

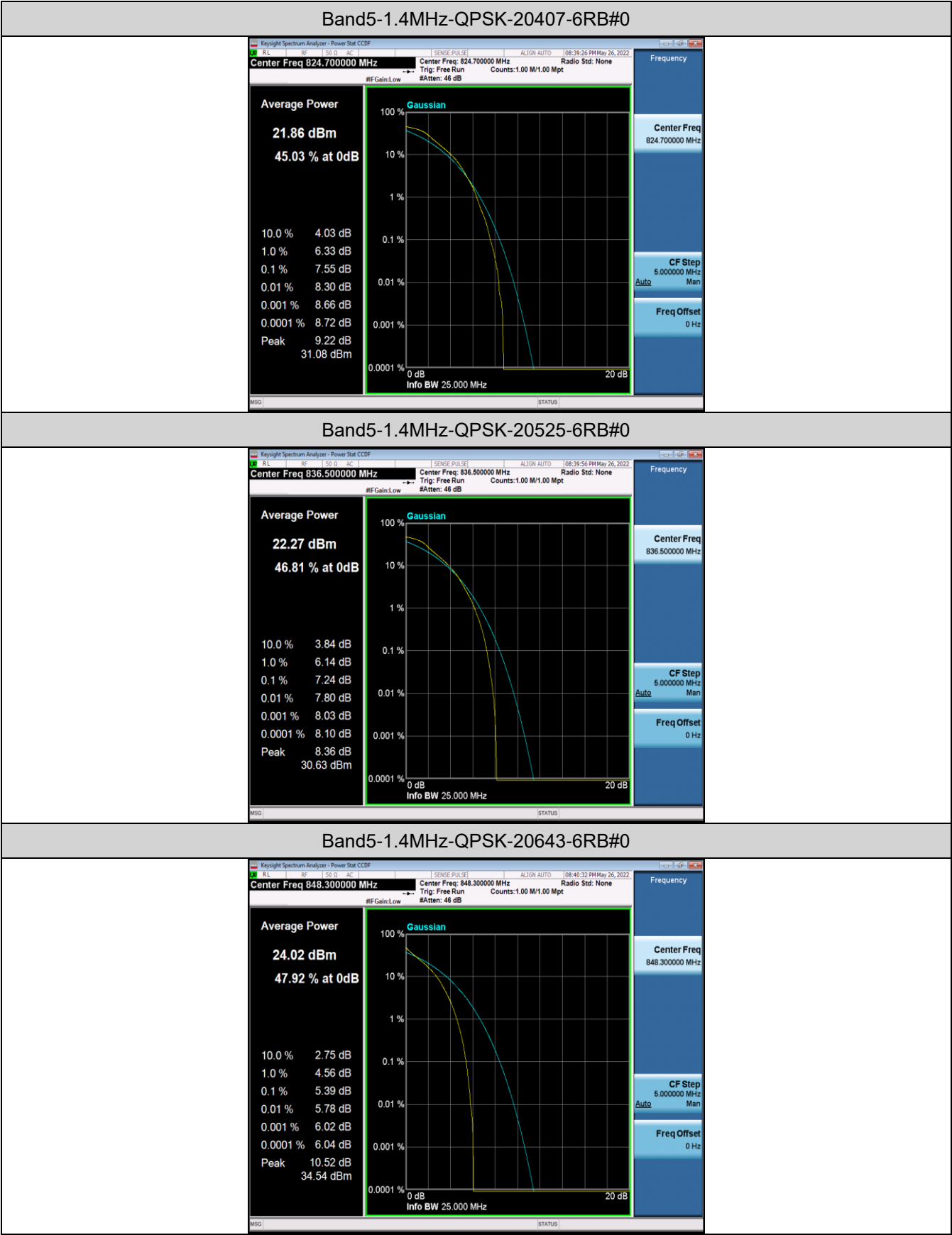
FCC LTE Band5 Test Data

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

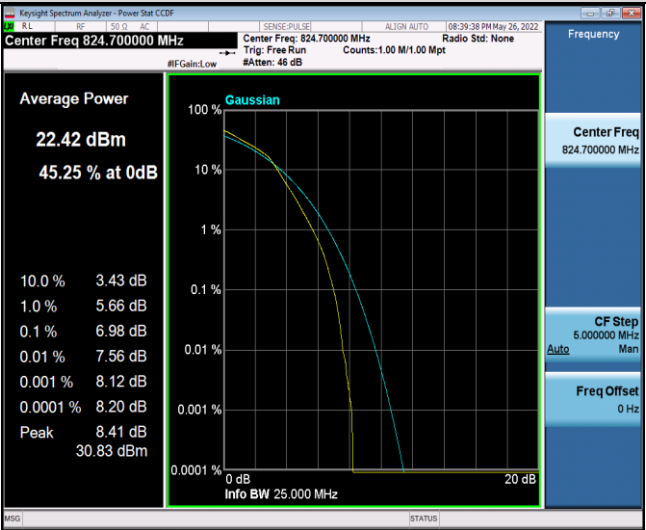
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	7.55	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	7.24	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	5.39	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	6.98	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	7.45	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	7.96	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	5.89	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	5.77	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	5.39	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	7.50	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	7.91	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	7.59	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	7.46	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	7.03	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	5.45	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	6.88	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	7.90	13	PASS
Band5	5MHz	16QAM	20625	25RB#0	7.06	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.80	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.67	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.88	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	7.49	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	7.33	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	6.32	13	PASS

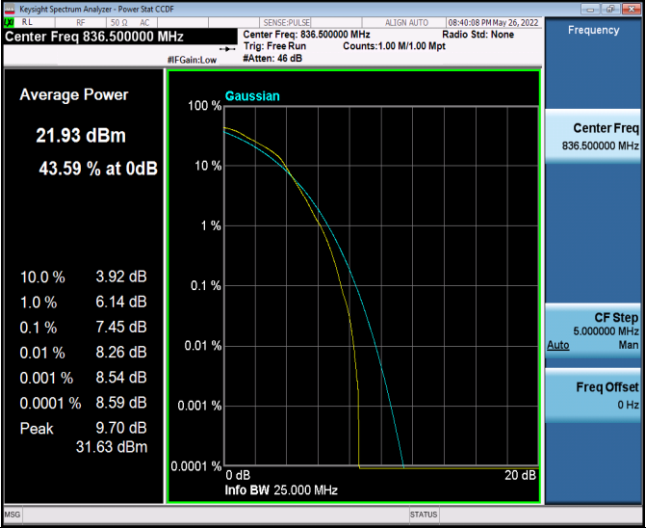
Test Graphs



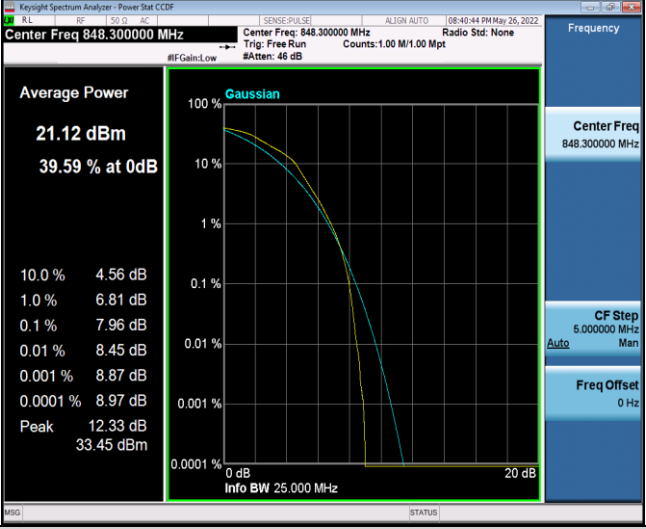
Band5-1.4MHz-16QAM-20407-6RB#0



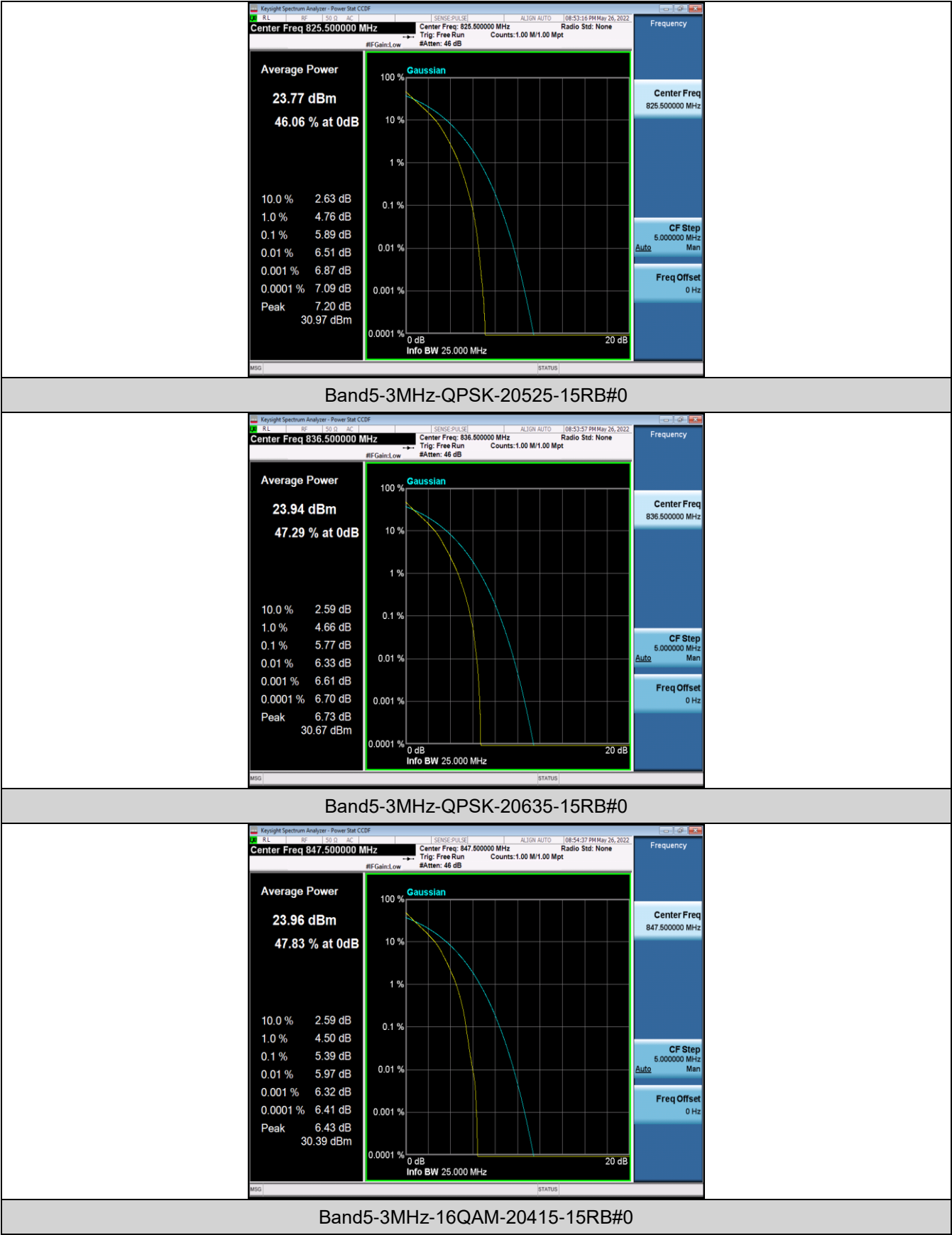
Band5-1.4MHz-16QAM-20525-6RB#0



Band5-1.4MHz-16QAM-20643-6RB#0



Band5-3MHz-QPSK-20415-15RB#0



Band5-3MHz-QPSK-20635-15RB#0

KeySight Spectrum Analyzer - Power Stat CCDF

Center Freq 847.500000 MHz

Center Freq: 847.500000 MHz

Trig: Free Run

Counts: 1.00 M/1.00 Mpt

Radio Std: None

Align: AUTO

18:54:37 PM May 26, 2022

Frequency

Center Freq 847.500000 MHz

CF Step 5.000000 MHz

Auto

Man

Freq Offset 0 Hz

Average Power

23.96 dBm

47.83 % at 0dB

10.0 % 2.59 dB

1.0 % 4.50 dB

0.1 % 5.39 dB

0.01 % 5.97 dB

0.001 % 6.32 dB

0.0001 % 6.41 dB

Peak 6.43 dB

30.39 dBm

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

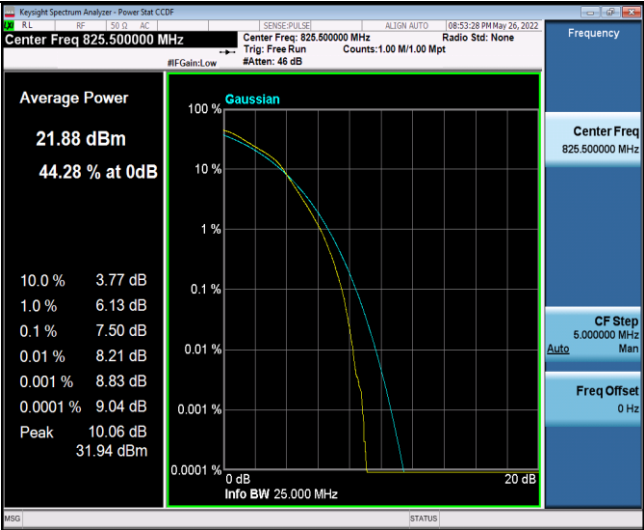
0.0001 %

0 dB

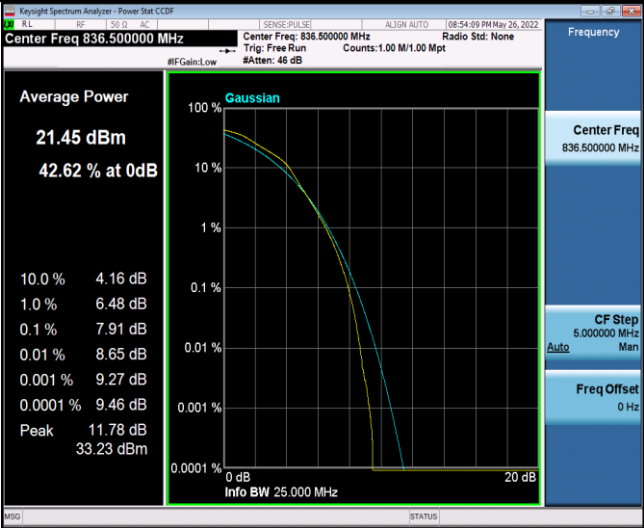
20 dB

Info BW 25.000 MHz

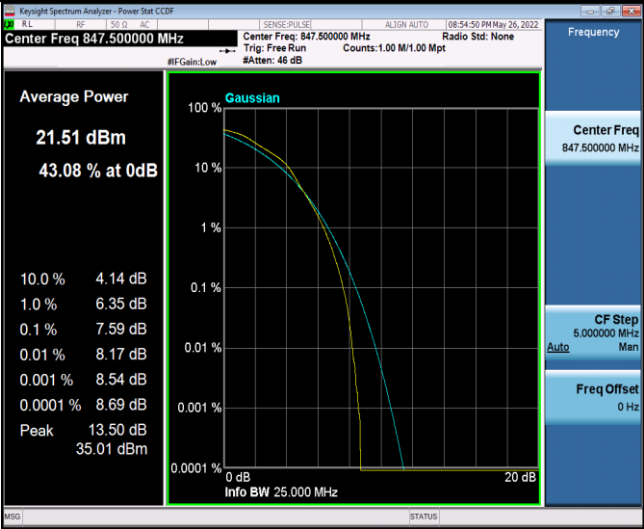
Band5-3MHz-16QAM-20415-15RB#0



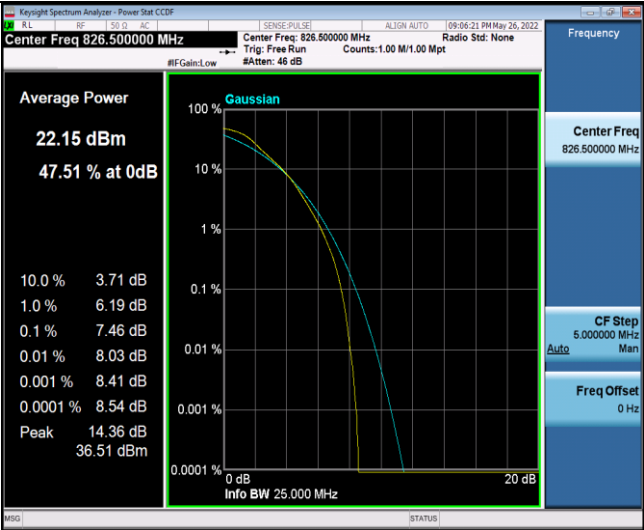
Band5-3MHz-16QAM-20525-15RB#0



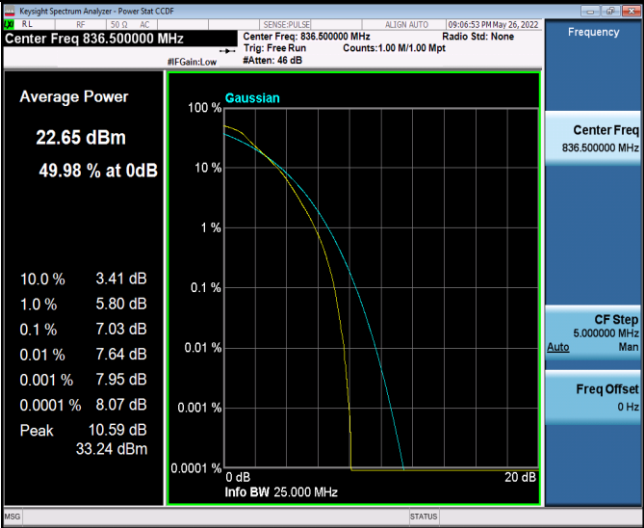
Band5-3MHz-16QAM-20635-15RB#0



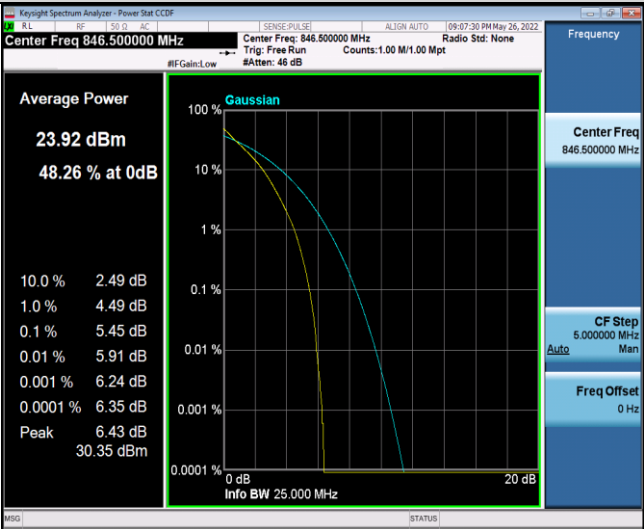
Band5-5MHz-QPSK-20425-25RB#0



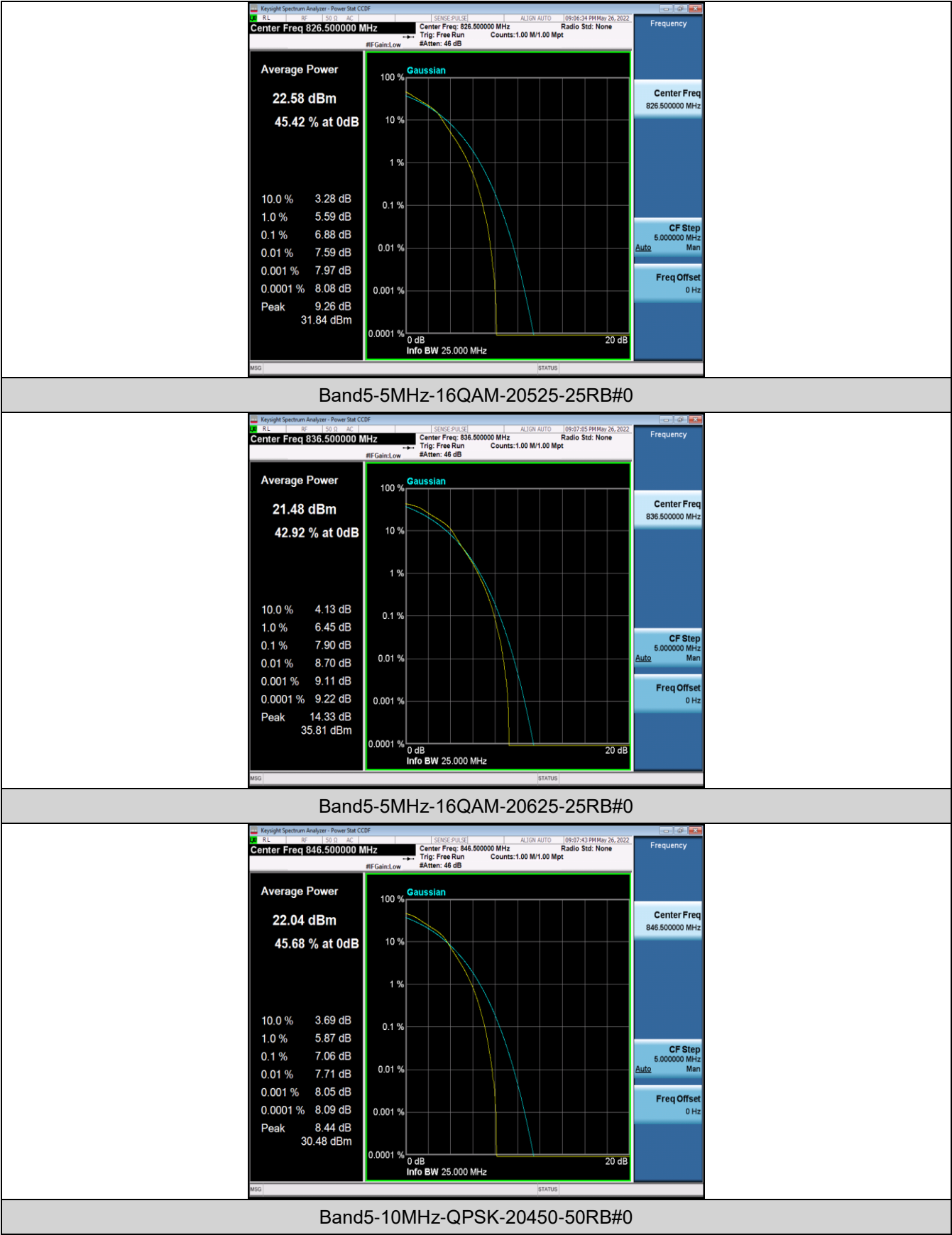
Band5-5MHz-QPSK-20525-25RB#0



Band5-5MHz-QPSK-20625-25RB#0



Band5-5MHz-16QAM-20425-25RB#0



Band5-5MHz-16QAM-20625-25RB#0

KeySight Spectrum Analyzer - Power Stat CCDF

Center Freq 846.500000 MHz

Center Freq 846.500000 MHz

Trig: Free Run

Counts: 1.00 M/1.00 Mpt

Radio Std: None

Align: AUTO

09-07-43 PM May 26, 2022

Frequency

Center Freq 846.500000 MHz

CF Step 5.000000 MHz

Auto

Man

Freq Offset 0 Hz

Average Power

22.04 dBm

45.68 % at 0dB

10.0 % 3.69 dB

1.0 % 5.87 dB

0.1 % 7.06 dB

0.01 % 7.71 dB

0.001 % 8.05 dB

0.0001 % 8.09 dB

Peak 8.44 dBm

30.48 dBm

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

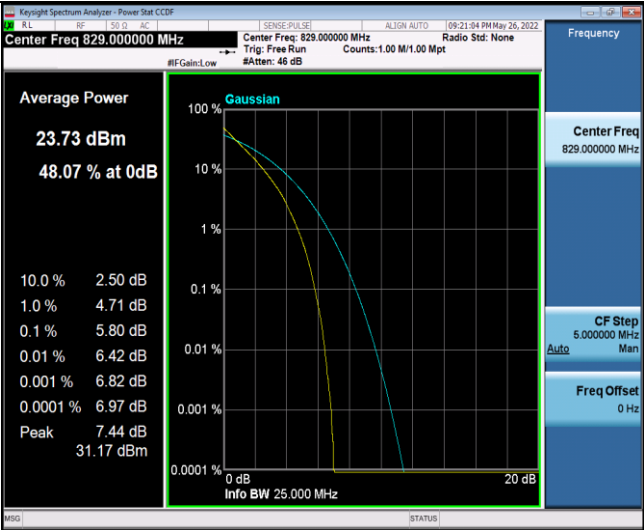
0.0001 %

0 dB

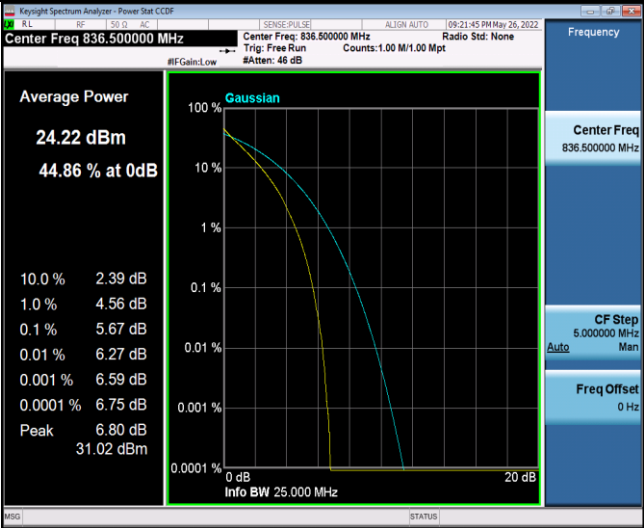
20 dB

Info BW 25.000 MHz

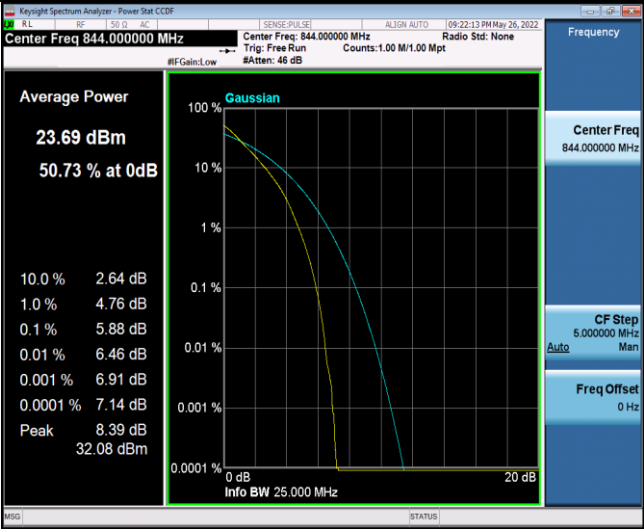
Band5-10MHz-QPSK-20450-50RB#0



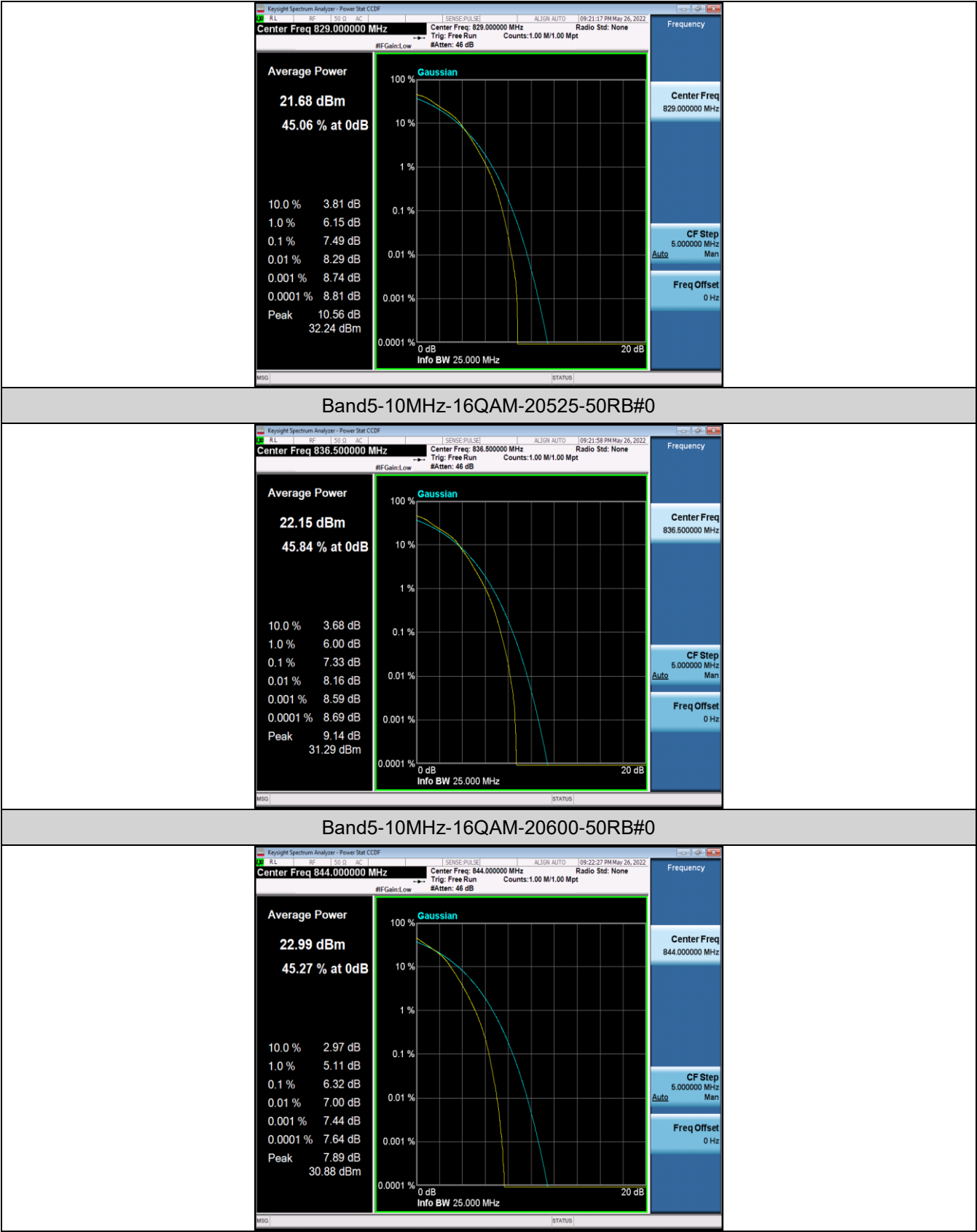
Band5-10MHz-QPSK-20525-50RB#0



Band5-10MHz-QPSK-20600-50RB#0



Band5-10MHz-16QAM-20450-50RB#0



Band5-10MHz-16QAM-20600-50RB#0

KeySight Spectrum Analyzer - Power Stat CCDF

Center Freq 844.000000 MHz

Center Freq: 844.000000 MHz

Trig: Free Run

Counts: 1.00 M/1.00 Mpt

Radio Std: None

Align: AUTO

09-22-27 PM May 26, 2022

Frequency

Center Freq 844.000000 MHz

CF Step 5.000000 MHz

Auto

Man

Freq Offset 0 Hz

Average Power

22.99 dBm

45.27 % at 0dB

10.0 % 2.97 dB

1.0 % 5.11 dB

0.1 % 6.32 dB

0.01 % 7.00 dB

0.001 % 7.44 dB

0.0001 % 7.64 dB

Peak 7.89 dB

30.88 dBm

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

0.0001 %

0 dB

20 dB

Info BW 25.000 MHz

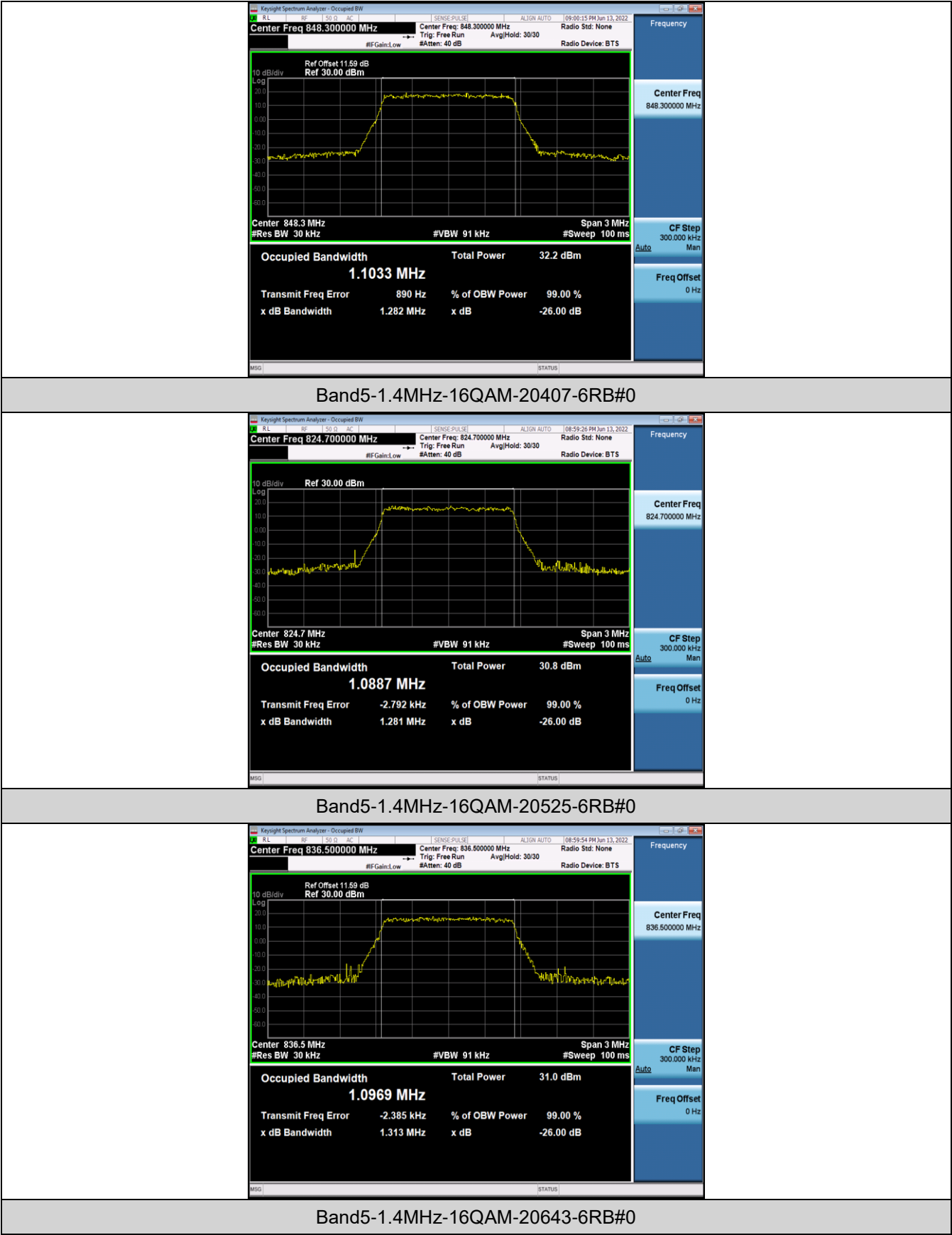
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0957	1.296	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0902	1.282	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.1033	1.282	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0887	1.281	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0969	1.313	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0936	1.277	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6915	2.912	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6851	2.895	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6893	2.912	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6819	2.925	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6815	2.903	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6828	2.947	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.5042	4.936	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.5077	4.940	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.4933	4.904	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4921	4.927	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.4878	4.914	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.5006	4.943	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9841	9.824	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9980	9.837	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9835	9.783	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.9746	9.739	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.9855	9.751	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.9753	9.750	PASS

Test Graphs





Band5-1.4MHz-16QAM-20525-6RB#0

KeySight Spectrum Analyzer - Occupied BW

SENSE: PUL SE

ALIGN: AUTO

08:59:54 PM Jun 13, 2022

Center Freq 836.500000 MHz

Center Freq: 836.500000 MHz

Trig: Free Run

Avg/Hold: 30/30

Radio Std: None

#IF Gain: Low

#Atten: 40 dB

Radio Device: BTS

Ref Offset 11.59 dB

Ref 30.00 dBm

10 dB/div

Log

20.0

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

Center 836.5 MHz

#Res BW 30 kHz

#VBW 91 kHz

Span 3 MHz

#Sweep 100 ms

Occupied Bandwidth

1.0969 MHz

Total Power

31.0 dBm

Transmit Freq Error

-2.385 kHz

% of OBW Power

99.00 %

x dB Bandwidth

1.313 MHz

x dB

-26.00 dB

Frequency

Center Freq

836.500000 MHz

CF Step

300.000 kHz

Man

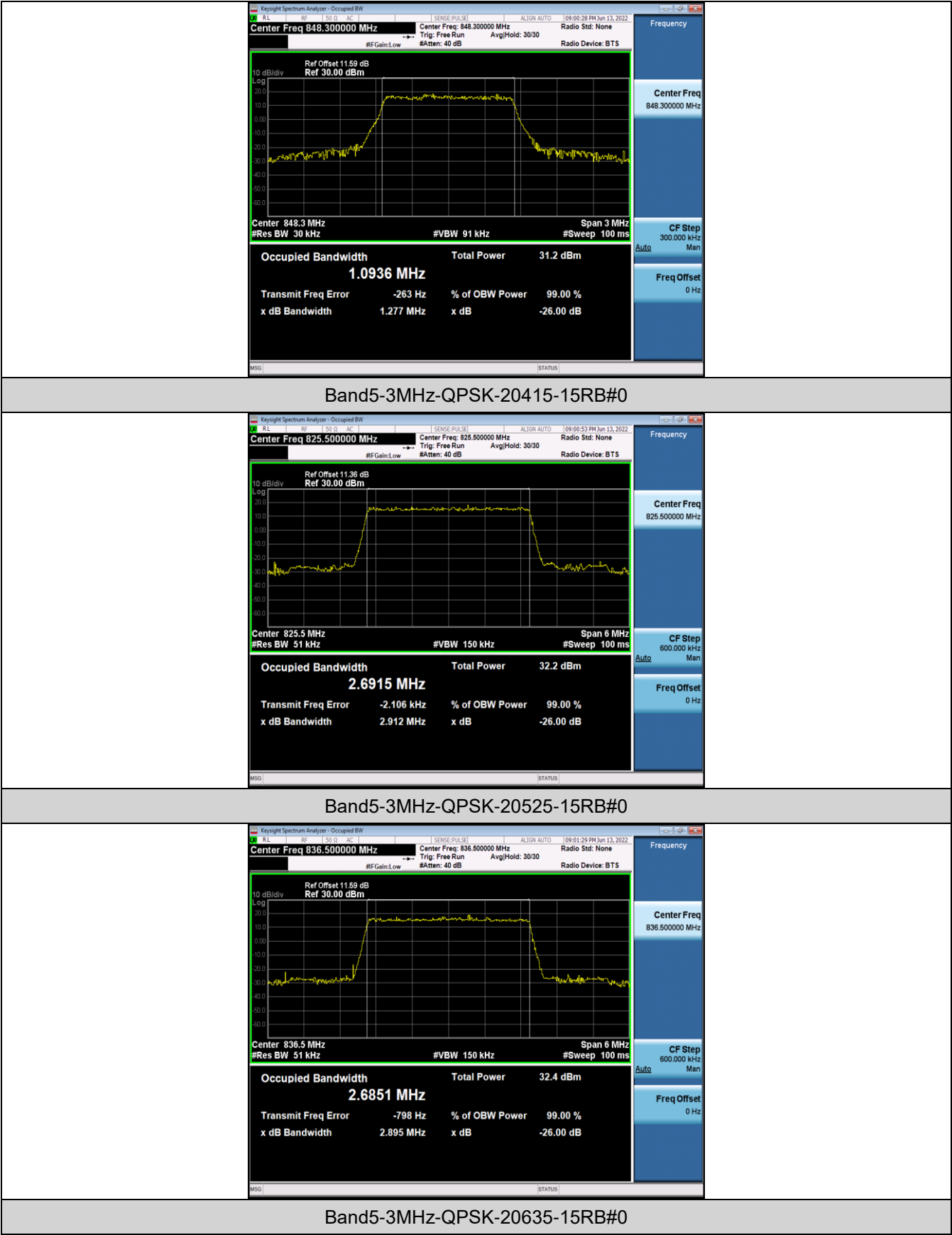
Freq Offset

0 Hz

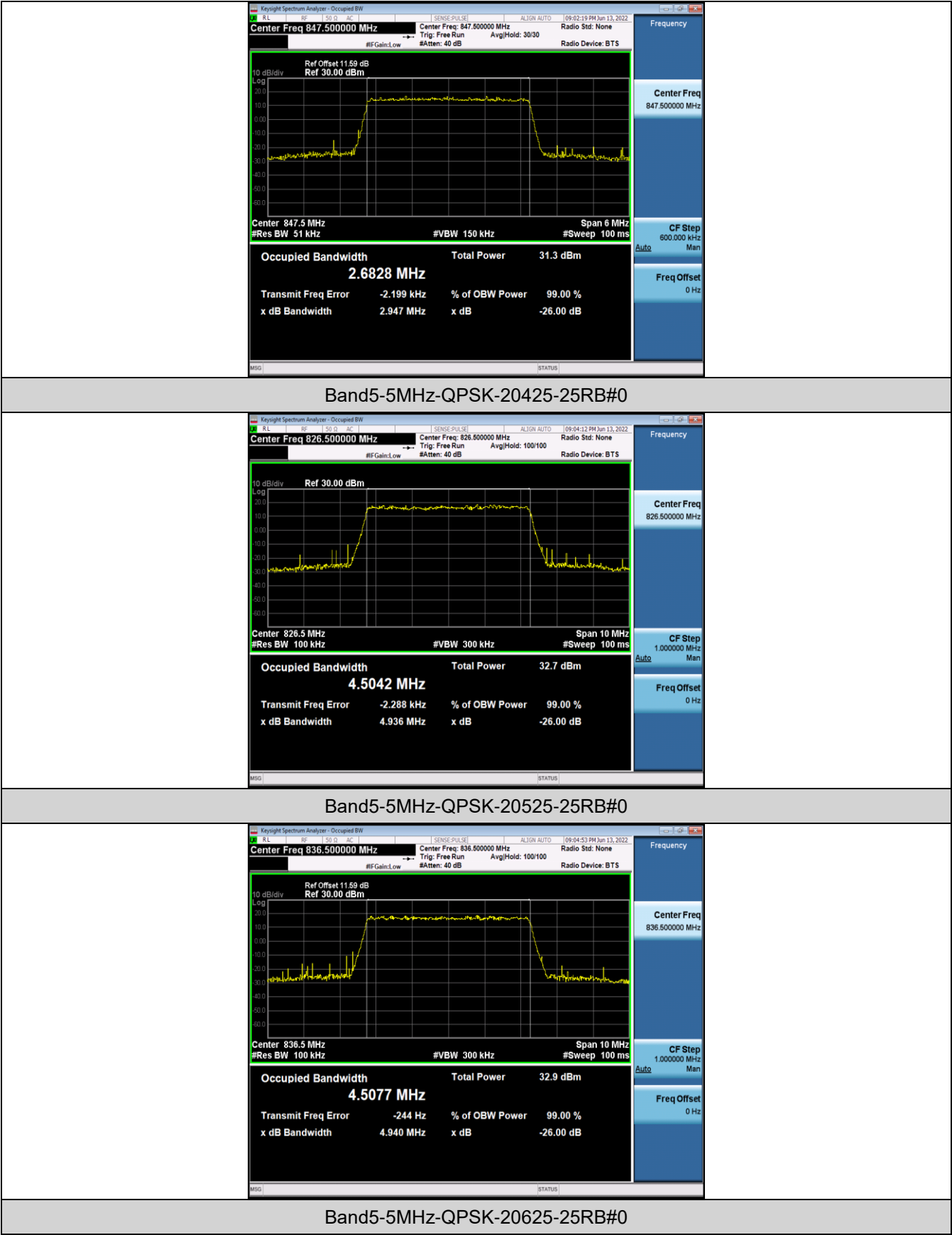
MSG

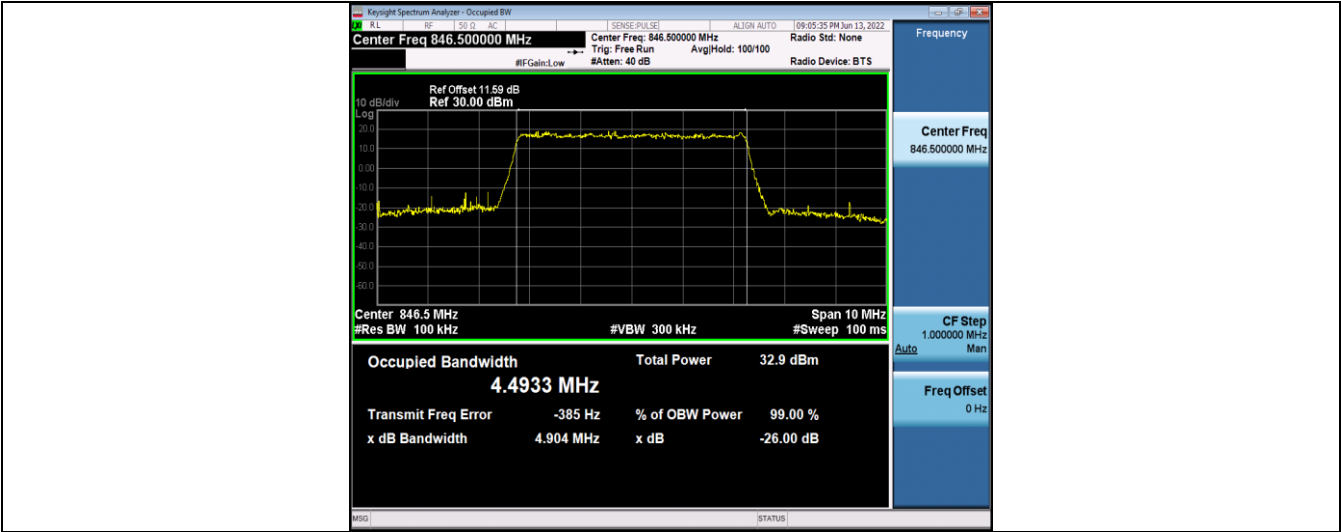
STATUS

Band5-1.4MHz-16QAM-20643-6RB#0

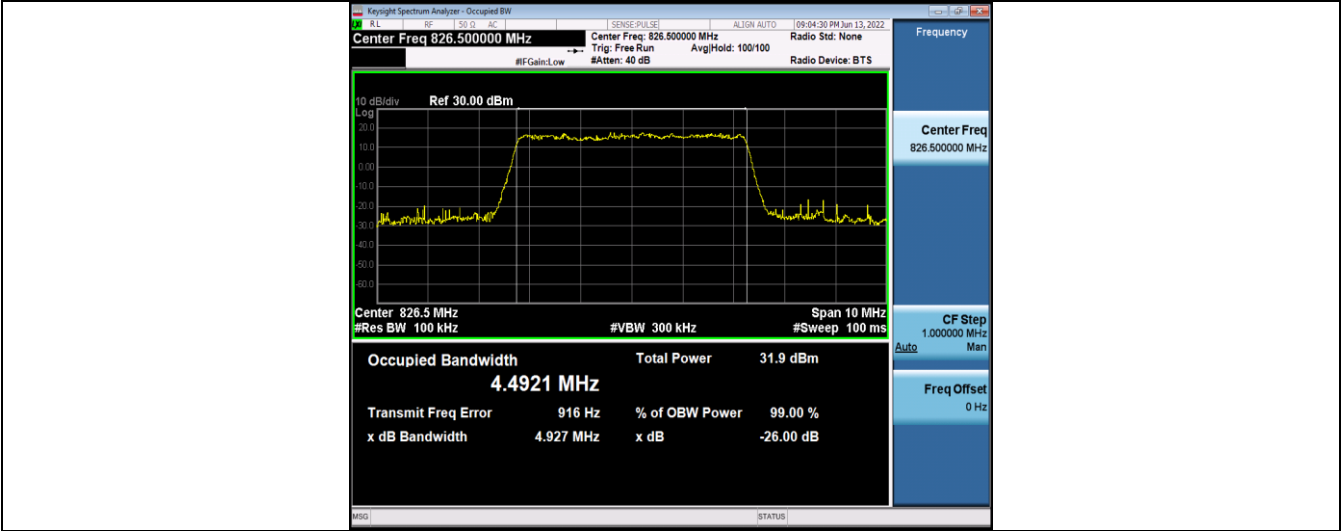




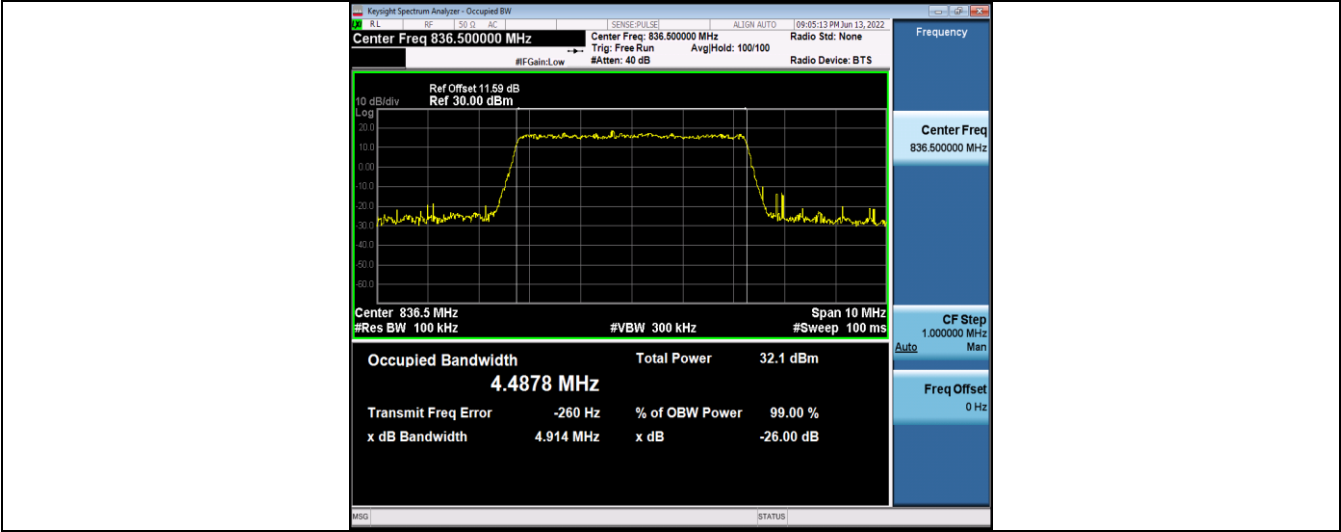




Band5-5MHz-16QAM-20425-25RB#0



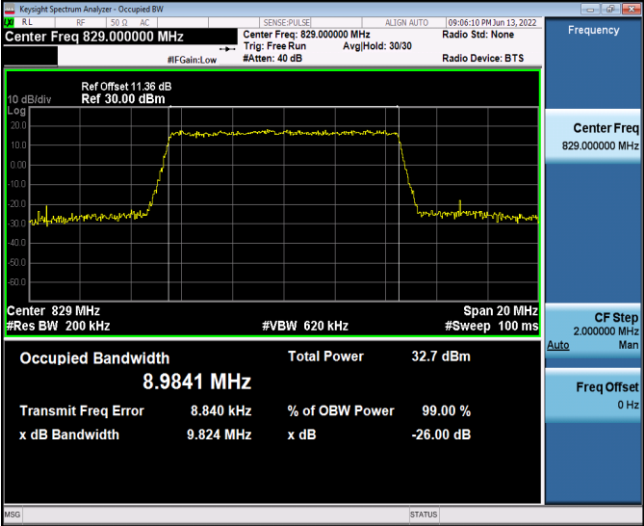
Band5-5MHz-16QAM-20525-25RB#0



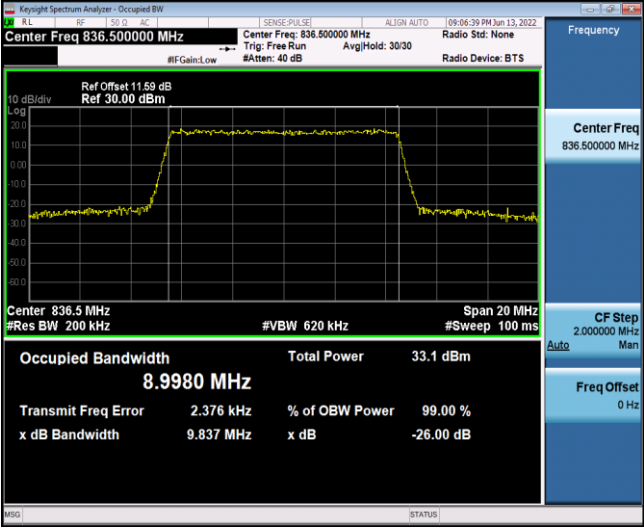
Band5-5MHz-16QAM-20625-25RB#0



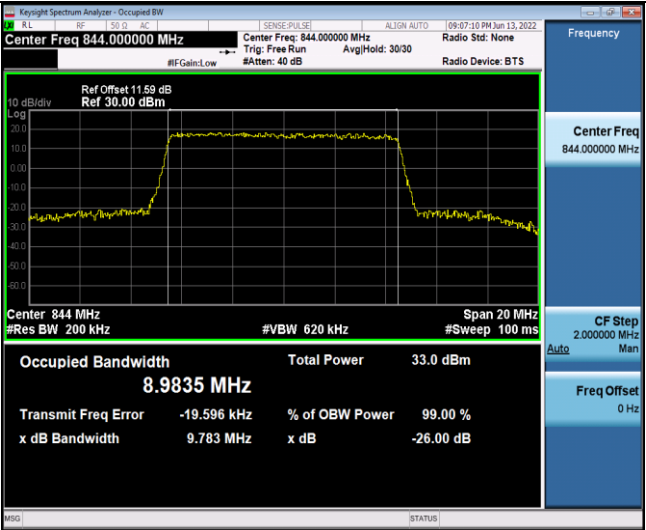
Band5-10MHz-QPSK-20450-50RB#0



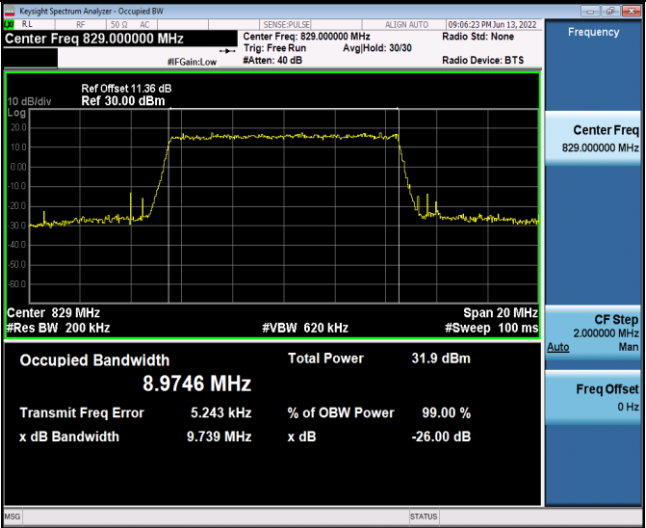
Band5-10MHz-QPSK-20525-50RB#0



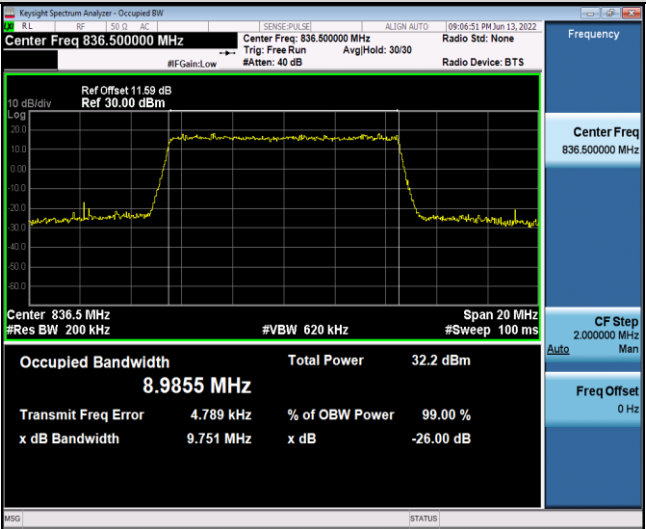
Band5-10MHz-QPSK-20600-50RB#0



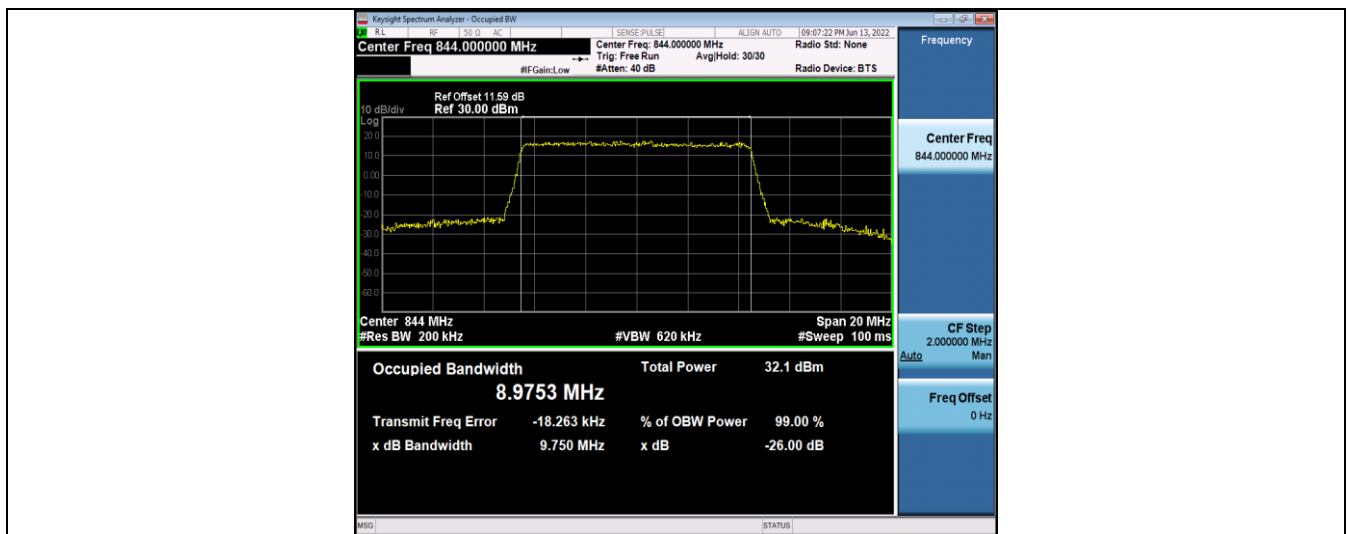
Band5-10MHz-16QAM-20450-50RB#0



Band5-10MHz-16QAM-20525-50RB#0



Band5-10MHz-16QAM-20600-50RB#0

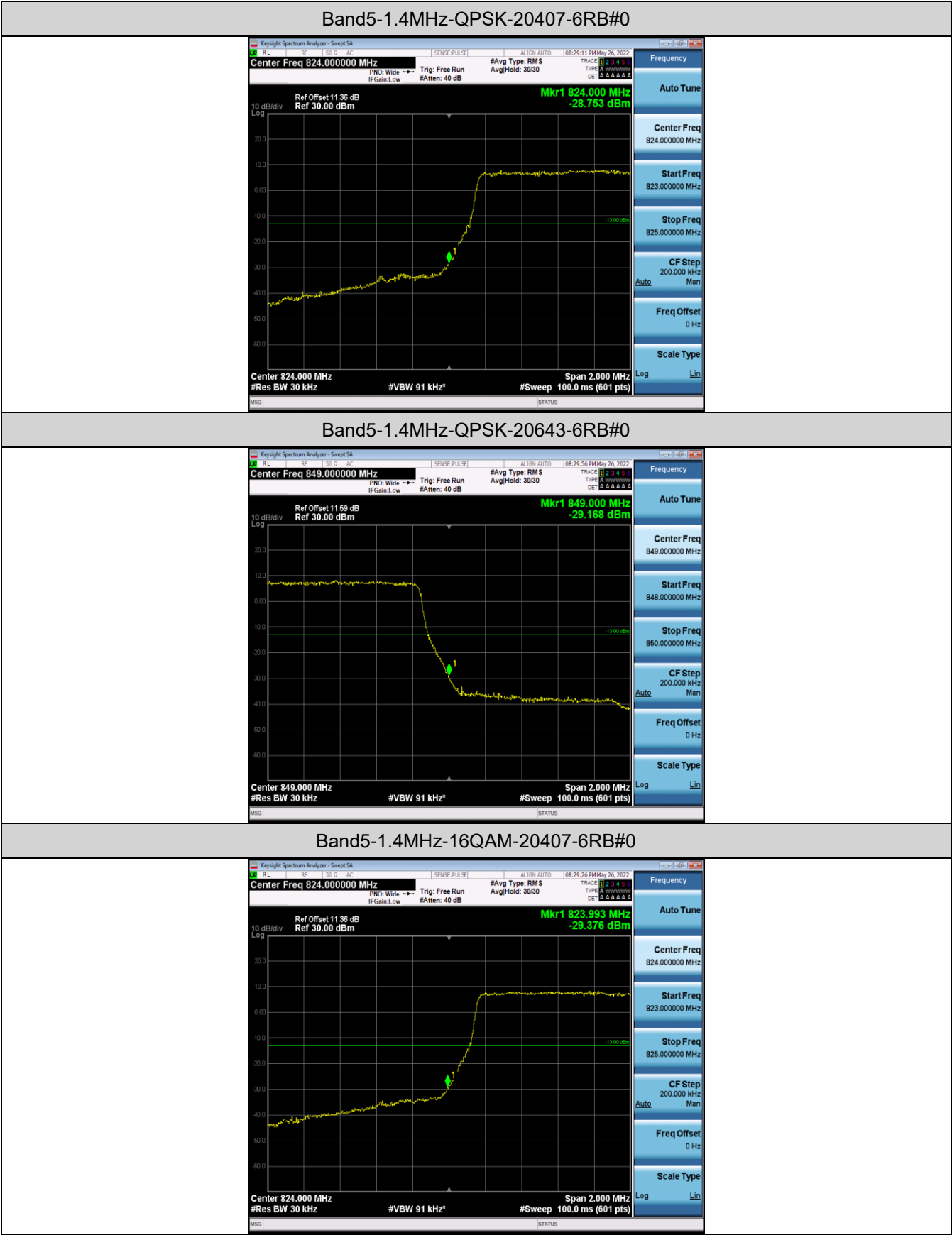


Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	-28.75	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	-29.17	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	-29.38	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	-28.32	PASS
Band5	3MHz	QPSK	20415	15RB#0	-28.42	PASS
Band5	3MHz	QPSK	20635	15RB#0	-31.05	PASS
Band5	3MHz	16QAM	20415	15RB#0	-30.72	PASS
Band5	3MHz	16QAM	20635	15RB#0	-31.79	PASS
Band5	5MHz	QPSK	20425	25RB#0	-28.56	PASS
Band5	5MHz	QPSK	20625	25RB#0	-28.99	PASS
Band5	5MHz	16QAM	20425	25RB#0	-28.99	PASS
Band5	5MHz	16QAM	20625	25RB#0	-29.83	PASS
Band5	10MHz	QPSK	20450	50RB#0	-30.21	PASS
Band5	10MHz	QPSK	20600	50RB#0	-33.51	PASS
Band5	10MHz	16QAM	20450	50RB#0	-33.11	PASS
Band5	10MHz	16QAM	20600	50RB#0	-32.99	PASS

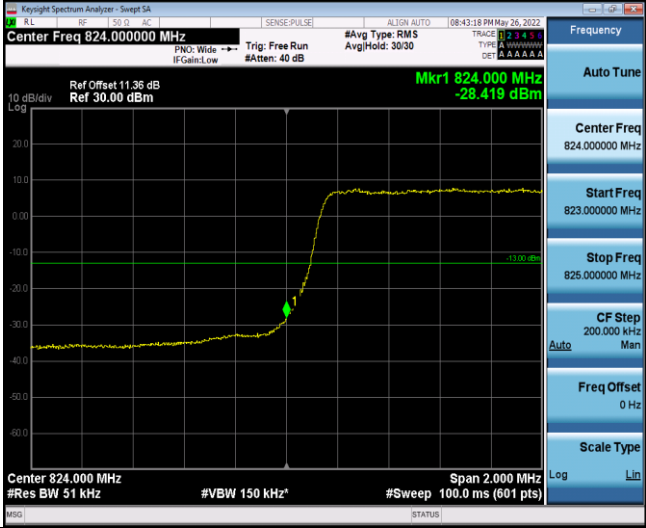
Test Graphs



Band5-1.4MHz-16QAM-20643-6RB#0



Band5-3MHz-QPSK-20415-15RB#0



Band5-3MHz-QPSK-20635-15RB#0



Band5-3MHz-16QAM-20415-15RB#0