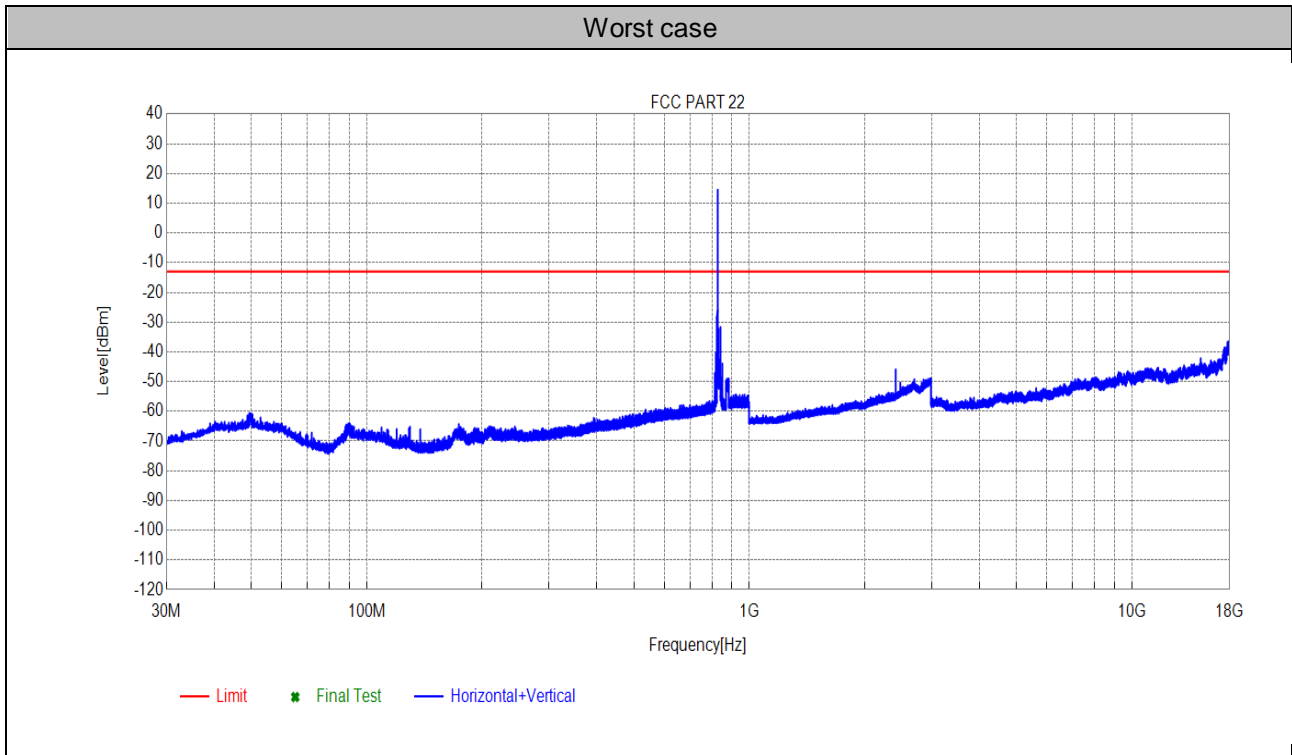


7.1.1.2 Test Bandwidth = 15MHz





8Appendix_H: Frequency Stability

8.1 For LTE

8.1.1 Frequency Error vs. Voltage:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band26(824-849 MHz)	LTE/TM1	1.4	LCH	TN	VL	-4.83796	-0.00587	PASS
					VN	-13.77998	-0.01671	PASS
					VH	-14.88359	-0.01805	PASS
			MCH	TN	VL	-6.45284	-0.00771	PASS
					VN	-7.22168	-0.00863	PASS
					VH	-2.90819	-0.00348	PASS
			HCH	TN	VL	-4.85885	-0.00573	PASS
					VN	-9.33678	-0.01101	PASS
					VH	-7.96476	-0.00939	PASS
		3	LCH	TN	VL	-5.58370	-0.00676	PASS
					VN	-8.18576	-0.00992	PASS
					VH	-5.48038	-0.00664	PASS
			MCH	TN	VL	-7.98911	-0.00955	PASS
					VN	-4.03717	-0.00483	PASS
					VH	-5.91048	-0.00707	PASS
			HCH	TN	VL	-6.39790	-0.00755	PASS
					VN	-9.77202	-0.01153	PASS
					VH	-5.92273	-0.00699	PASS
		5	LCH	TN	VL	-2.71345	-0.00328	PASS
					VN	-8.31246	-0.01006	PASS
					VH	-5.64795	-0.00683	PASS
			MCH	TN	VL	-4.89588	-0.00585	PASS
					VN	-0.98961	-0.00118	PASS
					VH	-4.47510	-0.00535	PASS
			HCH	TN	VL	-4.65538	-0.00550	PASS
					VN	-2.83330	-0.00335	PASS
					VH	-6.80321	-0.00804	PASS
10	LCH	TN	VL	-5.95458	-0.00718	PASS		
			VN	-5.64603	-0.00681	PASS		
			VH	-8.84887	-0.01067	PASS		
	MCH	TN	VL	-9.86771	-0.01180	PASS		

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
		15			VN	-8.51648	-0.01018	PASS		
					VH	-9.40789	-0.01125	PASS		
			HCH	TN	VL	-4.14225	-0.00491	PASS		
					VN	-5.49858	-0.00651	PASS		
			VH		VH	-5.44699	-0.00645	PASS		
					VL	-5.17611	-0.00623	PASS		
			LCH	TN	VN	-4.65632	-0.00560	PASS		
					VH	-5.05051	-0.00607	PASS		
			MCH	TN	VL	-5.52621	-0.00661	PASS		
					VN	-1.20283	-0.00144	PASS		
			VH		VH	-2.06135	-0.00246	PASS		
					VL	-7.55909	-0.00898	PASS		
		HCH	TN	VN	-4.96581	-0.00590	PASS			
				VH	-3.88358	-0.00462	PASS			
		LTE/TM2		1.4	LCH	TN	VL	-6.77501	-0.00822	PASS
							VN	-2.06454	-0.00250	PASS
							VH	-4.04212	-0.00490	PASS
					MCH	TN	VL	-8.28505	-0.00990	PASS
							VN	-6.60345	-0.00789	PASS
							VH	-7.15189	-0.00855	PASS
					HCH	TN	VL	-7.44066	-0.00877	PASS
							VN	-3.51039	-0.00414	PASS
							VH	-0.40552	-0.00048	PASS
				3	LCH	TN	VL	-3.49208	-0.00423	PASS
							VN	-4.40001	-0.00533	PASS
							VH	-4.02834	-0.00488	PASS
					MCH	TN	VL	-6.28658	-0.00752	PASS
							VN	-4.43421	-0.00530	PASS
							VH	-4.95340	-0.00592	PASS
				HCH	TN	VL	-4.08883	-0.00482	PASS	
						VN	-5.80660	-0.00685	PASS	
						VH	-0.82688	-0.00098	PASS	
		5	LCH	TN	VL	-7.93945	-0.00961	PASS		
					VN	-7.45666	-0.00902	PASS		
					VH	-3.54853	-0.00429	PASS		
			MCH	TN	VL	-5.70005	-0.00681	PASS		
					VN	-3.47616	-0.00416	PASS		
					VH	-8.11553	-0.00970	PASS		

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		10	HCH	TN	VL	-5.85708	-0.00692	PASS
					VN	-6.34375	-0.00749	PASS
					VH	-6.20240	-0.00733	PASS
			LCH	TN	VL	-7.32991	-0.00884	PASS
					VN	-7.41657	-0.00895	PASS
					VH	-3.20491	-0.00387	PASS
			MCH	TN	VL	-4.94285	-0.00591	PASS
					VN	2.52553	0.00302	PASS
					VH	-9.80214	-0.01172	PASS
		HCH	TN	VL	-6.90998	-0.00819	PASS	
				VN	-8.72006	-0.01033	PASS	
				VH	-4.97624	-0.00590	PASS	
		15	LCH	TN	VL	-7.16745	-0.00862	PASS
					VN	-7.80833	-0.00939	PASS
					VH	-0.98340	-0.00118	PASS
			MCH	TN	VL	-3.86815	-0.00462	PASS
					VN	-3.34416	-0.00400	PASS
					VH	-3.39845	-0.00406	PASS
			HCH	TN	VL	-4.65938	-0.00554	PASS
					VN	-8.65271	-0.01028	PASS
					VH	-6.73138	-0.00800	PASS

8.1.2 Frequency Error vs. Temperature:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band26(824-849 MHz)	LTE/TM1	1.4	LCH	VN	-30	-15.58939	-0.01890	PASS
					-20	-13.79526	-0.01673	PASS
					-10	-15.52779	-0.01883	PASS
					0	-17.95883	-0.02178	PASS
					10	-13.46404	-0.01633	PASS
					20	-13.77998	-0.01671	PASS
					30	-16.70080	-0.02025	PASS
					40	-16.56602	-0.02009	PASS
					50	-16.08474	-0.01950	PASS
			MCH	VN	-30	-4.07229	-0.00487	PASS
					-20	-5.72528	-0.00684	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
					-10	-3.31135	-0.00396	PASS		
					0	-3.69608	-0.00442	PASS		
					10	-8.24757	-0.00986	PASS		
					20	-7.22168	-0.00863	PASS		
					30	-3.86323	-0.00462	PASS		
					40	-1.75159	-0.00209	PASS		
					50	-1.87250	-0.00224	PASS		
			HCH	VN	-30	-10.93624	-0.01289	PASS		
					-20	-9.41374	-0.01110	PASS		
					-10	-7.03154	-0.00829	PASS		
					0	-11.25564	-0.01327	PASS		
					10	-7.43181	-0.00876	PASS		
					20	-9.33678	-0.01101	PASS		
					30	-8.91966	-0.01051	PASS		
			LCH	VN	-30	-2.97083	-0.00360	PASS		
					-20	-8.60026	-0.01042	PASS		
					-10	-5.77534	-0.00700	PASS		
					0	-7.16570	-0.00868	PASS		
					10	-3.86625	-0.00468	PASS		
					20	-8.18576	-0.00992	PASS		
		30			-7.87135	-0.00954	PASS			
		MCH	VN	-30	-7.19113	-0.00860	PASS			
				-20	-4.79612	-0.00573	PASS			
				-10	-5.49595	-0.00657	PASS			
				0	-8.52005	-0.01019	PASS			
				10	-2.76292	-0.00330	PASS			
				20	-4.03717	-0.00483	PASS			
				30	-8.42211	-0.01007	PASS			
		HCH	VN	-30	-7.06860	-0.00834	PASS			
				-20	-7.50836	-0.00886	PASS			
				-10	-4.92667	-0.00581	PASS			
				0	-8.33898	-0.00984	PASS			
				10	-6.09825	-0.00720	PASS			
		3					-30	-2.97083	-0.00360	PASS
							-20	-8.60026	-0.01042	PASS
							-10	-5.77534	-0.00700	PASS
							0	-7.16570	-0.00868	PASS
							10	-3.86625	-0.00468	PASS
							20	-8.18576	-0.00992	PASS
							30	-7.87135	-0.00954	PASS
40	-7.50861						-0.00910	PASS		
50	-8.65585						-0.01049	PASS		
-30	-7.19113						-0.00860	PASS		
-20	-4.79612	-0.00573	PASS							
-10	-5.49595	-0.00657	PASS							
0	-8.52005	-0.01019	PASS							
10	-2.76292	-0.00330	PASS							
20	-4.03717	-0.00483	PASS							
30	-8.42211	-0.01007	PASS							
40	-8.96030	-0.01071	PASS							
50	-1.51902	-0.00182	PASS							



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
					20	-9.77202	-0.01153	PASS		
					30	-8.08425	-0.00954	PASS		
					40	-7.97730	-0.00941	PASS		
					50	-7.38839	-0.00872	PASS		
		5	LCH	VN	-30	-2.40454	-0.00291	PASS		
					-20	-3.86369	-0.00467	PASS		
					-10	-9.52608	-0.01153	PASS		
					0	-11.40417	-0.01380	PASS		
					10	-8.10587	-0.00981	PASS		
					20	-8.31246	-0.01006	PASS		
					30	-8.83158	-0.01069	PASS		
					40	-5.59929	-0.00677	PASS		
					50	-8.72985	-0.01056	PASS		
					MCH	VN	-30	-2.93948	-0.00351	PASS
							-20	-6.35212	-0.00759	PASS
							-10	-7.37155	-0.00881	PASS
							0	-6.58884	-0.00788	PASS
							10	-3.47139	-0.00415	PASS
							20	-0.98961	-0.00118	PASS
							30	-9.25238	-0.01106	PASS
			40	-5.00279			-0.00598	PASS		
			HCH	VN	50	-2.83682	-0.00339	PASS		
					-30	-9.31969	-0.01101	PASS		
					-20	-7.41453	-0.00876	PASS		
					-10	-4.89637	-0.00578	PASS		
					0	-6.66776	-0.00788	PASS		
					10	-11.65355	-0.01377	PASS		
					20	-2.83330	-0.00335	PASS		
					30	-8.02899	-0.00948	PASS		
			10	LCH	VN	40	-8.84207	-0.01045	PASS	
						50	-6.08615	-0.00719	PASS	
						-30	-4.62126	-0.00557	PASS	
-20	-2.62514	-0.00317				PASS				
-10	-2.87325	-0.00347				PASS				
0	-12.72345	-0.01535				PASS				
10	-3.71767	-0.00448				PASS				
20	-5.64603	-0.00681				PASS				
30	-8.99133	-0.01085	PASS							
40	-9.04054	-0.01091	PASS							



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
			MCH	VN	50	-3.97593	-0.00480	PASS
					-30	-2.61041	-0.00312	PASS
					-20	-5.60846	-0.00670	PASS
					-10	-6.67816	-0.00798	PASS
					0	-10.23915	-0.01224	PASS
					10	-9.05771	-0.01083	PASS
					20	-8.51648	-0.01018	PASS
					30	-9.56914	-0.01144	PASS
					40	-12.47646	-0.01492	PASS
					50	-2.84267	-0.00340	PASS
			HCH	VN	-30	-7.52146	-0.00891	PASS
					-20	-4.59095	-0.00544	PASS
					-10	-8.42022	-0.00998	PASS
					0	-4.99841	-0.00592	PASS
					10	-5.97762	-0.00708	PASS
					20	-5.49858	-0.00651	PASS
					30	-6.25121	-0.00741	PASS
					40	-6.46123	-0.00766	PASS
					50	-4.50633	-0.00534	PASS
					15	LCH	VN	-30
		-20	-0.73899	-0.00089				PASS
		-10	-3.46818	-0.00417				PASS
		0	-5.14179	-0.00618				PASS
		10	-6.45807	-0.00777				PASS
		20	-4.65632	-0.00560				PASS
		30	-4.16463	-0.00501				PASS
		40	-3.15128	-0.00379				PASS
		50	-4.34741	-0.00523				PASS
		MCH	VN	-30				-6.07052
				-20		-1.52732	-0.00183	PASS
				-10		-1.14163	-0.00136	PASS
				0		-2.09946	-0.00251	PASS
				10		-2.79731	-0.00334	PASS
				20		-1.20283	-0.00144	PASS
				30		-6.82459	-0.00816	PASS
				40		0.76442	0.00091	PASS
				50		-6.51337	-0.00779	PASS
				HCH		VN	-30	-4.80090
		-20	-6.24656				-0.00742	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict						
					-10	-5.31354	-0.00631	PASS						
					0	-5.84327	-0.00694	PASS						
					10	-5.52450	-0.00657	PASS						
					20	-4.96581	-0.00590	PASS						
					30	-6.56169	-0.00780	PASS						
					40	-5.98131	-0.00711	PASS						
					50	-5.55480	-0.00660	PASS						
					LCH	VN	1.4			-30	-4.19453	-0.00509	PASS	
										-20	-2.54170	-0.00308	PASS	
										-10	0.04697	0.00006	PASS	
										0	-1.85166	-0.00225	PASS	
										10	-1.42221	-0.00172	PASS	
										20	-2.06454	-0.00250	PASS	
										30	-3.42868	-0.00416	PASS	
	40	-5.88920	-0.00714	PASS										
	50	-1.98664	-0.00241	PASS										
	MCH	VN	1.4								-30	-3.39438	-0.00406	PASS
											-20	-3.02640	-0.00362	PASS
											-10	-10.10716	-0.01208	PASS
											0	-11.45213	-0.01369	PASS
											10	-7.23350	-0.00865	PASS
											20	-6.60345	-0.00789	PASS
											30	-2.47410	-0.00296	PASS
					40	-5.89234	-0.00704	PASS						
	HCH	VN	1.4			50	-4.04921	-0.00484	PASS					
						-30	0.50356	0.00059	PASS					
						-20	-0.08588	-0.00010	PASS					
						-10	1.28222	0.00151	PASS					
						0	-3.05993	-0.00361	PASS					
						10	-1.20073	-0.00142	PASS					
						20	-3.51039	-0.00414	PASS					
						30	-0.58207	-0.00069	PASS					
	3	LCH	3			40	-2.49381	-0.00294	PASS					
						50	-0.21956	-0.00026	PASS					
						-30	-0.55155	-0.00067	PASS					
						-20	-5.11767	-0.00620	PASS					
						-10	-6.22332	-0.00754	PASS					
						0	-3.96574	-0.00480	PASS					
						10	-5.56560	-0.00674	PASS					



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
					20	-4.40001	-0.00533	PASS		
					30	-5.24580	-0.00635	PASS		
					40	-9.03502	-0.01094	PASS		
					50	-4.97275	-0.00602	PASS		
			MCH	VN	-30	-2.40744	-0.00288	PASS		
					-20	-4.95341	-0.00592	PASS		
					-10	-2.88981	-0.00345	PASS		
					0	-9.43808	-0.01128	PASS		
					10	-4.29363	-0.00513	PASS		
					20	-4.43421	-0.00530	PASS		
					30	-5.59858	-0.00669	PASS		
					40	-8.41310	-0.01006	PASS		
					50	-2.95361	-0.00353	PASS		
					HCH	VN	-30	0.06939	0.00008	PASS
							-20	-3.39884	-0.00401	PASS
							-10	-3.09072	-0.00365	PASS
			0	-4.45166			-0.00525	PASS		
			10	-1.73750			-0.00205	PASS		
			20	-5.80660			-0.00685	PASS		
			30	-1.79326			-0.00212	PASS		
			40	-2.75879			-0.00326	PASS		
			50	-1.33763	-0.00158	PASS				
			5	LCH	VN	-30	-7.37973	-0.00893	PASS	
						-20	-3.95783	-0.00479	PASS	
						-10	-5.04826	-0.00611	PASS	
						0	-9.45924	-0.01144	PASS	
						10	-7.39027	-0.00894	PASS	
						20	-7.45666	-0.00902	PASS	
						30	-1.61182	-0.00195	PASS	
						40	-3.67579	-0.00445	PASS	
				50	-0.13500	-0.00016	PASS			
				MCH	VN	-30	-3.50471	-0.00419	PASS	
						-20	-6.37036	-0.00762	PASS	
						-10	-0.40308	-0.00048	PASS	
						0	-2.96935	-0.00355	PASS	
						10	-5.54833	-0.00663	PASS	
						20	-3.47616	-0.00416	PASS	
						30	-12.59146	-0.01505	PASS	
			40			-3.44453	-0.00412	PASS		



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-10	-3.59086	-0.00432	PASS
					0	-3.15238	-0.00379	PASS
					10	-7.19598	-0.00865	PASS
					20	-7.80833	-0.00939	PASS
					30	-3.13453	-0.00377	PASS
					40	-8.78979	-0.01057	PASS
					50	-7.55624	-0.00909	PASS
			MCH	VN	-30	-9.64137	-0.01153	PASS
					-20	-5.74543	-0.00687	PASS
					-10	-3.52108	-0.00421	PASS
					0	-2.07534	-0.00248	PASS
					10	-5.91852	-0.00708	PASS
					20	-3.34416	-0.00400	PASS
					30	-3.53700	-0.00423	PASS
			HCH	VN	-30	-7.39041	-0.00878	PASS
					-20	-3.52203	-0.00419	PASS
					-10	-10.59169	-0.01259	PASS
					0	-2.11149	-0.00251	PASS
					10	-5.14376	-0.00611	PASS
					20	-8.65271	-0.01028	PASS
					30	-4.28847	-0.00510	PASS
					40	-6.51218	-0.00774	PASS
			50	-4.88406	-0.00580	PASS		

END