

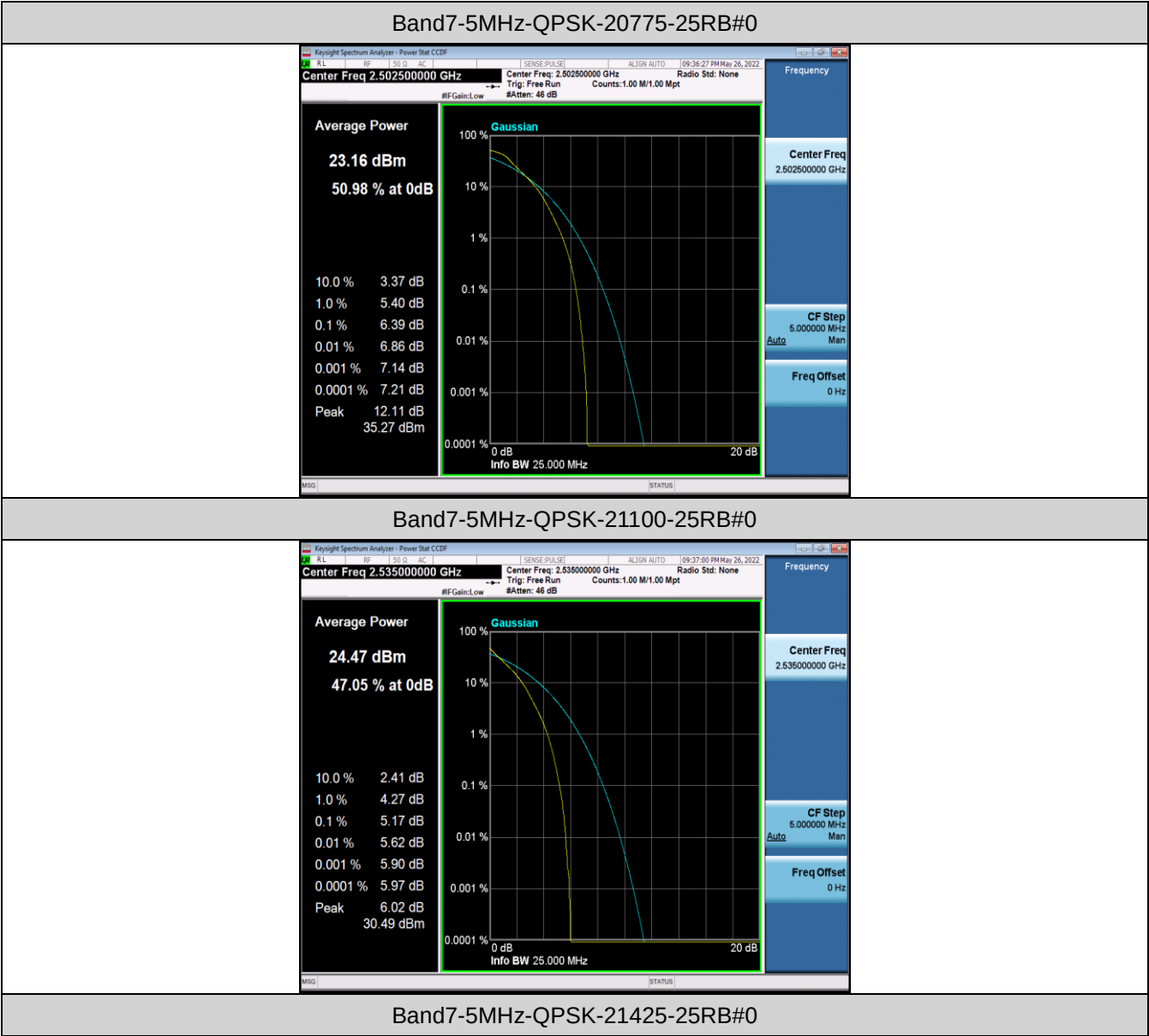
FCC LTE Band7 Test Data

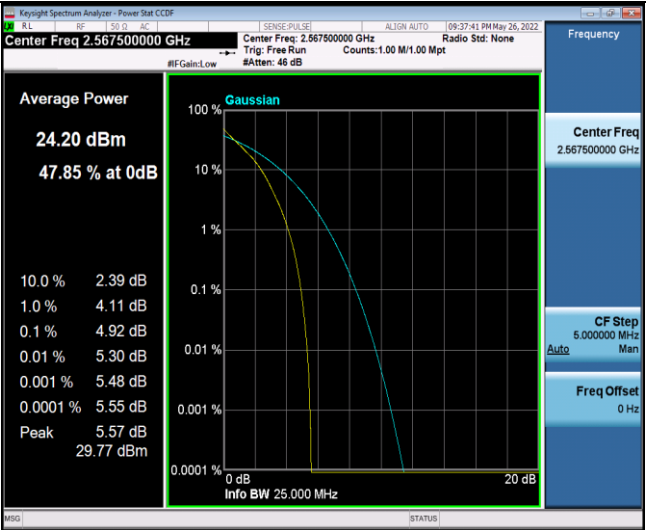
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

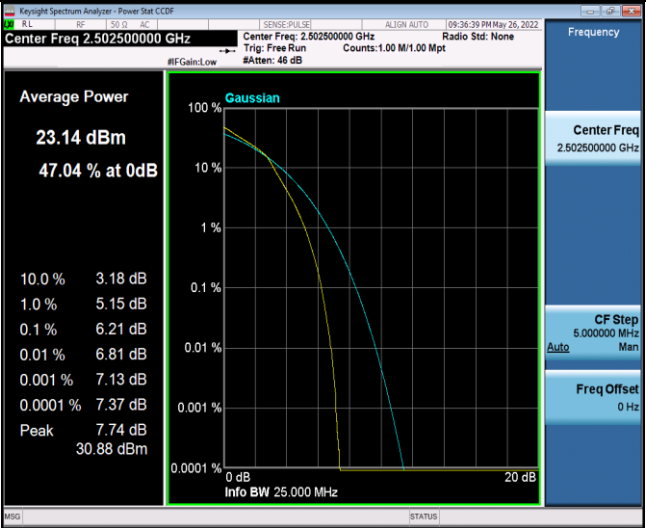
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	6.39	13	PASS
Band7	5MHz	QPSK	21100	25RB#0	5.17	13	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.92	13	PASS
Band7	5MHz	16QAM	20775	25RB#0	6.21	13	PASS
Band7	5MHz	16QAM	21100	25RB#0	7.21	13	PASS
Band7	5MHz	16QAM	21425	25RB#0	7.02	13	PASS
Band7	10MHz	QPSK	20800	50RB#0	5.18	13	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.42	13	PASS
Band7	10MHz	QPSK	21400	50RB#0	5.66	13	PASS
Band7	10MHz	16QAM	20800	50RB#0	6.91	13	PASS
Band7	10MHz	16QAM	21100	50RB#0	7.76	13	PASS
Band7	10MHz	16QAM	21400	50RB#0	6.03	13	PASS
Band7	15MHz	QPSK	20825	75RB#0	8.38	13	PASS
Band7	15MHz	QPSK	21100	75RB#0	6.69	13	PASS
Band7	15MHz	QPSK	21375	75RB#0	5.45	13	PASS
Band7	15MHz	16QAM	20825	75RB#0	6.35	13	PASS
Band7	15MHz	16QAM	21100	75RB#0	7.30	13	PASS
Band7	15MHz	16QAM	21375	75RB#0	7.99	13	PASS
Band7	20MHz	QPSK	20850	100RB#0	5.35	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	6.00	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	8.39	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	6.93	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.06	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	8.34	13	PASS

Test Graphs

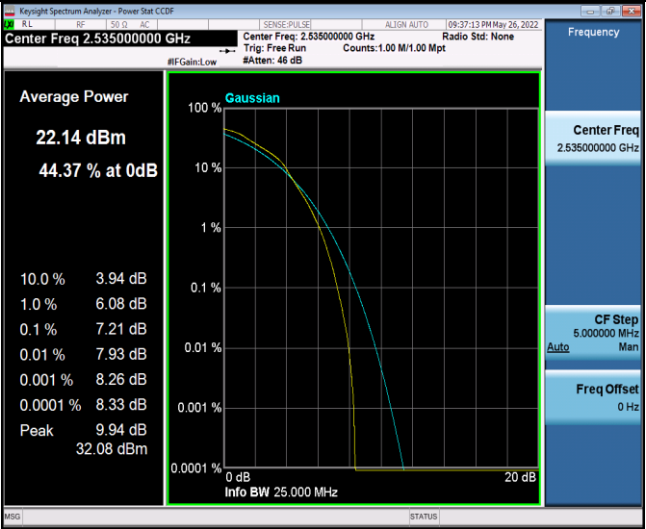




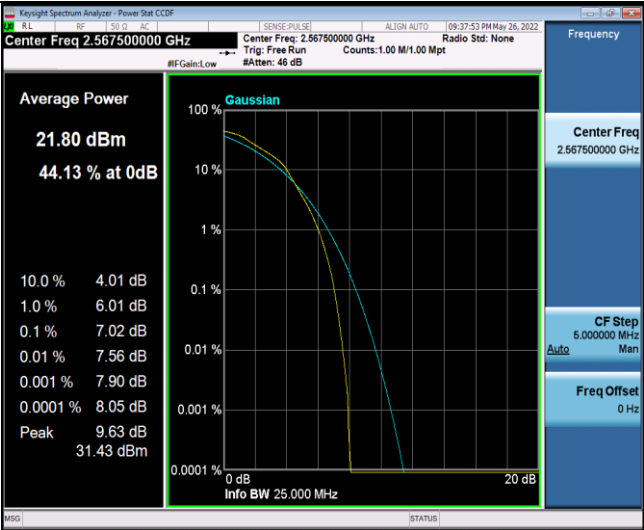
Band7-5MHz-16QAM-20775-25RB#0



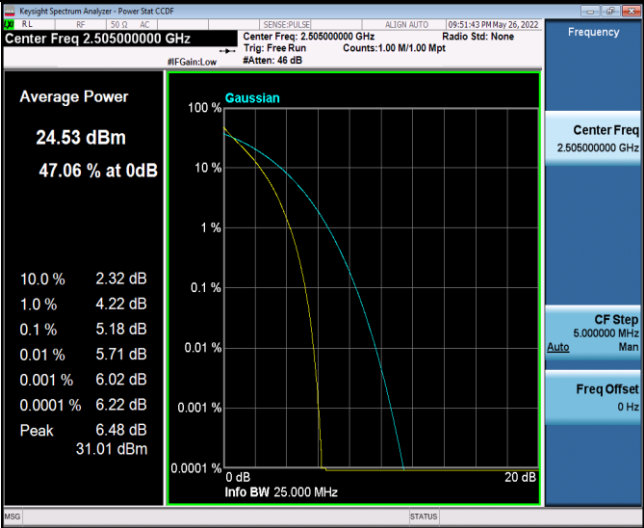
Band7-5MHz-16QAM-21100-25RB#0



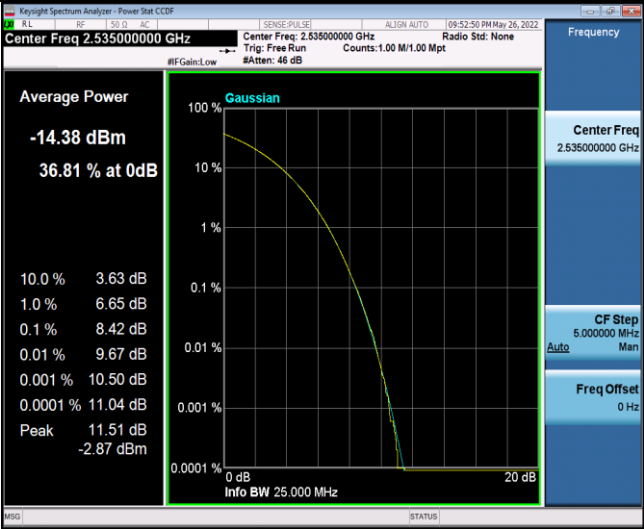
Band7-5MHz-16QAM-21425-25RB#0



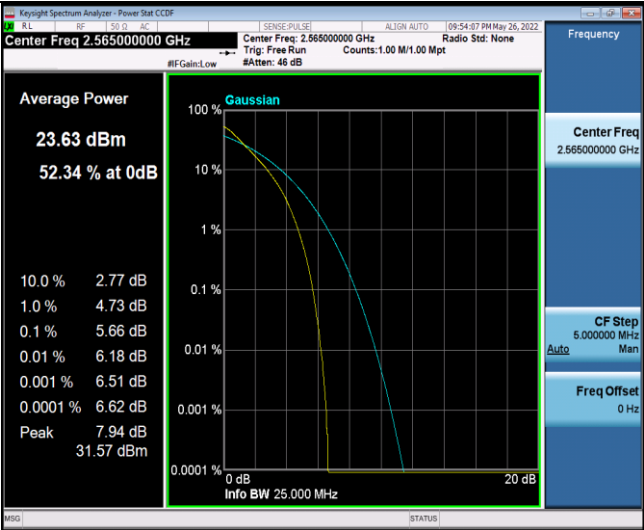
Band7-10MHz-QPSK-20800-50RB#0



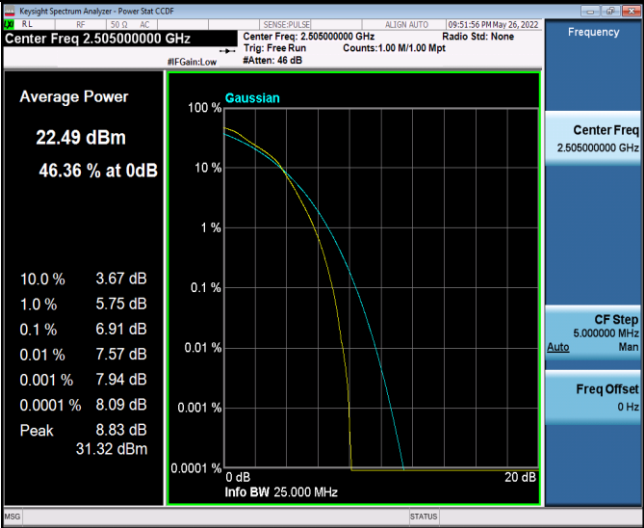
Band7-10MHz-QPSK-21100-50RB#0



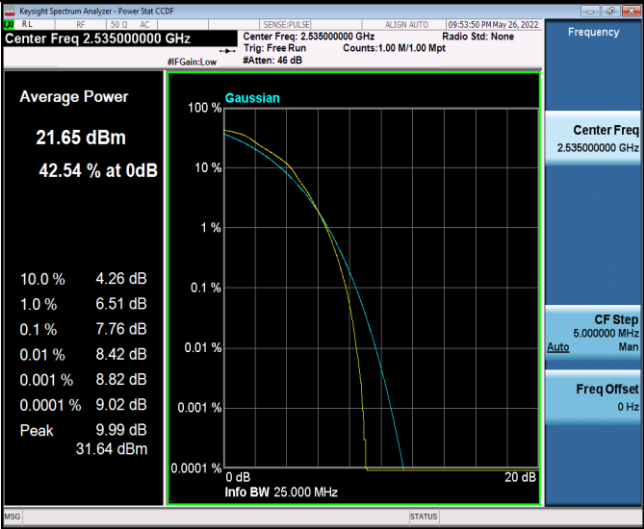
Band7-10MHz-QPSK-21400-50RB#0



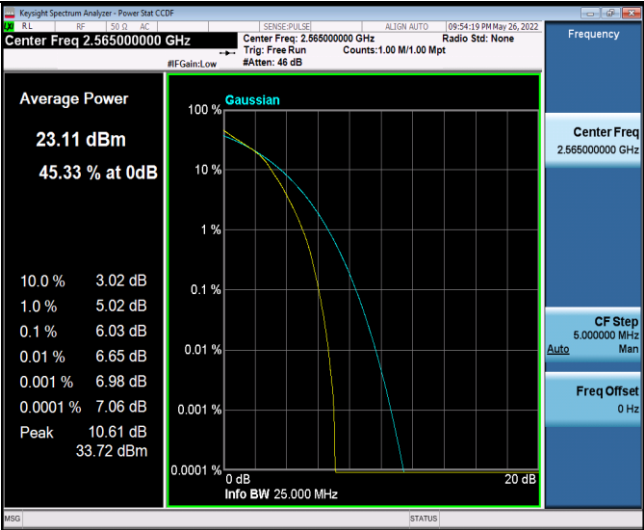
Band7-10MHz-16QAM-20800-50RB#0



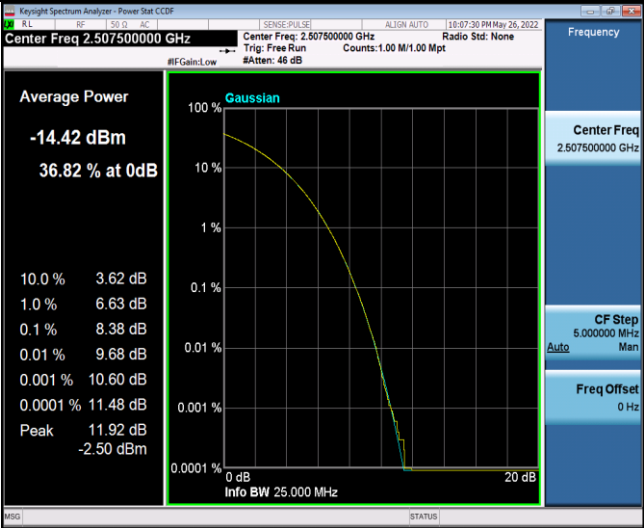
Band7-10MHz-16QAM-21100-50RB#0



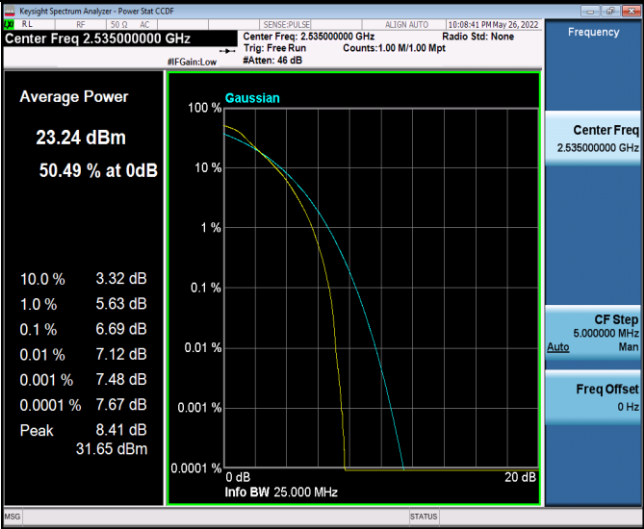
Band7-10MHz-16QAM-21400-50RB#0



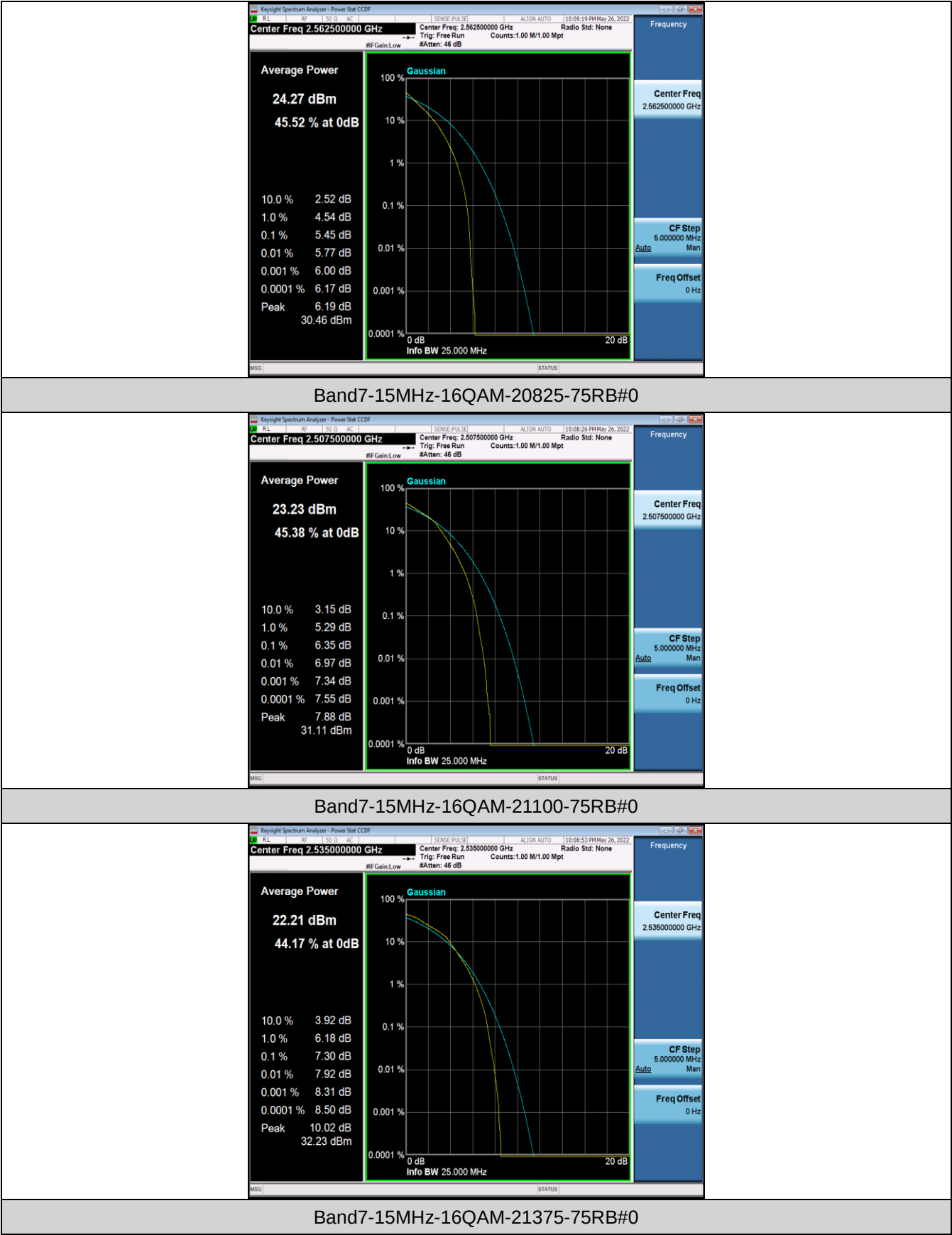
Band7-15MHz-QPSK-20825-75RB#0



Band7-15MHz-QPSK-21100-75RB#0



Band7-15MHz-QPSK-21375-75RB#0



Band7-15MHz-16QAM-21100-75RB#0

KeySight Spectrum Analyzer - Power Stat CCDF

Center Freq 2.535000000 GHz

Center Freq: 2.535000000 GHz

Trig: Free Run

Counts: 1.00 M/1.00 Mpt

Radio Std: None

10:08:53 PM May 26, 2022

Frequency

Center Freq
2.535000000 GHz

CF Step
5.000000 MHz
Auto
Man

Freq Offset
0 Hz

Average Power

22.21 dBm

44.17 % at 0dB

10.0 % 3.92 dB

1.0 % 6.18 dB

0.1 % 7.30 dB

0.01 % 7.92 dB

0.001 % 8.31 dB

0.0001 % 8.50 dB

Peak 10.02 dBm

32.23 dBm

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

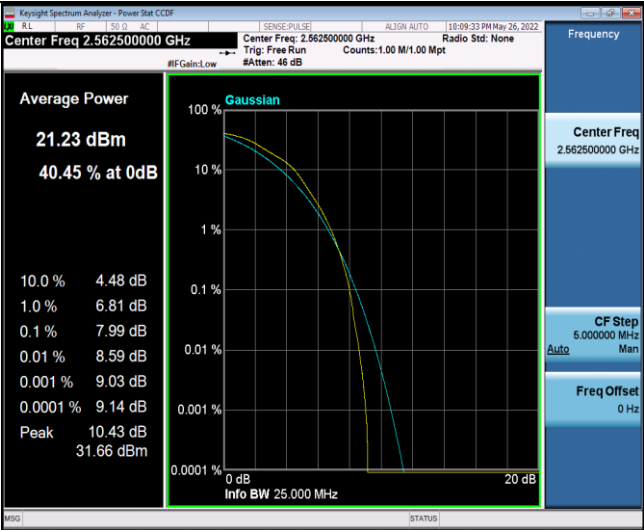
0.0001 %

0 dB

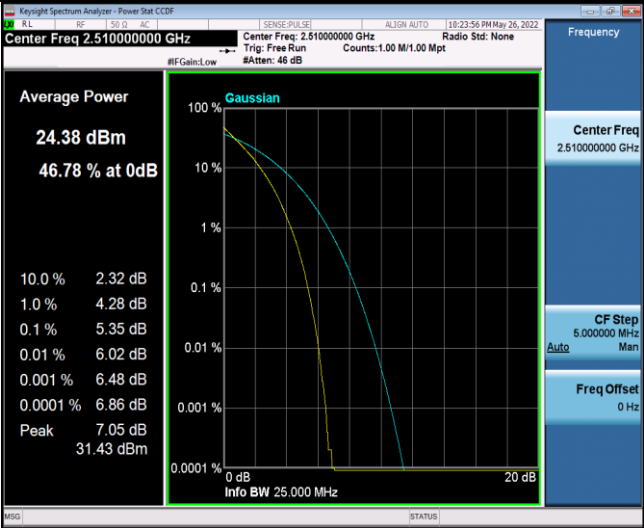
20 dB

Info BW 25.000 MHz

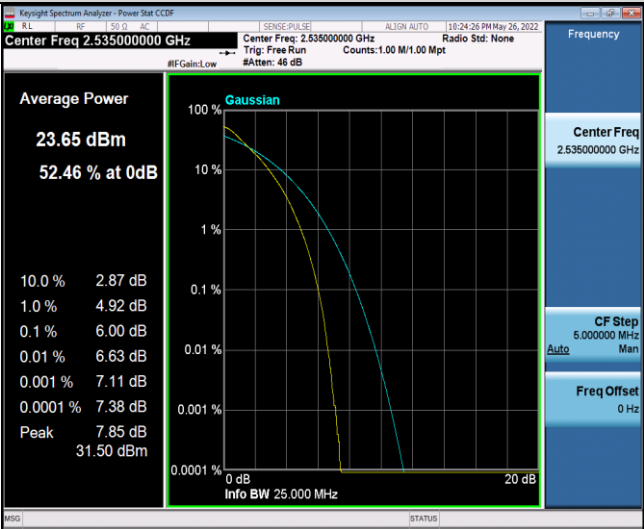
Band7-15MHz-16QAM-21375-75RB#0



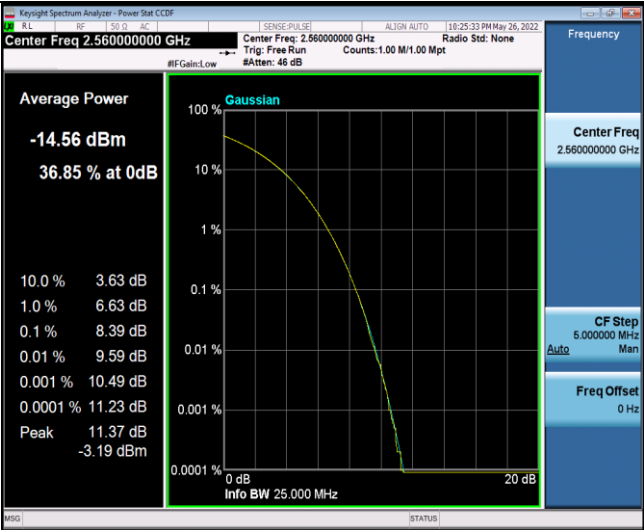
Band7-20MHz-QPSK-20850-100RB#0



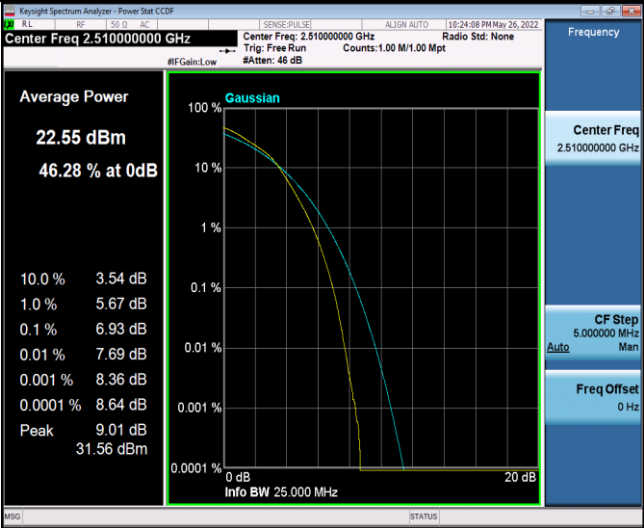
Band7-20MHz-QPSK-21100-100RB#0



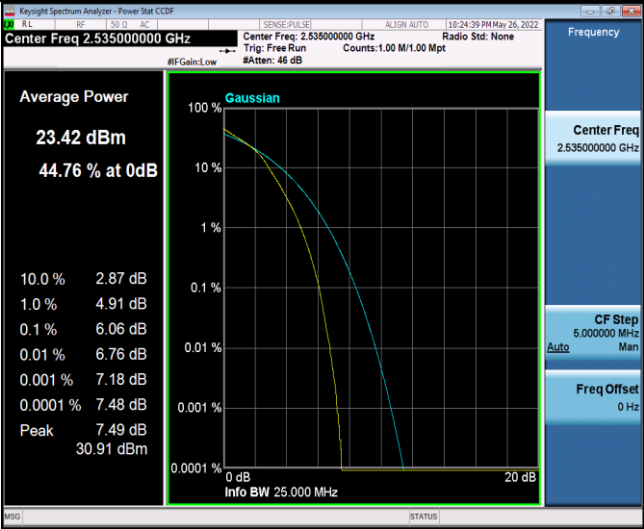
Band7-20MHz-QPSK-21350-100RB#0



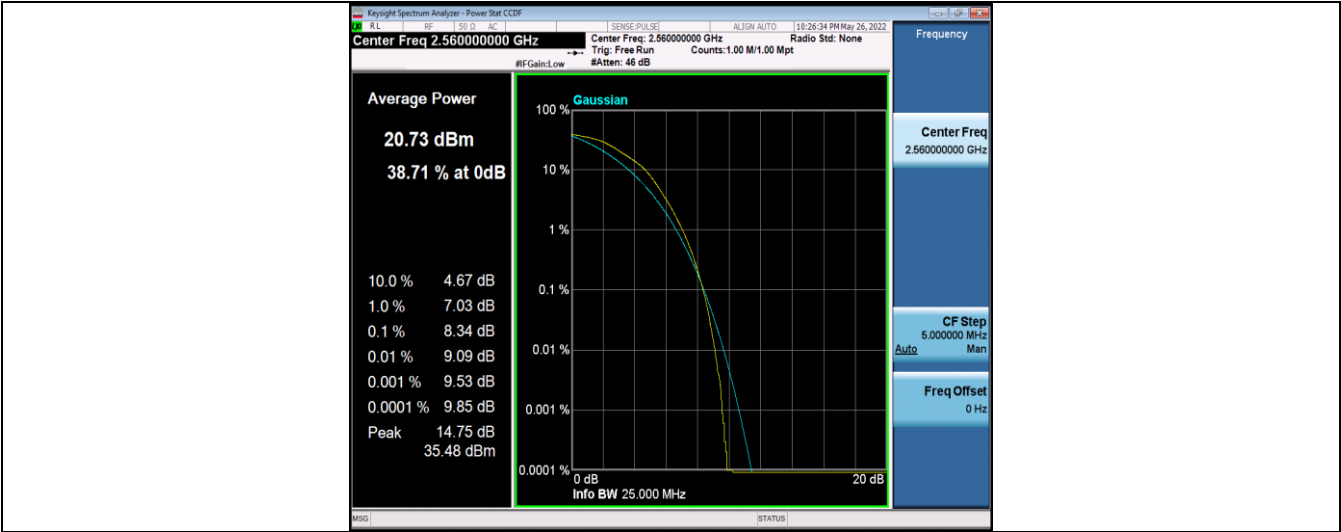
Band7-20MHz-16QAM-20850-100RB#0



Band7-20MHz-16QAM-21100-100RB#0



Band7-20MHz-16QAM-21350-100RB#0

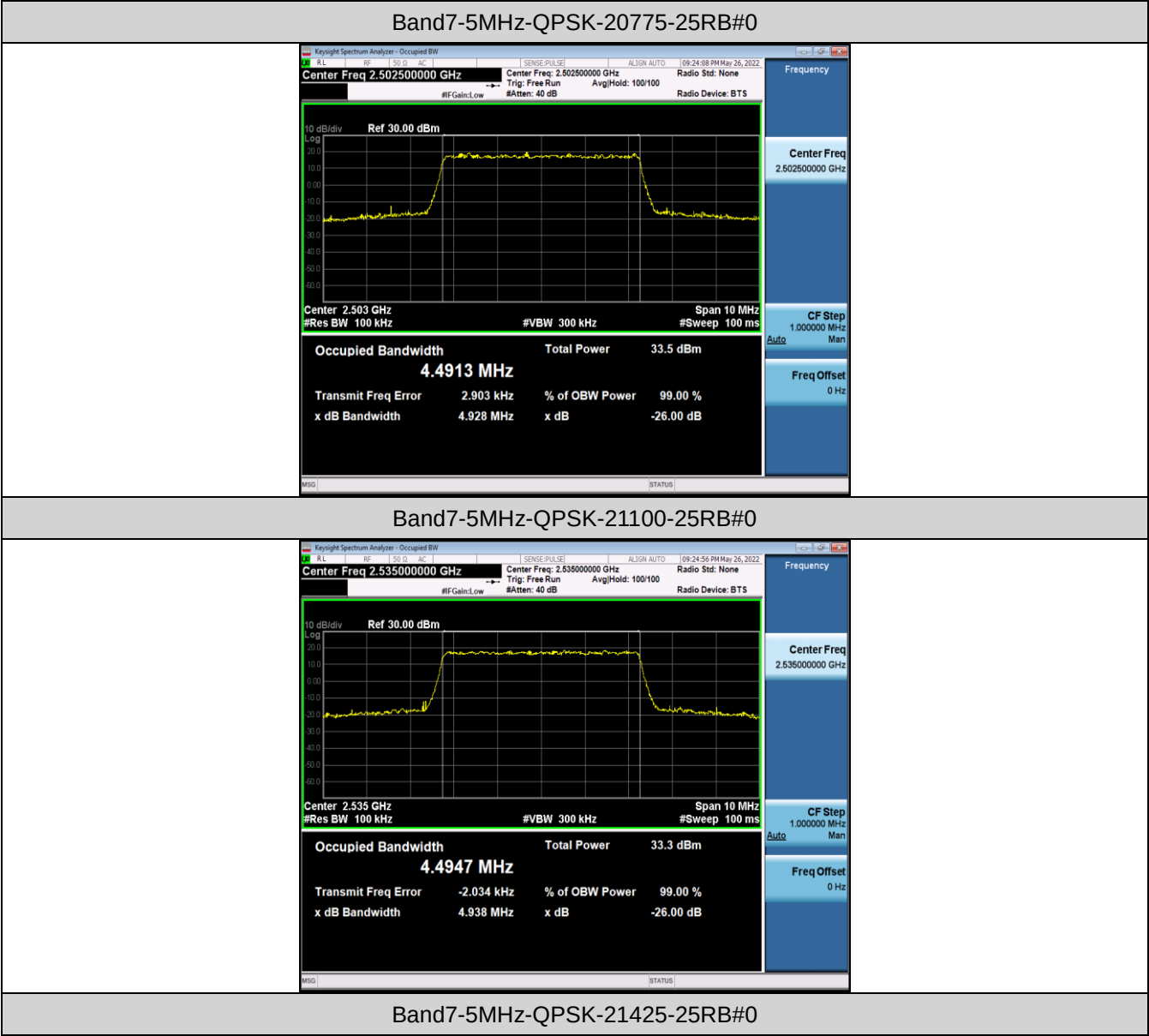


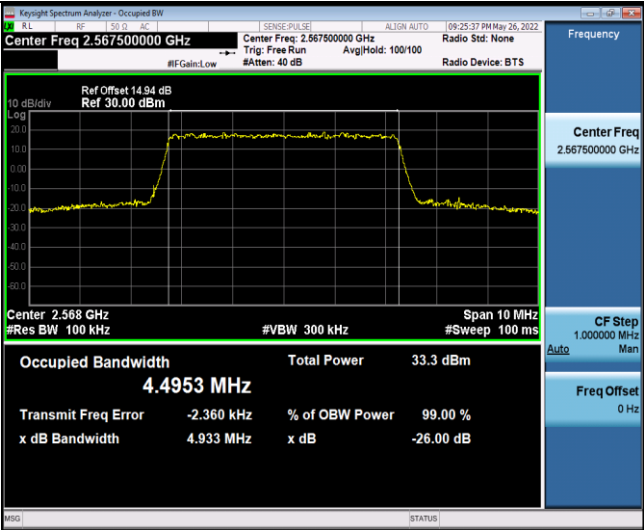
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.4913	4.928	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.4947	4.938	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.4953	4.933	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.5028	5.057	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.5058	4.944	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.4854	4.925	PASS
Band7	10MHz	QPSK	20800	50RB#0	9.0012	9.829	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.9969	9.814	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.9807	9.838	PASS
Band7	10MHz	16QAM	20800	50RB#0	9.0031	9.762	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.9901	9.834	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.9835	9.743	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.462	14.71	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.472	14.66	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.480	14.72	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.486	14.65	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.471	14.55	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.499	14.63	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.947	19.52	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.942	19.37	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.997	19.46	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.956	19.49	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.930	19.47	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.998	19.35	PASS

Test Graphs





Band7-5MHz-16QAM-20775-25RB#0



Band7-5MHz-16QAM-21100-25RB#0



Band7-5MHz-16QAM-21425-25RB#0



Band7-10MHz-QPSK-21100-50RB#0

KeySight Spectrum Analyzer - Occupied BW

Center Freq 2.535000000 GHz

Center Freq 2.535000000 GHz

Trig: Free Run

Avg/Hold: 30/30

Radio Std: None

Radio Device: BTS

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 2.535 GHz

Res BW 200 kHz

VBW 620 kHz

Span 20 MHz

Sweep 100 ms

Occupied Bandwidth

8.9969 MHz

Total Power

33.5 dBm

Transmit Freq Error

-13.186 kHz

% of OBW Power

99.00 %

x dB Bandwidth

9.814 MHz

x dB

-26.00 dB

MISC

STATUS

Frequency

Center Freq

2.535000000 GHz

CF Step

2.000000 MHz

Auto

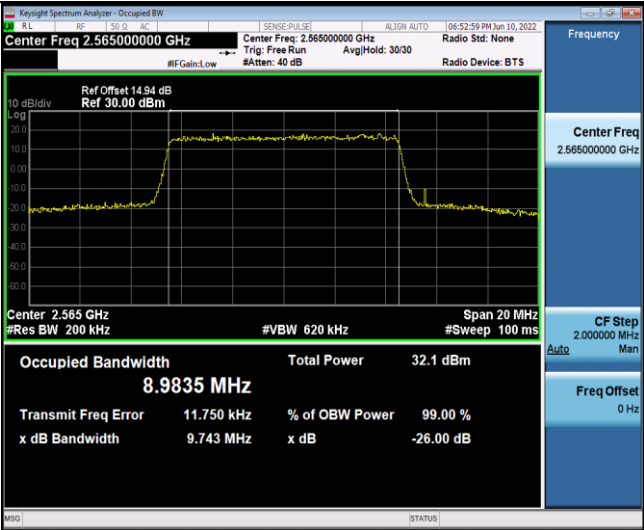
Man

Freq Offset

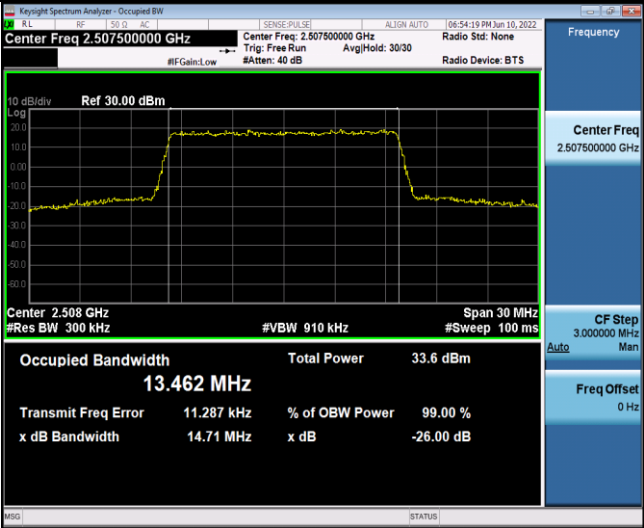
0 Hz

Band7-10MHz-QPSK-21400-50RB#0





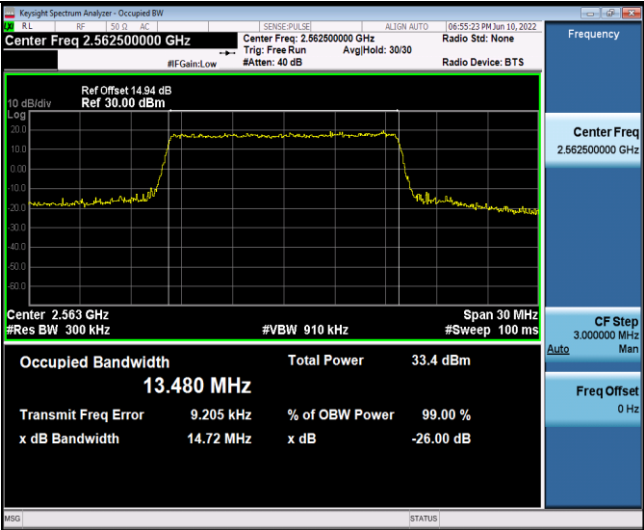
Band7-15MHz-QPSK-20825-75RB#0



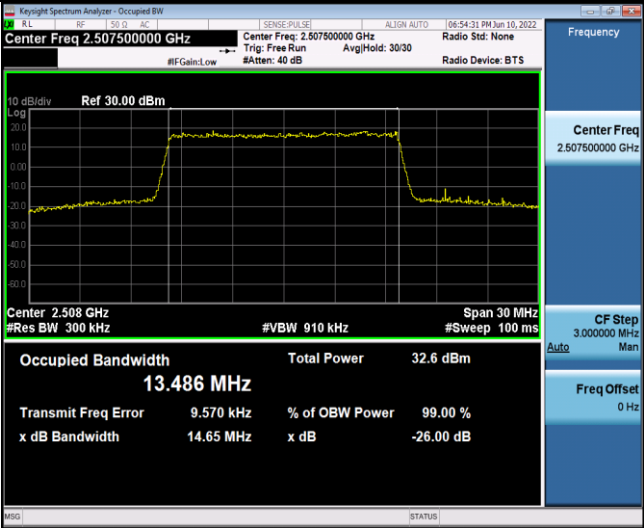
Band7-15MHz-QPSK-21100-75RB#0



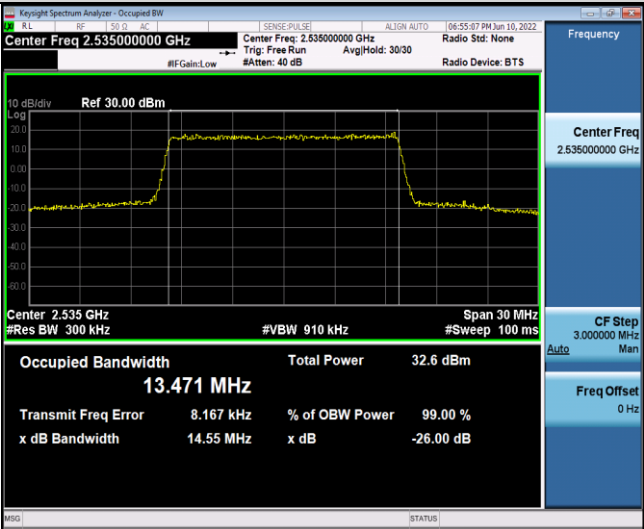
Band7-15MHz-QPSK-21375-75RB#0



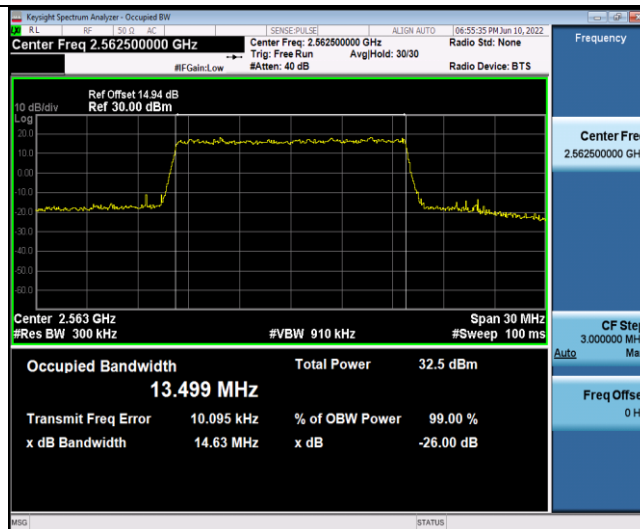
Band7-15MHz-16QAM-20825-75RB#0



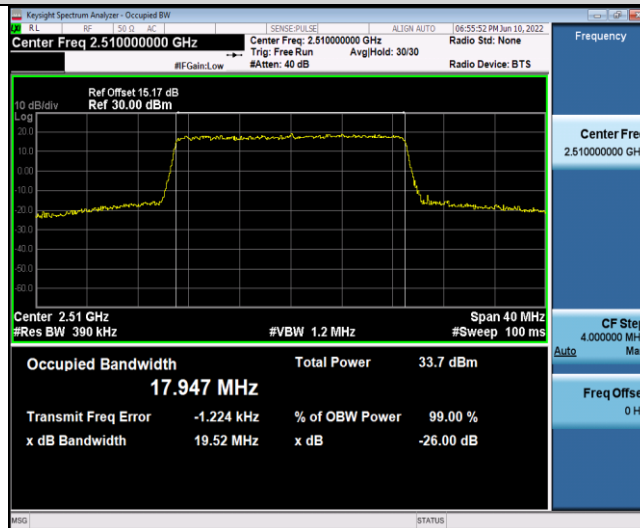
Band7-15MHz-16QAM-21100-75RB#0



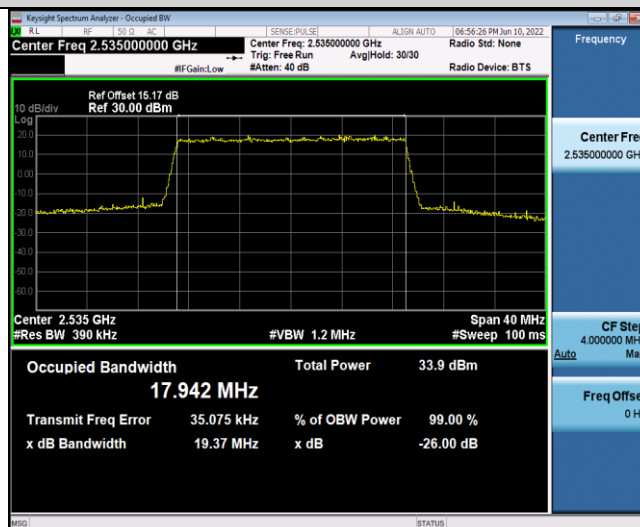
Band7-15MHz-16QAM-21375-75RB#0



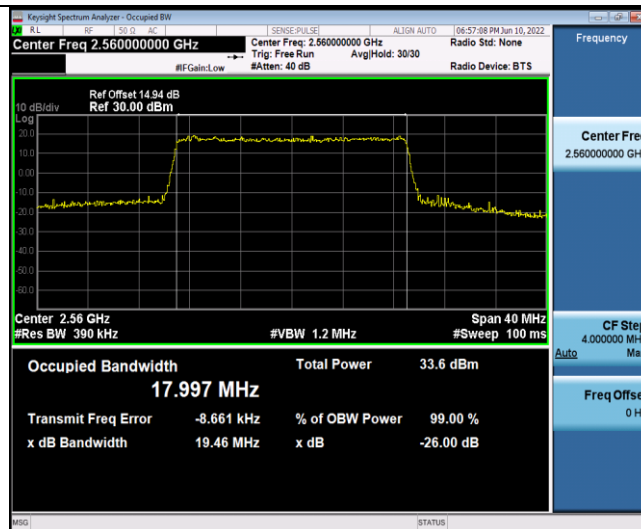
Band7-20MHz-QPSK-20850-100RB#0



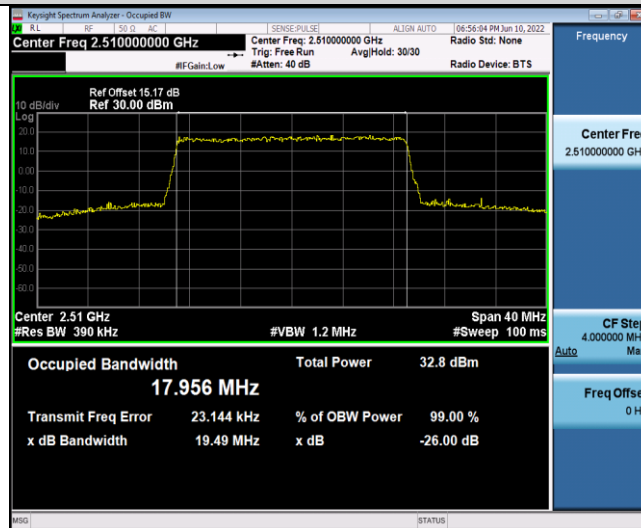
Band7-20MHz-QPSK-21100-100RB#0



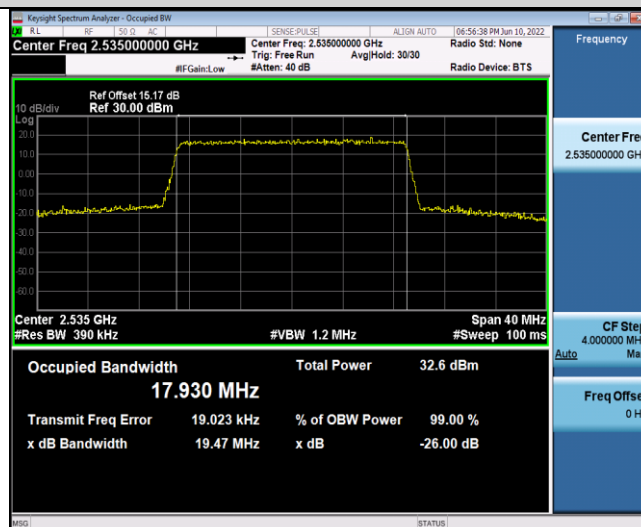
Band7-20MHz-QPSK-21350-100RB#0



Band7-20MHz-16QAM-20850-100RB#0



Band7-20MHz-16QAM-21100-100RB#0



Band7-20MHz-16QAM-21350-100RB#0



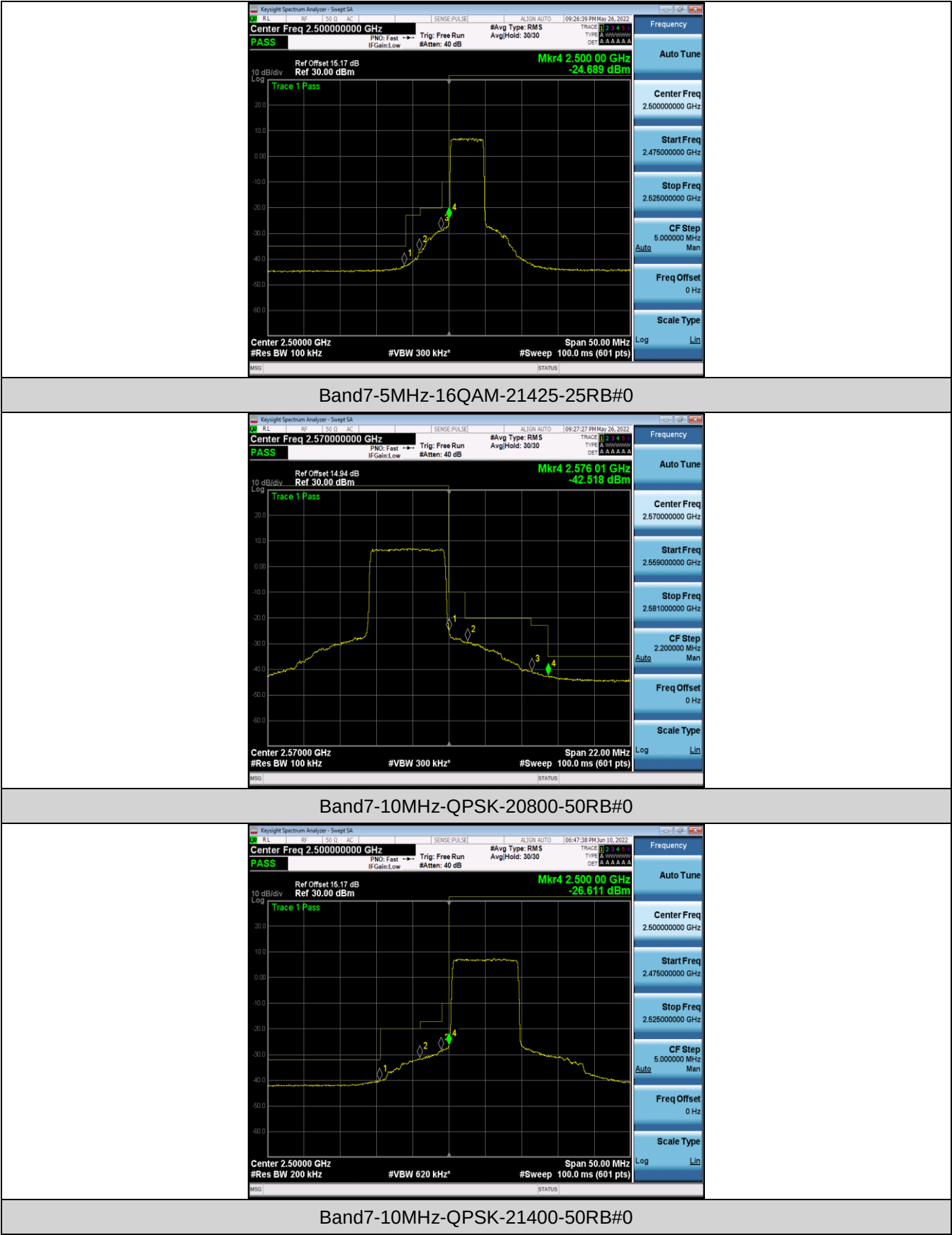
Appendix D: Band Edge

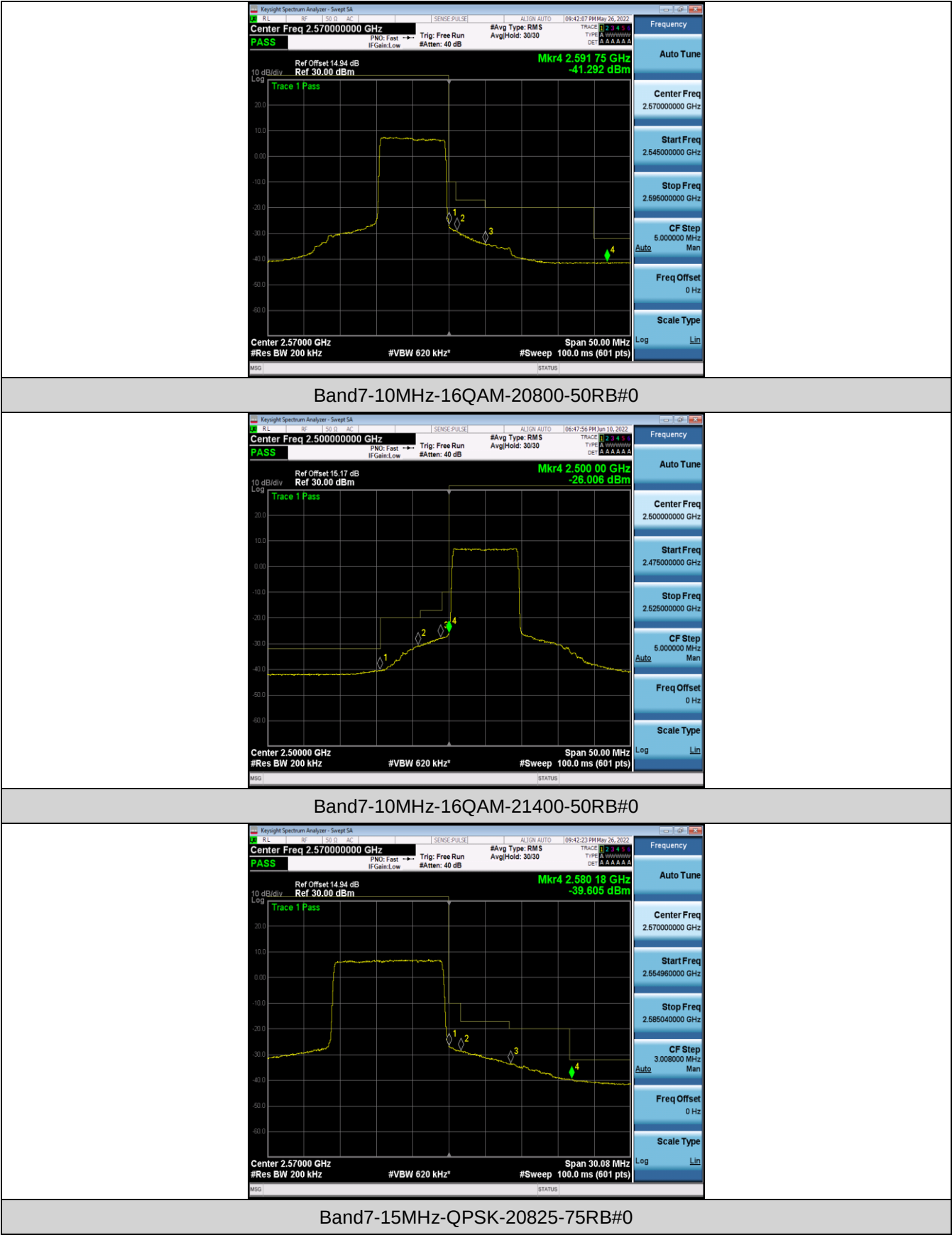
Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	-42.21,-34.57,-28.83,-24.76	PASS
Band7	5MHz	QPSK	21425	25RB#0	-26.01,-30.16,-40.42,-42.17	PASS
Band7	5MHz	16QAM	20775	25RB#0	-42.59,-37.23,-28.91,-24.69	PASS
Band7	5MHz	16QAM	21425	25RB#0	-25.19,-29.30,-40.65,-42.52	PASS
Band7	10MHz	QPSK	20800	50RB#0	-40.26,-31.49,-28.32,-26.61	PASS
Band7	10MHz	QPSK	21400	50RB#0	-26.84,-29.07,-34.15,-41.29	PASS
Band7	10MHz	16QAM	20800	50RB#0	-40.39,-30.78,-27.77,-26.01	PASS
Band7	10MHz	16QAM	21400	50RB#0	-26.87,-28.62,-33.51,-39.60	PASS
Band7	15MHz	QPSK	20825	75RB#0	-34.34,-27.90,-24.56,-24.77	PASS
Band7	15MHz	QPSK	21375	75RB#0	-25.60,-25.06,-30.45,-39.27	PASS
Band7	15MHz	16QAM	20825	75RB#0	-36.29,-29.91,-27.52,-27.24	PASS
Band7	15MHz	16QAM	21375	75RB#0	-27.99,-28.49,-32.73,-38.95	PASS
Band7	20MHz	QPSK	20850	100RB#0	-33.66,-29.43,-26.60,-25.85	PASS
Band7	20MHz	QPSK	21350	100RB#0	-26.74,-27.59,-30.50,-38.23	PASS
Band7	20MHz	16QAM	20850	100RB#0	-33.46,-28.88,-26.83,-26.31	PASS
Band7	20MHz	16QAM	21350	100RB#0	-26.79,-27.78,-30.52,-38.20	PASS

Test Graphs







KeySight Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

PASS

Ref Offset 14.94 dB

Ref 30.00 dBm

Trace 1 Pass

Center 2.57000 GHz

#Res BW 200 kHz

#VBW 620 kHz

#Sweep 100.0 ms (601 pts)

SENSE:PULSE

ALIGN: AUTO

09:42:23 PM May 26, 2022

#Avg Type: RMS

Avg/Hold: 30/30

TYPE: A

DEF: AAAAAA

Trig: Free Run

#Atten: 40 dB

IF Gain: Low

PK2: Fast

IF Gain: Low

10 dB/div

Log

Mkr4 2.58018 GHz

-39.605 dBm

Span 30.08 MHz

Frequency

Auto Tune

Center Freq

2.57000000 GHz

Start Freq

2.55496000 GHz

Stop Freq

2.58504000 GHz

CF Step

3.008000 MHz

Man

Auto

Freq Offset

0 Hz

Scale Type

Log

Lin

Band7-15MHz-QPSK-20825-75RB#0