

Appendix-A LTE Band 5

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	23.95	23.93	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	24.47	24.45	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.73	23.71	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.94	22.92	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	24.08	24.06	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	24.49	24.47	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.65	23.63	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	23	22.98	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.69	23.67	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.69	23.67	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.79	23.77	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.3	22.28	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.96	23.94	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	24.4	24.38	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.54	23.52	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.98	22.96	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	24.2	24.18	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	24.52	24.5	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.62	23.6	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	23.15	23.13	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	24.29	24.27	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	24.03	24.01	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.75	23.73	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.74	22.72	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	24.24	24.22	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.88	23.86	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	24.03	24.01	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	23	22.98	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	24.48	24.46	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	24.01	23.99	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	24.14	24.12	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	23.08	23.06	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	24.92	24.9	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	24	23.98	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.86	23.84	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	23.01	22.99	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.3	23.28	38.45	PASS

Band5	10MHz	QPSK	20450	1RB#24	24.61	24.59	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.18	23.16	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	23.29	23.27	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	24.64	24.62	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.59	23.57	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.74	23.72	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.64	22.62	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	22.59	22.57	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	24.56	24.54	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	22.98	22.96	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.96	22.94	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.71	22.69	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	23.11	23.09	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.17	22.15	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.72	21.7	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.65	22.63	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.86	22.84	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.19	22.17	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.52	21.5	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.46	22.44	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	22.06	22.04	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.12	22.1	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	20.62	20.6	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.68	22.66	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	23.06	23.04	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.16	22.14	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.6	21.58	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#0	23.01	22.99	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	23.04	23.02	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.33	22.31	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.7	21.68	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.8	22.78	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	22.69	22.67	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.43	22.41	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.2	21.18	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.97	22.95	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.79	22.77	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.63	22.61	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.72	21.7	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	23.25	23.23	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.48	22.46	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.53	22.51	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.64	21.62	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	23.64	23.62	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	22.45	22.43	38.45	PASS

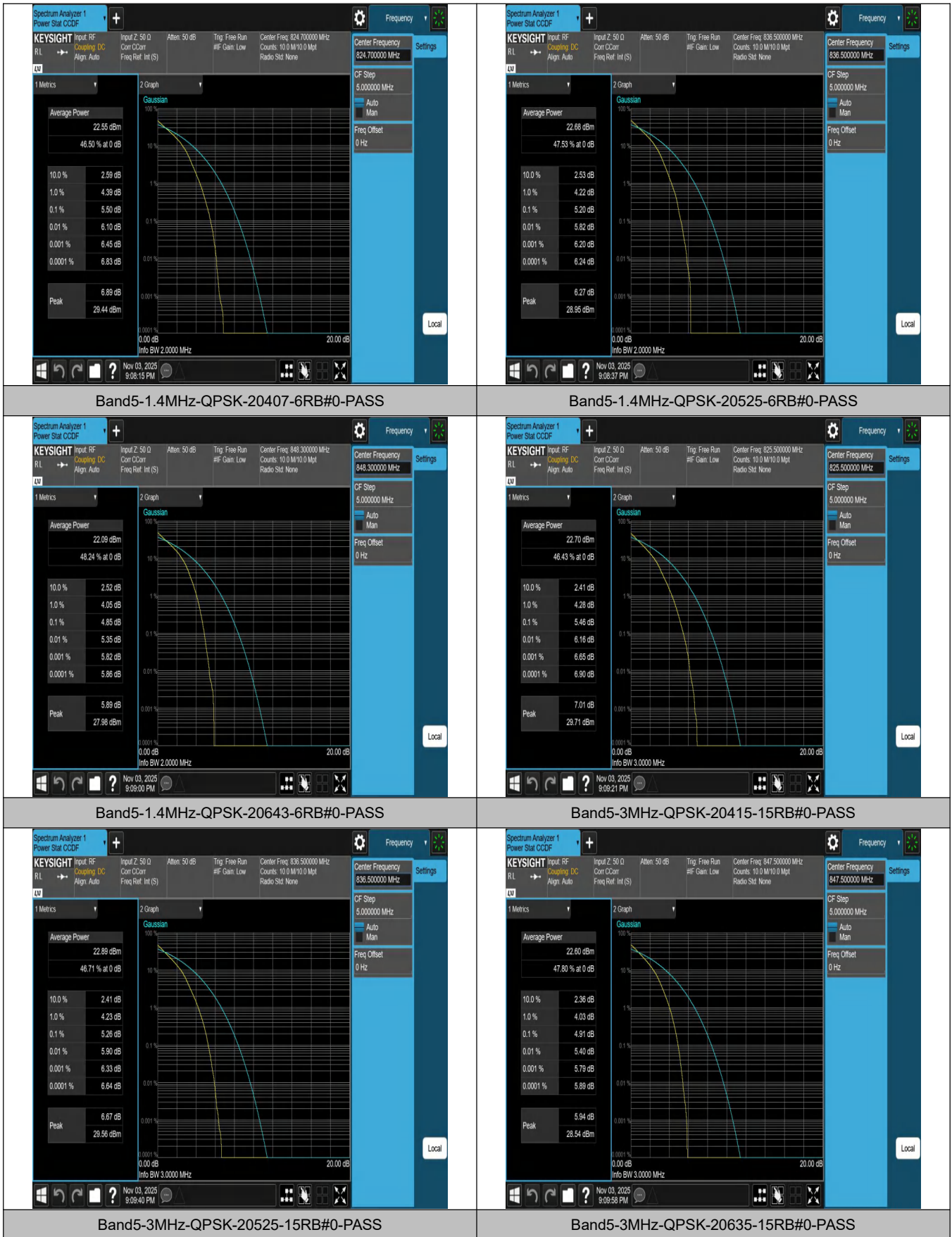
Band5	5MHz	16QAM	20625	1RB#24	22.43	22.41	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.49	21.47	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.91	22.89	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	23.1	23.08	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.09	22.07	38.45	PASS
Band5	10MHz	16QAM	20450	27RB#0	21.77	21.75	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	23.39	23.37	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.81	22.79	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	22.88	22.86	38.45	PASS
Band5	10MHz	16QAM	20525	27RB#0	21.76	21.74	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.13	22.11	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.92	22.9	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.22	22.2	38.45	PASS
Band5	10MHz	16QAM	20600	27RB#0	21.34	21.32	38.45	PASS

Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	5.50	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	5.20	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	4.85	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	5.46	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	5.26	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	4.91	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	5.62	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	5.38	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	5.09	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.45	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.30	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.16	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	6.45	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	6.25	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	5.88	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	6.40	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	6.28	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	6.00	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	6.25	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	6.17	13	PASS
Band5	5MHz	16QAM	20625	25RB#0	5.94	13	PASS
Band5	10MHz	16QAM	20450	27RB#0	6.01	13	PASS
Band5	10MHz	16QAM	20525	27RB#0	5.89	13	PASS
Band5	10MHz	16QAM	20600	27RB#0	6.31	13	PASS

Test Graphs





Band5-5MHz-QPSK-20425-25RB#0-PASS



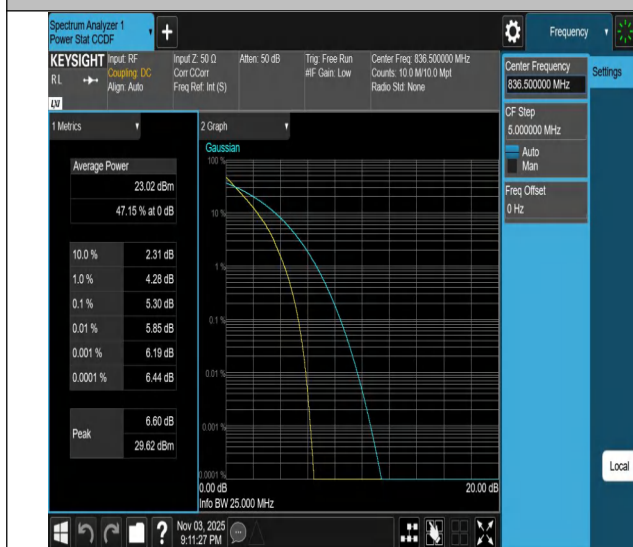
Band5-5MHz-QPSK-20525-25RB#0-PASS



Band5-5MHz-QPSK-20625-25RB#0-PASS



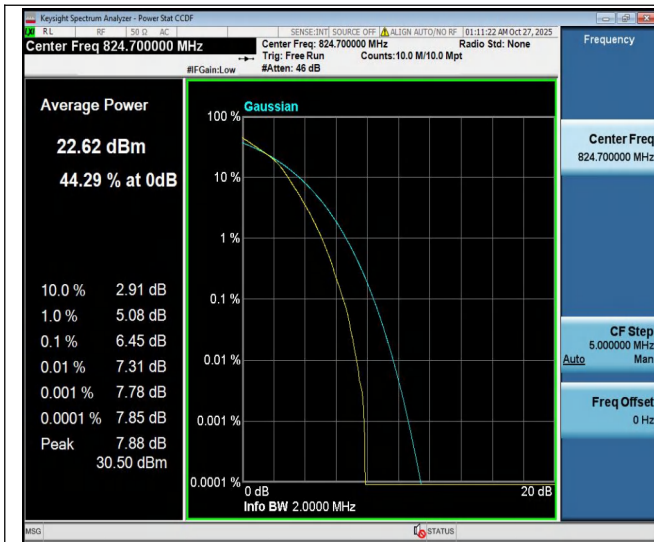
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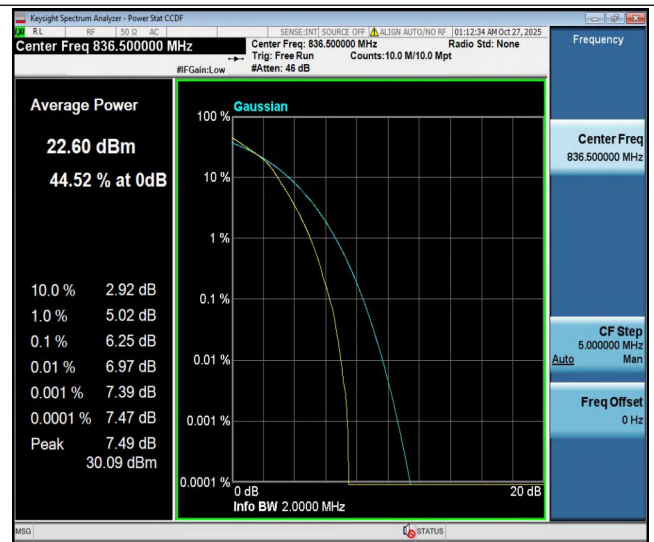
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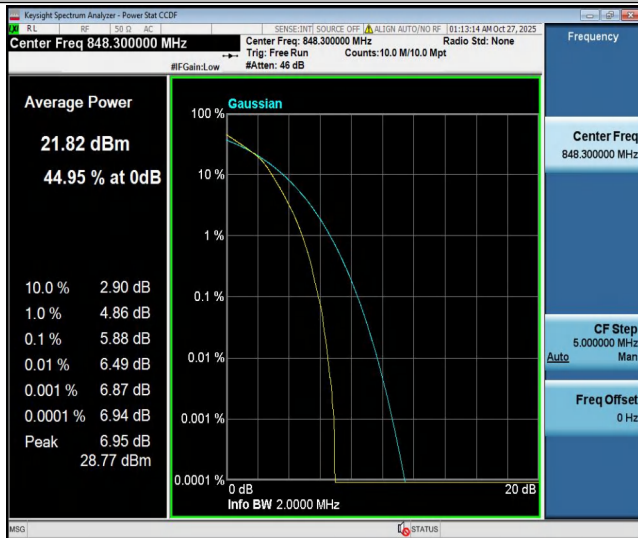
Band5-10MHz-QPSK-20600-50RB#0-PASS



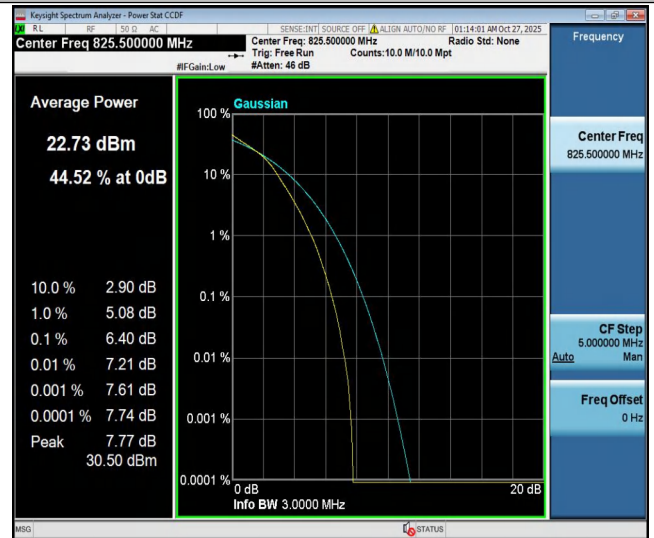
Band5-1.4MHz-16QAM-20407-6RB#0-PASS



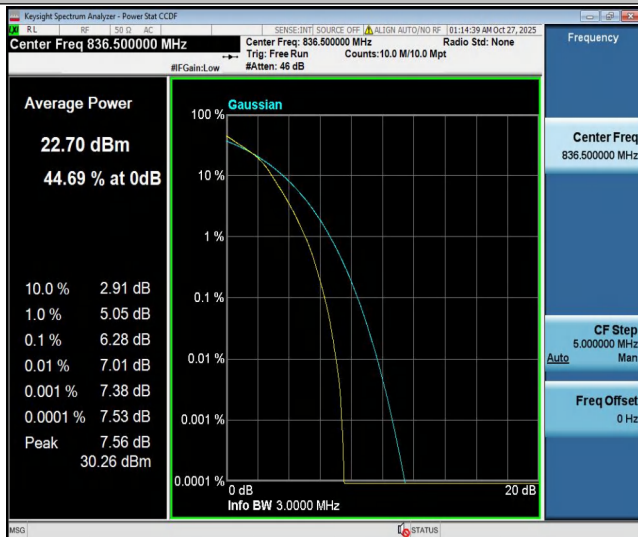
Band5-1.4MHz-16QAM-20525-6RB#0-PASS



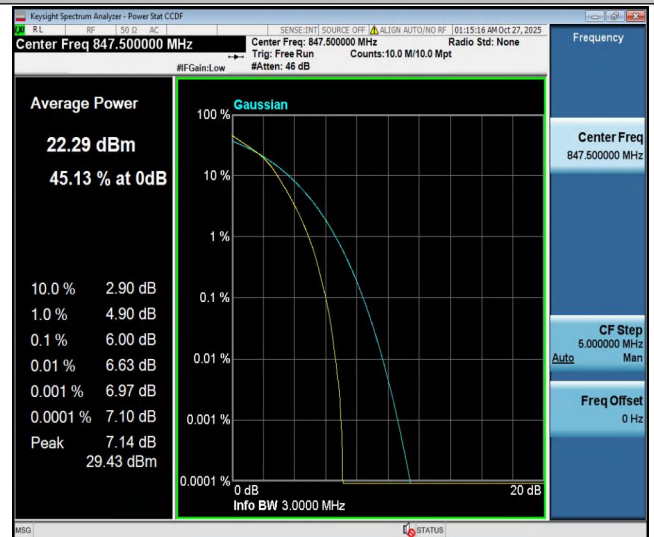
Band5-1.4MHz-16QAM-20643-6RB#0-PASS



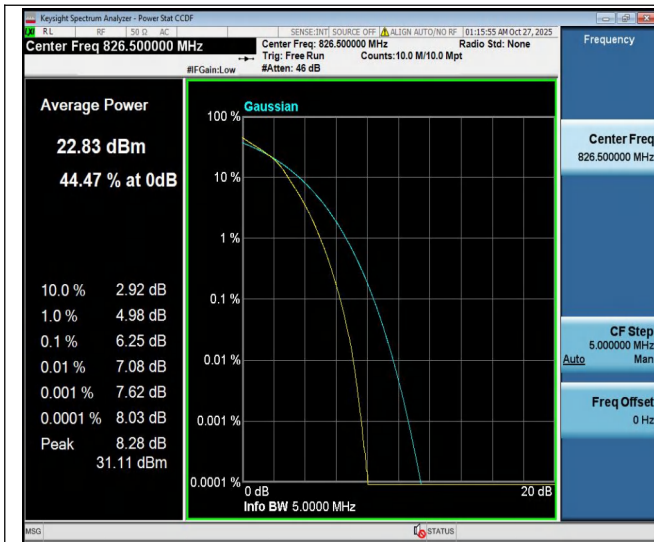
Band5-3MHz-16QAM-20415-15RB#0-PASS



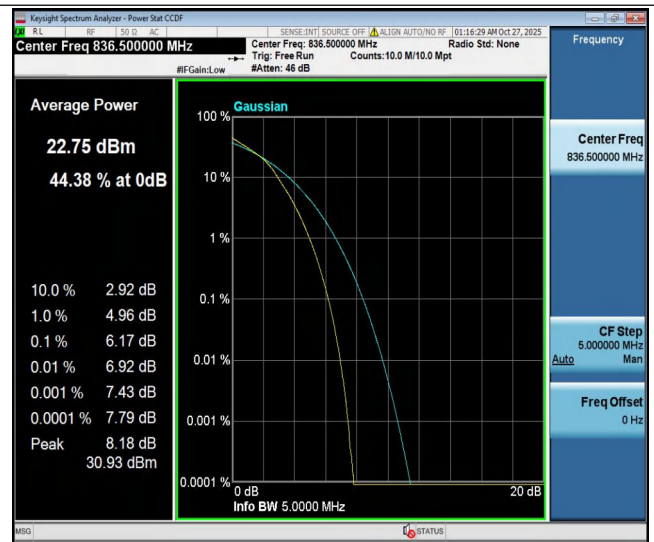
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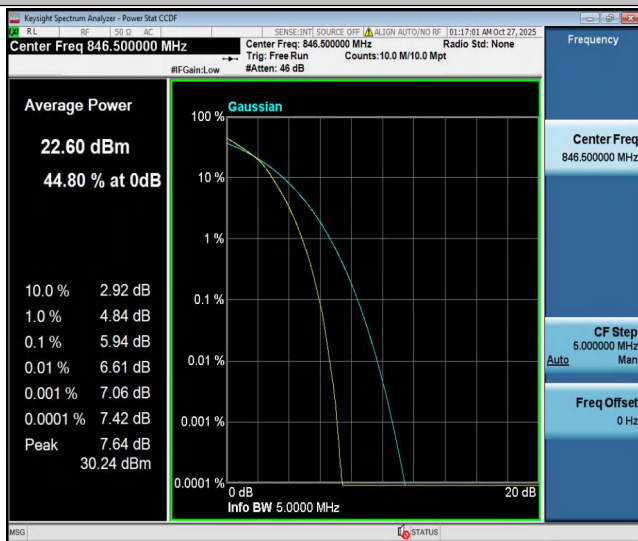
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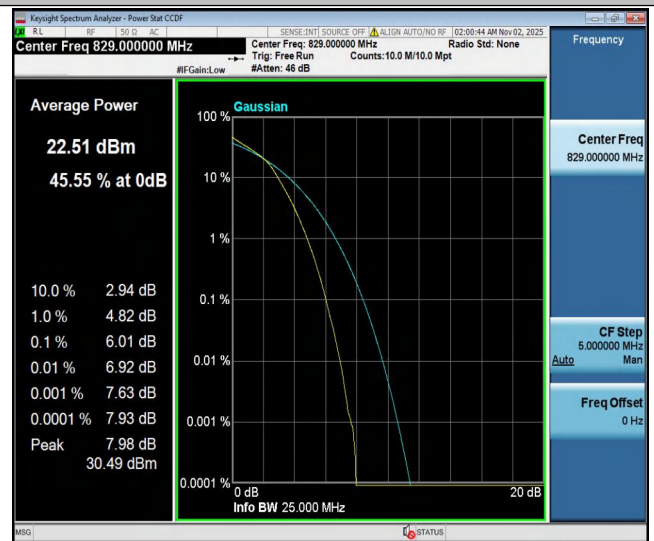
Band5-5MHz-16QAM-20425-25RB#0-PASS



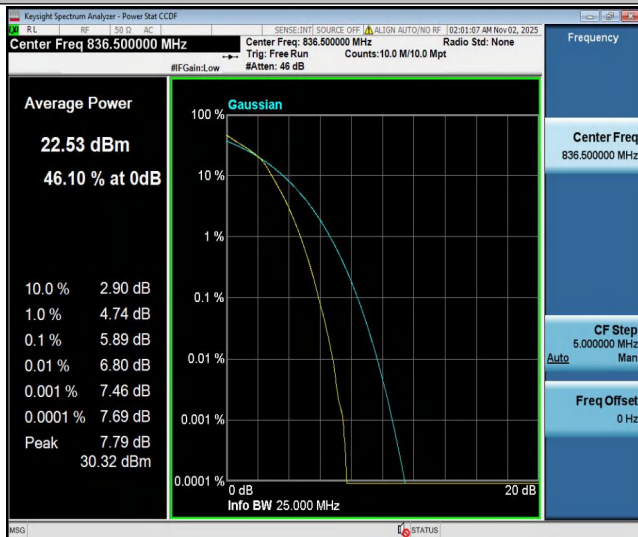
Band5-5MHz-16QAM-20525-25RB#0-PASS



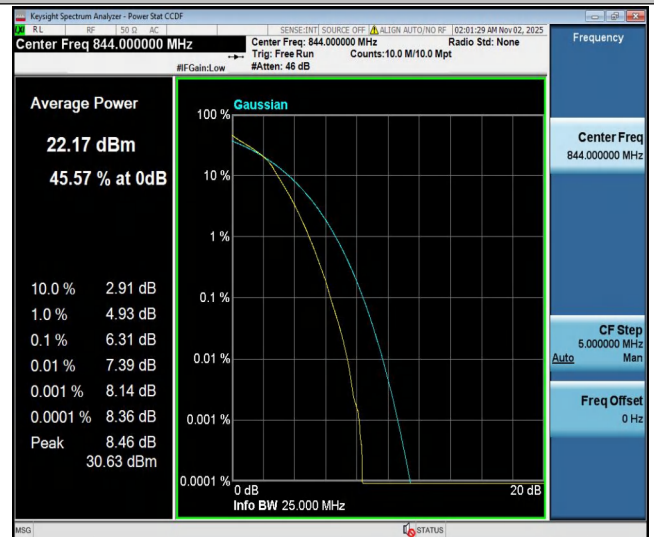
Band5-5MHz-16QAM-20625-25RB#0-PASS



Band5-10MHz-16QAM-20450-27RB#0-PASS



Band5-10MHz-16QAM-20525-27RB#0-PASS



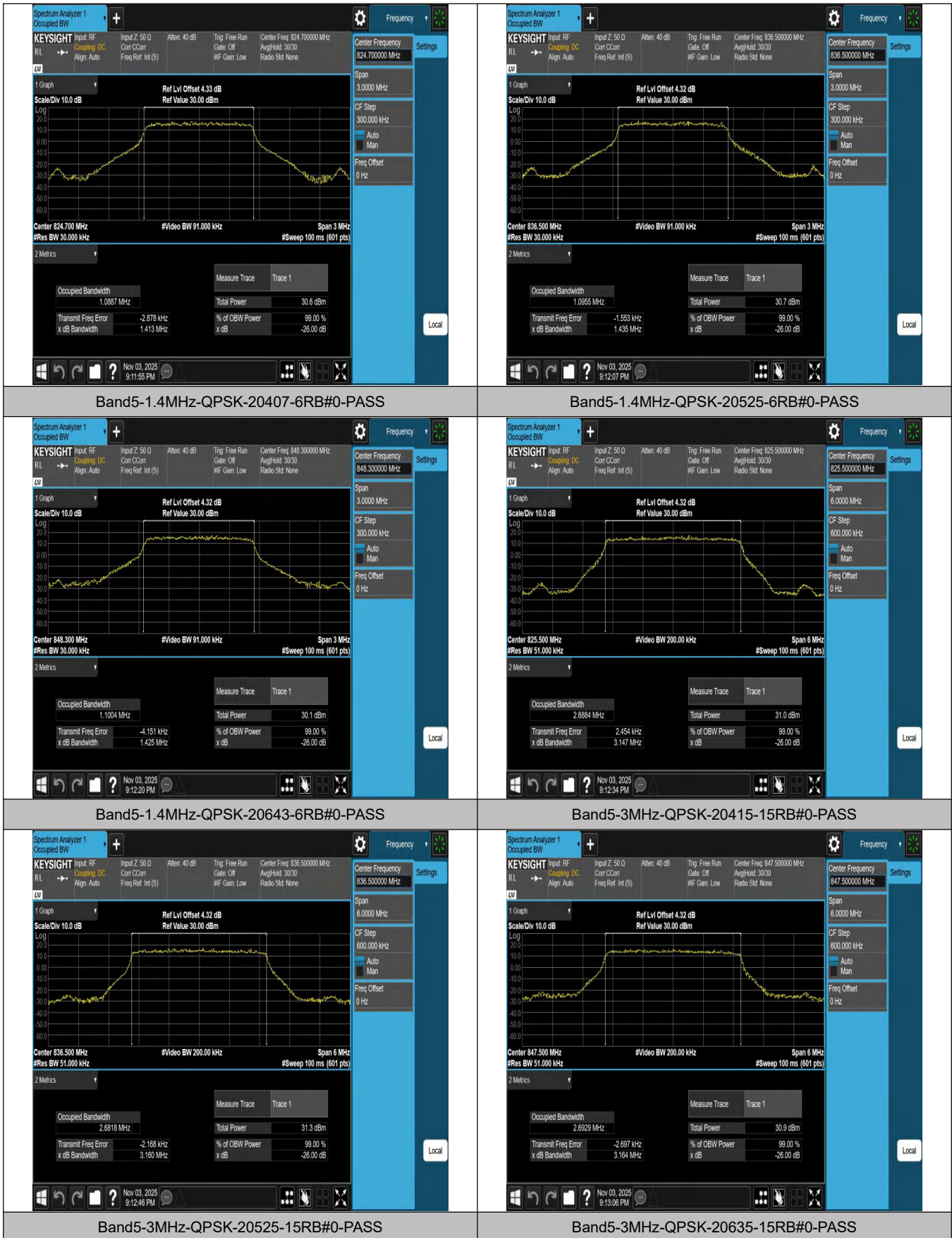
Band5-10MHz-16QAM-20600-27RB#0-PASS

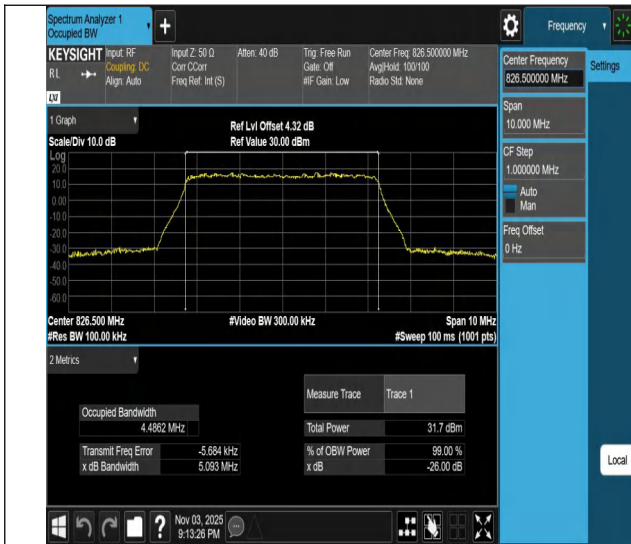
26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0887	1.413	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0955	1.435	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.1004	1.425	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6884	3.147	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6818	3.160	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6929	3.164	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.4862	5.093	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4806	5.098	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.4779	5.103	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9284	9.702	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9195	9.705	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9133	9.631	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0947	1.436	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0947	1.431	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0943	1.432	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6765	3.130	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6883	3.162	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6818	3.120	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4663	5.061	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.4717	5.088	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.4739	5.079	PASS
Band5	10MHz	16QAM	20450	27RB#0	4.9383	5.643	PASS
Band5	10MHz	16QAM	20525	27RB#0	4.9464	5.662	PASS
Band5	10MHz	16QAM	20600	27RB#0	4.9455	5.649	PASS

Test Graphs

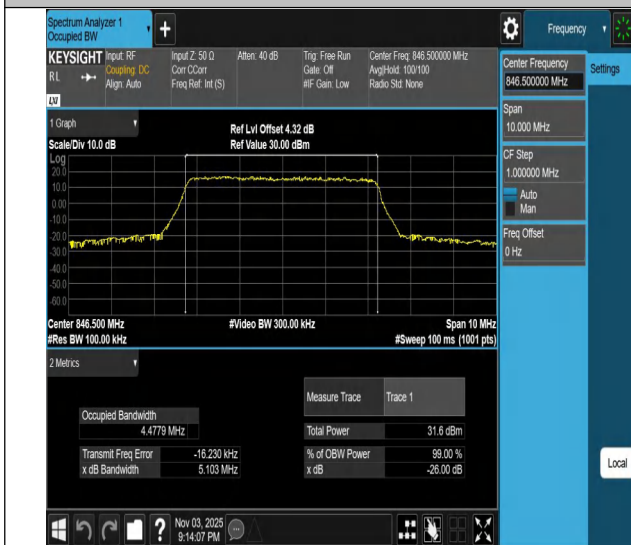




Band5-5MHz-QPSK-20425-25RB#0-PASS



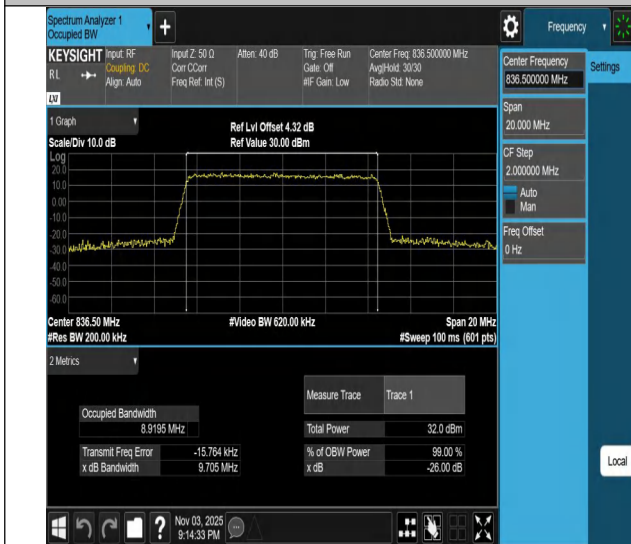
Band5-5MHz-QPSK-20525-25RB#0-PASS



Band5-5MHz-QPSK-20625-25RB#0-PASS



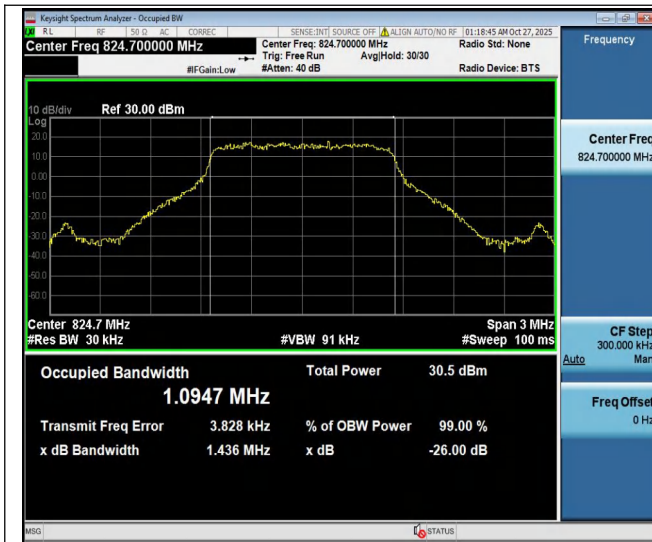
Band5-10MHz-QPSK-20450-50RB#0-PASS



Band5-10MHz-QPSK-20525-50RB#0-PASS



Band5-10MHz-QPSK-20600-50RB#0-PASS



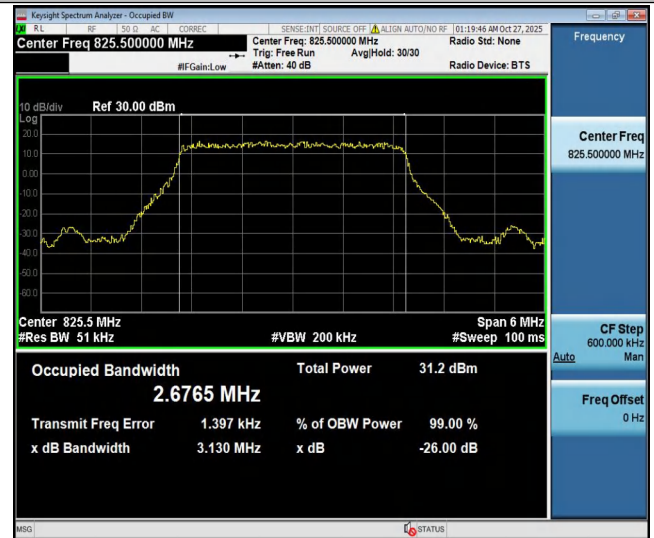
Band5-1.4MHz-16QAM-20407-6RB#0-PASS



Band5-1.4MHz-16QAM-20525-6RB#0-PASS



Band5-1.4MHz-16QAM-20643-6RB#0-PASS



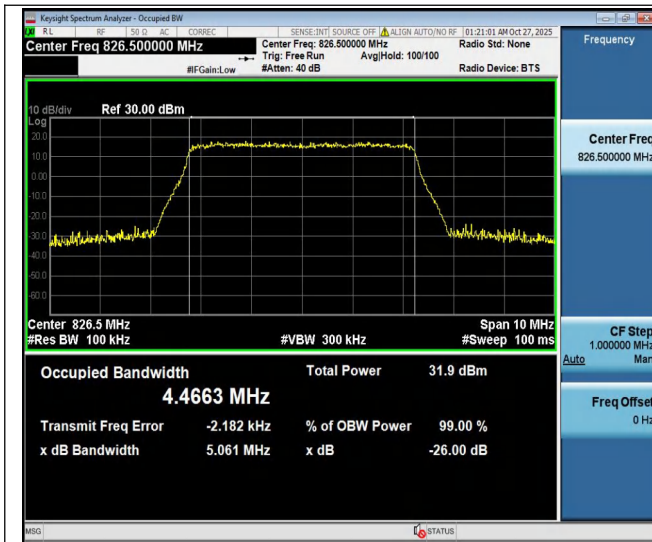
Band5-3MHz-16QAM-20415-15RB#0-PASS



Band5-3MHz-16QAM-20525-15RB#0-PASS



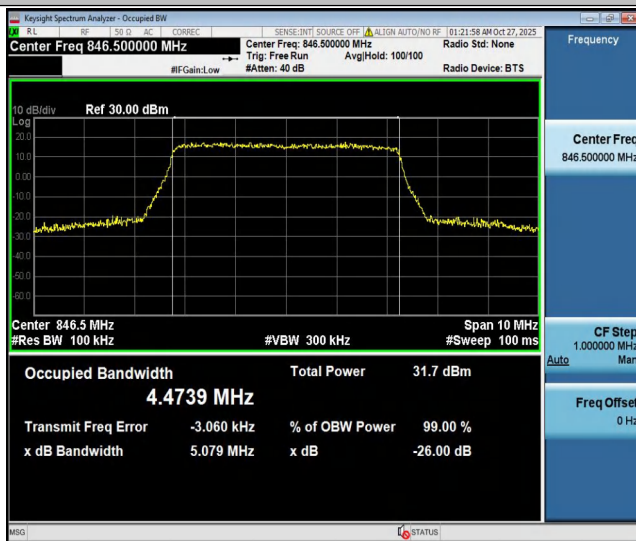
Band5-3MHz-16QAM-20635-15RB#0-PASS



Band5-5MHz-16QAM-20425-25RB#0-PASS



Band5-5MHz-16QAM-20525-25RB#0-PASS



Band5-5MHz-16QAM-20625-25RB#0-PASS



Band5-10MHz-16QAM-20450-27RB#0-PASS



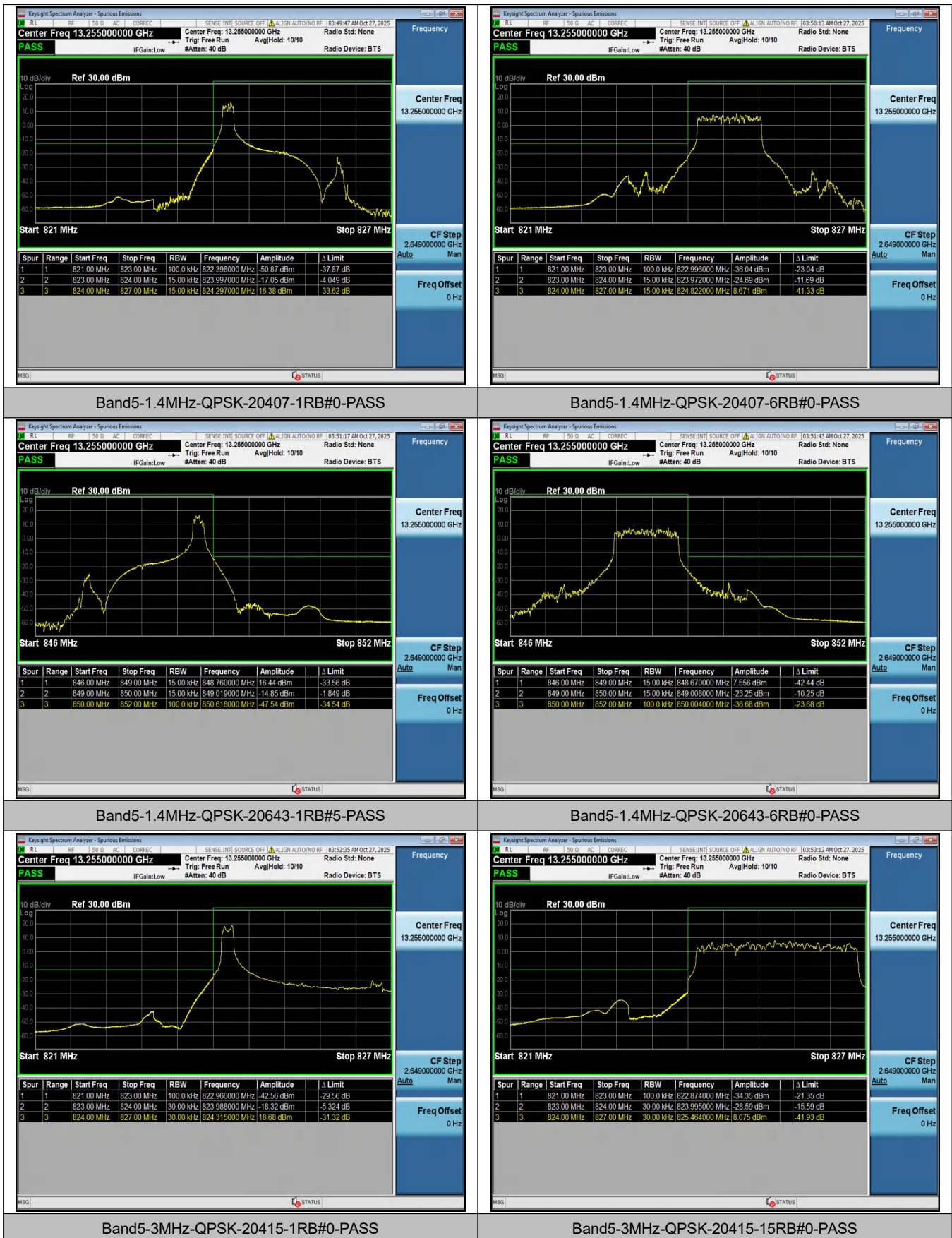
Band5-10MHz-16QAM-20525-27RB#0-PASS



Band5-10MHz-16QAM-20600-27RB#0-PASS

Band Edge

Test Graphs





Band5-3MHz-QPSK-20635-1RB#14-PASS



Band5-3MHz-QPSK-20635-15RB#0-PASS



Band5-5MHz-QPSK-20425-1RB#0-PASS



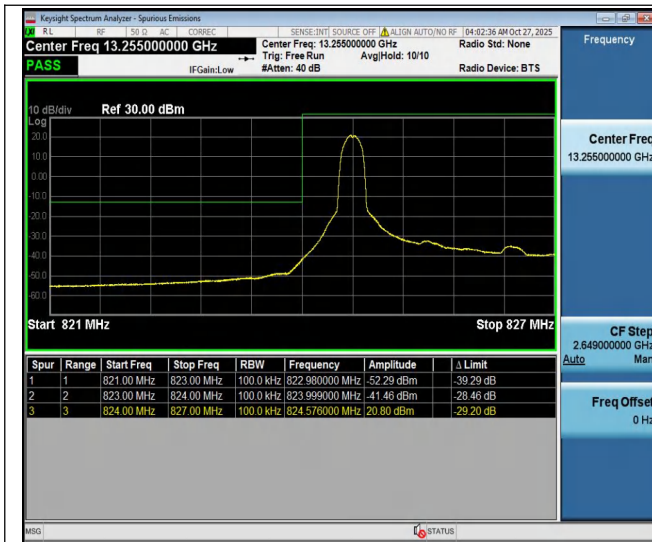
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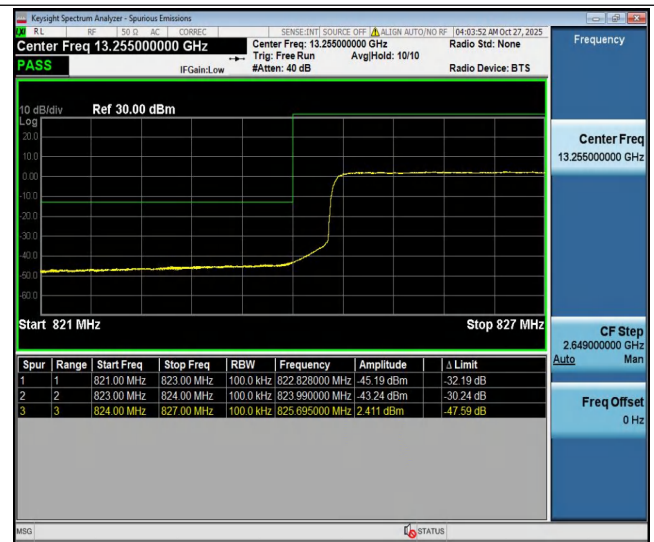
Band5-5MHz-QPSK-20625-1RB#24-PASS



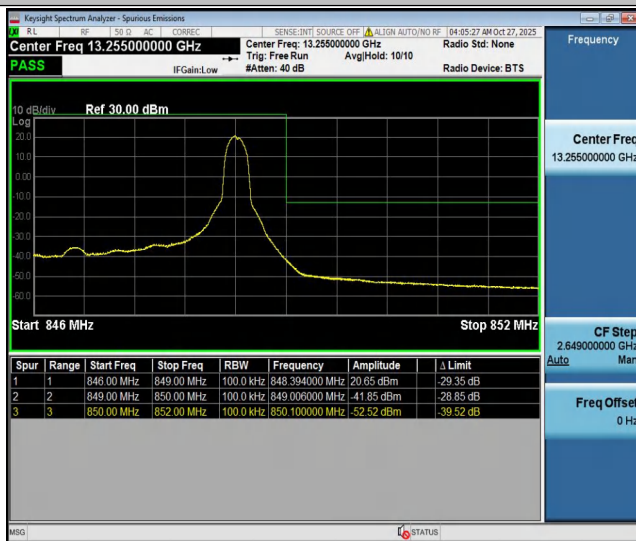
Band5-5MHz-QPSK-20625-25RB#0-PASS



Band5-10MHz-QPSK-20450-1RB#0-PASS



Band5-10MHz-QPSK-20450-50RB#0-PASS



Band5-10MHz-QPSK-20600-1RB#49-PASS

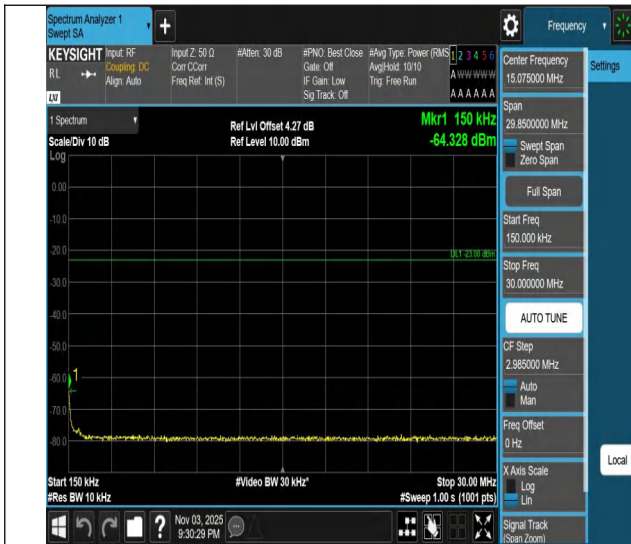


Band5-10MHz-QPSK-20600-50RB#0-PASS

Conducted Spurious Emission

Test Graphs

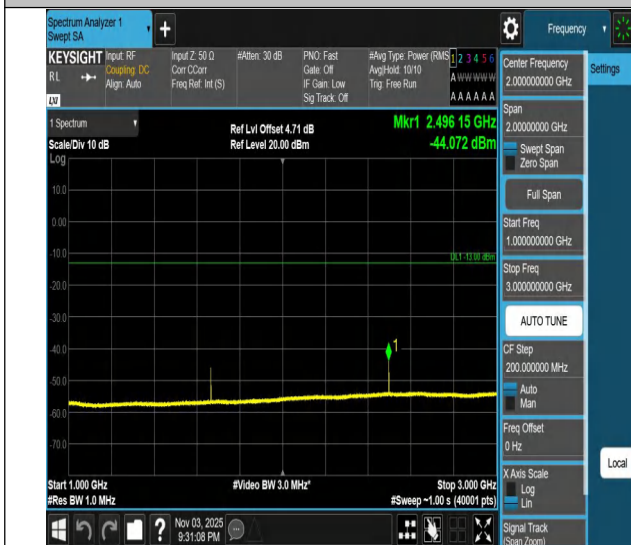




Band5-10MHz-QPSK-20525-1RB#0-0.15~30-PASS



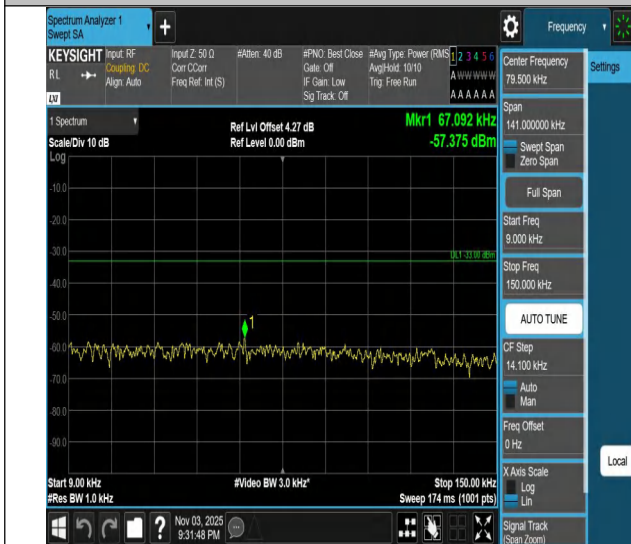
Band5-10MHz-QPSK-20525-1RB#0-30~1000-PASS



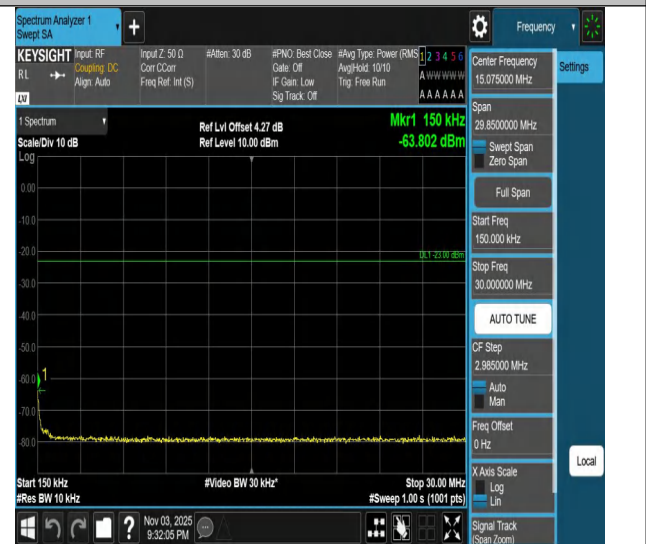
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Band5-10MHz-QPSK-20525-1RB#0-3000~10000-PASS



Band5-10MHz-QPSK-20600-1RB#0-0.009~0.15-PASS



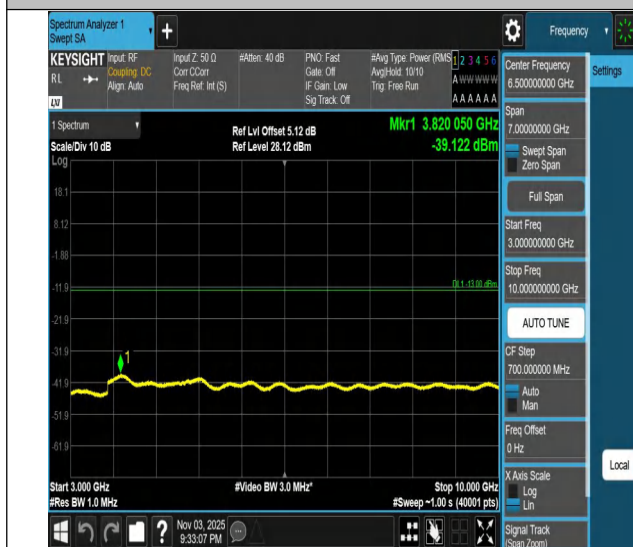
Band5-10MHz-QPSK-20600-1RB#0-0.15~30-PASS



Band5-10MHz-QPSK-20600-1RB#0-30~1000-PASS



Band5-10MHz-QPSK-20600-1RB#0-1000~3000-PASS



Band5-10MHz-QPSK-20600-1RB#0-3000~10000-PASS

Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20525	50RB#0	VN	NT	-5.34	-0.006384	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VL	NT	-3.49	-0.004172	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VH	NT	-4.56	-0.005451	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20525	50RB#0	NV	-30	-9.11	-0.010891	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-20	-8.47	-0.010126	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-10	-8.60	-0.010281	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	0	-8.25	-0.009863	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	10	-7.17	-0.008571	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	20	-8.44	-0.010090	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	30	-7.05	-0.008428	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	40	-7.64	-0.009133	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	50	-7.50	-0.008966	±2.5	PASS

~The End~