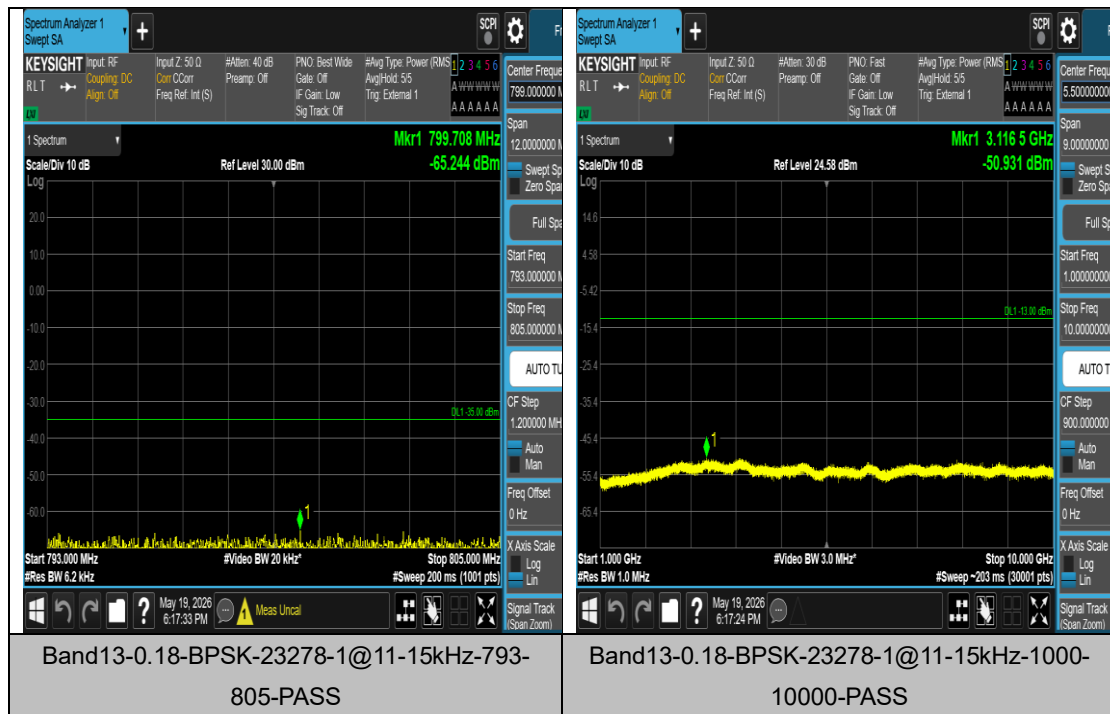




Appendix F: Frequency Stability for NB1

Test Result

Voltage												
Band	OpMode	SCS	Bandwidth	Modulation	Channel	Tones	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band 13	Stand-Alone	3.75 kHz	0.18	QPSK	23230	1@0	VL	NT	-1.70	-0.002174	±2.5	PASS
Band 13	Stand-Alone	3.75 kHz	0.18	QPSK	23230	1@0	VN	NT	0.20	0.000256	±2.5	PASS
Band 13	Stand-Alone	3.75 kHz	0.18	QPSK	23230	1@0	VH	NT	0.20	0.000256	±2.5	PASS
Band 13	Stand-Alone	3.75 kHz	0.18	QPSK	23230	1@47	VL	NT	-0.50	-0.000639	±2.5	PASS
Band 13	Stand-Alone	3.75 kHz	0.18	QPSK	23230	1@47	VN	NT	-0.40	-0.000512	±2.5	PASS
Band 13	Stand-Alone	3.75 kHz	0.18	QPSK	23230	1@47	VH	NT	-0.40	-0.000512	±2.5	PASS
Band 13	Stand-Alone	15k Hz	0.18	QPSK	23230	1@0	VL	NT	-1.40	-0.001790	±2.5	PASS
Band 13	Stand-Alone	15k Hz	0.18	QPSK	23230	1@0	VN	NT	-1.10	-0.001407	±2.5	PASS
Band 13	Stand-Alone	15k Hz	0.18	QPSK	23230	1@0	VH	NT	-0.50	-0.000639	±2.5	PASS

Band13	Stand-Alone	15k Hz	0.18	QPSK	23230	1@11	VL	NT	-1.80	-0.002302	±2.5	PASS
Band13	Stand-Alone	15k Hz	0.18	QPSK	23230	1@11	VN	NT	-0.70	-0.000895	±2.5	PASS
Band13	Stand-Alone	15k Hz	0.18	QPSK	23230	1@11	VH	NT	-0.30	-0.000384	±2.5	PASS

Temperature												
Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@0	NV	-30	0.20	0.000256	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@0	NV	-20	0.00	0.000000	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@0	NV	-10	-0.60	-0.000767	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@0	NV	0	-0.70	-0.000895	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@0	NV	10	-0.90	-0.001151	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@0	NV	20	-0.80	-0.001023	±2.5	PASS
Band13	Stand-	3.75k Hz	0.18	QPSK	23230	1@0	NV	30	-0.80	-0.001	±2.5	PASS

	Alone									023		
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@0	NV	40	-0.70	-0.000895	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@0	NV	50	-0.70	-0.000895	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@47	NV	-30	-0.80	-0.001023	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@47	NV	-20	-0.60	-0.000767	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@47	NV	-10	-0.90	-0.001151	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@47	NV	0	-1.10	-0.001407	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@47	NV	10	-0.80	-0.001023	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@47	NV	20	-0.60	-0.000767	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@47	NV	30	-0.80	-0.001023	±2.5	PASS
Band13	Stand-Alone	3.75k Hz	0.18	QPSK	23230	1@47	NV	40	-0.60	-0.000767	±2.5	PASS
Band	Stand	3.75k	0.18	QPS	232	1@	NV	50	-0.90	-	±2.	PAS

d13	d-Alone	Hz		K	30	47				0.001151	5	S
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@0	NV	-30	-2.30	-0.002941	±2.5	PASS
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@0	NV	-20	-2.40	-0.003069	±2.5	PASS
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@0	NV	-10	-1.30	-0.001662	±2.5	PASS
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@0	NV	0	-1.90	-0.002430	±2.5	PASS
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@0	NV	10	-3.00	-0.003836	±2.5	PASS
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@0	NV	20	-4.40	-0.005627	±2.5	PASS
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@0	NV	30	-1.80	-0.002302	±2.5	PASS
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@0	NV	40	-3.00	-0.003836	±2.5	PASS
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@0	NV	50	-3.70	-0.004731	±2.5	PASS
Ban d13	Stand-Alone	15kHz	0.18	QPSK	23230	1@11	NV	-30	-1.90	-0.002430	±2.5	PASS

Ban d13	Stan d- Alon e	15kH z	0.18	QPS K	232 30	1@ 11	NV	-20	-1.10	- 0.001 407	±2. 5	PAS S
Ban d13	Stan d- Alon e	15kH z	0.18	QPS K	232 30	1@ 11	NV	-10	-1.10	- 0.001 407	±2. 5	PAS S
Ban d13	Stan d- Alon e	15kH z	0.18	QPS K	232 30	1@ 11	NV	0	-0.70	- 0.000 895	±2. 5	PAS S
Ban d13	Stan d- Alon e	15kH z	0.18	QPS K	232 30	1@ 11	NV	10	-1.60	- 0.002 046	±2. 5	PAS S
Ban d13	Stan d- Alon e	15kH z	0.18	QPS K	232 30	1@ 11	NV	20	-0.50	- 0.000 639	±2. 5	PAS S
Ban d13	Stan d- Alon e	15kH z	0.18	QPS K	232 30	1@ 11	NV	30	-1.20	- 0.001 535	±2. 5	PAS S
Ban d13	Stan d- Alon e	15kH z	0.18	QPS K	232 30	1@ 11	NV	40	-0.50	- 0.000 639	±2. 5	PAS S
Ban d13	Stan d- Alon e	15kH z	0.18	QPS K	232 30	1@ 11	NV	50	-2.10	- 0.002 685	±2. 5	PAS S