11AX20MIMO-Ant2-5320-PASS

11AX20MIMO-Ant1-5500-PASS

11AX20MIMO-Ant2-5500-PASS

11AX20MIMO-Ant1-5580-PASS

11AX20MIMO-Ant2-5580-PASS

11AX20MIMO-Ant1-5700-PASS

11AX20MIMO-Ant2-5700-PASS

11AX20MIMO-Ant1-5745-PASS

11AX20MIMO-Ant2-5745-PASS

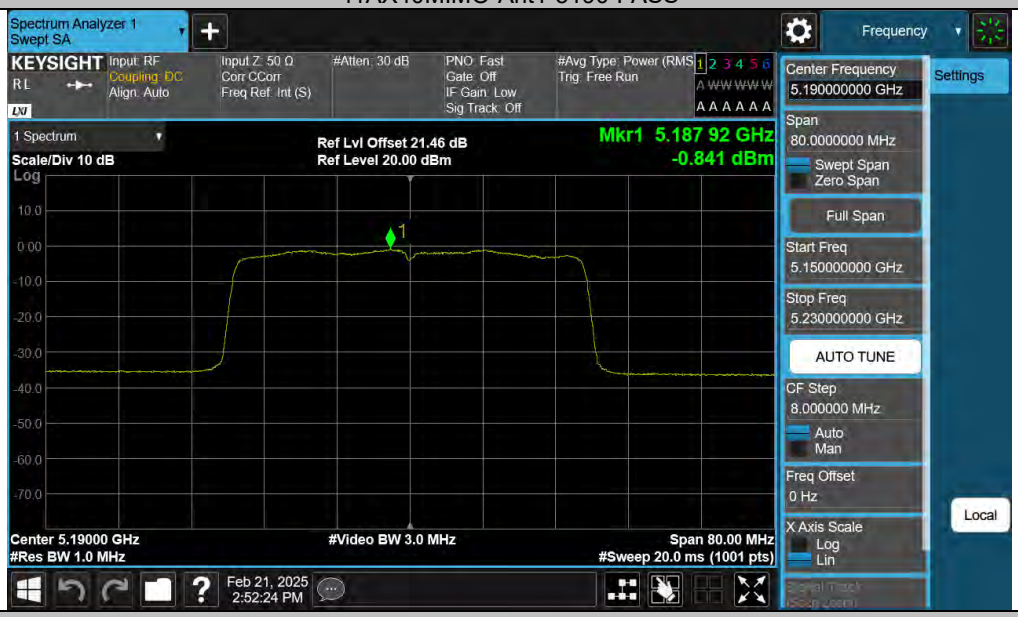
11AX20MIMO-Ant1-5785-PASS

11AX20MIMO-Ant2-5785-PASS

11AX20MIMO-Ant1-5825-PASS

11AX20MIMO-Ant2-5825-PASS

11AX40MIMO-Ant1-5190-PASS



11AX40MIMO-Ant2-5190-PASS

11AX40MIMO-Ant1-5230-PASS

11AX40MIMO-Ant2-5230-PASS

11AX40MIMO-Ant1-5270-PASS

11AX40MIMO-Ant2-5270-PASS

11AX40MIMO-Ant1-5310-PASS

11AX40MIMO-Ant2-5310-PASS

11AX40MIMO-Ant1-5510-PASS

11AX40MIMO-Ant2-5510-PASS

11AX40MIMO-Ant1-5550-PASS

11AX40MIMO-Ant2-5550-PASS

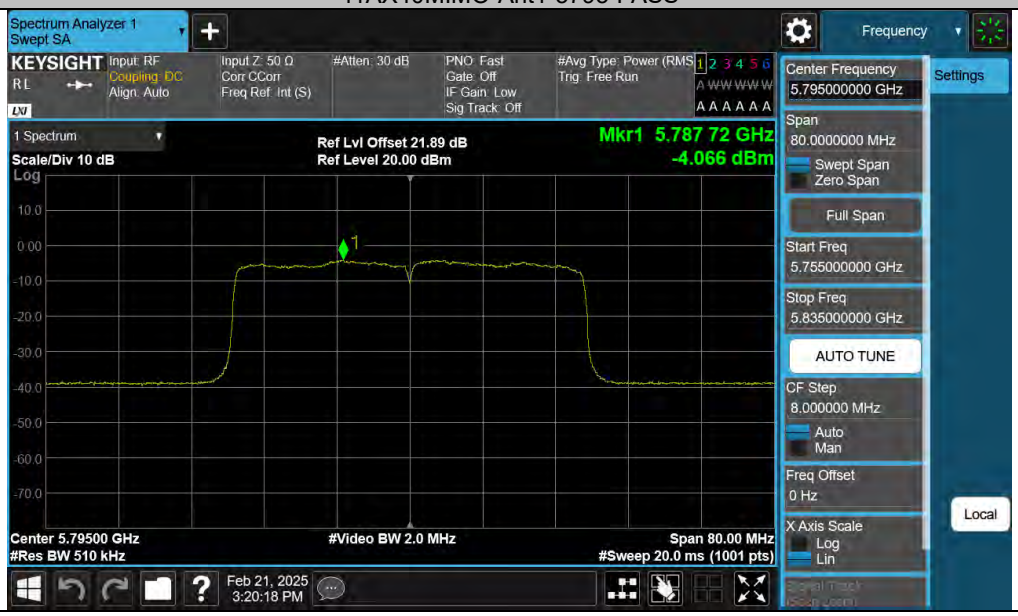
11AX40MIMO-Ant1-5670-PASS

11AX40MIMO-Ant2-5670-PASS

11AX40MIMO-Ant1-5755-PASS

11AX40MIMO-Ant2-5755-PASS

11AX40MIMO-Ant1-5795-PASS



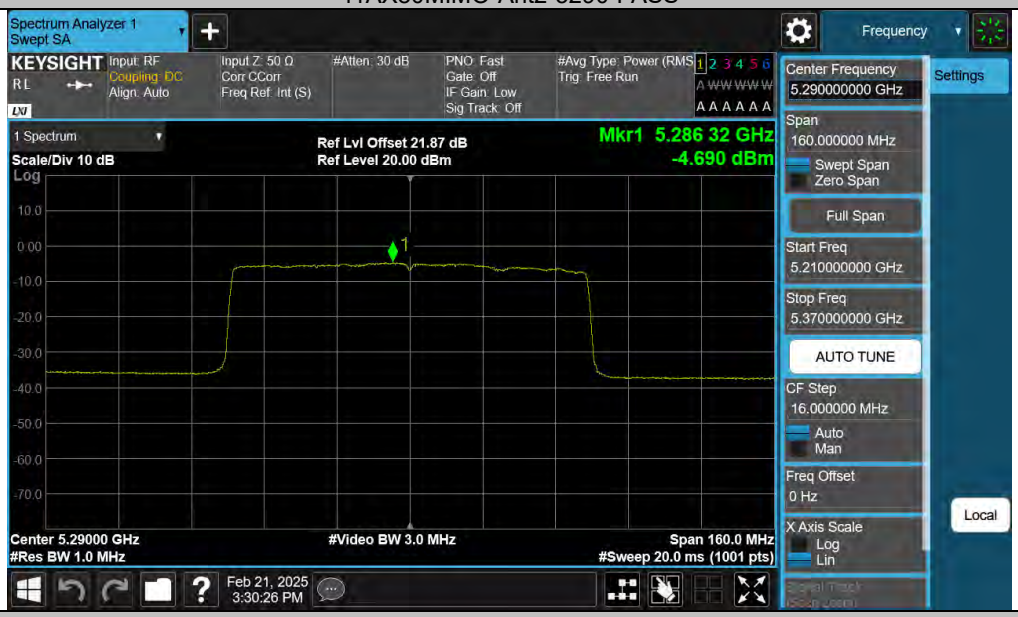
11AX40MIMO-Ant2-5795-PASS

11AX80MIMO-Ant1-5210-PASS

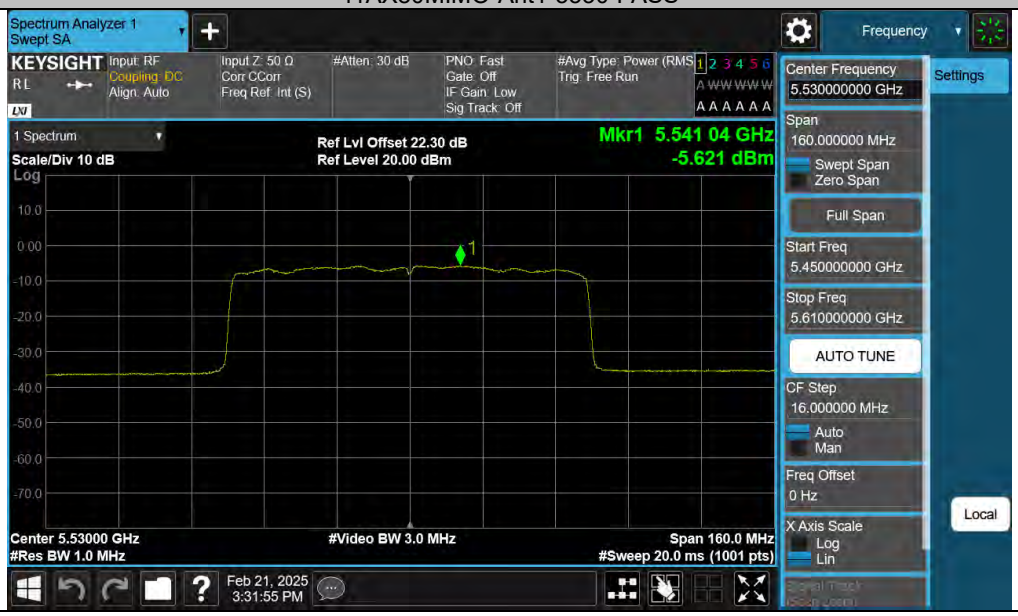
11AX80MIMO-Ant2-5210-PASS

11AX80MIMO-Ant1-5290-PASS

11AX80MIMO-Ant2-5290-PASS



11AX80MIMO-Ant1-5530-PASS



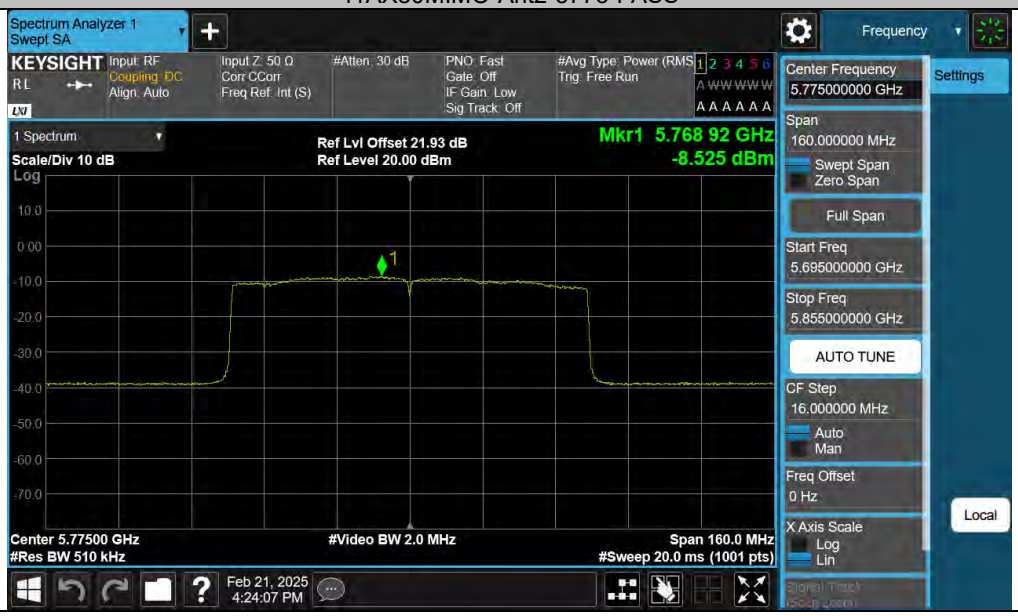
11AX80MIMO-Ant2-5530-PASS

11AX80MIMO-Ant1-5610-PASS

11AX80MIMO-Ant2-5610-PASS

11AX80MIMO-Ant1-5775-PASS

11AX80MIMO-Ant2-5775-PASS



Appendix E: Band edge measurements

Test Result B4

Test Mode	Antenna	ChName	Frequency[MHz]	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-39.79	≤15.82	PASS
11A	Ant1	Low	5745	5700~5720	-38.21	≤11.34	PASS
11A	Ant1	Low	5745	5650~5700	-38.43	≤-25.93	PASS
11A	Ant1	Low	5745	5760~5650	-38.83	≤-27	PASS
11A	Ant2	Low	5745	5720~5725	-37.27	≤16.60	PASS
11A	Ant2	Low	5745	5700~5720	-38.41	≤10.22	PASS
11A	Ant2	Low	5745	5650~5700	-38.94	≤-26.70	PASS
11A	Ant2	Low	5745	5760~5650	-37.8	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-38.57	≤16.34	PASS
11A	Ant1	High	5825	5855~5875	-37.79	≤10.93	PASS
11A	Ant1	High	5825	5875~5925	-38.31	≤-26.51	PASS
11A	Ant1	High	5825	5925~5935	-38.21	≤-27	PASS
11A	Ant2	High	5825	5850~5855	-37.89	≤15.73	PASS
11A	Ant2	High	5825	5855~5875	-37.16	≤11.08	PASS
11A	Ant2	High	5825	5875~5925	-37.14	≤-25.41	PASS
11A	Ant2	High	5825	5925~5935	-36.66	≤-27	PASS
11N20MIMO	Ant1	Low	5745	5720~5725	-39.15	≤15.82	PASS
11N20MIMO	Ant1	Low	5745	5700~5720	-38.69	≤10.31	PASS
11N20MIMO	Ant1	Low	5745	5650~5700	-36.8	≤-26.79	PASS
11N20MIMO	Ant1	Low	5745	5760~5650	-37.93	≤-27	PASS
11N20MIMO	Ant2	Low	5745	5720~5725	-35.83	≤16.08	PASS
11N20MIMO	Ant2	Low	5745	5700~5720	-36.71	≤10.60	PASS
11N20MIMO	Ant2	Low	5745	5650~5700	-38.49	≤-26.96	PASS
11N20MIMO	Ant2	Low	5745	5760~5650	-38.1	≤-27	PASS
11N20MIMO	Ant1	High	5825	5850~5855	-39.09	≤15.73	PASS
11N20MIMO	Ant1	High	5825	5855~5875	-36.93	≤10.70	PASS
11N20MIMO	Ant1	High	5825	5875~5925	-37.36	≤-25.61	PASS
11N20MIMO	Ant1	High	5825	5925~5935	-37.4	≤-27	PASS
11N20MIMO	Ant2	High	5825	5850~5855	-37.04	≤17.26	PASS
11N20MIMO	Ant2	High	5825	5855~5875	-37.57	≤10.02	PASS
11N20MIMO	Ant2	High	5825	5875~5925	-37.77	≤-26.91	PASS
11N20MIMO	Ant2	High	5825	5925~5935	-36.99	≤-27	PASS
11N40MIMO	Ant1	Low	5755	5720~5725	-36.88	≤16.66	PASS
11N40MIMO	Ant1	Low	5755	5700~5720	-38.38	≤10.36	PASS
11N40MIMO	Ant1	Low	5755	5650~5700	-38.5	≤-26.30	PASS
11N40MIMO	Ant1	Low	5755	5780~5650	-38.45	≤-27	PASS
11N40MIMO	Ant2	Low	5755	5720~5725	-45.02	≤15.74	PASS
11N40MIMO	Ant2	Low	5755	5700~5720	-46.07	≤10.25	PASS
11N40MIMO	Ant2	Low	5755	5650~5700	-46.43	≤-26.80	PASS
11N40MIMO	Ant2	Low	5755	5780~5650	-46.61	≤-27	PASS
11N40MIMO	Ant1	High	5795	5850~5855	-38.62	≤16.03	PASS
11N40MIMO	Ant1	High	5795	5855~5875	-38.17	≤10.76	PASS
11N40MIMO	Ant1	High	5795	5875~5925	-38.46	≤-26.10	PASS
11N40MIMO	Ant1	High	5795	5925~5935	-37.83	≤-27	PASS
11N40MIMO	Ant2	High	5795	5850~5855	-38.83	≤15.66	PASS
11N40MIMO	Ant2	High	5795	5855~5875	-38.05	≤10.02	PASS
11N40MIMO	Ant2	High	5795	5875~5925	-38.03	≤-26.46	PASS
11N40MIMO	Ant2	High	5795	5925~5935	-36.5	≤-27	PASS
11AC20MIMO	Ant1	Low	5745	5720~5725	-38.22	≤16.08	PASS
11AC20MIMO	Ant1	Low	5745	5700~5720	-37.15	≤10.80	PASS
11AC20MIMO	Ant1	Low	5745	5650~5700	-37.87	≤-26.02	PASS
11AC20MIMO	Ant1	Low	5745	5760~5650	-37.77	≤-27	PASS
11AC20MIMO	Ant2	Low	5745	5720~5725	-38.02	≤16.08	PASS

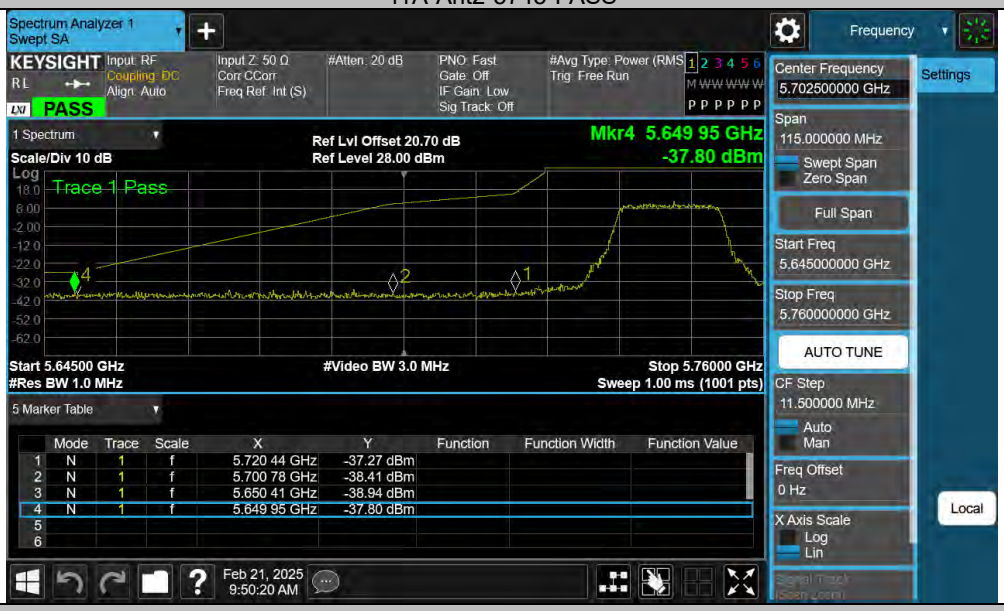
11AC20MIMO	Ant2	Low	5745	5700~5720	-36.31	≤10.06	PASS
11AC20MIMO	Ant2	Low	5745	5650~5700	-38.07	≤-26.96	PASS
11AC20MIMO	Ant2	Low	5745	5760~5650	-37.36	≤-27	PASS
11AC20MIMO	Ant1	High	5825	5850~5855	-38.06	≤16.96	PASS
11AC20MIMO	Ant1	High	5825	5855~5875	-38.72	≤10.02	PASS
11AC20MIMO	Ant1	High	5825	5875~5925	-39.17	≤-26.91	PASS
11AC20MIMO	Ant1	High	5825	5925~5935	-37.35	≤-27	PASS
11AC20MIMO	Ant2	High	5825	5850~5855	-37.08	≤17.26	PASS
11AC20MIMO	Ant2	High	5825	5855~5875	-36.09	≤10.32	PASS
11AC20MIMO	Ant2	High	5825	5875~5925	-37.26	≤-25.81	PASS
11AC20MIMO	Ant2	High	5825	5925~5935	-36.86	≤-27	PASS
11AC40MIMO	Ant1	Low	5755	5720~5725	-38.19	≤16.35	PASS
11AC40MIMO	Ant1	Low	5755	5700~5720	-38.24	≤10.21	PASS
11AC40MIMO	Ant1	Low	5755	5650~5700	-38.84	≤-26.80	PASS
11AC40MIMO	Ant1	Low	5755	5780~5650	-37.82	≤-27	PASS
11AC40MIMO	Ant2	Low	5755	5720~5725	-36.84	≤15.74	PASS
11AC40MIMO	Ant2	Low	5755	5700~5720	-36.45	≤10.17	PASS
11AC40MIMO	Ant2	Low	5755	5650~5700	-35.77	≤-25.11	PASS
11AC40MIMO	Ant2	Low	5755	5780~5650	-37.48	≤-27	PASS
11AC40MIMO	Ant1	High	5795	5850~5855	-38.62	≤15.66	PASS
11AC40MIMO	Ant1	High	5795	5855~5875	-37.7	≤10.34	PASS
11AC40MIMO	Ant1	High	5795	5875~5925	-39.13	≤-26.46	PASS
11AC40MIMO	Ant1	High	5795	5925~5935	-38.25	≤-27	PASS
11AC40MIMO	Ant2	High	5795	5850~5855	-37.97	≤16.03	PASS
11AC40MIMO	Ant2	High	5795	5855~5875	-36.06	≤11.22	PASS
11AC40MIMO	Ant2	High	5795	5875~5925	-36.83	≤-26.34	PASS
11AC40MIMO	Ant2	High	5795	5925~5935	-36.39	≤-27	PASS
11AC80MIMO	Ant1	Low	5775	5720~5725	-38.9	≤16.35	PASS
11AC80MIMO	Ant1	Low	5775	5700~5720	-37.68	≤10.83	PASS
11AC80MIMO	Ant1	Low	5775	5650~5700	-38.34	≤-26.34	PASS
11AC80MIMO	Ant1	Low	5775	5800~5650	-38.37	≤-27	PASS
11AC80MIMO	Ant1	High	5775	5850~5855	-39.84	≤15.84	PASS
11AC80MIMO	Ant1	High	5775	5855~5875	-37.36	≤10.71	PASS
11AC80MIMO	Ant1	High	5775	5875~5925	-38.17	≤-26.32	PASS
11AC80MIMO	Ant1	High	5775	5925~5935	-37.84	≤-27	PASS
11AC80MIMO	Ant2	Low	5775	5720~5725	-36.98	≤16.71	PASS
11AC80MIMO	Ant2	Low	5775	5700~5720	-35.87	≤11.05	PASS
11AC80MIMO	Ant2	Low	5775	5650~5700	-38.55	≤-26.69	PASS
11AC80MIMO	Ant2	Low	5775	5800~5650	-37.82	≤-27	PASS
11AC80MIMO	Ant2	High	5775	5850~5855	-36.63	≤17.10	PASS
11AC80MIMO	Ant2	High	5775	5855~5875	-36.96	≤11.02	PASS
11AC80MIMO	Ant2	High	5775	5875~5925	-38.2	≤-26.60	PASS
11AC80MIMO	Ant2	High	5775	5925~5935	-36.78	≤-27	PASS
11AX20MIMO	Ant1	Low	5745	5720~5725	-37.7	≤16.60	PASS
11AX20MIMO	Ant1	Low	5745	5700~5720	-38.02	≤10.15	PASS
11AX20MIMO	Ant1	Low	5745	5650~5700	-38.19	≤-26.45	PASS
11AX20MIMO	Ant1	Low	5745	5760~5650	-37.69	≤-27	PASS
11AX20MIMO	Ant2	Low	5745	5720~5725	-36.25	≤16.08	PASS
11AX20MIMO	Ant2	Low	5745	5700~5720	-37.52	≤10.76	PASS
11AX20MIMO	Ant2	Low	5745	5650~5700	-38.17	≤-26.96	PASS
11AX20MIMO	Ant2	Low	5745	5760~5650	-38.23	≤-27	PASS
11AX20MIMO	Ant1	High	5825	5850~5855	-38.12	≤17.26	PASS
11AX20MIMO	Ant1	High	5825	5855~5875	-38.14	≤10.17	PASS
11AX20MIMO	Ant1	High	5825	5875~5925	-38.09	≤-25.81	PASS
11AX20MIMO	Ant1	High	5825	5925~5935	-37.76	≤-27	PASS
11AX20MIMO	Ant2	High	5825	5850~5855	-38.11	≤15.73	PASS
11AX20MIMO	Ant2	High	5825	5855~5875	-36.36	≤10.36	PASS

11AX20MIMO	Ant2	High	5825	5875~5925	-36.67	≤-25.61	PASS
11AX20MIMO	Ant2	High	5825	5925~5935	-36.84	≤-27	PASS
11AX40MIMO	Ant1	Low	5755	5720~5725	-36.81	≤16.04	PASS
11AX40MIMO	Ant1	Low	5755	5700~5720	-37.49	≤11.61	PASS
11AX40MIMO	Ant1	Low	5755	5650~5700	-39.14	≤-26.90	PASS
11AX40MIMO	Ant1	Low	5755	5780~5650	-38.52	≤-27	PASS
11AX40MIMO	Ant2	Low	5755	5720~5725	-35.47	≤17.58	PASS
11AX40MIMO	Ant2	Low	5755	5700~5720	-36.25	≤11.61	PASS
11AX40MIMO	Ant2	Low	5755	5650~5700	-38.65	≤-26.10	PASS
11AX40MIMO	Ant2	Low	5755	5780~5650	-37.32	≤-27	PASS
11AX40MIMO	Ant1	High	5795	5850~5855	-37.43	≤17.16	PASS
11AX40MIMO	Ant1	High	5795	5855~5875	-37.68	≤10.39	PASS
11AX40MIMO	Ant1	High	5795	5875~5925	-38.81	≤-26.71	PASS
11AX40MIMO	Ant1	High	5795	5925~5935	-38.61	≤-27	PASS
11AX40MIMO	Ant2	High	5795	5850~5855	-35.17	≤16.41	PASS
11AX40MIMO	Ant2	High	5795	5855~5875	-37.49	≤10.02	PASS
11AX40MIMO	Ant2	High	5795	5875~5925	-36.46	≤-26.83	PASS
11AX40MIMO	Ant2	High	5795	5925~5935	-36.67	≤-27	PASS
11AX80MIMO	Ant1	Low	5775	5720~5725	-40.17	≤15.65	PASS
11AX80MIMO	Ant1	Low	5775	5700~5720	-37.86	≤10.35	PASS
11AX80MIMO	Ant1	Low	5775	5650~5700	-39.49	≤-26.91	PASS
11AX80MIMO	Ant1	Low	5775	5800~5650	-38.47	≤-27	PASS
11AX80MIMO	Ant1	High	5775	5850~5855	-38.3	≤15.84	PASS
11AX80MIMO	Ant1	High	5775	5855~5875	-36.89	≤10.45	PASS
11AX80MIMO	Ant1	High	5775	5875~5925	-37.97	≤-26.87	PASS
11AX80MIMO	Ant1	High	5775	5925~5935	-37.45	≤-27	PASS
11AX80MIMO	Ant2	Low	5775	5720~5725	-37.92	≤16.71	PASS
11AX80MIMO	Ant2	Low	5775	5700~5720	-36.31	≤10.18	PASS
11AX80MIMO	Ant2	Low	5775	5650~5700	-37.95	≤-26.69	PASS
11AX80MIMO	Ant2	Low	5775	5800~5650	-37.89	≤-27	PASS
11AX80MIMO	Ant2	High	5775	5850~5855	-38.75	≤15.84	PASS
11AX80MIMO	Ant2	High	5775	5855~5875	-36.93	≤10.19	PASS
11AX80MIMO	Ant2	High	5775	5875~5925	-38.54	≤-26.87	PASS
11AX80MIMO	Ant2	High	5775	5925~5935	-37.05	≤-27	PASS

Test Graphs B4

11A-Ant1-5745-PASS

11A-Ant2-5745-PASS



11A-Ant1-5825-PASS

11A-Ant2-5825-PASS

11N20MIMO-Ant1-5745-PASS

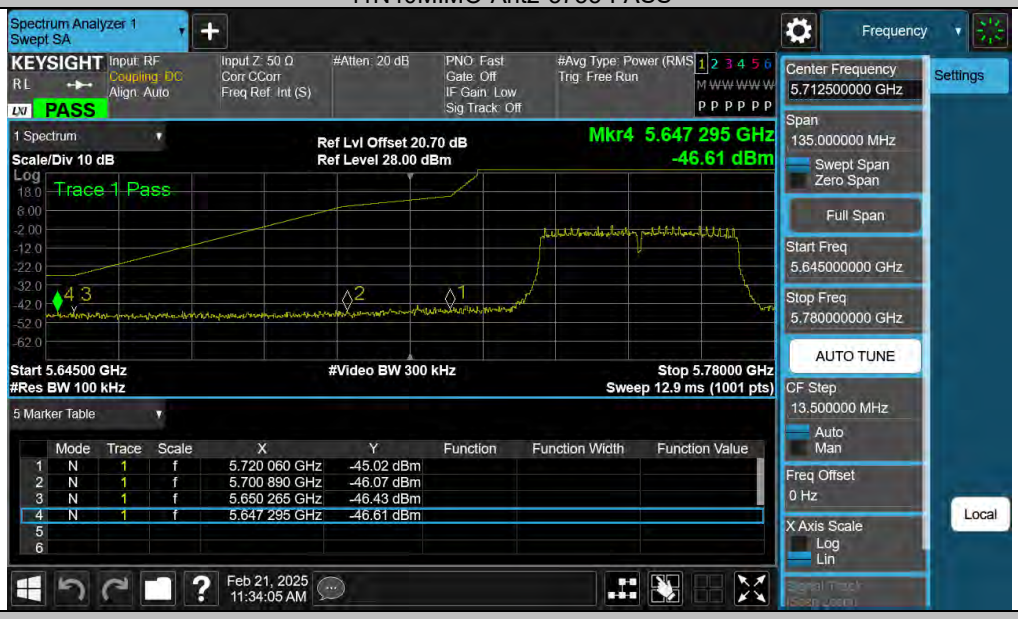
11N20MIMO-Ant2-5745-PASS

11N20MIMO-Ant1-5825-PASS

11N20MIMO-Ant2-5825-PASS

11N40MIMO-Ant1-5755-PASS

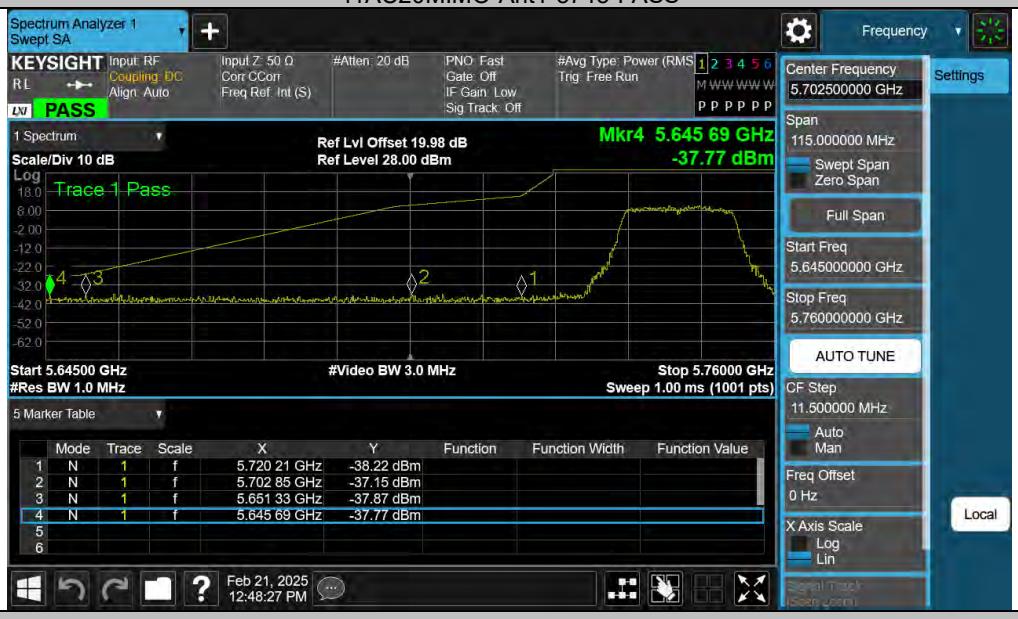
11N40MIMO-Ant2-5755-PASS



11N40MIMO-Ant1-5795-PASS

11N40MIMO-Ant2-5795-PASS

11AC20MIMO-Ant1-5745-PASS



11AC20MIMO-Ant2-5745-PASS

11AC20MIMO-Ant1-5825-PASS

11AC20MIMO-Ant2-5825-PASS

11AC40MIMO-Ant1-5755-PASS

11AC40MIMO-Ant2-5755-PASS

11AC40MIMO-Ant1-5795-PASS

11AC40MIMO-Ant2-5795-PASS

11AC80MIMO-Ant1-5775-PASS

11AC80MIMO-Ant1-5775-PASS

11AC80MIMO-Ant2-5775-PASS

11AC80MIMO-Ant2-5775-PASS

11AX20MIMO-Ant1-5745-PASS

11AX20MIMO-Ant2-5745-PASS

11AX20MIMO-Ant1-5825-PASS

11AX20MIMO-Ant2-5825-PASS

11AX40MIMO-Ant1-5755-PASS

11AX40MIMO-Ant2-5755-PASS

11AX40MIMO-Ant1-5795-PASS

11AX40MIMO-Ant2-5795-PASS

11AX80MIMO-Ant1-5775-PASS

11AX80MIMO-Ant1-5775-PASS

11AX80MIMO-Ant2-5775-PASS

11AX80MIMO-Ant2-5775-PASS

Appendix F: Frequency Stability

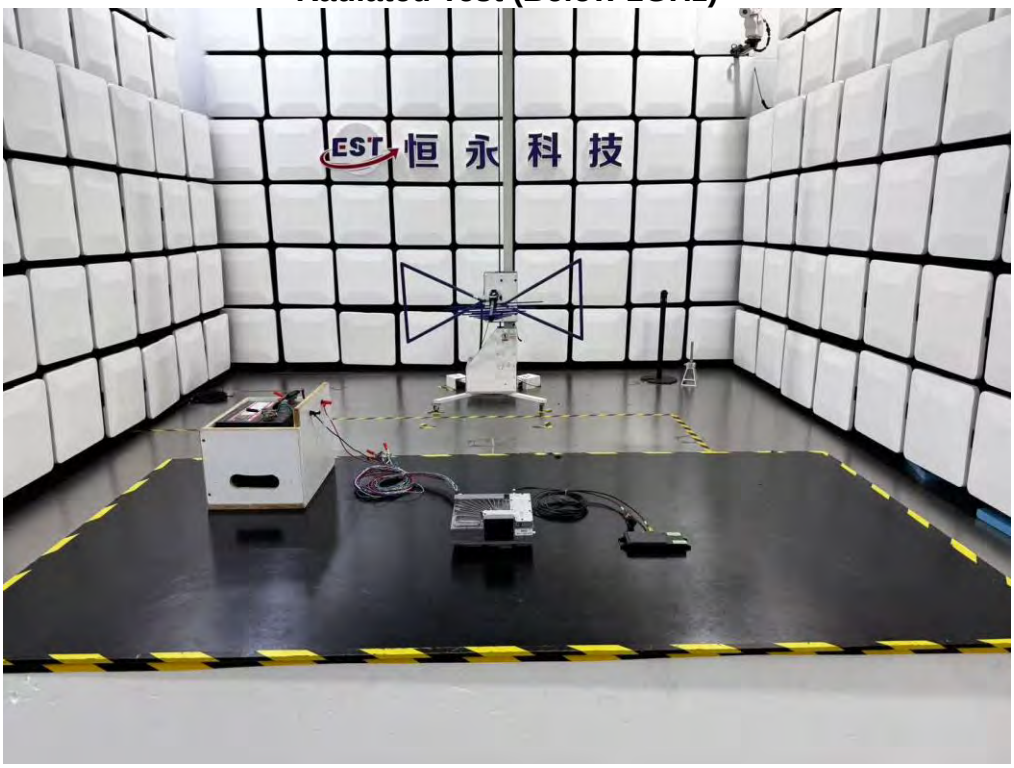
Test Result

Test Mode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	0.00	0.000000	20	PASS
11A	Ant1	5180	LV	NT	0.00	0.000000	20	PASS
11A	Ant1	5180	HV	NT	20000.00	3.861004	20	PASS
11A	Ant1	5260	NV	NT	20000.00	3.802281	20	PASS
11A	Ant1	5260	LV	NT	0.00	0.000000	20	PASS
11A	Ant1	5260	HV	NT	0.00	0.000000	20	PASS
11A	Ant1	5500	NV	NT	20000.00	3.636364	20	PASS
11A	Ant1	5500	LV	NT	0.00	0.000000	20	PASS
11A	Ant1	5500	HV	NT	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	NT	0.00	0.000000	20	PASS
11A	Ant1	5745	LV	NT	0.00	0.000000	20	PASS
11A	Ant1	5745	HV	NT	0.00	0.000000	20	PASS

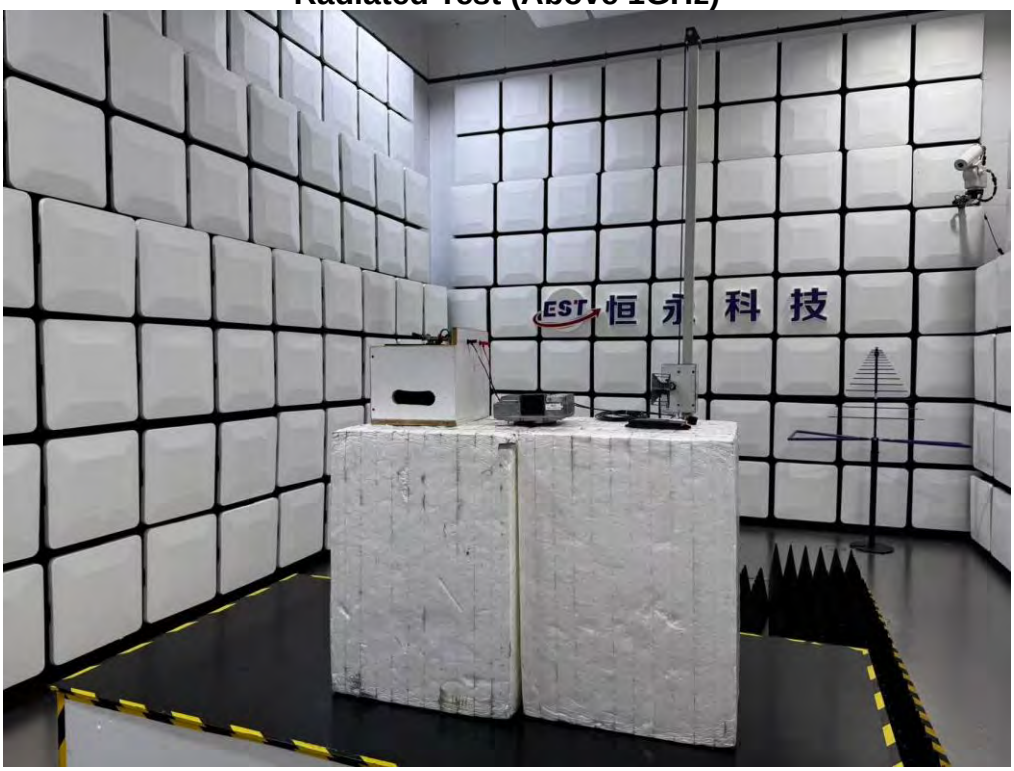
Test Mode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	0.00	0.000000	20	PASS
11A	Ant1	5180	NV	-20	0.00	0.000000	20	PASS
11A	Ant1	5180	NV	-10	0.00	0.000000	20	PASS
11A	Ant1	5180	NV	0	0.00	0.000000	20	PASS
11A	Ant1	5180	NV	10	-20000.00	-3.861004	20	PASS
11A	Ant1	5180	NV	20	-20000.00	-3.861004	20	PASS
11A	Ant1	5180	NV	30	0.00	0.000000	20	PASS
11A	Ant1	5180	NV	40	0.00	0.000000	20	PASS
11A	Ant1	5180	NV	50	20000.00	3.861004	20	PASS
11A	Ant1	5260	NV	-30	-20000.00	-3.802281	20	PASS
11A	Ant1	5260	NV	-20	0.00	0.000000	20	PASS
11A	Ant1	5260	NV	-10	0.00	0.000000	20	PASS
11A	Ant1	5260	NV	0	0.00	0.000000	20	PASS
11A	Ant1	5260	NV	10	-20000.00	-3.802281	20	PASS
11A	Ant1	5260	NV	20	0.00	0.000000	20	PASS
11A	Ant1	5260	NV	30	20000.00	3.802281	20	PASS
11A	Ant1	5260	NV	40	0.00	0.000000	20	PASS
11A	Ant1	5260	NV	50	20000.00	3.802281	20	PASS
11A	Ant1	5500	NV	-30	0.00	0.000000	20	PASS
11A	Ant1	5500	NV	-20	0.00	0.000000	20	PASS
11A	Ant1	5500	NV	-10	0.00	0.000000	20	PASS
11A	Ant1	5500	NV	0	0.00	0.000000	20	PASS
11A	Ant1	5500	NV	10	0.00	0.000000	20	PASS
11A	Ant1	5500	NV	20	-20000.00	-3.636364	20	PASS
11A	Ant1	5500	NV	30	-20000.00	-3.636364	20	PASS
11A	Ant1	5500	NV	40	0.00	0.000000	20	PASS
11A	Ant1	5500	NV	50	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	-30	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	-20	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	-10	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	0	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	10	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	20	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	30	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	40	0.00	0.000000	20	PASS
11A	Ant1	5745	NV	50	20000.00	3.481288	20	PASS

10. TEST SETUP PHOTO

Radiated Test (Below 1GHz)



Radiated Test (Above 1GHz)



11. EUT PHOTO

Refer to report no. ESTE-R2503098

End of Test Report