Appendix-A LTE Band 7

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	23.37	24.77	33	PASS
Band7	5MHz	QPSK	20775	1RB#12	23.85	25.25	33	PASS
Band7	5MHz	QPSK	20775	1RB#24	23.56	24.96	33	PASS
Band7	5MHz	QPSK	20775	25RB#0	22.79	24.19	33	PASS
Band7	5MHz	16QAM	20775	1RB#0	22.34	23.74	33	PASS
Band7	5MHz	16QAM	20775	1RB#12	22.69	24.09	33	PASS
Band7	5MHz	16QAM	20775	1RB#24	22.5	23.9	33	PASS
Band7	5MHz	16QAM	20775	25RB#0	21.73	23.13	33	PASS
Band7	5MHz	QPSK	21100	1RB#0	23.91	25.31	33	PASS
Band7	5MHz	QPSK	21100	1RB#12	23.87	25.27	33	PASS
Band7	5MHz	QPSK	21100	1RB#24	23.91	25.31	33	PASS
Band7	5MHz	QPSK	21100	25RB#0	22.81	24.21	33	PASS
Band7	5MHz	16QAM	21100	1RB#0	22.64	24.04	33	PASS
Band7	5MHz	16QAM	21100	1RB#12	22.94	24.34	33	PASS
Band7	5MHz	16QAM	21100	1RB#24	22.92	24.32	33	PASS
Band7	5MHz	16QAM	21100	25RB#0	21.97	23.37	33	PASS
Band7	5MHz	QPSK	21425	1RB#0	23.91	25.31	33	PASS
Band7	5MHz	QPSK	21425	1RB#12	23.89	25.29	33	PASS
Band7	5MHz	QPSK	21425	1RB#24	23.76	25.16	33	PASS
Band7	5MHz	QPSK	21425	25RB#0	22.91	24.31	33	PASS
Band7	5MHz	16QAM	21425	1RB#0	22.77	24.17	33	PASS
Band7	5MHz	16QAM	21425	1RB#12	22.82	24.22	33	PASS
Band7	5MHz	16QAM	21425	1RB#24	22.96	24.36	33	PASS
Band7	5MHz	16QAM	21425	25RB#0	21.8	23.2	33	PASS
Band7	10MHz	QPSK	20800	1RB#0	23.61	25.01	33	PASS
Band7	10MHz	QPSK	20800	1RB#24	23.78	25.18	33	PASS
Band7	10MHz	QPSK	20800	1RB#49	23.61	25.01	33	PASS
Band7	10MHz	QPSK	20800	50RB#0	22.9	24.3	33	PASS
Band7	10MHz	16QAM	20800	1RB#0	22.32	23.72	33	PASS
Band7	10MHz	16QAM	20800	1RB#24	22.81	24.21	33	PASS
Band7	10MHz	16QAM	20800	1RB#49	22.71	24.11	33	PASS
Band7	10MHz	16QAM	20800	50RB#0	21.67	23.07	33	PASS
Band7	10MHz	QPSK	21100	1RB#0	23.93	25.33	33	PASS
Band7	10MHz	QPSK	21100	1RB#24	23.79	25.19	33	PASS
Band7	10MHz	QPSK	21100	1RB#49	23.9	25.3	33	PASS
Band7	10MHz	QPSK	21100	50RB#0	22.94	24.34	33	PASS
Band7	10MHz	16QAM	21100	1RB#0	22.93	24.33	33	PASS

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Band7	10MHz	16QAM	21100	1RB#24	22.44	23.84	33	PASS
Band7	10MHz	16QAM	21100	1RB#49	22.62	24.02	33	PASS
Band7	10MHz	16QAM	21100	50RB#0	21.84	23.24	33	PASS
Band7	10MHz	QPSK	21400	1RB#0	23.59	24.99	33	PASS
Band7	10MHz	QPSK	21400	1RB#24	23.68	25.08	33	PASS
Band7	10MHz	QPSK	21400	1RB#49	23.66	25.06	33	PASS
Band7	10MHz	QPSK	21400	50RB#0	22.71	24.11	33	PASS
Band7	10MHz	16QAM	21400	1RB#0	22.71	24.11	33	PASS
Band7	10MHz	16QAM	21400	1RB#24	22.69	24.09	33	PASS
Band7	10MHz	16QAM	21400	1RB#49	22.41	23.81	33	PASS
Band7	10MHz	16QAM	21400	50RB#0	21.54	22.94	33	PASS
Band7	15MHz	QPSK	20825	1RB#0	23.64	25.04	33	PASS
Band7	15MHz	QPSK	20825	1RB#38	23.56	24.96	33	PASS
Band7	15MHz	QPSK	20825	1RB#74	23.73	25.13	33	PASS
Band7	15MHz	QPSK	20825	75RB#0	22.62	24.02	33	PASS
Band7	15MHz	16QAM	20825	1RB#0	22.8	24.2	33	PASS
Band7	15MHz	16QAM	20825	1RB#38	22.46	23.86	33	PASS
Band7	15MHz	16QAM	20825	1RB#74	22.54	23.94	33	PASS
Band7	15MHz	16QAM	20825	75RB#0	21.34	22.74	33	PASS
Band7	15MHz	QPSK	21100	1RB#0	23.89	25.29	33	PASS
Band7	15MHz	QPSK	21100	1RB#38	23.86	25.26	33	PASS
Band7	15MHz	QPSK	21100	1RB#74	23.75	25.15	33	PASS
Band7	15MHz	QPSK	21100	75RB#0	22.88	24.28	33	PASS
Band7	15MHz	16QAM	21100	1RB#0	22.77	24.17	33	PASS
Band7	15MHz	16QAM	21100	1RB#38	22.71	24.11	33	PASS
Band7	15MHz	16QAM	21100	1RB#74	22.81	24.21	33	PASS
Band7	15MHz	16QAM	21100	75RB#0	21.84	23.24	33	PASS
Band7	15MHz	QPSK	21375	1RB#0	23.73	25.13	33	PASS
Band7	15MHz	QPSK	21375	1RB#38	23.79	25.19	33	PASS
Band7	15MHz	QPSK	21375	1RB#74	23.7	25.1	33	PASS
Band7	15MHz	QPSK	21375	75RB#0	22.62	24.02	33	PASS
Band7	15MHz	16QAM	21375	1RB#0	22.75	24.15	33	PASS
Band7	15MHz	16QAM	21375	1RB#38	22.45	23.85	33	PASS
Band7	15MHz	16QAM	21375	1RB#74	22.76	24.16	33	PASS
Band7	15MHz	16QAM	21375	75RB#0	21.57	22.97	33	PASS
Band7	20MHz	QPSK	20850	1RB#0	23.59	24.99	33	PASS
Band7	20MHz	QPSK	20850	1RB#49	23.81	25.21	33	PASS
Band7	20MHz	QPSK	20850	1RB#99	23.73	25.13	33	PASS
Band7	20MHz	QPSK	20850	100RB#0	22.59	23.99	33	PASS
Band7	20MHz	16QAM	20850	1RB#0	22.56	23.96	33	PASS
Band7	20MHz	16QAM	20850	1RB#49	22.45	23.85	33	PASS
Band7	20MHz	16QAM	20850	1RB#99	22.54	23.94	33	PASS
Band7	20MHz	16QAM	20850	100RB#0	21.55	22.95	33	PASS
Band7	20MHz	QPSK	21100	1RB#0	23.76	25.16	33	PASS
Band7	20MHz	QPSK	21100	1RB#49	23.81	25.21	33	PASS

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Band7	20MHz	QPSK	21100	1RB#99	23.61	25.01	33	PASS
Band7	20MHz	QPSK	21100	100RB#0	22.88	24.28	33	PASS
Band7	20MHz	16QAM	21100	1RB#0	22.65	24.05	33	PASS
Band7	20MHz	16QAM	21100	1RB#49	22.59	23.99	33	PASS
Band7	20MHz	16QAM	21100	1RB#99	22.18	23.58	33	PASS
Band7	20MHz	16QAM	21100	100RB#0	21.73	23.13	33	PASS
Band7	20MHz	QPSK	21350	1RB#0	23.45	24.85	33	PASS
Band7	20MHz	QPSK	21350	1RB#49	23.91	25.31	33	PASS
Band7	20MHz	QPSK	21350	1RB#99	23.8	25.2	33	PASS
Band7	20MHz	QPSK	21350	100RB#0	22.65	24.05	33	PASS
Band7	20MHz	16QAM	21350	1RB#0	22.52	23.92	33	PASS
Band7	20MHz	16QAM	21350	1RB#49	22.69	24.09	33	PASS
Band7	20MHz	16QAM	21350	1RB#99	22.44	23.84	33	PASS
Band7	20MHz	16QAM	21350	100RB#0	21.46	22.86	33	PASS

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Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	5.41	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	6.26	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.44	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.32	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	5.36	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	6.23	13	PASS

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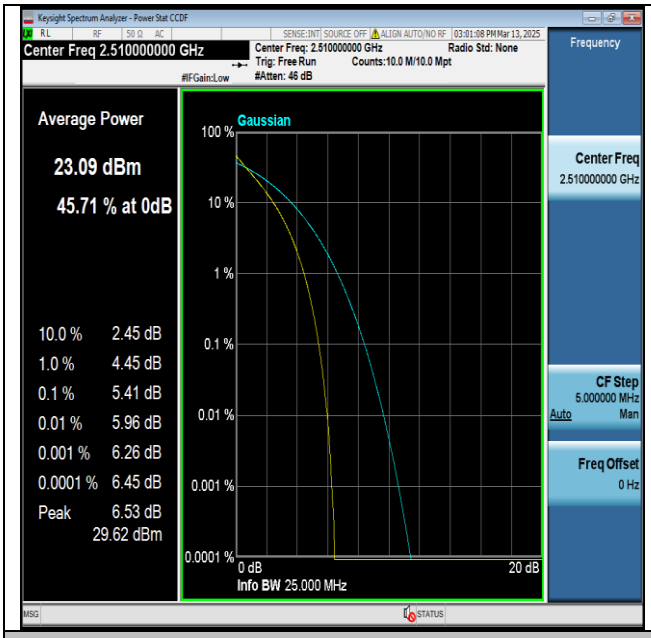
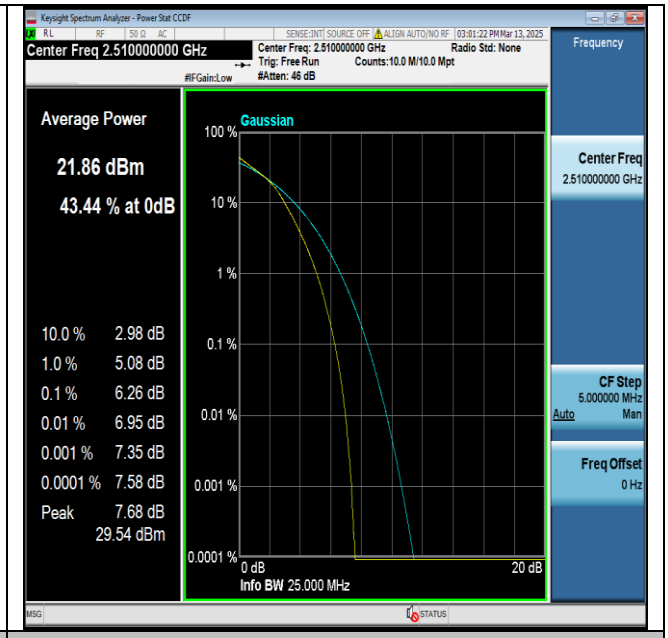
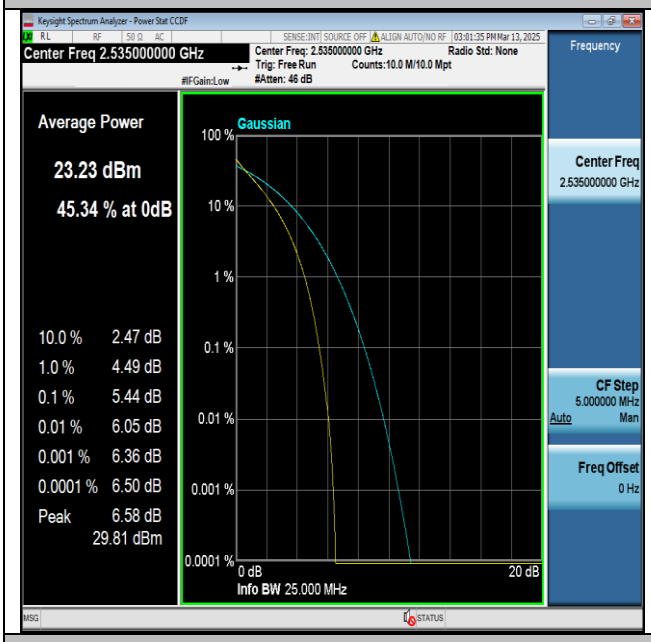
Test Graphs



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



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



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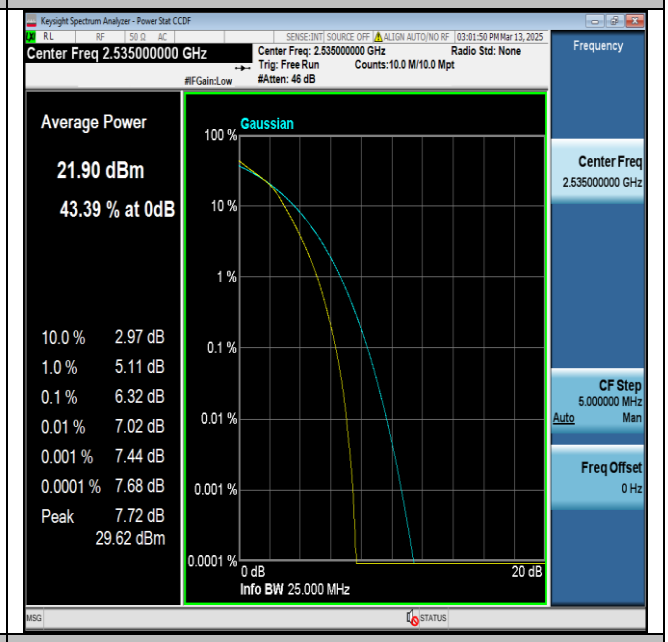

Band7-20MHz-16QAM-21100-100RB#0-PASS

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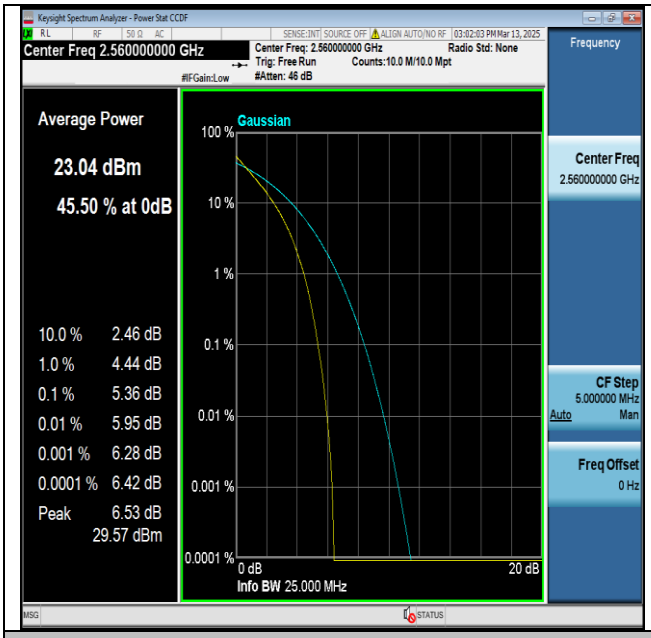

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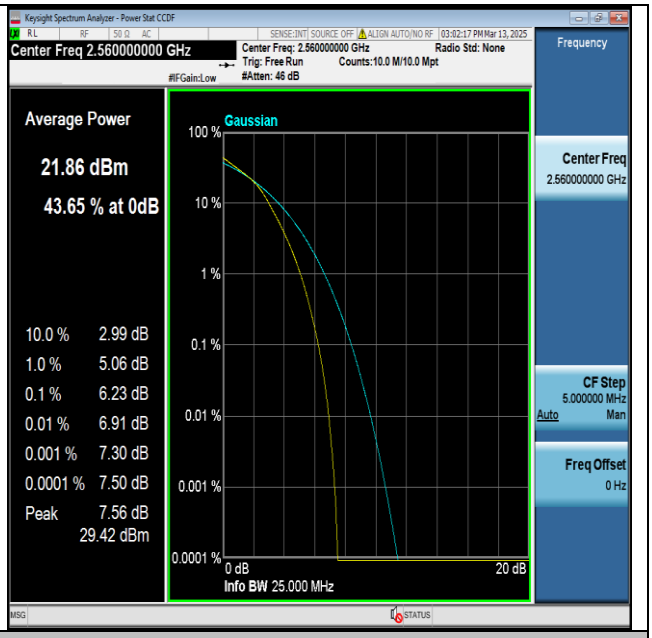

Band7-20MHz-16QAM-21350-100RB#0-PASS

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26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.4869	4.932	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.4904	5.025	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.4859	4.958	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.4876	5.016	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.4812	4.989	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.4807	4.922	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.9667	9.814	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.9501	9.780	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.9785	9.819	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.9625	9.774	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.9725	9.767	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.9476	9.793	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.425	14.66	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.437	14.57	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.447	14.65	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.431	14.66	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.432	14.63	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.448	14.60	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.917	19.52	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.883	19.42	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.935	19.50	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.917	19.40	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.940	19.52	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.921	19.48	PASS

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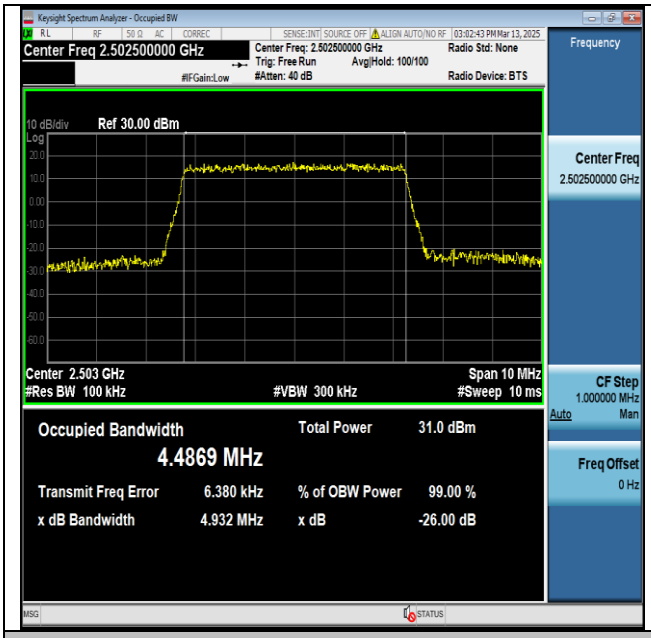
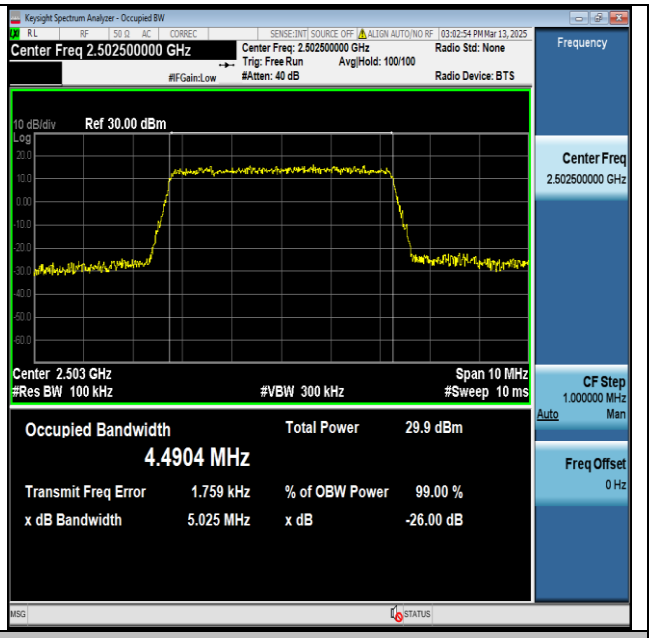
Test Graphs



Band7-5MHz-QPSK-20775-25RB#0-PASS



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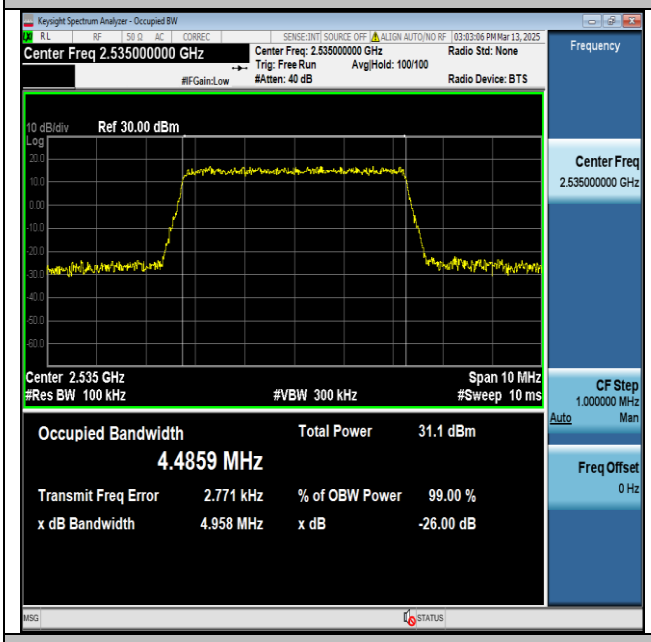

Band7-5MHz-QPSK-21100-25RB#0-PASS

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

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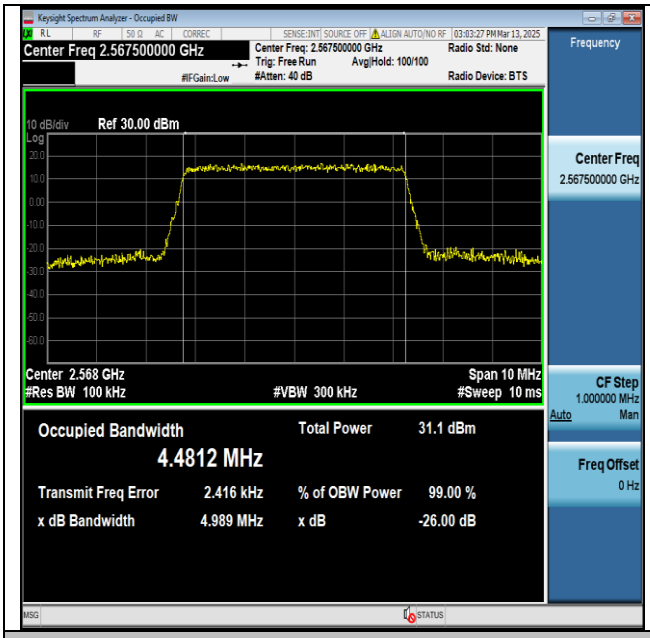

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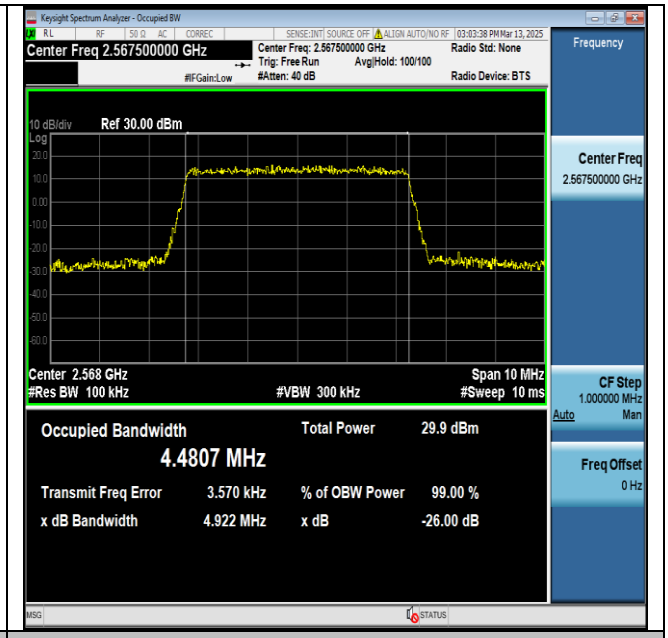
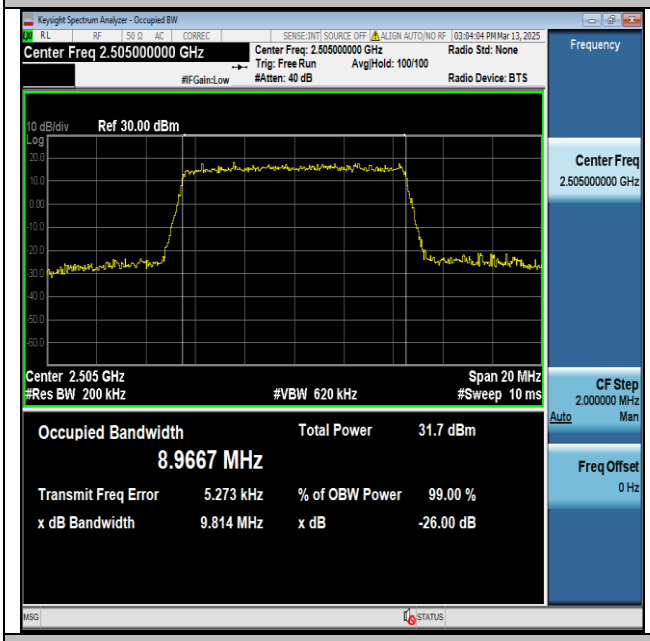
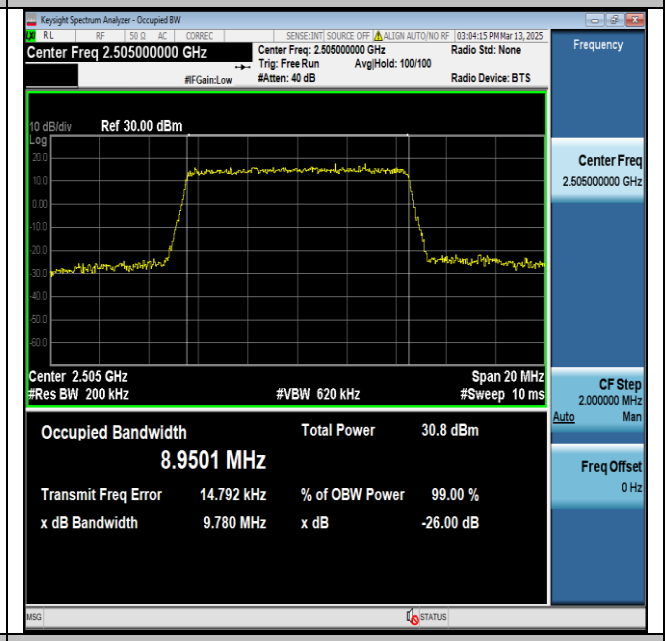


Band7-5MHz-16QAM-21425-25RB#0-PASS



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



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

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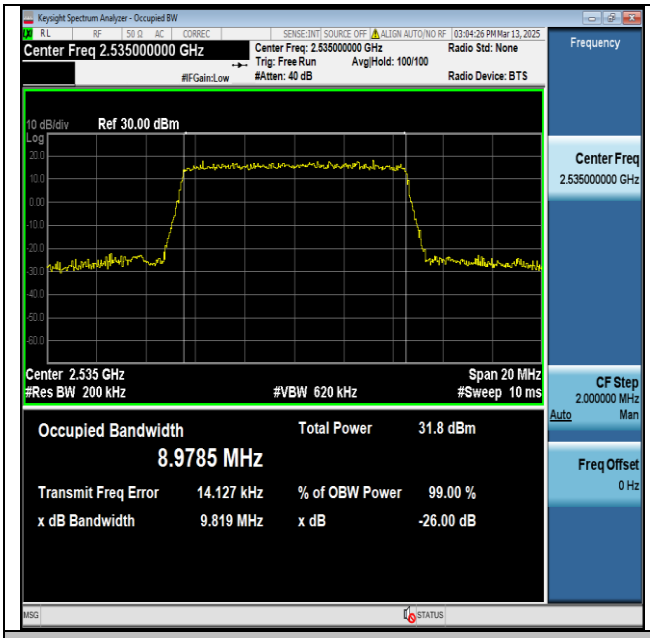
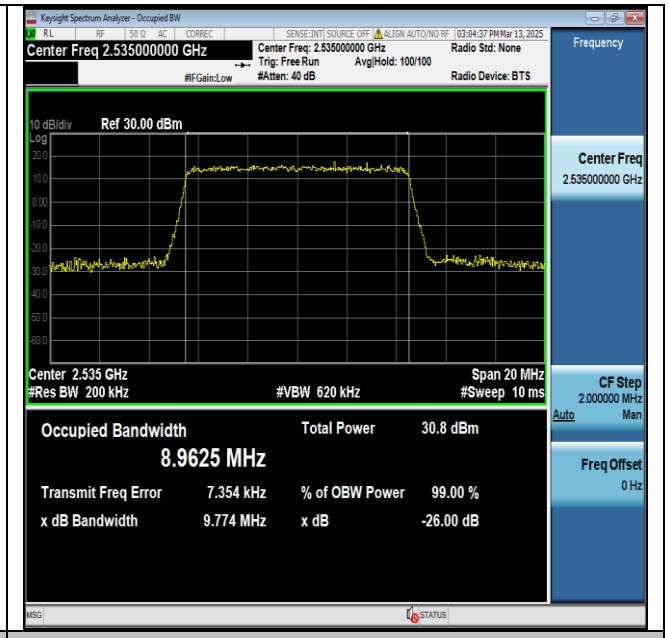
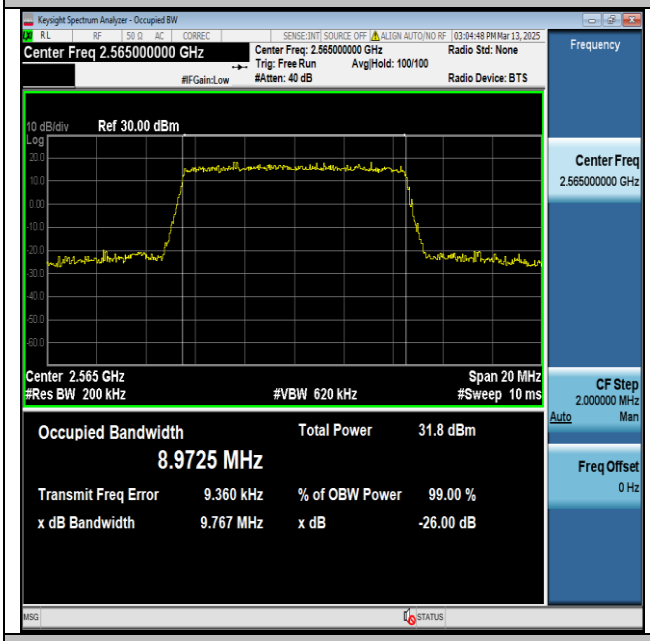


Band7-10MHz-QPSK-21100-50RB#0-PASS



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



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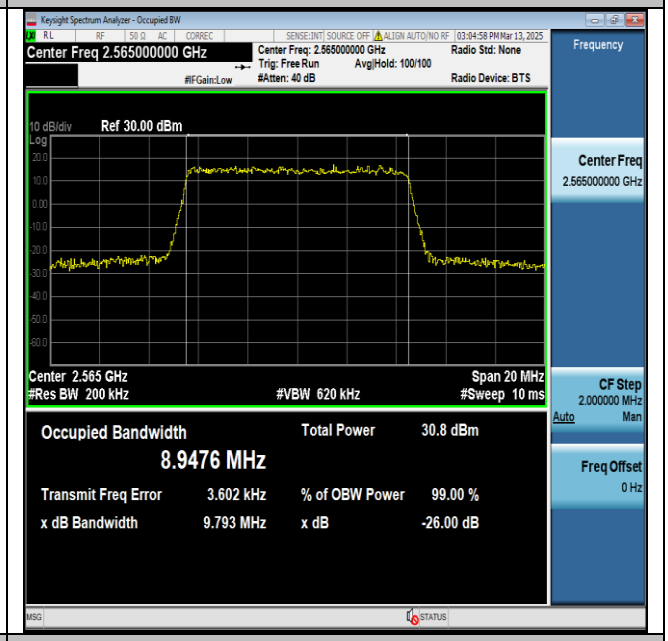

Band7-10MHz-16QAM-21400-50RB#0-PASS

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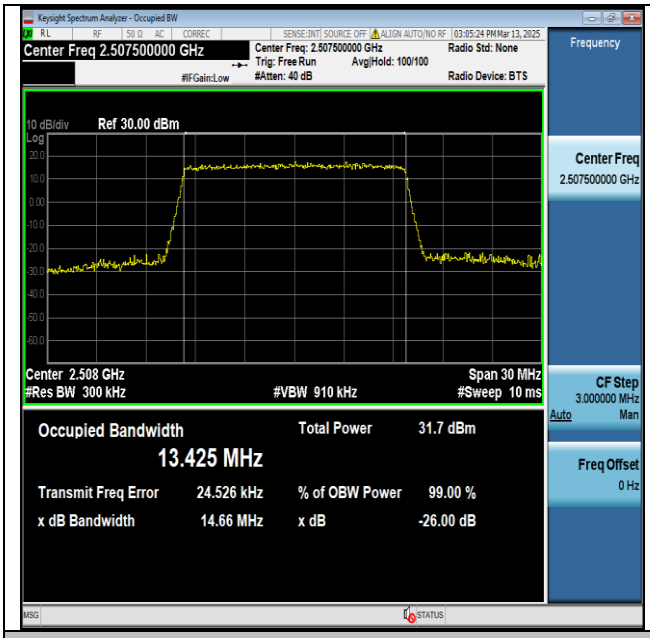

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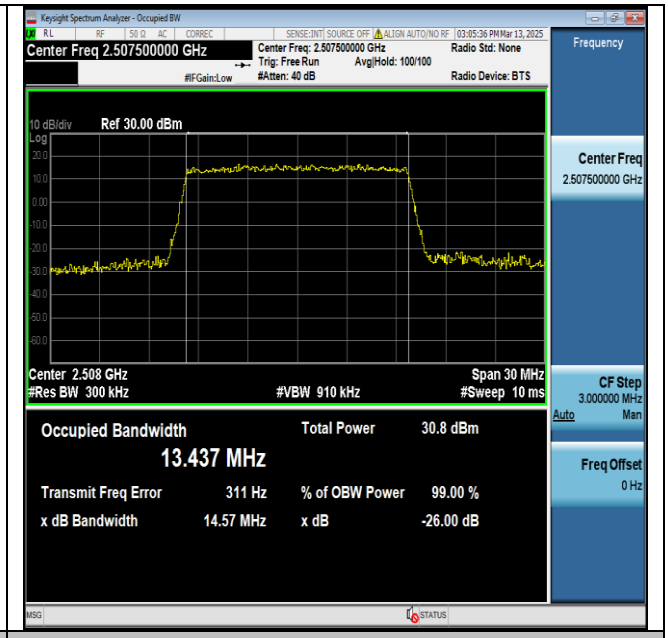
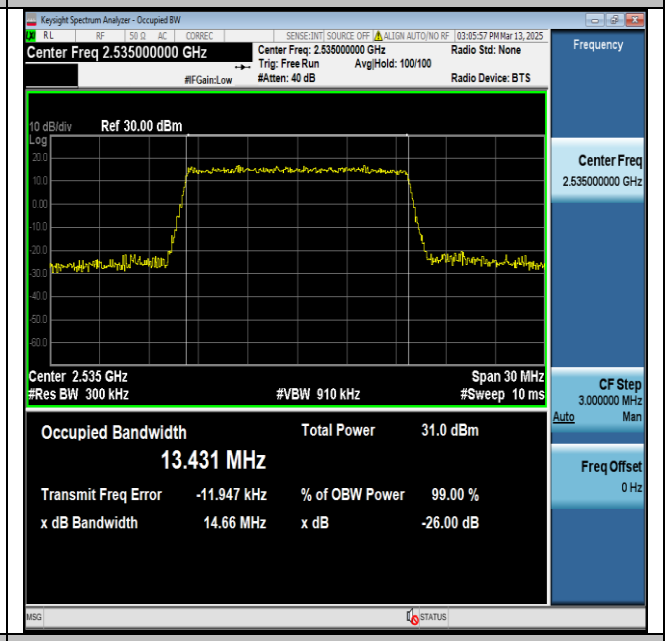


Band7-15MHz-16QAM-20825-75RB#0-PASS

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



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

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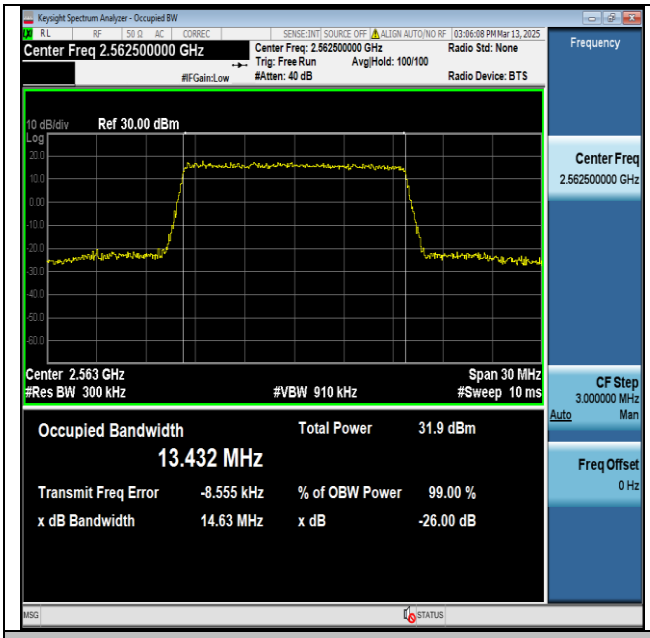
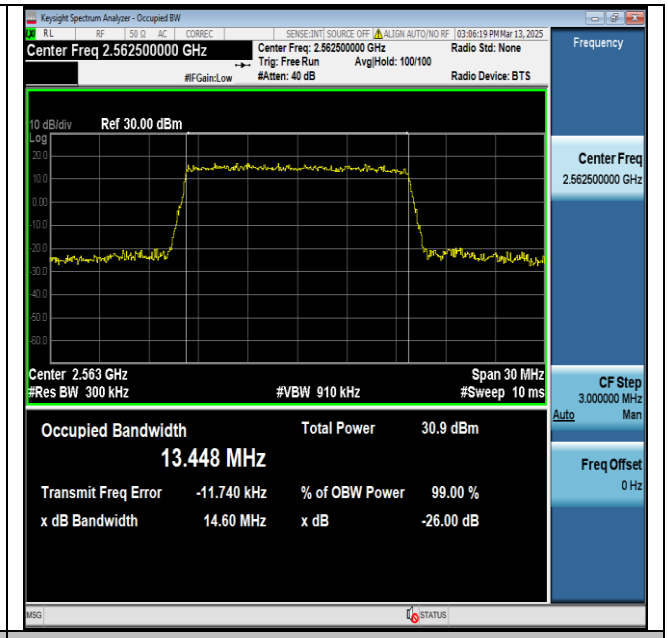
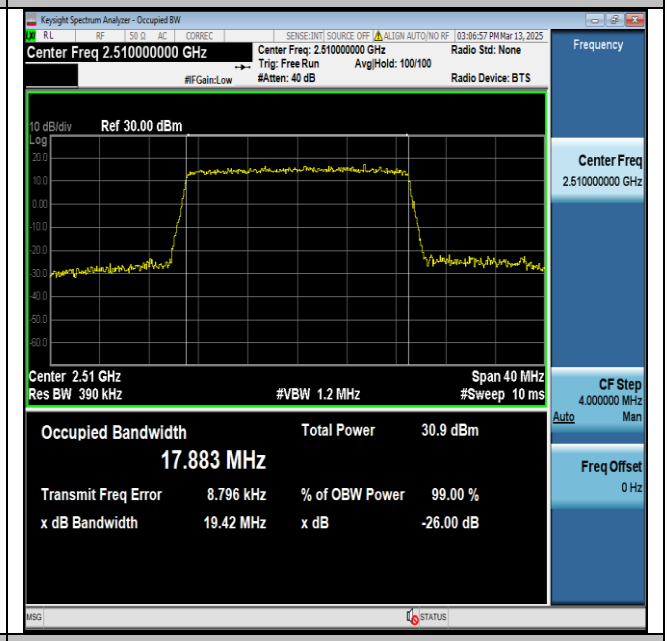


Band7-15MHz-QPSK-21375-75RB#0-PASS



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

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



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

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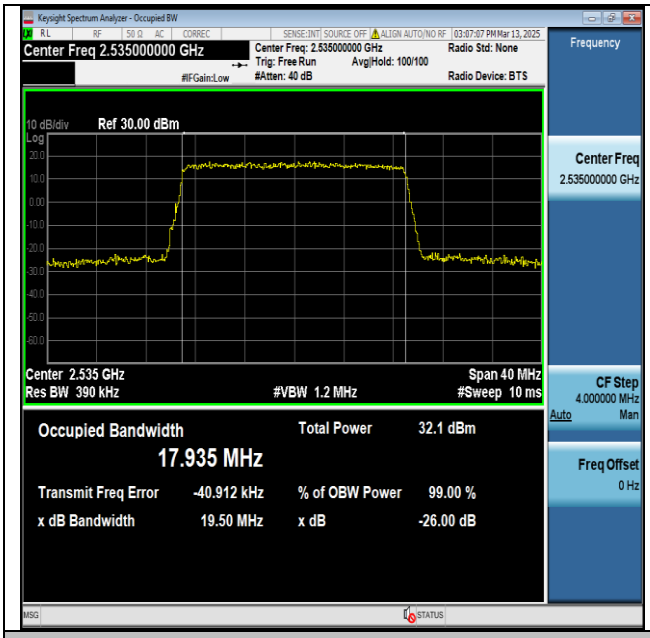

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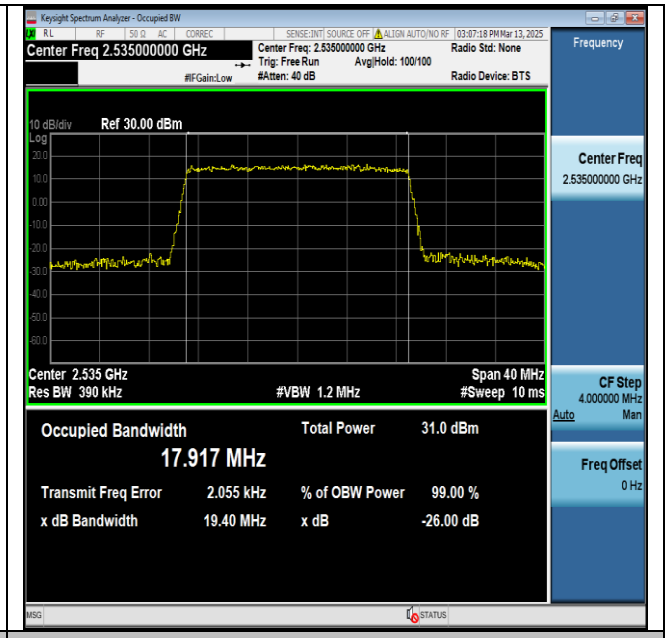
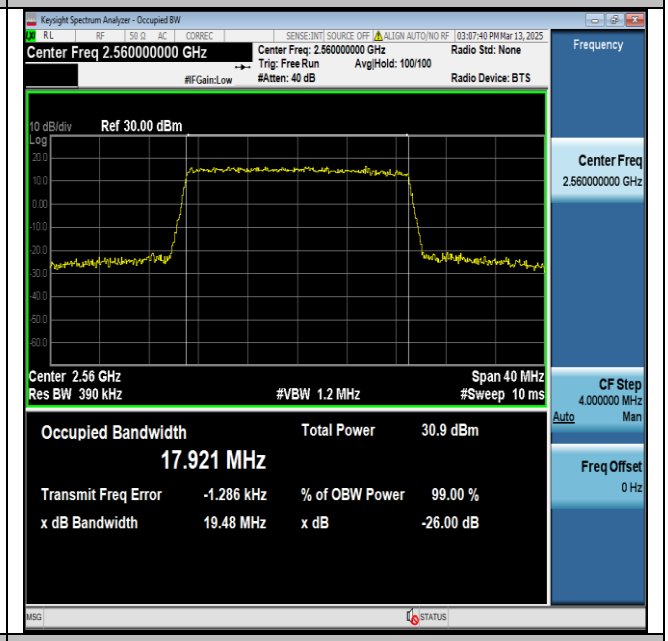


Band7-20MHz-16QAM-21100-100RB#0-PASS

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



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

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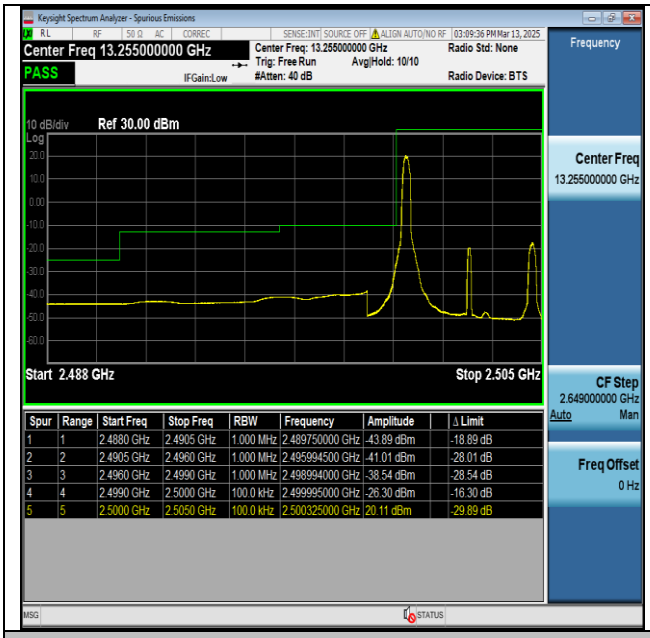
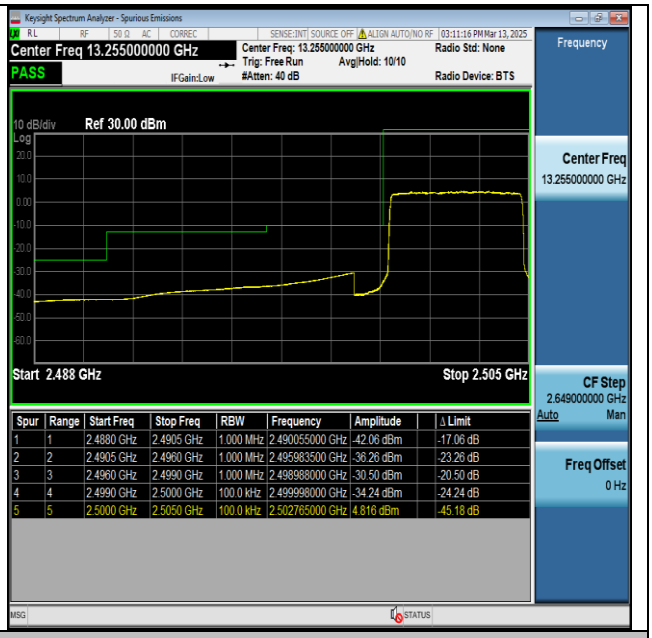
Band Edge

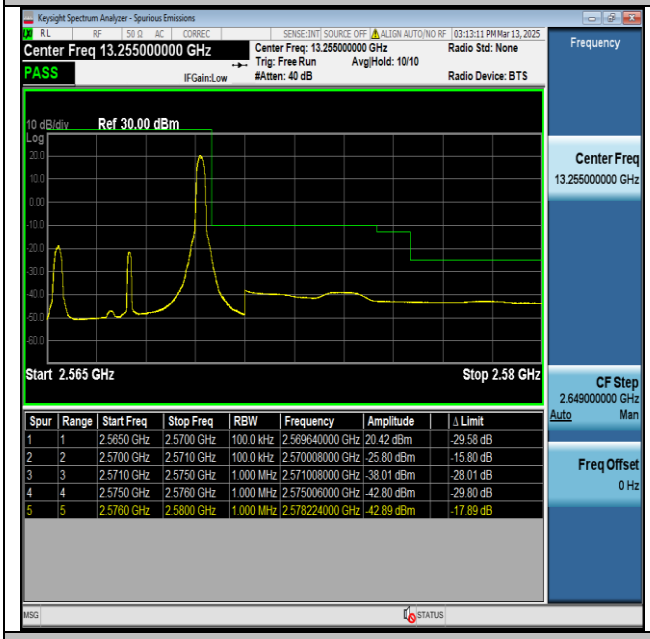
Test Graphs



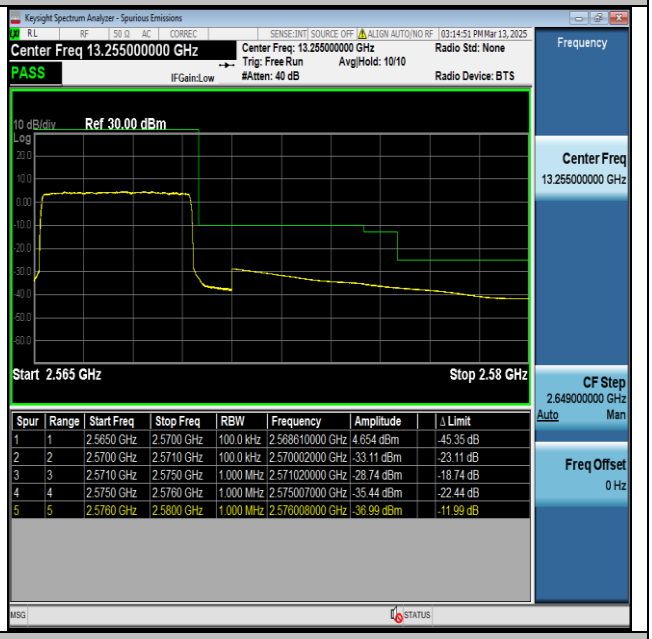
Band7-5MHz-QPSK-20775-1RB#0-PASS



Band7-5MHz-QPSK-20775-25RB#0-PASS



Band7-5MHz-QPSK-21425-1RB#24-PASS



Band7-5MHz-QPSK-21425-25RB#0-PASS

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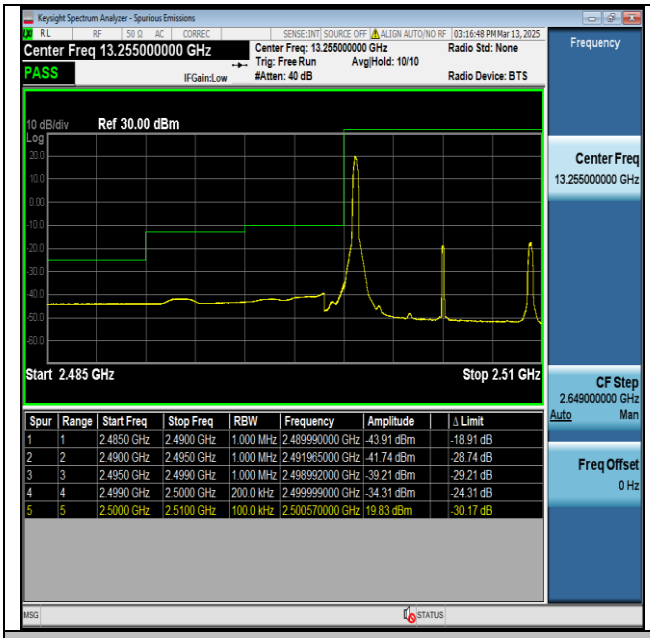
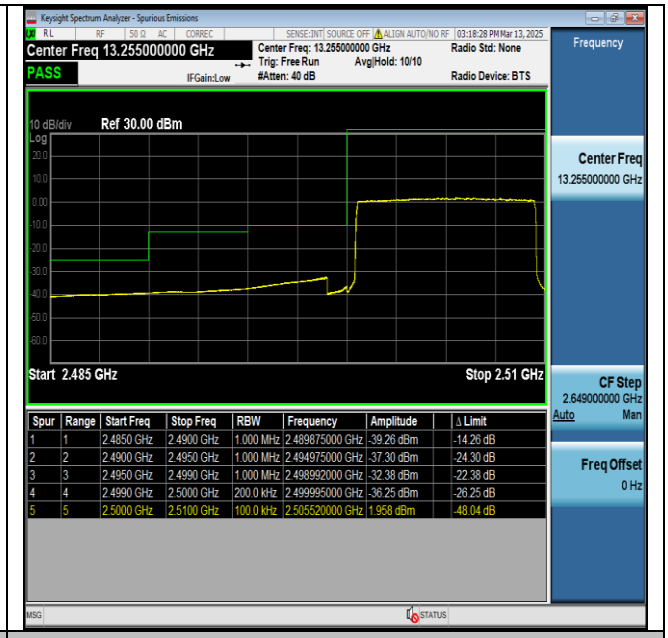


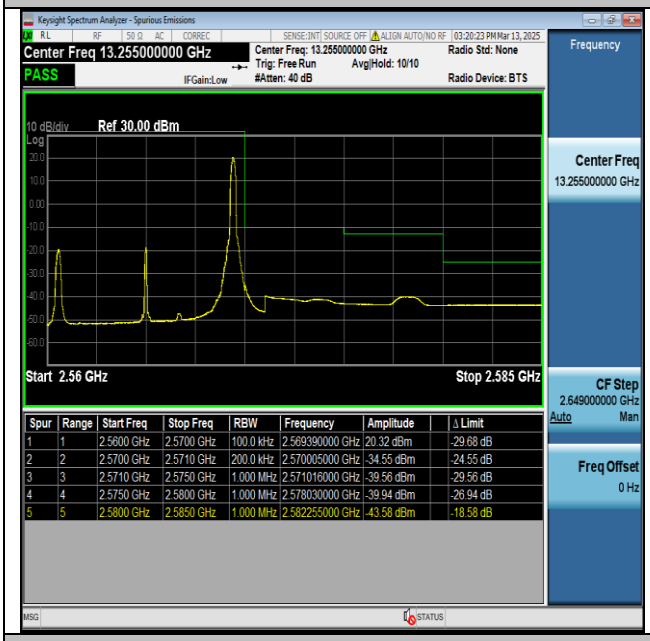
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4850 GHz	2.4900 GHz	1.000 MHz	2.489990000 GHz	-43.91 dBm	-18.91 dB
2	2	2.4900 GHz	2.4950 GHz	1.000 MHz	2.491965000 GHz	-41.74 dBm	-28.74 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.498992000 GHz	-39.21 dBm	-29.21 dB
4	4	2.4990 GHz	2.5000 GHz	200.0 kHz	2.499999000 GHz	-34.31 dBm	-24.31 dB
5	5	2.5000 GHz	2.5100 GHz	100.0 kHz	2.500570000 GHz	19.83 dBm	-30.17 dB

Band7-10MHz-QPSK-20800-1RB#0-PASS



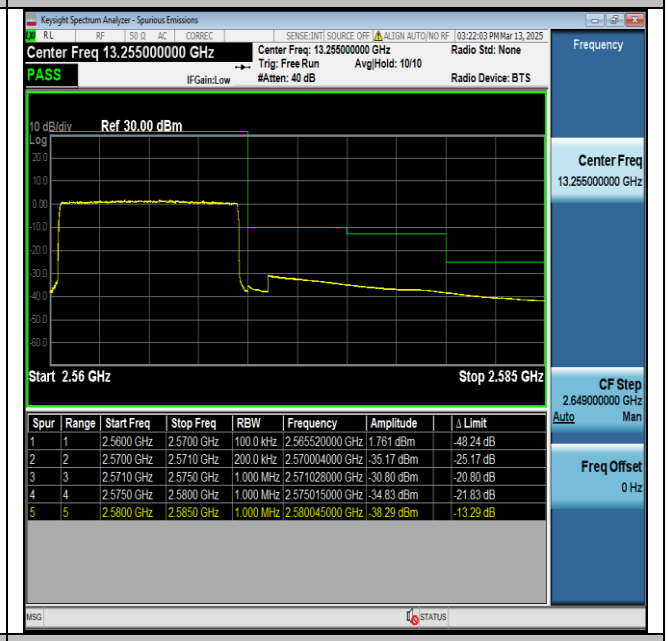
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4850 GHz	2.4900 GHz	1.000 MHz	2.489875000 GHz	-39.26 dBm	-14.26 dB
2	2	2.4900 GHz	2.4950 GHz	1.000 MHz	2.494975000 GHz	-37.30 dBm	-24.30 dB
3	3	2.4950 GHz	2.4990 GHz	1.000 MHz	2.498992000 GHz	-32.38 dBm	-22.38 dB
4	4	2.4990 GHz	2.5000 GHz	200.0 kHz	2.499995000 GHz	-36.25 dBm	-26.25 dB
5	5	2.5000 GHz	2.5100 GHz	100.0 kHz	2.505520000 GHz	1.958 dBm	-48.04 dB

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



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5600 GHz	2.5700 GHz	100.0 kHz	2.569390000 GHz	20.32 dBm	-29.68 dB
2	2	2.5700 GHz	2.5710 GHz	200.0 kHz	2.570005000 GHz	-34.55 dBm	-24.55 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571016000 GHz	-39.56 dBm	-29.56 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.578030000 GHz	-39.94 dBm	-26.94 dB
5	5	2.5800 GHz	2.5850 GHz	1.000 MHz	2.582255000 GHz	-43.58 dBm	-18.58 dB

Band7-10MHz-QPSK-21400-1RB#49-PASS



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5600 GHz	2.5700 GHz	100.0 kHz	2.565520000 GHz	1.761 dBm	-48.24 dB
2	2	2.5700 GHz	2.5710 GHz	200.0 kHz	2.570004000 GHz	-35.17 dBm	-25.17 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571028000 GHz	-30.80 dBm	-20.80 dB
4	4	2.5750 GHz	2.5800 GHz	1.000 MHz	2.575015000 GHz	-34.83 dBm	-21.83 dB
5	5	2.5800 GHz	2.5850 GHz	1.000 MHz	2.580045000 GHz	-38.29 dBm	-13.29 dB

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

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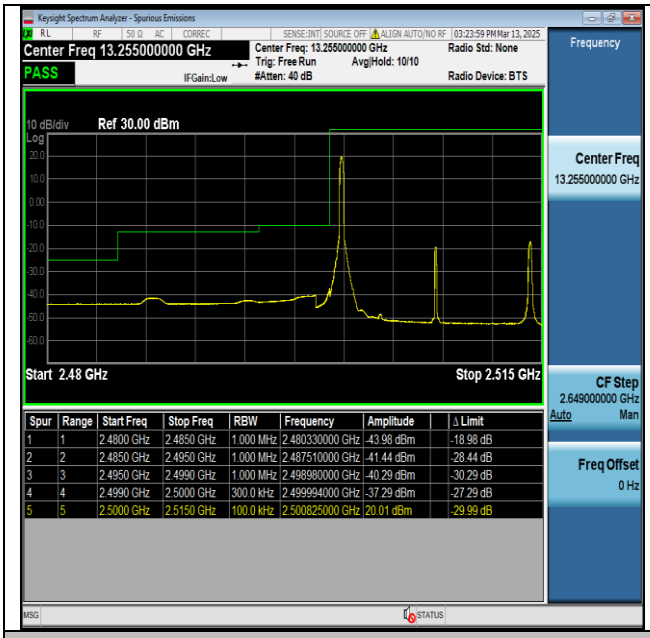
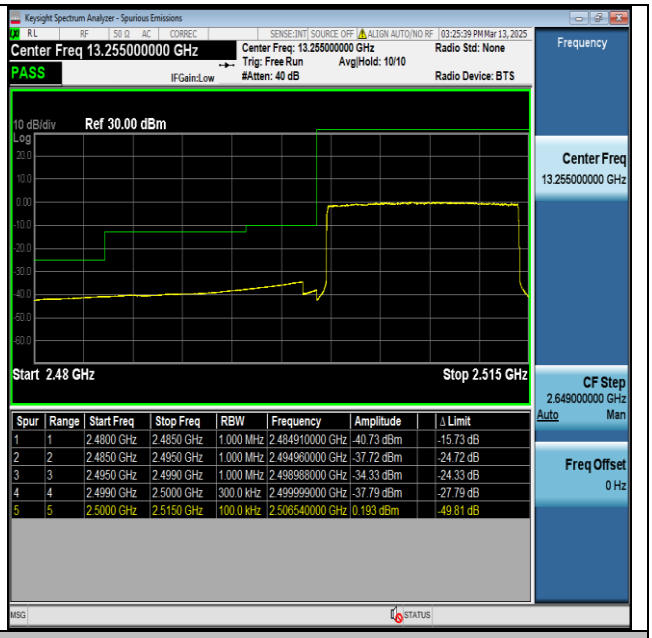
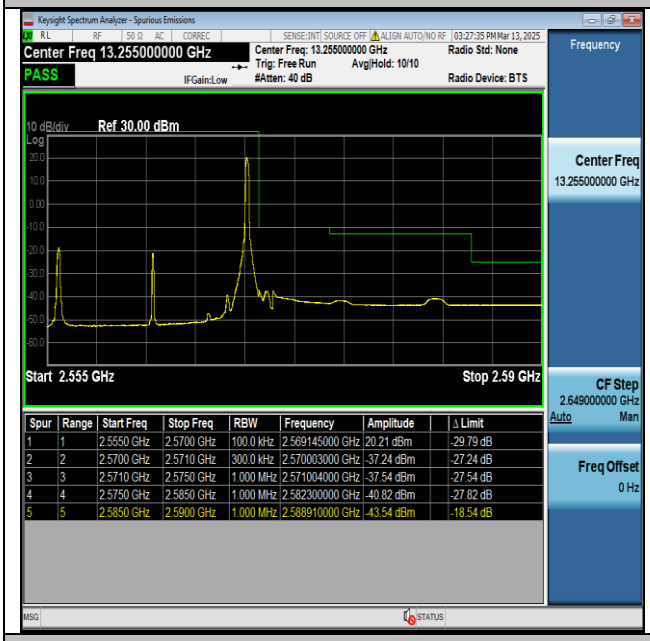


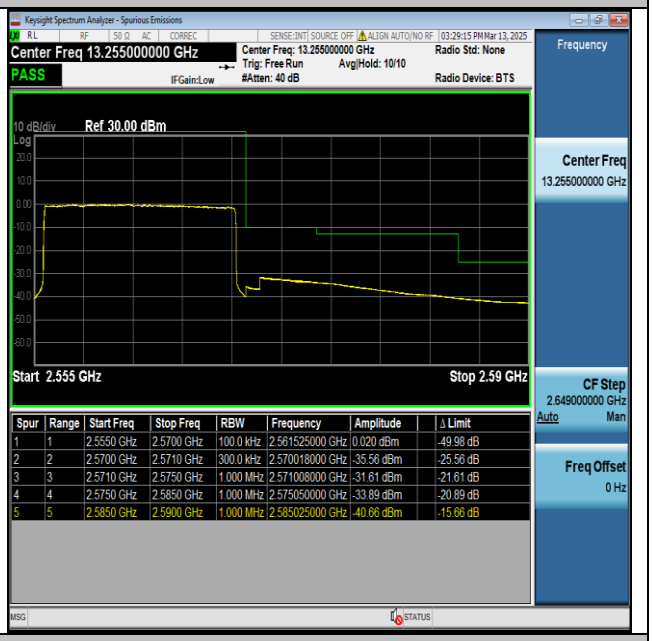
Band7-15MHz-QPSK-20825-1RB#0-PASS



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



Band7-15MHz-QPSK-21375-1RB#74-PASS



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

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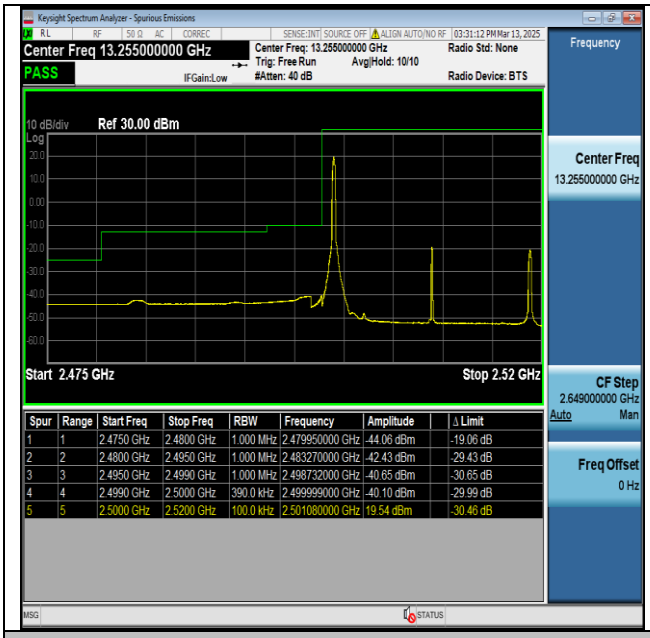
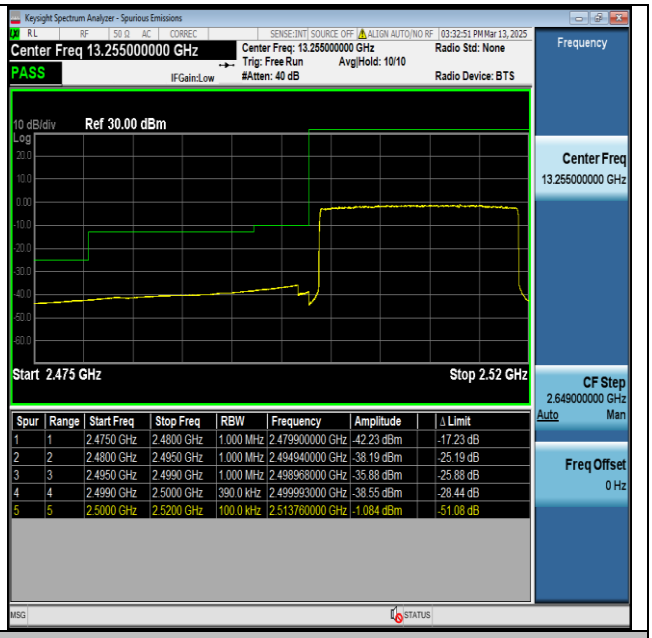
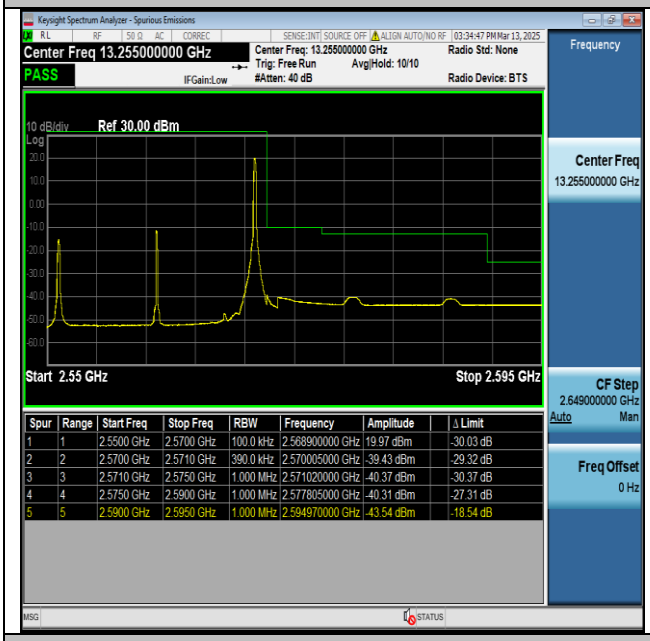


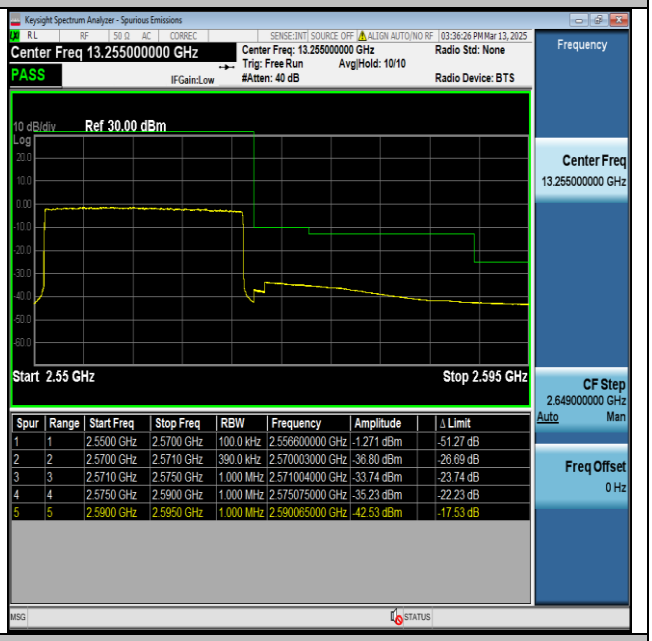
Band7-20MHz-QPSK-20850-1RB#0-PASS



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



Band7-20MHz-QPSK-21350-1RB#99-PASS



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

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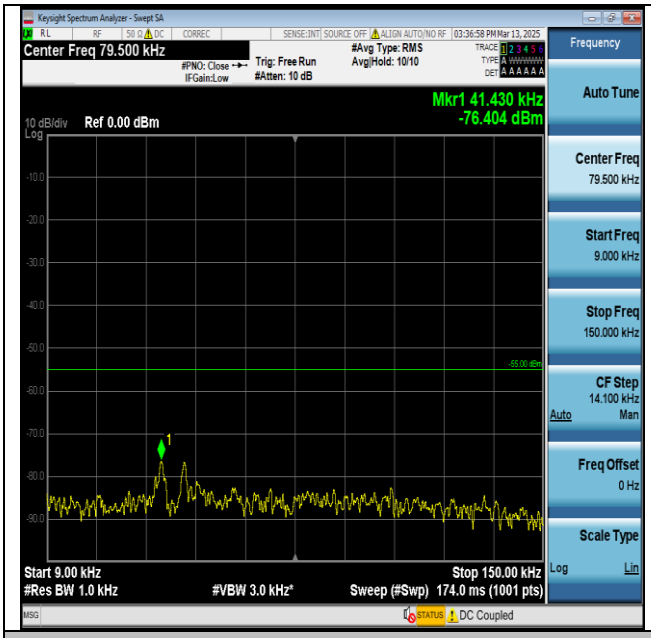
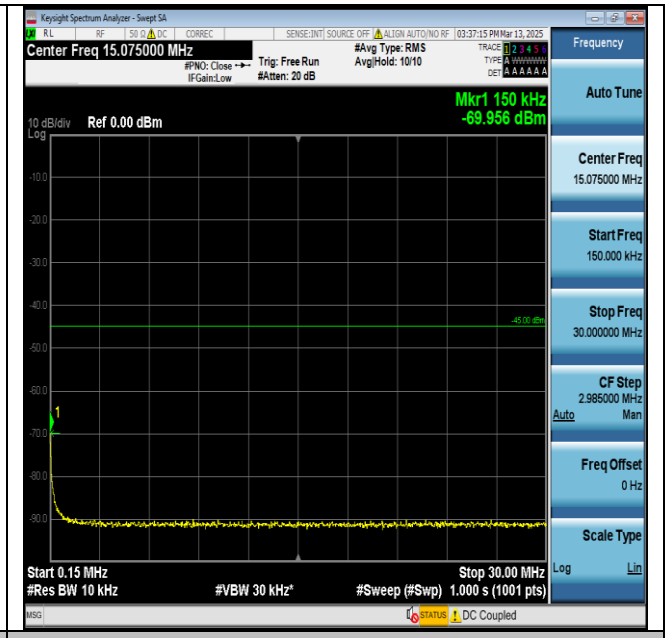
Conducted Spurious Emission

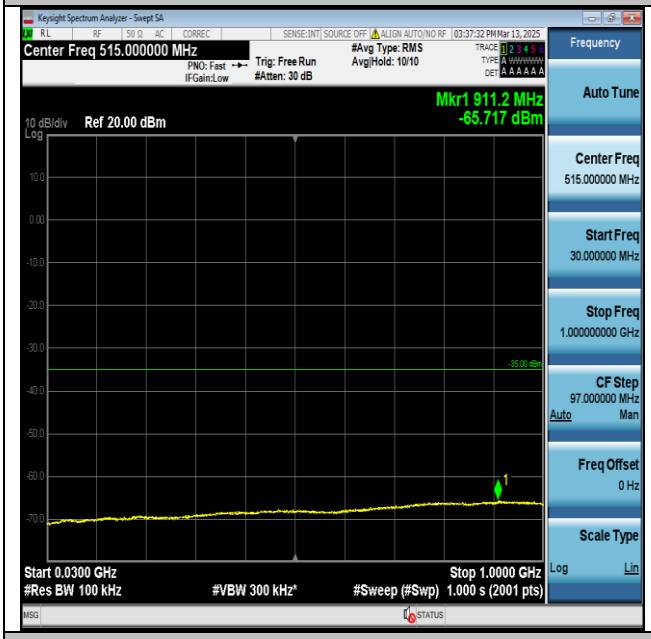
Test Graphs



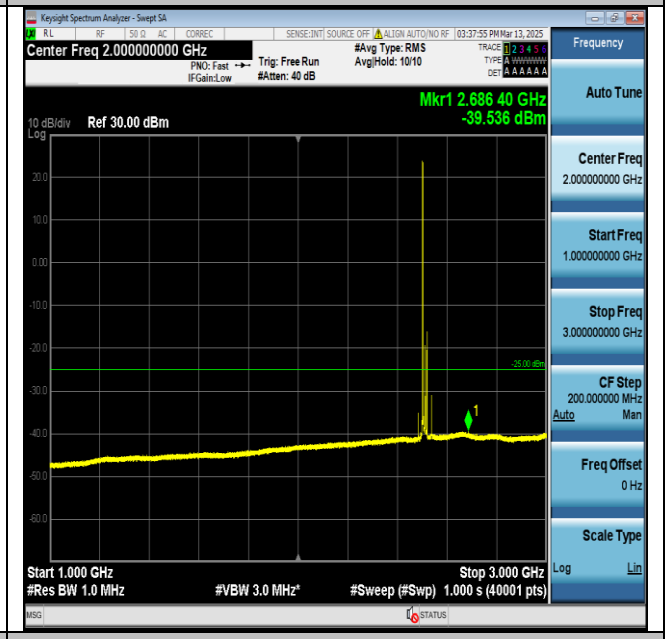
Band7-20MHz-QPSK-20850-1RB#0-0.009~0.15-PASS



Band7-20MHz-QPSK-20850-1RB#0-0.15~30-PASS



Band7-20MHz-QPSK-20850-1RB#0-30~1000-PASS



Band7-20MHz-QPSK-20850-1RB#0-1000~3000-PASS

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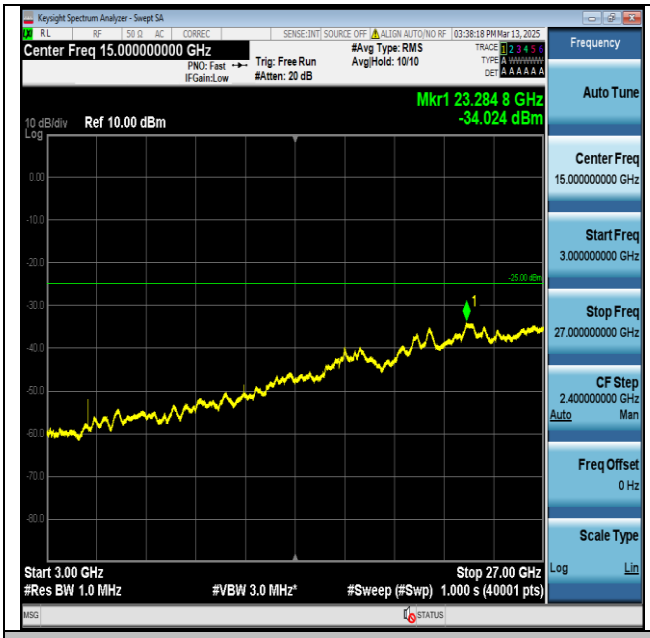
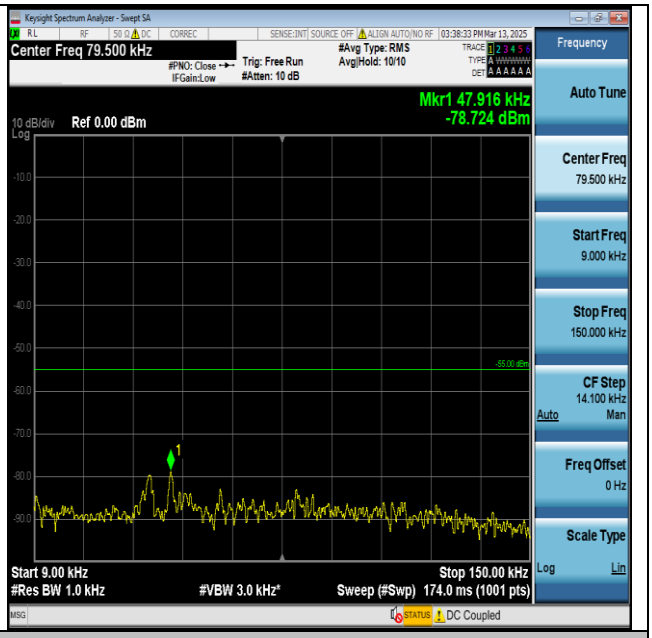
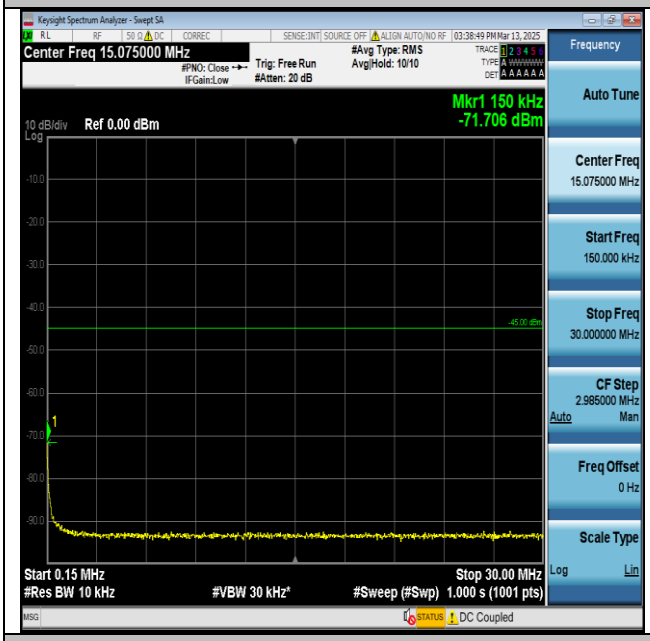


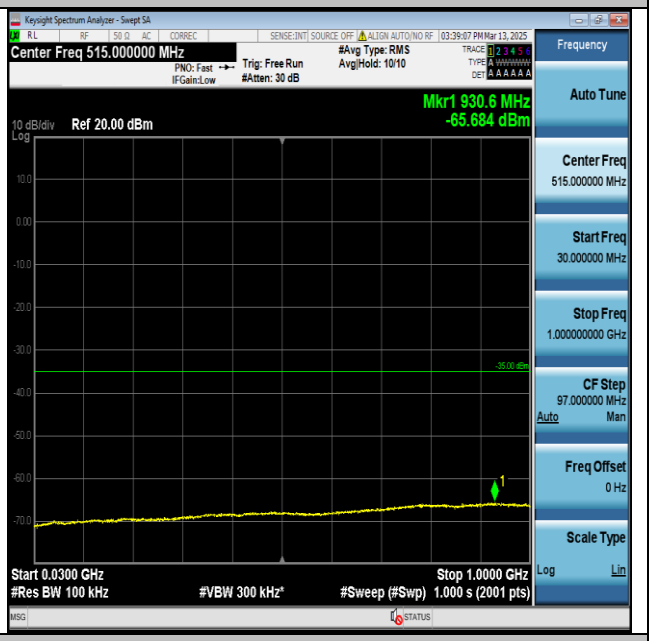
Band7-20MHz-QPSK-20850-1RB#0-3000~27000-PASS



Band7-20MHz-QPSK-21100-1RB#0-0.009~0.15-PASS



Band7-20MHz-QPSK-21100-1RB#0-0.15~30-PASS



Band7-20MHz-QPSK-21100-1RB#0-30~1000-PASS

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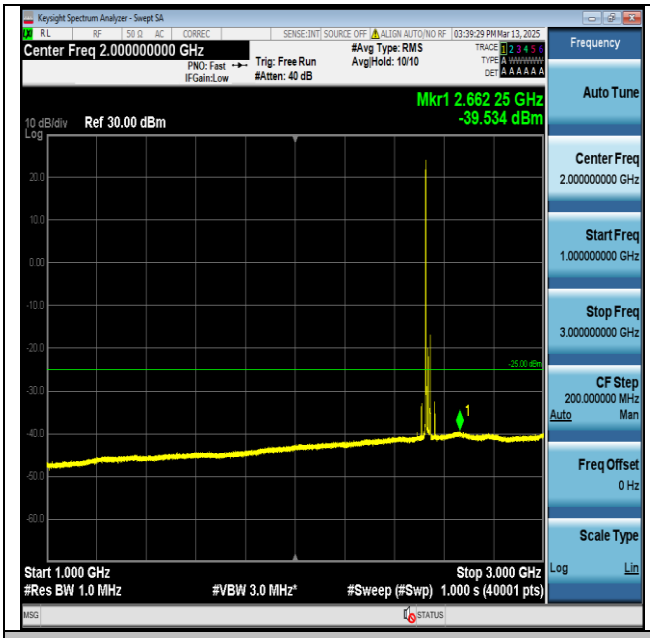
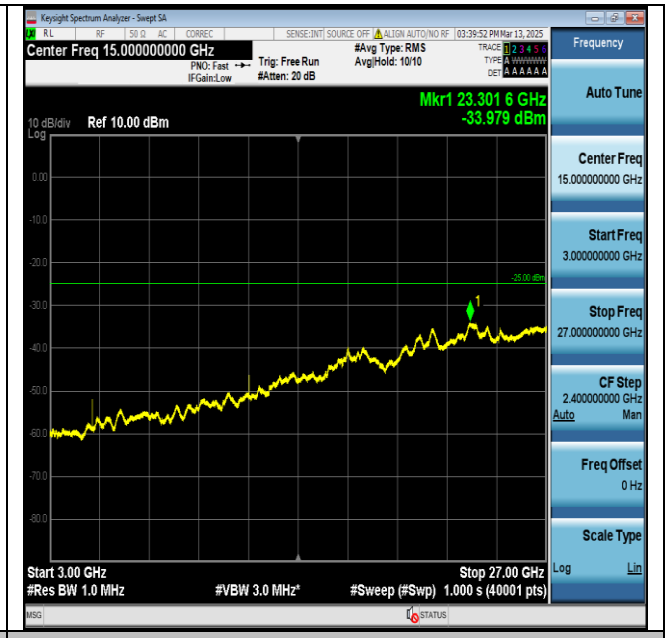
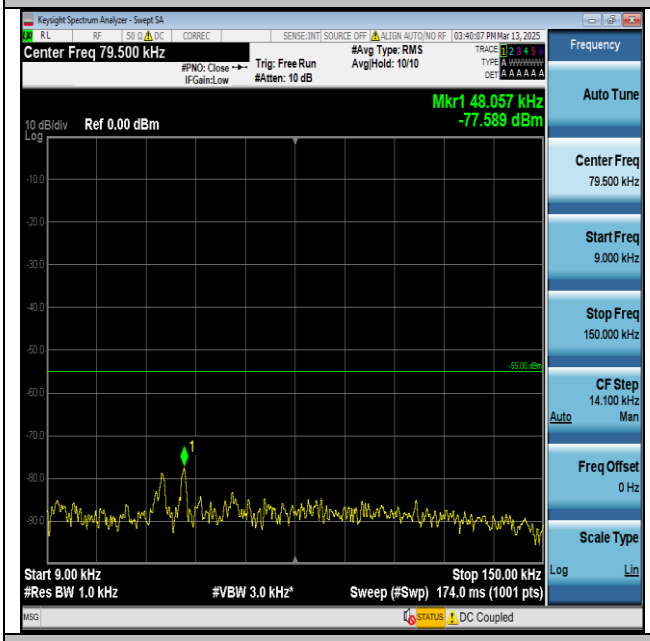


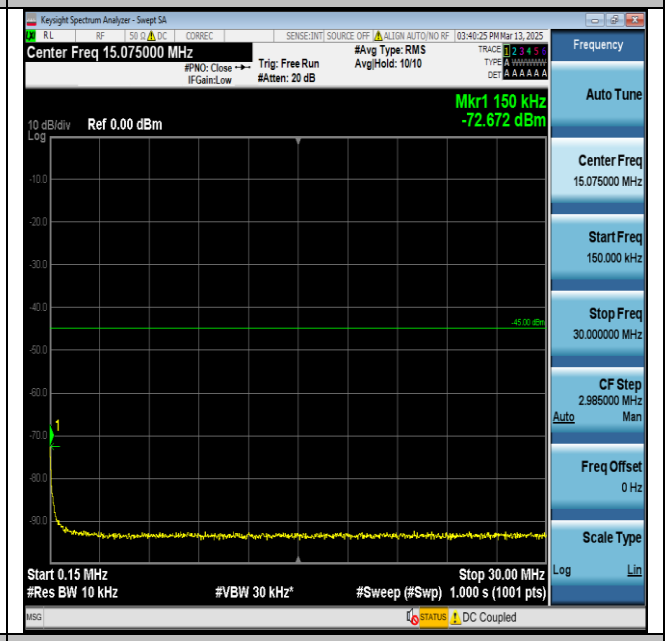
Band7-20MHz-QPSK-21100-1RB#0-1000~3000-PASS



Band7-20MHz-QPSK-21100-1RB#0-3000~27000-PASS



Band7-20MHz-QPSK-21350-1RB#0-0.009~0.15-PASS



Band7-20MHz-QPSK-21350-1RB#0-0.15~30-PASS

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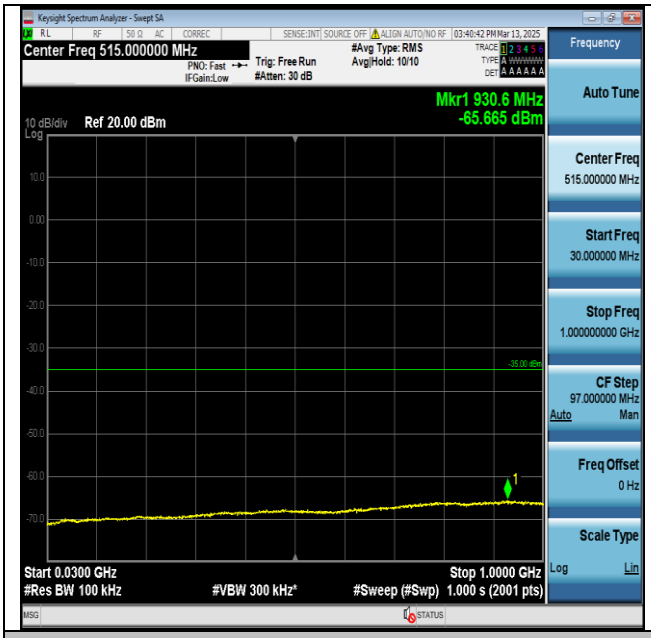
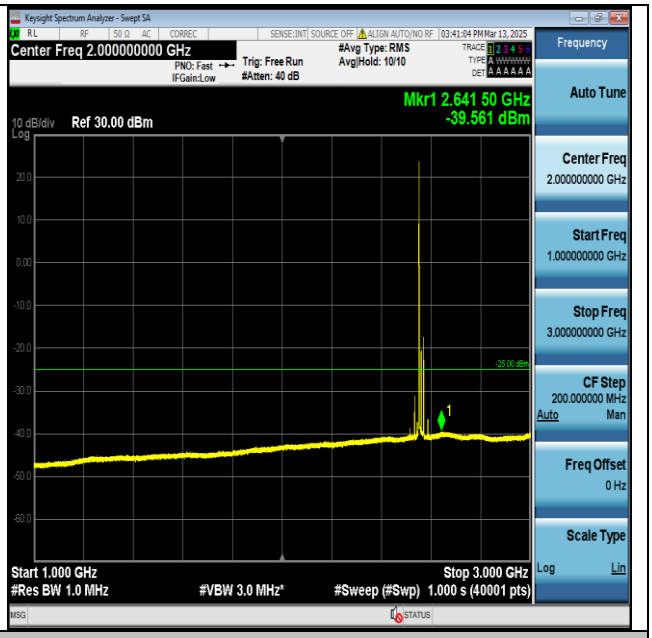
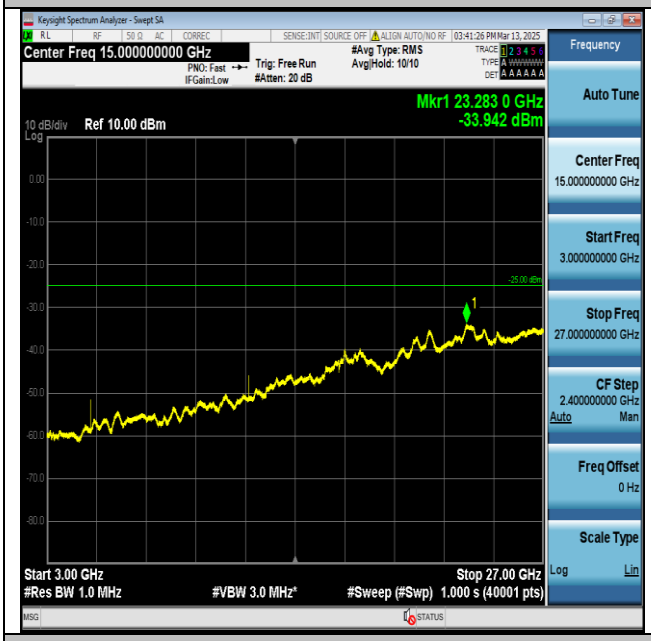


Band7-20MHz-QPSK-21350-1RB#0-30~1000-PASS



Band7-20MHz-QPSK-21350-1RB#0-1000~3000-PASS



Band7-20MHz-QPSK-21350-1RB#0-3000~27000-PASS

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Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Verdict
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-0.80	-0.000316	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-2.40	-0.000947	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	0.00	0.000000	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Verdict
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-1.60	-0.000631	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	-2.40	-0.000947	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-10	-3.20	-0.001262	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-0.90	-0.000355	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-2.70	-0.001065	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	-2.70	-0.001065	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	-1.60	-0.000631	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-1.70	-0.000671	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	-2.60	-0.001026	PASS

~The End~

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