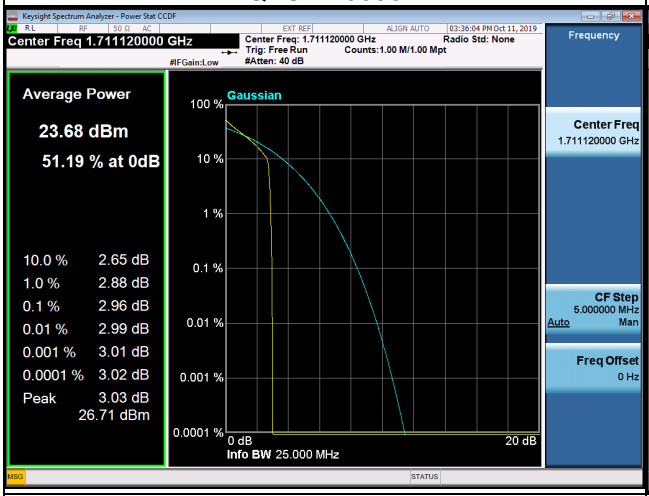
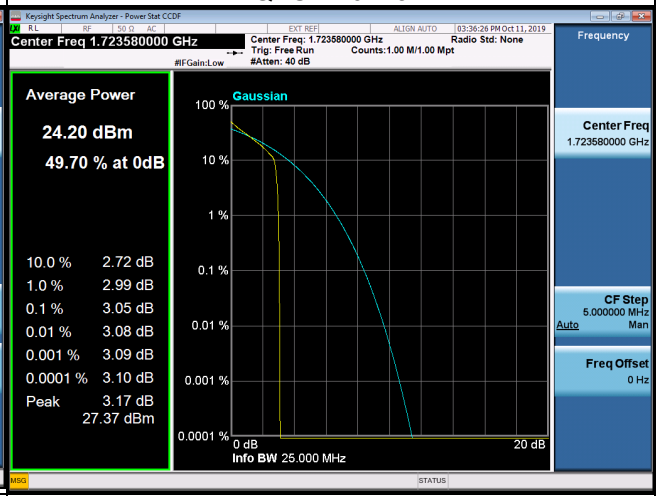
LTE Band 4_20M Spectrum Plot

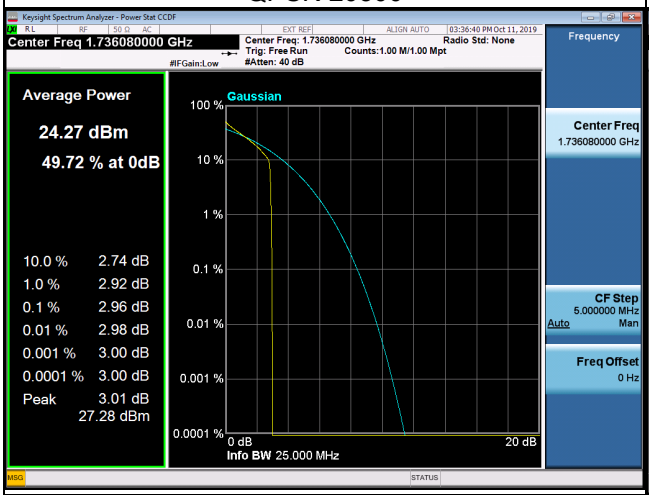
QPSK-20050



QPSK-20175



QPSK-20300



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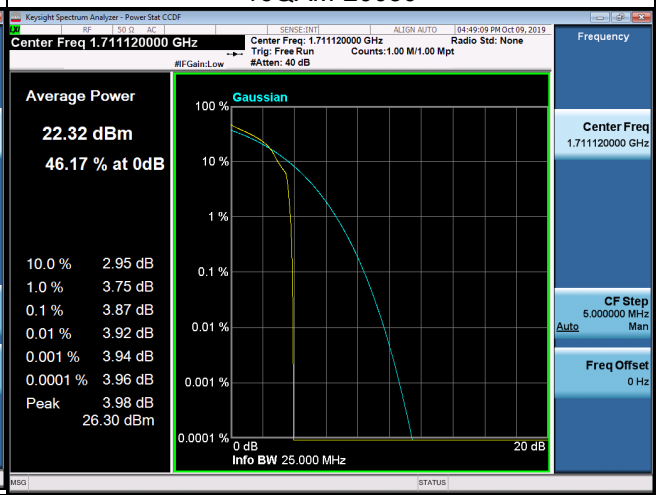

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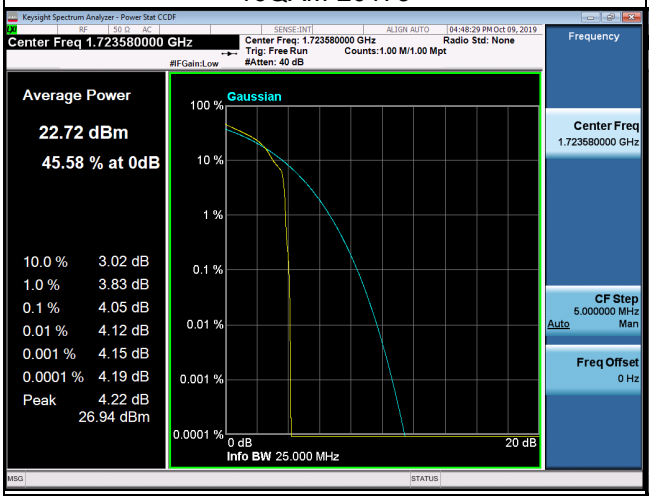

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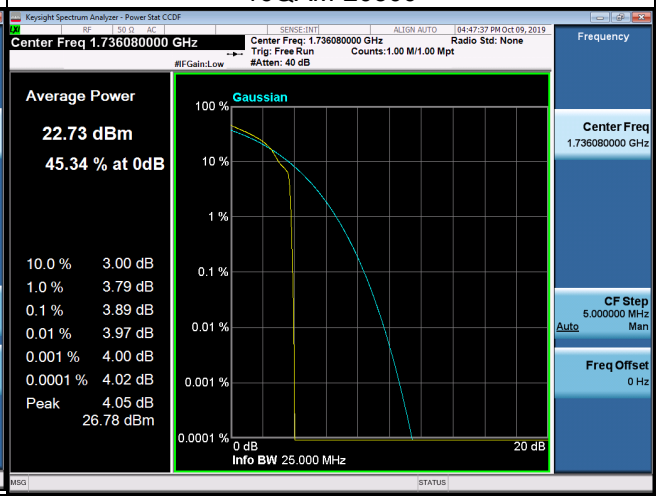
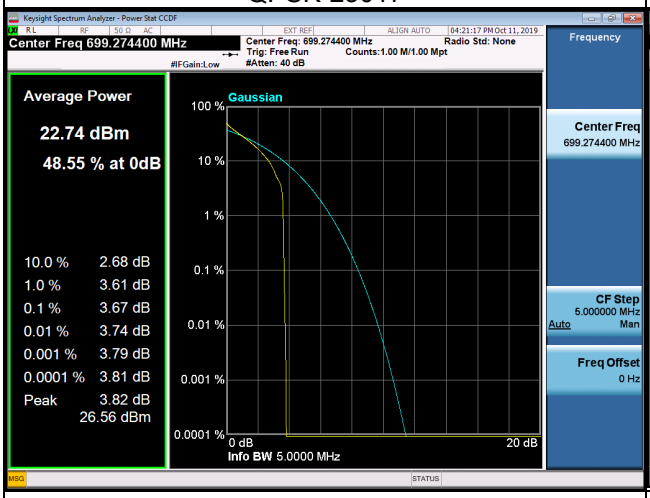
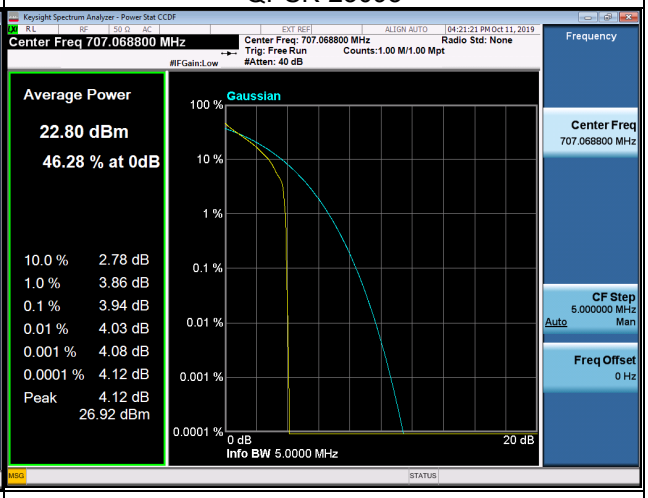


LTE Band 12_1.4M Spectrum Plot

QPSK-23017



QPSK-23095



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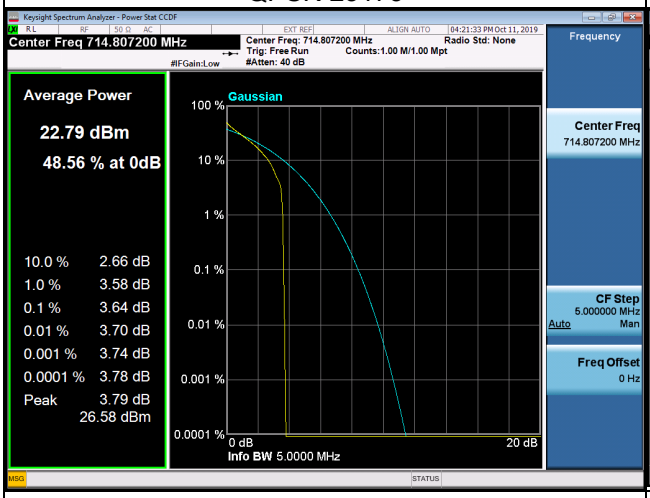

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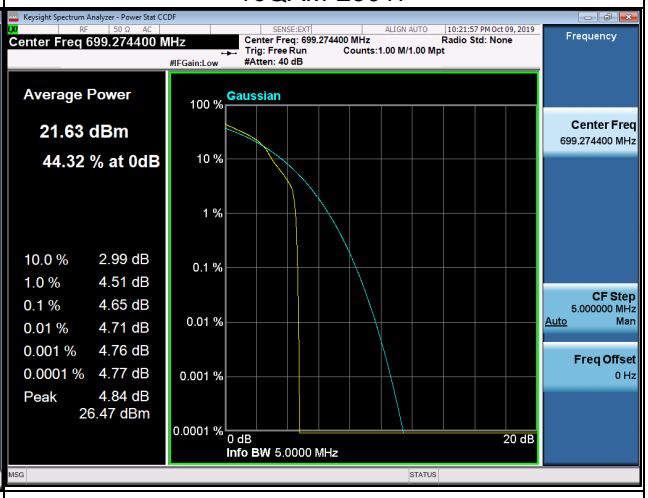

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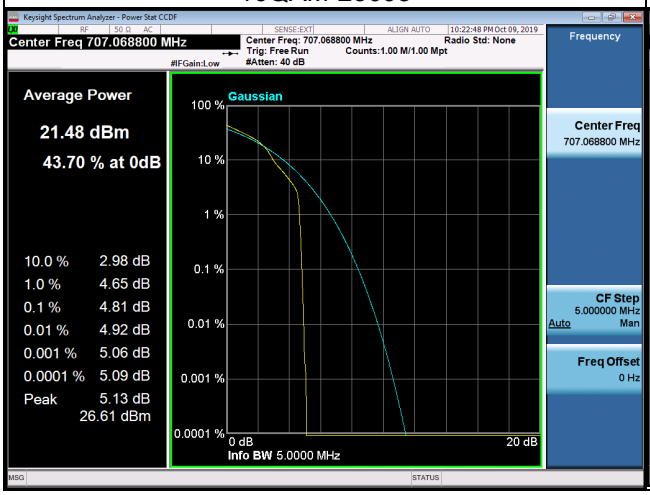

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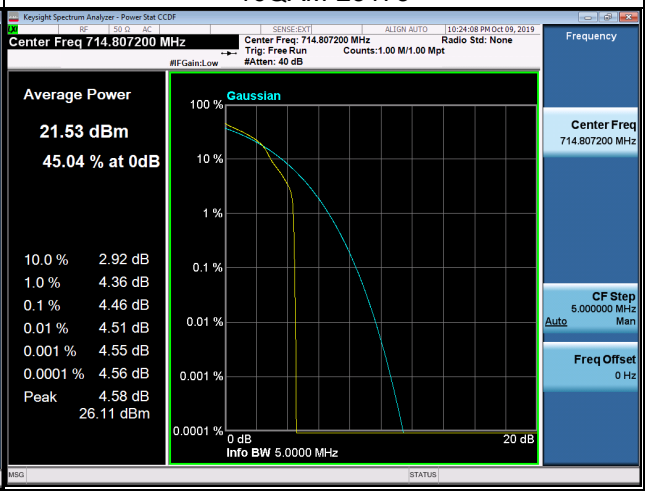
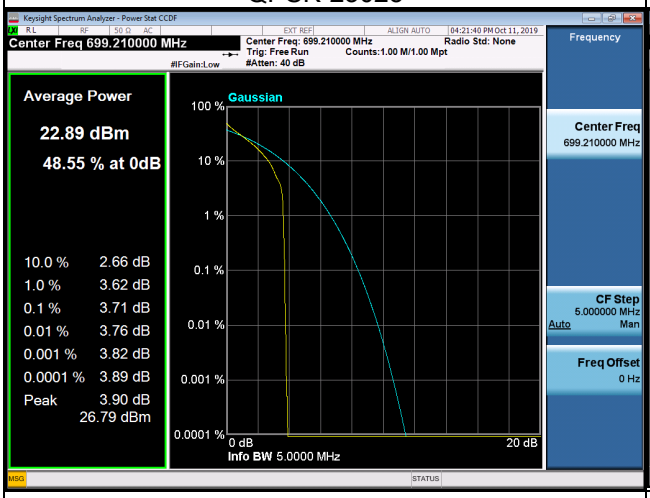


LTE Band 12_3M Spectrum Plot

QPSK-23025



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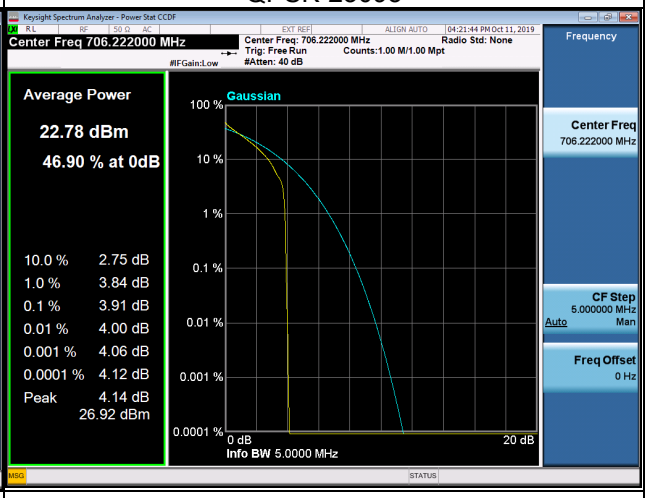

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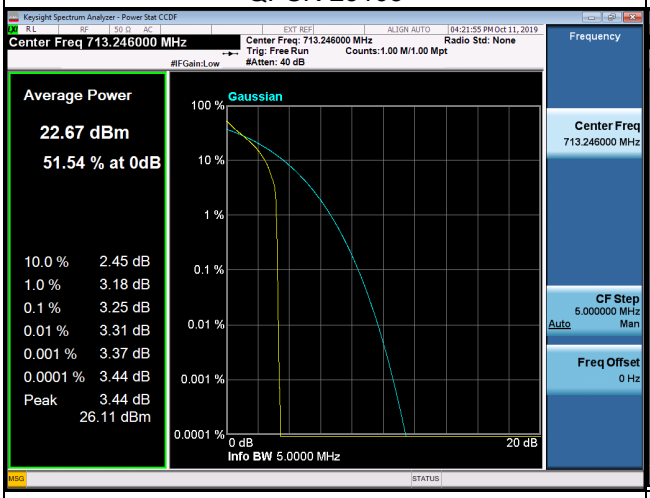

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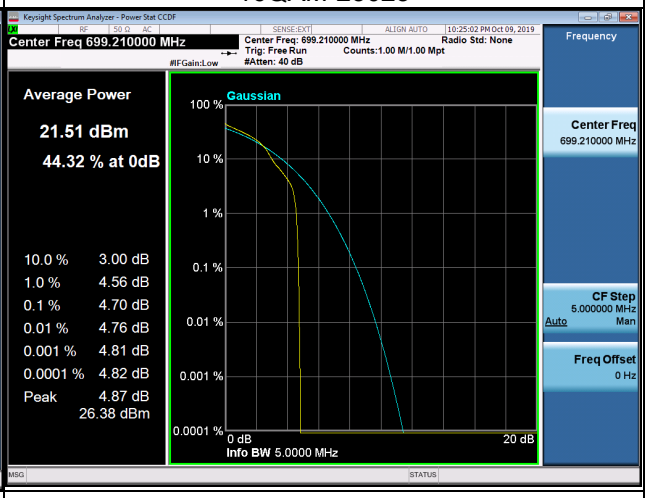

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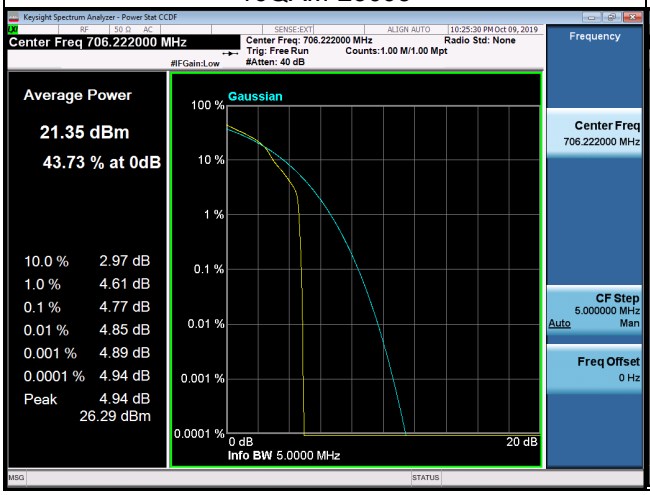

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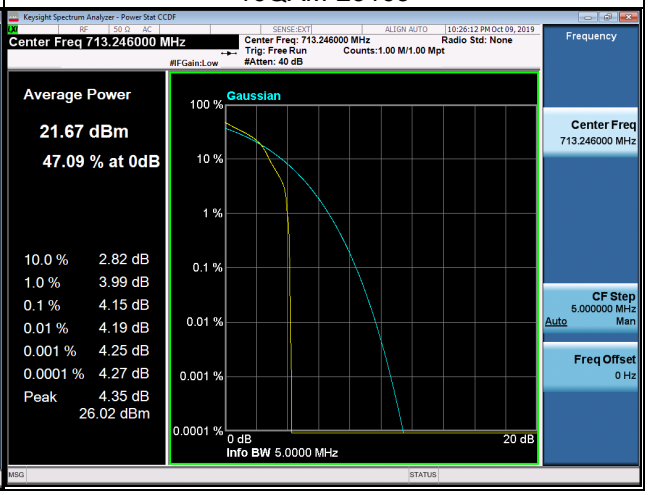
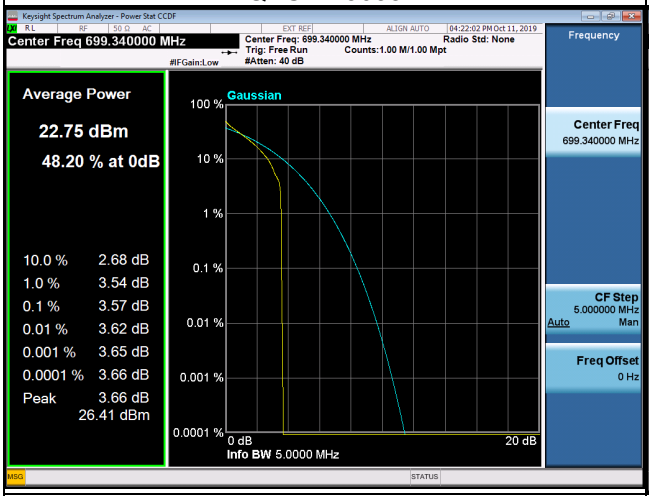


LTE Band 12_5M Spectrum Plot

QPSK-23035



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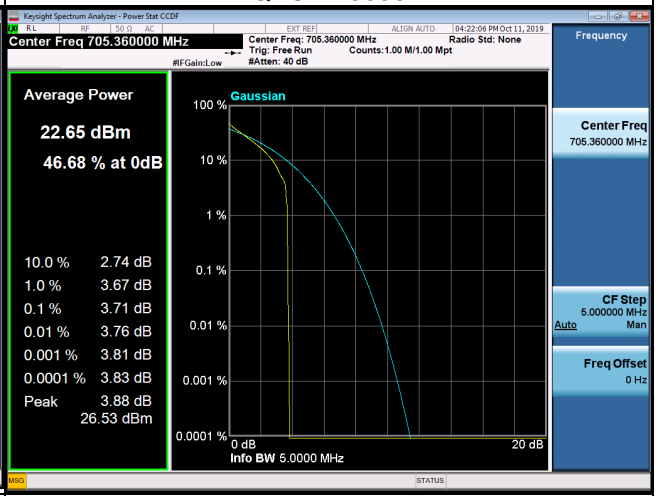
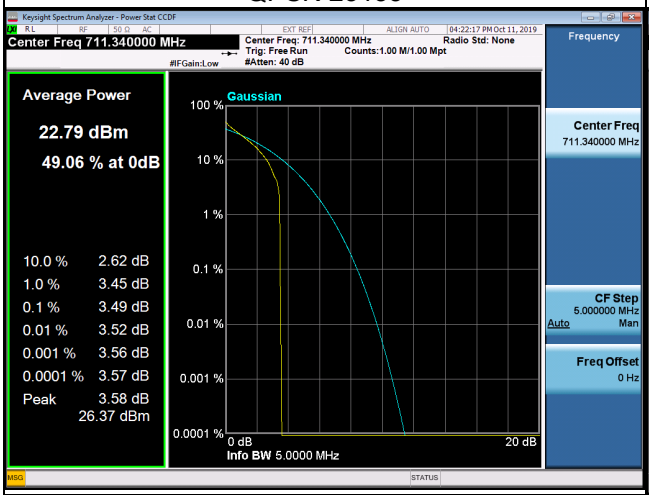


QPSK-23155



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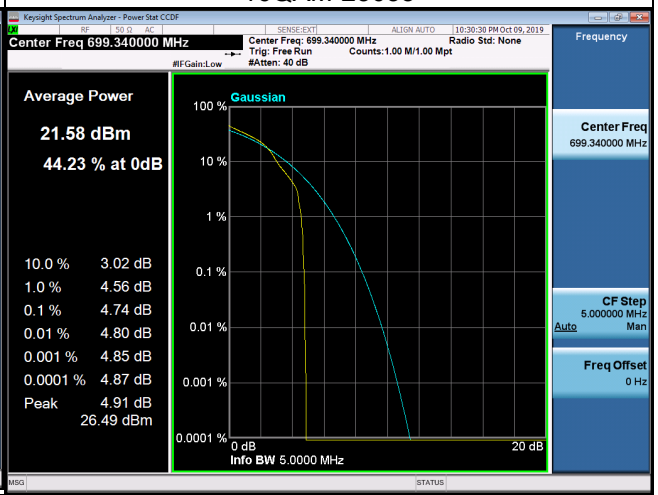

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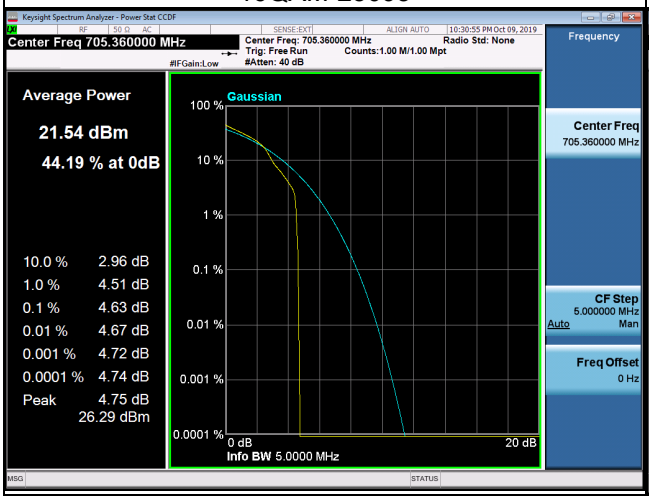

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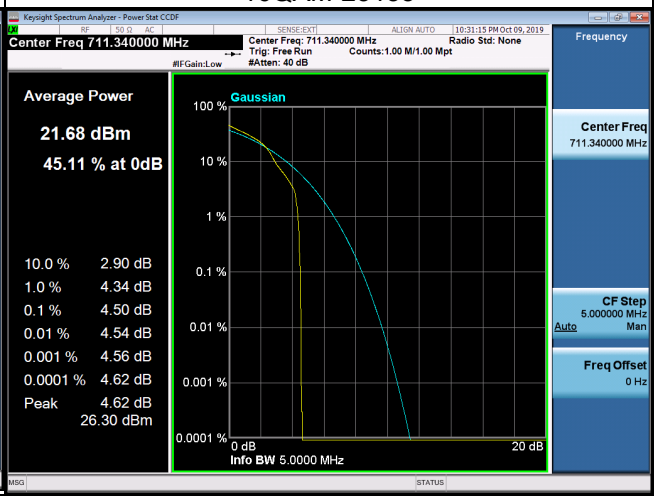
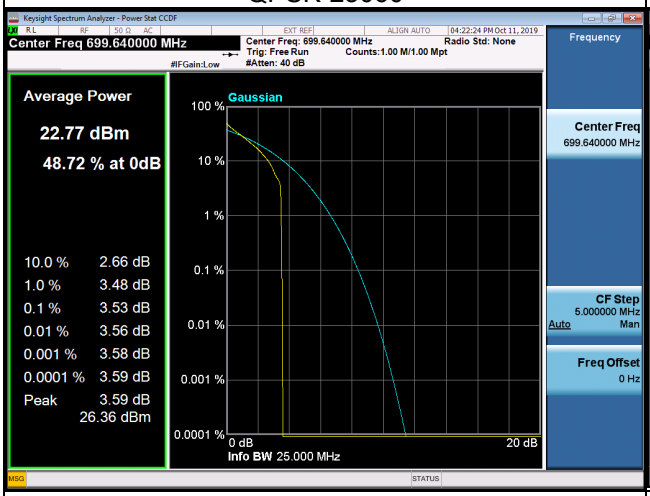


LTE Band 12_10M Spectrum Plot

QPSK-23060



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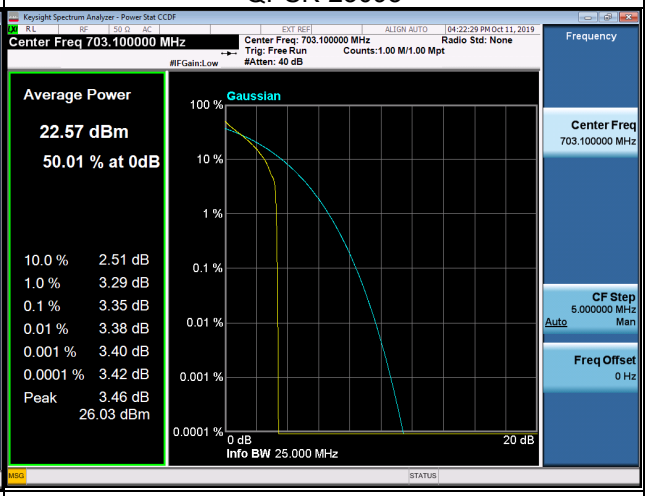

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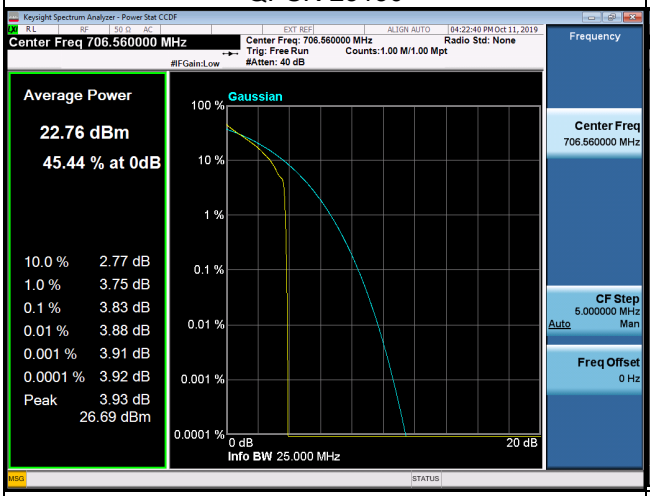

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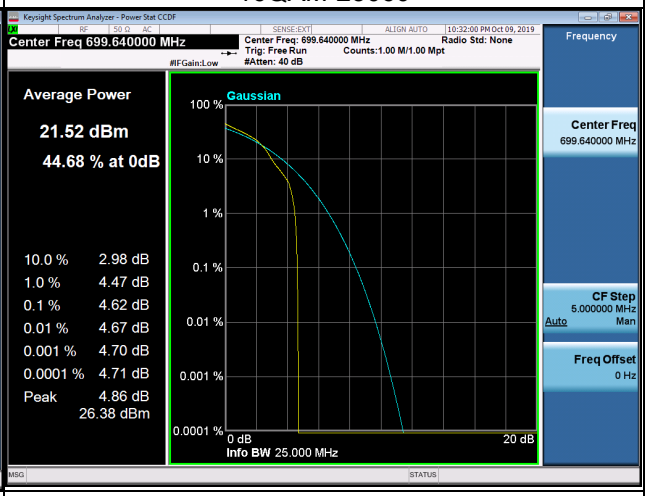

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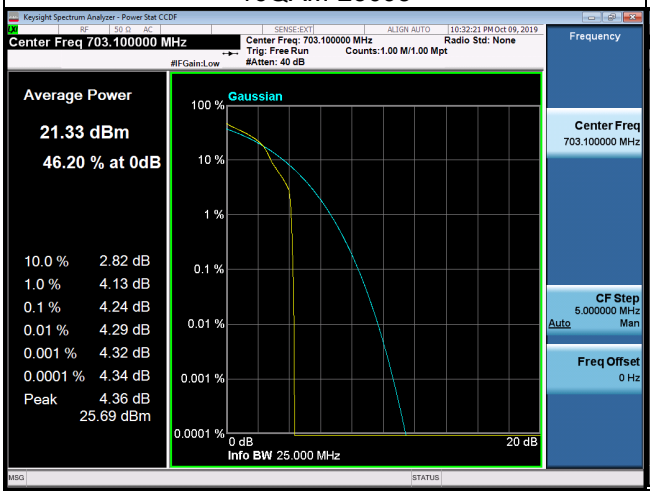

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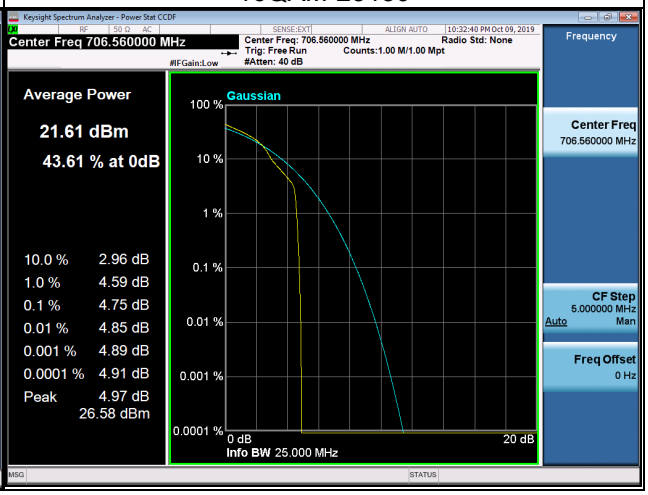

APPENDIX I - FREQUENCY STABILITY

Test Mode	LTE Band 4_CH20175_1.4M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	-4.27	-0.002464646	±2.5
10	2.58	0.001489177	
20	2.53	0.001460317	
30	-3.77	-0.002176046	
40	-1.33	-0.000767677	
45	-5.86	-0.003382395	
Max. Deviation (ppm)	-5.86	-0.003382395	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	-1.78	-0.001027417	±2.5
3.8	2.79	0.00161039	
3.5	3.34	0.00192785	
Max. Deviation (ppm)	3.34	0.00192785	

Test Mode	LTE Band 4_CH20175_3M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	3.31	0.001910534	±2.5
10	2.31	0.001333333	
20	-1.55	-0.000894661	
30	-2.69	-0.00155267	
40	-4.84	-0.002793651	
45	1.71	0.000987013	
Max. Deviation (ppm)	-4.84	-0.002793651	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	-4.86	-0.002805195	±2.5
3.8	5.16	0.002978355	
3.5	-4.02	-0.002320346	
Max. Deviation (ppm)	5.16	0.002978355	

Test Mode	LTE Band 4_CH20175_5M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	1.43	0.000825397	±2.5
10	4.70	0.002712843	
20	4.68	0.002701299	
30	-2.53	-0.001460317	
40	-3.87	-0.002233766	
45	-2.89	-0.00166811	
Max. Deviation (ppm)	4.7	0.002712843	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	5.31	0.003064935	±2.5
3.8	4.15	0.002395382	
3.5	4.53	0.002614719	
Max. Deviation (ppm)	5.31	0.003064935	

Test Mode	LTE Band 4_CH20175_10M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	2.47	0.001425685	±2.5
10	5.11	0.002949495	
20	1.37	0.000790765	
30	2.38	0.001373737	
40	4.83	0.002787879	
45	2.87	0.001656566	
Max. Deviation (ppm)	5.11	0.002949495	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	4.89	0.002822511	±2.5
3.8	4.32	0.002493506	
3.5	-2.81	-0.001621934	
Max. Deviation (ppm)	4.89	0.002822511	

Test Mode	LTE Band 4_CH20175_15M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	0.45	0.00025974	±2.5
10	1.35	0.000779221	
20	3.79	0.00218759	
30	-0.45	-0.00025974	
40	-2.70	-0.001558442	
45	3.73	0.002152958	
Max. Deviation (ppm)	3.79	0.00218759	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	5.44	0.003139971	±2.5
3.8	3.58	0.002066378	
3.5	-2.89	-0.00166811	
Max. Deviation (ppm)	5.44	0.003139971	

Test Mode	LTE Band 4_CH20175_20M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	3.10	0.001789322	±2.5
10	3.39	0.00195671	
20	1.85	0.001067821	
30	-1.21	-0.000698413	
40	-1.64	-0.000946609	
45	-4.10	-0.002366522	
Max. Deviation (ppm)	-4.1	-0.002366522	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	4.97	0.002868687	±2.5
3.8	4.91	0.002834055	
3.5	2.40	0.001385281	
Max. Deviation (ppm)	4.97	0.002868687	

Test Mode	LTE Band 12_CH23095_1.4M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	3.81	0.005385159	±2.5
10	3.52	0.004975265	
20	4.16	0.005879859	
30	2.39	0.003378092	
40	0.46	0.000650177	
45	-1.60	0.002261484	
Max. Deviation (ppm)	4.16	0.005879859	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	4.73	0.006685512	±2.5
3.8	6.14	0.008678445	
3.5	0.38	0.000537102	
Max. Deviation (ppm)	6.14	0.008678445	

Test Mode	LTE Band 12_CH23095_3M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	3.59	0.005074205	±2.5
10	1.29	0.001823322	
20	5.79	0.008183746	
30	6.83	0.00965371	
40	4.79	0.006770318	
45	-5.89	0.008325088	
Max. Deviation (ppm)	6.83	0.00965371	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	3.69	0.005215548	±2.5
3.8	1.91	0.002699647	
3.5	-0.08	0.000113074	
Max. Deviation (ppm)	3.69	0.005215548	

Test Mode	LTE Band 12_CH23095_5M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	2.07	0.002925795	±2.5
10	0.09	0.000127208	
20	-2.46	-0.003477032	
30	-1.82	-0.002572438	
40	1.43	0.002021201	
45	-0.58	-0.000819788	
Max. Deviation (ppm)	-2.46	-0.003477032	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	3.84	0.005427562	±2.5
3.8	2.67	0.003773852	
3.5	4.21	0.00595053	
Max. Deviation (ppm)	4.21	0.00595053	

Test Mode	LTE Band 12_CH23095_10M

Temperature vs. Frequency Stabiility

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
0	1.07	0.001512367	±2.5
10	6.82	0.009639576	
20	1.76	0.002487633	
30	5.38	0.00760424	
40	4.75	0.006713781	
45	-2.31	-0.003265018	
Max. Deviation (ppm)	6.82	0.009639576	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
4.35	6.67	0.009427562	±2.5
3.8	-2.38	-0.003363958	
3.5	0.16	0.000226148	
Max. Deviation (ppm)	6.67	0.009427562	

End of Test Report