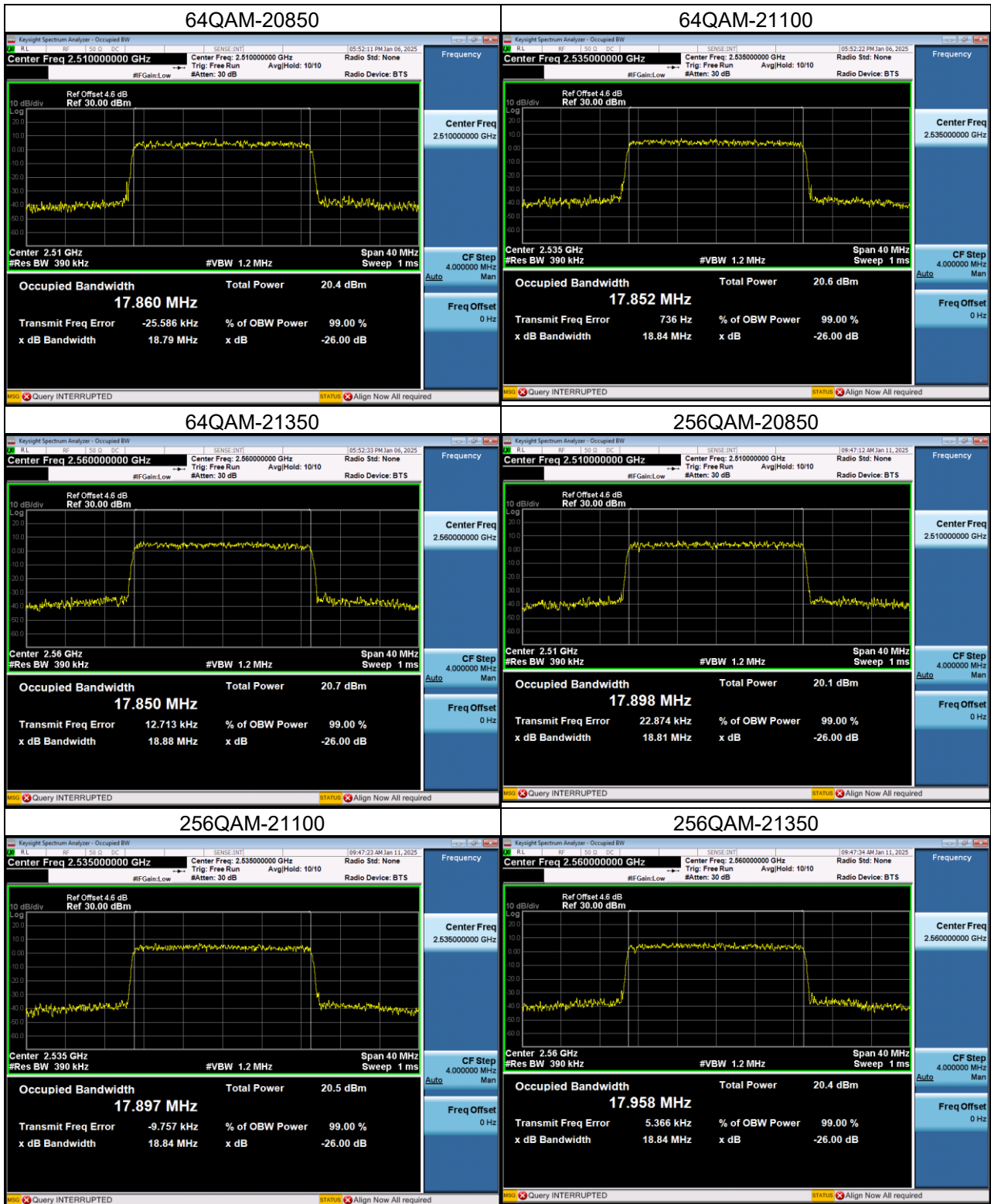
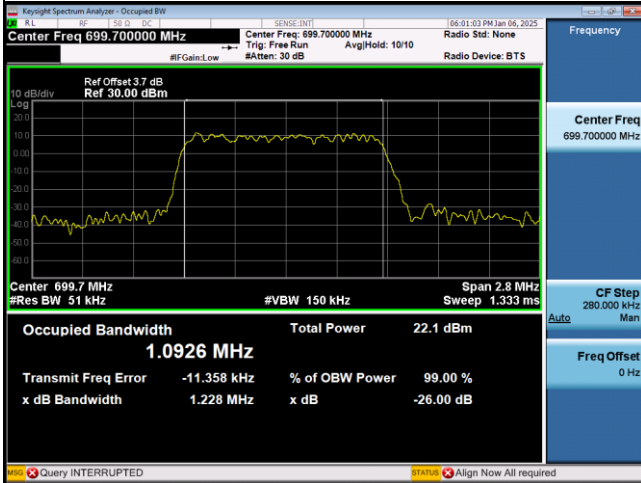




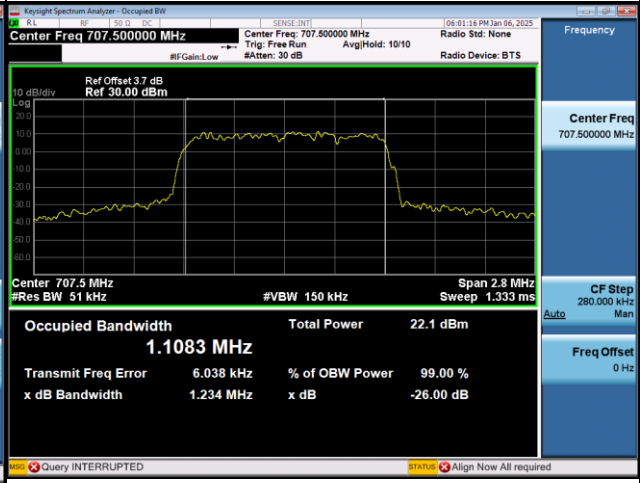
LTE Band 12_1.4M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23017	699.7	1.0926	23017	699.7	1.228
23095	707.5	1.1083	23095	707.5	1.234
23173	715.3	1.0931	23173	715.3	1.231
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23017	699.7	1.1045	23017	699.7	1.233
23095	707.5	1.0989	23095	707.5	1.223
23173	715.3	1.0905	23173	715.3	1.214
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23017	699.7	1.0908	23017	699.7	1.225
23095	707.5	1.0991	23095	707.5	1.224
23173	715.3	1.1024	23173	715.3	1.197
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23017	699.7	1.1124	23017	699.7	1.231
23095	707.5	1.1012	23095	707.5	1.212
23173	715.3	1.0979	23173	715.3	1.198

Spectrum Plot

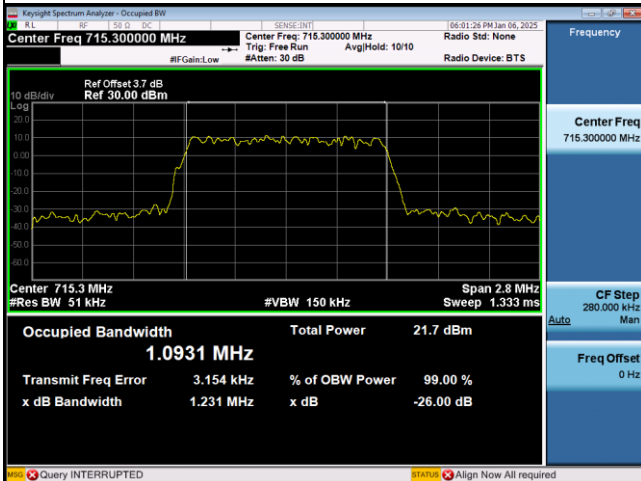
QPSK-23017



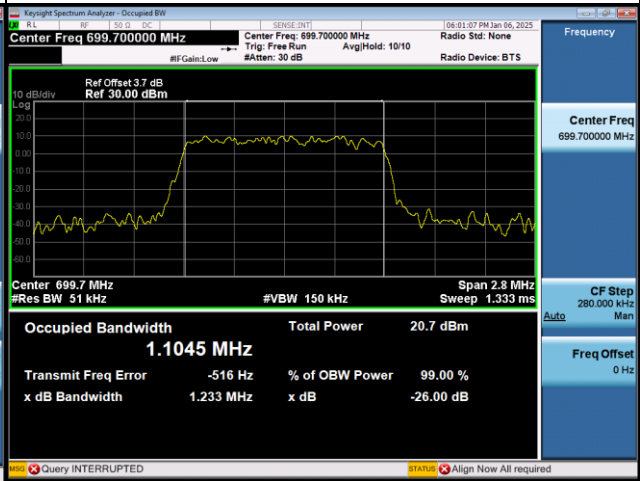
QPSK-23095



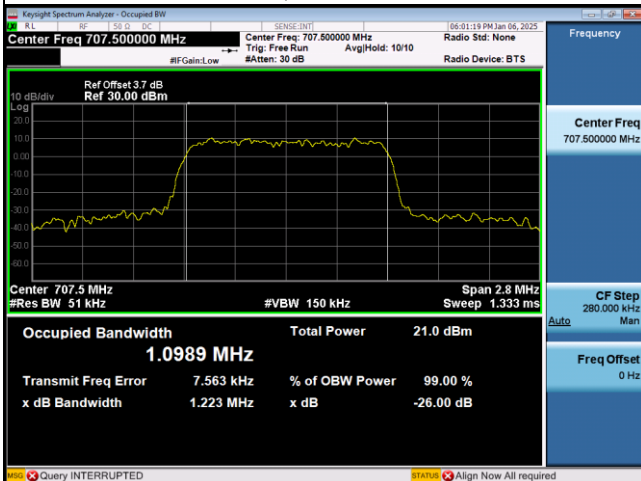
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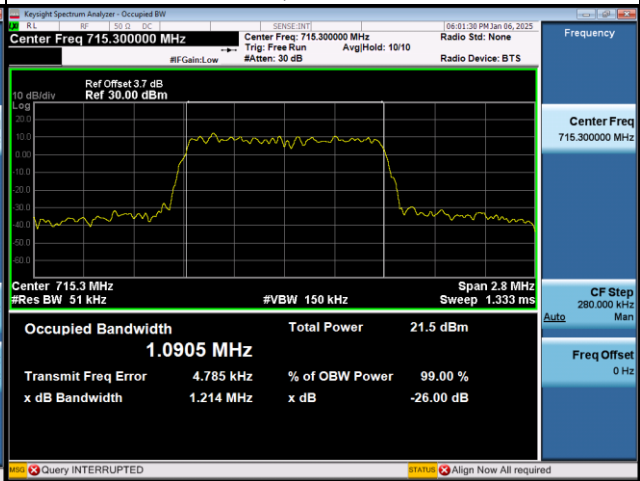
16QAM-23017

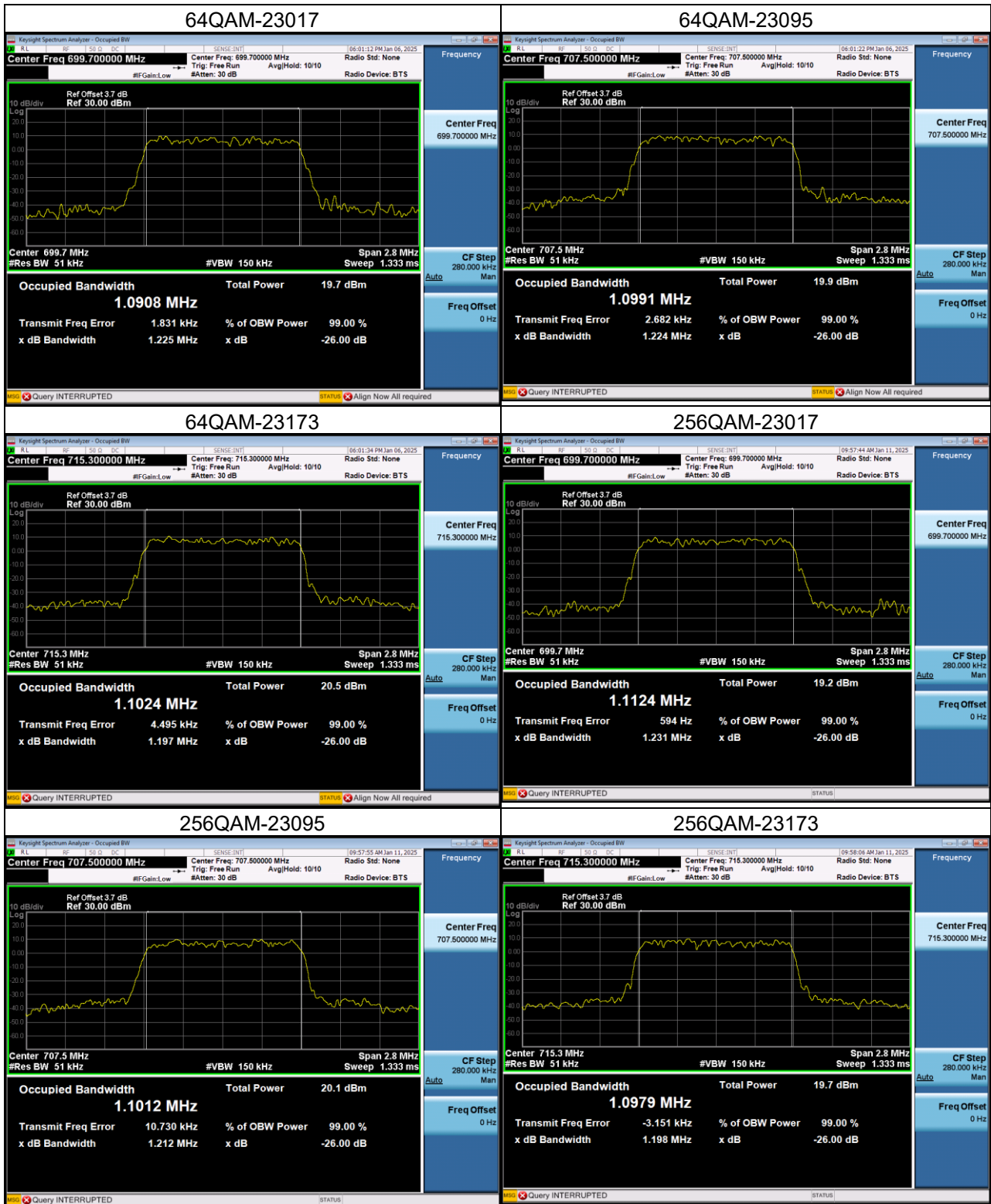


16QAM-23095



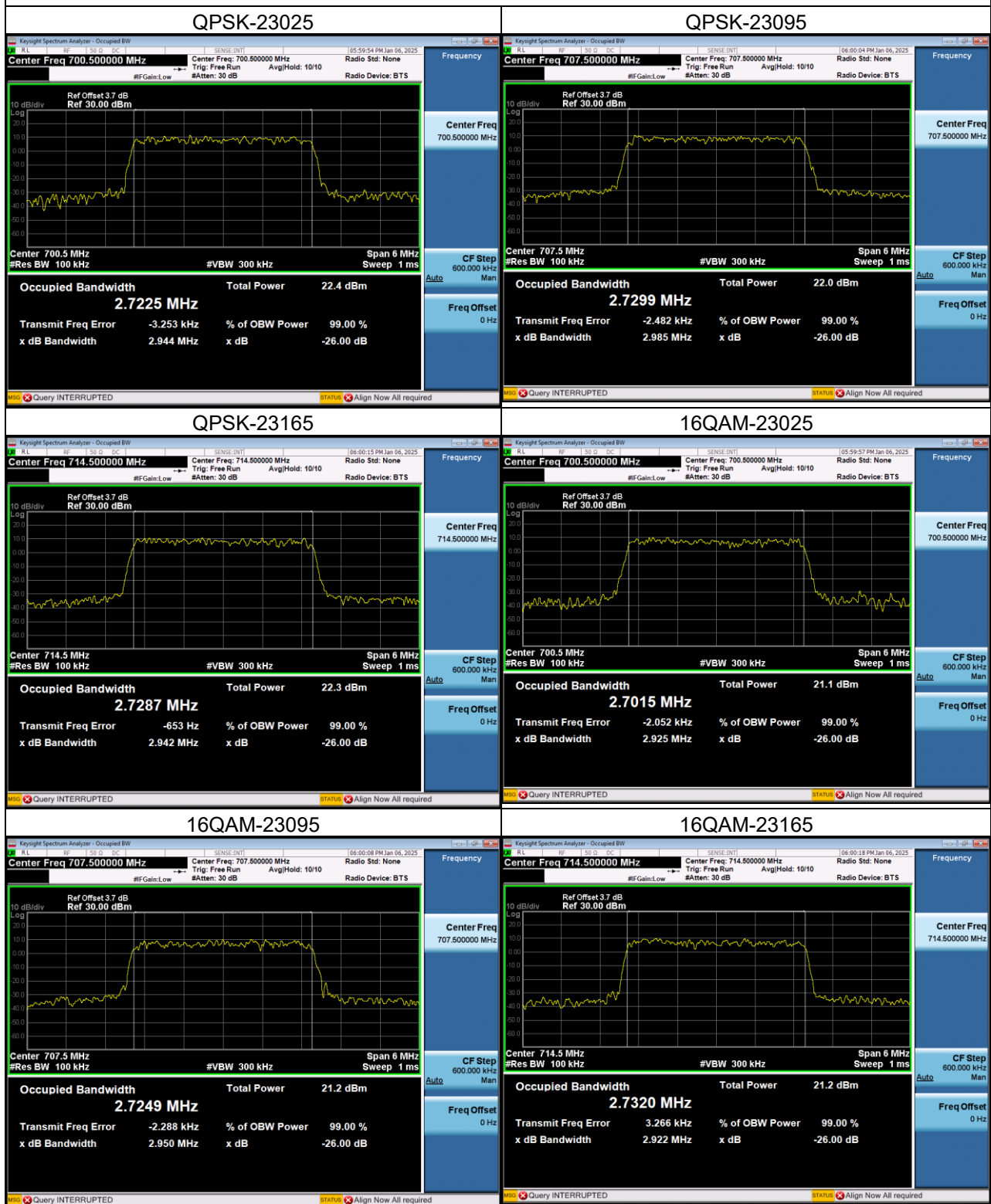
16QAM-23173

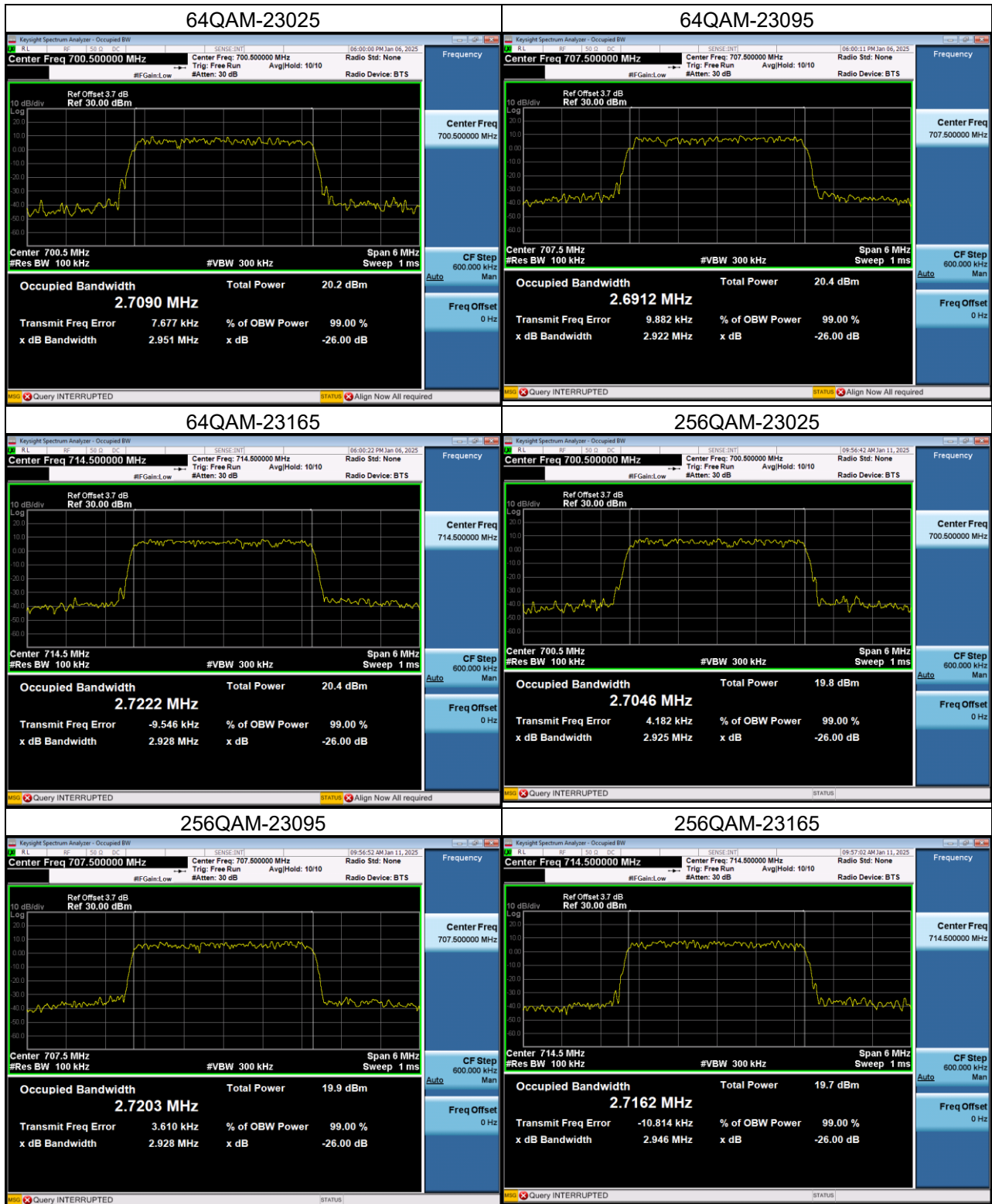




LTE Band 12_3M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23025	700.5	2.7225	23025	700.5	2.944
23095	707.5	2.7299	23095	707.5	2.985
23165	714.5	2.7287	23165	714.5	2.942
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23025	700.5	2.7015	23025	700.5	2.925
23095	707.5	2.7249	23095	707.5	2.950
23165	714.5	2.7320	23165	714.5	2.922
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23025	700.5	2.7090	23025	700.5	2.951
23095	707.5	2.6912	23095	707.5	2.922
23165	714.5	2.7222	23165	714.5	2.928
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23025	700.5	2.7046	23025	700.5	2.925
23095	707.5	2.7203	23095	707.5	2.928
23165	714.5	2.7162	23165	714.5	2.946

Spectrum Plot

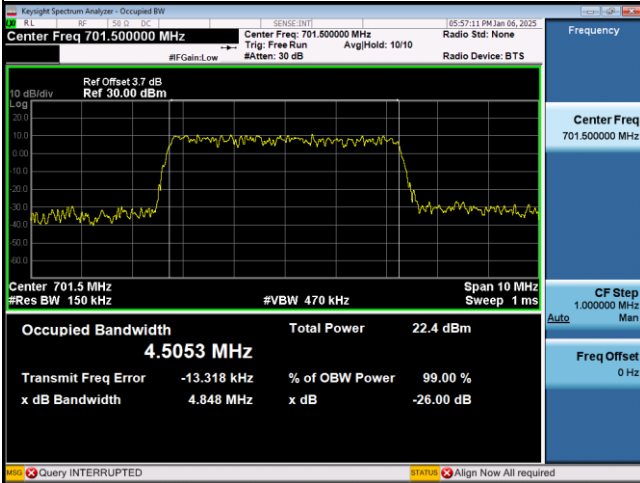




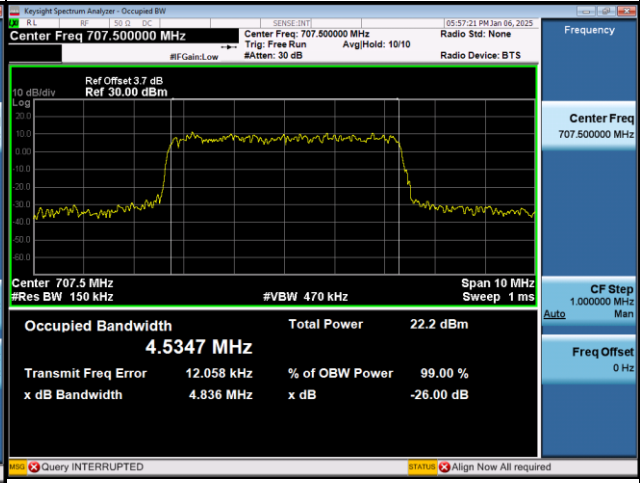
LTE Band 12_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5053	23035	701.5	4.848
23095	707.5	4.5347	23095	707.5	4.836
23155	713.5	4.5044	23155	713.5	4.896
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5558	23035	701.5	4.822
23095	707.5	4.5302	23095	707.5	4.832
23155	713.5	4.5282	23155	713.5	4.876
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5357	23035	701.5	4.875
23095	707.5	4.4858	23095	707.5	4.806
23155	713.5	4.5162	23155	713.5	4.827
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5318	23035	701.5	4.846
23095	707.5	4.5024	23095	707.5	4.895
23155	713.5	4.5163	23155	713.5	4.843

Spectrum Plot

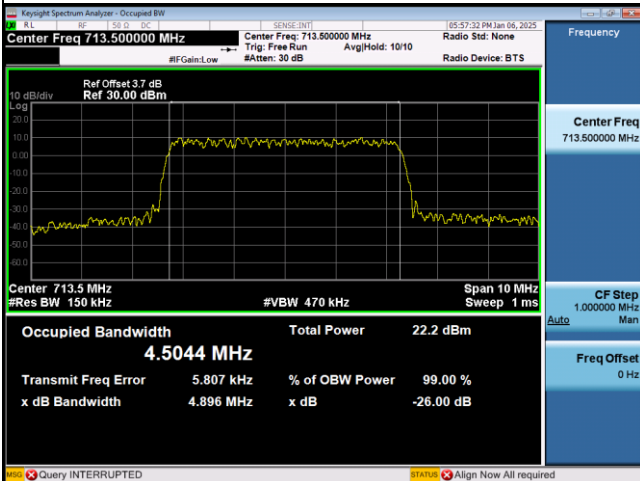
QPSK-23035



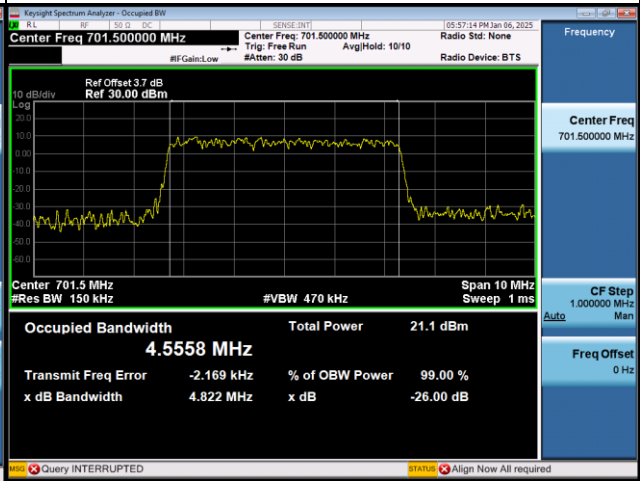
QPSK-23095



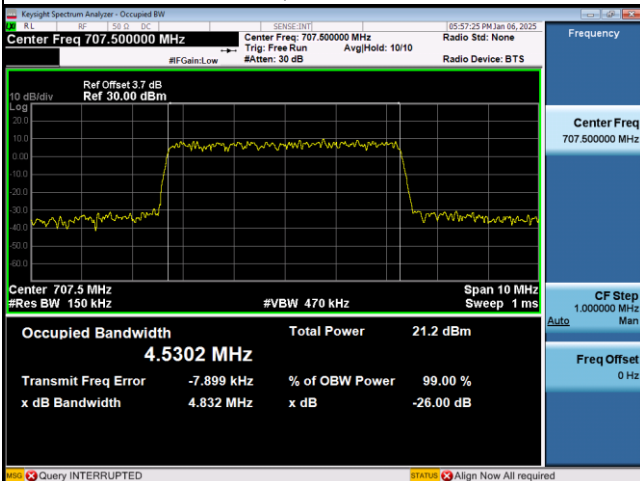
QPSK-23155



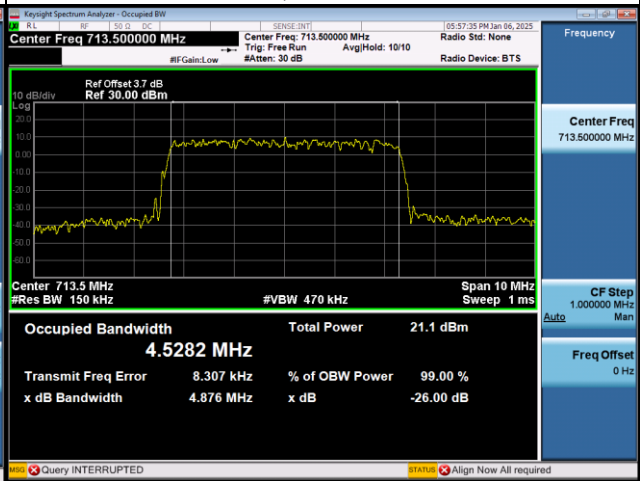
16QAM-23035

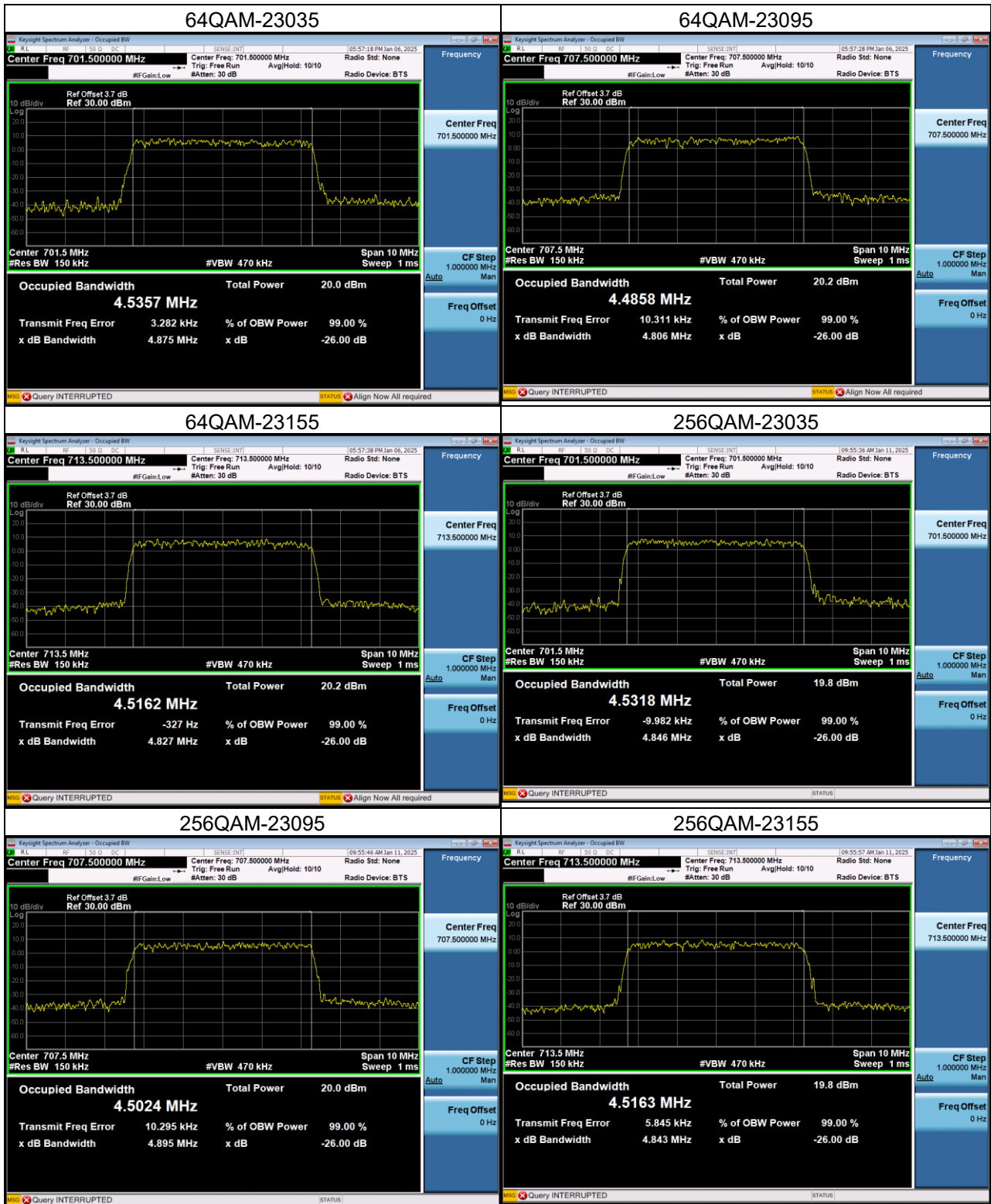


16QAM-23095



16QAM-23155

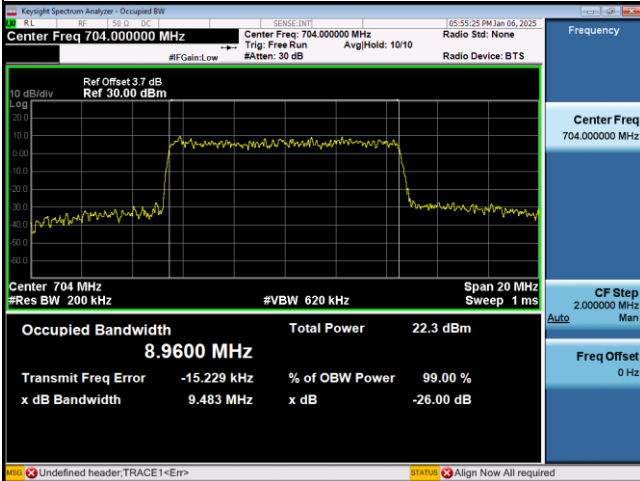




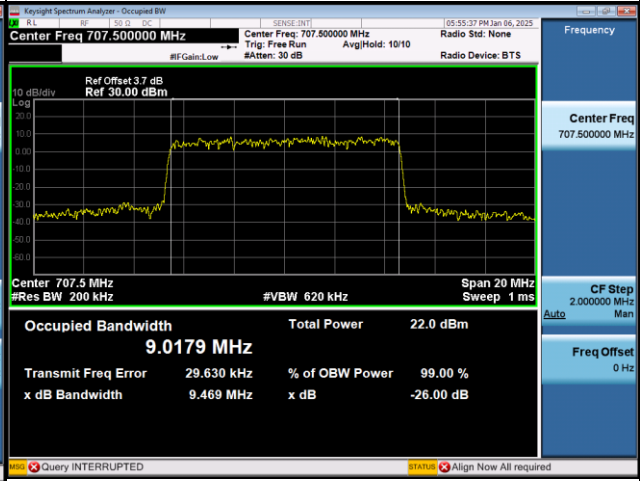
LTE Band 12_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9600	23060	704.0	9.483
23095	707.5	9.0179	23095	707.5	9.469
23130	711.0	8.9158	23130	711.0	9.431
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9601	23060	704.0	9.447
23095	707.5	8.9381	23095	707.5	9.482
23130	711.0	8.8907	23130	711.0	9.458
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9835	23060	704.0	9.536
23095	707.5	8.9613	23095	707.5	9.462
23130	711.0	8.9030	23130	711.0	9.429
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	9.0126	23060	704.0	9.419
23095	707.5	8.9496	23095	707.5	9.451
23130	711.0	8.8816	23130	711.0	9.461

Spectrum Plot

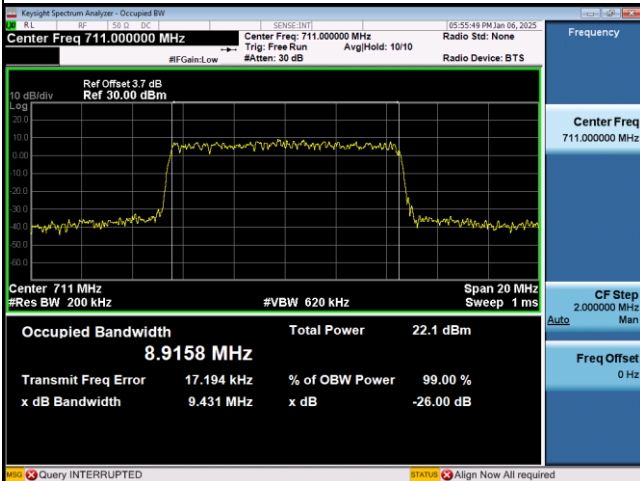
QPSK-23060



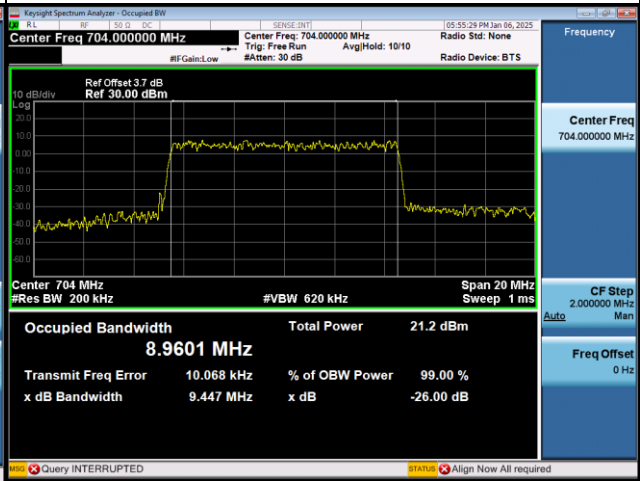
QPSK-23095



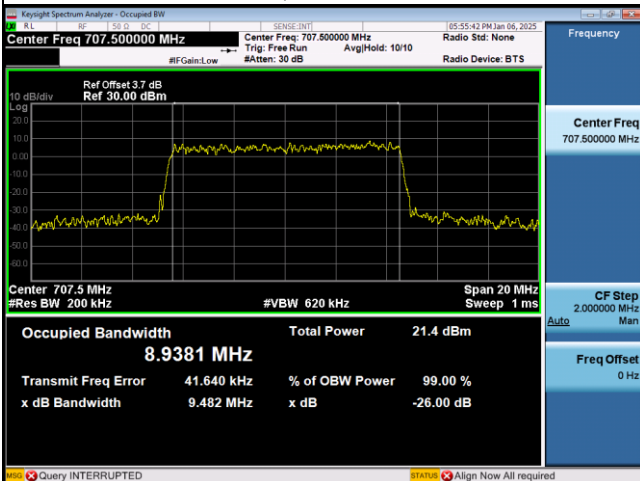
QPSK-23130



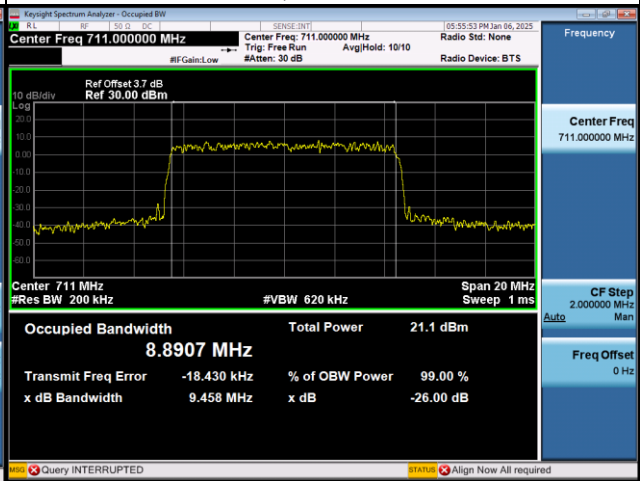
16QAM-23060

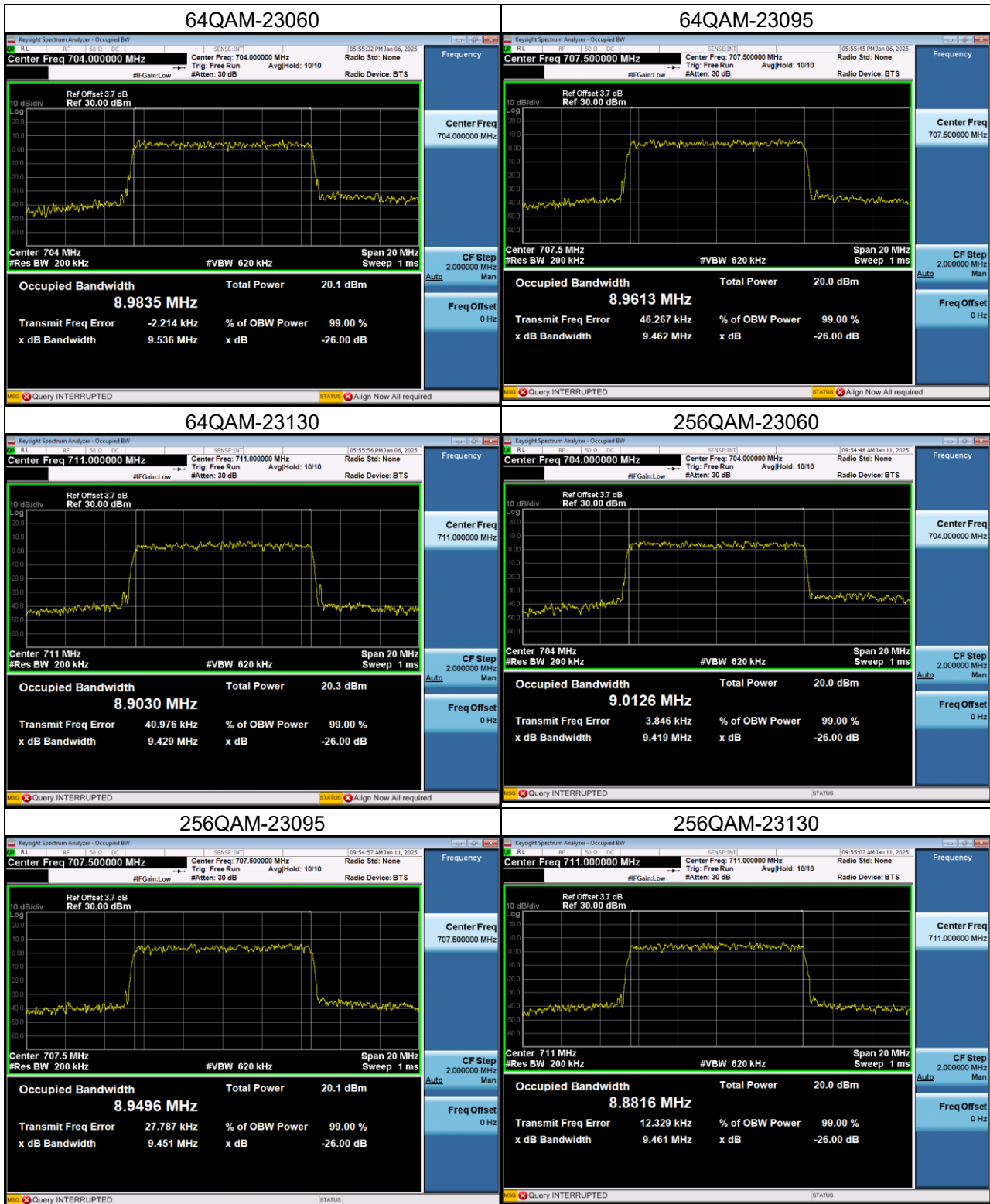


16QAM-23095



16QAM-23130





LTE Band 13_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.5122	23205	779.5	4.821
23230	782.0	4.5215	23230	782.0	4.816
23255	784.5	4.5049	23255	784.5	4.865
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.5026	23205	779.5	4.854
23230	782.0	4.5276	23230	782.0	4.850
23255	784.5	4.4787	23255	784.5	4.821
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.5164	23205	779.5	4.875
23230	782.0	4.5031	23230	782.0	4.842
23255	784.5	4.5323	23255	784.5	4.876
256QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.5177	23205	779.5	4.813
23230	782.0	4.5041	23230	782.0	4.820
23255	784.5	4.4863	23255	784.5	4.837