

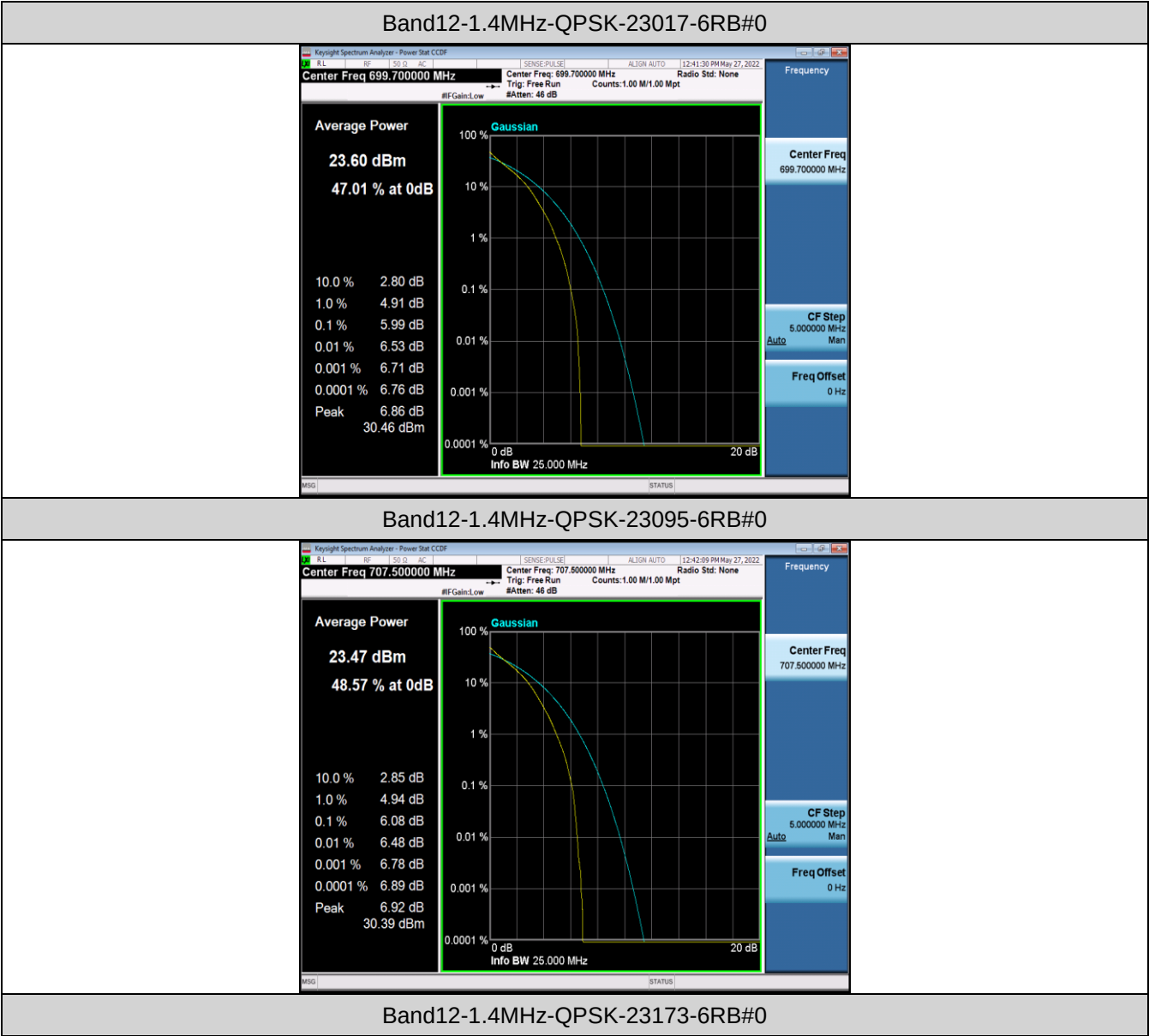
FCC LTE Band12 Test Data

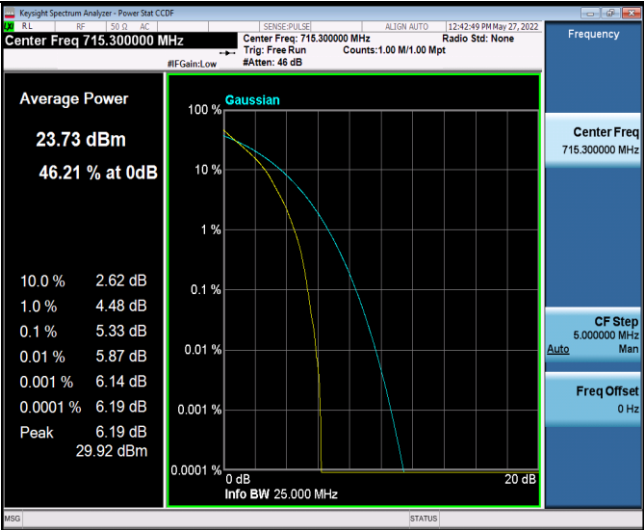
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

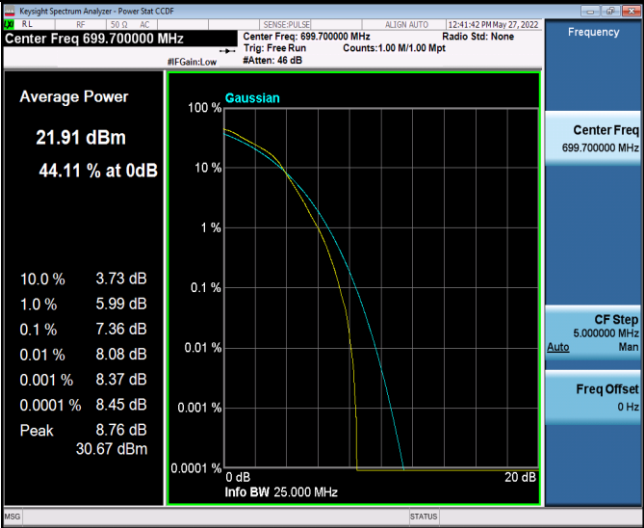
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	5.99	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	6.08	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	5.33	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	7.36	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	7.45	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	7.75	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	5.98	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	5.95	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	5.84	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	7.57	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	7.45	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	7.40	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	6.14	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	6.11	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	5.84	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	8.03	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	7.90	13	PASS
Band12	5MHz	16QAM	23155	25RB#0	7.83	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	7.23	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	6.24	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	6.10	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	7.96	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.32	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	7.97	13	PASS

Test Graphs

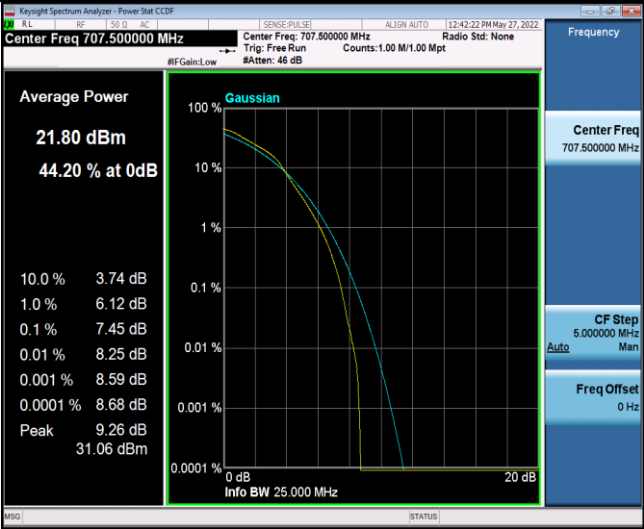




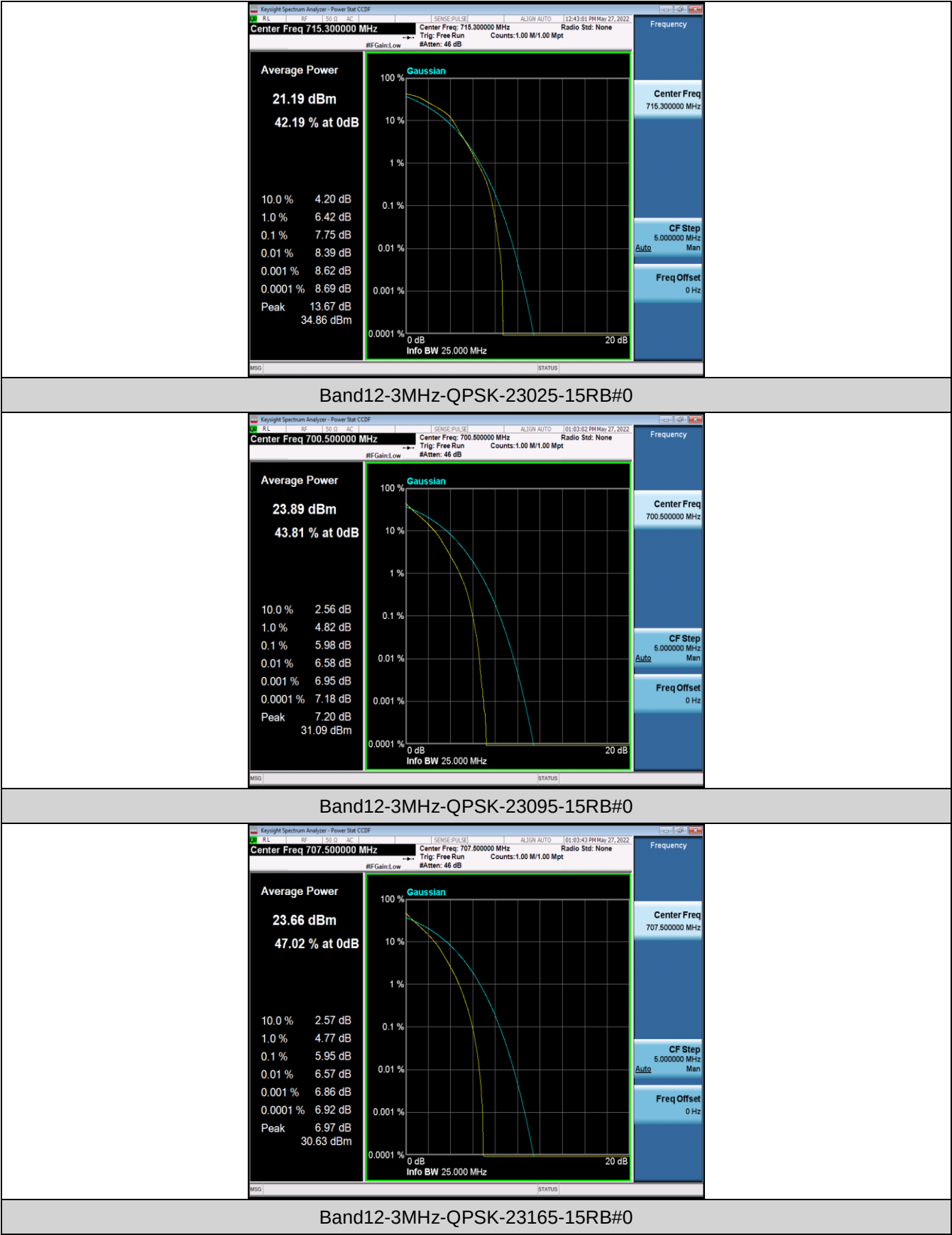
Band12-1.4MHz-16QAM-23017-6RB#0



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



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



KeySight Spectrum Analyzer - Power Stat CCDF

Center Freq 700.500000 MHz

Center Freq: 700.500000 MHz

Trig: Free Run

Counts: 1.00 M/1.00 Mpt

Radio Std: None

01:03:43 PM May 27, 2022

Frequency

Center Freq
700.500000 MHz

CF Step
5.000000 MHz
Auto
Man

Freq Offset
0 Hz

Average Power

23.89 dBm

43.81 % at 0dB

10.0 % 2.56 dB

1.0 % 4.82 dB

0.1 % 5.98 dB

0.01 % 6.58 dB

0.001 % 6.95 dB

0.0001 % 7.18 dB

Peak 7.20 dB

31.09 dBm

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

0.0001 %

0 dB

20 dB

Info BW 25.000 MHz

Band12-3MHz-QPSK-23095-15RB#0

KeySight Spectrum Analyzer - Power Stat CCDF

Center Freq 707.500000 MHz

Center Freq: 707.500000 MHz

Trig: Free Run

Counts: 1.00 M/1.00 Mpt

Radio Std: None

01:03:43 PM May 27, 2022

Frequency

Center Freq
707.500000 MHz

CF Step
5.000000 MHz
Auto
Man

Freq Offset
0 Hz

Average Power

23.66 dBm

47.02 % at 0dB

10.0 % 2.57 dB

1.0 % 4.77 dB

0.1 % 5.95 dB

0.01 % 6.57 dB

0.001 % 6.86 dB

0.0001 % 6.92 dB

Peak 6.97 dB

30.63 dBm

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

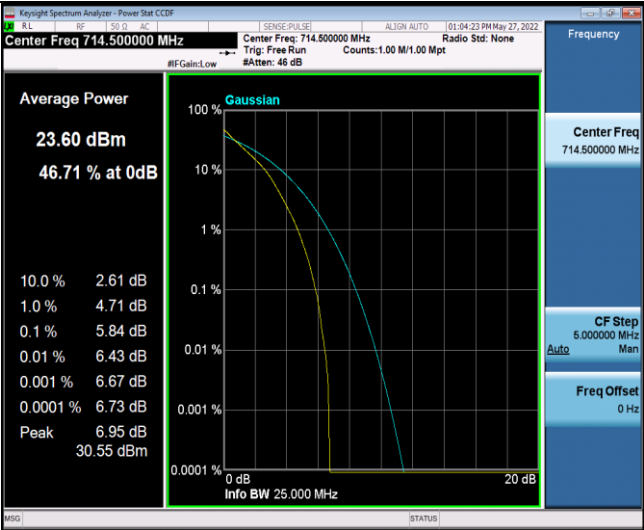
0.0001 %

0 dB

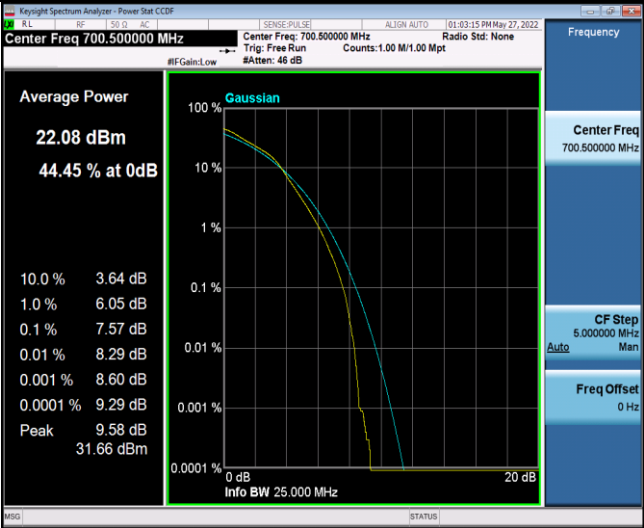
20 dB

Info BW 25.000 MHz

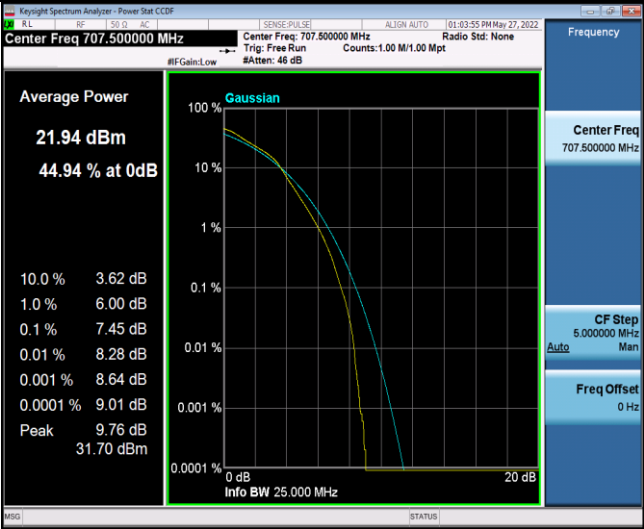
Band12-3MHz-QPSK-23165-15RB#0



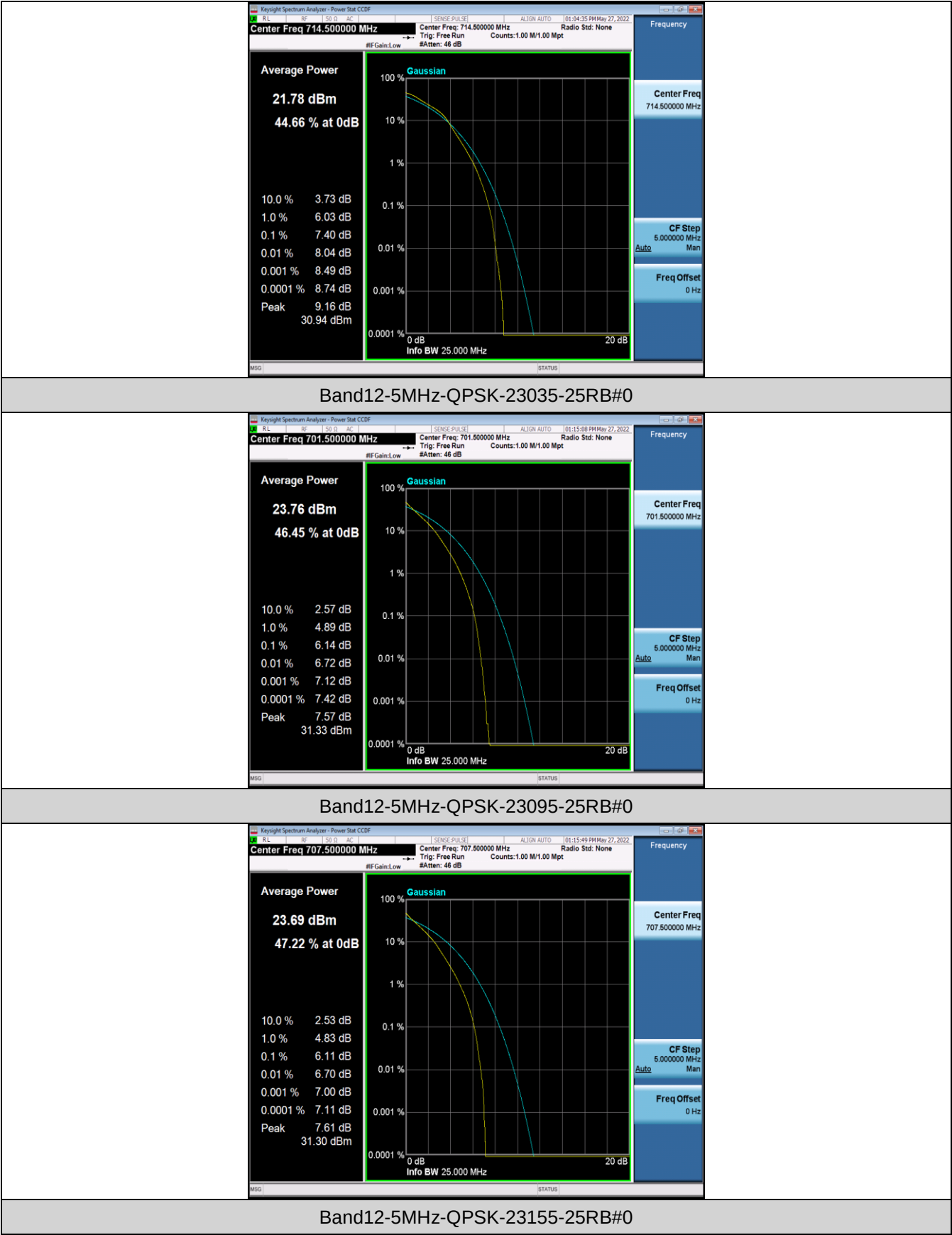
Band12-3MHz-16QAM-23025-15RB#0



Band12-3MHz-16QAM-23095-15RB#0



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



KeySight Spectrum Analyzer - Power Stat CCDF

Center Freq 701.500000 MHz

Center Freq: 701.500000 MHz

Trig: Free Run

Counts: 1.00 M/1.00 Mpt

Radio Std: None

Align: AUTO

01:15:59 PM May 27, 2022

Frequency

Center Freq 701.500000 MHz

CF Step 5.000000 MHz

Auto

Man

Freq Offset 0 Hz

Average Power

23.76 dBm

46.45 % at 0dB

10.0 % 2.57 dB

1.0 % 4.89 dB

0.1 % 6.14 dB

0.01 % 6.72 dB

0.001 % 7.12 dB

0.0001 % 7.42 dB

Peak 7.57 dBm

31.33 dBm

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

0.0001 %

0 dB

20 dB

Info BW 25.000 MHz

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

KeySight Spectrum Analyzer - Power Stat CCDF

Center Freq 707.500000 MHz

Center Freq: 707.500000 MHz

Trig: Free Run

Counts: 1.00 M/1.00 Mpt

Radio Std: None

Align: AUTO

01:15:49 PM May 27, 2022

Frequency

Center Freq 707.500000 MHz

CF Step 5.000000 MHz

Auto

Man

Freq Offset 0 Hz

Average Power

23.69 dBm

47.22 % at 0dB

10.0 % 2.53 dB

1.0 % 4.83 dB

0.1 % 6.11 dB

0.01 % 6.70 dB

0.001 % 7.00 dB

0.0001 % 7.11 dB

Peak 7.61 dBm

31.30 dBm

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

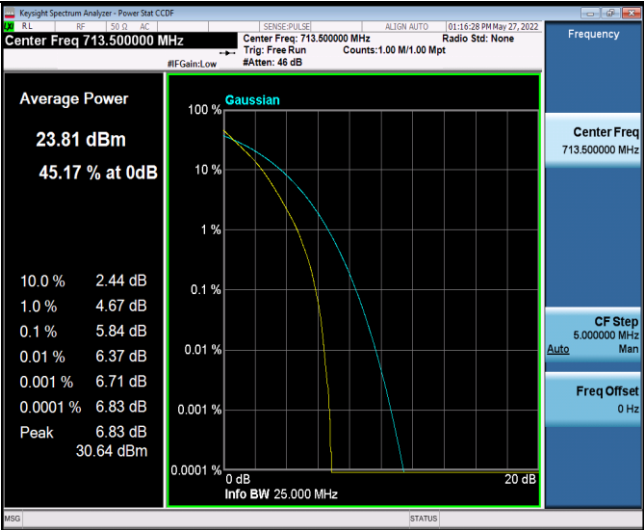
0.0001 %

0 dB

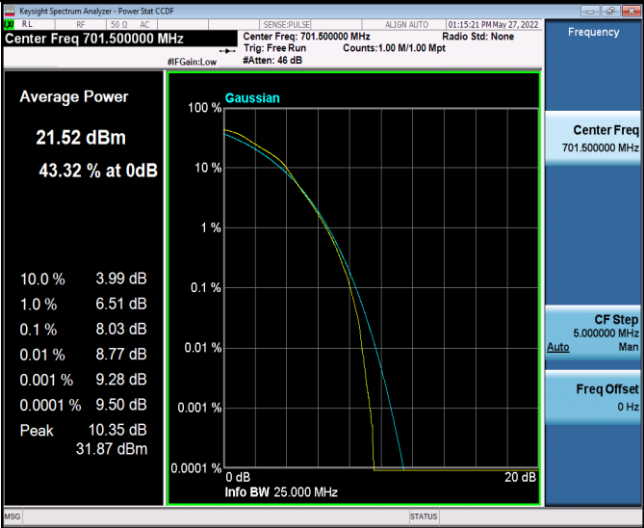
20 dB

Info BW 25.000 MHz

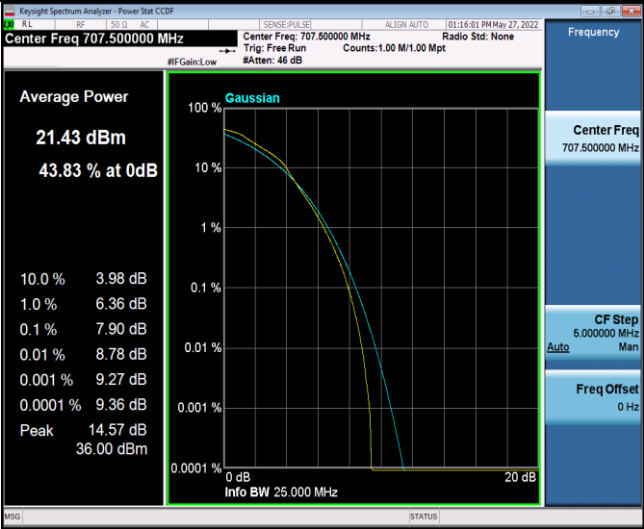
Band12-5MHz-QPSK-23155-25RB#0



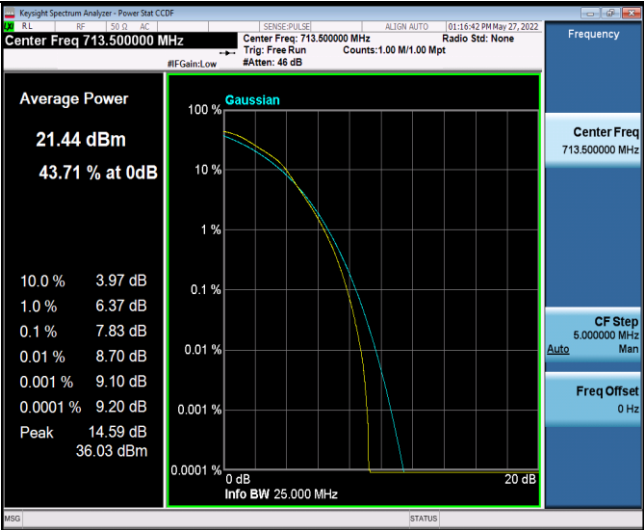
Band12-5MHz-16QAM-23035-25RB#0



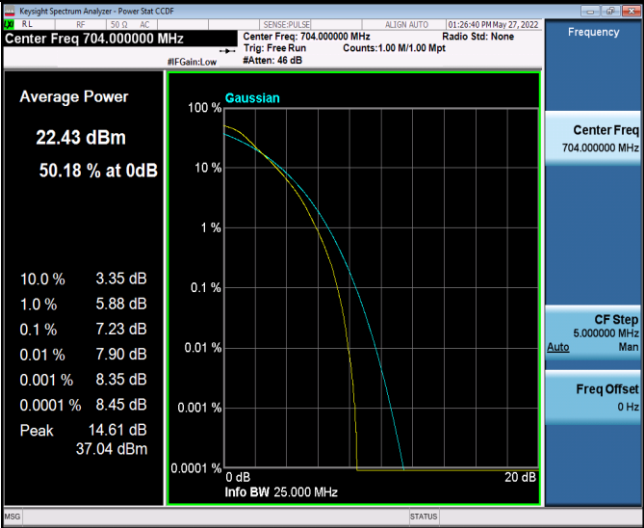
Band12-5MHz-16QAM-23095-25RB#0



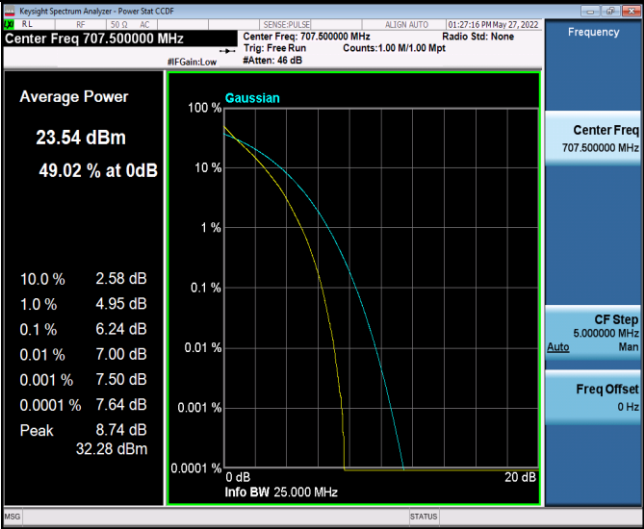
Band12-5MHz-16QAM-23155-25RB#0



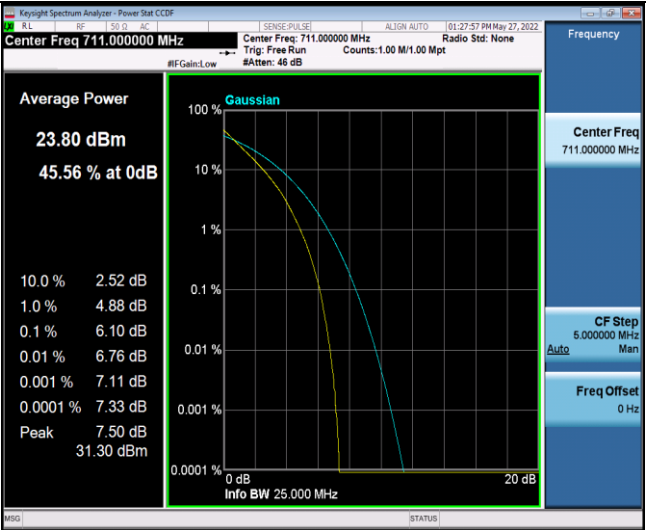
Band12-10MHz-QPSK-23060-50RB#0



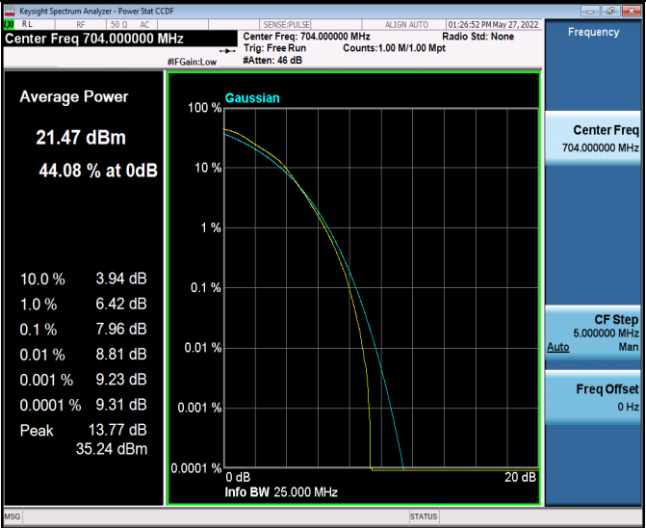
Band12-10MHz-QPSK-23095-50RB#0



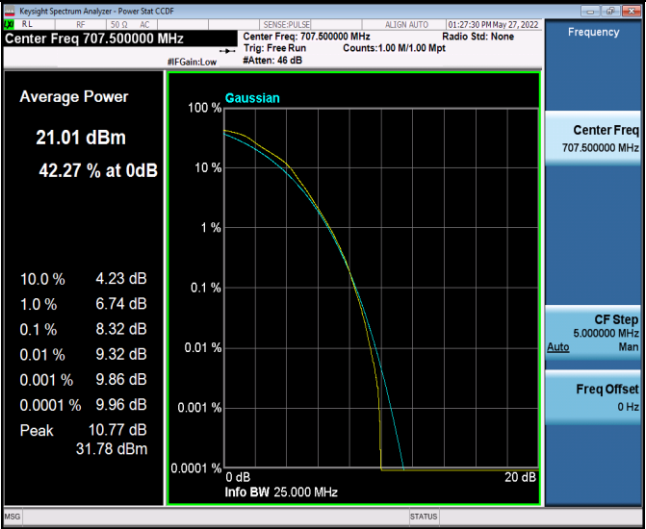
Band12-10MHz-QPSK-23130-50RB#0



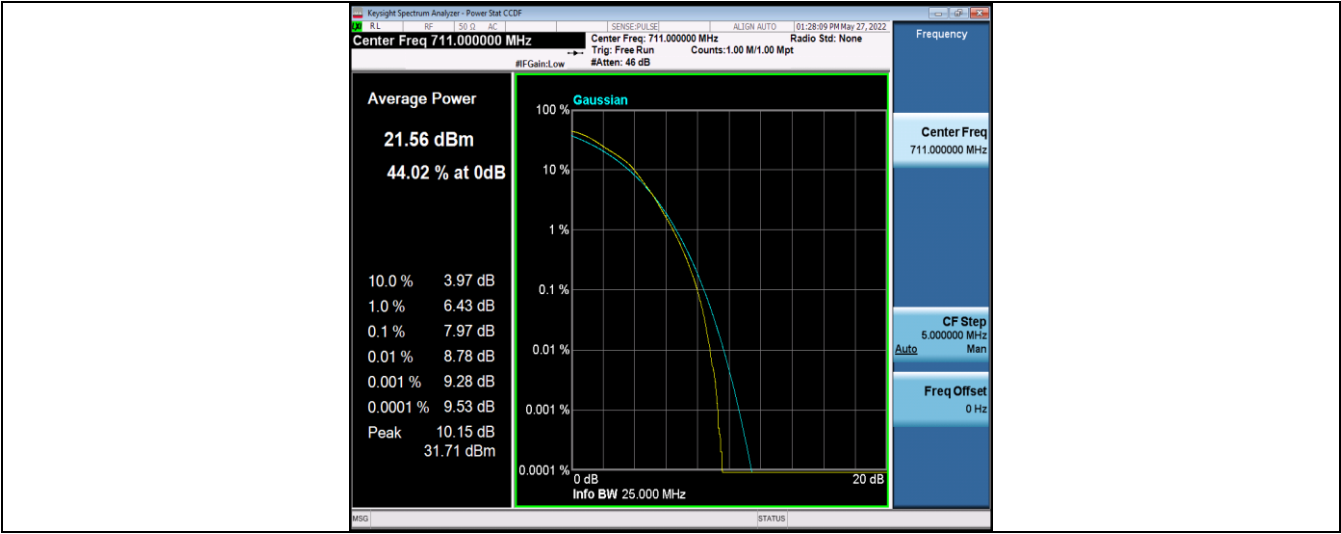
Band12-10MHz-16QAM-23060-50RB#0



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



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



Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

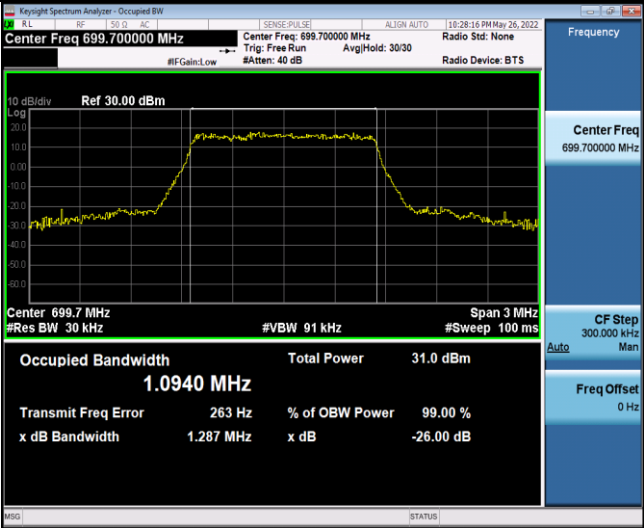
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0973	1.283	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0884	1.274	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0977	1.273	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0940	1.287	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0963	1.296	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0960	1.282	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6938	2.889	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6864	2.882	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.6832	2.908	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6882	2.916	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6811	2.913	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6819	2.902	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.5358	5.386	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.5046	5.140	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.5164	5.193	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.5241	5.281	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.5250	5.195	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.5245	5.258	PASS
Band12	10MHz	QPSK	23060	50RB#0	9.0074	10.42	PASS
Band12	10MHz	QPSK	23095	50RB#0	9.0097	10.12	PASS
Band12	10MHz	QPSK	23130	50RB#0	9.0132	10.14	PASS
Band12	10MHz	16QAM	23060	50RB#0	9.0092	10.04	PASS
Band12	10MHz	16QAM	23095	50RB#0	9.0106	10.12	PASS
Band12	10MHz	16QAM	23130	50RB#0	9.0276	10.08	PASS

Test Graphs

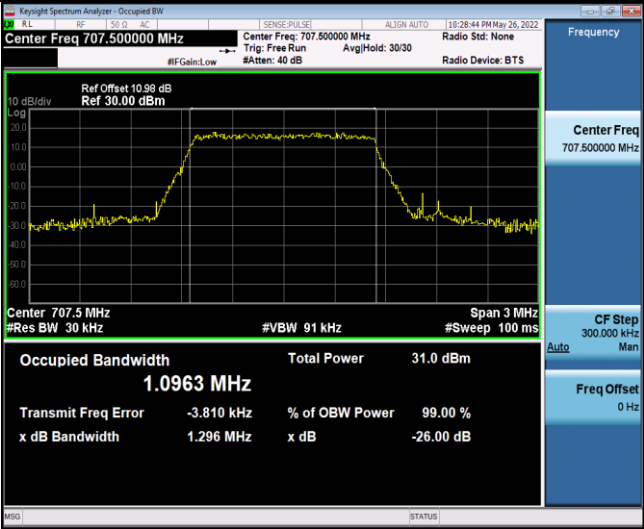




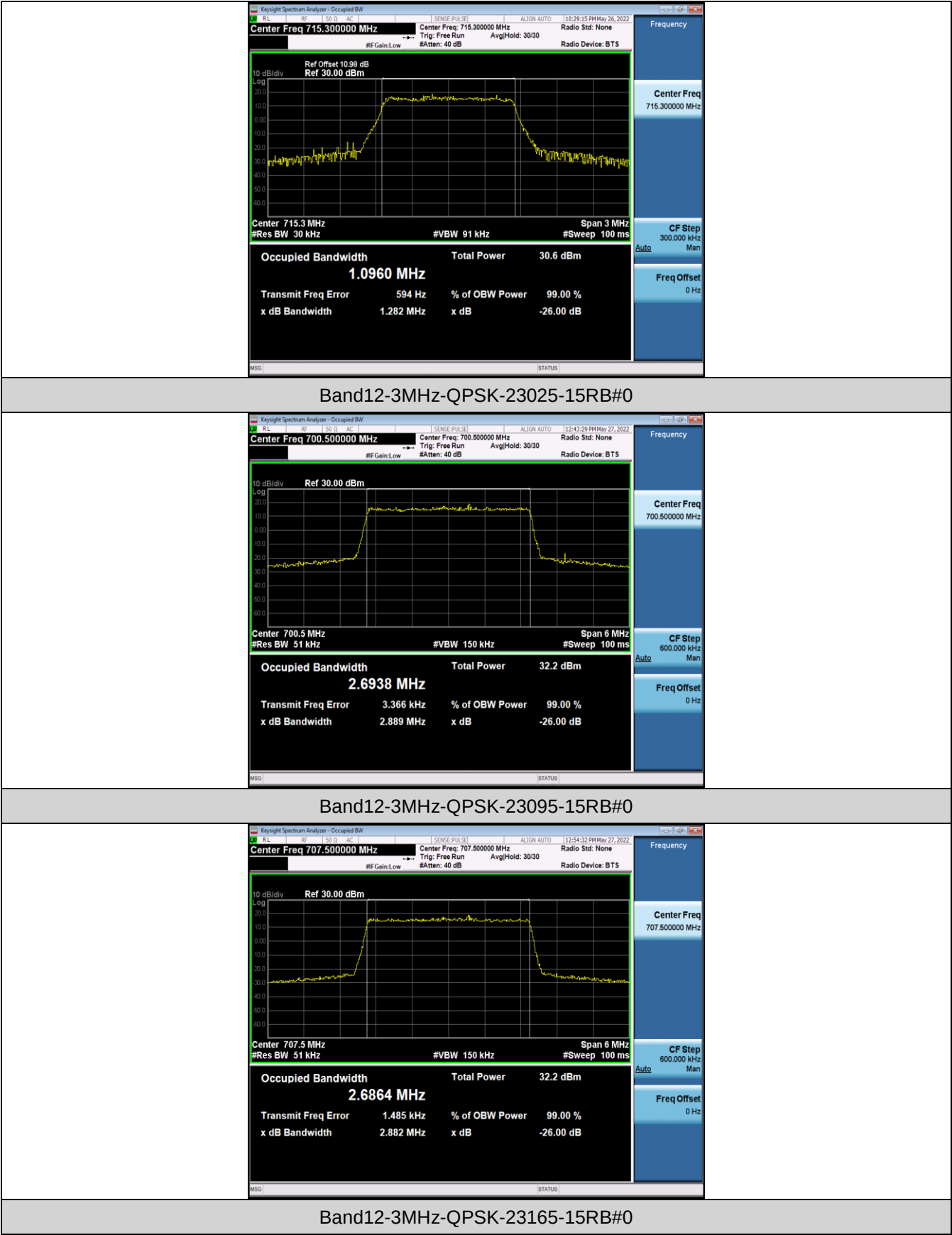
Band12-1.4MHz-16QAM-23017-6RB#0

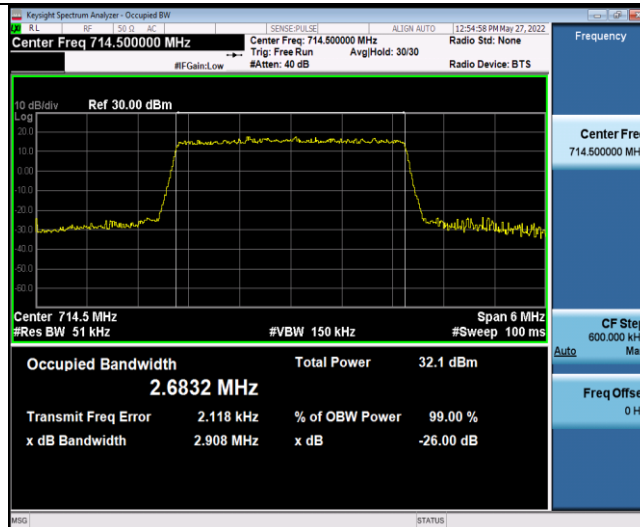


Band12-1.4MHz-16QAM-23095-6RB#0

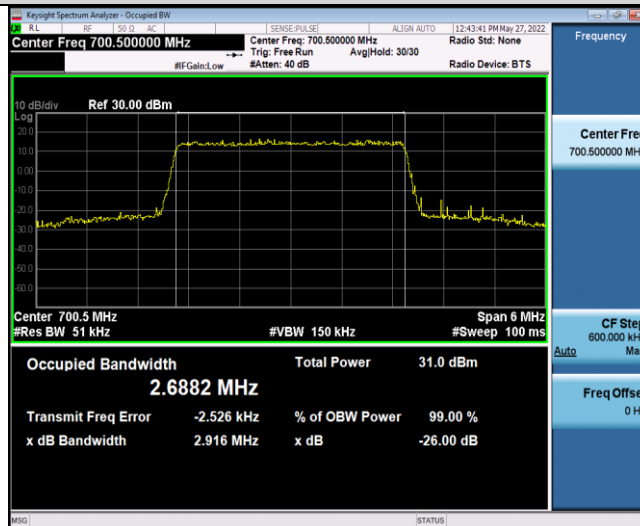


Band12-1.4MHz-16QAM-23173-6RB#0

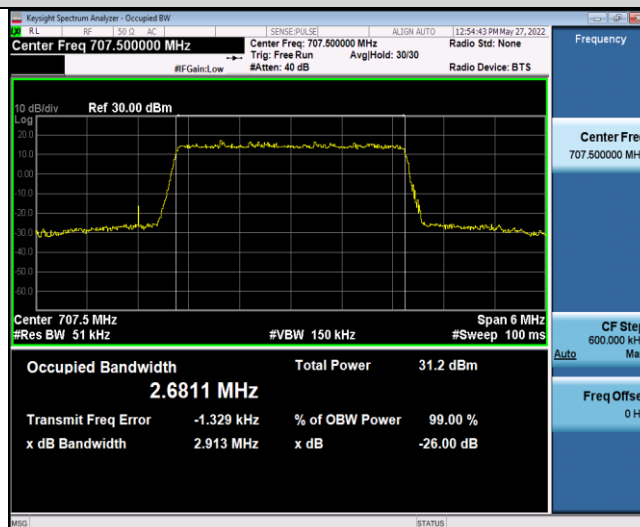




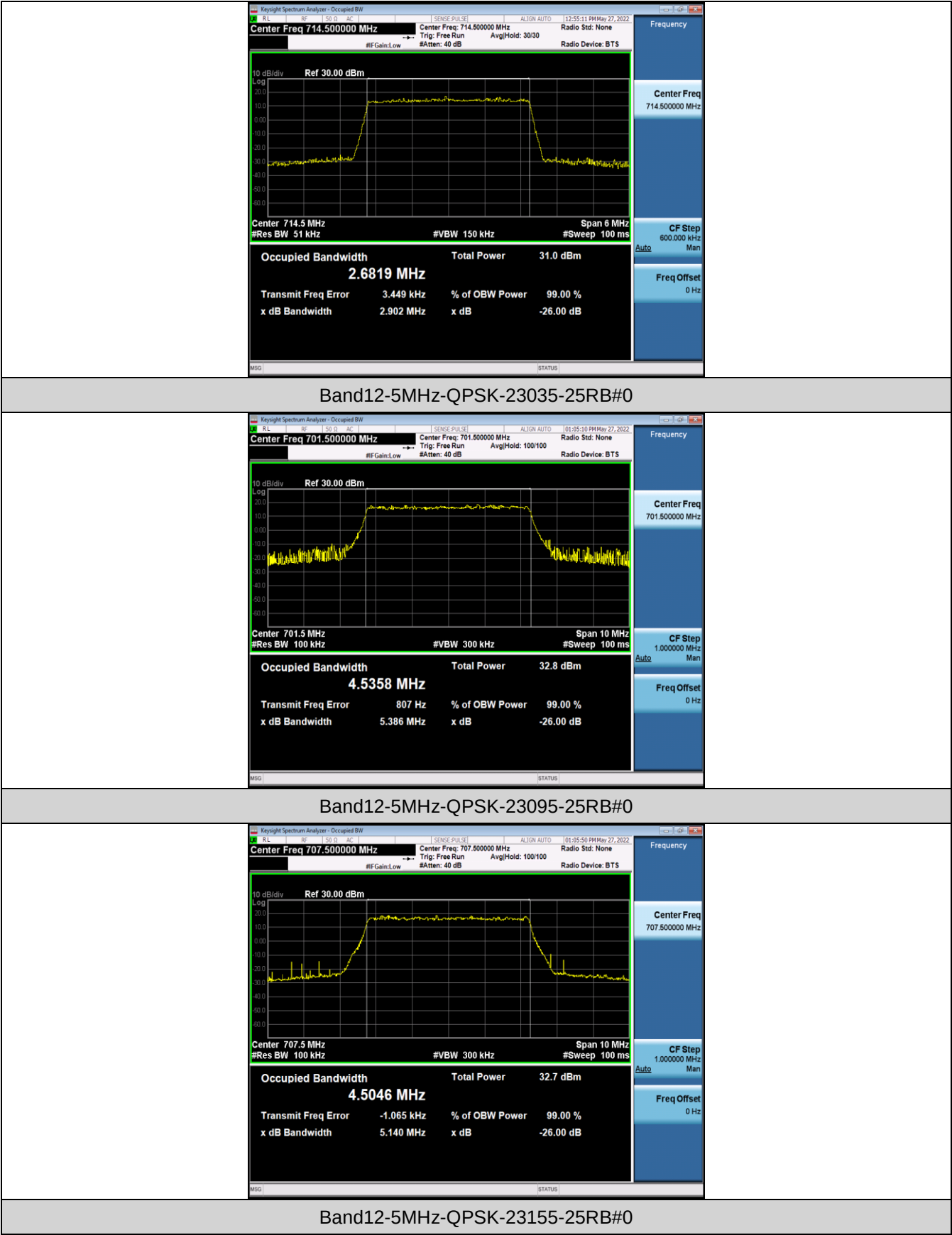
Band12-3MHz-16QAM-23025-15RB#0

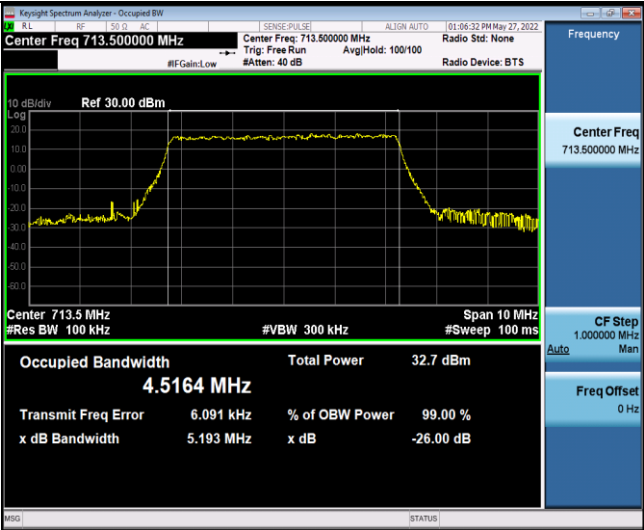


Band12-3MHz-16QAM-23095-15RB#0

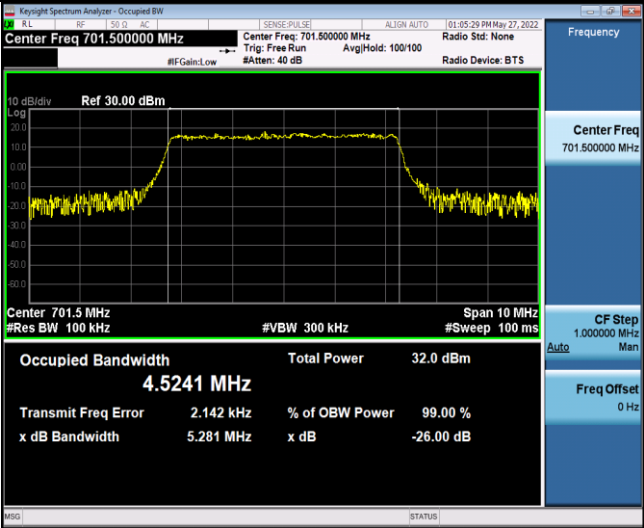


Band12-3MHz-16QAM-23165-15RB#0





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



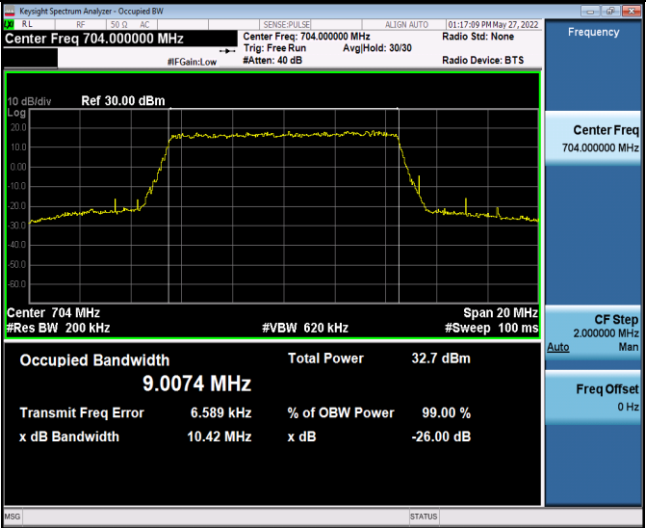
Band12-5MHz-16QAM-23095-25RB#0



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



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



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



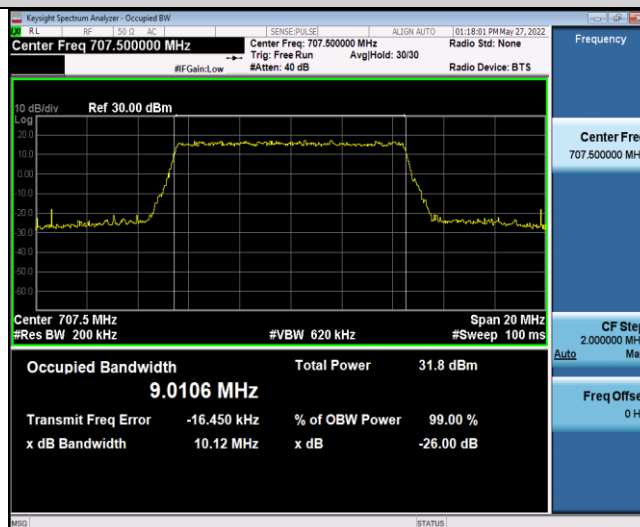
Band12-10MHz-QPSK-23130-50RB#0



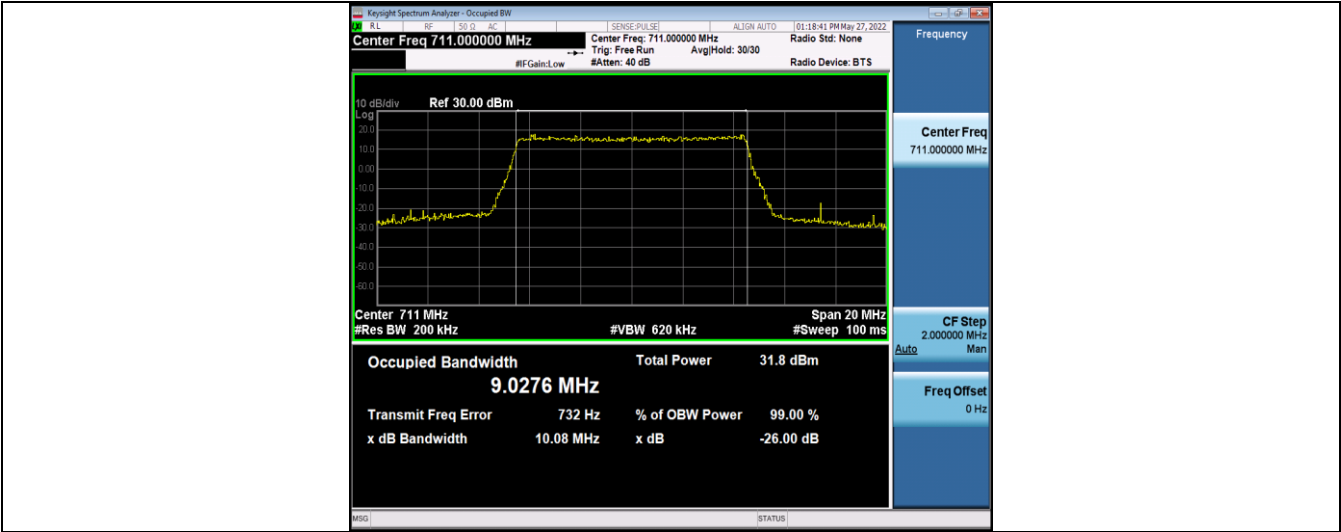
Band12-10MHz-16QAM-23060-50RB#0



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



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

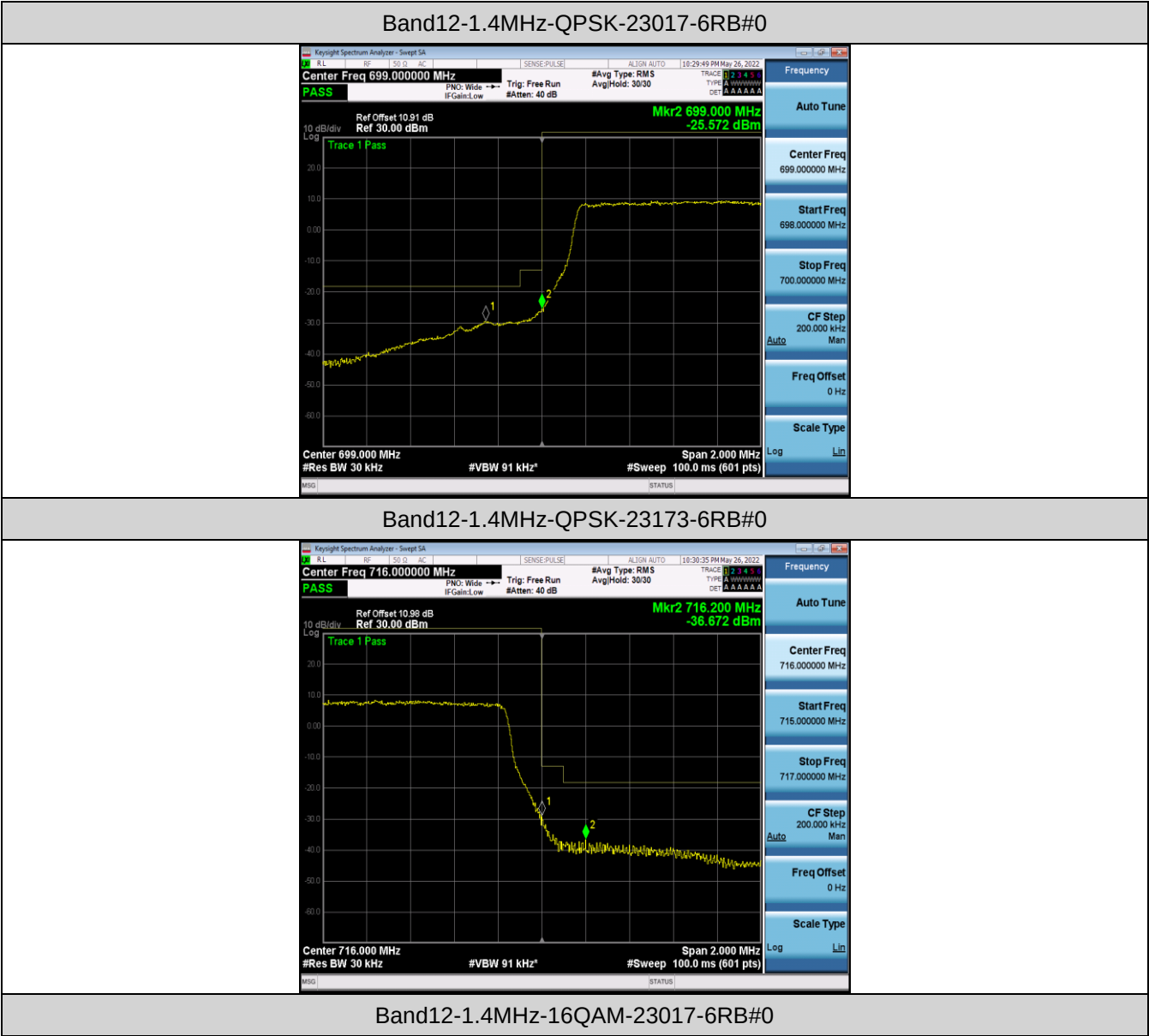


Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	-29.53,-25.57	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	-29.24,-36.67	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	-32.00,-29.14	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	-29.60,-35.08	PASS
Band12	3MHz	QPSK	23025	15RB#0	-29.04,-26.87	PASS
Band12	3MHz	QPSK	23165	15RB#0	-31.00,-36.16	PASS
Band12	3MHz	16QAM	23025	15RB#0	-31.57,-29.49	PASS
Band12	3MHz	16QAM	23165	15RB#0	-31.18,-36.66	PASS
Band12	5MHz	QPSK	23035	25RB#0	-22.88	PASS
Band12	5MHz	QPSK	23155	25RB#0	-23.29	PASS
Band12	5MHz	16QAM	23035	25RB#0	-22.64	PASS
Band12	5MHz	16QAM	23155	25RB#0	-22.11	PASS
Band12	10MHz	QPSK	23060	50RB#0	-26.80,-25.10	PASS
Band12	10MHz	QPSK	23130	50RB#0	-25.95,-28.45	PASS
Band12	10MHz	16QAM	23060	50RB#0	-29.59,-28.15	PASS
Band12	10MHz	16QAM	23130	50RB#0	-26.97,-28.94	PASS

Test Graphs







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

KeySight Spectrum Analyzer - Swept SA

Center Freq 716.000000 MHz

PASS

Ref Offset 10.98 dB

Ref 30.00 dBm

Trace 1 Pass

Center 716.000 MHz

#Res BW 51 kHz

#VBW 150 kHz

Span 2.000 MHz

#Sweep 100.0 ms (601 pts)

SENSE:PULSE

Trig: Free Run

#Atten: 40 dB

#Avg Type: RMS

Avg/Hold: 30/30

12:56:43 PM May 27, 2022

Trace 1 2.4.3

TYPE A

DEF AAAAAA

10 dB/div

Log

Mkr2 716.127 MHz

-36.661 dBm

1

2

Auto Tune

Center Freq

716.000000 MHz

Start Freq

715.000000 MHz

Stop Freq

717.000000 MHz

CF Step

200.000 kHz

Man

Auto

Freq Offset

0 Hz

Scale Type

Log

Lin

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