

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	23.80	20.55	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	24.05	20.8	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	24.00	20.75	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.83	19.58	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.67	20.42	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.77	20.52	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.74	20.49	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.78	19.53	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.38	20.13	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.49	20.24	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.58	20.33	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.40	19.15	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	23.20	19.95	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	23.32	20.07	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	23.35	20.1	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.80	18.55	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	23.05	19.8	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	23.31	20.06	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.99	19.74	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.67	18.42	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.80	19.55	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	22.90	19.65	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.57	19.32	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.39	18.14	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	24.05	20.8	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.76	20.51	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.87	20.62	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.84	19.59	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.78	20.53	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.76	20.51	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.85	20.6	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.78	19.53	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.39	20.14	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.41	20.16	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.64	20.39	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.44	19.19	38.45	PASS

Band5	3MHz	16QAM	20415	1RB#0	23.33	20.08	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	23.19	19.94	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	23.32	20.07	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.95	18.7	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#0	23.18	19.93	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	22.99	19.74	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	23.31	20.06	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.54	18.29	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.96	19.71	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	23.05	19.8	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.99	19.74	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.32	18.07	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.83	20.58	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	24.14	20.89	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.91	20.66	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.91	19.66	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.75	20.5	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.83	20.58	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.84	20.59	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.71	19.46	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.51	20.26	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.39	20.14	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.61	20.36	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.48	19.23	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	23.17	19.92	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	23.26	20.01	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	23.14	19.89	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.88	18.63	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	23.04	19.79	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	23.30	20.05	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	23.24	19.99	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.66	18.41	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	23.06	19.81	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	23.16	19.91	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.91	19.66	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.45	18.2	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.96	20.71	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.90	20.65	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.94	20.69	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.87	19.62	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.97	20.72	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.75	20.5	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.93	20.68	38.45	PASS

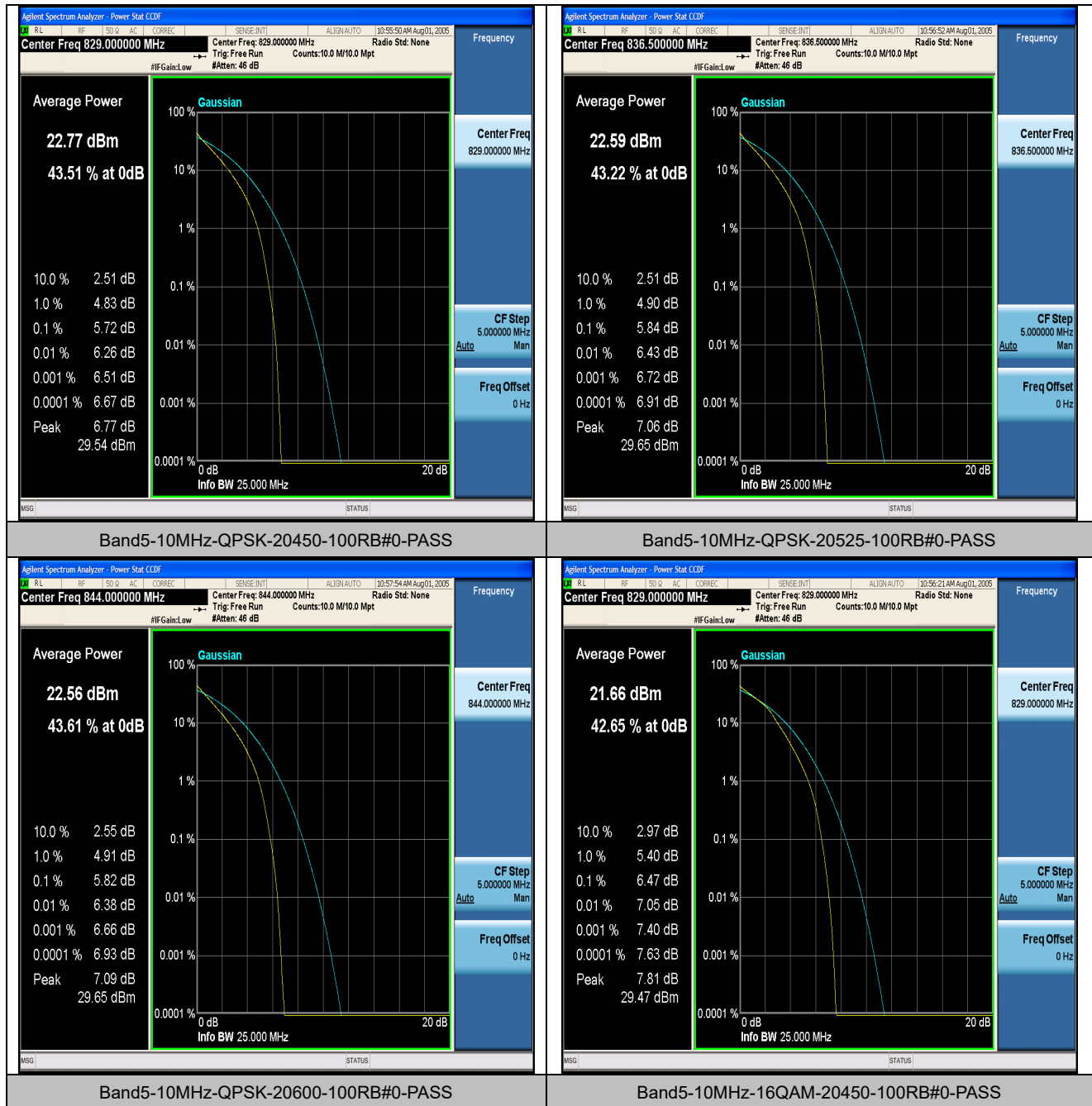


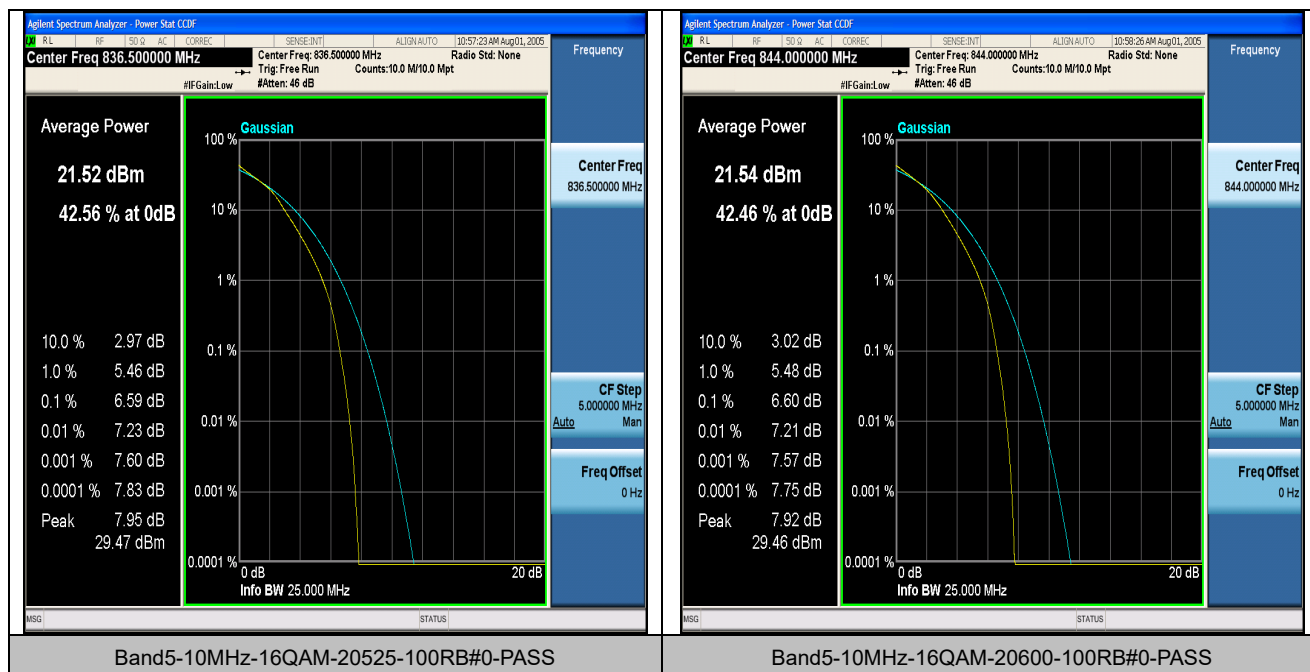
Band5	10MHz	QPSK	20525	50RB#0	22.66	19.41	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.54	20.29	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.67	20.42	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.64	20.39	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.52	19.27	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	23.26	20.01	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	23.59	20.34	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	23.45	20.2	38.45	PASS
Band5	10MHz	16QAM	20450	50RB#0	21.86	18.61	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	23.25	20	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	23.05	19.8	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	23.15	19.9	38.45	PASS
Band5	10MHz	16QAM	20525	50RB#0	21.64	18.39	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.99	19.74	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.96	19.71	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	23.14	19.89	38.45	PASS
Band5	10MHz	16QAM	20600	50RB#0	21.53	18.28	38.45	PASS

Peak-to-Average Ratio(CCDF)**Test Result**

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	10MHz	QPSK	20450	100RB#0	5.72	13	PASS
Band5	10MHz	QPSK	20525	100RB#0	5.84	13	PASS
Band5	10MHz	QPSK	20600	100RB#0	5.82	13	PASS
Band5	10MHz	16QAM	20450	100RB#0	6.47	13	PASS
Band5	10MHz	16QAM	20525	100RB#0	6.59	13	PASS
Band5	10MHz	16QAM	20600	100RB#0	6.60	13	PASS

Test Graphs



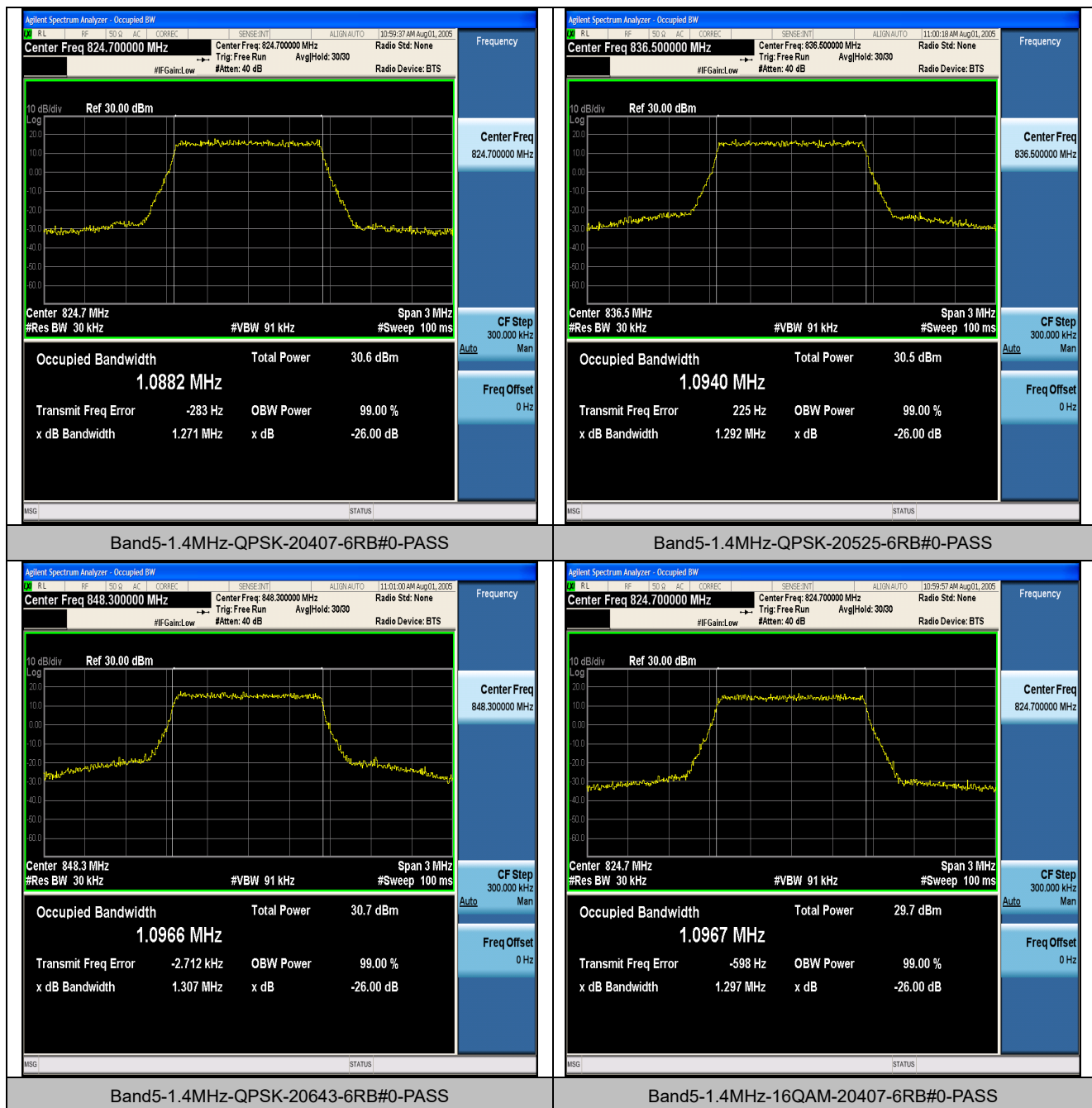


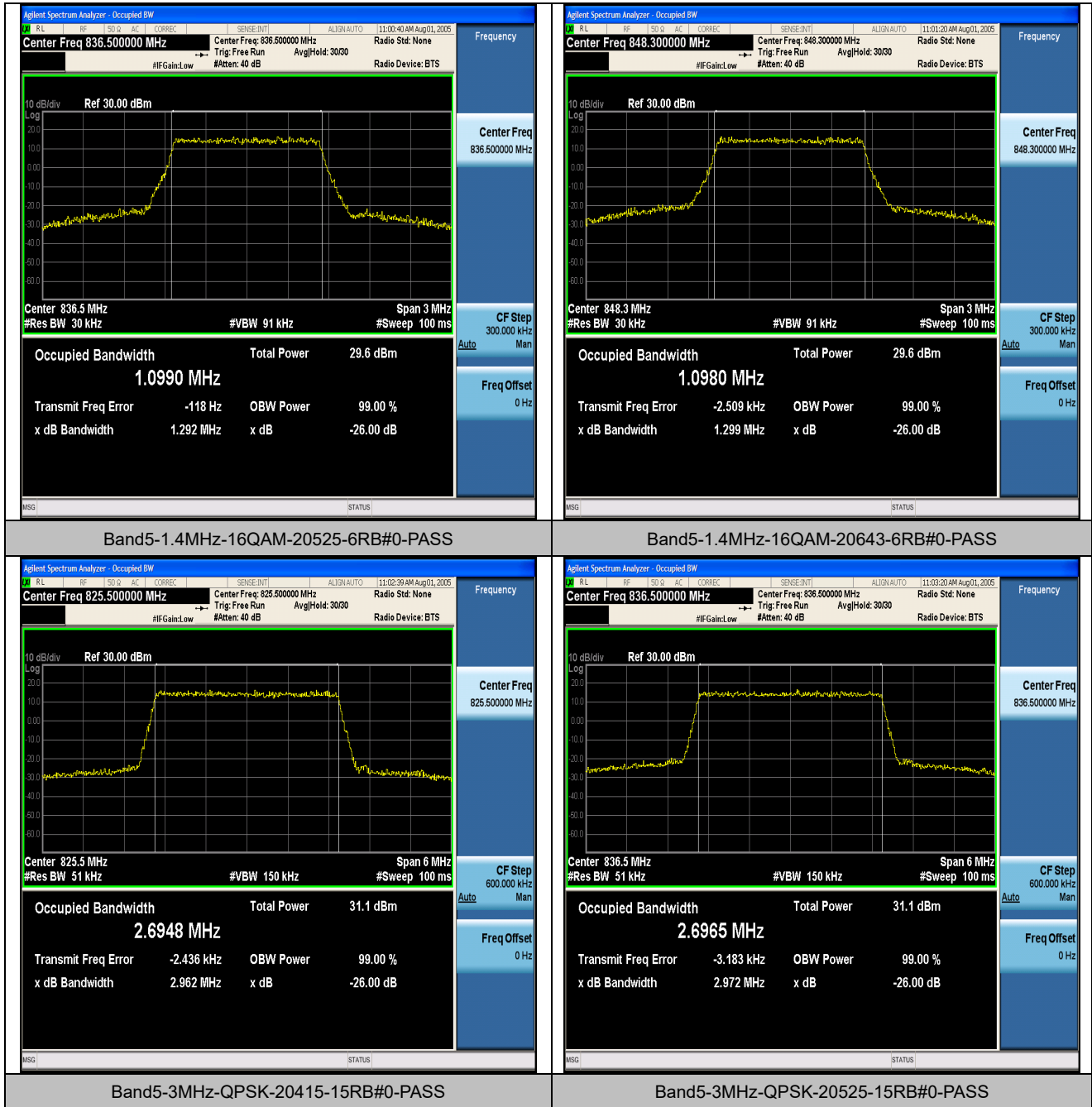
26dB Bandwidth and Occupied Bandwidth

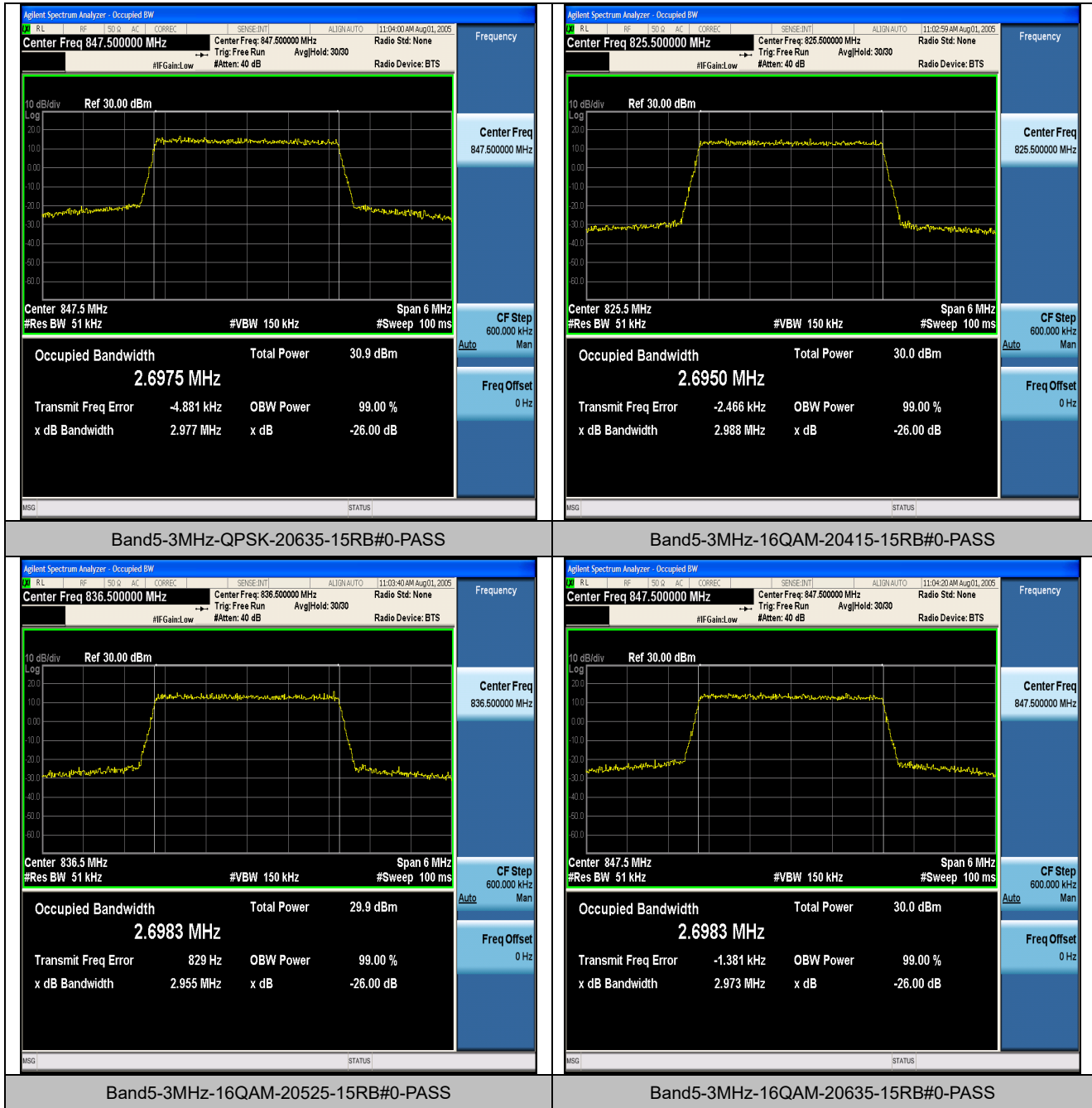
Test Result

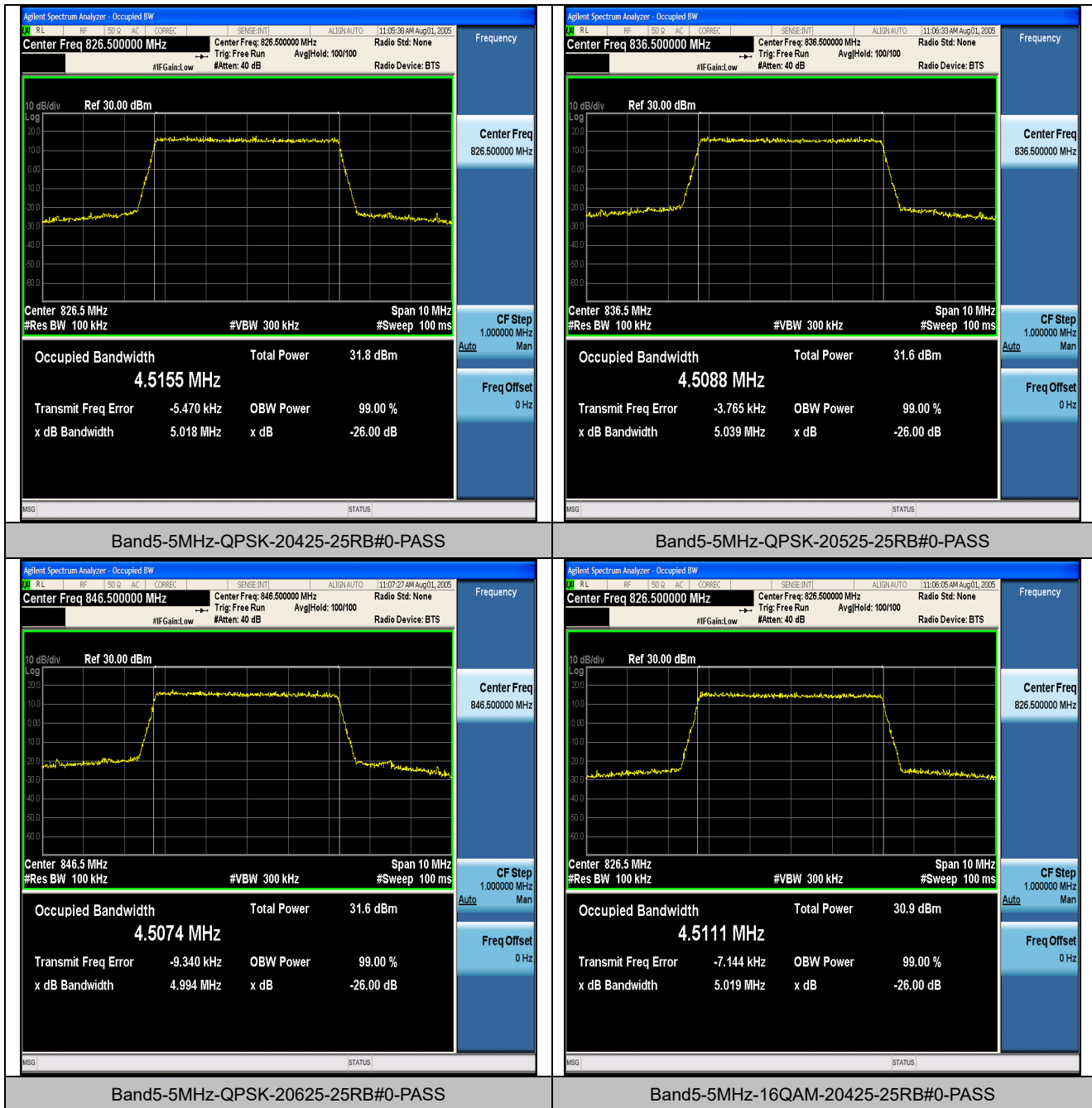
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0882	1.271	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0940	1.292	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0966	1.307	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0967	1.297	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0990	1.292	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0980	1.299	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6948	2.962	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6965	2.972	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6975	2.977	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6950	2.988	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6983	2.955	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6983	2.973	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.5155	5.018	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.5088	5.039	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.5074	4.994	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.5111	5.019	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.5109	4.974	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.5069	5.013	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9743	9.942	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9893	9.874	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9824	9.939	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.9970	9.928	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.9891	9.940	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.9784	9.890	PASS

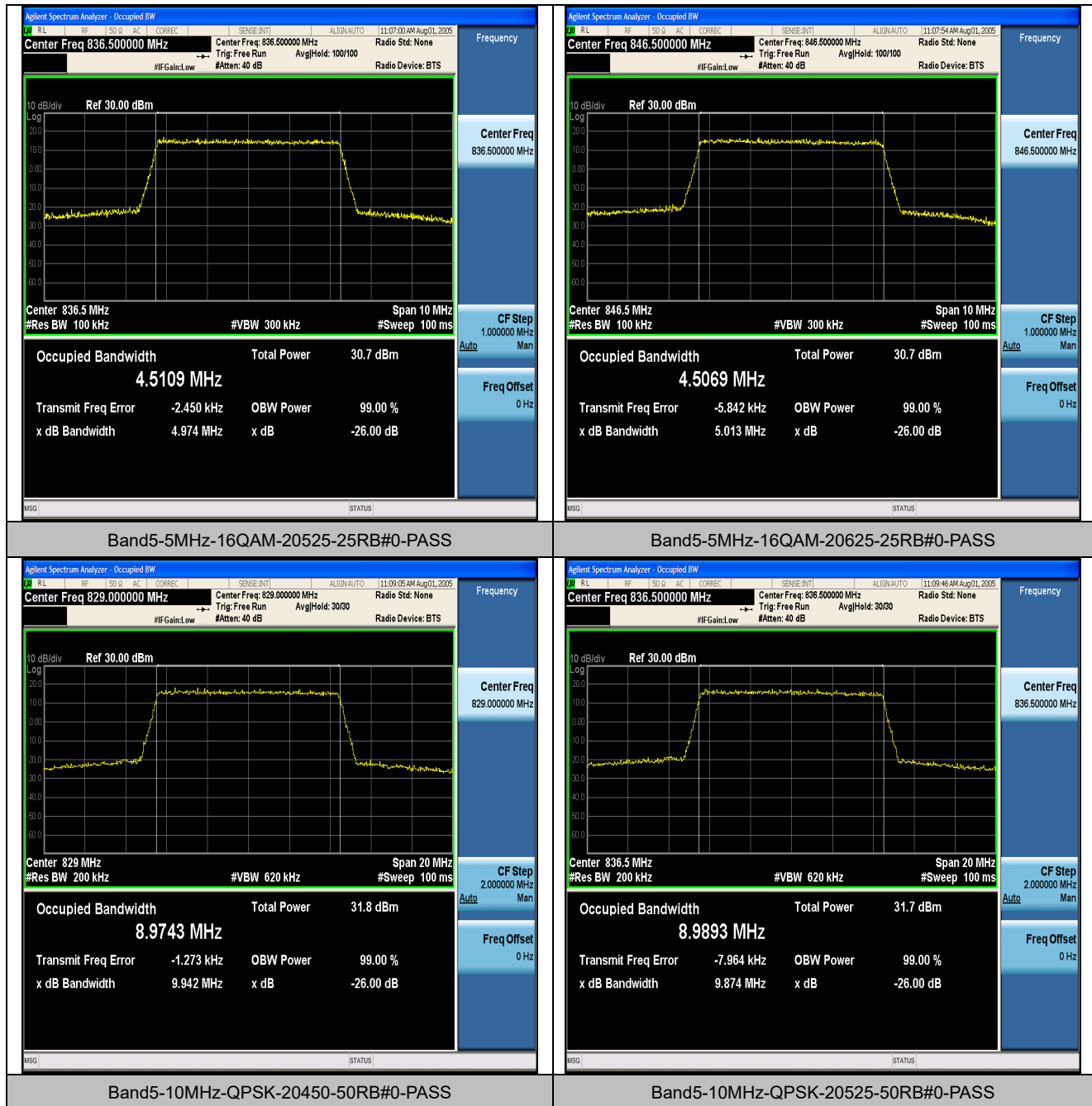
Test Graphs

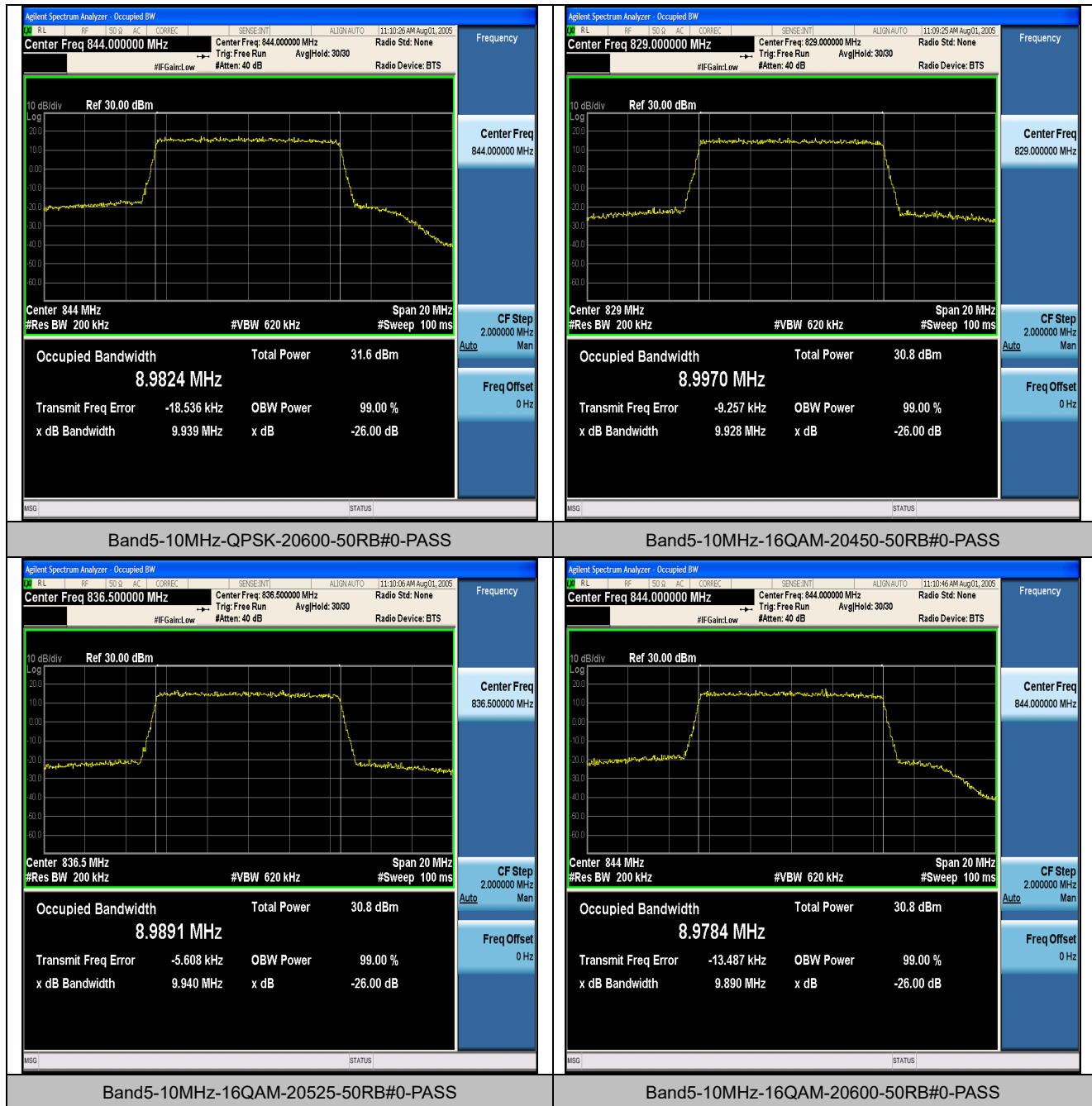










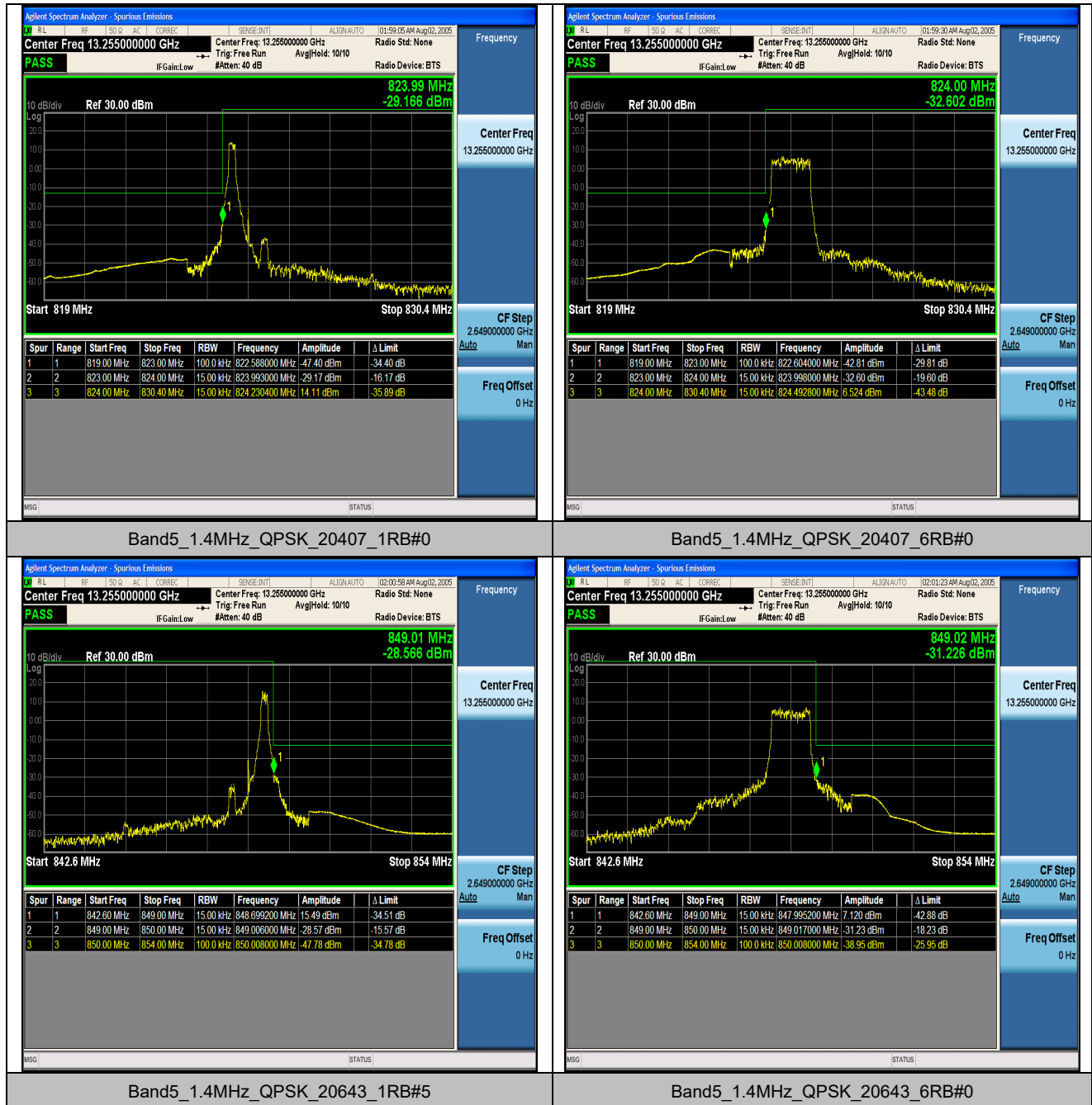


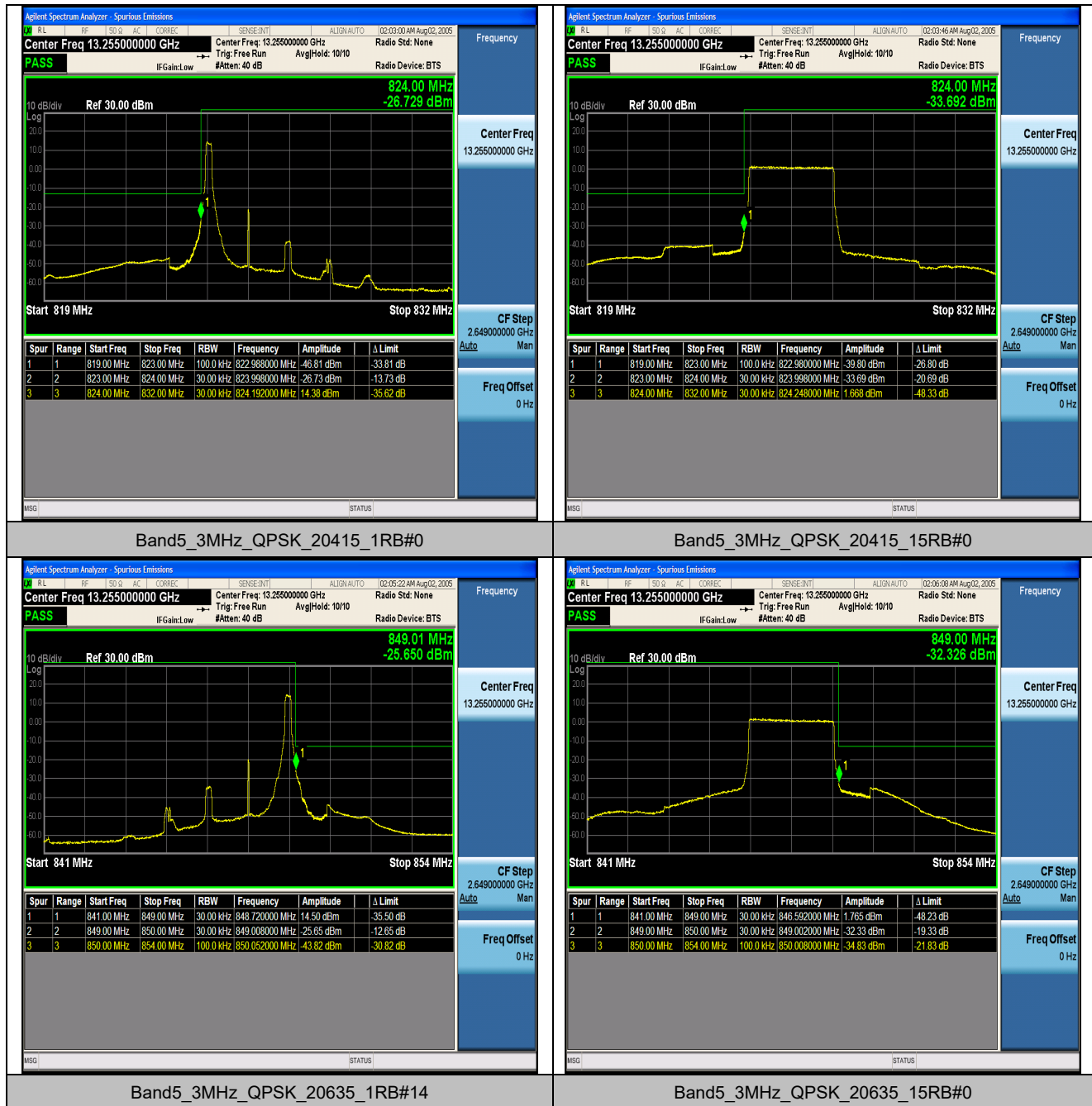
Band Edge

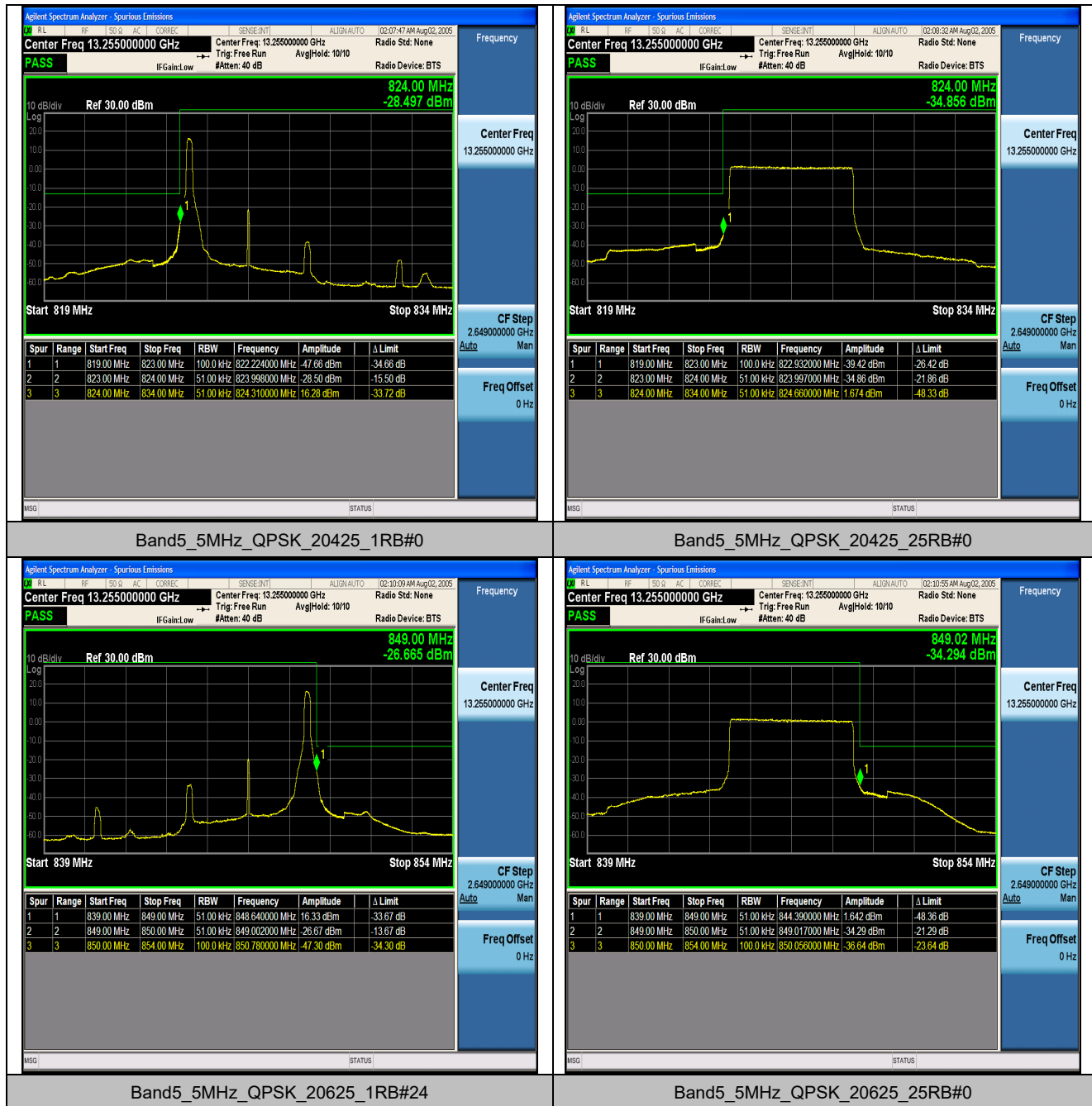
Test Result

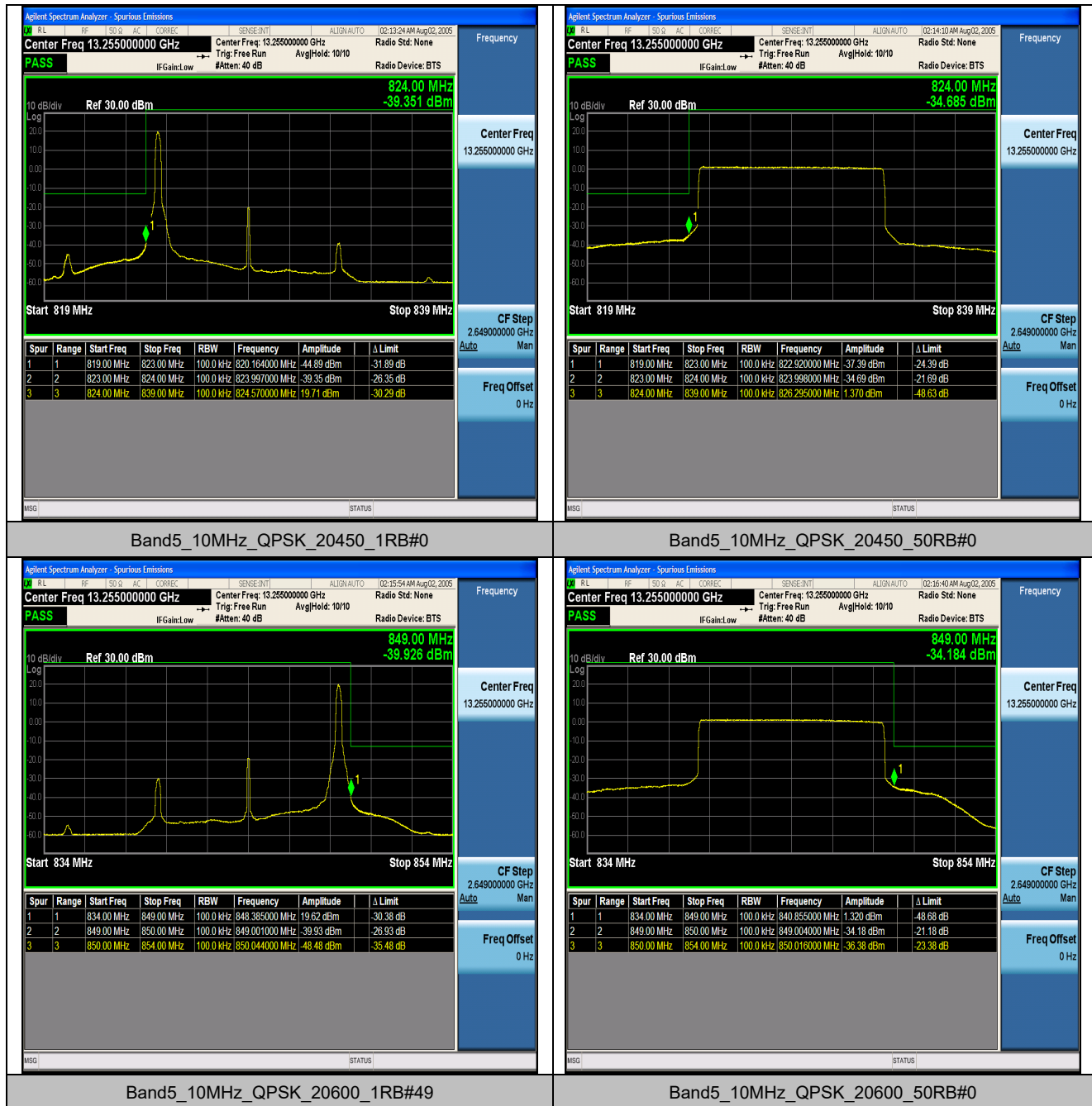
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	-29.17	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	-32.60	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	-28.57	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	-31.23	PASS
Band5	3MHz	QPSK	20415	1RB#0	-26.73	PASS
Band5	3MHz	QPSK	20415	15RB#0	-33.69	PASS
Band5	3MHz	QPSK	20635	1RB#14	-25.65	PASS
Band5	3MHz	QPSK	20635	15RB#0	-32.33	PASS
Band5	5MHz	QPSK	20425	1RB#0	-28.50	PASS
Band5	5MHz	QPSK	20425	25RB#0	-34.86	PASS
Band5	5MHz	QPSK	20625	1RB#24	-26.67	PASS
Band5	5MHz	QPSK	20625	25RB#0	-34.29	PASS
Band5	10MHz	QPSK	20450	1RB#0	-39.35	PASS
Band5	10MHz	QPSK	20450	50RB#0	-34.69	PASS
Band5	10MHz	QPSK	20600	1RB#49	-39.93	PASS
Band5	10MHz	QPSK	20600	50RB#0	-34.18	PASS

Test Graphs







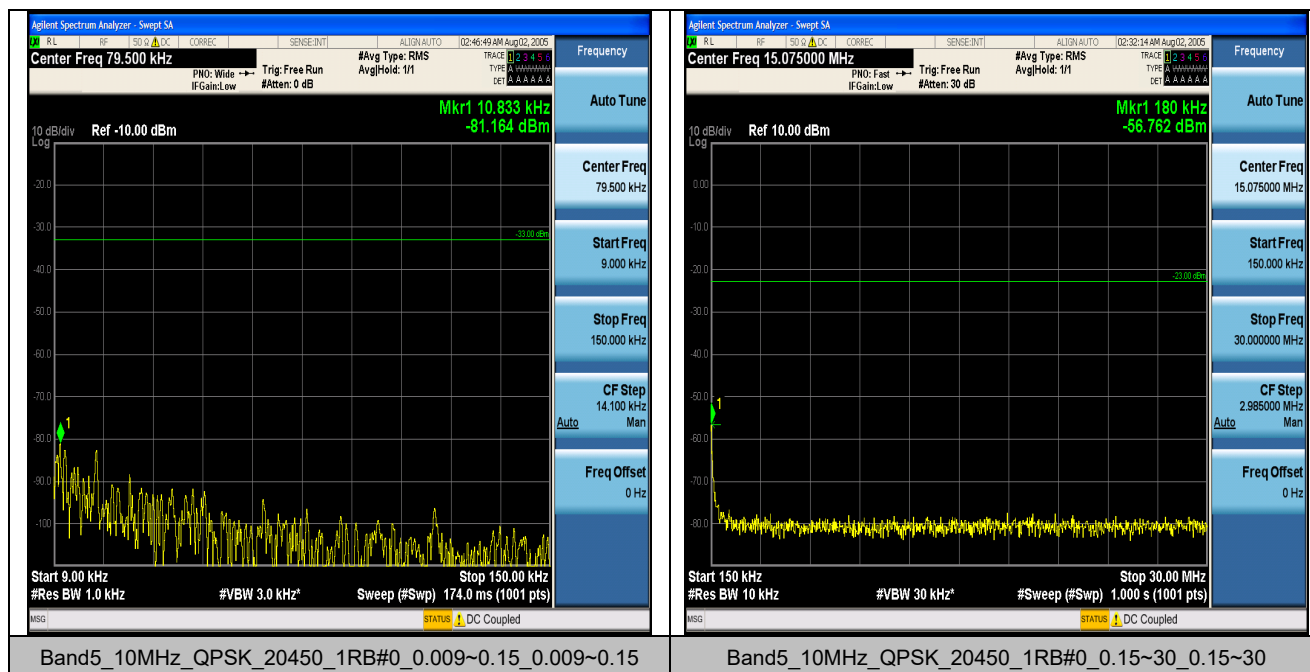


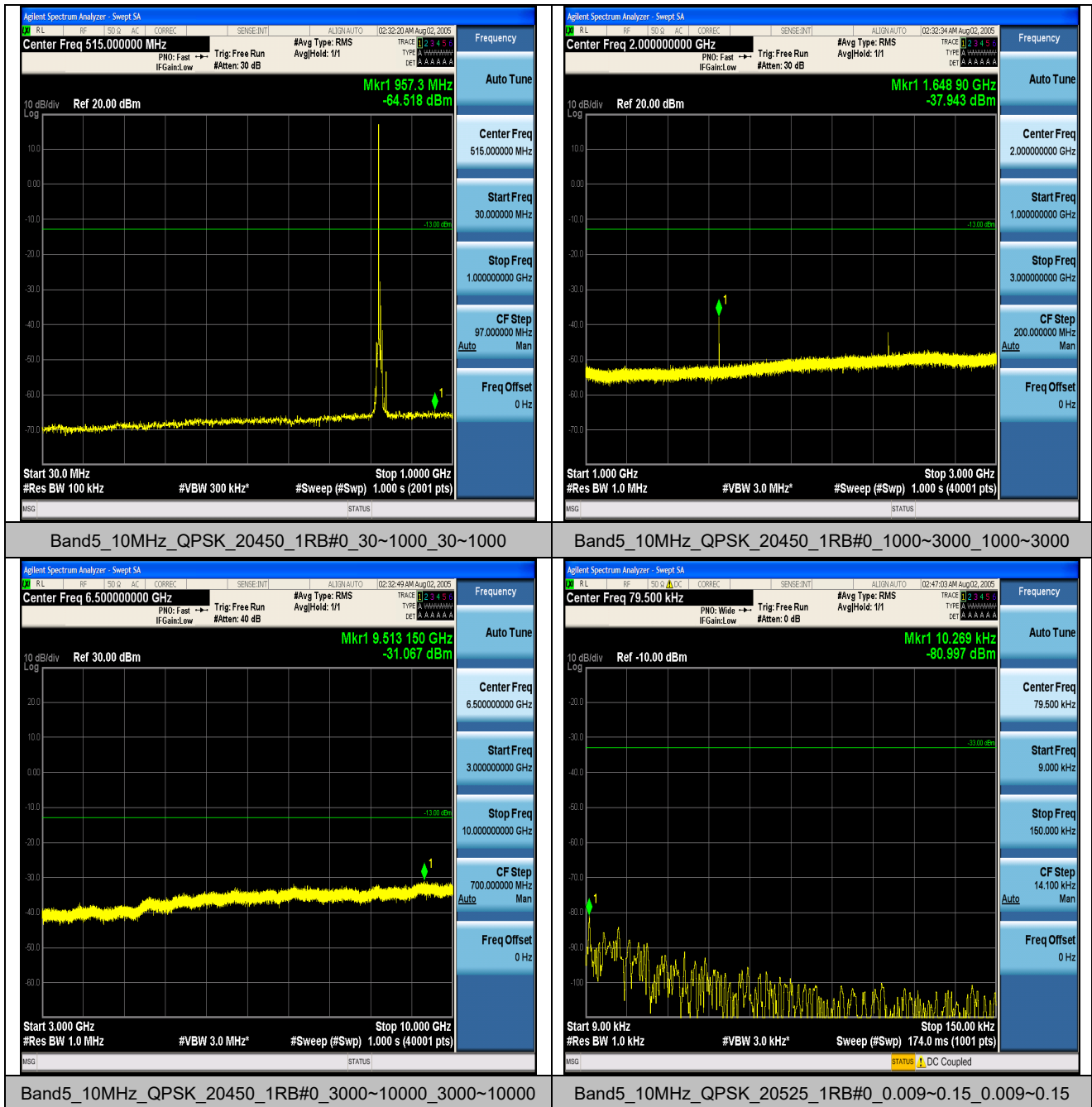
Conducted Spurious Emission

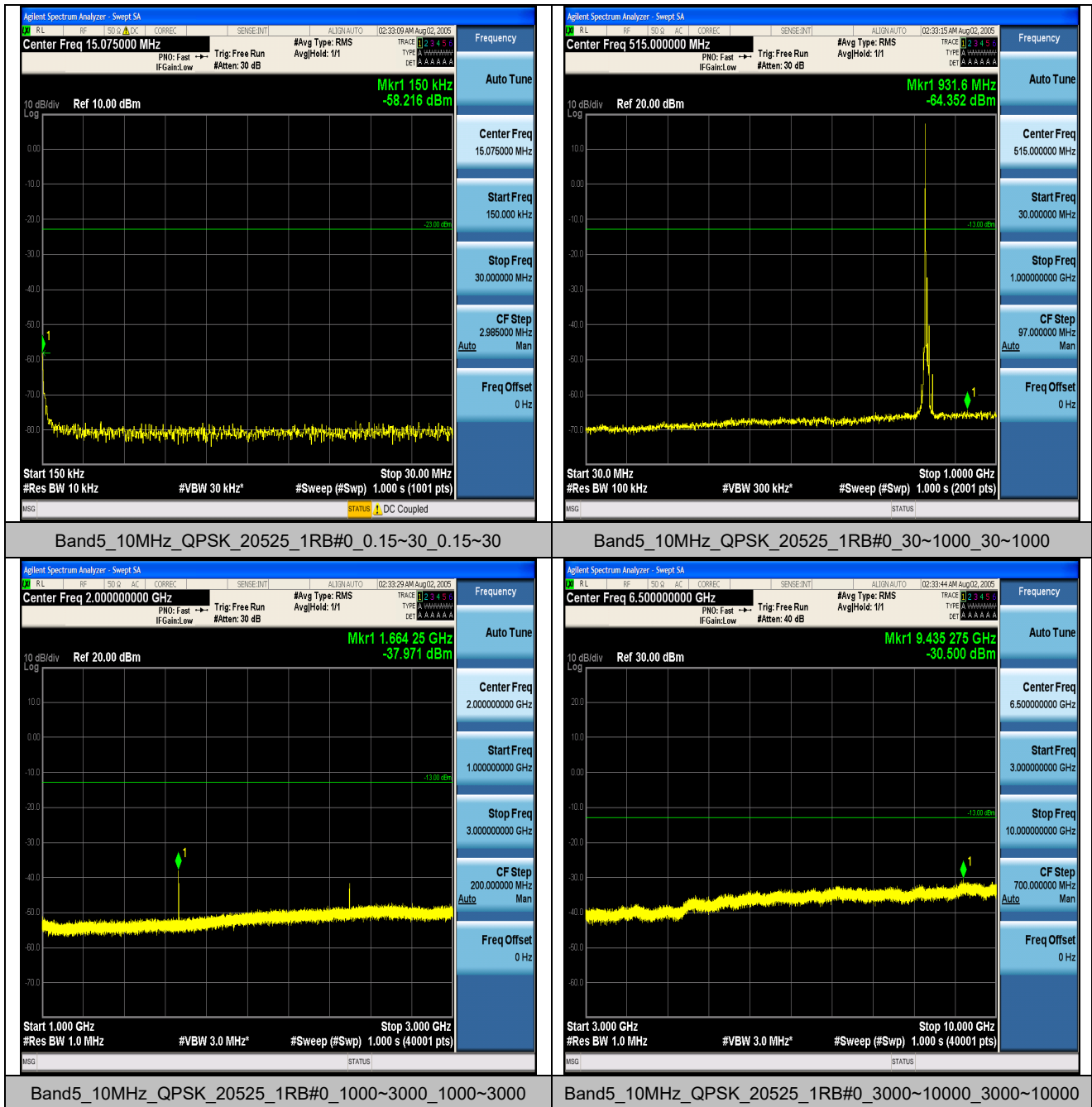
Test Result

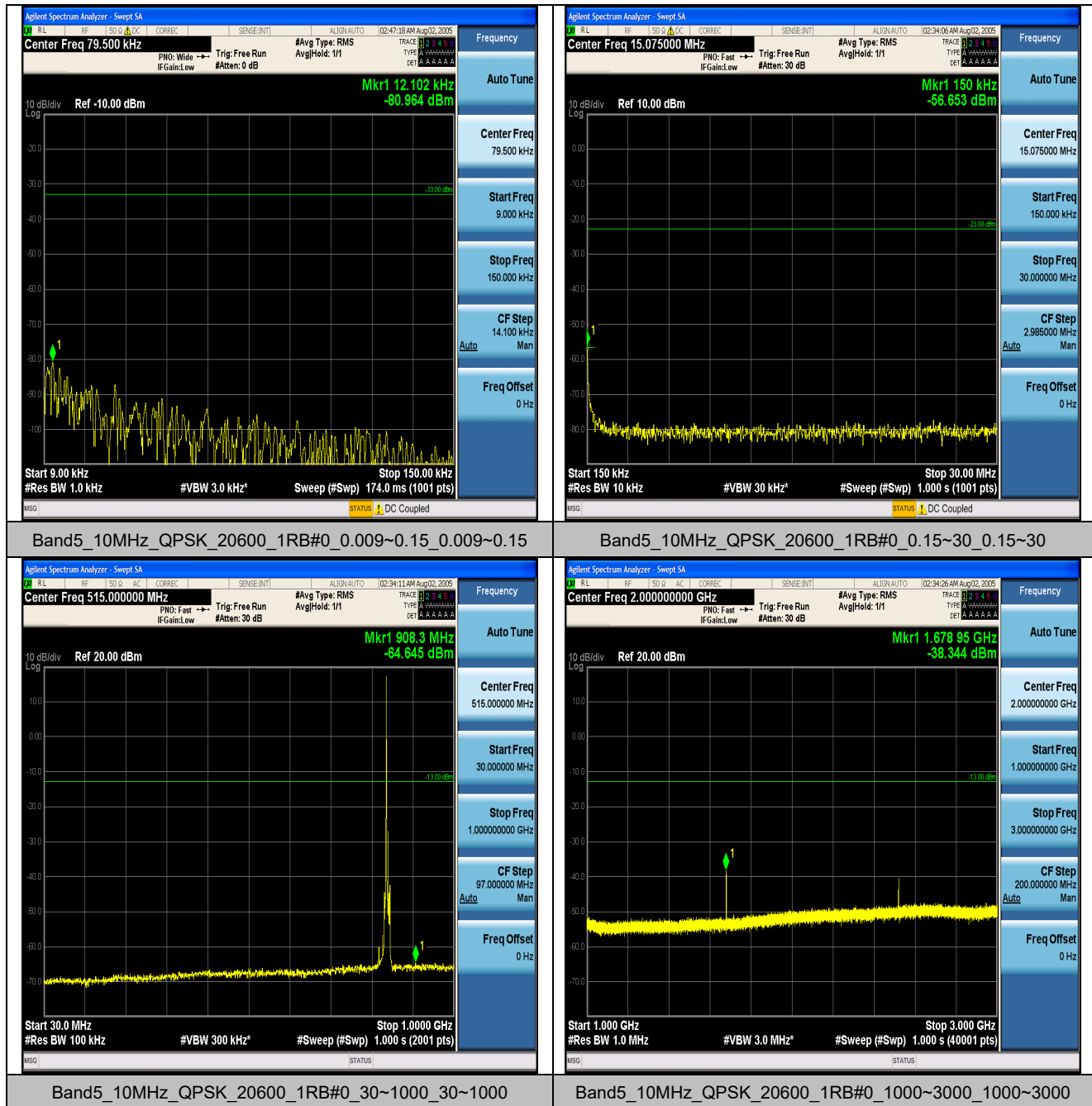
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band5	10MHz	QPSK	20450	1RB#0	0.009~0.15	-81.16	PASS
Band5	10MHz	QPSK	20450	1RB#0	0.15~30	-56.76	PASS
Band5	10MHz	QPSK	20450	1RB#0	30~1000	-64.52	PASS
Band5	10MHz	QPSK	20450	1RB#0	1000~3000	-37.94	PASS
Band5	10MHz	QPSK	20450	1RB#0	3000~10000	-31.07	PASS
Band5	10MHz	QPSK	20525	1RB#0	0.009~0.15	-81.00	PASS
Band5	10MHz	QPSK	20525	1RB#0	0.15~30	-58.22	PASS
Band5	10MHz	QPSK	20525	1RB#0	30~1000	-64.35	PASS
Band5	10MHz	QPSK	20525	1RB#0	1000~3000	-37.97	PASS
Band5	10MHz	QPSK	20525	1RB#0	3000~10000	-30.50	PASS
Band5	10MHz	QPSK	20600	1RB#0	0.009~0.15	-80.96	PASS
Band5	10MHz	QPSK	20600	1RB#0	0.15~30	-56.65	PASS
Band5	10MHz	QPSK	20600	1RB#0	30~1000	-64.65	PASS
Band5	10MHz	QPSK	20600	1RB#0	1000~3000	-38.34	PASS
Band5	10MHz	QPSK	20600	1RB#0	3000~10000	-30.97	PASS

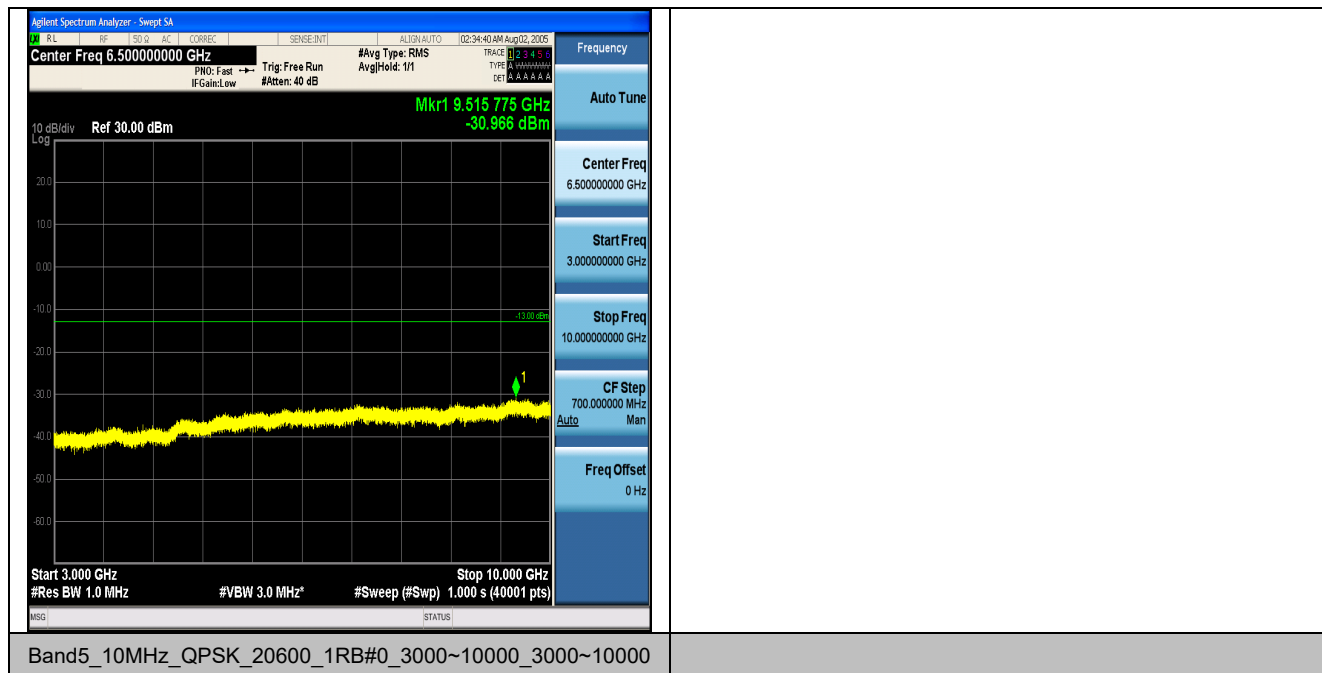
Test Graphs











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	100RB#0	VN	NT	0.10	0.000120	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	VL	NT	-0.30	-0.000359	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	VH	NT	-0.30	-0.000359	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	VN	NT	-1.30	-0.001554	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	VL	NT	-0.20	-0.000239	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	VH	NT	-1.80	-0.002152	±2.5	PASS

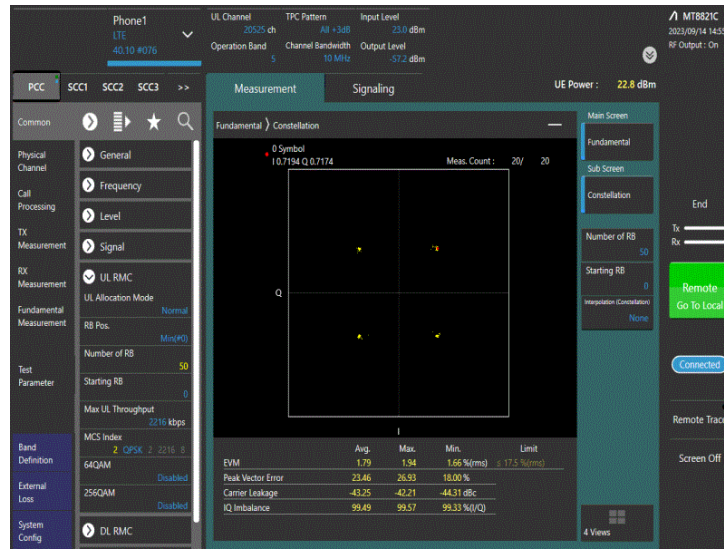
Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20525	100RB#0	NV	-30	-0.90	-0.001076	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	-20	-0.90	-0.001076	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	-10	-0.80	-0.000956	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	0	-0.50	-0.000598	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	10	-0.90	-0.001076	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	20	0.00	0.000000	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	30	-1.70	-0.002032	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	40	-1.20	-0.001435	±2.5	PASS
Band5	10MHz	QPSK	20525	100RB#0	NV	50	-0.30	-0.000359	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	NV	-30	-0.10	-0.000120	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	NV	-20	0.40	0.000478	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	NV	-10	0.30	0.000359	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	NV	0	-1.90	-0.002271	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	NV	10	-1.50	-0.001793	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	NV	20	-1.40	-0.001674	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	NV	30	-1.10	-0.001315	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	NV	40	-0.30	-0.000359	±2.5	PASS
Band5	10MHz	16QAM	20525	100RB#0	NV	50	-0.70	-0.000837	±2.5	PASS

Modulation Characteristics

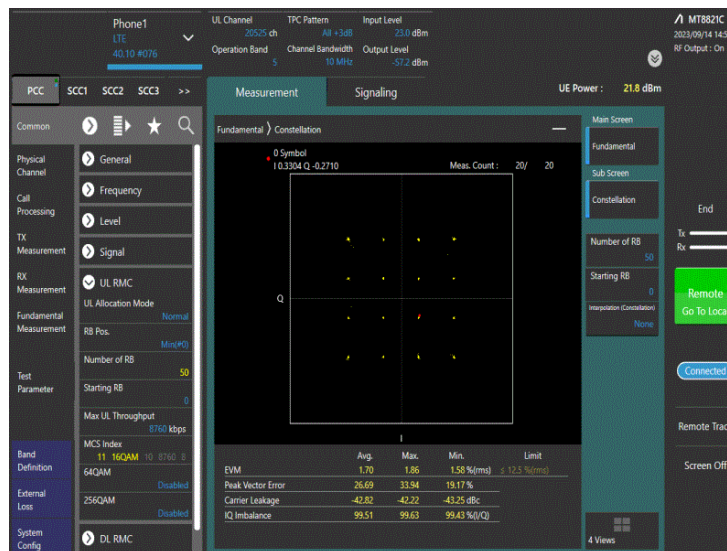
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result	Verdict
Band5	10MHz	QPSK	20525	50RB#0	PASS	PASS
Band5	10MHz	16QAM	20525	50RB#0	PASS	PASS

Test Graphs



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

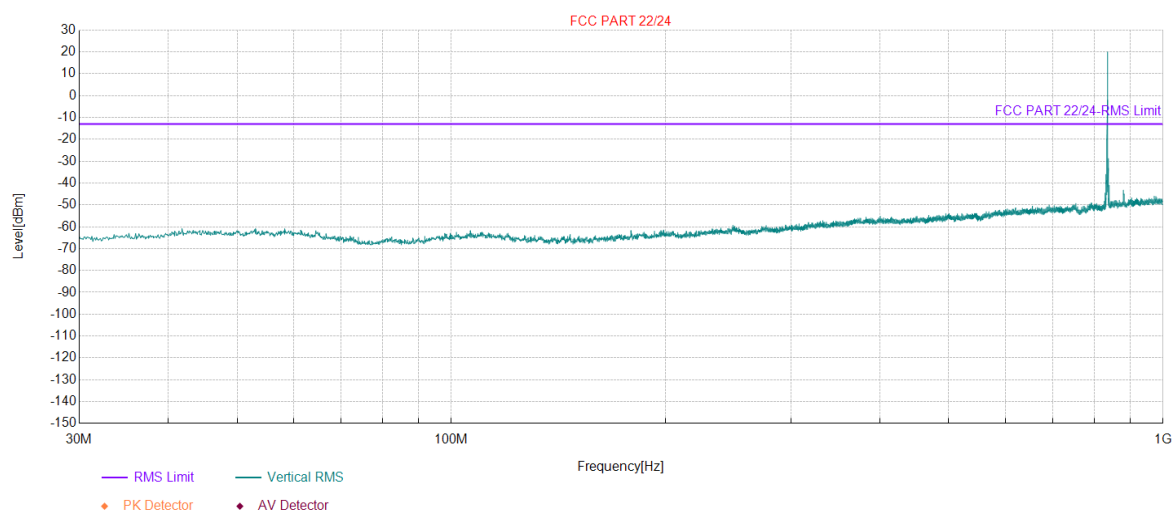
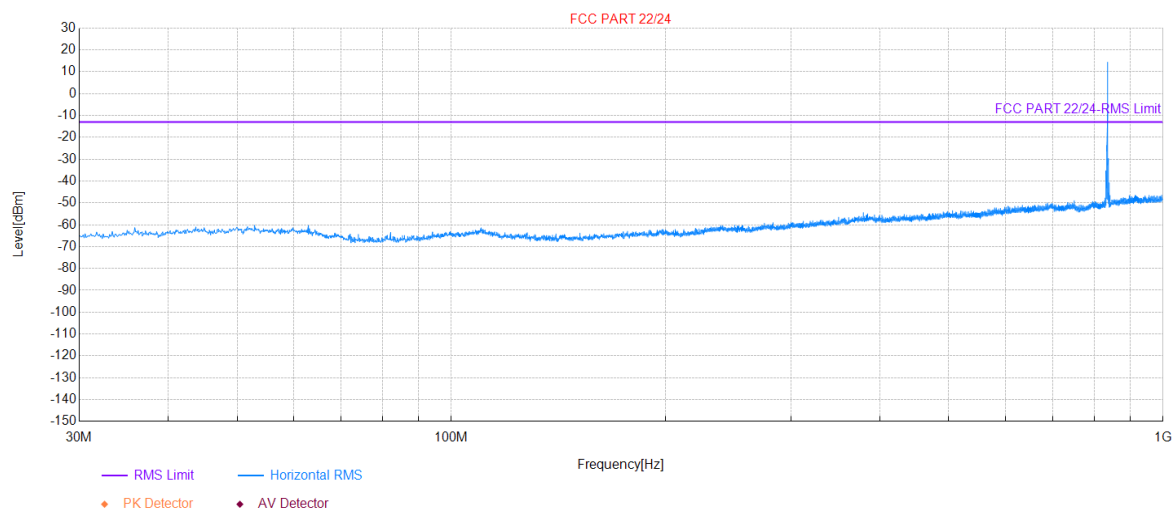


Band5-10MHz-16QAM-20525-50RB#0

Field Strength of Spurious Radiation

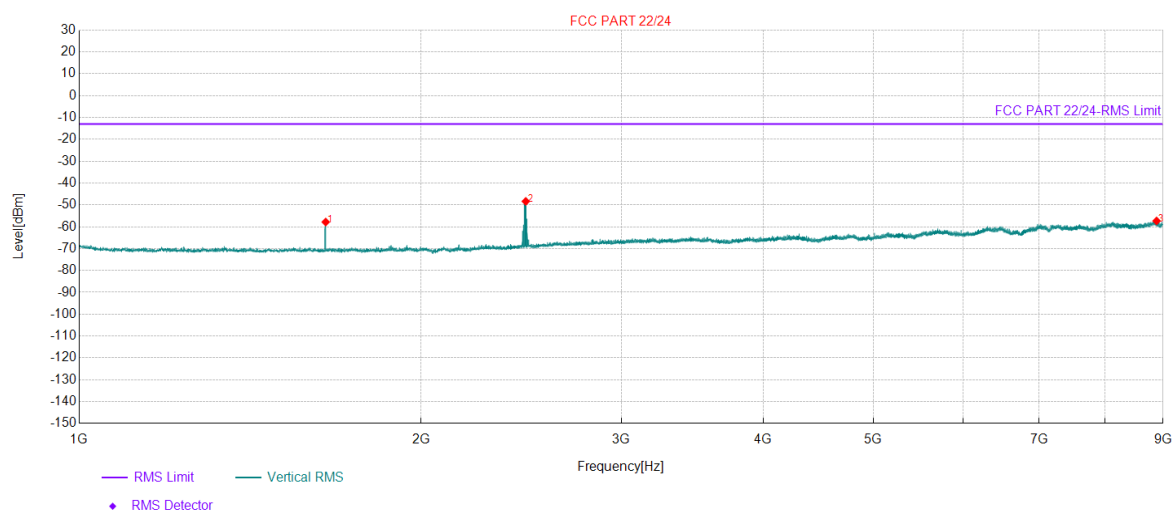
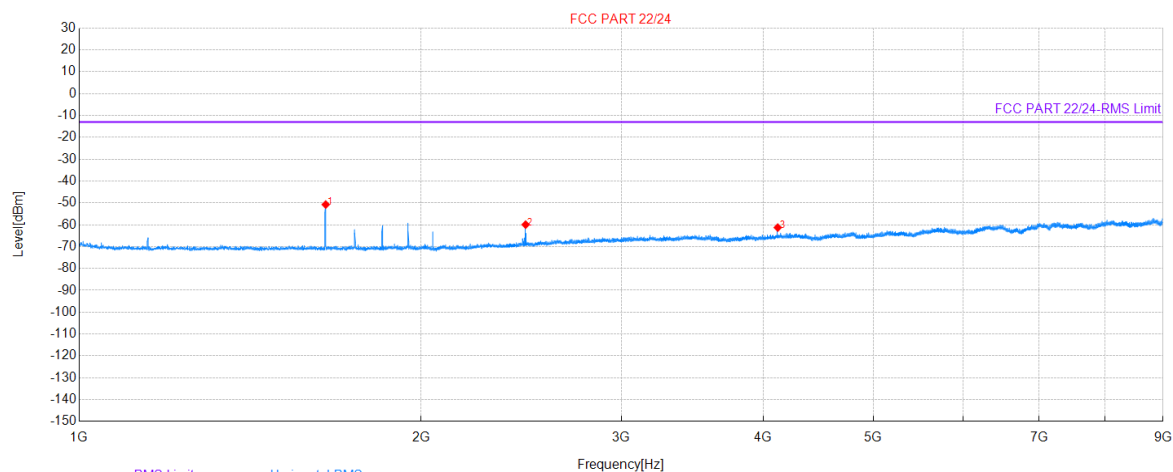
Below 1GHz

LTE Band5-MCH(worst-case)



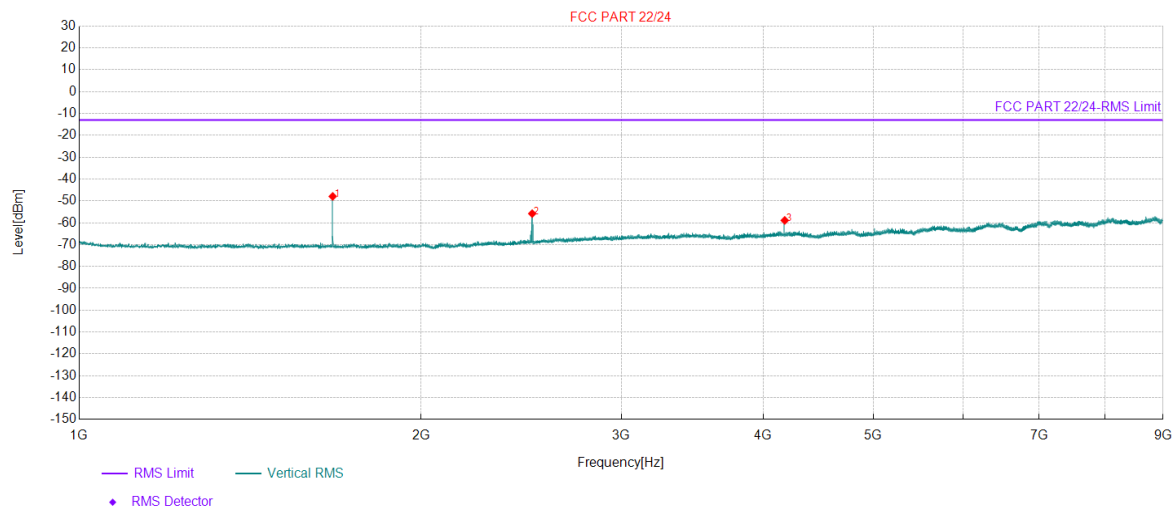
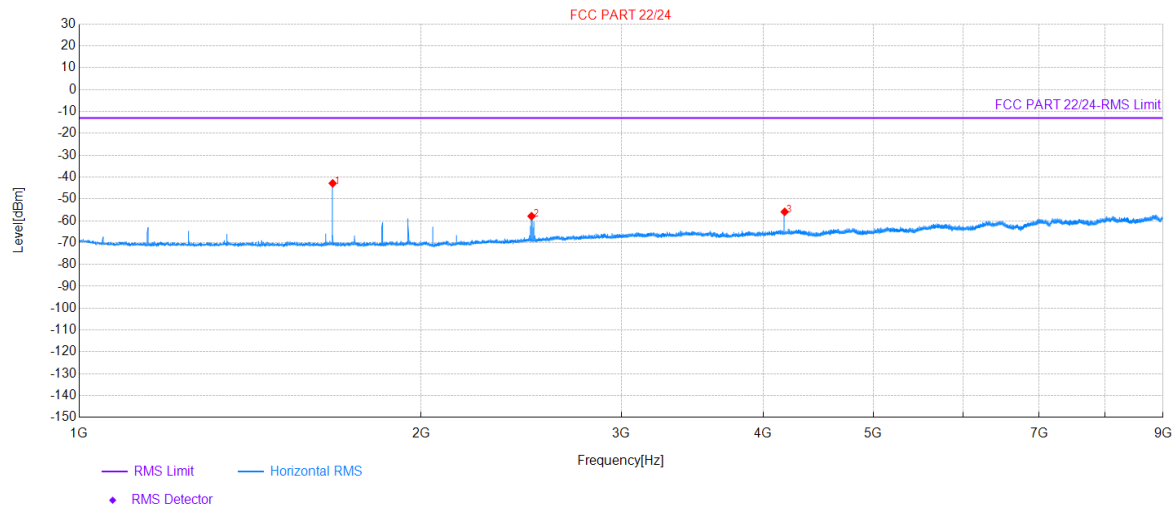
Above1GHz

LTE Band5-LCH



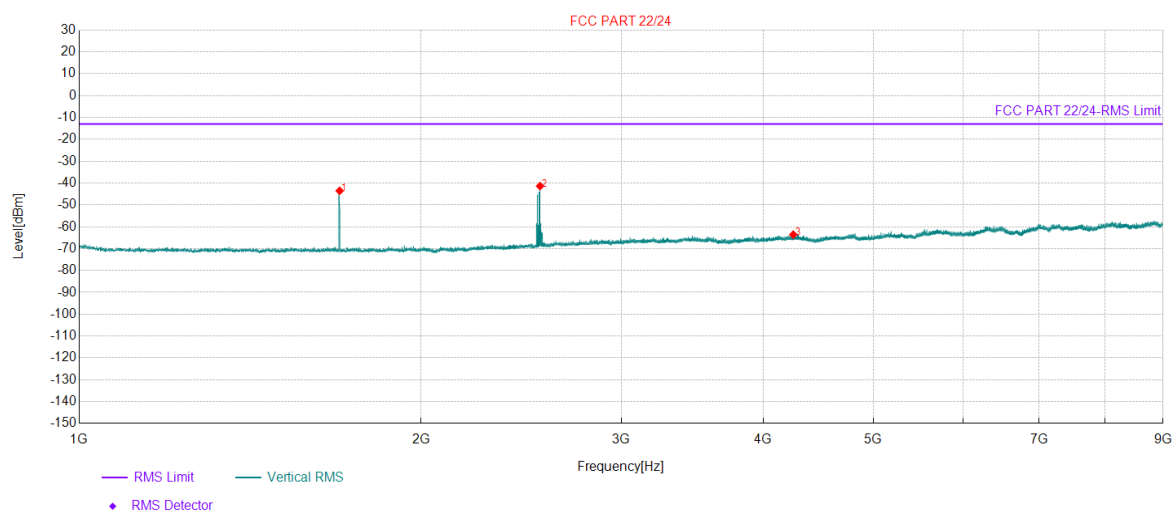
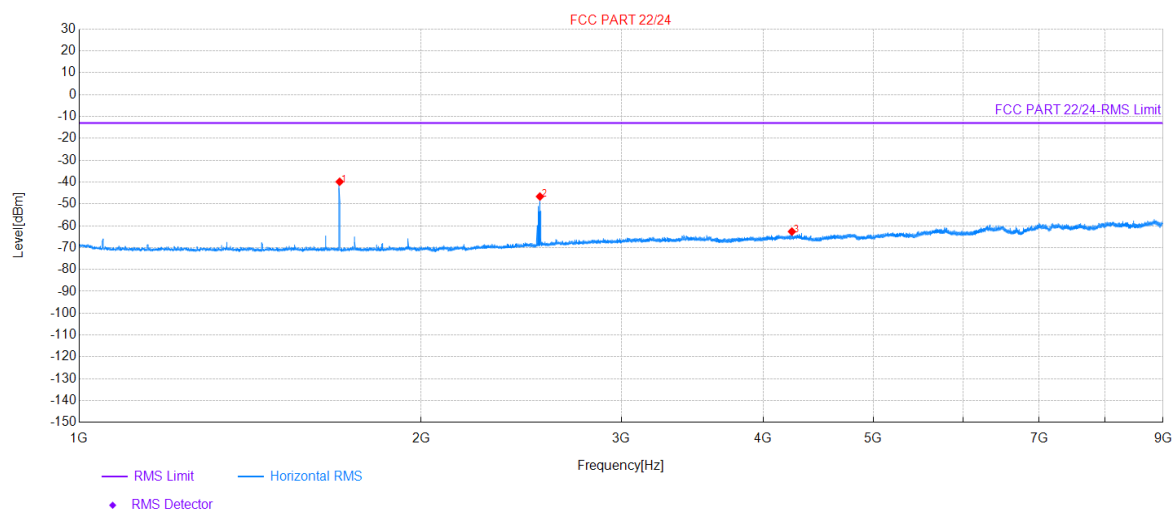
Data List											
NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Trace	Polarity	Verdict
1	1648.4	63.35	-114.09	-50.74	-13.00	37.74	215	258	RMS	Horizontal	PASS
2	2472	51.29	-111.24	-59.95	-13.00	46.95	167	173	RMS	Horizontal	PASS
3	4121.2	44.46	-105.75	-61.29	-13.00	48.29	379	228	RMS	Horizontal	PASS
1	1648.4	56.25	-114.09	-57.84	-13.00	44.84	368	49	RMS	Vertical	PASS
2	2472.8	62.86	-111.24	-48.38	-13.00	35.38	253	37	RMS	Vertical	PASS
3	8882.8	35.76	-93.07	-57.31	-13.00	44.31	205	1	RMS	Vertical	PASS

LTE Band5-MCH



Data List											
NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Trace	Polarity	Verdict
1	1672	71.25	-114.13	-42.88	-13.00	29.88	206	257	RMS	Horizontal	PASS
2	2502	53.50	-111.40	-57.90	-13.00	44.90	370	324	RMS	Horizontal	PASS
3	4180	49.55	-105.46	-55.91	-13.00	42.91	170	348	RMS	Horizontal	PASS
1	1672	66.20	-114.13	-47.93	-13.00	34.93	119	321	RMS	Vertical	PASS
2	2505.2	55.58	-111.38	-55.80	-13.00	42.80	323	0	RMS	Vertical	PASS
3	4180	46.53	-105.46	-58.93	-13.00	45.93	241	1	RMS	Vertical	PASS

LTE Band5-HCH



Data List											
NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Trace	Polarity	Verdict
1	1695.6	74.34	-114.20	-39.86	-13.00	26.86	244	282	RMS	Horizontal	PASS
2	2544.8	64.59	-111.22	-46.63	-13.00	33.63	376	323	RMS	Horizontal	PASS
3	4241.2	42.49	-105.15	-62.66	-13.00	49.66	119	88	RMS	Horizontal	PASS
1	1695.6	70.65	-114.20	-43.55	-13.00	30.55	151	308	RMS	Vertical	PASS
2	2545.6	69.83	-111.22	-41.39	-13.00	28.39	142	133	RMS	Vertical	PASS
3	4253.2	41.44	-105.03	-63.59	-13.00	50.59	137	59	RMS	Vertical	PASS