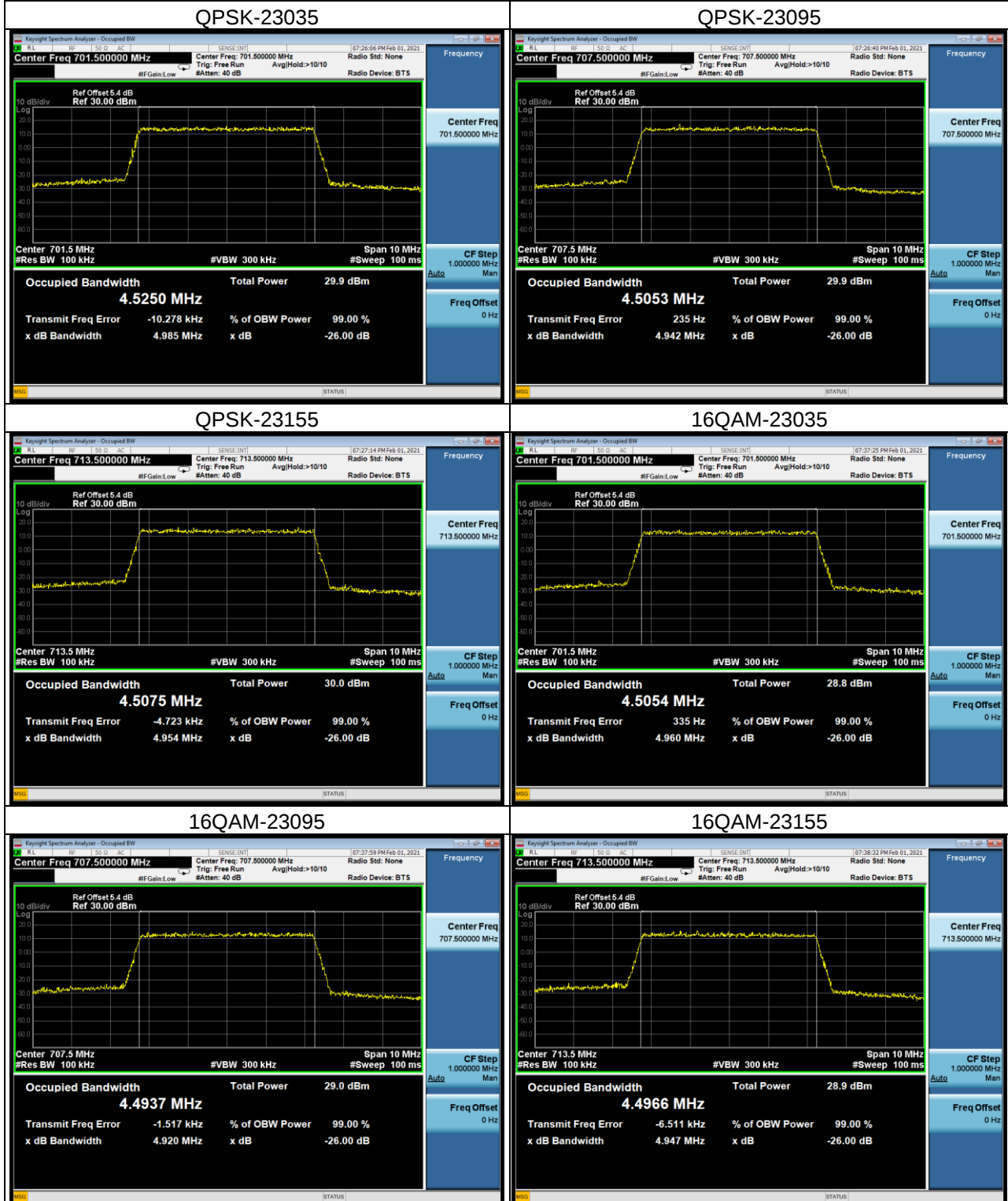


LTE Band 12_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5250	23035	701.5	4.985
23095	707.5	4.5053	23095	707.5	4.942
23155	713.5	4.5075	23155	713.5	4.954
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5054	23035	701.5	4.960
23095	707.5	4.4937	23095	707.5	4.920
23155	713.5	4.4966	23155	713.5	4.947
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5056	23035	701.5	4.952
23095	707.5	4.5084	23095	707.5	4.953
23155	713.5	4.5063	23155	713.5	4.953

Spectrum Plot

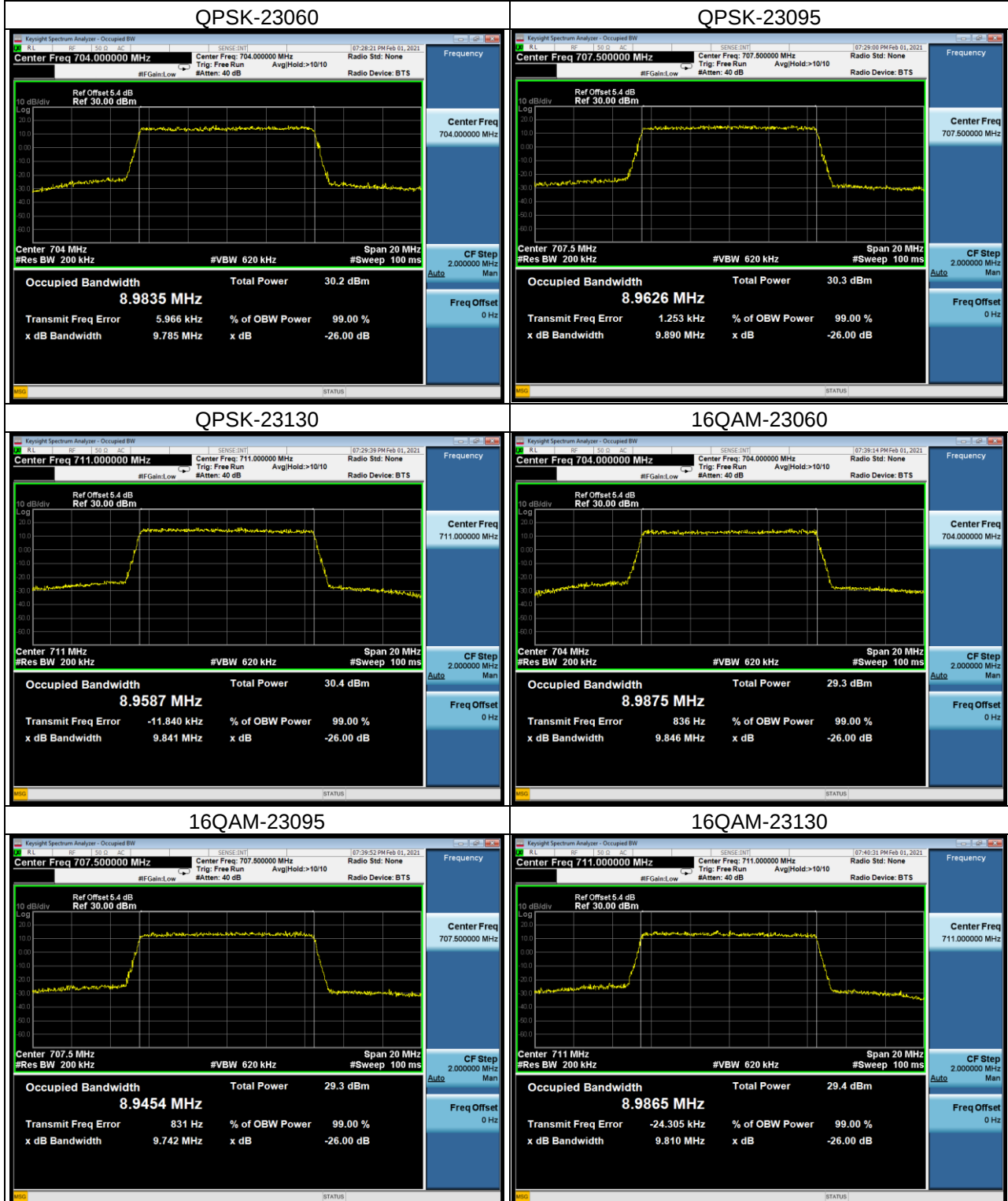


Spectrum Plot



LTE Band 12_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.8935	23060	704.0	9.785
23095	707.5	8.9626	23095	707.5	9.890
23130	711.0	8.9587	23130	711.0	9.841
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9875	23060	704.0	9.846
23095	707.5	8.9454	23095	707.5	9.742
23130	711.0	8.9865	23130	711.0	9.810
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9742	23060	704.0	9.830
23095	707.5	8.9449	23095	707.5	9.760
23130	711.0	8.9616	23130	711.0	9.735

Spectrum Plot



Spectrum Plot



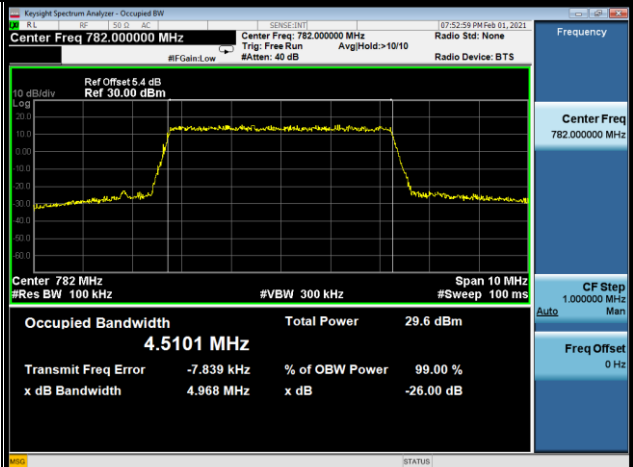
LTE Band 13_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.5001	23205	779.5	4.936
23230	782.0	4.5101	23230	782.0	4.968
23255	784.5	4.5060	23255	784.5	4.935
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.4899	23205	779.5	4.920
23230	782.0	4.5020	23230	782.0	4.961
23255	784.5	4.4987	23255	784.5	4.945
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.5024	23205	779.5	4.963
23230	782.0	4.5019	23230	782.0	4.944
23255	784.5	4.5110	23255	784.5	4.941

Spectrum Plot

QPSK-23205



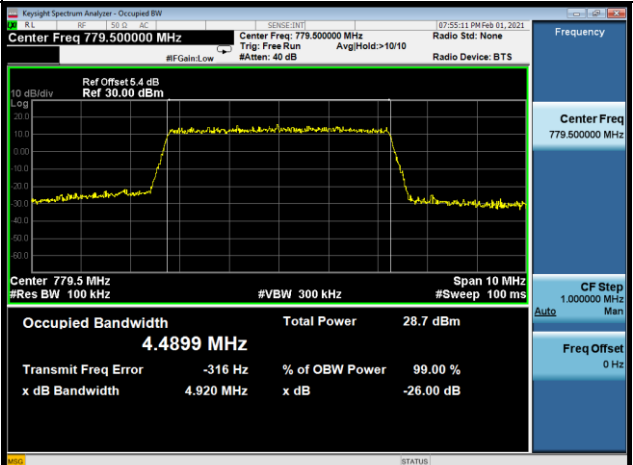
QPSK-23230



QPSK-23255



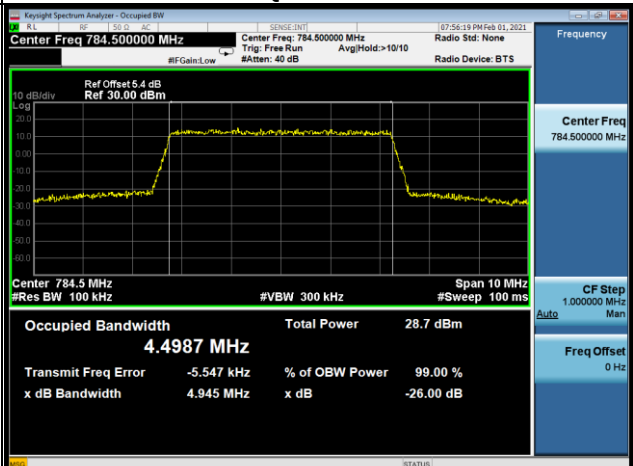
16QAM-23205



16QAM-23230



16QAM-23255



Spectrum Plot



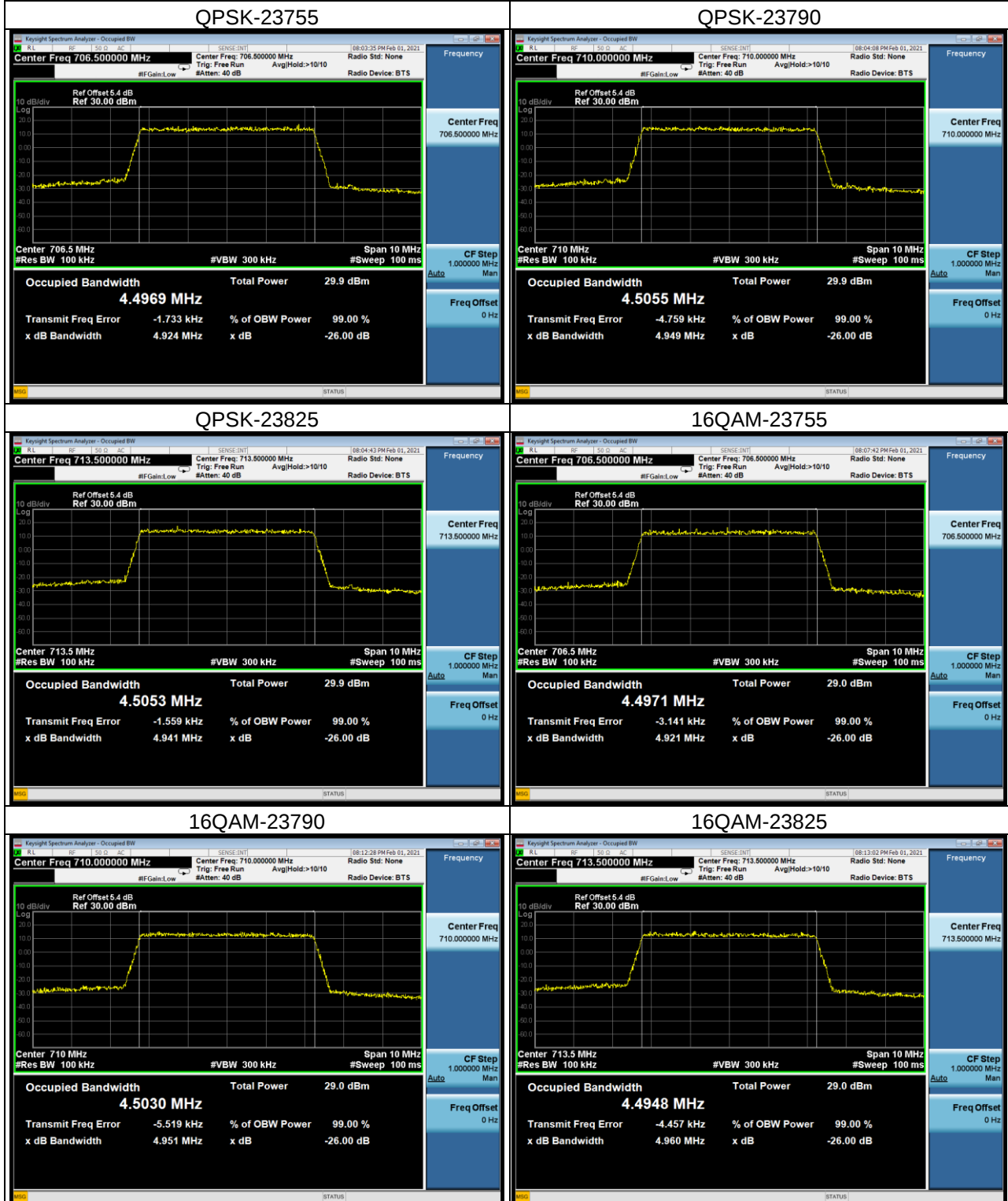
LTE Band 13_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23230	782.0	8.9657	23230	782.0	9.830
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23230	782.0	8.9655	23230	782.0	9.778
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23230	782.0	8.9474	23230	782.0	9.750

Spectrum Plot



LTE Band 17_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23755	706.5	4.4969	23755	706.5	4.924
23790	710	4.5055	23790	710	4.949
23825	713.5	4.5053	23825	713.5	4.941
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23755	706.5	4.4971	23755	706.5	4.921
23790	710	4.5030	23790	710	4.951
23825	713.5	4.4948	23825	713.5	4.960
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23755	706.5	4.4994	23755	706.5	4.946
23790	710	4.4915	23790	710	4.943
23825	713.5	4.5114	23825	713.5	4.963

Spectrum Plot

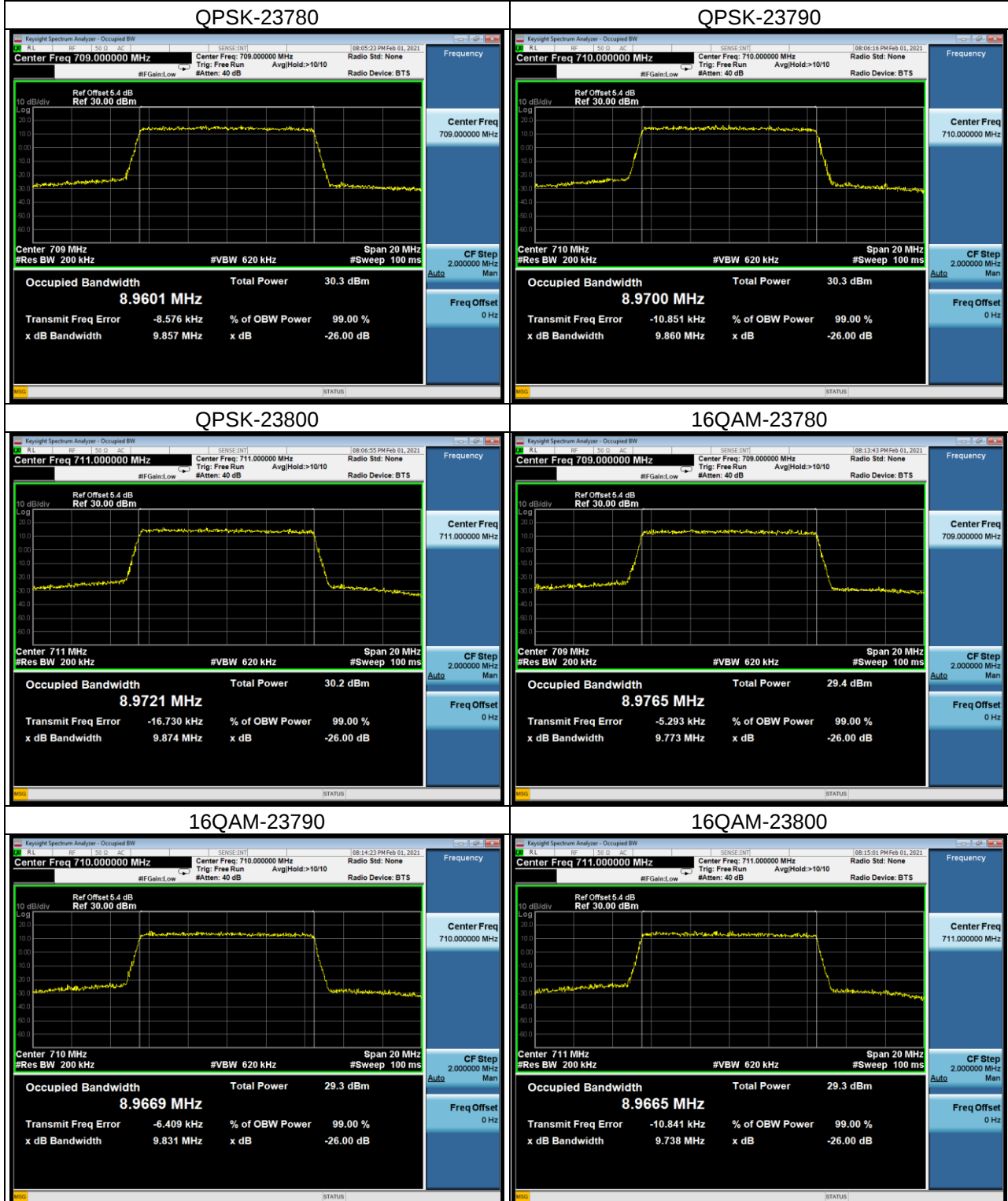


Spectrum Plot



LTE Band 17_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23780	709	8.9601	23780	709	9.857
23790	710	8.9700	23790	710	9.860
23800	711	8.9721	23800	711	9.874
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23780	709	8.9765	23780	709	9.773
23790	710	8.9669	23790	710	9.831
23800	711	8.9665	23800	711	9.738
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23780	709	8.9618	23780	709	9.732
23790	710	8.9535	23790	710	9.888
23800	711	8.9797	23800	711	9.787

Spectrum Plot

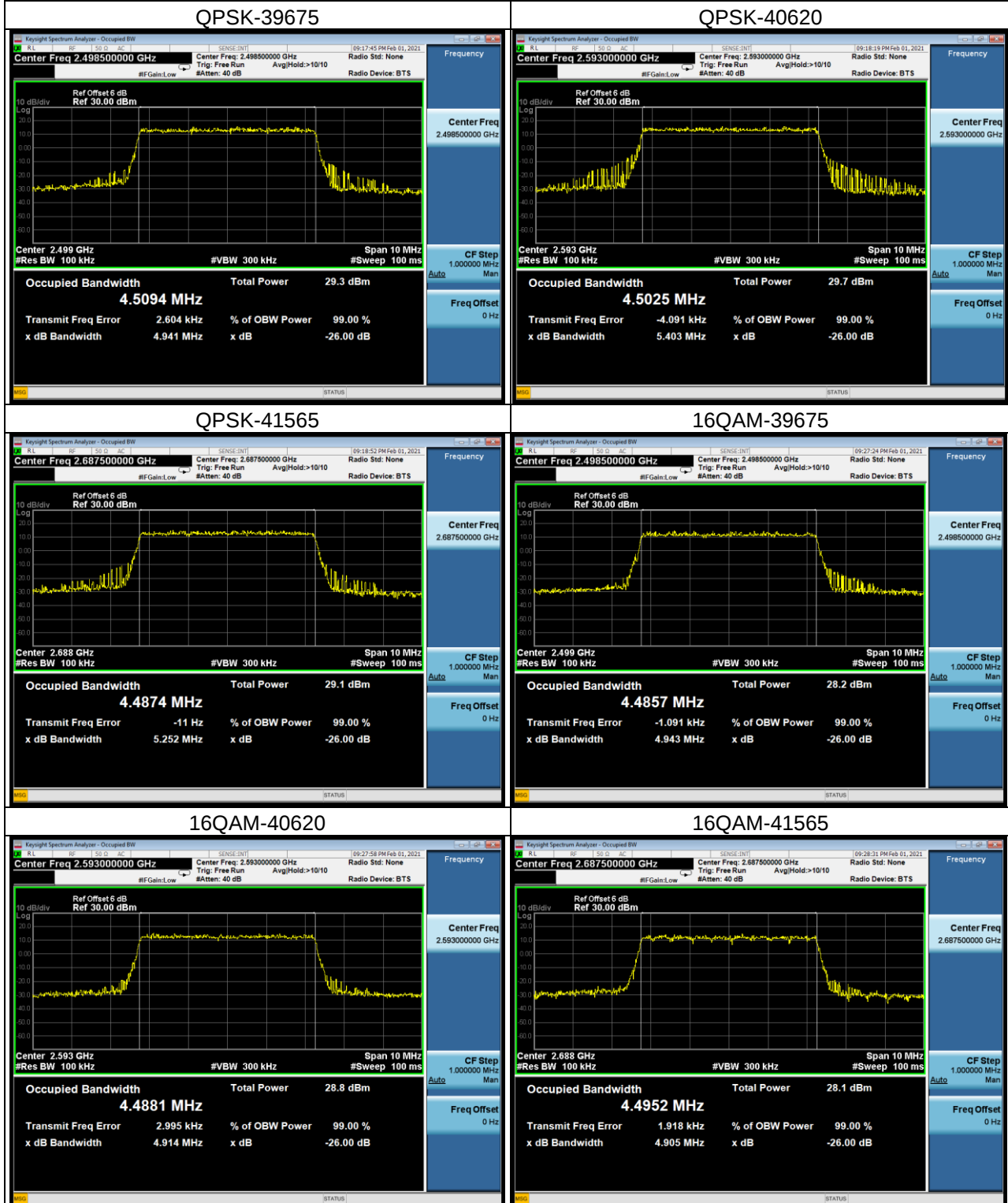


Spectrum Plot



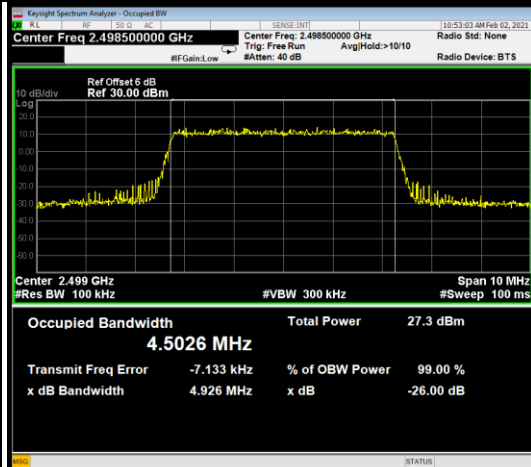
LTE Band 41_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
39675	2498.5	4.5094	39675	2498.5	4.941
40620	2593	4.5025	40620	2593	5.403
41565	2687.5	4.4874	41565	2687.5	5.252
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
39675	2498.5	4.4857	39675	2498.5	4.943
40620	2593	4.4881	40620	2593	4.914
41565	2687.5	4.4952	41565	2687.5	4.905
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
39675	2498.5	4.5026	39675	2498.5	4.926
40620	2593	4.4920	40620	2593	4.921
41565	2687.5	4.4965	41565	2687.5	4.979

Spectrum Plot

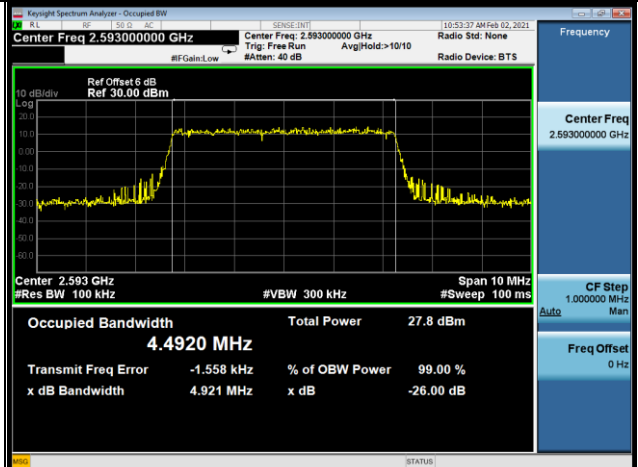


Spectrum Plot

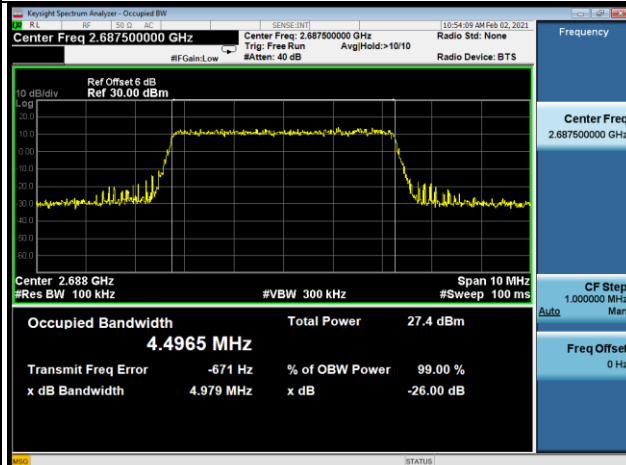
64QAM-39675



64QAM-40620



64QAM-41565



LTE Band 41_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
39700	2501	8.9374	39700	2501	9.779
40620	2593	8.9596	40620	2593	9.903
41540	2685	8.9869	41540	2685	10.06
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
39700	2501	8.9400	39700	2501	9.775
40620	2593	8.9540	40620	2593	9.933
41540	2685	8.9872	41540	2685	9.794
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
39700	2501	8.9691	39700	2501	9.775
40620	2593	8.9624	40620	2593	9.970
41540	2685	8.9676	41540	2685	10.06