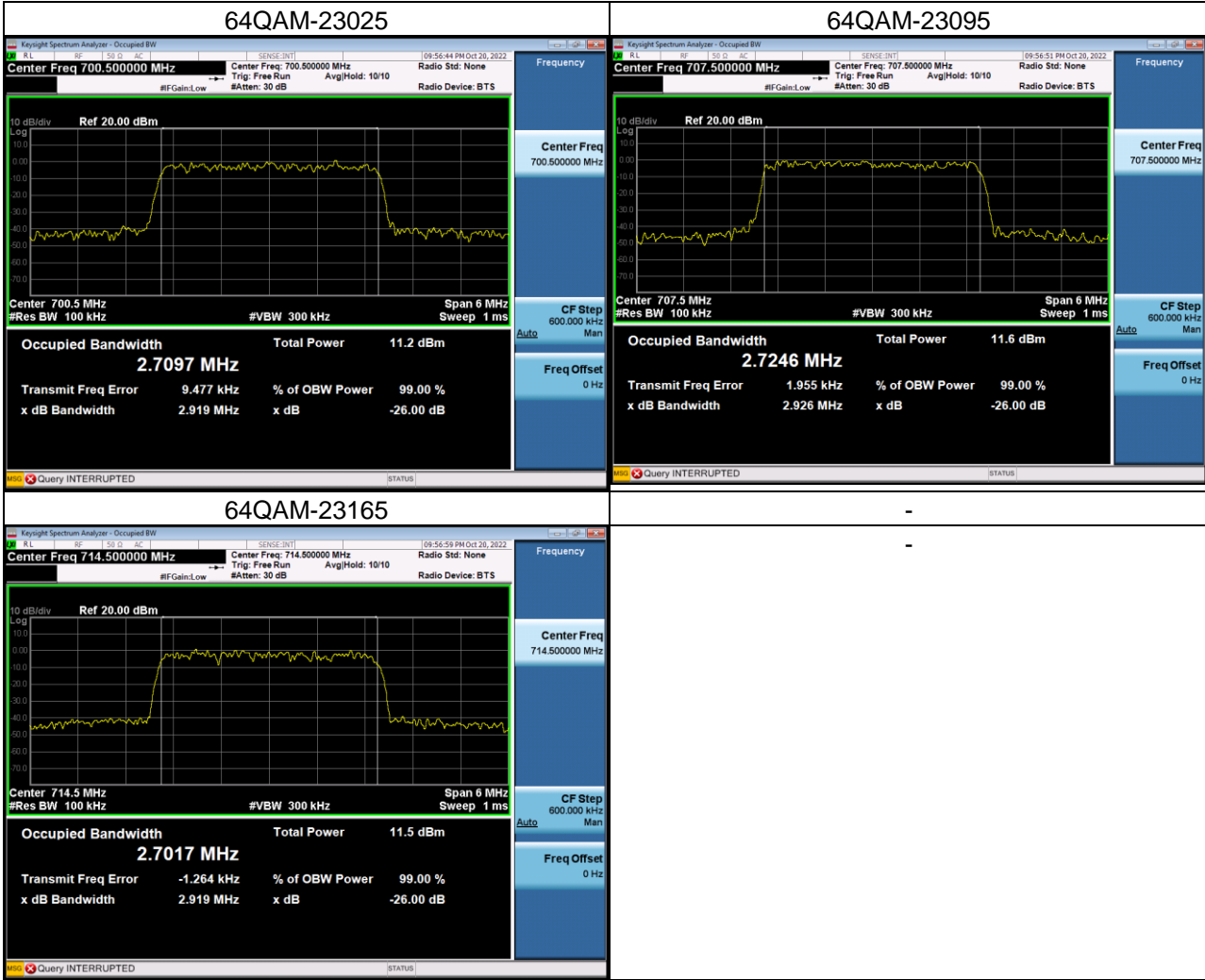


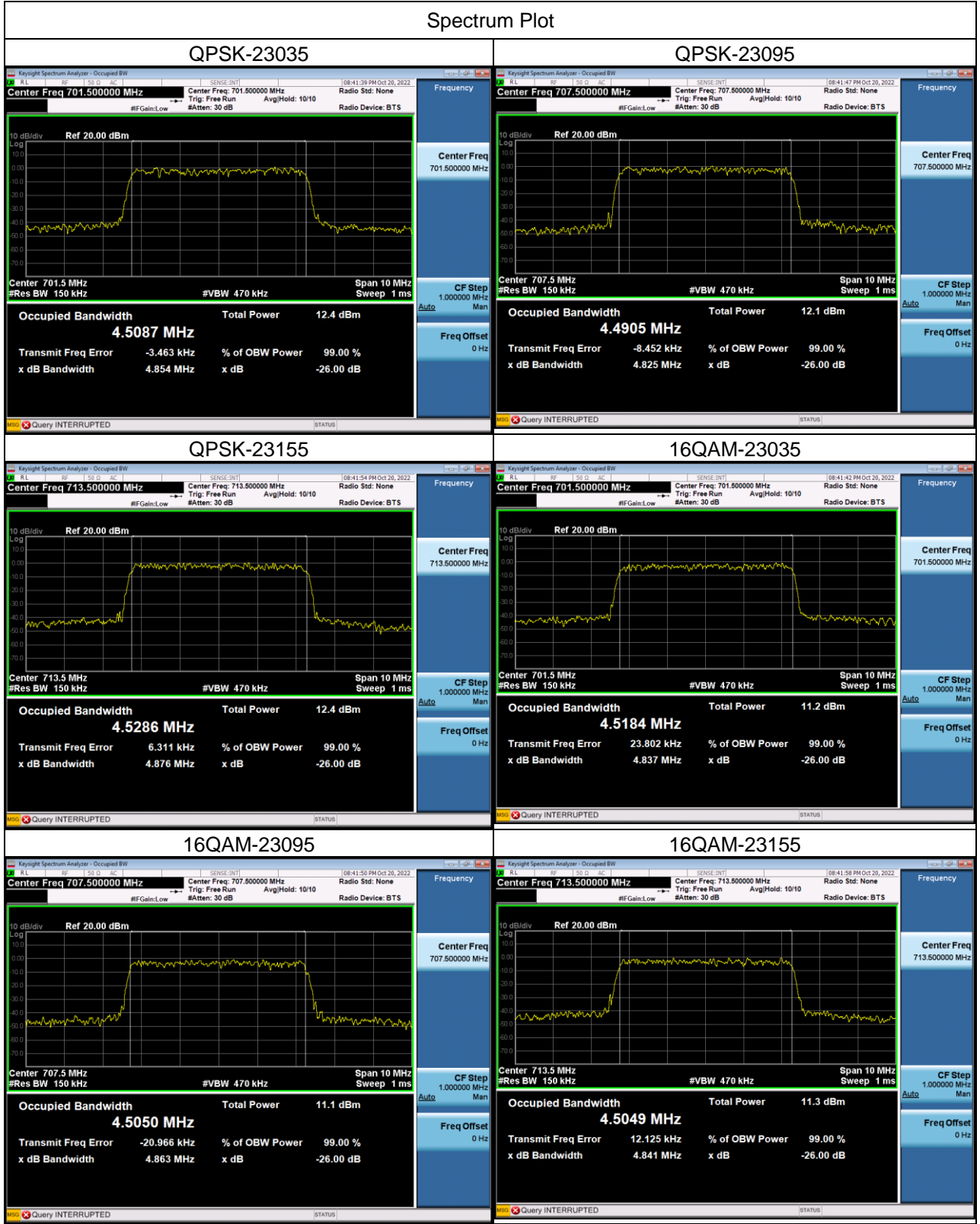
Spectrum Plot

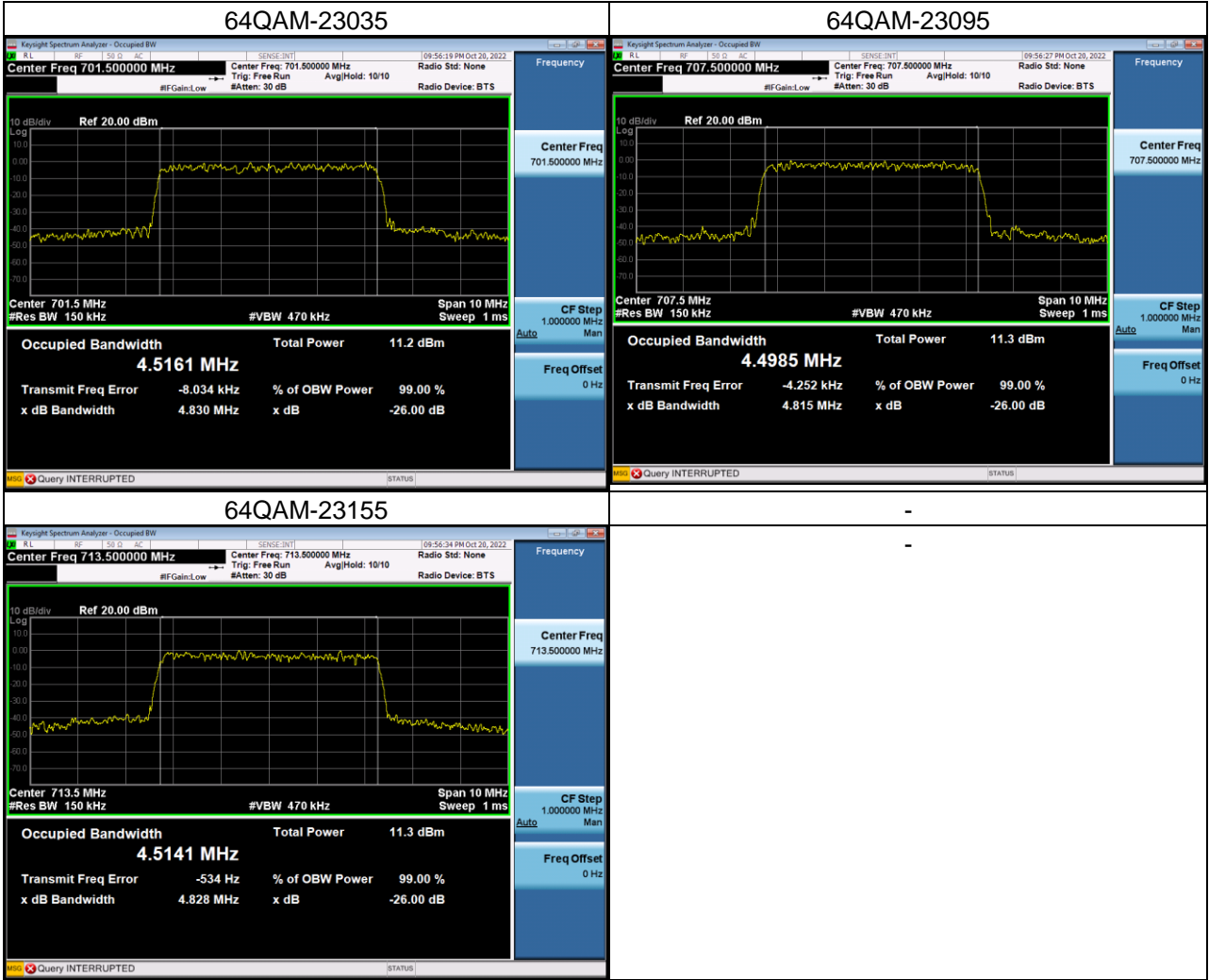




LTE Band 12_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5087	23035	701.5	4.854
23095	707.5	4.4905	23095	707.5	4.825
23155	713.5	4.5286	23155	713.5	4.876
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5184	23035	701.5	4.837
23095	707.5	4.5050	23095	707.5	4.863
23155	713.5	4.5049	23155	713.5	4.841
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5161	23035	701.5	4.830
23095	707.5	4.4985	23095	707.5	4.815
23155	713.5	4.5141	23155	713.5	4.825

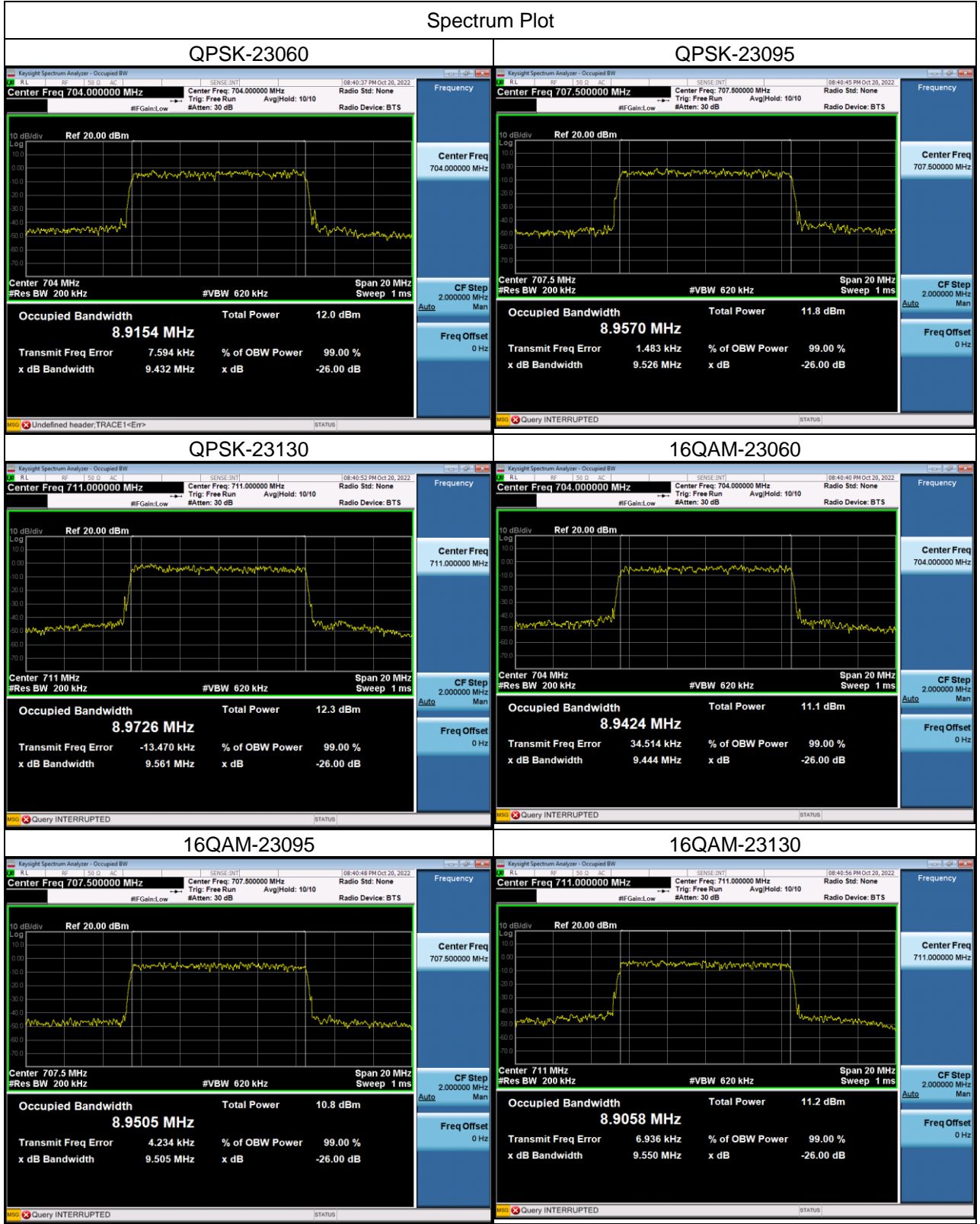
Spectrum Plot





LTE Band 12_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9154	23060	704.0	9.432
23095	707.5	8.9570	23095	707.5	9.526
23130	711.0	8.9726	23130	711.0	9.561
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9424	23060	704.0	9.444
23095	707.5	8.9505	23095	707.5	9.505
23130	711.0	8.9058	23130	711.0	9.550
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9377	23060	704.0	9.510
23095	707.5	8.9493	23095	707.5	9.445
23130	711.0	8.9354	23130	711.0	9.421

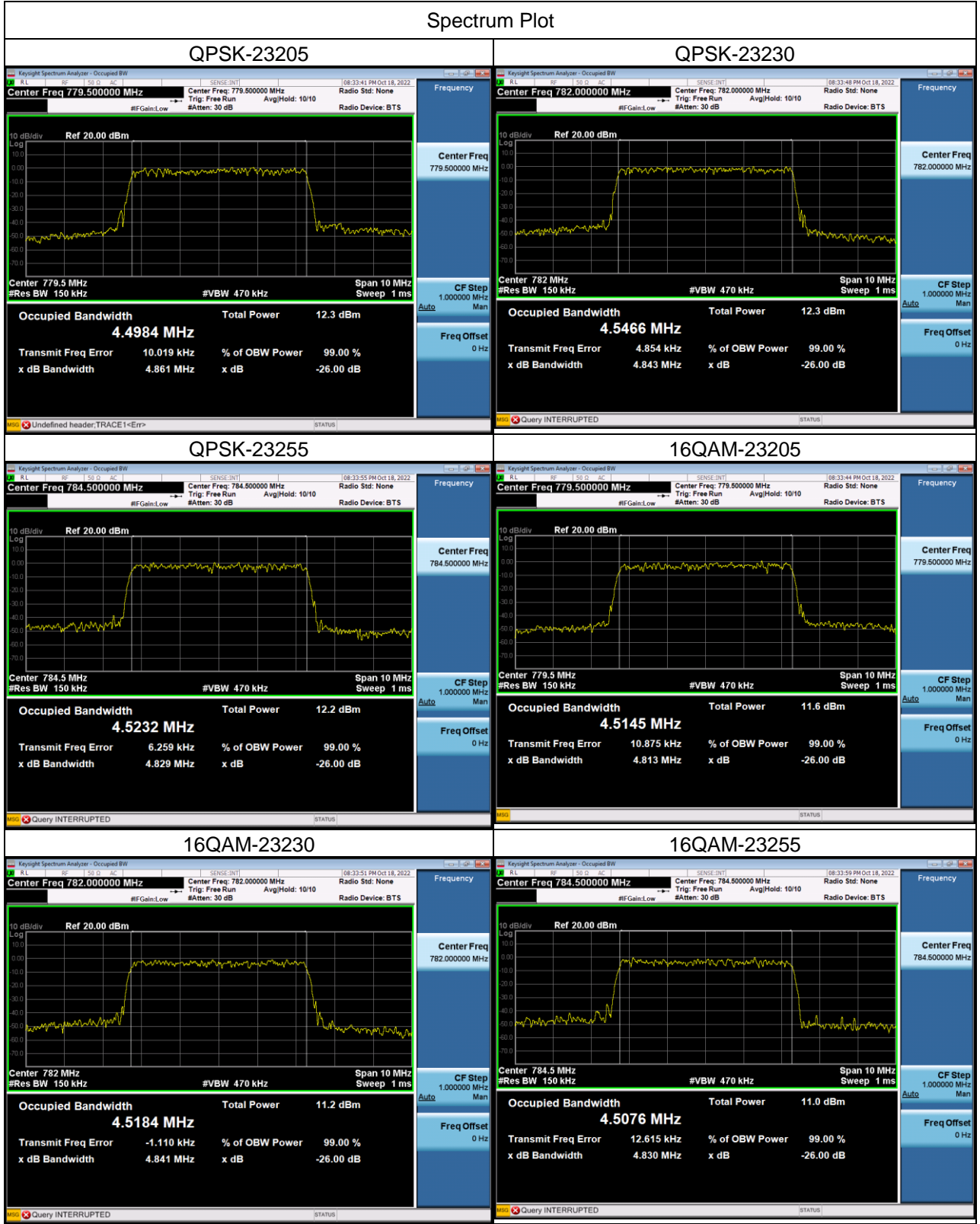
Spectrum Plot

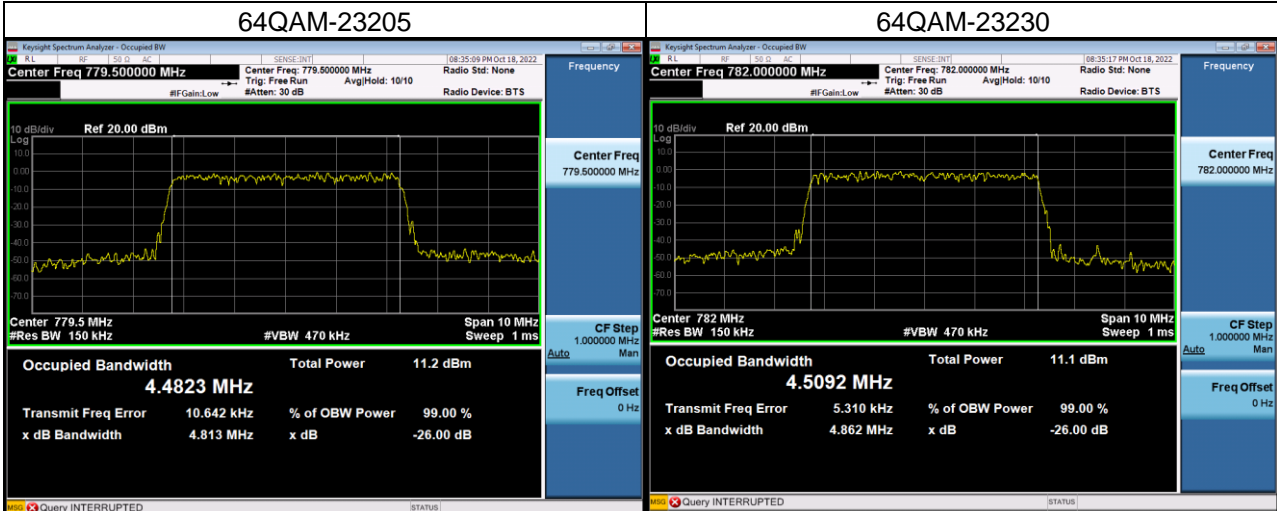




LTE Band 13_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.4984	23205	779.5	4.861
23230	782.0	4.5466	23230	782.0	4.843
23255	784.5	4.5232	23255	784.5	4.829
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.5145	23205	779.5	4.813
23230	782.0	4.5184	23230	782.0	4.841
23255	784.5	4.5076	23255	784.5	4.830
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23205	779.5	4.4823	23205	779.5	4.813
23230	782.0	4.5092	23230	782.0	4.862
23255	784.5	4.4702	23255	784.5	4.791

Spectrum Plot





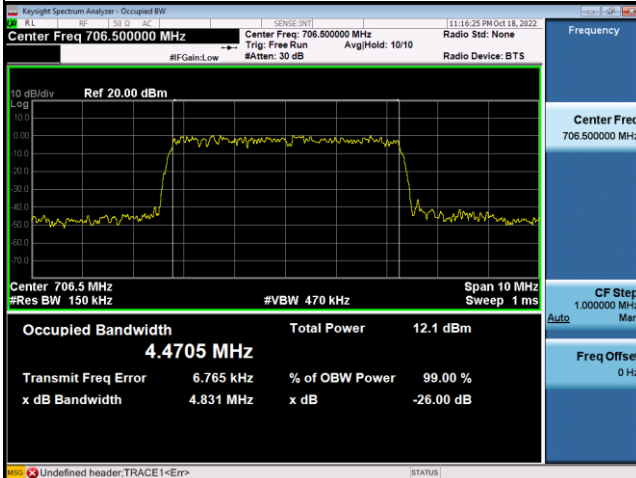
LTE Band 13_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23230	782.0	8.9484	23230	782.0	9.490
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23230	782.0	8.9604	23230	782.0	9.472
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23230	782.0	8.8873	23230	782.0	9.436



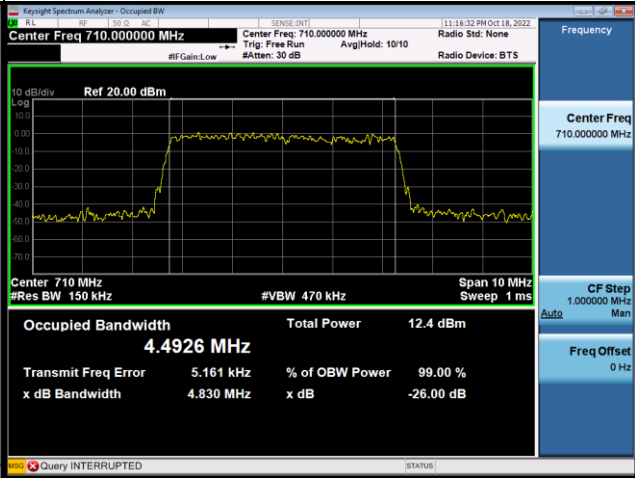
LTE Band 17_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23755	706.5	4.4705	23755	706.5	4.831
23790	710	4.4926	23790	710	4.830
23825	713.5	4.5146	23825	713.5	4.825
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23755	706.5	4.5403	23755	706.5	4.895
23790	710	4.4581	23790	710	4.801
23825	713.5	4.4860	23825	713.5	4.827
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23755	706.5	4.4834	23755	706.5	4.842
23790	710	4.4973	23790	710	4.830
23825	713.5	4.5026	23825	713.5	4.876

Spectrum Plot

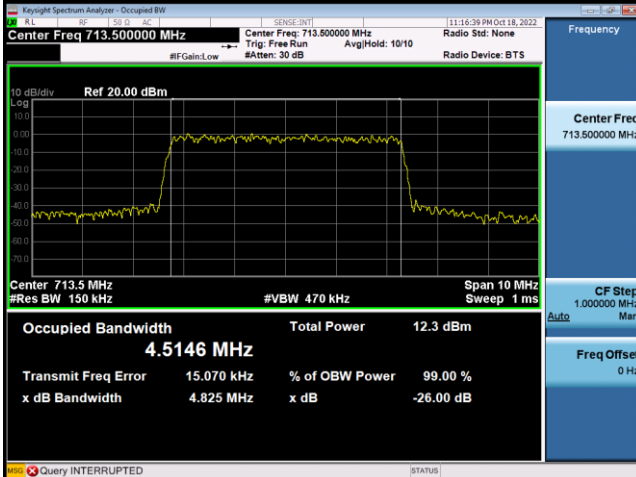
QPSK-23755



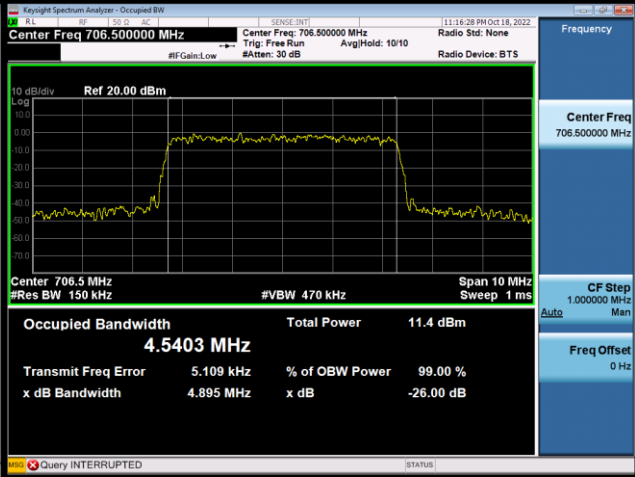
QPSK-23790



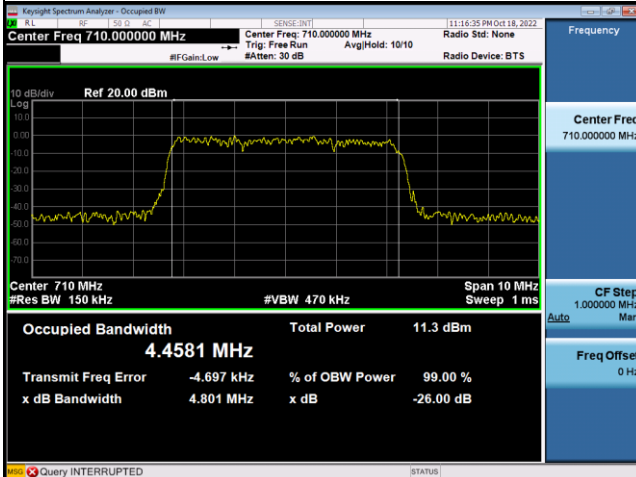
QPSK-23825



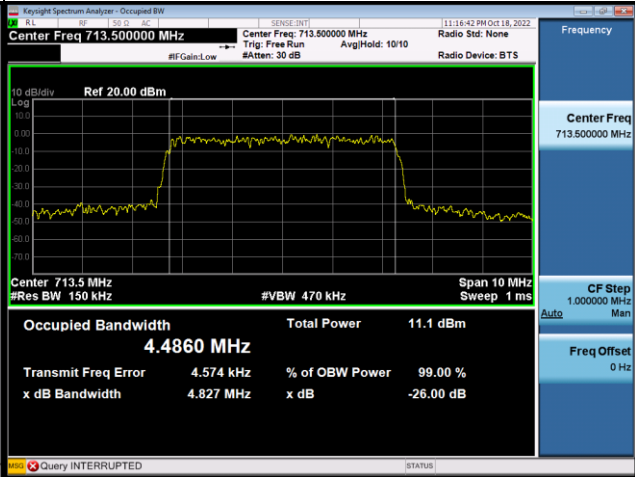
16QAM-23755



16QAM-23790

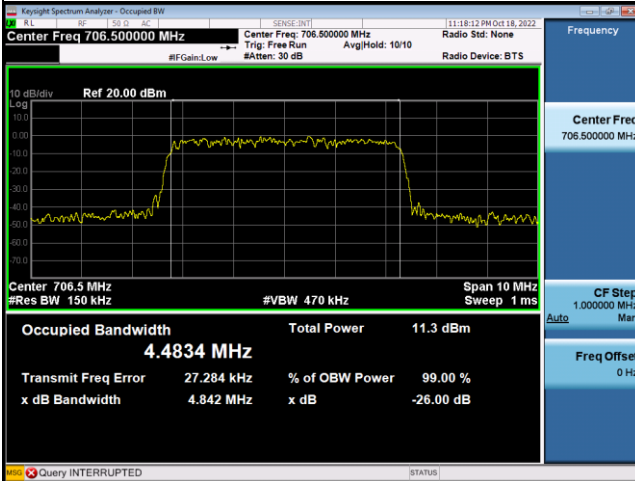


16QAM-23825

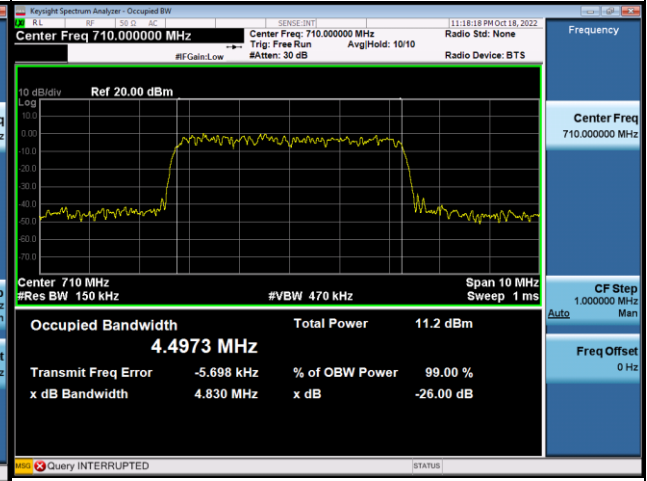


Spectrum Plot

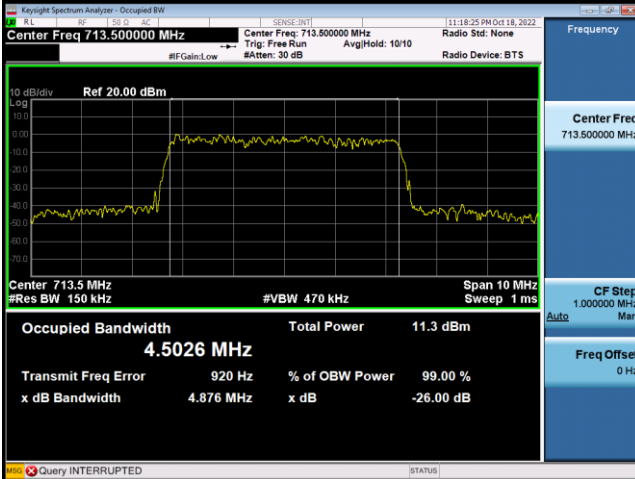
64QAM-23755



64QAM -23790



64QAM -23825



LTE Band 17_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23780	709	8.9557	23780	709	9.428
23790	710	8.9663	23790	710	9.428
23800	711	8.9692	23800	711	9.502
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23780	709	8.9706	23780	709	9.466
23790	710	8.9269	23790	710	9.461
23800	711	8.9299	23800	711	9.456
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23780	709	8.9293	23780	709	9.430
23790	710	8.9876	23790	710	9.465
23800	711	8.9465	23800	711	9.446