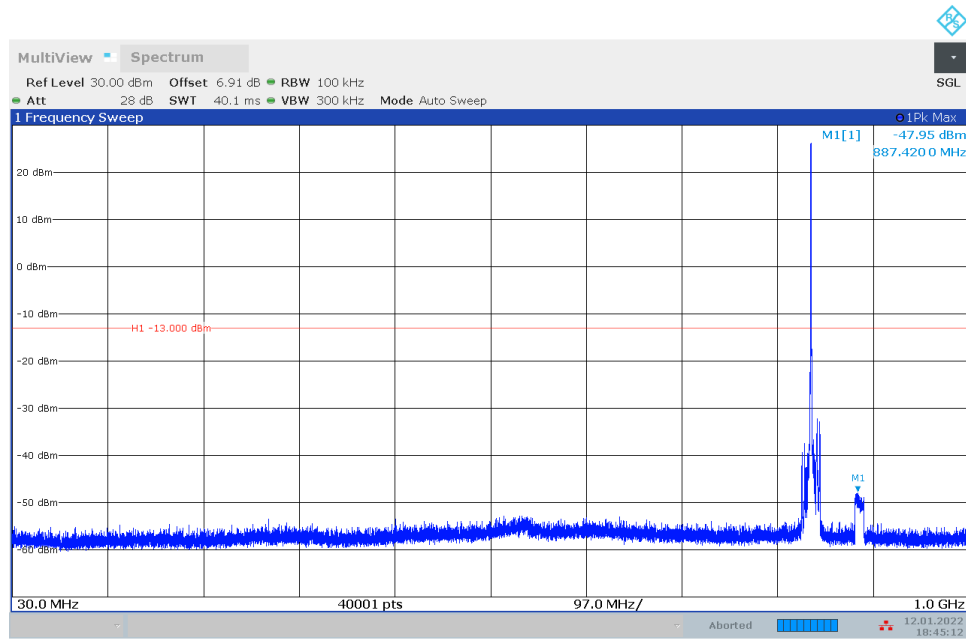
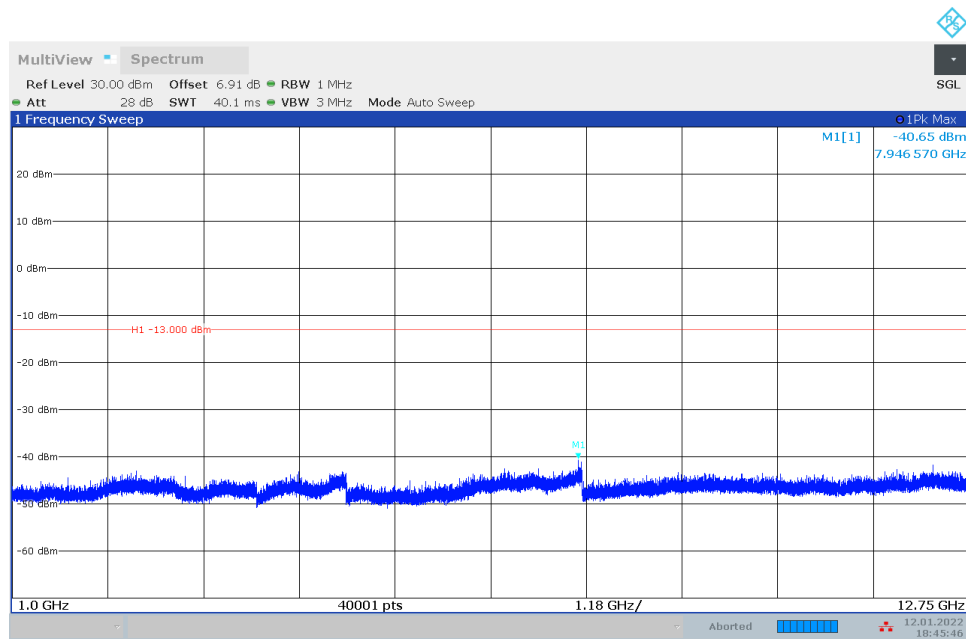


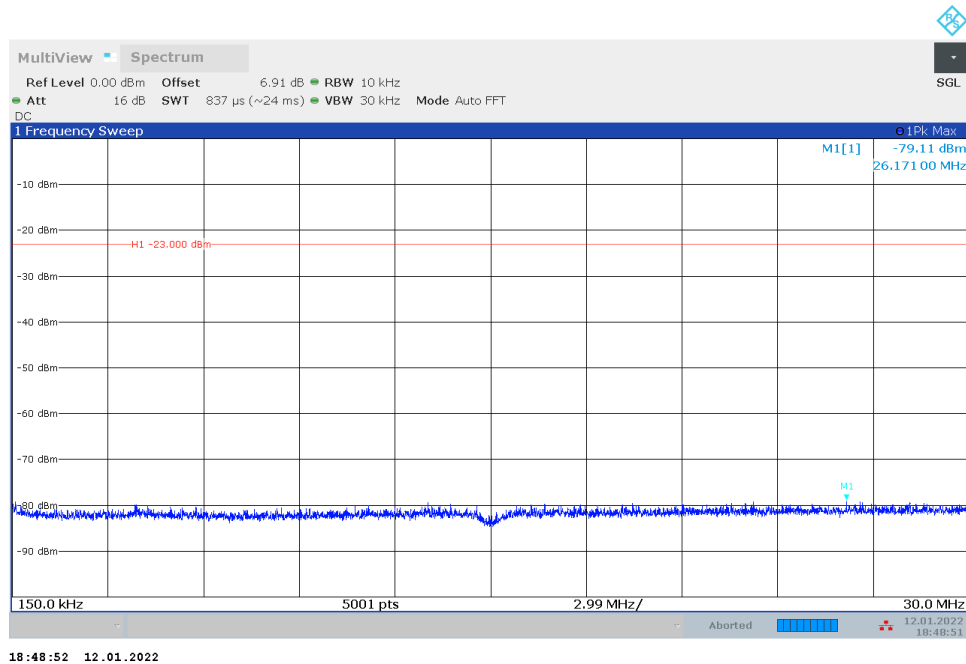
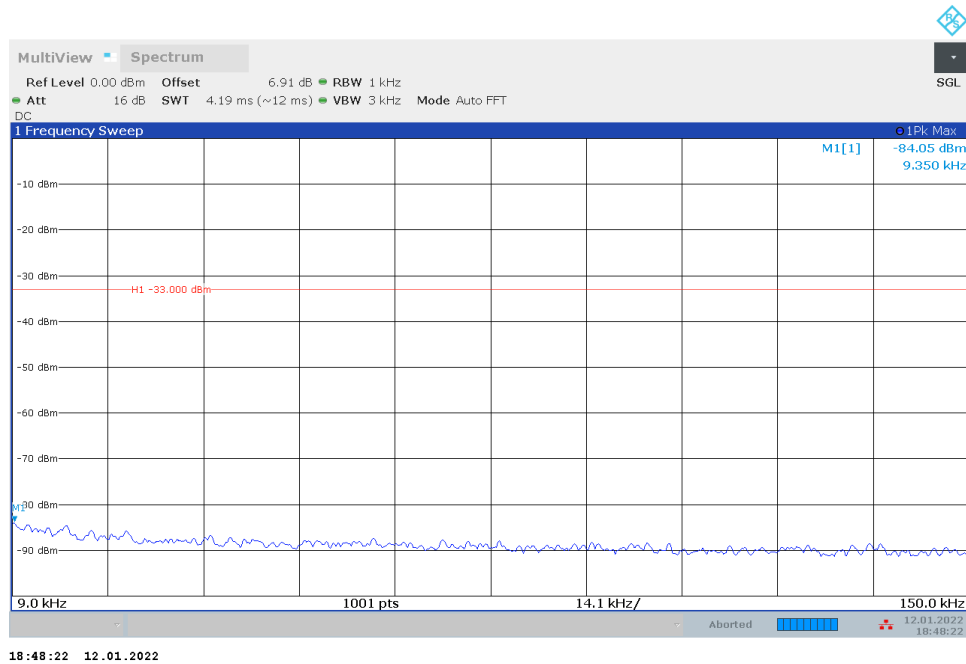


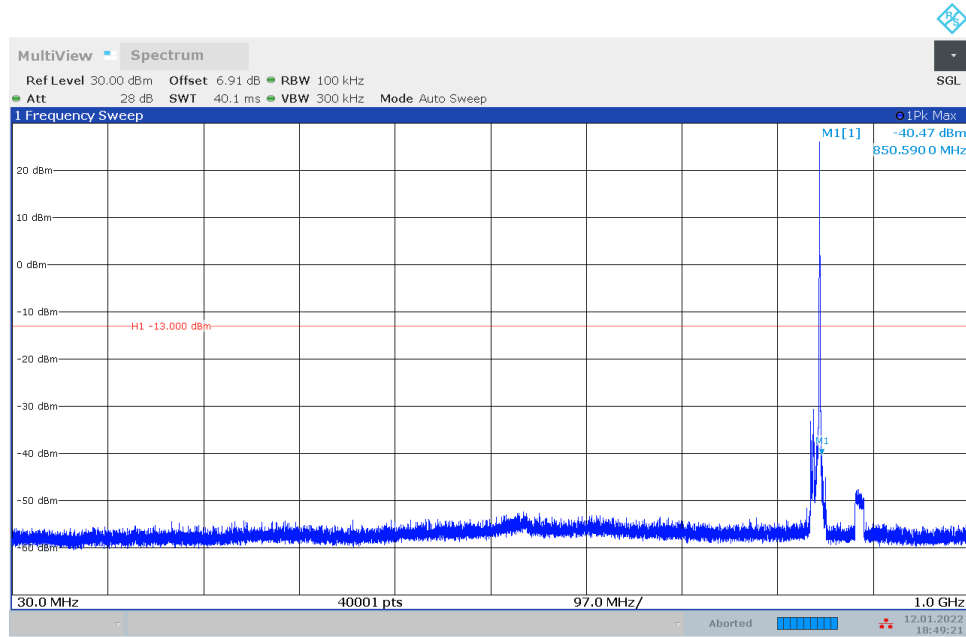
18:45:12 12.01.2022



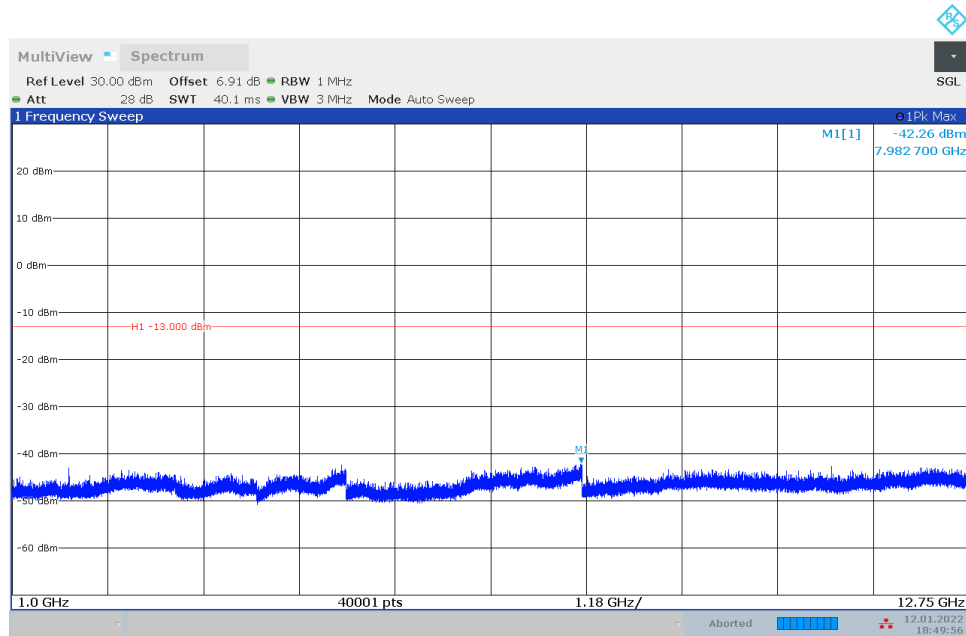
18:45:47 12.01.2022

6.2.53 BAND 5_TM2_10MHZ_HCH_RB1#49



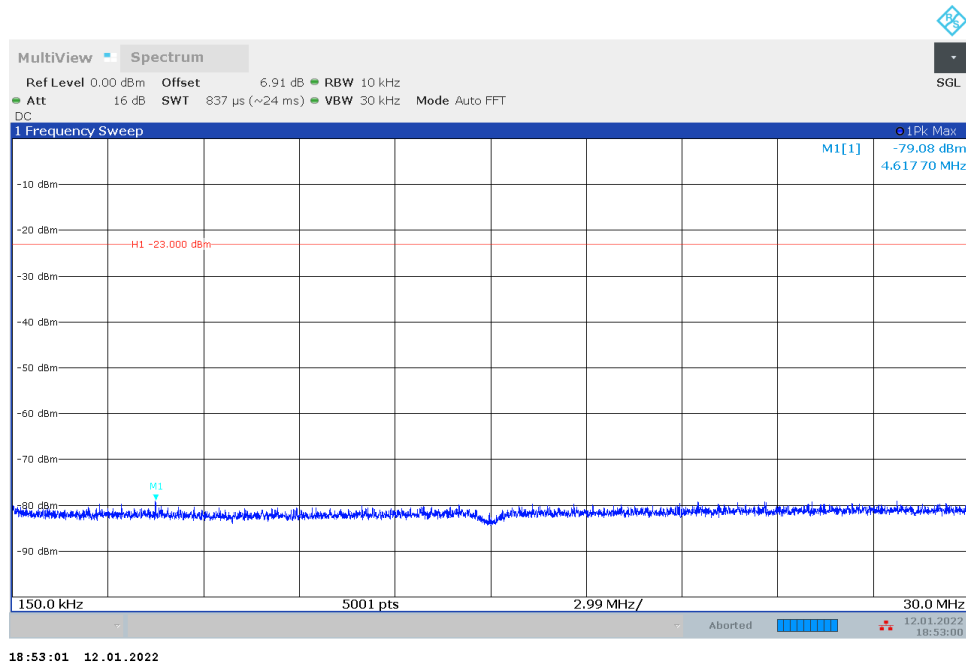
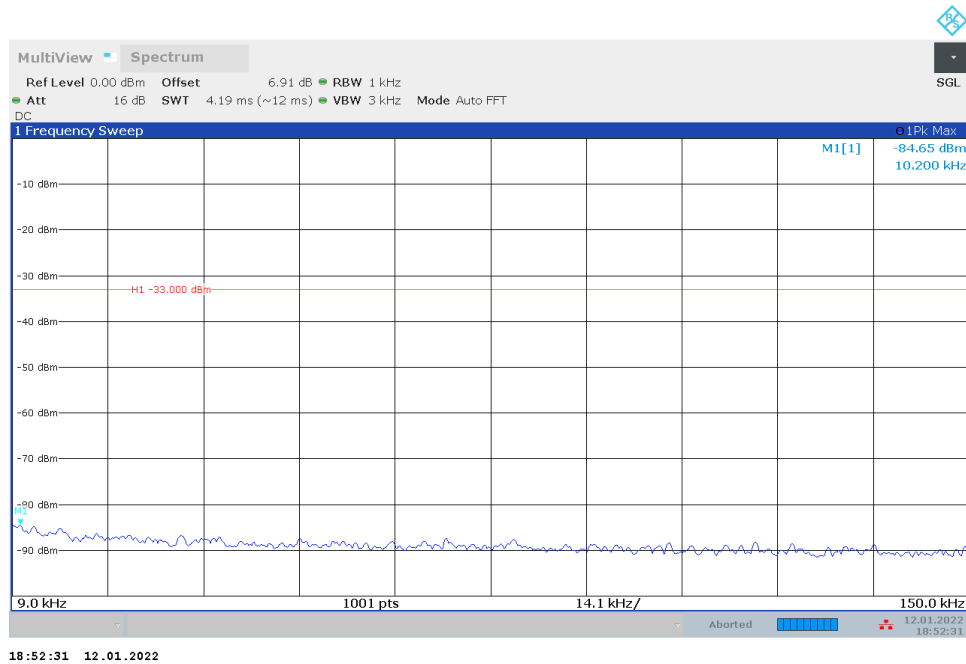


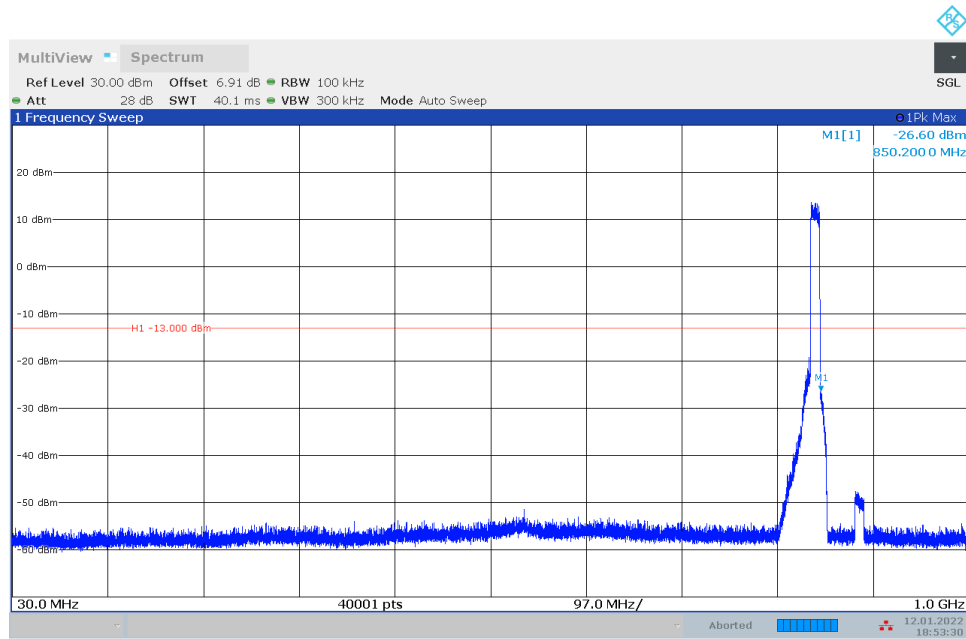
18:49:22 12.01.2022



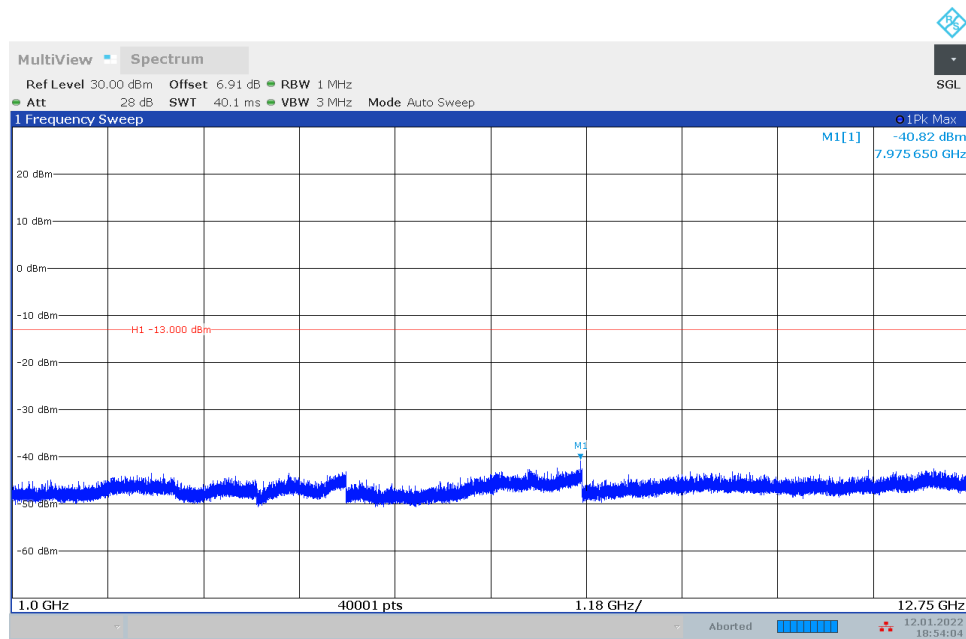
18:49:56 12.01.2022

6.2.54 BAND 5_TM2_10MHZ_HCH_RB50#0





18:53:30 12.01.2022



18:54:05 12.01.2022

7. APPENDIX G - FREQUENCY STABILITY

7.1 TEST RESULTS

7.1.1 FREQUENCY ERROR VS. VOLTAGE

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM1	1.4	LCH	QPSK	TN	VH	-5.477	-0.007	PASS
				QPSK	TN	VN	-4.85	-0.006	PASS
				QPSK	TN	VL	9.134	0.011	PASS
			MCH	QPSK	TN	VH	9.994	0.012	PASS
				QPSK	TN	VN	10.575	0.013	PASS
				QPSK	TN	VL	9.476	0.011	PASS
			HCH	QPSK	TN	VH	5.564	0.007	PASS
				QPSK	TN	VN	8.986	0.011	PASS
				QPSK	TN	VL	-13.298	-0.016	PASS
		3	LCH	QPSK	TN	VH	-6.688	-0.008	PASS
				QPSK	TN	VN	14.043	0.017	PASS
				QPSK	TN	VL	-10.325	-0.013	PASS
			MCH	QPSK	TN	VH	3.153	0.004	PASS
				QPSK	TN	VN	-7.086	-0.008	PASS
				QPSK	TN	VL	4.736	0.006	PASS
			HCH	QPSK	TN	VH	-0.565	-0.001	PASS
				QPSK	TN	VN	3.534	0.004	PASS
				QPSK	TN	VL	11.008	0.013	PASS

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM1	5	LCH	QPSK	TN	VH	3.869	0.005	PASS
				QPSK	TN	VN	13.208	0.016	PASS
				QPSK	TN	VL	-0.144	0	PASS
			MCH	QPSK	TN	VH	-4.018	-0.005	PASS
				QPSK	TN	VN	2.422	0.003	PASS
				QPSK	TN	VL	-2.612	-0.003	PASS
			HCH	QPSK	TN	VH	8.6	0.01	PASS
				QPSK	TN	VN	-0.895	-0.001	PASS
				QPSK	TN	VL	-2.261	-0.003	PASS
		10	LCH	QPSK	TN	VH	2.009	0.002	PASS
				QPSK	TN	VN	1.23	0.001	PASS
				QPSK	TN	VL	0.638	0.001	PASS
			MCH	QPSK	TN	VH	-0.666	-0.001	PASS
				QPSK	TN	VN	3.631	0.004	PASS
				QPSK	TN	VL	-3.415	-0.004	PASS
			HCH	QPSK	TN	VH	3.913	0.005	PASS
				QPSK	TN	VN	4.255	0.005	PASS
				QPSK	TN	VL	3.534	0.004	PASS

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM2	1.4	LCH	16QAM	TN	VH	-8.412	-0.01	PASS
				16QAM	TN	VN	-2.254	-0.003	PASS
				16QAM	TN	VL	14.352	0.017	PASS
			MCH	16QAM	TN	VH	1.664	0.002	PASS
				16QAM	TN	VN	3.999	0.005	PASS
				16QAM	TN	VL	5.178	0.006	PASS
			HCH	16QAM	TN	VH	-29.471	-0.035	PASS
				16QAM	TN	VN	7.331	0.009	PASS
				16QAM	TN	VL	-9.332	-0.011	PASS
		3	LCH	16QAM	TN	VH	-1.567	-0.002	PASS
				16QAM	TN	VN	0.302	0	PASS
				16QAM	TN	VL	-5.536	-0.007	PASS
			MCH	16QAM	TN	VH	-5.433	-0.006	PASS
				16QAM	TN	VN	-5.704	-0.007	PASS
				16QAM	TN	VL	4.759	0.006	PASS
			HCH	16QAM	TN	VH	13.41	0.016	PASS
				16QAM	TN	VN	-8.694	-0.01	PASS
				16QAM	TN	VL	1.672	0.002	PASS
		5	LCH	16QAM	TN	VH	1.944	0.002	PASS
				16QAM	TN	VN	-4.205	-0.005	PASS
				16QAM	TN	VL	-4.762	-0.006	PASS
			MCH	16QAM	TN	VH	6.499	0.008	PASS
				16QAM	TN	VN	0.495	0.001	PASS
				16QAM	TN	VL	-7.335	-0.009	PASS
			HCH	16QAM	TN	VH	1.561	0.002	PASS
				16QAM	TN	VN	0.229	0	PASS
				16QAM	TN	VL	11.155	0.013	PASS
		10	LCH	16QAM	TN	VH	-2.086	-0.003	PASS
				16QAM	TN	VN	-1.996	-0.002	PASS
				16QAM	TN	VL	1.688	0.002	PASS
			MCH	16QAM	TN	VH	-2.44	-0.003	PASS
				16QAM	TN	VN	-0.552	-0.001	PASS
				16QAM	TN	VL	1.348	0.002	PASS
			HCH	16QAM	TN	VH	2.901	0.003	PASS
				16QAM	TN	VN	1.573	0.002	PASS
				16QAM	TN	VL	3.635	0.004	PASS

7.1.2 FREQUENCY ERROR VS. TEMPERATURE

Frequency Error vs. Temperature									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM1	1.4	LCH	QPSK	VN	-30	9.582	0.012	PASS
				QPSK	VN	-20	11.893	0.014	PASS
				QPSK	VN	-10	2.829	0.003	PASS
				QPSK	VN	0	9.954	0.012	PASS
				QPSK	VN	10	-3.262	-0.004	PASS
				QPSK	VN	20	4.239	0.005	PASS
				QPSK	VN	30	-11.548	-0.014	PASS
				QPSK	VN	40	-4.83	-0.006	PASS
				QPSK	VN	50	-1.987	-0.002	PASS
			MCH	QPSK	VN	-30	-15.809	-0.019	PASS
				QPSK	VN	-20	-20.559	-0.025	PASS
				QPSK	VN	-10	-6.994	-0.008	PASS
				QPSK	VN	0	9.042	0.011	PASS
				QPSK	VN	10	7.901	0.009	PASS
				QPSK	VN	20	-8.732	-0.01	PASS
				QPSK	VN	30	-3.361	-0.004	PASS
				QPSK	VN	40	0.92	0.001	PASS
				QPSK	VN	50	-9.097	-0.011	PASS
			HCH	QPSK	VN	-30	-28.346	-0.033	PASS
				QPSK	VN	-20	-10.157	-0.012	PASS
				QPSK	VN	-10	-6.86	-0.008	PASS
				QPSK	VN	0	-1.908	-0.002	PASS
				QPSK	VN	10	-13.163	-0.016	PASS
				QPSK	VN	20	2.445	0.003	PASS
				QPSK	VN	30	-5.297	-0.006	PASS
				QPSK	VN	40	-1.715	-0.002	PASS
				QPSK	VN	50	-4.774	-0.006	PASS

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM1	3	LCH	QPSK	VN	-30	-3.909	-0.005	PASS
				QPSK	VN	-20	6.834	0.008	PASS
				QPSK	VN	-10	14.744	0.018	PASS
				QPSK	VN	0	-0.024	0	PASS
				QPSK	VN	10	-1.284	-0.002	PASS
				QPSK	VN	20	-3.059	-0.004	PASS
				QPSK	VN	30	3.238	0.004	PASS
				QPSK	VN	40	3.592	0.004	PASS
			MCH	QPSK	VN	50	4.91	0.006	PASS
				QPSK	VN	-30	-10.013	-0.012	PASS
				QPSK	VN	-20	-2.01	-0.002	PASS
				QPSK	VN	-10	1.577	0.002	PASS
				QPSK	VN	0	-0.985	-0.001	PASS
				QPSK	VN	10	4.547	0.005	PASS
				QPSK	VN	20	3.278	0.004	PASS
				QPSK	VN	30	-9.091	-0.011	PASS
				QPSK	VN	40	2.362	0.003	PASS
				QPSK	VN	50	1.657	0.002	PASS
			HCH	QPSK	VN	-30	0.396	0	PASS
				QPSK	VN	-20	2.73	0.003	PASS
				QPSK	VN	-10	10.273	0.012	PASS
				QPSK	VN	0	-13.635	-0.016	PASS
				QPSK	VN	10	-0.896	-0.001	PASS
				QPSK	VN	20	-7.214	-0.009	PASS
				QPSK	VN	30	11.121	0.013	PASS
				QPSK	VN	40	-4.661	-0.005	PASS
				QPSK	VN	50	2.193	0.003	PASS

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM1	5	LCH	QPSK	VN	-30	-0.901	-0.001	PASS
				QPSK	VN	-20	-5.154	-0.006	PASS
				QPSK	VN	-10	-0.548	-0.001	PASS
				QPSK	VN	0	-0.277	0	PASS
				QPSK	VN	10	10.634	0.013	PASS
				QPSK	VN	20	-2.076	-0.003	PASS
				QPSK	VN	30	1.164	0.001	PASS
				QPSK	VN	40	-1.96	-0.002	PASS
			MCH	QPSK	VN	50	1.66	0.002	PASS
				QPSK	VN	-30	4.131	0.005	PASS
				QPSK	VN	-20	1.997	0.002	PASS
				QPSK	VN	-10	2.87	0.003	PASS
				QPSK	VN	0	2.81	0.003	PASS
				QPSK	VN	10	5.258	0.006	PASS
				QPSK	VN	20	2.349	0.003	PASS
				QPSK	VN	30	-3.393	-0.004	PASS
				QPSK	VN	40	4.938	0.006	PASS
				QPSK	VN	50	1.673	0.002	PASS
			HCH	QPSK	VN	-30	15.272	0.018	PASS
				QPSK	VN	-20	4.683	0.006	PASS
				QPSK	VN	-10	2.977	0.004	PASS
				QPSK	VN	0	-7.149	-0.008	PASS
				QPSK	VN	10	0.477	0.001	PASS
				QPSK	VN	20	-0.711	-0.001	PASS
				QPSK	VN	30	-5.501	-0.006	PASS
				QPSK	VN	40	-4.189	-0.005	PASS
				QPSK	VN	50	-0.518	-0.001	PASS

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM1	10	LCH	QPSK	VN	-30	3.601	0.004	PASS
				QPSK	VN	-20	2.416	0.003	PASS
				QPSK	VN	-10	0.39	0	PASS
				QPSK	VN	0	1.263	0.002	PASS
				QPSK	VN	10	3.317	0.004	PASS
				QPSK	VN	20	-1.245	-0.002	PASS
				QPSK	VN	30	-1.491	-0.002	PASS
				QPSK	VN	40	-1.311	-0.002	PASS
			MCH	QPSK	VN	50	1.032	0.001	PASS
				QPSK	VN	-30	-2.238	-0.003	PASS
				QPSK	VN	-20	-0.849	-0.001	PASS
				QPSK	VN	-10	1.14	0.001	PASS
				QPSK	VN	0	-0.132	0	PASS
				QPSK	VN	10	-1.019	-0.001	PASS
				QPSK	VN	20	-2.08	-0.002	PASS
				QPSK	VN	30	0.2	0	PASS
				QPSK	VN	40	-4.916	-0.006	PASS
				QPSK	VN	50	-5.855	-0.007	PASS
			HCH	QPSK	VN	-30	0.594	0.001	PASS
				QPSK	VN	-20	2.133	0.003	PASS
				QPSK	VN	-10	1.231	0.001	PASS
				QPSK	VN	0	-0.679	-0.001	PASS
				QPSK	VN	10	-1.613	-0.002	PASS
				QPSK	VN	20	6.791	0.008	PASS
				QPSK	VN	30	-12.121	-0.014	PASS
				QPSK	VN	40	0.708	0.001	PASS
				QPSK	VN	50	4.32	0.005	PASS

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM2	1.4	LCH	16QAM	VN	-30	9.347	0.011	PASS
				16QAM	VN	-20	-3.92	-0.005	PASS
				16QAM	VN	-10	5.476	0.007	PASS
				16QAM	VN	0	-0.105	0	PASS
				16QAM	VN	10	13.549	0.016	PASS
				16QAM	VN	20	-5.565	-0.007	PASS
				16QAM	VN	30	17.263	0.021	PASS
				16QAM	VN	40	26.756	0.032	PASS
			MCH	16QAM	VN	50	0.522	0.001	PASS
				16QAM	VN	-30	-3.873	-0.005	PASS
				16QAM	VN	-20	0.273	0	PASS
				16QAM	VN	-10	9.075	0.011	PASS
				16QAM	VN	0	-13.685	-0.016	PASS
				16QAM	VN	10	5.333	0.006	PASS
				16QAM	VN	20	-17.596	-0.021	PASS
				16QAM	VN	30	11.011	0.013	PASS
				16QAM	VN	40	-2.877	-0.003	PASS
				16QAM	VN	50	-18.607	-0.022	PASS
			HCH	16QAM	VN	-30	-30.756	-0.036	PASS
				16QAM	VN	-20	2.769	0.003	PASS
				16QAM	VN	-10	-70.532	-0.083	PASS
				16QAM	VN	0	2.161	0.003	PASS
				16QAM	VN	10	5.856	0.007	PASS
				16QAM	VN	20	14.368	0.017	PASS
				16QAM	VN	30	13.176	0.016	PASS
				16QAM	VN	40	0.499	0.001	PASS
				16QAM	VN	50	-1.634	-0.002	PASS

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM2	3	LCH	16QAM	VN	-30	5.334	0.006	PASS
				16QAM	VN	-20	5.132	0.006	PASS
				16QAM	VN	-10	7.68	0.009	PASS
				16QAM	VN	0	1.388	0.002	PASS
				16QAM	VN	10	-0.336	0	PASS
				16QAM	VN	20	-1.277	-0.002	PASS
				16QAM	VN	30	9.319	0.011	PASS
				16QAM	VN	40	3.691	0.004	PASS
			MCH	16QAM	VN	50	10.186	0.012	PASS
				16QAM	VN	-30	3.371	0.004	PASS
				16QAM	VN	-20	2.328	0.003	PASS
				16QAM	VN	-10	7.297	0.009	PASS
				16QAM	VN	0	-4.428	-0.005	PASS
				16QAM	VN	10	2.178	0.003	PASS
				16QAM	VN	20	-2.219	-0.003	PASS
				16QAM	VN	30	0.747	0.001	PASS
				16QAM	VN	40	3.512	0.004	PASS
				16QAM	VN	50	4.406	0.005	PASS
			HCH	16QAM	VN	-30	2.283	0.003	PASS
				16QAM	VN	-20	0.334	0	PASS
				16QAM	VN	-10	-2.959	-0.003	PASS
				16QAM	VN	0	7.356	0.009	PASS
				16QAM	VN	10	-1.43	-0.002	PASS
				16QAM	VN	20	19.811	0.023	PASS
				16QAM	VN	30	-1.379	-0.002	PASS
				16QAM	VN	40	-10.112	-0.012	PASS
				16QAM	VN	50	-6.505	-0.008	PASS

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM2	5	LCH	16QAM	VN	-30	7.313	0.009	PASS
				16QAM	VN	-20	-4.585	-0.006	PASS
				16QAM	VN	-10	-5.045	-0.006	PASS
				16QAM	VN	0	3.161	0.004	PASS
				16QAM	VN	10	2.735	0.003	PASS
				16QAM	VN	20	-4.262	-0.005	PASS
				16QAM	VN	30	-2.307	-0.003	PASS
				16QAM	VN	40	10.104	0.012	PASS
			MCH	16QAM	VN	50	-9.285	-0.011	PASS
				16QAM	VN	-30	5.051	0.006	PASS
				16QAM	VN	-20	-2.199	-0.003	PASS
				16QAM	VN	-10	2.098	0.003	PASS
				16QAM	VN	0	4.258	0.005	PASS
				16QAM	VN	10	3.773	0.005	PASS
				16QAM	VN	20	7.607	0.009	PASS
				16QAM	VN	30	3.362	0.004	PASS
				16QAM	VN	40	1.287	0.002	PASS
				16QAM	VN	50	-2.023	-0.002	PASS
			HCH	16QAM	VN	-30	0.365	0	PASS
				16QAM	VN	-20	7.096	0.008	PASS
				16QAM	VN	-10	8.84	0.01	PASS
				16QAM	VN	0	3.394	0.004	PASS
				16QAM	VN	10	4.715	0.006	PASS
				16QAM	VN	20	1.842	0.002	PASS
				16QAM	VN	30	-3.806	-0.004	PASS
				16QAM	VN	40	10.896	0.013	PASS
				16QAM	VN	50	2.852	0.003	PASS

Frequency Error vs. Voltage									
Test Band	Test Mode	Test Bandwidth	Test Channel	Modulation	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band 5	TM2	10	LCH	16QAM	VN	-30	2.58	0.003	PASS
				16QAM	VN	-20	-0.588	-0.001	PASS
				16QAM	VN	-10	2.578	0.003	PASS
				16QAM	VN	0	3.359	0.004	PASS
				16QAM	VN	10	-0.09	0	PASS
				16QAM	VN	20	4.841	0.006	PASS
				16QAM	VN	30	-0.749	-0.001	PASS
				16QAM	VN	40	4.516	0.005	PASS
			MCH	16QAM	VN	50	4.6	0.006	PASS
				16QAM	VN	-30	-2.531	-0.003	PASS
				16QAM	VN	-20	-3.15	-0.004	PASS
				16QAM	VN	-10	-1.67	-0.002	PASS
				16QAM	VN	0	-8.805	-0.011	PASS
				16QAM	VN	10	-2.781	-0.003	PASS
				16QAM	VN	20	0.747	0.001	PASS
				16QAM	VN	30	-4.38	-0.005	PASS
				16QAM	VN	40	-7.141	-0.009	PASS
				16QAM	VN	50	4.802	0.006	PASS
			HCH	16QAM	VN	-30	9.082	0.011	PASS
				16QAM	VN	-20	-1.058	-0.001	PASS
				16QAM	VN	-10	3.967	0.005	PASS
				16QAM	VN	0	-0.847	-0.001	PASS
				16QAM	VN	10	5.954	0.007	PASS
				16QAM	VN	20	0.232	0	PASS
				16QAM	VN	30	-0.805	-0.001	PASS
				16QAM	VN	40	0.918	0.001	PASS
				16QAM	VN	50	2.712	0.003	PASS

End of Test Report