

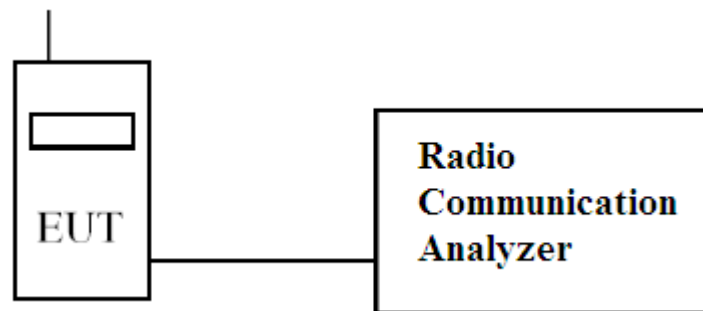
6. Spurious Emission

6.1. Test Specification

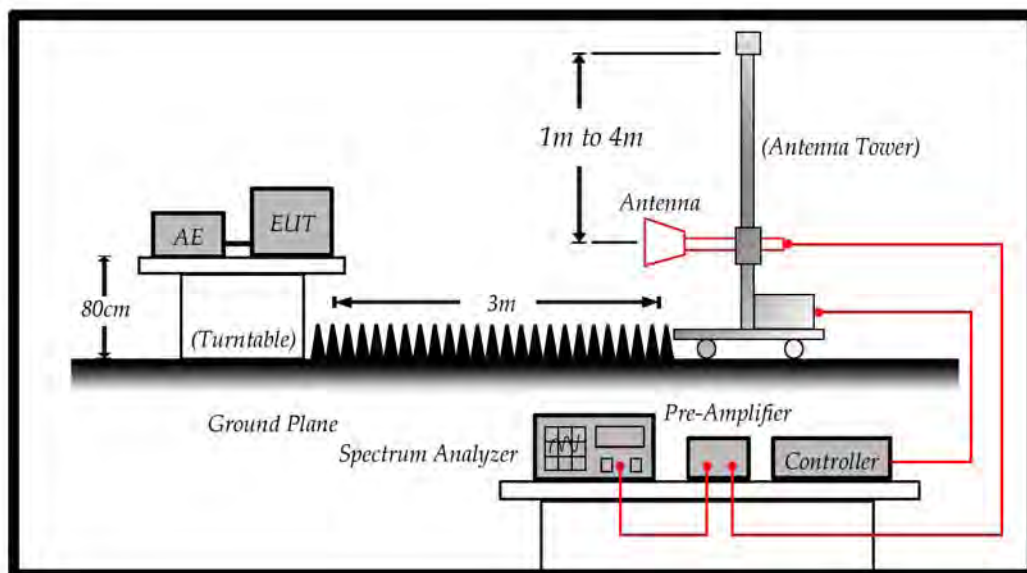
According to Part 2.1051, 2.1053, 24.238(a), 27.53.

6.2. Test Setup

6.2.1 Spurious emissions at antenna terminals.



6.2.2 Field strength of spurious radiation.



6.3. Limits

Limit	<-13dBm
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$43 + 10\log(P)$ down on the carrier where P is the power in Watts.

6.4. Test Procedure

In accordance with Part 2.1051, 2.1053, 24.238(a), 27.53., the spurious emissions from the antenna terminal were measured. The transmitter output power was attenuated using a combination of filters and attenuators and the frequency spectrum investigated from 30MHz to 20GHz. The EUT was set to transmit on full power. The EUT was tested on Low, middle and High channels for both power levels. The resolution and video bandwidth was set to 1MHz/3MHz in accordance with Part 2.1051, 2.1053, 24.238(a), 27.53. The spectrum analyzer detector was set to Max Hold. In addition, measurements were made up to the 10th harmonic of the fundamental. The device was then replaced with a substitution antenna, which input signal was adjusted until the received level matched that of the previously detected emission.

- (1) The EUT is tested with maximum rated TX power via the Base Station simulator.
- (2) The EUT is tested in three orthogonal planes, The worst case was showing in this report.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

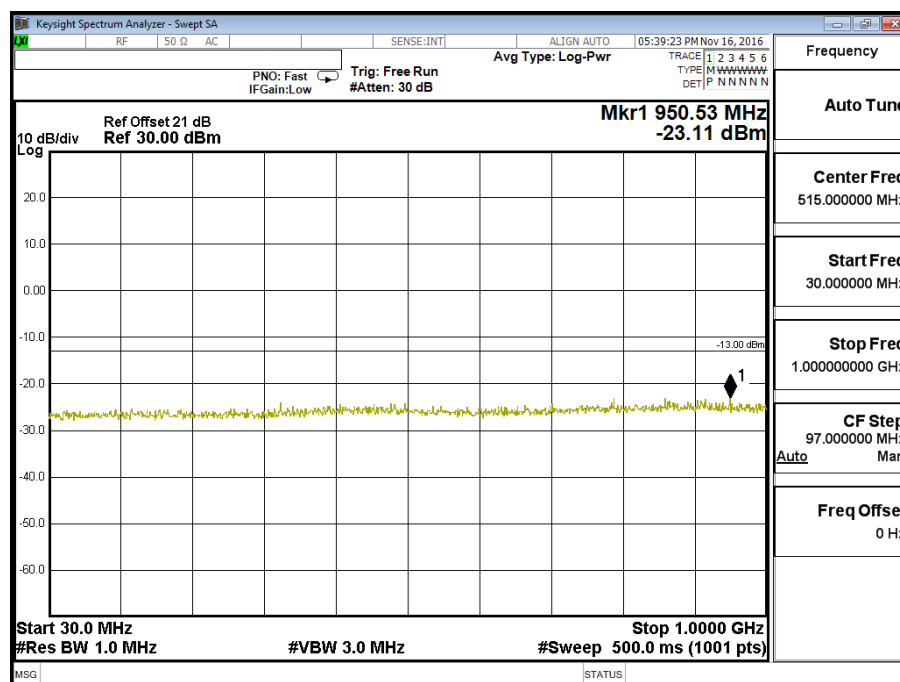
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to TIA/EIA 603-C on radiated measurement.

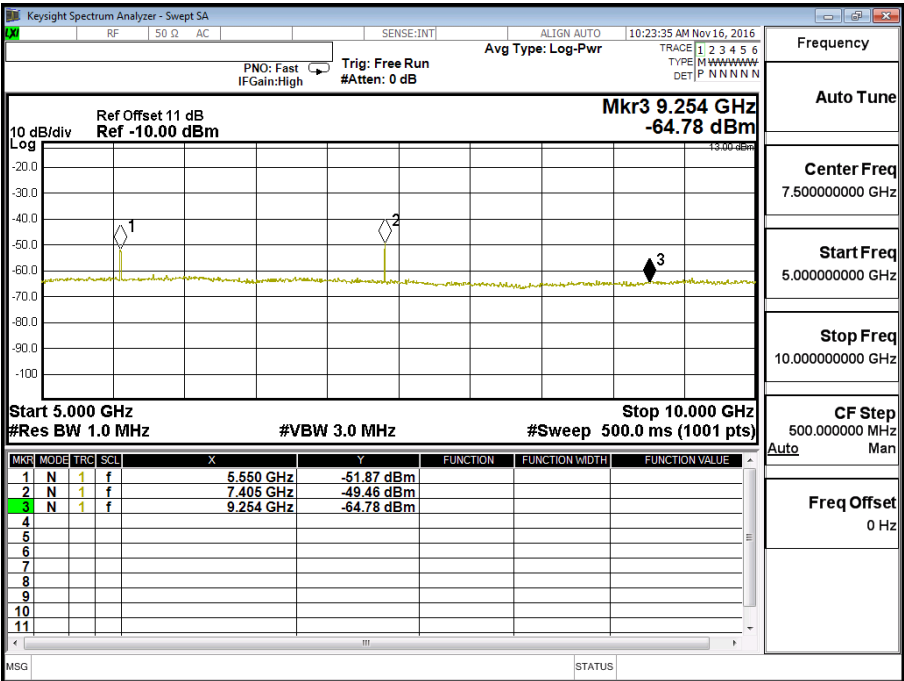
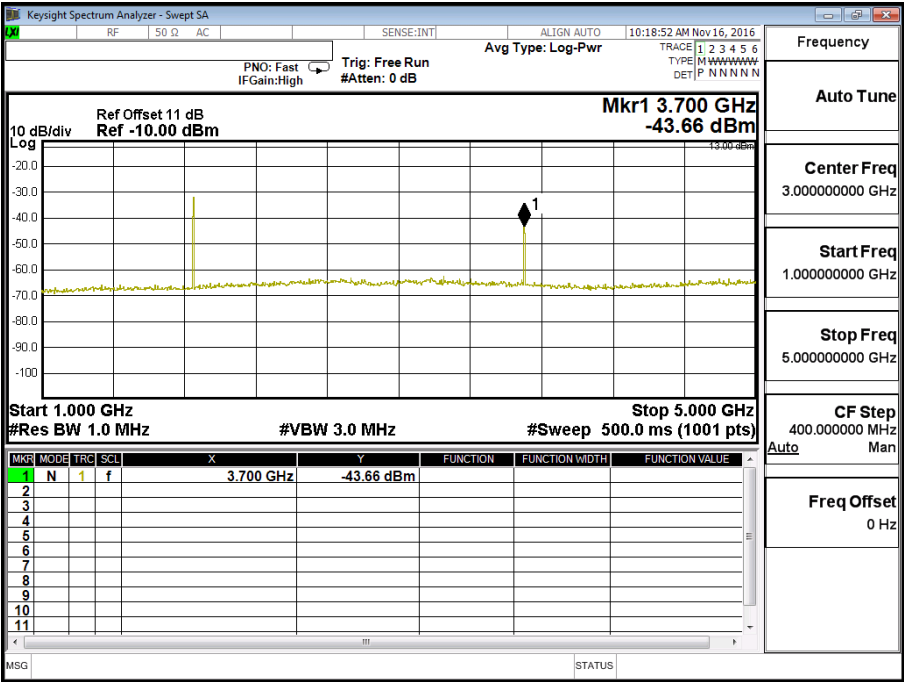
6.5. Test Result of Spurious Emission

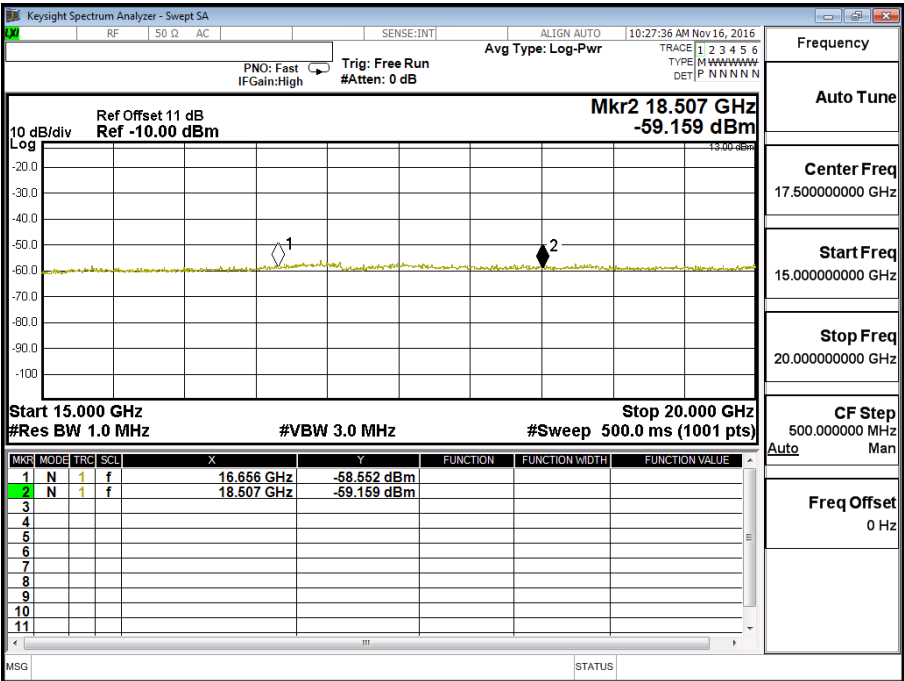
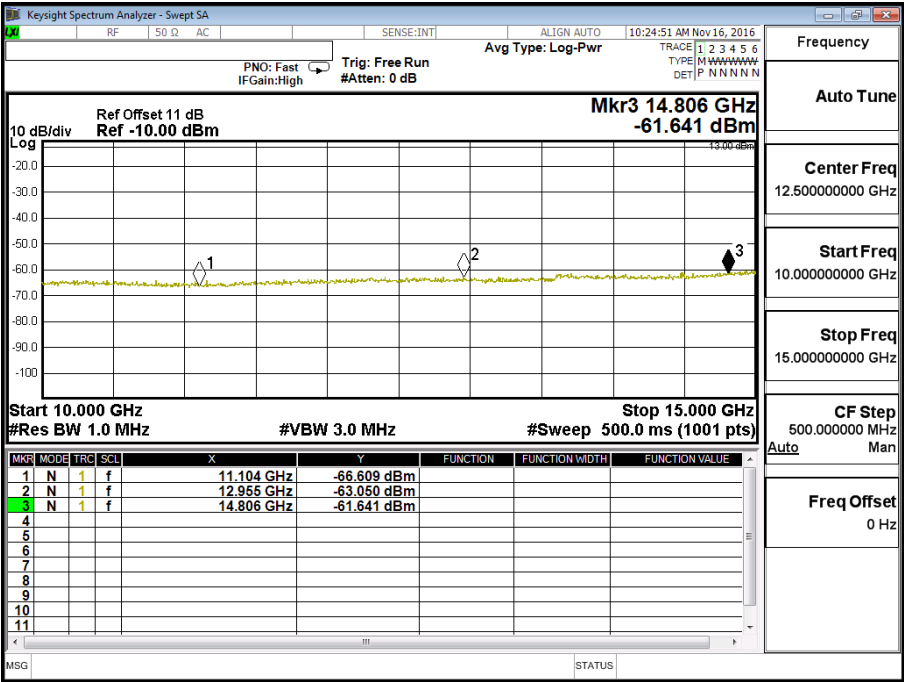
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (1.4M)	Test Range	30MHz~20GHz

LTE-Band 2 (1.4M) QPSK(1,3) CH18607

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3700	-43.660	1.1	-42.560	-13
5550	-51.870	1.23	-50.640	-13
7405	-49.460	1.59	-47.870	-13
9254	-64.780	1.89	-62.890	-13
11104	-66.609	2.07	-64.539	-13
12955	-63.050	2.26	-60.790	-13
14806	-61.641	2.64	-59.001	-13
16656	-58.552	3.5	-55.052	-13
18507	-59.159	3.7	-55.459	-13



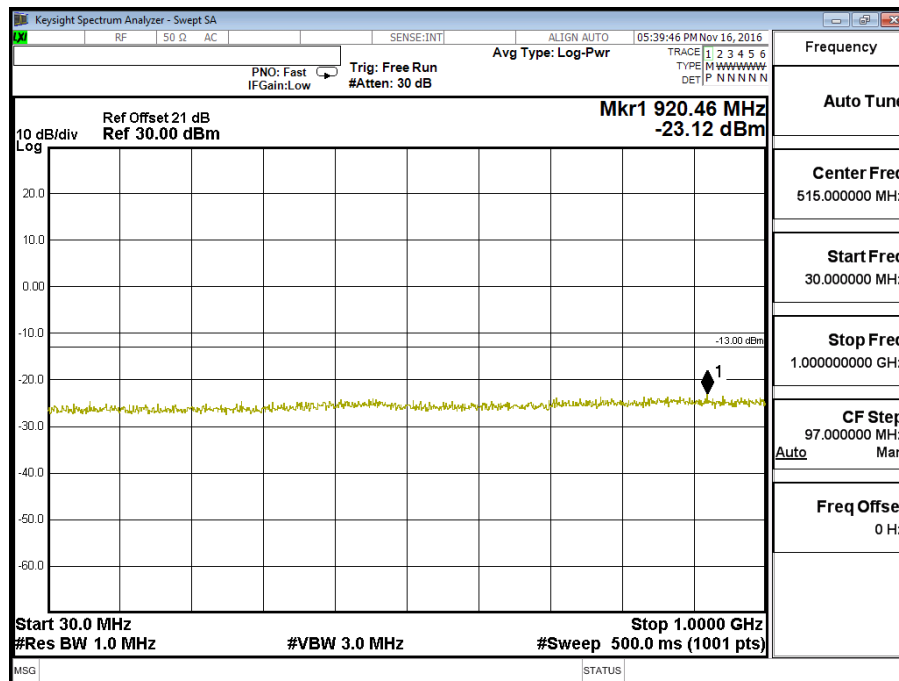


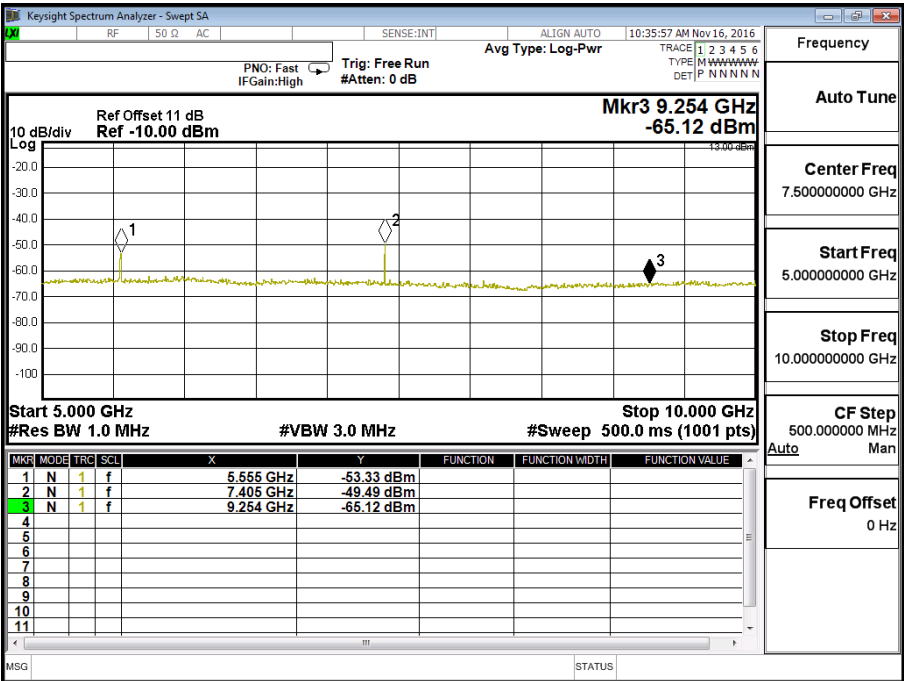
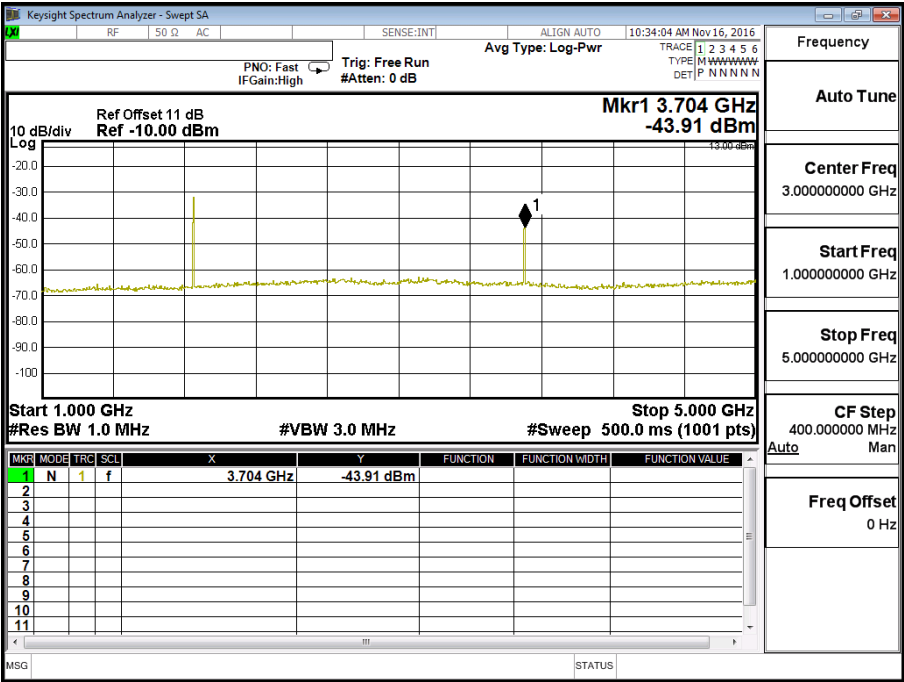


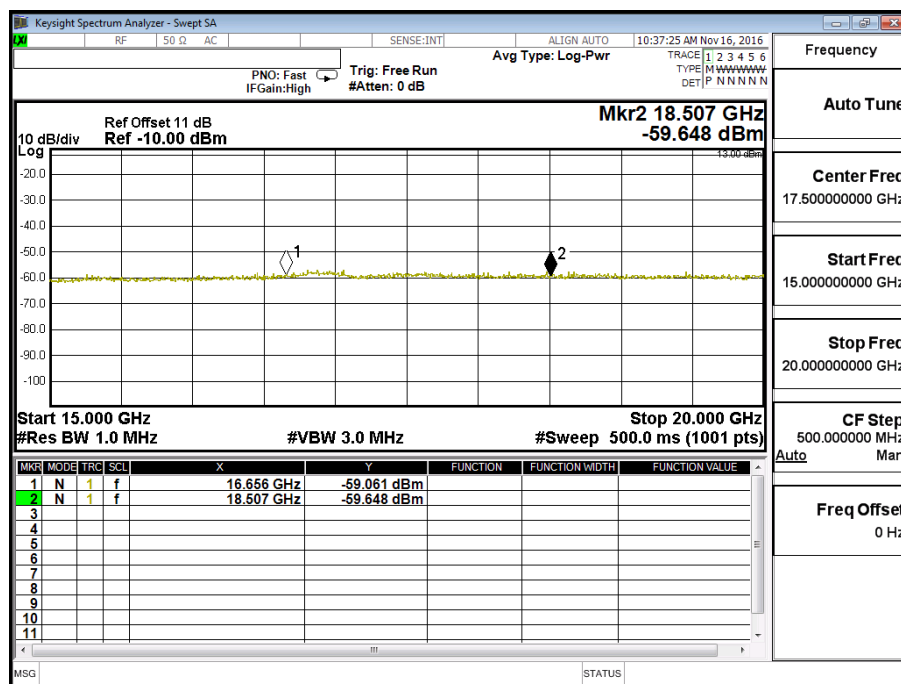
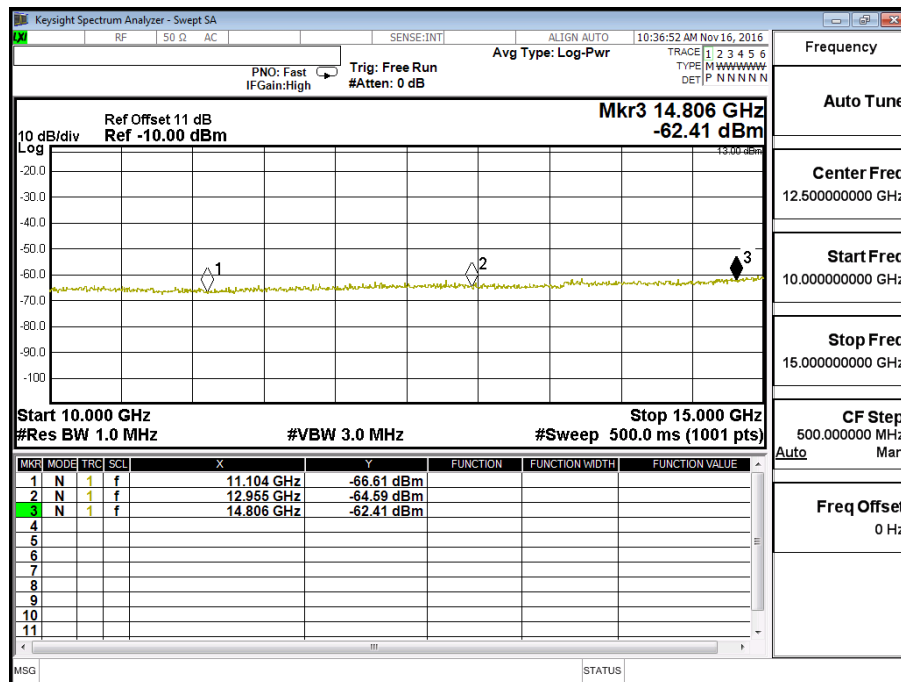
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (1.4M)	Test Range	30MHz~20GHz

LTE-Band 2 (1.4M) 16QAM(3,3) CH18607

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3704	-43.910	1.1	-42.810	-13
5555	-53.330	1.23	-52.100	-13
7405	-49.490	1.59	-47.900	-13
9254	-65.120	1.89	-63.230	-13
11104	-66.610	2.07	-64.540	-13
12955	-64.590	2.26	-62.330	-13
14806	-62.410	2.64	-59.770	-13
16656	-59.061	3.5	-55.561	-13
18507	-59.648	3.7	-55.948	-13



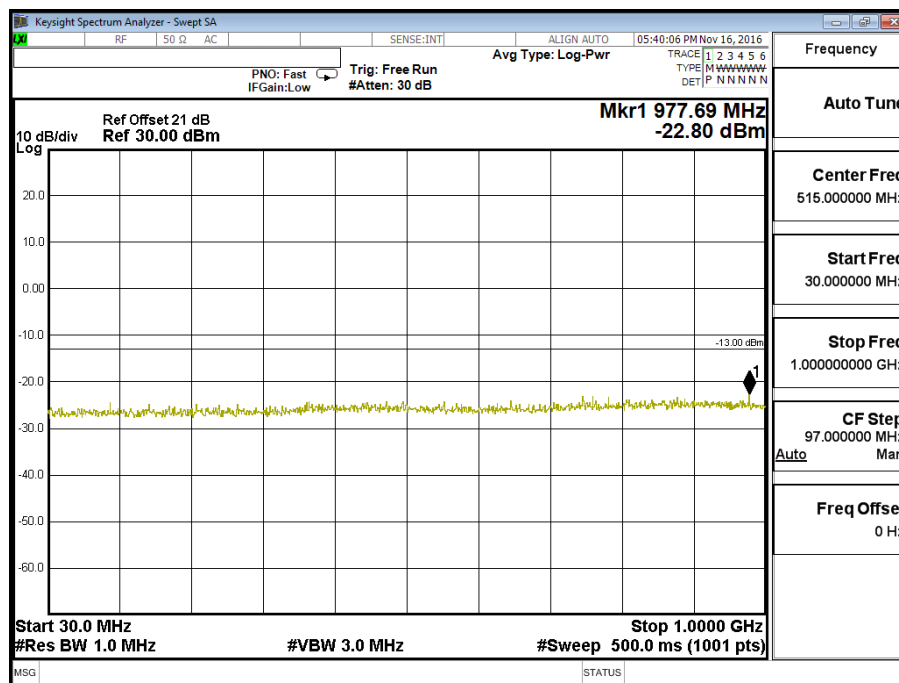


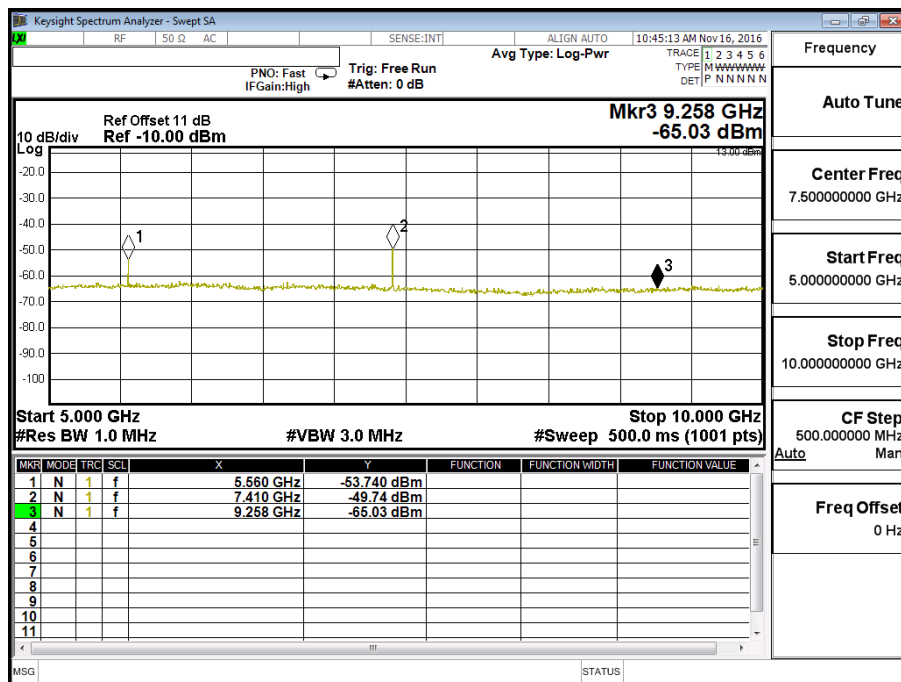
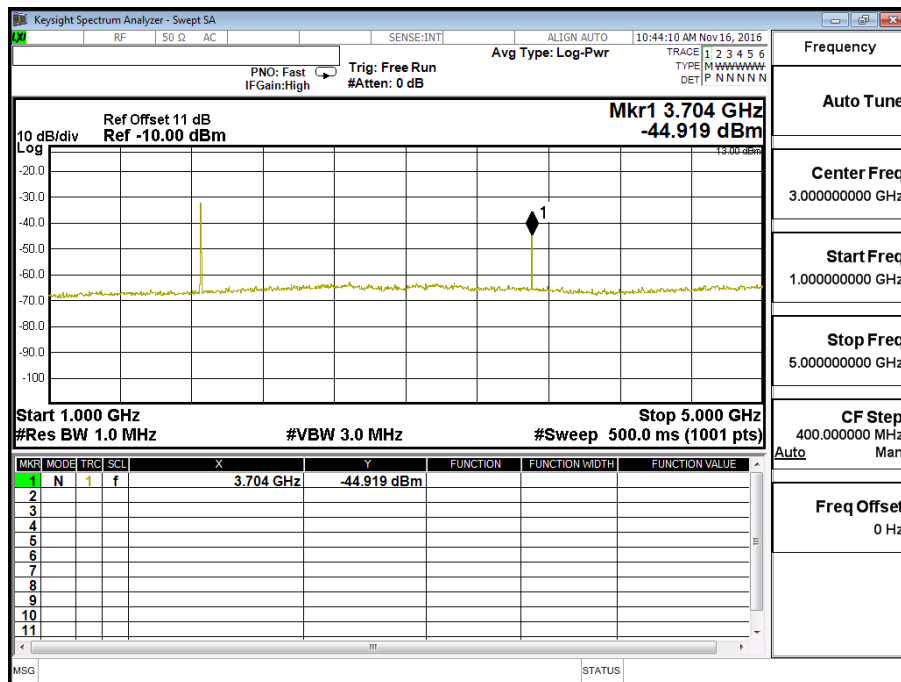


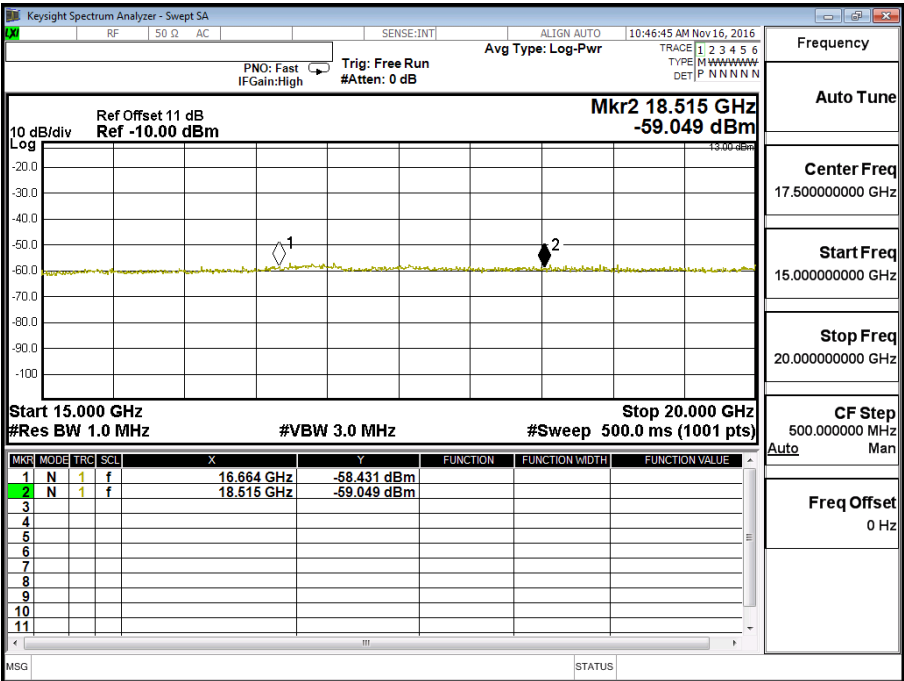
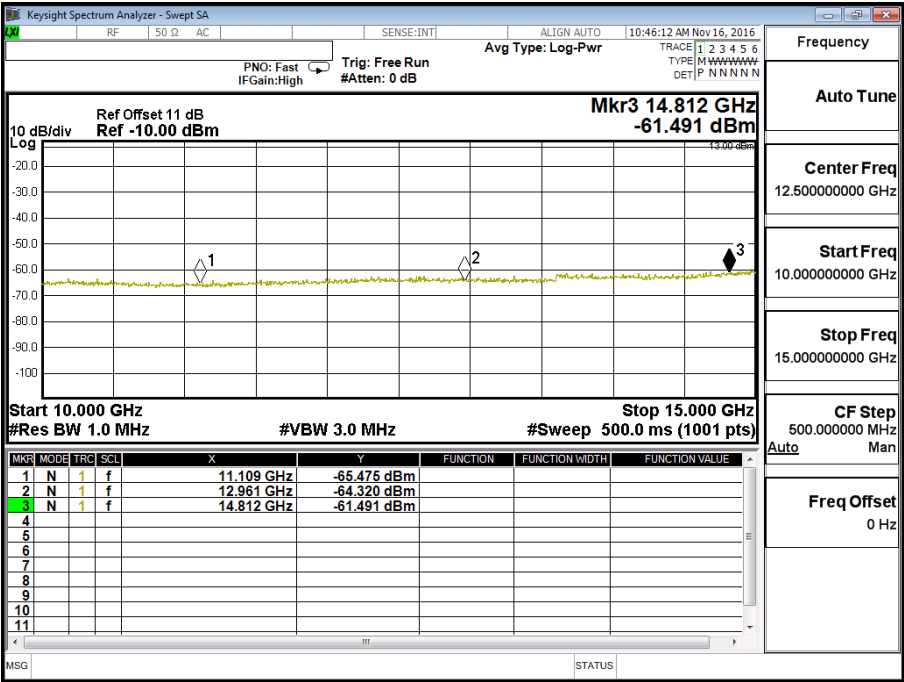
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (3M)	Test Range	30MHz~20GHz

LTE-Band 2 (3M) QPSK(1,14) CH18615

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3704	-44.919	1.1	-43.819	-13
5560	-53.740	1.23	-52.510	-13
7410	-49.740	1.59	-48.150	-13
9258	-65.030	1.89	-63.140	-13
11109	-65.475	2.07	-63.405	-13
12961	-64.320	2.26	-62.060	-13
14812	-61.491	2.64	-58.851	-13
16664	-58.431	3.5	-54.931	-13
18515	-59.049	3.7	-55.349	-13



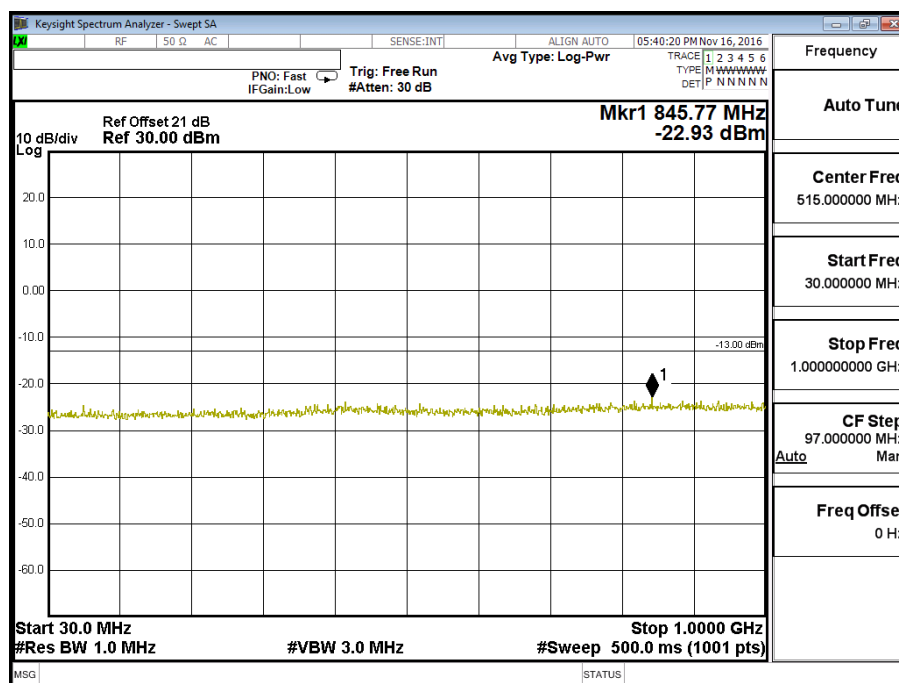


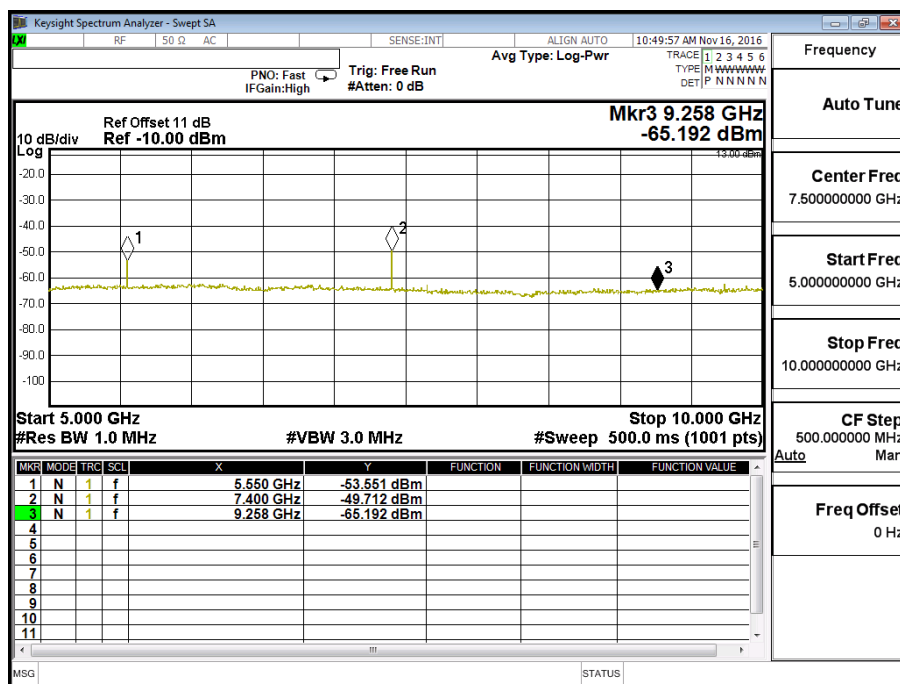
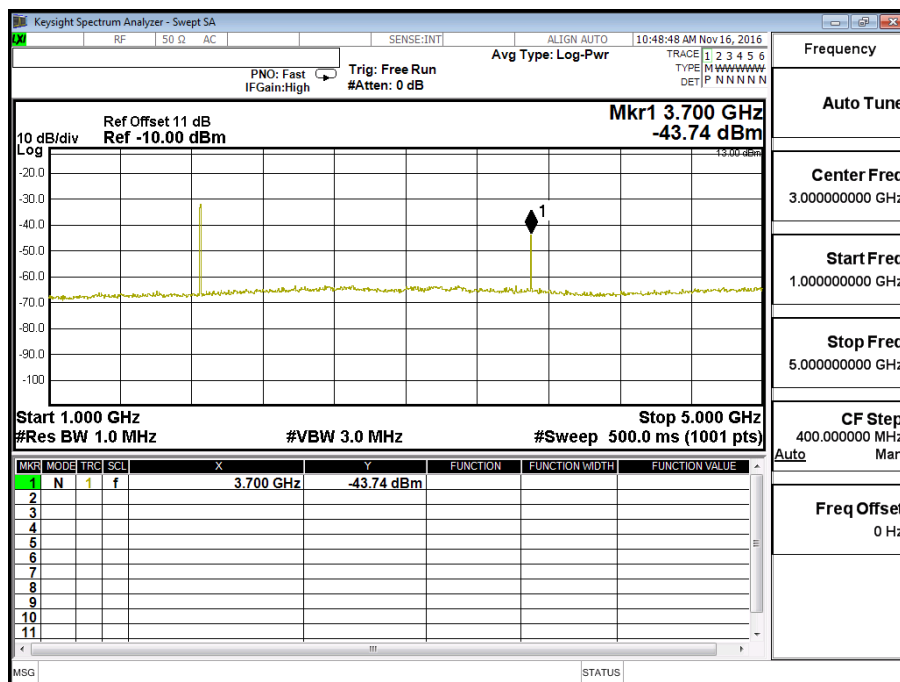


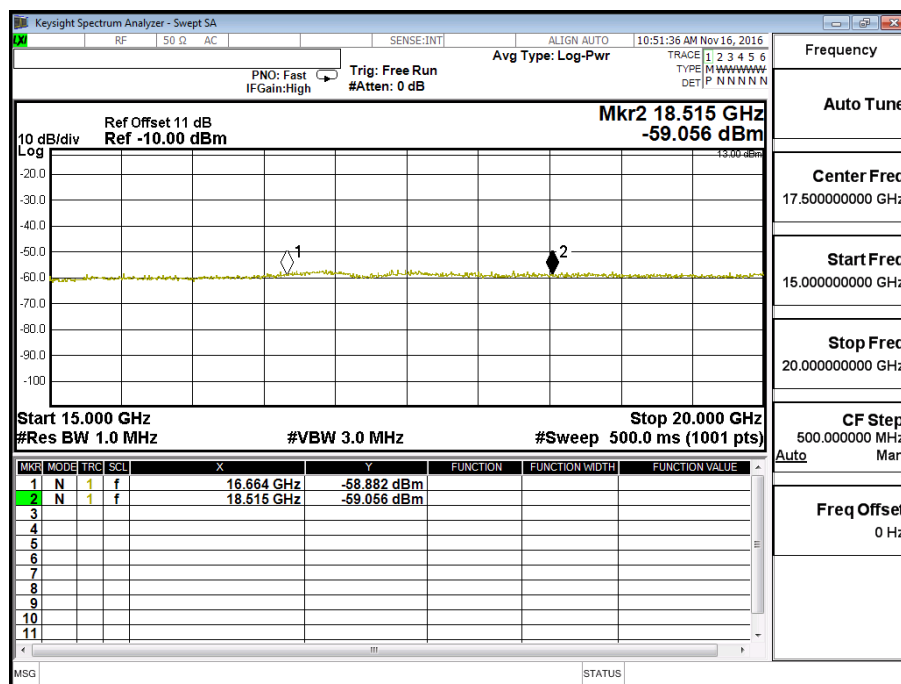
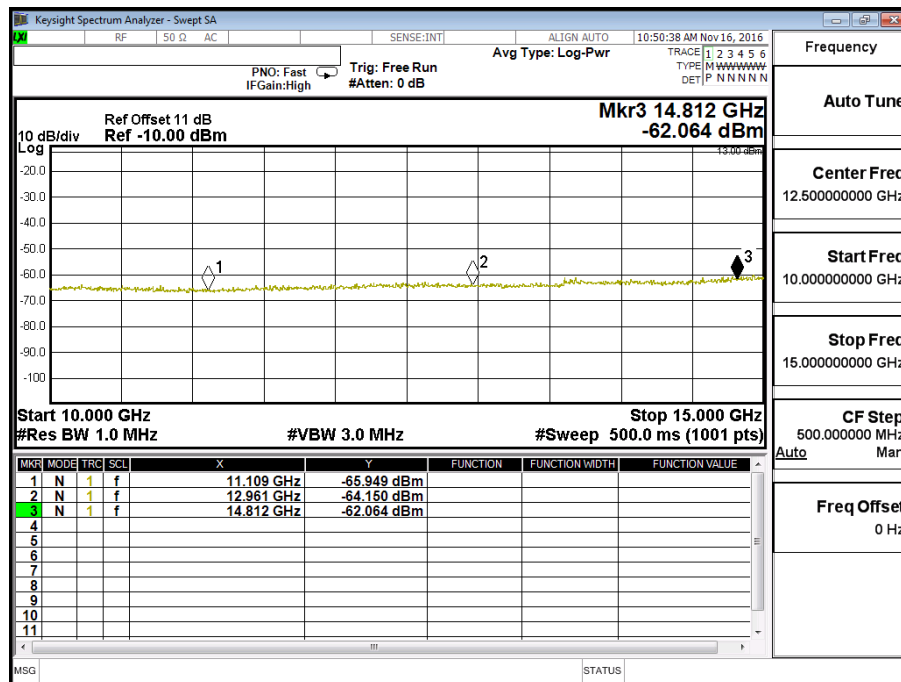
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (3M)	Test Range	30MHz~20GHz

LTE-Band 2 (3M) 16QAM(1,0) CH18615

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3700	-43.740	1.1	-42.640	-13
5550	-53.551	1.23	-52.321	-13
7400	-49.712	1.59	-48.122	-13
9258	-65.192	1.89	-63.302	-13
11109	-65.949	2.07	-63.879	-13
12961	-64.150	2.26	-61.890	-13
14812	-62.064	2.64	-59.424	-13
16664	-58.882	3.5	-55.382	-13
18515	-59.056	3.7	-55.356	-13



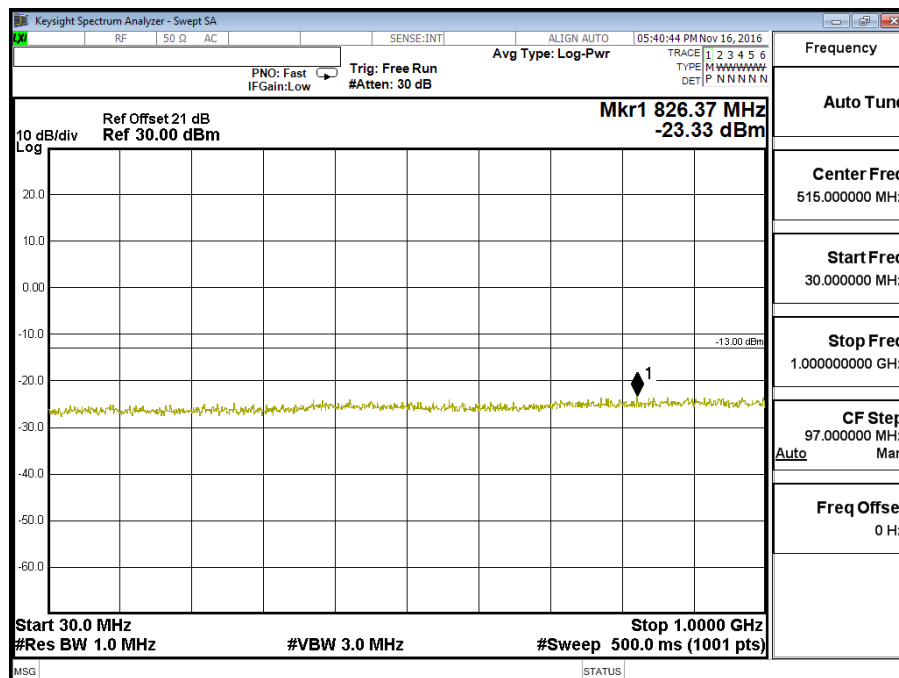


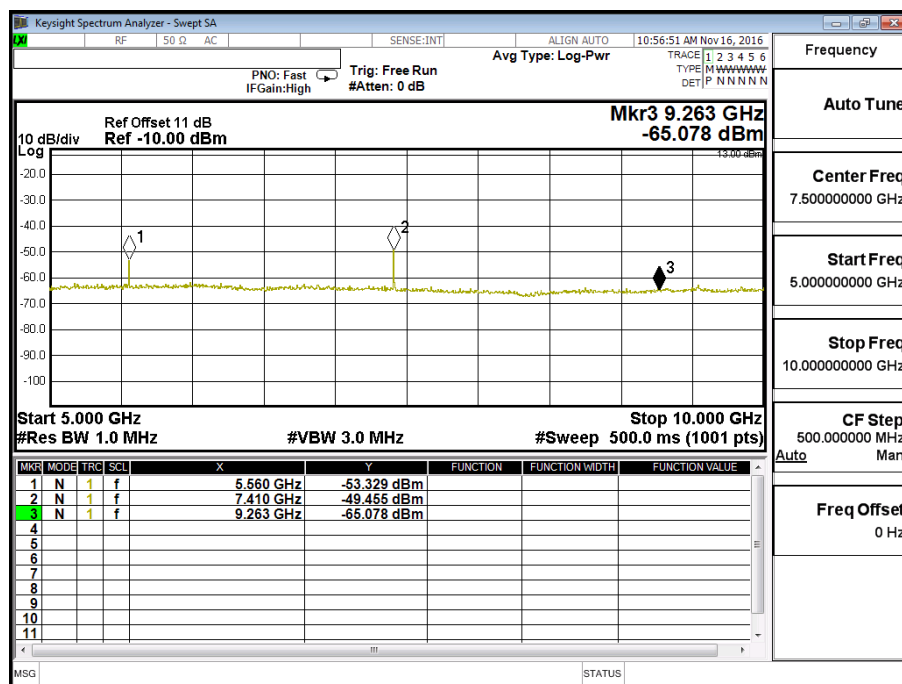
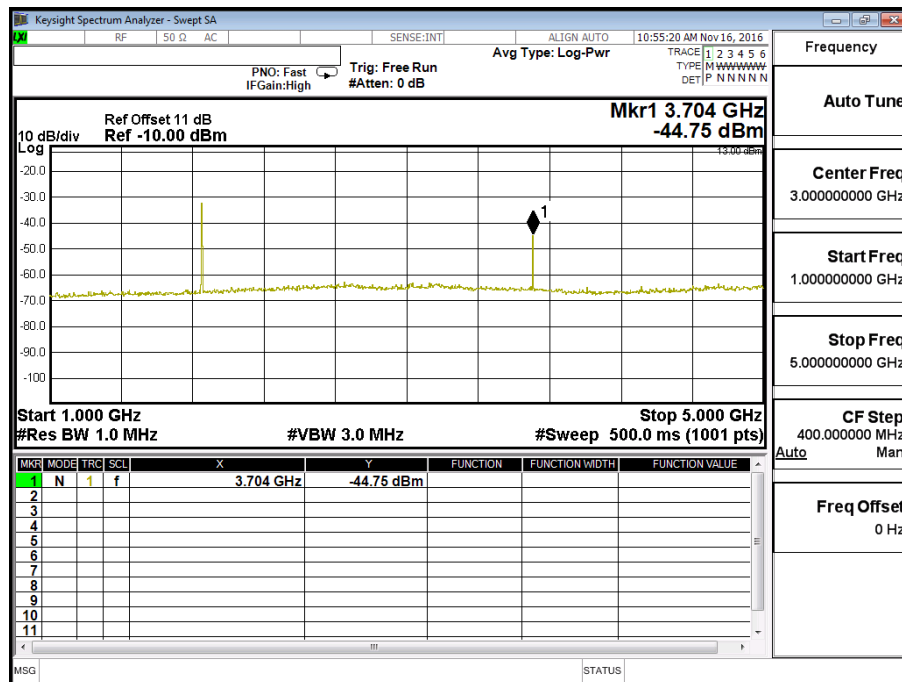


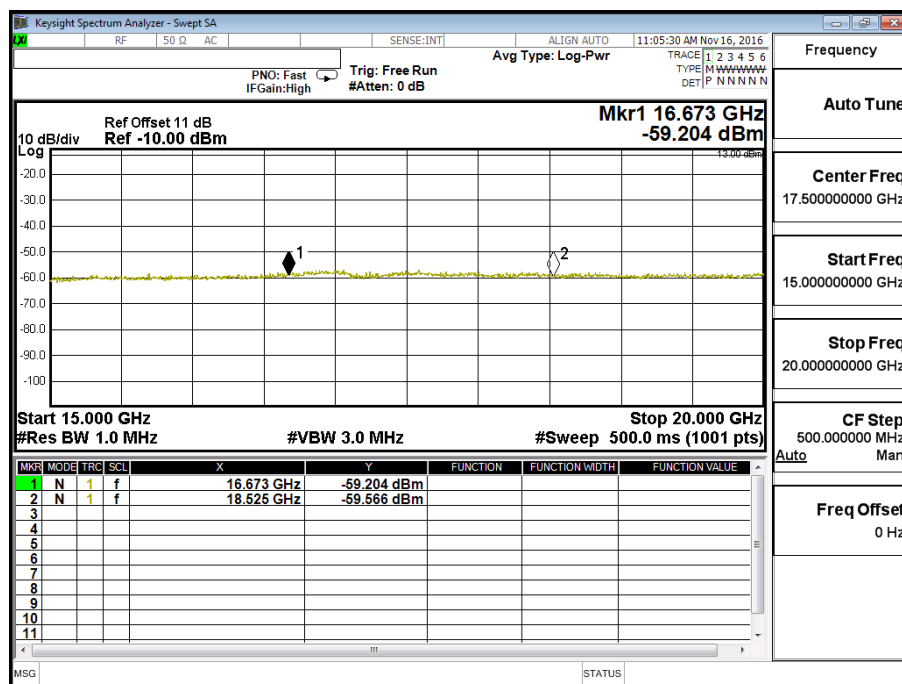
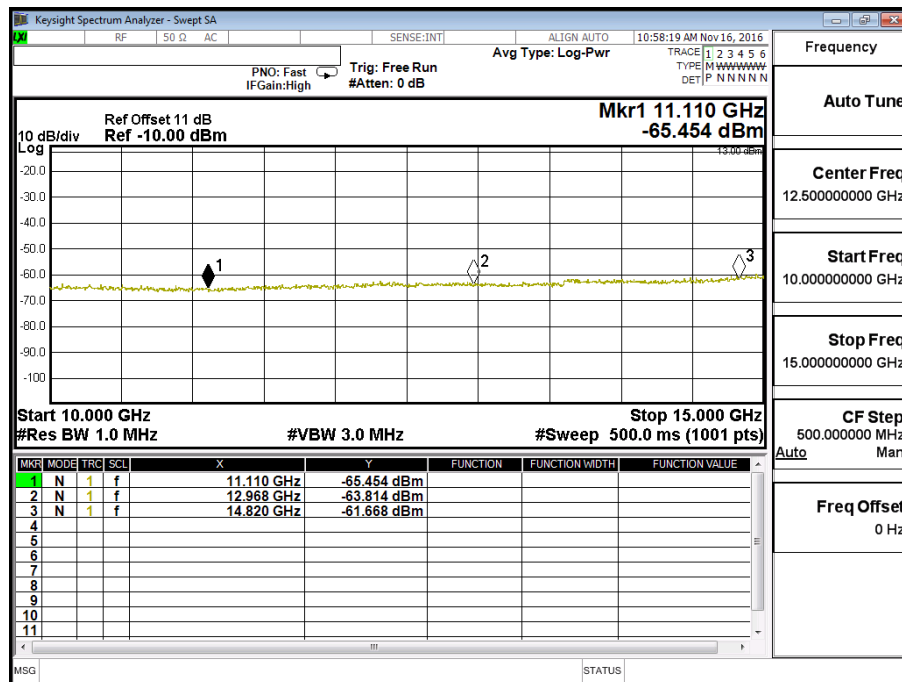
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (5M)	Test Range	30MHz~20GHz

LTE-Band 2 (5M) QPSK(1,12) CH18625

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3704	-44.750	1.1	-43.650	-13
5560	-53.329	1.23	-52.099	-13
7410	-49.455	1.59	-47.865	-13
9263	-65.078	1.89	-63.188	-13
11110	-65.454	2.07	-63.384	-13
12968	-63.814	2.26	-61.554	-13
14820	-61.668	2.64	-59.028	-13
16673	-59.204	3.5	-55.704	-13
18525	-59.566	3.7	-55.866	-13



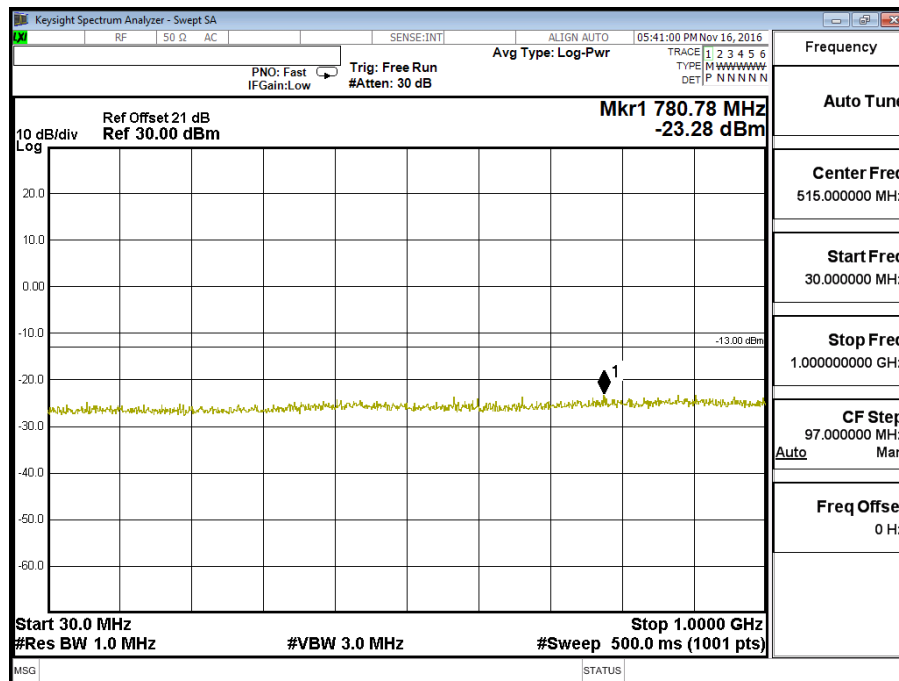


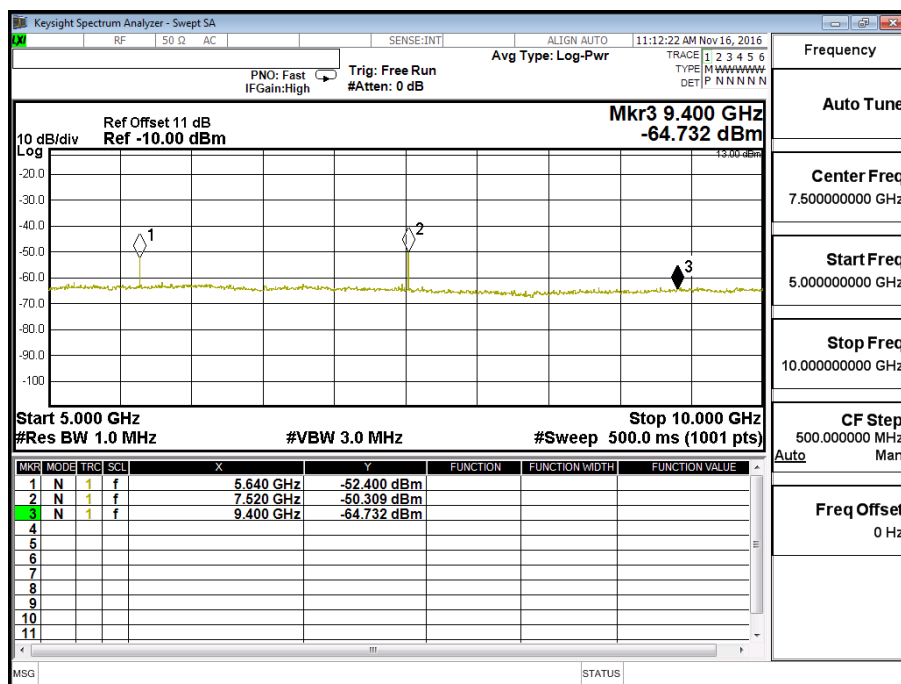
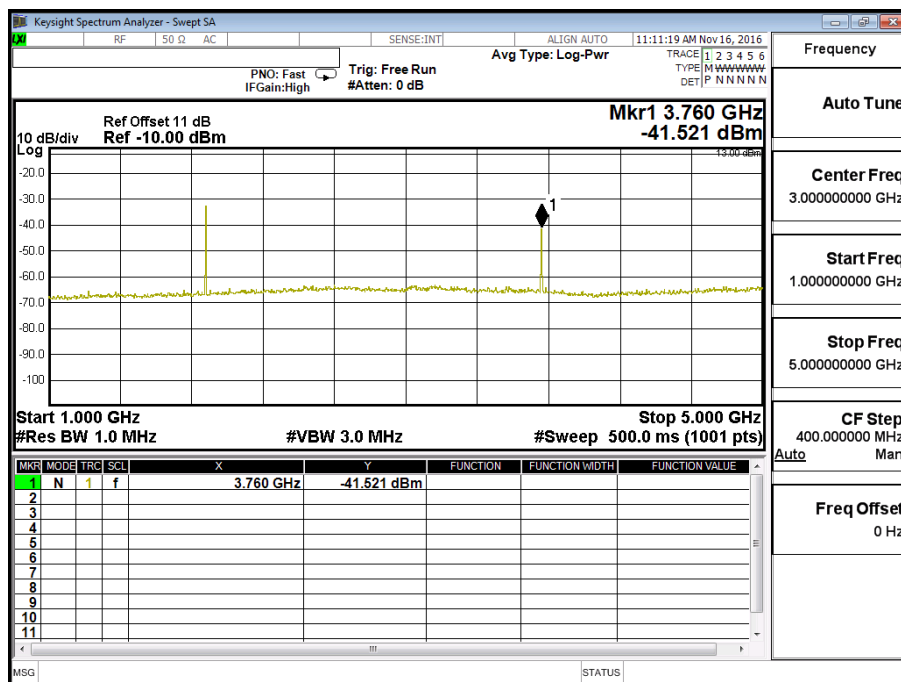


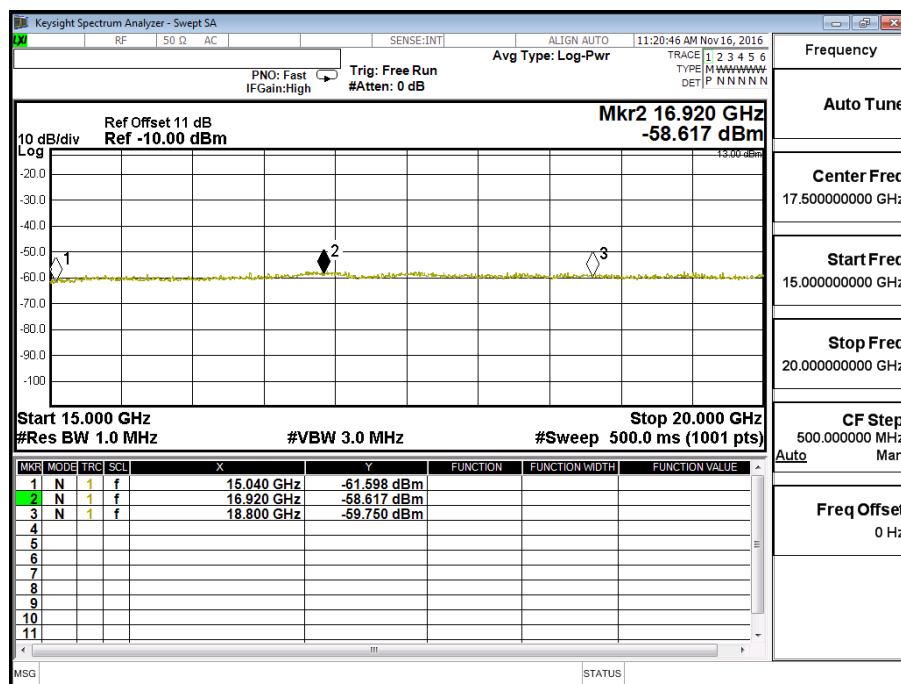
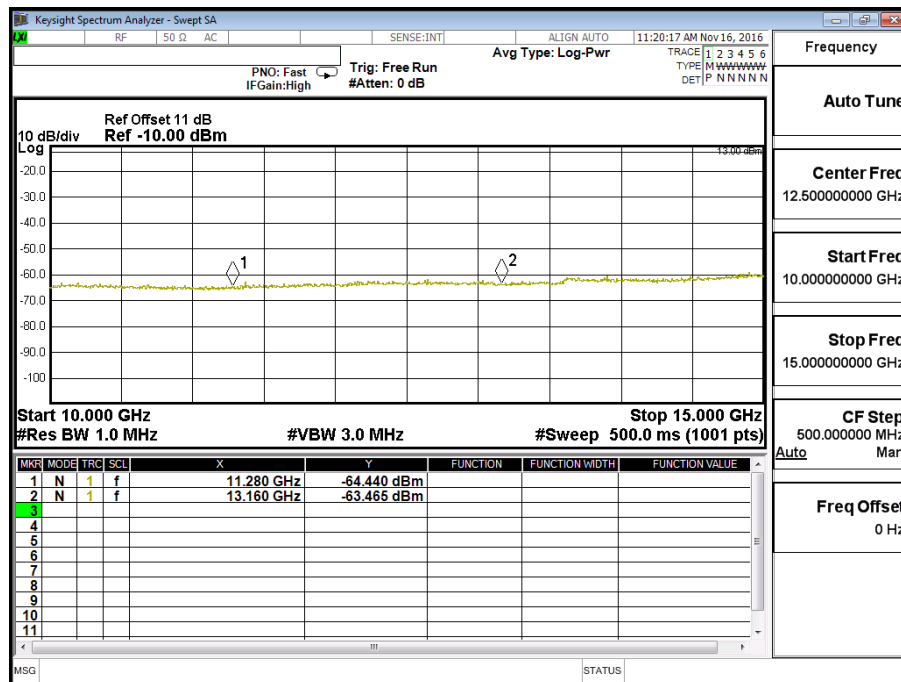
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (5M)	Test Range	30MHz~20GHz

LTE- Band 2 (5M) 16QAM(1,12) CH18900

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3760	-41.521	1.1	-40.421	-13
5640	-52.400	1.23	-51.170	-13
7520	-50.309	1.59	-48.719	-13
9400	-64.732	1.89	-62.842	-13
11280	-64.440	2.07	-62.370	-13
13160	-63.465	2.26	-61.205	-13
15040	-61.598	2.64	-58.958	-13
16920	-58.617	3.5	-55.117	-13
18800	-59.750	3.7	-56.050	-13



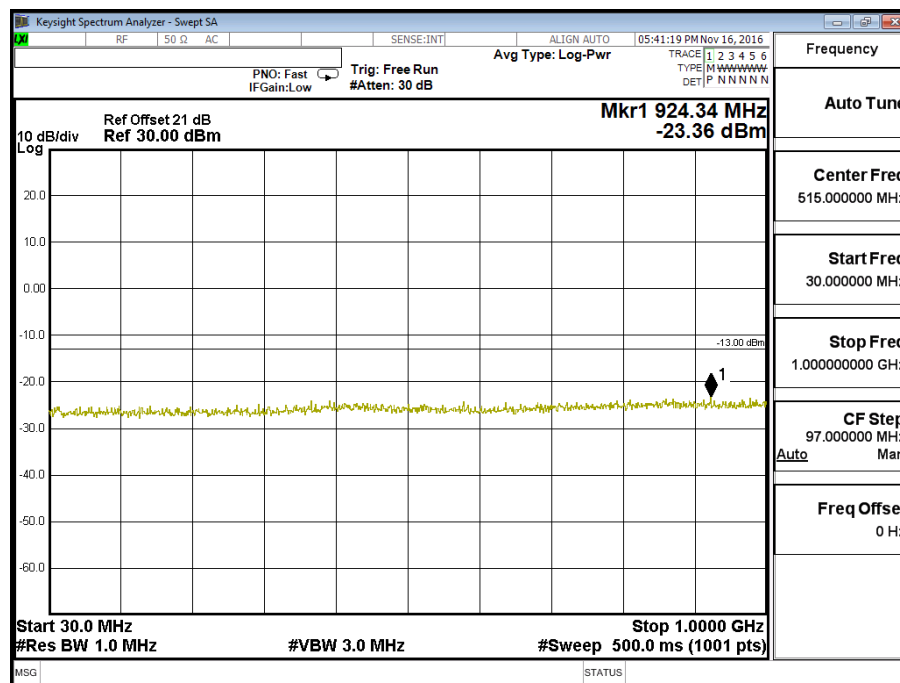


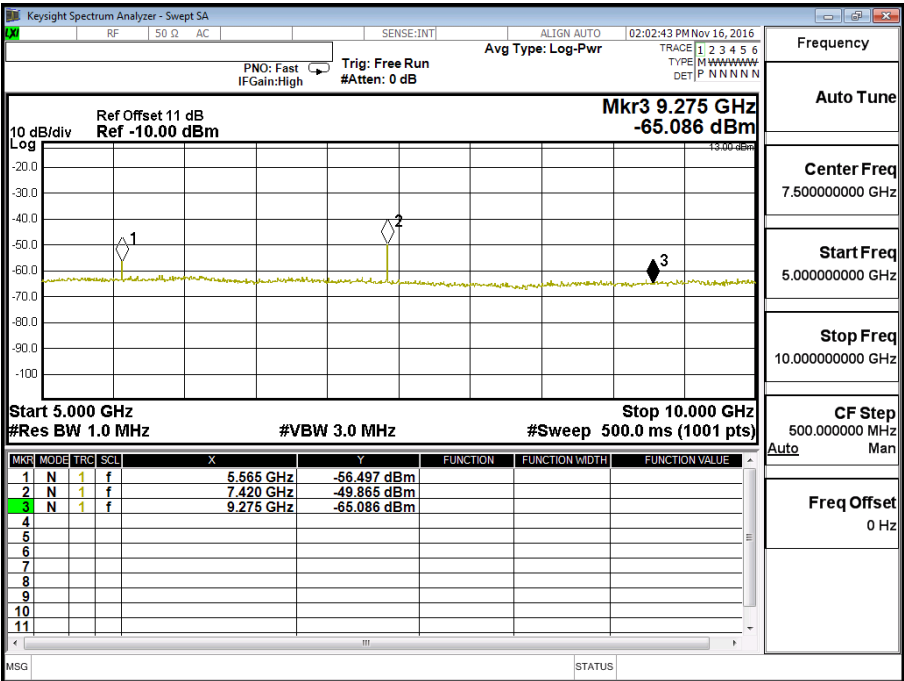
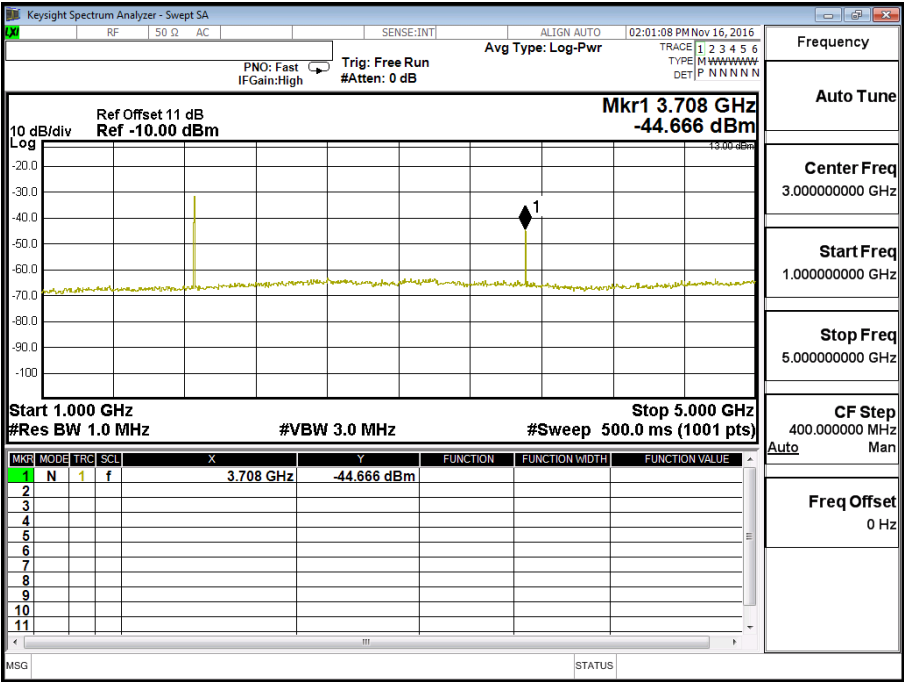


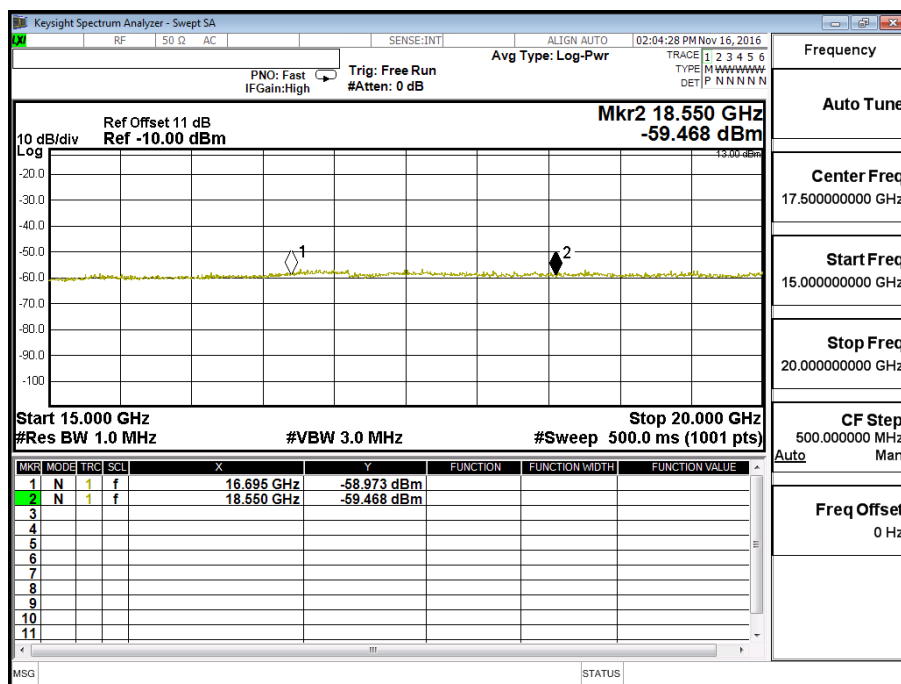
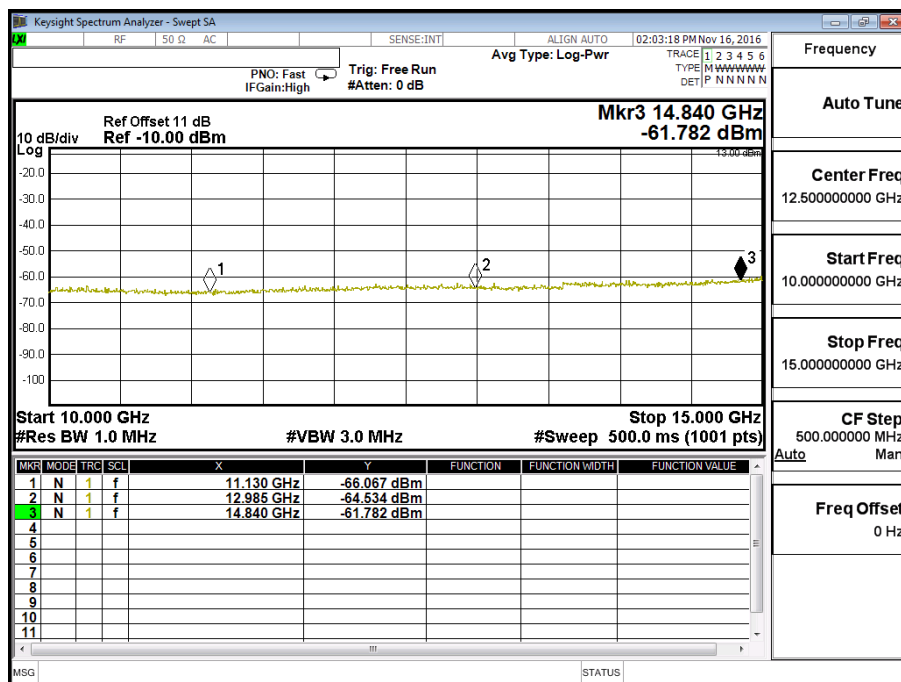
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (10M)	Test Range	30MHz~20GHz

LTE- Band 2 (10M) QPSK(1,24) CH18650

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3708	-44.666	1.1	-43.566	-13
5565	-56.497	1.23	-55.267	-13
7420	-49.865	1.59	-48.275	-13
9275	-65.086	1.89	-63.196	-13
11130	-66.067	2.07	-63.997	-13
12985	-64.534	2.26	-62.274	-13
14840	-61.782	2.64	-59.142	-13
16695	-58.973	3.5	-55.473	-13
18550	-59.468	3.7	-55.768	-13



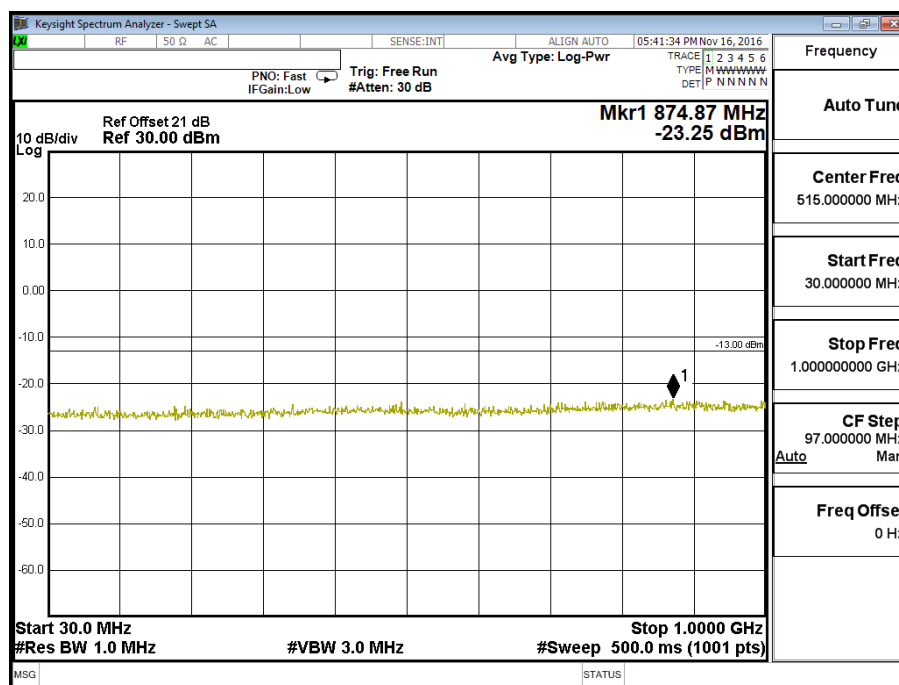


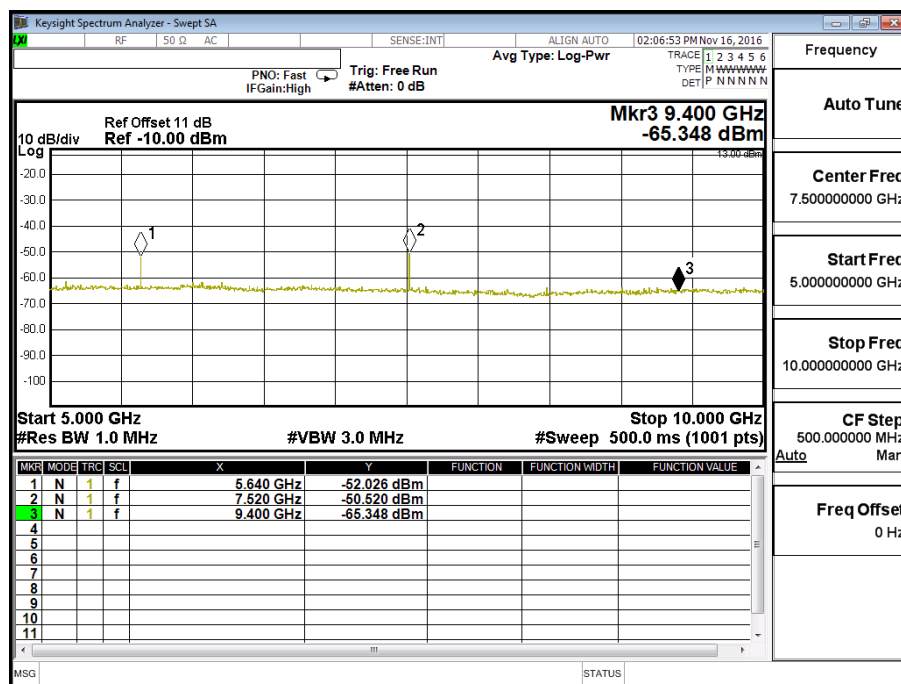
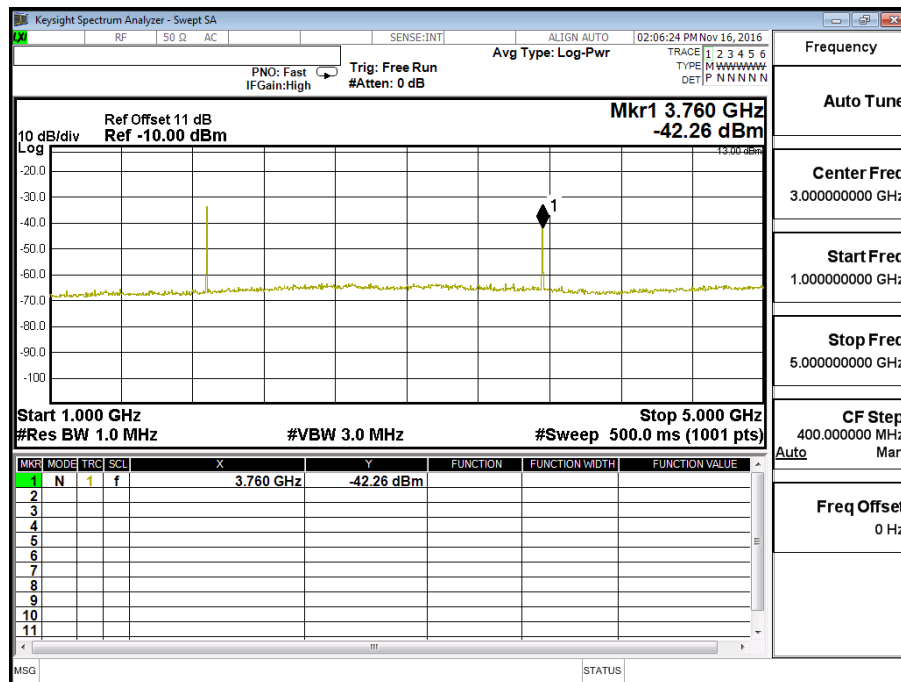


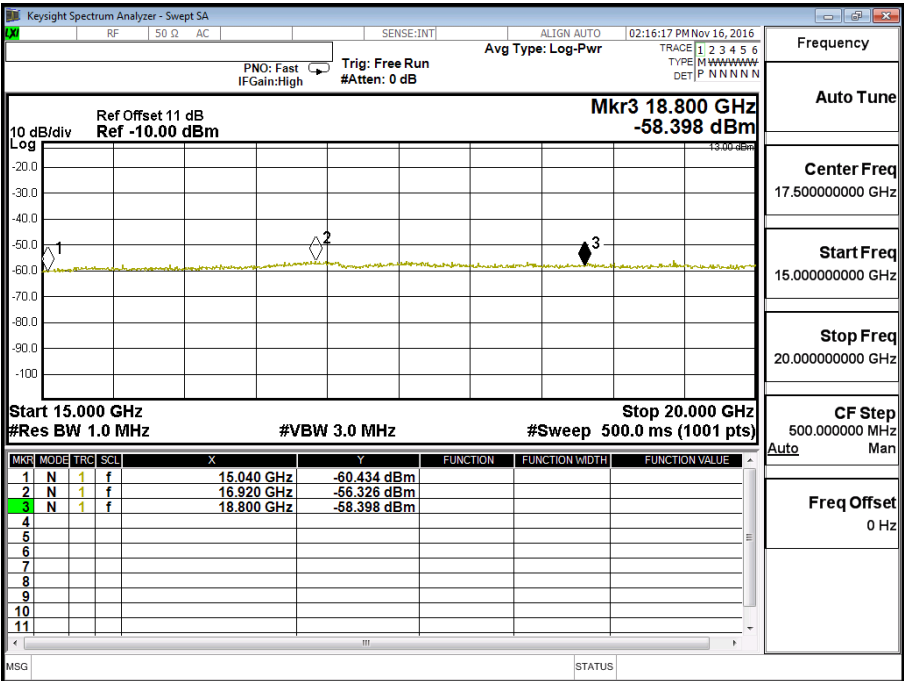
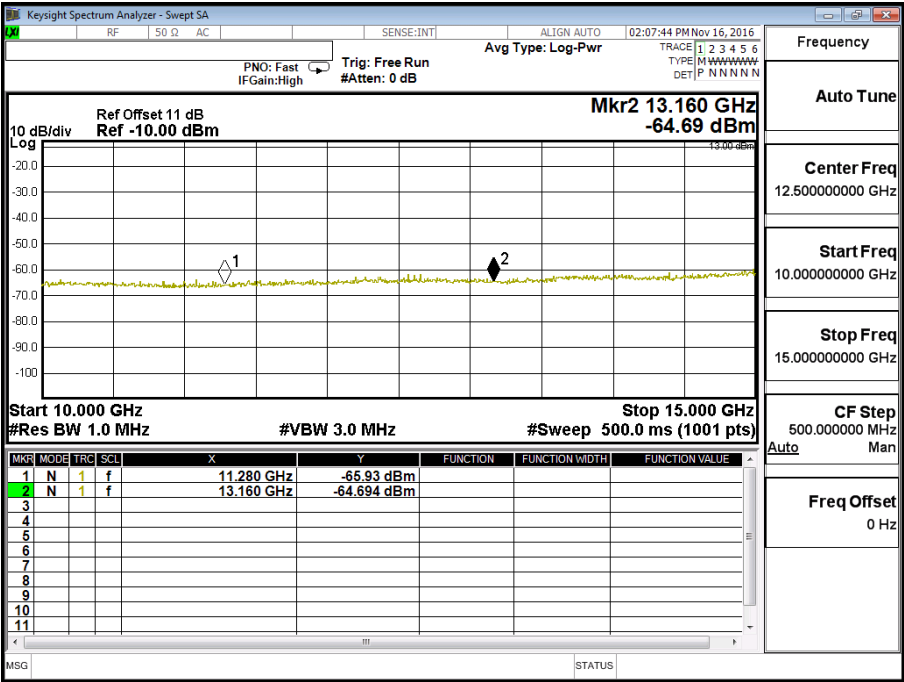
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (10M)	Test Range	30MHz~20GHz

LTE- Band 2 10M 16QAM(1,24) CH18900

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3760	-42.260	1.1	-41.160	-13
5640	-52.026	1.23	-50.796	-13
7520	-50.520	1.59	-48.930	-13
9400	-65.348	1.89	-63.458	-13
11280	-65.930	2.07	-63.860	-13
13160	-64.694	2.26	-62.434	-13
15040	-60.434	2.64	-57.794	-13
16920	-56.326	3.5	-52.826	-13
18800	-58.398	3.7	-54.698	-13



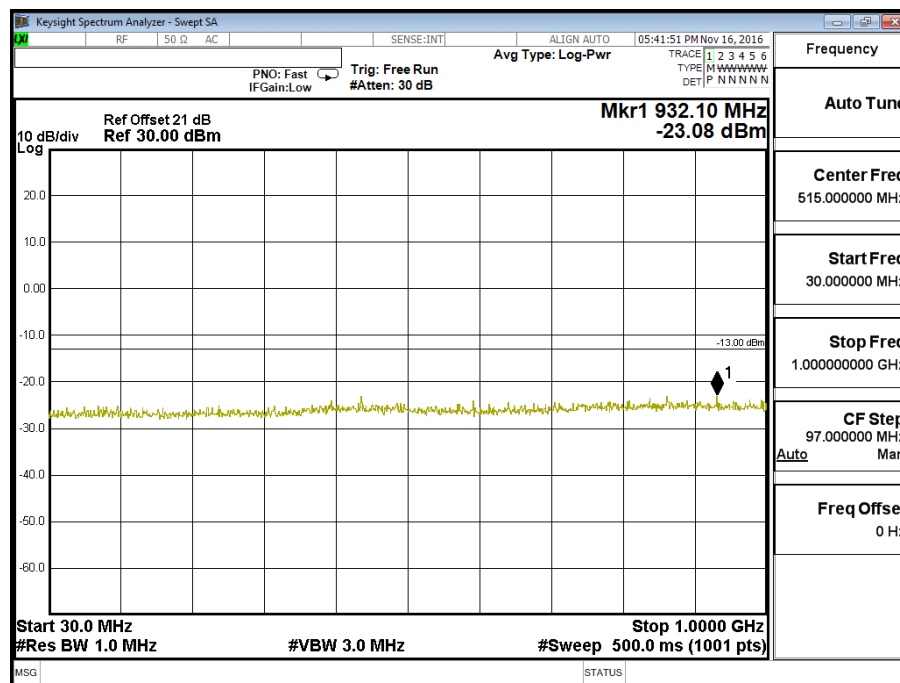


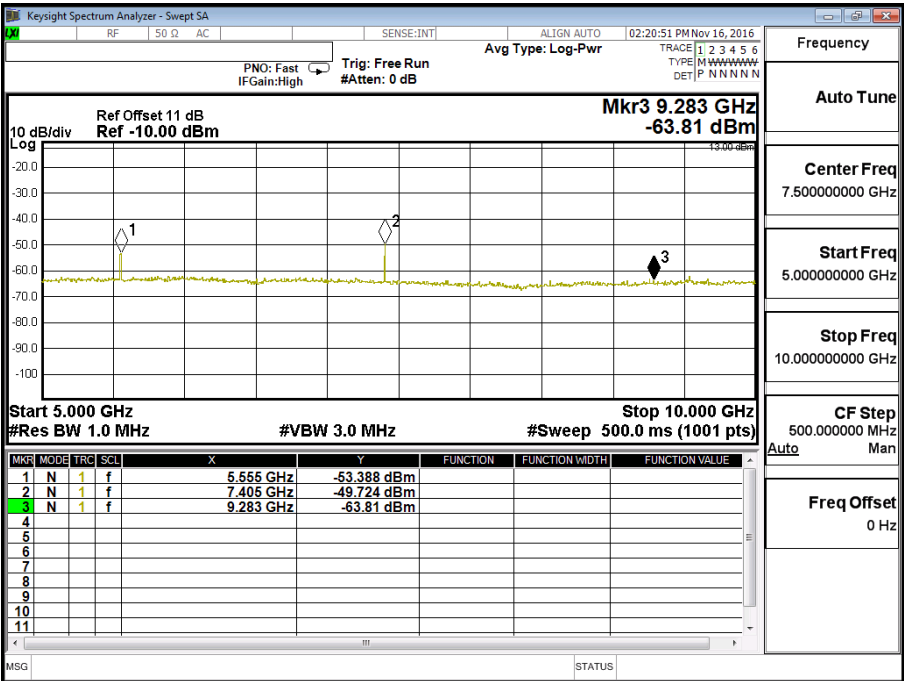
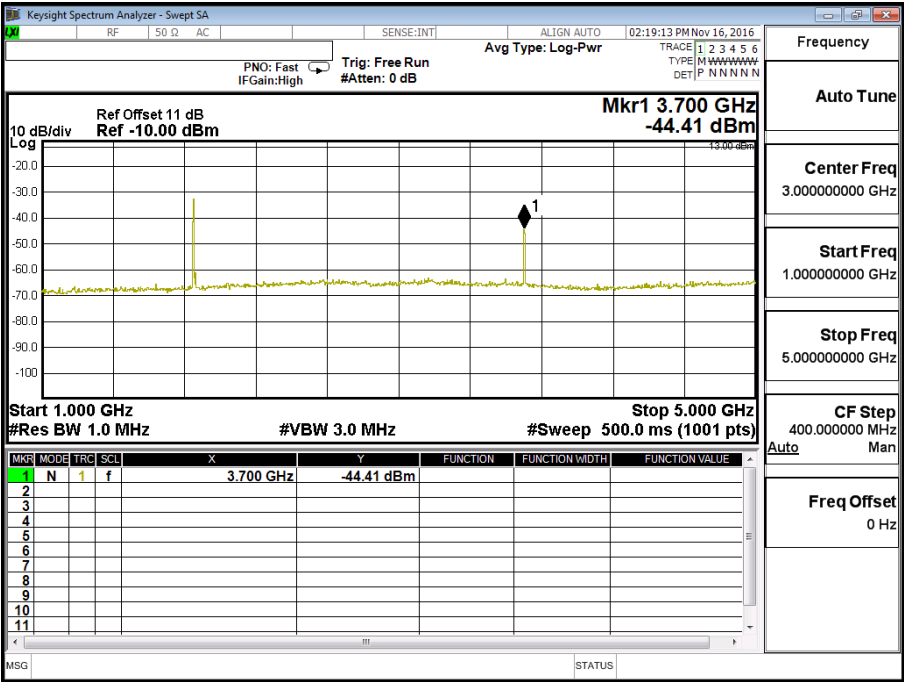


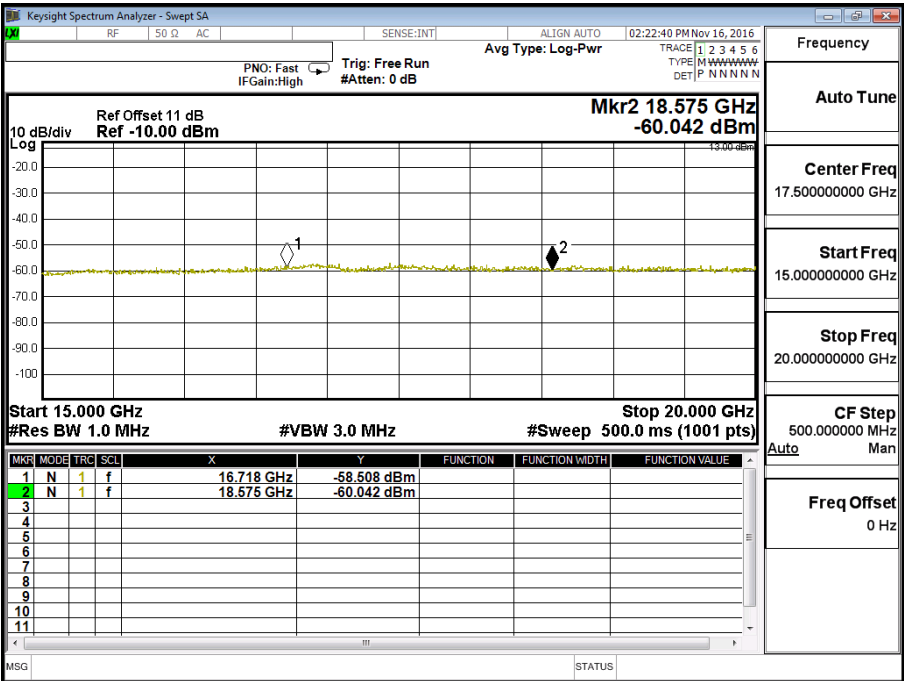
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 15M	Test Range	30MHz~20GHz

LTE-Band 2 15M QPSK(1,0) CH18675

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3700	-44.410	1.1	-43.310	-13
5555	-53.388	1.23	-52.158	-13
7405	-49.724	1.59	-51.798	-13
9283	-63.810	1.89	-47.834	-13
11145	-66.601	2.07	-61.740	-13
13003	-63.948	2.26	-61.688	-13
14860	-61.532	2.64	-58.892	-13
16718	-58.508	3.5	-55.008	-13
18575	-60.042	3.7	-56.342	-13



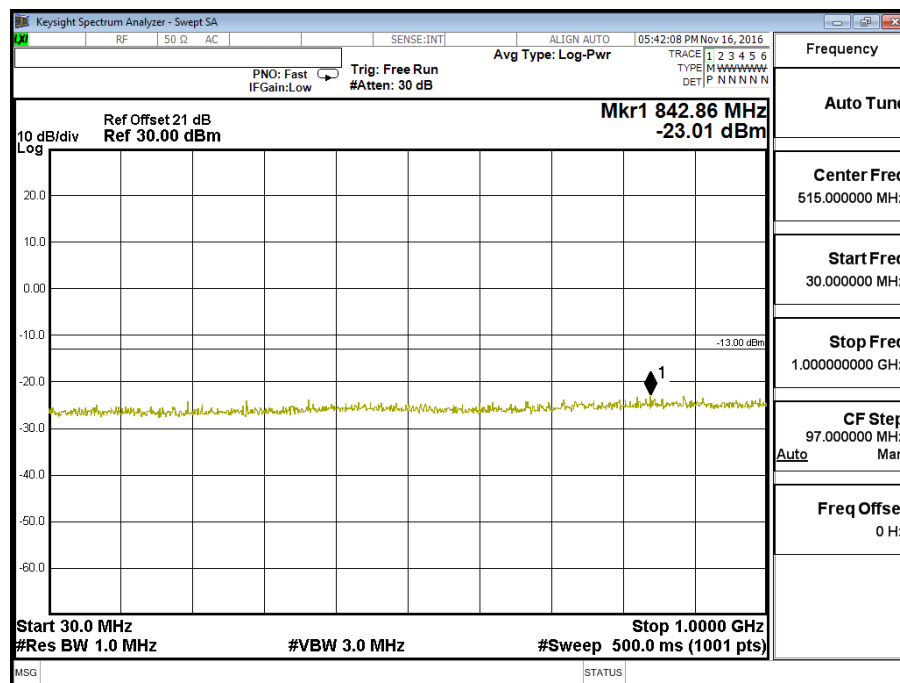


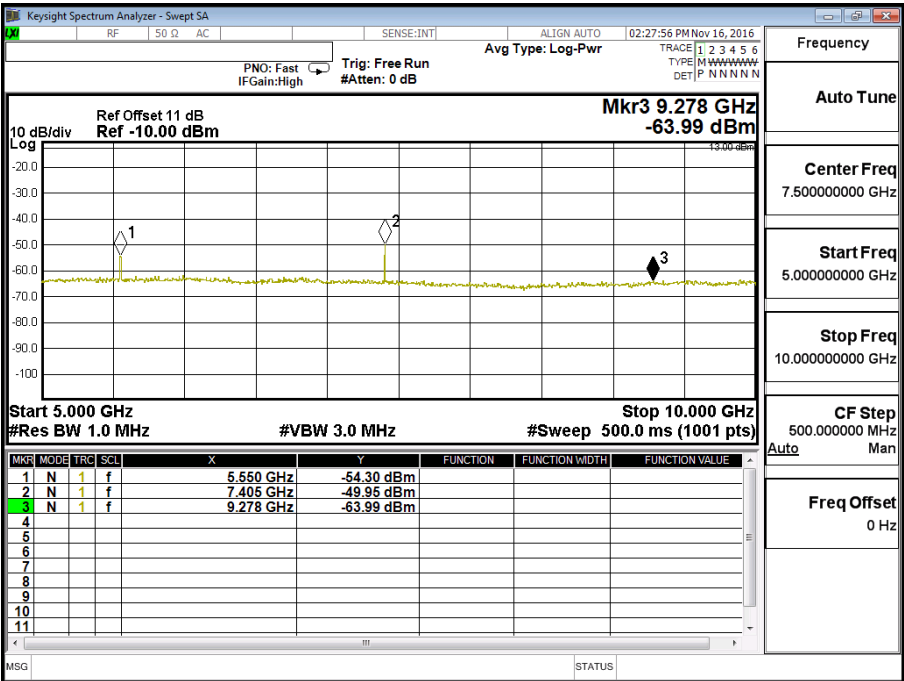
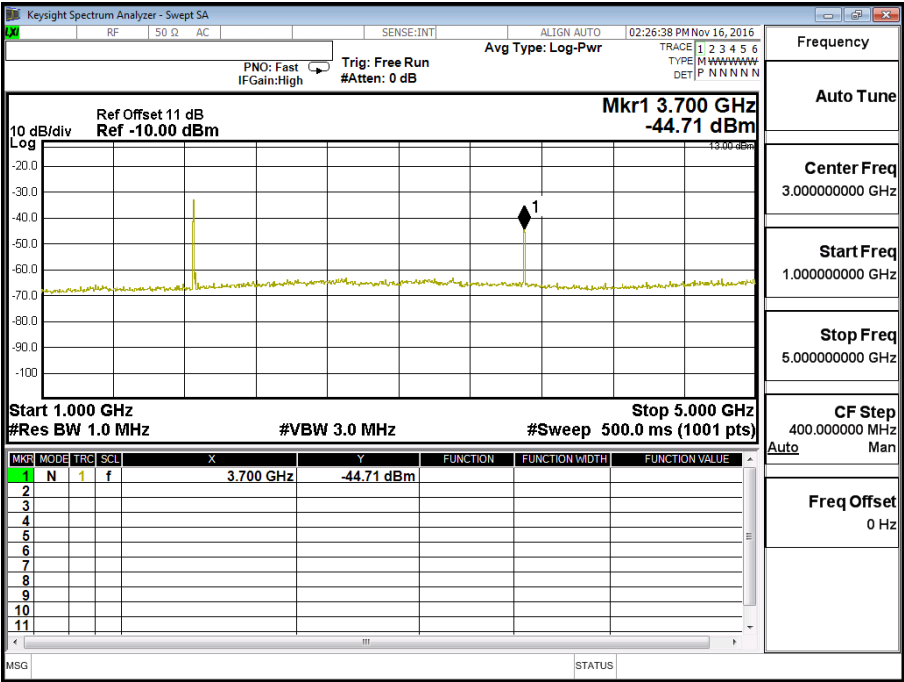


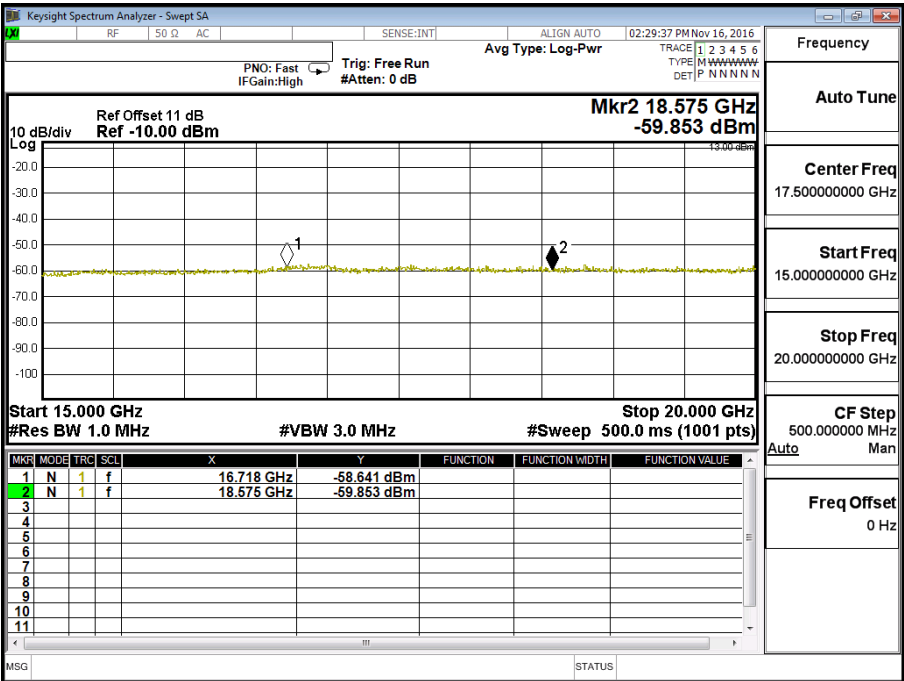
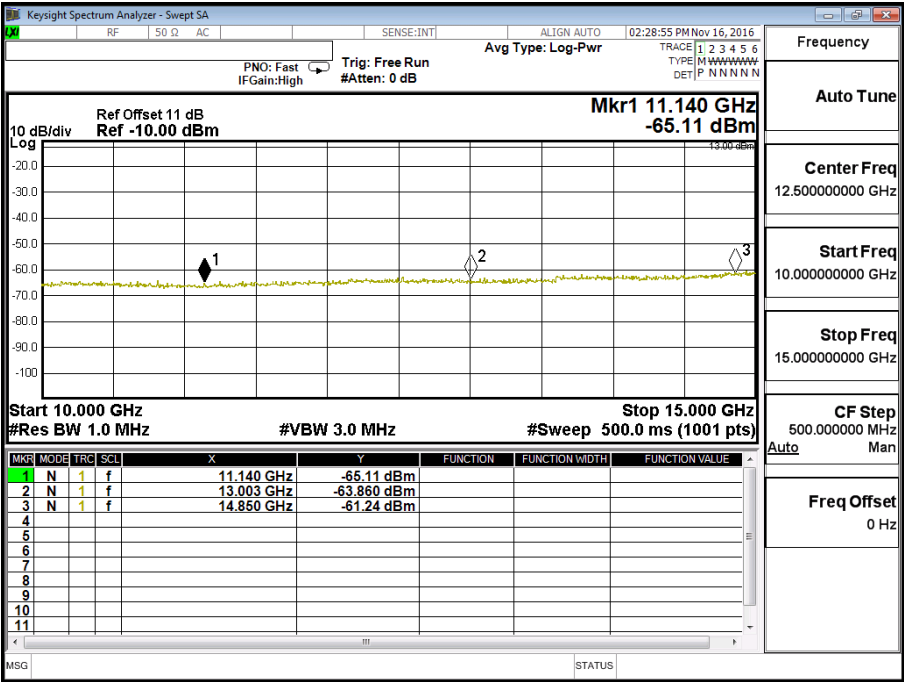
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (15M)	Test Range	30MHz~20GHz

LTE-Band 2 (15M) 16QAM(1,0) CH18675

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3700	-44.710	1.1	-43.610	-13
5550	-54.300	1.23	-53.070	-13
7405	-49.950	1.59	-48.360	-13
9278	-63.990	1.89	-62.100	-13
11140	-65.110	2.07	-63.040	-13
13003	-63.860	2.26	-61.600	-13
14850	-61.240	2.64	-58.600	-13
16718	-58.641	3.5	-55.141	-13
18575	-59.853	3.7	-56.153	-13



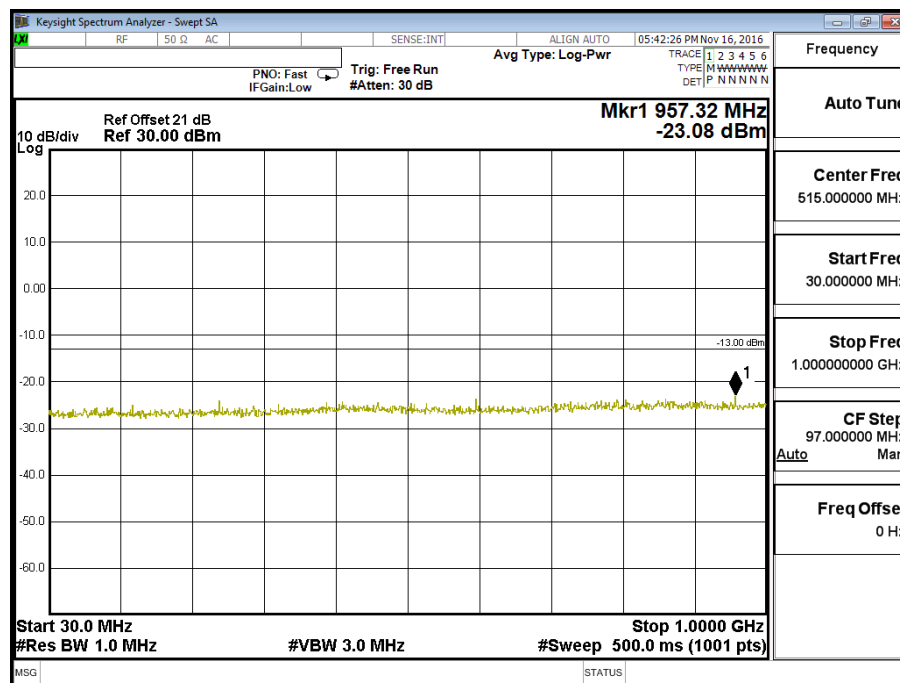


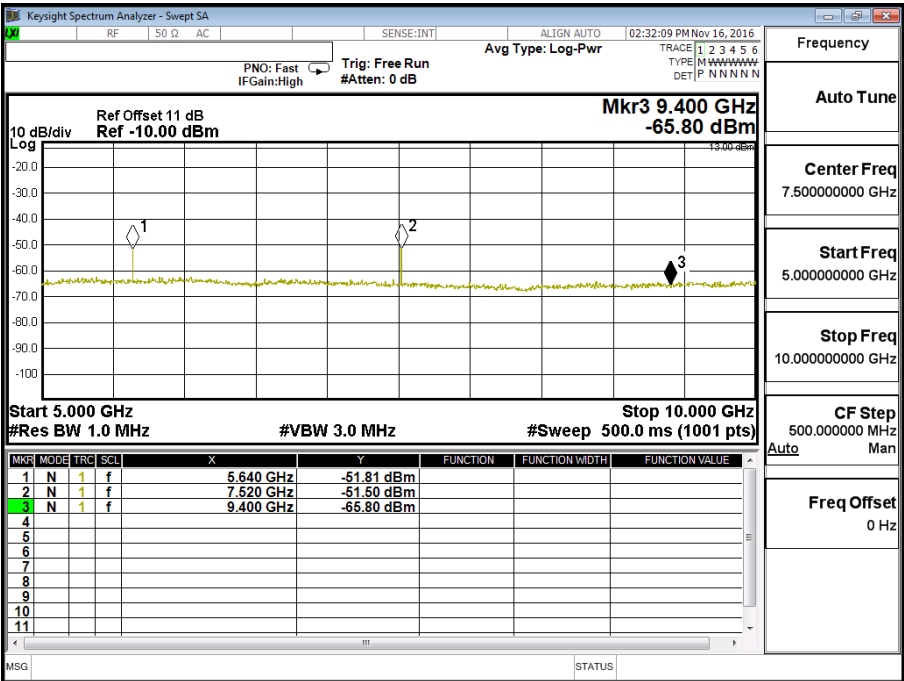
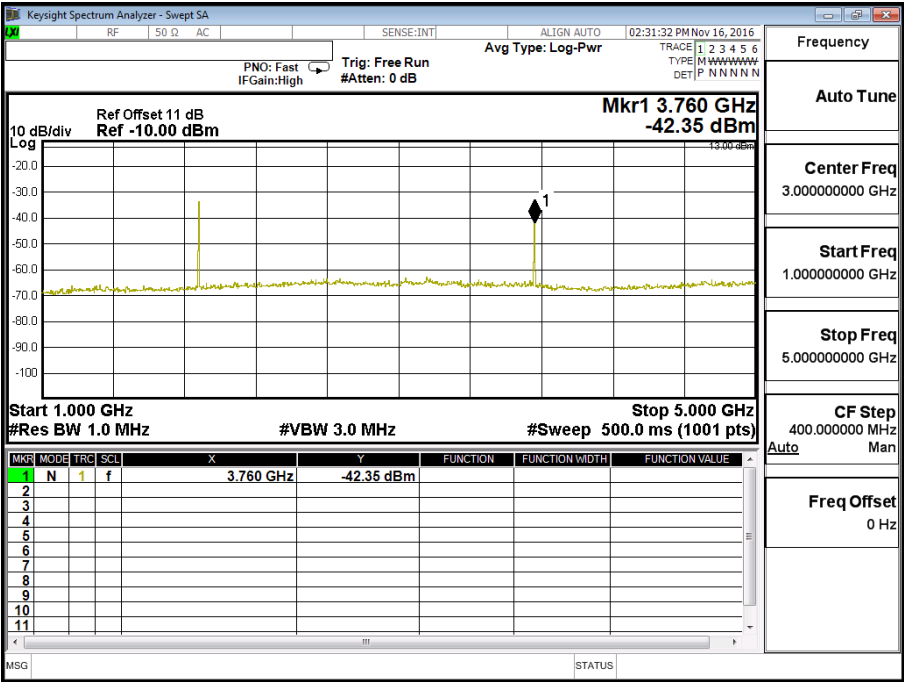


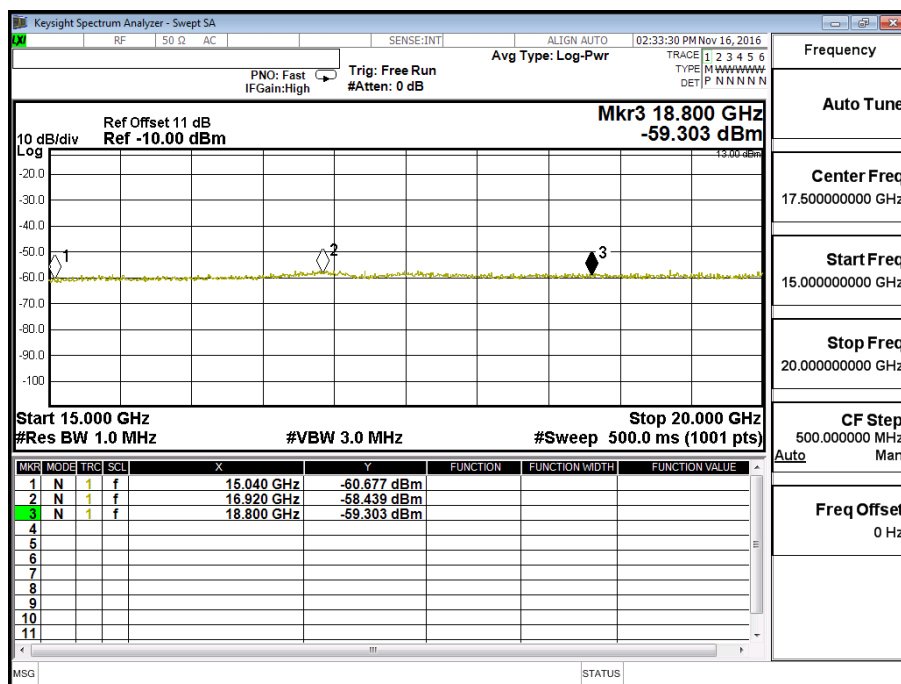
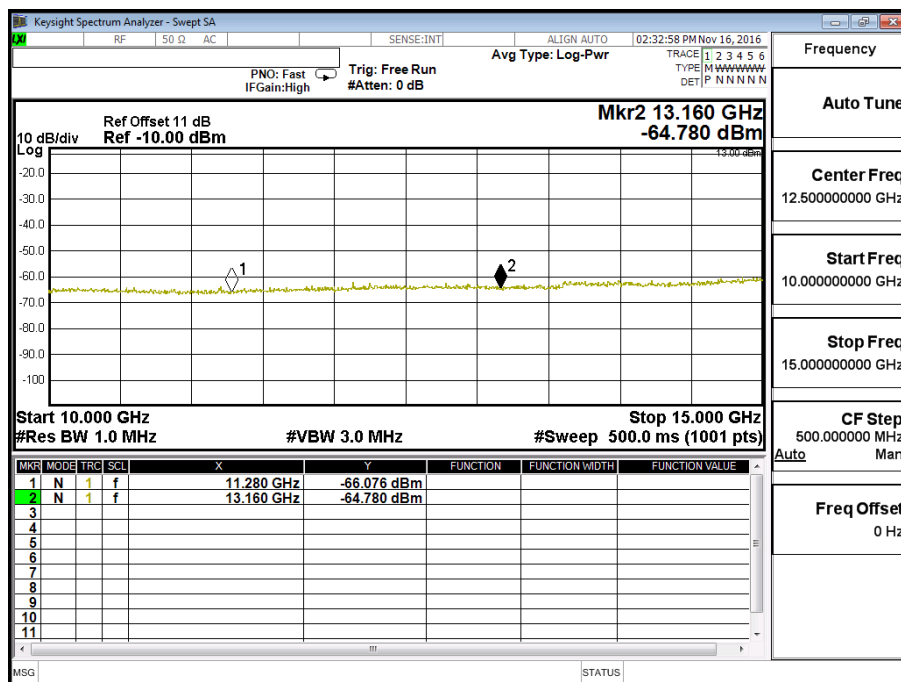
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (20M)	Test Range	30MHz~20GHz

LTE-Band 2 (20M) QPSK(1,49) CH18900

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3760	-42.350	1.1	-41.250	-13
5640	-51.810	1.23	-50.580	-13
7520	-51.500	1.59	-50.220	-13
9400	-65.800	1.89	-49.610	-13
11280	-66.076	2.07	-63.730	-13
13160	-64.780	2.26	-62.520	-13
15040	-60.677	2.64	-58.037	-13
16920	-58.439	3.5	-54.939	-13
18800	-59.303	3.7	-55.603	-13



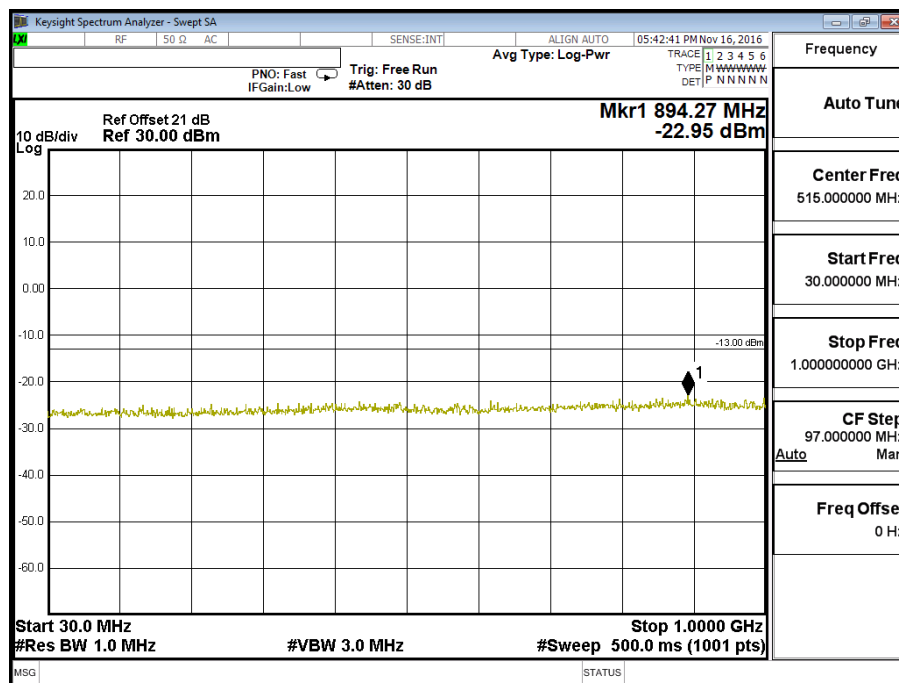


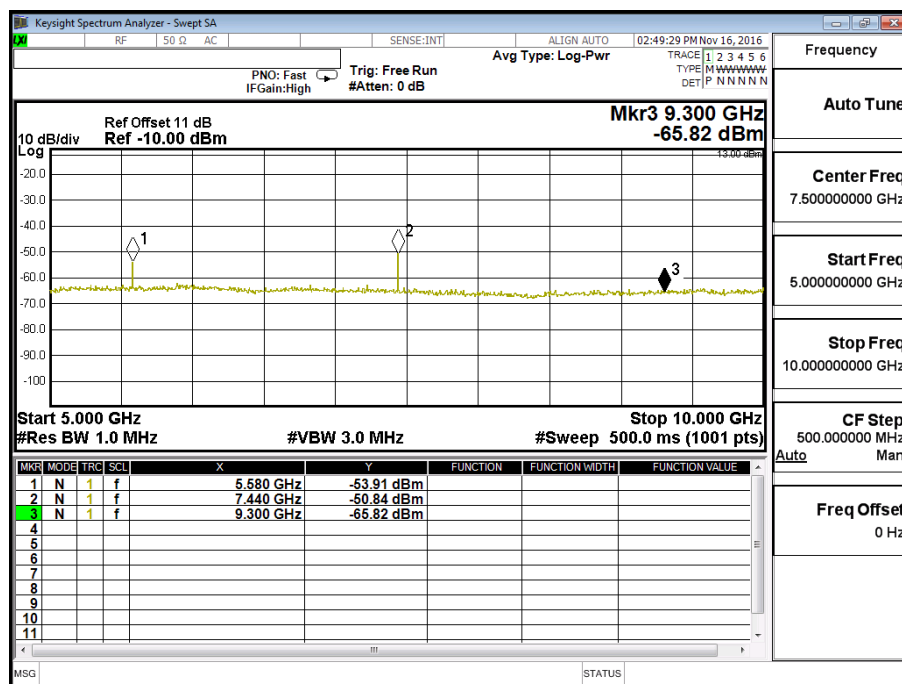
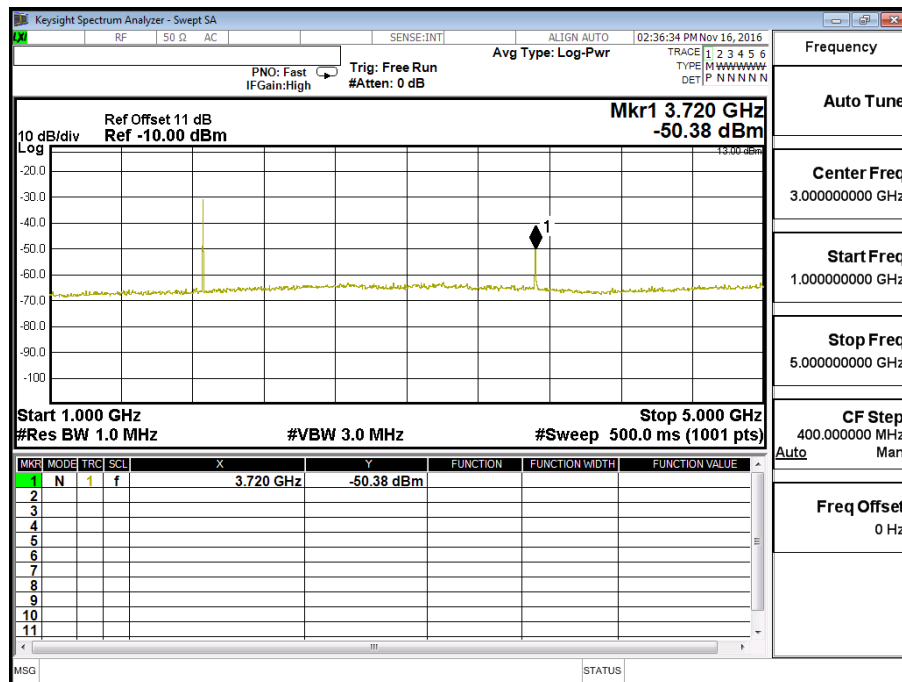


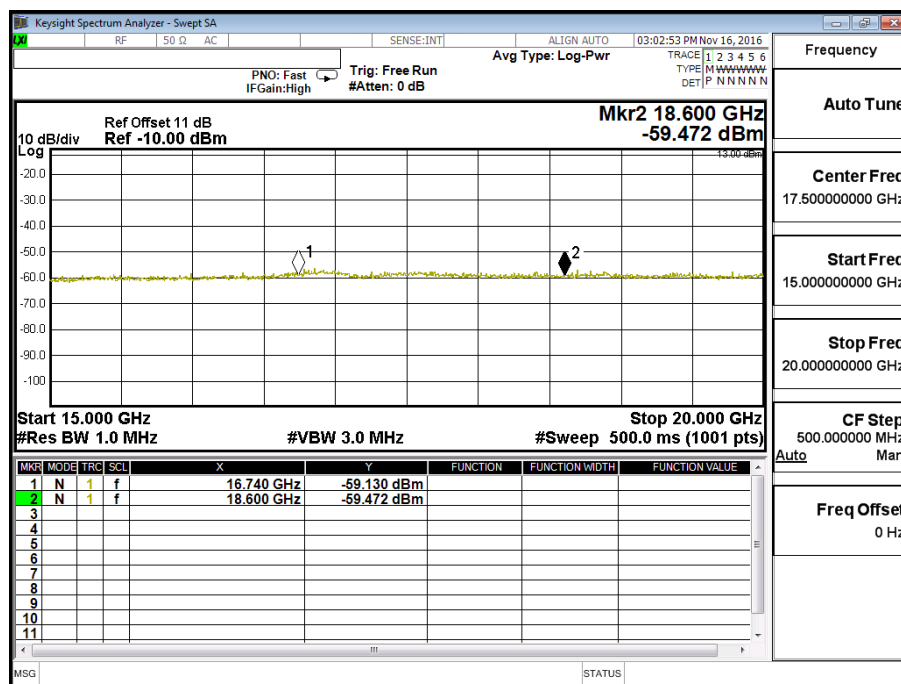
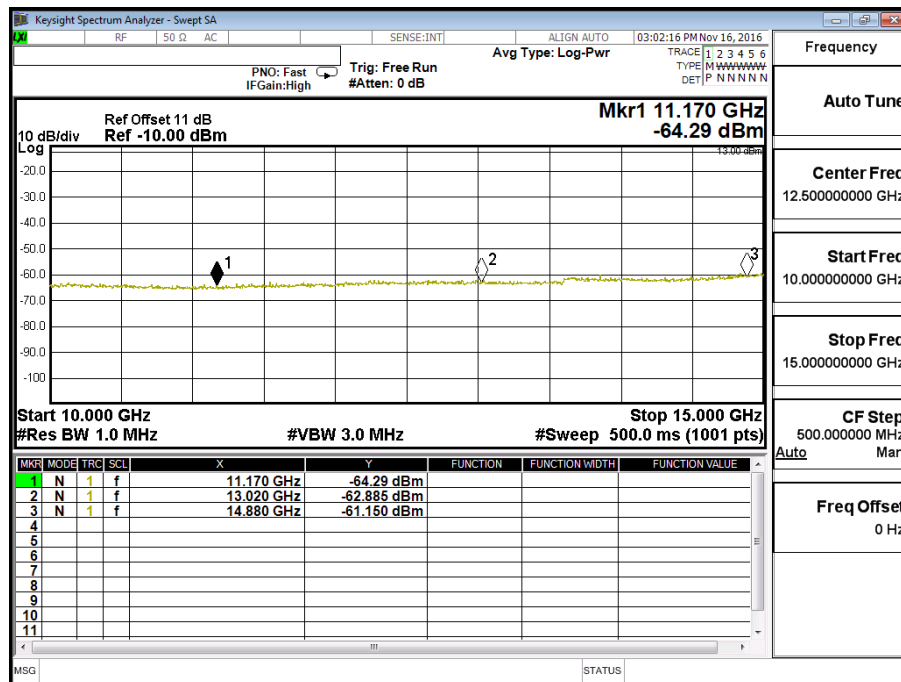
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 2 (20M)	Test Range	30MHz~20GHz

LTE-Band 2 (20M) 16QAM(1,49) CH18700

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3720	-50.380	1.1	-49.280	-13
5580	-53.910	1.23	-52.680	-13
7440	-50.840	1.59	-52.320	-13
9300	-65.820	1.89	-48.950	-13
11170	-64.290	2.07	-63.750	-13
13020	-62.885	2.26	-60.625	-13
14880	-61.150	2.64	-58.510	-13
16740	-59.130	3.5	-55.630	-13
18600	-59.472	3.7	-55.772	-13



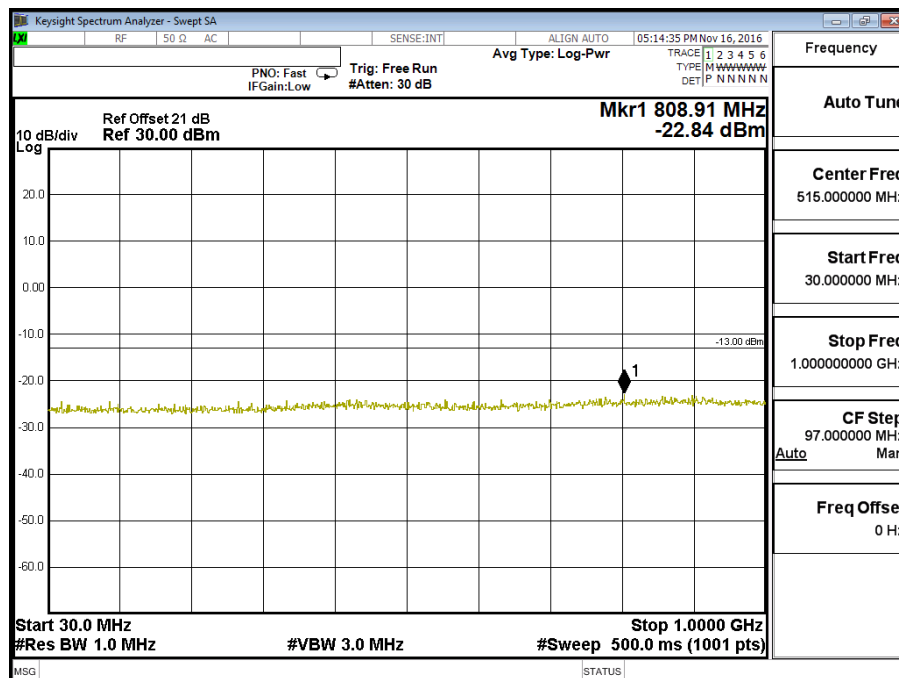


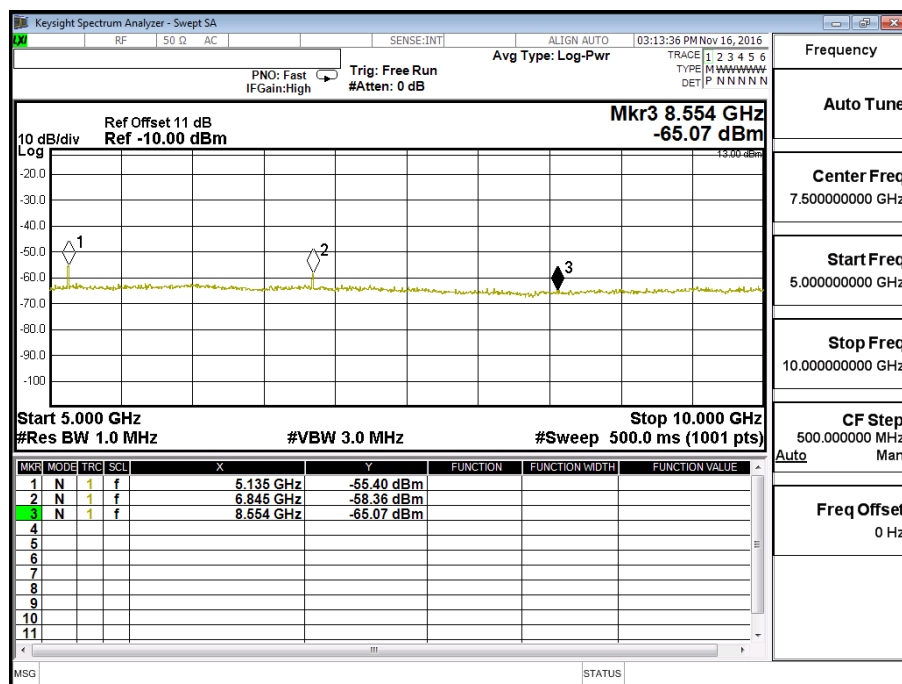
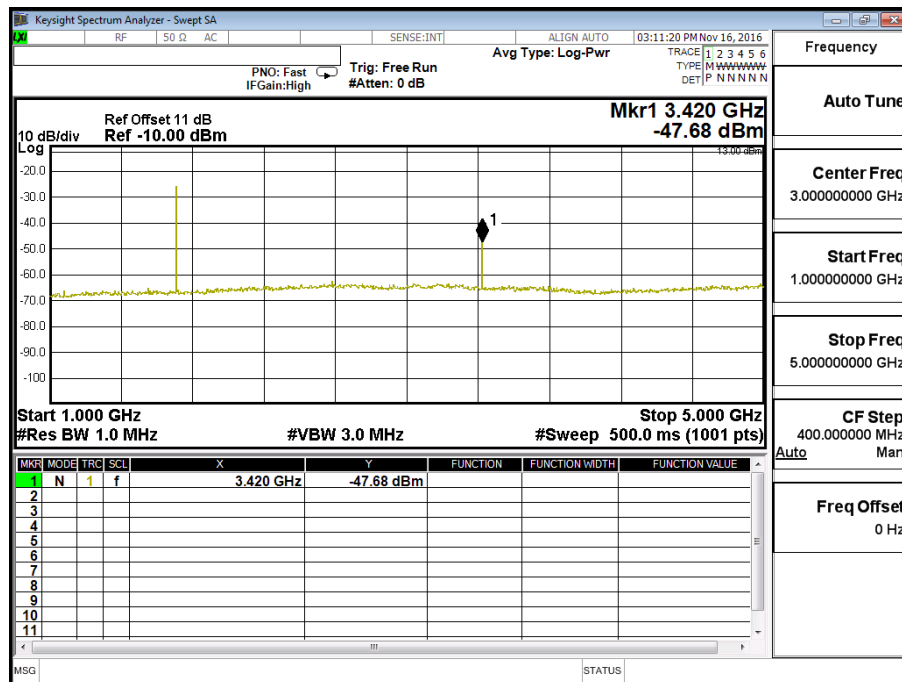


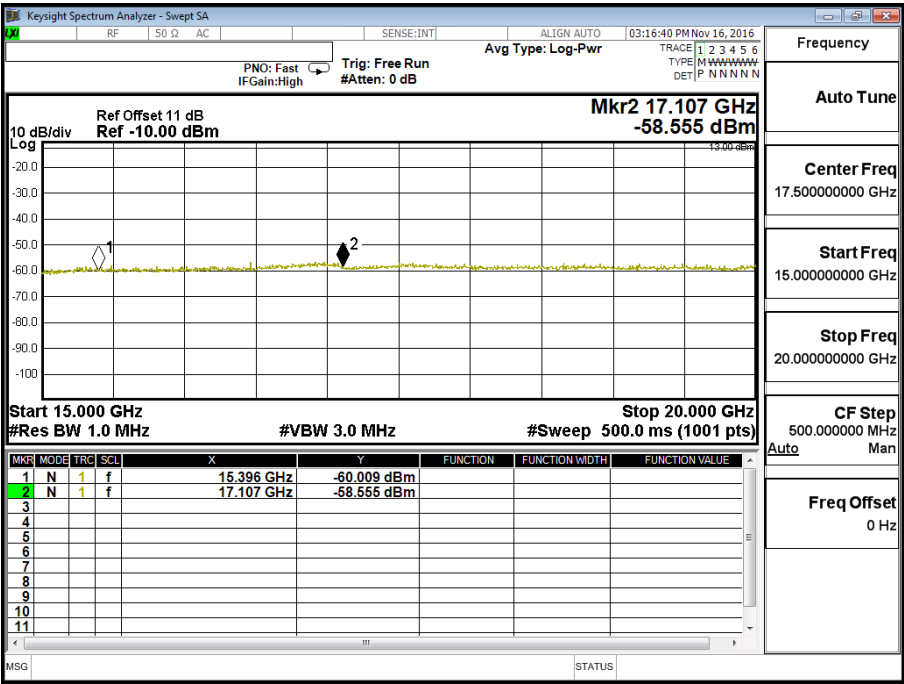
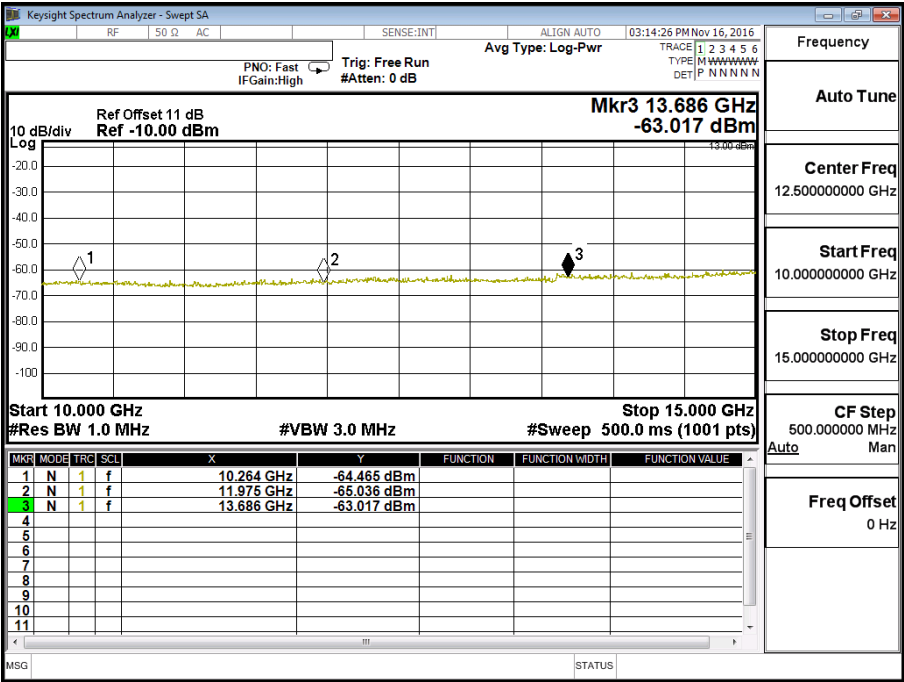
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (1.4M)	Test Range	30MHz~20GHz

LTE-Band 4 (1.4M) QPSK(1,3) CH19957

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3420	-47.680	1.1	-46.580	-13
5135	-55.400	1.23	-54.170	-13
6845	-58.360	1.59	-53.810	-13
8554	-65.070	1.89	-56.470	-13
10264	-64.465	2.07	-63.000	-13
11975	-65.036	2.26	-62.776	-13
13686	-63.017	2.64	-60.377	-13
15396	-60.009	3.5	-56.509	-13
17107	-58.555	3.7	-54.855	-13



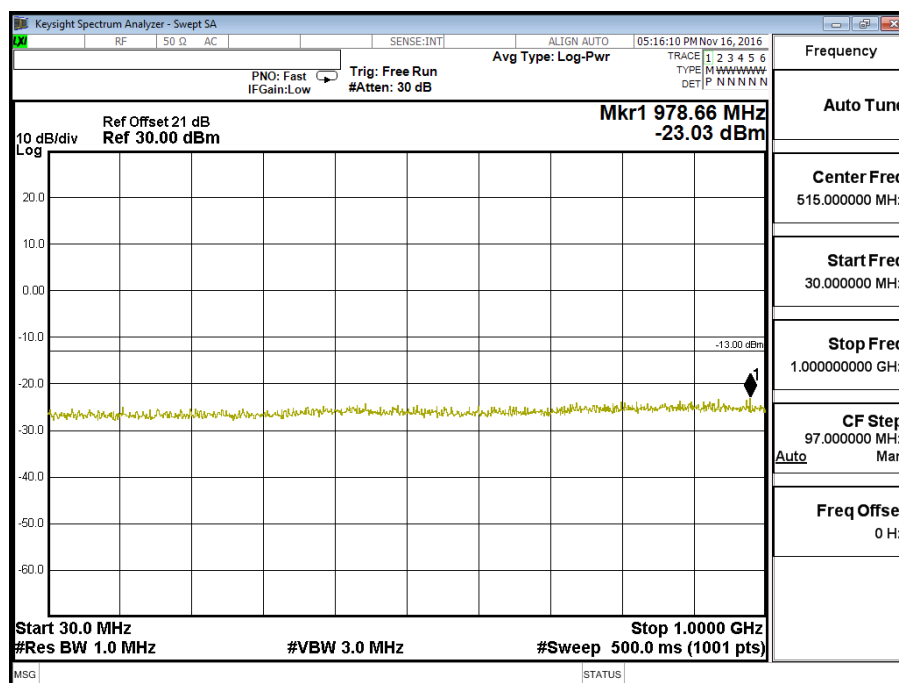


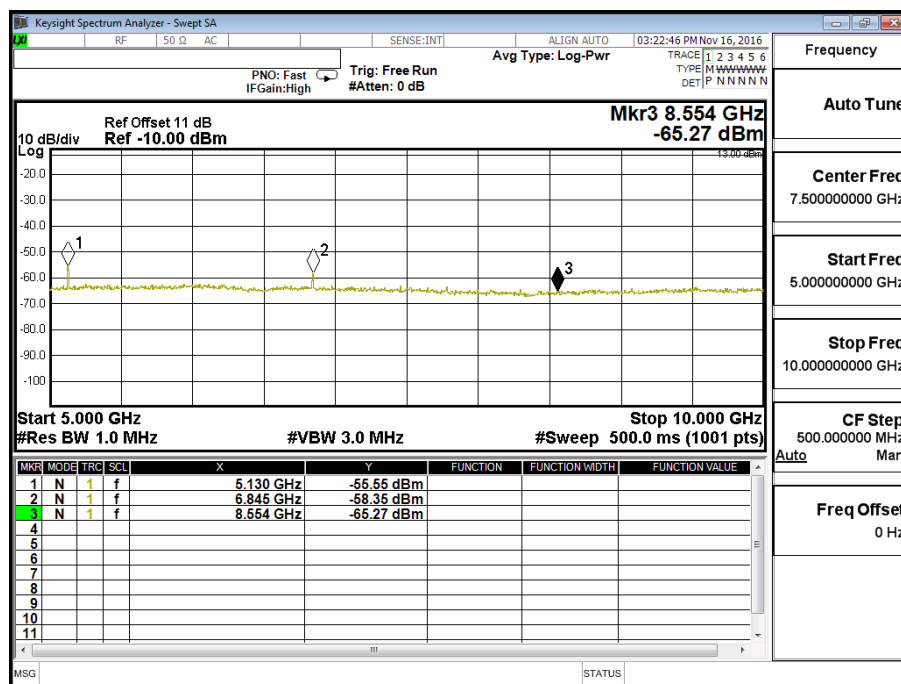
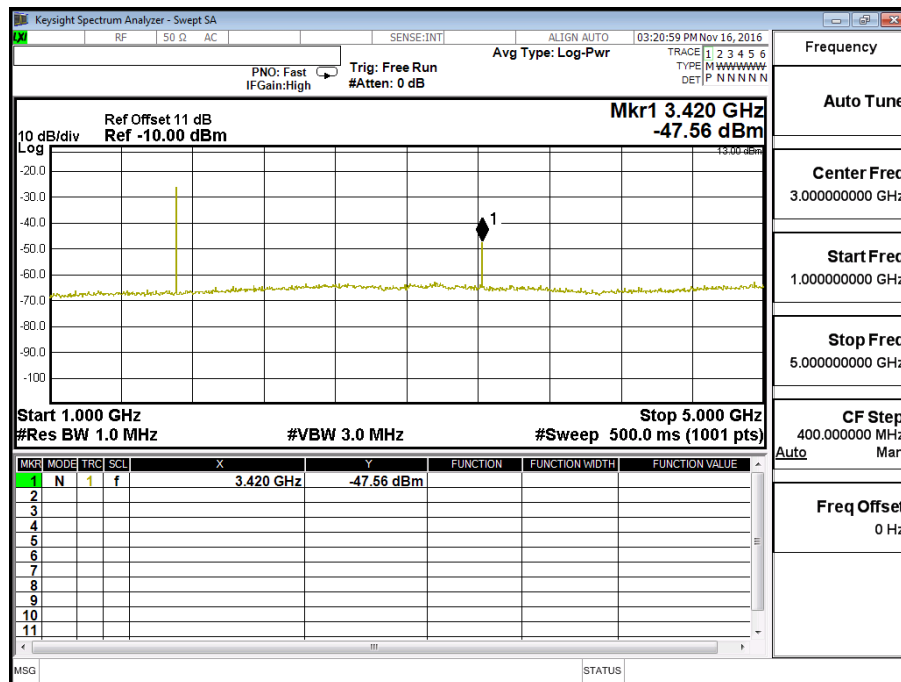


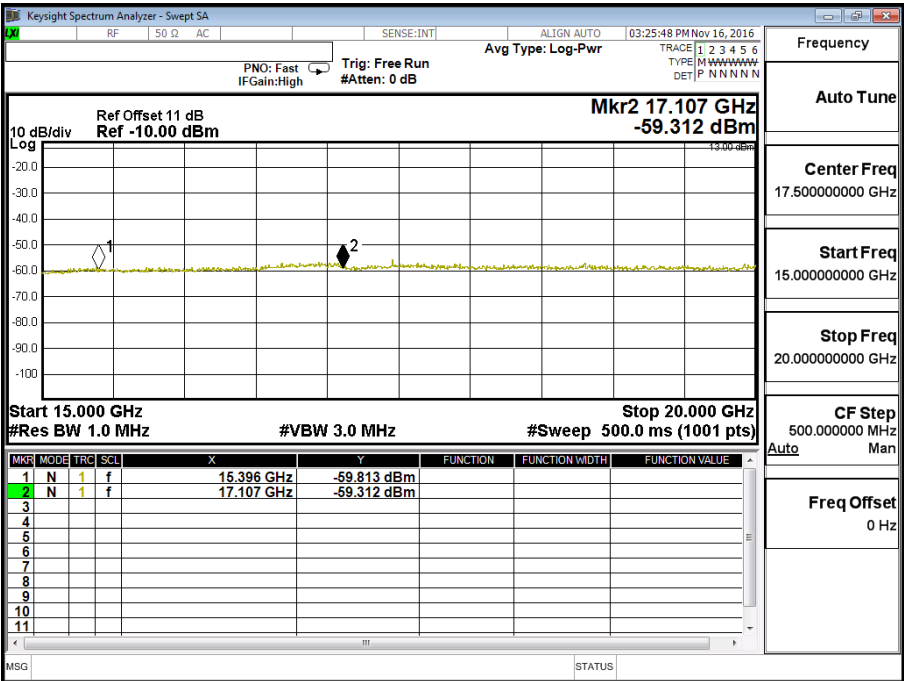
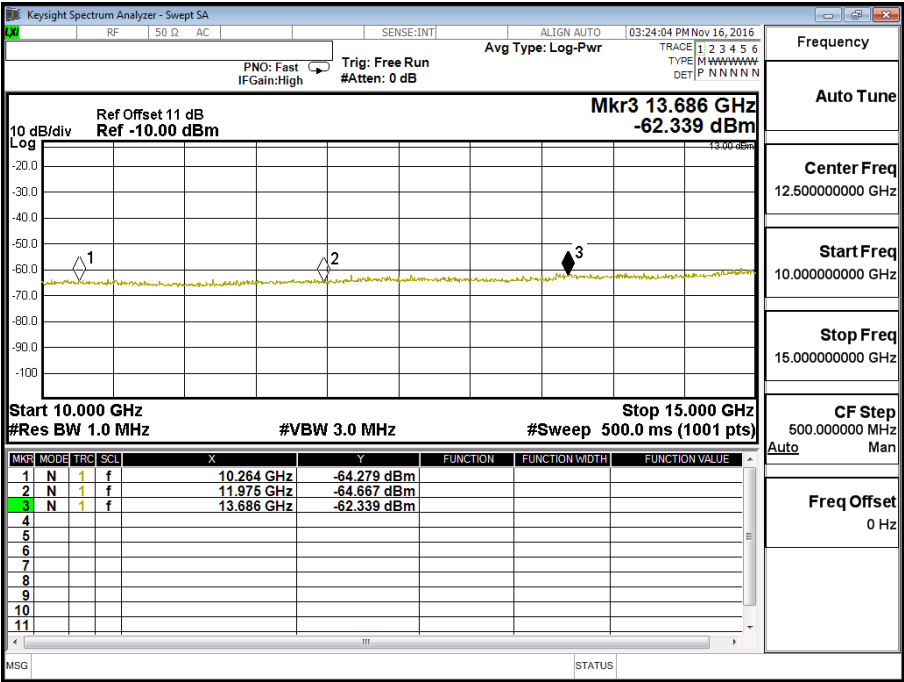
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (1.4M)	Test Range	30MHz~20GHz

LTE-Band 4 (1.4M) 16QAM(1,3) CH19957

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3420	-47.560	1.1	-46.460	-13
5130	-55.550	1.23	-54.320	-13
6845	-58.350	1.59	-53.960	-13
8554	-65.270	1.89	-56.460	-13
10264	-64.279	2.07	-63.200	-13
11975	-64.667	2.26	-62.407	-13
13686	-62.339	2.64	-59.699	-13
15396	-59.813	3.5	-56.313	-13
17107	-59.312	3.7	-55.612	-13



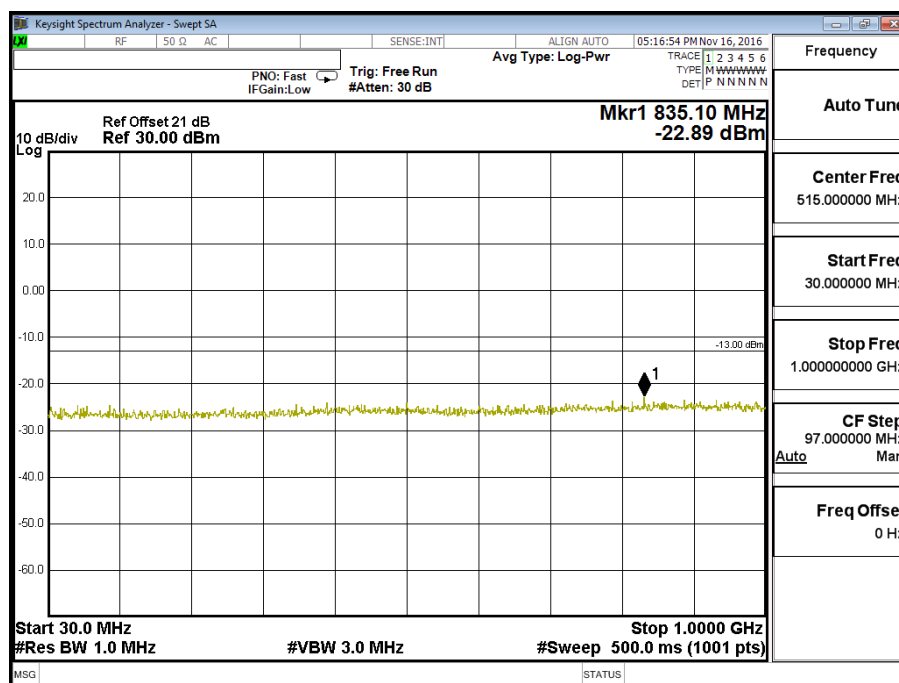


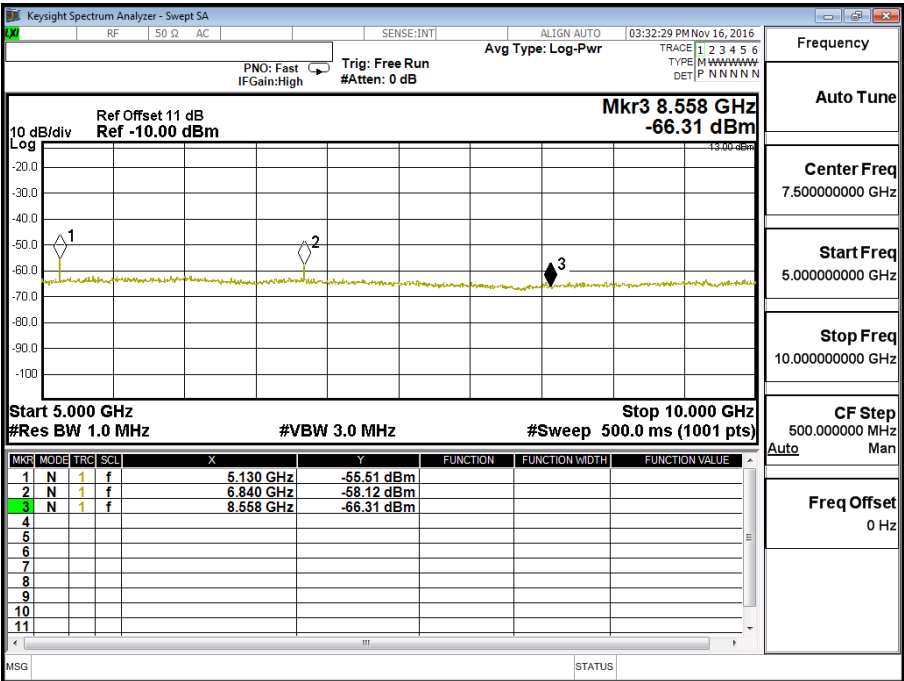
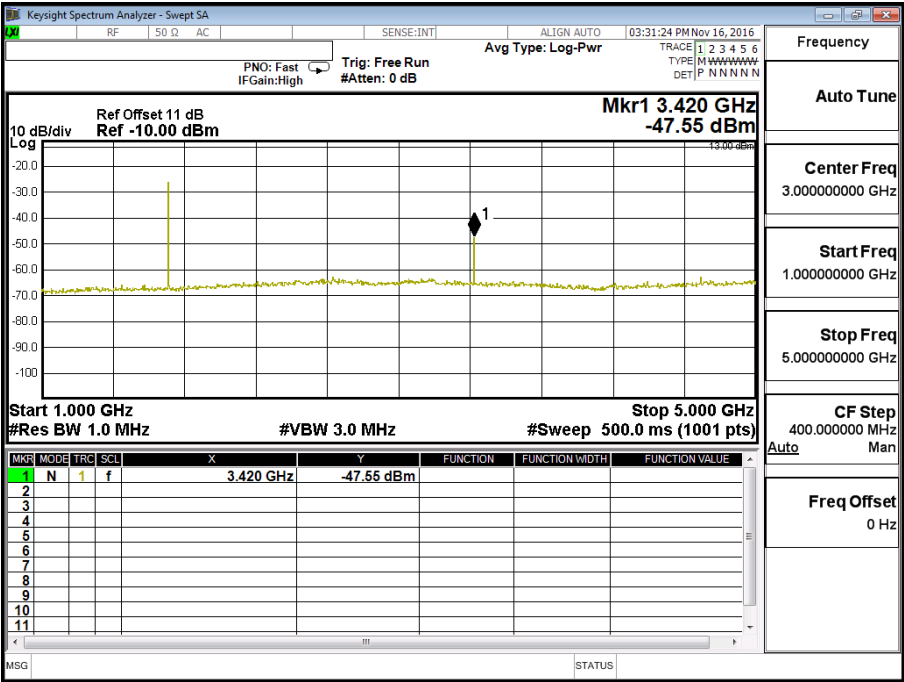


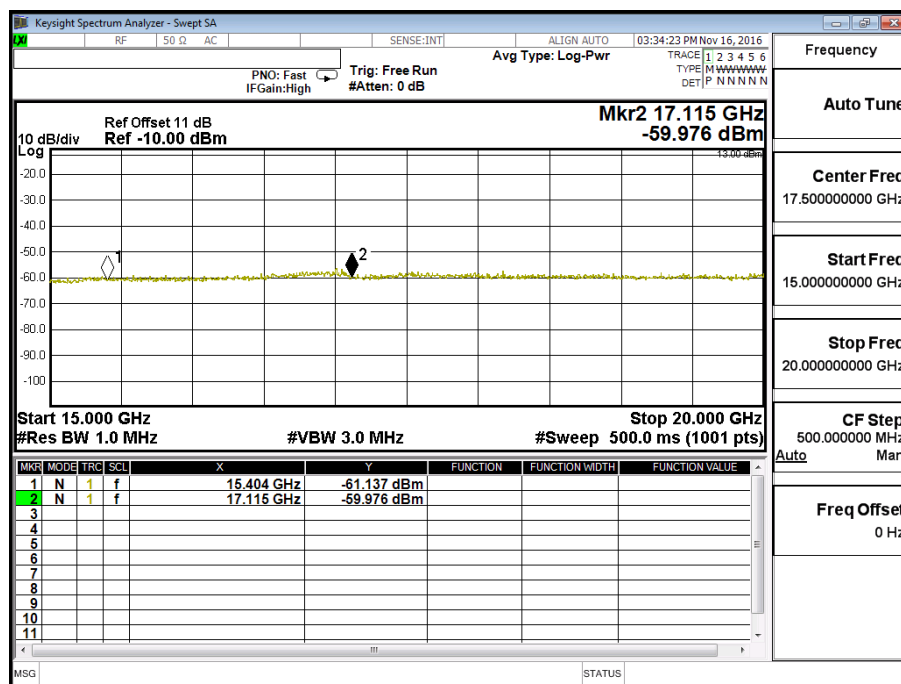
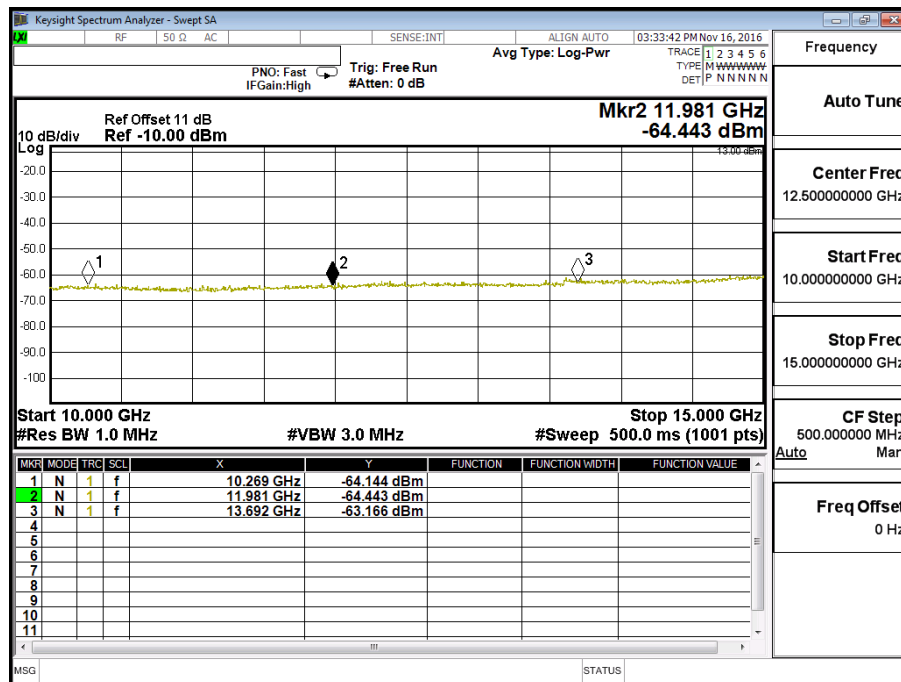
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (3M)	Test Range	30MHz~20GHz

LTE-Band 4 (3M) QPSK(1,0) CH19965

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3420	-47.550	1.1	-46.450	-13
5130	-55.510	1.23	-54.280	-13
6840	-58.120	1.59	-53.920	-13
8558	-66.310	1.89	-56.230	-13
10269	-64.144	2.07	-64.240	-13
11981	-64.443	2.26	-62.183	-13
13692	-63.166	2.64	-60.526	-13
15404	-61.137	3.5	-57.637	-13
17115	-59.976	3.7	-56.276	-13



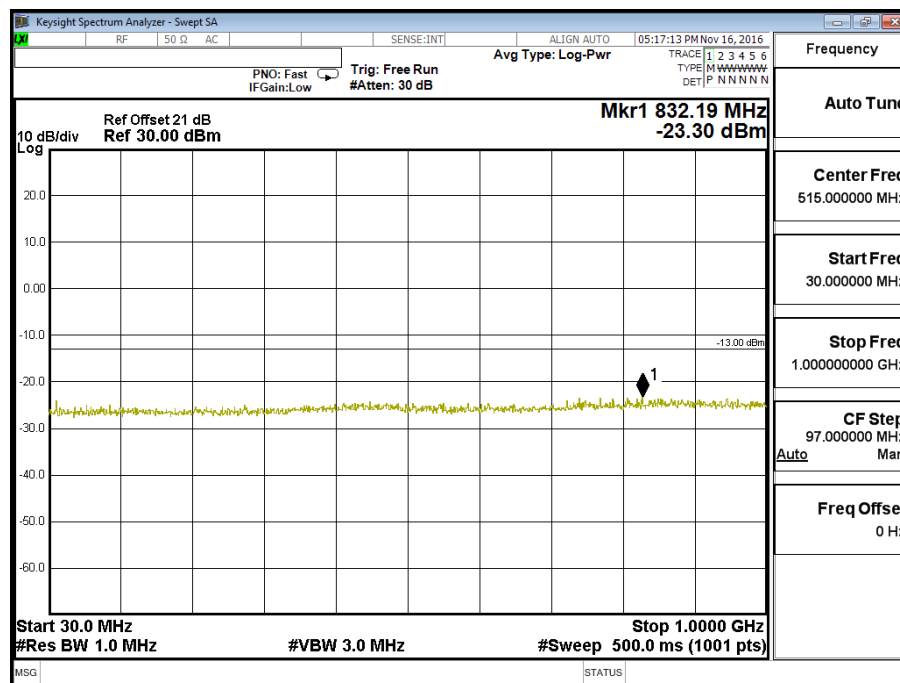


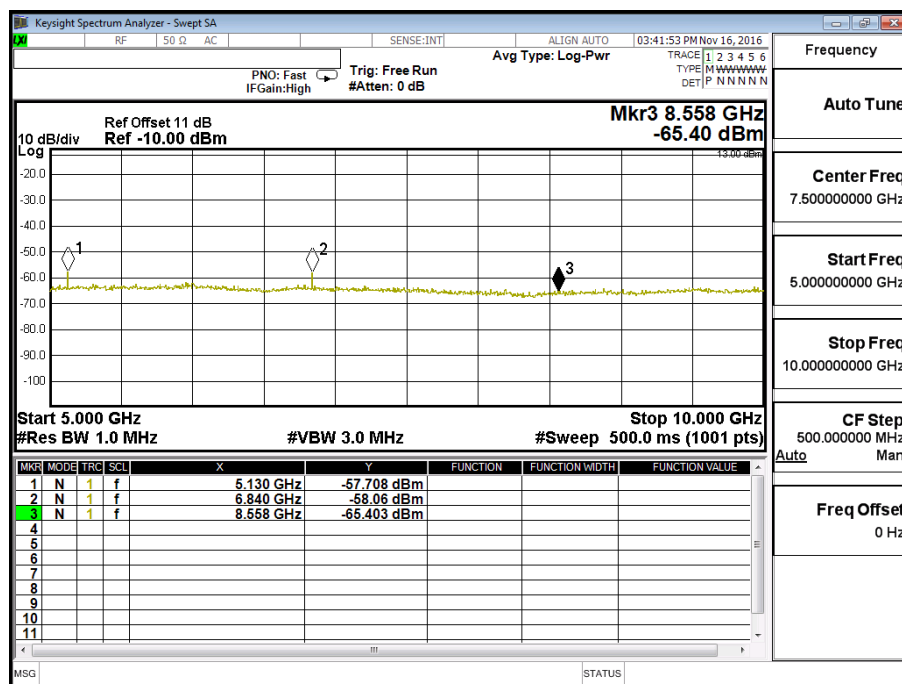
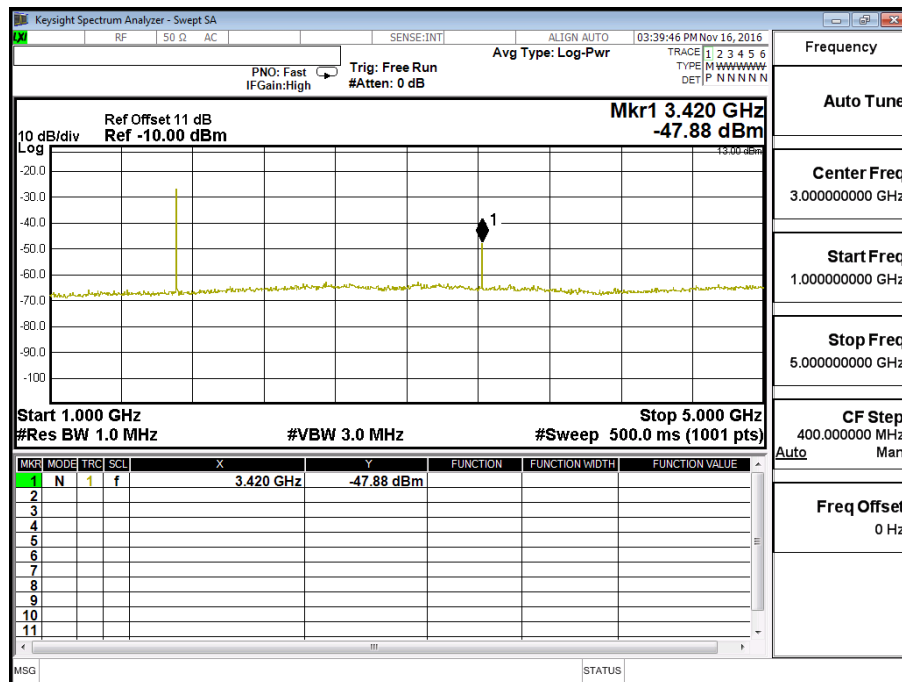


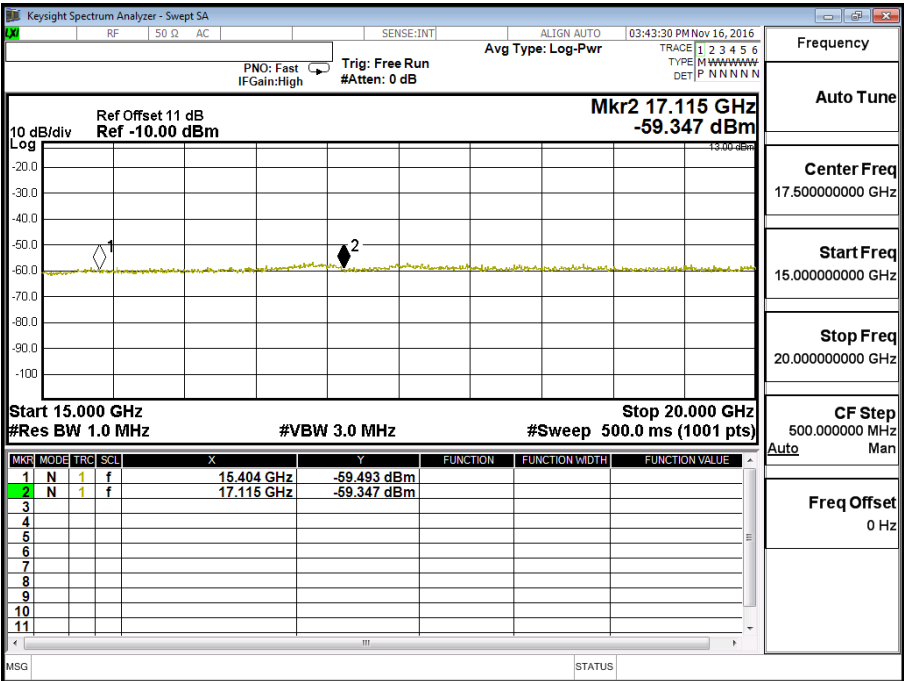
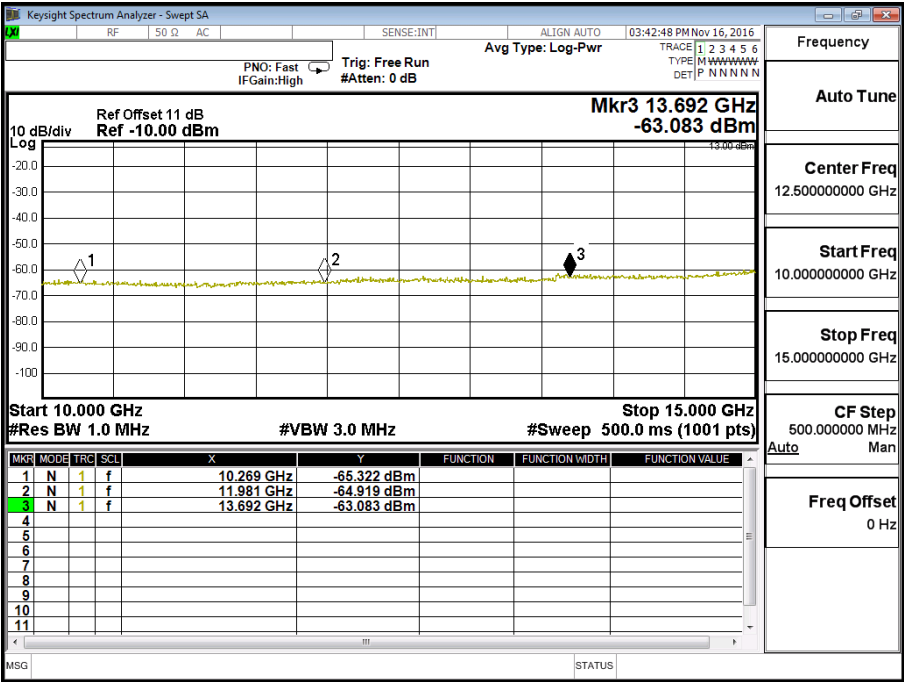
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (3M)	Test Range	30MHz~20GHz

LTE-Band 4 (3M) 16QAM(1,0) CH19965

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3420	-47.880	1.1	-46.780	-13
5130	-57.708	1.23	-56.478	-13
6840	-58.060	1.59	-56.118	-13
8558	-65.403	1.89	-56.170	-13
10269	-65.322	2.07	-63.333	-13
11981	-64.919	2.26	-62.659	-13
13692	-63.083	2.64	-60.443	-13
15404	-59.493	3.5	-55.993	-13
17115	-59.347	3.7	-55.647	-13



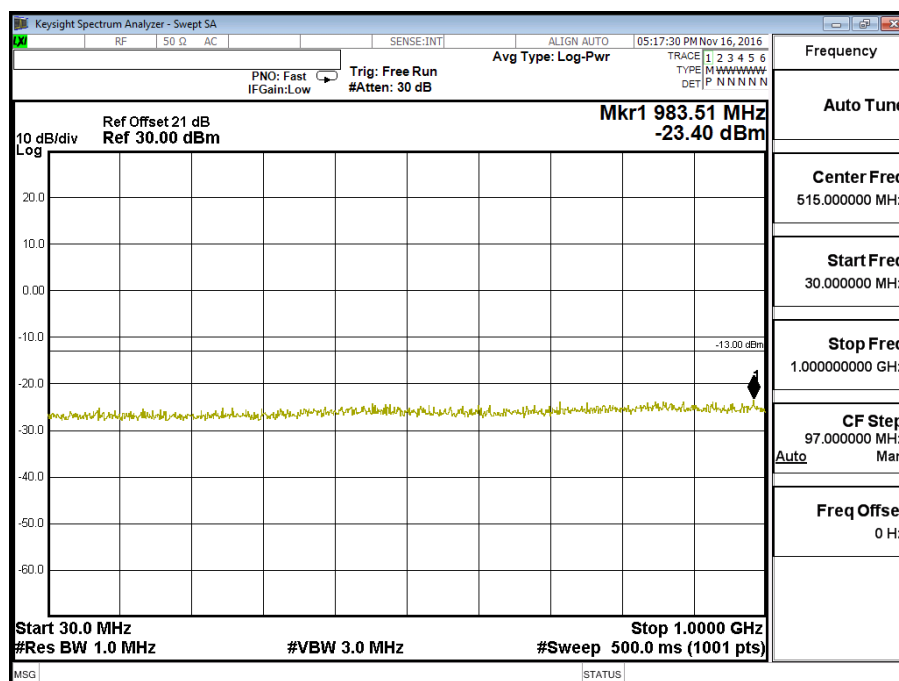


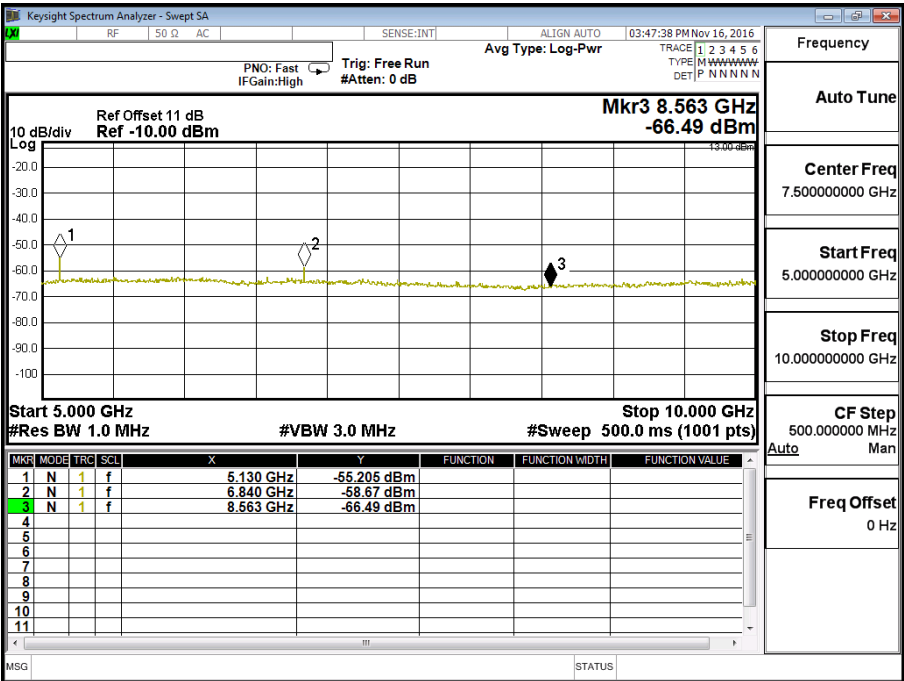
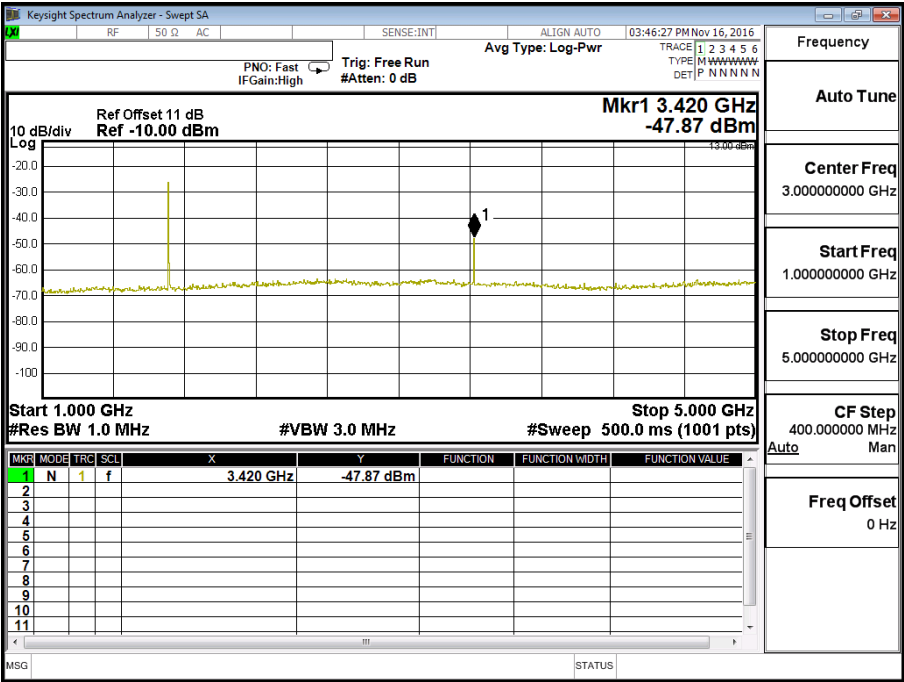


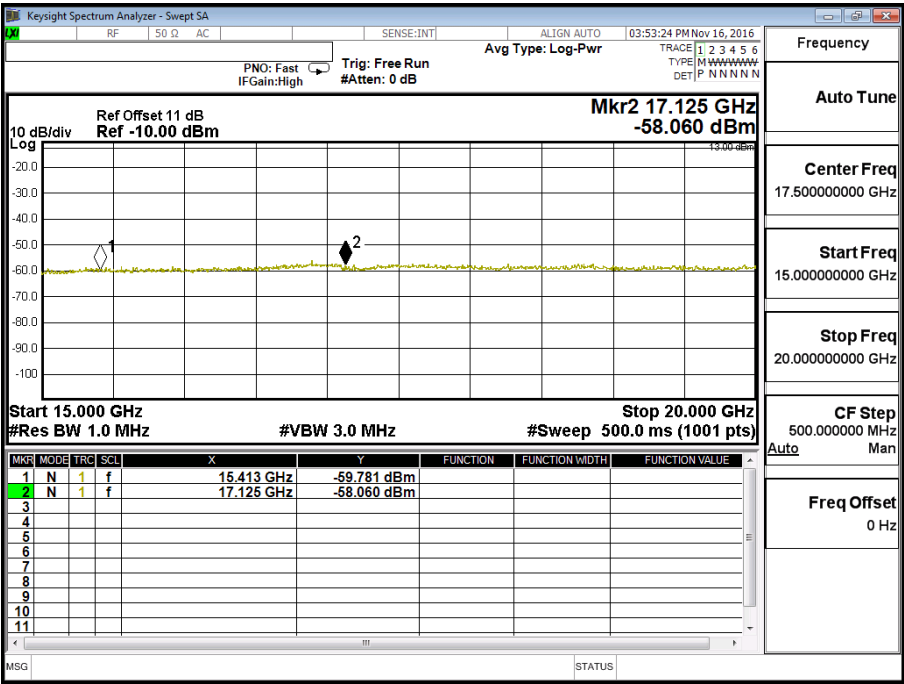
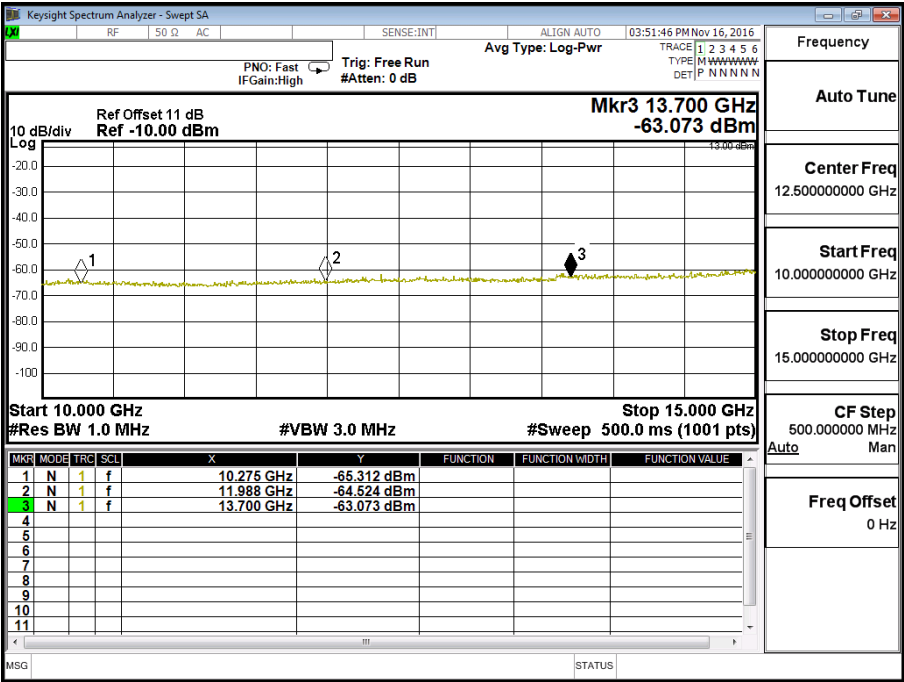
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (5M)	Test Range	30MHz~20GHz

LTE-Band 4 (5M) QPSK(1,0) CH19975

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3420	-47.870	1.1	-46.770	-13
5130	-55.205	1.23	-53.975	-13
6840	-58.670	1.59	-53.615	-13
8563	-66.490	1.89	-56.780	-13
10275	-65.312	2.07	-64.420	-13
11988	-64.524	2.26	-62.264	-13
13700	-63.073	2.64	-60.433	-13
15413	-59.781	3.5	-56.281	-13
17125	-58.060	3.7	-54.360	-13



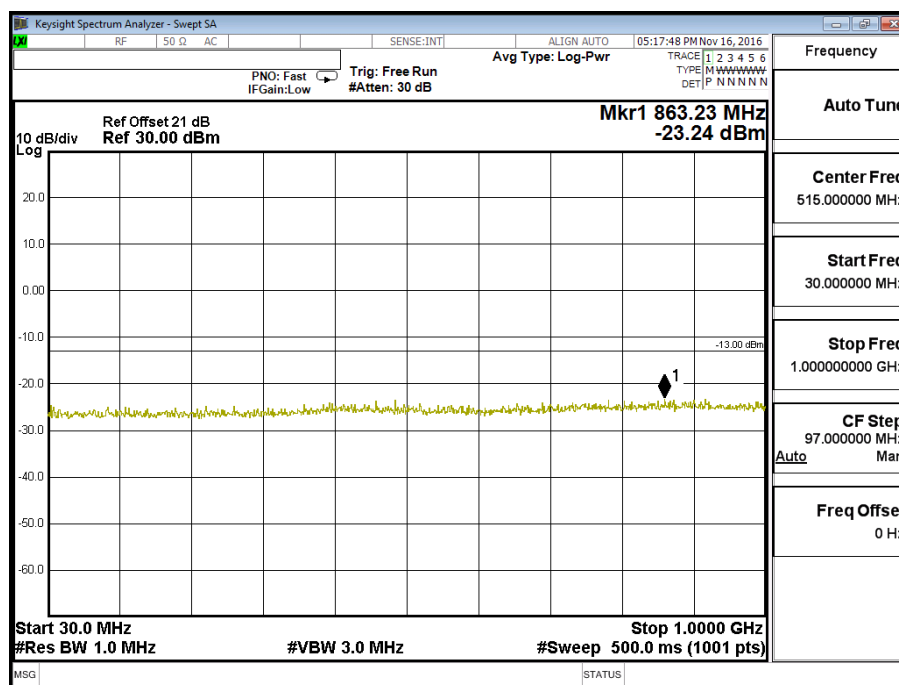


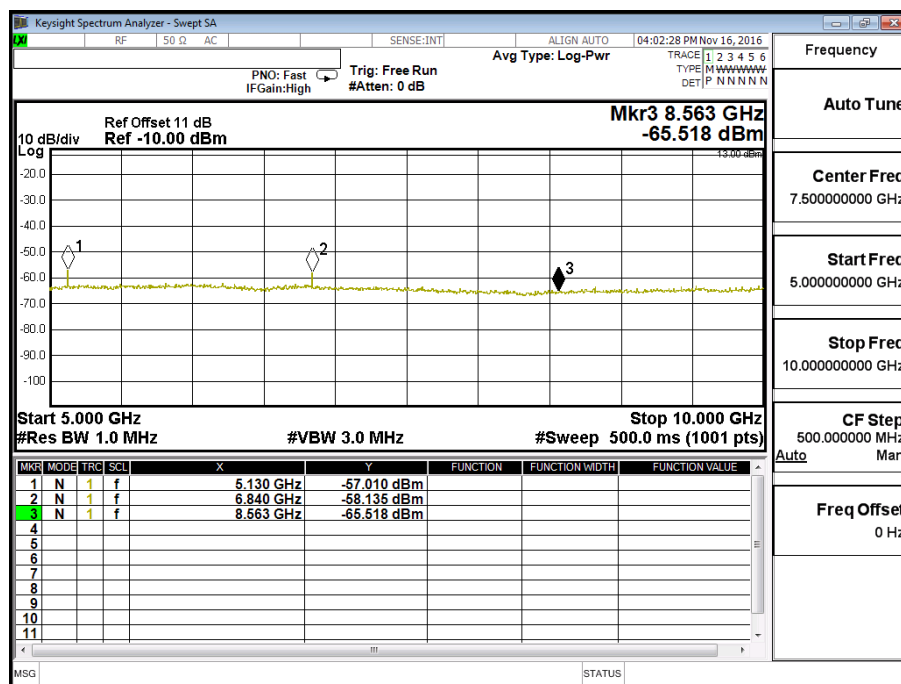
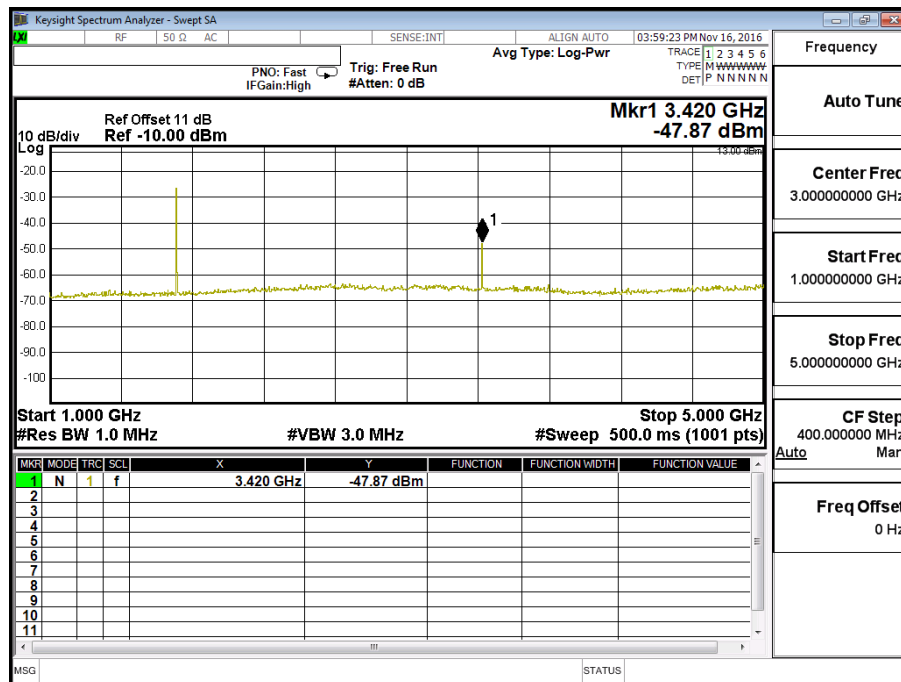


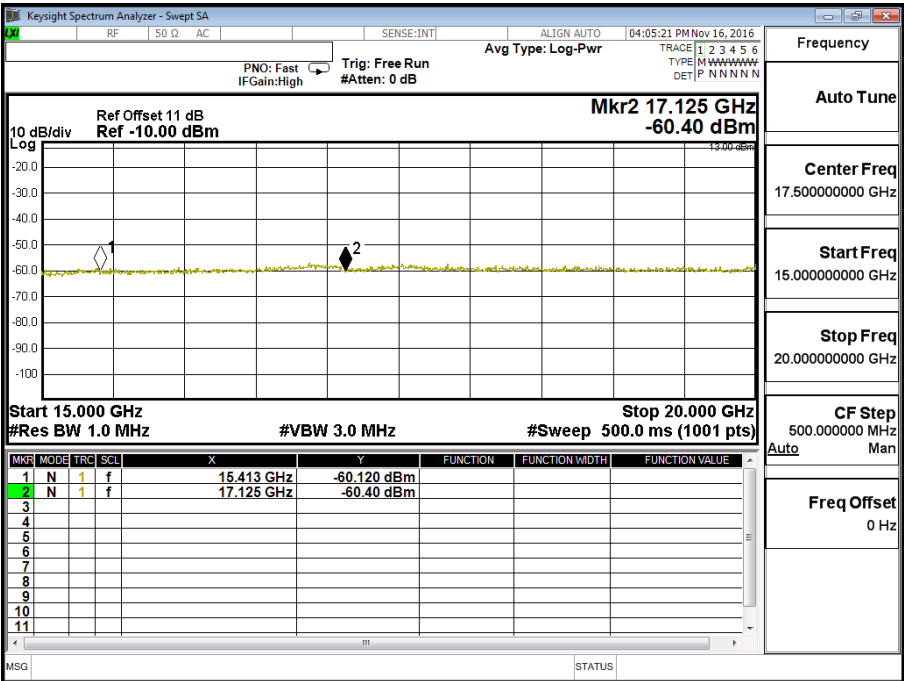
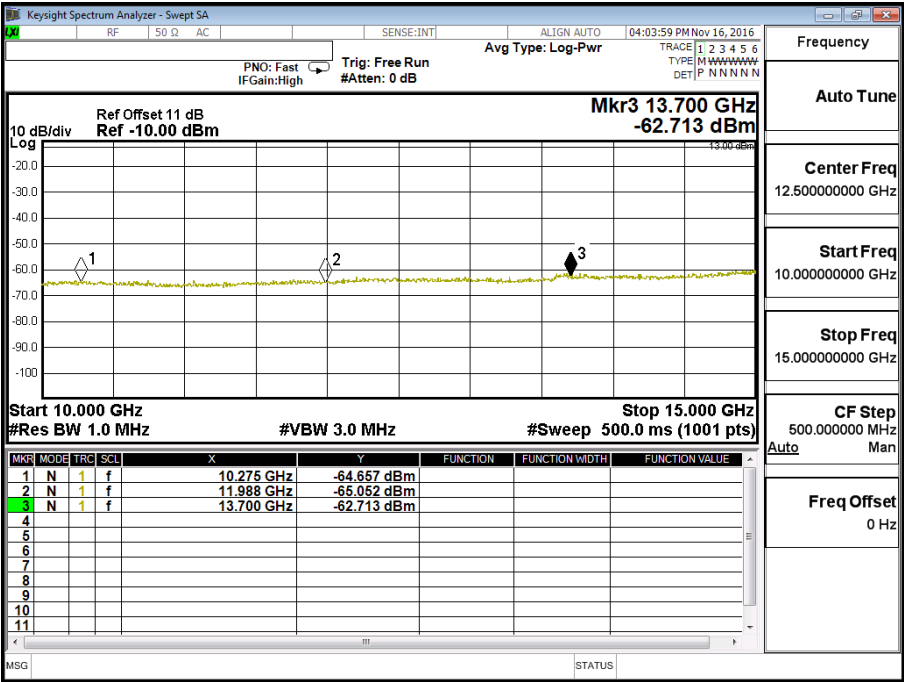
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (5M)	Test Range	30MHz~20GHz

LTE- Band 4 (5M) 16QAM(1,0) CH19975

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3420	-47.870	1.1	-46.770	-13
5130	-57.010	1.23	-55.780	-13
6840	-58.135	1.59	-55.420	-13
8563	-65.518	1.89	-56.245	-13
10275	-64.657	2.07	-63.448	-13
11988	-65.052	2.26	-62.792	-13
13700	-62.713	2.64	-60.073	-13
15413	-60.120	3.5	-56.620	-13
17125	-60.400	3.7	-56.700	-13



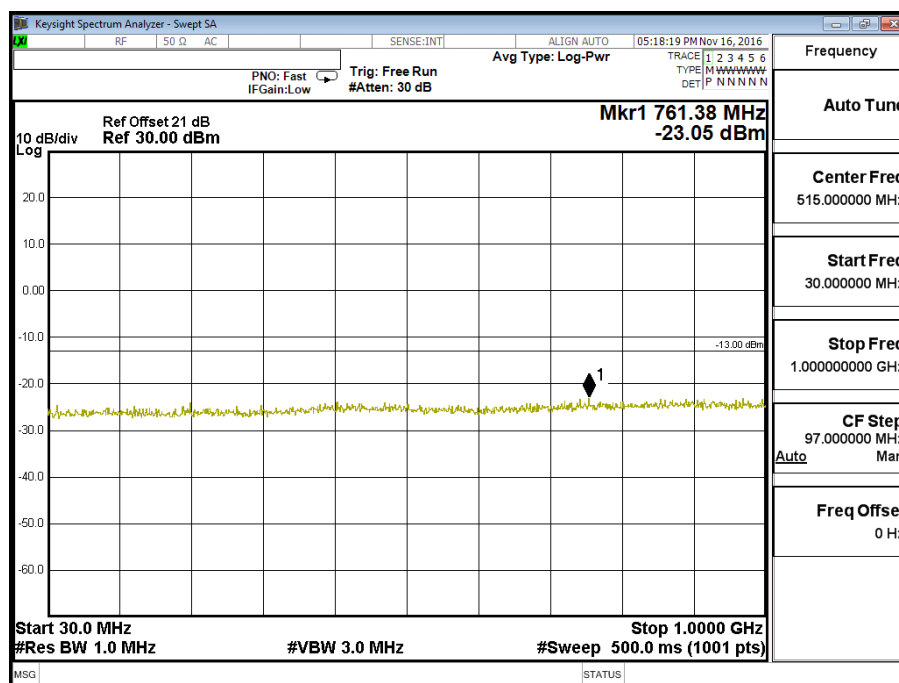


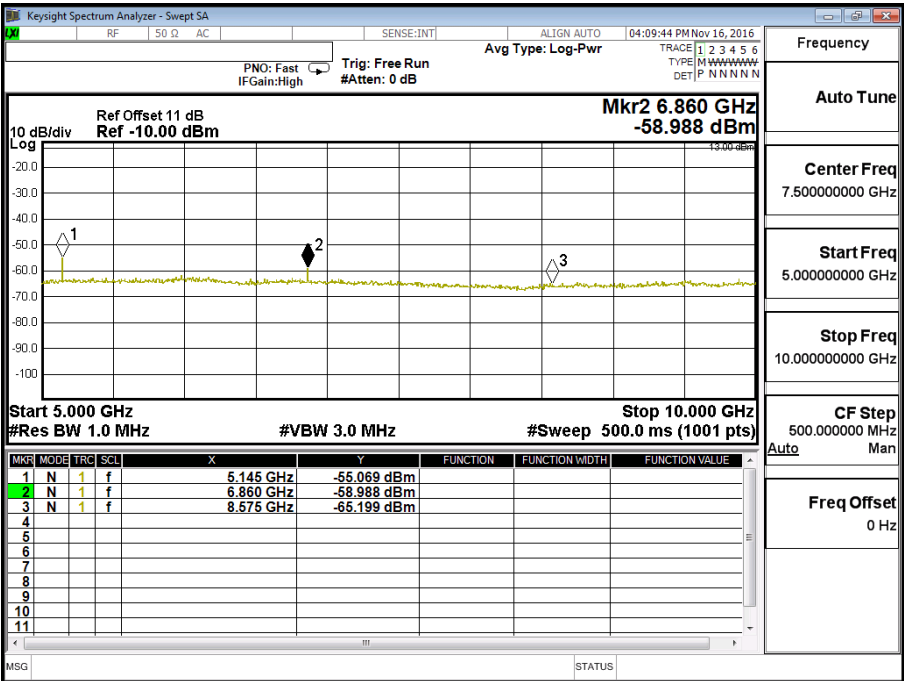
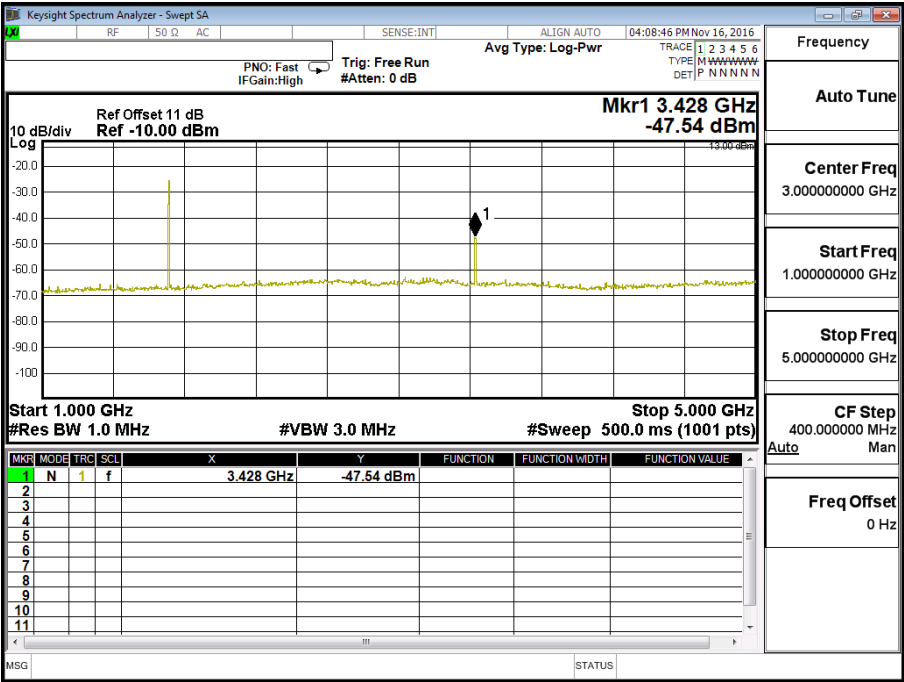


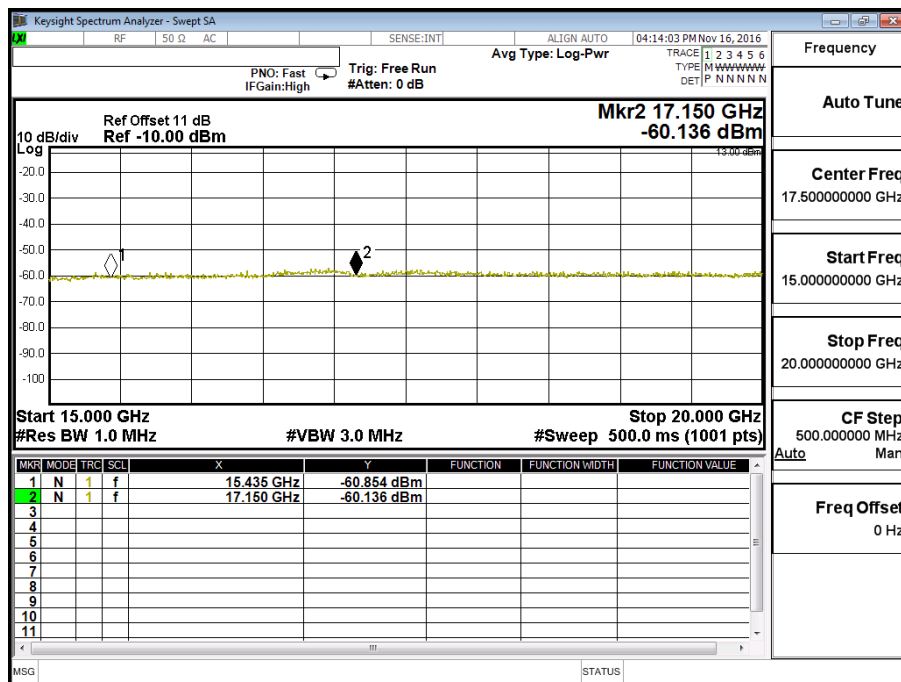
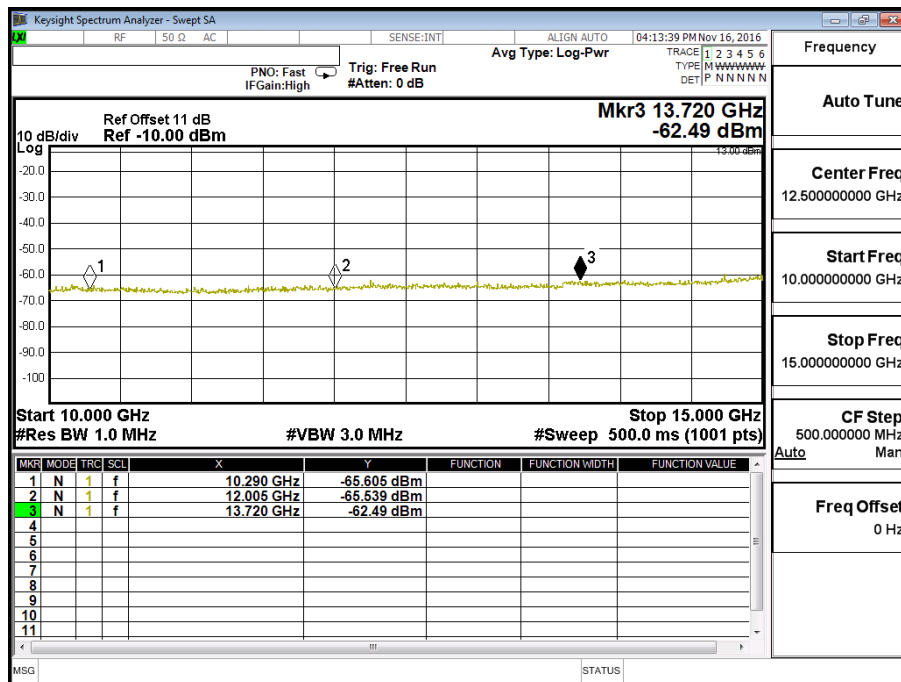
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (10M)	Test Range	30MHz~20GHz

LTE- Band 4 (10M) QPSK(1,24) CH20000

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3428	-47.540	1.1	-46.440	-13
5145	-55.069	1.23	-53.839	-13
6860	-58.988	1.59	-53.479	-13
8575	-65.199	1.89	-57.098	-13
10290	-65.605	2.07	-63.129	-13
12005	-65.539	2.26	-63.279	-13
13720	-62.490	2.64	-59.850	-13
15435	-60.854	3.5	-57.354	-13
17150	-60.136	3.7	-56.436	-13



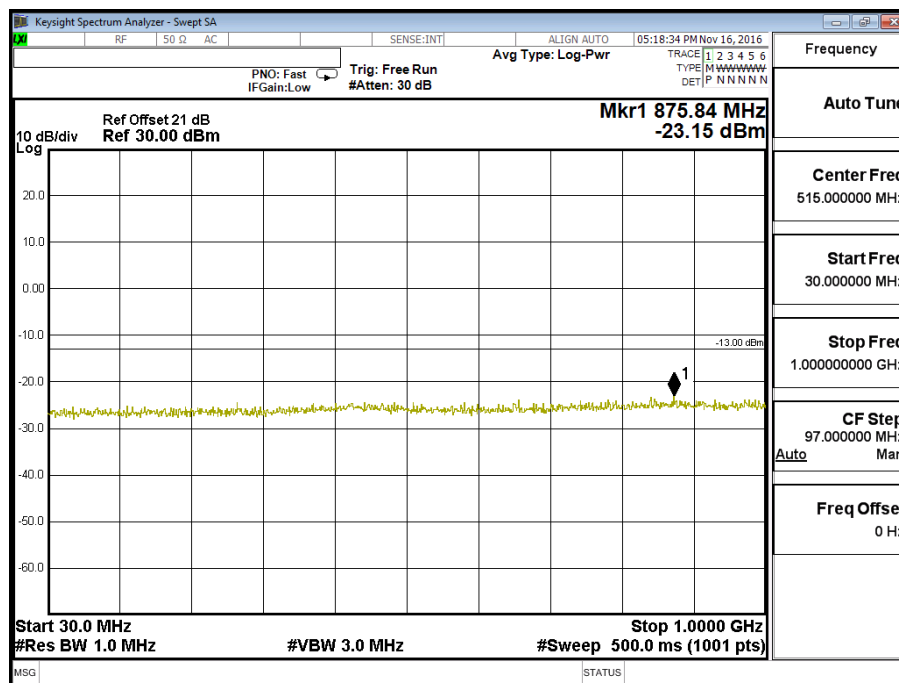


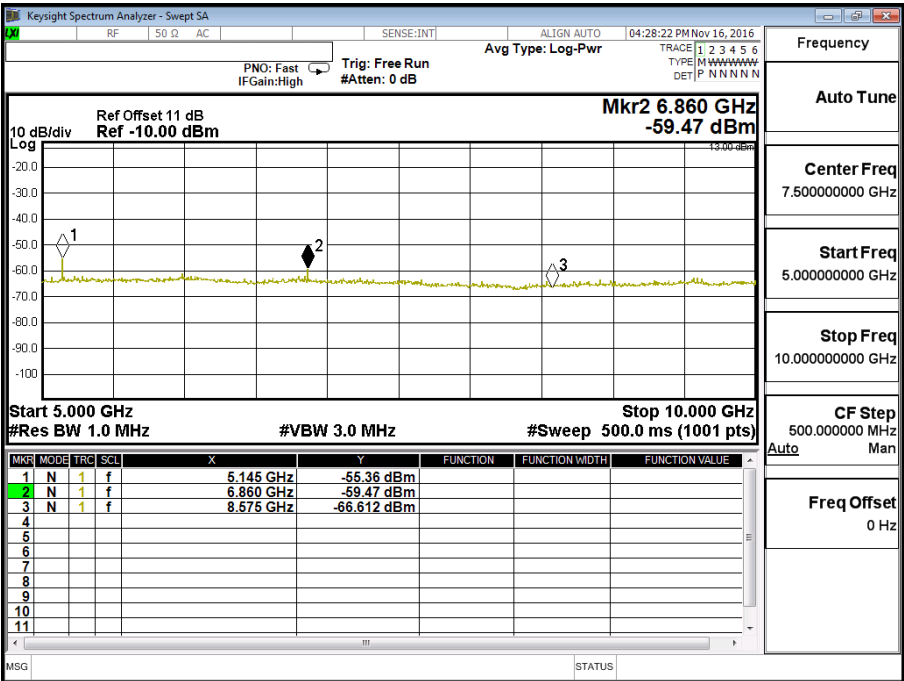
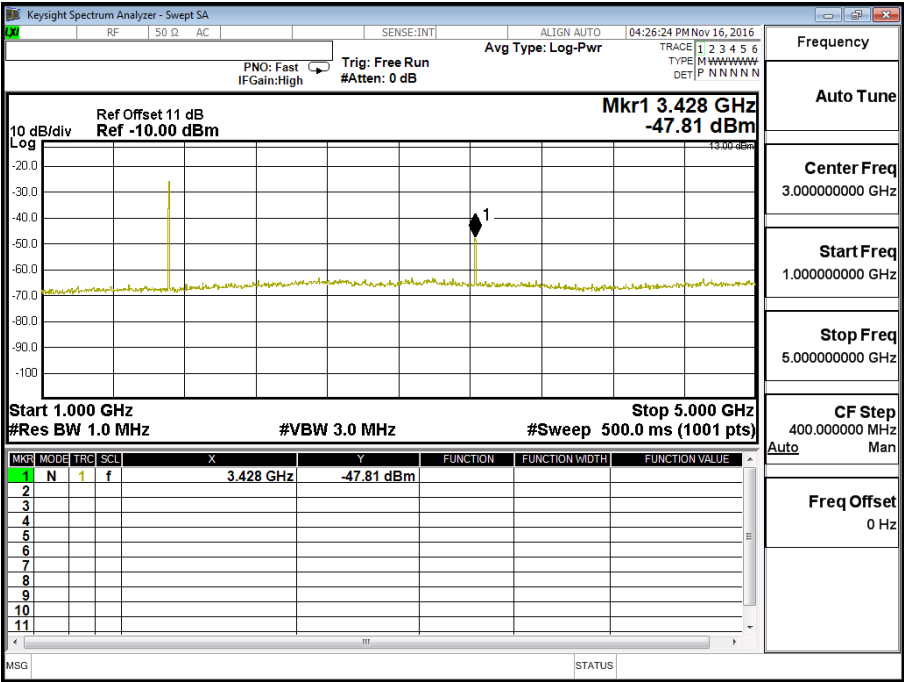


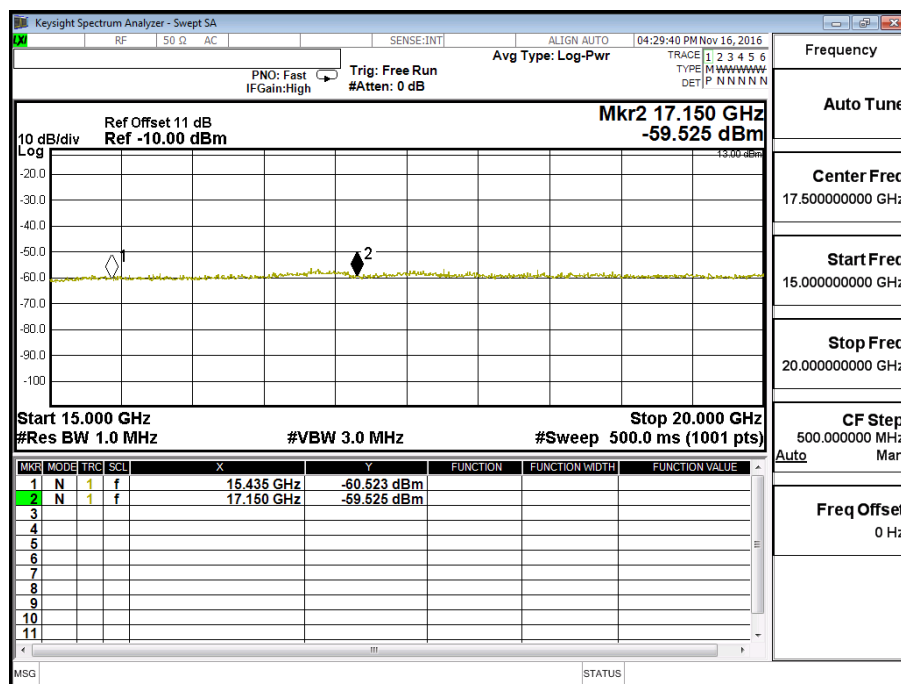
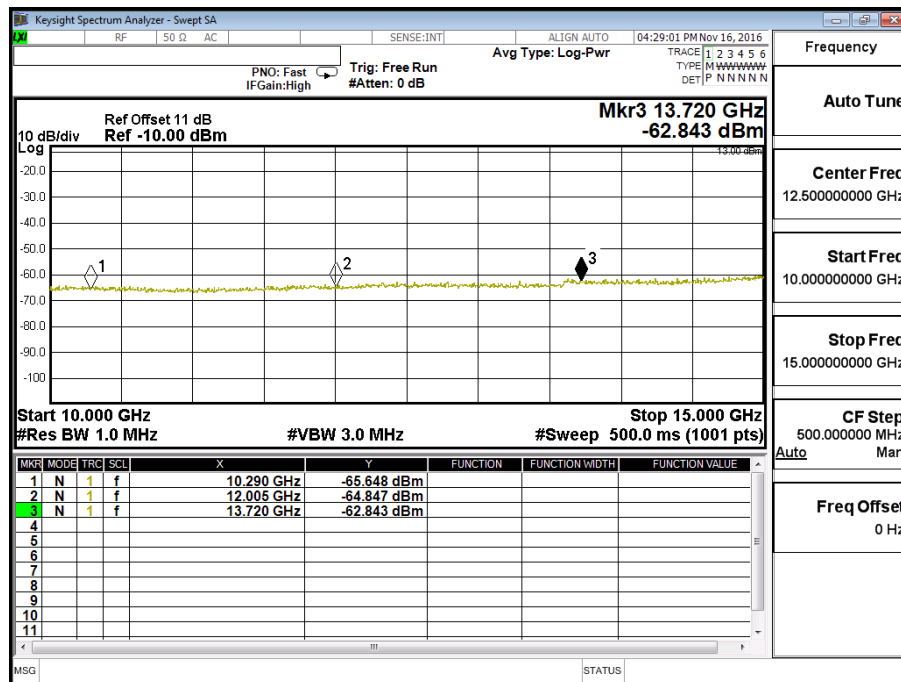
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (10M)	Test Range	30MHz~20GHz

LTE- Band 4 10M 16QAM(1,24) CH20000

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3428	-47.810	1.1	-46.710	-13
5145	-55.360	1.23	-54.130	-13
6860	-59.470	1.59	-53.770	-13
8575	-66.612	1.89	-57.580	-13
10290	-65.648	2.07	-64.542	-13
12005	-64.847	2.26	-62.587	-13
13720	-62.843	2.64	-60.203	-13
15435	-60.523	3.5	-57.023	-13
17150	-59.525	3.7	-55.825	-13



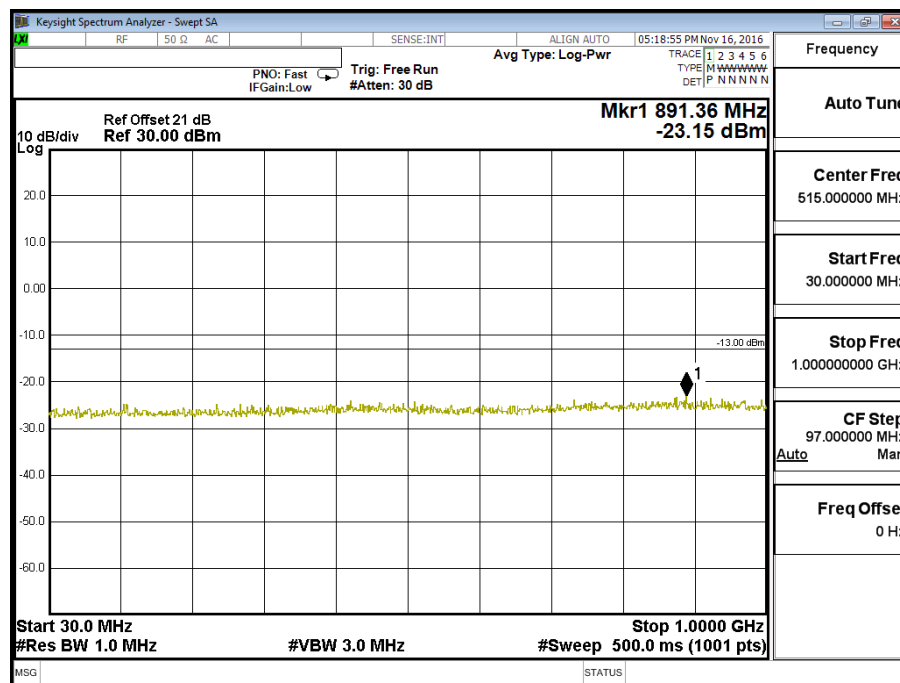


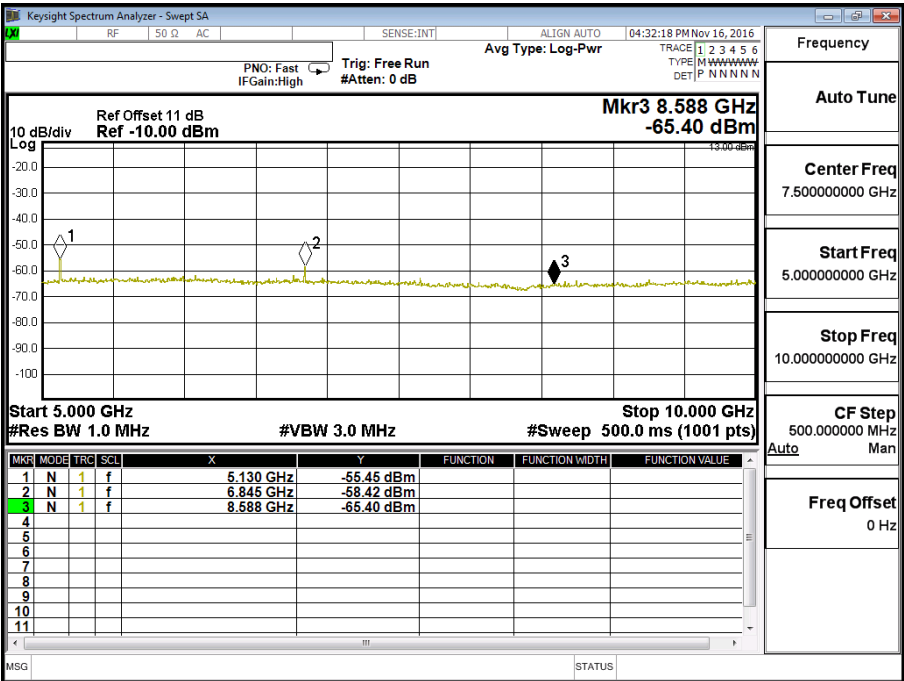
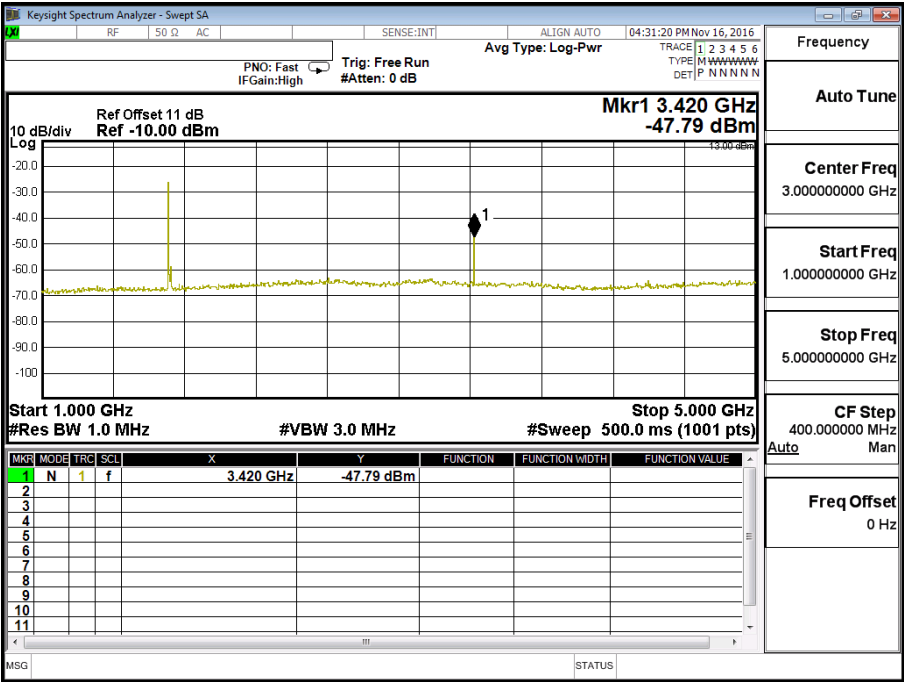


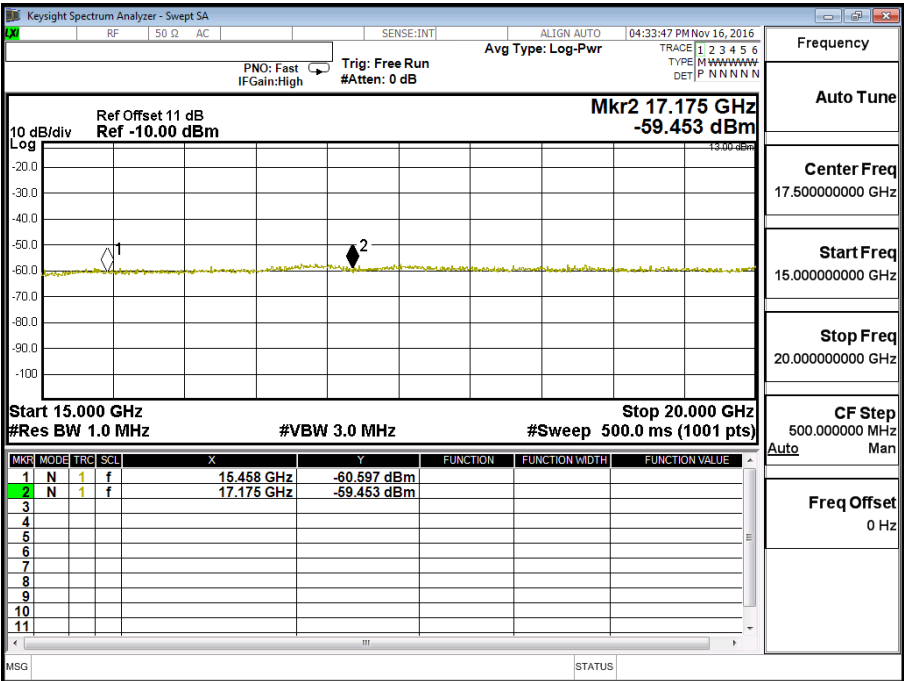
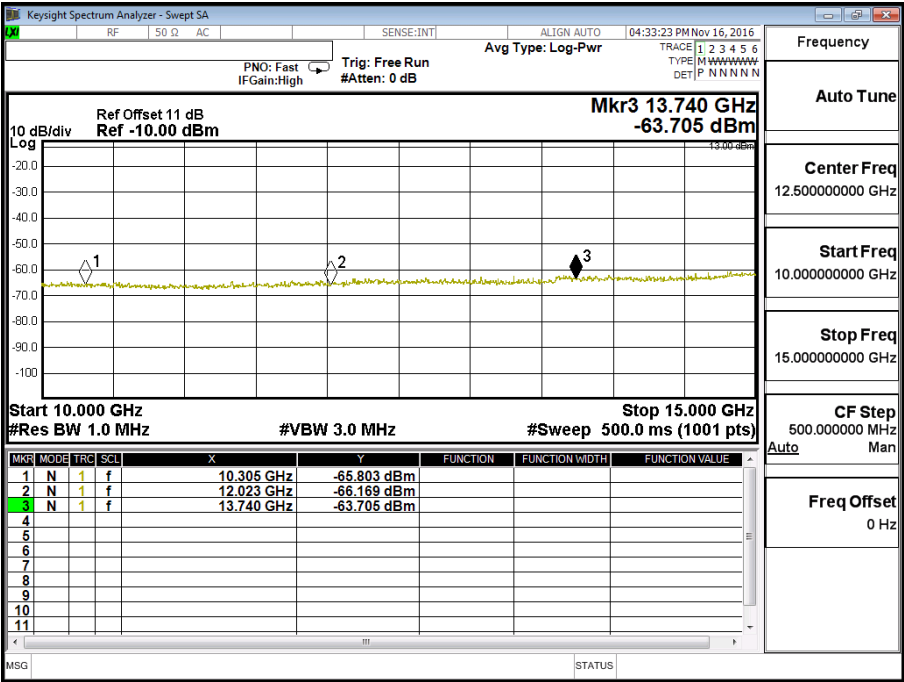
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 15M	Test Range	30MHz~20GHz

LTE-Band 4 15M QPSK(1,0) CH20025

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3420	-47.790	1.1	-46.690	-13
5130	-55.450	1.23	-54.220	-13
6845	-58.420	1.59	-53.860	-13
8588	-65.400	1.89	-56.530	-13
10305	-65.803	2.07	-63.330	-13
12023	-66.169	2.26	-63.909	-13
13740	-63.705	2.64	-61.065	-13
15458	-60.597	3.5	-57.097	-13
17175	-59.453	3.7	-55.753	-13



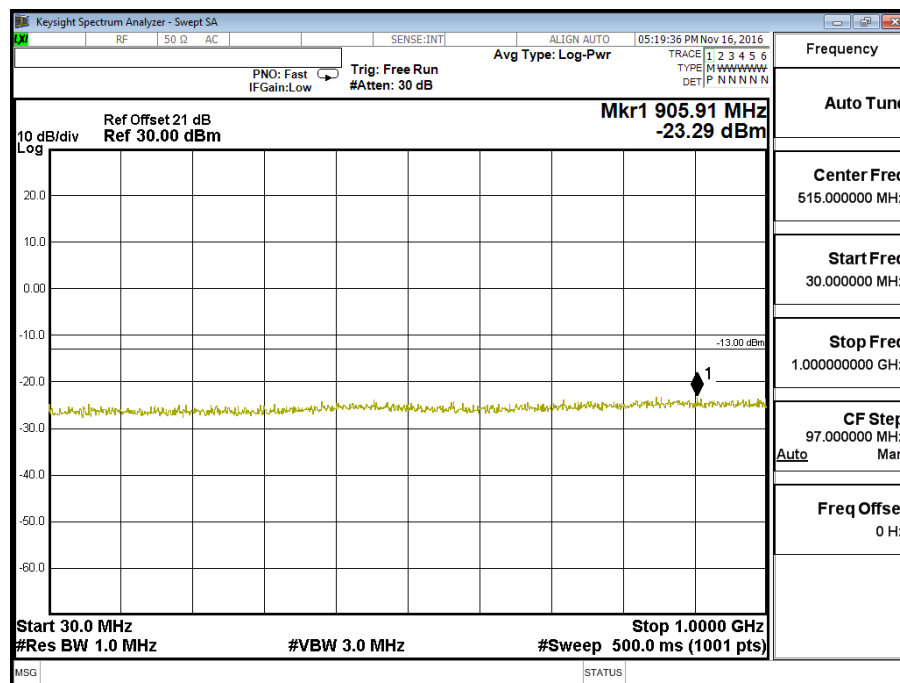


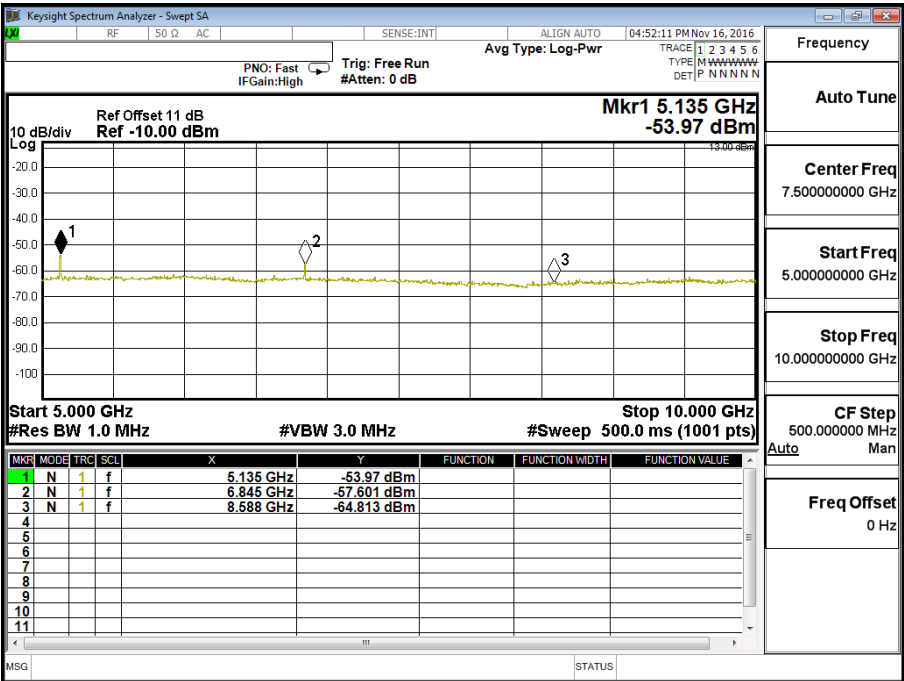
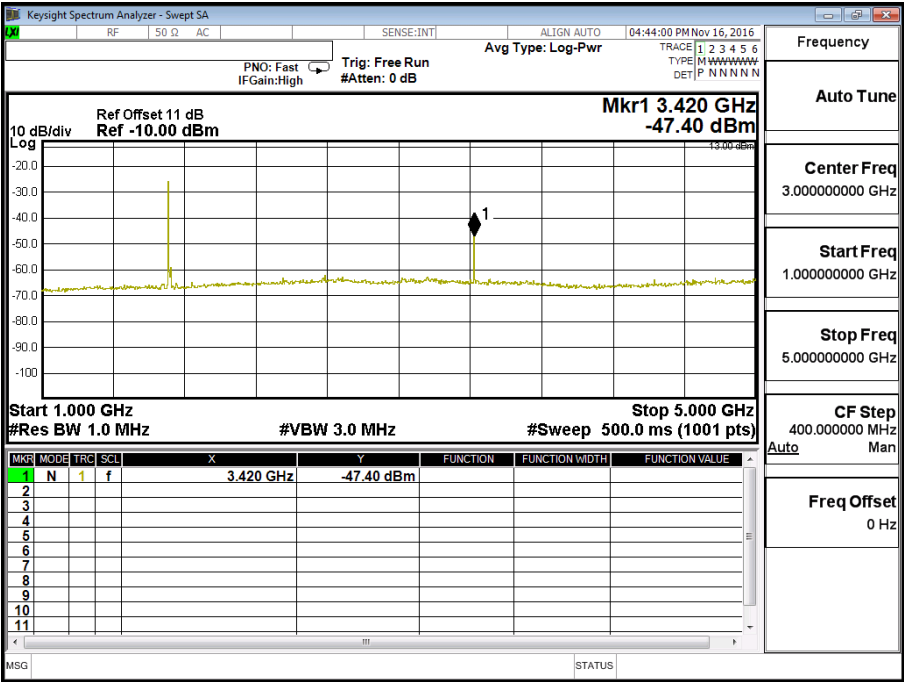


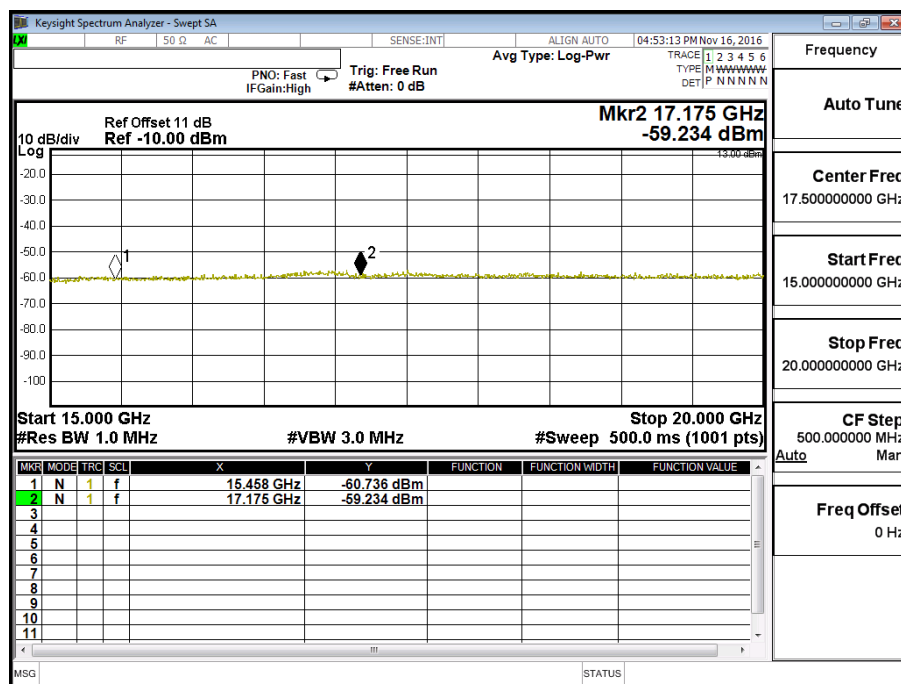
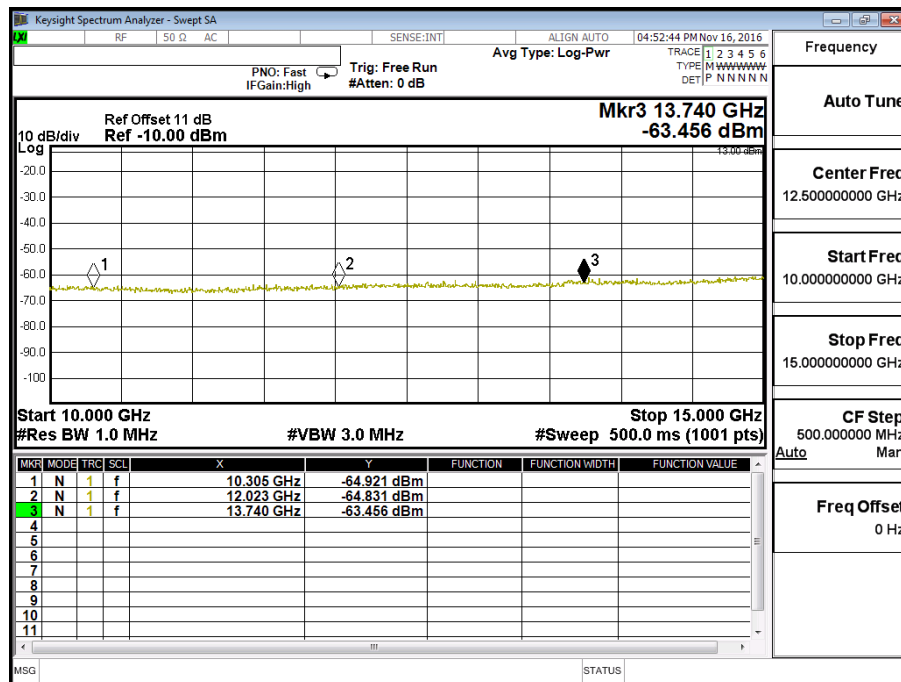
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (15M)	Test Range	30MHz~20GHz

LTE-Band 4 (15M) 16QAM(1,0) CH20025

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3420	-47.400	1.1	-46.300	-13
5135	-53.970	1.23	-52.740	-13
6845	-57.601	1.59	-52.380	-13
8588	-64.813	1.89	-55.711	-13
10305	-64.921	2.07	-62.743	-13
12023	-64.831	2.26	-62.571	-13
13740	-63.456	2.64	-60.816	-13
15458	-60.736	3.5	-57.236	-13
17175	-59.234	3.7	-55.534	-13



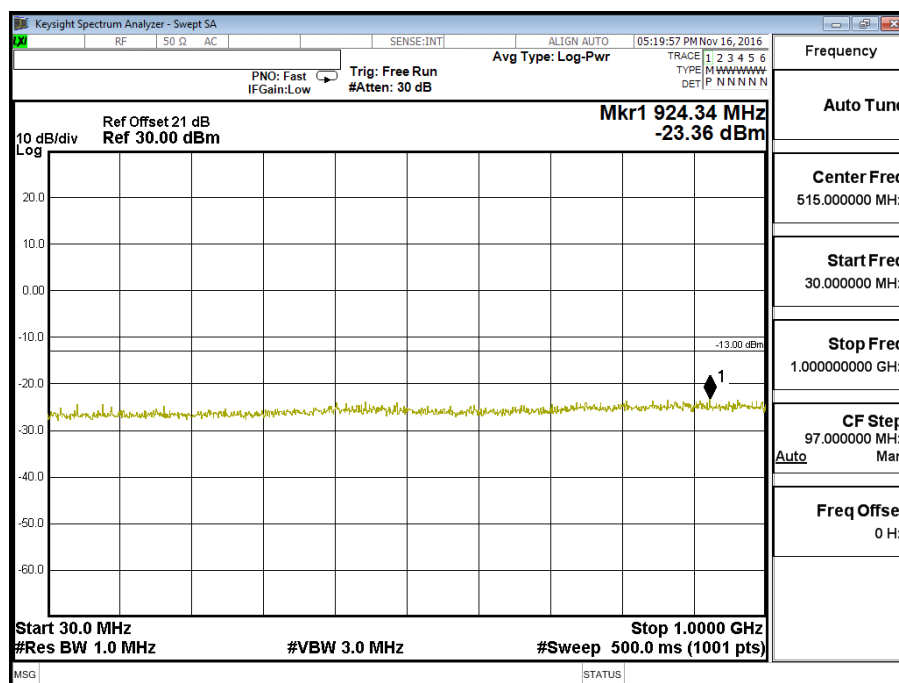


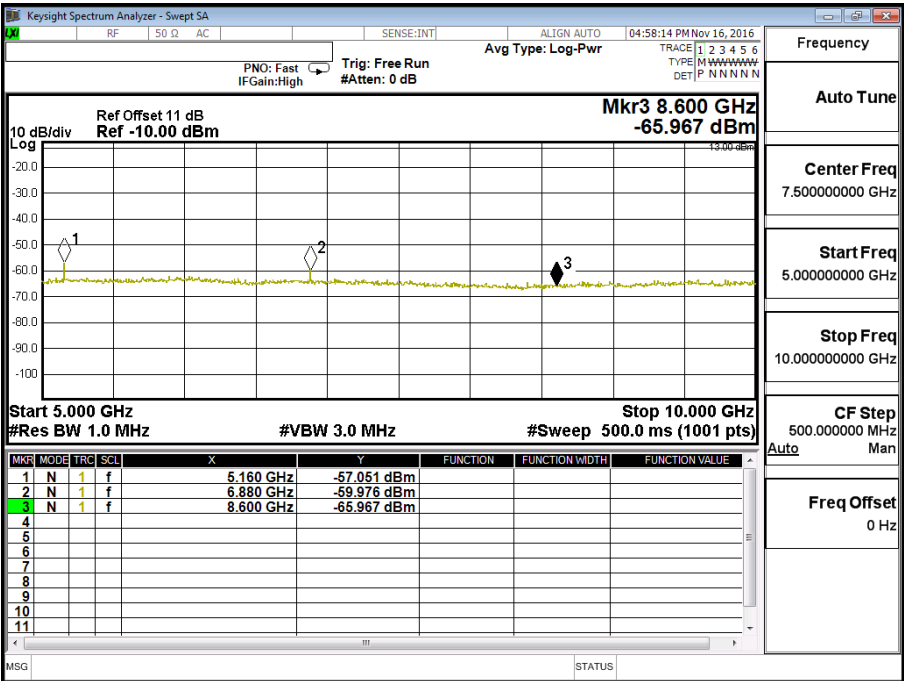
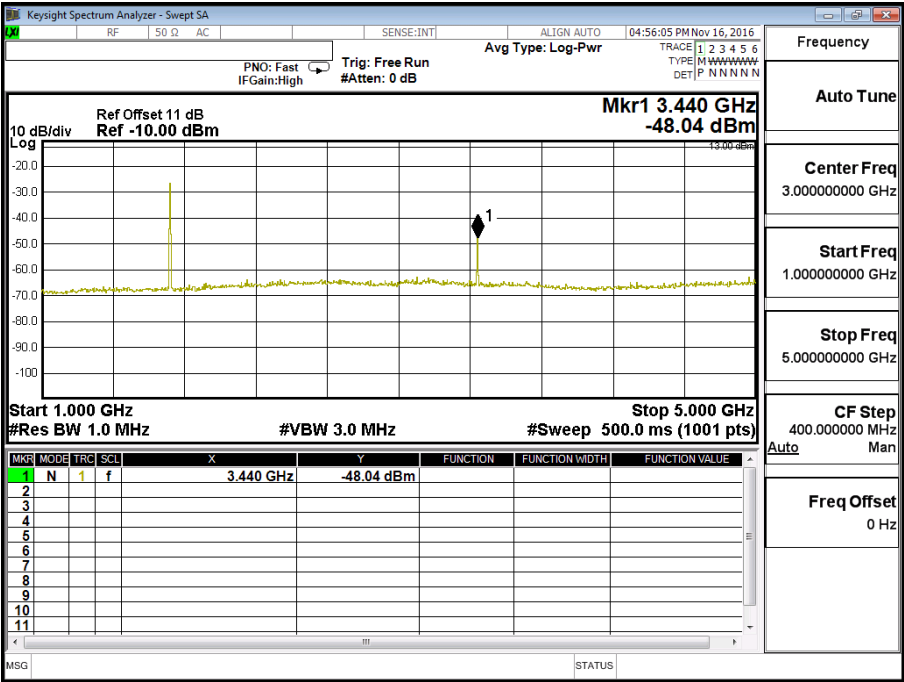


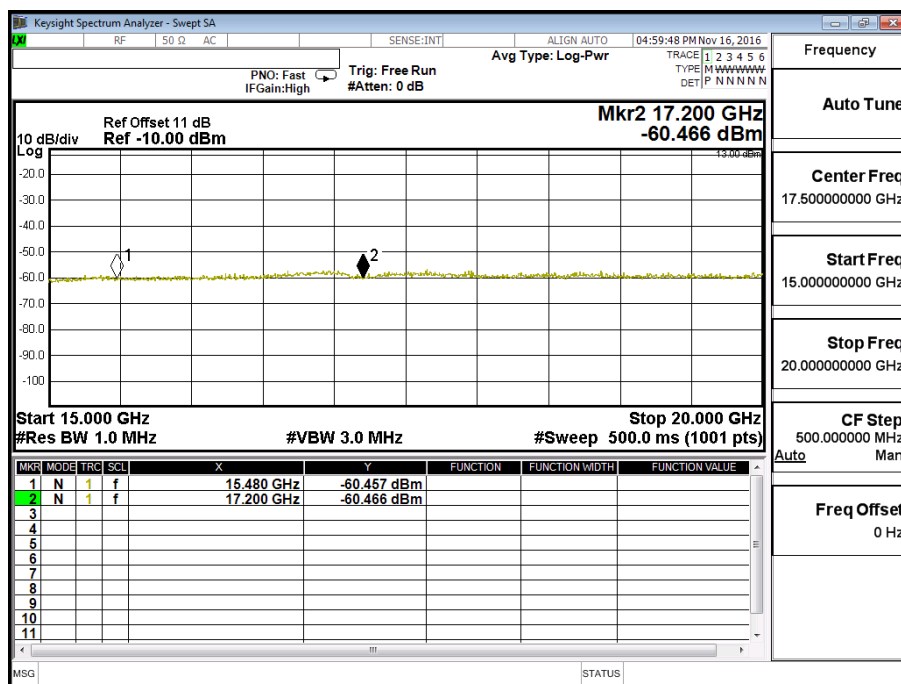
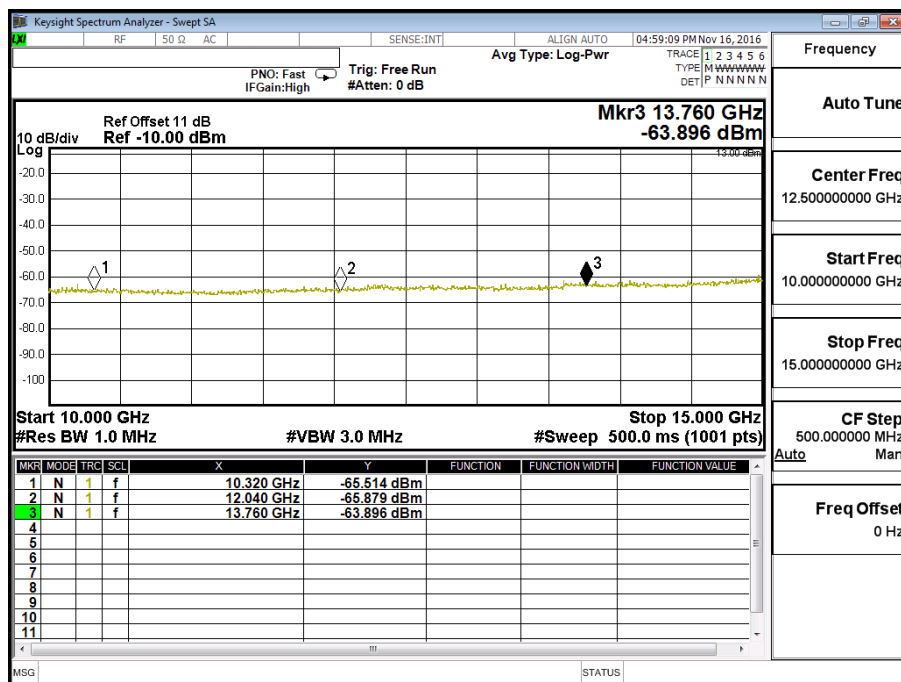
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (20M)	Test Range	30MHz~20GHz

LTE-Band 4 (20M) QPSK(1,49) CH20050

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3440	-48.040	1.1	-46.940	-13
5160	-57.051	1.23	-55.821	-13
6880	-59.976	1.59	-55.461	-13
8600	-65.967	1.89	-58.086	-13
10320	-65.514	2.07	-63.897	-13
12040	-65.879	2.26	-63.619	-13
13760	-63.896	2.64	-61.256	-13
15480	-60.457	3.5	-56.957	-13
17200	-60.466	3.7	-56.766	-13



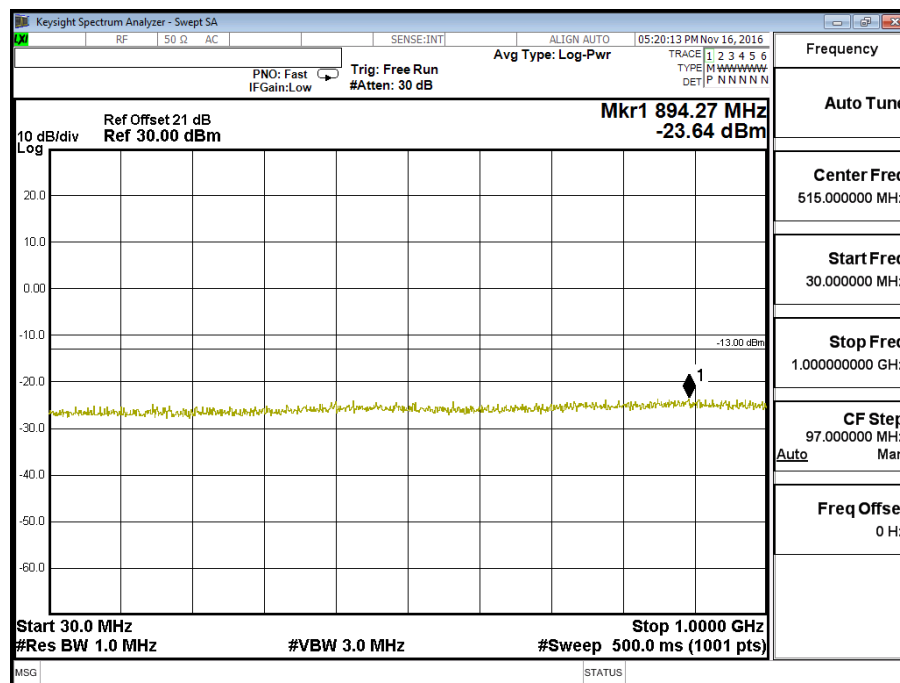


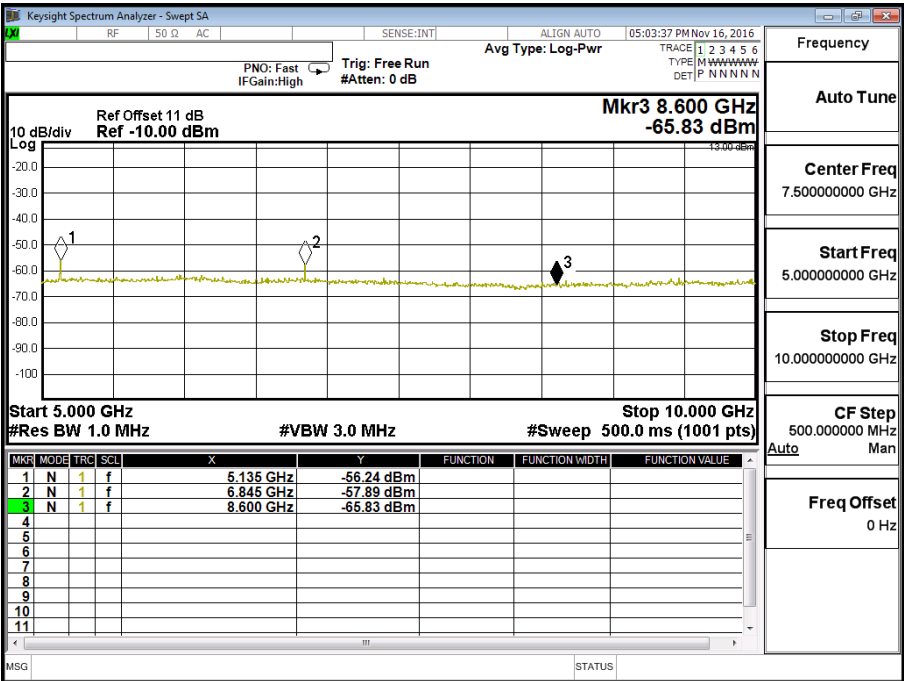
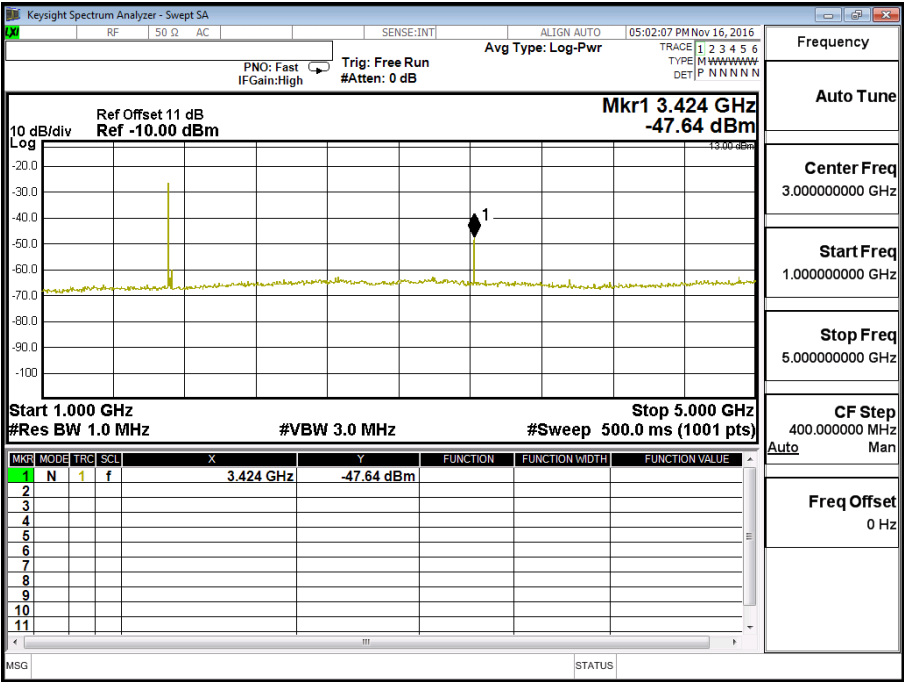


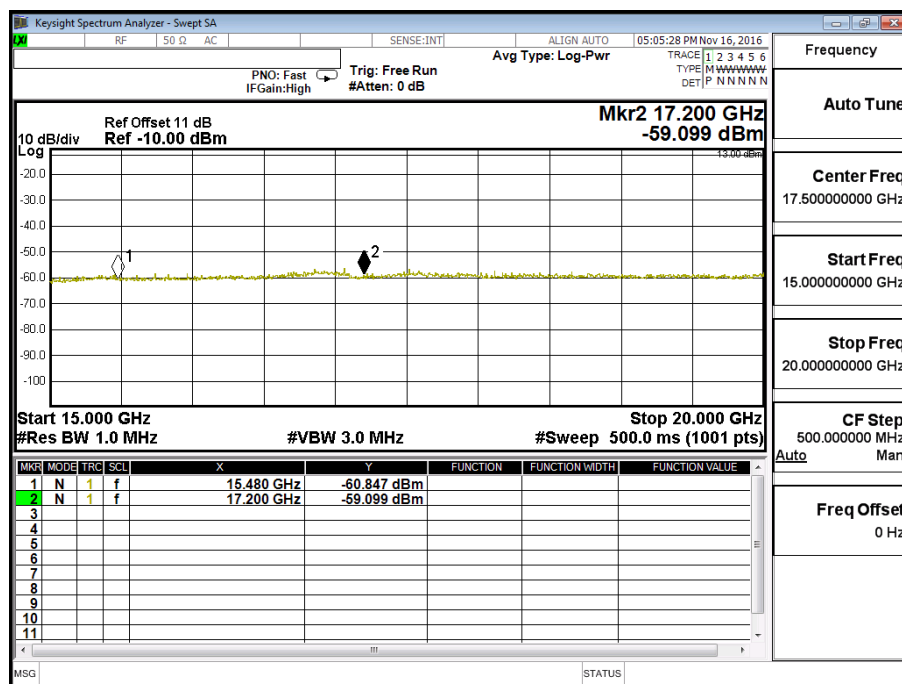
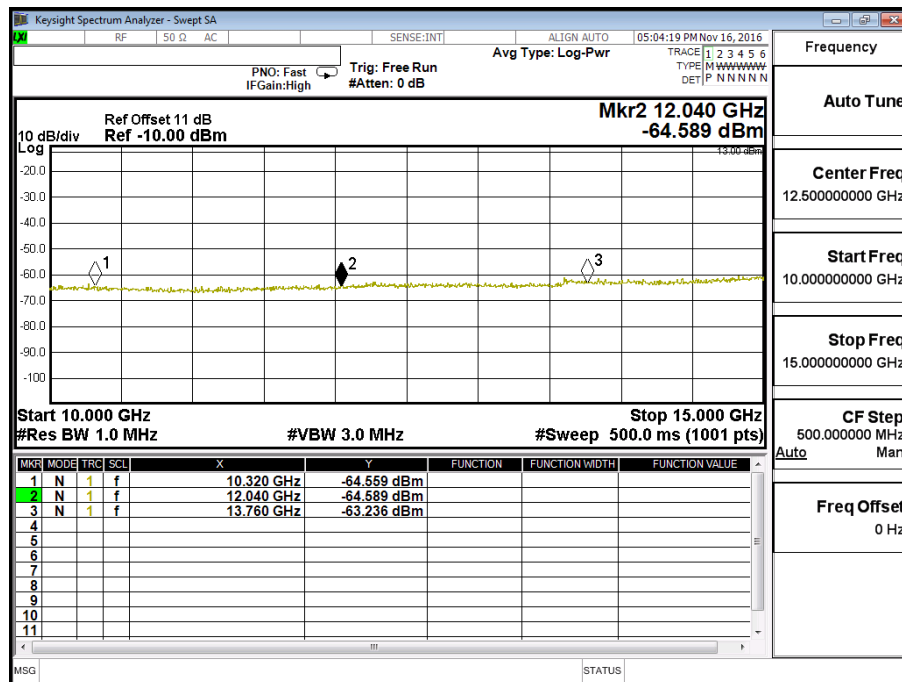
Product	LTE Router		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2016/12/04	Test Site	CTR
Test Condition	LTE-Band 4 (20M)	Test Range	30MHz~20GHz

LTE-Band 4 (20M) 16QAM(1,0) CH20050

Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3424	-47.640	1.1	-46.540	-13
5135	-56.240	1.23	-55.010	-13
6845	-57.890	1.59	-54.650	-13
8600	-65.830	1.89	-56.000	-13
10320	-64.559	2.07	-63.760	-13
12040	-64.589	2.26	-62.329	-13
13760	-63.236	2.64	-60.596	-13
15480	-60.847	3.5	-57.347	-13
17200	-59.099	3.7	-55.399	-13







Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 2 (1.4M) QPSK(1,3)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 2 (1.4M) QPSK(1,3)

3704	-55.956	-56.568	2.530	12.600	-46.498	-13
5550	-58.327	-54.943	3.050	13.100	-44.893	-13
7400	-60.247	-45.565	3.650	11.500	-37.715	-13
9250	-62.999	-48.168	3.850	12.000	-40.018	-13
11100	-64.937	-47.388	4.580	12.000	-39.968	-13
12950	-64.277	-44.348	4.800	13.300	-35.848	-13

Vertical Emissions Band 2 (1.4M) QPSK(1,3)

3704	-48.372	-46.737	2.530	12.600	-36.667	-13
5550	-57.978	-53.993	3.050	13.100	-43.943	-13
7400	-61.208	-46.127	3.650	11.500	-38.277	-13
9250	-62.38	-46.960	3.850	12.000	-38.81	-13
11100	-64.25	-46.499	4.580	12.000	-39.079	-13
12950	-63.57	-43.935	4.800	13.300	-35.435	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 13 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 2 (3M) QPSK(1,14)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 2 (3M) QPSK(1,14)

3704	-55.267	-55.879	2.530	12.600	-45.809	-13
5550	-59.126	-55.742	3.050	13.100	-45.692	-13
7410	-61.346	-46.692	3.650	11.500	-38.842	-13
9260	-63.098	-48.225	3.850	12.000	-40.075	-13
11110	-64.347	-46.856	4.580	12.000	-39.436	-13
12960	-64.214	-44.233	4.800	13.300	-35.733	-13

Vertical Emissions Band 2 (3M) QPSK(1,14)

3704	-48.412	-46.776	2.530	12.600	-36.706	-13
5550	-58.908	-54.922	3.050	13.100	-44.872	-13
7410	-61.090	-46.003	3.650	11.500	-38.153	-13
9260	-62.880	-47.406	3.850	12.000	-39.256	-13
11110	-64.430	-46.768	4.580	12.000	-39.348	-13
12960	-63.027	-43.363	4.800	13.300	-34.863	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 13 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 2 (5M) QPSK(1,12)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 2 (5M) QPSK(1,12)

3704	-55.846	-56.457	2.530	12.600	-46.387	-13
5550	-57.527	-54.143	3.050	13.100	-44.093	-13
7410	-60.032	-45.378	3.650	11.500	-37.528	-13
9260	-62.26	-47.386	3.850	12.000	-39.236	-13
11110	-64.146	-46.655	4.580	12.000	-39.235	-13
12970	-63.666	-43.635	4.800	13.300	-35.135	-13

Vertical Emissions Band 2 (5M) QPSK(1,12)

3704	-47.455	-45.819	2.530	12.600	-35.749	-13
5550	-56.506	-52.521	3.050	13.100	-42.471	-13
7410	-59.914	-44.827	3.650	11.500	-36.977	-13
9260	-62.801	-47.327	3.850	12.000	-39.177	-13
11110	-64.237	-46.575	4.580	12.000	-39.155	-13
12970	-64.016	-44.324	4.800	13.300	-35.824	-13

Note:

1. Receiver setting (Peak Detector) : RBW:3MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 13 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 2 (10M) QPSK(1,24)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 2 (10M) QPSK(1,24)

3712	-56.096	-56.670	2.530	12.600	-46.6	-13
5560	-58.022	-54.718	3.050	13.100	-44.668	-13
7420	-60.527	-45.900	3.650	11.500	-38.05	-13
9270	-63.067	-48.151	3.850	12.000	-40.001	-13
11130	-64.497	-47.124	4.580	12.000	-39.704	-13
12980	-63.719	-43.641	4.800	13.300	-35.141	-13

Vertical Emissions Band 2 (10M) QPSK(1,24)

3712	-48.449	-46.765	2.530	12.600	-36.695	-13
5560	-58.067	-54.140	3.050	13.100	-44.09	-13
7420	-60.463	-45.380	3.650	11.500	-37.53	-13
9270	-62.869	-47.341	3.850	12.000	-39.191	-13
11130	-64.378	-46.914	4.580	12.000	-39.494	-13
12980	-63.978	-44.257	4.800	13.300	-35.757	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. ERP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 13 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 2 (15M) QPSK(1,0)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 2 (15M) QPSK(1,0)

3704	-56.152	-56.763	2.530	12.600	-46.693	-13
5550	-57.671	-54.287	3.050	13.100	-44.237	-13
7400	-60.437	-45.755	3.650	11.500	-37.905	-13
9290	-61.479	-46.483	3.850	12.000	-38.333	-13
11140	-64.678	-47.364	4.580	12.000	-39.944	-13
13000	-63.395	-43.281	4.800	13.300	-34.781	-13

Vertical Emissions Band 2 (15M) QPSK(1,0)

3704	-48.674	-47.039	2.530	12.600	-36.969	-13
5550	-58.062	-54.077	3.050	13.100	-44.027	-13
7400	-60.111	-45.031	3.650	11.500	-37.181	-13
9310	-61.048	-45.345	3.850	12.000	-37.195	-13
11140	-64.433	-47.071	4.580	12.000	-39.651	-13
13000	-63.708	-43.920	4.800	13.300	-35.42	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 13 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 2 (20M) QPSK(1,49)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 2 (20M) QPSK(1,49)

3760	-56.231	-56.579	2.530	12.600	-46.509	-13
5640	-57.678	-54.997	3.050	13.100	-44.947	-13
7520	-61.222	-46.853	3.650	11.500	-39.003	-13
9400	-63.391	-48.073	3.850	12.000	-39.923	-13
11280	-65.163	-48.702	4.580	12.000	-41.282	-13
13160	-63.765	-43.924	4.800	13.300	-35.424	-13

Vertical Emissions Band 2 (20M) QPSK(1,49)

3760	-48.426	-46.444	2.530	12.600	-36.374	-13
5640	-60.286	-57.136	3.050	13.100	-47.086	-13
7520	-61.963	-46.981	3.650	11.500	-39.131	-13
9400	-62.362	-46.531	3.850	12.000	-38.381	-13
11280	-65.232	-48.578	4.580	12.000	-41.158	-13
13160	-63.061	-43.077	4.800	13.300	-34.577	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 14 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 4 (1.4M) QPSK(1,3)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 4 (1.4M) QPSK(1,3)

3424	-52.729	-53.995	2.530	12.600	-43.925	-13
5130	-51.548	-47.310	3.050	13.100	-37.26	-13
6840	-62.169	-51.280	3.650	11.500	-43.43	-13
8560	-64.184	-48.925	3.850	12.000	-40.775	-13
10270	-62.57	-46.252	4.580	12.000	-38.832	-13
11980	-64.73	-48.275	4.800	13.300	-39.775	-13

Vertical Emissions Band 4 (1.4M) QPSK(1,3)

3424	-48.19	-48.459	2.530	12.600	-38.389	-13
5130	-51.662	-47.107	3.050	13.100	-37.057	-13
6840	-61.383	-49.887	3.650	11.500	-42.037	-13
8560	-64.612	-48.980	3.850	12.000	-40.83	-13
10270	-62.403	-46.261	4.580	12.000	-38.841	-13
11970	-63.929	-47.259	4.800	13.300	-38.759	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 4 (3M) QPSK(1,0)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 4 (3M) QPSK(1,0)

3424	-53.534	-54.801	2.530	12.600	-44.731	-13
5130	-55.806	-51.569	3.050	13.100	-41.519	-13
6840	-61.71	-50.821	3.650	11.500	-42.971	-13
8550	-63.889	-48.648	3.850	12.000	-40.498	-13
10270	-62.492	-46.183	4.580	12.000	-38.763	-13
11980	-64.776	-48.395	4.800	13.300	-39.895	-13

Vertical Emissions Band 4 (3M) QPSK(1,0)

3424	-49.564	-49.833	2.530	12.600	-39.763	-13
5130	-55.208	-50.654	3.050	13.100	-40.604	-13
6840	-61.832	-50.336	3.650	11.500	-42.486	-13
8550	-64.228	-48.622	3.850	12.000	-40.472	-13
10260	-62.329	-46.183	4.580	12.000	-38.763	-13
11980	-64.228	-47.638	4.800	13.300	-39.138	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 4 (5M) QPSK(1,0)	Test Range	9kHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 4 (5M) QPSK(1,0)

3424	-52.534	-53.800	2.530	12.600	-43.73	-13
5130	-52.336	-48.099	3.050	13.100	-38.049	-13
6850	-62.272	-51.327	3.650	11.500	-43.477	-13
8560	-63.761	-48.502	3.850	12.000	-40.352	-13
10270	-62.587	-46.268	4.580	12.000	-38.848	-13
11990	-63.858	-47.448	4.800	13.300	-38.948	-13

Vertical Emissions Band 4 (5M) QPSK(1,0)

3424	-48.634	-48.903	2.530	12.600	-38.833	-13
5130	-51.951	-47.397	3.050	13.100	-37.347	-13
6840	-61.655	-50.159	3.650	11.500	-42.309	-13
8560	-64.401	-48.769	3.850	12.000	-40.619	-13
10270	-62.57	-46.428	4.580	12.000	-39.008	-13
11990	-64.427	-47.917	4.800	13.300	-39.417	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 4 (10M) QPSK(1,24)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 4 (10M) QPSK(1,24)

3432	-53.031	-54.203	2.530	12.600	-44.133	-13
5140	-51.542	-47.346	3.050	13.100	-37.296	-13
6860	-62.534	-51.533	3.650	11.500	-43.683	-13
8570	-64.145	-48.869	3.850	12.000	-40.719	-13
10290	-61.947	-45.584	4.580	12.000	-38.164	-13
12000	-64.168	-47.704	4.800	13.300	-39.204	-13

Vertical Emissions Band 4 (10M) QPSK(1,24)

3432	-50.157	-50.353	2.530	12.600	-40.283	-13
5140	-51.951	-47.429	3.050	13.100	-37.379	-13
6860	-62.172	-50.558	3.650	11.500	-42.708	-13
8570	-63.891	-48.232	3.850	12.000	-40.082	-13
10290	-61.611	-45.477	4.580	12.000	-38.057	-13
12000	-64.097	-47.656	4.800	13.300	-39.156	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 12 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 4 (15M) QPSK(1,0)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 4 (15M) QPSK(1,0)

3424	-53.261	-54.527	2.530	12.600	-44.457	-13
5130	-52.18	-47.943	3.050	13.100	-37.893	-13
6870	-63.281	-52.224	3.650	11.500	-44.374	-13
8590	-62.762	-47.445	3.850	12.000	-39.295	-13
10300	-61.955	-45.550	4.580	12.000	-38.13	-13
12020	-63.972	-47.387	4.800	13.300	-38.887	-13

Vertical Emissions Band 4 (15M) QPSK(1,0)

3424	-49.358	-49.627	2.530	12.600	-39.557	-13
5130	-52.346	-47.792	3.050	13.100	-37.742	-13
6840	-61.493	-49.997	3.650	11.500	-42.147	-13
8590	-64.132	-48.419	3.850	12.000	-40.269	-13
10300	-61.998	-45.860	4.580	12.000	-38.44	-13
12020	-63.526	-47.006	4.800	13.300	-38.506	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 13 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.

Product	LTE Router		
Test Mode	Spurious Emission (Radiated)		
Date of Test	2016/12/05	Test Site	Site3
Test Condition	Band 4 (20M) QPSK(1,49)	Test Range	9KHz ~20GHz

Frequency	Reading Level	Signal Generator Level	Cable Loss	Antenna Gain	EIRP Value	Limit
(GHz)	(dBm)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)

Horizontal Emissions Band 4 (20M) QPSK(1,49)

3440	-54.593	-55.670	2.530	12.600	-45.6	-13
5160	-52.392	-48.277	3.050	13.100	-38.227	-13
6880	-63.105	-51.992	3.650	11.500	-44.142	-13
8600	-63.717	-48.374	3.850	12.000	-40.224	-13
10320	-61.693	-45.201	4.580	12.000	-37.781	-13
12040	-64.575	-47.868	4.800	13.300	-39.368	-13

Vertical Emissions Band 4 (20M) QPSK(1,49)

3440	-50.932	-51.054	2.530	12.600	-40.984	-13
5160	-52.95	-48.492	3.050	13.100	-38.442	-13
6880	-62.339	-50.606	3.650	11.500	-42.756	-13
8600	-64.332	-48.591	3.850	12.000	-40.441	-13
10320	-61.342	-45.040	4.580	12.000	-37.62	-13
12040	-63.639	-47.029	4.800	13.300	-38.529	-13

Note:

1. Receiver setting (Peak Detector) : RBW:1MHz; VBW:3MHz
2. EIRP Value = Signal Generator Level + Antenna Gain - Cable Loss
3. Spurious emissions past 13 GHz are not shown, due to the magnitude of spurious emissions attenuated more than 20 dB below the limit.