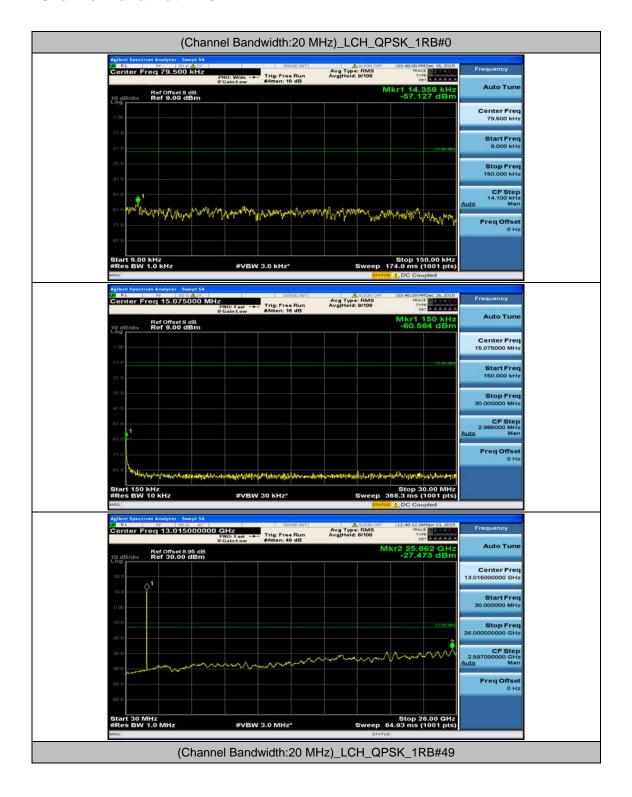
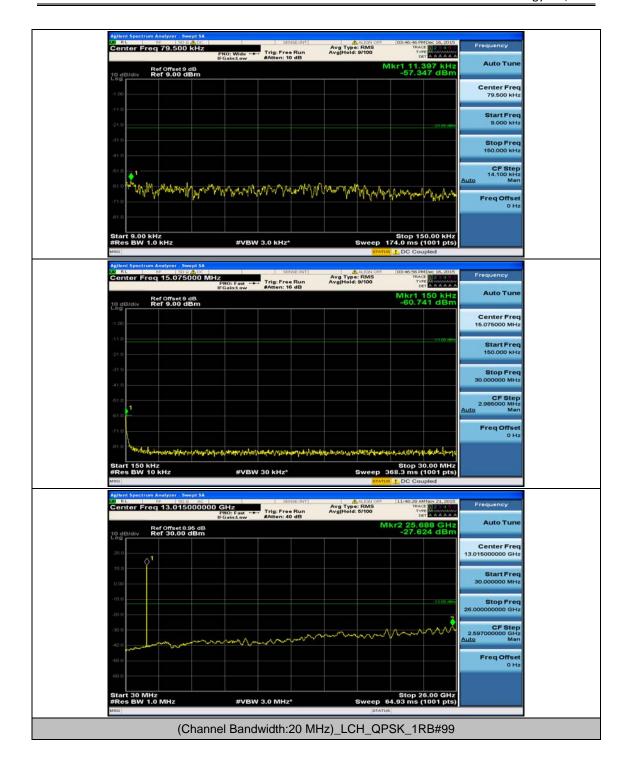




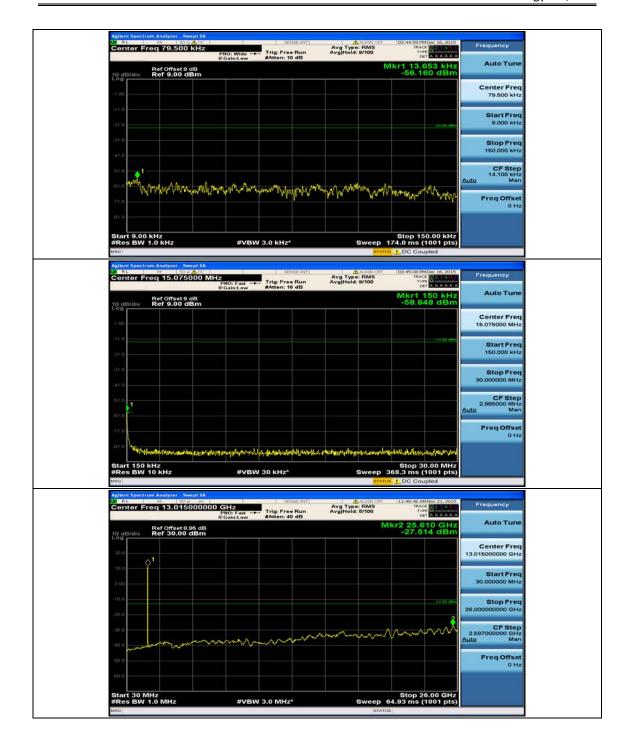
#### **Channel Bandwidth: 20 MHz**



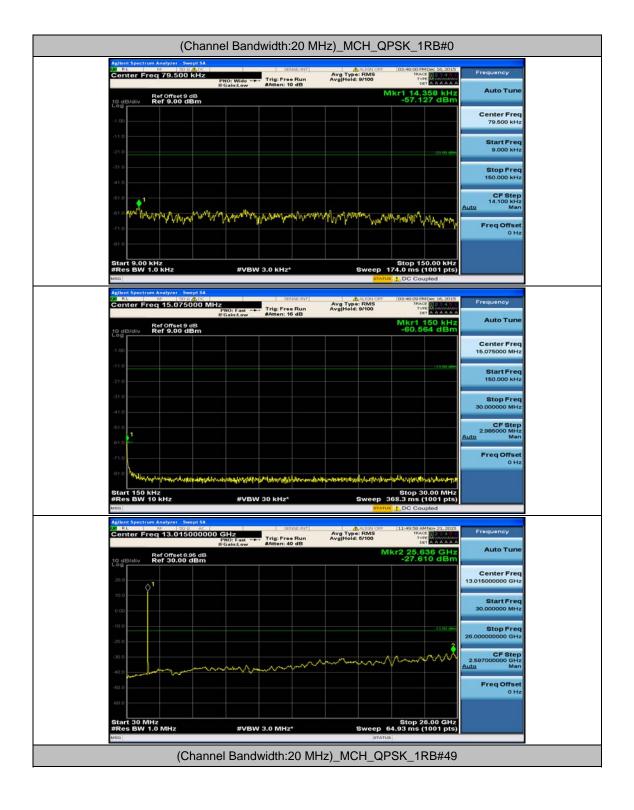




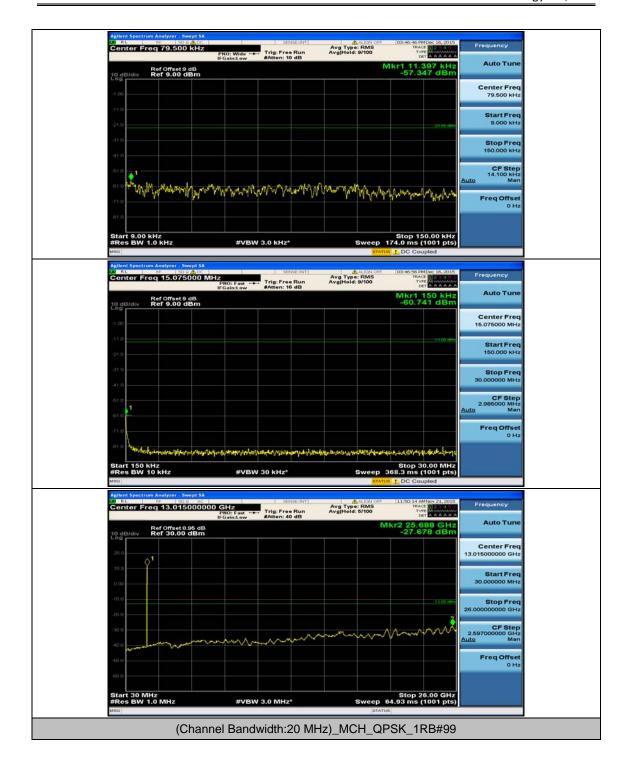




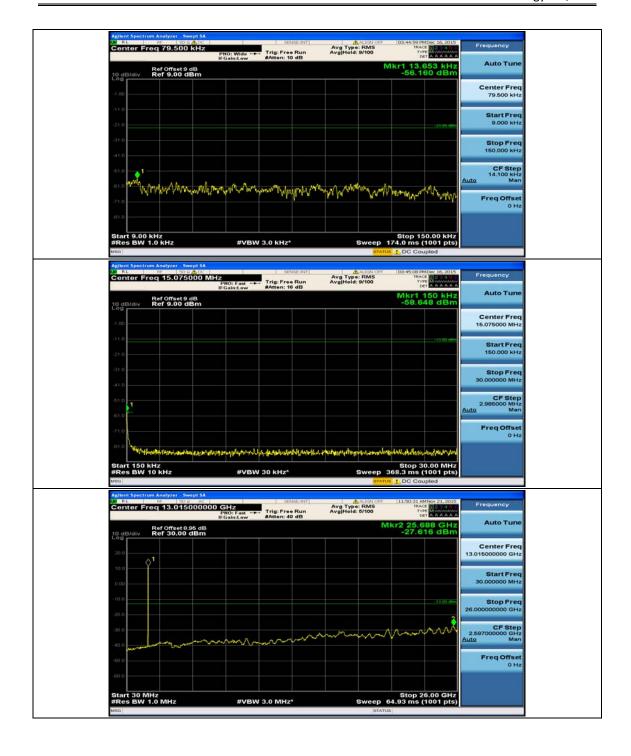




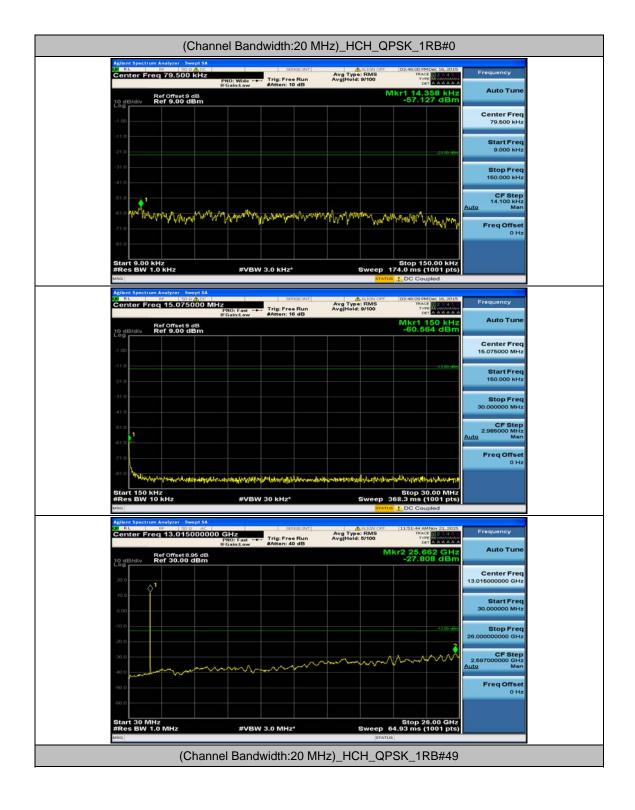






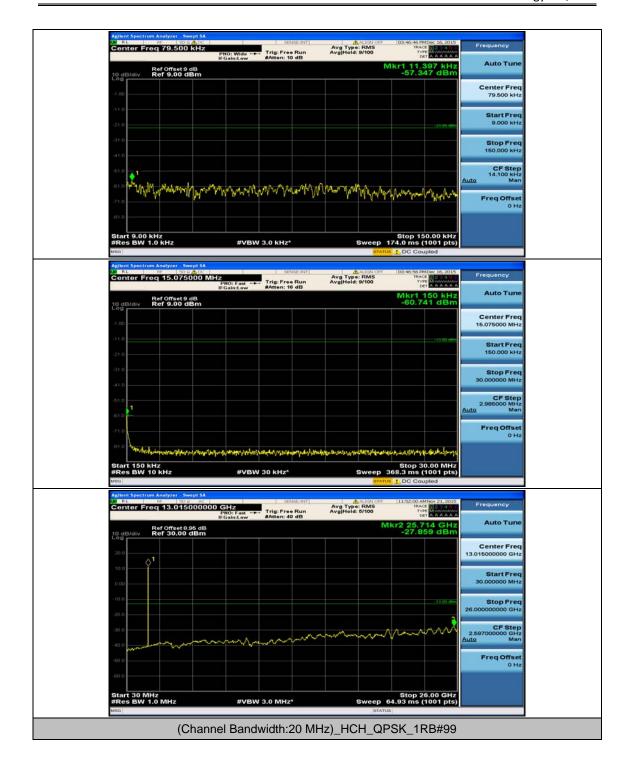




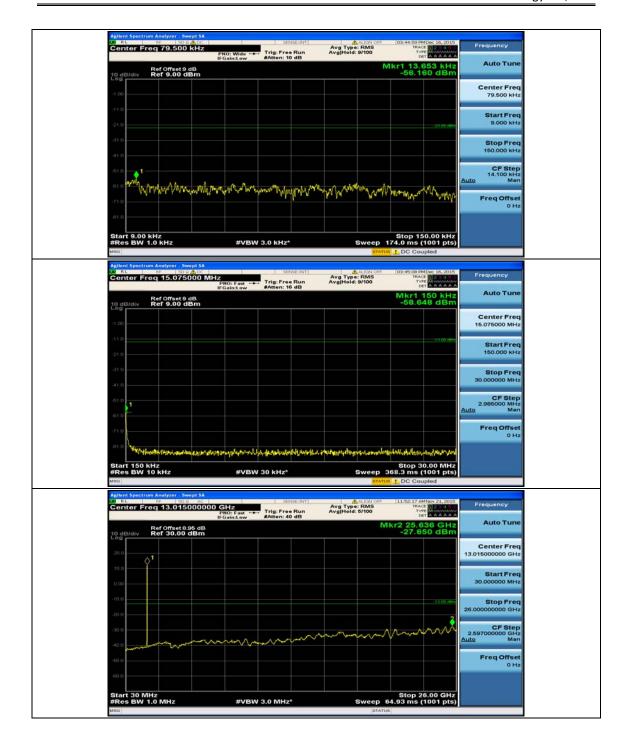


LTE Band 4

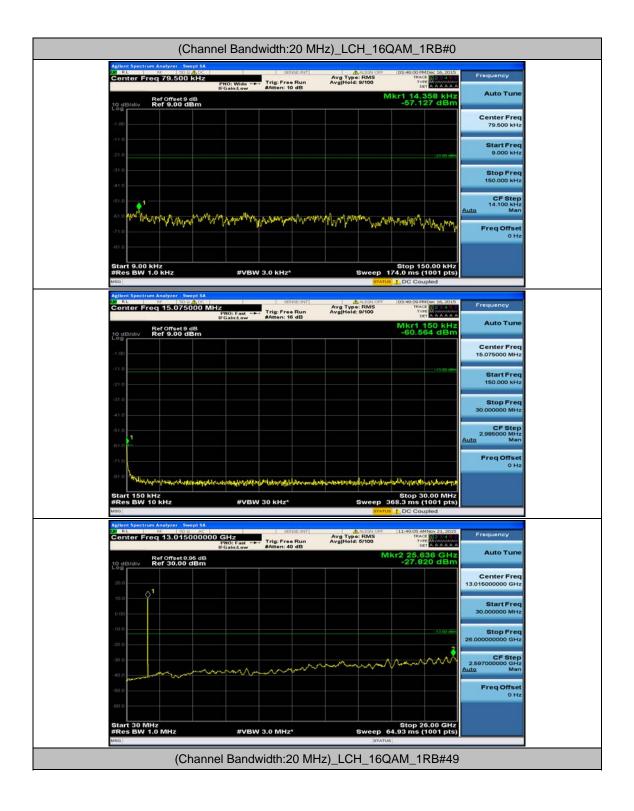




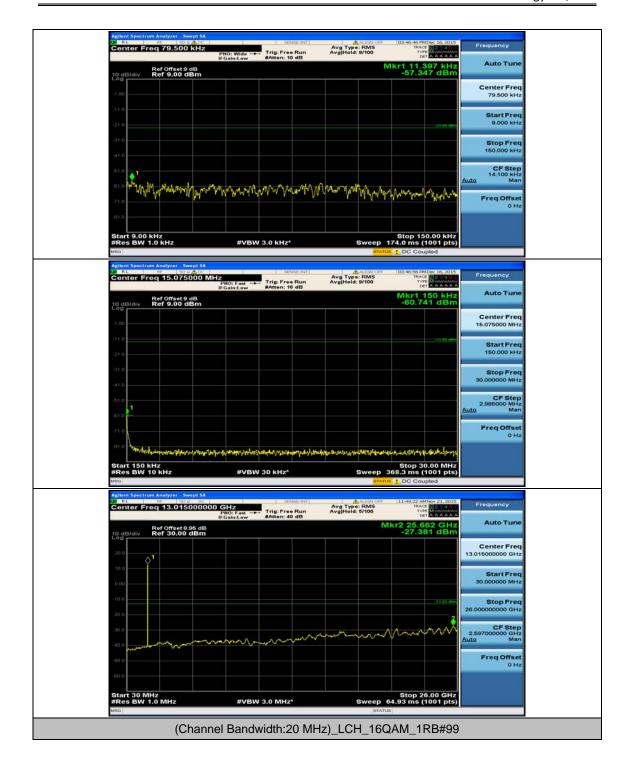




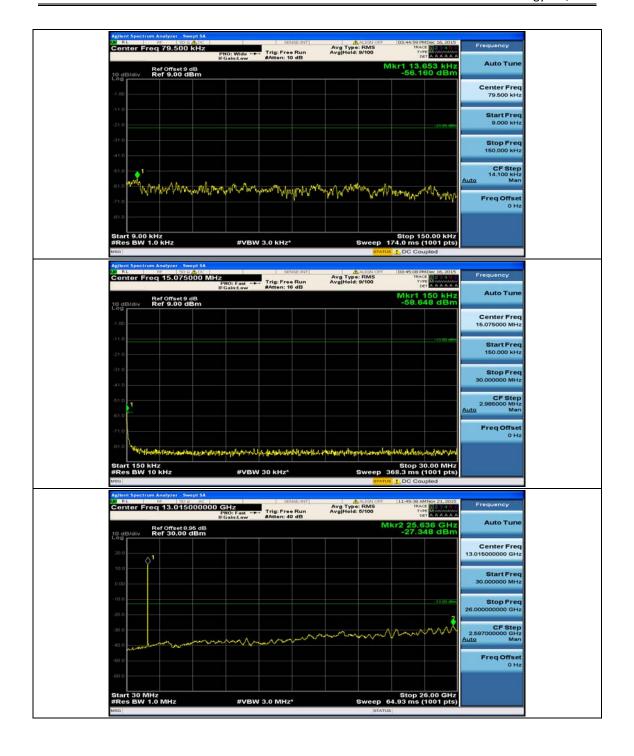




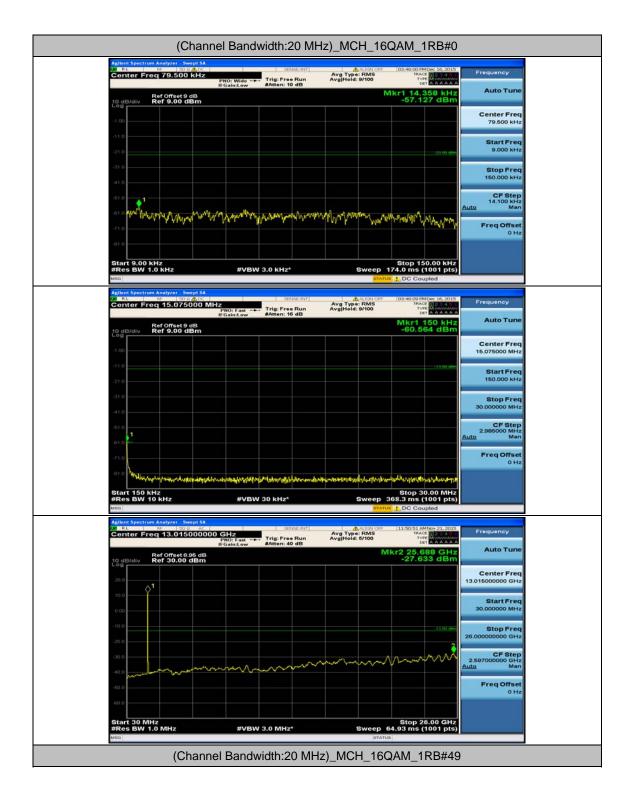




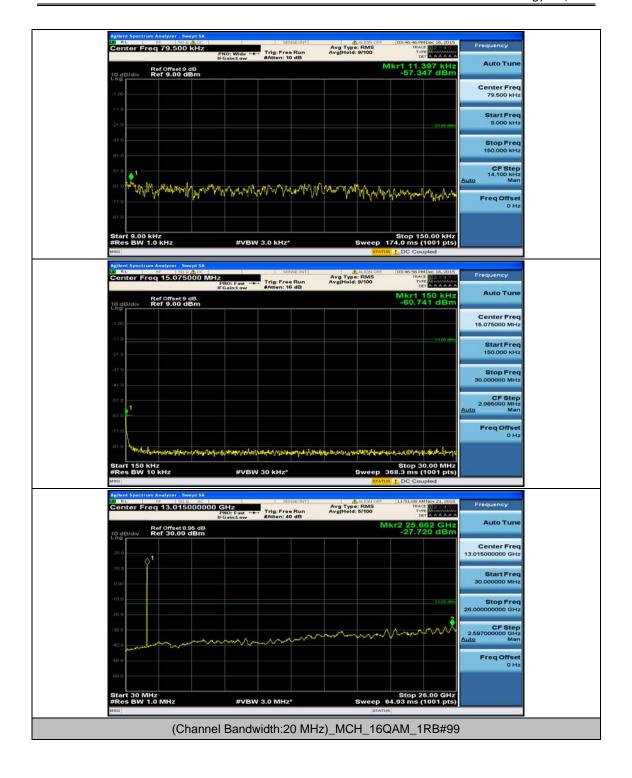




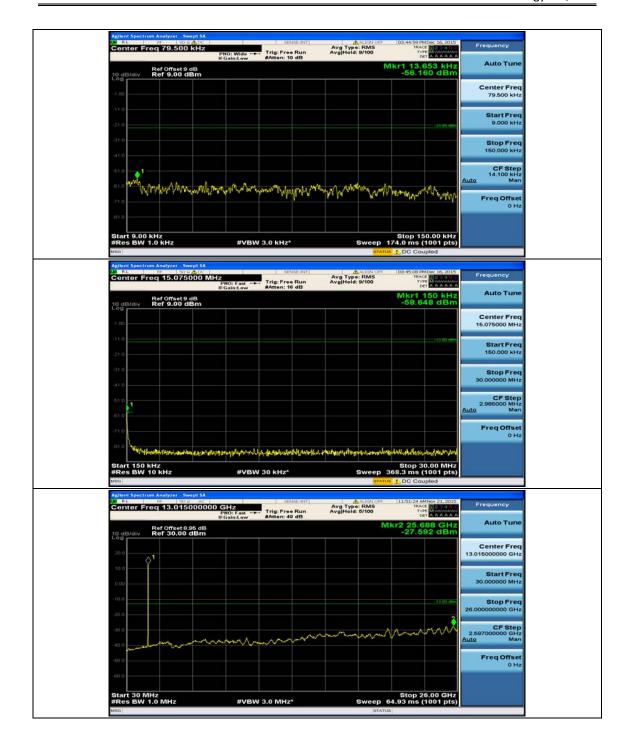




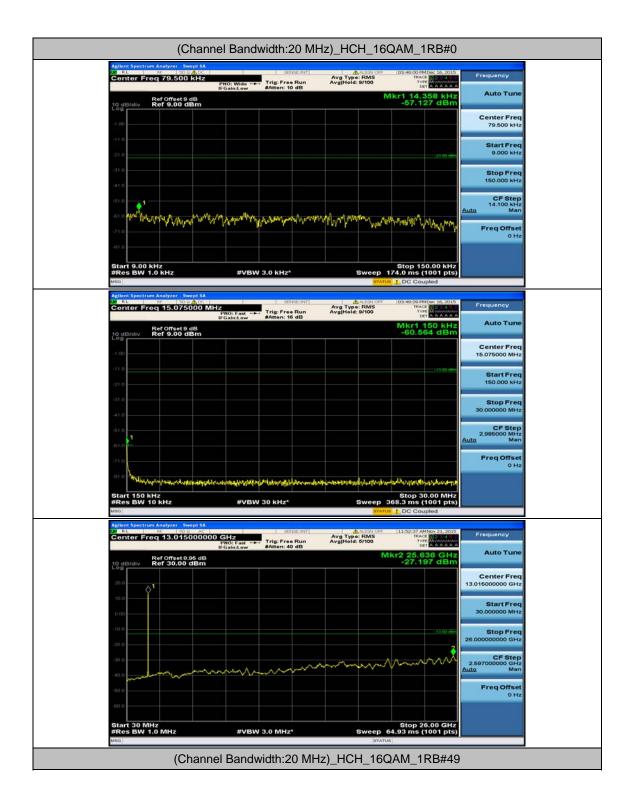






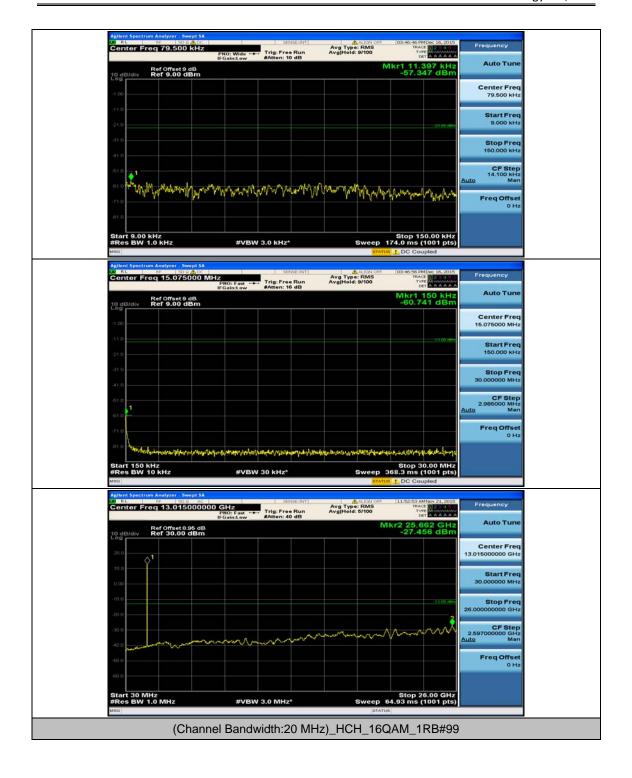




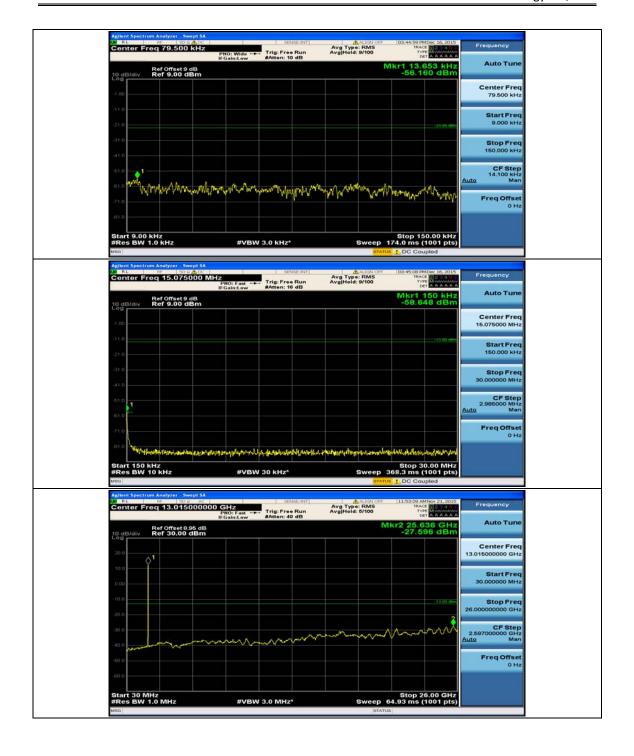


LTE Band 4











# **Appendix F: Frequency Stability**

#### **Test Result**

**Channel Bandwidth: 1.4 MHz** 

			Channel Band	width: 1.4 MHz			
				tage			
Modulation	Channel	Voltage [Vdc]	Temperature (°ℂ)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VL	TN	1.77	0.001037	± 2.5	PASS
	LCH	VN	TN	1.77	0.001037	± 2.5	PASS
		VH	TN	1.87	0.001082	± 2.5	PASS
		VL	TN	1.87	0.001082	± 2.5	PASS
QPSK	MCH	VN	TN	1.87	0.001082	± 2.5	PASS
		VH	TN	-3.76	-0.002145	± 2.5	PASS
		VL	TN	-3.76	-0.002145	± 2.5	PASS
	HCH	VN	TN	-3.76	-0.002145	± 2.5	PASS
		VH	TN	-0.94	-0.000552	± 2.5	PASS
		VL	TN	-0.94	-0.000552	± 2.5	PASS
	LCH	VN	TN	-0.94	-0.000552	± 2.5	PASS
		VH	TN	3.99	0.002304	± 2.5	PASS
		VL	TN	3.99	0.002304	± 2.5	PASS
16QAM	MCH	VN	TN	3.99	0.002304	± 2.5	PASS
		VH	TN	-1.24	-0.000709	± 2.5	PASS
		VL	TN	-1.24	-0.000709	± 2.5	PASS
	HCH	VN	TN	-1.24	-0.000709	± 2.5	PASS
		VH	TN	-1.24	-0.000709	± 2.5	PASS
			Tempe	erature			
Modulation	Channe I	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VN	-30	0.30	0.000176	± 2.5	PASS
		VN	-20	0.30	0.000176	± 2.5	PASS
		VN	-10	0.79	0.000460	± 2.5	PASS
		VN	0	0.79	0.000460	± 2.5	PASS
	LCH	VN	10	0.79	0.000460	± 2.5	PASS
		VN	20	0.30	0.000176	± 2.5	PASS
		VN	30	0.79	0.000460	± 2.5	PASS
ODSK		VN	40	1.52	0.000886	± 2.5	PASS
QPSK		VN	50	1.70	0.000995	± 2.5	PASS
		VN	-30	1.70	0.000995	± 2.5	PASS
		VN	-20	1.70	0.000995	± 2.5	PASS
		VN	-10	1.70	0.000995	± 2.5	PASS
	MCH	VN	0	1.70	0.000995	± 2.5	PASS
		VN	10	1.70	0.000995	± 2.5	PASS
		VN	20	3.05	0.001759	± 2.5	PASS
		VN	30	2.83	0.001635	± 2.5	PASS



		VN	40	3.03	0.001750	± 2.5	PASS
		VN	50	3.81	0.002196	± 2.5	PASS
		VN	-30	3.81	0.002196	± 2.5	PASS
		VN	-20	3.81	0.002196	± 2.5	PASS
		VN	-10	3.81	0.002196	± 2.5	PASS
		VN	0	3.81	0.002196	± 2.5	PASS
	HCH	VN	10	-3.76	-0.002145	± 2.5	PASS
		VN	20	-3.76	-0.002145	± 2.5	PASS
		VN	30	-3.73	-0.002128	± 2.5	PASS
		VN	40	-0.92	-0.000522	± 2.5	PASS
		VN	50	-3.03	-0.001729	± 2.5	PASS
		VN	-30	-3.03	-0.001729	± 2.5	PASS
		VN	-20	-3.03	-0.001729	± 2.5	PASS
		VN	-10	-3.03	-0.001729	± 2.5	PASS
		VN	0	1.76	0.001029	± 2.5	PASS
	LCH	VN	10	1.76	0.001029	± 2.5	PASS
		VN	20	1.76	0.001029	± 2.5	PASS
		VN	30	-1.07	-0.000627	± 2.5	PASS
		VN	40	0.41	0.000243	± 2.5	PASS
		VN	50	0.26	0.000151	± 2.5	PASS
		VN	-30	0.26	0.000151	± 2.5	PASS
		VN	-20	0.26	0.000151	± 2.5	PASS
		VN	-10	0.26	0.000151	± 2.5	PASS
		VN	0	1.17	0.000677	± 2.5	PASS
16QAM	MCH	VN	10	1.17	0.000677	± 2.5	PASS
		VN	20	1.17	0.000677	± 2.5	PASS
		VN	30	2.26	0.001305	± 2.5	PASS
		VN	40	1.04	0.000603	± 2.5	PASS
		VN	50	3.05	0.001759	± 2.5	PASS
		VN	-30	3.05	0.001759	± 2.5	PASS
		VN	-20	3.05	0.001759	± 2.5	PASS
нс		VN	-10	3.05	0.001759	± 2.5	PASS
		VN	0	-3.89	-0.002218	± 2.5	PASS
	HCH	VN	10	-3.89	-0.002218	± 2.5	PASS
		VN	20	-3.89	-0.002218	± 2.5	PASS
		VN	30	-4.35	-0.002479	± 2.5	PASS
		VN	40	-3.82	-0.002177	± 2.5	PASS
		VN	50	-4.62	-0.002634	± 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				
		VL	TN	-0.40	-0.000231	± 2.5	PASS				
QPSK	LCH	VN	TN	-0.40	-0.000231	± 2.5	PASS				
QI SIX		VH	TN	-0.40	-0.000231	± 2.5	PASS				
	MCH	VL	TN	-0.40	-0.000231	± 2.5	PASS				



		VN	TN	-0.40	-0.000231	± 2.5	PASS
		VH	TN	-2.37	-0.001354	± 2.5	PASS
		VL	TN	-2.37	-0.001354	± 2.5	PASS
	HCH	VN	TN	-2.37	-0.001354	± 2.5	PASS
		VH	TN	1.22	0.000710	± 2.5	PASS
		VL	TN	1.22	0.000710	± 2.5	PASS
	LCH	VN	TN	1.22	0.000710	± 2.5	PASS
		VH	TN	0.60	0.000347	± 2.5	PASS
		VL	TN	0.60	0.000347	± 2.5	PASS
16QAM	MCH	VN	TN	0.60	0.000347	± 2.5	PASS
		VH	TN	-0.34	-0.000196	± 2.5	PASS
		VL	TN	-0.34	-0.000196	± 2.5	PASS
	HCH	VN	TN	-0.34	-0.000196	± 2.5	PASS
		VH	TN	-0.34	-0.000196	± 2.5	PASS
			Tempe	erature			
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VN	-30	0.66	0.000384	± 2.5	PASS
		VN	-20	0.53	0.000309	± 2.5	PASS
		VN	-10	0.66	0.000384	± 2.5	PASS
		VN	0	0.82	0.000476	± 2.5	PASS
	LCH	VN	10	0.82	0.000476	± 2.5	PASS
		VN	20	0.82	0.000476	± 2.5	PASS
		VN	30	0.66	0.000384	± 2.5	PASS
		VN	40	0.53	0.000309	± 2.5	PASS
		VN	50	-1.19	-0.000694	± 2.5	PASS
		VN	-30	-1.19	-0.000694	± 2.5	PASS
		VN	-20	-1.19	-0.000694	± 2.5	PASS
		VN	-10	-0.17	-0.000099	± 2.5	PASS
		VN	0	-0.17	-0.000099	± 2.5	PASS
QPSK	MCH	VN	10	-0.17	-0.000099	± 2.5	PASS
		VN	20	-0.17	-0.000099	± 2.5	PASS
		VN	30	1.44	0.000834	± 2.5	PASS
		VN	40	0.59	0.000339	± 2.5	PASS
		VN	50	1.40	0.000809	± 2.5	PASS
		VN	-30	1.40	0.000809	± 2.5	PASS
		VN	-20	1.40	0.000809	± 2.5	PASS
		VN	-10	1.40	0.000809	± 2.5	PASS
		VN	0	-1.53	-0.000873	± 2.5	PASS
	HCH	VN	10	-1.53	-0.000873	± 2.5	PASS
		VN	20	-1.53	-0.000873	± 2.5	PASS
		VN	30	-2.15	-0.001224	± 2.5	PASS
		VN	40	-2.27	-0.001297	± 2.5	PASS
		VN	50	-1.93	-0.001101	± 2.5	PASS
		VN	-30	-2.27	-0.001297	± 2.5	PASS
		VN	-20	-2.27	-0.001297	± 2.5	PASS
		VN	-10	-1.53	-0.000873	± 2.5	PASS
16QAM	LCH	VN	0	-1.53	-0.000873	± 2.5	PASS
		VN	10	-1.53	-0.000873	± 2.5	PASS
ī		VN	20	1.13	0.000660	± 2.5	PASS



	VN	30	1.36	0.000794	± 2.5	PASS
	VN	40	-0.43	-0.000251	± 2.5	PASS
	VN	50	-0.24	-0.000142	± 2.5	PASS
	VN	-30	-0.24	-0.000142	± 2.5	PASS
	VN	-20	-0.24	-0.000142	± 2.5	PASS
	VN	-10	-0.24	-0.000142	± 2.5	PASS
	VN	0	1.36	0.000794	± 2.5	PASS
MCH	VN	10	1.36	0.000794	± 2.5	PASS
	VN	20	1.69	0.000974	± 2.5	PASS
	VN	30	4.01	0.002312	± 2.5	PASS
	VN	40	3.73	0.002155	± 2.5	PASS
	VN	50	0.01	0.000008	± 2.5	PASS
	VN	-30	0.01	0.000008	± 2.5	PASS
	VN	-20	0.01	0.000008	± 2.5	PASS
	VN	-10	0.01	0.000008	± 2.5	PASS
	VN	0	-1.87	-0.001069	± 2.5	PASS
HCH	VN	10	-1.87	-0.001069	± 2.5	PASS
	VN	20	-2.39	-0.001362	± 2.5	PASS
	VN	30	-1.87	-0.001069	± 2.5	PASS
	VN	40	0.56	0.000318	± 2.5	PASS
	VN	50	-0.29	-0.000163	± 2.5	PASS

#### **Channel Bandwidth: 5 MHz**

			Channel Ban	dwidth: 5 MHz							
	Voltage										
Modulation	Channel	Voltage [Vdc]	Temperature $(^{\circ}\!\mathbb{C})$	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict				
		VL	TN	0.80	0.000468	± 2.5	PASS				
	LCH	VN	TN	0.80	0.000468	± 2.5	PASS				
		VH	TN	-0.30	-0.000173	± 2.5	PASS				
		VL	TN	-0.30	-0.000173	± 2.5	PASS				
QPSK	MCH	VN	TN	-0.30	-0.000173	± 2.5	PASS				
		VH	TN	-0.30	-0.000173	± 2.5	PASS				
		VL	TN	-0.30	-0.000173	± 2.5	PASS				
	HCH	VN	TN	-1.75	-0.000996	± 2.5	PASS				
		VH	TN	-1.75	-0.000996	± 2.5	PASS				
		VL	TN	-1.75	-0.000996	± 2.5	PASS				
	LCH	VN	TN	-0.87	-0.000510	± 2.5	PASS				
		VH	TN	-0.87	-0.000510	± 2.5	PASS				
		VL	TN	-0.87	-0.000510	± 2.5	PASS				
16QAM	MCH	VN	TN	-1.99	-0.001148	± 2.5	PASS				
		VH	TN	-1.99	-0.001148	± 2.5	PASS				
		VL	TN	-1.99	-0.001148	± 2.5	PASS				
	HCH	VN	TN	-1.63	-0.000931	± 2.5	PASS				
		VH	TN	-1.63	-0.000931	± 2.5	PASS				
Temperature											
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict				



		VN VN	-30	1.96	0.001144	± 2.5	PASS
		VIN	-20	1.96	0.001144	± 2.5	PASS
		VN	-10	1.96	0.001144	± 2.5	PASS
		VN	0	1.04	0.000610	± 2.5	PASS
1	LCH	VN	10	1.04	0.000610	± 2.5	PASS
	LOIT	VN	20	1.96	0.00010	± 2.5	PASS
		VN	30	1.04	0.000610	± 2.5	PASS
		VN	40	0.20	0.00010	± 2.5	PASS
		VN	50	0.92	0.000535	± 2.5	PASS
-		VN	-30	0.92	0.000535	± 2.5	PASS
	-	VN	-20	0.92	0.000535	± 2.5	PASS
		VN	-10	0.92	0.000535	± 2.5	PASS
	-	VN	0	0.36	0.000333	± 2.5	PASS
QPSK	мсн	VN	10	0.36	0.000206	± 2.5	PASS
QFSK	IVICII	VN	20	0.36	0.000206	± 2.5	PASS
	-	VN	30	-1.59	-0.000200	± 2.5	PASS
	-	VN	40	1.19	0.000685	± 2.5	PASS
		VN	50	-0.37	-0.00035	± 2.5	PASS
-		VN	-30	-0.37	-0.000215	± 2.5	PASS
	-	VN	-20	-0.37	-0.000215	± 2.5	PASS
		VN	-10	-0.37	-0.000215	± 2.5	PASS
	-	VN	0	-2.05	-0.000213	± 2.5	PASS
	НСН	VN	10	-2.05	-0.001167	± 2.5	PASS
	ПОП	VN	20	-2.05	-0.001167	± 2.5	PASS
		VN	30	1.40	0.000800	± 2.5	PASS
		VN	40	-0.54	-0.000310	± 2.5	PASS
		VN	50	-0.44	-0.000310	± 2.5	PASS
		VN	-30	-0.44	-0.000253	± 2.5	PASS
		VN	-20	-0.44	-0.000253	± 2.5	PASS
		VN	-10	-0.44	-0.000253	± 2.5	PASS
		VN	0	0.39	0.000226	± 2.5	PASS
	LCH	VN	10	0.39	0.000226	± 2.5	PASS
	2011	VN	20	0.39	0.000226	± 2.5	PASS
	-	VN	30	1.50	0.000877	± 2.5	PASS
		VN	40	1.06	0.000618	± 2.5	PASS
		VN	50	-0.83	-0.000484	± 2.5	PASS
		VN	-30	-0.83	-0.000484	± 2.5	PASS
		VN	-20	-0.83	-0.000484	± 2.5	PASS
16QAM	}	VN	-10	-0.83	-0.000484	± 2.5	PASS
		VN	0	1.03	0.000594	± 2.5	PASS
	мсн	VN	10	1.03	0.000594	± 2.5	PASS
		VN	20	1.03	0.000594	± 2.5	PASS
	•	VN	30	-2.35	-0.001354	± 2.5	PASS
	•	VN	40	0.26	0.000149	± 2.5	PASS
	•	VN	50	0.21	0.000124	± 2.5	PASS
		VN	-30	0.21	0.000124	± 2.5	PASS
		VN	-20	0.21	0.000124	± 2.5	PASS
	НСН	VN	-10	-0.24	-0.000124	± 2.5	PASS
		VN	0	-0.24	-0.000139	± 2.5	PASS
	}	VN	10	-0.24	-0.000139	± 2.5	PASS



	VN	20	-0.24	-0.000139	± 2.5	PASS
	VN	30	-0.14	-0.000082	± 2.5	PASS
	VN	40	0.21	0.000122	± 2.5	PASS
	VN	50	0.62	0.000351	± 2.5	PASS

### **Channel Bandwidth: 10 MHz**

			Channel Band	lwidth: 10 MHz			
				tage			
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VL	TN	-3.08	-0.001793	± 2.5	PASS
	LCH	VN	TN	-3.08	-0.001793	± 2.5	PASS
		VH	TN	-1.34	-0.000776	± 2.5	PASS
		VL	TN	-1.34	-0.000776	± 2.5	PASS
QPSK	MCH	VN	TN	-1.34	-0.000776	± 2.5	PASS
		VH	TN	-1.34	-0.000776	± 2.5	PASS
		VL	TN	-1.34	-0.000776	± 2.5	PASS
	HCH	VN	TN	-0.86	-0.000490	± 2.5	PASS
		VH	TN	-0.86	-0.000490	± 2.5	PASS
		VL	TN	-0.86	-0.000490	± 2.5	PASS
	LCH	VN	TN	-2.55	-0.001485	± 2.5	PASS
		VH	TN	-2.55	-0.001485	± 2.5	PASS
		VL	TN	-2.55	-0.001485	± 2.5	PASS
16QAM	MCH	VN	TN	-2.52	-0.001453	± 2.5	PASS
		VH	TN	-2.52	-0.001453	± 2.5	PASS
	НСН	VL	TN	-2.52	-0.001453	± 2.5	PASS
		VN	TN	-0.74	-0.000425	± 2.5	PASS
		VH	TN	-0.74	-0.000425	± 2.5	PASS
			Tempe	erature			
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
		VN	-30	-0.74	-0.000425	± 2.5	PASS
		VN	-20	-0.74	-0.000425	± 2.5	PASS
		VN	-10	-0.74	-0.000425	± 2.5	PASS
		VN	0	-2.85	-0.001660	± 2.5	PASS
	LCH	VN	10	-2.85	-0.001660	± 2.5	PASS
		VN	20	-2.85	-0.001660	± 2.5	PASS
		VN	30	-3.05	-0.001777	± 2.5	PASS
		VN	40	-3.18	-0.001852	± 2.5	PASS
16QAM		VN	50	-2.32	-0.001351	± 2.5	PASS
		VN	-30	-2.32	-0.001351	± 2.5	PASS
		VN	-20	-2.32	-0.001351	± 2.5	PASS
		VN	-10	-2.32	-0.001351	± 2.5	PASS
	MCH	VN	0	-2.32	-0.001351	± 2.5	PASS
	MCH	VN	10	-2.32	-0.001351	± 2.5	PASS
		VN	20	-1.50	-0.000867	± 2.5	PASS
		VN	30	-0.57	-0.000330	± 2.5	PASS
		VN	40	0.04	0.000025	± 2.5	PASS



		VN	50	4 40	0.000047	٥.	D.4.0.0
			30	-1.42	-0.000817	± 2.5	PASS
		VN	-30	-1.42	-0.000817	± 2.5	PASS
		VN	-20	-1.42	-0.000817	± 2.5	PASS
		VN	-10	-1.42	-0.000817	± 2.5	PASS
	ЦСП	VN	0	-2.43	-0.001390	± 2.5	PASS
	HCH	VN	10	-2.43	-0.001390	± 2.5	PASS
		VN	20	-2.43	-0.001390	± 2.5	PASS
		VN	30	-1.76	-0.001005	± 2.5	PASS
		VN	40	-2.40	-0.001373	± 2.5	PASS
		VN	50	-2.15	-0.001226	± 2.5	PASS
		VN	-30	-2.15	-0.001226	± 2.5	PASS
		VN	-20	-2.15	-0.001226	± 2.5	PASS
		VN	-10	-2.15	-0.001226	± 2.5	PASS
		VN	0	-3.45	-0.002010	± 2.5	PASS
	LCH	VN	10	-3.45	-0.002010	± 2.5	PASS
		VN	20	-3.45	-0.002010	± 2.5	PASS
		VN	30	-3.86	-0.002252	± 2.5	PASS
		VN	40	-3.65	-0.002127	± 2.5	PASS
		VN	50	-3.05	-0.001777	± 2.5	PASS
		VN	-30	-3.05	-0.001777	± 2.5	PASS
		VN	-20	-3.86	-0.002252	± 2.5	PASS
		VN	-10	-3.05	-0.001777	± 2.5	PASS
		VN	0	-3.86	-0.002252	± 2.5	PASS
QPSK	MCH	VN	10	-3.86	-0.002252	± 2.5	PASS
		VN	20	-2.23	-0.001288	± 2.5	PASS
		VN	30	-2.45	-0.001412	± 2.5	PASS
		VN	40	-2.92	-0.001684	± 2.5	PASS
		VN	50	-1.34	-0.000776	± 2.5	PASS
		VN	-30	-1.34	-0.000776	± 2.5	PASS
		VN	-20	-1.34	-0.000776	± 2.5	PASS
		VN	-10	-1.34	-0.000776	± 2.5	PASS
		VN	0	-1.34	-0.000776	± 2.5	PASS
	HCH	VN	10	-1.34	-0.000776	± 2.5	PASS
		VN	20	-0.41	-0.000237	± 2.5	PASS
		VN	30	-1.16	-0.000662	± 2.5	PASS
		VN	40	-0.01	-0.000008	± 2.5	PASS
		VN	50	-0.73	-0.000417	± 2.5	PASS

## **Channel Bandwidth: 15 MHz**

	Channel Bandwidth: 15 MHz											
	Voltage											
Modulation	Channel	Voltage [Vdc]	Temperature (°ℂ)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict					
	LCH	VL	TN	0.34	0.000198	± 2.5	PASS					
		VN	TN	-3.22	-0.001874	± 2.5	PASS					
QPSK		VH	TN	0.34	0.000198	± 2.5	PASS					
	MCH	VL	TN	0.34	0.000198	± 2.5	PASS					
	MCH	VN	TN	0.34	0.000198	± 2.5	PASS					



		VH	TN	0.34	0.000198	± 2.5	PASS
		VL	TN	0.34	0.000198	± 2.5	PASS
	НСН	VN	TN	-0.24	-0.000139	± 2.5	PASS
	11011	VH	TN	-0.24	-0.000139	± 2.5	PASS
		VL	TN	-0.24	-0.000139	± 2.5	PASS
	LCH	VN	TN	-3.99	-0.002324	± 2.5	PASS
	LOTT	VH	TN	-3.99	-0.002324	± 2.5	PASS
		VL	TN	-3.99	-0.002324	± 2.5	PASS
16QAM	мсн	VN	TN	1.49	0.000859	± 2.5	PASS
100,111	WOTT	VH	TN	1.49	0.000859	± 2.5	PASS
		VL	TN	1.49	0.000859	± 2.5	PASS
	НСН	VN	TN	-0.43	-0.000246	± 2.5	PASS
	11011	VH	TN	-0.43	-0.000246	± 2.5	PASS
		VII		erature	0.000210	± 2.0	17.00
		Voltage	Temperature	Deviation	Deviation	Limit	
Modulation	Channel	[Vdc]	remperature (°C)	(Hz)	(ppm)	(ppm)	Verdict
		VN	-30	-3.45	-0.002007	± 2.5	PASS
		VN	-20	-5.08	-0.002957	± 2.5	PASS
		VN	-10	-3.45	-0.002007	± 2.5	PASS
		VN	0	-3.45	-0.002007	± 2.5	PASS
	LCH	VN	10	-3.45	-0.002007	± 2.5	PASS
		VN	20	-5.08	-0.002957	± 2.5	PASS
		VN	30	-3.85	-0.002241	± 2.5	PASS
		VN	40	-3.45	-0.002007	± 2.5	PASS
		VN	50	-3.88	-0.002257	± 2.5	PASS
		VN	-30	-3.88	-0.002257	± 2.5	PASS
		VN	-20	-3.88	-0.002257	± 2.5	PASS
		VN	-10	-3.88	-0.002257	± 2.5	PASS
		VN	0	-3.88	-0.002257	± 2.5	PASS
QPSK	MCH	VN	10	-3.88	-0.002257	± 2.5	PASS
		VN	20	0.79	0.000454	± 2.5	PASS
		VN	30	1.33	0.000768	± 2.5	PASS
		VN	40	0.24	0.000140	± 2.5	PASS
		VN	50	0.43	0.000248	± 2.5	PASS
		VN	-30	0.43	0.000248	± 2.5	PASS
		VN	-20	0.43	0.000248	± 2.5	PASS
		VN	-10	0.43	0.000248	± 2.5	PASS
		VN	0	0.43	0.000248	± 2.5	PASS
	HCH	VN	10	0.43	0.000248	± 2.5	PASS
		VN	20	-0.13	-0.000074	± 2.5	PASS
		VN	30	-0.99	-0.000565	± 2.5	PASS
		VN	40	-0.47	-0.000270	± 2.5	PASS
		VN	50	-0.67	-0.000385	± 2.5	PASS
		VN	-30	-0.67	-0.000385	± 2.5	PASS
		VN	-20	-0.67	-0.000385	± 2.5	PASS
		VN	-10	-0.67	-0.000385	± 2.5	PASS
QPSK	LCH	VN	0	-0.67	-0.000385	± 2.5	PASS
		VN	10	-4.33	-0.002524	± 2.5	PASS
		VN	20	-4.33	-0.002524	± 2.5	PASS
		VN	30	-3.69	-0.002149	± 2.5	PASS



		VN	40	-3.19	-0.001857	± 2.5	PASS
		VN	50	-3.88	-0.002257	± 2.5	PASS
	мсн	VN	-30	-3.88	-0.002257	± 2.5	PASS
		VN	-20	-3.88	-0.002257	± 2.5	PASS
		VN	-10	-3.88	-0.002257	± 2.5	PASS
		VN	0	-3.88	-0.002257	± 2.5	PASS
		VN	10	-3.88	-0.002257	± 2.5	PASS
		VN	20	0.50	0.000289	± 2.5	PASS
		VN	30	1.17	0.000677	± 2.5	PASS
		VN	40	0.63	0.000363	± 2.5	PASS
		VN	50	1.80	0.001040	± 2.5	PASS
		VN	-30	1.80	0.001040	± 2.5	PASS
		VN	-20	1.80	0.001040	± 2.5	PASS
		VN	-10	1.80	0.001040	± 2.5	PASS
		VN	0	1.80	0.001040	± 2.5	PASS
	НСН	VN	10	-0.74	-0.000426	± 2.5	PASS
		VN	20	-0.74	-0.000426	± 2.5	PASS
		VN	30	-1.69	-0.000966	± 2.5	PASS
		VN	40	0.06	0.000033	± 2.5	PASS
		VN	50	-0.43	-0.000246	± 2.5	PASS

## **Channel Bandwidth: 20 MHz**

Channel Bandwidth: 20 MHz								
Voltage								
Modulation	Channel	Voltage [Vdc]	Temperature $(^{\circ}\!\mathbb{C})$	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict	
	LCH	VL	TN	0.29	0.000166	± 2.5	PASS	
		VN	TN	0.29	0.000166	± 2.5	PASS	
		VH	TN	2.40	0.001387	± 2.5	PASS	
		VL	TN	2.40	0.001387	± 2.5	PASS	
QPSK	MCH	VN	TN	2.40	0.001387	± 2.5	PASS	
		VH	TN	2.40	0.001387	± 2.5	PASS	
	НСН	VL	TN	2.40	0.001387	± 2.5	PASS	
		VN	TN	0.51	0.000295	± 2.5	PASS	
		VH	TN	0.51	0.000295	± 2.5	PASS	
16QAM	LCH	VL	TN	0.51	0.000295	± 2.5	PASS	
		VN	TN	1.30	0.000757	± 2.5	PASS	
		VH	TN	1.30	0.000757	± 2.5	PASS	
	МСН	VL	TN	1.30	0.000757	± 2.5	PASS	
		VN	TN	2.20	0.001272	± 2.5	PASS	
		VH	TN	2.20	0.001272	± 2.5	PASS	
		VL	TN	2.20	0.001272	± 2.5	PASS	
	HCH	VN	TN	0.83	0.000475	± 2.5	PASS	
		VH	TN	2.20	0.001272	± 2.5	PASS	
Temperature								
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict	
QPSK	LCH	VN	-30	0.57	0.000333	± 2.5	PASS	



		VN	-20	0.57	0.000333	± 2.5	PASS
		VN	-20 -10	0.57	0.000333	± 2.5	PASS
		VN	0	0.57	0.000333	± 2.5	PASS
		VN	10	0.57	0.000333	± 2.5	PASS
		VN	20	0.57	0.000333	± 2.5	PASS
		VN	30	-0.03	-0.000017	± 2.5	PASS
		VN	40	-0.43	-0.000250	± 2.5	PASS
		VN	50	0.10	0.000230	± 2.5	PASS
		VN	-30	0.10	0.000058	± 2.5	PASS
		VN	-20	0.10	0.000058	± 2.5	PASS
		VN	-10	0.10	0.000058	± 2.5	PASS
		VN	0	0.10	0.000058	± 2.5	PASS
	MCH	VN	10	0.10	0.000058	± 2.5	PASS
		VN	20	1.99	0.001148	± 2.5	PASS
		VN	30	2.52	0.001453	± 2.5	PASS
		VN	40	2.03	0.001172	± 2.5	PASS
		VN	50	2.03	0.001172	± 2.5	PASS
		VN	-30	0.10	0.000058	± 2.5	PASS
		VN	-20	0.10	0.000058	± 2.5	PASS
		VN	-10	0.10	0.000058	± 2.5	PASS
		VN	0	0.10	0.000058	± 2.5	PASS
	НСН	VN	10	1.76	0.001008	± 2.5	PASS
		VN	20	1.76	0.001008	± 2.5	PASS
		VN	30	1.13	0.000648	± 2.5	PASS
		VN	40	0.56	0.000320	± 2.5	PASS
		VN	50	0.60	0.000344	± 2.5	PASS
	LCH	VN	-30	0.60	0.000344	± 2.5	PASS
		VN	-20	0.60	0.000344	± 2.5	PASS
		VN	-10	0.60	0.000344	± 2.5	PASS
		VN	0	0.60	0.000344	± 2.5	PASS
		VN	10	-0.06	-0.000033	± 2.5	PASS
		VN	20	-0.06	-0.000033	± 2.5	PASS
		VN	30	1.13	0.000657	± 2.5	PASS
		VN	40	1.14	0.000665	± 2.5	PASS
		VN	50	0.73	0.000424	± 2.5	PASS
		VN	-30	0.73	0.000424	± 2.5	PASS
		VN	-20	0.73	0.000424	± 2.5	PASS
QPSK	МСН	VN	-10	0.73	0.000424	± 2.5	PASS
W C S N		VN	0	0.73	0.000424	± 2.5	PASS
		VN	10	0.73	0.000424	± 2.5	PASS
		VN	20	2.83	0.001635	± 2.5	PASS
		VN	30	3.16	0.001825	± 2.5	PASS
		VN	40	2.20	0.001272	± 2.5	PASS
		VN	50	3.79	0.002188	± 2.5	PASS
	нсн	VN	-30	3.79	0.002188	± 2.5	PASS
		VN	-20	3.79	0.002188	± 2.5	PASS
		VN	-10	0.53	0.000303	± 2.5	PASS
		VN	0	3.79	0.002188	± 2.5	PASS
		VN	10	3.79	0.002188	± 2.5	PASS
		VN	20	0.53	0.000303	± 2.5	PASS



VN	30	1.14	0.000656	± 2.5	PASS
VN	40	1.63	0.000935	± 2.5	PASS
VN	50	1.13	0.000648	± 2.5	PASS