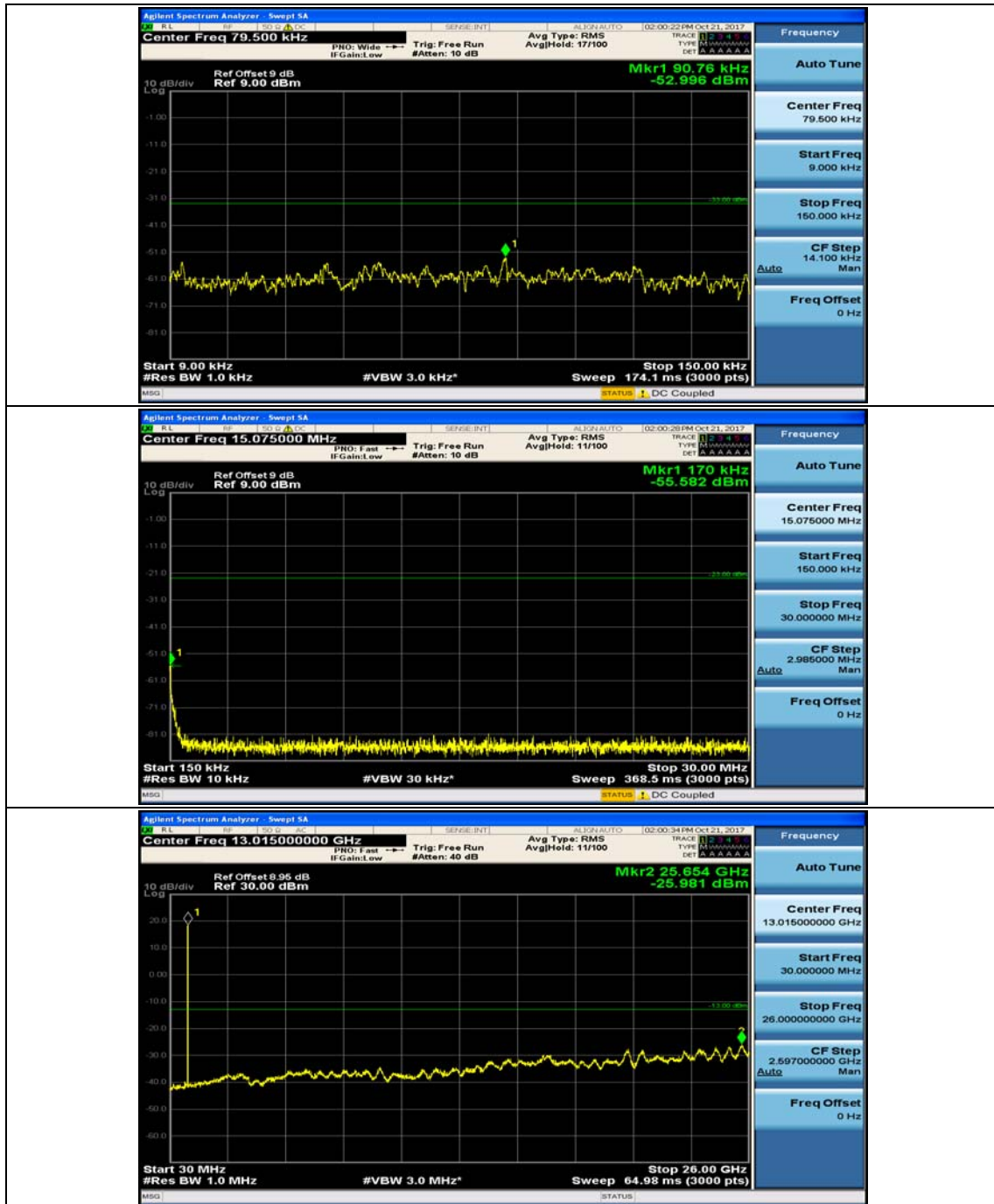
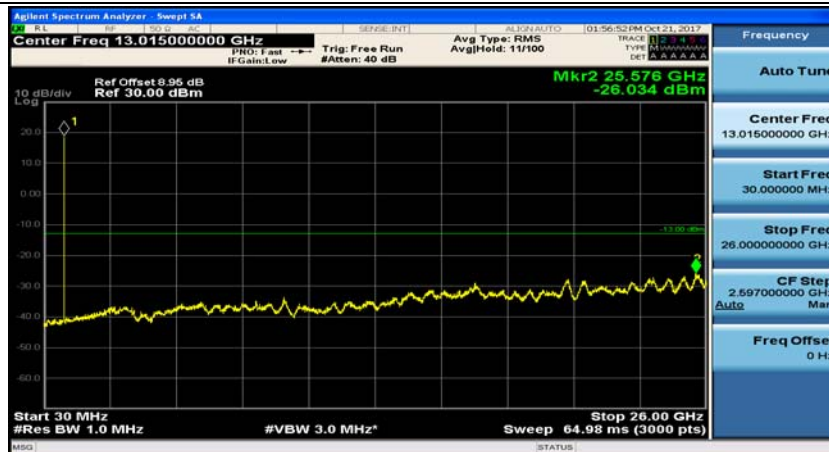
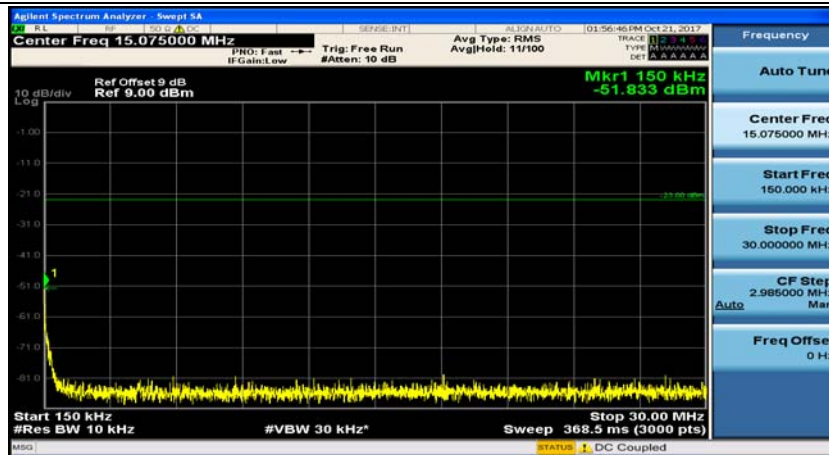
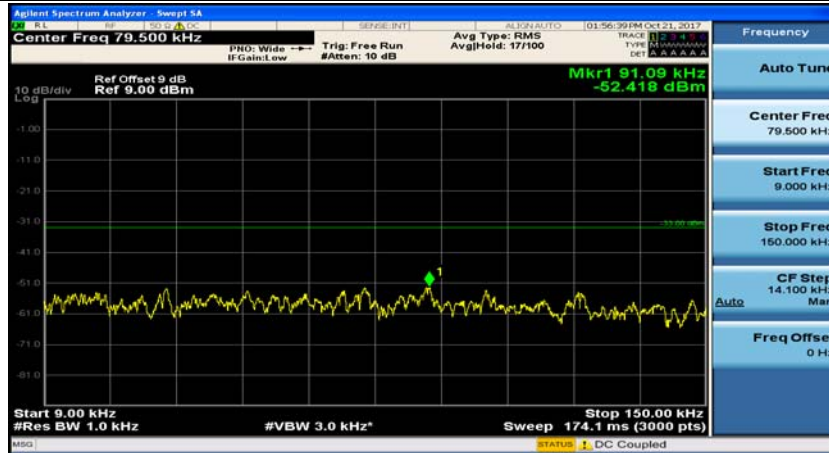
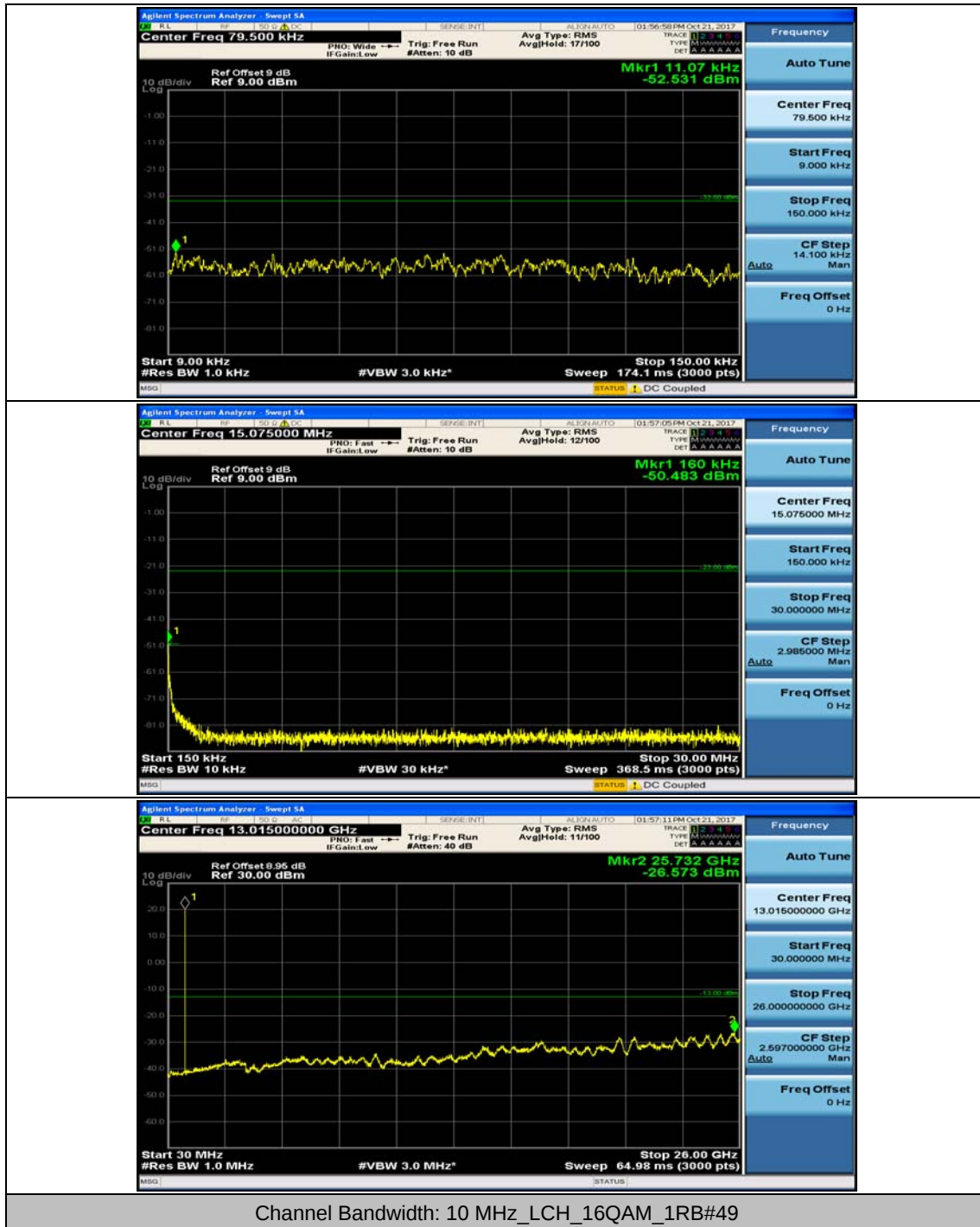


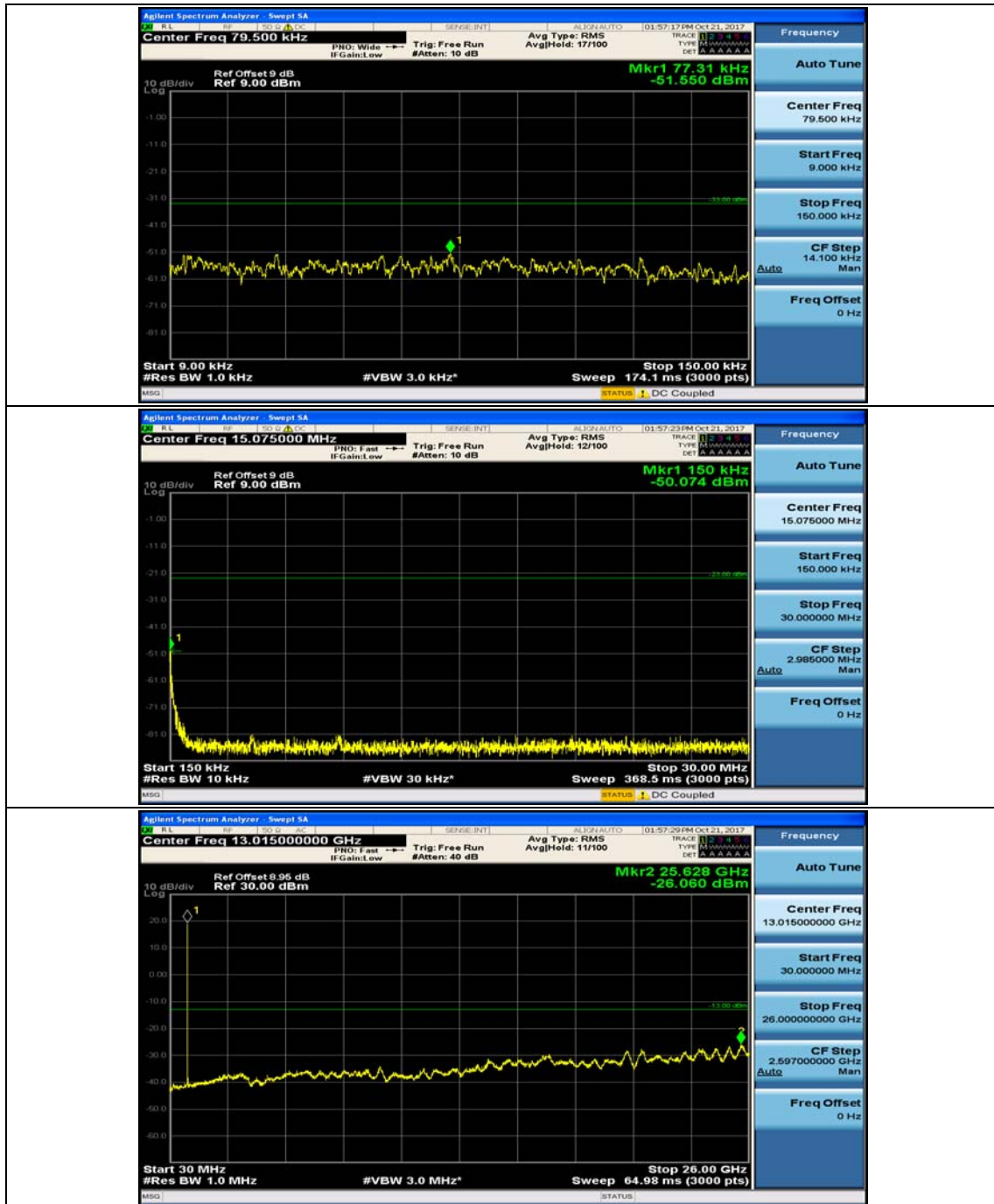


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

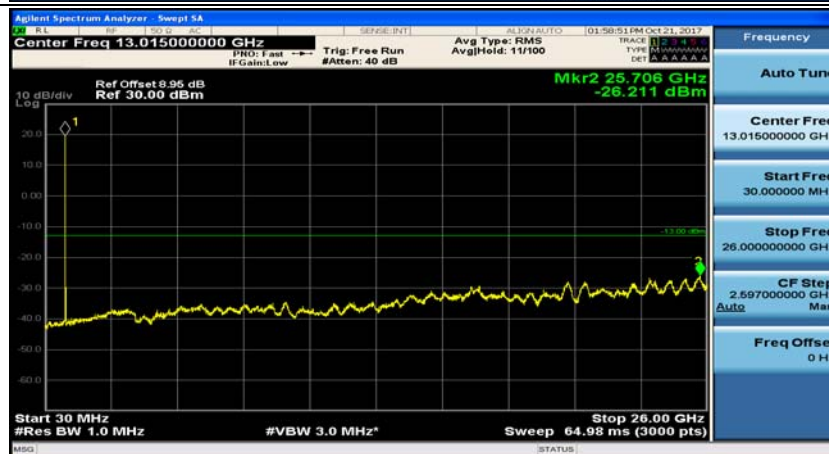
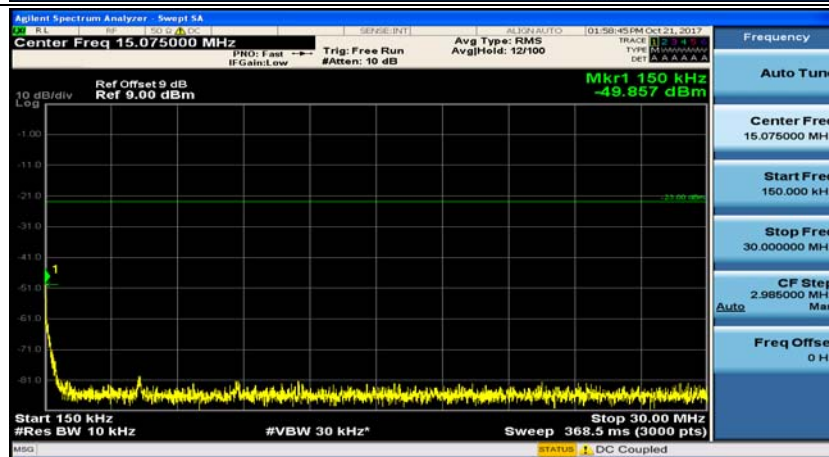
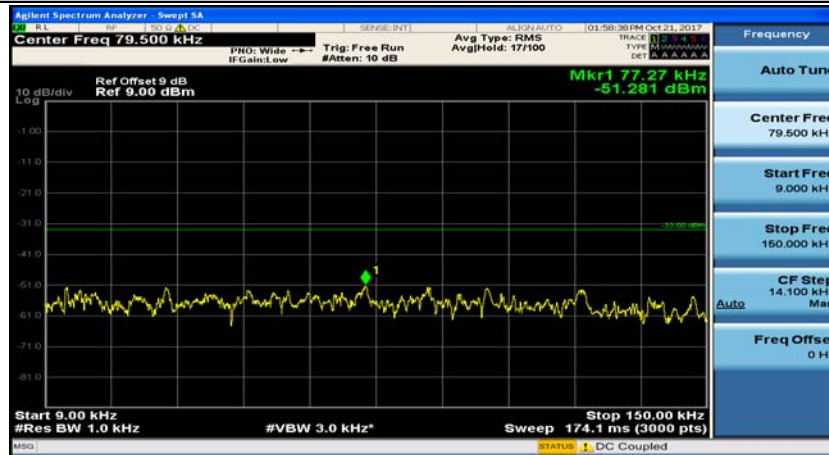


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

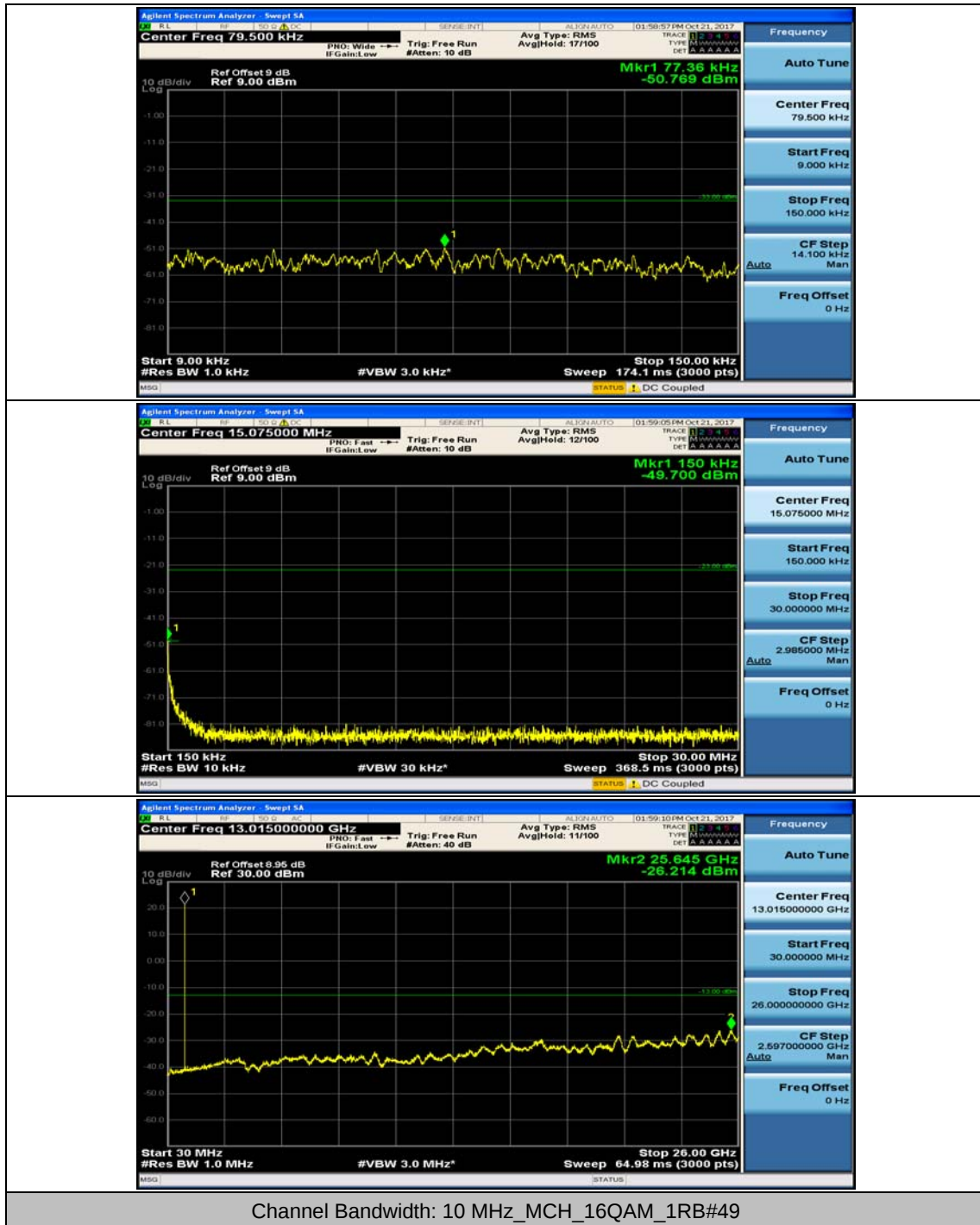


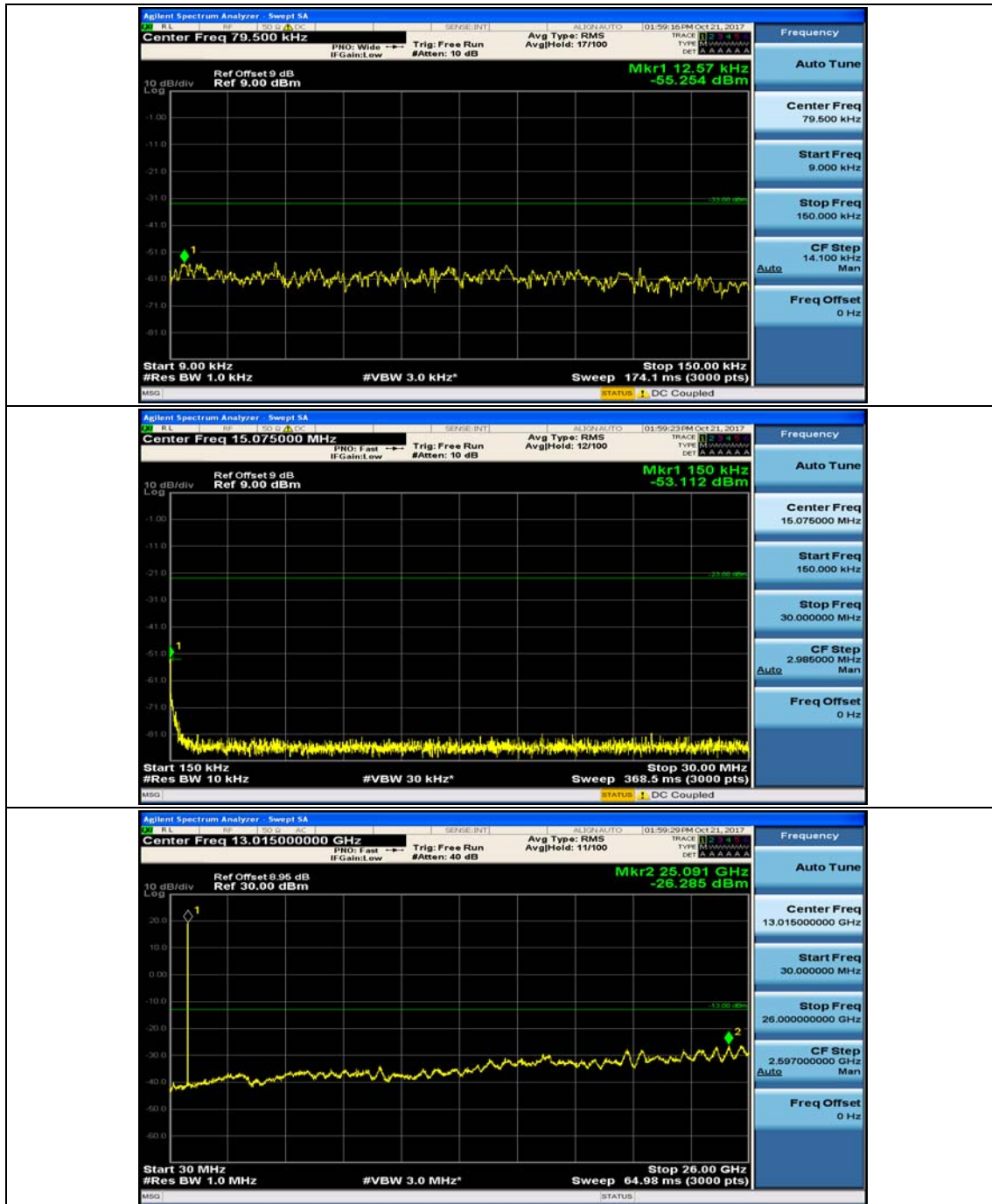


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

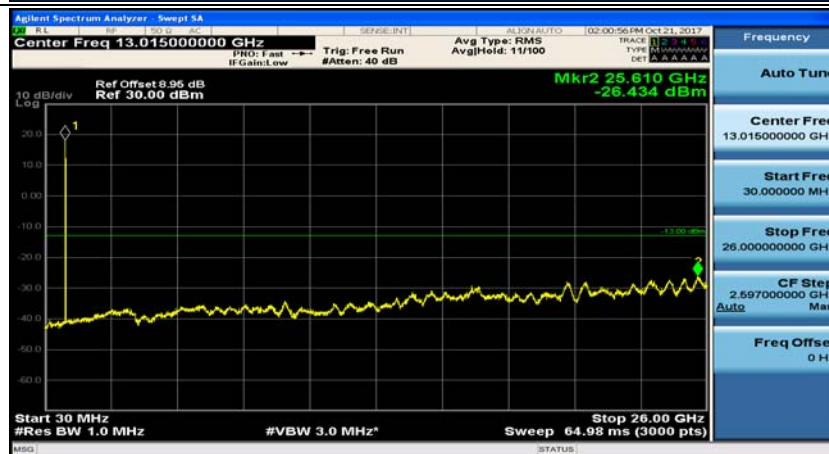
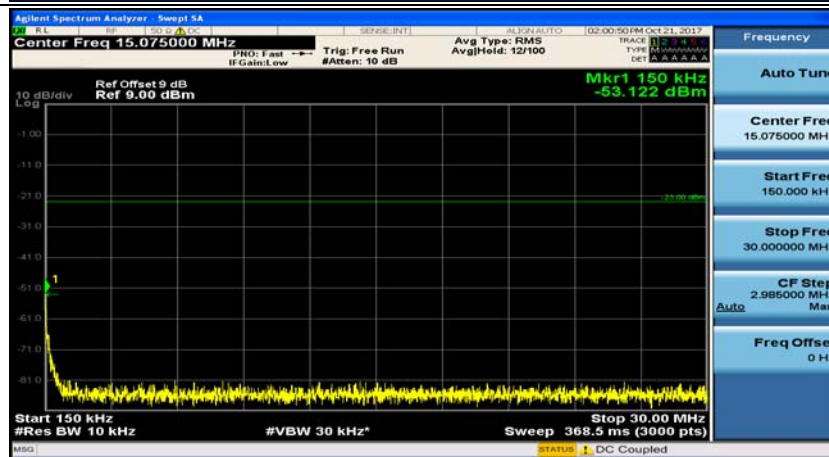
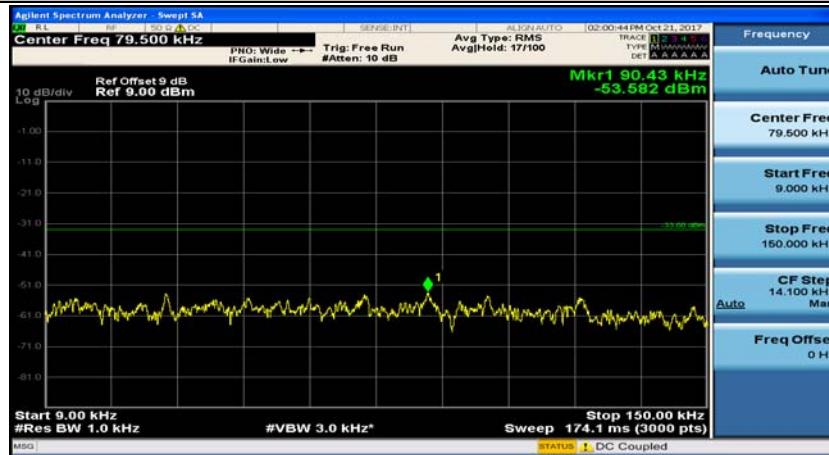


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

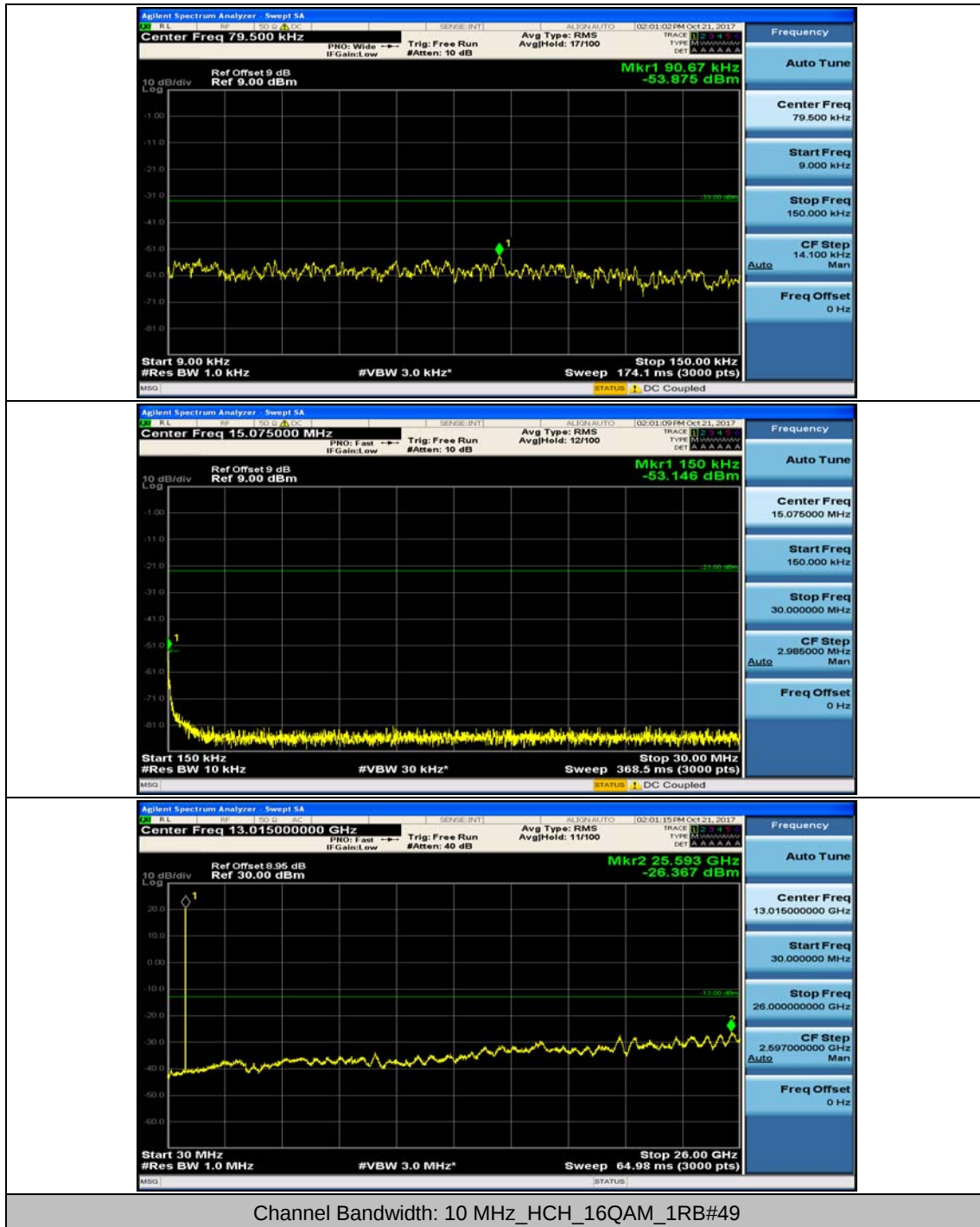


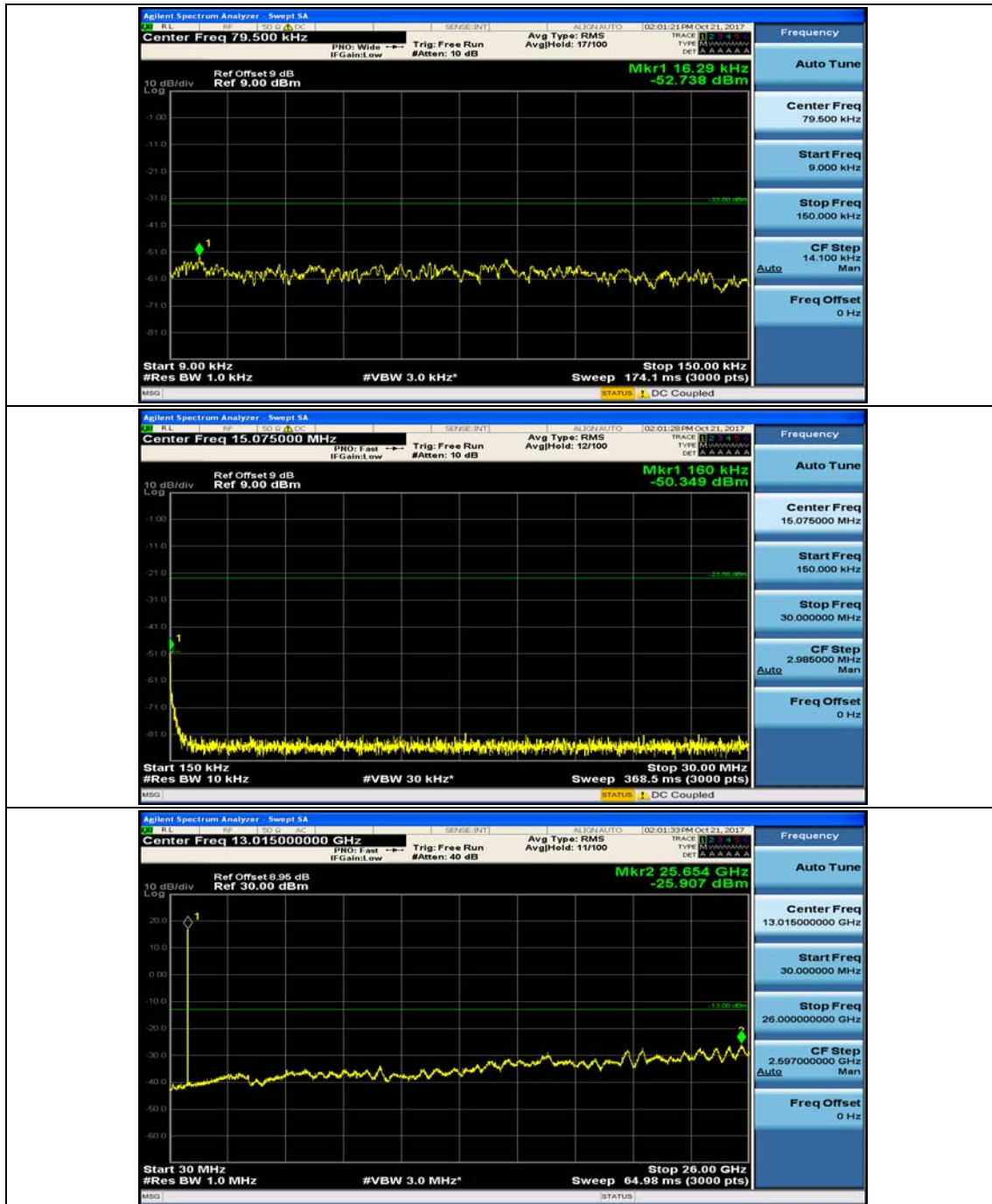


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24





Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-0.18	-0.000218	± 2.5	PASS
		VN	TN	3.03	0.003674	± 2.5	PASS
		VH	TN	-0.09	-0.000109	± 2.5	PASS
	MCH	VL	TN	3.07	0.003670	± 2.5	PASS
		VN	TN	1.31	0.001566	± 2.5	PASS
		VH	TN	0.93	0.001112	± 2.5	PASS
	HCH	VL	TN	-0.68	-0.000802	± 2.5	PASS
		VN	TN	-1.45	-0.001709	± 2.5	PASS
		VH	TN	3.73	0.004397	± 2.5	PASS
16QAM	LCH	VL	TN	-0.8	-0.000970	± 2.5	PASS
		VN	TN	3.29	0.003989	± 2.5	PASS
		VH	TN	2.43	0.002947	± 2.5	PASS
	MCH	VL	TN	0.75	0.000897	± 2.5	PASS
		VN	TN	1.57	0.001877	± 2.5	PASS
		VH	TN	3.58	0.004280	± 2.5	PASS
	HCH	VL	TN	3.66	0.004315	± 2.5	PASS
		VN	TN	0.33	0.000389	± 2.5	PASS
		VH	TN	1.33	0.001568	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.83	0.002219	± 2.5	PASS
		VN	-20	-1.58	-0.001916	± 2.5	PASS
		VN	-10	3.43	0.004159	± 2.5	PASS
		VN	0	-1.56	-0.001892	± 2.5	PASS
		VN	10	-1.35	-0.001637	± 2.5	PASS
		VN	20	3.19	0.003868	± 2.5	PASS
		VN	30	0.95	0.001152	± 2.5	PASS
		VN	40	3.01	0.003650	± 2.5	PASS
		VN	50	2.89	0.003504	± 2.5	PASS
	MCH	VN	-30	4.83	0.005774	± 2.5	PASS
		VN	-20	4.86	0.005810	± 2.5	PASS

		VN	-10	-0.82	-0.000980	± 2.5	PASS
		VN	0	2.05	0.002451	± 2.5	PASS
		VN	10	-0.58	-0.000693	± 2.5	PASS
		VN	20	0.4	0.000478	± 2.5	PASS
		VN	30	3.27	0.003909	± 2.5	PASS
		VN	40	0.28	0.000335	± 2.5	PASS
		VN	50	0.1	0.000120	± 2.5	PASS
	HCH	VN	-30	-0.88	-0.001037	± 2.5	PASS
		VN	-20	-0.08	-0.000094	± 2.5	PASS
		VN	-10	1.32	0.001556	± 2.5	PASS
		VN	0	-0.36	-0.000424	± 2.5	PASS
		VN	10	4.3	0.005069	± 2.5	PASS
		VN	20	4.05	0.004774	± 2.5	PASS
		VN	30	0.11	0.000130	± 2.5	PASS
		VN	40	4.2	0.004951	± 2.5	PASS
		VN	50	-0.21	-0.000248	± 2.5	PASS
16QAM	LCH	VN	-30	1.96	0.002377	± 2.5	PASS
		VN	-20	3.06	0.003710	± 2.5	PASS
		VN	-10	0.91	0.001103	± 2.5	PASS
		VN	0	0.35	0.000424	± 2.5	PASS
		VN	10	1.23	0.001491	± 2.5	PASS
		VN	20	2.31	0.002801	± 2.5	PASS
		VN	30	2.98	0.003613	± 2.5	PASS
		VN	40	2.75	0.003335	± 2.5	PASS
		VN	50	-0.1	-0.000121	± 2.5	PASS
	MCH	VN	-30	2.05	0.002417	± 2.5	PASS
		VN	-20	0.9	0.001061	± 2.5	PASS
		VN	-10	-0.07	-0.000083	± 2.5	PASS
		VN	0	2.4	0.002829	± 2.5	PASS
		VN	10	4.62	0.005446	± 2.5	PASS
		VN	20	-0.2	-0.000236	± 2.5	PASS
		VN	30	4.4	0.005187	± 2.5	PASS
		VN	40	-1.17	-0.001379	± 2.5	PASS
		VN	50	-0.33	-0.000389	± 2.5	PASS
	HCH	VN	-30	-1.41	-0.001662	± 2.5	PASS
		VN	-20	2.62	0.003089	± 2.5	PASS
		VN	-10	0.6	0.000707	± 2.5	PASS
		VN	0	4.08	0.004810	± 2.5	PASS
		VN	10	3.91	0.004609	± 2.5	PASS
		VN	20	0.95	0.001120	± 2.5	PASS
		VN	30	-0.42	-0.000495	± 2.5	PASS

		VN	40	-1.87	-0.002204	± 2.5	PASS
		VN	50	3.01	0.003548	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-1.38	-0.001673	± 2.5	PASS
		VN	TN	0.68	0.000825	± 2.5	PASS
		VH	TN	4.24	0.005141	± 2.5	PASS
	MCH	VL	TN	1.98	0.002367	± 2.5	PASS
		VN	TN	3.09	0.003694	± 2.5	PASS
		VH	TN	1.09	0.001303	± 2.5	PASS
	HCH	VL	TN	3.82	0.004503	± 2.5	PASS
		VN	TN	-0.11	-0.000130	± 2.5	PASS
		VH	TN	2.6	0.003065	± 2.5	PASS
16QAM	LCH	VL	TN	1.32	0.001601	± 2.5	PASS
		VN	TN	4.55	0.005517	± 2.5	PASS
		VH	TN	3.78	0.004583	± 2.5	PASS
	MCH	VL	TN	2.2	0.002630	± 2.5	PASS
		VN	TN	1.41	0.001686	± 2.5	PASS
		VH	TN	-1.45	-0.001733	± 2.5	PASS
	HCH	VL	TN	2.36	0.002782	± 2.5	PASS
		VN	TN	0.35	0.000413	± 2.5	PASS
		VH	TN	1.02	0.001202	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.47	-0.001782	± 2.5	PASS
		VN	-20	-1.13	-0.001370	± 2.5	PASS
		VN	-10	1.35	0.001637	± 2.5	PASS
		VN	0	0.28	0.000340	± 2.5	PASS
		VN	10	3.35	0.004062	± 2.5	PASS
		VN	20	2.94	0.003565	± 2.5	PASS
		VN	30	1.21	0.001467	± 2.5	PASS
		VN	40	4.18	0.005069	± 2.5	PASS
		VN	50	1.89	0.002292	± 2.5	PASS
	MCH	VN	-30	3.85	0.004603	± 2.5	PASS
		VN	-20	-1.19	-0.001423	± 2.5	PASS
		VN	-10	1.95	0.002331	± 2.5	PASS

		VN	0	3.08	0.003682	± 2.5	PASS
		VN	10	-0.82	-0.000980	± 2.5	PASS
		VN	20	2.19	0.002618	± 2.5	PASS
		VN	30	1.26	0.001506	± 2.5	PASS
		VN	40	4.52	0.005403	± 2.5	PASS
		VN	50	4.72	0.005643	± 2.5	PASS
	HCH	VN	-30	-1.4	-0.001650	± 2.5	PASS
		VN	-20	2.4	0.002829	± 2.5	PASS
		VN	-10	4.77	0.005623	± 2.5	PASS
		VN	0	-0.92	-0.001085	± 2.5	PASS
		VN	10	4.31	0.005081	± 2.5	PASS
		VN	20	0.19	0.000224	± 2.5	PASS
		VN	30	3.47	0.004091	± 2.5	PASS
		VN	40	1.51	0.001780	± 2.5	PASS
		VN	50	1.81	0.002134	± 2.5	PASS
QPSK	LCH	VN	-30	-1.65	-0.002001	± 2.5	PASS
		VN	-20	0.51	0.000618	± 2.5	PASS
		VN	-10	3.41	0.004135	± 2.5	PASS
		VN	0	3.22	0.003904	± 2.5	PASS
		VN	10	4.17	0.005056	± 2.5	PASS
		VN	20	1.35	0.001637	± 2.5	PASS
		VN	30	-1.83	-0.002219	± 2.5	PASS
		VN	40	0.14	0.000170	± 2.5	PASS
		VN	50	-0.62	-0.000752	± 2.5	PASS
	MCH	VN	-30	4.58	0.005399	± 2.5	PASS
		VN	-20	-0.48	-0.000566	± 2.5	PASS
		VN	-10	1.05	0.001238	± 2.5	PASS
		VN	0	-0.63	-0.000743	± 2.5	PASS
		VN	10	1.1	0.001297	± 2.5	PASS
		VN	20	2.87	0.003383	± 2.5	PASS
		VN	30	-0.58	-0.000684	± 2.5	PASS
		VN	40	-0.7	-0.000825	± 2.5	PASS
		VN	50	4.17	0.004916	± 2.5	PASS
	HCH	VN	-30	0.6	0.000707	± 2.5	PASS
		VN	-20	1.13	0.001332	± 2.5	PASS
		VN	-10	4.49	0.005293	± 2.5	PASS
		VN	0	-1.95	-0.002299	± 2.5	PASS
		VN	10	-1.36	-0.001603	± 2.5	PASS
		VN	20	3.51	0.004138	± 2.5	PASS
		VN	30	4.42	0.005210	± 2.5	PASS
		VN	40	0.14	0.000165	± 2.5	PASS

		VN	50	-0.32	-0.000377	± 2.5	PASS
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Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	4.48	0.005432	± 2.5	PASS
		VN	TN	0.29	0.000352	± 2.5	PASS
		VH	TN	1.94	0.002352	± 2.5	PASS
	MCH	VL	TN	-0.76	-0.000909	± 2.5	PASS
		VN	TN	0.43	0.000514	± 2.5	PASS
		VH	TN	1.12	0.001339	± 2.5	PASS
	HCH	VL	TN	-0.73	-0.000861	± 2.5	PASS
		VN	TN	-1.06	-0.001250	± 2.5	PASS
		VH	TN	-1.91	-0.002252	± 2.5	PASS
16QAM	LCH	VL	TN	0.82	0.000994	± 2.5	PASS
		VN	TN	4.77	0.005784	± 2.5	PASS
		VH	TN	4.27	0.005178	± 2.5	PASS
	MCH	VL	TN	1.79	0.002140	± 2.5	PASS
		VN	TN	-0.28	-0.000335	± 2.5	PASS
		VH	TN	2.37	0.002833	± 2.5	PASS
	HCH	VL	TN	2.43	0.002865	± 2.5	PASS
		VN	TN	0.98	0.001155	± 2.5	PASS
		VH	TN	2.69	0.003171	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.28	0.005190	± 2.5	PASS
		VN	-20	-0.06	-0.000073	± 2.5	PASS
		VN	-10	4.04	0.004899	± 2.5	PASS
		VN	0	0.42	0.000509	± 2.5	PASS
		VN	10	0.67	0.000812	± 2.5	PASS
		VN	20	3.74	0.004535	± 2.5	PASS
		VN	30	0.87	0.001055	± 2.5	PASS
		VN	40	0.54	0.000655	± 2.5	PASS
		VN	50	0.07	0.000085	± 2.5	PASS
	MCH	VN	-30	-0.84	-0.001004	± 2.5	PASS
		VN	-20	1.92	0.002295	± 2.5	PASS
		VN	-10	3.38	0.004041	± 2.5	PASS
		VN	0	0.66	0.000789	± 2.5	PASS

		VN	10	1.03	0.001231	± 2.5	PASS
		VN	20	4.28	0.005117	± 2.5	PASS
		VN	30	0.47	0.000562	± 2.5	PASS
		VN	40	4.71	0.005631	± 2.5	PASS
		VN	50	-1.22	-0.001458	± 2.5	PASS
	HCH	VN	-30	0.17	0.000200	± 2.5	PASS
		VN	-20	1.67	0.001969	± 2.5	PASS
		VN	-10	3.36	0.003961	± 2.5	PASS
		VN	0	-1.51	-0.001780	± 2.5	PASS
		VN	10	-0.24	-0.000283	± 2.5	PASS
		VN	20	4.25	0.005010	± 2.5	PASS
		VN	30	4.7	0.005540	± 2.5	PASS
		VN	40	3.61	0.004256	± 2.5	PASS
		VN	50	2.41	0.002841	± 2.5	PASS
16QAM	LCH	VN	-30	4.37	0.005299	± 2.5	PASS
		VN	-20	-1.21	-0.001467	± 2.5	PASS
		VN	-10	3.58	0.004341	± 2.5	PASS
		VN	0	-0.46	-0.000558	± 2.5	PASS
		VN	10	3.54	0.004292	± 2.5	PASS
		VN	20	-1.86	-0.002255	± 2.5	PASS
		VN	30	4.15	0.005032	± 2.5	PASS
		VN	40	2.24	0.002716	± 2.5	PASS
		VN	50	-1.1	-0.001334	± 2.5	PASS
	MCH	VN	-30	0.16	0.000189	± 2.5	PASS
		VN	-20	0.93	0.001096	± 2.5	PASS
		VN	-10	2.39	0.002817	± 2.5	PASS
		VN	0	4.4	0.005187	± 2.5	PASS
		VN	10	1.31	0.001544	± 2.5	PASS
		VN	20	-1.89	-0.002228	± 2.5	PASS
		VN	30	1.72	0.002028	± 2.5	PASS
		VN	40	1.22	0.001438	± 2.5	PASS
		VN	50	4	0.004715	± 2.5	PASS
	HCH	VN	-30	2.38	0.002806	± 2.5	PASS
		VN	-20	2.72	0.003206	± 2.5	PASS
		VN	-10	-0.56	-0.000660	± 2.5	PASS
		VN	0	3.9	0.004597	± 2.5	PASS
		VN	10	-1.47	-0.001733	± 2.5	PASS
		VN	20	2.69	0.003171	± 2.5	PASS
		VN	30	-1.77	-0.002087	± 2.5	PASS
		VN	40	-1.87	-0.002204	± 2.5	PASS
		VN	50	3.39	0.003996	± 2.5	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	4.79	0.005808	± 2.5	PASS
		VN	TN	1.57	0.001904	± 2.5	PASS
		VH	TN	1.03	0.001249	± 2.5	PASS
	MCH	VL	TN	-1.46	-0.001745	± 2.5	PASS
		VN	TN	2.83	0.003383	± 2.5	PASS
		VH	TN	0.62	0.000741	± 2.5	PASS
	HCH	VL	TN	0.81	0.000955	± 2.5	PASS
		VN	TN	1.03	0.001214	± 2.5	PASS
		VH	TN	1.67	0.001969	± 2.5	PASS
16QAM	LCH	VL	TN	0.42	0.000509	± 2.5	PASS
		VN	TN	0.71	0.000861	± 2.5	PASS
		VH	TN	4.66	0.005651	± 2.5	PASS
	MCH	VL	TN	0.29	0.000347	± 2.5	PASS
		VN	TN	-0.27	-0.000323	± 2.5	PASS
		VH	TN	1.96	0.002343	± 2.5	PASS
	HCH	VL	TN	4.25	0.005010	± 2.5	PASS
		VN	TN	-1.34	-0.001580	± 2.5	PASS
		VH	TN	1.58	0.001863	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	-1.32	-0.001601	± 2.5	PASS
		VN	-20	2.55	0.003092	± 2.5	PASS
		VN	-10	-0.84	-0.001019	± 2.5	PASS
		VN	0	-0.85	-0.001031	± 2.5	PASS
		VN	10	2.26	0.002740	± 2.5	PASS
		VN	20	0.08	0.000097	± 2.5	PASS
		VN	30	4.45	0.005396	± 2.5	PASS
		VN	40	3.27	0.003965	± 2.5	PASS
		VN	50	0.07	0.000085	± 2.5	PASS
	MCH	VN	-30	-1.74	-0.002080	± 2.5	PASS
		VN	-20	-0.33	-0.000395	± 2.5	PASS
		VN	-10	3.88	0.004638	± 2.5	PASS
		VN	0	-1.56	-0.001865	± 2.5	PASS
		VN	10	-0.72	-0.000861	± 2.5	PASS
		VN	20	0.79	0.000944	± 2.5	PASS

		VN	30	3.1	0.003706	± 2.5	PASS
		VN	40	4.04	0.004830	± 2.5	PASS
		VN	50	3.29	0.003933	± 2.5	PASS
	HCH	VN	-30	4.19	0.004939	± 2.5	PASS
		VN	-20	3.57	0.004208	± 2.5	PASS
		VN	-10	4.2	0.004951	± 2.5	PASS
		VN	0	3.43	0.004043	± 2.5	PASS
		VN	10	-1.44	-0.001698	± 2.5	PASS
		VN	20	1.53	0.001804	± 2.5	PASS
		VN	30	0.36	0.000424	± 2.5	PASS
		VN	40	-1.65	-0.001945	± 2.5	PASS
		VN	50	4.25	0.005010	± 2.5	PASS
QPSK	LCH	VN	-30	-1	-0.001213	± 2.5	PASS
		VN	-20	-0.43	-0.000521	± 2.5	PASS
		VN	-10	-1.03	-0.001249	± 2.5	PASS
		VN	0	-1.82	-0.002207	± 2.5	PASS
		VN	10	-1.84	-0.002231	± 2.5	PASS
		VN	20	0.89	0.001079	± 2.5	PASS
		VN	30	-1.04	-0.001261	± 2.5	PASS
		VN	40	0.41	0.000497	± 2.5	PASS
		VN	50	3.27	0.003965	± 2.5	PASS
	MCH	VN	-30	2.71	0.003195	± 2.5	PASS
		VN	-20	0.24	0.000283	± 2.5	PASS
		VN	-10	1.61	0.001898	± 2.5	PASS
		VN	0	2.97	0.003501	± 2.5	PASS
		VN	10	-1.27	-0.001497	± 2.5	PASS
		VN	20	-1.98	-0.002334	± 2.5	PASS
		VN	30	2.76	0.003254	± 2.5	PASS
		VN	40	-0.69	-0.000813	± 2.5	PASS
		VN	50	2.47	0.002912	± 2.5	PASS
	HCH	VN	-30	-1.03	-0.001214	± 2.5	PASS
		VN	-20	-0.01	-0.000012	± 2.5	PASS
		VN	-10	1.55	0.001827	± 2.5	PASS
		VN	0	-1.79	-0.002110	± 2.5	PASS
		VN	10	1.29	0.001521	± 2.5	PASS
		VN	20	0.11	0.000130	± 2.5	PASS
		VN	30	4.22	0.004975	± 2.5	PASS
		VN	40	4.82	0.005682	± 2.5	PASS
		VN	50	3.38	0.003984	± 2.5	PASS