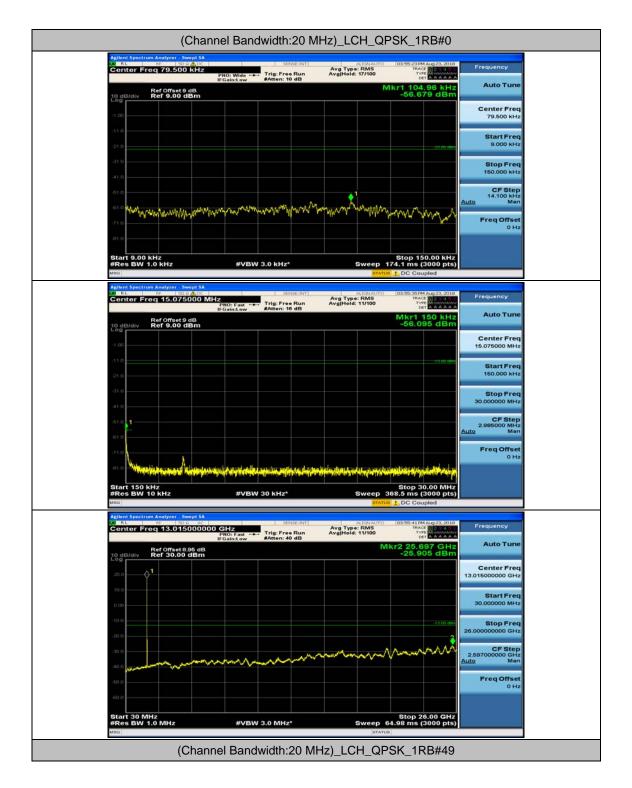
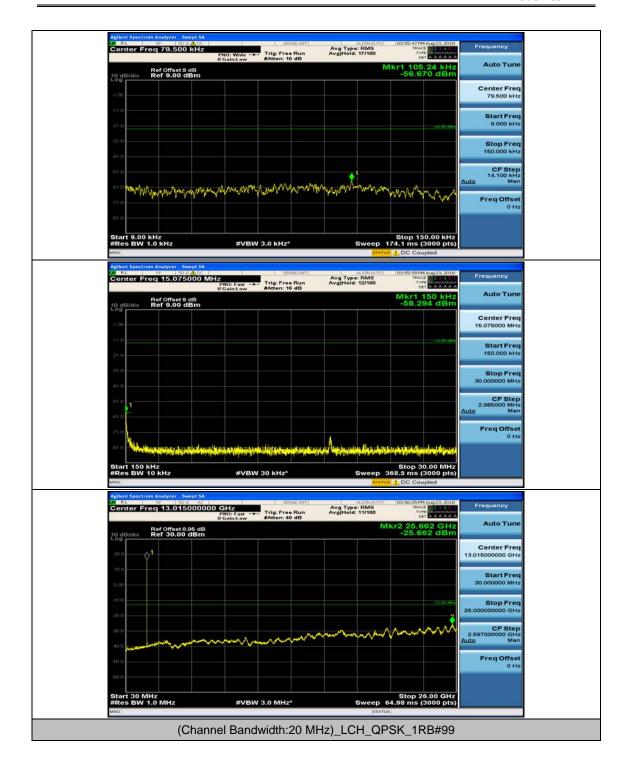




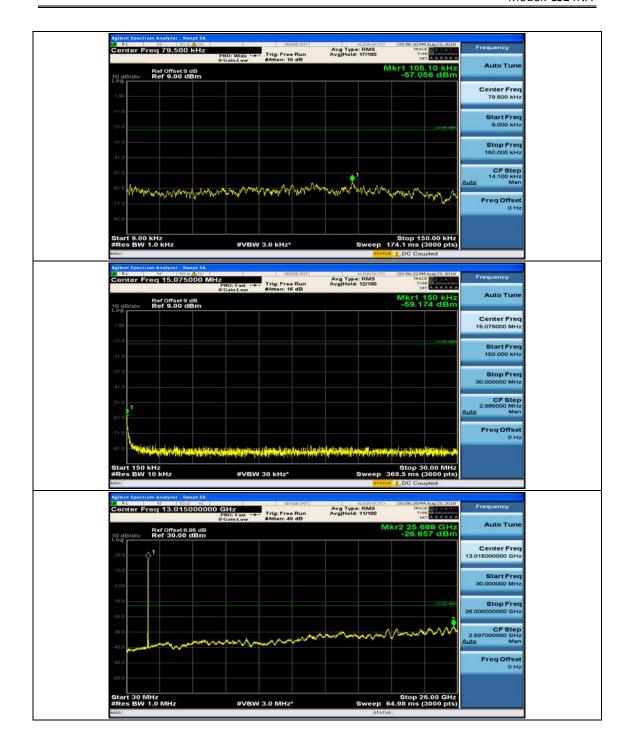
Channel Bandwidth: 20 MHz



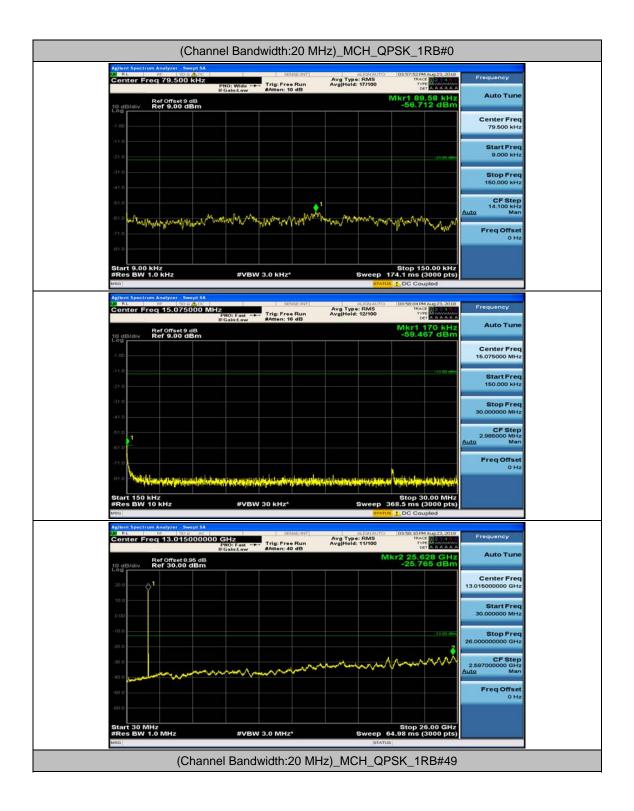




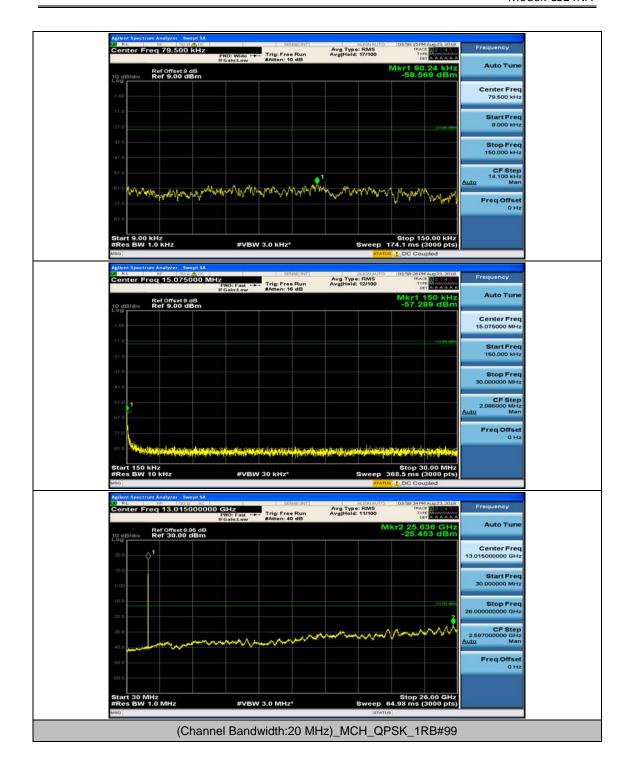




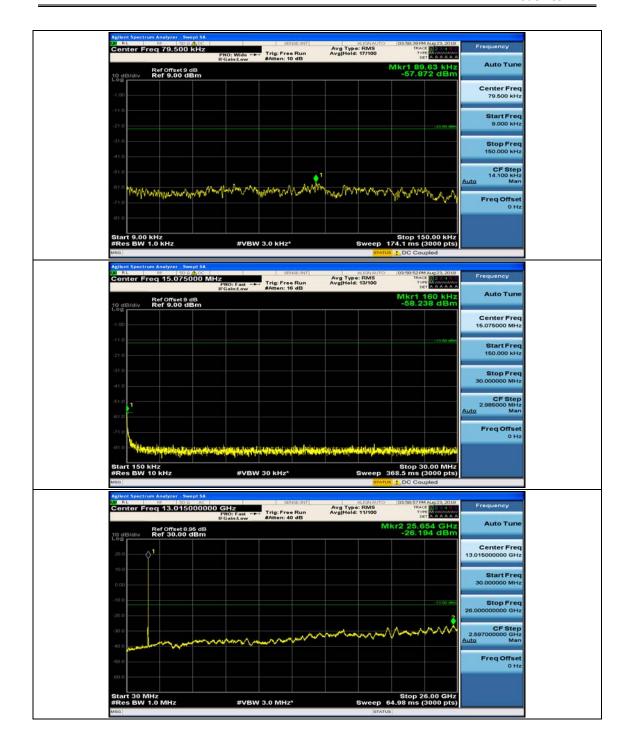




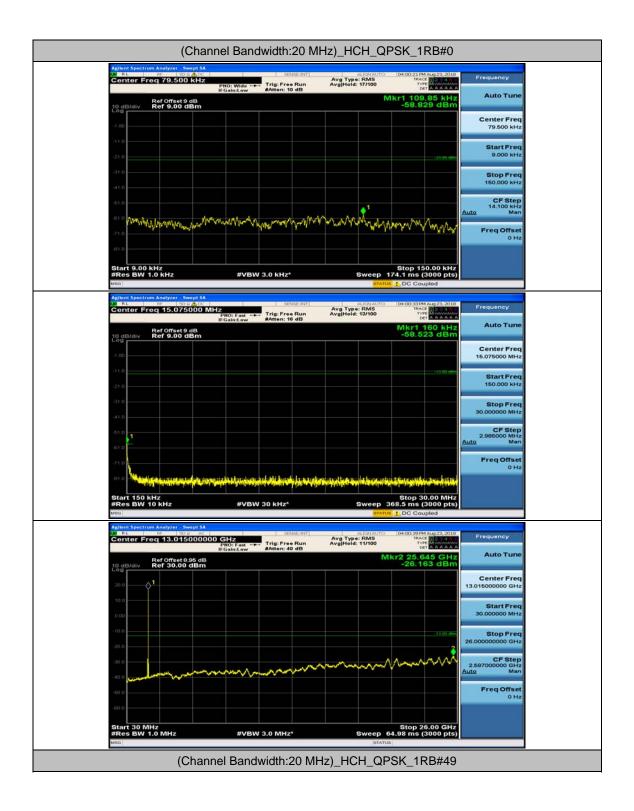




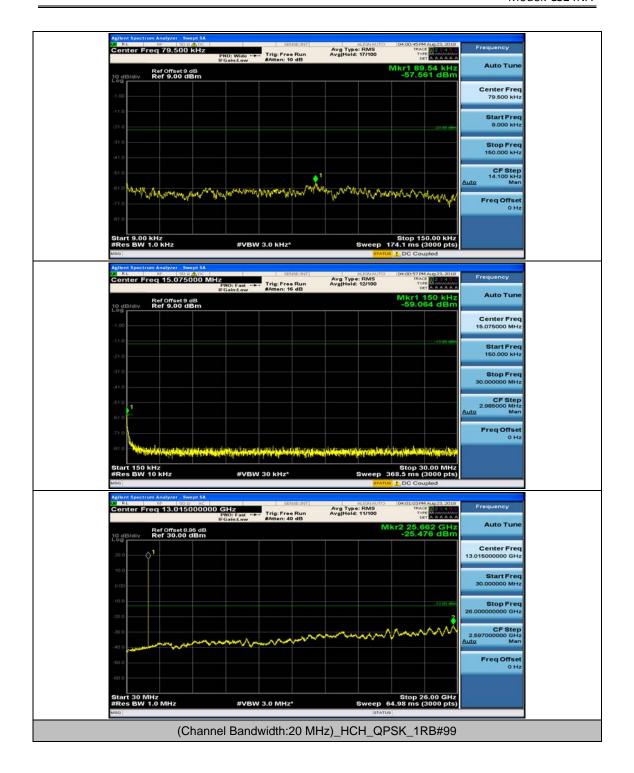




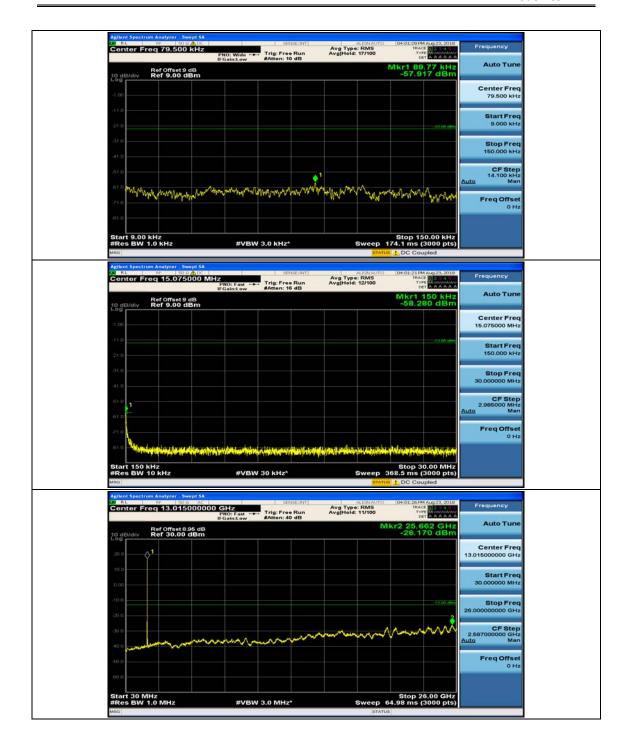




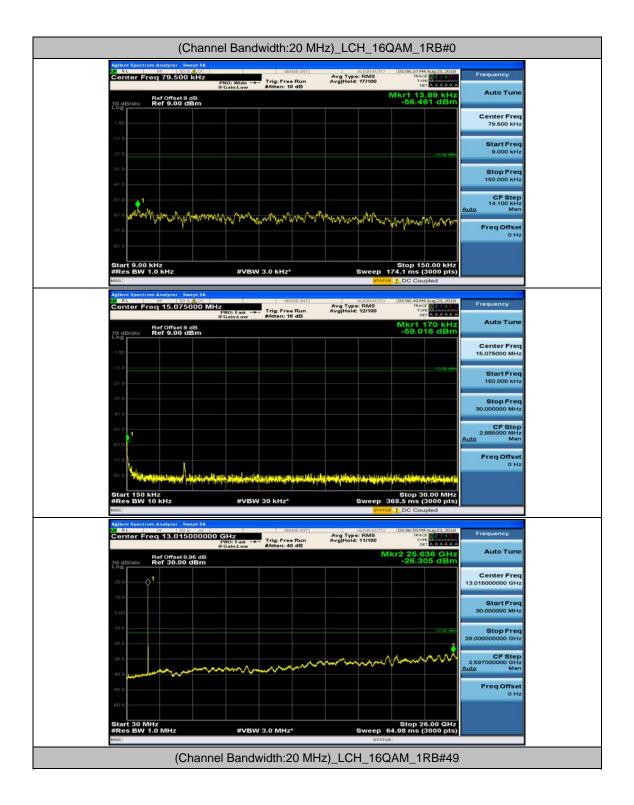




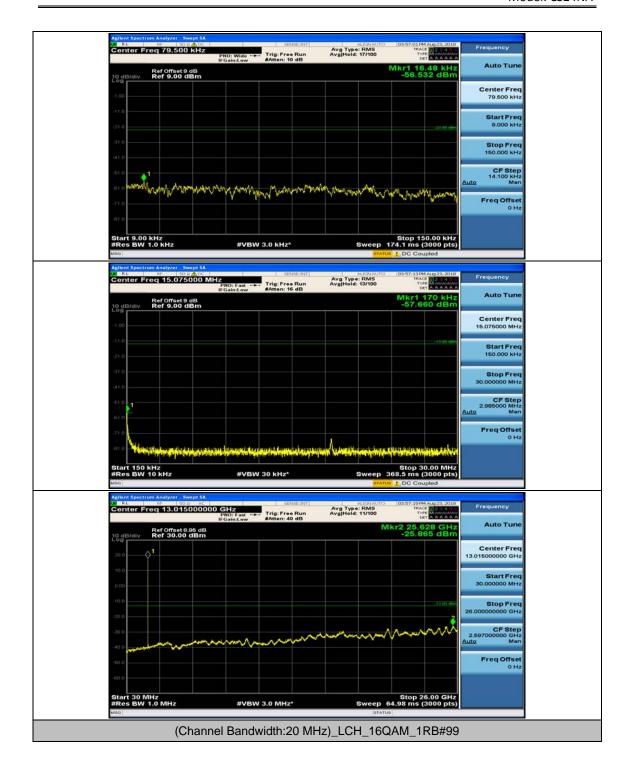




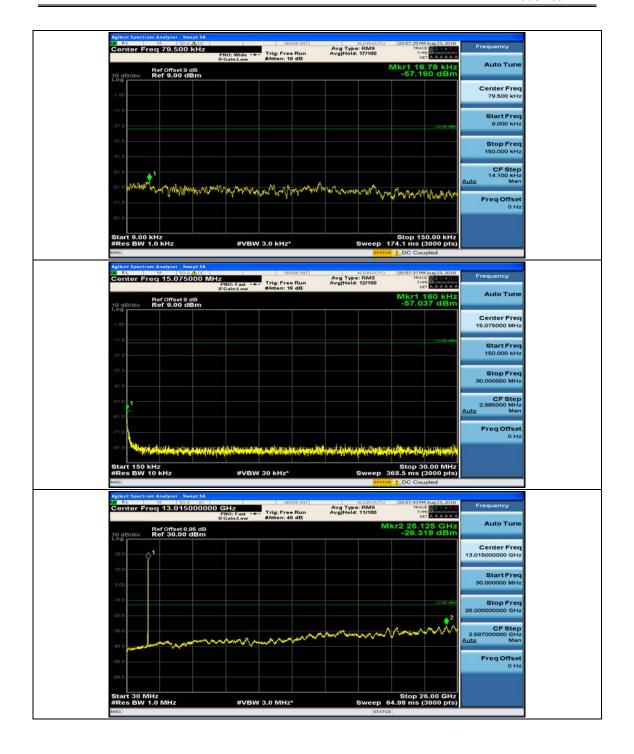




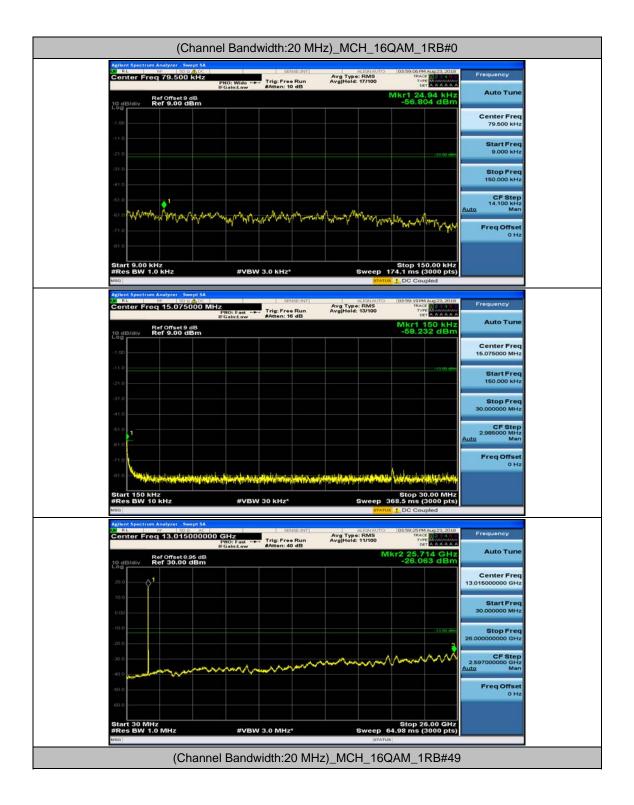




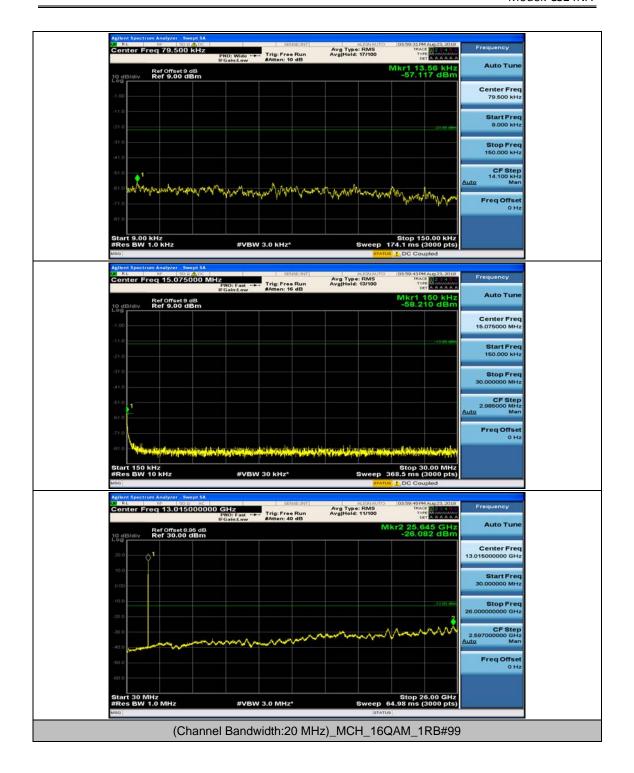




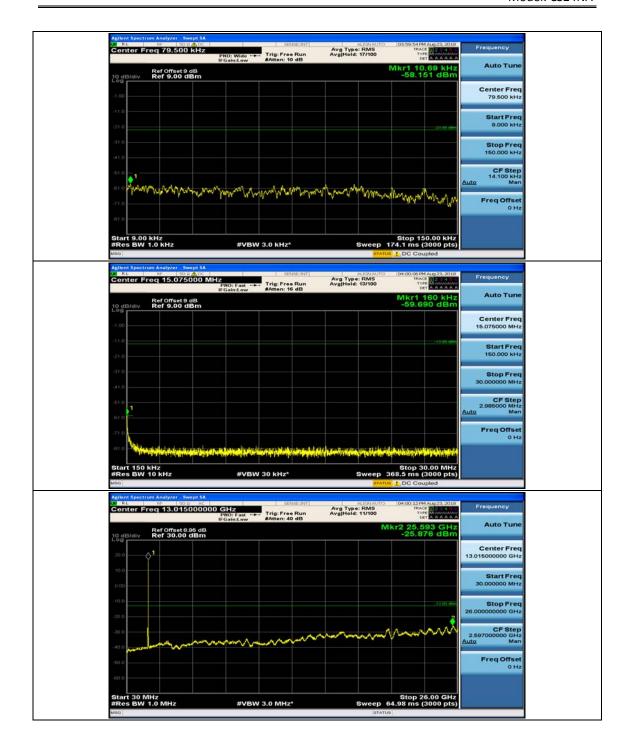




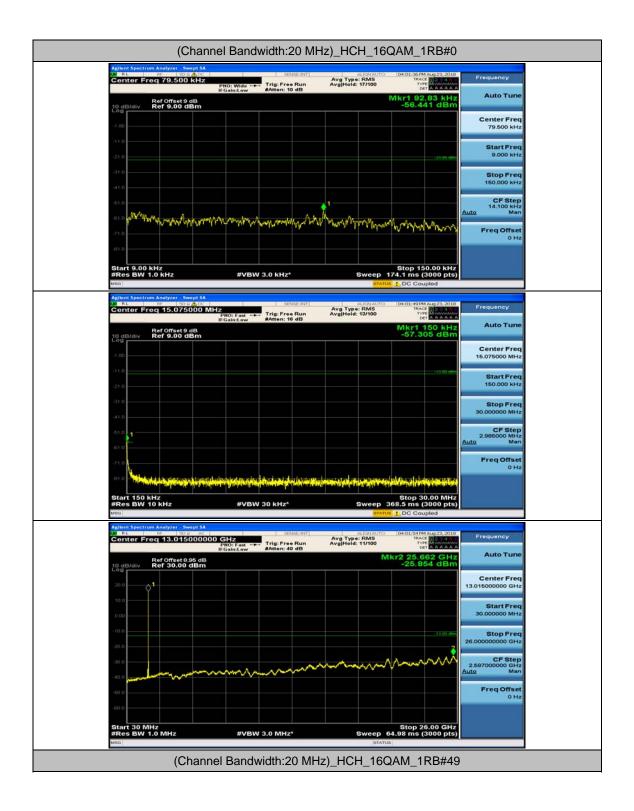




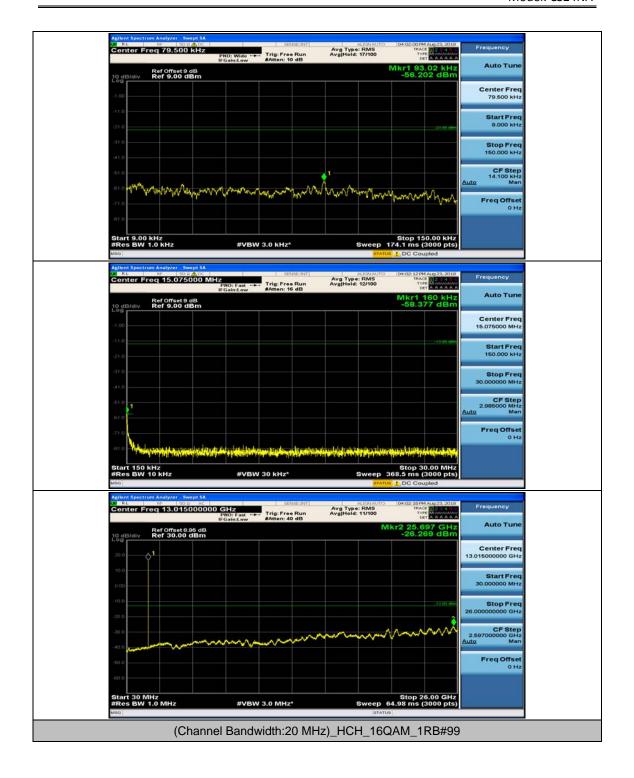




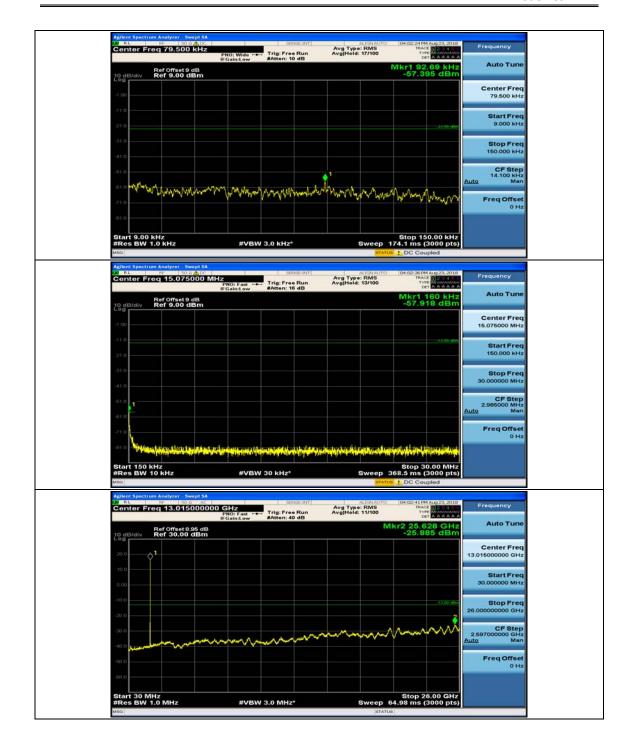














Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

			Channel Band	width: 1.4 MHz								
Channel Bandwidth: 1.4 MHz Voltage												
Modulation	Channel	Voltage [Vdc]	Temperature (°ℂ)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict					
		VL	TN	0.39	0.000228	± 2.5	PASS					
	LCH	VN	TN	1.65	0.000965	± 2.5	PASS					
		VH	TN	-1.64	-0.000959	± 2.5	PASS					
		VL	TN	-1.87	-0.001079	± 2.5	PASS					
QPSK	MCH	VN	TN	1.08	0.000623	± 2.5	PASS					
		VH	TN	4.27	0.002465	± 2.5	PASS					
		VL	TN	-0.13	-0.000074	± 2.5	PASS					
	HCH	VN	TN	2.06	0.001174	± 2.5	PASS					
		VH	TN	-1.47	-0.000838	± 2.5	PASS					
		VL	TN	2.54	0.001485	± 2.5	PASS					
	LCH	VN	TN	-1.84	-0.001076	± 2.5	PASS					
		VH	TN	1.68	0.000982	± 2.5	PASS					
	MCH	VL	TN	-1.1	-0.000635	± 2.5	PASS					
16QAM		VN	TN	2.22	0.001281	± 2.5	PASS					
		VH	TN	1.49	0.000860	± 2.5	PASS					
	НСН	VL	TN	0.66	0.000376	± 2.5	PASS					
		VN	TN	0.41	0.000234	± 2.5	PASS					
		VH	TN	4.48	0.002554	± 2.5	PASS					
			Tempe	erature								
Modulation	Channe I	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict					
		VN	-30	4.61	0.002695	± 2.5	PASS					
		VN	-20	3.77	0.002204	± 2.5	PASS					
		VN	-10	-1.86	-0.001087	± 2.5	PASS					
		VN	0	-0.08	-0.000047	± 2.5	PASS					
	LCH	VN	10	-0.51	-0.000298	± 2.5	PASS					
QPSK		VN	20	0.82	0.000479	± 2.5	PASS					
		VN	30	1.07	0.000625	± 2.5	PASS					
		VN	40	0.39	0.000228	± 2.5	PASS					
		VN	50	4.97	0.002905	± 2.5	PASS					
	MCH	VN	-30	0.6	0.000346	± 2.5	PASS					
	IVICH	VN	-20	3.08	0.001778	± 2.5	PASS					

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		VN	-10	2.26	0.001204	± 2.5	PASS
		VN	0	4.37	0.001304		PASS
					0.002522	± 2.5	
		VN	10	4.34	0.002505	± 2.5	PASS
		VN	20	3.92	0.002263	± 2.5	PASS
		VN	30	1.81	0.001045	± 2.5	PASS
		VN	40	-1.26	-0.000727	± 2.5	PASS
		VN	50	-0.36	-0.000208	± 2.5	PASS
		VN	-30	1.41	0.000804	± 2.5	PASS
		VN	-20	0.63	0.000359	± 2.5	PASS
		VN	-10	-0.41	-0.000234	± 2.5	PASS
		VN	0	3.74	0.002132	± 2.5	PASS
	HCH	VN	10	4.03	0.002297	± 2.5	PASS
		VN	20	4.36	0.002485	± 2.5	PASS
		VN	30	4.86	0.002770	± 2.5	PASS
		VN	40	-1.98	-0.001129	± 2.5	PASS
		VN	50	4.56	0.002599	± 2.5	PASS
		VN	-30	3.75	0.002192	± 2.5	PASS
		VN	-20	-0.51	-0.000298	± 2.5	PASS
		VN	-10	-0.02	-0.000012	± 2.5	PASS
		VN	0	1.73	0.001011	± 2.5	PASS
	LCH	VN	10	0.61	0.000357	± 2.5	PASS
		VN	20	2.02	0.001181	± 2.5	PASS
		VN	30	-1.42	-0.000830	± 2.5	PASS
		VN	40	-1.96	-0.001146	± 2.5	PASS
		VN	50	-0.85	-0.000497	± 2.5	PASS
		VN	-30	3.35	0.001910	± 2.5	PASS
		VN	-20	-0.86	-0.000490	± 2.5	PASS
		VN	-10	1.67	0.000952	± 2.5	PASS
16QAM		VN	0	2.92	0.001664	± 2.5	PASS
	мсн	VN	10	4.5	0.002565	± 2.5	PASS
		VN	20	4.1	0.002337	± 2.5	PASS
		VN	30	3.77	0.002149	± 2.5	PASS
		VN	40	2.68	0.001528	± 2.5	PASS
		VN	50	-1.14	-0.000650	± 2.5	PASS
		VN	-30	4.64	0.002645	± 2.5	PASS
		VN	-20	-0.72	-0.000410	± 2.5	PASS
		VN	-10	4.27	0.002434	± 2.5	PASS
	нсн	VN	0	0.72	0.000410	± 2.5	PASS
		VN	10	1.49	0.000849	± 2.5	PASS
		VN	20	3.85	0.002195	± 2.5	PASS
		VN	30	0.07	0.002133	± 2.5	PASS
<u> </u>	<u> </u>	VIN	30	0.07	0.000040	- 2.0	1 700





	VN	40	0.32	0.000182	± 2.5	PASS
	VN	50	1.58	0.000901	± 2.5	PASS

Channel Bandwidth: 3 MHz

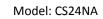
			Channel Band	lwidth: 3 MHz+								
Voltage												
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict					
		VL	TN	2.8	0.001636	± 2.5	PASS					
	LCH	VN	TN	-0.74	-0.000432	± 2.5	PASS					
		VH	TN	-1.08	-0.000631	± 2.5	PASS					
		VL	TN	1.97	0.001137	± 2.5	PASS					
QPSK	MCH	VN	TN	-1.51	-0.000872	± 2.5	PASS					
		VH	TN	-1.57	-0.000906	± 2.5	PASS					
		VL	TN	2.65	0.001511	± 2.5	PASS					
	HCH	VN	TN	3.56	0.002030	± 2.5	PASS					
		VH	TN	-0.45	-0.000257	± 2.5	PASS					
		VL	TN	4.54	0.002653	± 2.5	PASS					
	LCH	VN	TN	3.95	0.002308	± 2.5	PASS					
		VH	TN	-1.18	-0.000689	± 2.5	PASS					
	MCH	VL	TN	0.77	0.000444	± 2.5	PASS					
16QAM		VN	TN	1.98	0.001143	± 2.5	PASS					
		VH	TN	3.49	0.002014	± 2.5	PASS					
		VL	TN	-0.18	-0.000103	± 2.5	PASS					
	HCH	VN	TN	0.43	0.000245	± 2.5	PASS					
		VH	TN	4.43	0.002526	± 2.5	PASS					
			Tempe	erature								
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict					
		VN	-30	-1.65	-0.000964	± 2.5	PASS					
		VN	-20	-0.85	-0.000497	± 2.5	PASS					
		VN	-10	-0.59	-0.000345	± 2.5	PASS					
		VN	0	2.42	0.001414	± 2.5	PASS					
	LCH	VN	10	-1.88	-0.001098	± 2.5	PASS					
OBSK		VN	20	0.9	0.000526	± 2.5	PASS					
QPSK		VN	30	4.91	0.002869	± 2.5	PASS					
		VN	40	1.89	0.001104	± 2.5	PASS					
		VN	50	-1.29	-0.000754	± 2.5	PASS					
		VN	-30	-1.46	-0.000843	± 2.5	PASS					
	MCH	VN	-20	0.44	0.000254	± 2.5	PASS					
		VN	-10	-0.19	-0.000110	± 2.5	PASS					

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		VN	0	4.29	0.002476	± 2.5	PASS
		VN	10	2.13	0.001229	± 2.5	PASS
		VN	20	0.75	0.000433	± 2.5	PASS
		VN	30	-0.59	-0.000341	± 2.5	PASS
		VN	40	0.61	0.000352	± 2.5	PASS
		VN	50	-0.84	-0.000485	± 2.5	PASS
		VN	-30	3.94	0.002247	± 2.5	PASS
		VN	-20	-1.13	-0.000644	± 2.5	PASS
		VN	-10	-1.65	-0.000941	± 2.5	PASS
		VN	0	3.95	0.002253	± 2.5	PASS
	HCH	VN	10	-1.53	-0.000873	± 2.5	PASS
		VN	20	-1.13	-0.000644	± 2.5	PASS
		VN	30	3.33	0.001899	± 2.5	PASS
		VN	40	-1.76	-0.001004	± 2.5	PASS
		VN	50	1.75	0.000998	± 2.5	PASS
		VN	-30	1.77	0.001022	± 2.5	PASS
		VN	-20	3.5	0.002020	± 2.5	PASS
		VN	-10	0.83	0.000479	± 2.5	PASS
	LCH	VN	0	4.32	0.002494	± 2.5	PASS
		VN	10	4.28	0.002470	± 2.5	PASS
		VN	20	0.53	0.000306	± 2.5	PASS
		VN	30	2.32	0.001339	± 2.5	PASS
		VN	40	2.13	0.001229	± 2.5	PASS
		VN	50	3.2	0.001847	± 2.5	PASS
		VN	-30	3.25	0.001853	± 2.5	PASS
		VN	-20	-0.13	-0.000074	± 2.5	PASS
		VN	-10	1.52	0.000867	± 2.5	PASS
QPSK		VN	0	1.43	0.000816	± 2.5	PASS
WF JN	MCH	VN	10	2.38	0.001357	± 2.5	PASS
		VN	20	3.93	0.002241	± 2.5	PASS
		VN	30	-0.72	-0.000411	± 2.5	PASS
		VN	40	1.72	0.000981	± 2.5	PASS
		VN	50	-1.29	-0.000736	± 2.5	PASS
		VN	-30	0.95	0.000542	± 2.5	PASS
		VN	-20	4.68	0.002669	± 2.5	PASS
		VN	-10	0.8	0.000456	± 2.5	PASS
	НСН	VN	0	1.07	0.000610	± 2.5	PASS
	1700	VN	10	1.51	0.000861	± 2.5	PASS
		VN	20	-0.5	-0.000285	± 2.5	PASS
		VN	30	-1.34	-0.000764	± 2.5	PASS
		VN	40	0.75	0.000428	± 2.5	PASS





VN	F0	2.44	0.004000	. 2 E	DACC
VIN	50	3.44	0.001962	± 2.5	PASS

Channel Bandwidth: 5 MHz

	Channel Bandwidth: 5 MHz											
				tage								
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict					
		VL	TN	-1.9	-0.001109	± 2.5	PASS					
	LCH	VN	TN	1.49	0.000870	± 2.5	PASS					
		VH	TN	3.96	0.002312	± 2.5	PASS					
		VL	TN	2.36	0.001362	± 2.5	PASS					
QPSK	MCH	VN	TN	-1.93	-0.001114	± 2.5	PASS					
		VH	TN	0.42	0.000242	± 2.5	PASS					
		VL	TN	4.05	0.002311	± 2.5	PASS					
	HCH	VN	TN	3.1	0.001769	± 2.5	PASS					
		VH	TN	1.01	0.000576	± 2.5	PASS					
		VL	TN	-1.82	-0.001063	± 2.5	PASS					
	LCH	VN	TN	3.67	0.002143	± 2.5	PASS					
		VH	TN	1.98	0.001156	± 2.5	PASS					
		VL	TN	4.02	0.002320	± 2.5	PASS					
16QAM	MCH	VN	TN	-1.79	-0.001033	± 2.5	PASS					
		VH	TN	-1.83	-0.001056	± 2.5	PASS					
		VL	TN	0.2	0.000114	± 2.5	PASS					
	HCH	VN	TN	0.51	0.000291	± 2.5	PASS					
		VH	TN	4.77	0.002722	± 2.5	PASS					
	1		Tempe	erature		•						
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict					
		VN	-30	0.2	0.000117	± 2.5	PASS					
		VN	-20	0.45	0.000263	± 2.5	PASS					
		VN	-10	3.35	0.001956	± 2.5	PASS					
		VN	0	3.56	0.002079	± 2.5	PASS					
	LCH	VN	10	-0.59	-0.000345	± 2.5	PASS					
		VN	20	-1.63	-0.000952	± 2.5	PASS					
QPSK		VN	30	-0.13	-0.000076	± 2.5	PASS					
		VN	40	-1.11	-0.000648	± 2.5	PASS					
		VN	50	1.61	0.000940	± 2.5	PASS					
		VN	-30	4.72	0.002724	± 2.5	PASS					
	MCH	VN	-20	-0.02	-0.000012	± 2.5	PASS					
	IVIOII	VN	-10	2.6	0.001501	± 2.5	PASS					
		VN	0	3.73	0.002153	± 2.5	PASS					





-							
		VN	10	3.4	0.001962	± 2.5	PASS
		VN	20	2.49	0.001437	± 2.5	PASS
		VN	30	-0.45	-0.000260	± 2.5	PASS
		VN	40	-1.62	-0.000935	± 2.5	PASS
		VN	50	-1.25	-0.000722	± 2.5	PASS
		VN	-30	-1.25	-0.000713	± 2.5	PASS
		VN	-20	2.42	0.001269	± 2.5	PASS
		VN	-10	0.61	0.000320	± 2.5	PASS
		VN	0	0.97	0.000509	± 2.5	PASS
	HCH	VN	10	-0.18	-0.000094	± 2.5	PASS
		VN	20	3.84	0.002013	± 2.5	PASS
		VN	30	0.05	0.000026	± 2.5	PASS
		VN	40	4.04	0.002118	± 2.5	PASS
		VN	50	3.84	0.002013	± 2.5	PASS
		VN	-30	1.12	0.000646	± 2.5	PASS
		VN	-20	-0.25	-0.000144	± 2.5	PASS
		VN	-10	0.16	0.000092	± 2.5	PASS
		VN	0	3.24	0.001870	± 2.5	PASS
	LCH	VN	10	2.86	0.001651	± 2.5	PASS
		VN	20	-0.57	-0.000329	± 2.5	PASS
		VN	30	2.73	0.001576	± 2.5	PASS
		VN	40	-0.97	-0.000560	± 2.5	PASS
		VN	50	2.74	0.001582	± 2.5	PASS
		VN	-30	-0.14	-0.000080	± 2.5	PASS
		VN	-20	-1.77	-0.001010	± 2.5	PASS
		VN	-10	4.25	0.002425	± 2.5	PASS
		VN	0	0.36	0.000205	± 2.5	PASS
16QAM	MCH	VN	10	0.47	0.000268	± 2.5	PASS
		VN	20	4.22	0.002408	± 2.5	PASS
		VN	30	2.54	0.001449	± 2.5	PASS
		VN	40	2.39	0.001364	± 2.5	PASS
		VN	50	4.73	0.002699	± 2.5	PASS
		VN	-30	1.2	0.000629	± 2.5	PASS
		VN	-20	3.12	0.001636	± 2.5	PASS
		VN	-10	2.84	0.001489	± 2.5	PASS
		VN	0	3.18	0.001667	± 2.5	PASS
	HCH	VN	10	1.54	0.000807	± 2.5	PASS
		VN	20	4.05	0.002123	± 2.5	PASS
		VN	30	2.41	0.001263	± 2.5	PASS
		VN	40	1.19	0.000624	± 2.5	PASS
		VN	50	-1.21	-0.000634	± 2.5	PASS





Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz											
				tage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict				
		VL	TN	2.64	0.001539	± 2.5	PASS				
	LCH	VN	TN	2.51	0.001464	± 2.5	PASS				
		VH	TN	3.64	0.002122	± 2.5	PASS				
		VL	TN	-0.15	-0.000087	± 2.5	PASS				
QPSK	MCH	VN	TN	4.89	0.002823	± 2.5	PASS				
		VH	TN	4.85	0.002799	± 2.5	PASS				
		VL	TN	4.71	0.002691	± 2.5	PASS				
	HCH	VN	TN	-1.75	-0.001000	± 2.5	PASS				
		VH	TN	-1.15	-0.000657	± 2.5	PASS				
		VL	TN	0.4	0.000233	± 2.5	PASS				
	LCH	VN	TN	3.66	0.002134	± 2.5	PASS				
		VH	TN	-1.05	-0.000612	± 2.5	PASS				
		VL	TN	2.38	0.001374	± 2.5	PASS				
16QAM	MCH	VN	TN	-0.45	-0.000260	± 2.5	PASS				
		VH	TN	2.25	0.001299	± 2.5	PASS				
		VL	TN	1.37	0.000783	± 2.5	PASS				
	HCH	VN	TN	3.76	0.002149	± 2.5	PASS				
		VH	TN	0.65	0.000371	± 2.5	PASS				
			Tempe	erature		ı					
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict				
		VN	-30	1.2	0.000700	± 2.5	PASS				
		VN	-20	-1.01	-0.000589	± 2.5	PASS				
		VN	-10	3.21	0.001872	± 2.5	PASS				
		VN	0	0.14	0.000082	± 2.5	PASS				
	LCH	VN	10	1.15	0.000671	± 2.5	PASS				
		VN	20	4.43	0.002583	± 2.5	PASS				
		VN	30	4.37	0.002548	± 2.5	PASS				
16QAM		VN	40	-0.16	-0.000093	± 2.5	PASS				
		VN	50	4.18	0.002437	± 2.5	PASS				
		VN	-30	4.16	0.002401	± 2.5	PASS				
		VN	-20	1.5	0.000866	± 2.5	PASS				
	MCH	VN	-10	3.34	0.001928	± 2.5	PASS				
	IVICII	VN	0	4.26	0.002459	± 2.5	PASS				
		VN	10	2.41	0.001391	± 2.5	PASS				
		VN	20	0.38	0.000219	± 2.5	PASS				





VN 30 2.13 0.001229 ± 2.5 PASS								
VN 50 2.72 0.001570 ±2.5 PASS VN -30 3.23 0.001846 ±2.5 PASS VN -20 2.58 0.001474 ±2.5 PASS VN -10 2.83 0.001617 ±2.5 PASS VN 0 2.38 0.00160 ±2.5 PASS VN 0 2.38 0.001360 ±2.5 PASS VN 10 1.41 0.000806 ±2.5 PASS VN 20 4.69 0.002680 ±2.5 PASS VN 40 3.21 0.001834 ±2.5 PASS VN 50 3.64 0.002080 ±2.5 PASS VN -30 -0.94 -0.00543 ±2.5 PASS VN -20 2.46 0.001420 ±2.5 PASS VN -10 -0.76 -0.000439 ±2.5 PASS VN 0 4.83 0.002788 ±2.5 PASS VN 20 -0.86 -0.000496 ±2.5 PASS VN 30 -1.34 -0.000773 ±2.5 PASS VN 40 4.46 0.002574 ±2.5 PASS VN 50 3.96 0.002286 ±2.5 PASS VN -30 4.56 0.002606 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -10 3.09 0.001766 ±2.5 PASS VN -10 3.09 0.001766 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -10 3.09 0.001766 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -30 3.43 0.001960 ±2.5 PASS VN -10 3.09 0.001766 ±2.5 PASS VN -20 0.47 0.000269 ±2.5 PASS VN -30 2.1 0.001200 ±2.5 PASS VN -30 2.1 0.001200 ±2.5 PASS VN -30 2.1 0.001200 ±2.5 PASS VN -20 2.08 0.001188 ±2.5 PASS VN -10 1.37 0.000763 ±2.5 PASS VN -10 1.37 0.000763 ±2.5 PASS VN -10 1.37 0.000763 ±2.5 PASS VN -20 -0.88 -0.000503 ±2.5 PASS VN -20 -0.88 -0.000503 ±2.5 PASS VN -20 -0.88 -0.000714 ±2.5 PASS VN			VN	30	2.13	0.001229	± 2.5	PASS
NN			VN	40	-0.78	-0.000450	± 2.5	PASS
N			VN	50	2.72	0.001570	± 2.5	PASS
HCH HCH VN 10 2.83 0.001617 ±2.5 PASS VN 0 2.38 0.001360 ±2.5 PASS PASS VN 10 11.41 0.000806 ±2.5 PASS VN 20 4.69 0.002680 ±2.5 PASS VN 30 3.88 0.002217 ±2.5 PASS VN 40 3.21 0.001834 ±2.5 PASS VN 50 3.64 0.002080 ±2.5 PASS VN 70 -20 2.46 0.001420 ±2.5 PASS VN 70 -20 2.46 0.001420 ±2.5 PASS VN 70 -20 -0.86 -0.000439 ±2.5 PASS VN 10 -0.8 -0.000462 ±2.5 PASS VN 20 -0.86 -0.000496 ±2.5 PASS VN 30 -1.34 -0.000773 ±2.5 PASS VN 40 4.46 0.002574 ±2.5 PASS VN 30 4.56 0.002606 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -20 -1.24 -0.000299 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -20 -1.24 -0.000299 ±2.5 PASS VN -20 -1.27 -0.000411 ±2.5 PASS VN -20 -0.47 -0.000269 ±2.5 PASS VN -20 -0.88 -0.001189 ±2.5 PASS VN -20 -0.88 -0.001131 ±2.5 PASS VN -10 -1.37 -0.000783 ±2.5 PASS VN -10 -1.37 -1.25 -1.20007714 ±2.5 PASS -1.25 -1			VN	-30	3.23	0.001846	± 2.5	PASS
HCH HCH VN 10 1.41 0.000806 ±2.5 PASS VN 20 4.69 0.002680 ±2.5 PASS VN 30 3.88 0.002217 ±2.5 PASS VN 30 3.88 0.002217 ±2.5 PASS VN 40 3.21 0.001834 ±2.5 PASS VN 50 3.64 0.002080 ±2.5 PASS VN 50 3.64 0.002080 ±2.5 PASS VN 50 0.94 -0.000543 ±2.5 PASS VN -20 2.46 0.001420 ±2.5 PASS VN -10 -0.76 -0.000439 ±2.5 PASS VN 0 4.83 0.002788 ±2.5 PASS VN 20 -0.86 -0.000462 ±2.5 PASS VN 20 -0.86 -0.000462 ±2.5 PASS VN 30 -1.34 -0.000773 ±2.5 PASS VN 50 3.96 0.002286 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -10 -10 -1.74 -0.000994 ±2.5 PASS VN -10 -1.74 -0.00069 ±2.5 PASS VN -10 -1.74 -0.00069 ±2.5 PASS VN -10 -1.74 -0.000793 ±2.5 PASS VN -10 -1.74 -0.000793 ±2.5 PASS VN -10 -1.74 -0.000793 ±2.5 PASS VN -10 -1.74 -0.00069 ±2.5 PASS VN -10 -1.74 -0.00069 ±2.5 PASS VN -10 -1.74 -0.000793 ±2.5 PASS VN -10 -1.74 -0.00069 ±2.5 PASS VN -10 -1.74 -0.000793 ±2.5 PASS VN -10 -1.74 -0.00069 ±2.5 PASS VN -10 -1.74 -0.000793 ±2.5 PASS VN -10 -1.74 -0.000793 ±2.5 PASS VN -10 -1.74 -1.7			VN	-20	2.58	0.001474	± 2.5	PASS
HCH			VN	-10	2.83	0.001617	± 2.5	PASS
VN			VN	0	2.38	0.001360	± 2.5	PASS
VN 30 3.88 0.002217 ±2.5 PASS VN 40 3.21 0.001834 ±2.5 PASS VN 50 3.64 0.002080 ±2.5 PASS VN -30 -0.94 -0.000543 ±2.5 PASS VN -20 2.46 0.001420 ±2.5 PASS VN -10 -0.76 -0.000439 ±2.5 PASS VN 0 -10 -0.76 -0.000439 ±2.5 PASS VN 0 -10 -0.8 -0.000462 ±2.5 PASS VN 20 -0.86 -0.000462 ±2.5 PASS VN 30 -1.34 -0.000773 ±2.5 PASS VN 40 4.46 0.002574 ±2.5 PASS VN 50 3.96 0.002286 ±2.5 PASS VN -30 4.56 0.002606 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -10 3.09 0.001766 ±2.5 PASS VN 0 -11 3.7 0.000299 ±2.5 PASS VN 30 3.43 0.001960 ±2.5 PASS VN 40 0.72 0.000411 ±2.5 PASS VN -30 2.1 0.001200 ±2.5 PASS VN -30 2.1 0.001200 ±2.5 PASS VN -20 2.08 0.001189 ±2.5 PASS VN -20 2.08 0.001189 ±2.5 PASS VN -20 2.08 0.001189 ±2.5 PASS VN -10 1.37 0.000783 ±2.5 PASS VN -10 1.38 0.001189 ±2.5 PASS VN -10 1.39 0.00074 ±2.5 PASS VN -10 1.39 0.00074 ±2.5 PASS VN -10 1.39 0.00074 ±2.5 PASS		НСН	VN	10	1.41	0.000806	± 2.5	PASS
VN			VN	20	4.69	0.002680	± 2.5	PASS
VN 50 3.64 0.002080 ±2.5 PASS			VN	30	3.88	0.002217	± 2.5	PASS
VN			VN	40	3.21	0.001834	± 2.5	PASS
VN			VN	50	3.64	0.002080	± 2.5	PASS
Character Char			VN	-30	-0.94	-0.000543	± 2.5	PASS
Change C			VN	-20	2.46	0.001420	± 2.5	PASS
CH			VN	-10	-0.76	-0.000439	± 2.5	PASS
VN 20			VN	0	4.83	0.002788	± 2.5	PASS
VN		LCH	VN	10	-0.8	-0.000462	± 2.5	PASS
VN			VN	20	-0.86	-0.000496	± 2.5	PASS
VN 50 3.96 0.002286 ±2.5 PASS VN -30 4.56 0.002606 ±2.5 PASS VN -20 -1.23 -0.000703 ±2.5 PASS VN -10 3.09 0.001766 ±2.5 PASS VN 0 -1.74 -0.000994 ±2.5 PASS VN 20 0.47 0.000229 ±2.5 PASS VN 30 3.43 0.001960 ±2.5 PASS VN 40 0.72 0.000411 ±2.5 PASS VN 50 -0.8 -0.000457 ±2.5 PASS VN -30 2.1 0.001200 ±2.5 PASS VN -20 2.08 0.001189 ±2.5 PASS VN -10 1.37 0.000783 ±2.5 PASS VN -10 1.37 -0.000783 ±2.5 PASS VN -10 -1.98 -0.001131 ±2.5 PASS VN 20 -0.88 -0.000503 ±2.5 PASS VN 20 -0.88 -0.000503 ±2.5 PASS VN 30 0.13 0.000074 ±2.5 PASS VN 40 -1.25 -0.000714 ±2.5 PASS PA			VN	30	-1.34	-0.000773	± 2.5	PASS
VN			VN	40	4.46	0.002574	± 2.5	PASS
QPSK VN -20 -1.23 -0.000703 ± 2.5 PASS VN -10 3.09 0.001766 ± 2.5 PASS VN 0 -1.74 -0.000994 ± 2.5 PASS VN 10 0.4 0.000229 ± 2.5 PASS VN 20 0.47 0.000269 ± 2.5 PASS VN 30 3.43 0.001960 ± 2.5 PASS VN 40 0.72 0.000411 ± 2.5 PASS VN 50 -0.8 -0.000457 ± 2.5 PASS VN -30 2.1 0.001200 ± 2.5 PASS VN -20 2.08 0.001189 ± 2.5 PASS VN -10 1.37 -0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN			VN	50	3.96	0.002286	± 2.5	PASS
VN -10 3.09 0.001766 ± 2.5 PASS VN 0 -1.74 -0.000994 ± 2.5 PASS VN 10 0.4 0.000229 ± 2.5 PASS VN 20 0.47 0.000269 ± 2.5 PASS VN 30 3.43 0.001960 ± 2.5 PASS VN 40 0.72 0.000411 ± 2.5 PASS VN 50 -0.8 -0.000457 ± 2.5 PASS VN -30 2.1 0.001200 ± 2.5 PASS VN -20 2.08 0.001189 ± 2.5 PASS VN -10 1.37 0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 <td></td> <td></td> <td>VN</td> <td>-30</td> <td>4.56</td> <td>0.002606</td> <td>± 2.5</td> <td>PASS</td>			VN	-30	4.56	0.002606	± 2.5	PASS
QPSK MCH VN 0 -1.74 -0.000994 ± 2.5 PASS VN 10 0.4 0.000229 ± 2.5 PASS VN 20 0.47 0.000269 ± 2.5 PASS VN 30 3.43 0.001960 ± 2.5 PASS VN 40 0.72 0.000411 ± 2.5 PASS VN 50 -0.8 -0.000457 ± 2.5 PASS VN -30 2.1 0.001200 ± 2.5 PASS VN -20 2.08 0.001189 ± 2.5 PASS VN -10 1.37 0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.000074 ± 2.5 PASS			VN	-20	-1.23	-0.000703	± 2.5	PASS
QPSK MCH VN 10 0.4 0.000229 ± 2.5 PASS VN 20 0.47 0.000269 ± 2.5 PASS VN 30 3.43 0.001960 ± 2.5 PASS VN 40 0.72 0.000411 ± 2.5 PASS VN 50 -0.8 -0.000457 ± 2.5 PASS VN -30 2.1 0.001200 ± 2.5 PASS VN -20 2.08 0.001189 ± 2.5 PASS VN -10 1.37 -0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.00074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS			VN	-10	3.09	0.001766	± 2.5	PASS
VN 20 0.47 0.000269 ±2.5 PASS VN 30 3.43 0.001960 ±2.5 PASS VN 40 0.72 0.000411 ±2.5 PASS VN 50 -0.8 -0.000457 ±2.5 PASS VN -30 2.1 0.001200 ±2.5 PASS VN -20 2.08 0.001189 ±2.5 PASS VN -10 1.37 0.000783 ±2.5 PASS VN 0 -1.37 -0.000783 ±2.5 PASS VN 10 -1.98 -0.001131 ±2.5 PASS VN 20 -0.88 -0.000503 ±2.5 PASS VN 30 0.13 0.000074 ±2.5 PASS VN 40 -1.25 -0.000714 ±2.5 PASS			VN	0	-1.74	-0.000994	± 2.5	PASS
VN 30 3.43 0.001960 ± 2.5 PASS VN 40 0.72 0.000411 ± 2.5 PASS VN 50 -0.8 -0.000457 ± 2.5 PASS VN -30 2.1 0.001200 ± 2.5 PASS VN -20 2.08 0.001189 ± 2.5 PASS VN -10 1.37 0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.000074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS	QPSK	MCH	VN	10	0.4	0.000229	± 2.5	PASS
VN 40 0.72 0.000411 ± 2.5 PASS VN 50 -0.8 -0.000457 ± 2.5 PASS VN -30 2.1 0.001200 ± 2.5 PASS VN -20 2.08 0.001189 ± 2.5 PASS VN -10 1.37 0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.000074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS			VN	20	0.47	0.000269	± 2.5	PASS
VN 50 -0.8 -0.000457 ± 2.5 PASS VN -30 2.1 0.001200 ± 2.5 PASS VN -20 2.08 0.001189 ± 2.5 PASS VN -10 1.37 0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.000074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS			VN	30	3.43	0.001960	± 2.5	PASS
VN -30 2.1 0.001200 ± 2.5 PASS VN -20 2.08 0.001189 ± 2.5 PASS VN -10 1.37 0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.000074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS			VN	40	0.72	0.000411	± 2.5	PASS
VN -20 2.08 0.001189 ± 2.5 PASS VN -10 1.37 0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.000074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS			VN	50	-0.8	-0.000457	± 2.5	PASS
VN -10 1.37 0.000783 ± 2.5 PASS VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.000074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS			VN	-30	2.1	0.001200	± 2.5	PASS
VN 0 -1.37 -0.000783 ± 2.5 PASS VN 10 -1.98 -0.001131 ± 2.5 PASS VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.000074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS			VN	-20	2.08	0.001189	± 2.5	PASS
HCH			VN	-10	1.37	0.000783	± 2.5	PASS
VN 20 -0.88 -0.000503 ± 2.5 PASS VN 30 0.13 0.000074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS			VN	0	-1.37	-0.000783	± 2.5	PASS
VN 30 0.13 0.000074 ± 2.5 PASS VN 40 -1.25 -0.000714 ± 2.5 PASS		HCH	VN	10	-1.98	-0.001131	± 2.5	PASS
VN 40 -1.25 -0.000714 ± 2.5 PASS			VN	20	-0.88	-0.000503	± 2.5	PASS
			VN	30	0.13	0.000074	± 2.5	PASS
VN 50 -0.65 -0.000371 ± 2.5 PASS			VN	40	-1.25	-0.000714	± 2.5	PASS
			VN	50	-0.65	-0.000371	± 2.5	PASS





Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz											
				tage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict				
		VL	TN	3.69	0.002148	± 2.5	PASS				
	LCH	VN	TN	4.57	0.002661	± 2.5	PASS				
		VH	TN	-1.18	-0.000687	± 2.5	PASS				
		VL	TN	1.86	0.001074	± 2.5	PASS				
QPSK	MCH	VN	TN	0.29	0.000167	± 2.5	PASS				
		VH	TN	-1.55	-0.000895	± 2.5	PASS				
		VL	TN	1.85	0.001059	± 2.5	PASS				
	HCH	VN	TN	3.95	0.002260	± 2.5	PASS				
		VH	TN	3.53	0.002020	± 2.5	PASS				
		VL	TN	4.95	0.002882	± 2.5	PASS				
	LCH	VN	TN	3.97	0.002311	± 2.5	PASS				
		VH	TN	0.04	0.000023	± 2.5	PASS				
		VL	TN	1.6	0.000924	± 2.5	PASS				
16QAM	MCH	VN	TN	2.31	0.001333	± 2.5	PASS				
		VH	TN	-1.84	-0.001062	± 2.5	PASS				
		VL	TN	2.31	0.001322	± 2.5	PASS				
	HCH	VN	TN	1.31	0.000750	± 2.5	PASS				
		VH	TN	4.67	0.002672	± 2.5	PASS				
			Tempe	erature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict				
		VN	-30	1.52	0.000885	± 2.5	PASS				
		VN	-20	2.15	0.001252	± 2.5	PASS				
		VN	-10	-1.58	-0.000920	± 2.5	PASS				
		VN	0	2.95	0.001718	± 2.5	PASS				
	LCH	VN	10	-1.88	-0.001095	± 2.5	PASS				
		VN	20	-1.9	-0.001106	± 2.5	PASS				
		VN	30	0.45	0.000262	± 2.5	PASS				
QPSK		VN	40	2.28	0.001328	± 2.5	PASS				
		VN	50	1.24	0.000722	± 2.5	PASS				
		VN	-30	0.61	0.000352	± 2.5	PASS				
		VN	-20	-1.39	-0.000802	± 2.5	PASS				
	МСН	VN	-10	-1.6	-0.000924	± 2.5	PASS				
	MCH	VN	0	4.48	0.002586	± 2.5	PASS				
		VN	10	2.06	0.001189	± 2.5	PASS				
		VN	20	2.21	0.001276	± 2.5	PASS				





		VN	30	4.91	0.002834	± 2.5	PASS
		VN	40	2.22	0.001281	± 2.5	PASS
		VN	50	-0.82	-0.000473	± 2.5	PASS
		VN	-30	3.89	0.002226	± 2.5	PASS
		VN	-20	-1.85	-0.001059	± 2.5	PASS
		VN	-10	-0.58	-0.000332	± 2.5	PASS
		VN	0	-0.35	-0.000200	± 2.5	PASS
	HCH	VN	10	4.89	0.002798	± 2.5	PASS
		VN	20	0.64	0.000366	± 2.5	PASS
		VN	30	4.3	0.002461	± 2.5	PASS
		VN	40	4.18	0.002392	± 2.5	PASS
		VN	50	4.88	0.002793	± 2.5	PASS
		VN	-30	1.3	0.000750	± 2.5	PASS
		VN	-20	1.91	0.001102	± 2.5	PASS
		VN	-10	1.7	0.000981	± 2.5	PASS
		VN	0	3.24	0.001870	± 2.5	PASS
	LCH	VN	10	-0.74	-0.000427	± 2.5	PASS
		VN	20	-1.55	-0.000895	± 2.5	PASS
		VN	30	4.81	0.002776	± 2.5	PASS
		VN	40	3.53	0.002038	± 2.5	PASS
		VN	50	-1.29	-0.000745	± 2.5	PASS
		VN	-30	0.91	0.000521	± 2.5	PASS
		VN	-20	1.9	0.001087	± 2.5	PASS
		VN	-10	3.84	0.002197	± 2.5	PASS
		VN	0	1.99	0.001139	± 2.5	PASS
QPSK	MCH	VN	10	-0.6	-0.000343	± 2.5	PASS
		VN	20	4.71	0.002695	± 2.5	PASS
		VN	30	1.17	0.000670	± 2.5	PASS
		VN	40	-0.14	-0.000080	± 2.5	PASS
		VN	50	-1.54	-0.000881	± 2.5	PASS
		VN	-30	0.48	0.000275	± 2.5	PASS
		VN	-20	4.61	0.002638	± 2.5	PASS
		VN	-10	-1.26	-0.000721	± 2.5	PASS
		VN	0	4.4	0.002518	± 2.5	PASS
	HCH	VN	10	0.95	0.000544	± 2.5	PASS
		VN	20	2.36	0.001351	± 2.5	PASS
		VN	30	4.96	0.002838	± 2.5	PASS
		VN	40	-1.87	-0.001070	± 2.5	PASS
		VN	50	0.1	0.000057	± 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	-1.73	-0.001006	± 2.5	PASS					
		VN	TN	3.7	0.002151	± 2.5	PASS					
		VH	TN	1.71	0.000994	± 2.5	PASS					
	MCH	VL	TN	0.13	0.000075	± 2.5	PASS					
		VN	TN	2.67	0.001541	± 2.5	PASS					
		VH	TN	2.95	0.001703	± 2.5	PASS					
	НСН	VL	TN	2.15	0.001232	± 2.5	PASS					
		VN	TN	2.51	0.001438	± 2.5	PASS					
		VH	TN	2.26	0.001295	± 2.5	PASS					
	LCH	VL	TN	-1.44	-0.000837	± 2.5	PASS					
		VN	TN	-1.51	-0.000878	± 2.5	PASS					
		VH	TN	2.79	0.001622	± 2.5	PASS					
	MCH	VL	TN	0.91	0.000525	± 2.5	PASS					
16QAM		VN	TN	-1.47	-0.000848	± 2.5	PASS					
		VH	TN	2.39	0.001380	± 2.5	PASS					
	НСН	VL	TN	4.12	0.002361	± 2.5	PASS					
		VN	TN	4.93	0.002825	± 2.5	PASS					
		VH	TN	0.97	0.000556	± 2.5	PASS					
	•		Tempe	erature								
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict					
	LCH	VN	-30	-0.26	-0.000151	± 2.5	PASS					
		VN	-20	-1.51	-0.000878	± 2.5	PASS					
		VN	-10	-1.74	-0.001012	± 2.5	PASS					
		VN	0	4.62	0.002686	± 2.5	PASS					
		VN	10	-1.41	-0.000820	± 2.5	PASS					
QPSK		VN	20	2.55	0.001483	± 2.5	PASS					
		VN	30	-1.62	-0.000942	± 2.5	PASS					
		VN	40	0.68	0.000395	± 2.5	PASS					
		VN	50	3.28	0.001907	± 2.5	PASS					
	мсн	VN	-30	-0.25	-0.000144	± 2.5	PASS					
		VN	-20	3.73	0.002153	± 2.5	PASS					
		VN	-10	-1.99	-0.001149	± 2.5	PASS					
		VN	0	4.43	0.002557	± 2.5	PASS					
		VN	10	-1.09	-0.000629	± 2.5	PASS					
		VN	20	3.93	0.002268	± 2.5	PASS					





		VN	30	3.4	0.001962	± 2.5	PASS
		VN	40	-1.91	-0.001102	± 2.5	PASS
		VN	50	4.03	0.002326	± 2.5	PASS
	нсн	VN	-30	4.26	0.002441	± 2.5	PASS
		VN	-20	0.85	0.000487	± 2.5	PASS
		VN	-10	-0.02	-0.000011	± 2.5	PASS
		VN	0	3.92	0.002246	± 2.5	PASS
		VN	10	1.29	0.000739	± 2.5	PASS
		VN	20	-1.09	-0.000625	± 2.5	PASS
		VN	30	0.65	0.000372	± 2.5	PASS
		VN	40	1.64	0.000940	± 2.5	PASS
		VN	50	0.33	0.000189	± 2.5	PASS
		VN	-30	3.43	0.001980	± 2.5	PASS
		VN	-20	-1.94	-0.001120	± 2.5	PASS
		VN	-10	4.92	0.002840	± 2.5	PASS
	LCH	VN	0	-1.13	-0.000652	± 2.5	PASS
		VN	10	3.11	0.001795	± 2.5	PASS
		VN	20	4.97	0.002869	± 2.5	PASS
QPSK		VN	30	4.29	0.002476	± 2.5	PASS
		VN	40	4.21	0.002430	± 2.5	PASS
		VN	50	-1.28	-0.000739	± 2.5	PASS
	МСН	VN	-30	4.34	0.002487	± 2.5	PASS
		VN	-20	0.59	0.000338	± 2.5	PASS
		VN	-10	2.76	0.001582	± 2.5	PASS
		VN	0	2.66	0.001524	± 2.5	PASS
		VN	10	1.29	0.000739	± 2.5	PASS
		VN	20	-1.54	-0.000883	± 2.5	PASS
		VN	30	0.33	0.000189	± 2.5	PASS
		VN	40	-1.93	-0.001106	± 2.5	PASS
		VN	50	-1.41	-0.000808	± 2.5	PASS
	нсн	VN	-30	1.83	0.001049	± 2.5	PASS
		VN	-20	0.5	0.000287	± 2.5	PASS
		VN	-10	1.55	0.000888	± 2.5	PASS
		VN	0	-0.27	-0.000155	± 2.5	PASS
		VN	10	-1.65	-0.000946	± 2.5	PASS
		VN	20	0.51	0.000292	± 2.5	PASS
		VN	30	2.2	0.001261	± 2.5	PASS
		VN	40	4.61	0.002642	± 2.5	PASS
		VN	50	3.02	0.001731	± 2.5	PASS