

Appendix for LTE Band 17

Product Name: 5G Window CPE

Model No: TITAN 5100

Appendix A: Average Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band17	5MHz	QPSK	23755	1RB#0	22.39	PASS
Band17	5MHz	16QAM	23755	1RB#0	21.35	PASS
Band17	5MHz	QPSK	23755	1RB#12	22.42	PASS
Band17	5MHz	16QAM	23755	1RB#12	21.55	PASS
Band17	5MHz	QPSK	23755	1RB#24	22.30	PASS
Band17	5MHz	16QAM	23755	1RB#24	21.44	PASS
Band17	5MHz	QPSK	23755	12RB#0	21.47	PASS
Band17	5MHz	16QAM	23755	12RB#0	20.37	PASS
Band17	5MHz	QPSK	23755	12RB#6	21.46	PASS
Band17	5MHz	16QAM	23755	12RB#6	20.42	PASS
Band17	5MHz	QPSK	23755	12RB#13	21.42	PASS
Band17	5MHz	16QAM	23755	12RB#13	20.43	PASS
Band17	5MHz	QPSK	23755	25RB#0	21.42	PASS
Band17	5MHz	16QAM	23755	25RB#0	20.41	PASS
Band17	5MHz	QPSK	23790	1RB#0	22.38	PASS
Band17	5MHz	16QAM	23790	1RB#0	21.56	PASS
Band17	5MHz	QPSK	23790	1RB#12	22.47	PASS
Band17	5MHz	16QAM	23790	1RB#12	21.58	PASS
Band17	5MHz	QPSK	23790	1RB#24	22.37	PASS
Band17	5MHz	16QAM	23790	1RB#24	21.70	PASS
Band17	5MHz	QPSK	23790	12RB#0	21.35	PASS
Band17	5MHz	16QAM	23790	12RB#0	20.37	PASS
Band17	5MHz	QPSK	23790	12RB#6	21.36	PASS
Band17	5MHz	16QAM	23790	12RB#6	20.38	PASS
Band17	5MHz	QPSK	23790	12RB#13	21.40	PASS
Band17	5MHz	16QAM	23790	12RB#13	20.41	PASS
Band17	5MHz	QPSK	23790	25RB#0	21.44	PASS
Band17	5MHz	16QAM	23790	25RB#0	20.44	PASS
Band17	5MHz	QPSK	23825	1RB#0	22.41	PASS
Band17	5MHz	16QAM	23825	1RB#0	21.33	PASS
Band17	5MHz	QPSK	23825	1RB#12	22.52	PASS
Band17	5MHz	16QAM	23825	1RB#12	21.47	PASS
Band17	5MHz	QPSK	23825	1RB#24	22.34	PASS
Band17	5MHz	16QAM	23825	1RB#24	21.34	PASS
Band17	5MHz	QPSK	23825	12RB#0	21.37	PASS

Band17	5MHz	16QAM	23825	12RB#0	20.38	PASS
Band17	5MHz	QPSK	23825	12RB#6	21.34	PASS
Band17	5MHz	16QAM	23825	12RB#6	20.43	PASS
Band17	5MHz	QPSK	23825	12RB#13	21.38	PASS
Band17	5MHz	16QAM	23825	12RB#13	20.44	PASS
Band17	5MHz	QPSK	23825	25RB#0	21.33	PASS
Band17	5MHz	16QAM	23825	25RB#0	20.36	PASS
Band17	10MHz	QPSK	23780	1RB#0	22.35	PASS
Band17	10MHz	16QAM	23780	1RB#0	21.48	PASS
Band17	10MHz	QPSK	23780	1RB#24	22.40	PASS
Band17	10MHz	16QAM	23780	1RB#24	21.37	PASS
Band17	10MHz	QPSK	23780	1RB#49	22.28	PASS
Band17	10MHz	16QAM	23780	1RB#49	21.34	PASS
Band17	10MHz	QPSK	23780	25RB#0	21.50	PASS
Band17	10MHz	16QAM	23780	25RB#0	20.44	PASS
Band17	10MHz	QPSK	23780	25RB#12	21.48	PASS
Band17	10MHz	16QAM	23780	25RB#12	20.41	PASS
Band17	10MHz	QPSK	23780	25RB#25	21.45	PASS
Band17	10MHz	16QAM	23780	25RB#25	20.43	PASS
Band17	10MHz	QPSK	23780	50RB#0	21.47	PASS
Band17	10MHz	16QAM	23780	50RB#0	20.50	PASS
Band17	10MHz	QPSK	23790	1RB#0	22.40	PASS
Band17	10MHz	16QAM	23790	1RB#0	21.43	PASS
Band17	10MHz	QPSK	23790	1RB#24	22.36	PASS
Band17	10MHz	16QAM	23790	1RB#24	21.29	PASS
Band17	10MHz	QPSK	23790	1RB#49	22.31	PASS
Band17	10MHz	16QAM	23790	1RB#49	21.22	PASS
Band17	10MHz	QPSK	23790	25RB#0	21.43	PASS
Band17	10MHz	16QAM	23790	25RB#0	20.37	PASS
Band17	10MHz	QPSK	23790	25RB#12	21.39	PASS
Band17	10MHz	16QAM	23790	25RB#12	20.35	PASS
Band17	10MHz	QPSK	23790	25RB#25	21.41	PASS
Band17	10MHz	16QAM	23790	25RB#25	20.42	PASS
Band17	10MHz	QPSK	23790	50RB#0	21.47	PASS
Band17	10MHz	16QAM	23790	50RB#0	20.48	PASS
Band17	10MHz	QPSK	23800	1RB#0	22.41	PASS
Band17	10MHz	16QAM	23800	1RB#0	21.21	PASS
Band17	10MHz	QPSK	23800	1RB#24	22.40	PASS
Band17	10MHz	16QAM	23800	1RB#24	21.18	PASS
Band17	10MHz	QPSK	23800	1RB#49	22.26	PASS
Band17	10MHz	16QAM	23800	1RB#49	21.27	PASS
Band17	10MHz	QPSK	23800	25RB#0	21.41	PASS

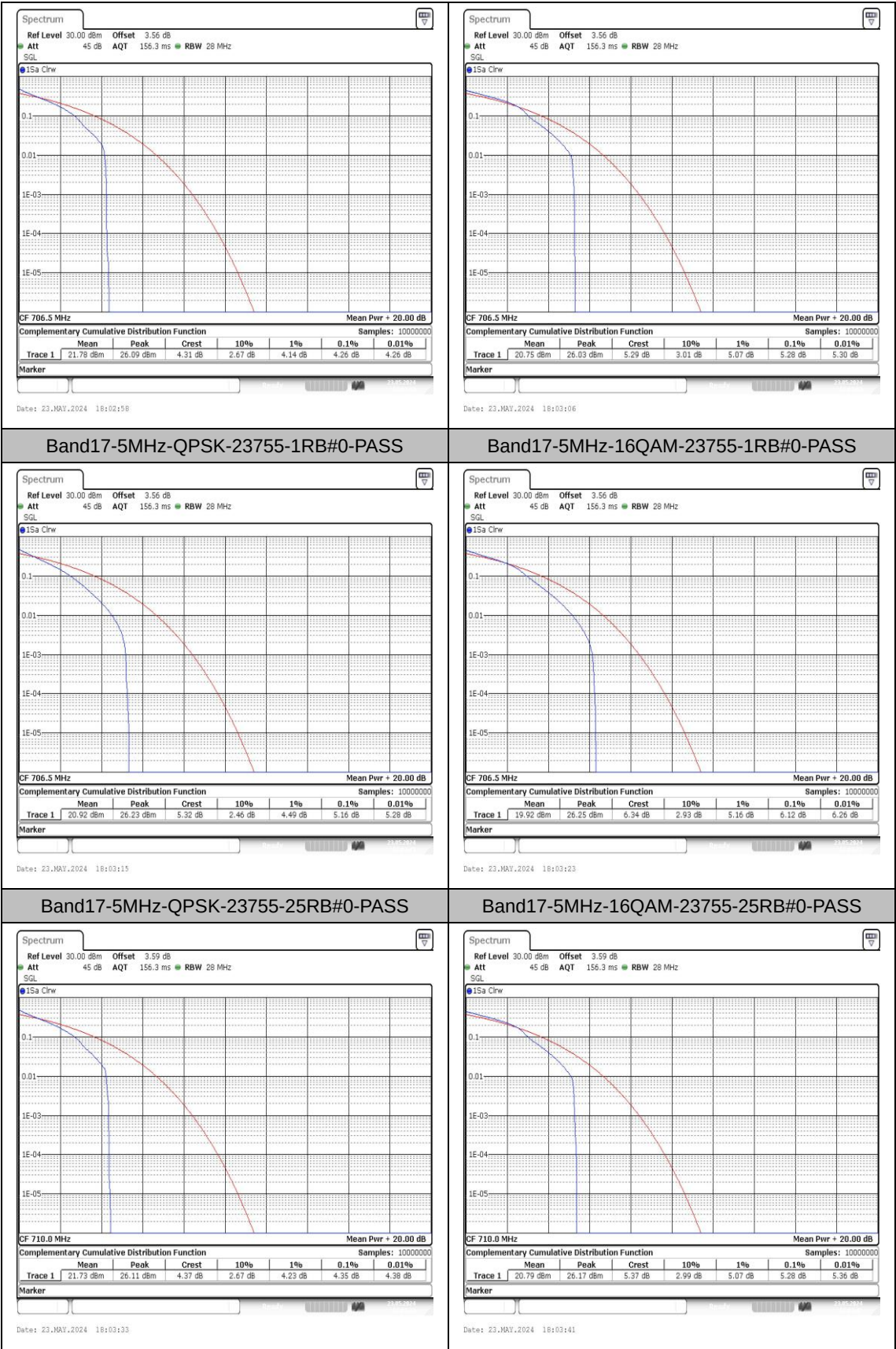
Band17	10MHz	16QAM	23800	25RB#0	20.38	PASS
Band17	10MHz	QPSK	23800	25RB#12	21.43	PASS
Band17	10MHz	16QAM	23800	25RB#12	20.34	PASS
Band17	10MHz	QPSK	23800	25RB#25	21.40	PASS
Band17	10MHz	16QAM	23800	25RB#25	20.42	PASS
Band17	10MHz	QPSK	23800	50RB#0	21.47	PASS
Band17	10MHz	16QAM	23800	50RB#0	20.43	PASS

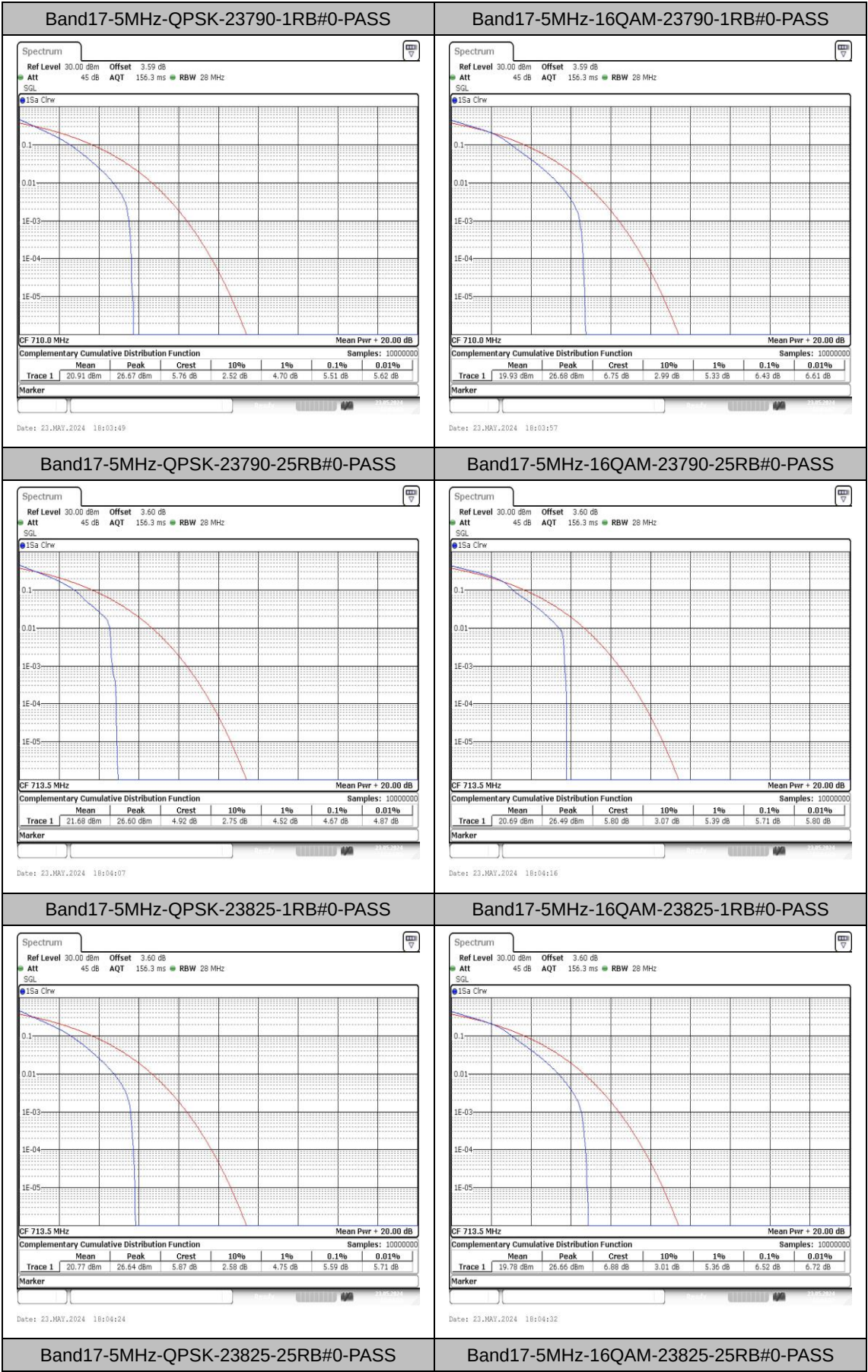
Appendix B: Peak-to-Average Ratio(CCDF)

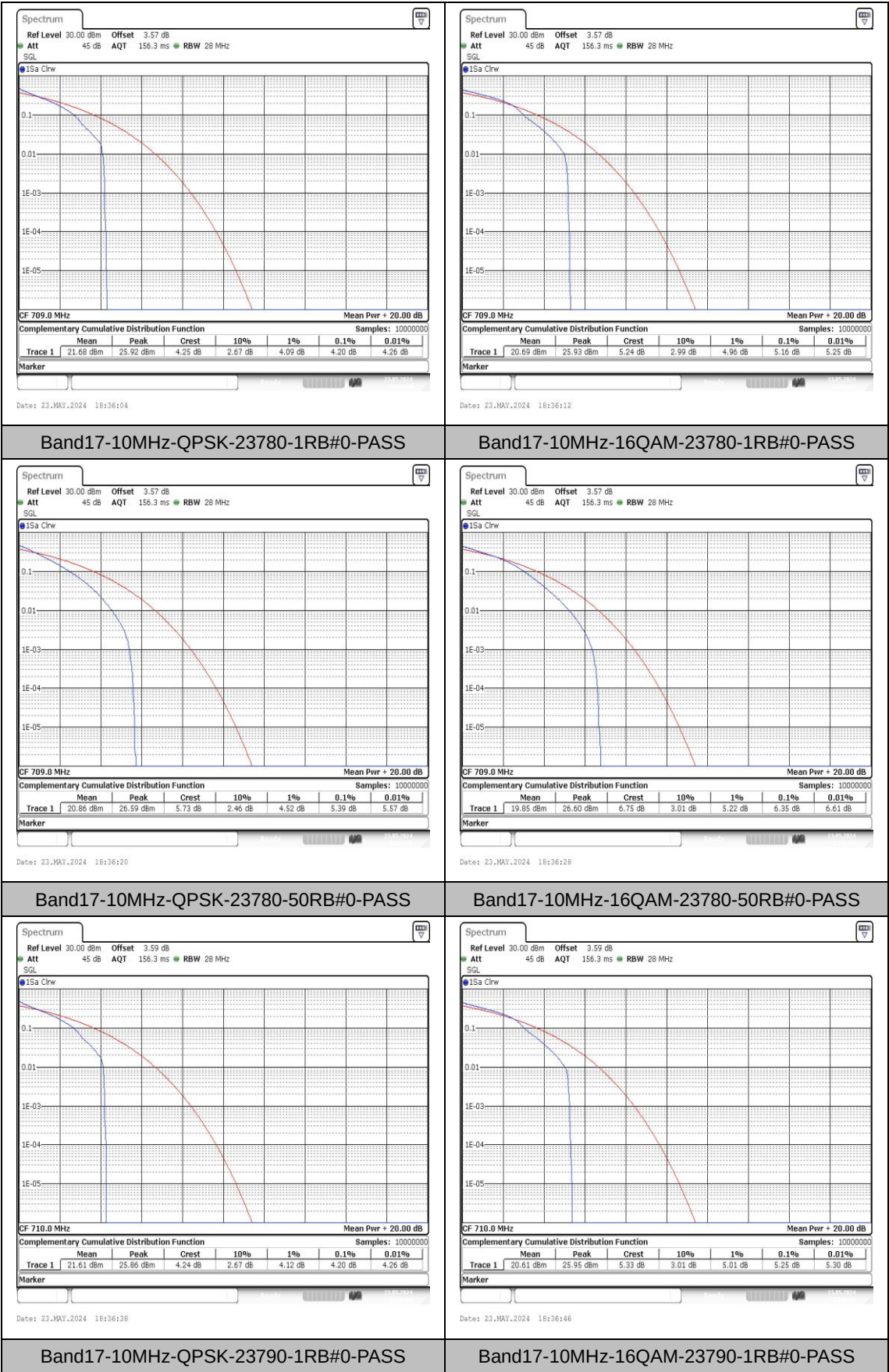
Test Result

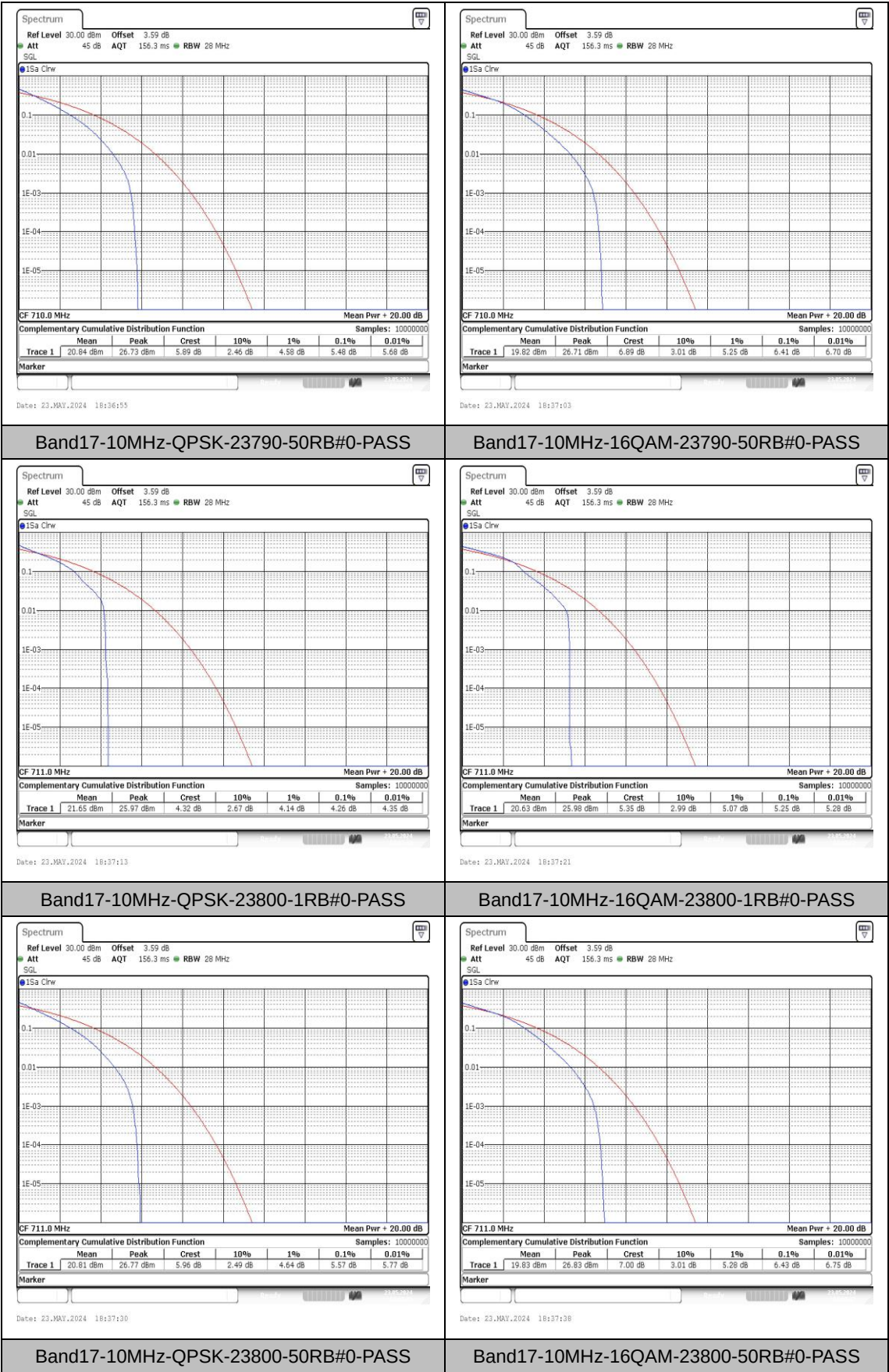
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band17	5MHz	QPSK	23755	1RB#0	4.26	13	PASS
Band17	5MHz	16QAM	23755	1RB#0	5.28	13	PASS
Band17	5MHz	QPSK	23755	25RB#0	5.16	13	PASS
Band17	5MHz	16QAM	23755	25RB#0	6.12	13	PASS
Band17	5MHz	QPSK	23790	1RB#0	4.35	13	PASS
Band17	5MHz	16QAM	23790	1RB#0	5.28	13	PASS
Band17	5MHz	QPSK	23790	25RB#0	5.51	13	PASS
Band17	5MHz	16QAM	23790	25RB#0	6.43	13	PASS
Band17	5MHz	QPSK	23825	1RB#0	4.67	13	PASS
Band17	5MHz	16QAM	23825	1RB#0	5.71	13	PASS
Band17	5MHz	QPSK	23825	25RB#0	5.59	13	PASS
Band17	5MHz	16QAM	23825	25RB#0	6.52	13	PASS
Band17	10MHz	QPSK	23780	1RB#0	4.20	13	PASS
Band17	10MHz	16QAM	23780	1RB#0	5.16	13	PASS
Band17	10MHz	QPSK	23780	50RB#0	5.39	13	PASS
Band17	10MHz	16QAM	23780	50RB#0	6.35	13	PASS
Band17	10MHz	QPSK	23790	1RB#0	4.20	13	PASS
Band17	10MHz	16QAM	23790	1RB#0	5.25	13	PASS
Band17	10MHz	QPSK	23790	50RB#0	5.48	13	PASS
Band17	10MHz	16QAM	23790	50RB#0	6.41	13	PASS
Band17	10MHz	QPSK	23800	1RB#0	4.26	13	PASS
Band17	10MHz	16QAM	23800	1RB#0	5.25	13	PASS
Band17	10MHz	QPSK	23800	50RB#0	5.57	13	PASS
Band17	10MHz	16QAM	23800	50RB#0	6.43	13	PASS

Test Graphs







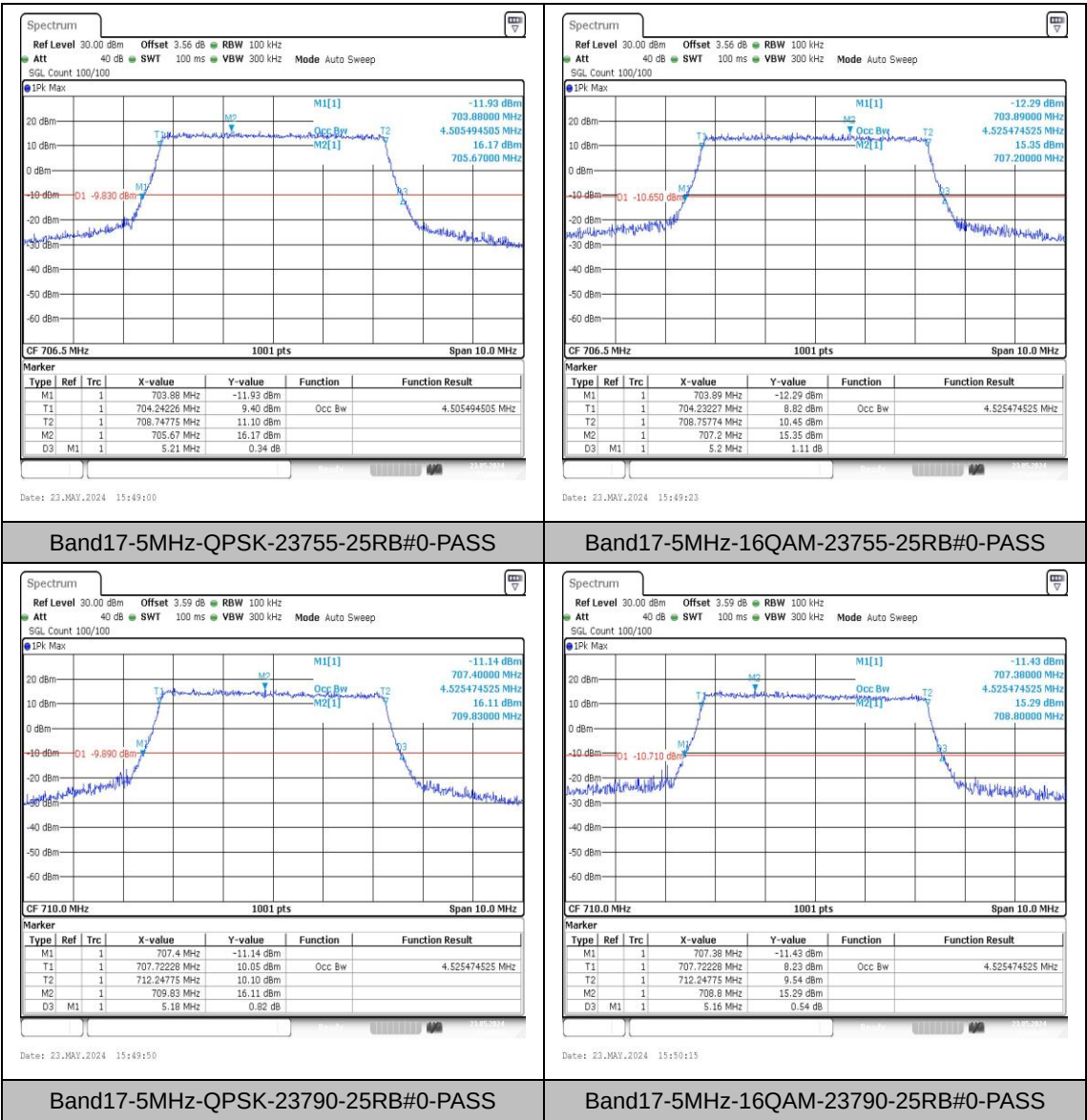


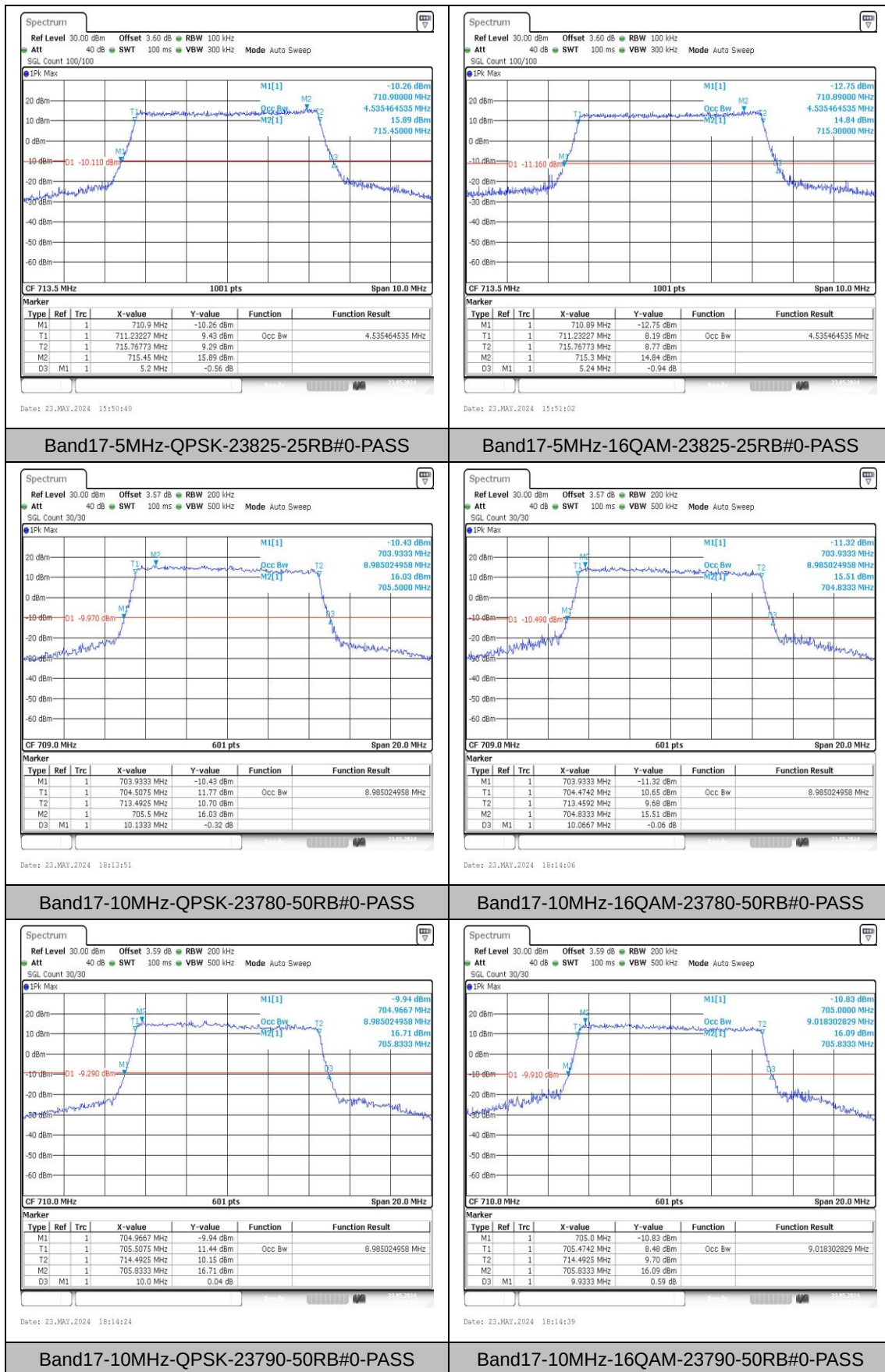
Appendix C: 26dB Bandwidth and Occupied Bandwidth

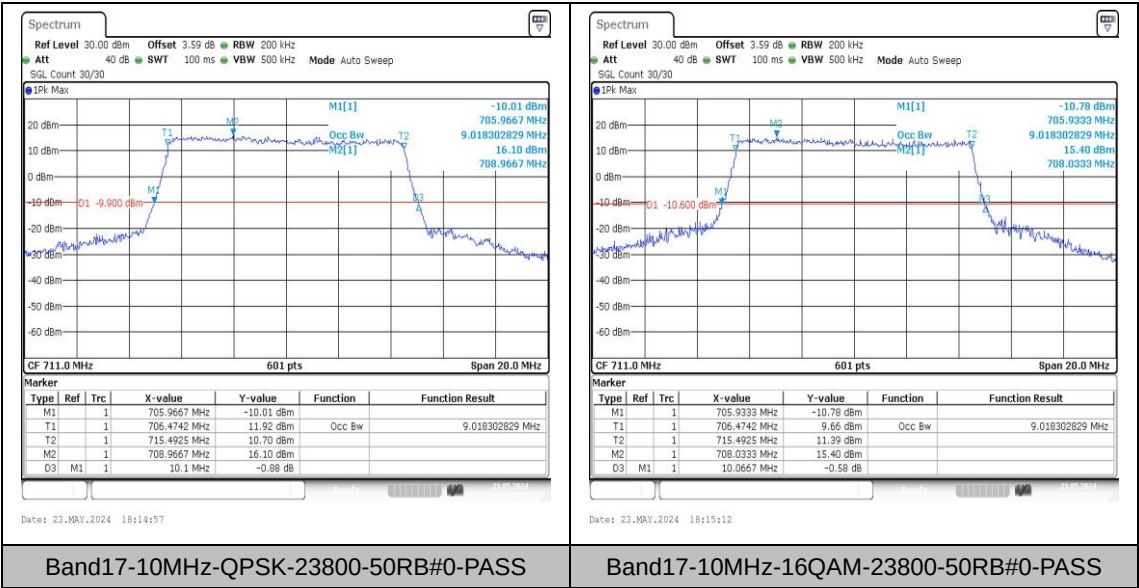
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band17	5MHz	QPSK	23755	25RB#0	4.505	5.21	PASS
Band17	5MHz	16QAM	23755	25RB#0	4.525	5.20	PASS
Band17	5MHz	QPSK	23790	25RB#0	4.525	5.18	PASS
Band17	5MHz	16QAM	23790	25RB#0	4.525	5.16	PASS
Band17	5MHz	QPSK	23825	25RB#0	4.535	5.20	PASS
Band17	5MHz	16QAM	23825	25RB#0	4.535	5.24	PASS
Band17	10MHz	QPSK	23780	50RB#0	8.985	10.13	PASS
Band17	10MHz	16QAM	23780	50RB#0	8.985	10.07	PASS
Band17	10MHz	QPSK	23790	50RB#0	8.985	10.00	PASS
Band17	10MHz	16QAM	23790	50RB#0	9.018	9.93	PASS
Band17	10MHz	QPSK	23800	50RB#0	9.018	10.10	PASS
Band17	10MHz	16QAM	23800	50RB#0	9.018	10.07	PASS

Test Graphs





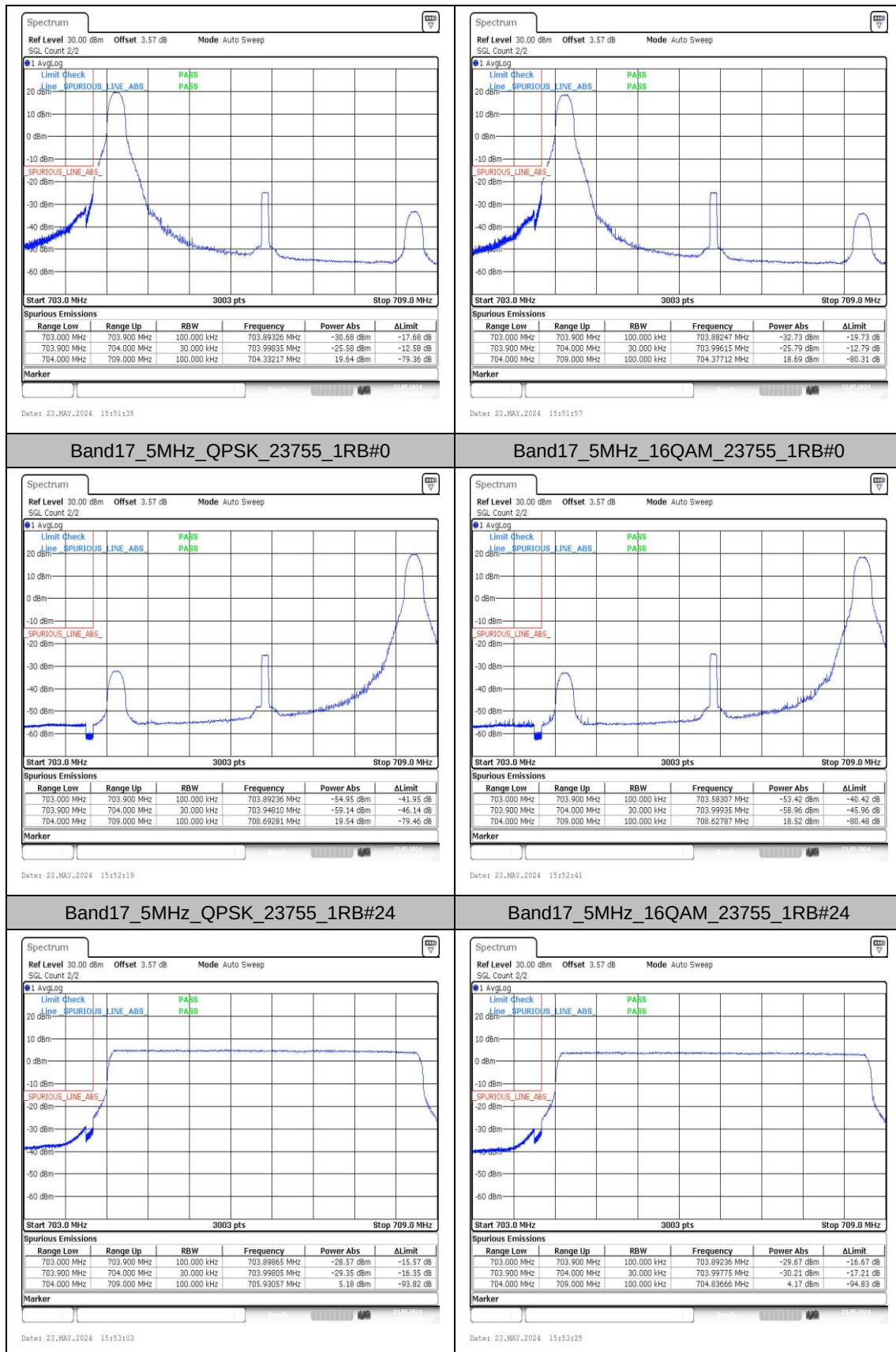


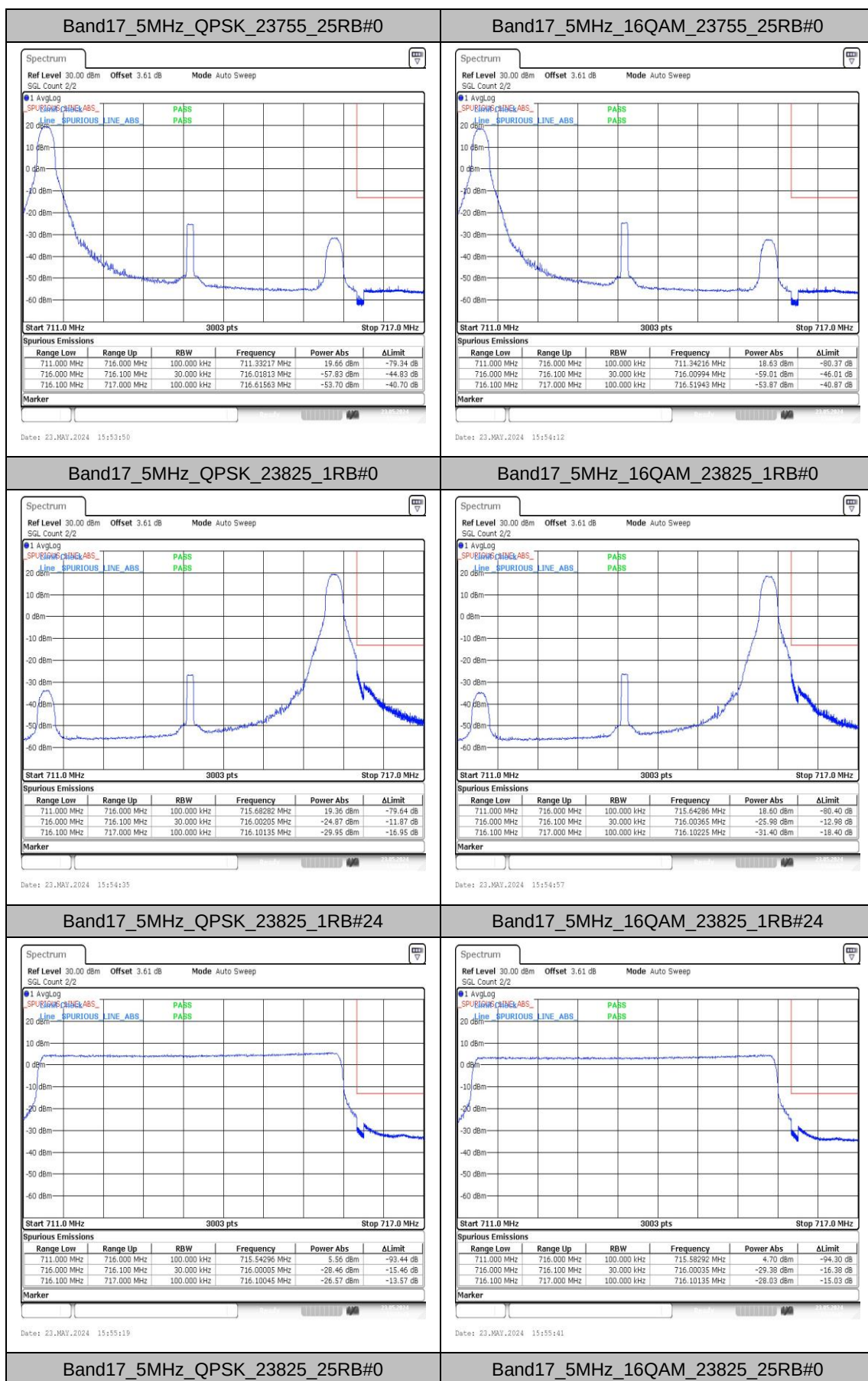
Appendix D: Band Edge

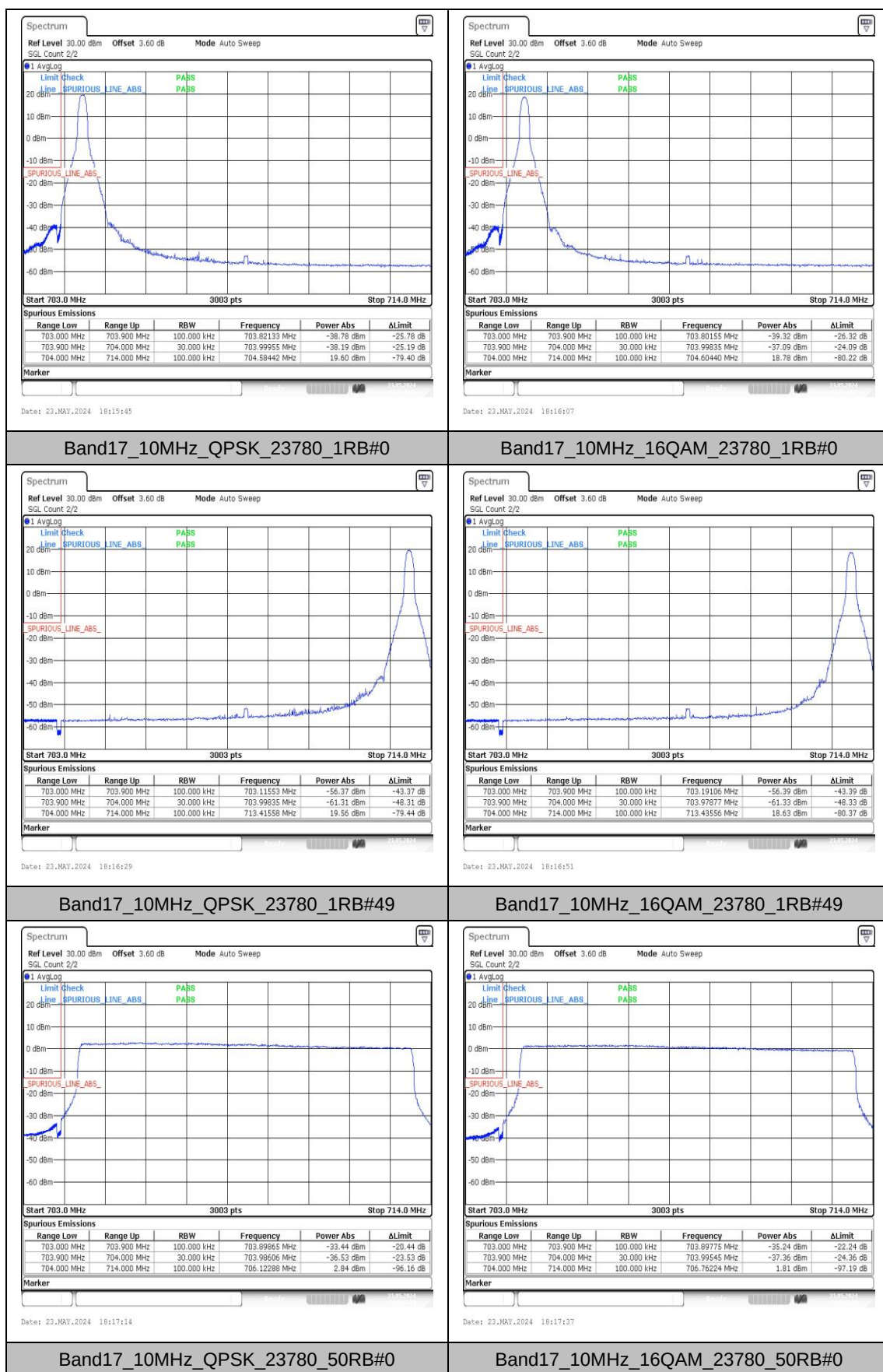
Test Result

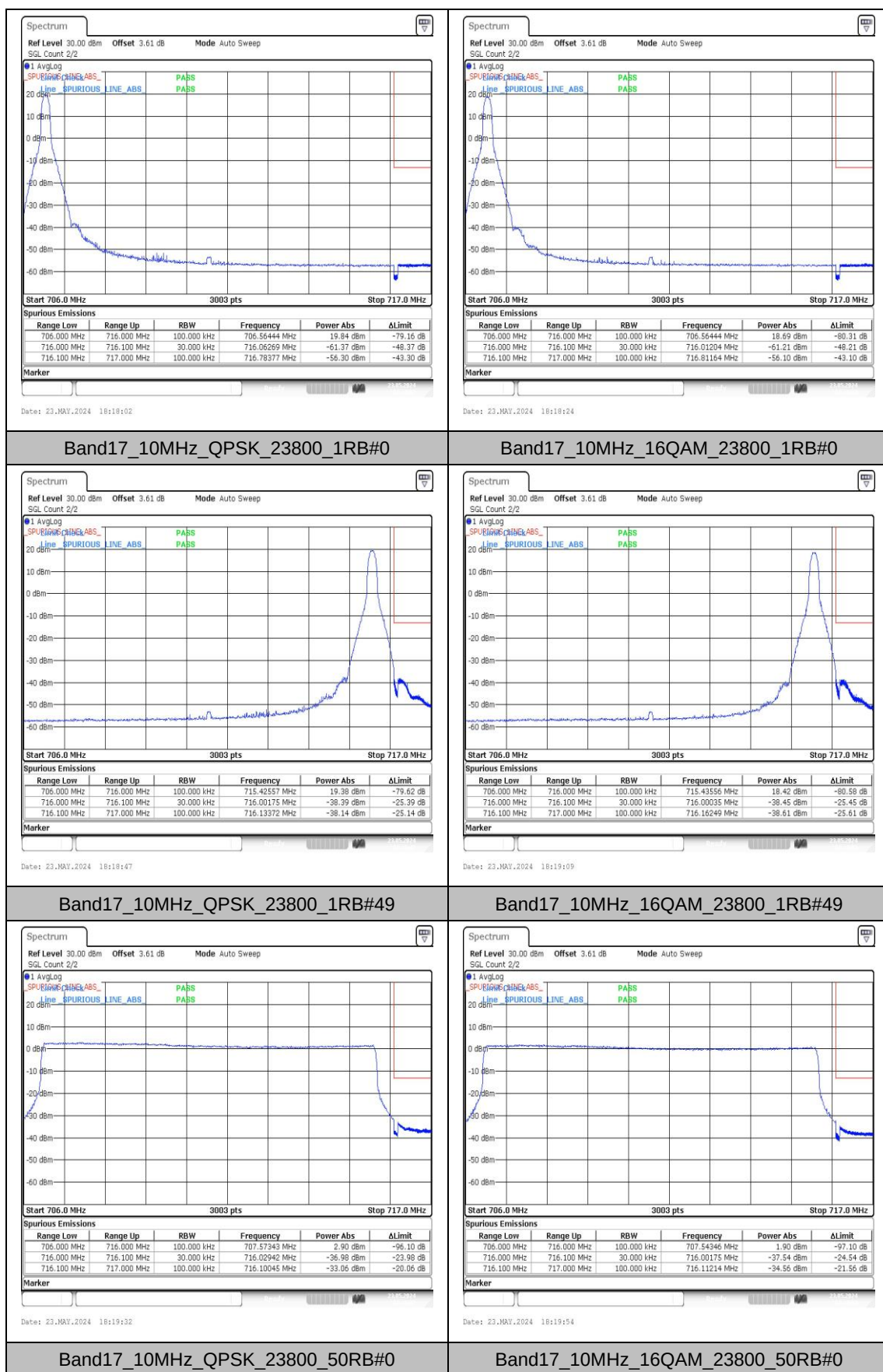
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band17	5MHz	QPSK	23755	1RB#0	-25.58	PASS
Band17	5MHz	16QAM	23755	1RB#0	-25.79	PASS
Band17	5MHz	QPSK	23755	1RB#24	-54.95	PASS
Band17	5MHz	16QAM	23755	1RB#24	-53.42	PASS
Band17	5MHz	QPSK	23755	25RB#0	-28.57	PASS
Band17	5MHz	16QAM	23755	25RB#0	-29.67	PASS
Band17	5MHz	QPSK	23825	1RB#0	-53.70	PASS
Band17	5MHz	16QAM	23825	1RB#0	-53.87	PASS
Band17	5MHz	QPSK	23825	1RB#24	-24.87	PASS
Band17	5MHz	16QAM	23825	1RB#24	-25.98	PASS
Band17	5MHz	QPSK	23825	25RB#0	-26.57	PASS
Band17	5MHz	16QAM	23825	25RB#0	-28.03	PASS
Band17	10MHz	QPSK	23780	1RB#0	-38.19	PASS
Band17	10MHz	16QAM	23780	1RB#0	-37.09	PASS
Band17	10MHz	QPSK	23780	1RB#49	-56.37	PASS
Band17	10MHz	16QAM	23780	1RB#49	-56.39	PASS
Band17	10MHz	QPSK	23780	50RB#0	-33.44	PASS
Band17	10MHz	16QAM	23780	50RB#0	-35.24	PASS
Band17	10MHz	QPSK	23800	1RB#0	-56.30	PASS
Band17	10MHz	16QAM	23800	1RB#0	-56.10	PASS
Band17	10MHz	QPSK	23800	1RB#49	-38.14	PASS
Band17	10MHz	16QAM	23800	1RB#49	-38.45	PASS
Band17	10MHz	QPSK	23800	50RB#0	-33.06	PASS
Band17	10MHz	16QAM	23800	50RB#0	-34.56	PASS

Test Graphs









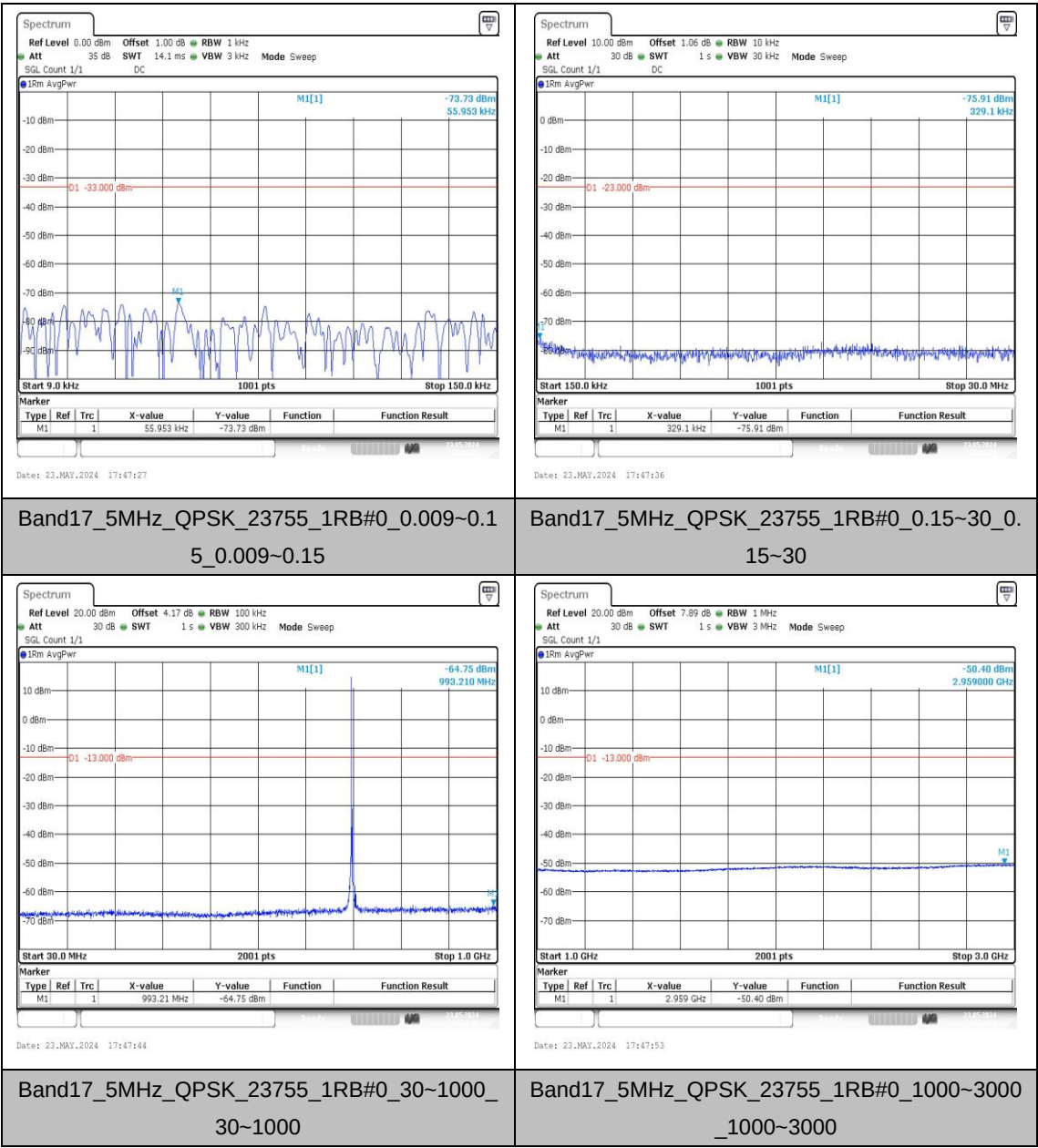
Appendix E: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band17	5MHz	QPSK	23755	1RB#0	0.009~0.15	-73.73	PASS
Band17	5MHz	QPSK	23755	1RB#0	0.15~30	-75.91	PASS
Band17	5MHz	QPSK	23755	1RB#0	30~1000	-64.75	PASS
Band17	5MHz	QPSK	23755	1RB#0	1000~3000	-50.40	PASS
Band17	5MHz	QPSK	23755	1RB#0	3000~10000	-39.27	PASS
Band17	5MHz	16QAM	23755	1RB#0	0.009~0.15	-71.77	PASS
Band17	5MHz	16QAM	23755	1RB#0	0.15~30	-75.14	PASS
Band17	5MHz	16QAM	23755	1RB#0	30~1000	-64.88	PASS
Band17	5MHz	16QAM	23755	1RB#0	1000~3000	-50.39	PASS
Band17	5MHz	16QAM	23755	1RB#0	3000~10000	-39.42	PASS
Band17	5MHz	QPSK	23790	1RB#0	0.009~0.15	-71.89	PASS
Band17	5MHz	QPSK	23790	1RB#0	0.15~30	-74.33	PASS
Band17	5MHz	QPSK	23790	1RB#0	30~1000	-64.69	PASS
Band17	5MHz	QPSK	23790	1RB#0	1000~3000	-50.38	PASS
Band17	5MHz	QPSK	23790	1RB#0	3000~10000	-39.35	PASS
Band17	5MHz	16QAM	23790	1RB#0	0.009~0.15	-71.77	PASS
Band17	5MHz	16QAM	23790	1RB#0	0.15~30	-74.66	PASS
Band17	5MHz	16QAM	23790	1RB#0	30~1000	-64.45	PASS
Band17	5MHz	16QAM	23790	1RB#0	1000~3000	-50.37	PASS
Band17	5MHz	16QAM	23790	1RB#0	3000~10000	-39.36	PASS
Band17	5MHz	QPSK	23825	1RB#0	0.009~0.15	-71.50	PASS
Band17	5MHz	QPSK	23825	1RB#0	0.15~30	-75.37	PASS
Band17	5MHz	QPSK	23825	1RB#0	30~1000	-63.47	PASS
Band17	5MHz	QPSK	23825	1RB#0	1000~3000	-50.31	PASS
Band17	5MHz	QPSK	23825	1RB#0	3000~10000	-39.43	PASS
Band17	5MHz	16QAM	23825	1RB#0	0.009~0.15	-68.30	PASS
Band17	5MHz	16QAM	23825	1RB#0	0.15~30	-74.34	PASS
Band17	5MHz	16QAM	23825	1RB#0	30~1000	-64.88	PASS
Band17	5MHz	16QAM	23825	1RB#0	1000~3000	-50.46	PASS
Band17	5MHz	16QAM	23825	1RB#0	3000~10000	-39.43	PASS
Band17	10MHz	QPSK	23780	1RB#0	0.009~0.15	-74.21	PASS
Band17	10MHz	QPSK	23780	1RB#0	0.15~30	-74.69	PASS
Band17	10MHz	QPSK	23780	1RB#0	30~1000	-64.63	PASS
Band17	10MHz	QPSK	23780	1RB#0	1000~3000	-50.34	PASS

Band17	10MHz	QPSK	23780	1RB#0	3000~10000	-39.34	PASS
Band17	10MHz	16QAM	23780	1RB#0	0.009~0.15	-73.28	PASS
Band17	10MHz	16QAM	23780	1RB#0	0.15~30	-75.24	PASS
Band17	10MHz	16QAM	23780	1RB#0	30~1000	-64.86	PASS
Band17	10MHz	16QAM	23780	1RB#0	1000~3000	-50.38	PASS
Band17	10MHz	16QAM	23780	1RB#0	3000~10000	-39.49	PASS
Band17	10MHz	QPSK	23790	1RB#0	0.009~0.15	-72.21	PASS
Band17	10MHz	QPSK	23790	1RB#0	0.15~30	-72.63	PASS
Band17	10MHz	QPSK	23790	1RB#0	30~1000	-65.07	PASS
Band17	10MHz	QPSK	23790	1RB#0	1000~3000	-50.41	PASS
Band17	10MHz	QPSK	23790	1RB#0	3000~10000	-39.52	PASS
Band17	10MHz	16QAM	23790	1RB#0	0.009~0.15	-71.60	PASS
Band17	10MHz	16QAM	23790	1RB#0	0.15~30	-75.10	PASS
Band17	10MHz	16QAM	23790	1RB#0	30~1000	-64.99	PASS
Band17	10MHz	16QAM	23790	1RB#0	1000~3000	-50.37	PASS
Band17	10MHz	16QAM	23790	1RB#0	3000~10000	-39.37	PASS
Band17	10MHz	QPSK	23800	1RB#0	0.009~0.15	-69.75	PASS
Band17	10MHz	QPSK	23800	1RB#0	0.15~30	-76.06	PASS
Band17	10MHz	QPSK	23800	1RB#0	30~1000	-65.05	PASS
Band17	10MHz	QPSK	23800	1RB#0	1000~3000	-50.44	PASS
Band17	10MHz	QPSK	23800	1RB#0	3000~10000	-39.41	PASS
Band17	10MHz	16QAM	23800	1RB#0	0.009~0.15	-70.26	PASS
Band17	10MHz	16QAM	23800	1RB#0	0.15~30	-74.59	PASS
Band17	10MHz	16QAM	23800	1RB#0	30~1000	-64.79	PASS
Band17	10MHz	16QAM	23800	1RB#0	1000~3000	-50.36	PASS
Band17	10MHz	16QAM	23800	1RB#0	3000~10000	-39.45	PASS

Test Graphs



Spectrum

Ref Level 20.00 dBm

Offset 4.17 dB

RBW 100 kHz

Att 30 dB

SWT 1 s

VBW 300 kHz

Mode Sweep

SQL Count 1/1

1Rm AvgPer

M1[1]

-64.75 dBm

993.210 MHz

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

Start 30.0 MHz

2001 pts

Stop 1.0 GHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	993.21 MHz	-64.75 dBm		

Date: 23.MAY.2024

17:47:44

Band17_5MHz_QPSK_23755_1RB#0_30~1000_30~1000

30~1000

Spectrum

Ref Level 20.00 dBm

Offset 7.89 dB

RBW 1 MHz

Att 30 dB

SWT 1 s

VBW 3 MHz

Mode Sweep

SQL Count 1/1

1Rm AvgPer

M1[1]

-50.40 dBm

2.959000 GHz

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

Start 1.0 GHz

2001 pts

Stop 3.0 GHz

Marker

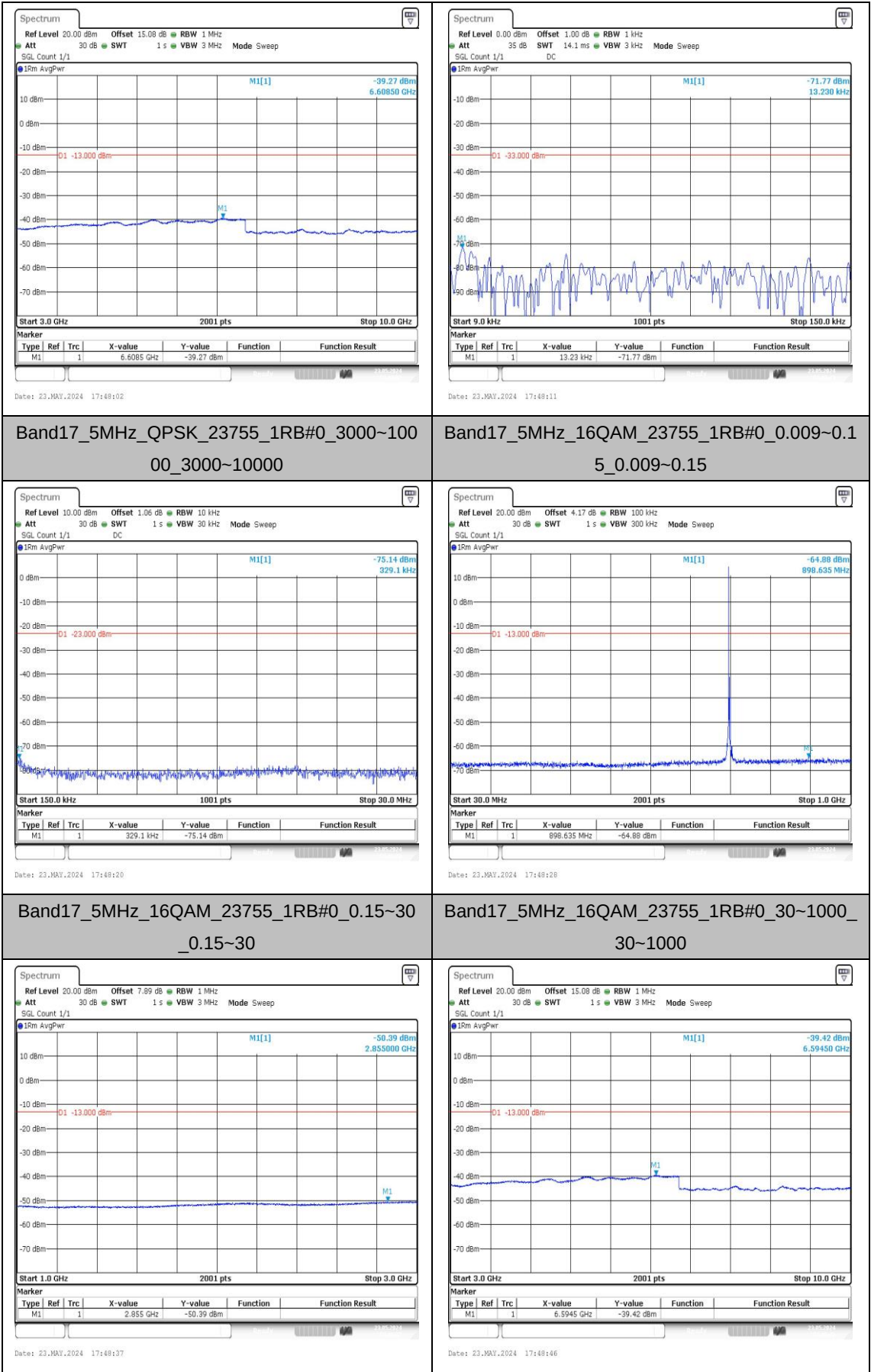
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.959 GHz	-50.40 dBm		

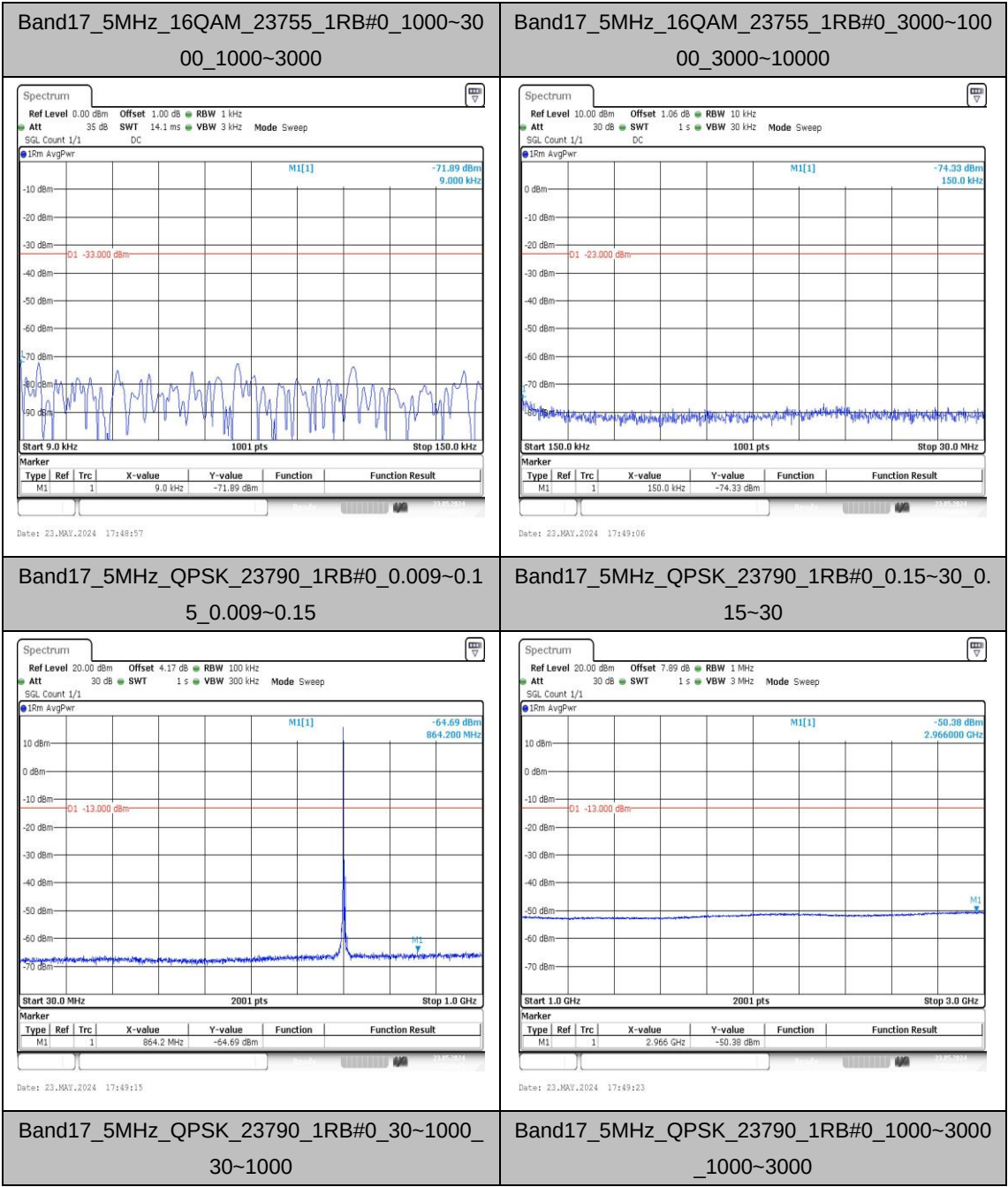
Date: 23.MAY.2024

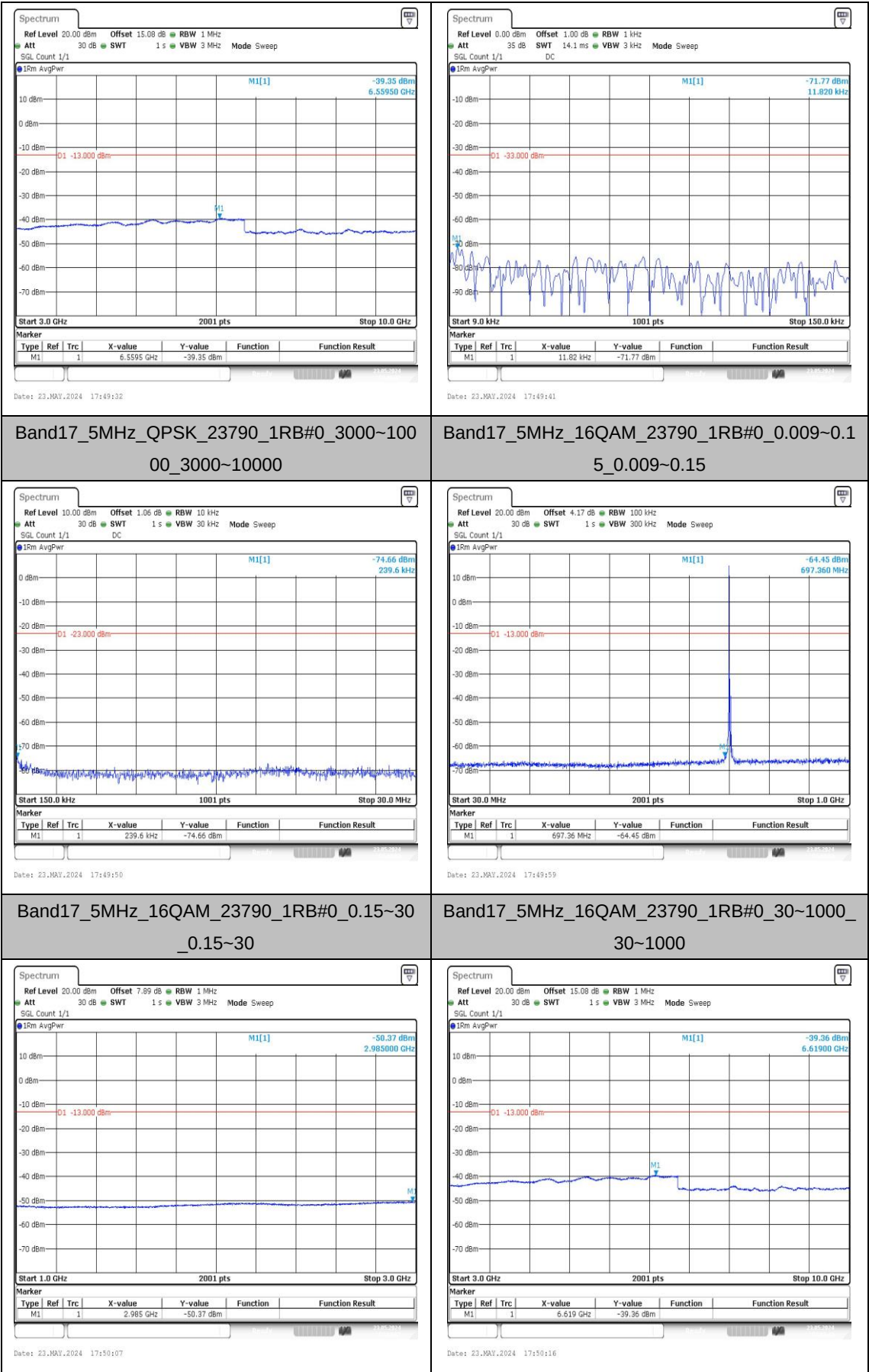
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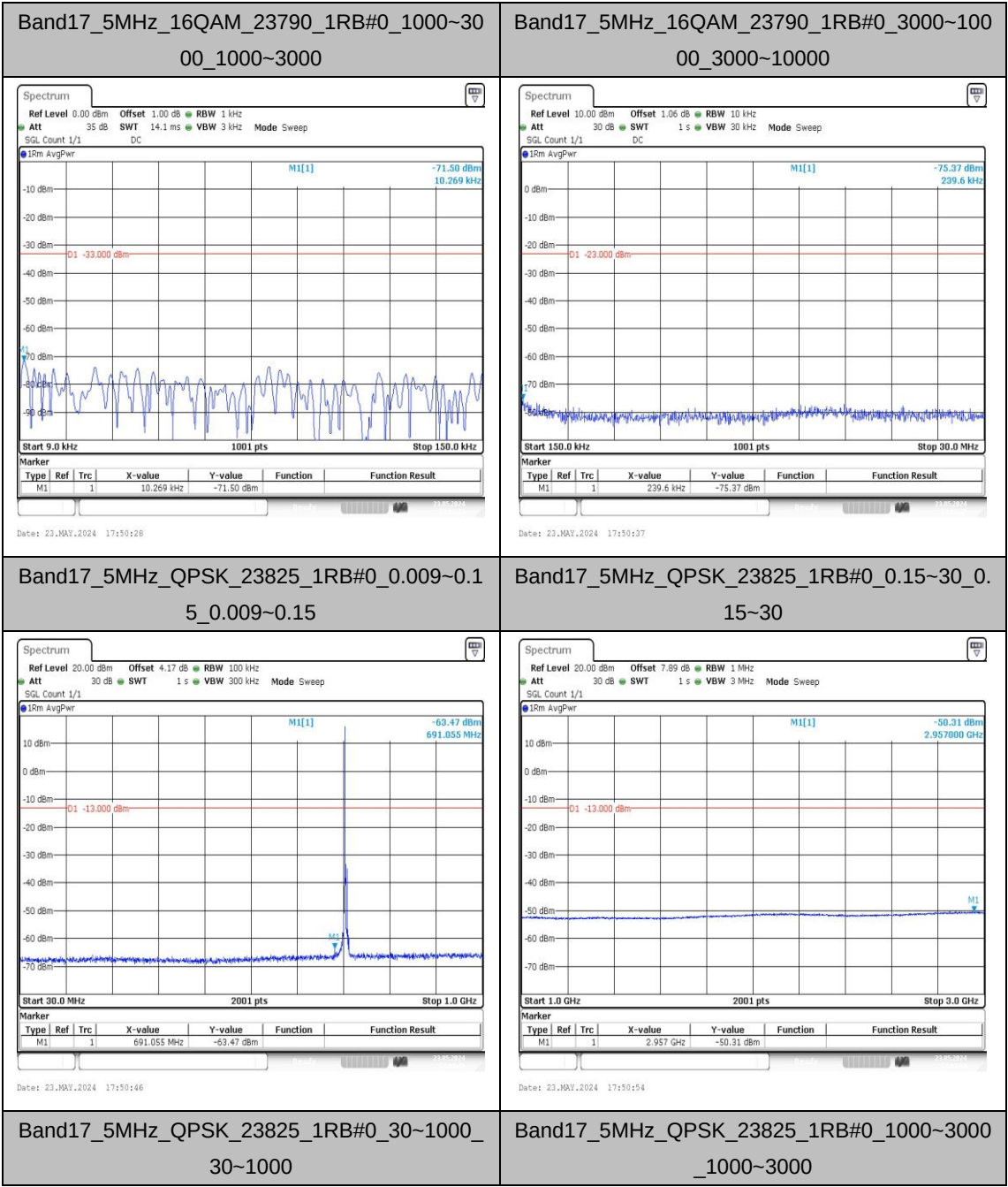
Band17_5MHz_QPSK_23755_1RB#0_1000~3000_1000~3000

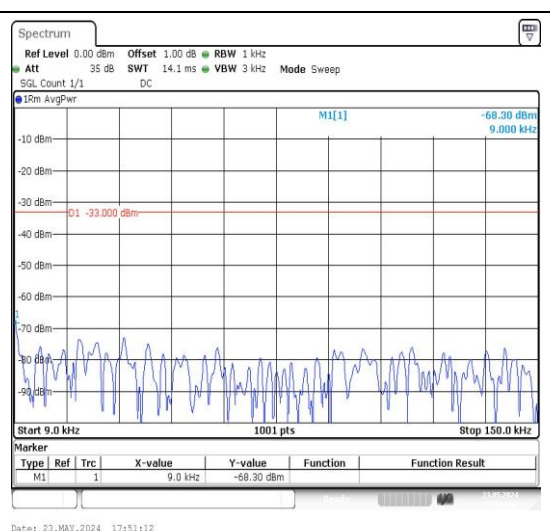
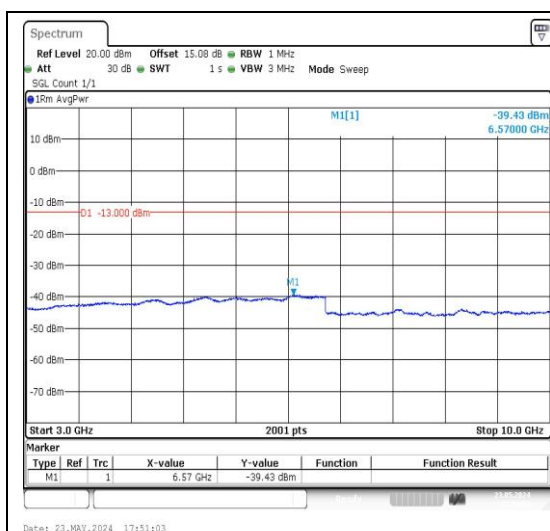
1000~3000





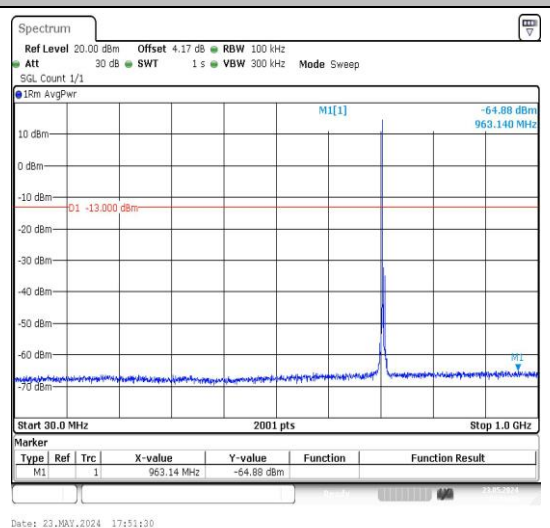
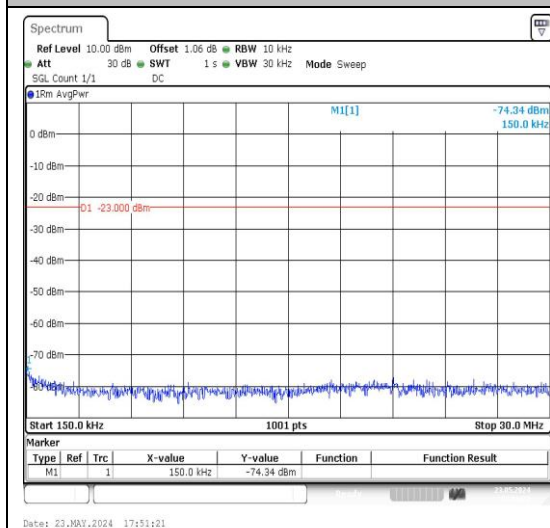






Band17_5MHz_QPSK_23825_1RB#0_3000~10000_3000~10000

Band17_5MHz_16QAM_23825_1RB#0_0.009~0.15_0.009~0.15



Band17_5MHz_16QAM_23825_1RB#0_0.15~30_0.15~30

Band17_5MHz_16QAM_23825_1RB#0_30~1000_30~1000

