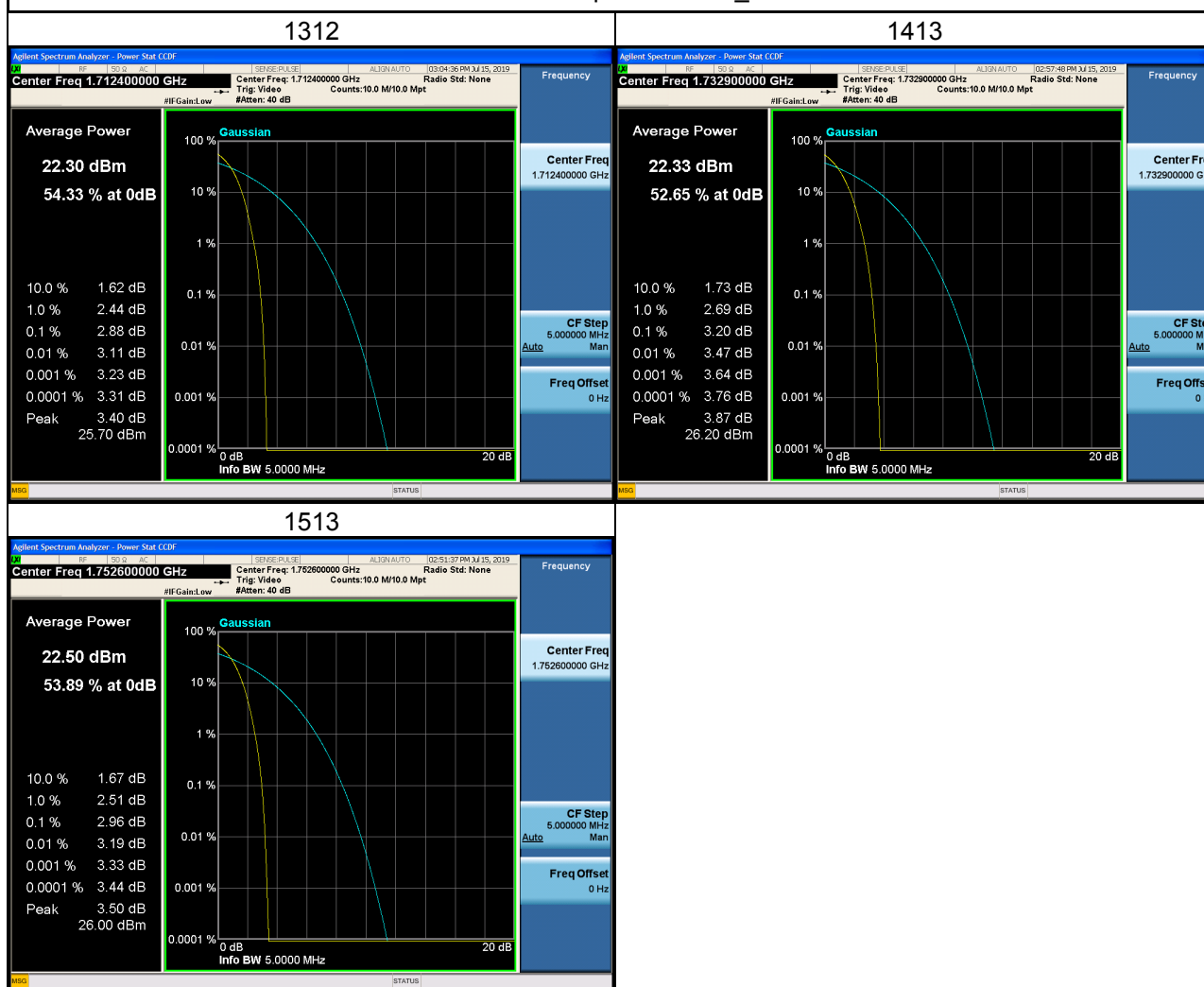
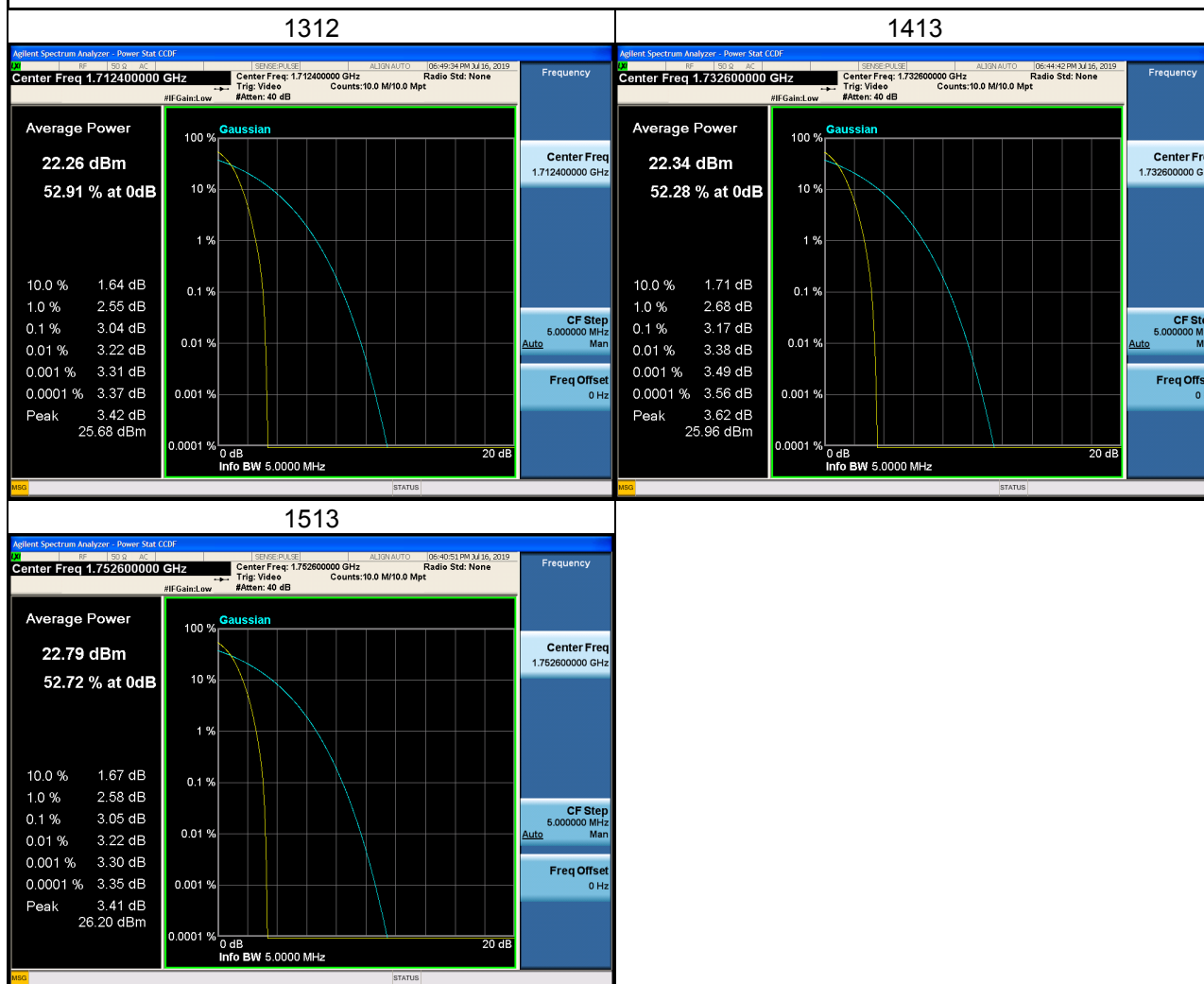


APPENDIX H - PEAK TO AVERAGE RATIO

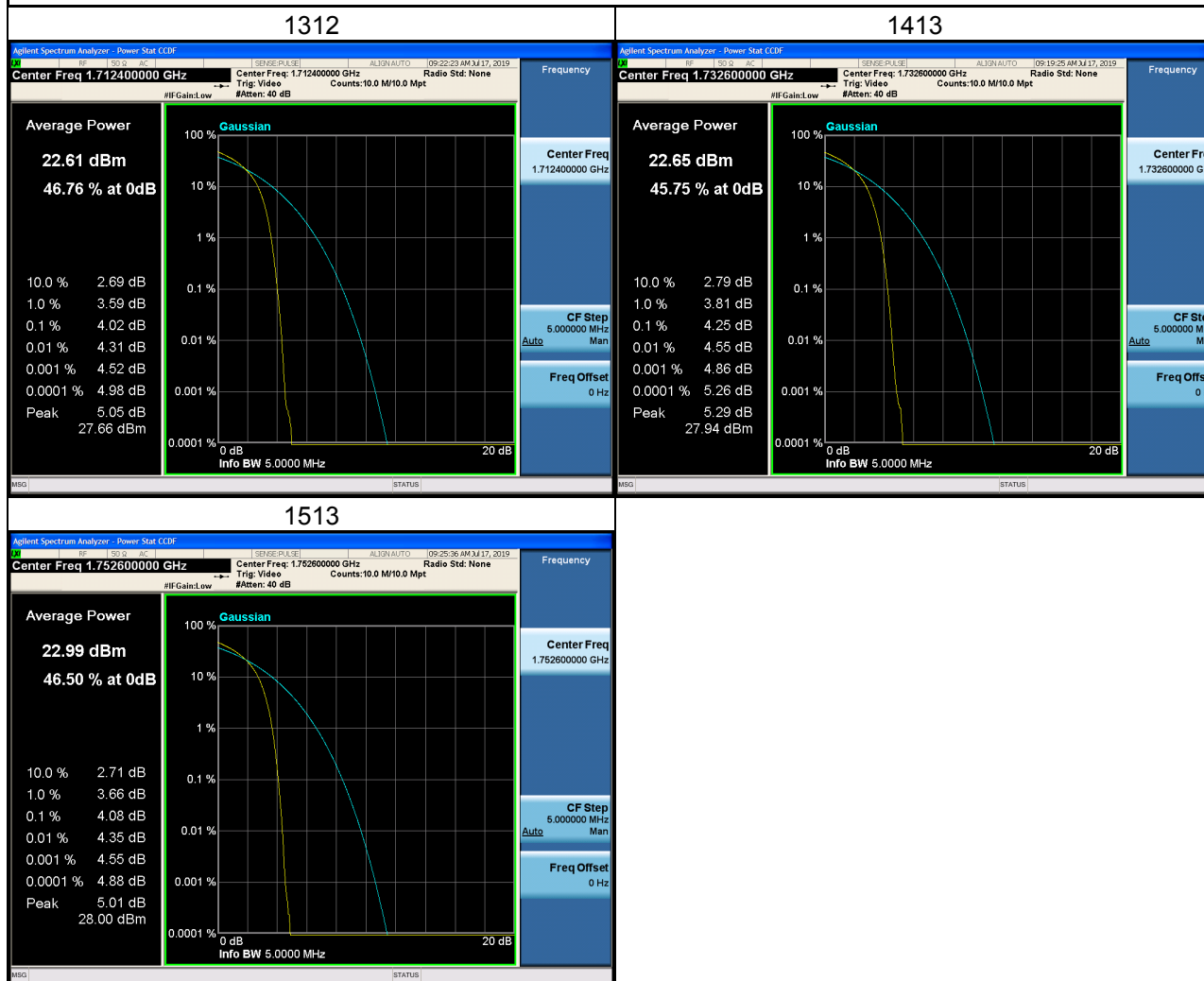
WCDMA Band IV Spectrum Plot_WCDMA



WCDMA Band IV Spectrum Plot_HSDPA

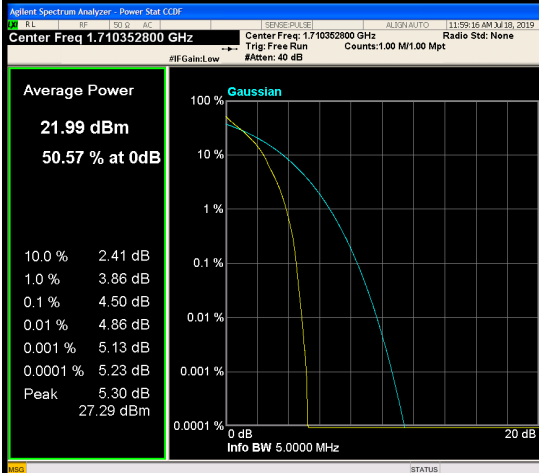


WCDMA Band IV Spectrum Plot_HSUPA

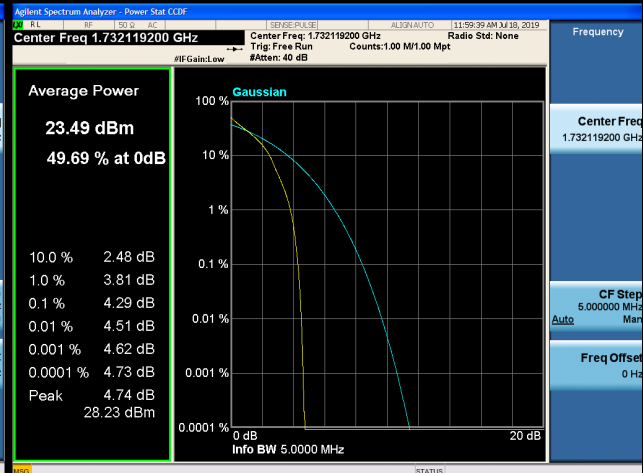


LTE Band 4 Spectrum Plot_1.4M

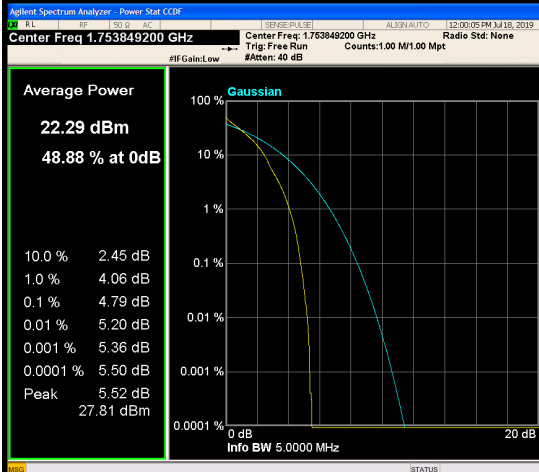
QPSK-19957



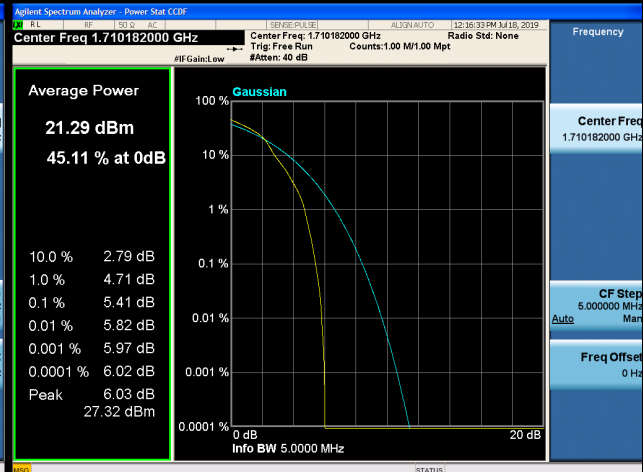
QPSK-20175



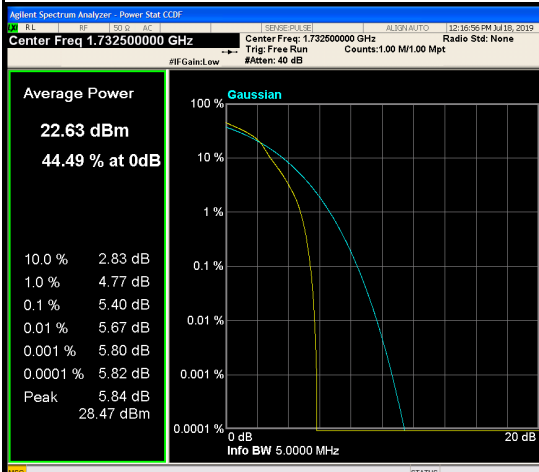
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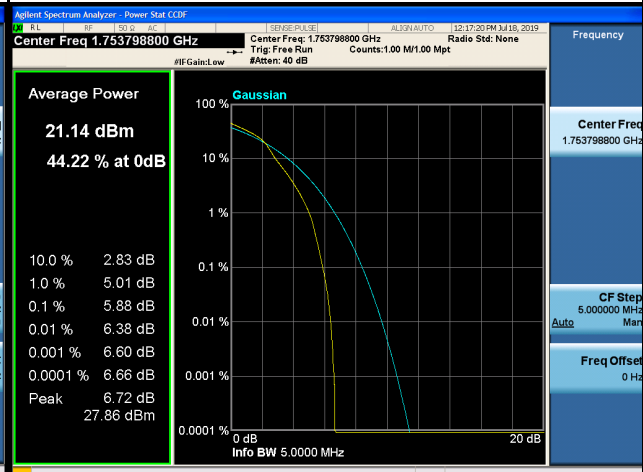
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16QAM-20175

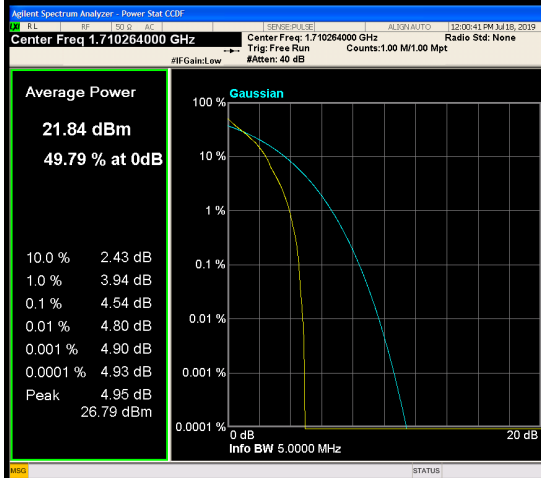


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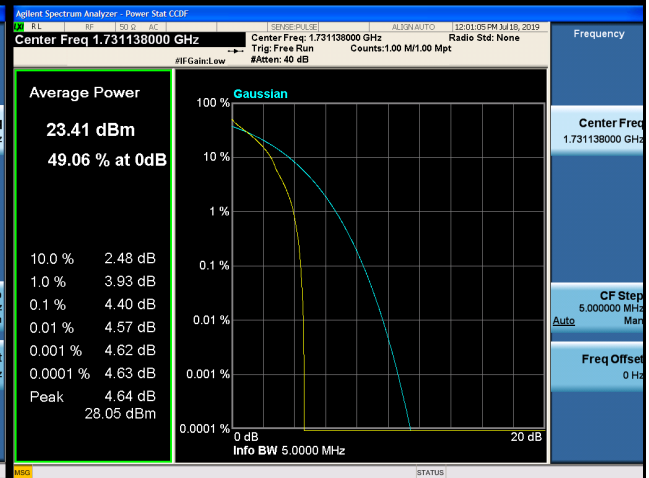


LTE Band 4 Spectrum Plot_3M

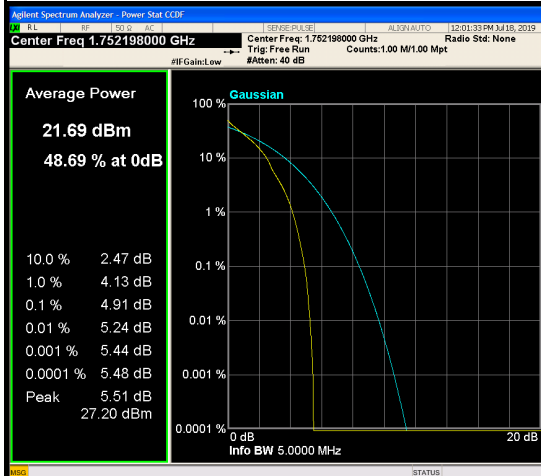
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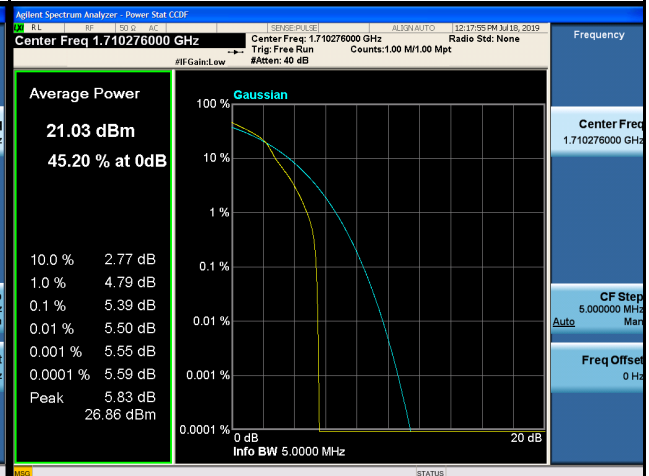
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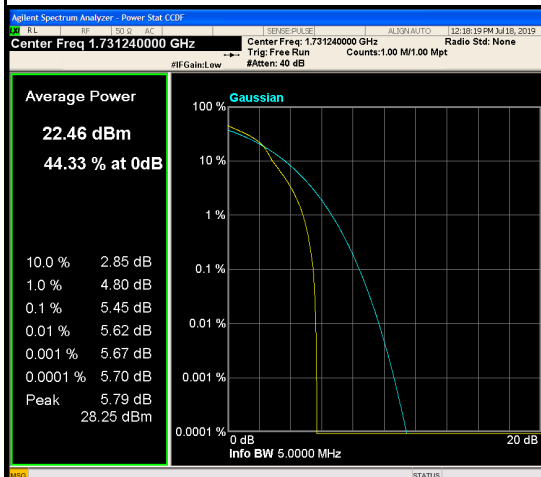
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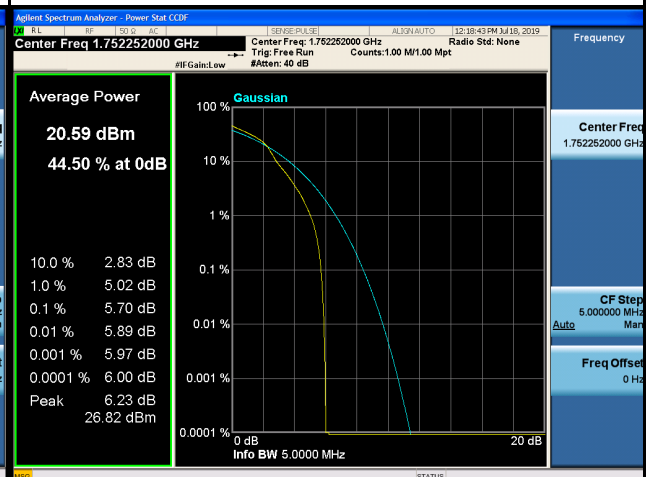
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16QAM-20175

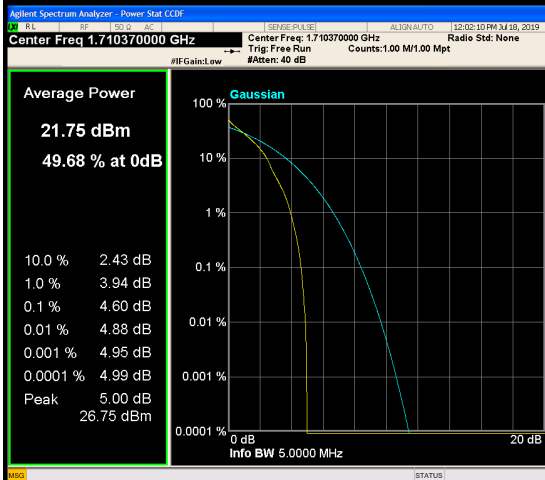


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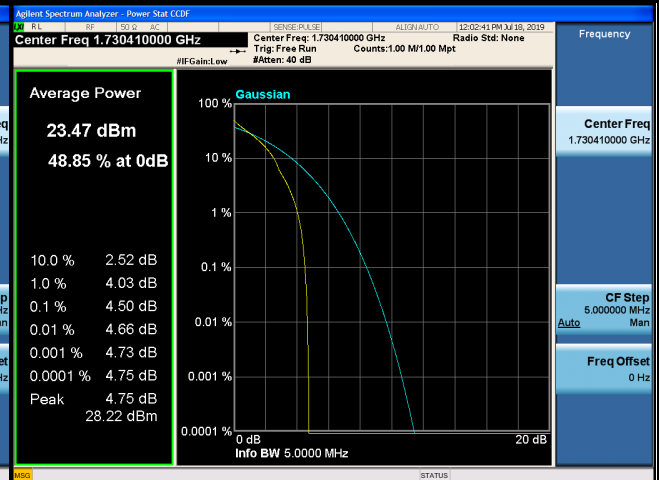


LTE Band 4 Spectrum Plot_5M

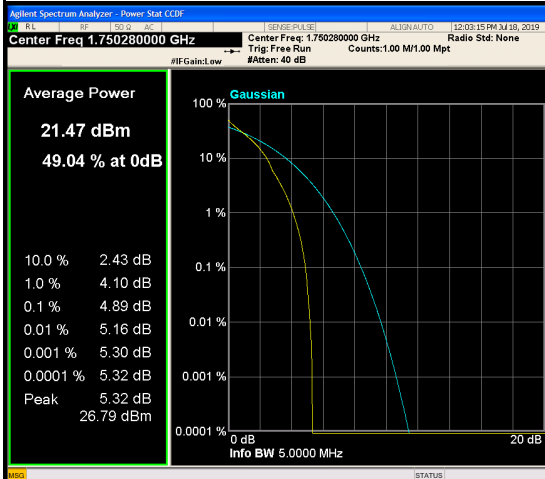
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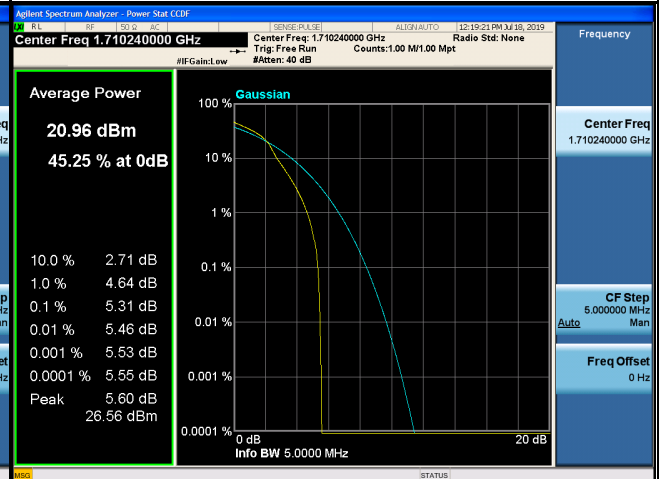
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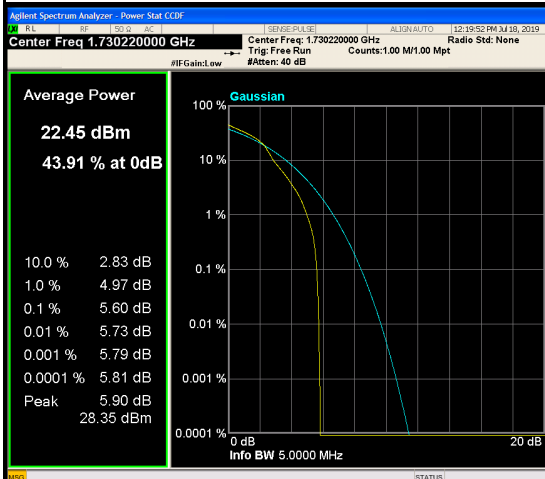
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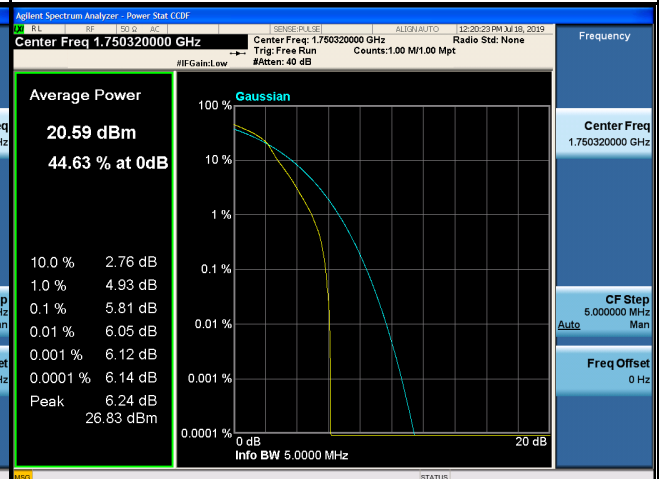
16QAM-19975



16QAM-20175



16QAM-20375



LTE Band 4 Spectrum Plot_10M

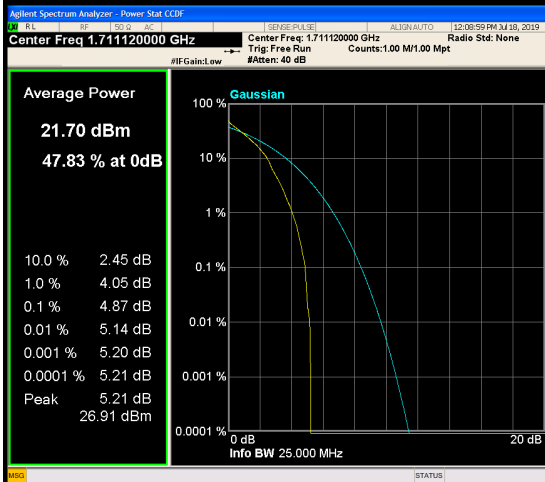


LTE Band 4 Spectrum Plot_15M

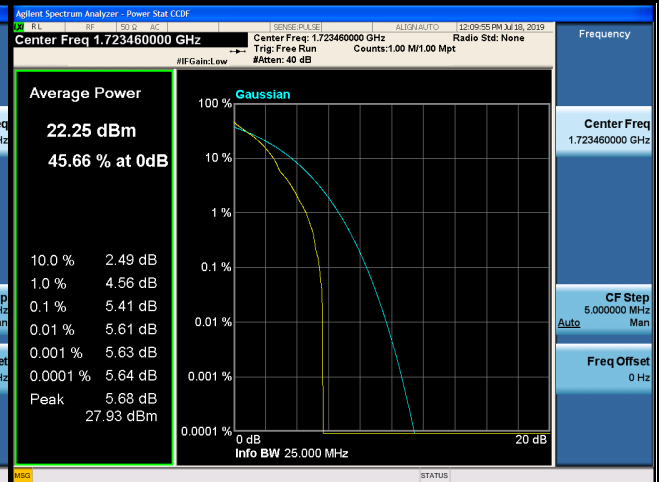


LTE Band 4 Spectrum Plot_20M

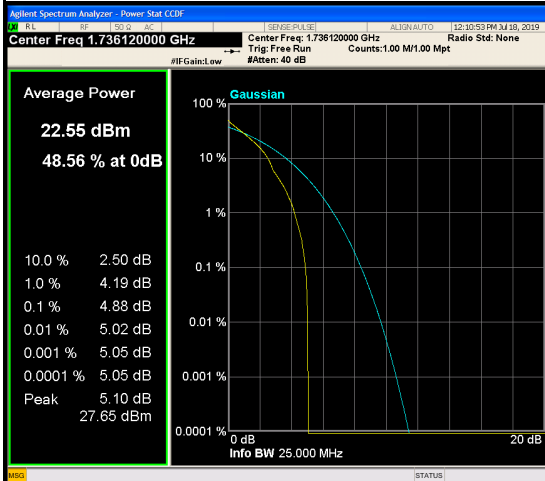
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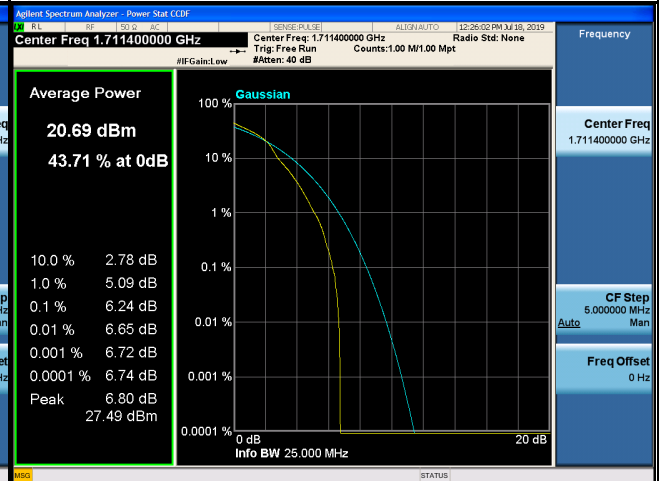
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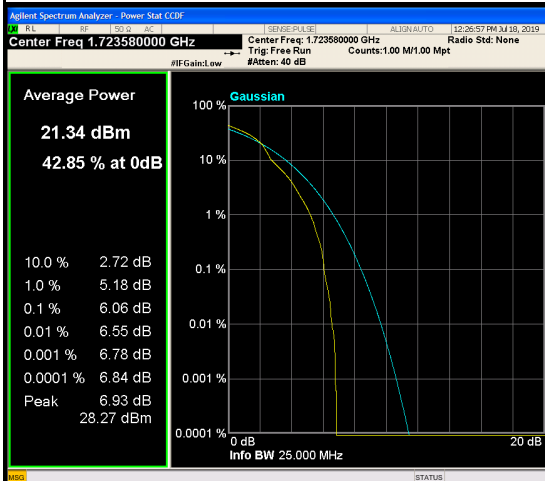
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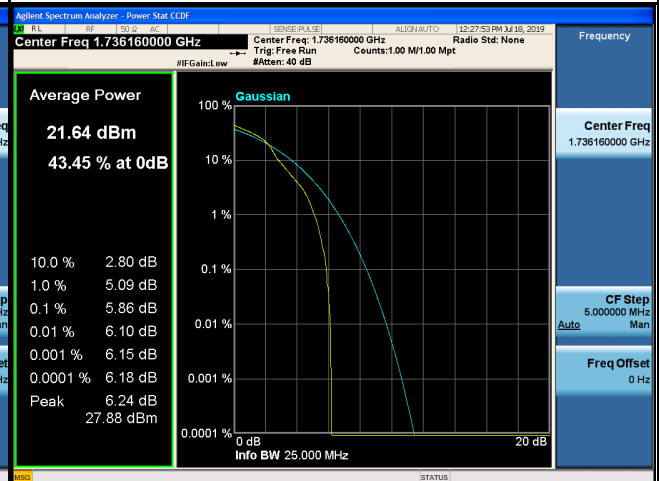
16QAM-20050



16QAM-20175



16QAM-20300



LTE Band 7 Spectrum Plot_5M



LTE Band 7 Spectrum Plot_10M



LTE Band 7 Spectrum Plot_15M

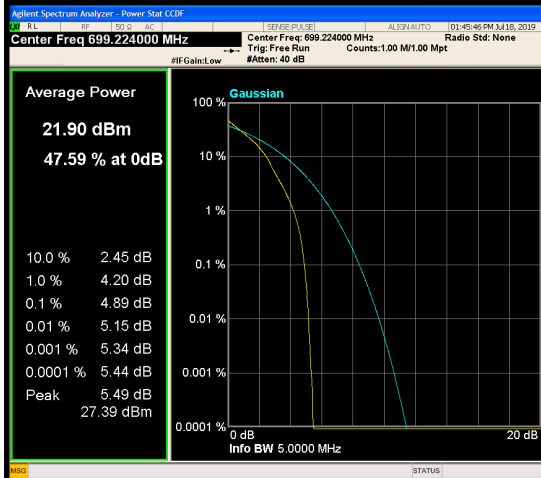


LTE Band 7 Spectrum Plot_20M

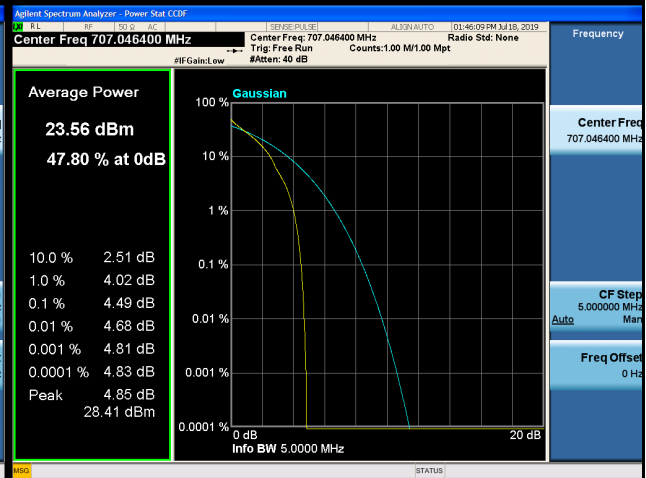


LTE Band 12 Spectrum Plot_1.4M

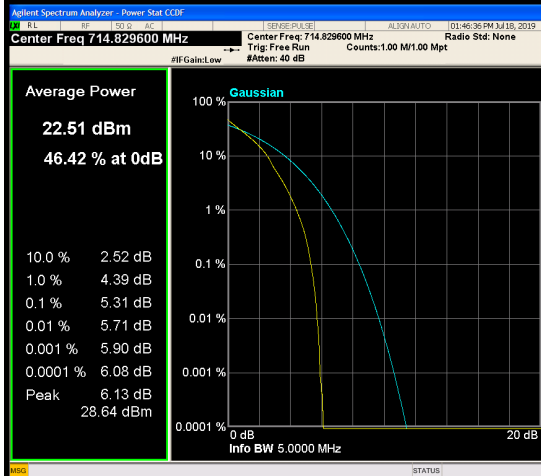
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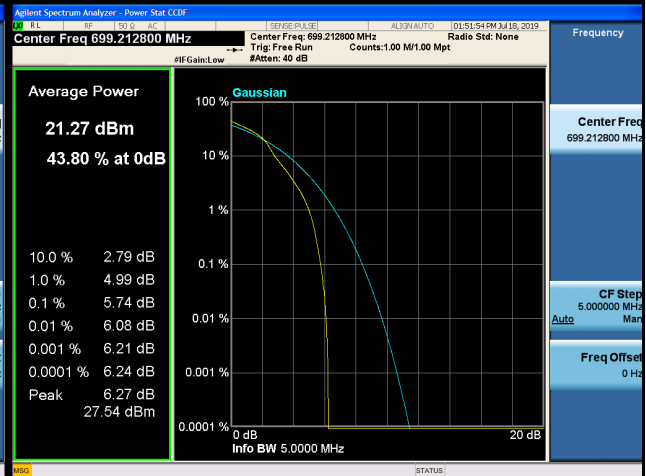
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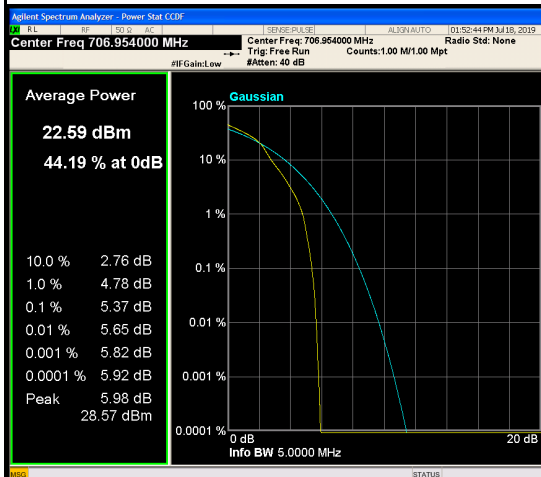
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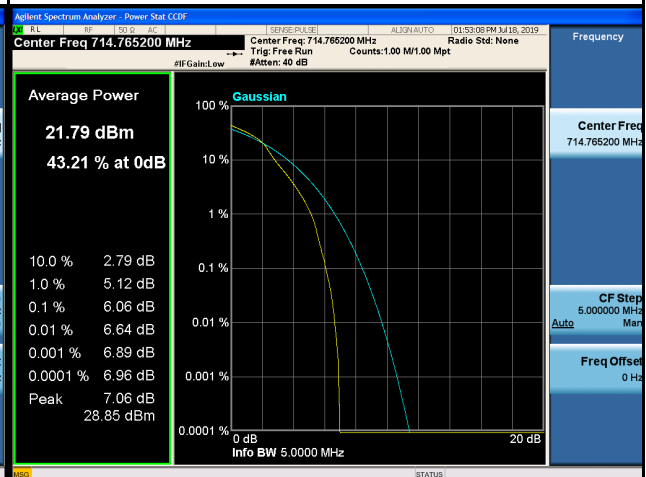
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16QAM23095



16QAM-23173



LTE Band 12 Spectrum Plot_3M



LTE Band 12 Spectrum Plot_5M



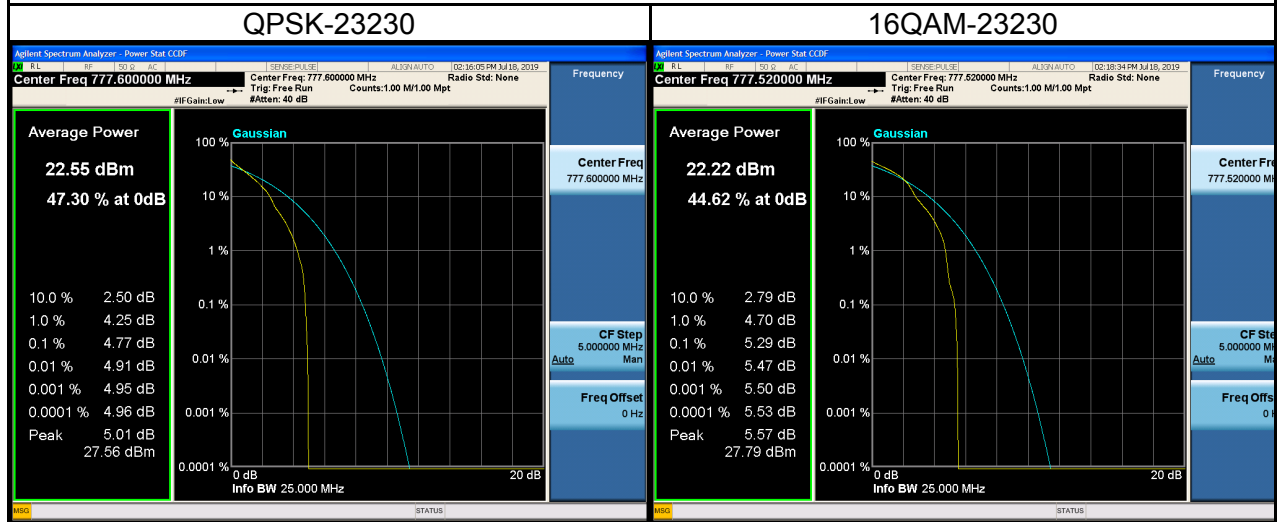
LTE Band 12 Spectrum Plot_10M



LTE Band 13 Spectrum Plot_5M



LTE Band 13 Spectrum Plot_10M



APPENDIX I - FREQUENCY STABILITY

Test Mode:	WCDMA Band IV _CH1413
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	6.47	0.003734272	±2.5
-20	2.88	0.001662242	
-10	7.24	0.004178691	
0	8.30	0.004790488	
10	2.82	0.001627612	
20	5.52	0.003185963	
30	7.12	0.004109431	
40	5.75	0.003318712	
50	5.13	0.002960868	
60	3.63	0.002095117	
75	6.51	0.003757359	
Max. Deviation (ppm)	8.3	0.004790488	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	2.29	0.001321713	±2.5
4.0	2.44	0.001408288	
4.2	3.66	0.002112432	
Max. Deviation (ppm)	3.66	0.002112432	

Test Mode:	LTE Band 4_CH20175_1.4M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	3.66	0.002112554	±2.5
-20	5.80	0.003347763	
-10	-0.70	-0.00040404	
0	-5.25	-0.003030303	
10	-3.34	-0.00192785	
20	-2.07	-0.001194805	
30	1.03	0.000594517	
40	5.92	0.003417027	
50	3.65	0.002106782	
60	-1.34	-0.000773449	
75	6.36	0.003670996	
Max. Deviation (ppm)	6.36	0.003670996	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	6.89	0.003976912	±2.5
4.0	5.50	0.003174603	
4.2	3.26	0.001881674	
Max. Deviation (ppm)	6.89	0.003976912	

Test Mode:	LTE Band 4_CH20175_3M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	3.73	0.002152958	±2.5
-20	5.99	0.003457431	
-10	2.32	0.001339105	
0	-3.85	-0.002222222	
10	-5.51	-0.003180375	
20	-1.03	-0.000594517	
30	-4.97	-0.002868687	
40	7.77	0.004484848	
50	-4.21	-0.002430014	
60	3.92	0.002262626	
75	3.04	0.00175469	
Max. Deviation (ppm)	7.77	0.004484848	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-5.22	-0.003012987	±2.5
4.0	-3.34	-0.00192785	
4.2	5.96	0.003440115	
Max. Deviation (ppm)	5.96	0.003440115	

Test Mode:	LTE Band 4_CH20175_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-5.24	-0.003024531	±2.5
-20	2.14	0.001235209	
-10	1.80	0.001038961	
0	3.49	0.00201443	
10	-1.82	-0.001050505	
20	2.62	0.001512266	
30	2.67	0.001541126	
40	-5.26	-0.003036075	
50	4.89	0.002822511	
60	3.73	0.002152958	
75	-5.32	-0.003070707	
Max. Deviation (ppm)	-5.32	-0.003070707	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-3.43	-0.001979798	±2.5
4.0	-5.71	-0.003295815	
4.2	-5.65	-0.003261183	
Max. Deviation (ppm)	-5.71	-0.003295815	

Test Mode:	LTE Band 4_CH20175_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	5.21	0.003007215	±2.5
-20	-5.42	-0.003128427	
-10	-4.33	-0.002499278	
0	-4.29	-0.00247619	
10	0.23	0.000132756	
20	3.84	0.00221645	
30	-1.19	-0.000686869	
40	5.79	0.003341991	
50	3.66	0.002112554	
60	-4.72	-0.002724387	
75	-5.03	-0.002903319	
Max. Deviation (ppm)	5.79	0.003341991	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-2.93	-0.001691198	±2.5
4.0	6.02	0.003474747	
4.2	-1.81	-0.001044733	
Max. Deviation (ppm)	6.02	0.003474747	

Test Mode:	LTE Band 4_CH20175_15M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-1.16	-0.000669553	±2.5
-20	-2.29	-0.001321789	
-10	6.75	0.003896104	
0	6.01	0.003468975	
10	1.78	0.001027417	
20	-0.18	-0.000103896	
30	-1.70	-0.000981241	
40	5.12	0.002955267	
50	-2.55	-0.001471861	
60	2.26	0.001304473	
75	-4.49	-0.002591631	
Max. Deviation (ppm)	6.75	0.003896104	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	6.48	0.00374026	±2.5
4.0	2.53	0.001460317	
4.2	-2.39	-0.001379509	
Max. Deviation (ppm)	6.48	0.00374026	

Test Mode:	LTE Band 4_CH20175_20M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-5.59	-0.003226551	±2.5
-20	3.03	0.001748918	
-10	-4.62	-0.002666667	
0	5.40	0.003116883	
10	6.62	0.003821068	
20	1.82	0.001050505	
30	-0.91	-0.000525253	
40	4.88	0.002816739	
50	-4.97	-0.002868687	
60	5.12	0.002955267	
75	4.59	0.002649351	
Max. Deviation (ppm)	6.62	0.003821068	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	4.08	0.002354978	±2.5
4.0	0.20	0.00011544	
4.2	-2.91	-0.001679654	
Max. Deviation (ppm)	4.08	0.002354978	

Test Mode:	LTE Band 7_CH21100_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-5.76	-0.002272189	±2.5
-20	0.63	0.000248521	
-10	1.18	0.000465483	
0	2.58	0.001017751	
10	-1.25	-0.000493097	
20	7.24	0.002856016	
30	4.31	0.001700197	
40	-2.81	-0.001108481	
50	6.33	0.002497041	
60	2.18	0.000859961	
75	-0.56	-0.000220907	
Max. Deviation (ppm)	7.24	0.002856016	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	0.28	0.000110454	±2.5
4.0	-3.94	-0.001554241	
4.2	2.32	0.000915187	
Max. Deviation (ppm)	-3.94	-0.001554241	

Test Mode:	LTE Band 7_CH21100_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	3.34	0.001317554	±2.5
-20	6.69	0.002639053	
-10	4.68	0.001846154	
0	-0.74	-0.000291913	
10	-4.57	-0.001802761	
20	4.48	0.001767258	
30	6.94	0.002737673	
40	2.48	0.000978304	
50	7.16	0.002824458	
60	-2.85	-0.00112426	
75	3.58	0.001412229	
Max. Deviation (ppm)	7.16	0.002824458	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	6.07	0.002394477	±2.5
4.0	2.72	0.001072978	
4.2	-3.76	-0.001483235	
Max. Deviation (ppm)	6.07	0.002394477	

Test Mode:	LTE Band 7_CH21100_15M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	0.30	0.000118343	±2.5
-20	1.89	0.000745562	
-10	5.25	0.002071006	
0	-5.18	-0.002043393	
10	-0.40	-0.000157791	
20	-0.87	-0.000343195	
30	0.97	0.000382643	
40	-4.64	-0.001830375	
50	4.33	0.001708087	
60	-3.61	-0.001424063	
75	4.84	0.00190927	
Max. Deviation (ppm)	5.25	0.002071006	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-4.86	-0.00191716	±2.5
4.0	4.13	0.001629191	
4.2	-3.49	-0.001376726	
Max. Deviation (ppm)	-4.86	-0.00191716	

Test Mode:	LTE Band 7_CH21100_20M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-4.86	-0.00191716	±2.5
-20	-5.01	-0.001976331	
-10	-1.34	-0.0005286	
0	4.58	0.001806706	
10	3.71	0.001463511	
20	-2.84	-0.001120316	
30	3.05	0.001203156	
40	1.40	0.000552268	
50	-4.31	-0.001700197	
60	-5.91	-0.002331361	
75	2.61	0.001029586	
Max. Deviation (ppm)	-5.91	-0.002331361	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	1.53	0.00060355	±2.5
4.0	-5.68	-0.002240631	
4.2	-3.02	-0.001191321	
Max. Deviation (ppm)	-5.68	-0.002240631	

Test Mode: LTE Band 12_CH23095_1.4M

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	2.47	0.003491166	±2.5
-20	2.56	0.003618375	
-10	-5.04	-0.007123675	
0	-2.11	-0.002982332	
10	-0.17	-0.000240283	
20	-1.30	-0.001837456	
30	1.20	0.001696113	
40	-4.54	-0.006416961	
50	3.59	0.005074205	
60	4.29	0.006063604	
75	-3.29	-0.004650177	
Max. Deviation (ppm)	-5.04	-0.007123675	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	1.39	0.001964664	±2.5
4.0	5.58	0.007886926	
4.2	0.84	0.001187279	
Max. Deviation (ppm)	5.58	0.007886926	

Test Mode:	LTE Band 12_CH23095_3M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-4.75	-0.006713781	±2.5
-20	-0.98	-0.001385159	
-10	-3.74	-0.005286219	
0	6.95	0.009823322	
10	5.10	0.007208481	
20	-0.04	-5.65371E-05	
30	-1.82	-0.002572438	
40	6.49	0.009173145	
50	-1.98	-0.002798587	
60	4.76	0.006727915	
75	5.05	0.007137809	
Max. Deviation (ppm)	6.95	0.009823322	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-5.11	0.007222615	±2.5
4.0	0.40	0.000565371	
4.2	6.09	0.008607774	
Max. Deviation (ppm)	6.09	0.008607774	

Test Mode:	LTE Band 12_CH23095_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	4.31	0.006091873	±2.5
-20	5.70	0.008056537	
-10	-2.40	-0.003392226	
0	-5.73	-0.00809894	
10	-1.91	-0.002699647	
20	-4.01	-0.005667845	
30	-2.83	-0.004	
40	3.40	0.004805654	
50	4.73	0.006685512	
60	-5.11	-0.007222615	
75	2.78	0.003929329	
Max. Deviation (ppm)	-5.73	-0.00809894	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-1.63	-0.002303887	±2.5
4.0	-3.40	-0.004805654	
4.2	-5.80	-0.00819788	
Max. Deviation (ppm)	-5.8	-0.00819788	

Test Mode:	LTE Band 12_CH23095_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-5.70	-0.008056537	±2.5
-20	0.60	0.000848057	
-10	-4.24	-0.005992933	
0	5.55	0.007844523	
10	5.77	0.008155477	
20	-1.73	-0.00244523	
30	-4.37	-0.006176678	
40	6.73	0.009512367	
50	-4.79	-0.006770318	
60	5.21	0.007363958	
75	-1.02	-0.001441696	
Max. Deviation (ppm)	6.73	0.009512367	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-4.21	-0.00595053	±2.5
4.0	6.92	0.009780919	
4.2	-0.08	-0.000113074	
Max. Deviation (ppm)	6.92	0.009780919	

Test Mode:	LTE Band 13_CH23230_5M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	2.63	0.003363171	±2.5
-20	-5.21	-0.006662404	
-10	3.41	0.004360614	
0	-4.80	-0.006138107	
10	6.81	0.00870844	
20	5.74	0.007340153	
30	-2.92	-0.003734015	
40	2.86	0.003657289	
50	6.79	0.008682864	
60	-6.44	-0.008235294	
75	2.19	0.002800512	
Max. Deviation (ppm)	6.81	0.00870844	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	-3.95	-0.005051151	±2.5
4.0	5.37	0.006867008	
4.2	3.05	0.003900256	
Max. Deviation (ppm)	5.37	0.006867008	

Test Mode:	LTE Band 13_CH23230_10M
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Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-30	-2.12	-0.002710997	±2.5
-20	1.65	0.002109974	
-10	0.90	0.001150895	
0	-4.67	-0.005971867	
10	0.71	0.000907928	
20	1.46	0.001867008	
30	3.28	0.004194373	
40	1.78	0.002276215	
50	-5.43	-0.006943734	
60	-4.16	-0.005319693	
75	5.35	0.006841432	
Max. Deviation (ppm)	-5.43	-0.006943734	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
3.8	1.06	0.001355499	±2.5
4.0	5.66	0.007237852	
4.2	-1.37	-0.001751918	
Max. Deviation (ppm)	5.66	0.007237852	

End of Test Report