

FCC LTE Band Test Data

FCC ID : 2BG5S-CLR903

Company: : Shanghai Yuge information technology Co., Ltd.

EUT : 4G LTE Wireless Communication Module

Model Number : CLR903

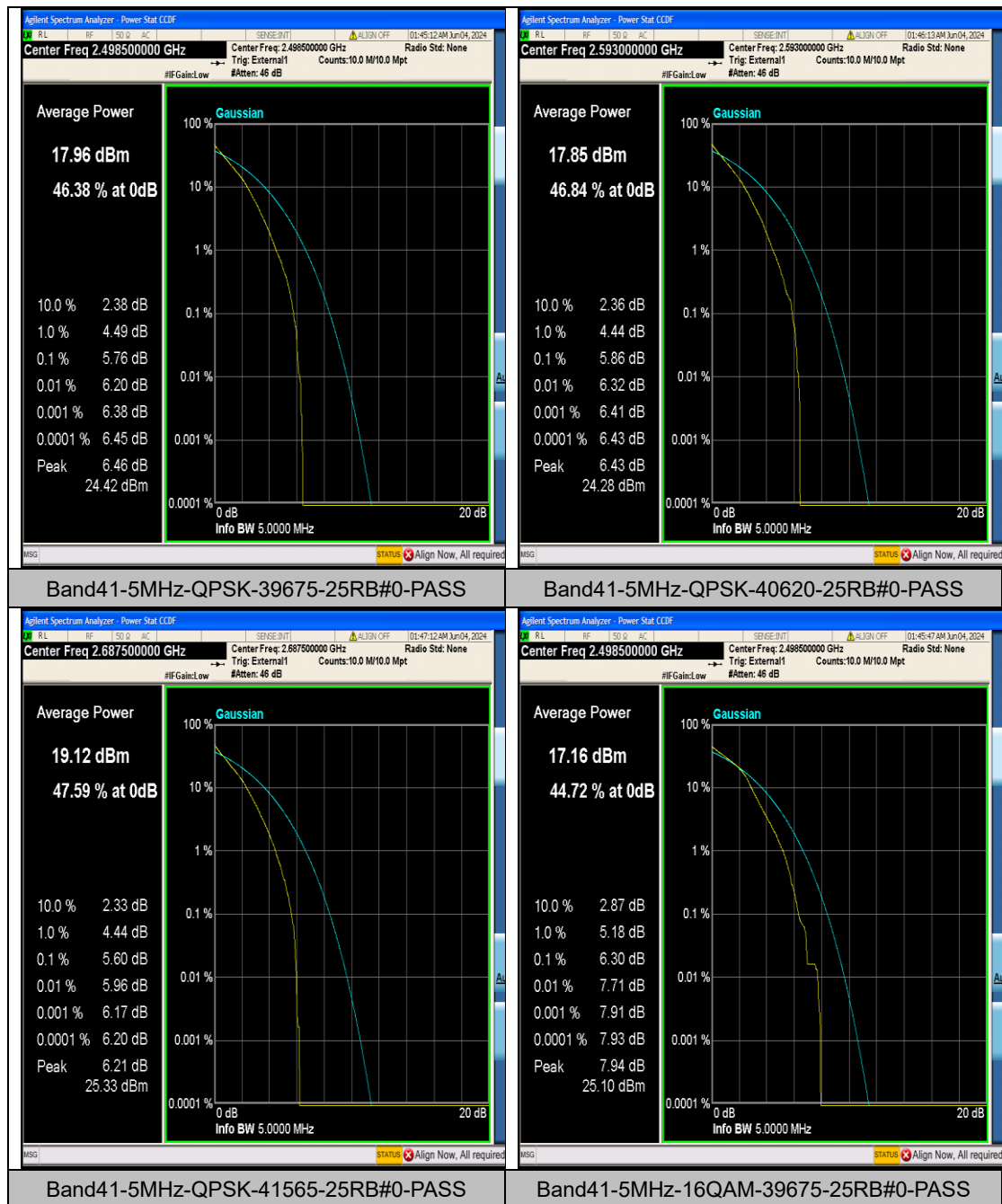
Reviewed By : Eric Wang

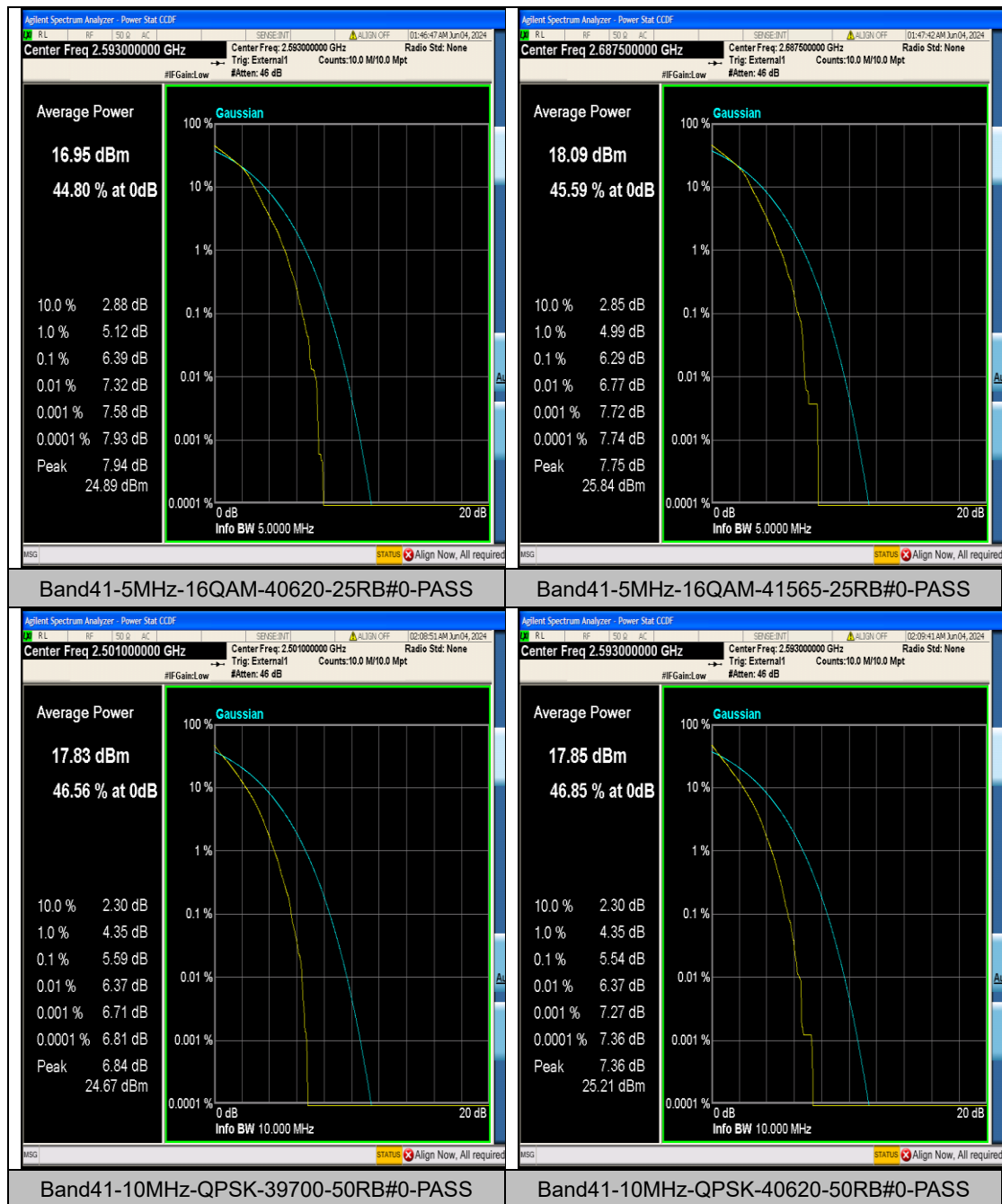
Appendix B: Peak-to-Average Ratio(CCDF)

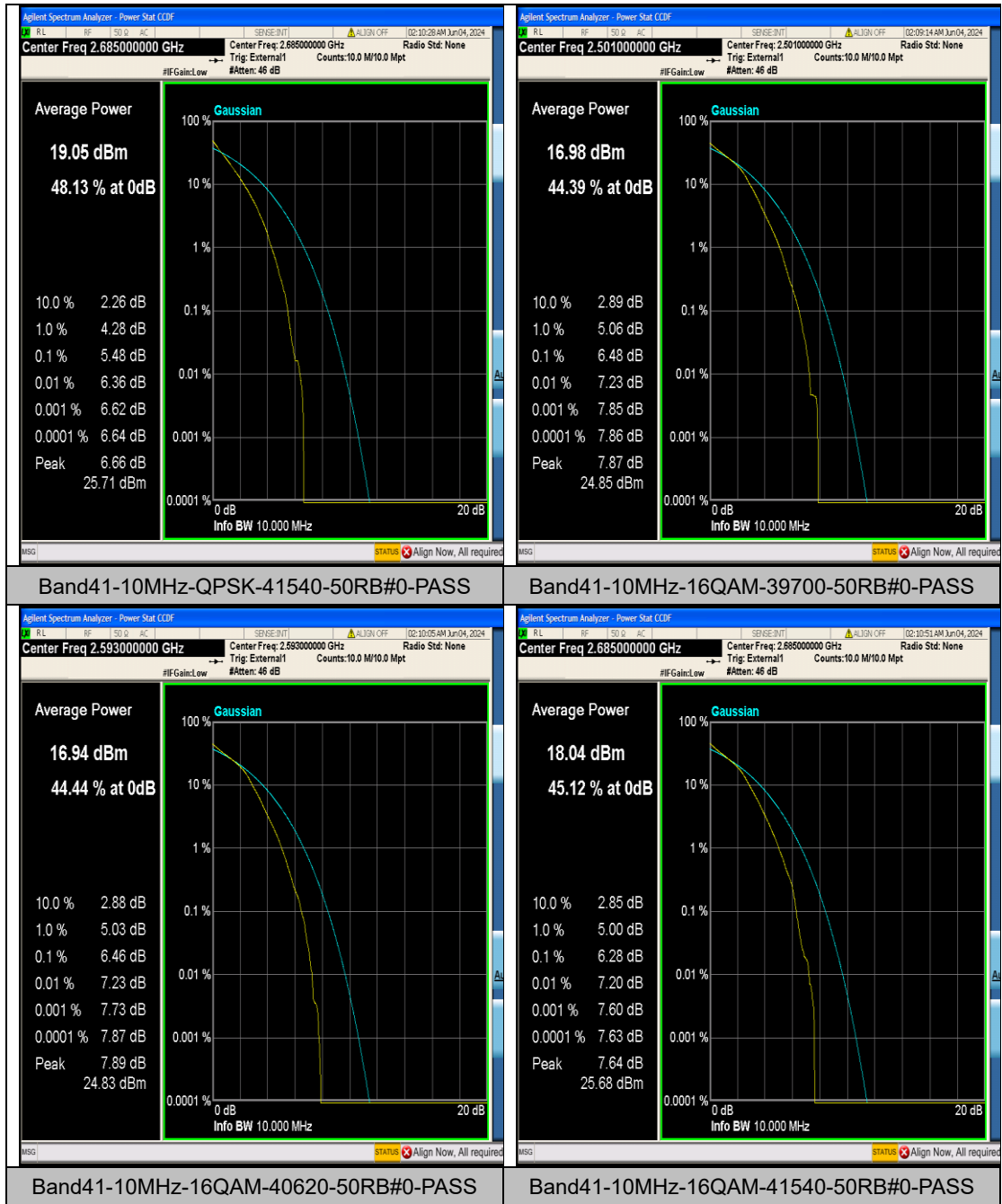
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	5.76	13	PASS
Band41	5MHz	QPSK	40620	25RB#0	5.86	13	PASS
Band41	5MHz	QPSK	41565	25RB#0	5.60	13	PASS
Band41	5MHz	16QAM	39675	25RB#0	6.30	13	PASS
Band41	5MHz	16QAM	40620	25RB#0	6.39	13	PASS
Band41	5MHz	16QAM	41565	25RB#0	6.29	13	PASS
Band41	10MHz	QPSK	39700	50RB#0	5.59	13	PASS
Band41	10MHz	QPSK	40620	50RB#0	5.54	13	PASS
Band41	10MHz	QPSK	41540	50RB#0	5.48	13	PASS
Band41	10MHz	16QAM	39700	50RB#0	6.48	13	PASS
Band41	10MHz	16QAM	40620	50RB#0	6.46	13	PASS
Band41	10MHz	16QAM	41540	50RB#0	6.28	13	PASS
Band41	15MHz	QPSK	39725	75RB#0	5.94	13	PASS
Band41	15MHz	QPSK	40620	75RB#0	5.94	13	PASS
Band41	15MHz	QPSK	41515	75RB#0	5.82	13	PASS
Band41	15MHz	16QAM	39725	75RB#0	6.45	13	PASS
Band41	15MHz	16QAM	40620	75RB#0	6.52	13	PASS
Band41	15MHz	16QAM	41515	75RB#0	6.38	13	PASS
Band41	20MHz	QPSK	39750	100RB#0	5.54	13	PASS
Band41	20MHz	QPSK	40620	100RB#0	5.46	13	PASS
Band41	20MHz	QPSK	41490	100RB#0	5.49	13	PASS
Band41	20MHz	16QAM	39750	100RB#0	6.33	13	PASS
Band41	20MHz	16QAM	40620	100RB#0	6.27	13	PASS
Band41	20MHz	16QAM	41490	100RB#0	6.22	13	PASS

Test Graphs







Band41-10MHz-QPSK-41540-50RB#0-PASS

Band41-10MHz-16QAM-39700-50RB#0-PASS

Agilent Spectrum Analyzer - Power Stat CCDF

RL

RF

FS

150.0

AC

SENSE (V/T)

ALIGN OFF

02:10:05 AM Jun 04, 2024

Center Freq 2.593000000 GHz

Center Freq: 2.593000000 GHz

Radio Std: None

Trig: External1

Counts: 10.0 M/10.0 Mpt

#IF Gain: Low

#Atten: 46 dB

Average Power

16.94 dBm

44.44 % at 0dB

10.0 %

2.88 dB

1.0 %

5.03 dB

0.1 %

6.46 dB

0.01 %

7.23 dB

0.001 %

7.73 dB

0.0001 %

7.87 dB

Peak

7.89 dB

24.83 dBm

Gaussian

0 dB

20 dB

Info BW 10.000 MHz

MSG

STATUS Align Now, All required

Agilent Spectrum Analyzer - Power Stat CCDF

RL

RF

FS

150.0

AC

SENSE (V/T)

ALIGN OFF

02:10:51 AM Jun 04, 2024

Center Freq 2.685000000 GHz

Center Freq: 2.685000000 GHz

Radio Std: None

Trig: External1

Counts: 10.0 M/10.0 Mpt

#IF Gain: Low

#Atten: 46 dB

Average Power

18.04 dBm

45.12 % at 0dB

10.0 %

2.85 dB

1.0 %

5.00 dB

0.1 %

6.28 dB

0.01 %

7.20 dB

0.001 %

7.60 dB

0.0001 %

7.63 dB

Peak

7.64 dB

25.68 dBm

Gaussian

0 dB

20 dB

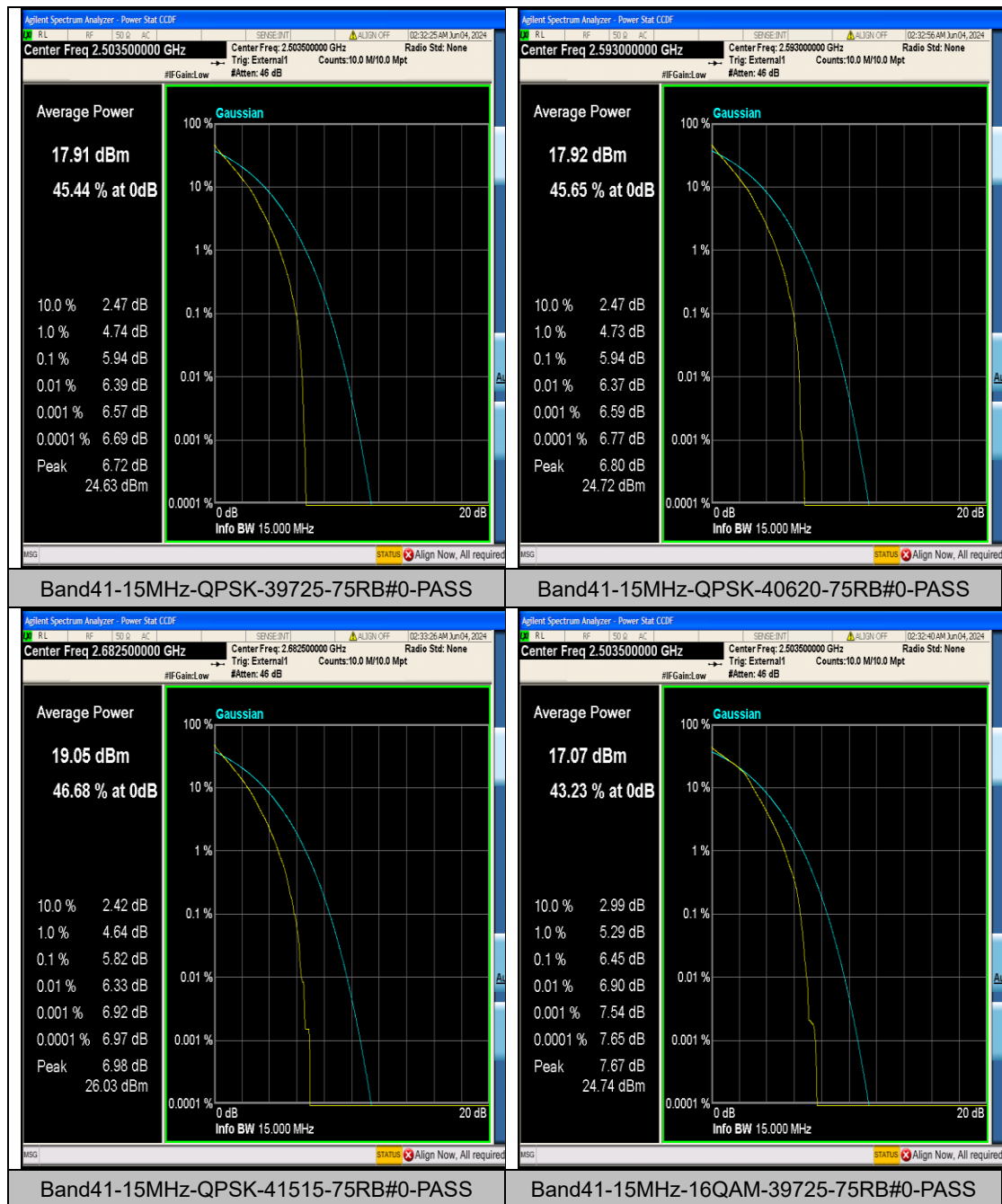
Info BW 10.000 MHz

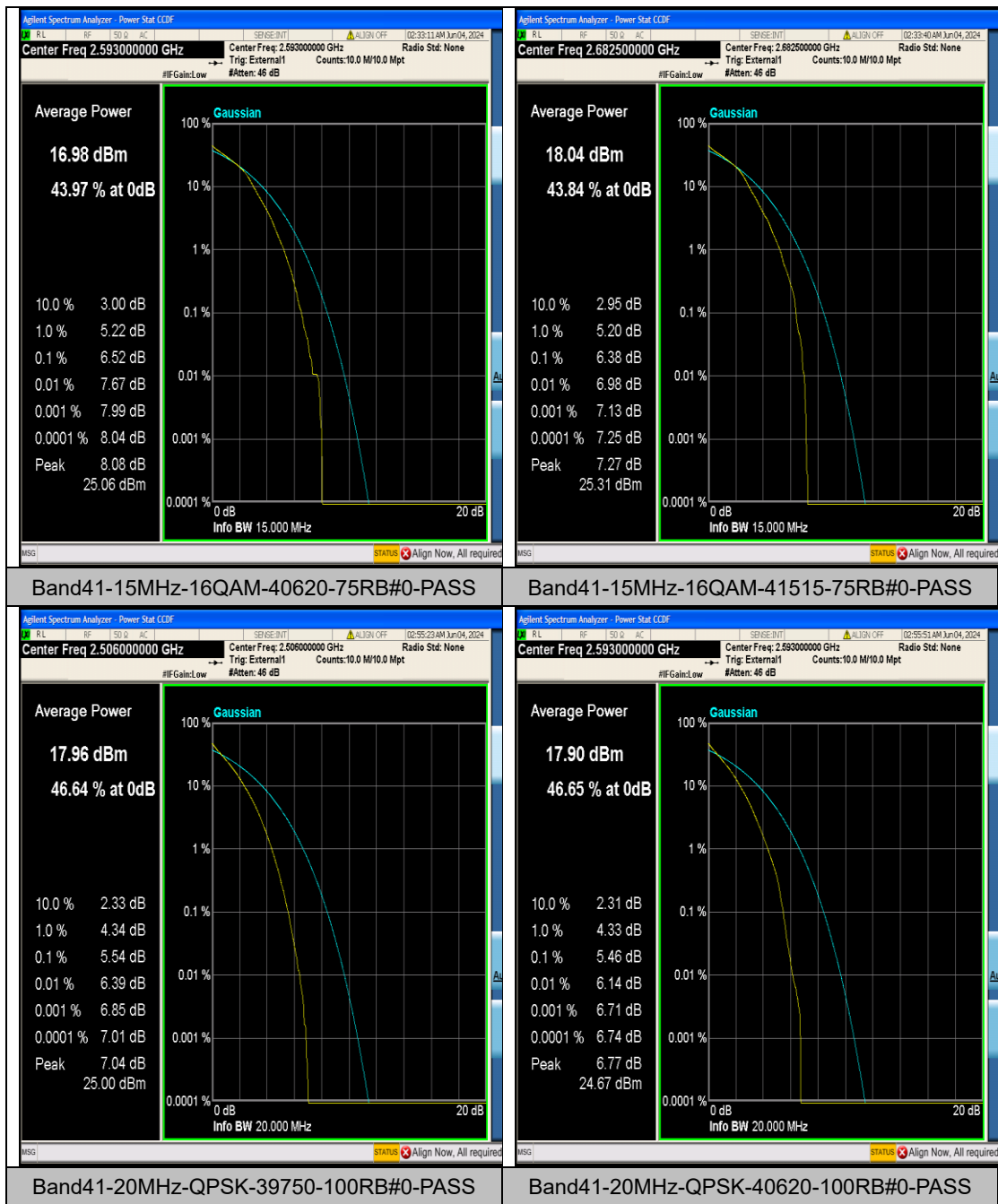
MSG

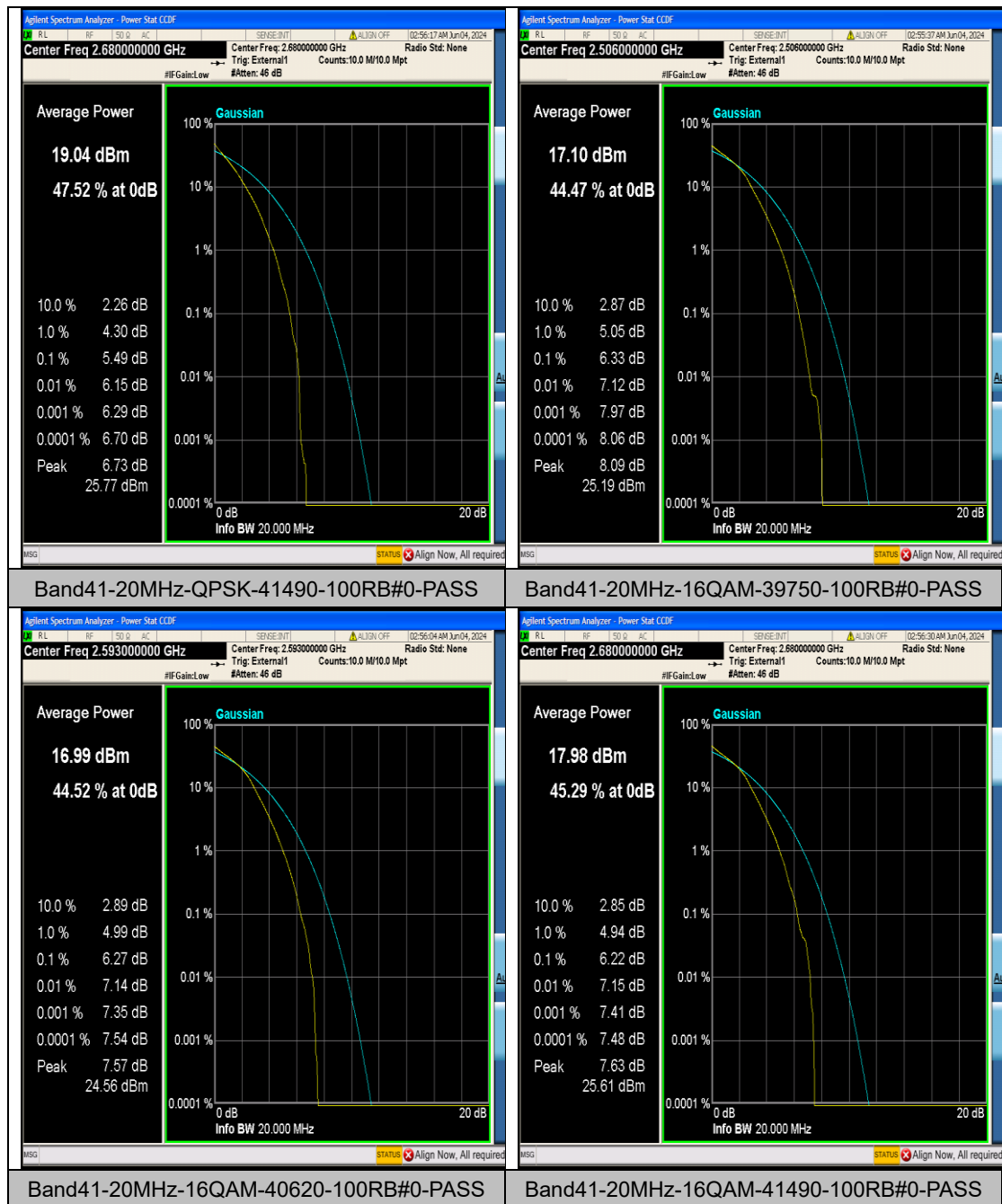
STATUS Align Now, All required

Band41-10MHz-16QAM-40620-50RB#0-PASS

Band41-10MHz-16QAM-41540-50RB#0-PASS





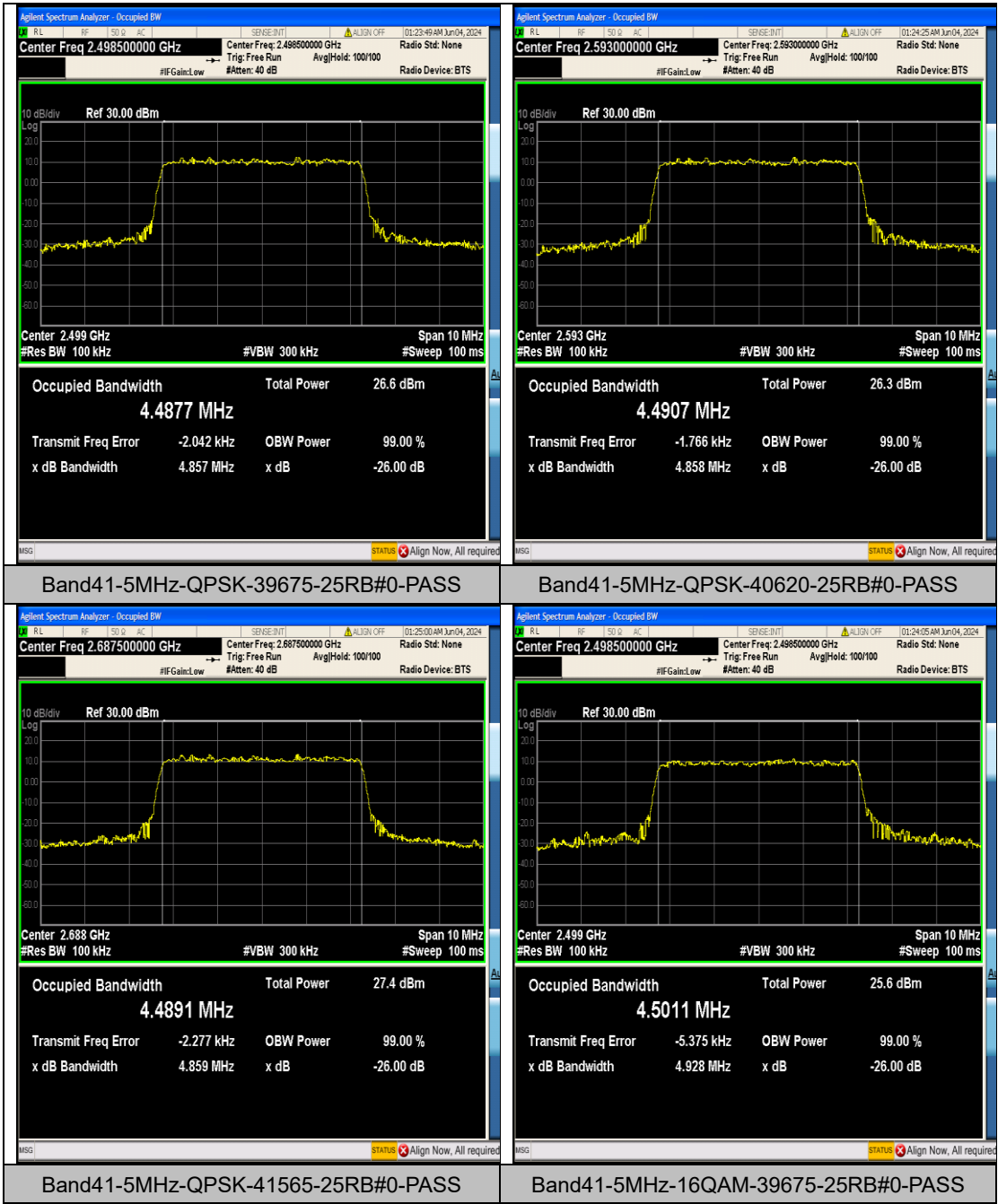


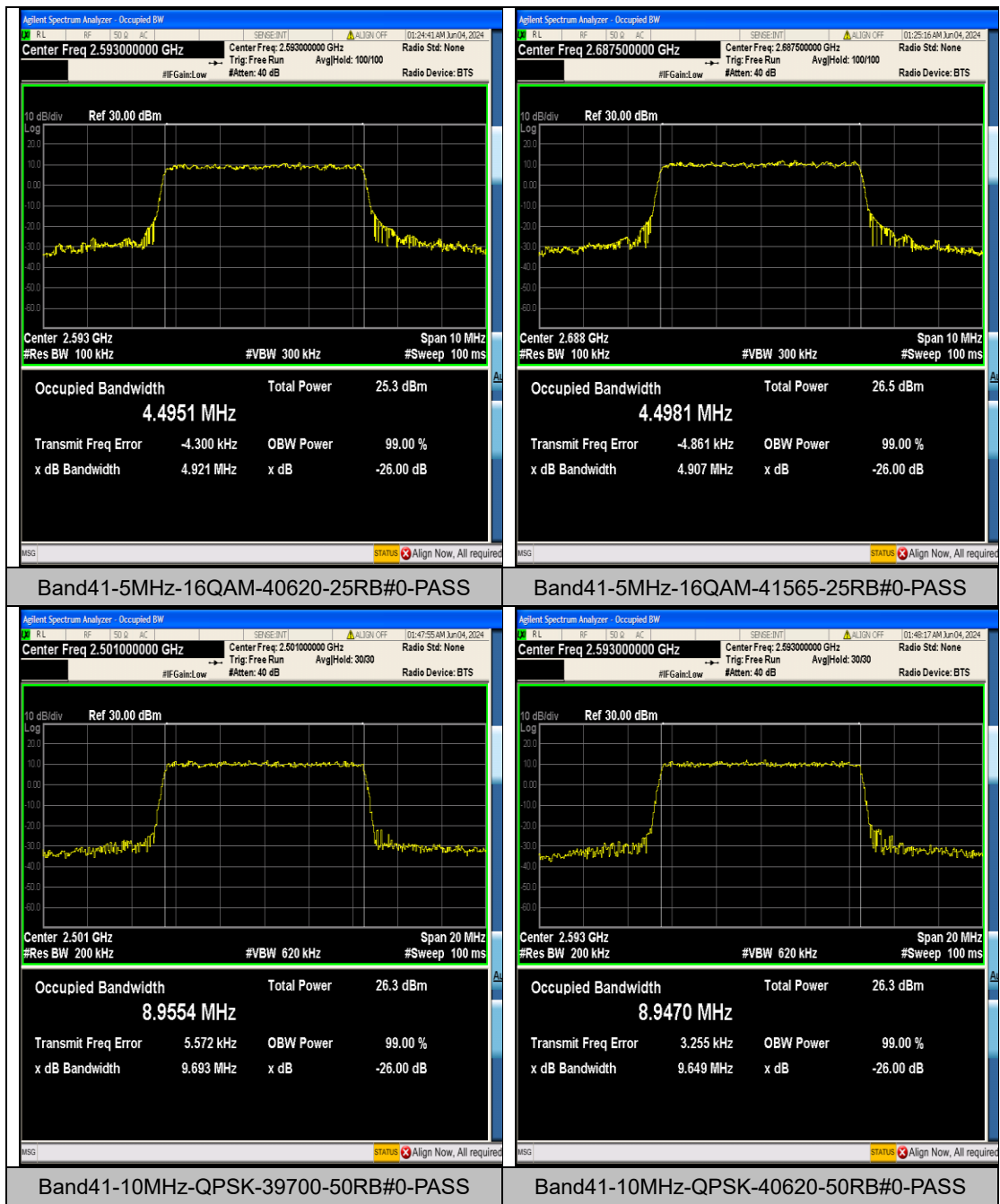
Appendix C: 26dB Bandwidth and Occupied Bandwidth

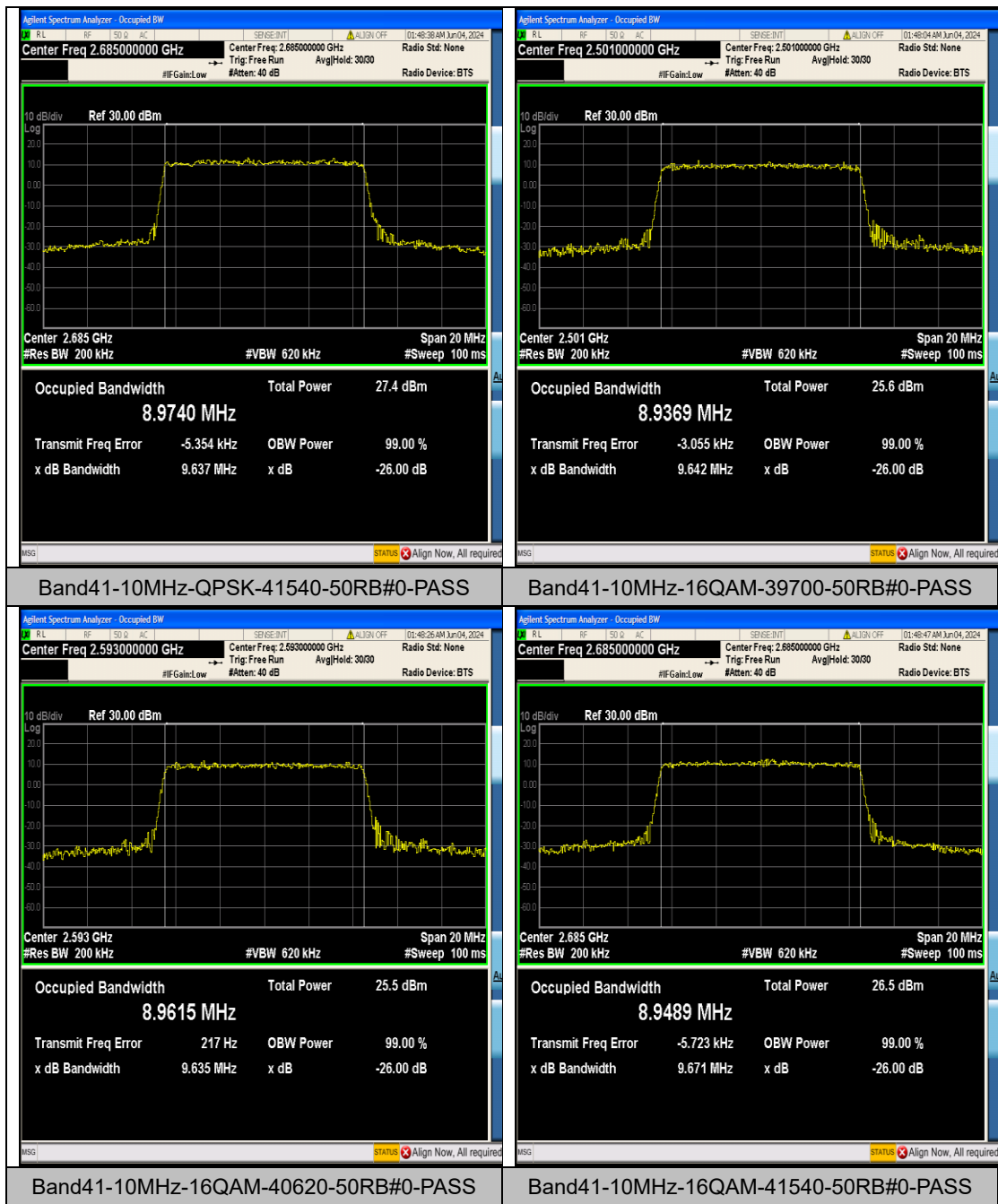
Test Result

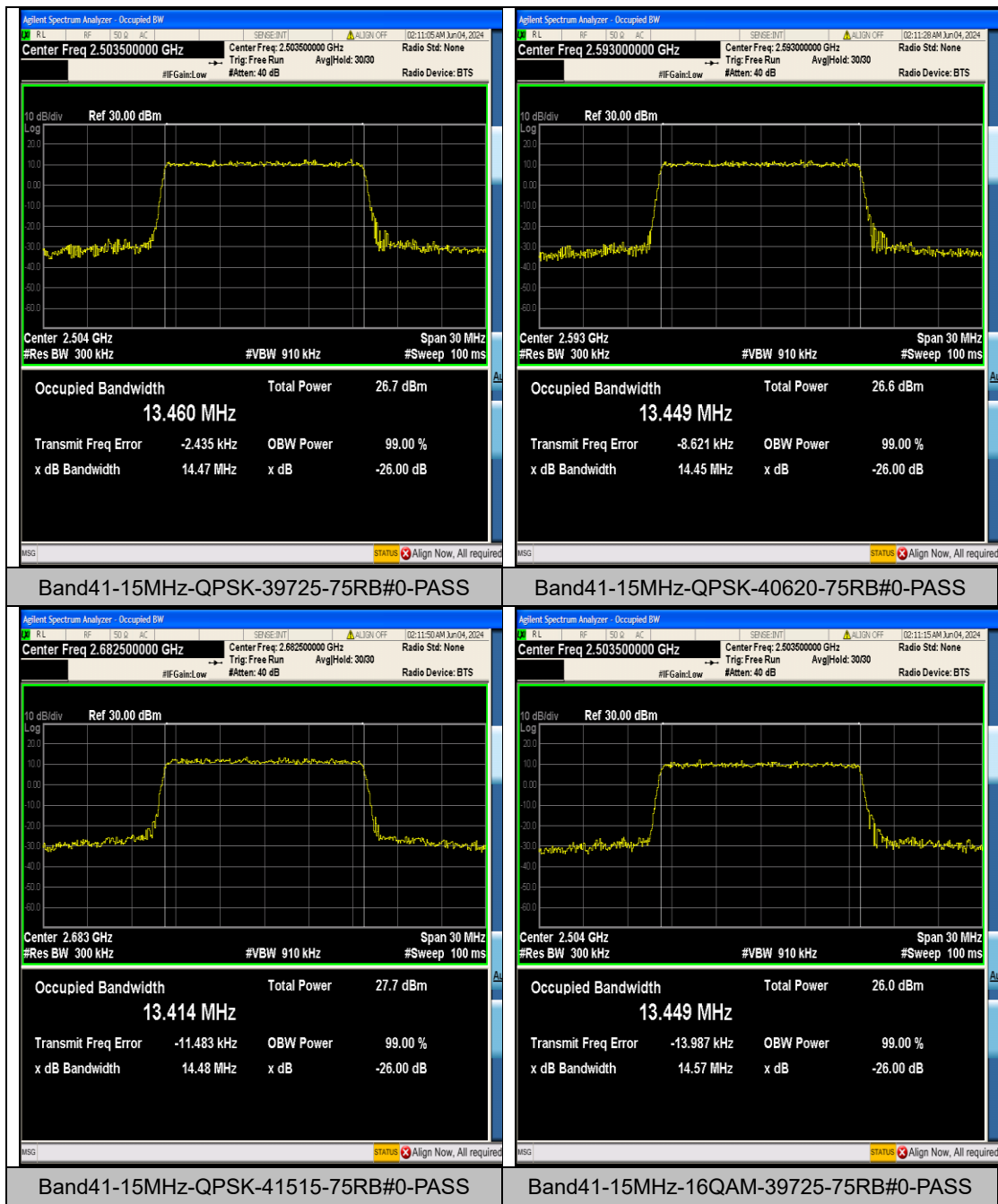
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	4.4877	4.857	PASS
Band41	5MHz	QPSK	40620	25RB#0	4.4907	4.858	PASS
Band41	5MHz	QPSK	41565	25RB#0	4.4891	4.859	PASS
Band41	5MHz	16QAM	39675	25RB#0	4.5011	4.928	PASS
Band41	5MHz	16QAM	40620	25RB#0	4.4951	4.921	PASS
Band41	5MHz	16QAM	41565	25RB#0	4.4981	4.907	PASS
Band41	10MHz	QPSK	39700	50RB#0	8.9554	9.693	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.9470	9.649	PASS
Band41	10MHz	QPSK	41540	50RB#0	8.9740	9.637	PASS
Band41	10MHz	16QAM	39700	50RB#0	8.9369	9.642	PASS
Band41	10MHz	16QAM	40620	50RB#0	8.9615	9.635	PASS
Band41	10MHz	16QAM	41540	50RB#0	8.9489	9.671	PASS
Band41	15MHz	QPSK	39725	75RB#0	13.460	14.47	PASS
Band41	15MHz	QPSK	40620	75RB#0	13.449	14.45	PASS
Band41	15MHz	QPSK	41515	75RB#0	13.414	14.48	PASS
Band41	15MHz	16QAM	39725	75RB#0	13.449	14.57	PASS
Band41	15MHz	16QAM	40620	75RB#0	13.438	14.59	PASS
Band41	15MHz	16QAM	41515	75RB#0	13.481	14.49	PASS
Band41	20MHz	QPSK	39750	100RB#0	17.951	19.39	PASS
Band41	20MHz	QPSK	40620	100RB#0	17.919	19.45	PASS
Band41	20MHz	QPSK	41490	100RB#0	17.923	19.40	PASS
Band41	20MHz	16QAM	39750	100RB#0	17.920	19.56	PASS
Band41	20MHz	16QAM	40620	100RB#0	17.871	19.42	PASS
Band41	20MHz	16QAM	41490	100RB#0	17.906	19.37	PASS

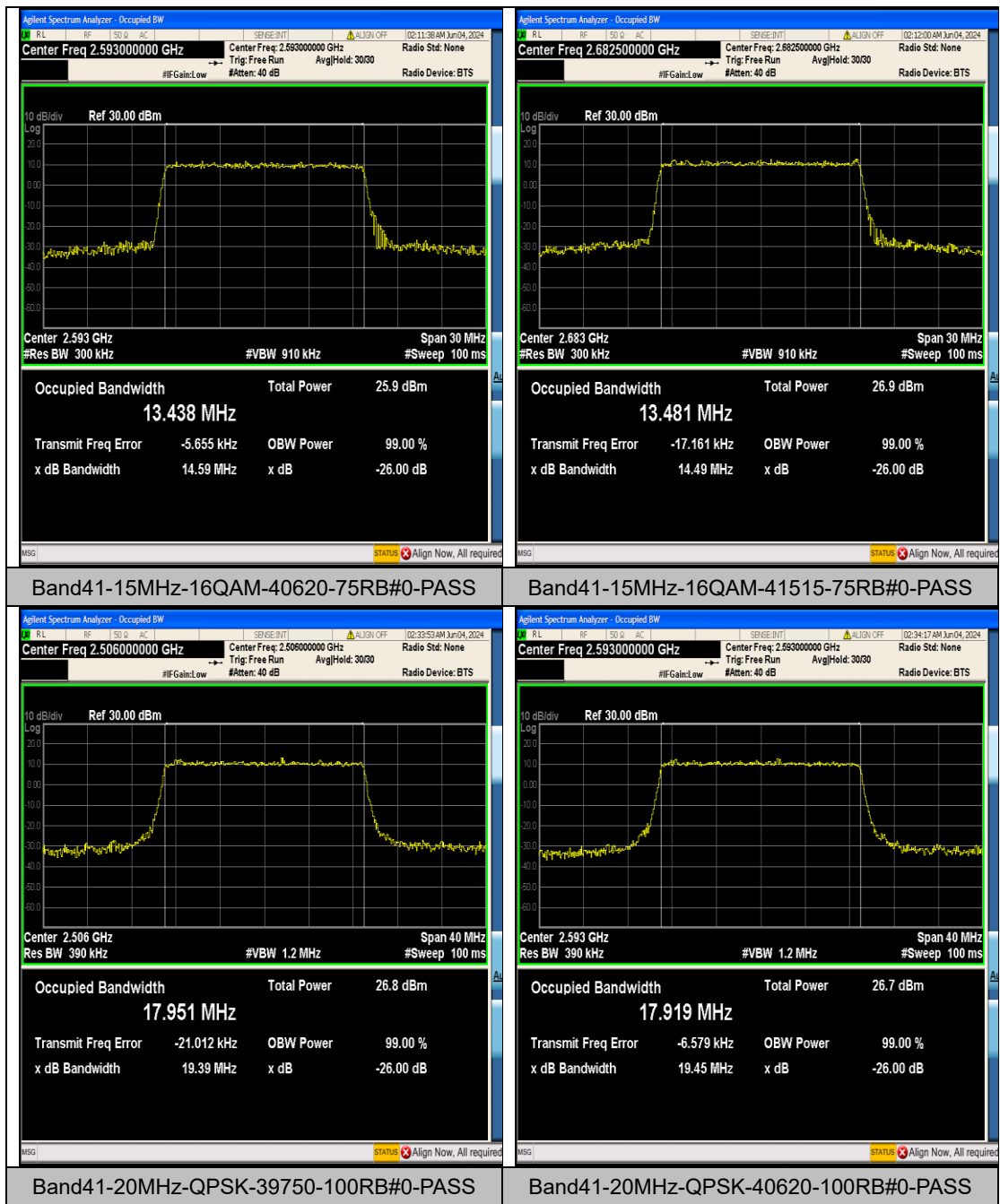
Test Graphs

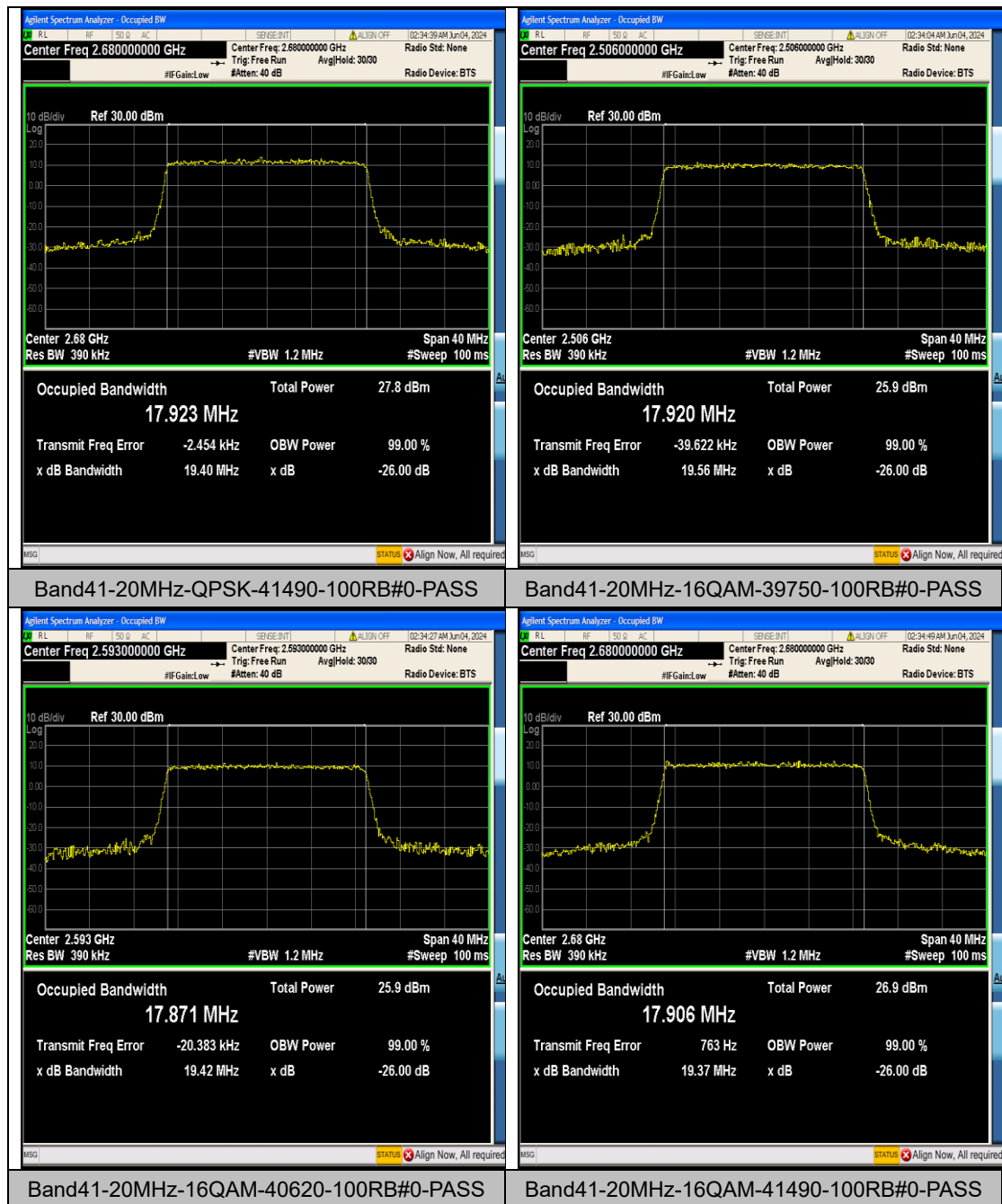










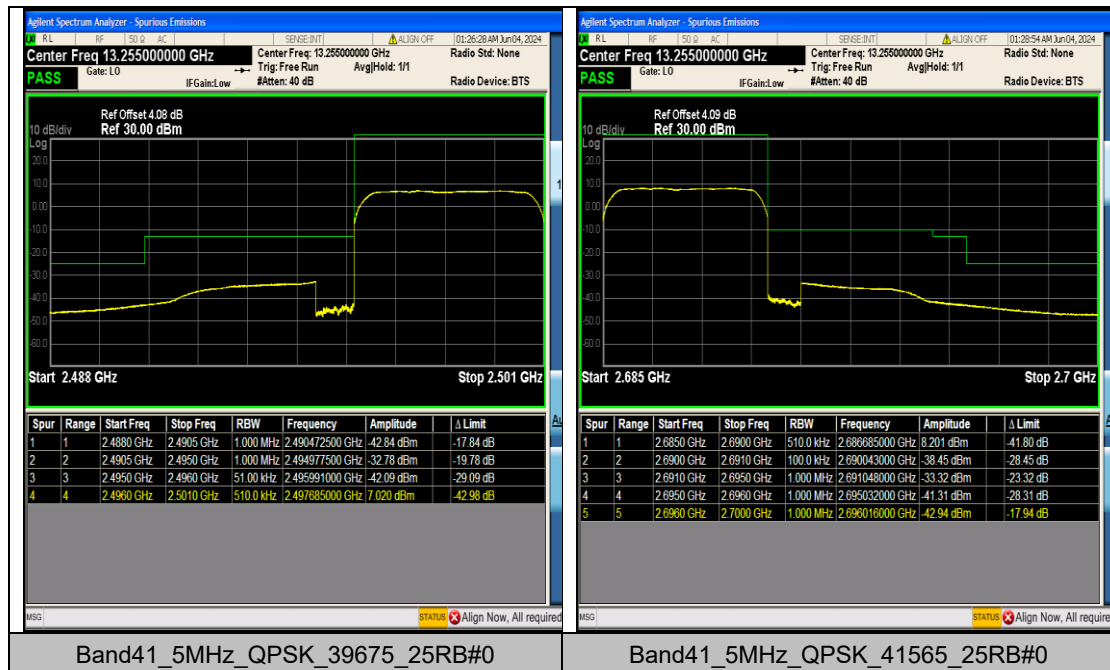


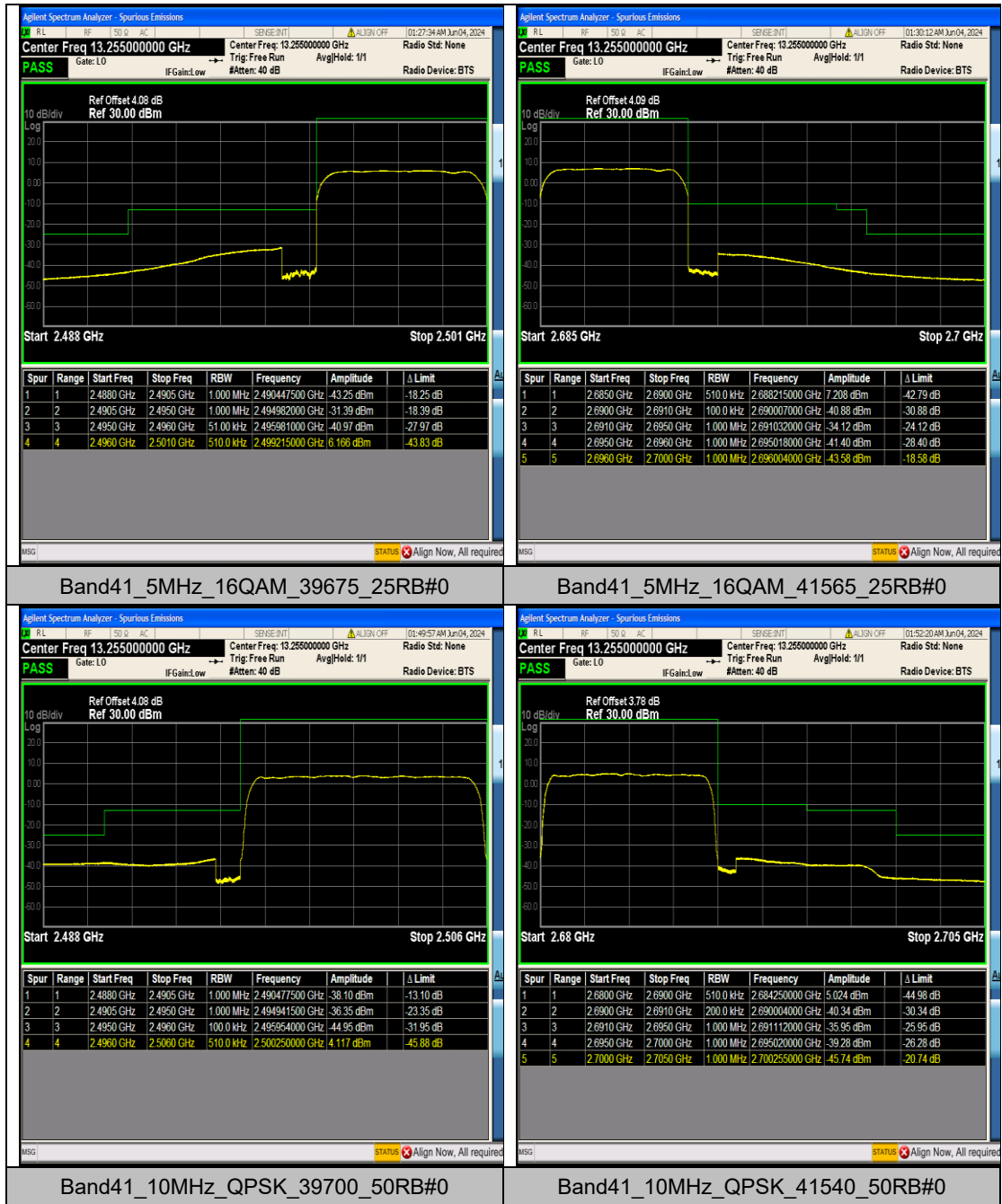
Appendix D: Band Edge

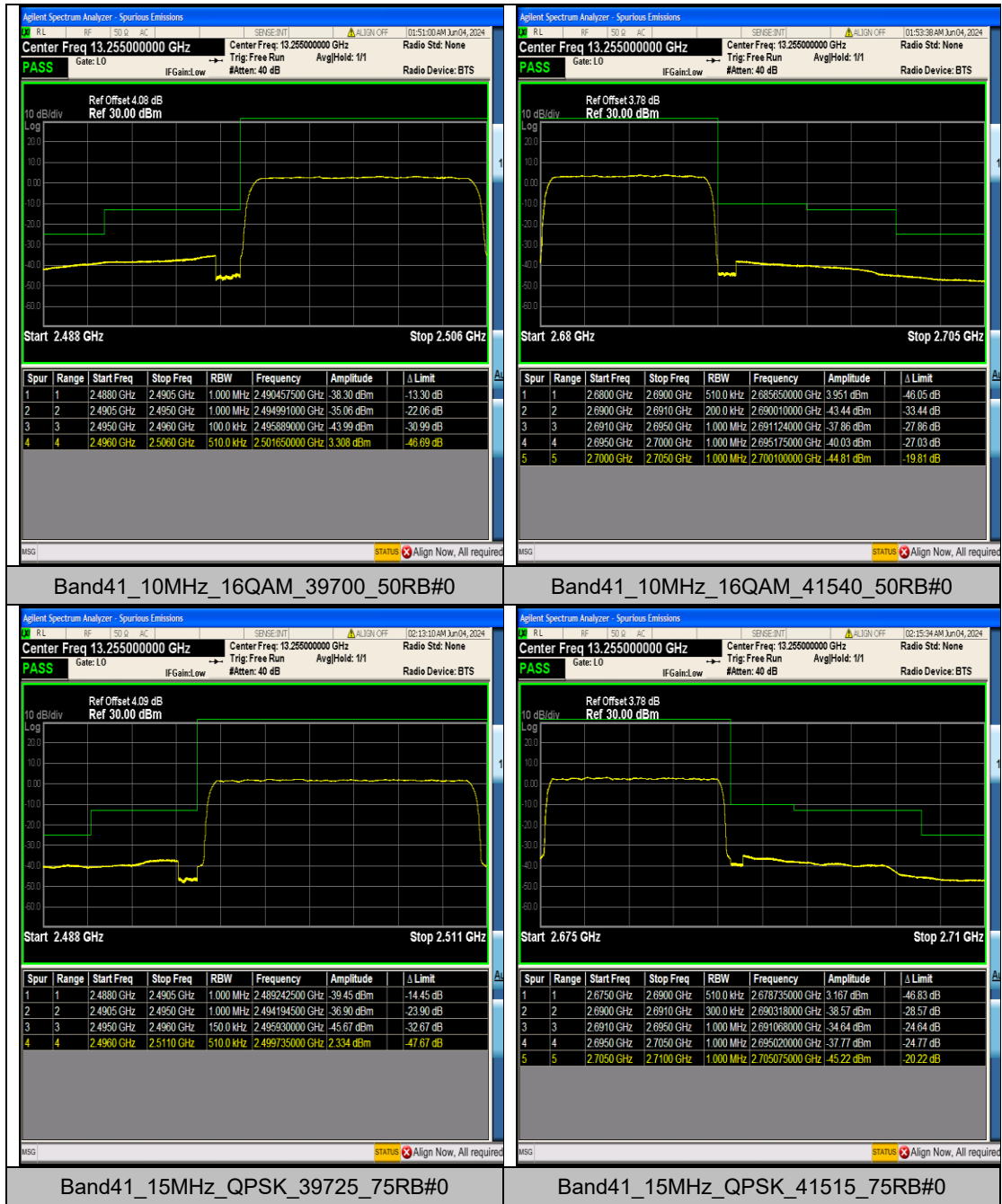
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	-42.84	PASS
Band41	5MHz	QPSK	41565	25RB#0	-42.94	PASS
Band41	5MHz	16QAM	39675	25RB#0	-43.25	PASS
Band41	5MHz	16QAM	41565	25RB#0	-43.58	PASS
Band41	10MHz	QPSK	39700	50RB#0	-38.10	PASS
Band41	10MHz	QPSK	41540	50RB#0	-45.74	PASS
Band41	10MHz	16QAM	39700	50RB#0	-38.30	PASS
Band41	10MHz	16QAM	41540	50RB#0	-44.81	PASS
Band41	15MHz	QPSK	39725	75RB#0	-39.45	PASS
Band41	15MHz	QPSK	41515	75RB#0	-45.22	PASS
Band41	15MHz	16QAM	39725	75RB#0	-38.04	PASS
Band41	15MHz	16QAM	41515	75RB#0	-44.99	PASS
Band41	20MHz	QPSK	39750	100RB#0	-41.59	PASS
Band41	20MHz	QPSK	41490	100RB#0	-46.65	PASS
Band41	20MHz	16QAM	39750	100RB#0	-40.13	PASS
Band41	20MHz	16QAM	41490	100RB#0	-46.17	PASS

Test Graphs







Band41_10MHz_16QAM_39700_50RB#0

Agilent Spectrum Analyzer - Spurious Emissions

RL

RF

150.0

AC

SENSE (W)

ALIGN OFF

02:13:10 AM Jun 04, 2024

Center Freq 13.255000000 GHz

Center Freq: 13.255000000 GHz

Radio Std: None

PASS

Gate: LO

IF Gain: Low

#Atten: 40 dB

Avg/Hold: 1/1

Radio Device: BTS

Ref Offset 4.03 dB

Ref 30.00 dBm

10 dB/div

Log

Start 2.488 GHz

Stop 2.511 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4880 GHz	2.4905 GHz	1.000 MHz	2.489242500 GHz	-39.45 dBm	-14.45 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494194500 GHz	-36.90 dBm	-23.90 dB
3	3	2.4950 GHz	2.4960 GHz	150.0 kHz	2.495930000 GHz	-45.67 dBm	-32.67 dB
4	4	2.4960 GHz	2.5110 GHz	510.0 kHz	2.499735000 GHz	2.334 dBm	-47.67 dB

MSG

STATUS

Align Now, All required

Agilent Spectrum Analyzer - Spurious Emissions

RL

RF

150.0

AC

SENSE (W)

ALIGN OFF

02:15:34 AM Jun 04, 2024

Center Freq 13.255000000 GHz

Center Freq: 13.255000000 GHz

Radio Std: None

PASS

Gate: LO

IF Gain: Low

#Atten: 40 dB

Avg/Hold: 1/1

Radio Device: BTS

Ref Offset 3.78 dB

Ref 30.00 dBm

10 dB/div

Log

Start 2.675 GHz

Stop 2.71 GHz

MSG

STATUS

Align Now, All required

Band41_15MHz_QPSK_39725_75RB#0

Agilent Spectrum Analyzer - Spurious Emissions

RL

RF

150.0

AC

SENSE (W)

ALIGN OFF

02:15:34 AM Jun 04, 2024

Center Freq 13.255000000 GHz

Center Freq: 13.255000000 GHz

Radio Std: None

PASS

Gate: LO

IF Gain: Low

#Atten: 40 dB

Avg/Hold: 1/1

Radio Device: BTS

Ref Offset 3.78 dB

Ref 30.00 dBm

10 dB/div

Log

Start 2.675 GHz

Stop 2.71 GHz

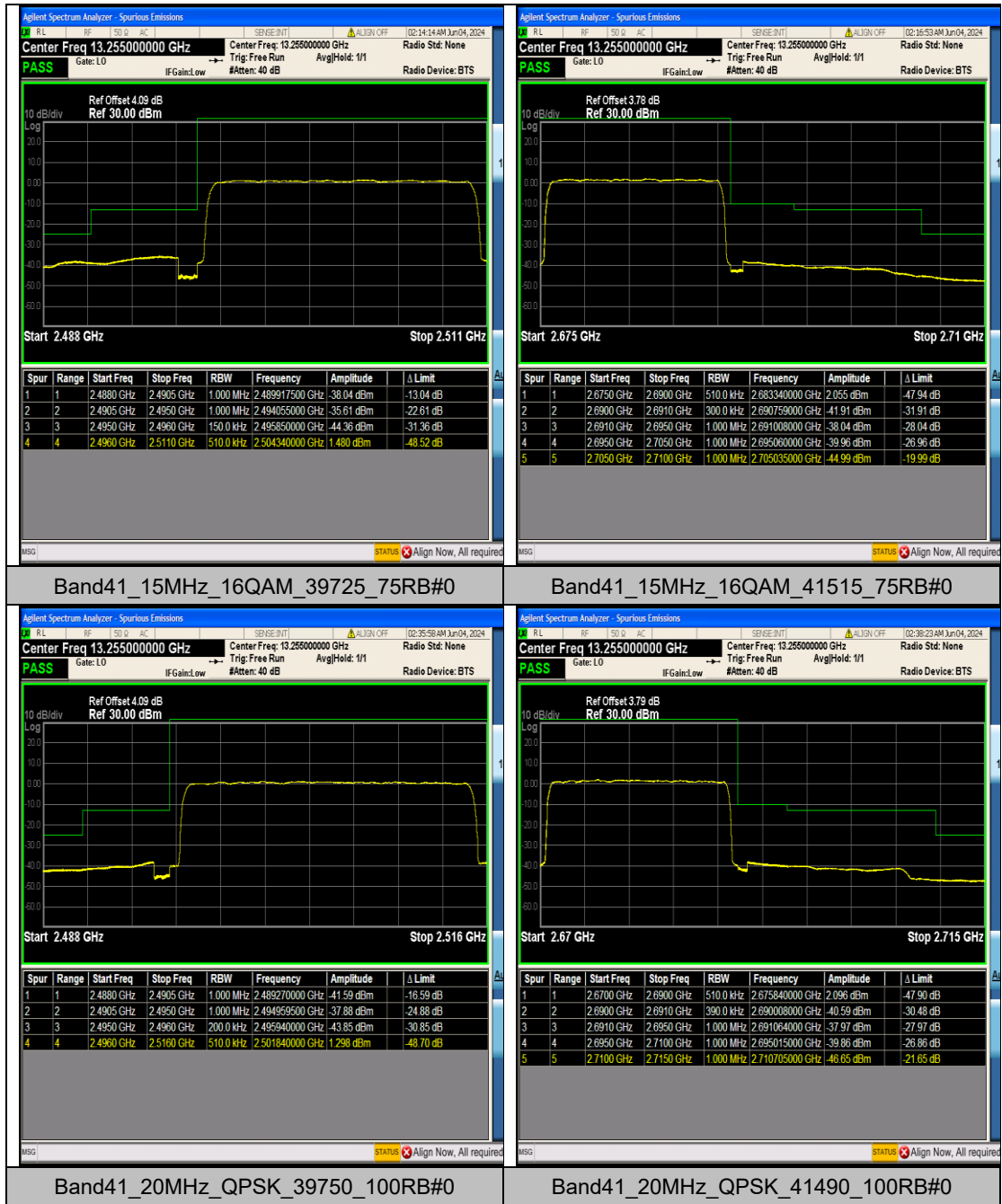
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6750 GHz	2.6900 GHz	510.0 kHz	2.678735000 GHz	3.167 dBm	-46.83 dB
2	2	2.6900 GHz	2.6910 GHz	300.0 kHz	2.690318000 GHz	-38.57 dBm	-28.57 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691068000 GHz	-34.64 dBm	-24.64 dB
4	4	2.6950 GHz	2.7050 GHz	1.000 MHz	2.695020000 GHz	-37.77 dBm	-24.77 dB
5	5	2.7050 GHz	2.7100 GHz	1.000 MHz	2.705075000 GHz	-45.22 dBm	-20.22 dB

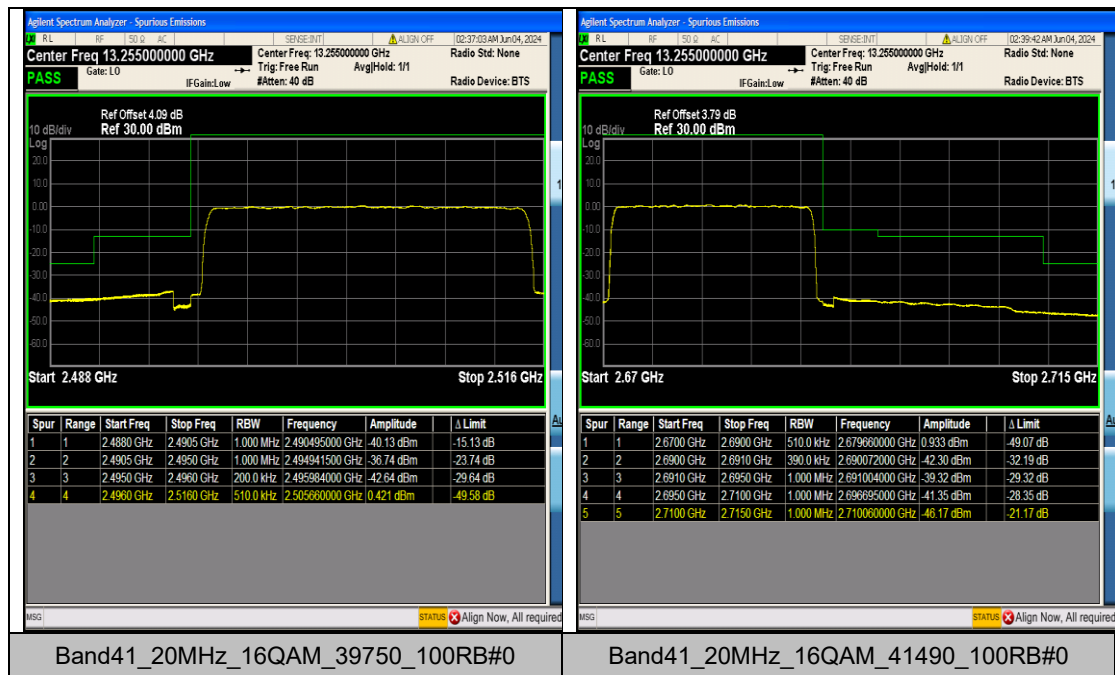
MSG

STATUS

Align Now, All required

Band41_15MHz_QPSK_41515_75RB#0





Appendix E: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	0.009~0.15	-72.31	PASS
Band41	5MHz	QPSK	39675	25RB#0	0.15~30	-67.58	PASS
Band41	5MHz	QPSK	39675	25RB#0	30~1000	-66.88	PASS
Band41	5MHz	QPSK	39675	25RB#0	1000~20000	-46.31	PASS
Band41	5MHz	QPSK	39675	25RB#0	20000~27000	-39.70	PASS
Band41	5MHz	QPSK	40620	25RB#0	0.009~0.15	-74.18	PASS
Band41	5MHz	QPSK	40620	25RB#0	0.15~30	-66.28	PASS
Band41	5MHz	QPSK	40620	25RB#0	30~1000	-66.76	PASS
Band41	5MHz	QPSK	40620	25RB#0	1000~20000	-46.12	PASS
Band41	5MHz	QPSK	40620	25RB#0	20000~27000	-39.59	PASS
Band41	5MHz	QPSK	41565	25RB#0	0.009~0.15	-73.27	PASS
Band41	5MHz	QPSK	41565	25RB#0	0.15~30	-67.91	PASS
Band41	5MHz	QPSK	41565	25RB#0	30~1000	-66.77	PASS
Band41	5MHz	QPSK	41565	25RB#0	1000~20000	-46.26	PASS
Band41	5MHz	QPSK	41565	25RB#0	20000~27000	-39.43	PASS
Band41	5MHz	16QAM	39675	25RB#0	0.009~0.15	-73.22	PASS
Band41	5MHz	16QAM	39675	25RB#0	0.15~30	-66.02	PASS
Band41	5MHz	16QAM	39675	25RB#0	30~1000	-66.88	PASS
Band41	5MHz	16QAM	39675	25RB#0	1000~20000	-45.87	PASS
Band41	5MHz	16QAM	39675	25RB#0	20000~27000	-39.81	PASS
Band41	5MHz	16QAM	40620	25RB#0	0.009~0.15	-73.73	PASS
Band41	5MHz	16QAM	40620	25RB#0	0.15~30	-67.57	PASS
Band41	5MHz	16QAM	40620	25RB#0	30~1000	-66.47	PASS
Band41	5MHz	16QAM	40620	25RB#0	1000~20000	-46.23	PASS
Band41	5MHz	16QAM	40620	25RB#0	20000~27000	-39.59	PASS
Band41	5MHz	16QAM	41565	25RB#0	0.009~0.15	-72.42	PASS
Band41	5MHz	16QAM	41565	25RB#0	0.15~30	-69.45	PASS
Band41	5MHz	16QAM	41565	25RB#0	30~1000	-66.72	PASS
Band41	5MHz	16QAM	41565	25RB#0	1000~20000	-46.34	PASS
Band41	5MHz	16QAM	41565	25RB#0	20000~27000	-39.89	PASS
Band41	10MHz	QPSK	39700	50RB#0	0.009~0.15	-73.31	PASS
Band41	10MHz	QPSK	39700	50RB#0	0.15~30	-65.91	PASS
Band41	10MHz	QPSK	39700	50RB#0	30~1000	-66.66	PASS
Band41	10MHz	QPSK	39700	50RB#0	1000~20000	-46.39	PASS
Band41	10MHz	QPSK	39700	50RB#0	20000~27000	-39.82	PASS
Band41	10MHz	QPSK	40620	50RB#0	0.009~0.15	-73.20	PASS

Band41	10MHz	QPSK	40620	50RB#0	0.15~30	-66.10	PASS
Band41	10MHz	QPSK	40620	50RB#0	30~1000	-66.49	PASS
Band41	10MHz	QPSK	40620	50RB#0	1000~20000	-46.52	PASS
Band41	10MHz	QPSK	40620	50RB#0	20000~27000	-39.49	PASS
Band41	10MHz	QPSK	41540	50RB#0	0.009~0.15	-72.81	PASS
Band41	10MHz	QPSK	41540	50RB#0	0.15~30	-66.98	PASS
Band41	10MHz	QPSK	41540	50RB#0	30~1000	-66.72	PASS
Band41	10MHz	QPSK	41540	50RB#0	1000~20000	-46.26	PASS
Band41	10MHz	QPSK	41540	50RB#0	20000~27000	-39.75	PASS
Band41	10MHz	16QAM	39700	50RB#0	0.009~0.15	-73.43	PASS
Band41	10MHz	16QAM	39700	50RB#0	0.15~30	-68.44	PASS
Band41	10MHz	16QAM	39700	50RB#0	30~1000	-66.60	PASS
Band41	10MHz	16QAM	39700	50RB#0	1000~20000	-46.48	PASS
Band41	10MHz	16QAM	39700	50RB#0	20000~27000	-39.99	PASS
Band41	10MHz	16QAM	40620	50RB#0	0.009~0.15	-75.33	PASS
Band41	10MHz	16QAM	40620	50RB#0	0.15~30	-67.85	PASS
Band41	10MHz	16QAM	40620	50RB#0	30~1000	-66.60	PASS
Band41	10MHz	16QAM	40620	50RB#0	1000~20000	-46.05	PASS
Band41	10MHz	16QAM	40620	50RB#0	20000~27000	-39.68	PASS
Band41	10MHz	16QAM	41540	50RB#0	0.009~0.15	-73.08	PASS
Band41	10MHz	16QAM	41540	50RB#0	0.15~30	-66.05	PASS
Band41	10MHz	16QAM	41540	50RB#0	30~1000	-66.61	PASS
Band41	10MHz	16QAM	41540	50RB#0	1000~20000	-46.11	PASS
Band41	10MHz	16QAM	41540	50RB#0	20000~27000	-39.46	PASS
Band41	15MHz	QPSK	39725	75RB#0	0.009~0.15	-74.07	PASS
Band41	15MHz	QPSK	39725	75RB#0	0.15~30	-69.24	PASS
Band41	15MHz	QPSK	39725	75RB#0	30~1000	-66.40	PASS
Band41	15MHz	QPSK	39725	75RB#0	1000~20000	-46.49	PASS
Band41	15MHz	QPSK	39725	75RB#0	20000~27000	-39.78	PASS
Band41	15MHz	QPSK	40620	75RB#0	0.009~0.15	-72.17	PASS
Band41	15MHz	QPSK	40620	75RB#0	0.15~30	-66.69	PASS
Band41	15MHz	QPSK	40620	75RB#0	30~1000	-66.96	PASS
Band41	15MHz	QPSK	40620	75RB#0	1000~20000	-45.94	PASS
Band41	15MHz	QPSK	40620	75RB#0	20000~27000	-39.44	PASS
Band41	15MHz	QPSK	41515	75RB#0	0.009~0.15	-74.60	PASS
Band41	15MHz	QPSK	41515	75RB#0	0.15~30	-67.84	PASS
Band41	15MHz	QPSK	41515	75RB#0	30~1000	-66.67	PASS
Band41	15MHz	QPSK	41515	75RB#0	1000~20000	-46.19	PASS
Band41	15MHz	QPSK	41515	75RB#0	20000~27000	-39.65	PASS
Band41	15MHz	16QAM	39725	75RB#0	0.009~0.15	-74.47	PASS
Band41	15MHz	16QAM	39725	75RB#0	0.15~30	-64.54	PASS
Band41	15MHz	16QAM	39725	75RB#0	30~1000	-66.73	PASS
Band41	15MHz	16QAM	39725	75RB#0	1000~20000	-45.98	PASS

Band41	15MHz	16QAM	39725	75RB#0	20000~27000	-39.70	PASS
Band41	15MHz	16QAM	40620	75RB#0	0.009~0.15	-74.78	PASS
Band41	15MHz	16QAM	40620	75RB#0	0.15~30	-70.54	PASS
Band41	15MHz	16QAM	40620	75RB#0	30~1000	-66.77	PASS
Band41	15MHz	16QAM	40620	75RB#0	1000~20000	-46.34	PASS
Band41	15MHz	16QAM	40620	75RB#0	20000~27000	-39.68	PASS
Band41	15MHz	16QAM	41515	75RB#0	0.009~0.15	-73.17	PASS
Band41	15MHz	16QAM	41515	75RB#0	0.15~30	-68.64	PASS
Band41	15MHz	16QAM	41515	75RB#0	30~1000	-66.54	PASS
Band41	15MHz	16QAM	41515	75RB#0	1000~20000	-45.94	PASS
Band41	15MHz	16QAM	41515	75RB#0	20000~27000	-39.88	PASS
Band41	20MHz	QPSK	39750	100RB#0	0.009~0.15	-74.02	PASS
Band41	20MHz	QPSK	39750	100RB#0	0.15~30	-66.44	PASS
Band41	20MHz	QPSK	39750	100RB#0	30~1000	-66.42	PASS
Band41	20MHz	QPSK	39750	100RB#0	1000~20000	-46.34	PASS
Band41	20MHz	QPSK	39750	100RB#0	20000~27000	-39.77	PASS
Band41	20MHz	QPSK	40620	100RB#0	0.009~0.15	-74.93	PASS
Band41	20MHz	QPSK	40620	100RB#0	0.15~30	-68.69	PASS
Band41	20MHz	QPSK	40620	100RB#0	30~1000	-66.99	PASS
Band41	20MHz	QPSK	40620	100RB#0	1000~20000	-46.48	PASS
Band41	20MHz	QPSK	40620	100RB#0	20000~27000	-39.75	PASS
Band41	20MHz	QPSK	41490	100RB#0	0.009~0.15	-73.14	PASS
Band41	20MHz	QPSK	41490	100RB#0	0.15~30	-66.20	PASS
Band41	20MHz	QPSK	41490	100RB#0	30~1000	-66.78	PASS
Band41	20MHz	QPSK	41490	100RB#0	1000~20000	-45.79	PASS
Band41	20MHz	QPSK	41490	100RB#0	20000~27000	-39.90	PASS
Band41	20MHz	16QAM	39750	100RB#0	0.009~0.15	-74.20	PASS
Band41	20MHz	16QAM	39750	100RB#0	0.15~30	-66.19	PASS
Band41	20MHz	16QAM	39750	100RB#0	30~1000	-66.64	PASS
Band41	20MHz	16QAM	39750	100RB#0	1000~20000	-46.08	PASS
Band41	20MHz	16QAM	39750	100RB#0	20000~27000	-39.45	PASS
Band41	20MHz	16QAM	40620	100RB#0	0.009~0.15	-74.06	PASS
Band41	20MHz	16QAM	40620	100RB#0	0.15~30	-70.11	PASS
Band41	20MHz	16QAM	40620	100RB#0	30~1000	-66.81	PASS
Band41	20MHz	16QAM	40620	100RB#0	1000~20000	-46.35	PASS
Band41	20MHz	16QAM	40620	100RB#0	20000~27000	-39.64	PASS
Band41	20MHz	16QAM	41490	100RB#0	0.009~0.15	-72.85	PASS
Band41	20MHz	16QAM	41490	100RB#0	0.15~30	-67.77	PASS
Band41	20MHz	16QAM	41490	100RB#0	30~1000	-66.76	PASS
Band41	20MHz	16QAM	41490	100RB#0	1000~20000	-46.13	PASS
Band41	20MHz	16QAM	41490	100RB#0	20000~27000	-39.81	PASS

Test Graphs

