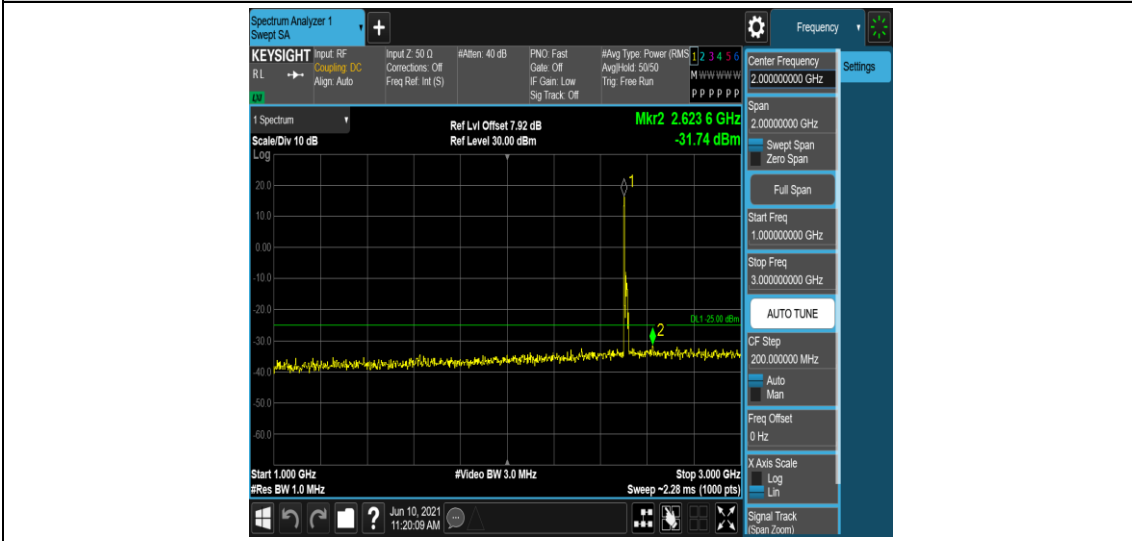
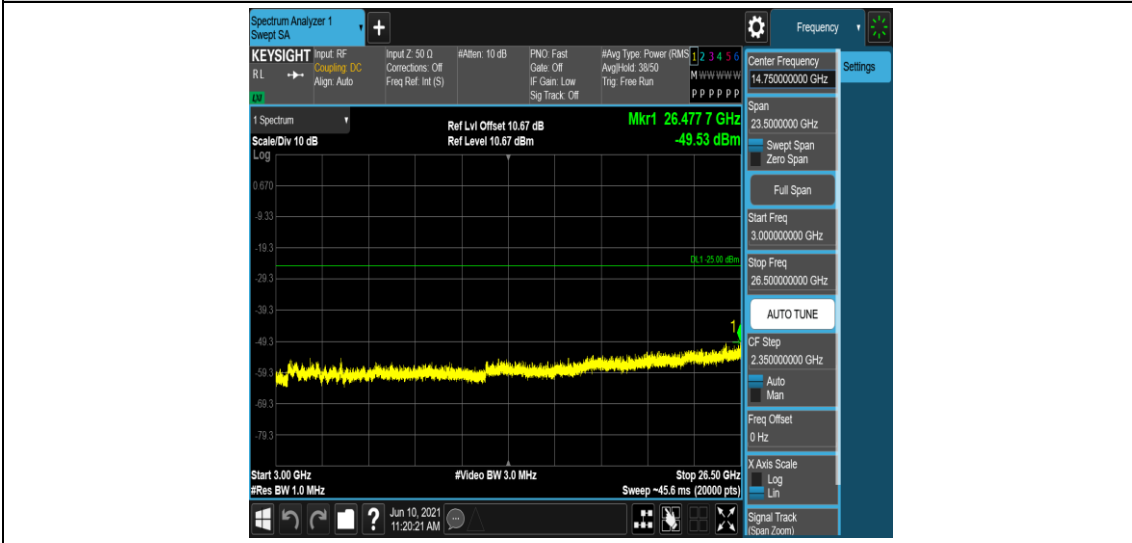


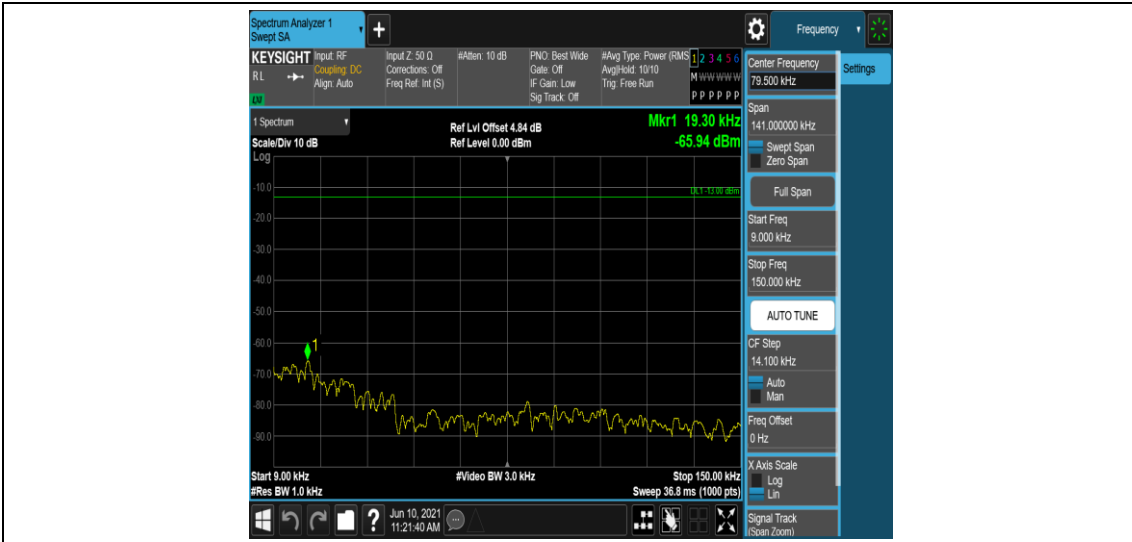
Band7-20MHz-16QAM-20850-1RB#0-Range4: 1000~3000MHz



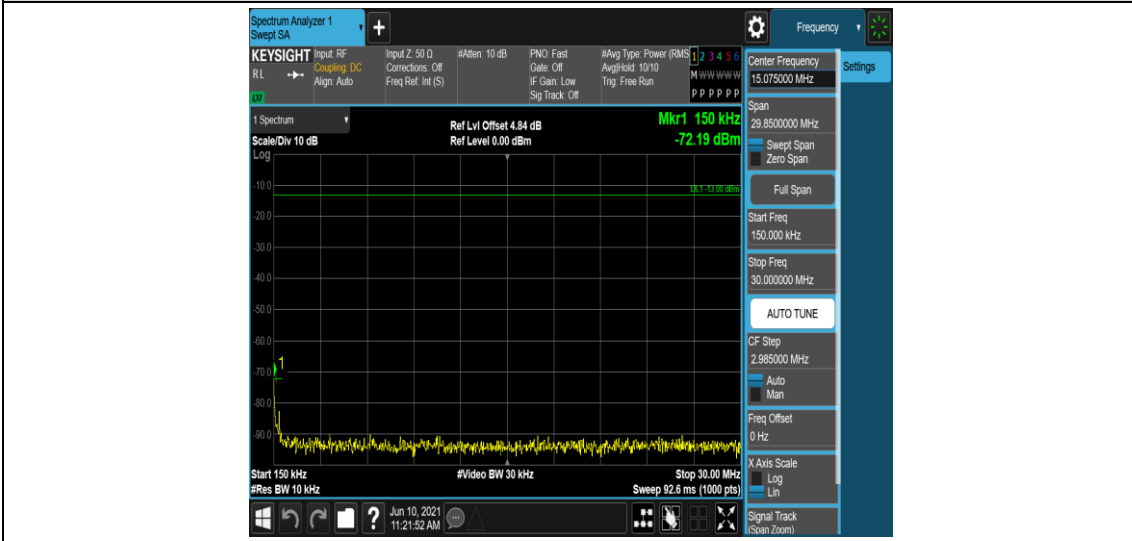
Band7-20MHz-16QAM-20850-1RB#0-Range5:3000~26500MHz



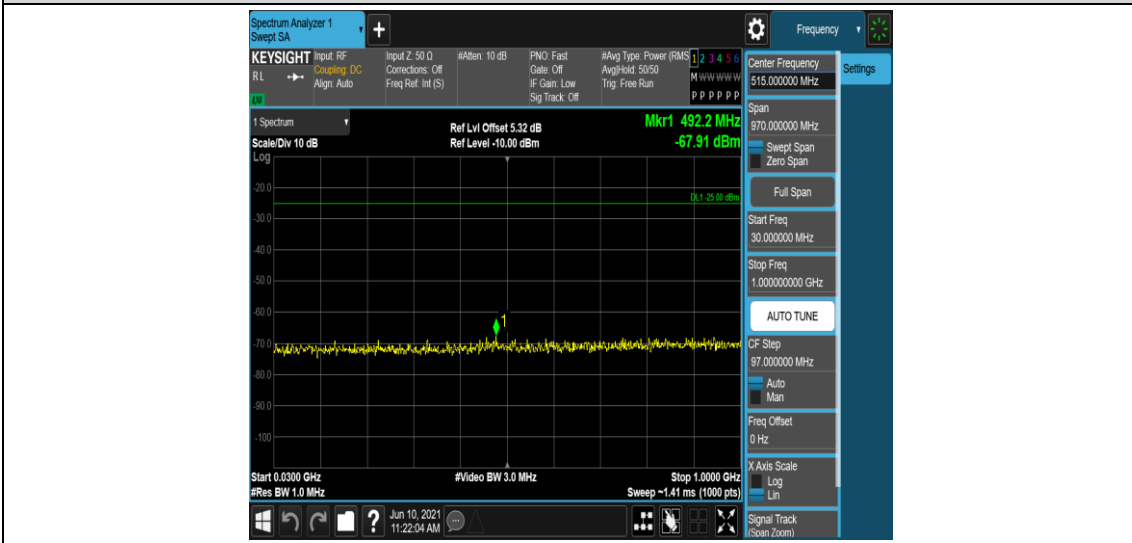
Band7-20MHz-16QAM-21100-1RB#0-Range1:0.009~0.15MHz



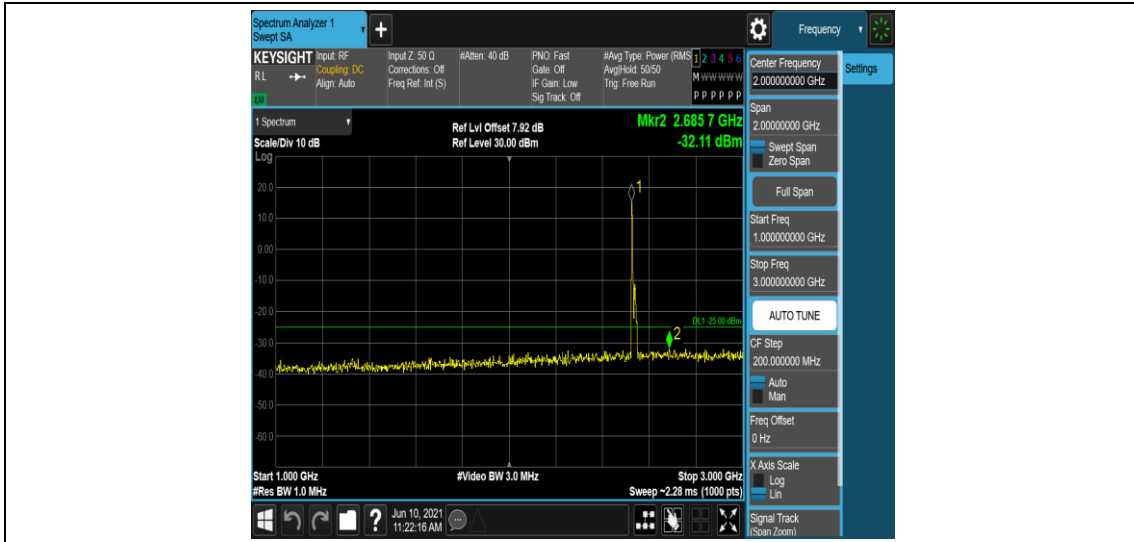
Band7-20MHz-16QAM-21100-1RB#0-Range2:0.15~30MHz



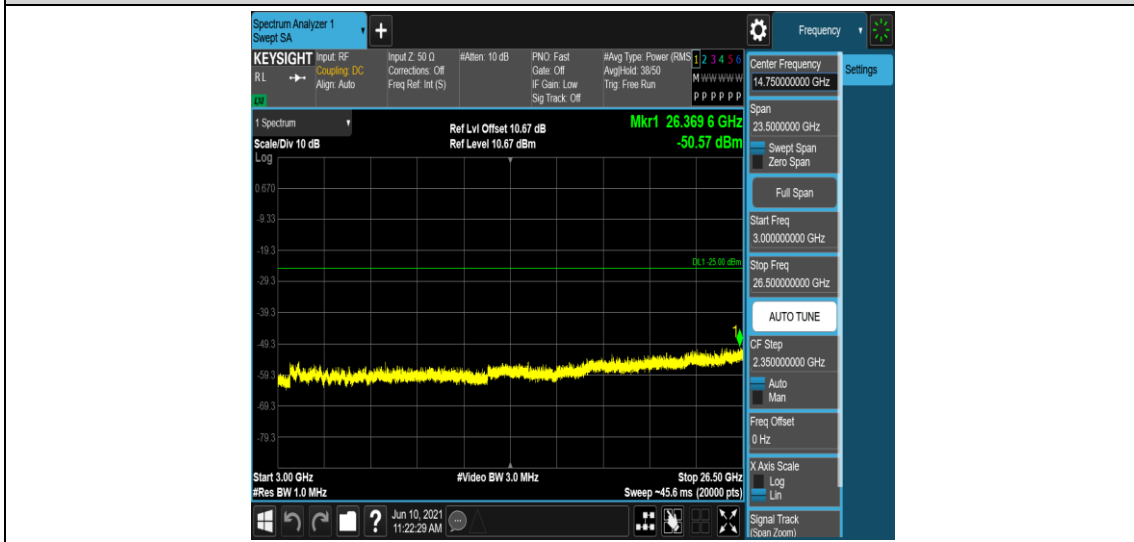
Band7-20MHz-16QAM-21100-1RB#0-Range3:30~1000MHz



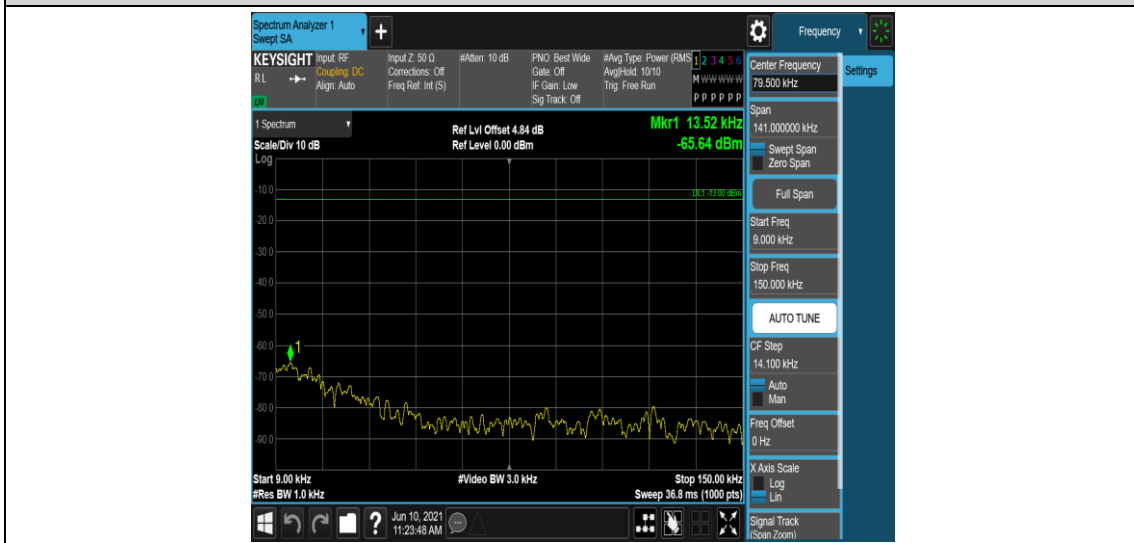
Band7-20MHz-16QAM-21100-1RB#0-Range4:1000~3000MHz



Band7-20MHz-16QAM-21100-1RB#0-Range5:3000~26500MHz



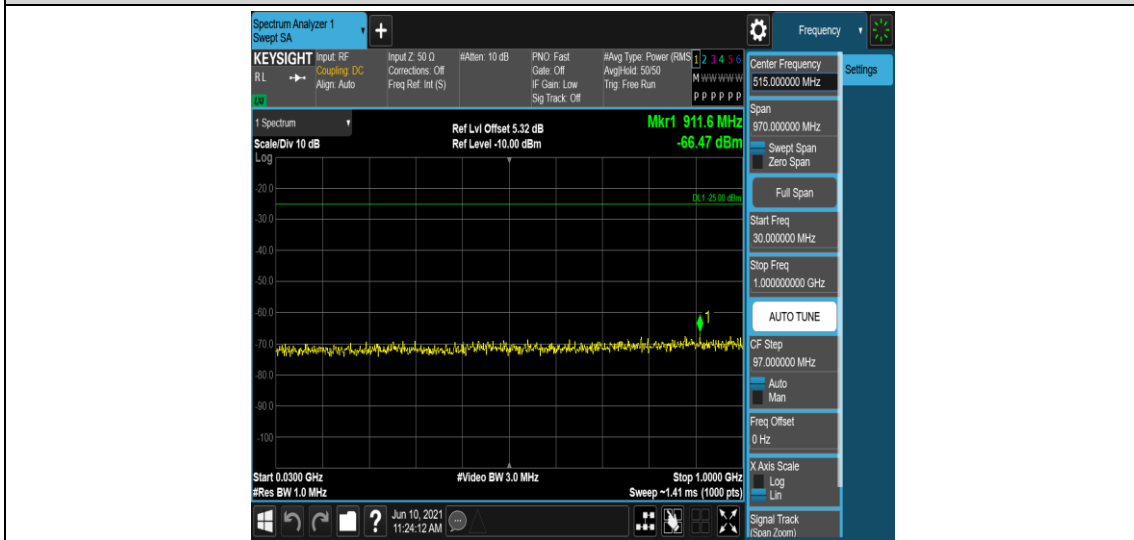
Band7-20MHz-16QAM-21350-1RB#0-Range1:0.009~0.15MHz



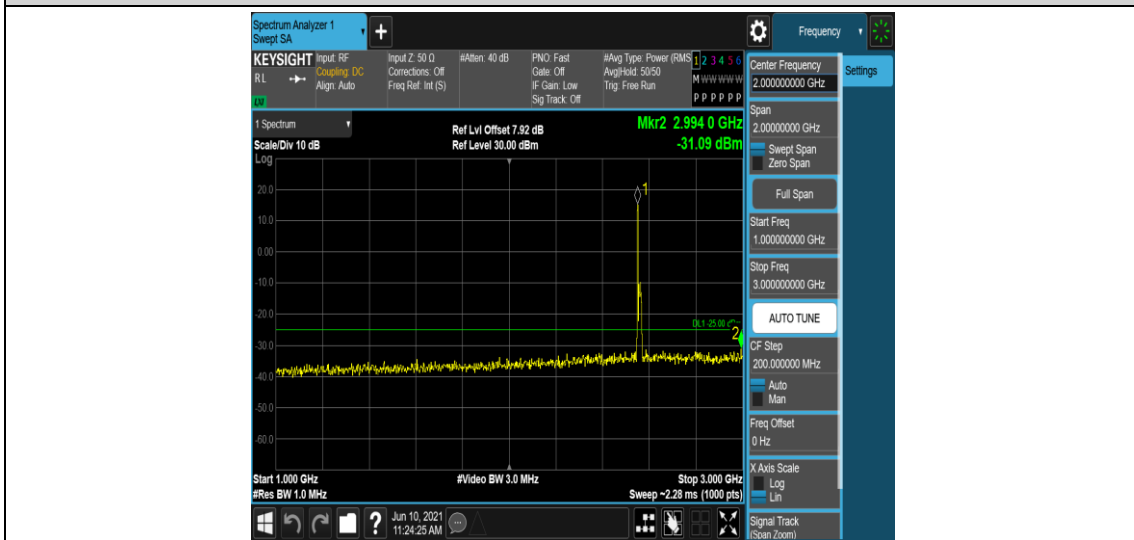
Band7-20MHz-16QAM-21350-1RB#0-Range2:0.15~30MHz



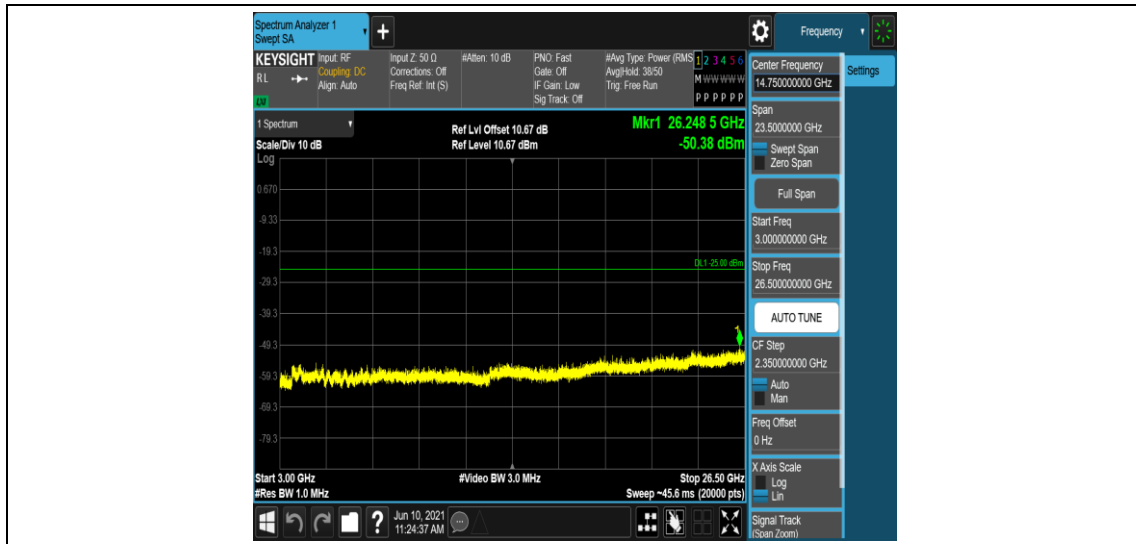
Band7-20MHz-16QAM-21350-1RB#0-Range3:30~1000MHz



Band7-20MHz-16QAM-21350-1RB#0-Range4:1000~3000MHz



Band7-20MHz-16QAM-21350-1RB#0-Range5:3000~26500MHz



Appendix F: Frequency Stability

Test Result

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	-1.04	-0.000416	± 2.5	PASS
		VN	TN	2.66	0.001063	± 2.5	PASS
		VH	TN	0.1	0.000040	± 2.5	PASS
	MCH	VL	TN	1.82	0.000718	± 2.5	PASS
		VN	TN	-0.36	-0.000142	± 2.5	PASS
		VH	TN	2.71	0.001069	± 2.5	PASS
	HCH	VL	TN	-1.8	-0.000701	± 2.5	PASS
		VN	TN	4.42	0.001722	± 2.5	PASS
		VH	TN	4.68	0.001823	± 2.5	PASS
16QAM	LCH	VL	TN	2.99	0.001195	± 2.5	PASS
		VN	TN	1.23	0.000492	± 2.5	PASS
		VH	TN	1.65	0.000659	± 2.5	PASS
	MCH	VL	TN	-0.82	-0.000323	± 2.5	PASS
		VN	TN	3.73	0.001471	± 2.5	PASS
		VH	TN	0.45	0.000178	± 2.5	PASS
	HCH	VL	TN	2.32	0.000904	± 2.5	PASS
		VN	TN	3.51	0.001367	± 2.5	PASS
		VH	TN	1.44	0.000561	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.08	0.000032	± 2.5	PASS
		VN	-20	2.37	0.000947	± 2.5	PASS
		VN	-10	4.72	0.001886	± 2.5	PASS
		VN	0	0.19	0.000076	± 2.5	PASS
		VN	10	-1.86	-0.000743	± 2.5	PASS
		VN	20	0.62	0.000248	± 2.5	PASS
		VN	30	0.57	0.000228	± 2.5	PASS
		VN	40	3.44	0.001375	± 2.5	PASS
	MCH	VN	-30	-1.82	-0.000718	± 2.5	PASS
		VN	-20	4.43	0.001748	± 2.5	PASS

		VN	-10	4.51	0.001779	± 2.5	PASS		
		VN	0	1.17	0.000462	± 2.5	PASS		
		VN	10	3.78	0.001491	± 2.5	PASS		
		VN	20	3.87	0.001527	± 2.5	PASS		
		VN	30	-1.74	-0.000686	± 2.5	PASS		
		VN	40	4.92	0.001941	± 2.5	PASS		
		VN	50	1.91	0.000753	± 2.5	PASS		
	HCH	VN	-30	0.53	0.000206	± 2.5	PASS		
		VN	-20	2.66	0.001036	± 2.5	PASS		
		VN	-10	0.62	0.000241	± 2.5	PASS		
		VN	0	1.73	0.000674	± 2.5	PASS		
		VN	10	-1.07	-0.000417	± 2.5	PASS		
		VN	20	0.02	0.000008	± 2.5	PASS		
		VN	30	0.51	0.000199	± 2.5	PASS		
		VN	40	2.73	0.001063	± 2.5	PASS		
		VN	50	2.15	0.000837	± 2.5	PASS		
		16QAM	LCH	VN	-30	1.89	0.000755	± 2.5	PASS
				VN	-20	-0.82	-0.000328	± 2.5	PASS
VN	-10			4.66	0.001862	± 2.5	PASS		
VN	0			-0.74	-0.000296	± 2.5	PASS		
VN	10			-1.91	-0.000763	± 2.5	PASS		
VN	20			-1.8	-0.000719	± 2.5	PASS		
VN	30			3.5	0.001399	± 2.5	PASS		
VN	40			-0.23	-0.000092	± 2.5	PASS		
VN	50			2.97	0.001187	± 2.5	PASS		
MCH	VN		-30	3.48	0.001373	± 2.5	PASS		
	VN		-20	4	0.001578	± 2.5	PASS		
	VN		-10	4.17	0.001645	± 2.5	PASS		
	VN		0	4.15	0.001637	± 2.5	PASS		
	VN		10	0.14	0.000055	± 2.5	PASS		
	VN		20	2.24	0.000884	± 2.5	PASS		
	VN		30	3.45	0.001361	± 2.5	PASS		
	VN		40	1.01	0.000398	± 2.5	PASS		
	VN		50	3.32	0.001310	± 2.5	PASS		
HCH	VN		-30	-1.63	-0.000635	± 2.5	PASS		
	VN		-20	-1.01	-0.000393	± 2.5	PASS		
	VN		-10	-1.18	-0.000460	± 2.5	PASS		
	VN		0	1.19	0.000463	± 2.5	PASS		
	VN		10	4.24	0.001651	± 2.5	PASS		
	VN		20	4.48	0.001745	± 2.5	PASS		
	VN		30	4.83	0.001881	± 2.5	PASS		

		VN	40	2.04	0.000795	± 2.5	PASS
		VN	50	2.37	0.000923	± 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	4.46	0.001780	± 2.5	PASS
		VN	TN	-0.32	-0.000128	± 2.5	PASS
		VH	TN	3.1	0.001238	± 2.5	PASS
	MCH	VL	TN	2.86	0.001128	± 2.5	PASS
		VN	TN	-0.88	-0.000347	± 2.5	PASS
		VH	TN	2.59	0.001022	± 2.5	PASS
	HCH	VL	TN	2.2	0.000858	± 2.5	PASS
		VN	TN	0.32	0.000125	± 2.5	PASS
		VH	TN	4.08	0.001591	± 2.5	PASS
16QAM	LCH	VL	TN	1.41	0.000563	± 2.5	PASS
		VN	TN	2.95	0.001178	± 2.5	PASS
		VH	TN	4.61	0.001840	± 2.5	PASS
	MCH	VL	TN	1.34	0.000529	± 2.5	PASS
		VN	TN	-1.02	-0.000402	± 2.5	PASS
		VH	TN	3.48	0.001373	± 2.5	PASS
	HCH	VL	TN	4.51	0.001758	± 2.5	PASS
		VN	TN	4.52	0.001762	± 2.5	PASS
		VH	TN	-1.87	-0.000729	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.77	0.000307	± 2.5	PASS
		VN	-20	-0.76	-0.000303	± 2.5	PASS
		VN	-10	0.8	0.000319	± 2.5	PASS
		VN	0	4.83	0.001928	± 2.5	PASS
		VN	10	-0.27	-0.000108	± 2.5	PASS
		VN	20	0.9	0.000359	± 2.5	PASS
		VN	30	-1.64	-0.000655	± 2.5	PASS
		VN	40	2.31	0.000922	± 2.5	PASS
		VN	50	-1.35	-0.000539	± 2.5	PASS
	MCH	VN	-30	-1.86	-0.000734	± 2.5	PASS
		VN	-20	3.11	0.001227	± 2.5	PASS
		VN	-10	2.08	0.000821	± 2.5	PASS

		VN	0	3.92	0.001546	± 2.5	PASS		
		VN	10	3.1	0.001223	± 2.5	PASS		
		VN	20	1.82	0.000718	± 2.5	PASS		
		VN	30	-1.17	-0.000462	± 2.5	PASS		
		VN	40	4.92	0.001941	± 2.5	PASS		
		VN	50	0.32	0.000126	± 2.5	PASS		
	HCH	VN	-30	2.2	0.000858	± 2.5	PASS		
		VN	-20	3.53	0.001376	± 2.5	PASS		
		VN	-10	-0.62	-0.000242	± 2.5	PASS		
		VN	0	2.89	0.001127	± 2.5	PASS		
		VN	10	2.58	0.001006	± 2.5	PASS		
		VN	20	3.36	0.001310	± 2.5	PASS		
		VN	30	-0.63	-0.000246	± 2.5	PASS		
		VN	40	-0.06	-0.000023	± 2.5	PASS		
		VN	50	1.22	0.000476	± 2.5	PASS		
		16QAM	LCH	VN	-30	-1.17	-0.000467	± 2.5	PASS
				VN	-20	4.47	0.001784	± 2.5	PASS
				VN	-10	2.86	0.001142	± 2.5	PASS
VN	0			-0.18	-0.000072	± 2.5	PASS		
VN	10			0.07	0.000028	± 2.5	PASS		
VN	20			-1.34	-0.000535	± 2.5	PASS		
VN	30			0.05	0.000020	± 2.5	PASS		
VN	40			-0.31	-0.000124	± 2.5	PASS		
VN	50			2.73	0.001090	± 2.5	PASS		
MCH	VN		-30	2.64	0.001041	± 2.5	PASS		
	VN		-20	-1.26	-0.000497	± 2.5	PASS		
	VN		-10	-1.36	-0.000536	± 2.5	PASS		
	VN		0	2.34	0.000923	± 2.5	PASS		
	VN		10	-1	-0.000394	± 2.5	PASS		
	VN		20	-1.51	-0.000596	± 2.5	PASS		
	VN		30	2.21	0.000872	± 2.5	PASS		
	VN		40	0.68	0.000268	± 2.5	PASS		
	VN		50	3.45	0.001361	± 2.5	PASS		
HCH	VN	-30	0.3	0.000117	± 2.5	PASS			
	VN	-20	2.93	0.001142	± 2.5	PASS			
	VN	-10	-1.11	-0.000433	± 2.5	PASS			
	VN	0	0.69	0.000269	± 2.5	PASS			
	VN	10	1.14	0.000444	± 2.5	PASS			
	VN	20	3.92	0.001528	± 2.5	PASS			
	VN	30	3.41	0.001329	± 2.5	PASS			
	VN	40	-0.28	-0.000109	± 2.5	PASS			

		VN	50	3.59	0.001400	± 2.5	PASS
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Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	3.62	0.001444	± 2.5	PASS
		VN	TN	-0.73	-0.000291	± 2.5	PASS
		VH	TN	1.21	0.000483	± 2.5	PASS
	MCH	VL	TN	-0.78	-0.000308	± 2.5	PASS
		VN	TN	-1.9	-0.000750	± 2.5	PASS
		VH	TN	-0.56	-0.000221	± 2.5	PASS
	HCH	VL	TN	2.95	0.001151	± 2.5	PASS
		VN	TN	4.05	0.001580	± 2.5	PASS
		VH	TN	-0.29	-0.000113	± 2.5	PASS
16QAM	LCH	VL	TN	4.85	0.001934	± 2.5	PASS
		VN	TN	1.05	0.000419	± 2.5	PASS
		VH	TN	2.8	0.001117	± 2.5	PASS
	MCH	VL	TN	0.95	0.000375	± 2.5	PASS
		VN	TN	3.83	0.001511	± 2.5	PASS
		VH	TN	2.21	0.000872	± 2.5	PASS
	HCH	VL	TN	-1.83	-0.000714	± 2.5	PASS
		VN	TN	-0.81	-0.000316	± 2.5	PASS
		VH	TN	-1.93	-0.000753	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.97	0.000786	± 2.5	PASS
		VN	-20	-1.56	-0.000622	± 2.5	PASS
		VN	-10	-1.79	-0.000714	± 2.5	PASS
		VN	0	1.42	0.000566	± 2.5	PASS
		VN	10	-1.48	-0.000590	± 2.5	PASS
		VN	20	2.67	0.001065	± 2.5	PASS
		VN	30	-1.39	-0.000554	± 2.5	PASS
		VN	40	2.02	0.000806	± 2.5	PASS
		VN	50	0.95	0.000379	± 2.5	PASS
	MCH	VN	-30	4.99	0.001968	± 2.5	PASS
		VN	-20	1.94	0.000765	± 2.5	PASS
		VN	-10	-1.99	-0.000785	± 2.5	PASS
		VN	0	-1.18	-0.000465	± 2.5	PASS

		VN	10	-0.94	-0.000371	± 2.5	PASS
		VN	20	-0.27	-0.000107	± 2.5	PASS
		VN	30	4.83	0.001905	± 2.5	PASS
		VN	40	-0.83	-0.000327	± 2.5	PASS
		VN	50	0.12	0.000047	± 2.5	PASS
	HCH	VN	-30	-1.22	-0.000476	± 2.5	PASS
		VN	-20	1.64	0.000640	± 2.5	PASS
		VN	-10	-0.89	-0.000347	± 2.5	PASS
		VN	0	-1.17	-0.000457	± 2.5	PASS
		VN	10	3.62	0.001413	± 2.5	PASS
		VN	20	-0.95	-0.000371	± 2.5	PASS
		VN	30	4.09	0.001596	± 2.5	PASS
		VN	40	0.81	0.000316	± 2.5	PASS
		VN	50	3.28	0.001280	± 2.5	PASS
		16QAM	LCH	VN	-30	1.38	0.000550
VN	-20			-1.41	-0.000562	± 2.5	PASS
VN	-10			-0.44	-0.000175	± 2.5	PASS
VN	0			4.23	0.001687	± 2.5	PASS
VN	10			-1.69	-0.000674	± 2.5	PASS
VN	20			0.39	0.000156	± 2.5	PASS
VN	30			3.26	0.001300	± 2.5	PASS
VN	40			2.37	0.000945	± 2.5	PASS
VN	50			1.74	0.000694	± 2.5	PASS
MCH	VN		-30	0.22	0.000087	± 2.5	PASS
	VN		-20	4.58	0.001807	± 2.5	PASS
	VN		-10	0.42	0.000166	± 2.5	PASS
	VN		0	-0.42	-0.000166	± 2.5	PASS
	VN		10	4.73	0.001866	± 2.5	PASS
	VN		20	0.18	0.000071	± 2.5	PASS
	VN	30	2.24	0.000884	± 2.5	PASS	
	VN	40	-0.79	-0.000312	± 2.5	PASS	
	VN	50	4.14	0.001633	± 2.5	PASS	
HCH	VN	-30	-0.72	-0.000281	± 2.5	PASS	
	VN	-20	-1.76	-0.000687	± 2.5	PASS	
	VN	-10	0.72	0.000281	± 2.5	PASS	
	VN	0	-0.82	-0.000320	± 2.5	PASS	
	VN	10	-1	-0.000390	± 2.5	PASS	
	VN	20	4.11	0.001604	± 2.5	PASS	
	VN	30	-1.04	-0.000406	± 2.5	PASS	
	VN	40	1.75	0.000683	± 2.5	PASS	
	VN	50	0.27	0.000105	± 2.5	PASS	

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-1.71	-0.000681	± 2.5	PASS
		VN	TN	3.94	0.001570	± 2.5	PASS
		VH	TN	3.2	0.001275	± 2.5	PASS
	MCH	VL	TN	1.42	0.000560	± 2.5	PASS
		VN	TN	3.61	0.001424	± 2.5	PASS
		VH	TN	0.3	0.000118	± 2.5	PASS
	HCH	VL	TN	3.64	0.001422	± 2.5	PASS
		VN	TN	3	0.001172	± 2.5	PASS
		VH	TN	2.39	0.000934	± 2.5	PASS
16QAM	LCH	VL	TN	-0.59	-0.000235	± 2.5	PASS
		VN	TN	-1.8	-0.000717	± 2.5	PASS
		VH	TN	-1.61	-0.000641	± 2.5	PASS
	MCH	VL	TN	-0.51	-0.000201	± 2.5	PASS
		VN	TN	0.73	0.000288	± 2.5	PASS
		VH	TN	2.2	0.000868	± 2.5	PASS
	HCH	VL	TN	-0.07	-0.000027	± 2.5	PASS
		VN	TN	0.03	0.000012	± 2.5	PASS
		VH	TN	-1.58	-0.000617	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.39	0.000155	± 2.5	PASS
		VN	-20	-0.07	-0.000028	± 2.5	PASS
		VN	-10	-0.92	-0.000367	± 2.5	PASS
		VN	0	-0.35	-0.000139	± 2.5	PASS
		VN	10	-1.92	-0.000765	± 2.5	PASS
		VN	20	1.28	0.000510	± 2.5	PASS
		VN	30	-0.28	-0.000112	± 2.5	PASS
		VN	40	3.55	0.001414	± 2.5	PASS
		VN	50	-1.78	-0.000709	± 2.5	PASS
	MCH	VN	-30	-1.97	-0.000777	± 2.5	PASS
		VN	-20	1.35	0.000533	± 2.5	PASS
		VN	-10	0.42	0.000166	± 2.5	PASS
		VN	0	1.91	0.000753	± 2.5	PASS
		VN	10	-1.52	-0.000600	± 2.5	PASS

		VN	20	0.82	0.000323	± 2.5	PASS
		VN	30	1.79	0.000706	± 2.5	PASS
		VN	40	0.18	0.000071	± 2.5	PASS
		VN	50	-0.45	-0.000178	± 2.5	PASS
	HCH	VN	-30	-0.34	-0.000133	± 2.5	PASS
		VN	-20	0.74	0.000289	± 2.5	PASS
		VN	-10	1.83	0.000715	± 2.5	PASS
		VN	0	0.47	0.000184	± 2.5	PASS
		VN	10	0.52	0.000203	± 2.5	PASS
		VN	20	0.37	0.000145	± 2.5	PASS
		VN	30	1.94	0.000758	± 2.5	PASS
		VN	40	1.65	0.000645	± 2.5	PASS
		VN	50	2.9	0.001133	± 2.5	PASS
		16QAM	LCH	VN	-30	2.69	0.001072
VN	-20			1.64	0.000653	± 2.5	PASS
VN	-10			4.1	0.001633	± 2.5	PASS
VN	0			2.3	0.000916	± 2.5	PASS
VN	10			2.41	0.000960	± 2.5	PASS
VN	20			0.63	0.000251	± 2.5	PASS
VN	30			0.65	0.000259	± 2.5	PASS
VN	40			-0.1	-0.000040	± 2.5	PASS
VN	50			4.37	0.001741	± 2.5	PASS
MCH	VN		-30	4.32	0.001704	± 2.5	PASS
	VN		-20	4.39	0.001732	± 2.5	PASS
	VN		-10	3.17	0.001250	± 2.5	PASS
	VN		0	3.48	0.001373	± 2.5	PASS
	VN		10	0.82	0.000323	± 2.5	PASS
	VN		20	2.53	0.000998	± 2.5	PASS
	VN		30	1.94	0.000765	± 2.5	PASS
	VN		40	-0.04	-0.000016	± 2.5	PASS
	VN		50	3.01	0.001187	± 2.5	PASS
HCH	VN		-30	3.19	0.001246	± 2.5	PASS
	VN		-20	-1.7	-0.000664	± 2.5	PASS
	VN		-10	0.66	0.000258	± 2.5	PASS
	VN		0	1.74	0.000680	± 2.5	PASS
	VN		10	4.01	0.001566	± 2.5	PASS
	VN		20	-1.6	-0.000625	± 2.5	PASS
	VN		30	-1.98	-0.000773	± 2.5	PASS
	VN		40	3.3	0.001289	± 2.5	PASS
	VN		50	2.63	0.001027	± 2.5	PASS