

LTE Band 66_15M

1RB0

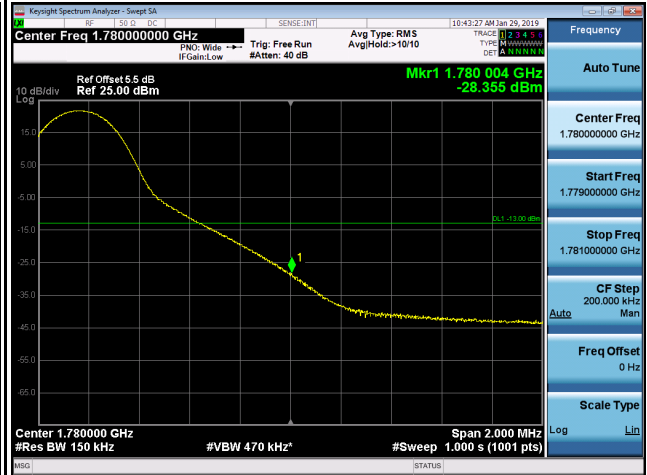
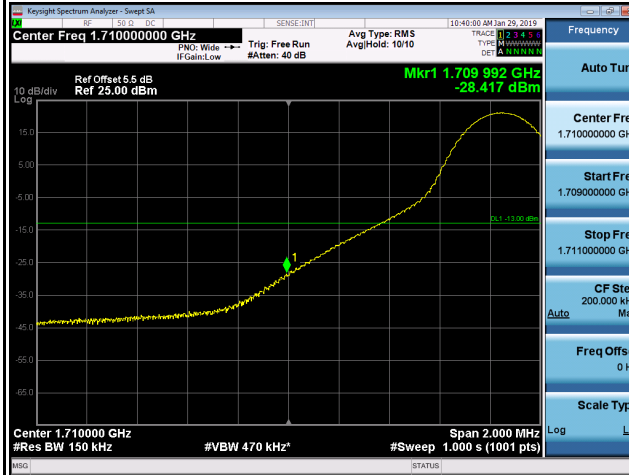
1RB74

Channel

132047

Channel

132597



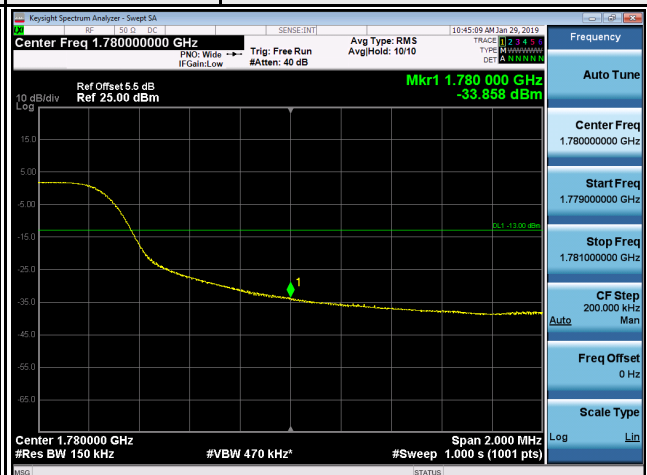
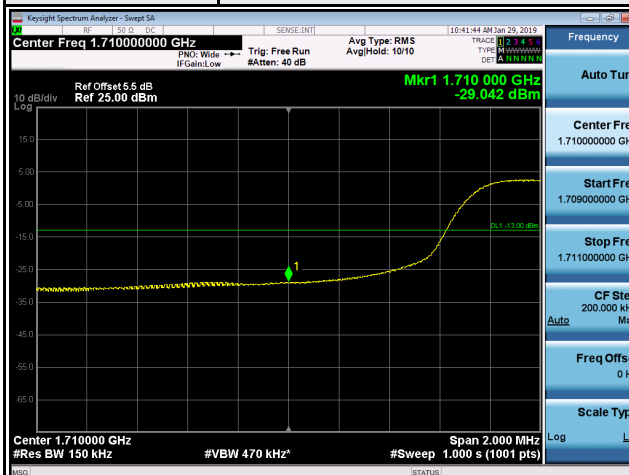
75RB0

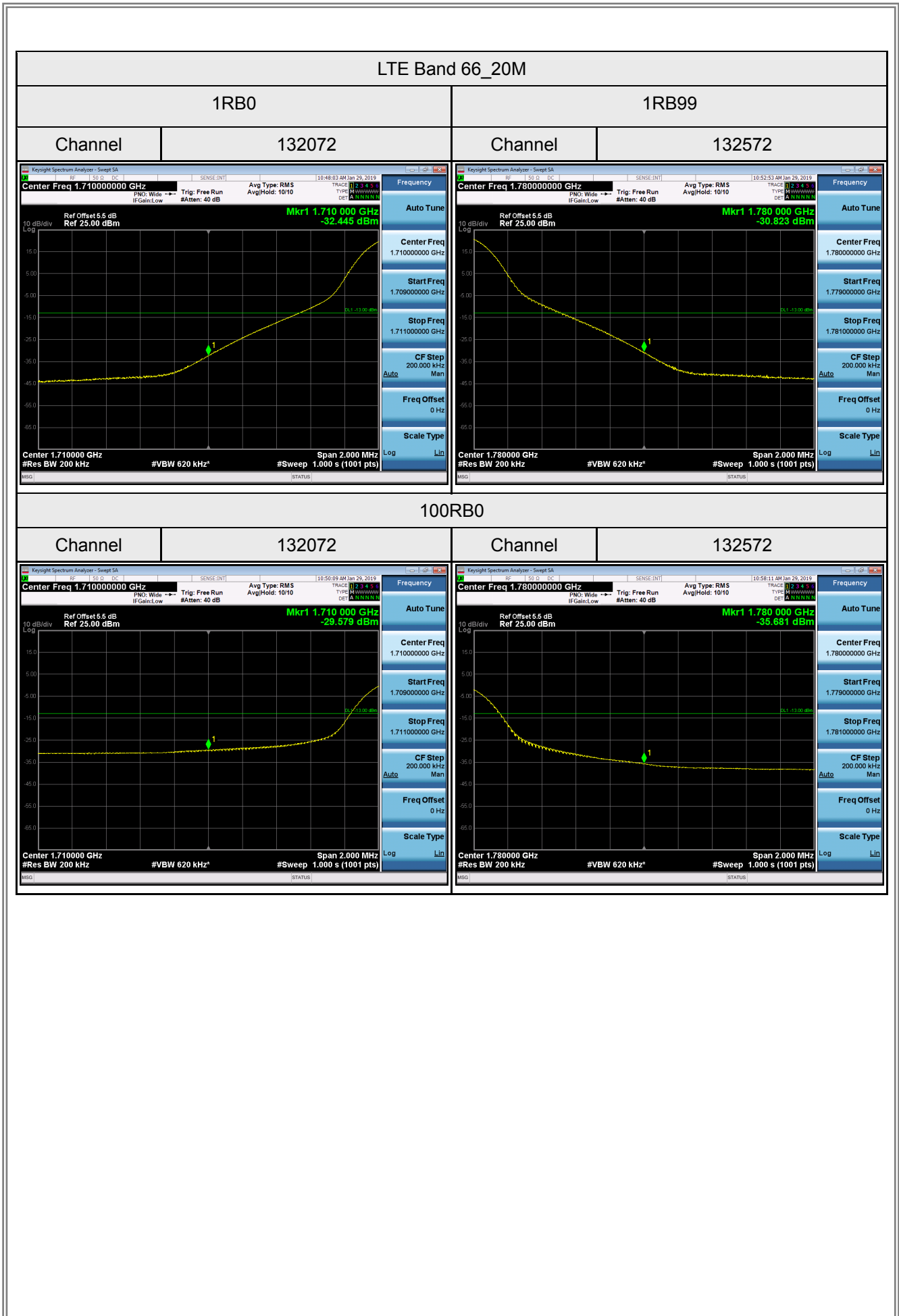
Channel

132047

Channel

132597





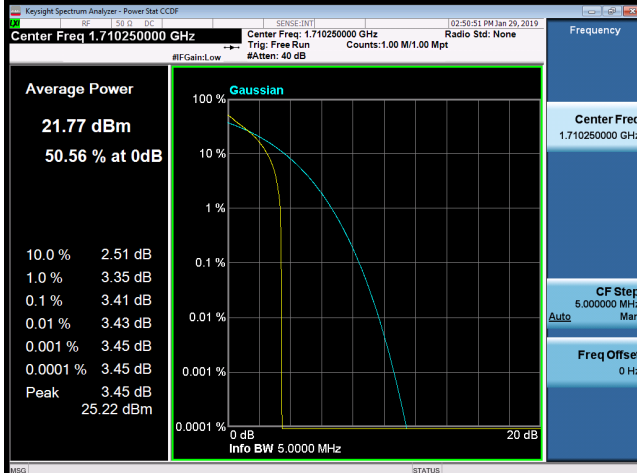
APPENDIX H - PEAK TO AVERAGE RATIO

LTE Band 4 Spectrum Plot_1.4M

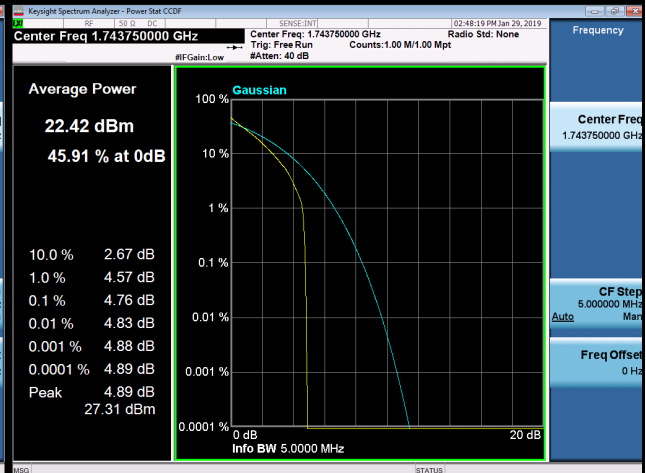


LTE Band 4 Spectrum Plot_3M

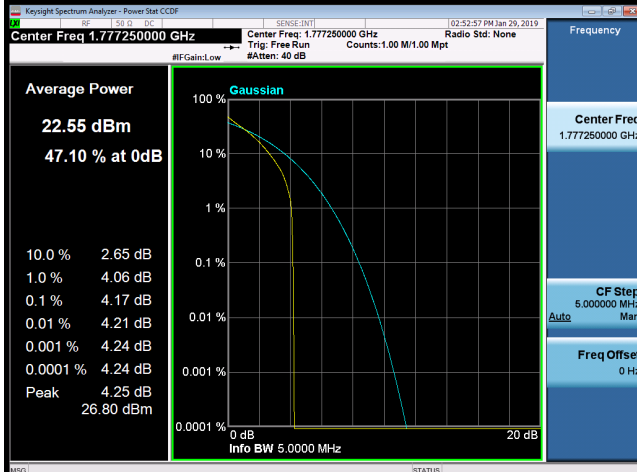
QPSK-19965



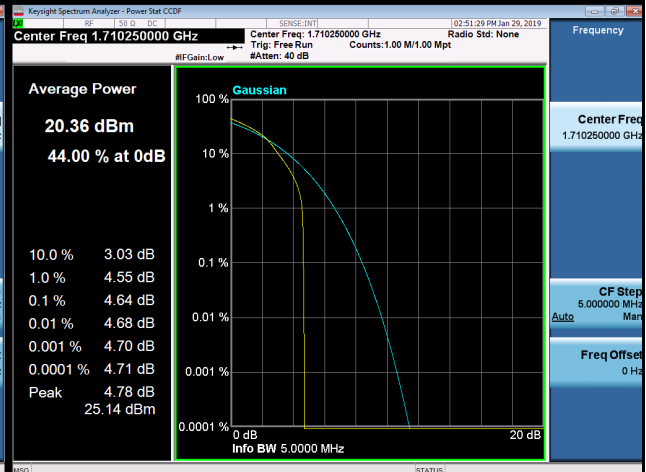
QPSK-20175



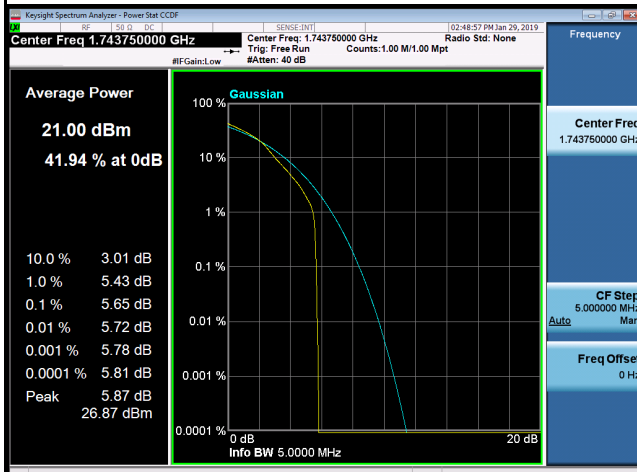
QPSK-20385



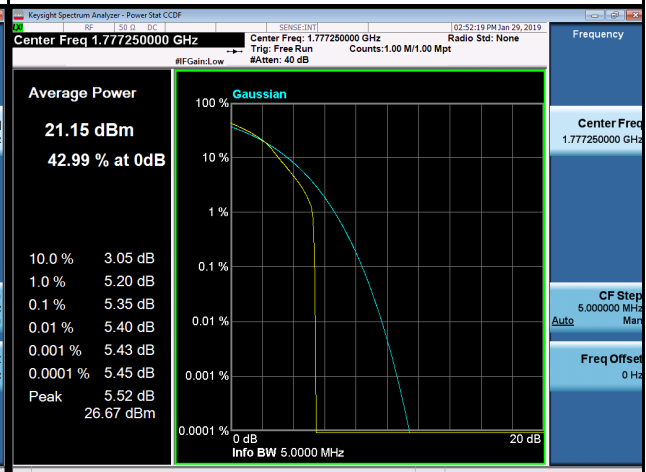
16QAM-19965



16QAM-20175

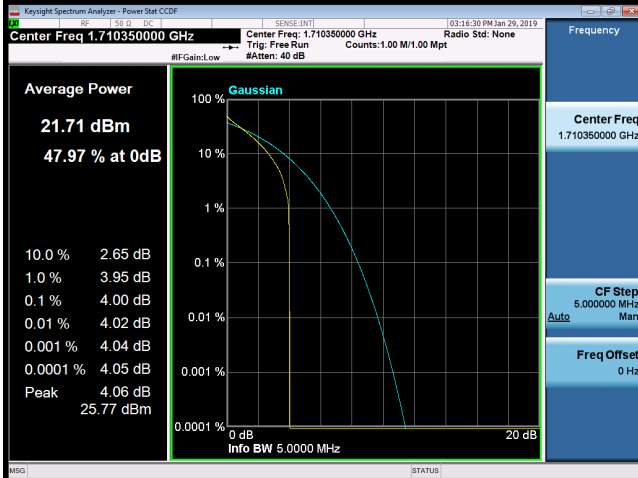


16QAM-20385

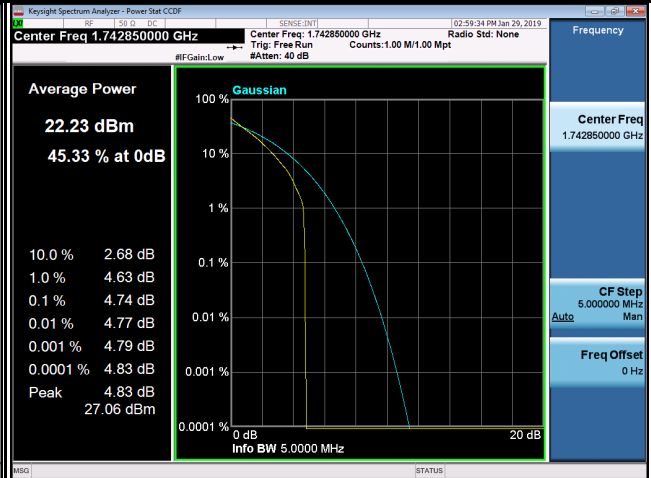


LTE Band 4 Spectrum Plot_5M

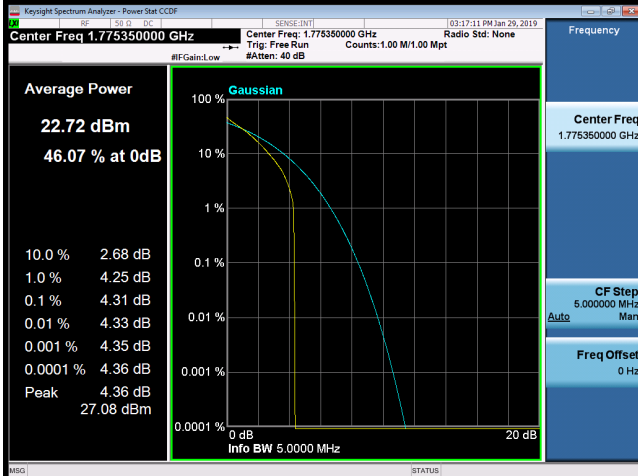
QPSK-19975



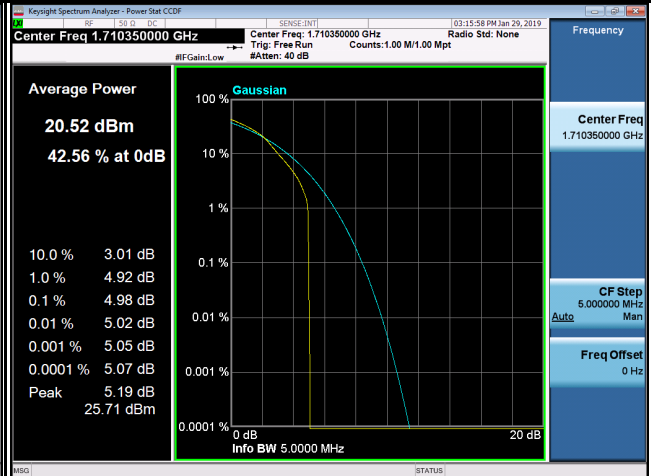
QPSK-20175



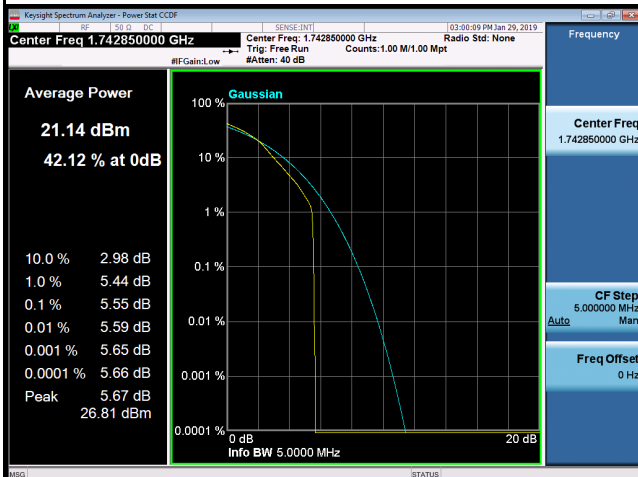
QPSK-20375



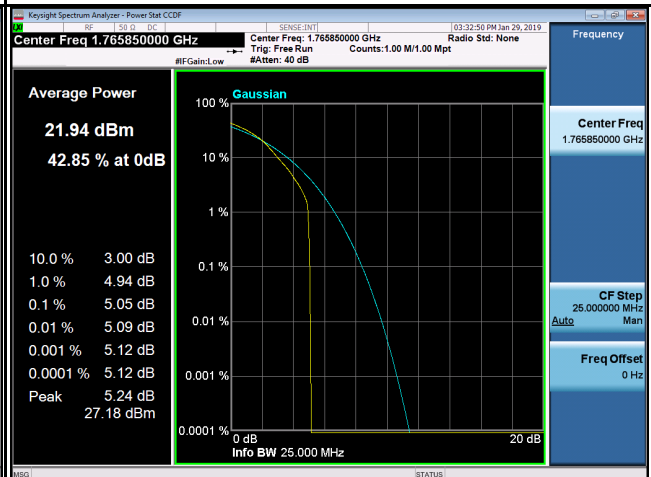
16QAM-19975



16QAM-20175

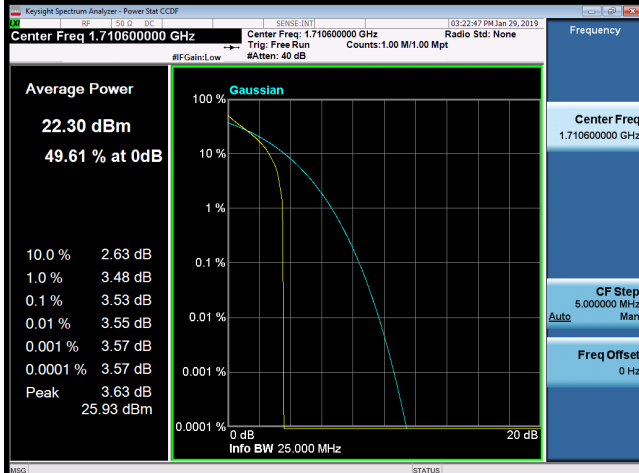


16QAM-20375

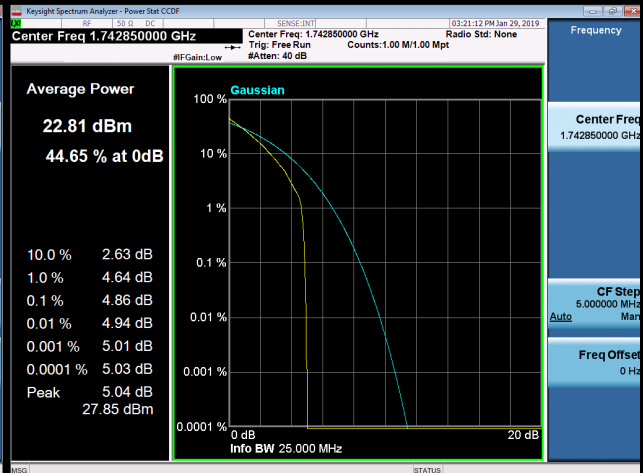


LTE Band 4 Spectrum Plot_10M

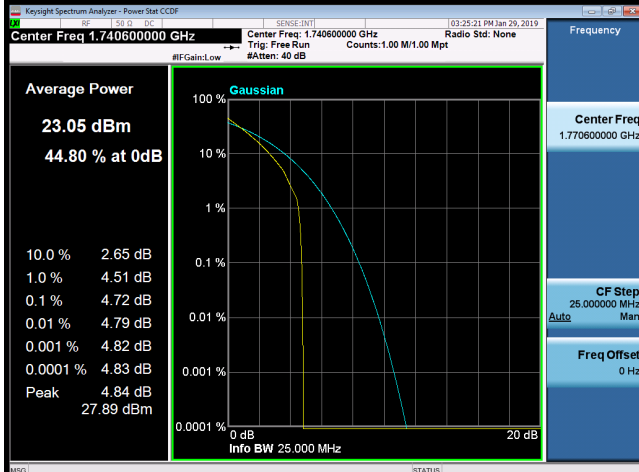
QPSK-20000



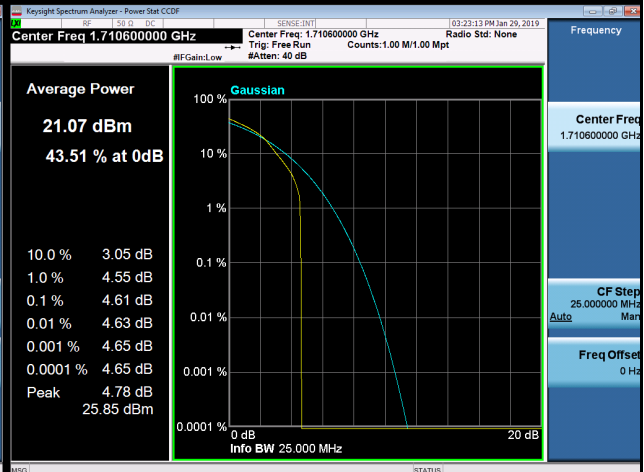
QPSK-20175



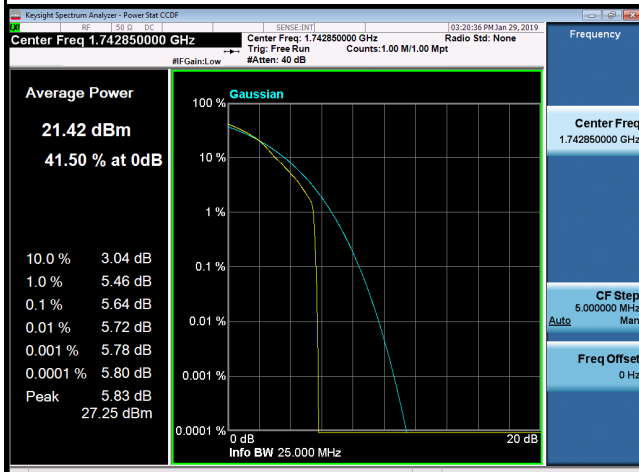
QPSK-20350



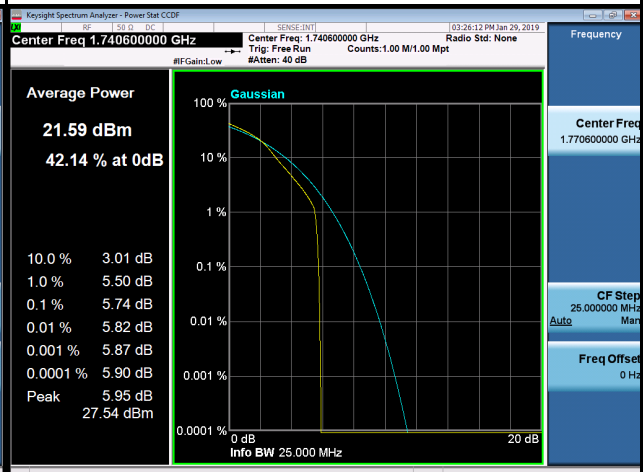
16QAM-20000



16QAM-20175

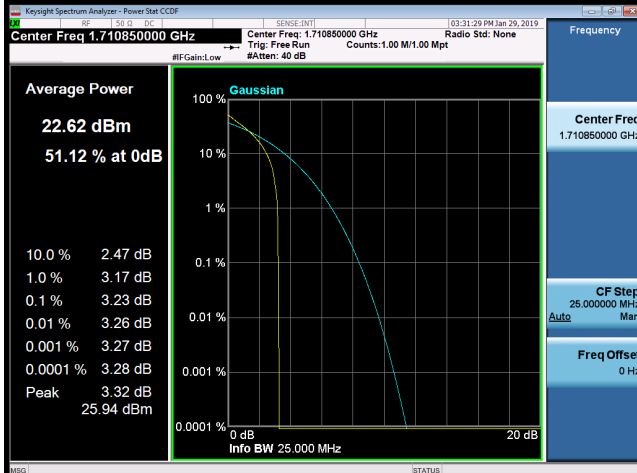


16QAM-20350

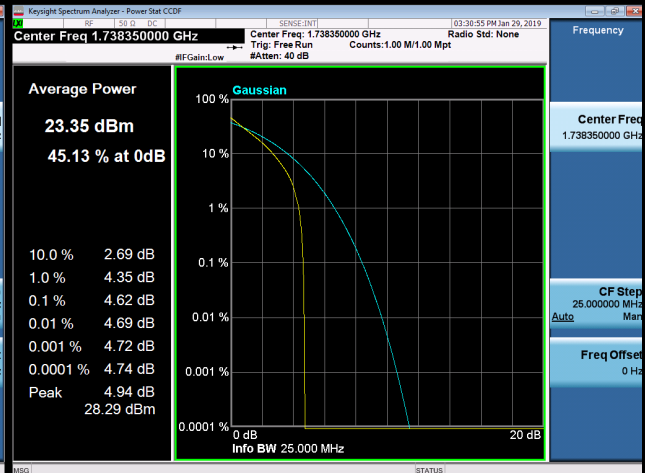


LTE Band 4 Spectrum Plot_15M

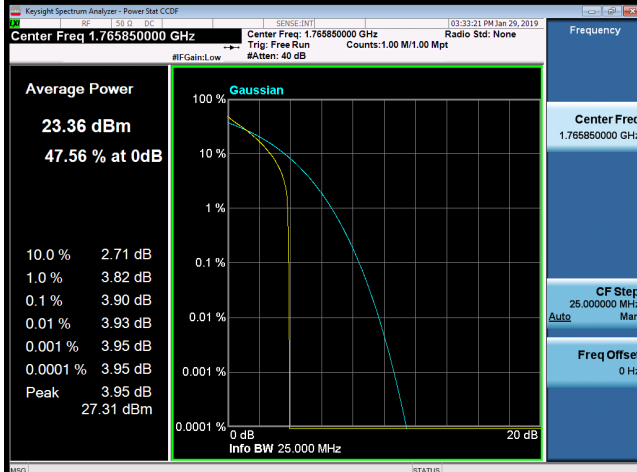
QPSK-20025



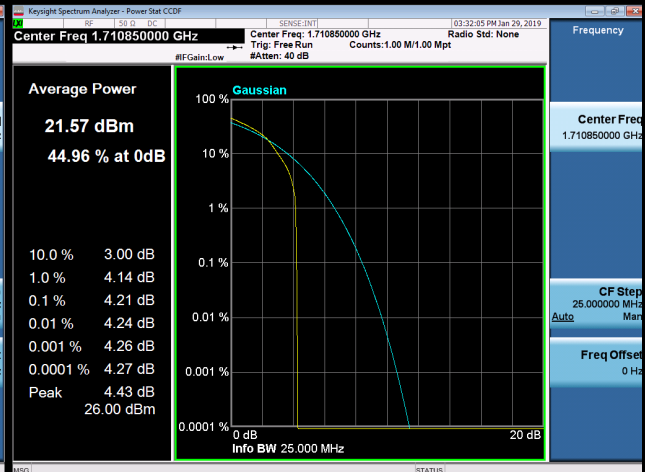
QPSK-20175



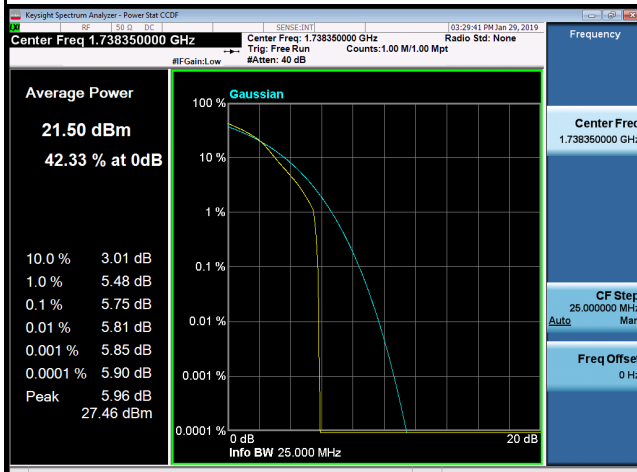
QPSK-20325



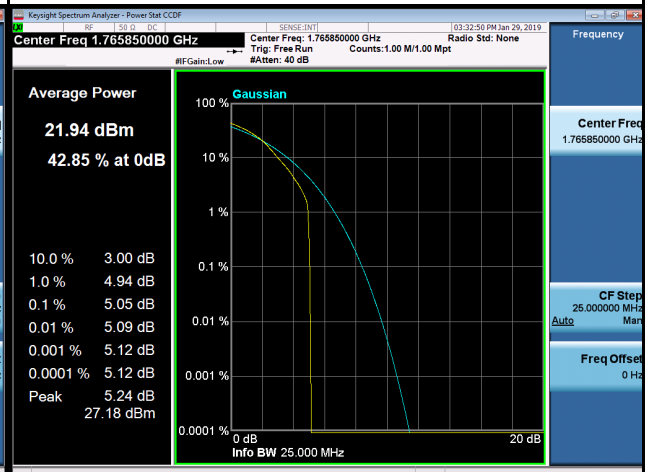
16QAM-20025



16QAM-20175

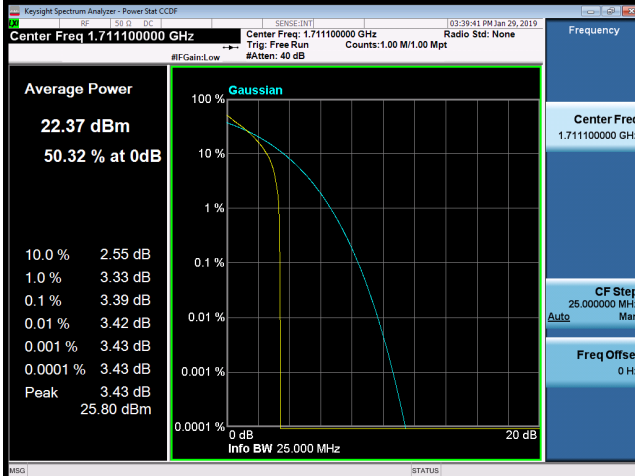


16QAM-20325

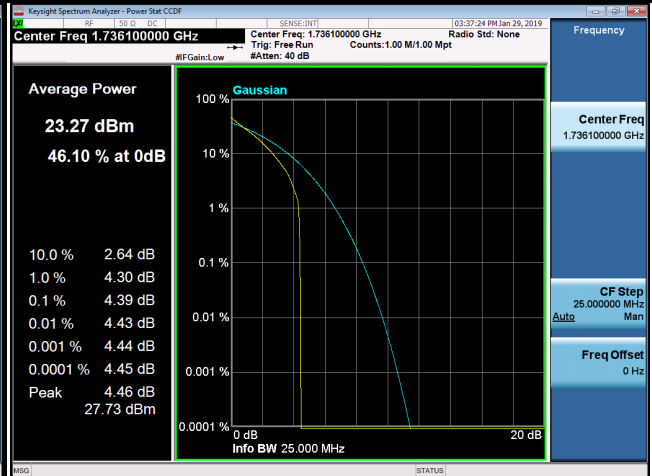


LTE Band 4 Spectrum Plot_20M

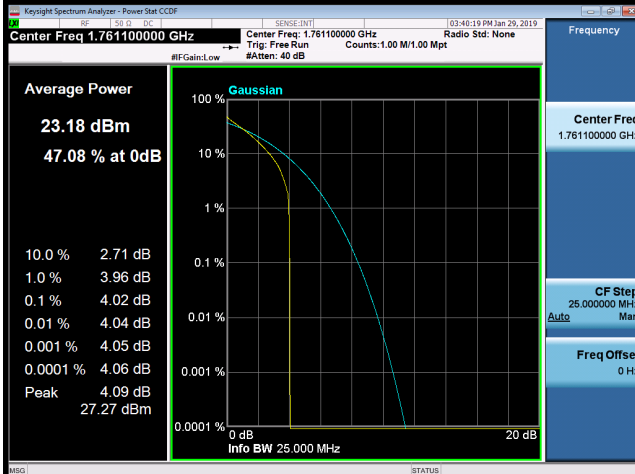
QPSK-20050



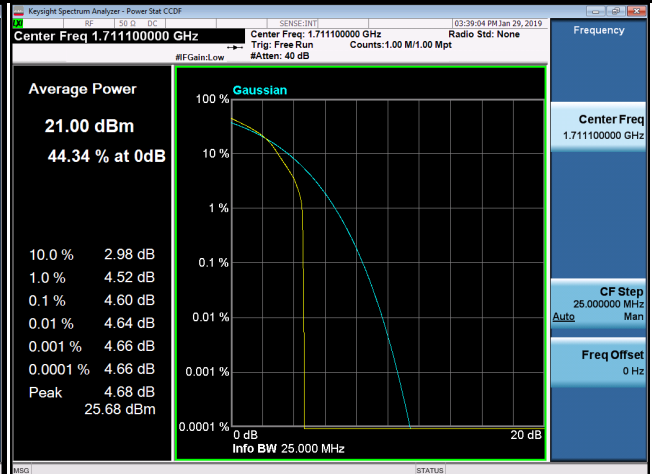
QPSK-20175



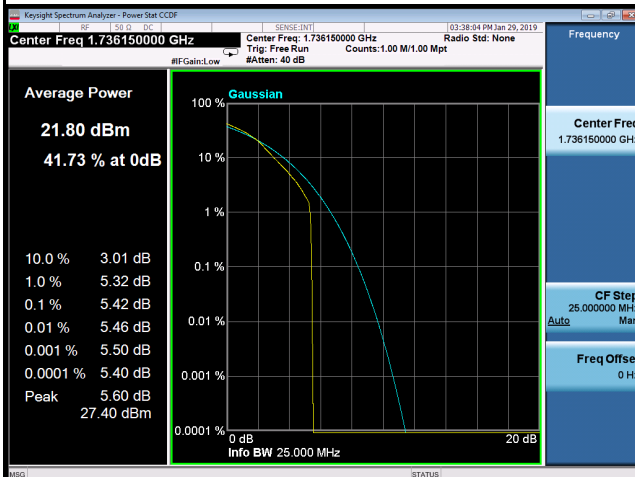
QPSK-20300



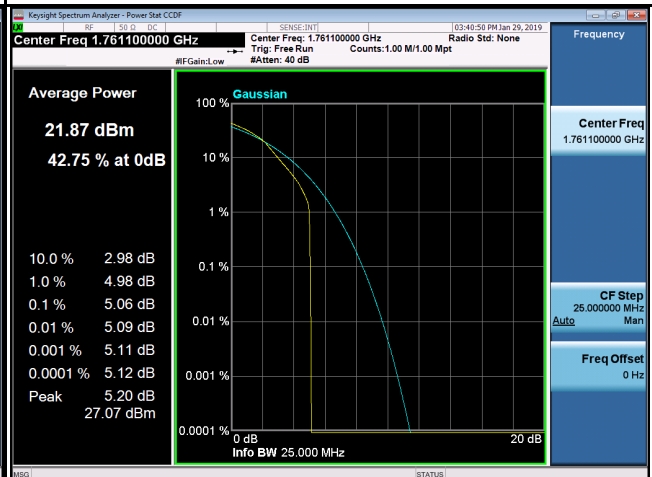
16QAM-20050



16QAM-20175

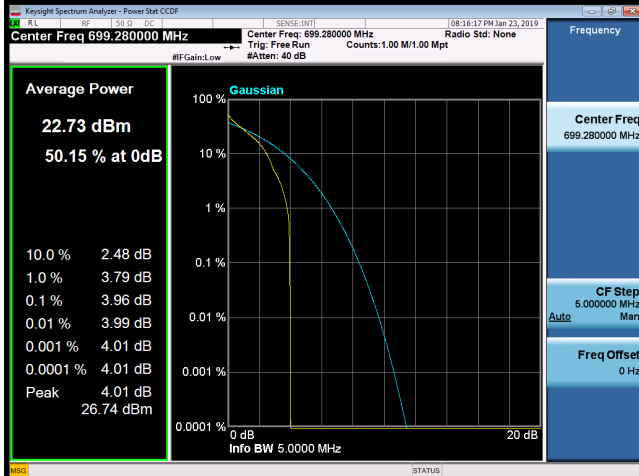


16QAM-20300

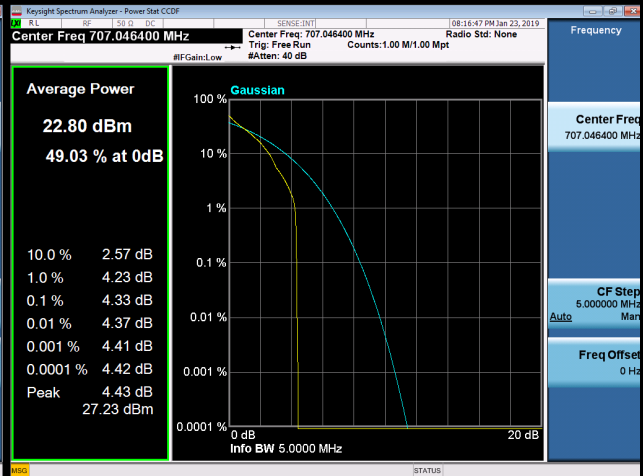


LTE Band 12 Spectrum Plot_1.4M

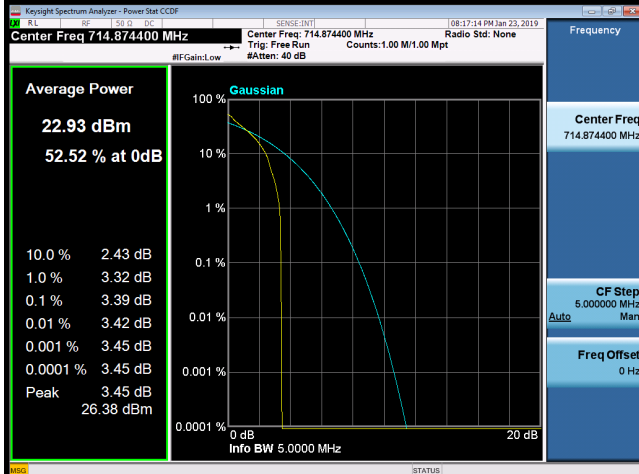
QPSK-23017



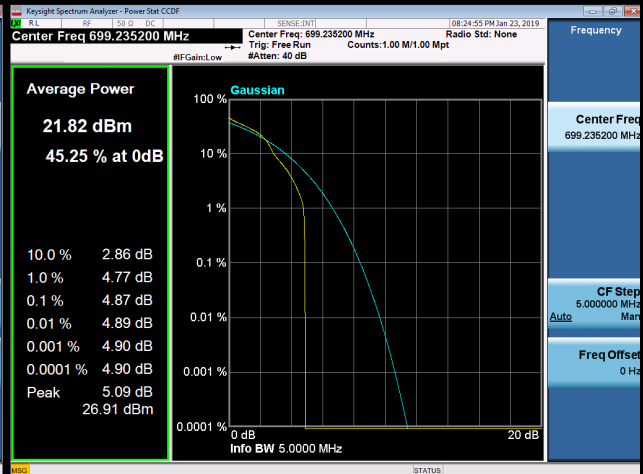
QPSK-23095



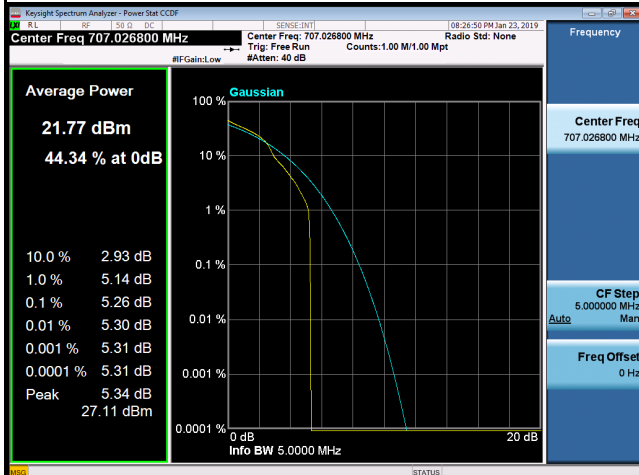
QPSK-23173



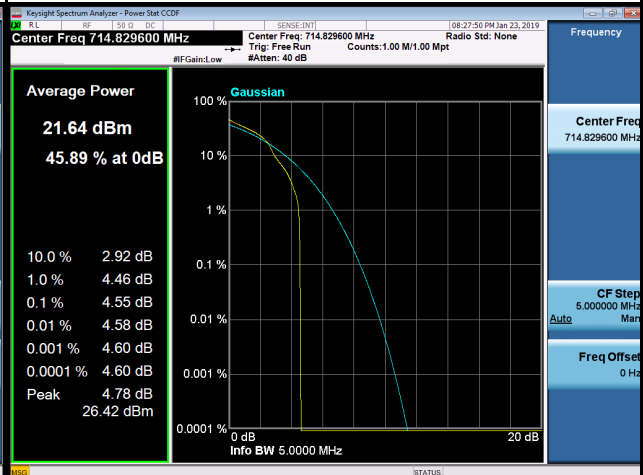
16QAM-23017



16QAM-23095

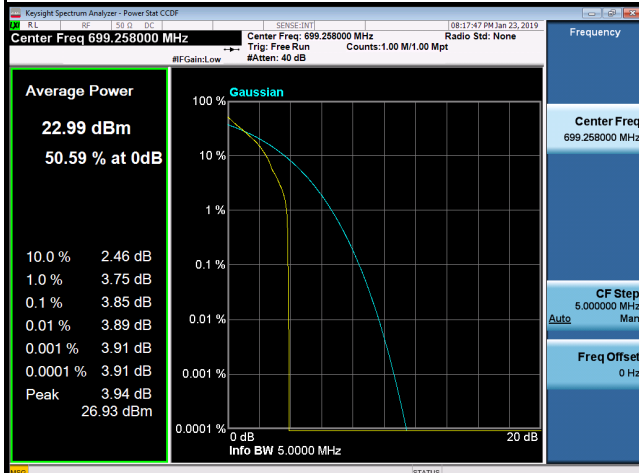


16QAM-23173

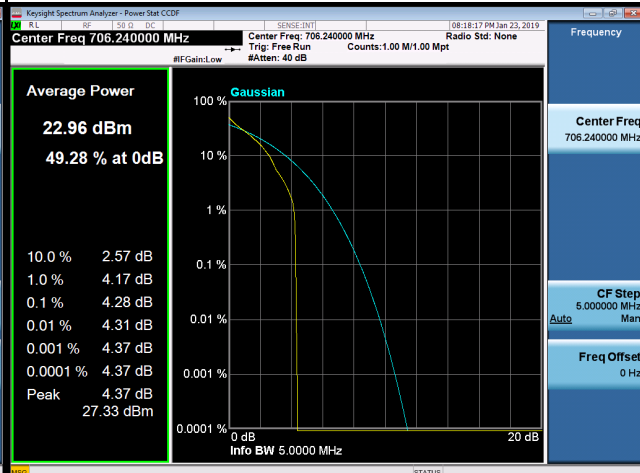


LTE Band 12 Spectrum Plot_3M

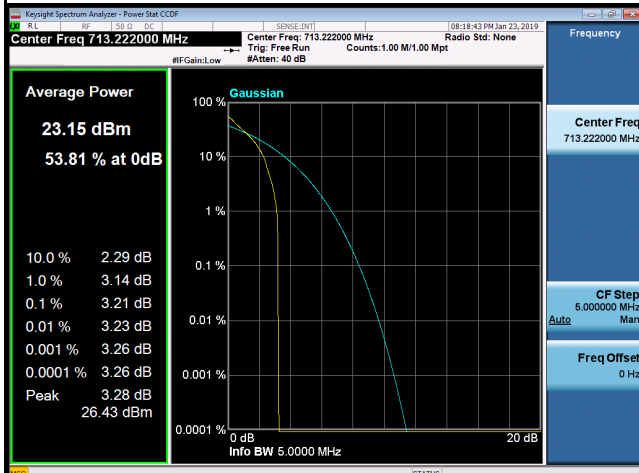
QPSK-23025



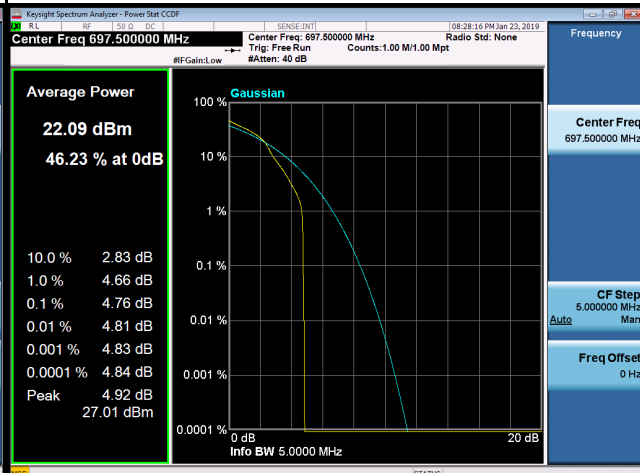
QPSK-23095



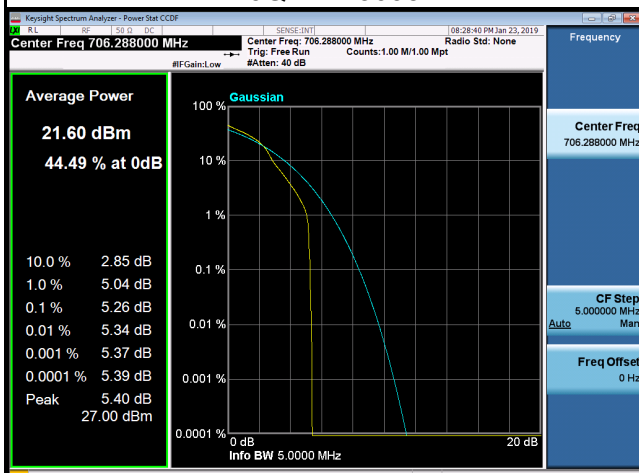
QPSK-23165



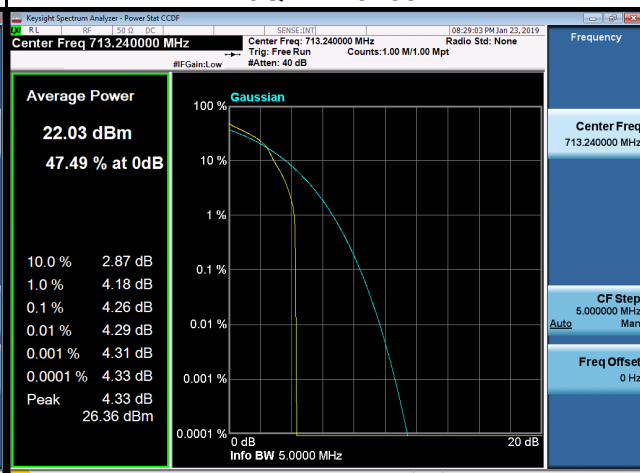
16QAM-23025



16QAM-23095



16QAM-23165



LTE Band 12 Spectrum Plot_5M

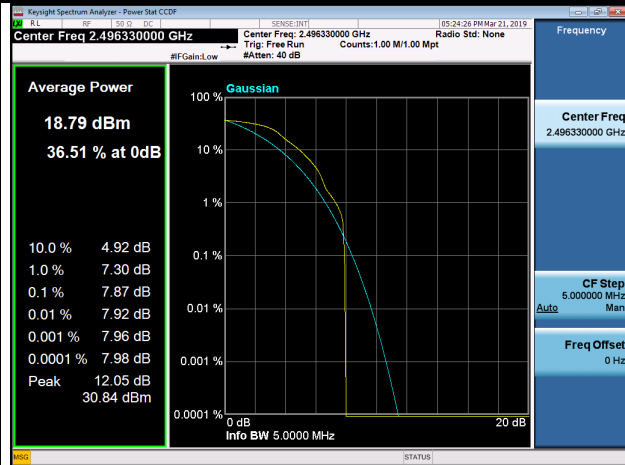


LTE Band 12 Spectrum Plot_10M

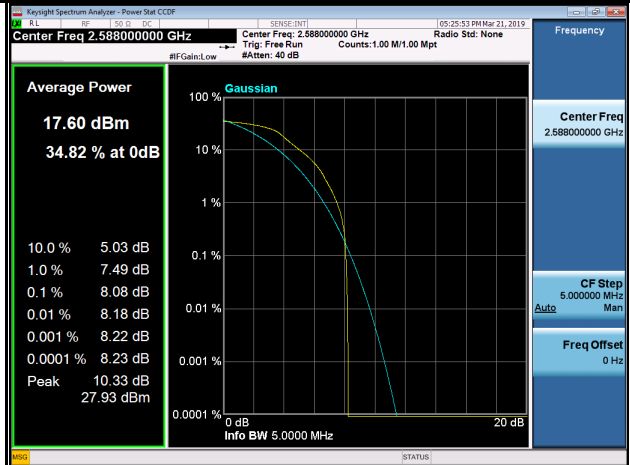


LTE Band 41 Spectrum Plot_5M

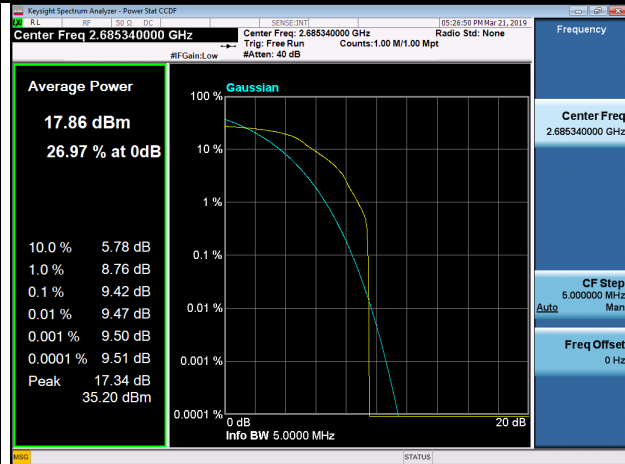
QPSK-39675



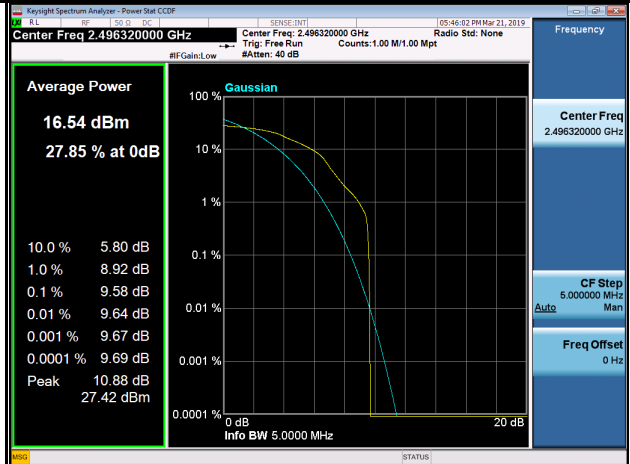
QPSK-40620



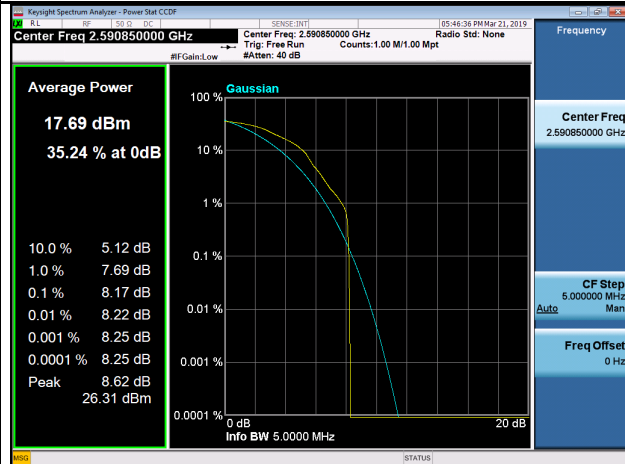
QPSK-41565



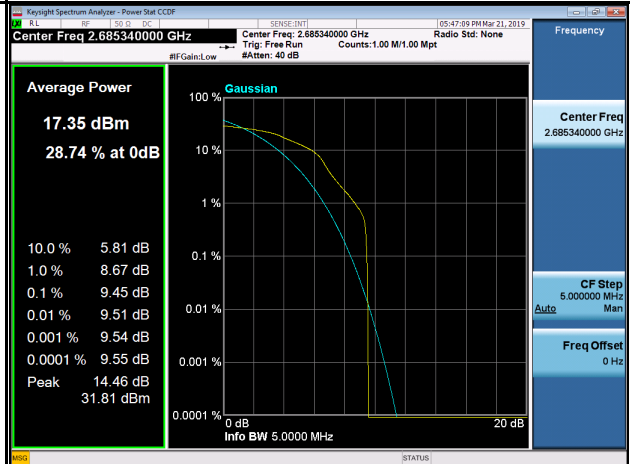
16QAM-39675



16QAM-40620

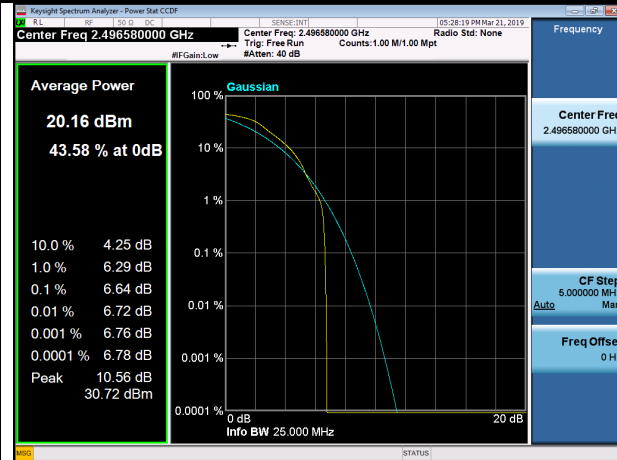


16QAM-41565

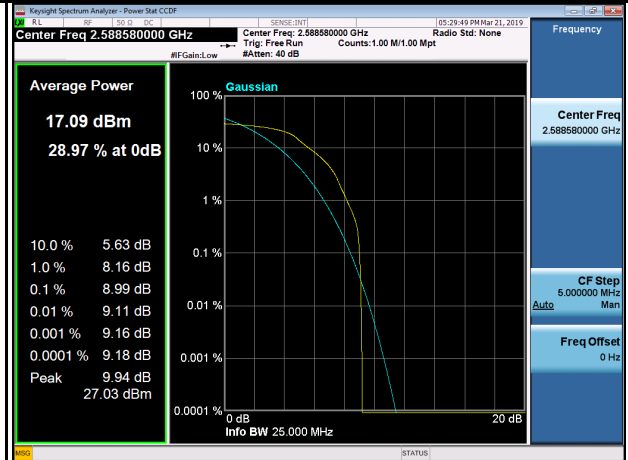


LTE Band 41 Spectrum Plot_10M

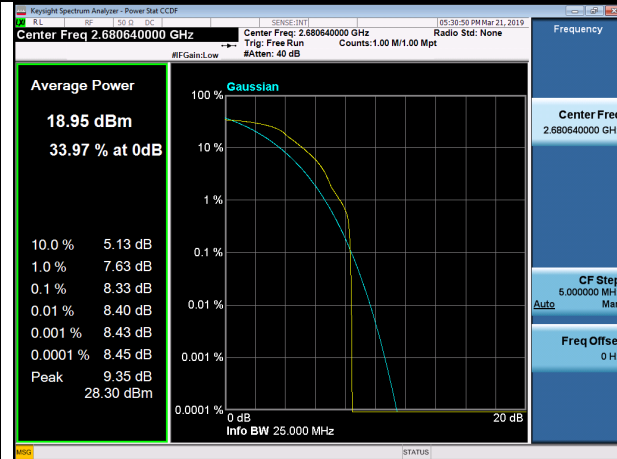
QPSK-39700



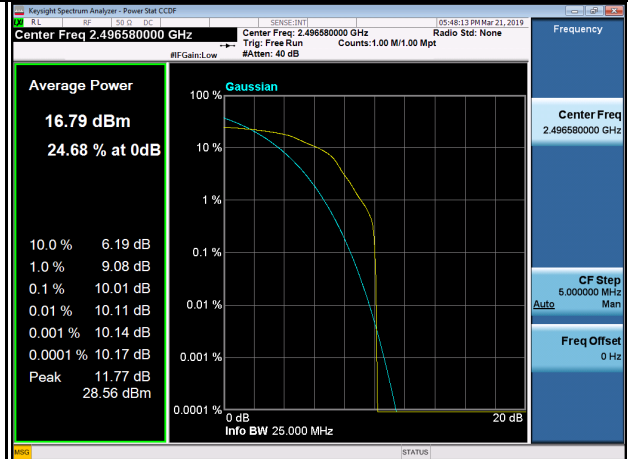
QPSK-40620



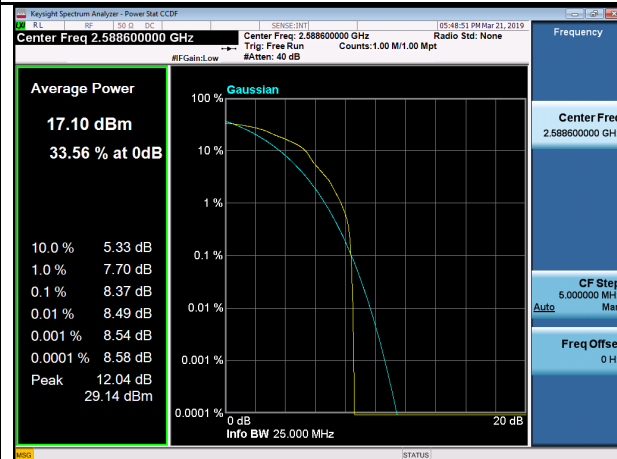
QPSK-41540



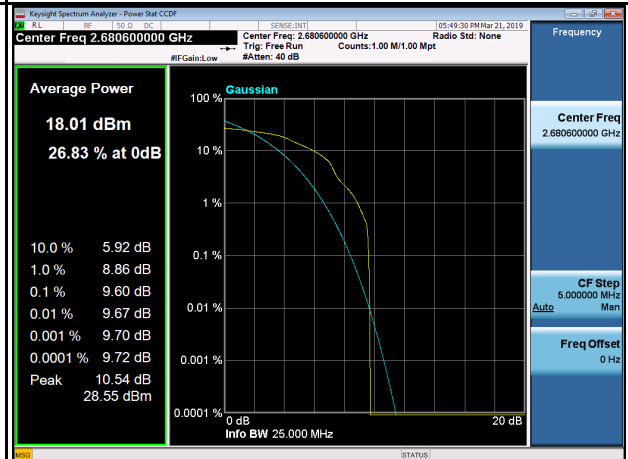
16QAM-39700



16QAM-40620

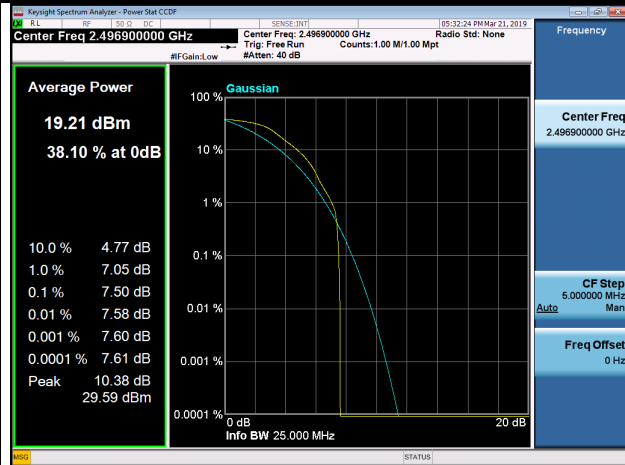


16QAM-41540

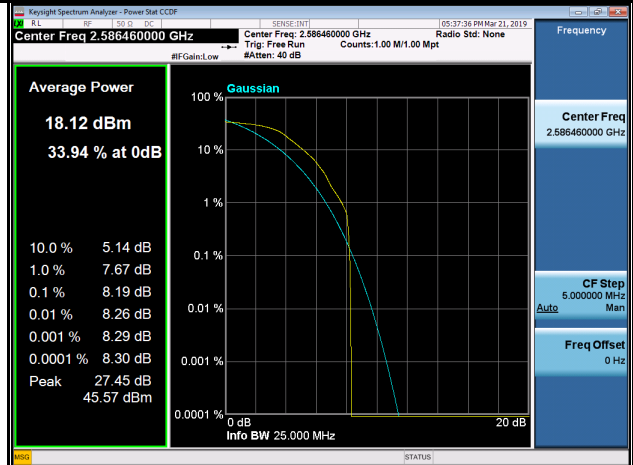


LTE Band 41 Spectrum Plot_15M

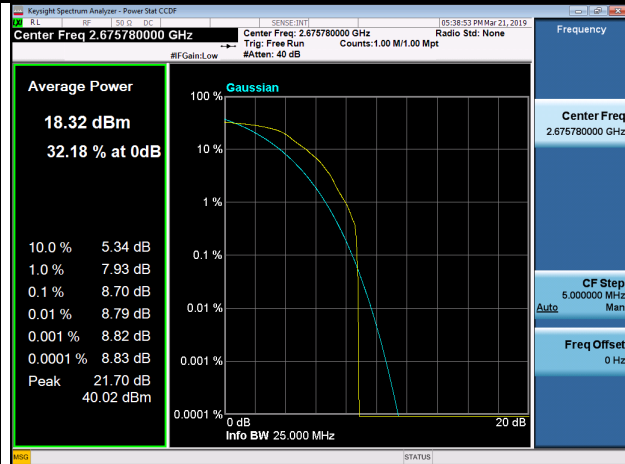
QPSK-39725



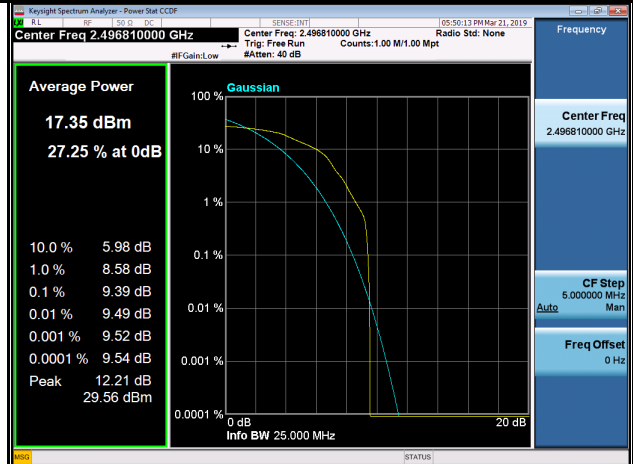
QPSK-40620



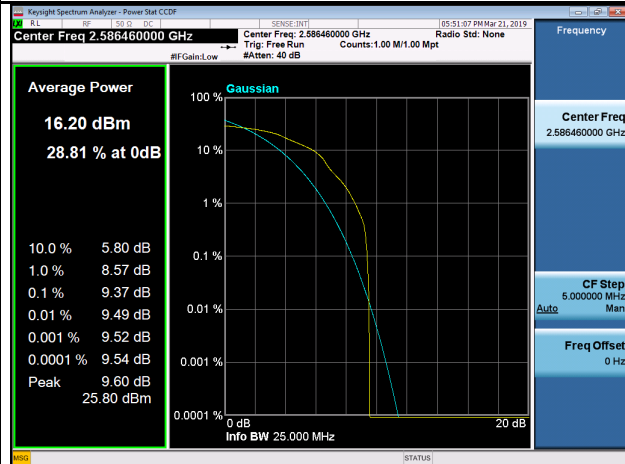
QPSK-41515



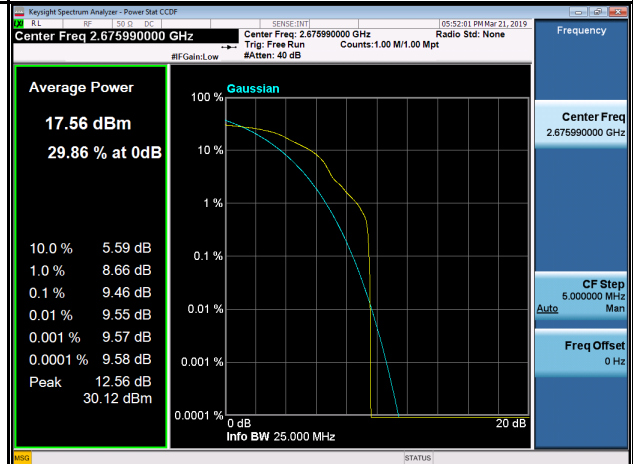
16QAM-39725



16QAM-40620

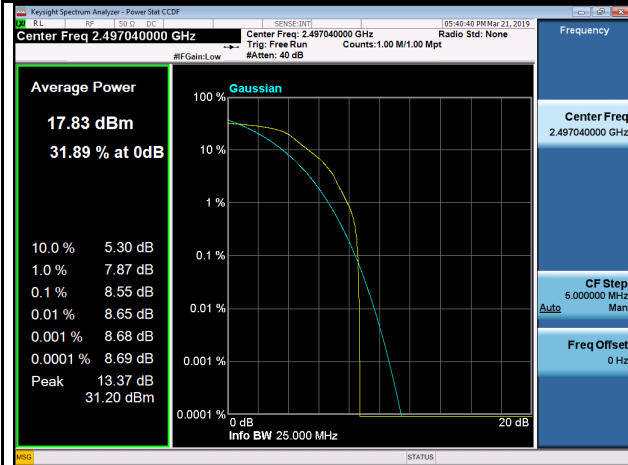


16QAM-41515

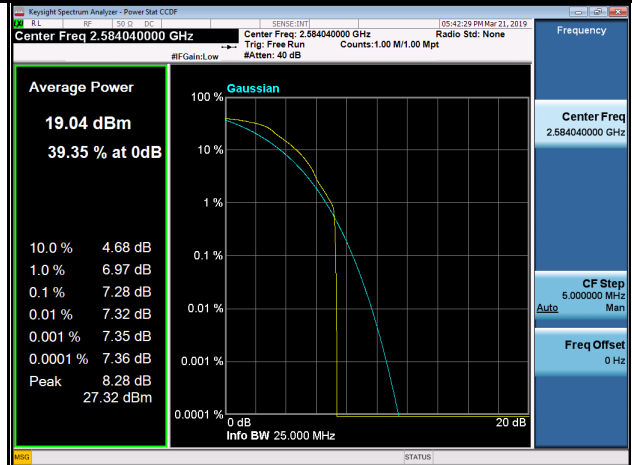


LTE Band 41 Spectrum Plot_20M

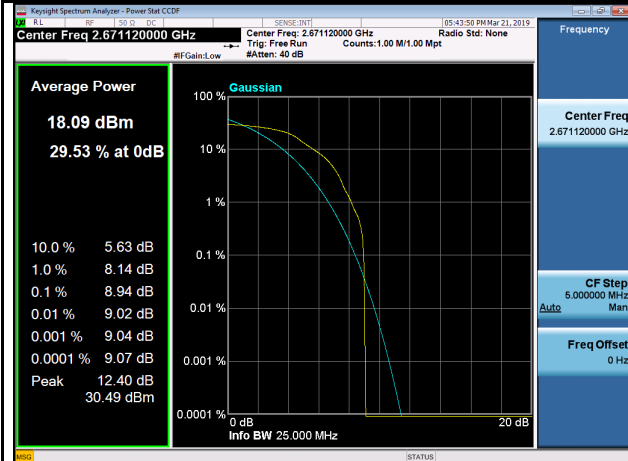
QPSK-39750



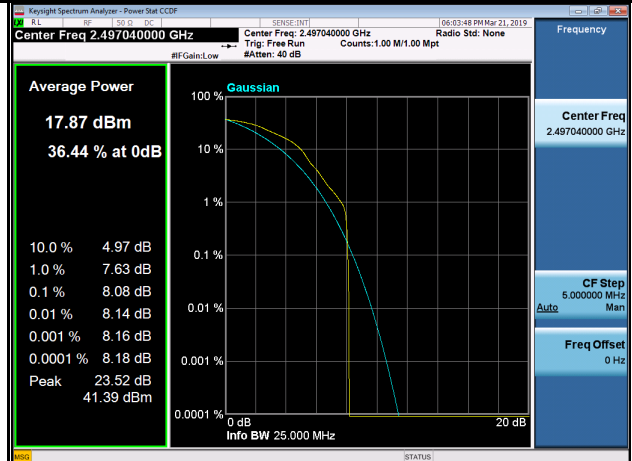
QPSK-40620



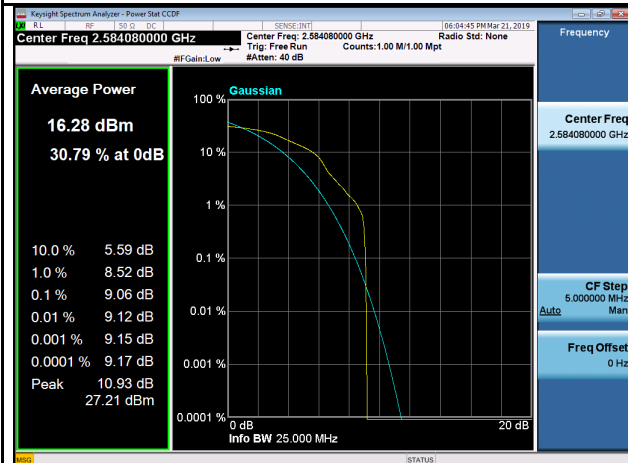
QPSK-41490



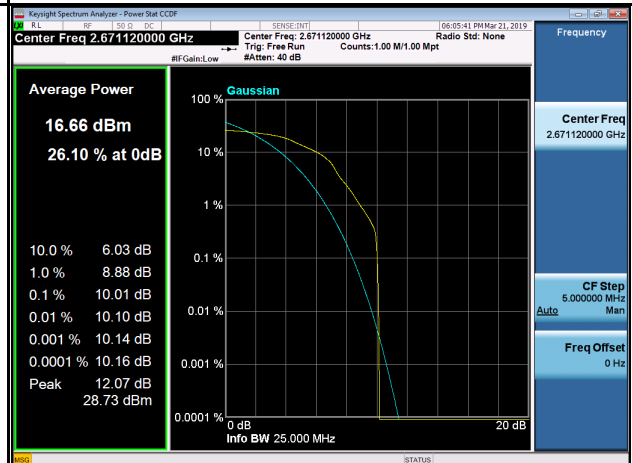
16QAM-39750



16QAM-40620



16QAM-41490

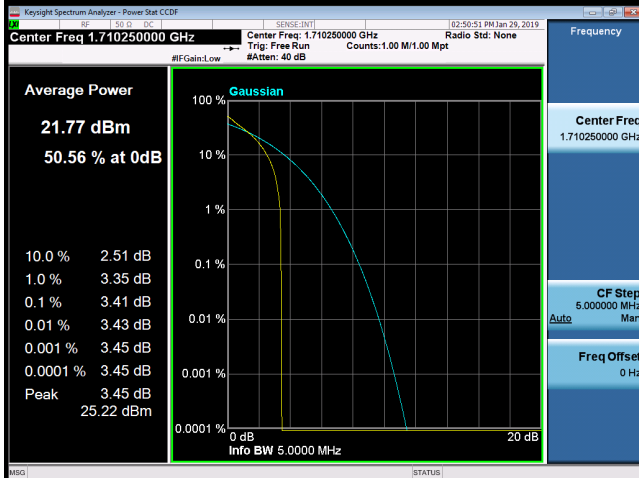


LTE Band 66 Spectrum Plot_1.4M

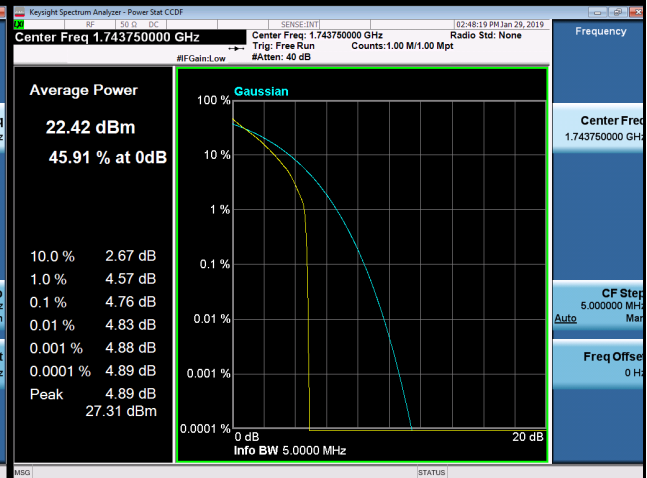


LTE Band 66 Spectrum Plot_3M

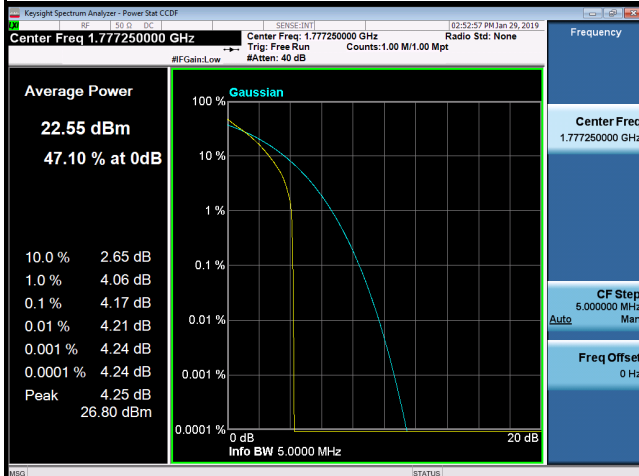
QPSK-131987



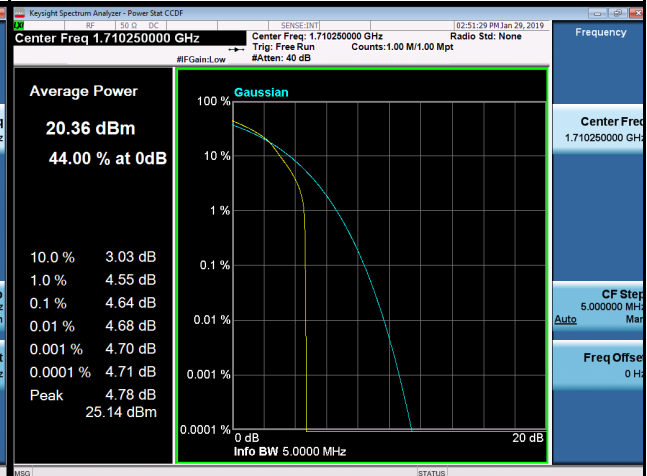
QPSK-132322



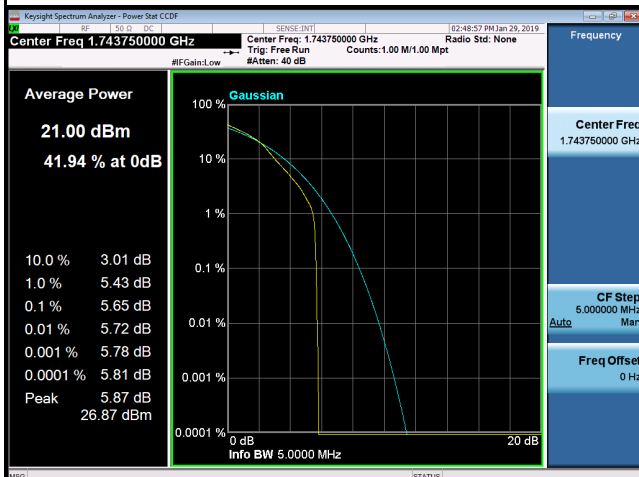
QPSK-132657



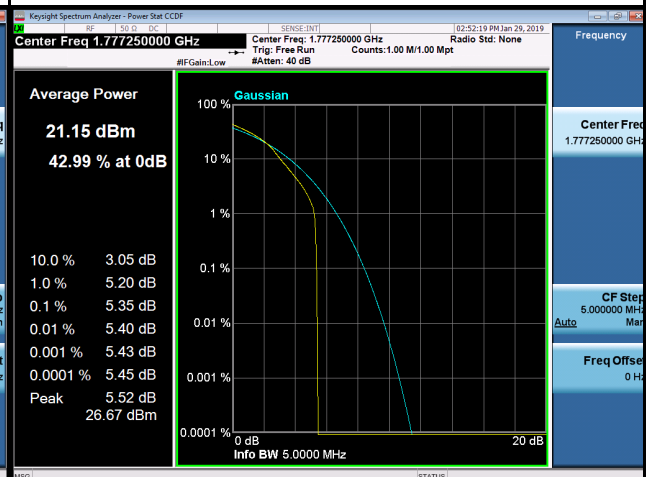
16QAM-131987



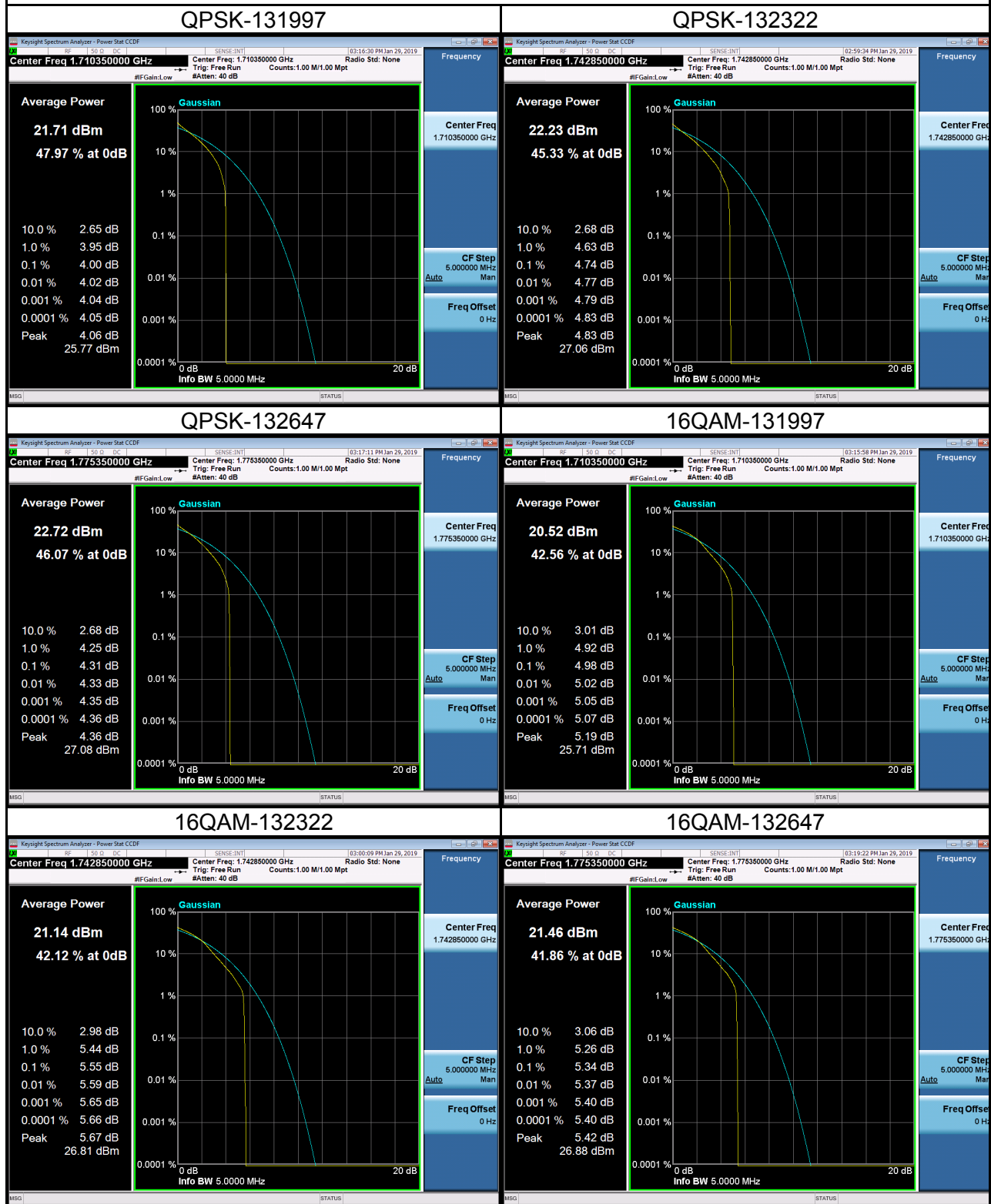
16QAM-132322



16QAM-132657

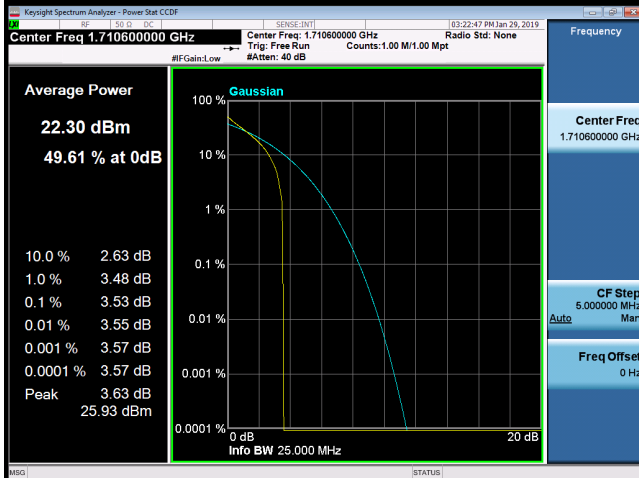


LTE Band 66 Spectrum Plot_5M

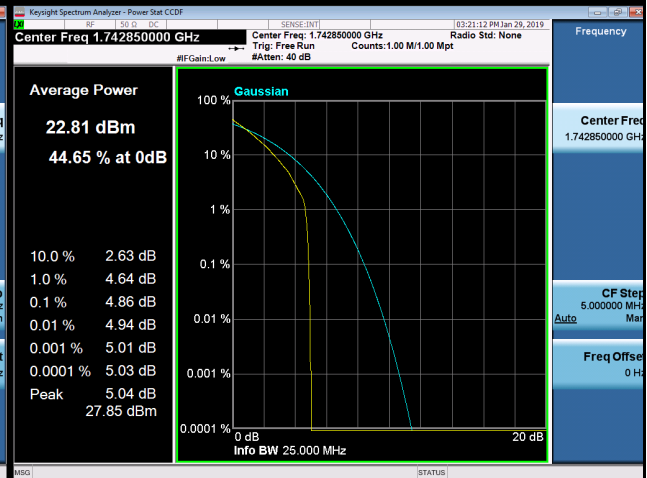


LTE Band 66 Spectrum Plot_10M

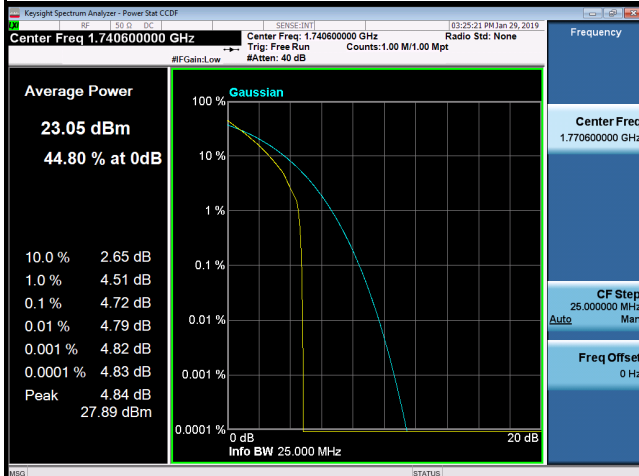
QPSK-132022



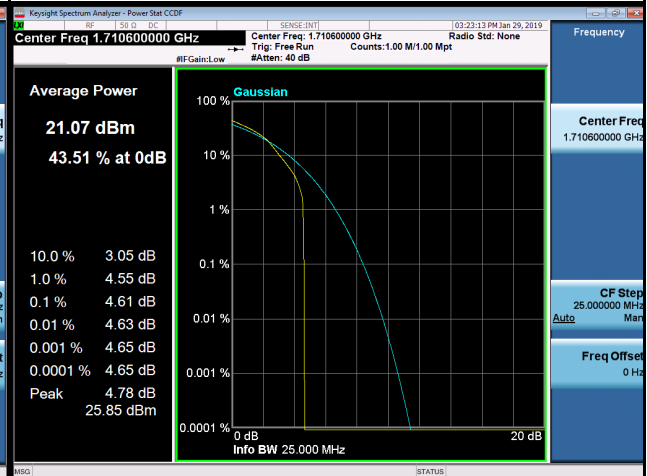
QPSK-132322



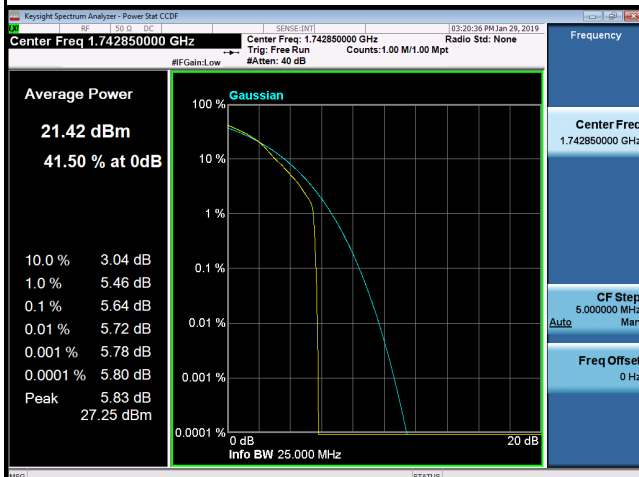
QPSK-132622



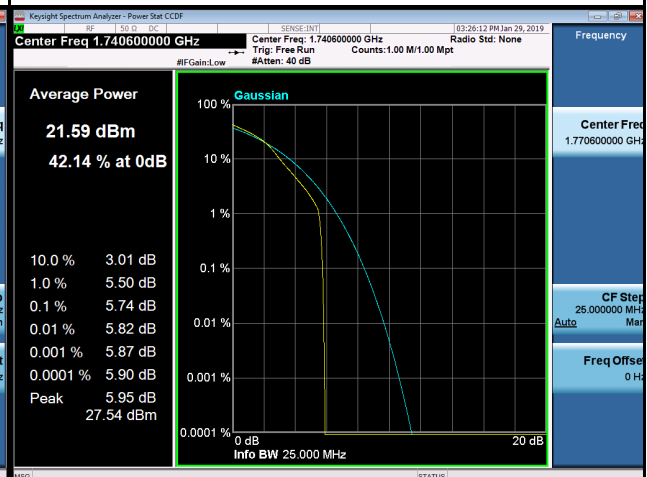
16QAM-132022



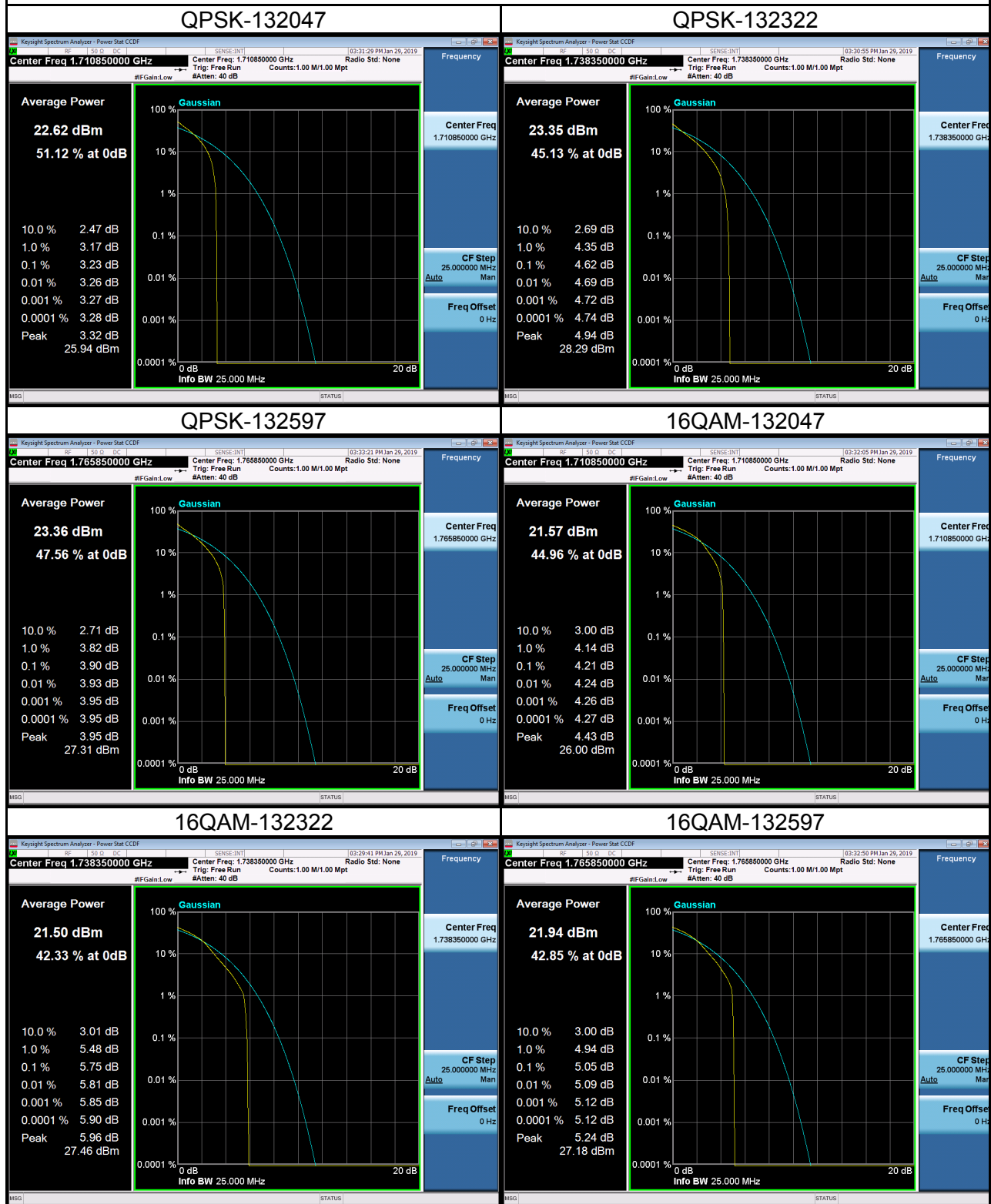
16QAM-132322



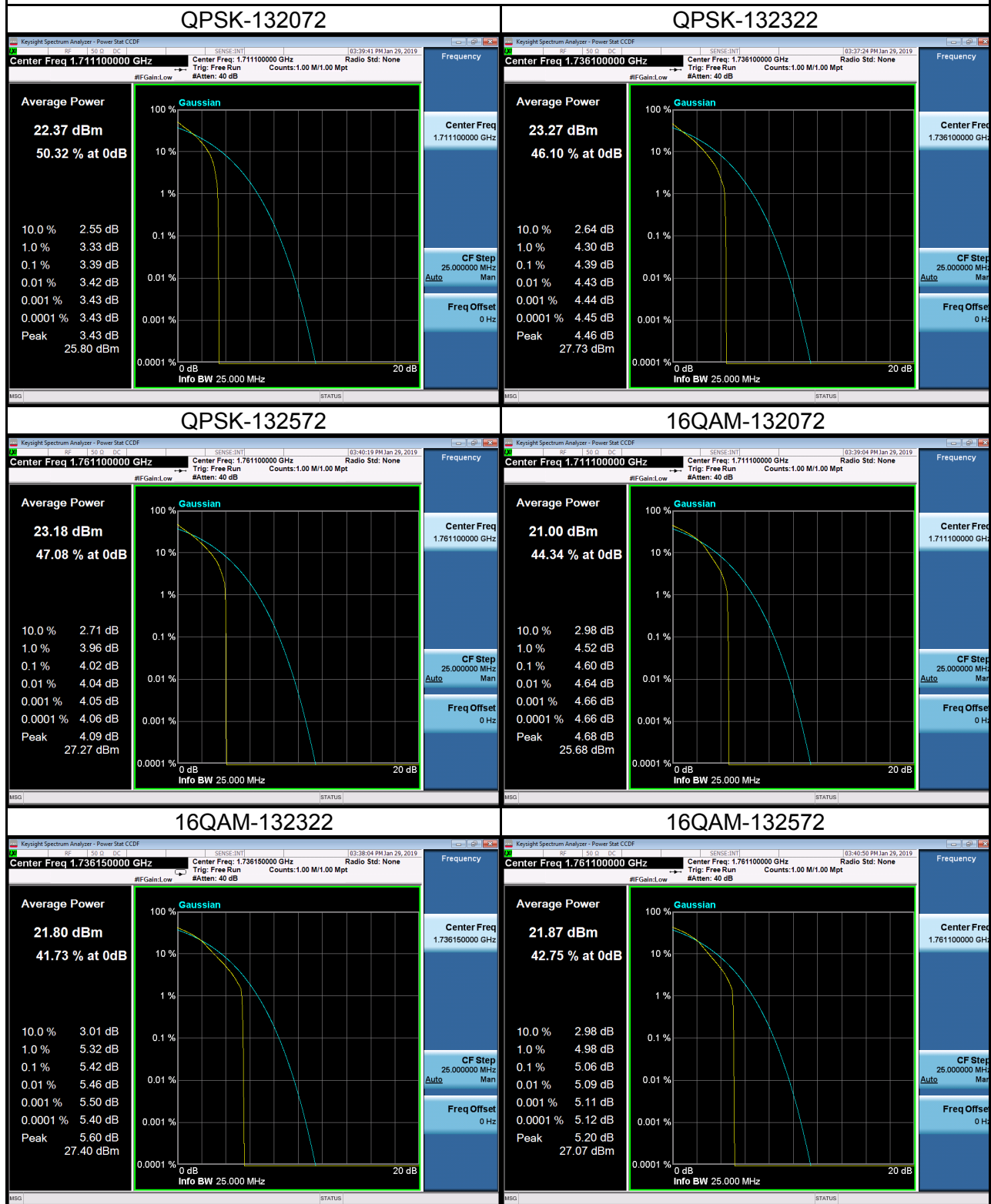
16QAM-132622



LTE Band 66 Spectrum Plot_15M



LTE Band 66 Spectrum Plot_20M



APPENDIX I - FREQUENCY STABILITY

Test Mode:	LTE Band 4_CH20175_1.4M
------------	-------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	5.18	0.002968481	± 2.5
0	-4.84	-0.002773639	
10	5.05	0.002893983	
20	-2.57	-0.001472779	
30	-0.72	-0.000412607	
40	0.24	0.000137536	
50	1.85	0.001060172	
55	-2.27	-0.00130086	
Max. Deviation (ppm)	5.18	0.002968481	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	5.52	0.003163324	± 2.5
12	-1.56	-0.000893983	
10.8	4.05	0.002320917	
Max. Deviation (ppm)	5.52	0.003163324	

Test Mode:	LTE Band 4_CH20175_3M
------------	-----------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	3.82	0.002189112	± 2.5
0	-6.03	-0.003455587	
10	-4.36	-0.002498567	
20	-3.96	-0.002269341	
30	4.36	0.002498567	
40	3.52	0.002017192	
50	-2.78	-0.001593123	
55	-5.28	-0.003025788	
Max. Deviation (ppm)	-6.03	-0.003455587	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	3.27	0.001873926	± 2.5
12	-7.01	-0.004017192	
10.8	-4.84	-0.002773639	
Max. Deviation (ppm)	-7.01	-0.004017192	

Test Mode:	LTE Band 4_CH20175_5M
------------	-----------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	2.80	0.001604585	± 2.5
0	4.01	0.002297994	
10	-6.55	-0.003753582	
20	-4.28	-0.002452722	
30	1.77	0.001014327	
40	-9.31	-0.005335244	
50	-2.75	-0.001575931	
55	4.74	0.002716332	
Max. Deviation (ppm)	-9.31	-0.005335244	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	-1.47	-0.000842407	± 2.5
12	-4.96	-0.002842407	
10.8	2.59	0.001484241	
Max. Deviation (ppm)	-4.96	-0.002842407	

Test Mode:	LTE Band 4_CH20175_10M
------------	------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	4.39	0.002515759	± 2.5
0	-1.69	-0.000968481	
10	-2.67	-0.001530086	
20	-1.73	-0.000991404	
30	2.49	0.001426934	
40	4.05	0.002320917	
50	4.64	0.002659026	
55	4.96	0.002842407	
Max. Deviation (ppm)	4.96	0.002842407	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	4.77	0.002733524	± 2.5
12	4.40	0.00252149	
10.8	3.32	0.001902579	
Max. Deviation (ppm)	4.77	0.002733524	

Test Mode:	LTE Band 4_CH20175_15M
------------	------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	2.07	0.001186246	± 2.5
0	5.70	0.003266476	
10	3.78	0.002166189	
20	-2.10	-0.001203438	
30	-4.28	-0.002452722	
40	6.01	0.003444126	
50	4.48	0.002567335	
55	1.50	0.000859599	
Max. Deviation (ppm)	6.01	0.003444126	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	6.12	0.003507163	± 2.5
12	-1.70	-0.000974212	
10.8	1.55	0.000888252	
Max. Deviation (ppm)	6.12	0.003507163	

Test Mode:	LTE Band 4_CH20175_20M
------------	------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	4.06	0.002326648	±2.5
0	3.40	0.001948424	
10	-2.82	-0.001616046	
20	-1.66	-0.000951289	
30	7.17	0.004108883	
40	2.87	0.001644699	
50	5.84	0.003346705	
55	-2.96	-0.001696275	
Max. Deviation (ppm)	7.17	0.004108883	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	-2.18	-0.001249284	±2.5
12	3.22	0.001845272	
10.8	5.94	0.003404011	
Max. Deviation (ppm)	5.94	0.003404011	

Test Mode:	LTE Band 12_CH23095_1.4M
------------	--------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	-2.15	0.003038869	±2.5
0	6.42	0.009074205	
10	3.78	0.005342756	
20	8.41	0.011886926	
30	-5.14	0.007265018	
40	5.40	0.007632509	
50	-0.60	0.000848057	
55	-2.62	0.00370318	
Max. Deviation (ppm)	8.41	0.011886926	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	2.42	0.003420495	±2.5
12	-7.65	0.010812721	
10.8	1.62	0.002289753	
Max. Deviation (ppm)	-7.65	0.010812721	

Test Mode:	LTE Band 12_CH23095_3M
------------	------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	-2.48	0.0035053	± 2.5
0	-1.20	0.001696113	
10	4.52	0.006388693	
20	4.57	0.006459364	
30	-0.95	0.001342756	
40	5.43	0.007674912	
50	5.84	0.008254417	
55	4.10	0.005795053	
Max. Deviation (ppm)	5.84	0.008254417	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	-6.94	0.009809187	± 2.5
12	2.64	0.003731449	
10.8	2.20	0.003109541	
Max. Deviation (ppm)	-6.94	0.009809187	

Test Mode:	LTE Band 12_CH23095_5M
------------	------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	8.10	0.011448763	± 2.5
0	-0.93	-0.001314488	
10	5.48	0.007745583	
20	-4.58	-0.006473498	
30	5.40	0.007632509	
40	6.93	0.009795053	
50	-1.90	-0.002685512	
55	0.84	0.001187279	
Max. Deviation (ppm)	8.1	0.011448763	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	-3.46	-0.004890459	± 2.5
12	-0.65	-0.000918728	
10.8	1.10	0.00155477	
Max. Deviation (ppm)	-3.46	-0.004890459	

Test Mode: LTE Band 12_CH23095_10M

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	4.81	0.006798587	± 2.5
0	5.61	0.007929329	
10	3.40	0.004805654	
20	-0.98	-0.001385159	
30	5.62	0.007943463	
40	3.74	0.005286219	
50	4.16	0.005879859	
55	-0.40	-0.000565371	
Max. Deviation (ppm)	5.62	0.007943463	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	-4.30	-0.006077739	± 2.5
12	2.65	0.003745583	
10.8	-4.83	-0.006826855	
Max. Deviation (ppm)	-4.83	-0.006826855	

Test Mode:	LTE Band 41_CH40620_5M
------------	------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	2.78	0.001072117	±2.5
0	6.29	0.002425762	
10	-0.88	-0.000339375	
20	3.16	0.001218666	
30	-4.14	-0.001596606	
40	4.25	0.001639028	
50	4.84	0.001866564	
55	-1.34	-0.000516776	
Max. Deviation (ppm)	6.29	0.002425762	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	-2.19	-0.000844582	±2.5
12	2.67	0.001029695	
10.8	3.64	0.001403779	
Max. Deviation (ppm)	3.64	0.001403779	

Test Mode: LTE Band 41_CH40620_10M

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	-8.13	-0.003135364	±2.5
0	7.12	0.002746884	
10	7.98	0.003078547	
20	9.37	0.003613575	
30	1.97	0.000760768	
40	-8.14	-0.003139221	
50	6.59	0.002542488	
55	7.00	0.002700606	
Max. Deviation (ppm)	9.37	0.003613575	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	2.95	0.001137678	±2.5
12	9.37	0.003613575	
10.8	3.14	0.001210953	
Max. Deviation (ppm)	9.37	0.003613575	

Test Mode: LTE Band 41_CH40620_15M

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	6.03	0.002325492	±2.5
0	-3.33	-0.001284227	
10	-2.24	-0.000863864	
20	2.14	0.000825299	
30	3.48	0.001342075	
40	-2.16	-0.000833012	
50	4.60	0.001774007	
55	4.55	0.001754724	
Max. Deviation (ppm)	6.03	0.002325492	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	3.68	0.001419206	±2.5
12	2.56	0.000987273	
10.8	2.79	0.001075974	
Max. Deviation (ppm)	3.68	0.001419206	

Test Mode:	LTE Band 41_CH40620_20M
------------	-------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	-4.16	-0.001604319	±2.5
0	-3.77	-0.001453914	
10	3.24	0.001249518	
20	6.78	0.002614732	
30	15.10	0.005823371	
40	12.15	0.004685692	
50	6.95	0.002680293	
55	1.65	0.000636329	
Max. Deviation (ppm)	15.1	0.005823371	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	2.32	0.000894717	±2.5
12	8.98	0.00346317	
10.8	5.12	0.001974547	
Max. Deviation (ppm)	8.98	0.00346317	

Test Mode: LTE Band 66_CH132322_1.4M

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	5.18	0.002968481	± 2.5
0	-4.84	-0.002773639	
10	5.05	0.002893983	
20	-2.57	-0.001472779	
30	-0.72	-0.000412607	
40	0.24	0.000137536	
50	1.85	0.001060172	
55	-2.27	-0.00130086	
Max. Deviation (ppm)	5.18	0.002968481	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	5.52	0.003163324	± 2.5
12	-1.56	-0.000893983	
10.8	4.05	0.002320917	
Max. Deviation (ppm)	5.52	0.003163324	

Test Mode:	LTE Band 66_CH132322_3M
------------	-------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	3.82	0.002189112	± 2.5
0	-6.03	-0.003455587	
10	-4.36	-0.002498567	
20	-3.96	-0.002269341	
30	4.36	0.002498567	
40	3.52	0.002017192	
50	-2.78	-0.001593123	
55	-5.28	-0.003025788	
Max. Deviation (ppm)	-6.03	-0.003455587	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	3.27	0.001873926	± 2.5
12	-7.01	-0.004017192	
10.8	-4.84	-0.002773639	
Max. Deviation (ppm)	-7.01	-0.004017192	

Test Mode:	LTE Band 66_CH132322_5M
------------	-------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	2.80	0.001604585	± 2.5
0	4.01	0.002297994	
10	-6.55	-0.003753582	
20	-4.28	-0.002452722	
30	1.77	0.001014327	
40	-9.31	-0.005335244	
50	-2.75	-0.001575931	
55	4.74	0.002716332	
Max. Deviation (ppm)	-9.31	-0.005335244	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	-1.47	-0.000842407	± 2.5
12	-4.96	-0.002842407	
10.8	2.59	0.001484241	
Max. Deviation (ppm)	-4.96	-0.002842407	

Test Mode:	LTE Band 66_CH132322_10M
------------	--------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	4.39	0.002515759	± 2.5
0	-1.69	-0.000968481	
10	-2.67	-0.001530086	
20	-1.73	-0.000991404	
30	2.49	0.001426934	
40	4.05	0.002320917	
50	4.64	0.002659026	
55	4.96	0.002842407	
Max. Deviation (ppm)	4.96	0.002842407	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	4.77	0.002733524	± 2.5
12	4.40	0.00252149	
10.8	3.32	0.001902579	
Max. Deviation (ppm)	4.77	0.002733524	

Test Mode:	LTE Band 66_CH132322_15M
------------	--------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	2.07	0.001186246	± 2.5
0	5.70	0.003266476	
10	3.78	0.002166189	
20	-2.10	-0.001203438	
30	-4.28	-0.002452722	
40	6.01	0.003444126	
50	4.48	0.002567335	
55	1.50	0.000859599	
Max. Deviation (ppm)	6.01	0.003444126	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	6.12	0.003507163	± 2.5
12	-1.70	-0.000974212	
10.8	1.55	0.000888252	
Max. Deviation (ppm)	6.12	0.003507163	

Test Mode:	LTE Band 66_CH132322_20M
------------	--------------------------

Temperature vs. Frequency Stability

Temperature(°C)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
-10	4.06	0.002326648	± 2.5
0	3.40	0.001948424	
10	-2.82	-0.001616046	
20	-1.66	-0.000951289	
30	7.17	0.004108883	
40	2.87	0.001644699	
50	5.84	0.003346705	
55	-2.96	-0.001696275	
Max. Deviation (ppm)	7.17	0.004108883	

Voltage vs. Frequency Stability

Voltage(Volts)	Frequency Error (Hz)	Frequency Error (ppm)	Limit(ppm)
13.2	-2.18	-0.001249284	± 2.5
12	3.22	0.001845272	
10.8	5.94	0.003404011	
Max. Deviation (ppm)	5.94	0.003404011	

End of Test Report.