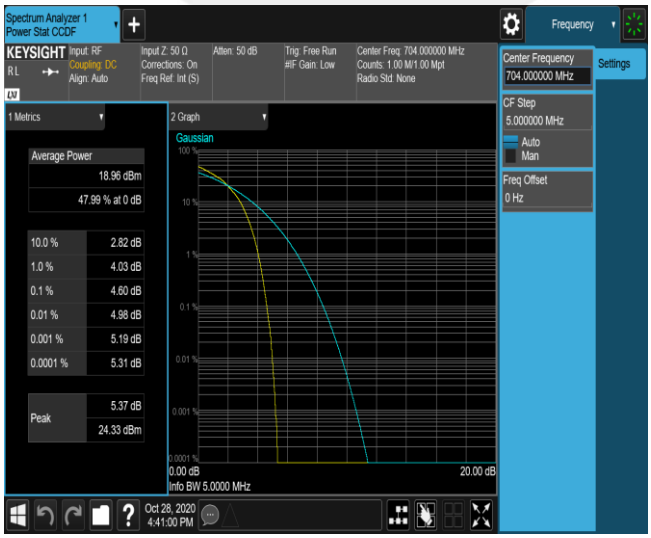
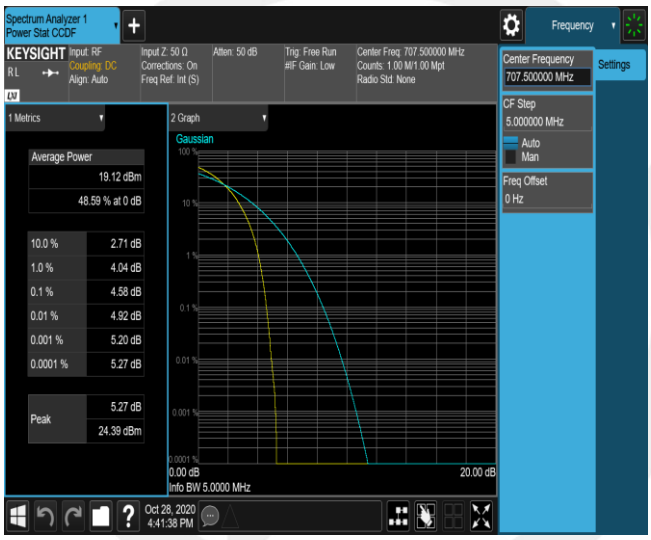
Band12-10MHz-QPSK-23060-1RB#0

Band12-10MHz-QPSK-23060-50RB#0



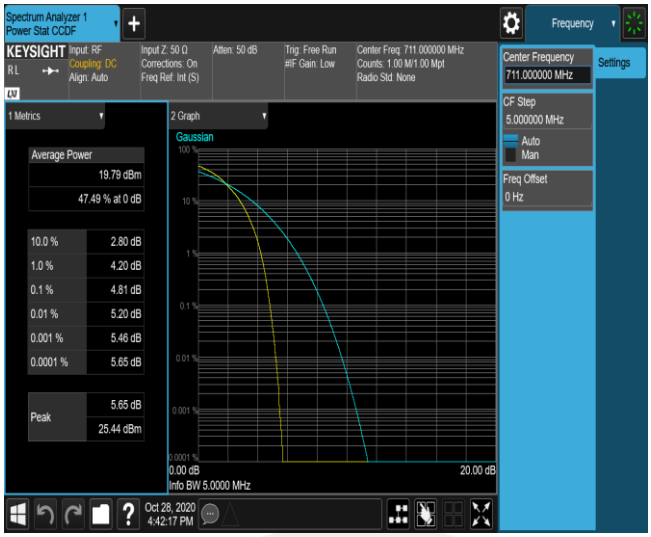
Band12-10MHz-QPSK-23095-1RB#0

Band12-10MHz-QPSK-23095-50RB#0



Band12-10MHz-QPSK-23130-1RB#0

Band12-10MHz-QPSK-23130-50RB#0



Band12-10MHz-16QAM-23060-1RB#0

Band12-10MHz-16QAM-23060-50RB#0

Band12-10MHz-16QAM-23095-1RB#0

Band12-10MHz-16QAM-23095-50RB#0

Band12-10MHz-16QAM-23130-1RB#0

Band12-10MHz-16QAM-23130-50RB#0

Spectrum Analyzer 1
Power Stat CCDF
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corrections: On
Freq Ref: Int (S)
Atten: 50 dB
Trig: Free Run
#IF Gain: Low
Center Freq: 711.000000 MHz
Counts: 1.00 M/1.00 Mpt
Radio Std: None
Frequency
Center Frequency
711.000000 MHz
Settings
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz
1 Metrics
Average Power
18.85 dBm
42.72 % at 0 dB
10.0 % 3.15 dB
1.0 % 5.19 dB
0.1 % 6.31 dB
0.01 % 6.88 dB
0.001 % 7.24 dB
0.0001 % 7.30 dB
Peak 7.30 dB
26.15 dBm
2 Graph
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0.00 dB
20.00 dB
Info BW 5.0000 MHz
Oct 28, 2020
4:42:26 PM

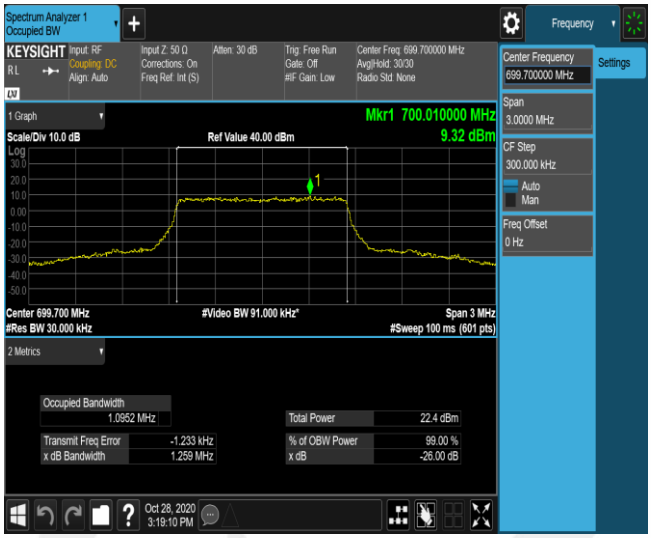
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

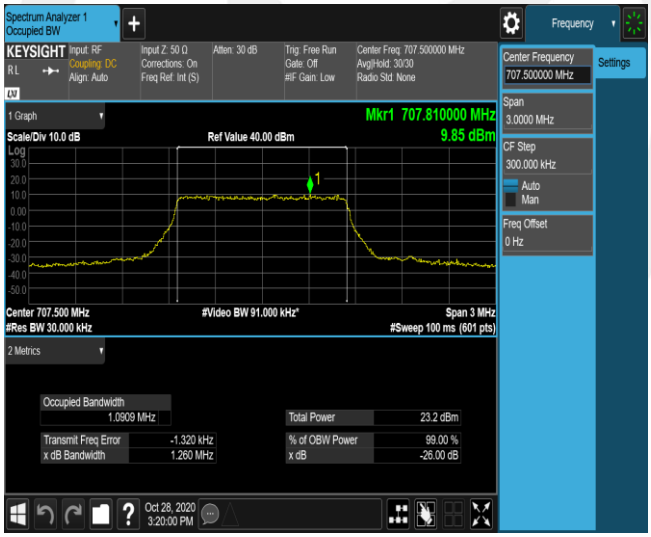
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0952	1.259	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0909	1.260	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0918	1.260	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0924	1.274	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0897	1.261	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0905	1.261	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6953	2.923	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6987	2.912	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.6921	2.884	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6965	2.921	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6938	2.895	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6871	2.907	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.5010	4.875	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.5041	4.863	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.4937	4.879	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.5016	4.889	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.5060	4.866	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.4963	4.831	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9431	9.524	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9482	9.515	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9898	9.586	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.9283	9.479	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.9477	9.493	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.9719	9.559	PASS

Test Graphs

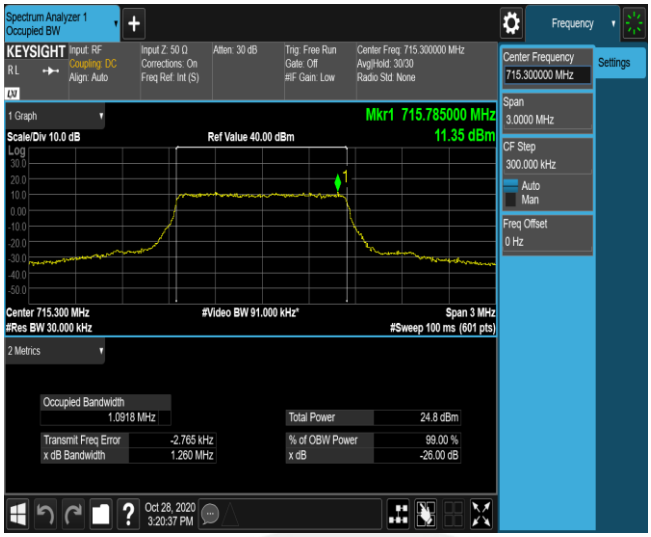
Band12-1.4MHz-QPSK-23017-6RB#0-1.0952



Band12-1.4MHz-QPSK-23095-6RB#0-1.0909



Band12-1.4MHz-QPSK-23173-6RB#0-1.0918



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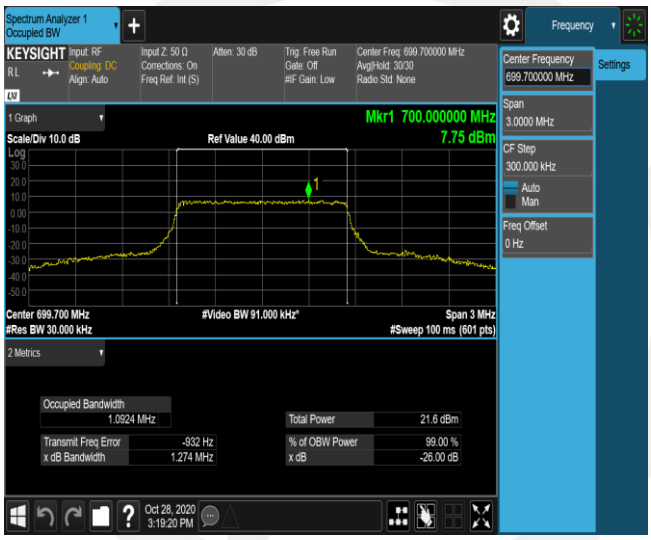
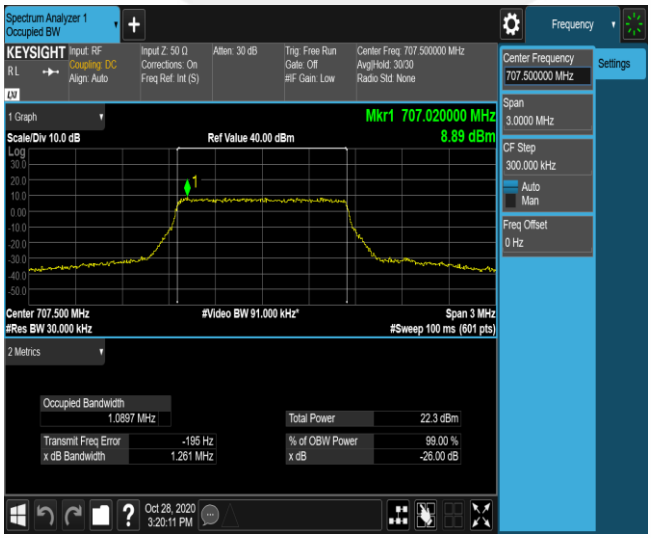
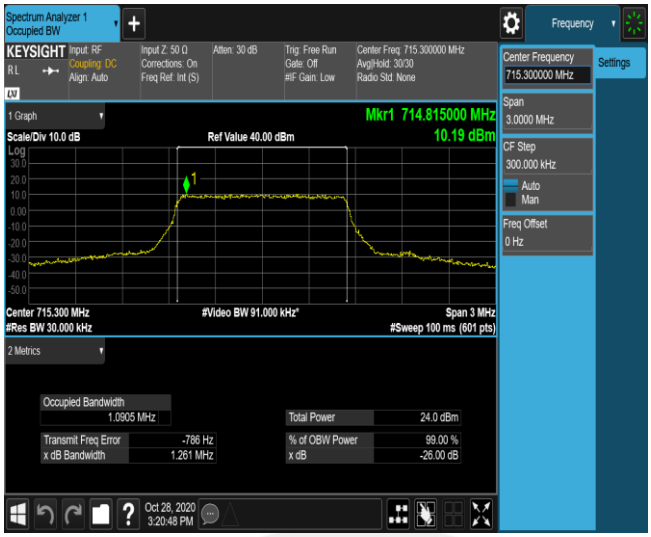


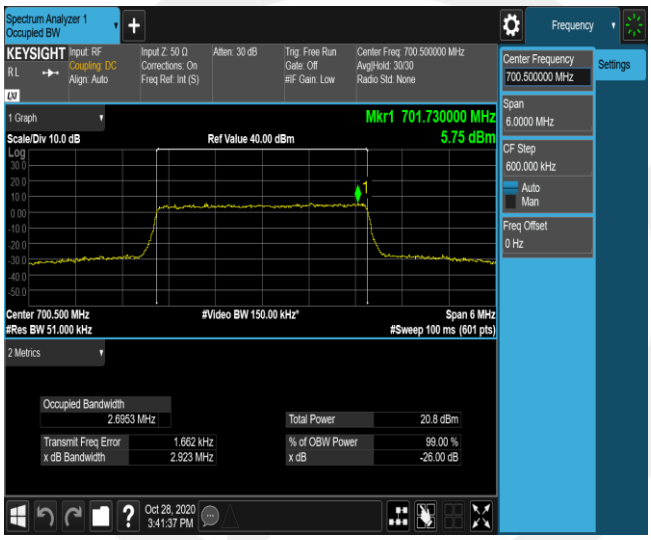
Band12-1.4MHz-16QAM-23095-6RB#0-1.0897



Band12-1.4MHz-16QAM-23173-6RB#0-1.0905



Band12-3MHz-QPSK-23025-15RB#0-2.6953



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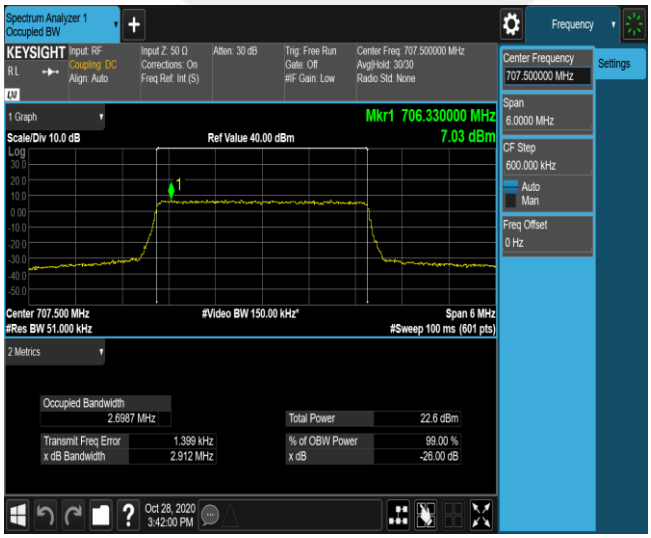
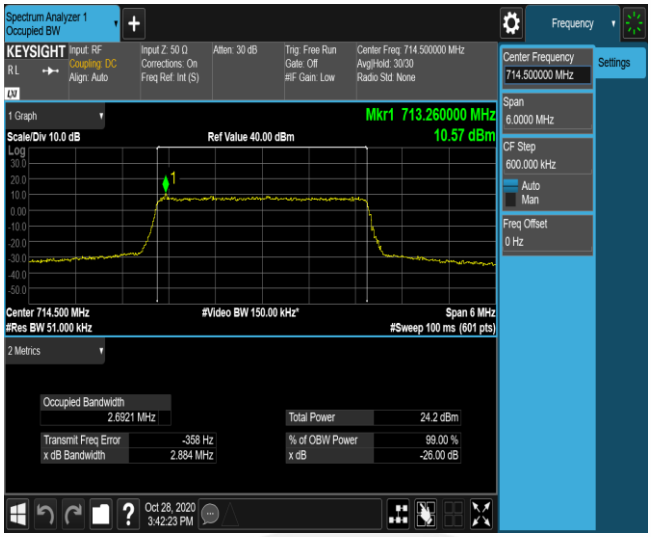
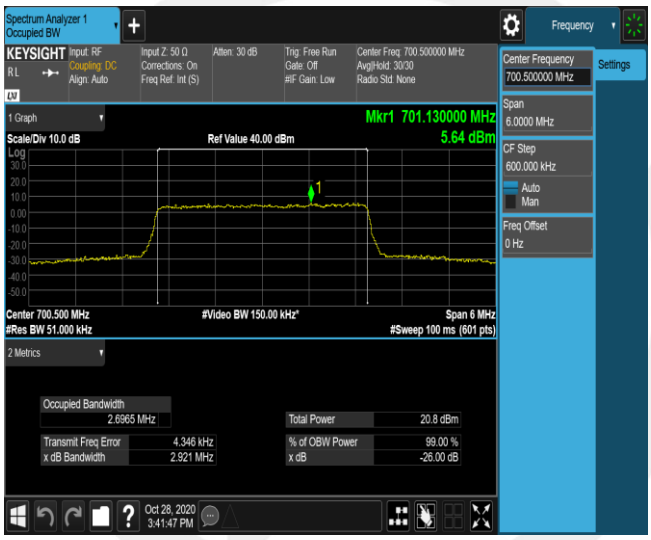


Band12-3MHz-QPSK-23165-15RB#0-2.6921



Band12-3MHz-16QAM-23025-15RB#0-2.6965



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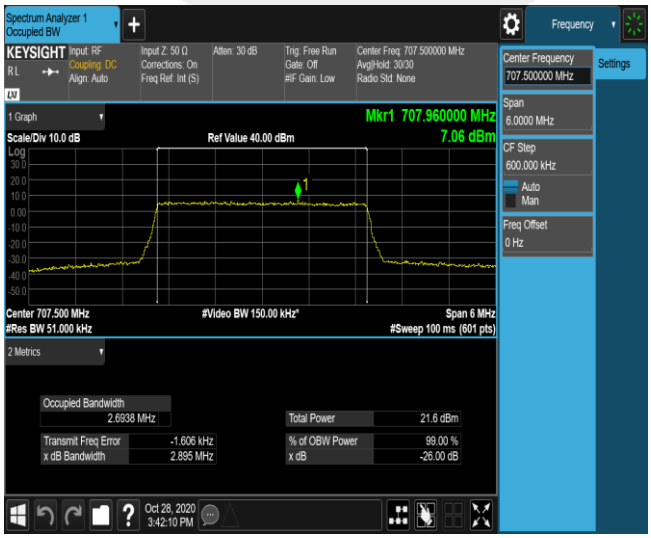
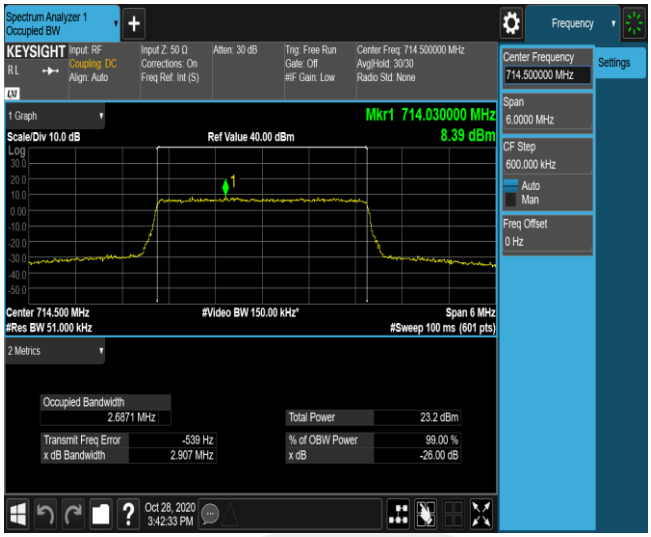
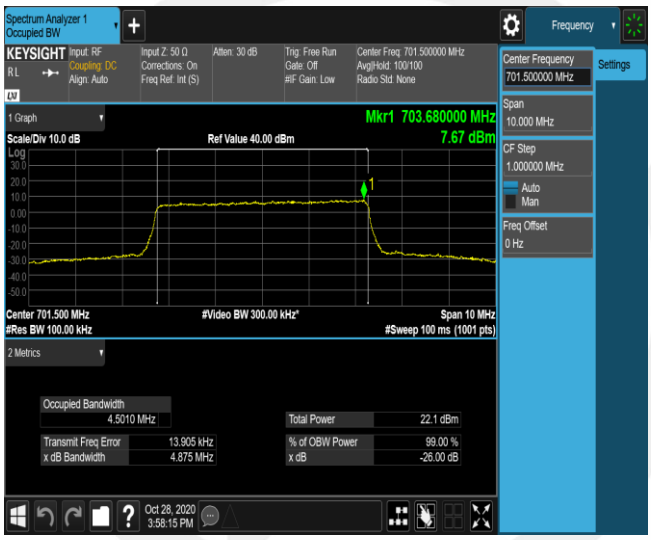


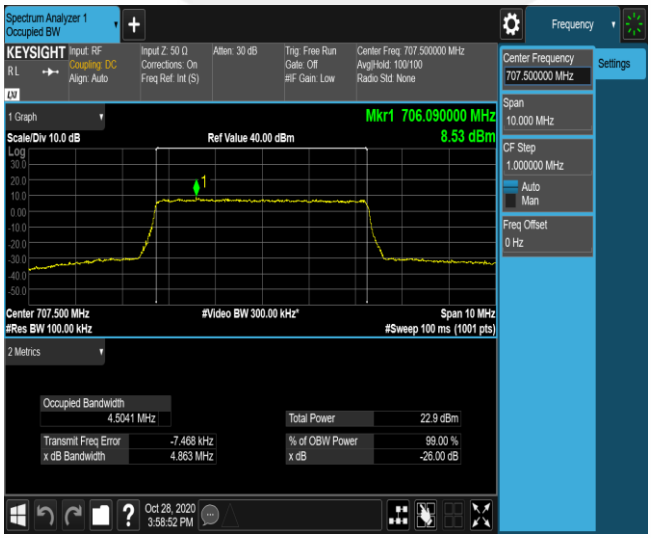
Band12-3MHz-16QAM-23165-15RB#0-2.6871



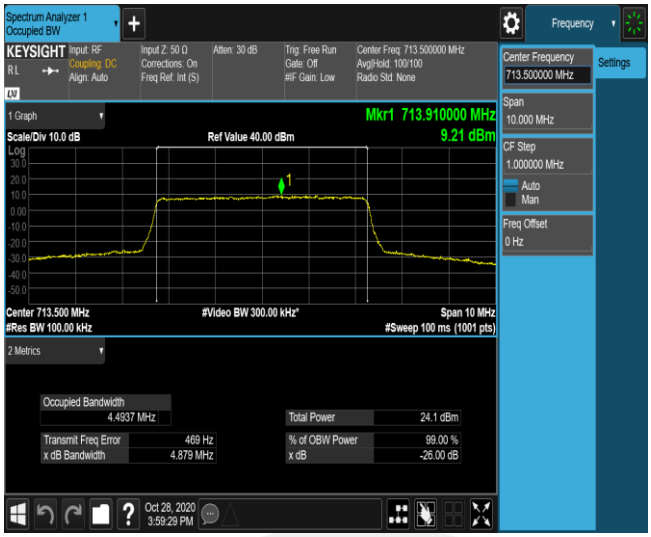
Band12-5MHz-QPSK-23035-25RB#0-4.5010



Band12-5MHz-QPSK-23095-25RB#0-4.5041

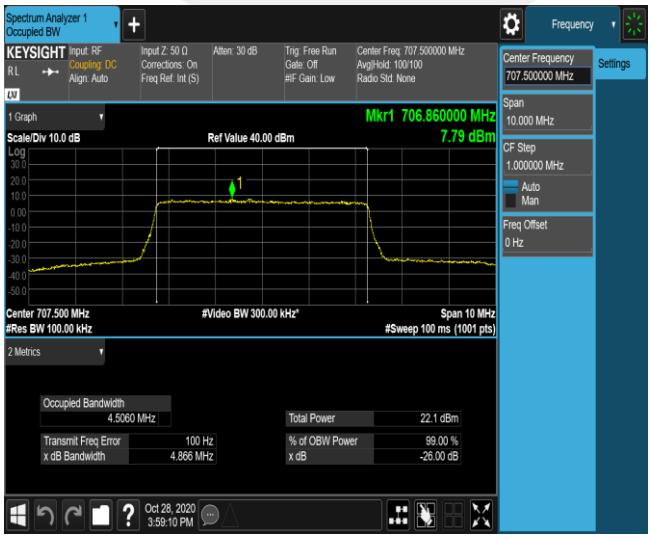


Band12-5MHz-QPSK-23155-25RB#0-4.4937

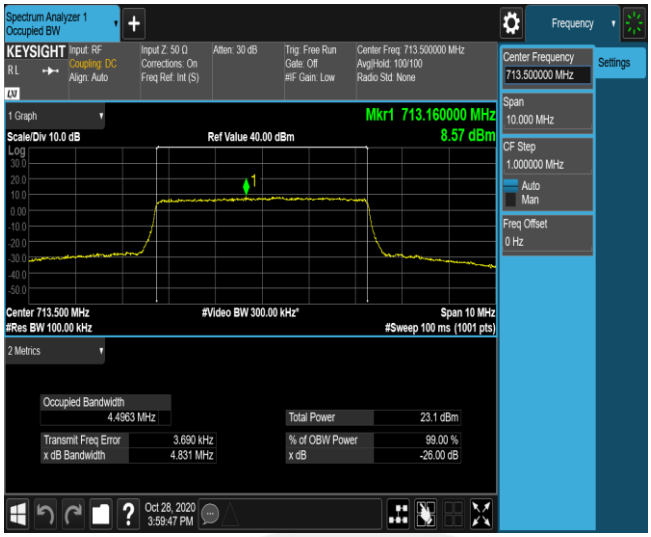


Band12-5MHz-16QAM-23035-25RB#0-4.5016

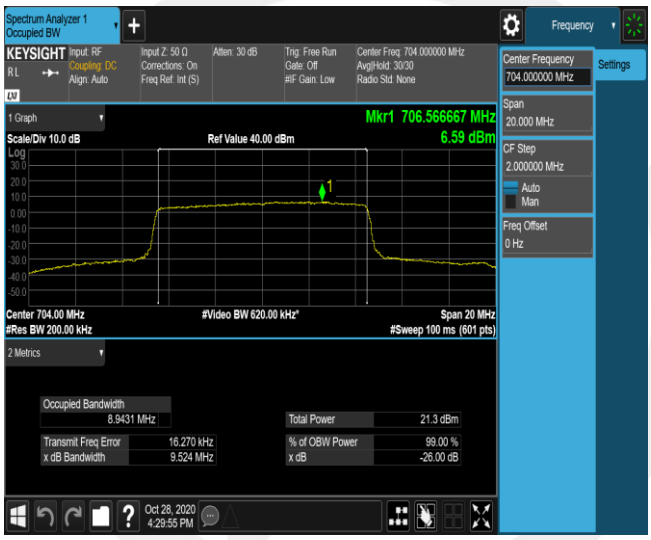
Band12-5MHz-16QAM-23095-25RB#0-4.5060



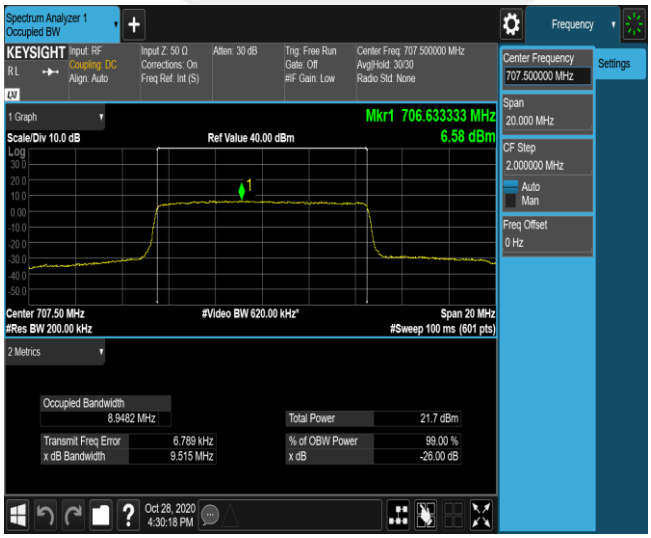
Band12-5MHz-16QAM-23155-25RB#0-4.4963



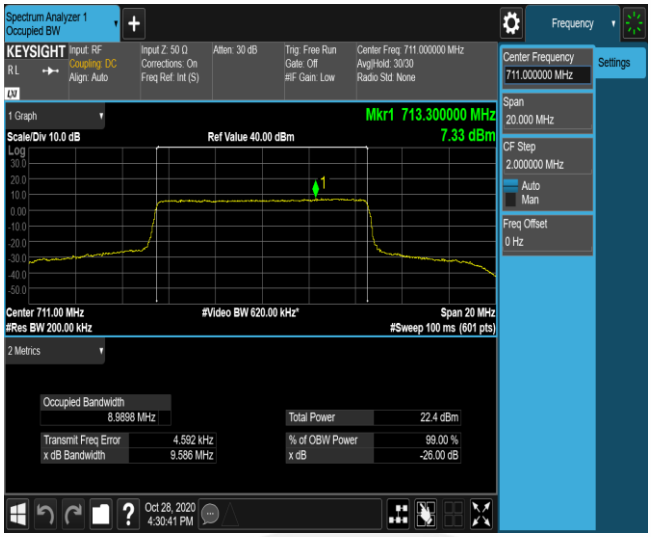
Band12-10MHz-QPSK-23060-50RB#0-8.9431



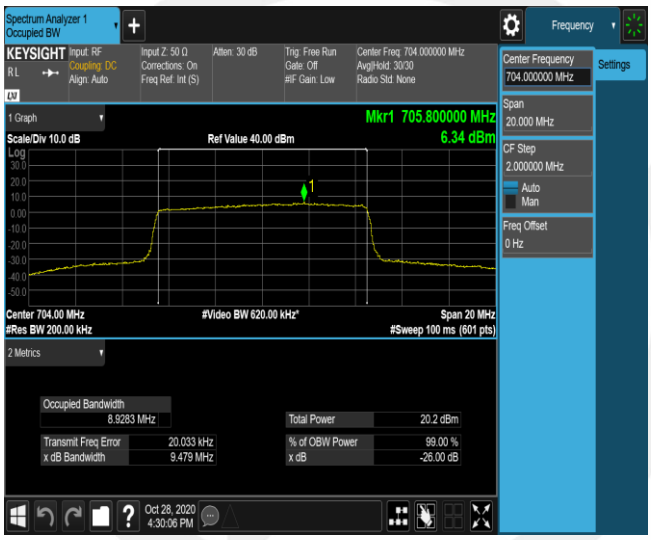
Band12-10MHz-QPSK-23095-50RB#0-8.9482



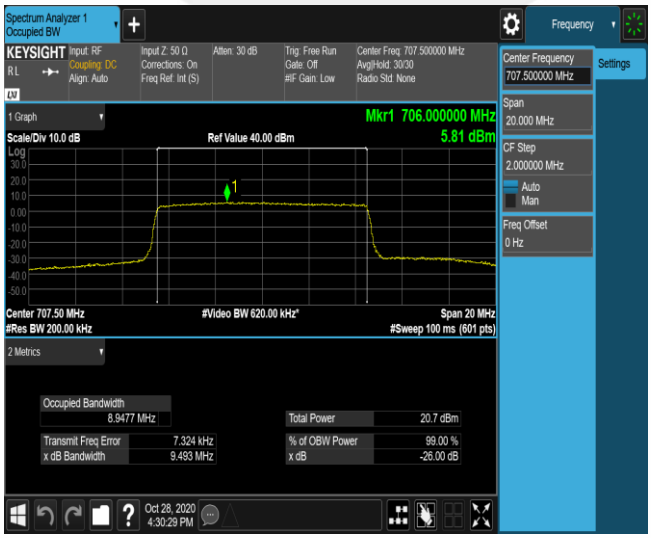
Band12-10MHz-QPSK-23130-50RB#0-8.9898



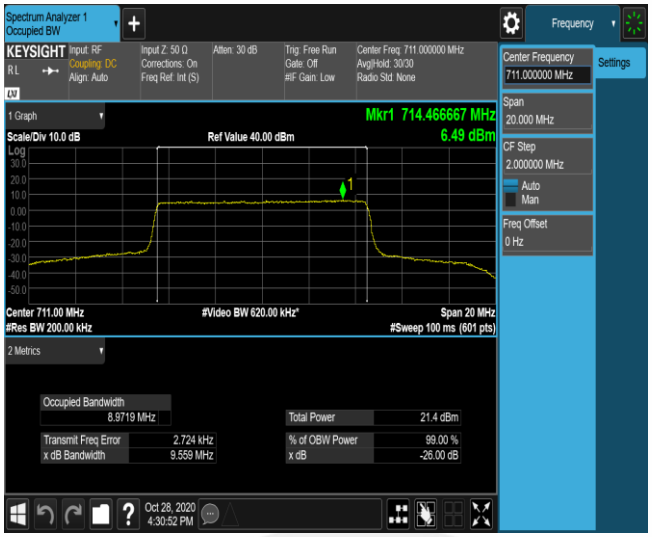
Band12-10MHz-16QAM-23060-50RB#0-8.9283



Band12-10MHz-16QAM-23095-50RB#0-8.9477



Band12-10MHz-16QAM-23130-50RB#0-8.9719


Spectrum Analyzer 1
Occupied BW
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corrections: On
Freq Ref: Int (S)
Atten: 30 dB
Trig: Free Run
Gate: Off
#IF Gain: Low
Center Freq: 711.000000 MHz
Avg|Hold: 30/30
Radio Std: None
Frequency
Settings
Center Frequency
711.000000 MHz
Span
20.000 MHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz
1 Graph
Mkr1 714.466667 MHz
6.49 dBm
Scale/Div 10.0 dB
Ref Value 40.00 dBm
Log
Center 711.00 MHz
#Video BW 620.00 kHz*
Span 20 MHz
#Res BW 200.00 kHz
#Sweep 100 ms (601 pts)
2 Metrics
Occupied Bandwidth
8.9719 MHz
Total Power
21.4 dBm
Transmit Freq Error
2.724 kHz
x dB Bandwidth
9.559 MHz
% of OBW Power
99.00 %
x dB
-26.00 dB
Oct 28, 2020
4:30:52 PM

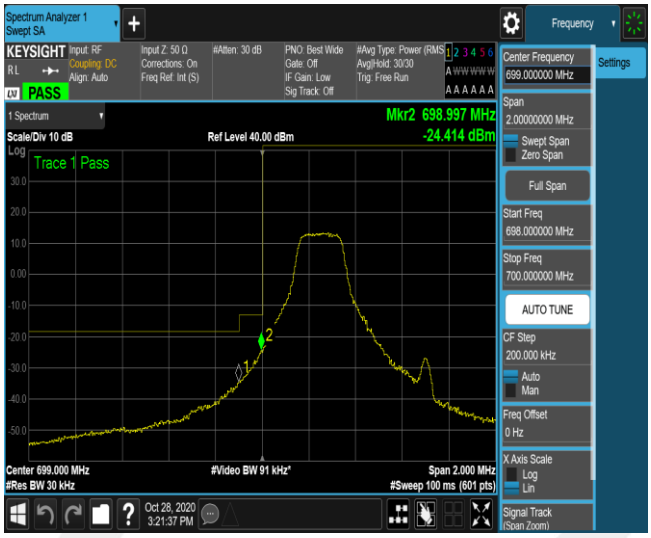
Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	-34.65,-24.41	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	-50.62,-53.15	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	-27.73,-26.52	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	-51.22,-44.58	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	-20.84,-29.82	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	-26.84,-29.55	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	-36.40,-25.78	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	-51.34,-54.04	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	-28.84,-27.52	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	-52.25,-45.05	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	-22.87,-30.93	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	-28.19,-29.89	PASS
Band12	3MHz	QPSK	23025	1RB#0	-32.30,-20.97	PASS
Band12	3MHz	QPSK	23025	1RB#14	-48.45,-55.28	PASS
Band12	3MHz	QPSK	23025	15RB#0	-28.40,-25.52	PASS
Band12	3MHz	QPSK	23165	1RB#0	-52.31,-47.17	PASS
Band12	3MHz	QPSK	23165	1RB#14	-17.90,-29.45	PASS
Band12	3MHz	QPSK	23165	15RB#0	-26.25,-30.40	PASS
Band12	3MHz	16QAM	23025	1RB#0	-34.35,-21.36	PASS
Band12	3MHz	16QAM	23025	1RB#14	-49.93,-55.75	PASS
Band12	3MHz	16QAM	23025	15RB#0	-30.07,-26.95	PASS
Band12	3MHz	16QAM	23165	1RB#0	-52.53,-47.88	PASS
Band12	3MHz	16QAM	23165	1RB#14	-18.69,-30.80	PASS
Band12	3MHz	16QAM	23165	15RB#0	-27.48,-31.99	PASS
Band12	5MHz	QPSK	23035	1RB#0	-21.03	PASS
Band12	5MHz	QPSK	23035	1RB#24	-57.05	PASS
Band12	5MHz	QPSK	23035	25RB#0	-27.10	PASS
Band12	5MHz	QPSK	23155	1RB#0	-53.30	PASS
Band12	5MHz	QPSK	23155	1RB#24	-18.79	PASS
Band12	5MHz	QPSK	23155	25RB#0	-25.90	PASS
Band12	5MHz	16QAM	23035	1RB#0	-21.89	PASS
Band12	5MHz	16QAM	23035	1RB#24	-57.48	PASS
Band12	5MHz	16QAM	23035	25RB#0	-28.28	PASS
Band12	5MHz	16QAM	23155	1RB#0	-54.05	PASS
Band12	5MHz	16QAM	23155	1RB#24	-19.13	PASS

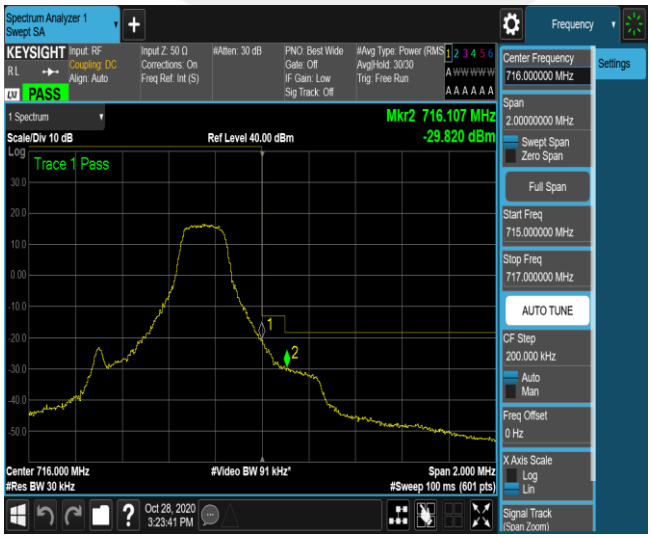
Band12	5MHz	16QAM	23155	25RB#0	-26.85	PASS
Band12	10MHz	QPSK	23060	1RB#0	-34.33,-28.31	PASS
Band12	10MHz	QPSK	23060	1RB#49	-53.93,-51.72	PASS
Band12	10MHz	QPSK	23060	50RB#0	-30.61,-29.91	PASS
Band12	10MHz	QPSK	23130	1RB#0	-50.81,-52.54	PASS
Band12	10MHz	QPSK	23130	1RB#49	-26.07,-33.21	PASS
Band12	10MHz	QPSK	23130	50RB#0	-27.16,-27.98	PASS
Band12	10MHz	16QAM	23060	1RB#0	-35.73,-29.45	PASS
Band12	10MHz	16QAM	23060	1RB#49	-54.70,-52.37	PASS
Band12	10MHz	16QAM	23060	50RB#0	-32.28,-31.58	PASS
Band12	10MHz	16QAM	23130	1RB#0	-51.21,-52.62	PASS
Band12	10MHz	16QAM	23130	1RB#49	-27.06,-34.69	PASS
Band12	10MHz	16QAM	23130	50RB#0	-28.38,-29.37	PASS

Test Graphs

Band12-1.4MHz-QPSK-23017-1RB#0

Band12-1.4MHz-QPSK-23017-1RB#5
Band12-1.4MHz-QPSK-23017-6RB#0

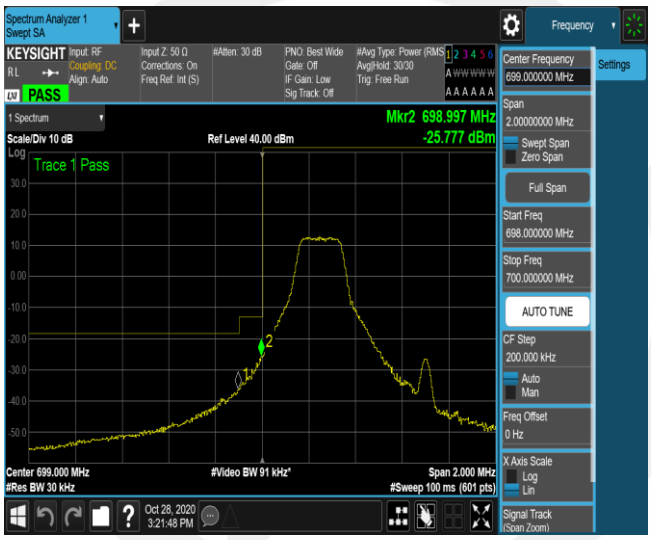
Band12-1.4MHz-QPSK-23173-1RB#0

Band12-1.4MHz-QPSK-23173-1RB#5



Band12-1.4MHz-QPSK-23173-6RB#0

Band12-1.4MHz-16QAM-23017-1RB#0



Band12-1.4MHz-16QAM-23017-1RB#5

Band12-1.4MHz-16QAM-23017-6RB#0