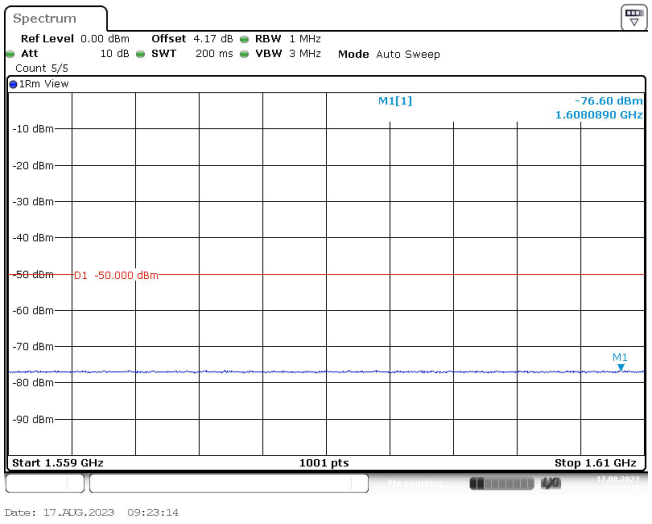
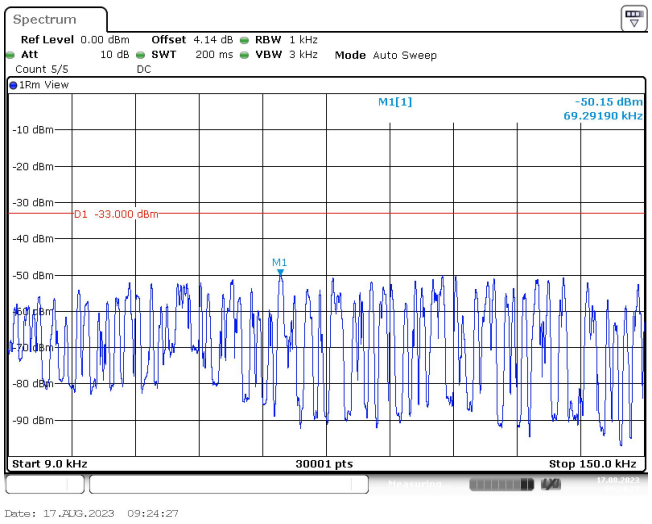
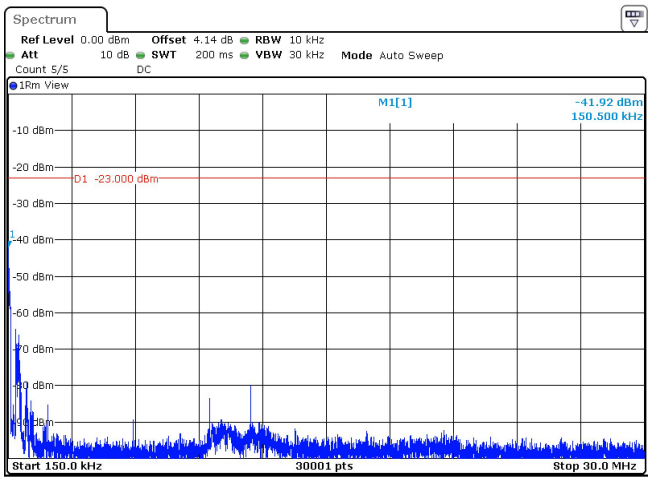


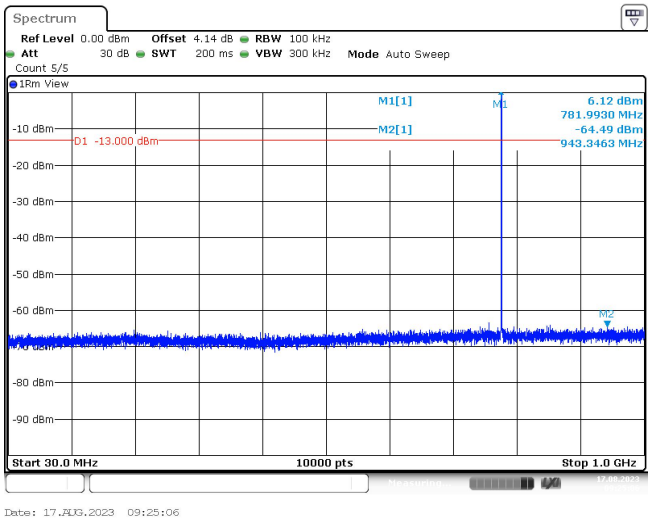
Band13-Stand-Alone-NaN-QPSK-23181-12@0-15kHz-1559-1610--76.6--50-PASS



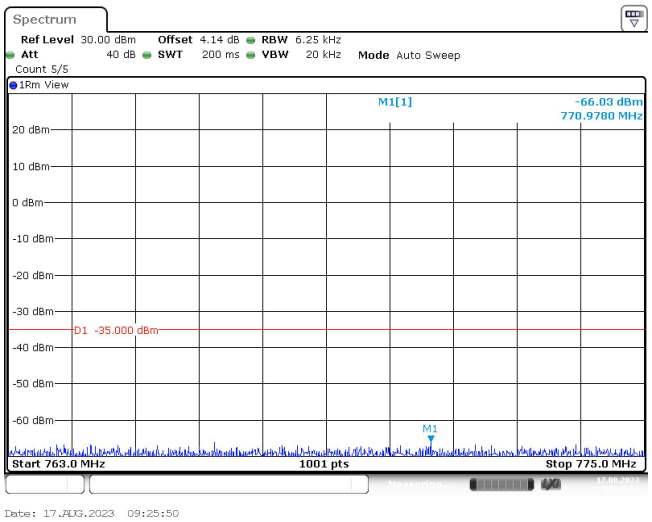
Band13-Stand-Alone-NaN-QPSK-23230-12@0-15kHz-0.009-0.15--50.15--33-PASS



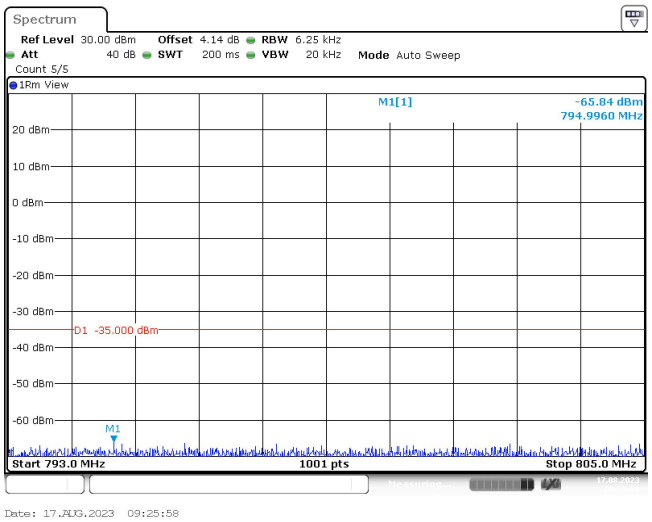
Band13-Stand-Alone-NaN-QPSK-23230-12@0-15kHz-0.15-30--41.92--23-PASS



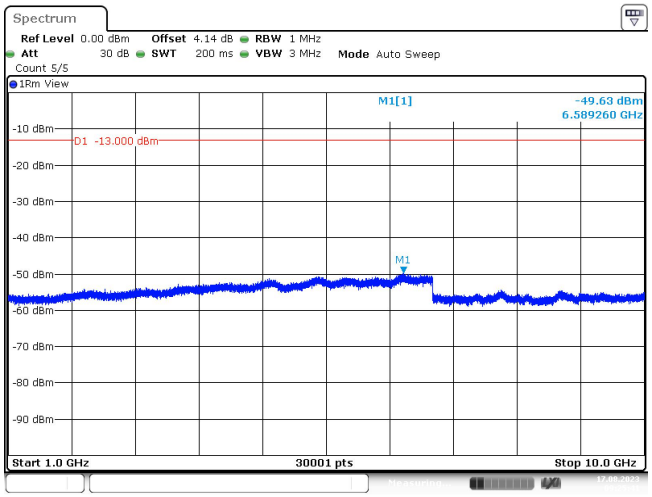
Band13-Stand-Alone-NaN-QPSK-23230-12@0-15kHz-30-1000--64.49--13-PASS



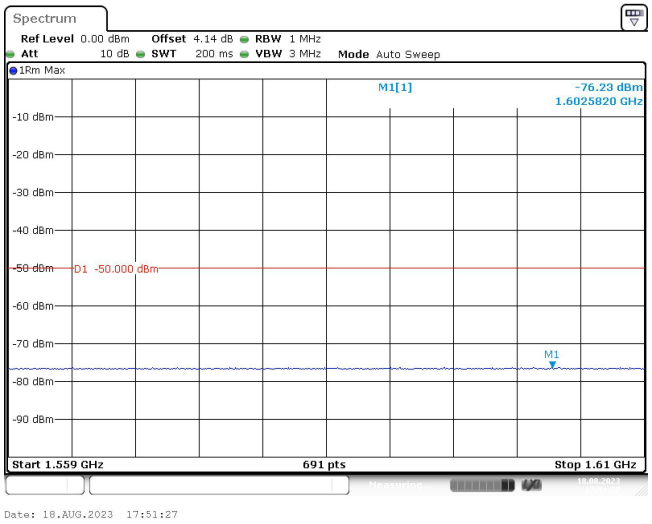
Band13-Stand-Alone-NaN-QPSK-23230-12@0-15kHz-763-775--66.03--35-PASS



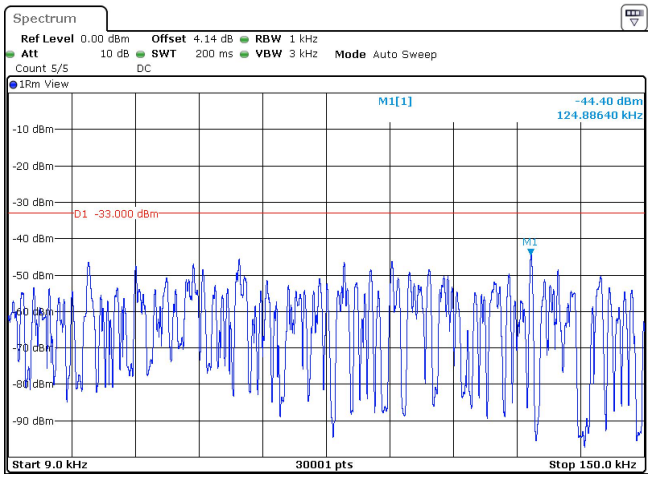
Band13-Stand-Alone-NaN-QPSK-23230-12@0-15kHz-793-805--65.84--35-PASS



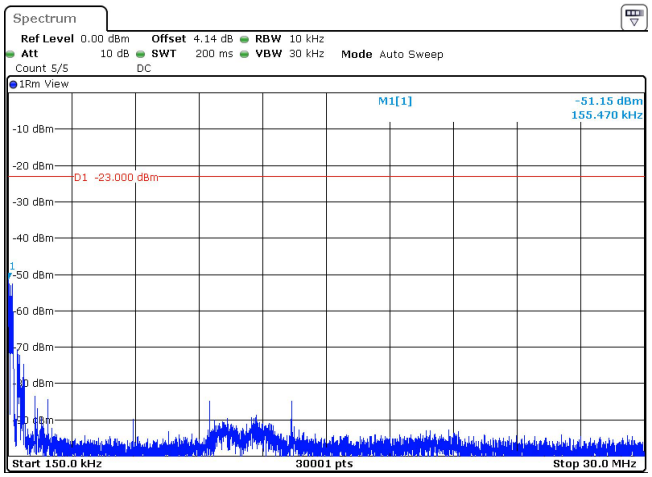
Band13-Stand-Alone-NaN-QPSK-23230-12@0-15kHz-1000-10000--49.63--13-PASS



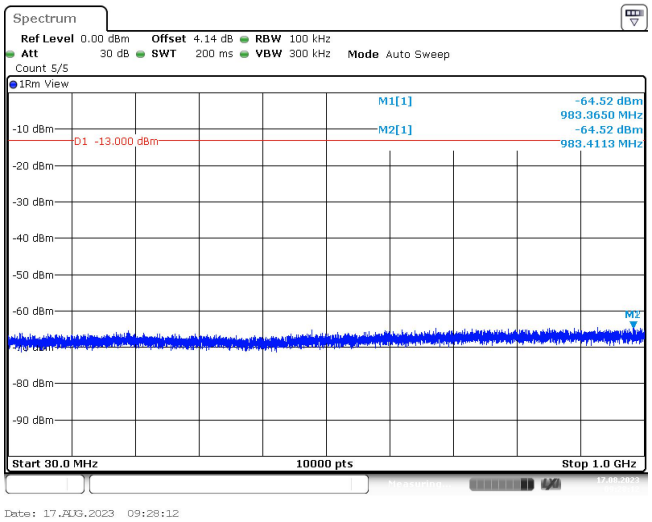
Band13-Stand-Alone-NaN-QPSK-23230-12@0-15kHz-1559-1610--44.76--50-PASS



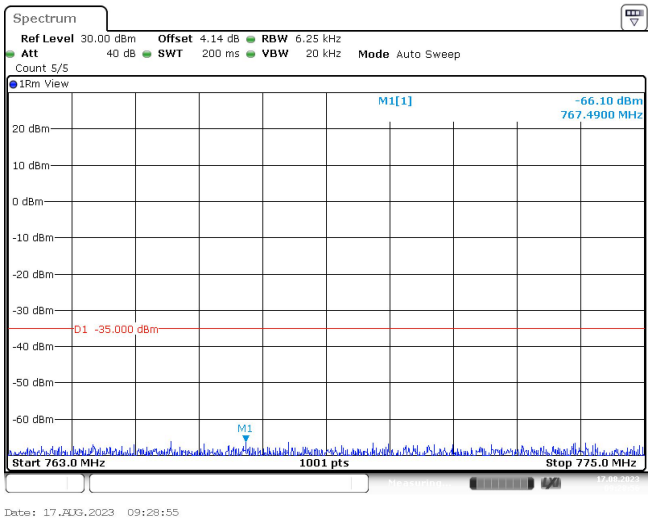
Band13-Stand-Alone-NaN-QPSK-23279-12@0-15kHz-0.009-0.15--44.4--33-PASS



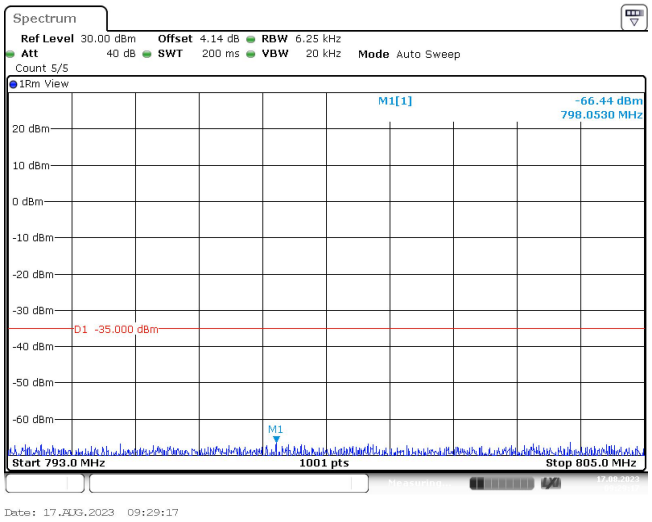
Band13-Stand-Alone-NaN-QPSK-23279-12@0-15kHz-0.15-30--51.15--23-PASS



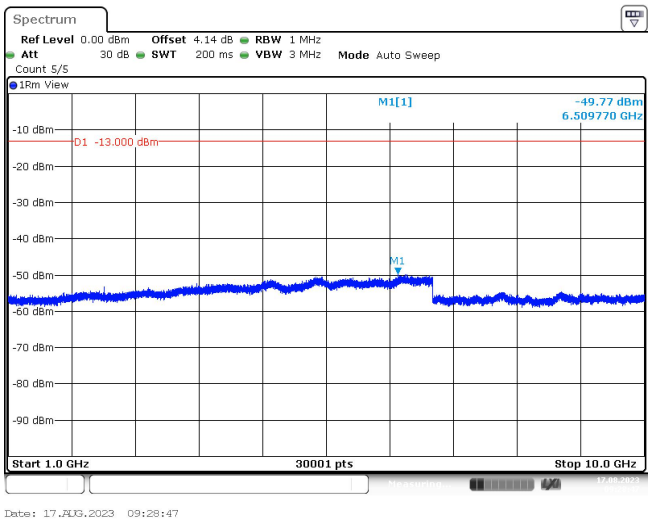
Band13-Stand-Alone-NaN-QPSK-23279-12@0-15kHz-30-1000--64.52--13-PASS



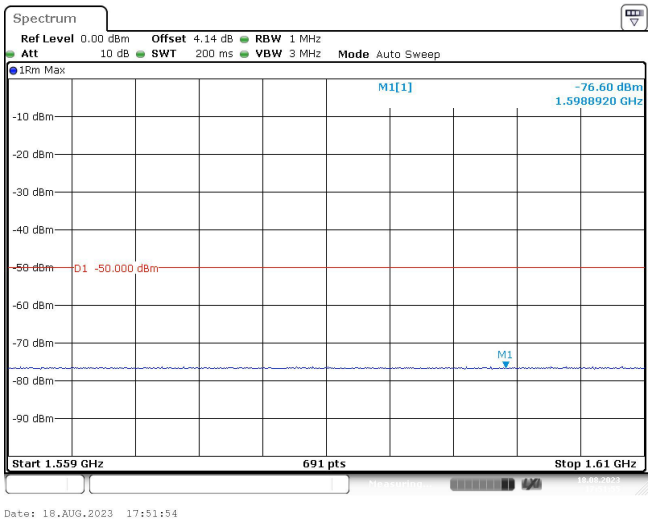
Band13-Stand-Alone-NaN-QPSK-23279-12@0-15kHz-763-775--66.1--35-PASS



Band13-Stand-Alone-NaN-QPSK-23279-12@0-15kHz-793-805--66.44--35-PASS



Band13-Stand-Alone-NaN-QPSK-23279-12@0-15kHz-1000-10000--49.77--13-PASS



Band13-Stand-Alone-NaN-QPSK-23279-12@0-15kHz-1559-1610--48.63--50-PASS

Appendix F: Frequency Stability for NB1

Test Result

Voltage												
Band	OpMode	SCS	Bandwidth	Modulation	Channel	Tones	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	VH	NT	-12.53	-0.016023	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	VL	NT	-13.55	-0.017327	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	VN	NT	-15.18	-0.019412	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	VH	NT	-14.22	-0.018184	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	VL	NT	-13.88	-0.017749	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	VN	NT	-14.10	-0.018031	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	VH	NT	-15.29	-0.019552	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	VL	NT	-16.02	-0.020486	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	VN	NT	-14.85	-0.018990	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	VH	NT	-14.83	-0.018964	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	VL	NT	-13.07	-0.016714	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	VN	NT	-15.35	-0.019629	±2.5	PASS

Temperature												
Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	NV	50	-15.13	-0.019348	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	NV	-20	-13.96	-0.017852	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	NV	-10	-13.28	-0.016982	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	NV	0	-13.86	-0.017724	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	NV	10	-13.13	-0.016790	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	NV	20	-13.56	-0.017340	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	NV	30	-13.29	-0.016995	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	NV	40	-13.03	-0.016662	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@0	NV	-30	-13.98	-0.017877	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	NV	30	-12.40	-0.015857	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	NV	20	-14.12	-0.018056	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	NV	10	-12.92	-0.016522	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	NV	0	-12.39	-0.015844	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	NV	-10	-12.89	-0.016483	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	NV	40	-11.73	-0.015000	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	NV	-30	-13.30	-0.017008	±2.5	PASS
Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	NV	50	-13.58	-0.017366	±2.5	PASS

Band13	Stand-Alone	3.75kHz	NaN	QPSK	23230	1@47	NV	-20	-15.35	-0.019629	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	NV	50	-14.45	-0.018478	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	NV	-20	-13.45	-0.017199	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	NV	-10	-15.21	-0.019450	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	NV	0	-16.82	-0.021509	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	NV	10	-15.44	-0.019744	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	NV	20	-15.96	-0.020409	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	NV	30	-14.41	-0.018427	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	NV	40	-16.18	-0.020691	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@0	NV	-30	-16.06	-0.020537	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	NV	40	-13.69	-0.017506	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	NV	30	-15.55	-0.019885	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	NV	20	-12.67	-0.016202	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	NV	10	-13.18	-0.016854	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	NV	0	-12.16	-0.015550	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	NV	-10	-12.56	-0.016061	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	NV	-30	-14.56	-0.018619	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	NV	50	-14.99	-0.019169	±2.5	PASS
Band13	Stand-Alone	15kHz	NaN	QPSK	23230	1@11	NV	-20	-12.86	-0.016445	±2.5	PASS