

LTE Band Test Data

FCC ID : 2A9LB-T30

IC : 29740-T30

Company: : Eugeria

EUT : Idem Smart Display

Model Number : T30

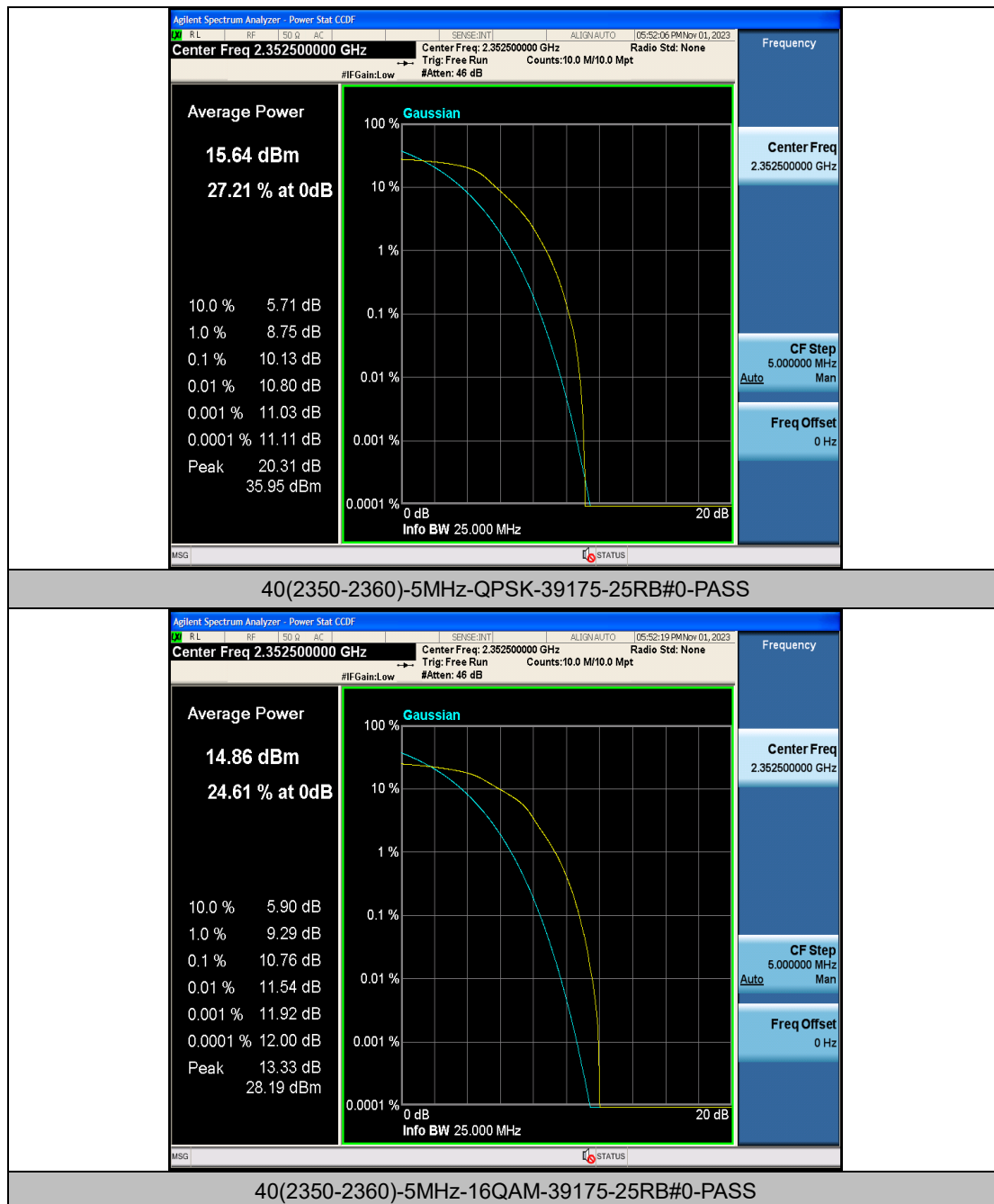
Reviewed By : Eric Wang

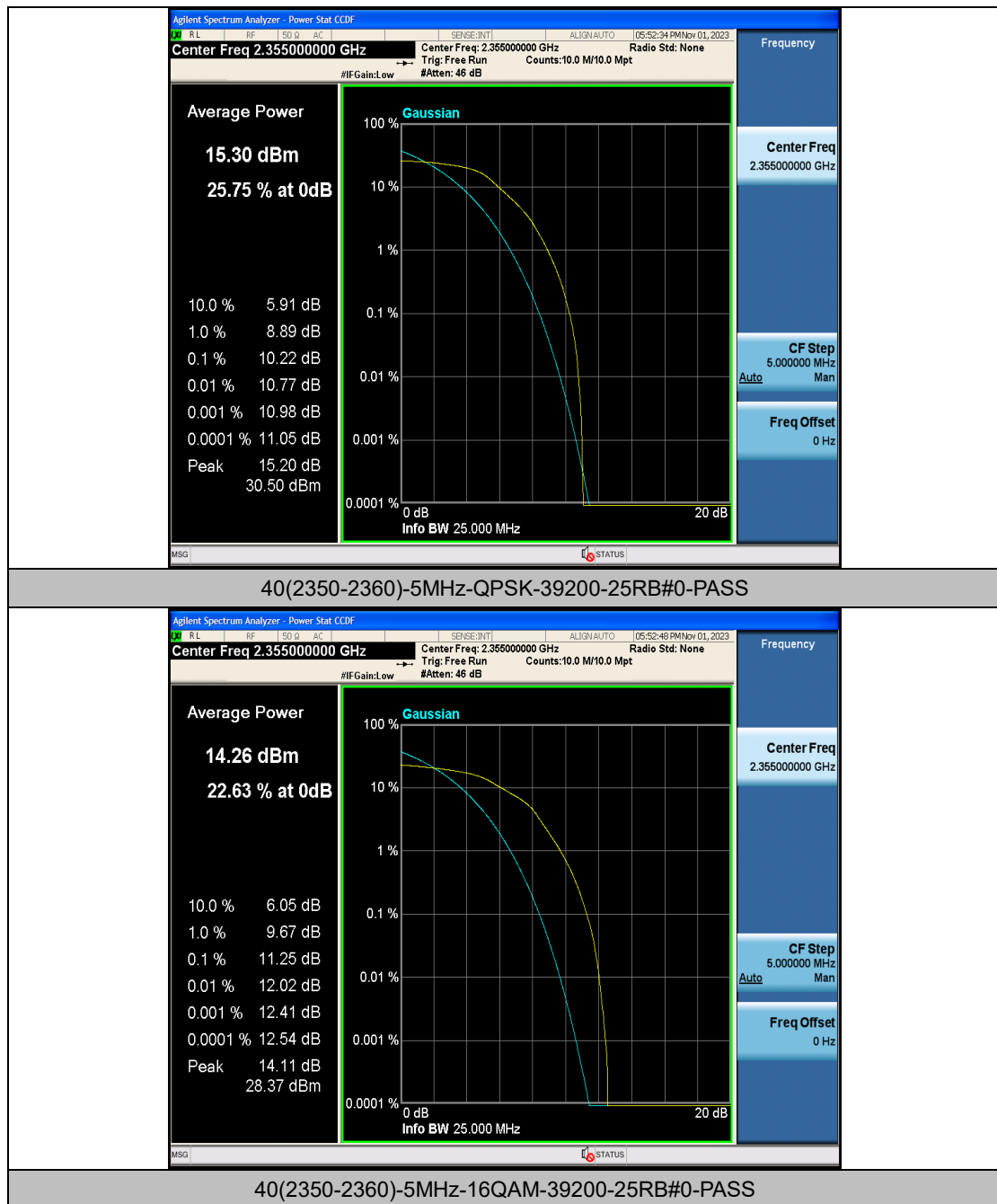
Appendix B: Peak-to-Average Ratio(CCDF)

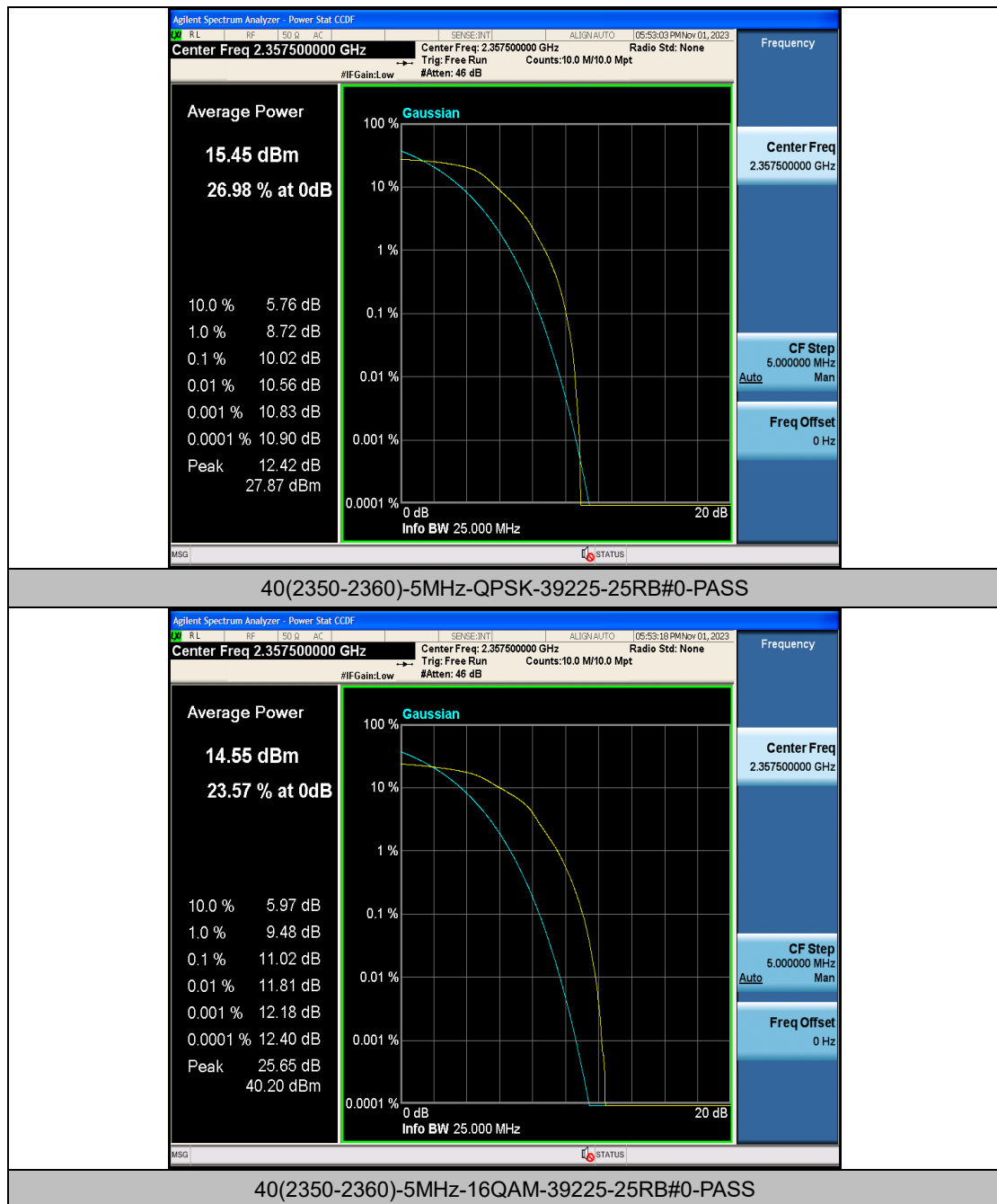
Test Result

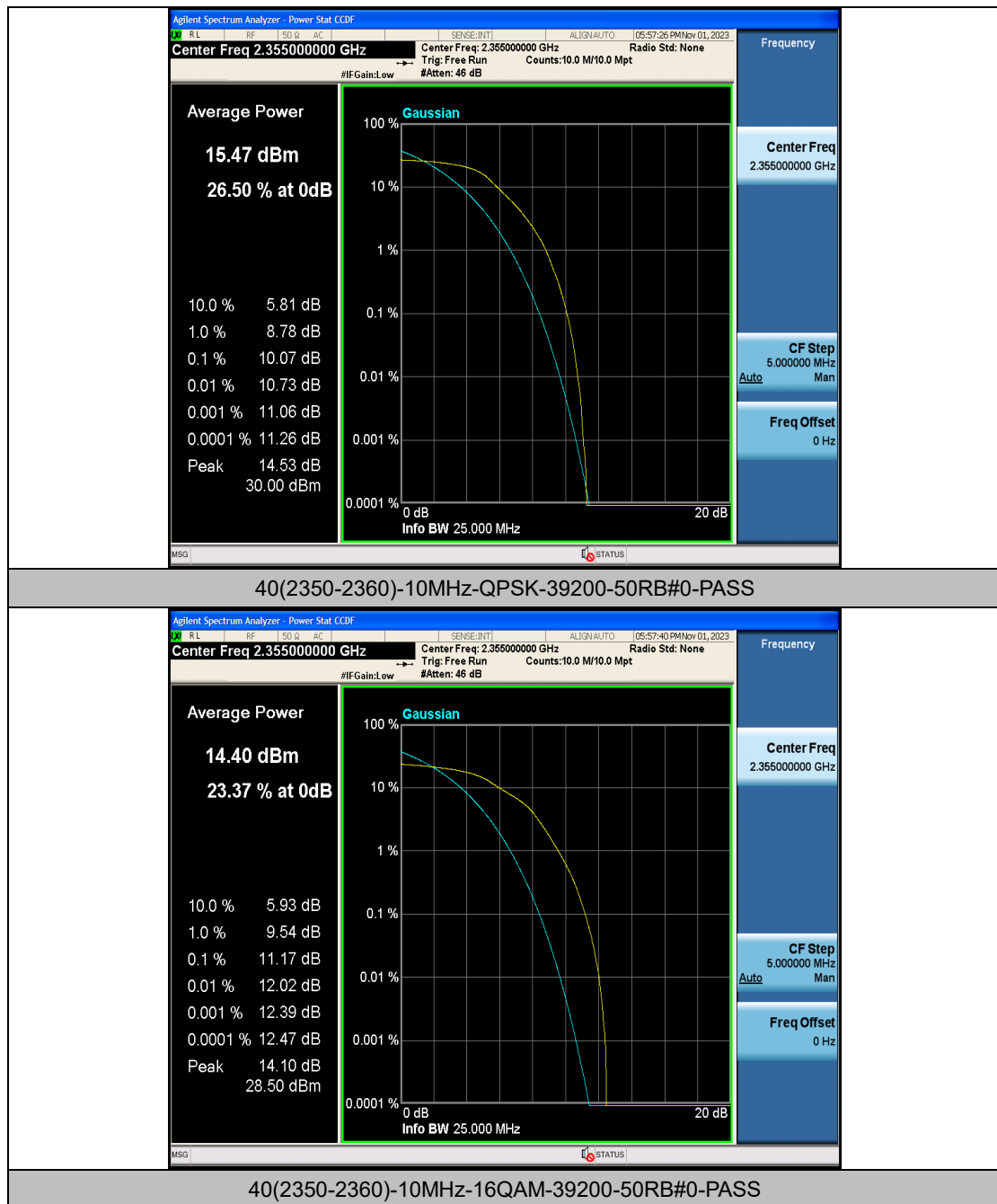
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
40(2350-2360)	5MHz	QPSK	39175	25RB#0	10.13	13	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	10.76	13	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	10.22	13	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	11.25	13	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	10.02	13	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	11.02	13	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	10.07	13	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	11.17	13	PASS

Test Graphs







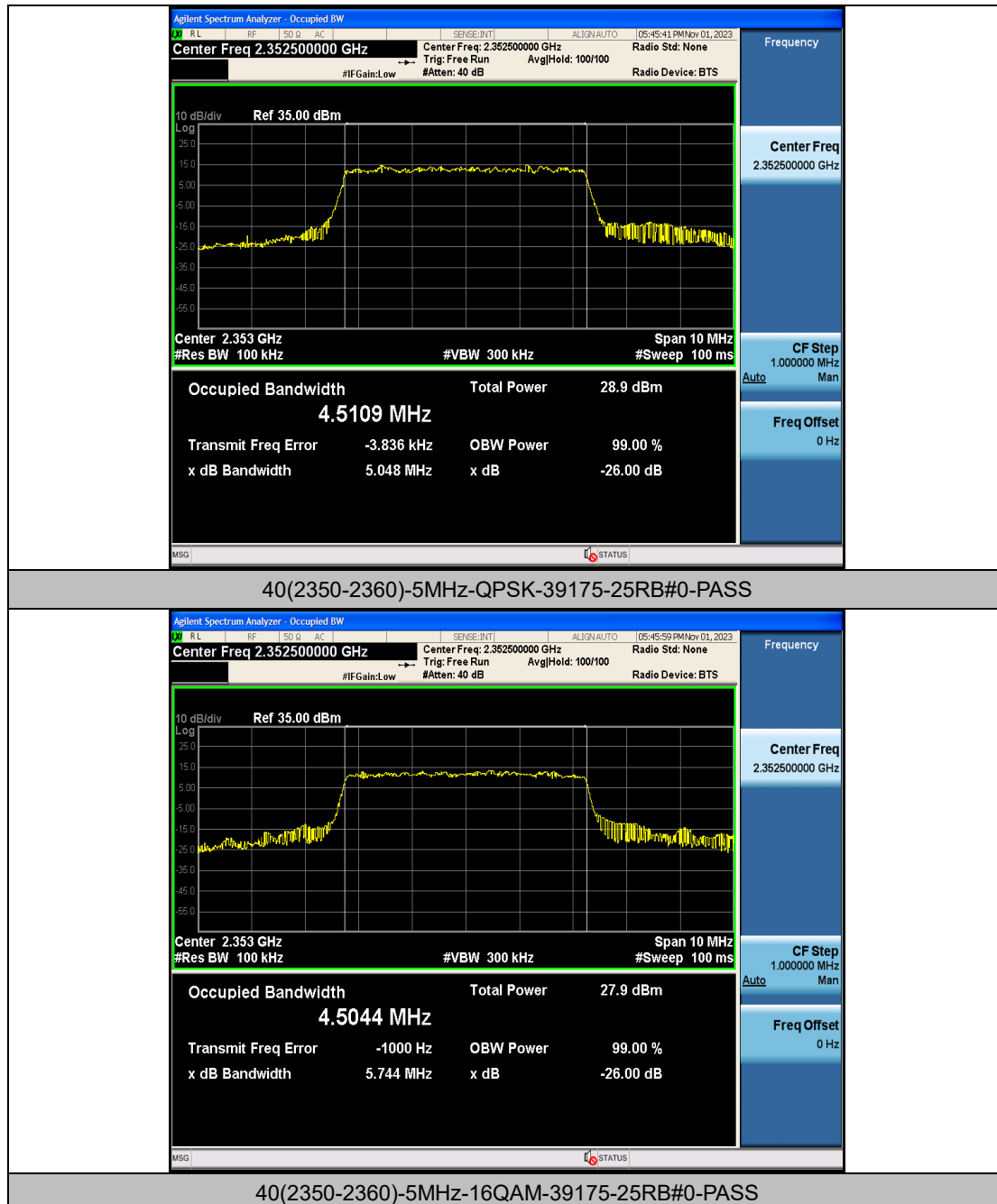


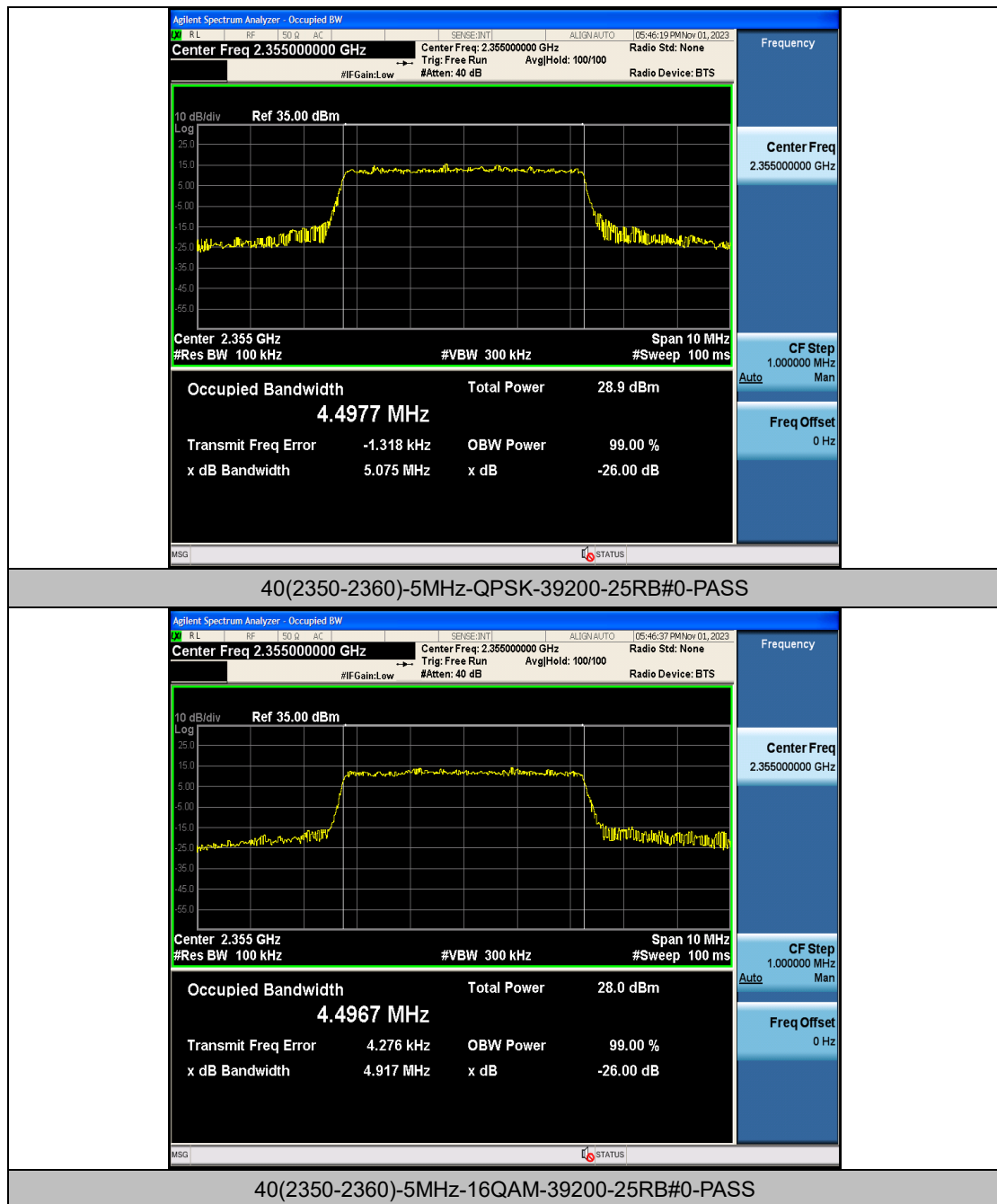
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
40(2350-2360)	5MHz	QPSK	39175	25RB#0	4.5109	5.048	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	4.5044	5.744	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	4.4977	5.075	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	4.4967	4.917	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	4.5022	5.121	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	4.5283	5.467	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	8.9711	9.839	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	8.9552	9.915	PASS

Test Graphs





40(2350-2360)-5MHz-QPSK-39200-25RB#0-PASS

Agilent Spectrum Analyzer - Occupied BW

RL

RF

50 Ω

AC

SENSE:INT

ALIGN:AUTO

05:46:37 PM Nov 01, 2023

Center Freq 2.355000000 GHz

Center Freq: 2.355000000 GHz

Trig: Free Run

Avg/Hold: 100/100

Radio Std: None

#IF Gain: Low

#Atten: 40 dB

Radio Device: BTS

10 dB/div

Ref 35.00 dBm

Center 2.355 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 10 MHz

#Sweep 100 ms

Occupied Bandwidth

4.4967 MHz

Total Power

28.0 dBm

Transmit Freq Error

4.276 kHz

OBW Power

99.00 %

x dB Bandwidth

4.917 MHz

x dB

-26.00 dB

MSG

STATUS

Frequency

Center Freq

2.355000000 GHz

CF Step

1.000000 MHz

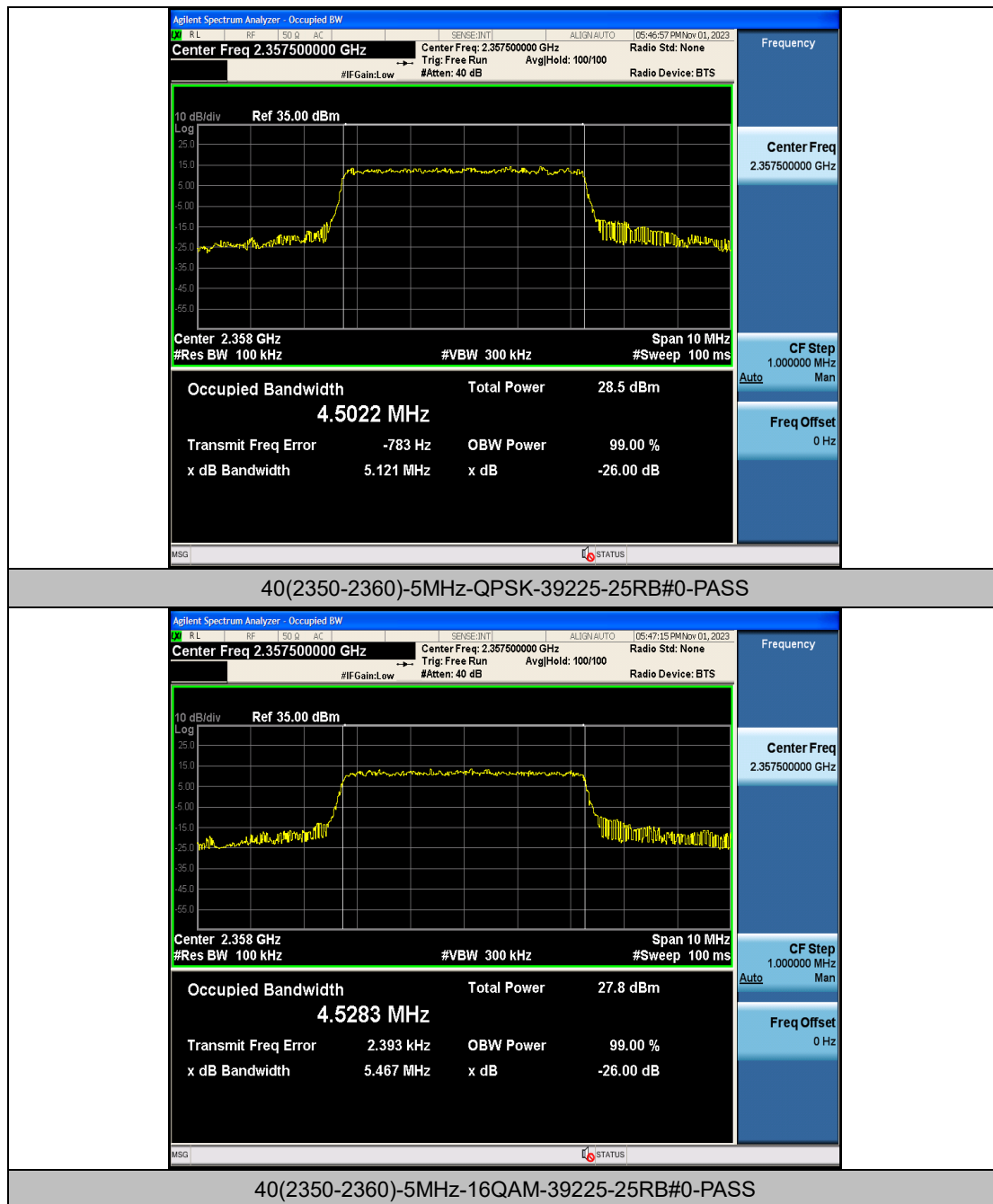
Auto

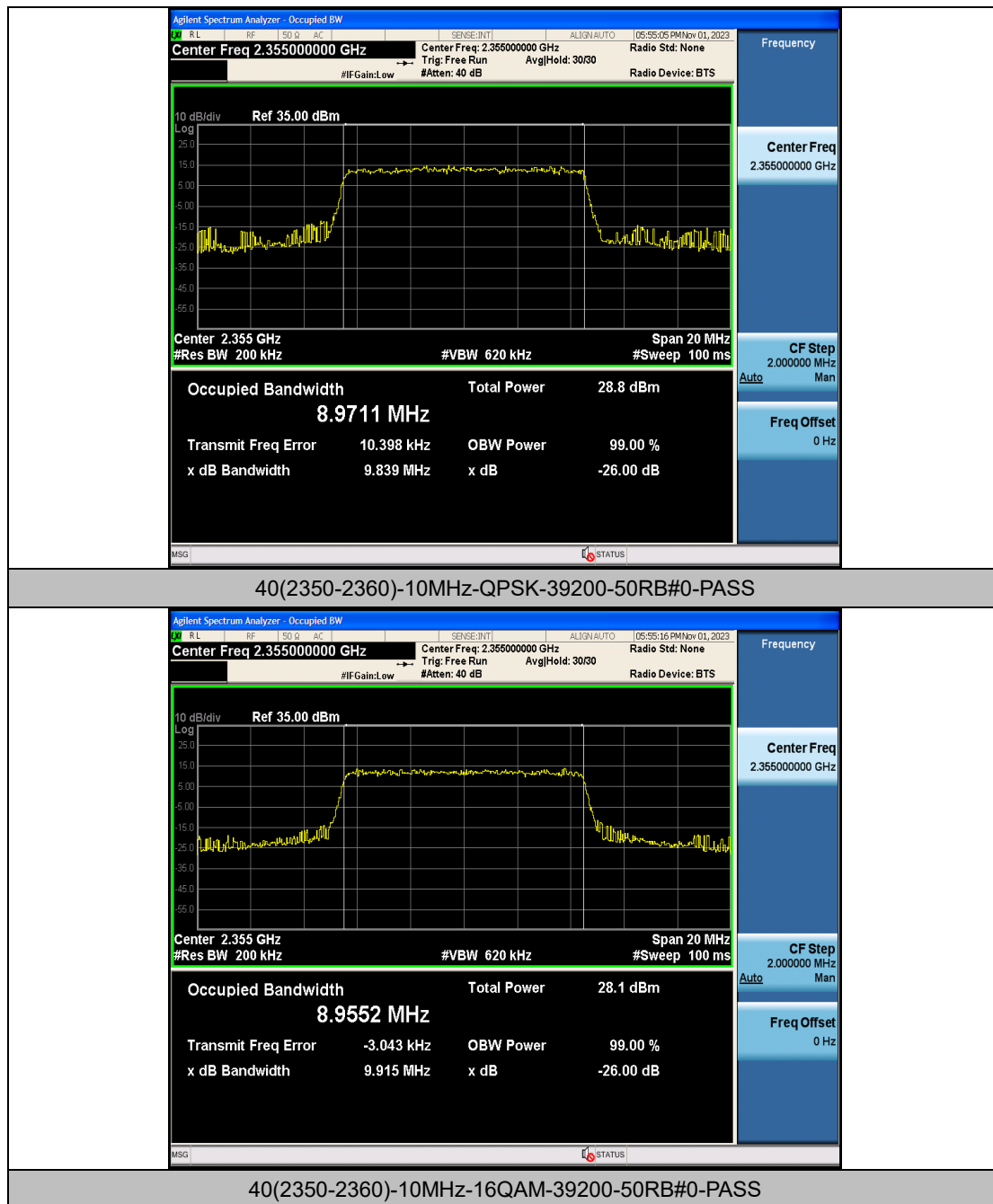
Man

Freq Offset

0 Hz

40(2350-2360)-5MHz-16QAM-39200-25RB#0-PASS





40(2350-2360)-10MHz-QPSK-39200-50RB#0-PASS

Agilent Spectrum Analyzer - Occupied BW

RL

RF

50 Ω

AC

SENSE:INT

ALIGN:AUTO

05:55:16 PM Nov 01, 2023

Center Freq 2.355000000 GHz

Center Freq: 2.355000000 GHz

Radio Std: None

#IF Gain: Low

Trig: Free Run

Avg/Hold: 30/30

Radio Device: BTS

10 dB/div

Ref 35.00 dBm

Center 2.355 GHz

#Res BW 200 kHz

#VBW 620 kHz

Span 20 MHz

#Sweep 100 ms

Occupied Bandwidth

8.9552 MHz

Total Power

28.1 dBm

Transmit Freq Error

-3.043 kHz

OBW Power

99.00 %

x dB Bandwidth

9.915 MHz

x dB

-26.00 dB

MSG

STATUS

Frequency

Center Freq

2.355000000 GHz

CF Step

2.000000 MHz

Auto

Man

Freq Offset

0 Hz

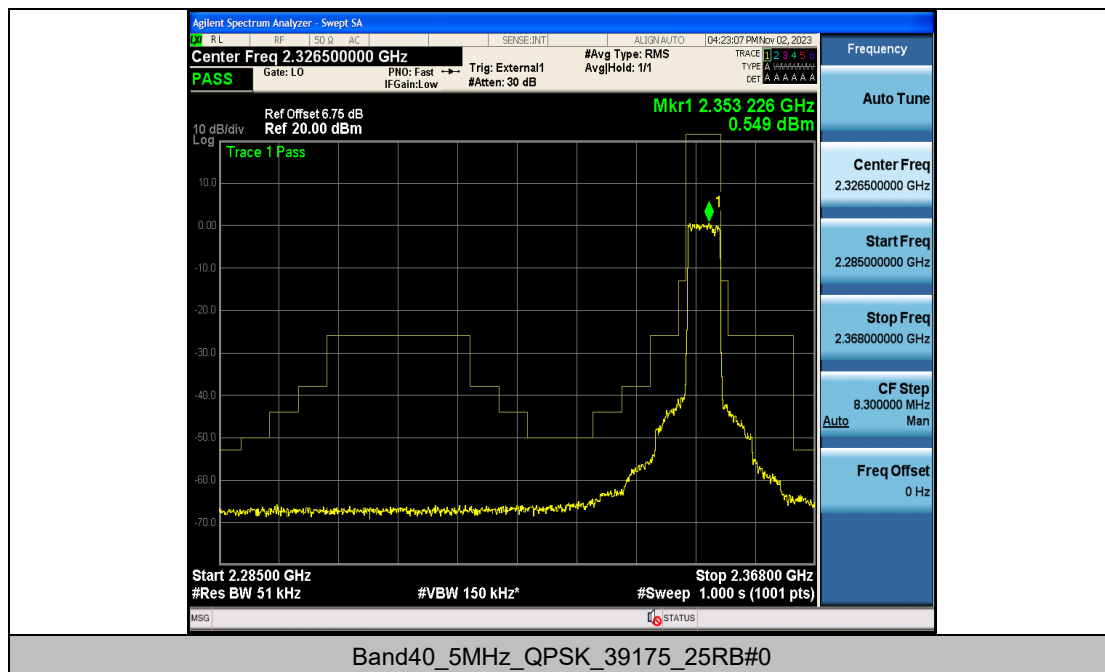
40(2350-2360)-10MHz-16QAM-39200-50RB#0-PASS

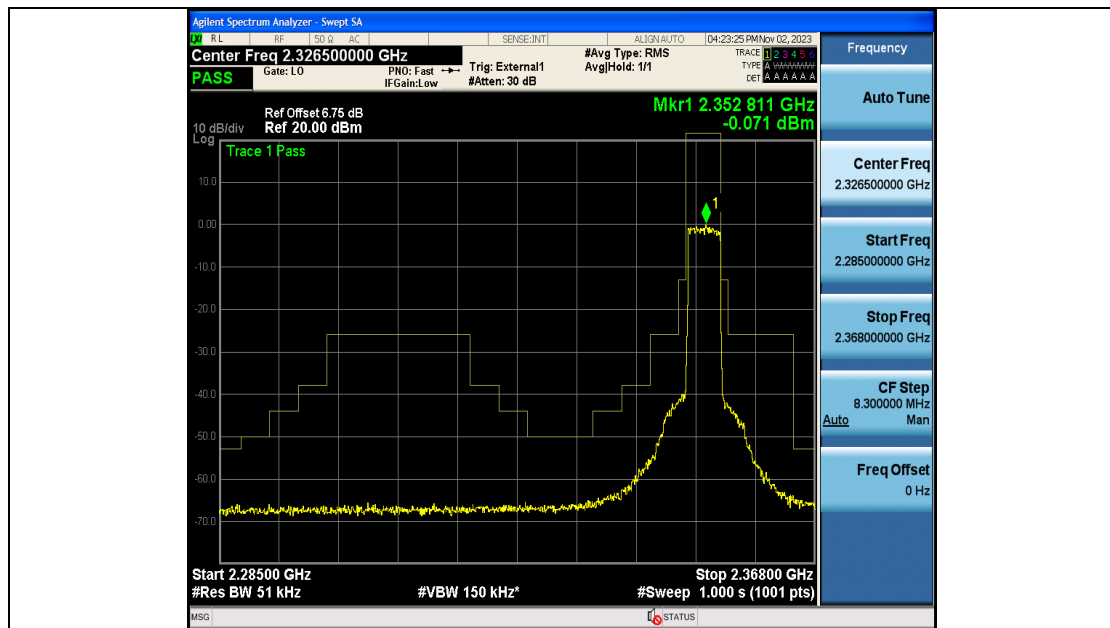
Appendix D: Band Edge

Test Result

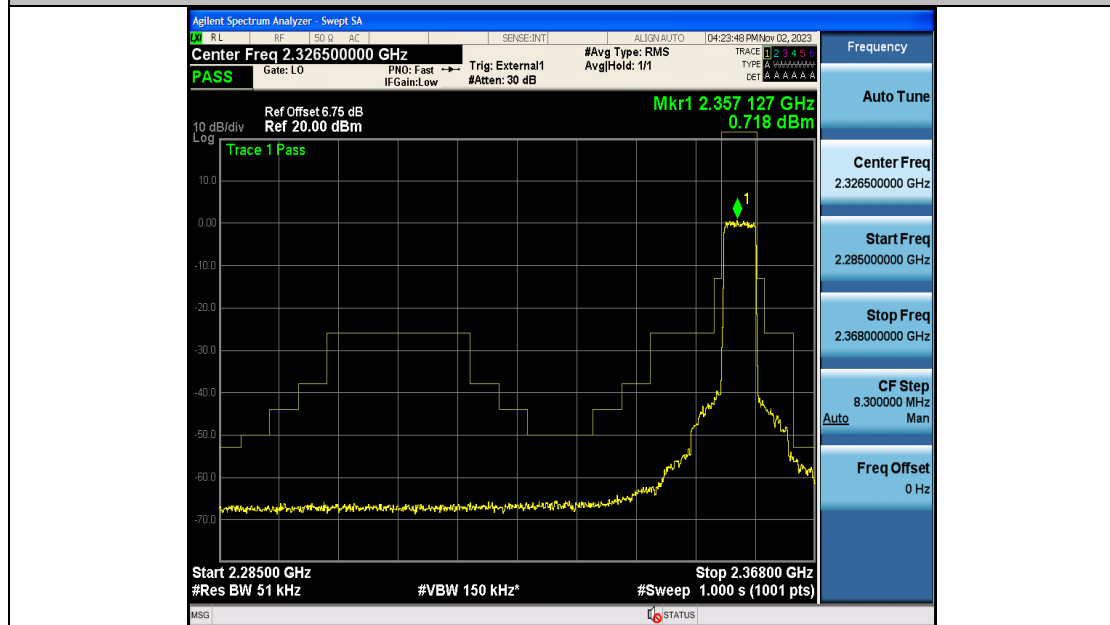
Band	Bandwidth	Modulation	Channel	RB Configuration	Verdict
40(2350-2360)	5MHz	QPSK	39175	25RB#0	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	PASS

Test Graphs

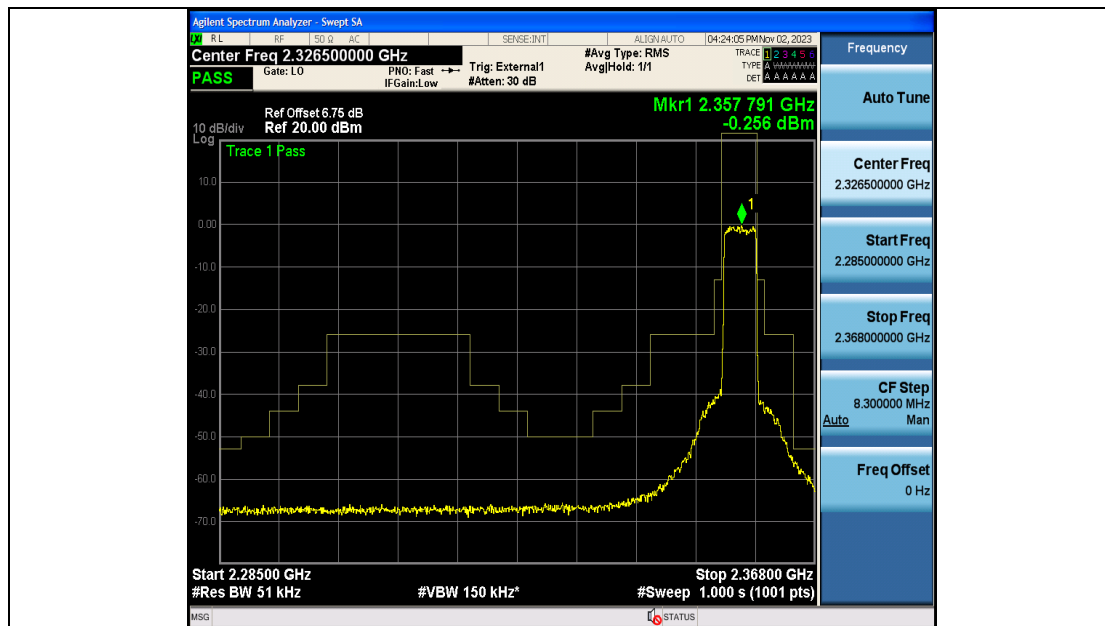




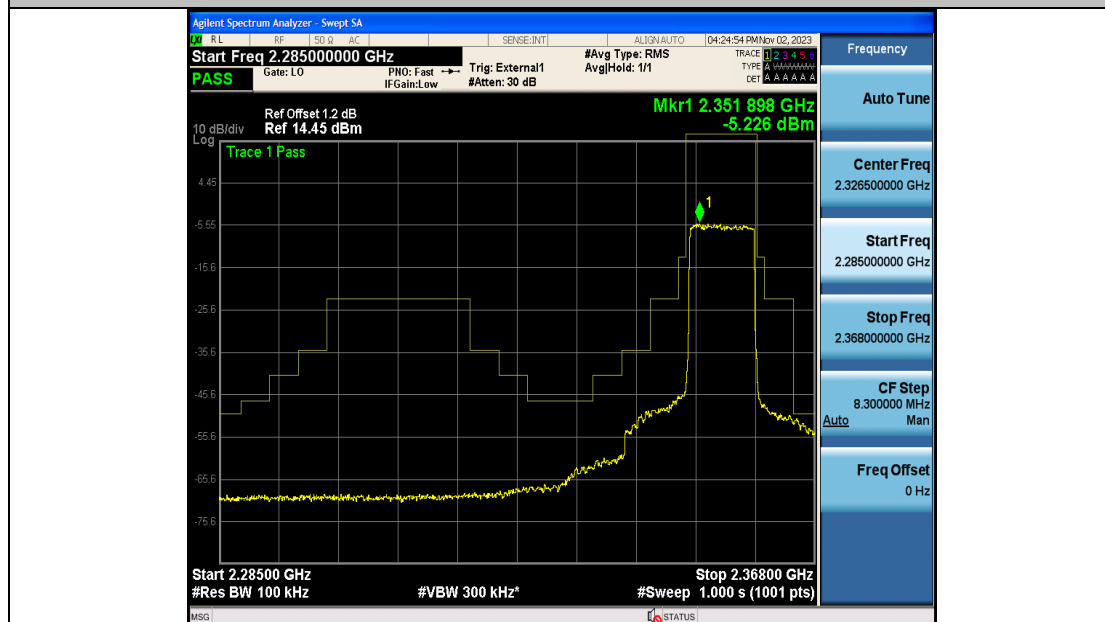
Band40_5MHz_16QAM_39175_25RB#0



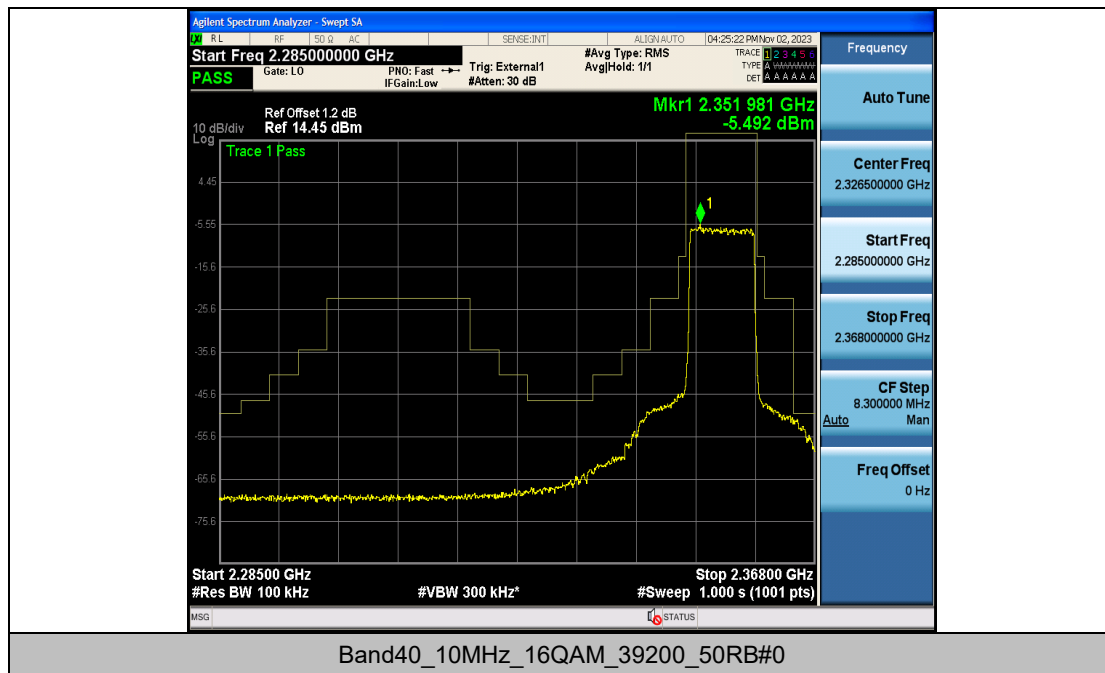
Band40_5MHz_QPSK_39225_25RB#0



Band40_5MHz_16QAM_39225_25RB#0



Band40_10MHz_QPSK_39200_50RB#0



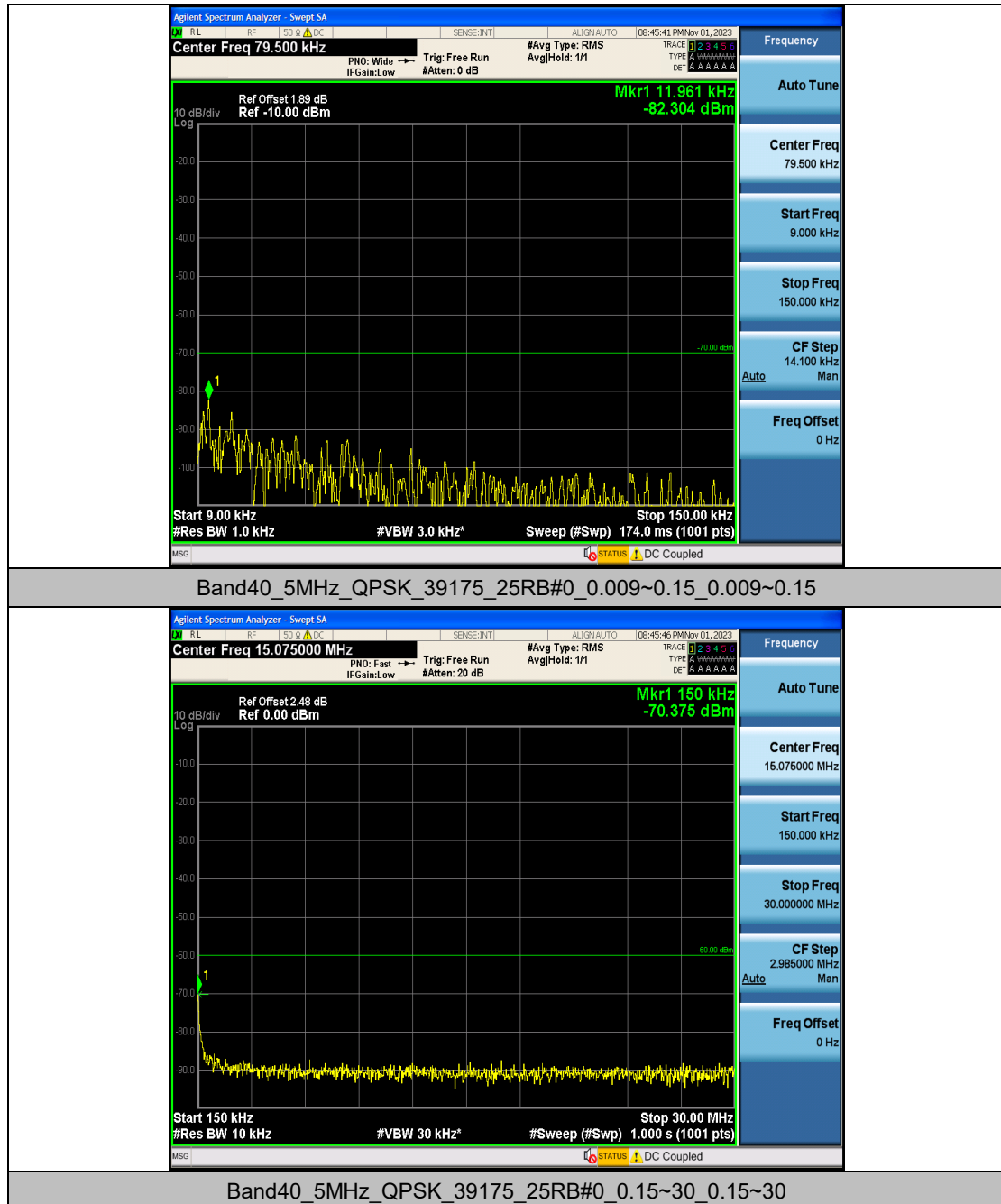
Appendix E: Conducted Spurious Emission

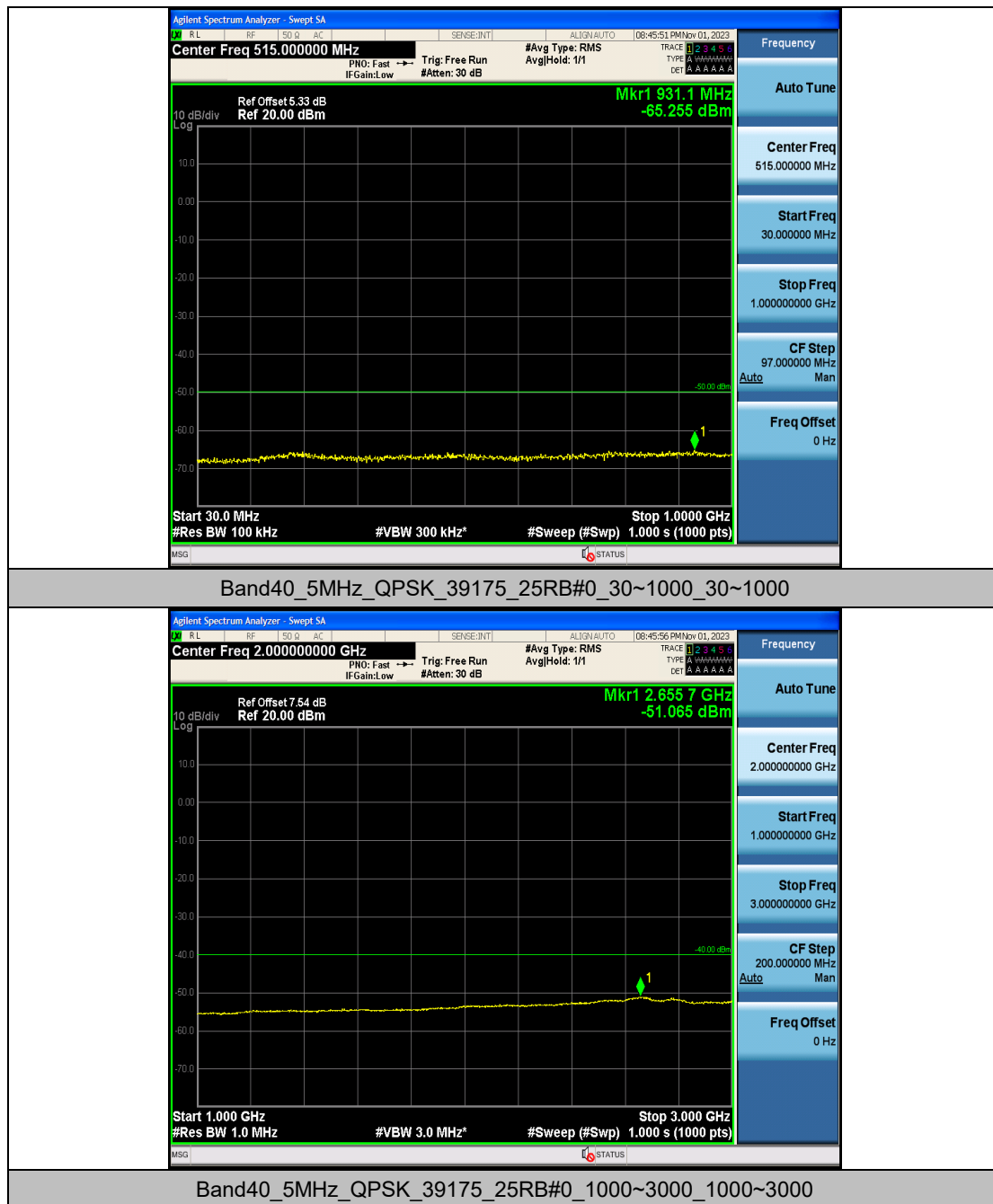
Test Result

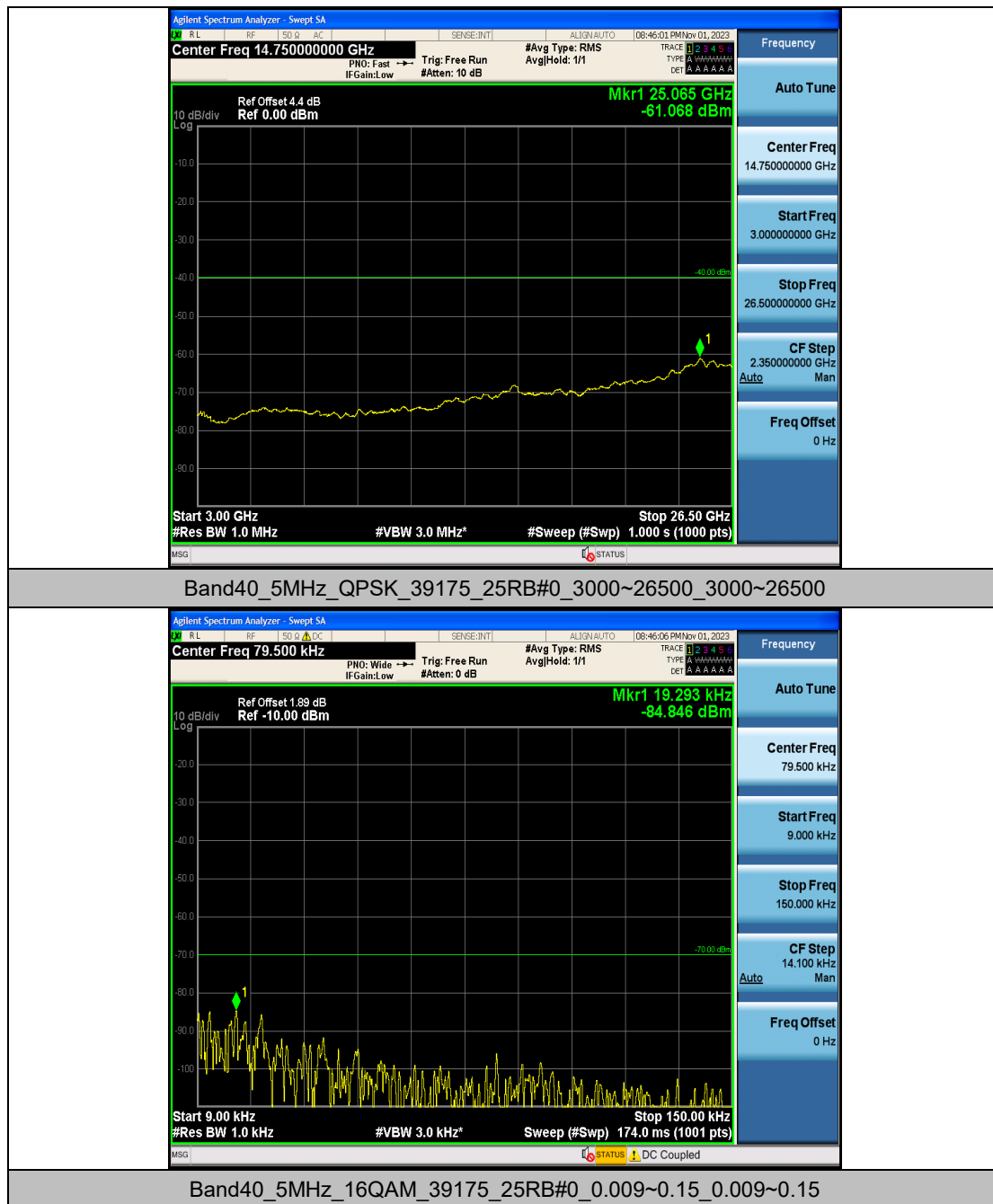
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
40(2350-2360)	5MHz	QPSK	39175	25RB#0	0.009~0.15	-82.30	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	0.15~30	-70.38	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	30~1000	-65.26	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	1000~3000	-51.07	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	3000~26500	-61.07	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	0.009~0.15	-84.85	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	0.15~30	-69.50	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	30~1000	-65.34	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	1000~3000	-51.12	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	3000~26500	-61.05	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	0.009~0.15	-82.07	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	0.15~30	-69.03	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	30~1000	-65.01	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	1000~3000	-51.07	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	3000~26500	-60.96	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	0.009~0.15	-83.82	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	0.15~30	-69.04	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	30~1000	-65.00	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	1000~3000	-51.01	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	3000~26500	-61.17	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	0.009~0.15	-80.39	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	0.15~30	-68.53	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	30~1000	-65.27	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	1000~3000	-50.99	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	3000~26500	-60.94	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	0.009~0.15	-84.70	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	0.15~30	-68.43	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	30~1000	-65.00	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	1000~3000	-51.04	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	3000~26500	-61.10	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	0.009~0.15	-82.10	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	0.15~30	-68.13	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	30~1000	-65.23	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	1000~3000	-50.99	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	3000~26500	-61.09	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	0.009~0.15	-84.31	PASS

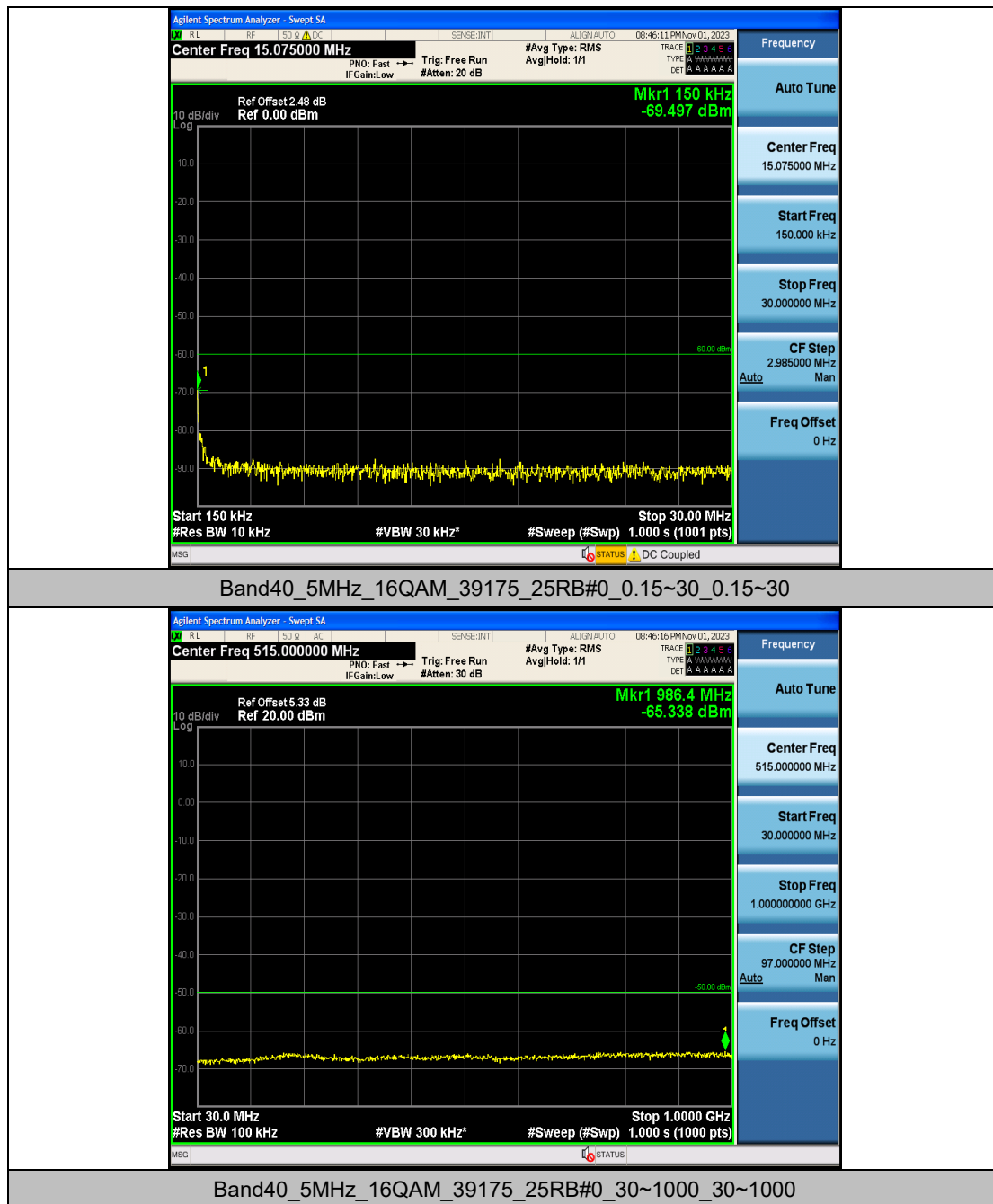
40(2350-2360)	10MHz	16QAM	39200	50RB#0	0.15~30	-69.06	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	30~1000	-65.33	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	1000~3000	-51.11	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	3000~26500	-61.06	PASS

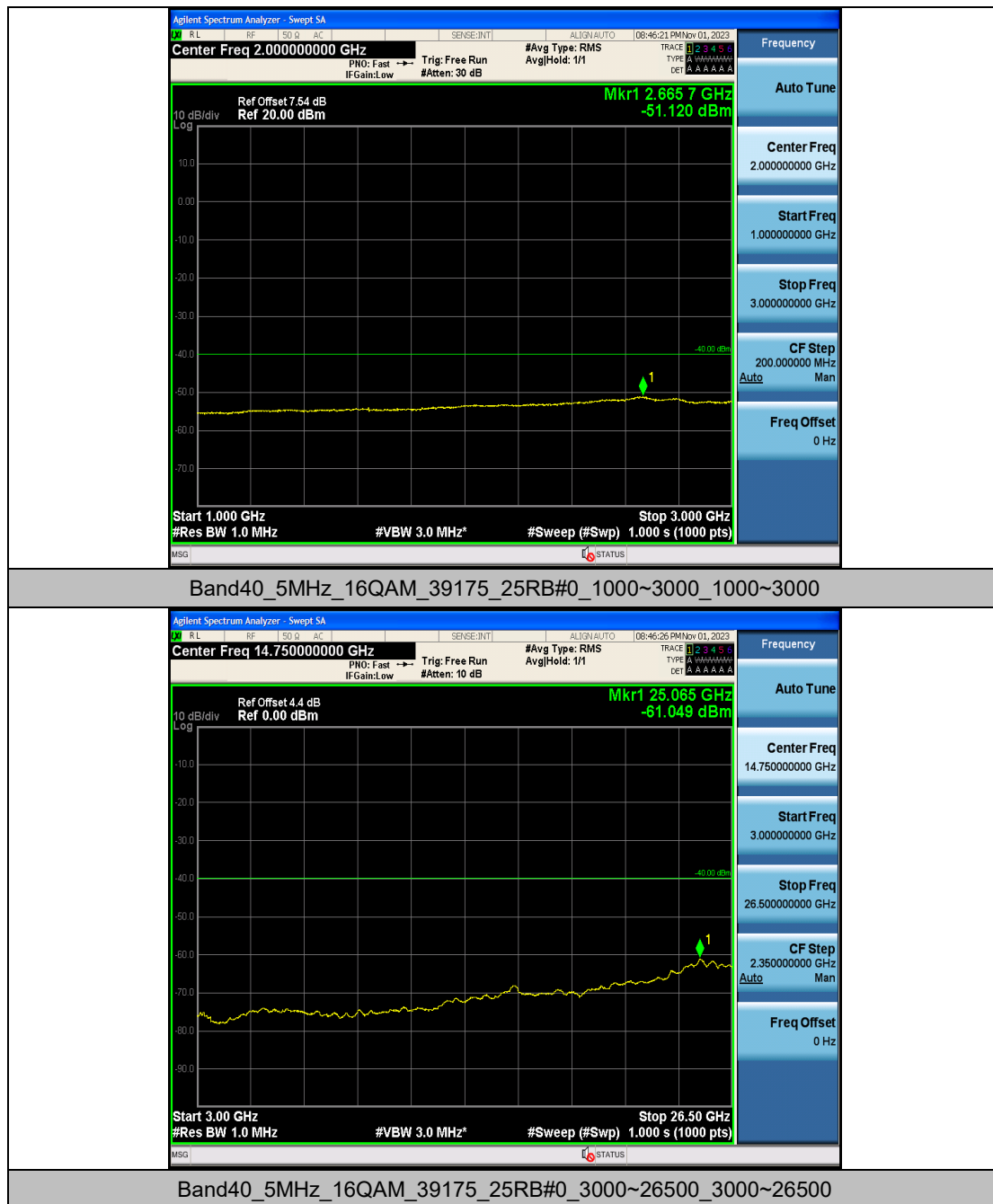
Test Graphs

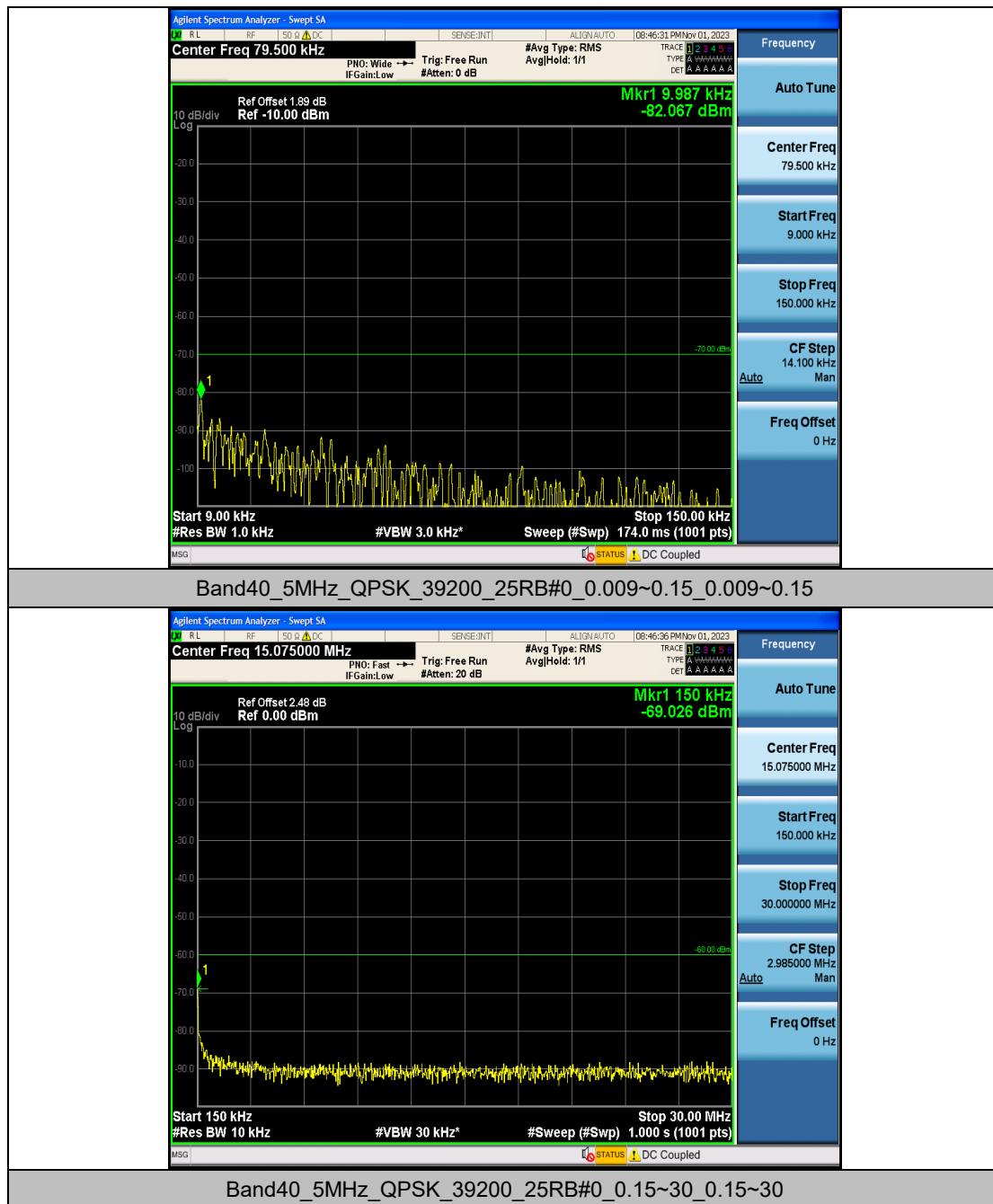


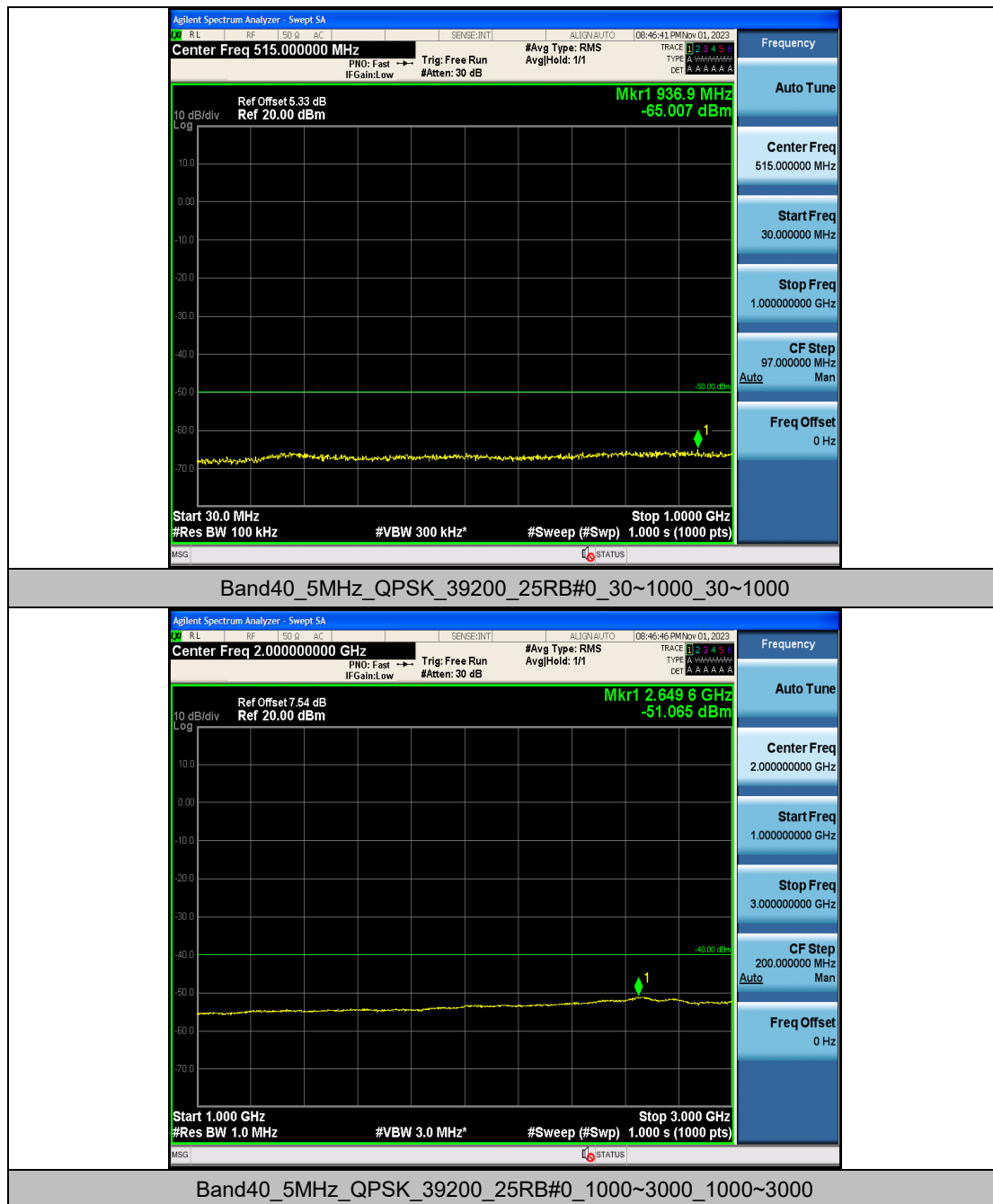


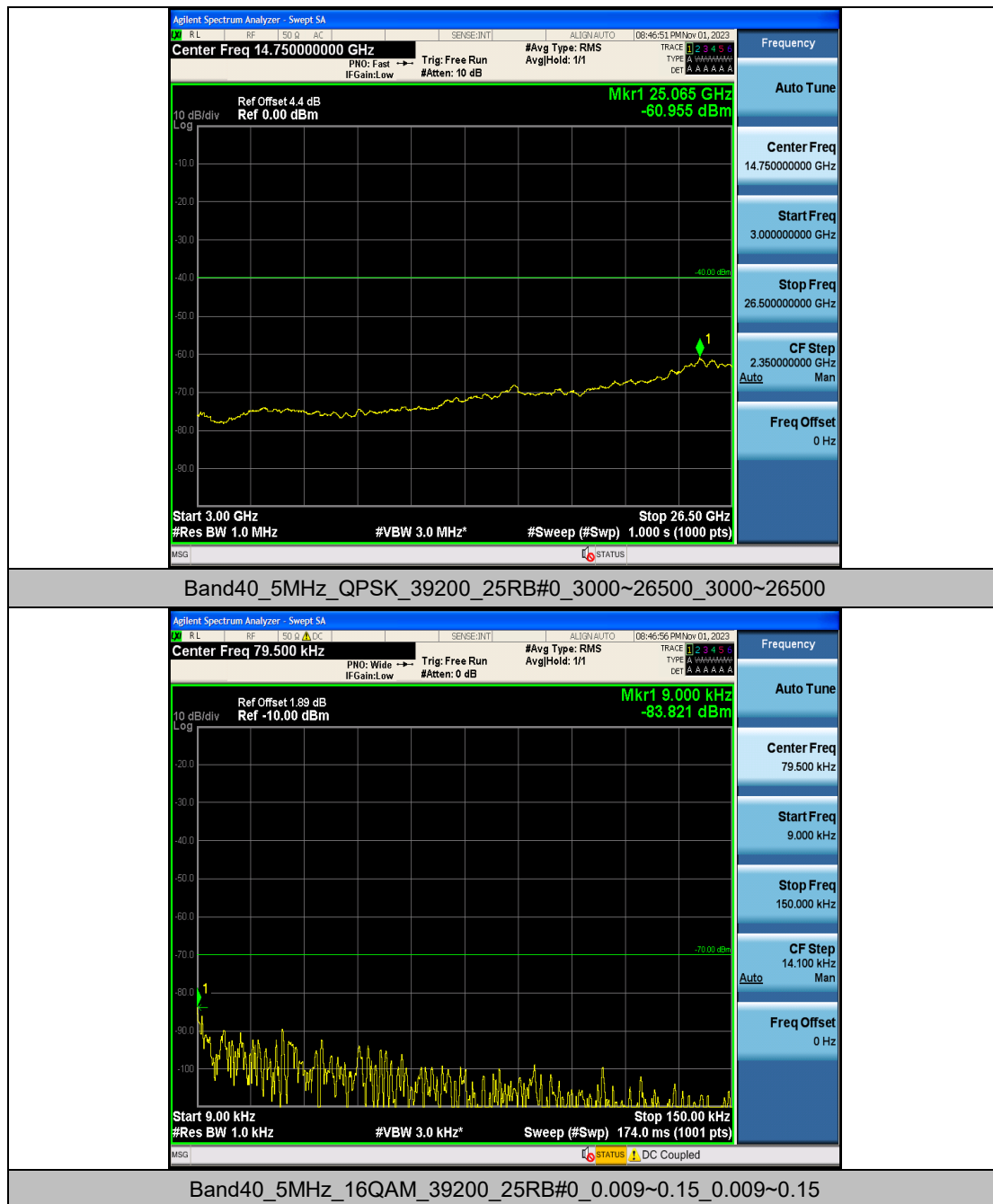


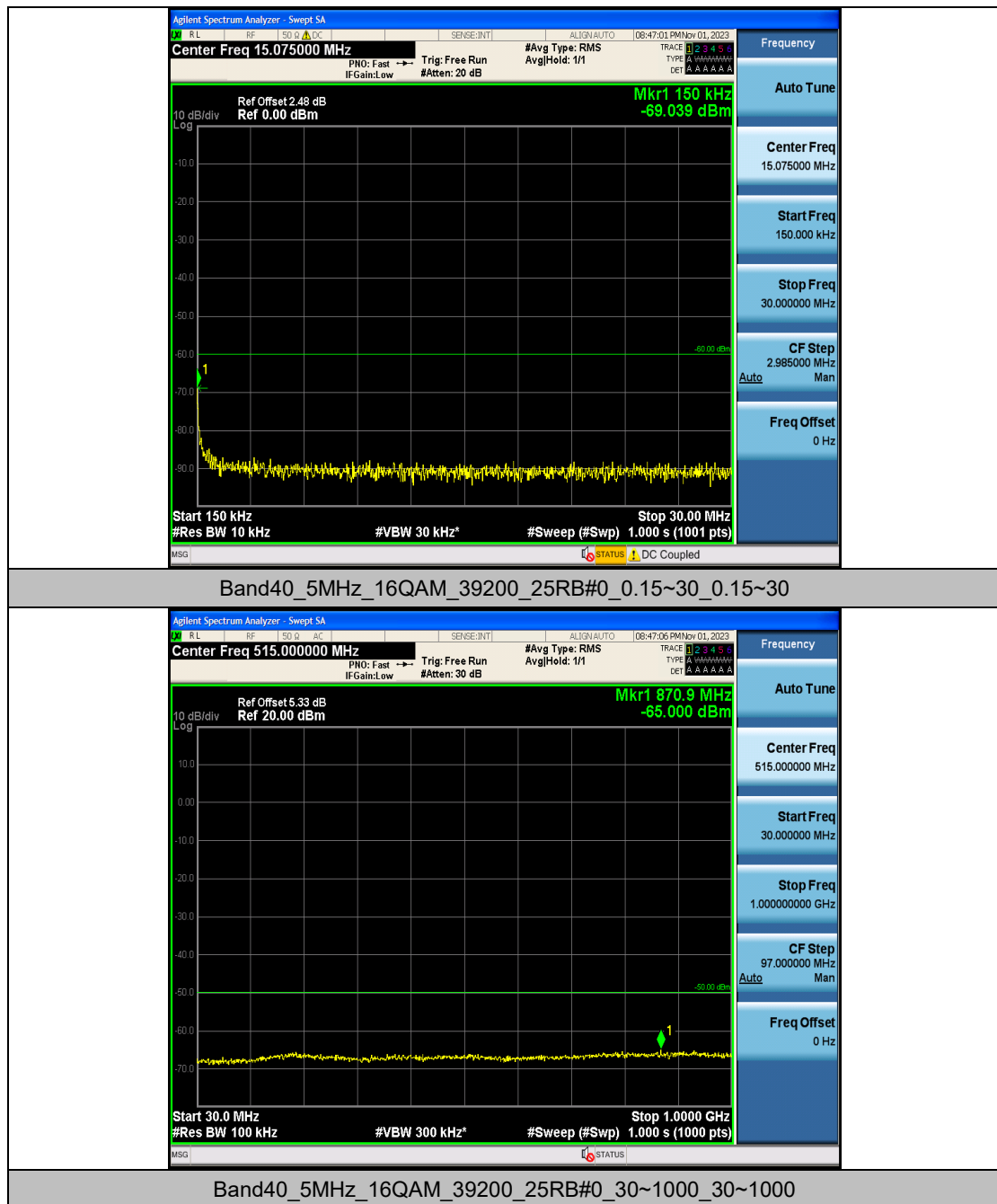


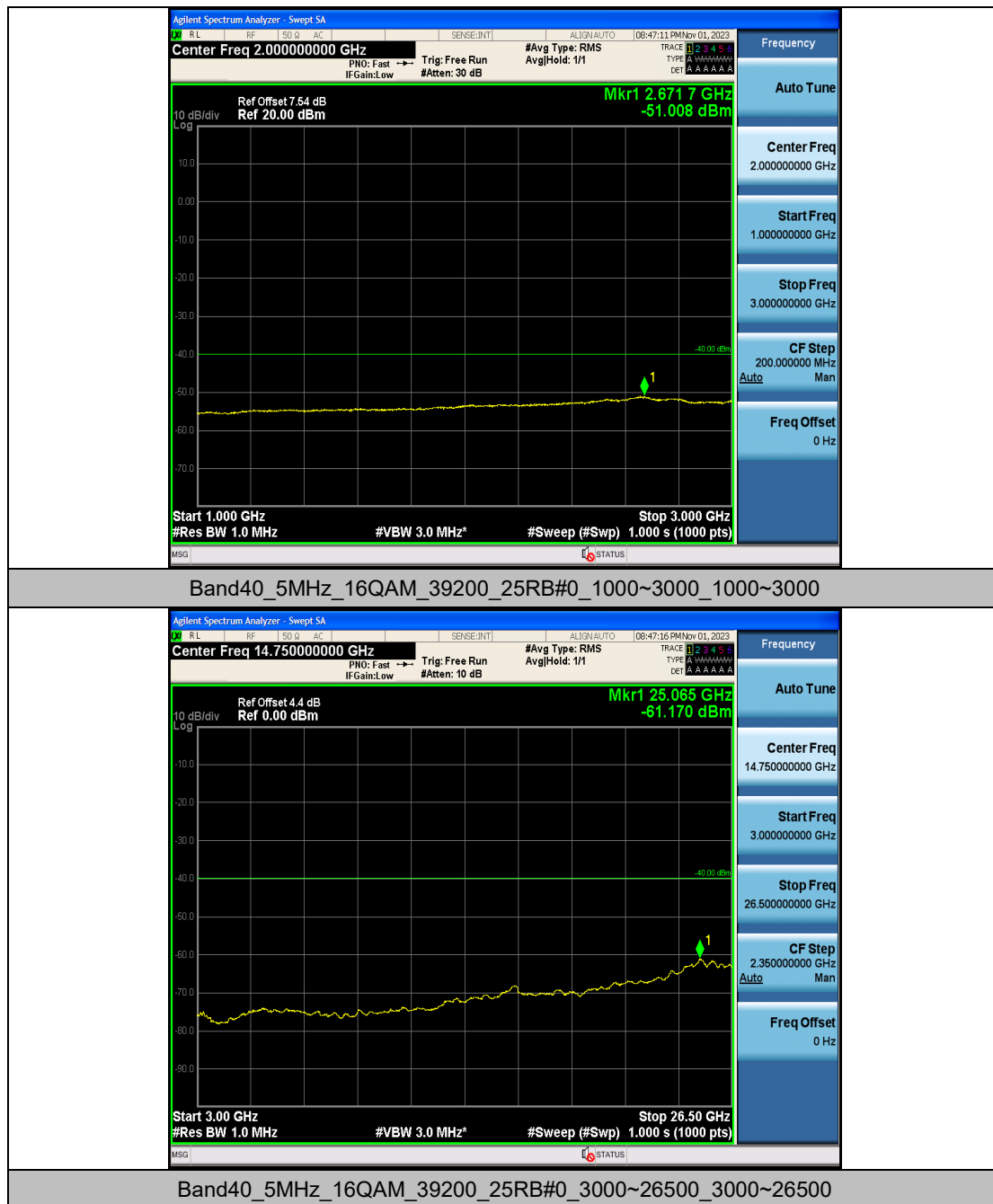


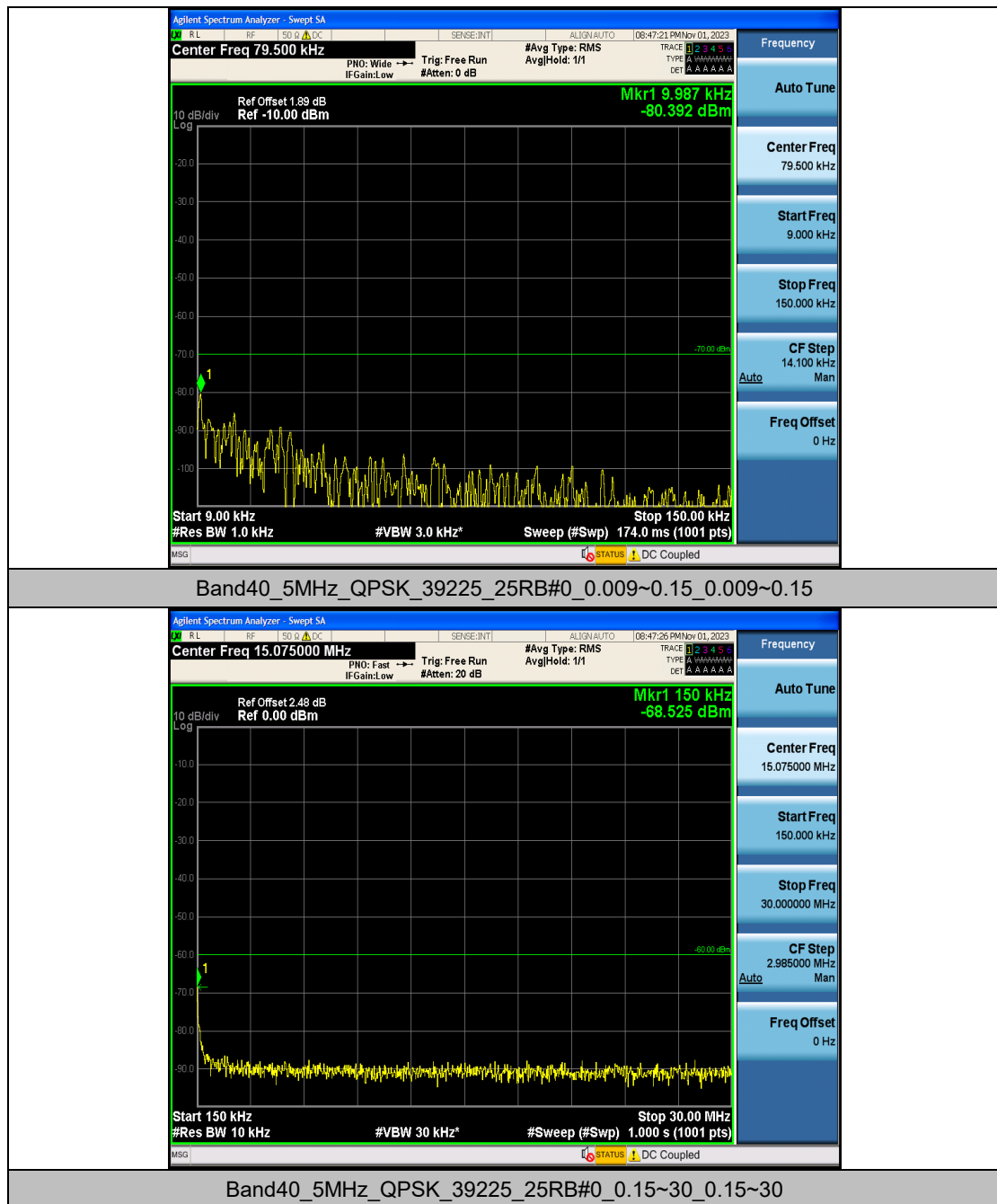


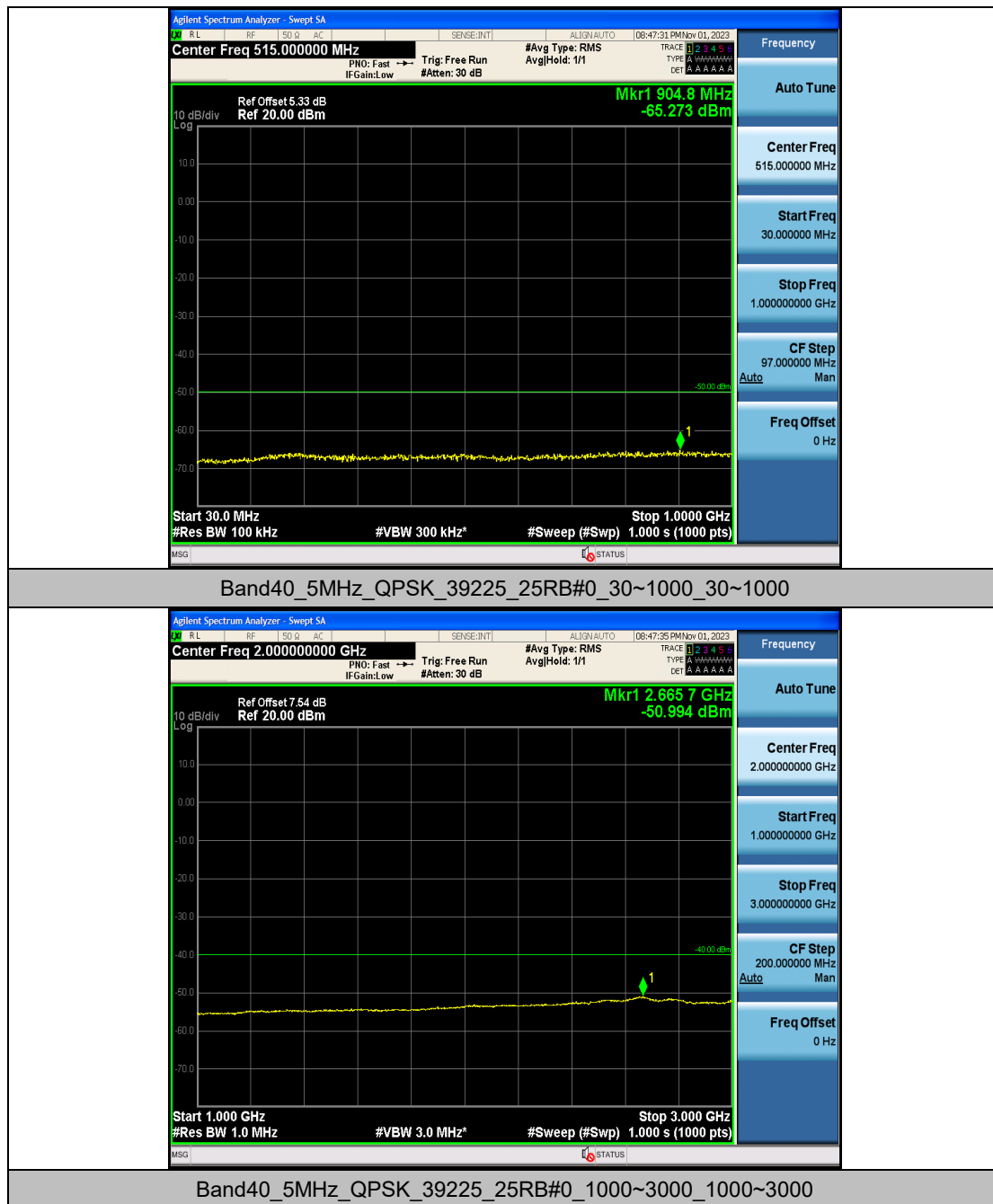


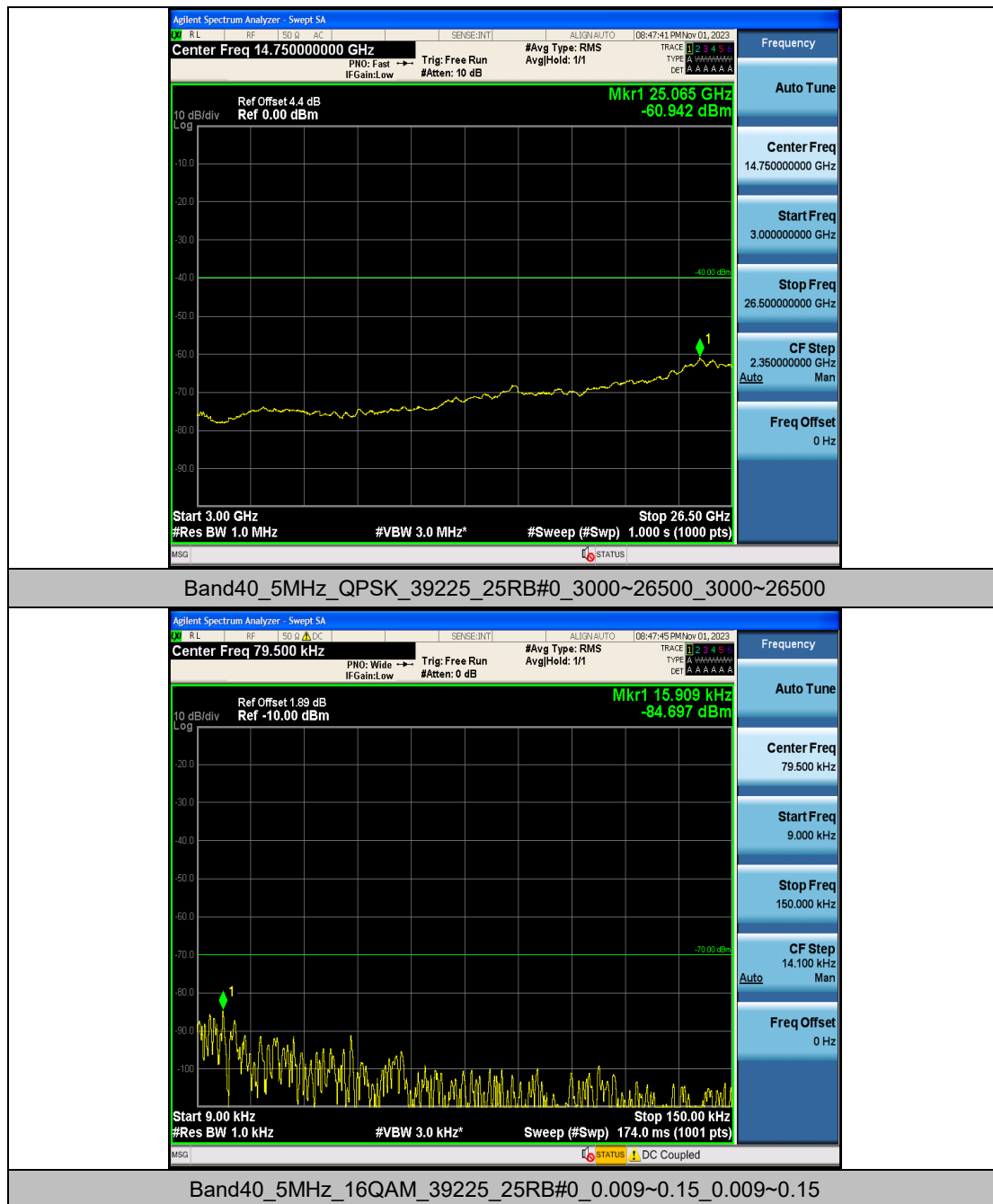


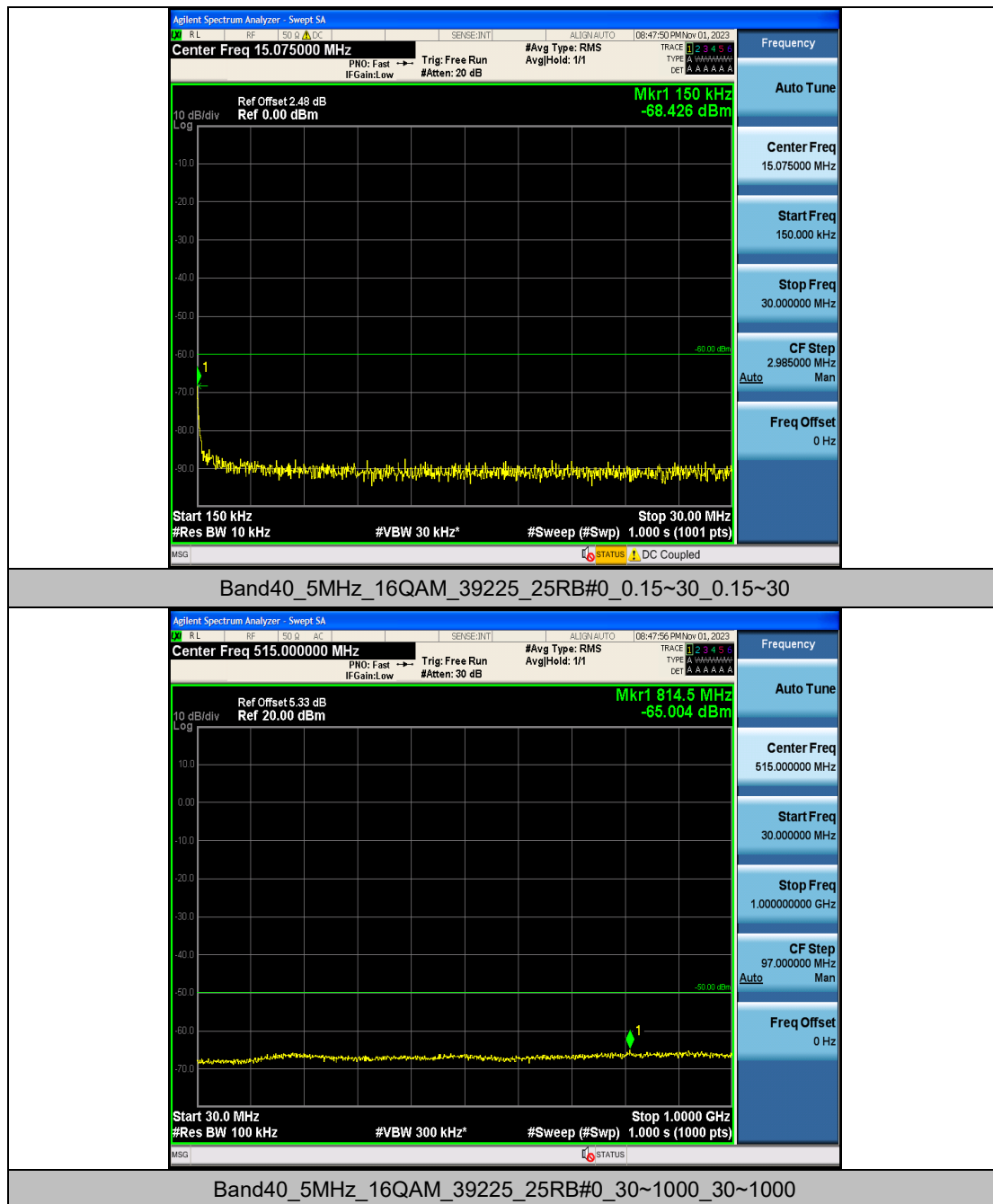


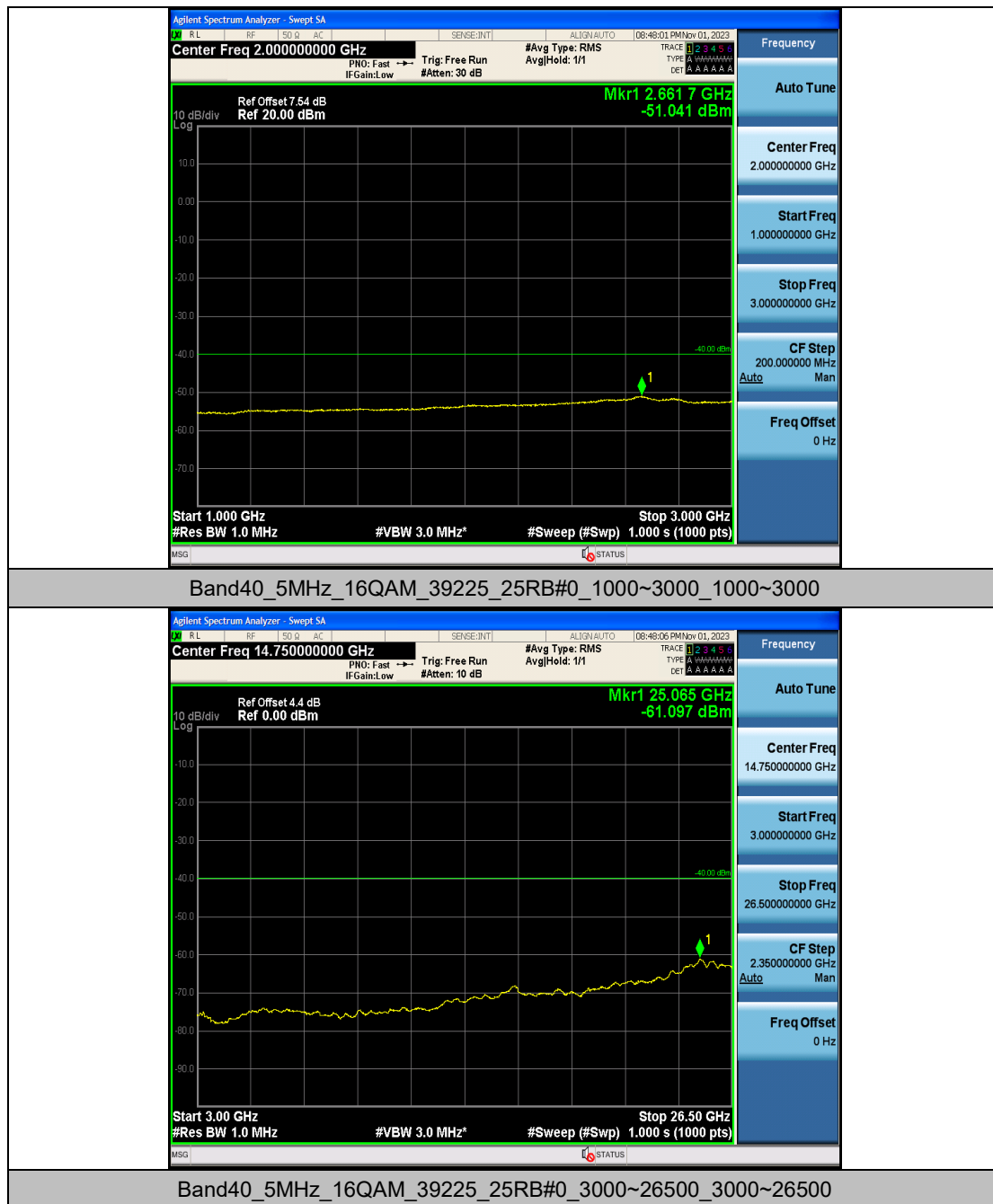


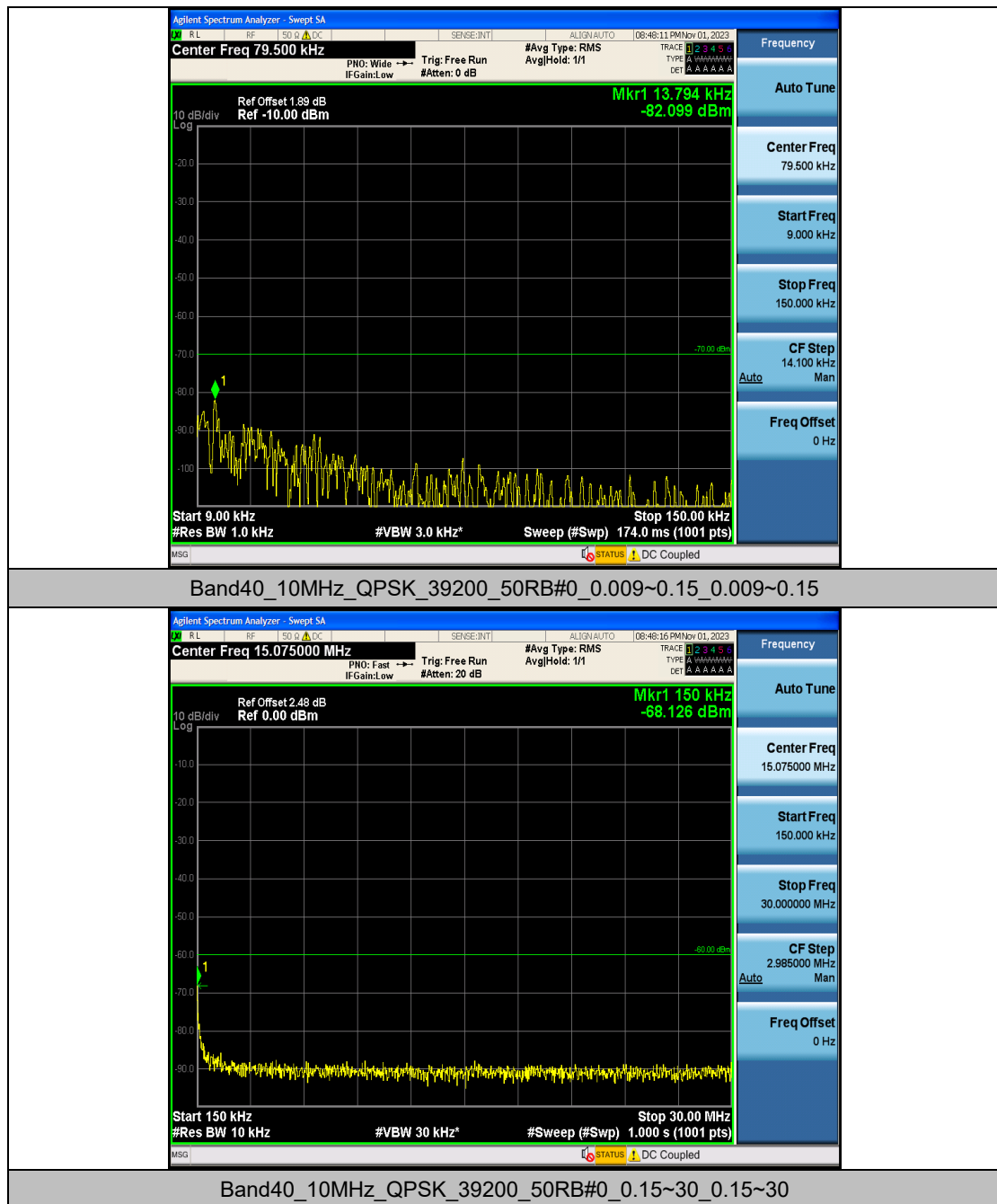


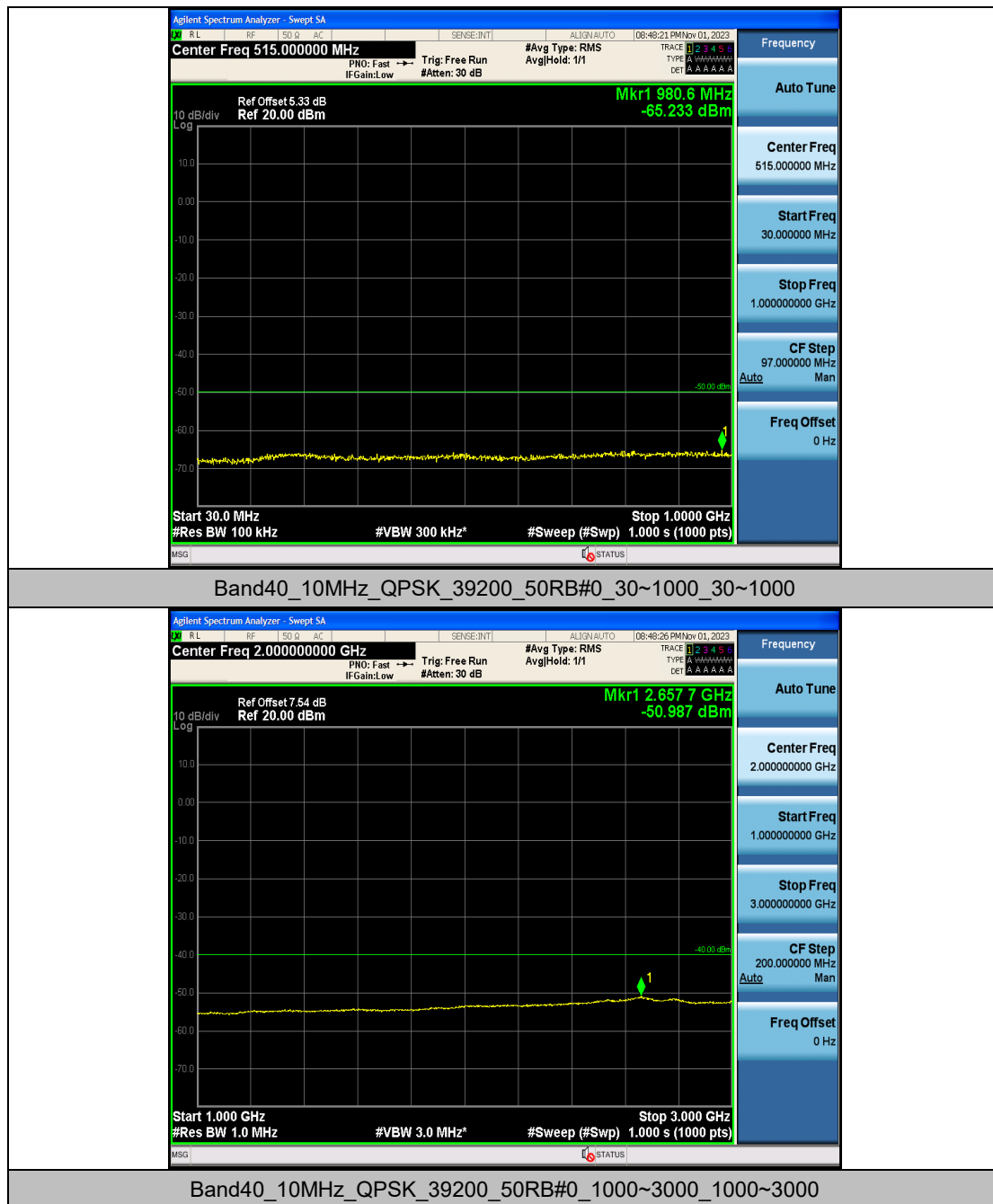


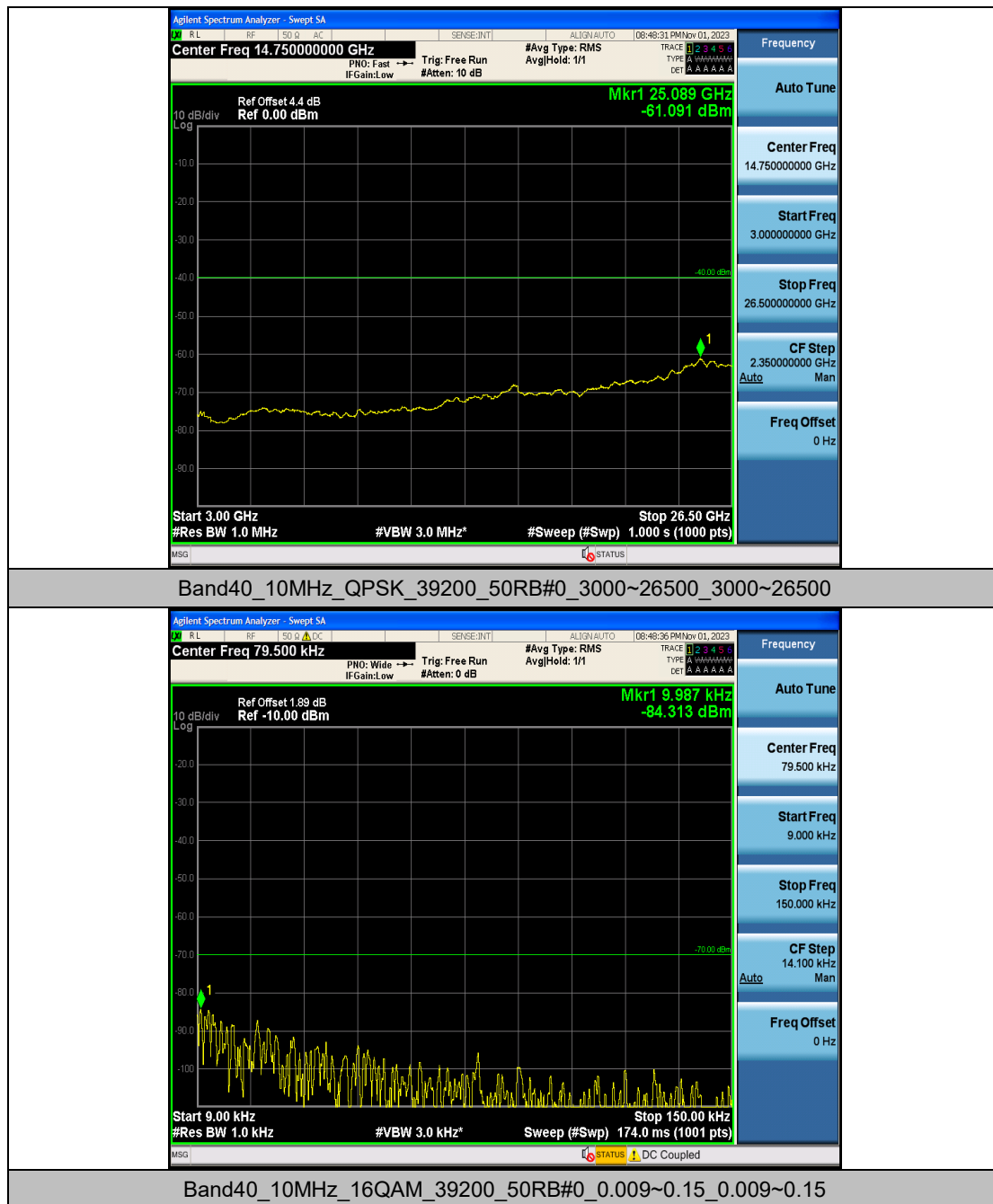


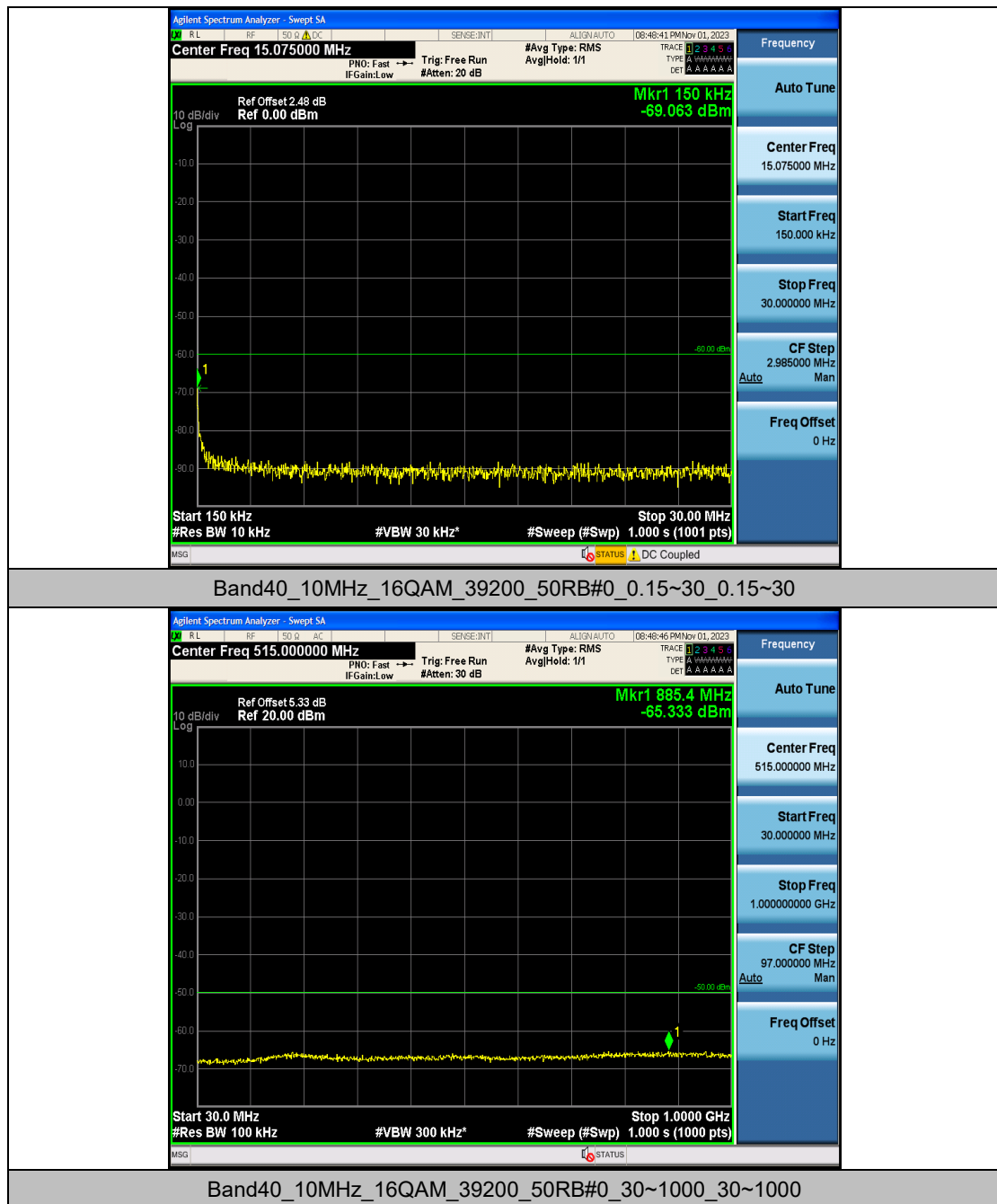


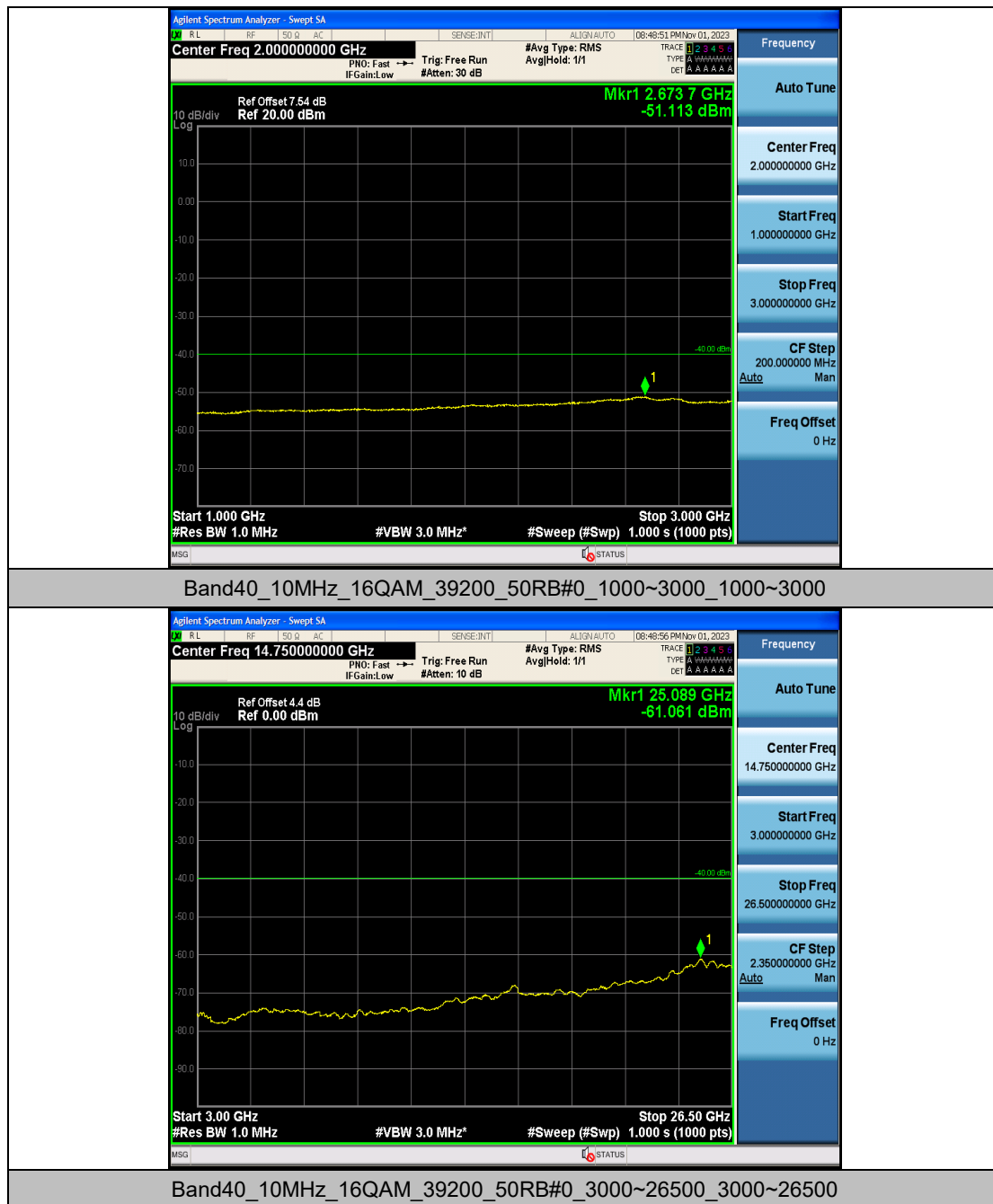












Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
40(2350-2360)	5MHz	QPSK	39175	25RB#0	VN	NT	-8.00	-0.003401	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	VL	NT	7.24	0.003078	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	VH	NT	-8.13	-0.003456	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	VN	NT	6.11	0.002597	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	VL	NT	-4.62	-0.001964	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	VH	NT	-7.67	-0.003260	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	VN	NT	-6.42	-0.002726	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	VL	NT	-8.35	-0.003546	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	VH	NT	-10.26	-0.004357	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	VN	NT	-12.30	-0.005223	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	VL	NT	-13.43	-0.005703	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	VH	NT	-13.45	-0.005711	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	VN	NT	-6.84	-0.002901	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	VL	NT	-5.09	-0.002159	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	VH	NT	-4.35	-0.001845	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	VN	NT	-10.14	-0.004301	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	VL	NT	-3.89	-0.001650	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	VH	NT	3.99	0.001692	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	VN	NT	-7.38	-0.003134	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	VL	NT	-12.06	-0.005121	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	VH	NT	-11.76	-0.004994	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	VN	NT	-8.67	-0.003682	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	VL	NT	-12.16	-0.005163	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	VH	NT	-16.39	-0.006960	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
40(2350-2360)	5MHz	QPSK	39175	25RB#0	NV	-30	-6.22	-0.002644	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	NV	-20	4.56	0.001938	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	NV	-10	7.32	0.003112	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	NV	0	-4.13	-0.001756	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	NV	10	5.71	0.002427	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	NV	20	9.98	0.004242	±2.5	PASS

40(2350-2360)	5MHz	QPSK	39175	25RB#0	NV	30	-3.88	-0.001649	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	NV	40	9.16	0.003894	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39175	25RB#0	NV	50	-9.20	-0.003911	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	NV	-30	-4.82	-0.002049	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	NV	-20	-6.49	-0.002759	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	NV	-10	-6.24	-0.002652	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	NV	0	-4.21	-0.001790	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	NV	10	-4.55	-0.001934	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	NV	20	-8.24	-0.003503	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	NV	30	-5.84	-0.002482	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	NV	40	-7.40	-0.003146	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39175	25RB#0	NV	50	-7.60	-0.003231	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	NV	-30	-6.69	-0.002841	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	NV	-20	-7.77	-0.003299	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	NV	-10	-8.97	-0.003809	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	NV	0	-14.69	-0.006238	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	NV	10	-6.77	-0.002875	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	NV	20	-10.83	-0.004599	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	NV	30	-11.13	-0.004726	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	NV	40	-10.86	-0.004611	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39200	25RB#0	NV	50	-10.13	-0.004301	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	NV	-30	-10.60	-0.004501	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	NV	-20	-9.71	-0.004123	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	NV	-10	-9.57	-0.004064	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	NV	0	-10.94	-0.004645	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	NV	10	-7.57	-0.003214	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	NV	20	-10.41	-0.004420	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	NV	30	-10.11	-0.004293	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	NV	40	-11.46	-0.004866	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39200	25RB#0	NV	50	-7.78	-0.003304	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	NV	-30	-6.15	-0.002609	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	NV	-20	-5.46	-0.002316	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	NV	-10	-7.11	-0.003016	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	NV	0	-5.18	-0.002197	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	NV	10	-8.07	-0.003423	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	NV	20	-8.34	-0.003538	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	NV	30	3.69	0.001565	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	NV	40	-4.36	-0.001849	±2.5	PASS
40(2350-2360)	5MHz	QPSK	39225	25RB#0	NV	50	8.71	0.003695	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	NV	-30	2.56	0.001086	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	NV	-20	-12.50	-0.005302	±2.5	PASS

40(2350-2360)	5MHz	16QAM	39225	25RB#0	NV	-10	-4.71	-0.001998	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	NV	0	-3.62	-0.001536	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	NV	10	-7.74	-0.003283	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	NV	20	6.41	0.002719	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	NV	30	-9.08	-0.003852	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	NV	40	-7.21	-0.003058	±2.5	PASS
40(2350-2360)	5MHz	16QAM	39225	25RB#0	NV	50	5.41	0.002295	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	NV	-30	-8.50	-0.003609	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	NV	-20	-10.57	-0.004488	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	NV	-10	-8.51	-0.003614	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	NV	0	-9.87	-0.004191	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	NV	10	-11.70	-0.004968	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	NV	20	-8.48	-0.003601	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	NV	30	-12.95	-0.005499	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	NV	40	-12.63	-0.005363	±2.5	PASS
40(2350-2360)	10MHz	QPSK	39200	50RB#0	NV	50	-13.16	-0.005588	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	NV	-30	-10.37	-0.004403	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	NV	-20	-12.30	-0.005223	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	NV	-10	-10.07	-0.004276	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	NV	0	-12.96	-0.005503	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	NV	10	-10.27	-0.004361	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	NV	20	-14.43	-0.006127	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	NV	30	-7.34	-0.003117	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	NV	40	-10.69	-0.004539	±2.5	PASS
40(2350-2360)	10MHz	16QAM	39200	50RB#0	NV	50	-10.03	-0.004259	±2.5	PASS