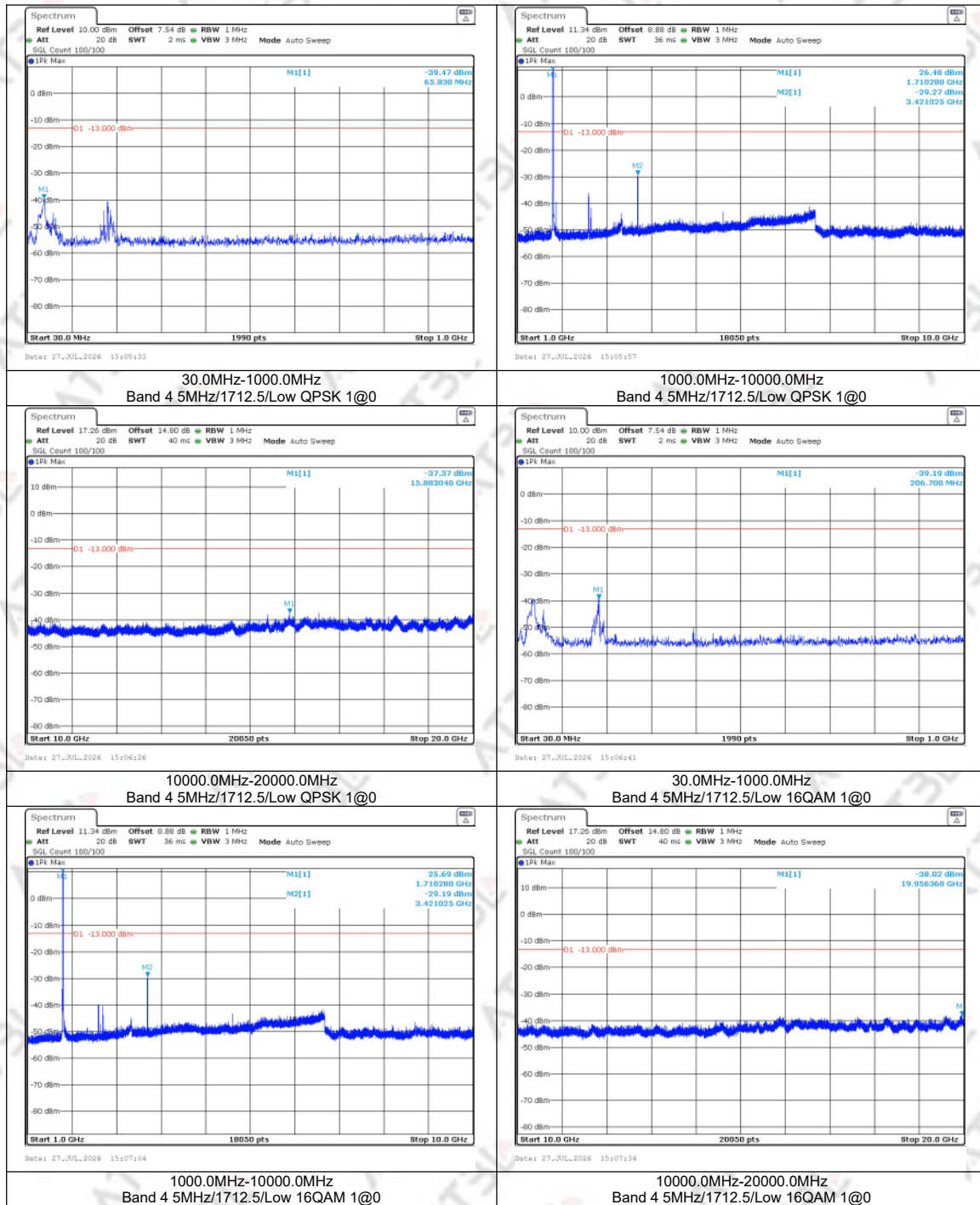
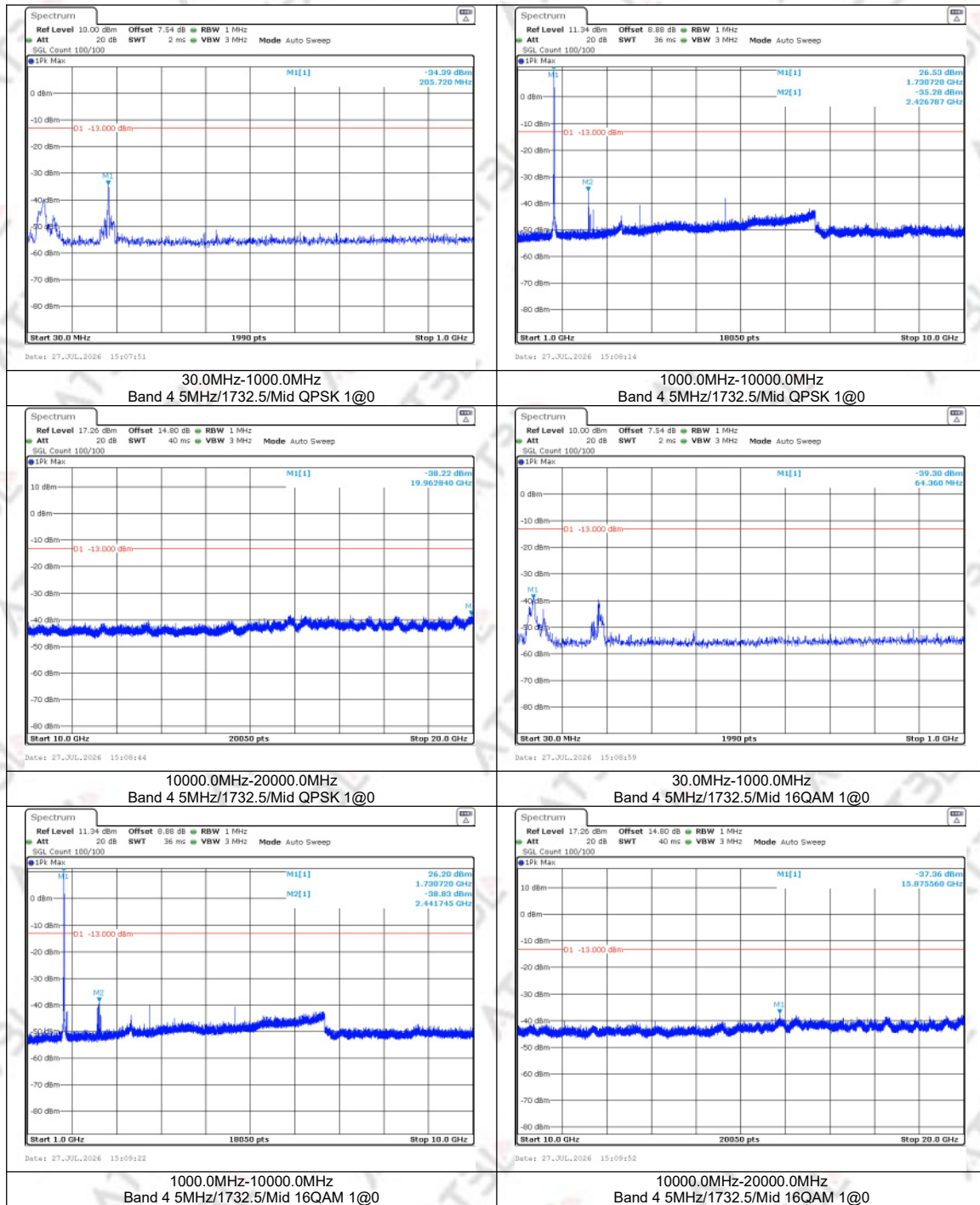
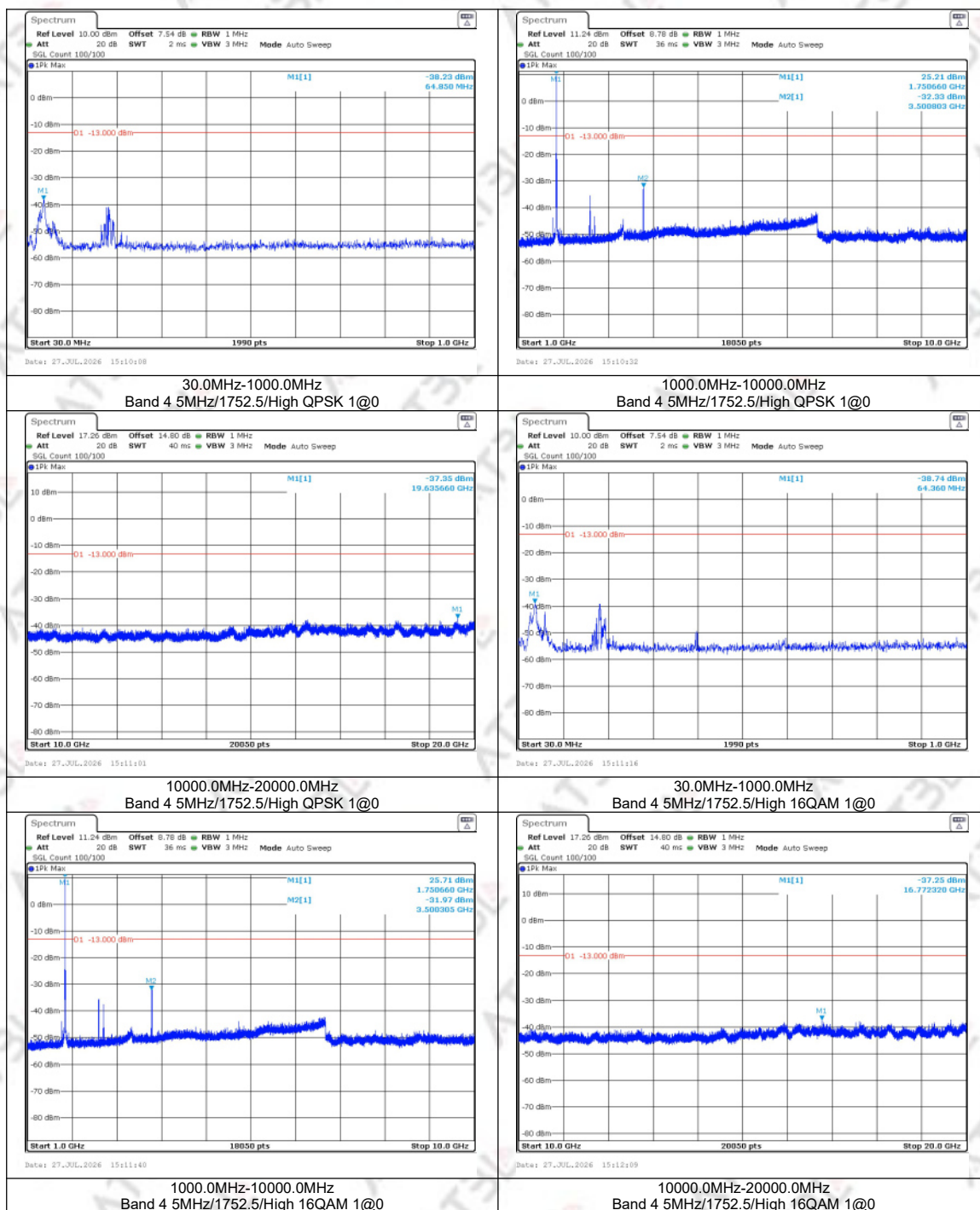
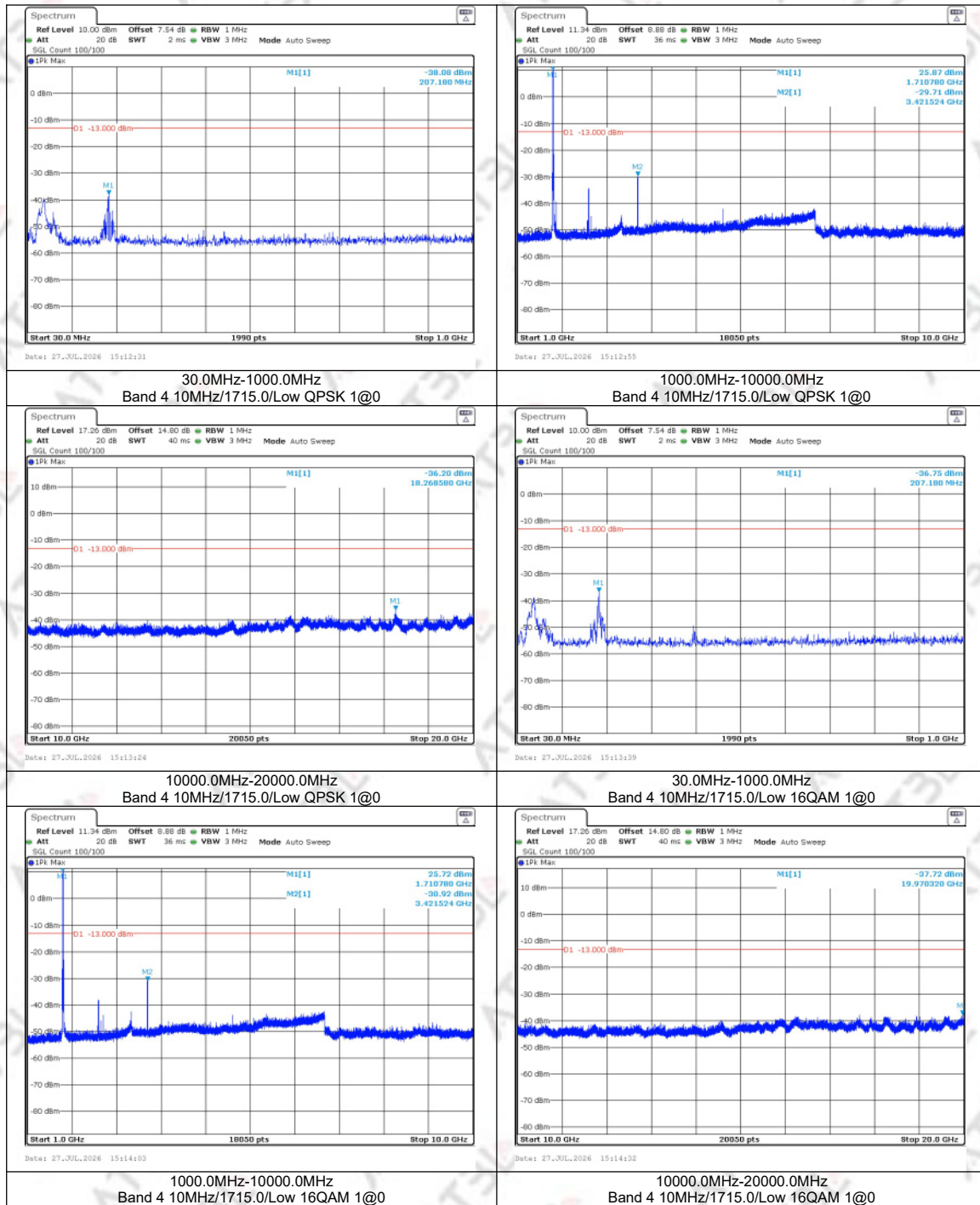
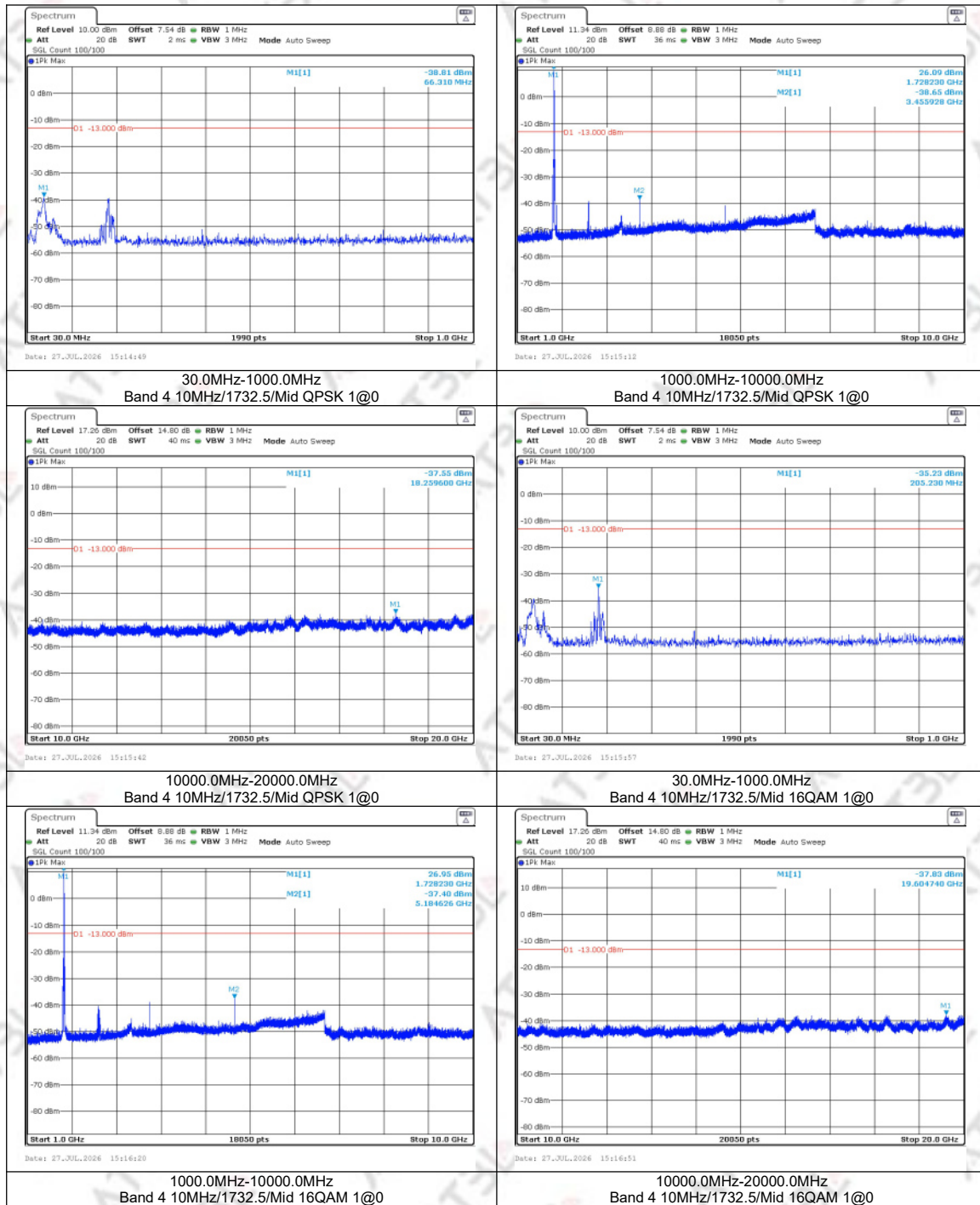


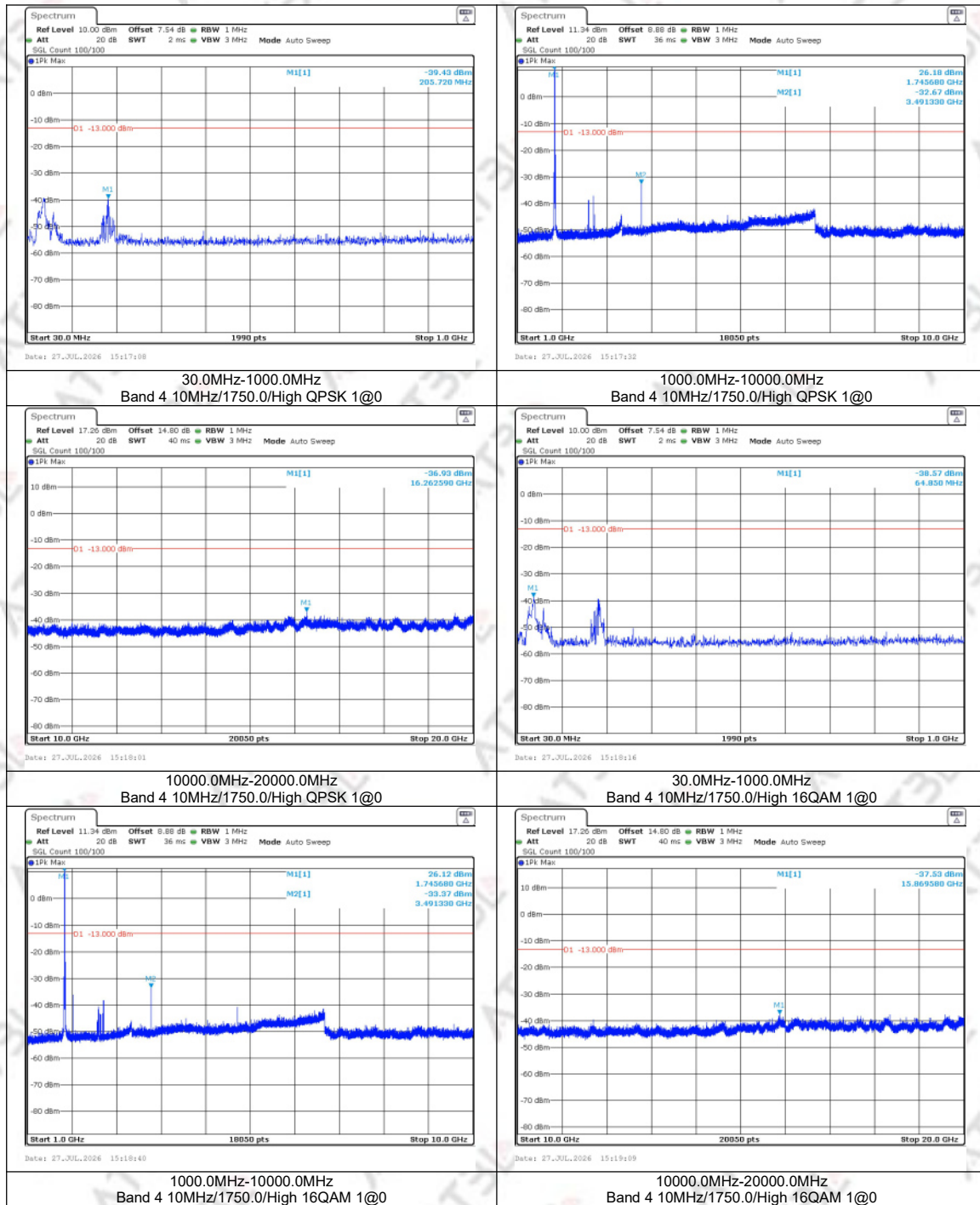


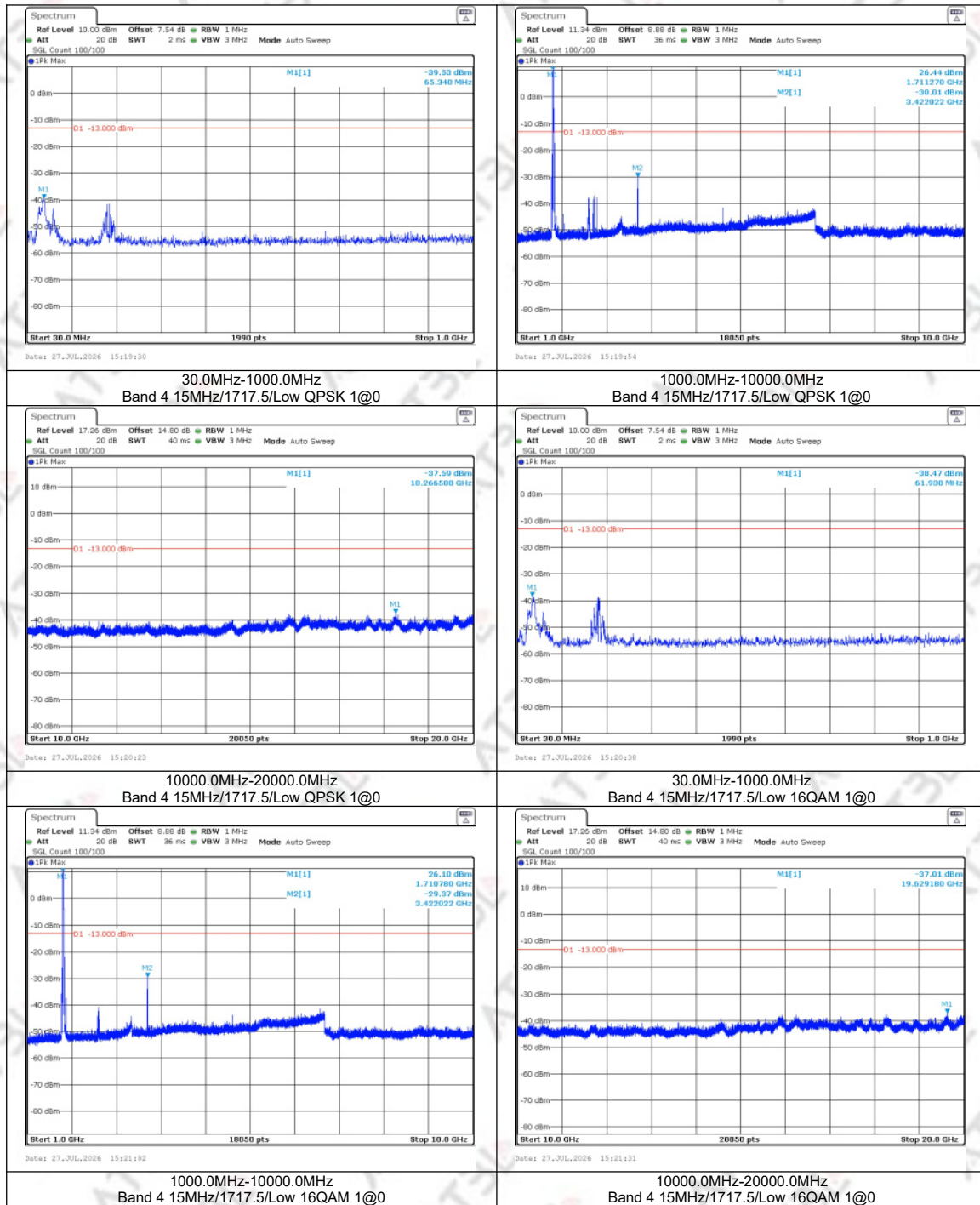


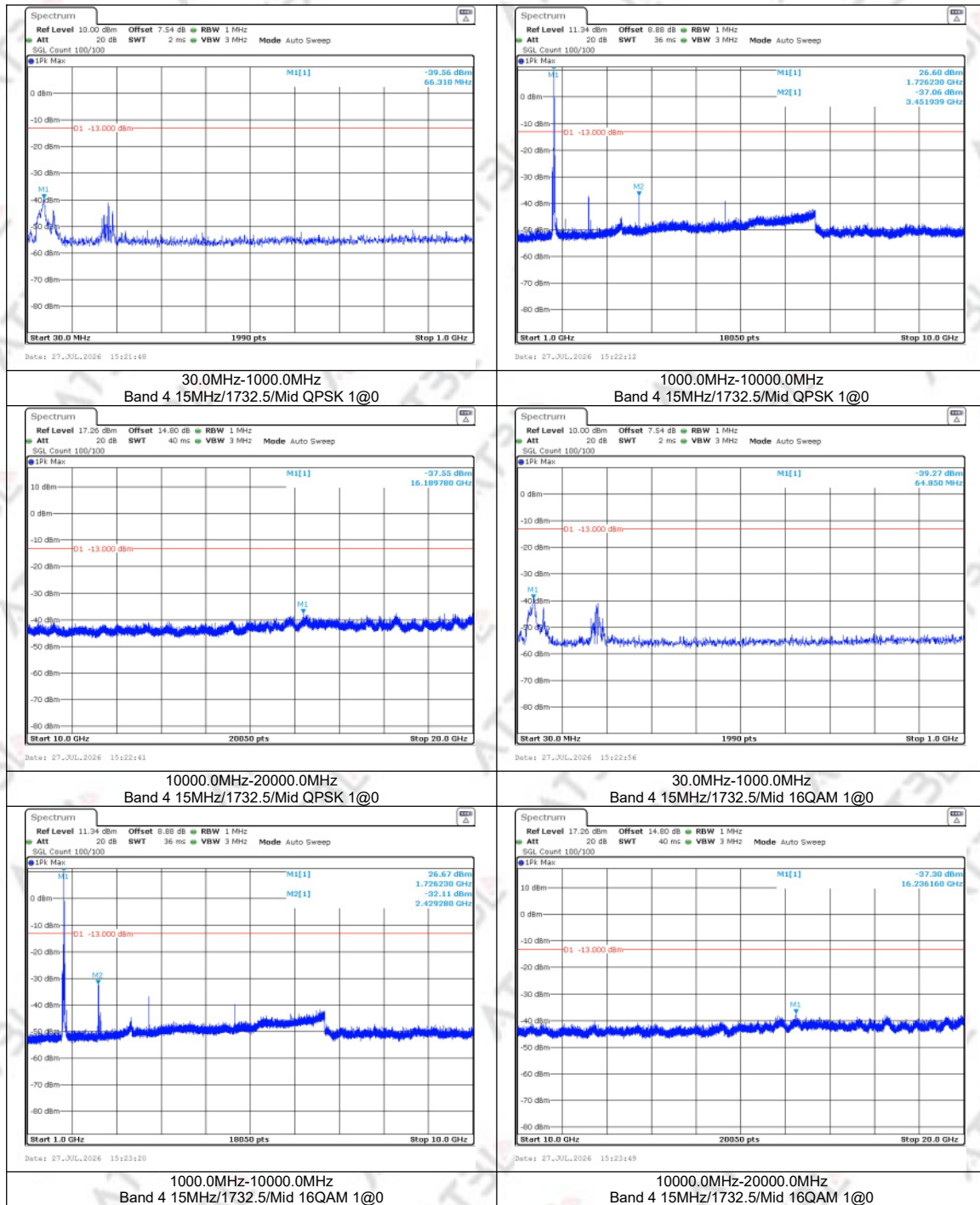


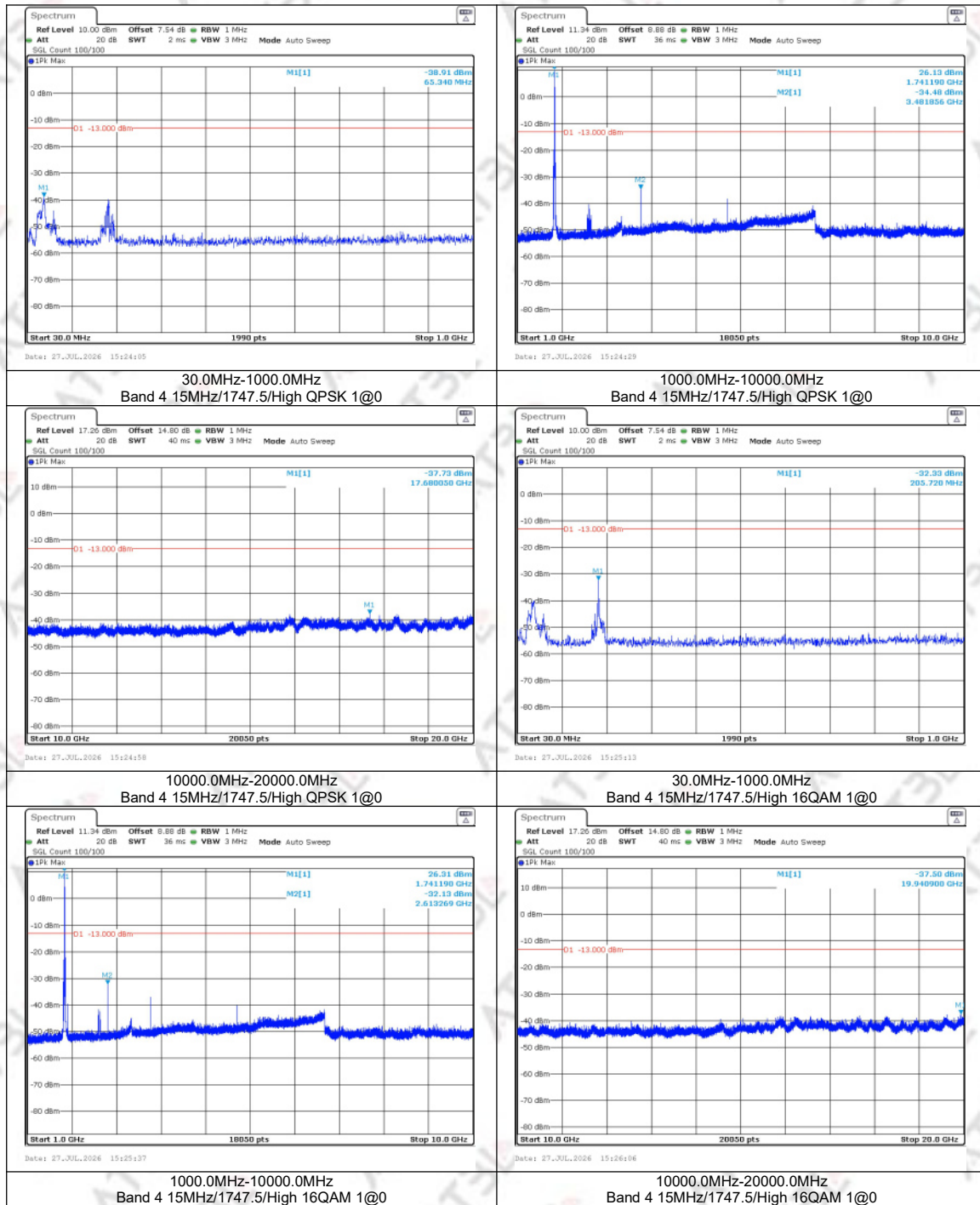


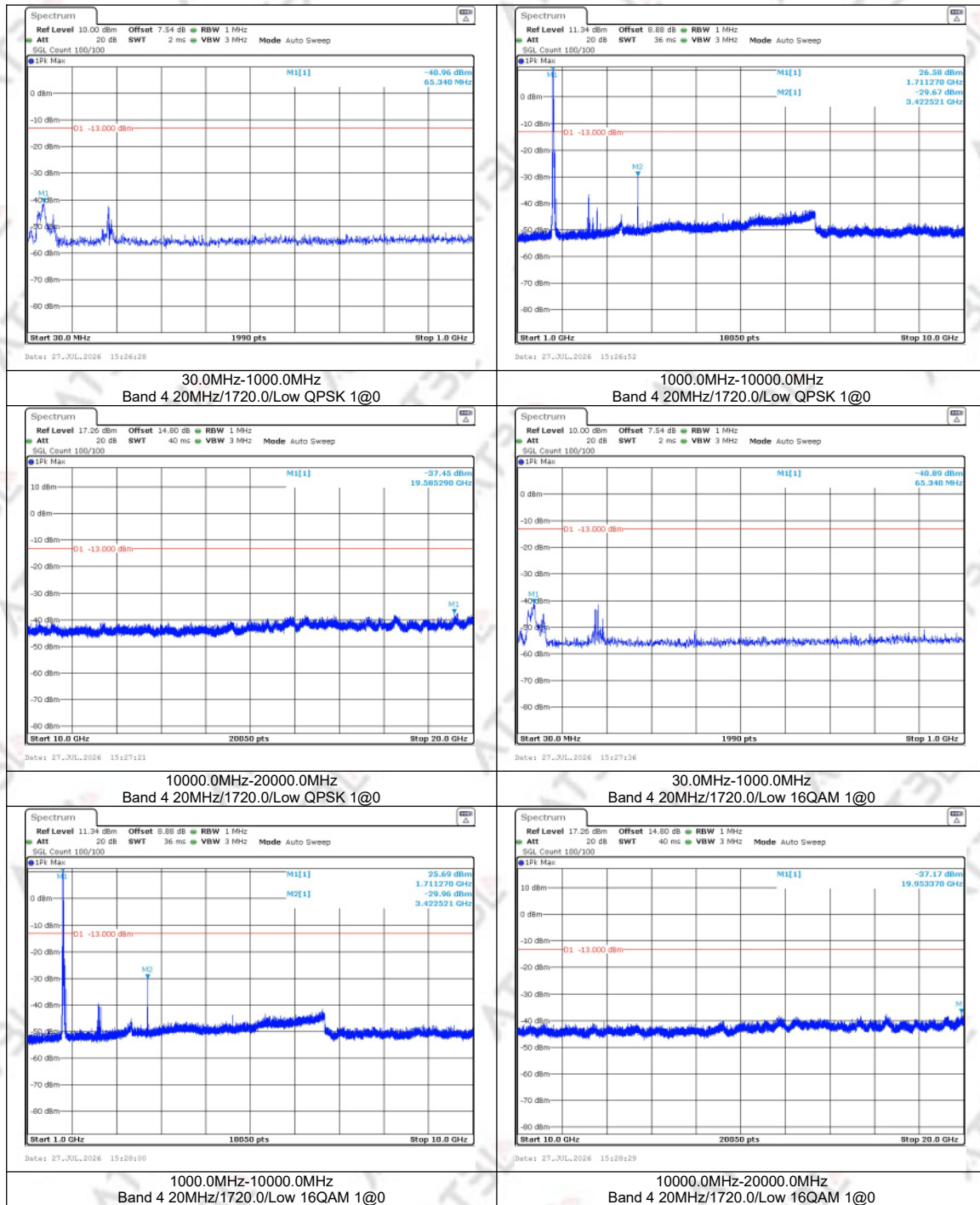


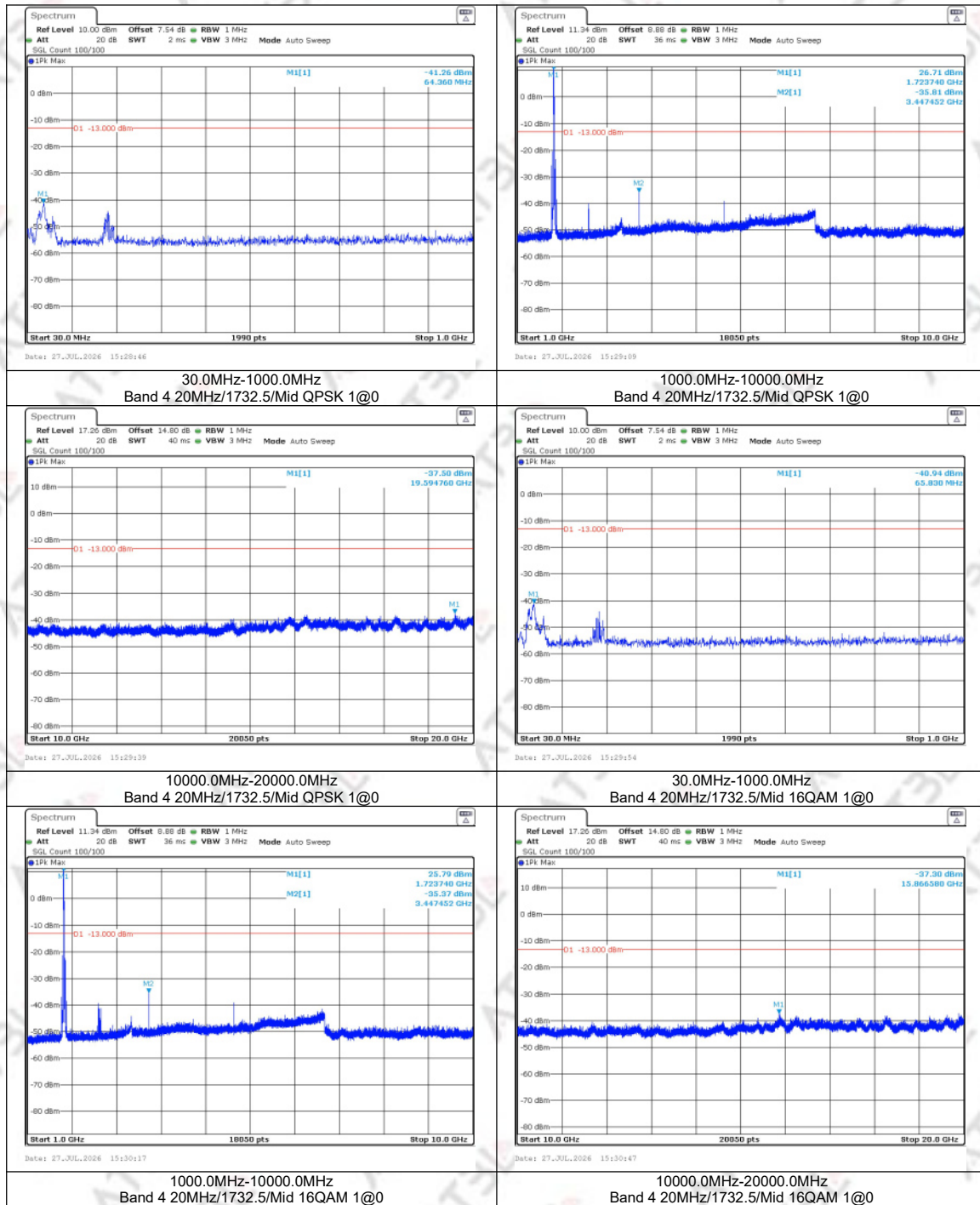


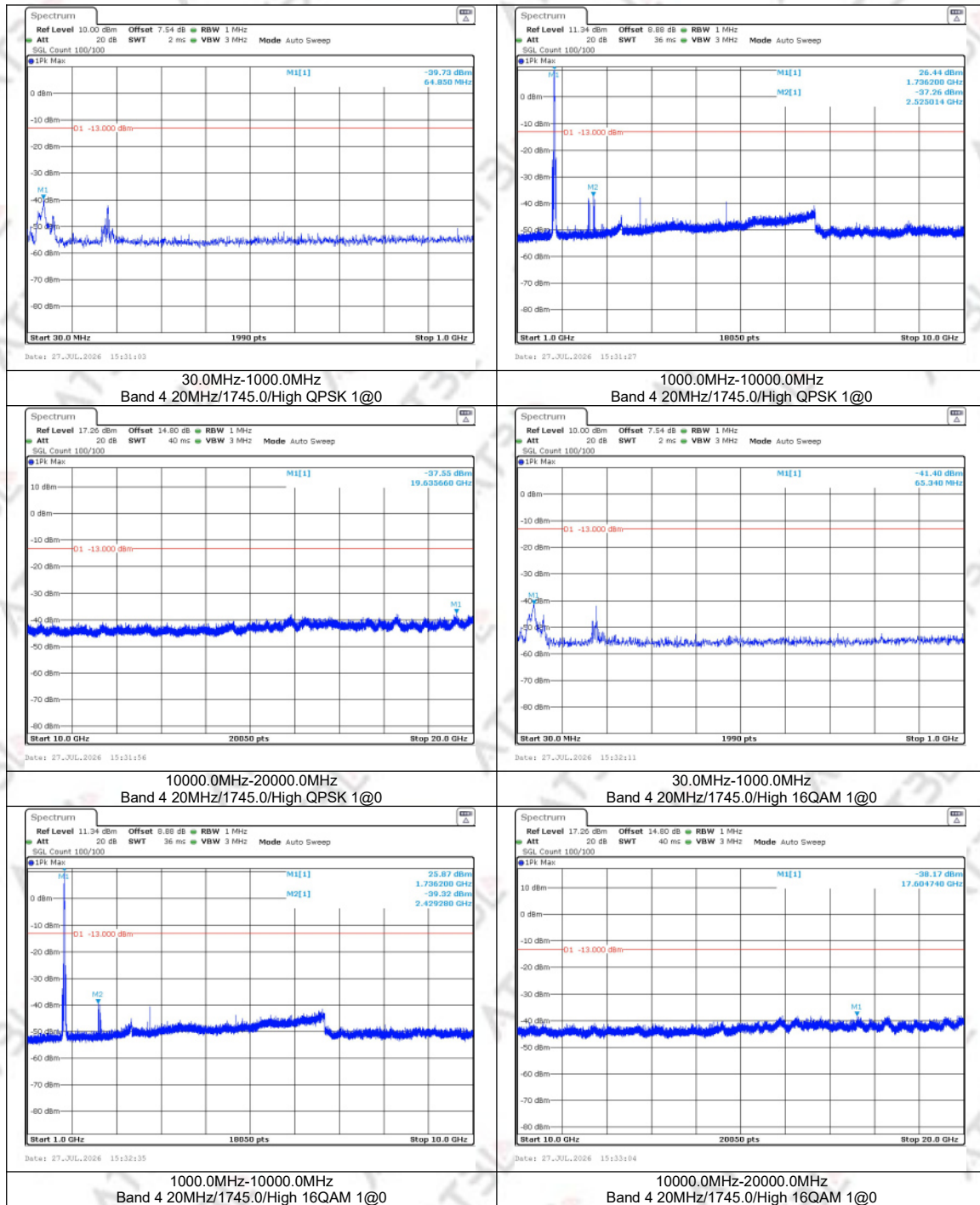












6.Frequency Stability-TN/VN

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
4	1.4	19957	1710.7	QPSK	6@0	-24.09	-0.01408	±2.5	PASS	TN/VN
4	1.4	19957	1710.7	16QAM	6@0	-5.44	-0.00318	±2.5	PASS	TN/VN
4	1.4	20175	1732.5	QPSK	6@0	6.69	0.00386	±2.5	PASS	TN/VN
4	1.4	20175	1732.5	16QAM	6@0	-6.58	-0.0038	±2.5	PASS	TN/VN
4	1.4	20393	1754.3	QPSK	6@0	-10.46	-0.00596	±2.5	PASS	TN/VN
4	1.4	20393	1754.3	16QAM	6@0	-37.02	-0.0211	±2.5	PASS	TN/VN
4	3.0	19965	1711.5	QPSK	15@0	-22.27	-0.01301	±2.5	PASS	TN/VN
4	3.0	19965	1711.5	16QAM	15@0	-3.56	-0.00208	±2.5	PASS	TN/VN
4	3.0	20175	1732.5	QPSK	15@0	-29.51	-0.01703	±2.5	PASS	TN/VN
4	3.0	20175	1732.5	16QAM	15@0	-18.21	-0.01051	±2.5	PASS	TN/VN
4	3.0	20385	1753.5	QPSK	15@0	-16.29	-0.00929	±2.5	PASS	TN/VN
4	3.0	20385	1753.5	16QAM	15@0	-31.19	-0.01778	±2.5	PASS	TN/VN
4	5.0	19975	1712.5	QPSK	25@0	-12.37	-0.00723	±2.5	PASS	TN/VN
4	5.0	19975	1712.5	16QAM	25@0	-24.66	-0.0144	±2.5	PASS	TN/VN
4	5.0	20175	1732.5	QPSK	25@0	-48.55	-0.02802	±2.5	PASS	TN/VN
4	5.0	20175	1732.5	16QAM	25@0	-44.36	-0.0256	±2.5	PASS	TN/VN
4	5.0	20375	1752.5	QPSK	25@0	-42.16	-0.02406	±2.5	PASS	TN/VN
4	5.0	20375	1752.5	16QAM	25@0	-18.45	-0.01053	±2.5	PASS	TN/VN
4	10.0	20000	1715.0	QPSK	50@0	-33.3	-0.01942	±2.5	PASS	TN/VN
4	10.0	20000	1715.0	16QAM	50@0	-30.81	-0.01797	±2.5	PASS	TN/VN
4	10.0	20175	1732.5	QPSK	50@0	-38.68	-0.02233	±2.5	PASS	TN/VN
4	10.0	20175	1732.5	16QAM	50@0	-34.38	-0.01984	±2.5	PASS	TN/VN
4	10.0	20350	1750.0	QPSK	50@0	-36.44	-0.02082	±2.5	PASS	TN/VN
4	10.0	20350	1750.0	16QAM	50@0	-20.13	-0.0115	±2.5	PASS	TN/VN
4	15.0	20025	1717.5	QPSK	75@0	-20.28	-0.01181	±2.5	PASS	TN/VN
4	15.0	20025	1717.5	16QAM	75@0	-21.69	-0.01263	±2.5	PASS	TN/VN
4	15.0	20175	1732.5	QPSK	75@0	-7.85	-0.00453	±2.5	PASS	TN/VN
4	15.0	20175	1732.5	16QAM	75@0	-21.99	-0.01269	±2.5	PASS	TN/VN
4	15.0	20325	1747.5	QPSK	75@0	-34.3	-0.01963	±2.5	PASS	TN/VN
4	15.0	20325	1747.5	16QAM	75@0	-21.67	-0.0124	±2.5	PASS	TN/VN
4	20.0	20050	1720.0	QPSK	100@0	13.3	0.00773	±2.5	PASS	TN/VN
4	20.0	20050	1720.0	16QAM	100@0	-3.1	-0.0018	±2.5	PASS	TN/VN
4	20.0	20175	1732.5	QPSK	100@0	3.43	0.00198	±2.5	PASS	TN/VN
4	20.0	20175	1732.5	16QAM	100@0	-44.23	-0.02553	±2.5	PASS	TN/VN
4	20.0	20300	1745.0	QPSK	100@0	-28.61	-0.0164	±2.5	PASS	TN/VN
4	20.0	20300	1745.0	16QAM	100@0	6.59	0.00378	±2.5	PASS	TN/VN

Frequency Stability-TL/VN

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
4	1.4	19957	1710.7	QPSK	6@0	-6.41	-0.00375	±2.5	PASS	TL/VN
4	1.4	19957	1710.7	16QAM	6@0	-39.64	-0.02317	±2.5	PASS	TL/VN
4	1.4	20175	1732.5	QPSK	6@0	-22.03	-0.01272	±2.5	PASS	TL/VN
4	1.4	20175	1732.5	16QAM	6@0	-20.26	-0.01169	±2.5	PASS	TL/VN
4	1.4	20393	1754.3	QPSK	6@0	-11.26	-0.00642	±2.5	PASS	TL/VN
4	1.4	20393	1754.3	16QAM	6@0	-22.56	-0.01286	±2.5	PASS	TL/VN
4	3.0	19965	1711.5	QPSK	15@0	19.13	0.01117	±2.5	PASS	TL/VN
4	3.0	19965	1711.5	16QAM	15@0	-37.41	-0.02186	±2.5	PASS	TL/VN
4	3.0	20175	1732.5	QPSK	15@0	-16.18	-0.00934	±2.5	PASS	TL/VN
4	3.0	20175	1732.5	16QAM	15@0	-6.01	-0.00347	±2.5	PASS	TL/VN
4	3.0	20385	1753.5	QPSK	15@0	-4.82	-0.00275	±2.5	PASS	TL/VN
4	3.0	20385	1753.5	16QAM	15@0	-13.1	-0.00747	±2.5	PASS	TL/VN
4	5.0	19975	1712.5	QPSK	25@0	13.78	0.00804	±2.5	PASS	TL/VN
4	5.0	19975	1712.5	16QAM	25@0	-39.04	-0.0228	±2.5	PASS	TL/VN
4	5.0	20175	1732.5	QPSK	25@0	-26.66	-0.01539	±2.5	PASS	TL/VN
4	5.0	20175	1732.5	16QAM	25@0	-11.86	-0.00684	±2.5	PASS	TL/VN
4	5.0	20375	1752.5	QPSK	25@0	-20.59	-0.01175	±2.5	PASS	TL/VN
4	5.0	20375	1752.5	16QAM	25@0	-21.54	-0.01229	±2.5	PASS	TL/VN
4	10.0	20000	1715.0	QPSK	50@0	3.69	0.00215	±2.5	PASS	TL/VN
4	10.0	20000	1715.0	16QAM	50@0	-13.82	-0.00806	±2.5	PASS	TL/VN
4	10.0	20175	1732.5	QPSK	50@0	-2.23	-0.00129	±2.5	PASS	TL/VN
4	10.0	20175	1732.5	16QAM	50@0	-6.45	-0.00372	±2.5	PASS	TL/VN
4	10.0	20350	1750.0	QPSK	50@0	-18.44	-0.01054	±2.5	PASS	TL/VN
4	10.0	20350	1750.0	16QAM	50@0	-36.35	-0.02077	±2.5	PASS	TL/VN
4	15.0	20025	1717.5	QPSK	75@0	22.42	0.01305	±2.5	PASS	TL/VN
4	15.0	20025	1717.5	16QAM	75@0	-32.0	-0.01863	±2.5	PASS	TL/VN
4	15.0	20175	1732.5	QPSK	75@0	-20.28	-0.01171	±2.5	PASS	TL/VN
4	15.0	20175	1732.5	16QAM	75@0	-21.92	-0.01265	±2.5	PASS	TL/VN
4	15.0	20325	1747.5	QPSK	75@0	-14.43	-0.00826	±2.5	PASS	TL/VN
4	15.0	20325	1747.5	16QAM	75@0	-23.3	-0.01334	±2.5	PASS	TL/VN
4	20.0	20050	1720.0	QPSK	100@0	25.06	0.01457	±2.5	PASS	TL/VN
4	20.0	20050	1720.0	16QAM	100@0	-28.95	-0.01683	±2.5	PASS	TL/VN
4	20.0	20175	1732.5	QPSK	100@0	-33.75	-0.01948	±2.5	PASS	TL/VN
4	20.0	20175	1732.5	16QAM	100@0	-28.08	-0.01621	±2.5	PASS	TL/VN
4	20.0	20300	1745.0	QPSK	100@0	-10.11	-0.0058	±2.5	PASS	TL/VN
4	20.0	20300	1745.0	16QAM	100@0	-29.67	-0.017	±2.5	PASS	TL/VN

Frequency Stability-TH/VH

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
4	1.4	19957	1710.7	QPSK	6@0	-21.53	-0.01259	±2.5	PASS	TH/VH
4	1.4	19957	1710.7	16QAM	6@0	-15.82	-0.00925	±2.5	PASS	TH/VH
4	1.4	20175	1732.5	QPSK	6@0	-26.11	-0.01507	±2.5	PASS	TH/VH
4	1.4	20175	1732.5	16QAM	6@0	-19.05	-0.011	±2.5	PASS	TH/VH
4	1.4	20393	1754.3	QPSK	6@0	-15.79	-0.009	±2.5	PASS	TH/VH
4	1.4	20393	1754.3	16QAM	6@0	-27.14	-0.01547	±2.5	PASS	TH/VH
4	3.0	19965	1711.5	QPSK	15@0	-9.86	-0.00576	±2.5	PASS	TH/VH
4	3.0	19965	1711.5	16QAM	15@0	1.93	0.00113	±2.5	PASS	TH/VH
4	3.0	20175	1732.5	QPSK	15@0	-18.77	-0.01083	±2.5	PASS	TH/VH
4	3.0	20175	1732.5	16QAM	15@0	-35.71	-0.02061	±2.5	PASS	TH/VH
4	3.0	20385	1753.5	QPSK	15@0	-5.28	-0.00301	±2.5	PASS	TH/VH
4	3.0	20385	1753.5	16QAM	15@0	-7.45	-0.00425	±2.5	PASS	TH/VH
4	5.0	19975	1712.5	QPSK	25@0	4.16	0.00243	±2.5	PASS	TH/VH
4	5.0	19975	1712.5	16QAM	25@0	4.19	0.00245	±2.5	PASS	TH/VH
4	5.0	20175	1732.5	QPSK	25@0	-33.45	-0.0193	±2.5	PASS	TH/VH
4	5.0	20175	1732.5	16QAM	25@0	-9.04	-0.00522	±2.5	PASS	TH/VH
4	5.0	20375	1752.5	QPSK	25@0	-18.7	-0.01067	±2.5	PASS	TH/VH
4	5.0	20375	1752.5	16QAM	25@0	-30.37	-0.01733	±2.5	PASS	TH/VH
4	10.0	20000	1715.0	QPSK	50@0	11.63	0.00678	±2.5	PASS	TH/VH
4	10.0	20000	1715.0	16QAM	50@0	-44.62	-0.02602	±2.5	PASS	TH/VH
4	10.0	20175	1732.5	QPSK	50@0	-17.57	-0.01014	±2.5	PASS	TH/VH
4	10.0	20175	1732.5	16QAM	50@0	-13.0	-0.00751	±2.5	PASS	TH/VH
4	10.0	20350	1750.0	QPSK	50@0	-6.88	-0.00393	±2.5	PASS	TH/VH
4	10.0	20350	1750.0	16QAM	50@0	-18.5	-0.01057	±2.5	PASS	TH/VH
4	15.0	20025	1717.5	QPSK	75@0	11.94	0.00695	±2.5	PASS	TH/VH
4	15.0	20025	1717.5	16QAM	75@0	-38.61	-0.02248	±2.5	PASS	TH/VH
4	15.0	20175	1732.5	QPSK	75@0	-30.73	-0.01774	±2.5	PASS	TH/VH
4	15.0	20175	1732.5	16QAM	75@0	-14.1	-0.00814	±2.5	PASS	TH/VH
4	15.0	20325	1747.5	QPSK	75@0	-11.54	-0.00661	±2.5	PASS	TH/VH
4	15.0	20325	1747.5	16QAM	75@0	-27.89	-0.01596	±2.5	PASS	TH/VH
4	20.0	20050	1720.0	QPSK	100@0	-36.88	-0.02144	±2.5	PASS	TH/VH
4	20.0	20050	1720.0	16QAM	100@0	-35.42	-0.02059	±2.5	PASS	TH/VH
4	20.0	20175	1732.5	QPSK	100@0	-44.1	-0.02546	±2.5	PASS	TH/VH
4	20.0	20175	1732.5	16QAM	100@0	-30.38	-0.01754	±2.5	PASS	TH/VH
4	20.0	20300	1745.0	QPSK	100@0	-16.18	-0.00927	±2.5	PASS	TH/VH
4	20.0	20300	1745.0	16QAM	100@0	9.8	0.00562	±2.5	PASS	TH/VH

Frequency Stability-TH/VL

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
4	1.4	19957	1710.7	QPSK	6@0	-16.62	-0.00972	±2.5	PASS	TH/VL
4	1.4	19957	1710.7	16QAM	6@0	-30.06	-0.01757	±2.5	PASS	TH/VL
4	1.4	20175	1732.5	QPSK	6@0	-21.6	-0.01247	±2.5	PASS	TH/VL
4	1.4	20175	1732.5	16QAM	6@0	-45.09	-0.02603	±2.5	PASS	TH/VL
4	1.4	20393	1754.3	QPSK	6@0	-11.56	-0.00659	±2.5	PASS	TH/VL
4	1.4	20393	1754.3	16QAM	6@0	-18.34	-0.01045	±2.5	PASS	TH/VL
4	3.0	19965	1711.5	QPSK	15@0	5.71	0.00333	±2.5	PASS	TH/VL
4	3.0	19965	1711.5	16QAM	15@0	-3.29	-0.00192	±2.5	PASS	TH/VL
4	3.0	20175	1732.5	QPSK	15@0	-36.16	-0.02087	±2.5	PASS	TH/VL
4	3.0	20175	1732.5	16QAM	15@0	-14.23	-0.00822	±2.5	PASS	TH/VL
4	3.0	20385	1753.5	QPSK	15@0	-10.83	-0.00618	±2.5	PASS	TH/VL
4	3.0	20385	1753.5	16QAM	15@0	-22.7	-0.01295	±2.5	PASS	TH/VL
4	5.0	19975	1712.5	QPSK	25@0	17.27	0.01008	±2.5	PASS	TH/VL
4	5.0	19975	1712.5	16QAM	25@0	-33.0	-0.01927	±2.5	PASS	TH/VL
4	5.0	20175	1732.5	QPSK	25@0	-6.31	-0.00364	±2.5	PASS	TH/VL
4	5.0	20175	1732.5	16QAM	25@0	-30.28	-0.01748	±2.5	PASS	TH/VL
4	5.0	20375	1752.5	QPSK	25@0	-9.61	-0.00549	±2.5	PASS	TH/VL
4	5.0	20375	1752.5	16QAM	25@0	-15.72	-0.00897	±2.5	PASS	TH/VL
4	10.0	20000	1715.0	QPSK	50@0	31.71	0.01849	±2.5	PASS	TH/VL
4	10.0	20000	1715.0	16QAM	50@0	-16.25	-0.00948	±2.5	PASS	TH/VL
4	10.0	20175	1732.5	QPSK	50@0	-34.25	-0.01977	±2.5	PASS	TH/VL
4	10.0	20175	1732.5	16QAM	50@0	-26.34	-0.0152	±2.5	PASS	TH/VL
4	10.0	20350	1750.0	QPSK	50@0	-13.68	-0.00781	±2.5	PASS	TH/VL
4	10.0	20350	1750.0	16QAM	50@0	-29.38	-0.01679	±2.5	PASS	TH/VL
4	15.0	20025	1717.5	QPSK	75@0	14.32	0.00834	±2.5	PASS	TH/VL
4	15.0	20025	1717.5	16QAM	75@0	-37.25	-0.02169	±2.5	PASS	TH/VL
4	15.0	20175	1732.5	QPSK	75@0	-20.7	-0.01195	±2.5	PASS	TH/VL
4	15.0	20175	1732.5	16QAM	75@0	-14.39	-0.00831	±2.5	PASS	TH/VL
4	15.0	20325	1747.5	QPSK	75@0	-3.96	-0.00227	±2.5	PASS	TH/VL
4	15.0	20325	1747.5	16QAM	75@0	-11.33	-0.00648	±2.5	PASS	TH/VL
4	20.0	20050	1720.0	QPSK	100@0	16.37	0.00951	±2.5	PASS	TH/VL
4	20.0	20050	1720.0	16QAM	100@0	-28.48	-0.01656	±2.5	PASS	TH/VL
4	20.0	20175	1732.5	QPSK	100@0	-2.66	-0.00154	±2.5	PASS	TH/VL
4	20.0	20175	1732.5	16QAM	100@0	-28.54	-0.01647	±2.5	PASS	TH/VL
4	20.0	20300	1745.0	QPSK	100@0	-13.55	-0.00776	±2.5	PASS	TH/VL
4	20.0	20300	1745.0	16QAM	100@0	-33.06	-0.01895	±2.5	PASS	TH/VL

Frequency Stability-TH/VN

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
4	1.4	19957	1710.7	QPSK	6@0	-20.18	-0.0118	±2.5	PASS	TH/VN
4	1.4	19957	1710.7	16QAM	6@0	-26.76	-0.01565	±2.5	PASS	TH/VN
4	1.4	20175	1732.5	QPSK	6@0	-16.74	-0.00966	±2.5	PASS	TH/VN
4	1.4	20175	1732.5	16QAM	6@0	-23.83	-0.01376	±2.5	PASS	TH/VN
4	1.4	20393	1754.3	QPSK	6@0	-36.89	-0.02103	±2.5	PASS	TH/VN
4	1.4	20393	1754.3	16QAM	6@0	-21.2	-0.01208	±2.5	PASS	TH/VN
4	3.0	19965	1711.5	QPSK	15@0	25.38	0.01483	±2.5	PASS	TH/VN
4	3.0	19965	1711.5	16QAM	15@0	-50.94	-0.02976	±2.5	PASS	TH/VN
4	3.0	20175	1732.5	QPSK	15@0	-20.93	-0.01208	±2.5	PASS	TH/VN
4	3.0	20175	1732.5	16QAM	15@0	-42.04	-0.02427	±2.5	PASS	TH/VN
4	3.0	20385	1753.5	QPSK	15@0	-28.81	-0.01643	±2.5	PASS	TH/VN
4	3.0	20385	1753.5	16QAM	15@0	-25.94	-0.01479	±2.5	PASS	TH/VN
4	5.0	19975	1712.5	QPSK	25@0	32.93	0.01923	±2.5	PASS	TH/VN
4	5.0	19975	1712.5	16QAM	25@0	-7.32	-0.00428	±2.5	PASS	TH/VN
4	5.0	20175	1732.5	QPSK	25@0	-29.01	-0.01675	±2.5	PASS	TH/VN
4	5.0	20175	1732.5	16QAM	25@0	-38.65	-0.02231	±2.5	PASS	TH/VN
4	5.0	20375	1752.5	QPSK	25@0	-34.42	-0.01964	±2.5	PASS	TH/VN
4	5.0	20375	1752.5	16QAM	25@0	-44.32	-0.02529	±2.5	PASS	TH/VN
4	10.0	20000	1715.0	QPSK	50@0	22.79	0.01329	±2.5	PASS	TH/VN
4	10.0	20000	1715.0	16QAM	50@0	-33.92	-0.01978	±2.5	PASS	TH/VN
4	10.0	20175	1732.5	QPSK	50@0	-15.31	-0.00883	±2.5	PASS	TH/VN
4	10.0	20175	1732.5	16QAM	50@0	-36.95	-0.02133	±2.5	PASS	TH/VN
4	10.0	20350	1750.0	QPSK	50@0	-23.65	-0.01351	±2.5	PASS	TH/VN
4	10.0	20350	1750.0	16QAM	50@0	-20.16	-0.01152	±2.5	PASS	TH/VN
4	15.0	20025	1717.5	QPSK	75@0	20.0	0.01164	±2.5	PASS	TH/VN
4	15.0	20025	1717.5	16QAM	75@0	-13.3	-0.00775	±2.5	PASS	TH/VN
4	15.0	20175	1732.5	QPSK	75@0	1.72	0.00099	±2.5	PASS	TH/VN
4	15.0	20175	1732.5	16QAM	75@0	-12.97	-0.00749	±2.5	PASS	TH/VN
4	15.0	20325	1747.5	QPSK	75@0	-27.08	-0.0155	±2.5	PASS	TH/VN
4	15.0	20325	1747.5	16QAM	75@0	0.32	0.00018	±2.5	PASS	TH/VN
4	20.0	20050	1720.0	QPSK	100@0	0.27	0.00016	±2.5	PASS	TH/VN
4	20.0	20050	1720.0	16QAM	100@0	-39.51	-0.02297	±2.5	PASS	TH/VN
4	20.0	20175	1732.5	QPSK	100@0	-33.36	-0.01926	±2.5	PASS	TH/VN
4	20.0	20175	1732.5	16QAM	100@0	-26.75	-0.01544	±2.5	PASS	TH/VN
4	20.0	20300	1745.0	QPSK	100@0	-37.15	-0.02129	±2.5	PASS	TH/VN
4	20.0	20300	1745.0	16QAM	100@0	-46.02	-0.02637	±2.5	PASS	TH/VN

Frequency Stability-TL/VH

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
4	1.4	19957	1710.7	QPSK	6@0	7.8	0.00456	±2.5	PASS	TLVH
4	1.4	19957	1710.7	16QAM	6@0	-25.76	-0.01506	±2.5	PASS	TLVH
4	1.4	20175	1732.5	QPSK	6@0	-19.27	-0.01112	±2.5	PASS	TLVH
4	1.4	20175	1732.5	16QAM	6@0	-10.87	-0.00628	±2.5	PASS	TLVH
4	1.4	20393	1754.3	QPSK	6@0	-35.83	-0.02043	±2.5	PASS	TLVH
4	1.4	20393	1754.3	16QAM	6@0	-25.09	-0.0143	±2.5	PASS	TLVH
4	3.0	19965	1711.5	QPSK	15@0	-15.12	-0.00883	±2.5	PASS	TLVH
4	3.0	19965	1711.5	16QAM	15@0	-11.34	-0.00663	±2.5	PASS	TLVH
4	3.0	20175	1732.5	QPSK	15@0	-29.61	-0.01709	±2.5	PASS	TLVH
4	3.0	20175	1732.5	16QAM	15@0	-28.1	-0.01622	±2.5	PASS	TLVH
4	3.0	20385	1753.5	QPSK	15@0	-15.68	-0.00894	±2.5	PASS	TLVH
4	3.0	20385	1753.5	16QAM	15@0	-36.66	-0.02091	±2.5	PASS	TLVH
4	5.0	19975	1712.5	QPSK	25@0	-27.19	-0.01588	±2.5	PASS	TLVH
4	5.0	19975	1712.5	16QAM	25@0	-34.16	-0.01995	±2.5	PASS	TLVH
4	5.0	20175	1732.5	QPSK	25@0	-35.49	-0.02049	±2.5	PASS	TLVH
4	5.0	20175	1732.5	16QAM	25@0	-30.06	-0.01735	±2.5	PASS	TLVH
4	5.0	20375	1752.5	QPSK	25@0	-22.62	-0.01291	±2.5	PASS	TLVH
4	5.0	20375	1752.5	16QAM	25@0	-35.38	-0.02019	±2.5	PASS	TLVH
4	10.0	20000	1715.0	QPSK	50@0	0.51	0.0003	±2.5	PASS	TLVH
4	10.0	20000	1715.0	16QAM	50@0	-15.26	-0.0089	±2.5	PASS	TLVH
4	10.0	20175	1732.5	QPSK	50@0	-24.33	-0.01405	±2.5	PASS	TLVH
4	10.0	20175	1732.5	16QAM	50@0	-17.7	-0.01021	±2.5	PASS	TLVH
4	10.0	20350	1750.0	QPSK	50@0	2.2	0.00126	±2.5	PASS	TLVH
4	10.0	20350	1750.0	16QAM	50@0	-41.04	-0.02345	±2.5	PASS	TLVH
4	15.0	20025	1717.5	QPSK	75@0	-3.75	-0.00218	±2.5	PASS	TLVH
4	15.0	20025	1717.5	16QAM	75@0	-29.27	-0.01704	±2.5	PASS	TLVH
4	15.0	20175	1732.5	QPSK	75@0	-21.17	-0.01222	±2.5	PASS	TLVH
4	15.0	20175	1732.5	16QAM	75@0	-45.49	-0.02626	±2.5	PASS	TLVH
4	15.0	20325	1747.5	QPSK	75@0	-32.01	-0.01832	±2.5	PASS	TLVH
4	15.0	20325	1747.5	16QAM	75@0	-27.42	-0.01569	±2.5	PASS	TLVH
4	20.0	20050	1720.0	QPSK	100@0	20.36	0.01183	±2.5	PASS	TLVH
4	20.0	20050	1720.0	16QAM	100@0	-28.75	-0.01672	±2.5	PASS	TLVH
4	20.0	20175	1732.5	QPSK	100@0	-7.1	-0.0041	±2.5	PASS	TLVH
4	20.0	20175	1732.5	16QAM	100@0	-40.44	-0.02334	±2.5	PASS	TLVH
4	20.0	20300	1745.0	QPSK	100@0	-36.15	-0.02072	±2.5	PASS	TLVH
4	20.0	20300	1745.0	16QAM	100@0	-10.53	-0.00603	±2.5	PASS	TLVH

Frequency Stability-TL/VL

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
4	1.4	19957	1710.7	QPSK	6@0	-8.97	-0.00524	±2.5	PASS	TL/VL
4	1.4	19957	1710.7	16QAM	6@0	-5.92	-0.00346	±2.5	PASS	TL/VL
4	1.4	20175	1732.5	QPSK	6@0	-38.29	-0.0221	±2.5	PASS	TL/VL
4	1.4	20175	1732.5	16QAM	6@0	-36.86	-0.02128	±2.5	PASS	TL/VL
4	1.4	20393	1754.3	QPSK	6@0	-16.94	-0.00965	±2.5	PASS	TL/VL
4	1.4	20393	1754.3	16QAM	6@0	-38.85	-0.02215	±2.5	PASS	TL/VL
4	3.0	19965	1711.5	QPSK	15@0	-15.62	-0.00913	±2.5	PASS	TL/VL
4	3.0	19965	1711.5	16QAM	15@0	-31.79	-0.01857	±2.5	PASS	TL/VL
4	3.0	20175	1732.5	QPSK	15@0	-25.48	-0.01471	±2.5	PASS	TL/VL
4	3.0	20175	1732.5	16QAM	15@0	-8.54	-0.00493	±2.5	PASS	TL/VL
4	3.0	20385	1753.5	QPSK	15@0	-8.78	-0.00501	±2.5	PASS	TL/VL
4	3.0	20385	1753.5	16QAM	15@0	-25.95	-0.0148	±2.5	PASS	TL/VL
4	5.0	19975	1712.5	QPSK	25@0	-14.03	-0.00819	±2.5	PASS	TL/VL
4	5.0	19975	1712.5	16QAM	25@0	-1.06	-0.00062	±2.5	PASS	TL/VL
4	5.0	20175	1732.5	QPSK	25@0	-28.6	-0.01651	±2.5	PASS	TL/VL
4	5.0	20175	1732.5	16QAM	25@0	-12.25	-0.00707	±2.5	PASS	TL/VL
4	5.0	20375	1752.5	QPSK	25@0	-15.52	-0.00886	±2.5	PASS	TL/VL
4	5.0	20375	1752.5	16QAM	25@0	-30.98	-0.01768	±2.5	PASS	TL/VL
4	10.0	20000	1715.0	QPSK	50@0	33.46	0.01951	±2.5	PASS	TL/VL
4	10.0	20000	1715.0	16QAM	50@0	-28.82	-0.01681	±2.5	PASS	TL/VL
4	10.0	20175	1732.5	QPSK	50@0	-39.08	-0.02256	±2.5	PASS	TL/VL
4	10.0	20175	1732.5	16QAM	50@0	-24.2	-0.01397	±2.5	PASS	TL/VL
4	10.0	20350	1750.0	QPSK	50@0	-7.84	-0.00448	±2.5	PASS	TL/VL
4	10.0	20350	1750.0	16QAM	50@0	-25.08	-0.01433	±2.5	PASS	TL/VL
4	15.0	20025	1717.5	QPSK	75@0	15.22	0.00886	±2.5	PASS	TL/VL
4	15.0	20025	1717.5	16QAM	75@0	-8.63	-0.00502	±2.5	PASS	TL/VL
4	15.0	20175	1732.5	QPSK	75@0	-7.98	-0.00461	±2.5	PASS	TL/VL
4	15.0	20175	1732.5	16QAM	75@0	-12.26	-0.00708	±2.5	PASS	TL/VL
4	15.0	20325	1747.5	QPSK	75@0	-30.46	-0.01743	±2.5	PASS	TL/VL
4	15.0	20325	1747.5	16QAM	75@0	7.98	0.00457	±2.5	PASS	TL/VL
4	20.0	20050	1720.0	QPSK	100@0	7.72	0.00449	±2.5	PASS	TL/VL
4	20.0	20050	1720.0	16QAM	100@0	-28.5	-0.01657	±2.5	PASS	TL/VL
4	20.0	20175	1732.5	QPSK	100@0	-38.57	-0.02226	±2.5	PASS	TL/VL
4	20.0	20175	1732.5	16QAM	100@0	-34.25	-0.01977	±2.5	PASS	TL/VL
4	20.0	20300	1745.0	QPSK	100@0	-37.55	-0.02152	±2.5	PASS	TL/VL
4	20.0	20300	1745.0	16QAM	100@0	-45.05	-0.02581	±2.5	PASS	TL/VL

Frequency Stability-TN/VH

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
4	1.4	19957	1710.7	QPSK	6@0	-15.99	-0.00935	±2.5	PASS	TN/VH
4	1.4	19957	1710.7	16QAM	6@0	-13.58	-0.00794	±2.5	PASS	TN/VH
4	1.4	20175	1732.5	QPSK	6@0	-18.51	-0.01068	±2.5	PASS	TN/VH
4	1.4	20175	1732.5	16QAM	6@0	-29.05	-0.01677	±2.5	PASS	TN/VH
4	1.4	20393	1754.3	QPSK	6@0	1.85	0.00105	±2.5	PASS	TN/VH
4	1.4	20393	1754.3	16QAM	6@0	-1.32	-0.00075	±2.5	PASS	TN/VH
4	3.0	19965	1711.5	QPSK	15@0	38.88	0.02272	±2.5	PASS	TN/VH
4	3.0	19965	1711.5	16QAM	15@0	-9.37	-0.00547	±2.5	PASS	TN/VH
4	3.0	20175	1732.5	QPSK	15@0	-26.41	-0.01524	±2.5	PASS	TN/VH
4	3.0	20175	1732.5	16QAM	15@0	-10.51	-0.00607	±2.5	PASS	TN/VH
4	3.0	20385	1753.5	QPSK	15@0	-18.97	-0.01082	±2.5	PASS	TN/VH
4	3.0	20385	1753.5	16QAM	15@0	-28.84	-0.01645	±2.5	PASS	TN/VH
4	5.0	19975	1712.5	QPSK	25@0	21.96	0.01282	±2.5	PASS	TN/VH
4	5.0	19975	1712.5	16QAM	25@0	-32.07	-0.01873	±2.5	PASS	TN/VH
4	5.0	20175	1732.5	QPSK	25@0	-19.71	-0.01138	±2.5	PASS	TN/VH
4	5.0	20175	1732.5	16QAM	25@0	-27.47	-0.01585	±2.5	PASS	TN/VH
4	5.0	20375	1752.5	QPSK	25@0	-22.27	-0.01271	±2.5	PASS	TN/VH
4	5.0	20375	1752.5	16QAM	25@0	-46.99	-0.02681	±2.5	PASS	TN/VH
4	10.0	20000	1715.0	QPSK	50@0	39.27	0.0229	±2.5	PASS	TN/VH
4	10.0	20000	1715.0	16QAM	50@0	-20.16	-0.01175	±2.5	PASS	TN/VH
4	10.0	20175	1732.5	QPSK	50@0	-11.96	-0.0069	±2.5	PASS	TN/VH
4	10.0	20175	1732.5	16QAM	50@0	-27.01	-0.01559	±2.5	PASS	TN/VH
4	10.0	20350	1750.0	QPSK	50@0	-23.8	-0.0136	±2.5	PASS	TN/VH
4	10.0	20350	1750.0	16QAM	50@0	-5.52	-0.00316	±2.5	PASS	TN/VH
4	15.0	20025	1717.5	QPSK	75@0	19.86	0.01156	±2.5	PASS	TN/VH
4	15.0	20025	1717.5	16QAM	75@0	-10.71	-0.00624	±2.5	PASS	TN/VH
4	15.0	20175	1732.5	QPSK	75@0	5.32	0.00307	±2.5	PASS	TN/VH
4	15.0	20175	1732.5	16QAM	75@0	-39.35	-0.02271	±2.5	PASS	TN/VH
4	15.0	20325	1747.5	QPSK	75@0	-23.09	-0.01321	±2.5	PASS	TN/VH
4	15.0	20325	1747.5	16QAM	75@0	-39.27	-0.02247	±2.5	PASS	TN/VH
4	20.0	20050	1720.0	QPSK	100@0	22.85	0.01328	±2.5	PASS	TN/VH
4	20.0	20050	1720.0	16QAM	100@0	-33.43	-0.01944	±2.5	PASS	TN/VH
4	20.0	20175	1732.5	QPSK	100@0	-36.52	-0.02108	±2.5	PASS	TN/VH
4	20.0	20175	1732.5	16QAM	100@0	-16.38	-0.00945	±2.5	PASS	TN/VH
4	20.0	20300	1745.0	QPSK	100@0	-11.53	-0.00661	±2.5	PASS	TN/VH
4	20.0	20300	1745.0	16QAM	100@0	-25.05	-0.01435	±2.5	PASS	TN/VH

Frequency Stability-TN/VL

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
4	1.4	19957	1710.7	QPSK	6@0	-30.0	-0.01754	±2.5	PASS	TN/VL
4	1.4	19957	1710.7	16QAM	6@0	-30.13	-0.01761	±2.5	PASS	TN/VL
4	1.4	20175	1732.5	QPSK	6@0	-26.28	-0.01517	±2.5	PASS	TN/VL
4	1.4	20175	1732.5	16QAM	6@0	-13.92	-0.00803	±2.5	PASS	TN/VL
4	1.4	20393	1754.3	QPSK	6@0	-26.36	-0.01503	±2.5	PASS	TN/VL
4	1.4	20393	1754.3	16QAM	6@0	-42.06	-0.02397	±2.5	PASS	TN/VL
4	3.0	19965	1711.5	QPSK	15@0	33.9	0.01981	±2.5	PASS	TN/VL
4	3.0	19965	1711.5	16QAM	15@0	-13.32	-0.00778	±2.5	PASS	TN/VL
4	3.0	20175	1732.5	QPSK	15@0	-10.66	-0.00615	±2.5	PASS	TN/VL
4	3.0	20175	1732.5	16QAM	15@0	-32.13	-0.01855	±2.5	PASS	TN/VL
4	3.0	20385	1753.5	QPSK	15@0	-36.31	-0.02071	±2.5	PASS	TN/VL
4	3.0	20385	1753.5	16QAM	15@0	-25.86	-0.01475	±2.5	PASS	TN/VL
4	5.0	19975	1712.5	QPSK	25@0	9.4	0.00549	±2.5	PASS	TN/VL
4	5.0	19975	1712.5	16QAM	25@0	-44.09	-0.02575	±2.5	PASS	TN/VL
4	5.0	20175	1732.5	QPSK	25@0	-34.32	-0.01981	±2.5	PASS	TN/VL
4	5.0	20175	1732.5	16QAM	25@0	5.52	0.00319	±2.5	PASS	TN/VL
4	5.0	20375	1752.5	QPSK	25@0	-18.78	-0.01072	±2.5	PASS	TN/VL
4	5.0	20375	1752.5	16QAM	25@0	-10.44	-0.00596	±2.5	PASS	TN/VL
4	10.0	20000	1715.0	QPSK	50@0	10.03	0.00585	±2.5	PASS	TN/VL
4	10.0	20000	1715.0	16QAM	50@0	-27.52	-0.01605	±2.5	PASS	TN/VL
4	10.0	20175	1732.5	QPSK	50@0	-36.49	-0.02106	±2.5	PASS	TN/VL
4	10.0	20175	1732.5	16QAM	50@0	-22.64	-0.01307	±2.5	PASS	TN/VL
4	10.0	20350	1750.0	QPSK	50@0	-33.12	-0.01892	±2.5	PASS	TN/VL
4	10.0	20350	1750.0	16QAM	50@0	-35.42	-0.02024	±2.5	PASS	TN/VL
4	15.0	20025	1717.5	QPSK	75@0	26.79	0.0156	±2.5	PASS	TN/VL
4	15.0	20025	1717.5	16QAM	75@0	-44.4	-0.02585	±2.5	PASS	TN/VL
4	15.0	20175	1732.5	QPSK	75@0	-6.51	-0.00376	±2.5	PASS	TN/VL
4	15.0	20175	1732.5	16QAM	75@0	7.28	0.0042	±2.5	PASS	TN/VL
4	15.0	20325	1747.5	QPSK	75@0	-20.31	-0.01162	±2.5	PASS	TN/VL
4	15.0	20325	1747.5	16QAM	75@0	-42.76	-0.02447	±2.5	PASS	TN/VL
4	20.0	20050	1720.0	QPSK	100@0	14.63	0.00851	±2.5	PASS	TN/VL
4	20.0	20050	1720.0	16QAM	100@0	-21.5	-0.0125	±2.5	PASS	TN/VL
4	20.0	20175	1732.5	QPSK	100@0	-35.26	-0.02035	±2.5	PASS	TN/VL
4	20.0	20175	1732.5	16QAM	100@0	-38.98	-0.0225	±2.5	PASS	TN/VL
4	20.0	20300	1745.0	QPSK	100@0	-19.31	-0.01107	±2.5	PASS	TN/VL
4	20.0	20300	1745.0	16QAM	100@0	-42.07	-0.02411	±2.5	PASS	TN/VL

7.Modulation Characteristics

Test Result

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Verdict
4	1.4	19957	1710.7	QPSK	6@0	PASS
4	1.4	19957	1710.7	16QAM	6@0	PASS
4	1.4	20175	1732.5	QPSK	6@0	PASS
4	1.4	20175	1732.5	16QAM	6@0	PASS
4	1.4	20393	1754.3	QPSK	6@0	PASS
4	1.4	20393	1754.3	16QAM	6@0	PASS
4	3.0	19965	1711.5	QPSK	15@0	PASS
4	3.0	19965	1711.5	16QAM	15@0	PASS
4	3.0	20175	1732.5	QPSK	15@0	PASS
4	3.0	20175	1732.5	16QAM	15@0	PASS
4	3.0	20385	1753.5	QPSK	15@0	PASS
4	3.0	20385	1753.5	16QAM	15@0	PASS
4	5.0	19975	1712.5	QPSK	25@0	PASS
4	5.0	19975	1712.5	16QAM	25@0	PASS
4	5.0	20175	1732.5	QPSK	25@0	PASS
4	5.0	20175	1732.5	16QAM	25@0	PASS
4	5.0	20375	1752.5	QPSK	25@0	PASS
4	5.0	20375	1752.5	16QAM	25@0	PASS
4	10.0	20000	1715.0	QPSK	50@0	PASS
4	10.0	20000	1715.0	16QAM	50@0	PASS
4	10.0	20175	1732.5	QPSK	50@0	PASS
4	10.0	20175	1732.5	16QAM	50@0	PASS
4	10.0	20350	1750.0	QPSK	50@0	PASS
4	10.0	20350	1750.0	16QAM	50@0	PASS
4	15.0	20025	1717.5	QPSK	75@0	PASS
4	15.0	20025	1717.5	16QAM	75@0	PASS
4	15.0	20175	1732.5	QPSK	75@0	PASS
4	15.0	20175	1732.5	16QAM	75@0	PASS
4	15.0	20325	1747.5	QPSK	75@0	PASS
4	15.0	20325	1747.5	16QAM	75@0	PASS
4	20.0	20050	1720.0	QPSK	100@0	PASS
4	20.0	20050	1720.0	16QAM	100@0	PASS
4	20.0	20175	1732.5	QPSK	100@0	PASS
4	20.0	20175	1732.5	16QAM	100@0	PASS
4	20.0	20300	1745.0	QPSK	100@0	PASS
4	20.0	20300	1745.0	16QAM	100@0	PASS

Test Graphs

