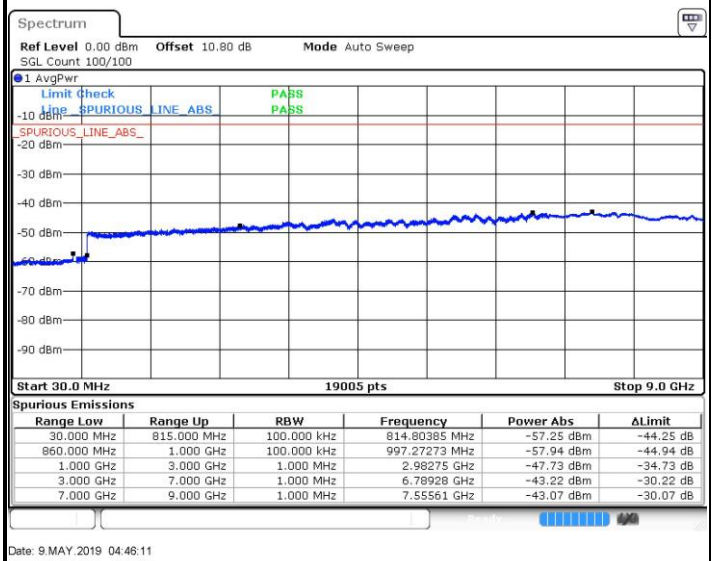
LTE Band 5 / 10MHz+5MHz	
16QAM	
Highest Channel / 1RB0 and 1RB24	Highest Channel / 1RB49 and 1RB0
	
Highest Channel / FullRB	N/A
	Intentionally blank

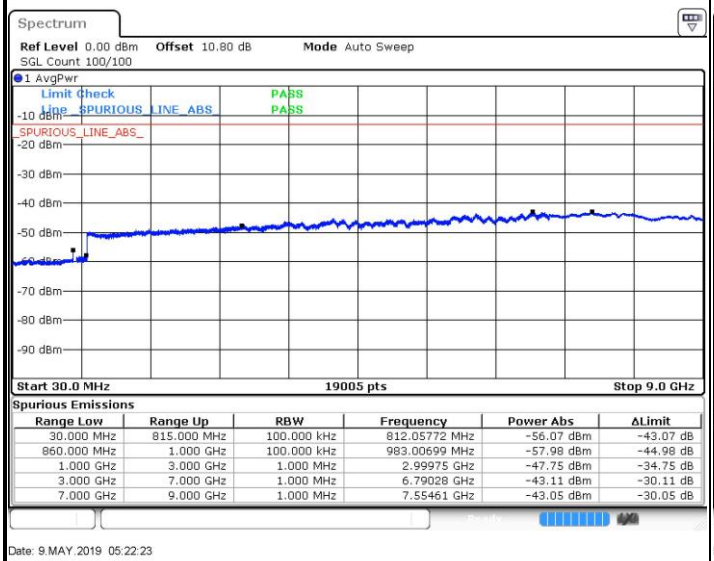
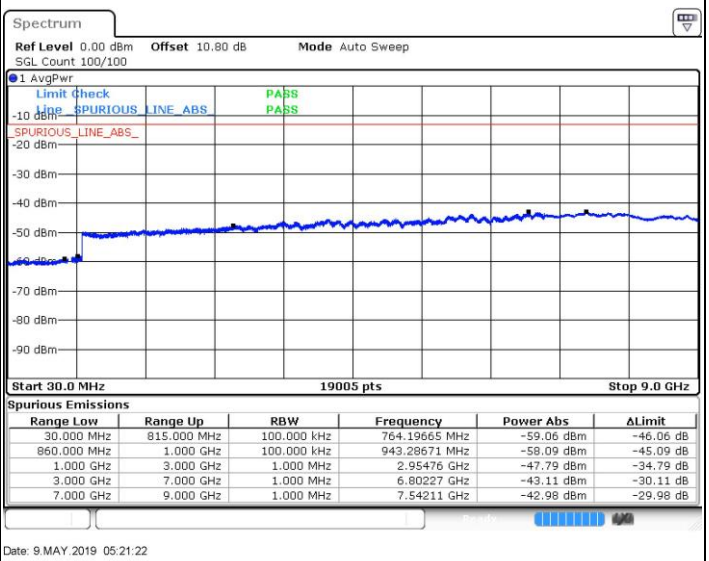
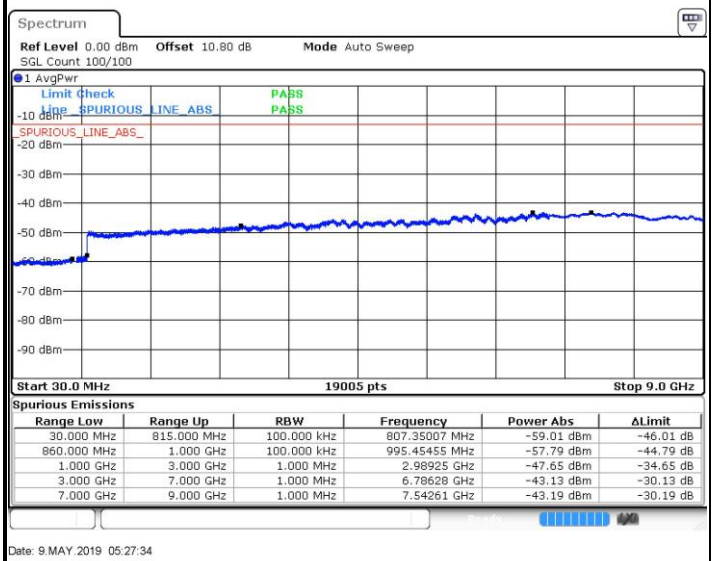
LTE Band 5 / 10MHz+10MHz	
16QAM	
Lowest Channel / 1RB0 and 1RB49	Lowest Channel / 1RB49 and 1RB0
	
Lowest Channel / FullRB	N/A
	Intentionally blank

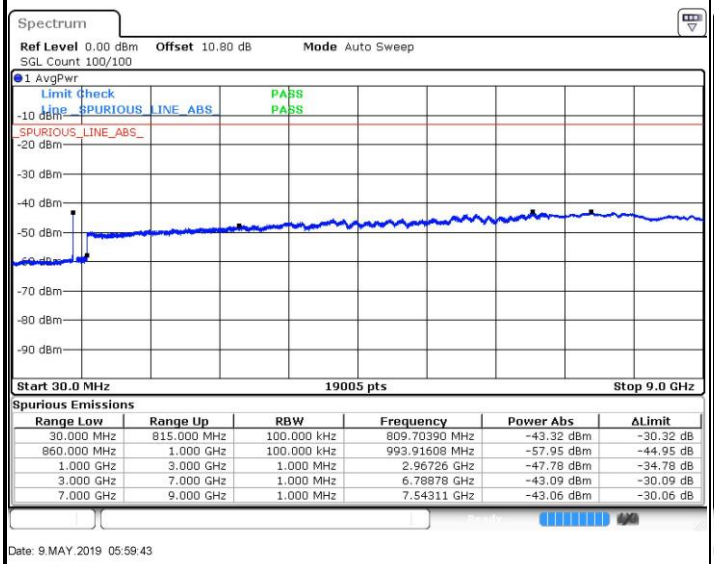
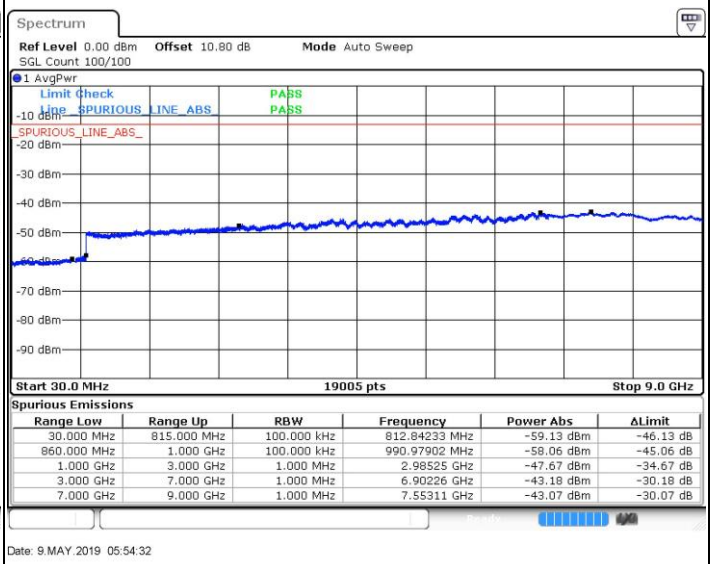
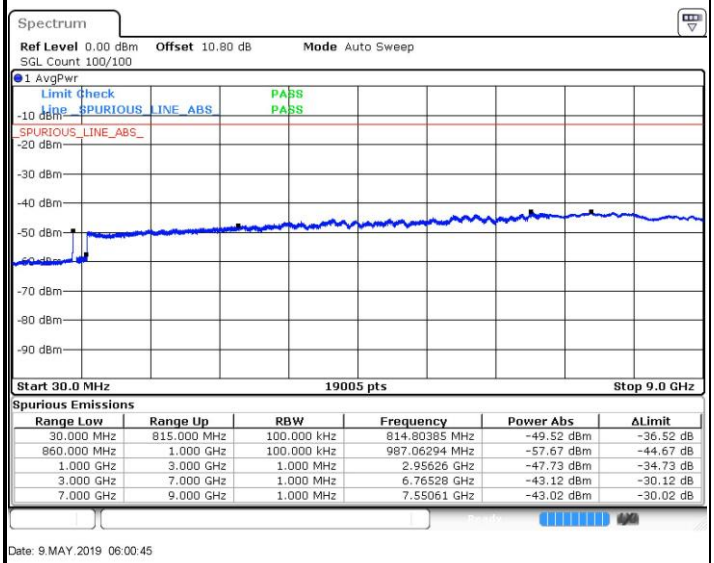
LTE Band 5 / 10MHz+10MHz	
16QAM	
Middle Channel / 1RB0 and 1RB49	Middle Channel / 1RB49 and 1RB0
	
Middle Channel / FullRB	N/A
	**Intentionally blank**

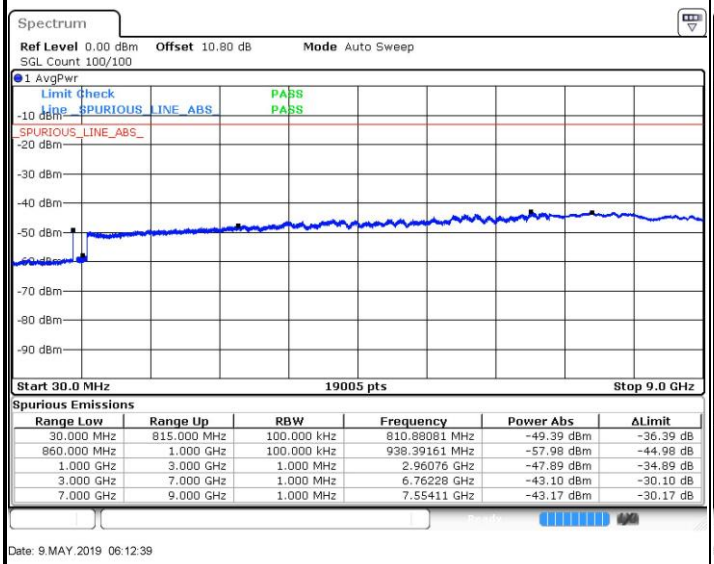
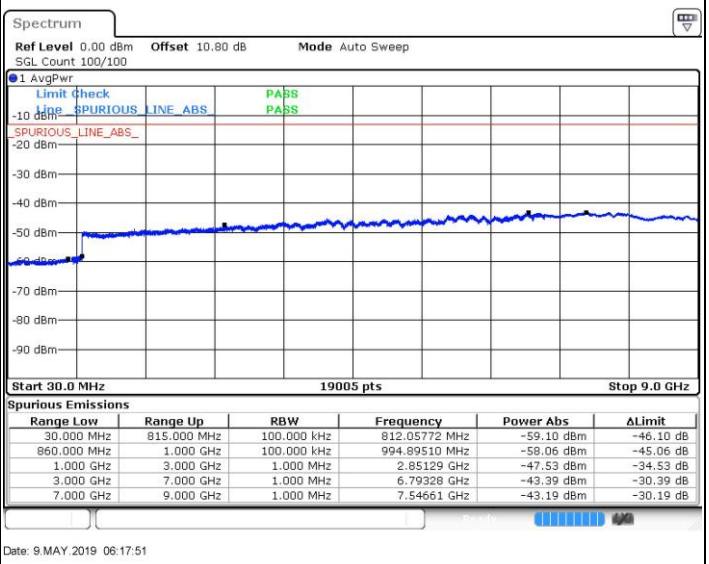
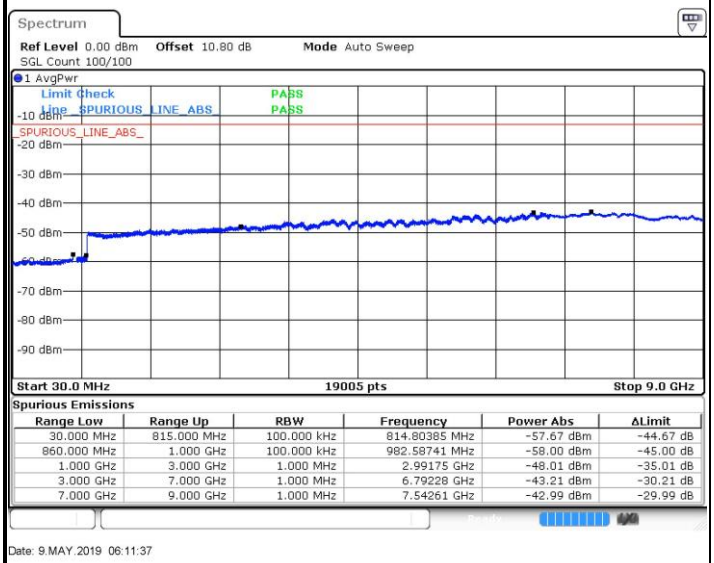
LTE Band 5 / 10MHz+10MHz	
16QAM	
Highest Channel / 1RB0 and 1RB49	Highest Channel / 1RB49 and 1RB0
	
Highest Channel / FullRB	N/A
	Intentionally blank

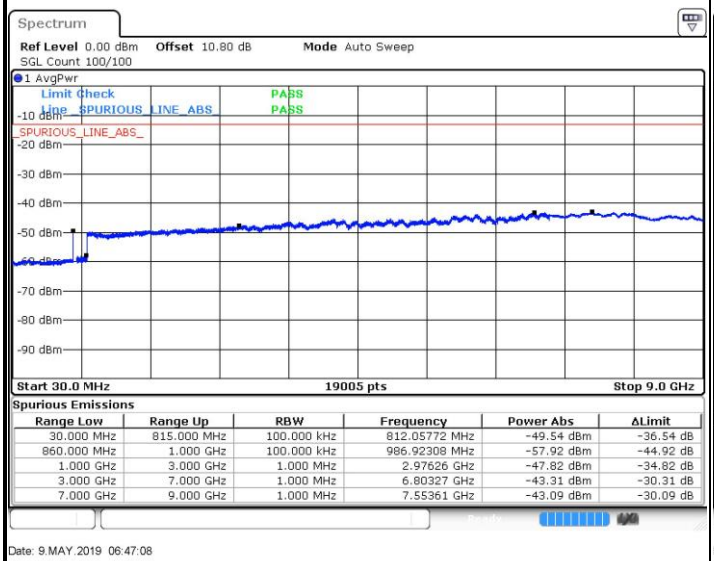
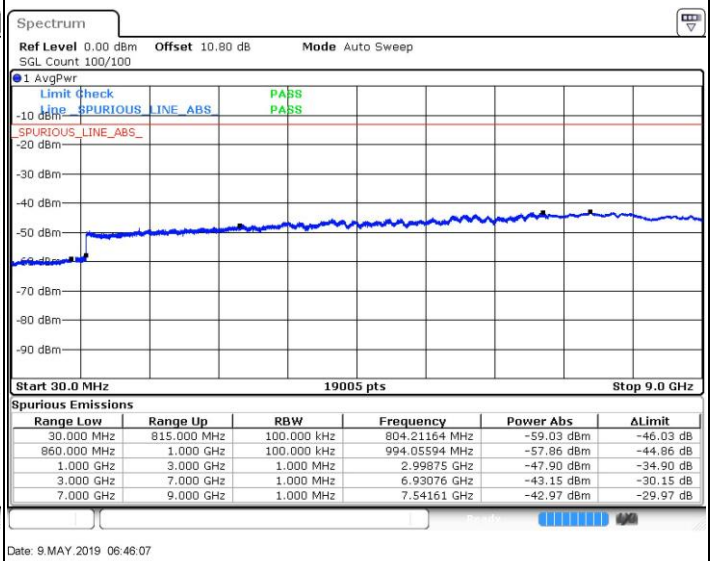
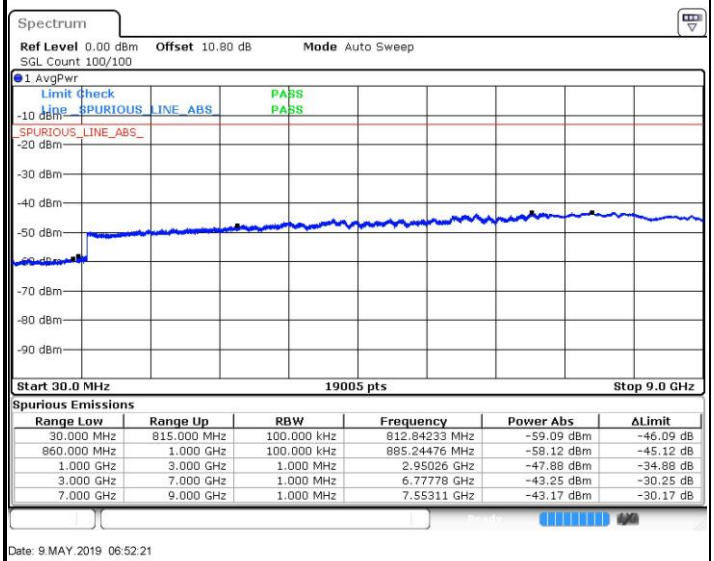
LTE Band 5 / 3MHz+5MHz	
64QAM	
Lowest Channel / 1RB0 and 1RB24	Lowest Channel / 1RB14 and 1RB0
	
Lowest Channel / FullRB	N/A
	Intentionally blank

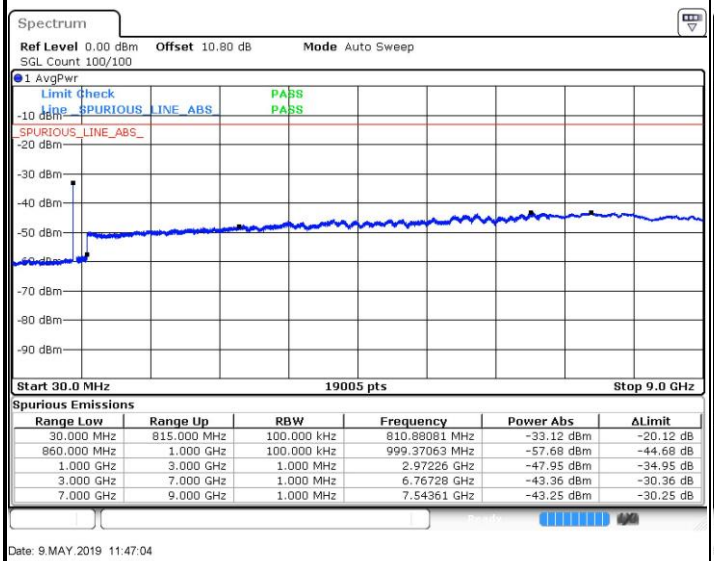
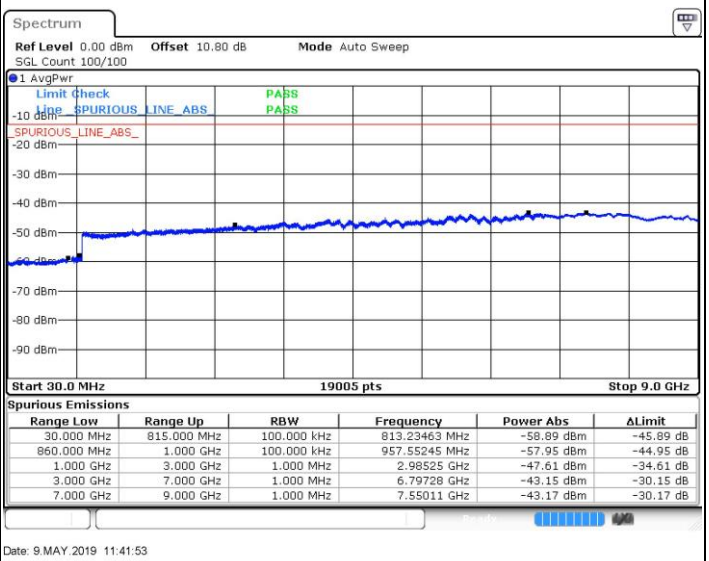
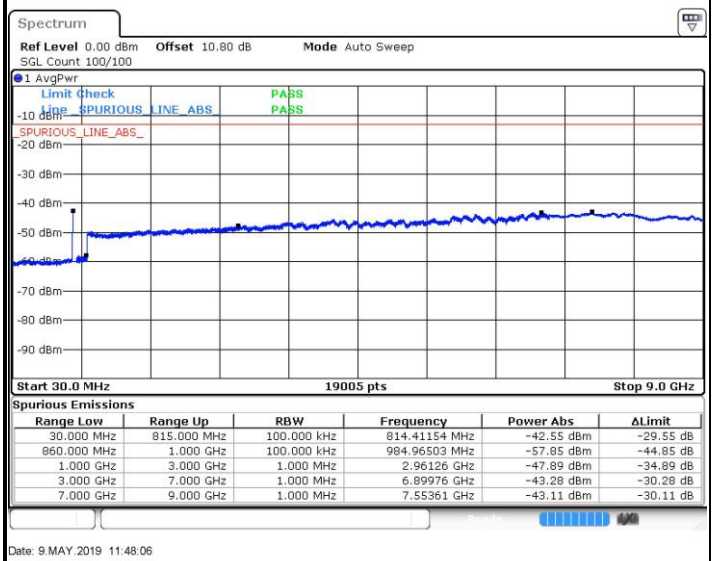
LTE Band 5 / 3MHz+5MHz	
64QAM	
MiddleChannel / 1RB0 and 1RB24	Middle Channel / 1RB14 and 1RB0
	
Middle Channel / FullRB	N/A
	**Intentionally blank**

LTE Band 5 / 3MHz+5MHz	
64QAM	
Highest Channel / 1RB0 and 1RB24	Highest Channel / 1RB14 and 1RB0
	
Highest Channel / FullRB	N/A
	Intentionally blank

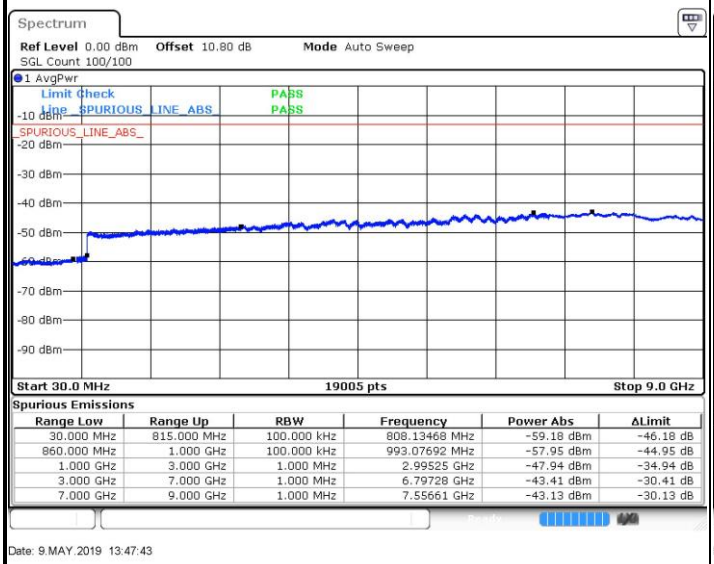
LTE Band 5 / 5MHz+3MHz	
64QAM	
Lowest Channel / 1RB0 and 1RB14	Lowest Channel / 1RB24 and 1RB0
	
Lowest Channel / FullRB	N/A
	Intentionally blank

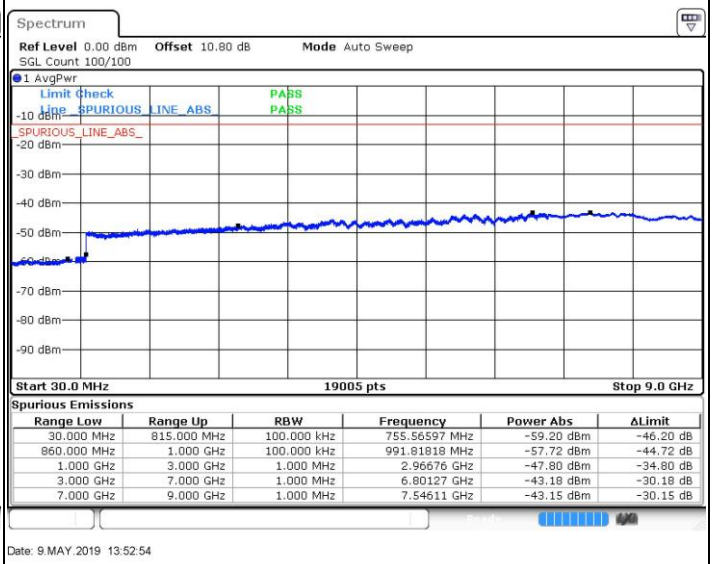
LTE Band 5 / 5MHz+3MHz	
64QAM	
Middle Channel / 1RB0 and 1RB14	Middle Channel / 1RB24 and 1RB0
	
Middle Channel / FullRB	N/A
	**Intentionally blank**

LTE Band 5 / 5MHz+3MHz	
64QAM	
Highest Channel / 1RB0 and 1RB14	Highest Channel / 1RB24 and 1RB0
	
Highest Channel / FullRB	N/A
	Intentionally blank

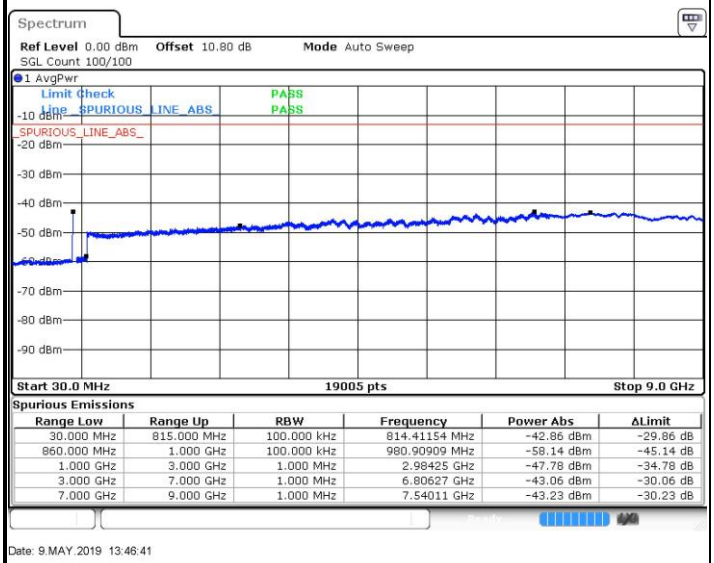
LTE Band 5 / 5MHz+10MHz	
64QAM	
Lowest Channel / 1RB0 and 1RB49	Lowest Channel / 1RB24 and 1RB0
	
Lowest Channel / FullRB	N/A
	**Intentionally blank**

LTE Band 5 / 5MHz+10MHz	
64QAM	
Middle Channel / 1RB0 and 1RB49	Middle Channel / 1RB24 and 1RB0

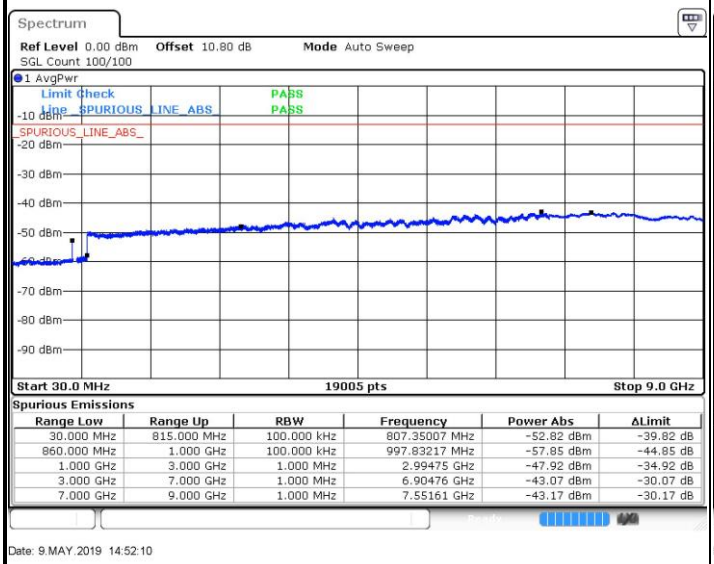
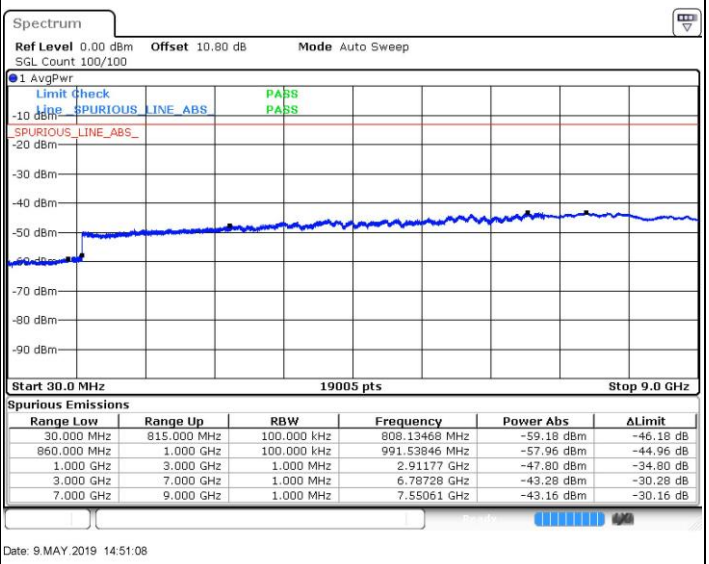
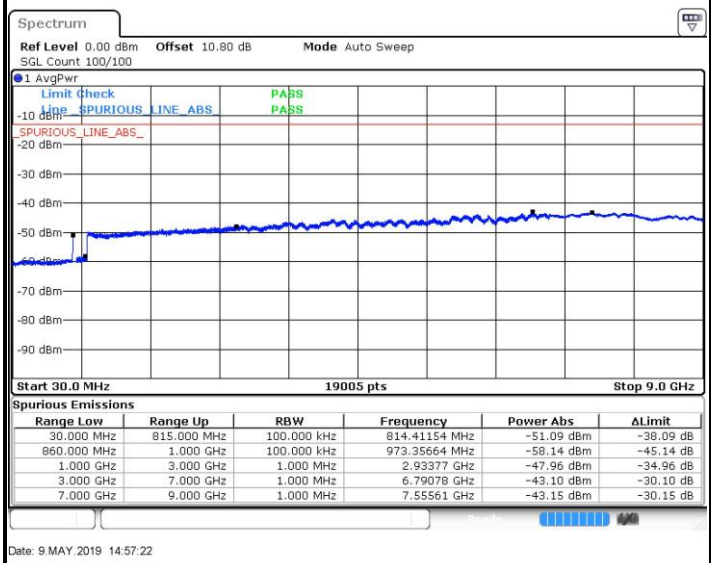


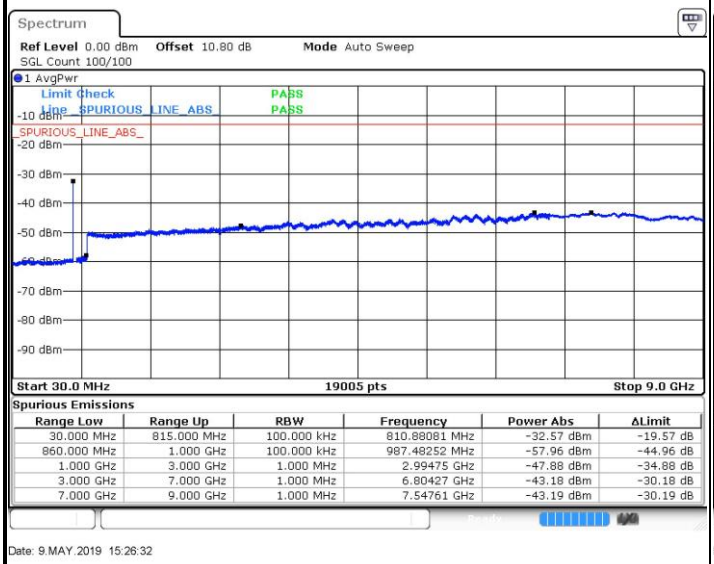
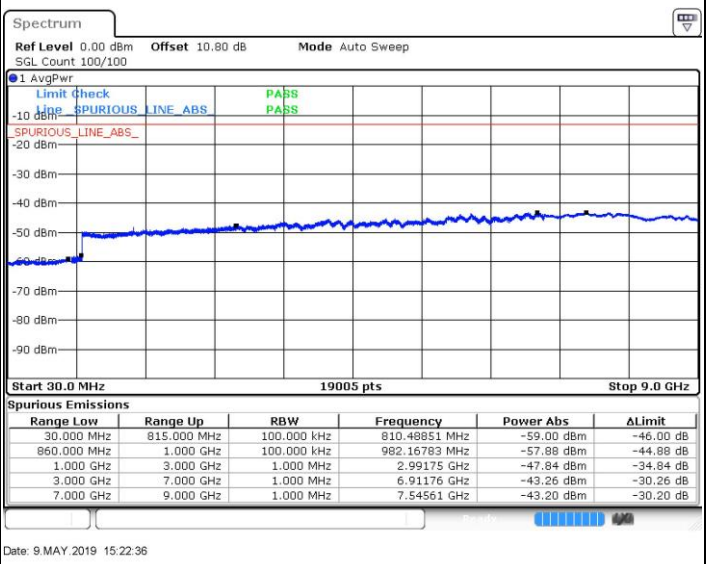
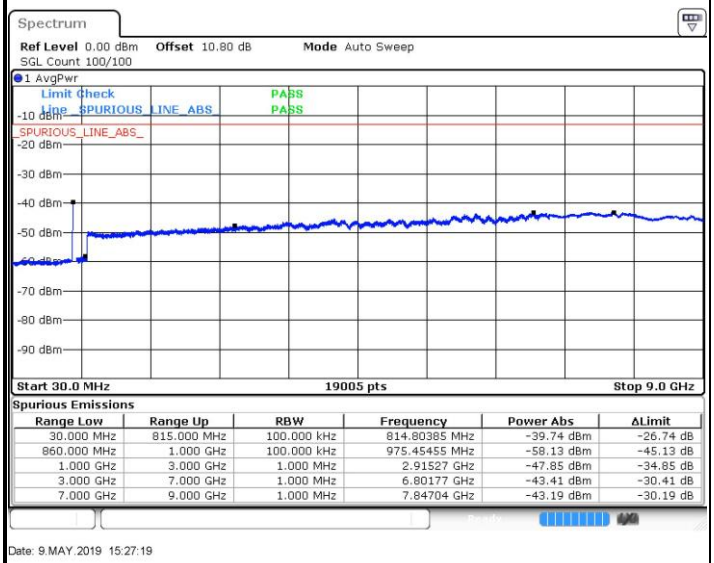


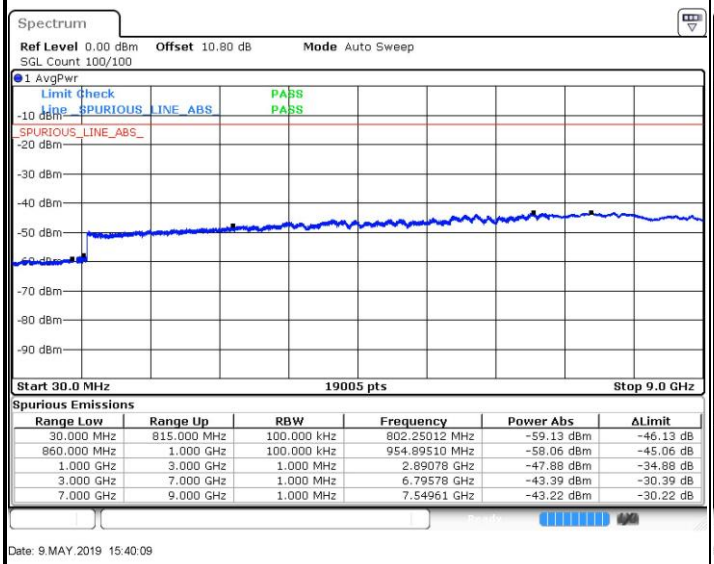
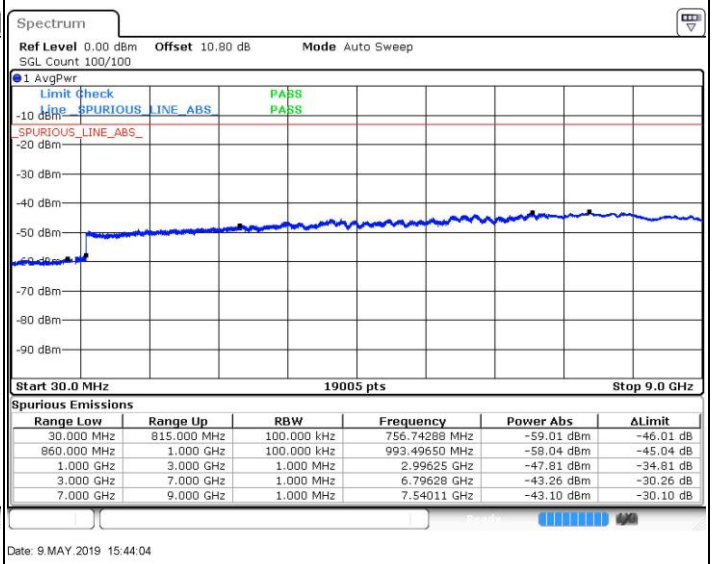
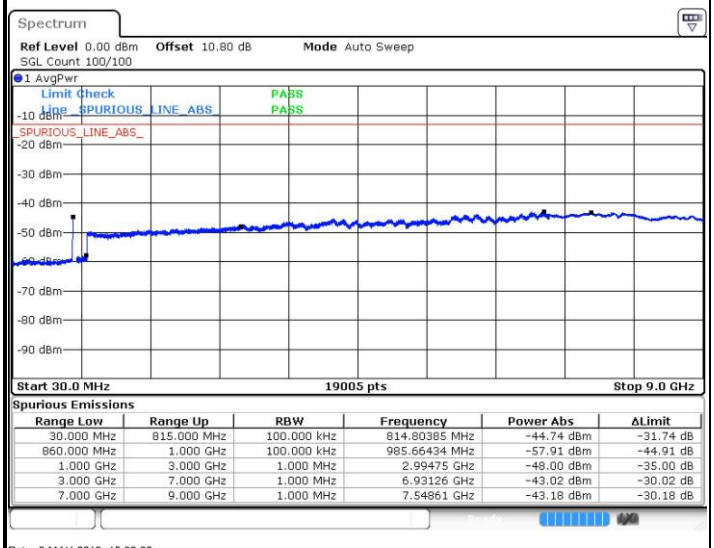
Middle Channel / FullRB	N/A

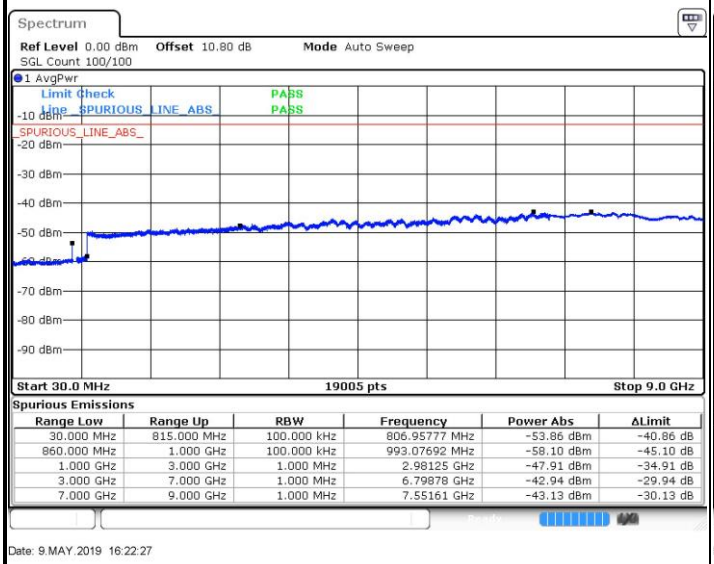
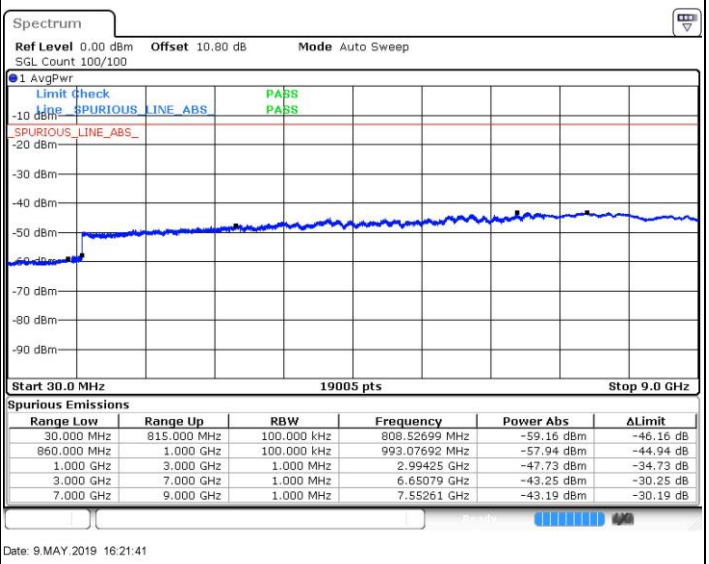
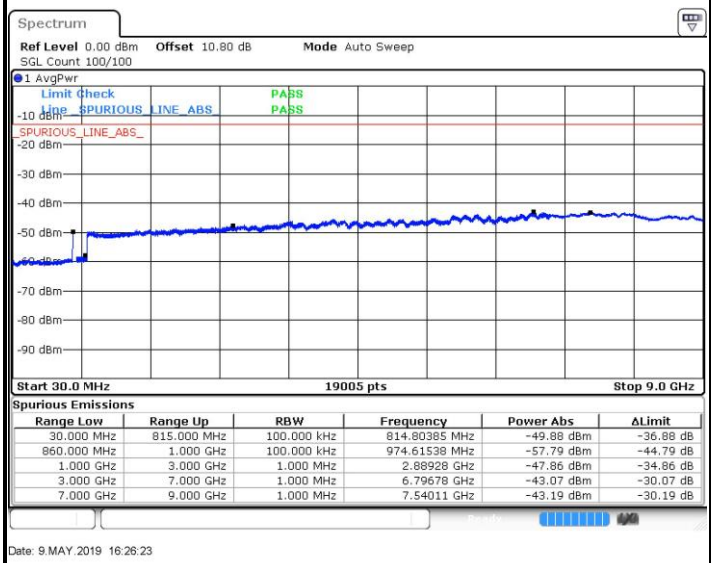


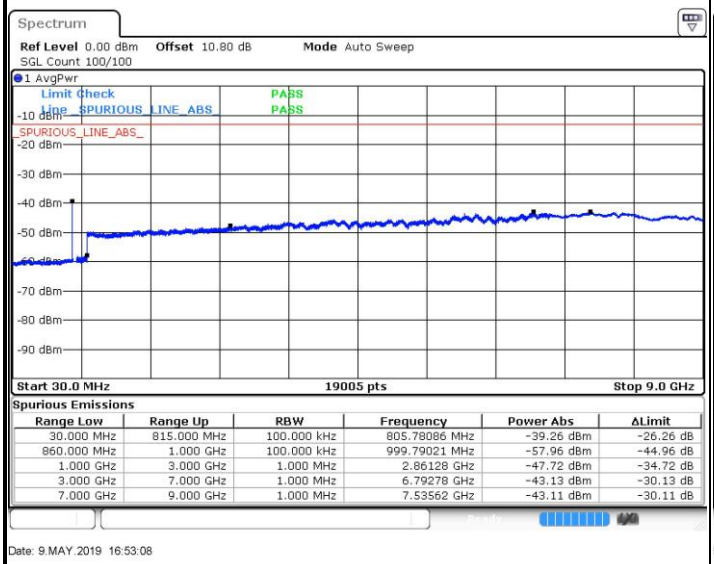
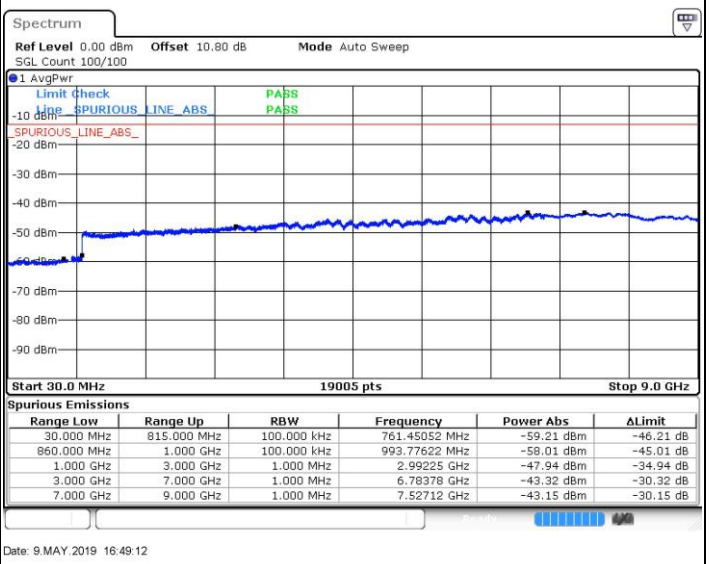
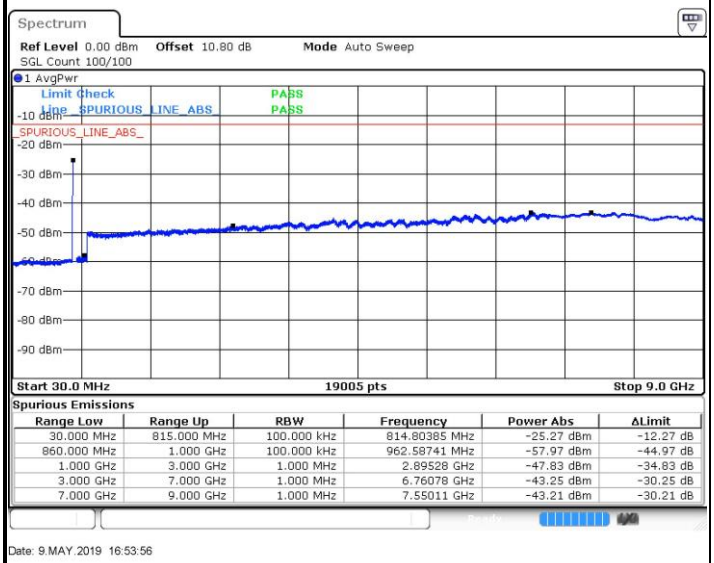
Intentionally blank

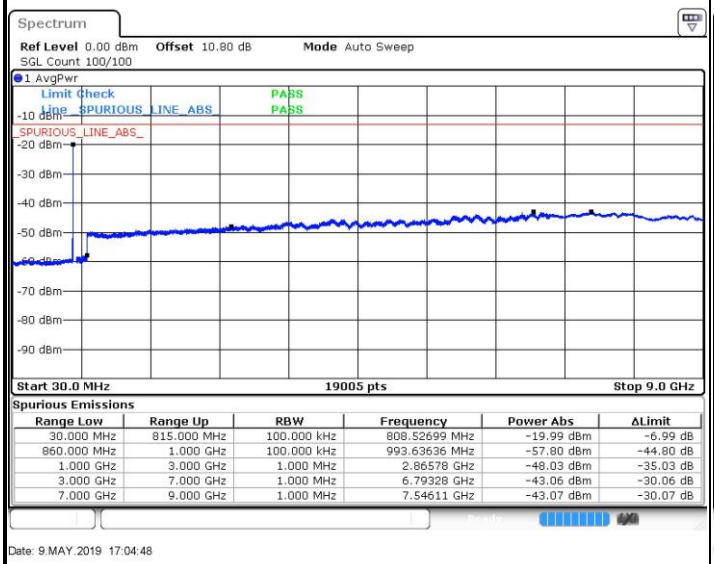
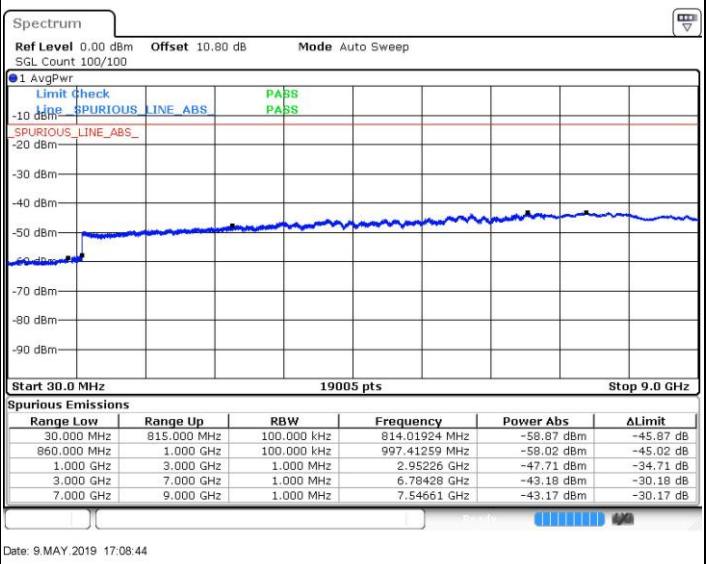
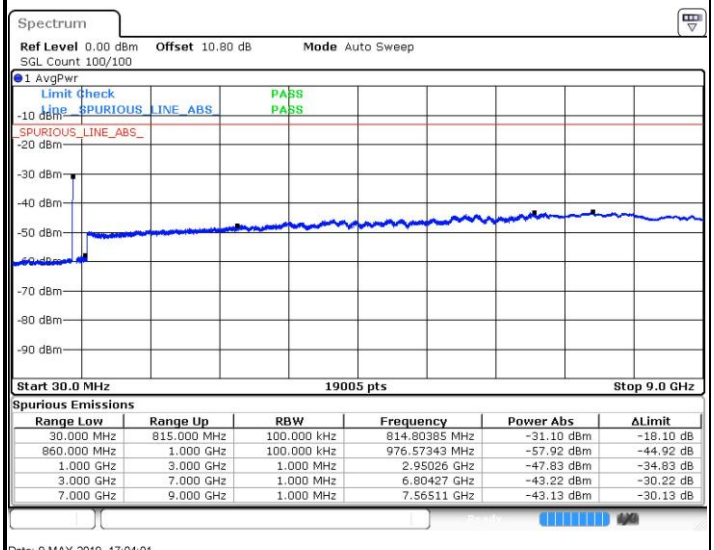
LTE Band 5 / 5MHz+10MHz	
64QAM	
Highest Channel / 1RB0 and 1RB49	Highest Channel / 1RB24 and 1RB0
	
Highest Channel / FullRB	N/A
	**Intentionally blank**

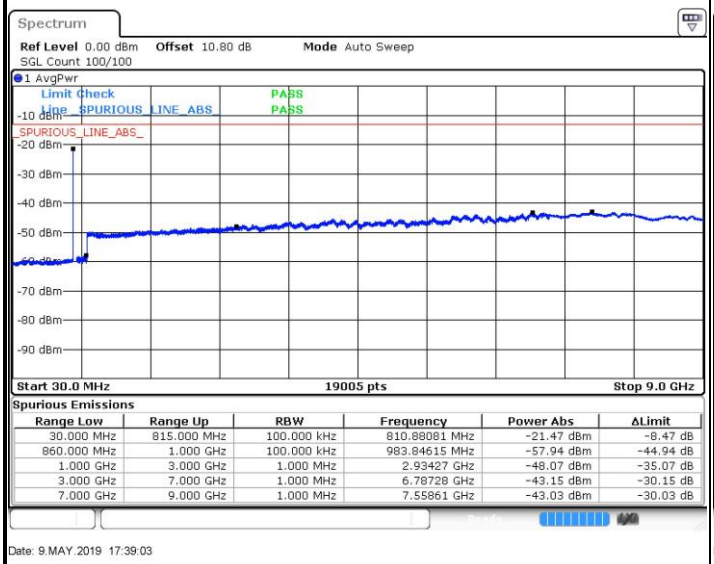
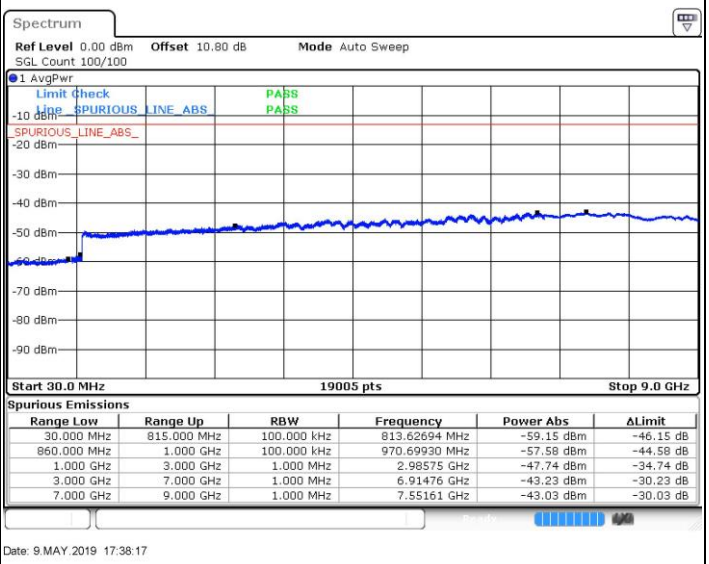
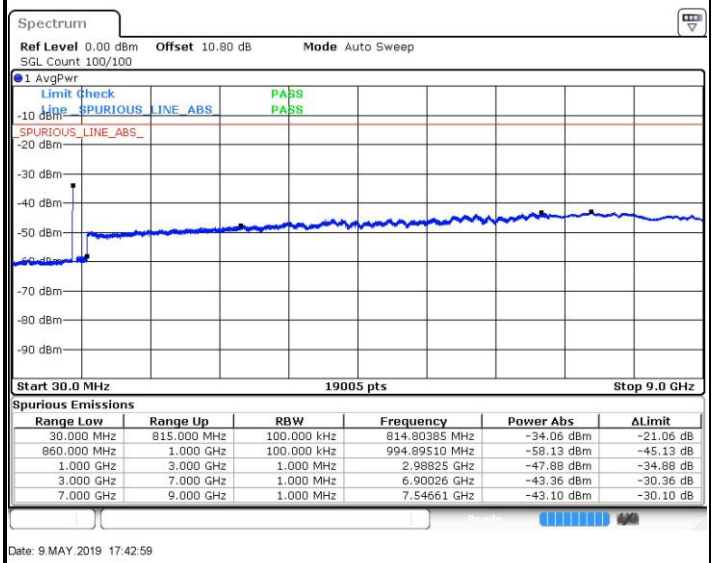
LTE Band 5 / 10MHz+5MHz	
64QAM	
Lowest Channel / 1RB0 and 1RB24	Lowest Channel / 1RB49 and 1RB0
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 815.000 MHz | 100.000 kHz | 810.88081 MHz | -32.57 dBm | -19.57 dB 860.000 MHz | 1.000 GHz | 100.000 kHz | 987.48252 MHz | -57.96 dBm | -44.96 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.99475 GHz | -47.88 dBm | -34.88 dB 3.000 GHz | 7.000 GHz | 1.000 MHz | 6.80427 GHz | -43.18 dBm | -30.18 dB 7.000 GHz | 9.000 GHz | 1.000 MHz | 7.54761 GHz | -43.19 dBm | -30.19 dB Date: 9.MAY.2019 15:26:32	 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 815.000 MHz | 100.000 kHz | 810.48851 MHz | -59.00 dBm | -46.00 dB 860.000 MHz | 1.000 GHz | 100.000 kHz | 982.16783 MHz | -57.88 dBm | -44.88 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.99175 GHz | -47.84 dBm | -34.84 dB 3.000 GHz | 7.000 GHz | 1.000 MHz | 6.91176 GHz | -43.26 dBm | -30.26 dB 7.000 GHz | 9.000 GHz | 1.000 MHz | 7.54561 GHz | -43.20 dBm | -30.20 dB Date: 9.MAY.2019 15:22:36
Lowest Channel / FullRB	N/A
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 815.000 MHz | 100.000 kHz | 814.80385 MHz | -39.74 dBm | -26.74 dB 860.000 MHz | 1.000 GHz | 100.000 kHz | 975.45455 MHz | -58.13 dBm | -45.13 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.91527 GHz | -47.85 dBm | -34.85 dB 3.000 GHz | 7.000 GHz | 1.000 MHz | 6.80177 GHz | -43.41 dBm | -30.41 dB 7.000 GHz | 9.000 GHz | 1.000 MHz | 7.84704 GHz | -43.19 dBm | -30.19 dB Date: 9.MAY.2019 15:27:19	**Intentionally blank**

LTE Band 5 / 10MHz+5MHz	
64QAM	
Middle Channel / 1RB0 and 1RB24	Middle Channel / 1RB49 and 1RB0
	
Middle Channel / FullRB	N/A
	**Intentionally blank**

LTE Band 5 / 10MHz+5MHz	
64QAM	
Highest Channel / 1RB0 and 1RB24	Highest Channel / 1RB49 and 1RB0
	
Highest Channel / FullRB	N/A
	Intentionally blank

LTE Band 5 / 10MHz+10MHz	
64QAM	
Lowest Channel / 1RB0 and 1RB49	Lowest Channel / 1RB49 and 1RB0
	
Lowest Channel / FullRB	N/A
	Intentionally blank

LTE Band 5 / 10MHz+10MHz	
64QAM	
Middle Channel / 1RB0 and 1RB49	Middle Channel / 1RB49 and 1RB0
	
Middle Channel / FullRB	N/A
	**Intentionally blank**

LTE Band 5 / 10MHz+10MHz	
64QAM	
Highest Channel / 1RB0 and 1RB49	Highest Channel / 1RB49 and 1RB0
	
Highest Channel / FullRB	N/A
	Intentionally blank

Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MMHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0023	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0020	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note:

1. Normal Voltage =3.8 V.；Battery End Point (BEP) =3.3 V.；Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of ERP and Radiated Test

ERP

LTE Band 5_CA / 10 + 10 MHz (GT - LC = 0 dB)									
Channel	Mode	PCC RB		SCC RB		Conducted		ERP	
		Size	Offset	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	0	0	24.05	0.2541	21.9	0.1549
Middle		1	0	0	0	23.85	0.2427	21.7	0.1479
Highest		1	0	0	0	23.61	0.2296	21.46	0.14
Lowest	16QAM	1	0	0	0	23.61	0.2296	21.46	0.14
Middle		1	0	0	0	23.16	0.207	21.01	0.1262
Highest		1	0	0	0	23.03	0.2009	20.88	0.1225
Lowest	64QAM	1	0	0	0	22.35	0.1718	20.2	0.1047
Middle		1	0	0	0	22.11	0.1626	19.96	0.0991
Highest		1	0	0	0	21.83	0.1524	19.68	0.0929
Limit	ERP < 7W					Result		PASS	

LTE Band 5_CA / 10 + 5 MHz (GT - LC = 0 dB)									
Channel	Mode	PCC RB		SCC RB		Conducted		ERP	
		Size	Offset	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	49	1	0	24.13	0.2588	21.98	0.1578
Middle		1	49	1	0	23.89	0.2449	21.74	0.1493
Highest		1	49	1	0	23.27	0.2123	21.12	0.1294
Lowest	16QAM	1	49	1	0	23.45	0.2213	21.3	0.1349
Middle		1	49	1	0	23.19	0.2084	21.04	0.1271
Highest		1	49	1	0	22.66	0.1845	20.51	0.1125
Lowest	64QAM	1	49	1	0	21.35	0.1365	19.2	0.0832
Middle		1	49	1	0	21	0.1259	18.85	0.0767
Highest		1	49	1	0	19.68	0.0929	17.53	0.0566
Limit	ERP < 7W					Result		PASS	

LTE Band 5_CA / 5 + 10 MHz (GT - LC = 0 dB)									
Channel	Mode	PCC RB		SCC RB		Conducted		ERP	
		Size	Offset	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	24	1	0	24.09	0.2564	21.94	0.1563
Middle		1	24	1	0	23.95	0.2483	21.8	0.1514
Highest		1	24	1	0	23.68	0.2333	21.53	0.1422
Lowest	16QAM	1	24	1	0	23.19	0.2084	21.04	0.1271
Middle		1	24	1	0	23.41	0.2193	21.26	0.1337
Highest		1	24	1	0	22.98	0.1986	20.83	0.1211
Lowest	64QAM	1	24	1	0	20.52	0.1127	18.37	0.0687
Middle		1	24	1	0	21.31	0.1352	19.16	0.0824
Highest		1	24	1	0	20.99	0.1256	18.84	0.0766
Limit	ERP < 7W					Result		PASS	

LTE Band 5_CA / 5 + 3 MHz (GT - LC = 0 dB)									
Channel	Mode	PCC RB		SCC RB		Conducted		ERP	
		Size	Offset	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	24	1	0	22.05	0.1603	19.9	0.0977
Middle		1	24	1	0	21.72	0.1486	19.57	0.0906
Highest		1	24	1	0	21.2	0.1318	19.05	0.0804
Lowest	16QAM	1	24	1	0	21.56	0.1432	19.41	0.0873
Middle		1	24	1	0	21.06	0.1276	18.91	0.0778
Highest		1	24	1	0	20.56	0.1138	18.41	0.0693
Lowest	64QAM	1	24	1	0	20.41	0.1099	18.26	0.067
Middle		1	24	1	0	20.98	0.1253	18.83	0.0764
Highest		1	24	1	0	20.1	0.1023	17.95	0.0624
Limit	ERP < 7W					Result		PASS	

LTE Band 5_CA / 3 + 5 MHz (GT - LC = 0 dB)									
Channel	Mode	PCC RB		SCC RB		Conducted		ERP	
		Size	Offset	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	15	0	25	0	21.77	0.1503	19.62	0.0916
Middle		15	0	25	0	21.94	0.1563	19.79	0.0953
Highest		15	0	25	0	21.35	0.1365	19.2	0.0832
Lowest	16QAM	1	14	1	0	21.23	0.1327	19.08	0.0809
Middle		1	14	1	0	21.14	0.13	18.99	0.0793
Highest		1	14	1	0	20.59	0.1146	18.44	0.0698
Lowest	64QAM	15	0	25	0	20.16	0.1038	18.01	0.0632
Middle		15	0	25	0	20.92	0.1236	18.77	0.0753
Highest		15	0	25	0	19.83	0.0962	17.68	0.0586
Limit	ERP < 7W					Result		PASS	

Radiated Spurious Emission

Mode 5 LTE ULCA_5B_10M 1RB49 QPSK+5M 1RB0 QPSK

LTE ULCA_5B_10M 1RB49 QPSK+5M 1RB0 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)
Low	1664	-62.66	-13	-49.66	-75.01	-64.37	0.98	4.84	H
	2504	-57.36	-13	-44.36	-74.78	-59.32	1.29	5.40	H
	3336	-57.94	-13	-44.94	-77.6	-61.52	1.55	7.28	H
	1664	-62.33	-13	-49.33	-75.16	-64.04	0.98	4.84	V
	2504	-55.32	-13	-42.32	-73.22	-57.28	1.29	5.40	V
	3336	-57.66	-13	-44.66	-77.54	-61.24	1.55	7.28	V
Middle	1678	-62.36	-13	-49.36	-75.12	-64.02	0.99	4.80	H
	2517	-59.07	-13	-46.07	-76.79	-61.04	1.30	5.41	H
	3356	-57.47	-13	-44.47	-77.54	-61.13	1.56	7.37	H
	1678	-61.95	-13	-48.95	-75.2	-63.61	0.99	4.80	V
	2517	-58.94	-13	-45.94	-77.09	-60.91	1.30	5.41	V
	3356	-57.37	-13	-44.37	-77.62	-61.03	1.56	7.37	V
High	1688	-62.72	-13	-49.72	-75.38	-64.35	1.00	4.77	H
	2532	-58.74	-13	-45.74	-76.51	-60.71	1.30	5.43	H
	3376	-57.09	-13	-44.09	-77.33	-60.83	1.57	7.45	H
	1678	-62.23	-13	-49.23	-75.43	-63.89	0.99	4.80	V
	2517	-58.56	-13	-45.56	-76.74	-60.53	1.30	5.41	V
	3356	-56.71	-13	-43.71	-77.03	-60.37	1.56	7.37	V

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