

Appendix for WCDMA B2& WCDMA B4& WCDMA B5

Product Name: Mobile Phone

Model No: HERO

Appendix A: Average Power Output Data

Test Result

Band	Channel	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	23.16	33.01	PASS
Band2	9400	22.84	33.01	PASS
Band2	9538	22.94	33.01	PASS
Band4	1312	22.55	30.00	PASS
Band4	1413	23.02	30.00	PASS
Band4	1513	22.89	30.00	PASS
Band5	4132	23.09	38.45	PASS
Band5	4182	22.81	38.45	PASS
Band5	4233	22.63	38.45	PASS

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	1	22.09	33.01	PASS
Band2	9400	1	22.98	33.01	PASS
Band2	9538	1	22.11	33.01	PASS
Band2	9262	2	22.76	33.01	PASS
Band2	9400	2	22.70	33.01	PASS
Band2	9538	2	21.77	33.01	PASS
Band2	9262	3	22.55	33.01	PASS
Band2	9400	3	22.55	33.01	PASS
Band2	9538	3	21.63	33.01	PASS
Band2	9262	4	22.57	33.01	PASS
Band2	9400	4	22.59	33.01	PASS
Band2	9538	4	21.65	33.01	PASS
Band4	1312	1	21.58	30.00	PASS
Band4	1413	1	21.82	30.00	PASS
Band4	1513	1	21.26	30.00	PASS
Band4	1312	2	22.35	30.00	PASS
Band4	1413	2	22.54	30.00	PASS
Band4	1513	2	21.98	30.00	PASS
Band4	1312	3	22.33	30.00	PASS
Band4	1413	3	22.60	30.00	PASS
Band4	1513	3	22.00	30.00	PASS
Band4	1312	4	22.51	30.00	PASS
Band4	1413	4	22.62	30.00	PASS
Band4	1513	4	22.08	30.00	PASS
Band5	4132	1	22.84	38.5	PASS
Band5	4182	1	22.32	38.5	PASS

Band5	4233	1	22.92	38.5	PASS
Band5	4132	2	22.63	38.5	PASS
Band5	4182	2	22.00	38.5	PASS
Band5	4233	2	22.68	38.5	PASS
Band5	4132	3	22.31	38.5	PASS
Band5	4182	3	22.62	38.5	PASS
Band5	4233	3	22.30	38.5	PASS
Band5	4132	4	22.23	38.5	PASS
Band5	4182	4	22.62	38.5	PASS
Band5	4233	4	22.30	38.5	PASS

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	1	20.97	33.01	PASS
Band2	9400	1	20.99	33.01	PASS
Band2	9538	1	20.31	33.01	PASS
Band2	9262	2	20.80	33.01	PASS
Band2	9400	2	20.90	33.01	PASS
Band2	9538	2	20.23	33.01	PASS
Band2	9262	3	21.42	33.01	PASS
Band2	9400	3	21.24	33.01	PASS
Band2	9538	3	20.70	33.01	PASS
Band2	9262	4	21.47	33.01	PASS
Band2	9400	4	21.25	33.01	PASS
Band2	9538	4	20.51	33.01	PASS
Band2	9262	5	22.29	33.01	PASS
Band2	9400	5	22.02	33.01	PASS
Band2	9538	5	22.05	33.01	PASS
Band4	1312	1	20.67	30.00	PASS
Band4	1413	1	20.89	30.00	PASS
Band4	1513	1	20.44	30.00	PASS
Band4	1312	2	20.03	30.00	PASS
Band4	1413	2	20.44	30.00	PASS
Band4	1513	2	19.83	30.00	PASS
Band4	1312	3	20.84	30.00	PASS
Band4	1413	3	21.07	30.00	PASS
Band4	1513	3	20.60	30.00	PASS
Band4	1312	4	20.65	30.00	PASS
Band4	1413	4	20.86	30.00	PASS
Band4	1513	4	20.34	30.00	PASS
Band4	1312	5	22.41	30.00	PASS
Band4	1413	5	22.36	30.00	PASS
Band4	1513	5	21.70	30.00	PASS

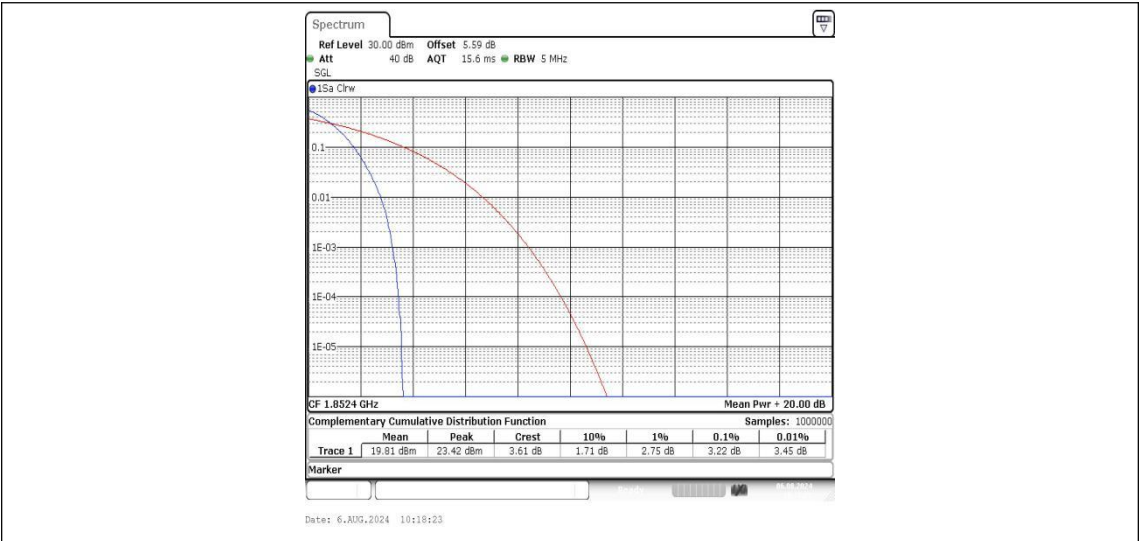
Band5	4132	1	21.36	38.5	PASS
Band5	4182	1	21.98	38.5	PASS
Band5	4233	1	21.66	38.5	PASS
Band5	4132	2	21.12	38.5	PASS
Band5	4182	2	21.50	38.5	PASS
Band5	4233	2	21.20	38.5	PASS
Band5	4132	3	21.60	38.5	PASS
Band5	4182	3	21.98	38.5	PASS
Band5	4233	3	21.66	38.5	PASS
Band5	4132	4	21.17	38.5	PASS
Band5	4182	4	21.57	38.5	PASS
Band5	4233	4	21.02	38.5	PASS
Band5	4132	5	22.80	38.5	PASS
Band5	4182	5	22.05	38.5	PASS
Band5	4233	5	22.57	38.5	PASS

Appendix B: Peak-to-Average Ratio

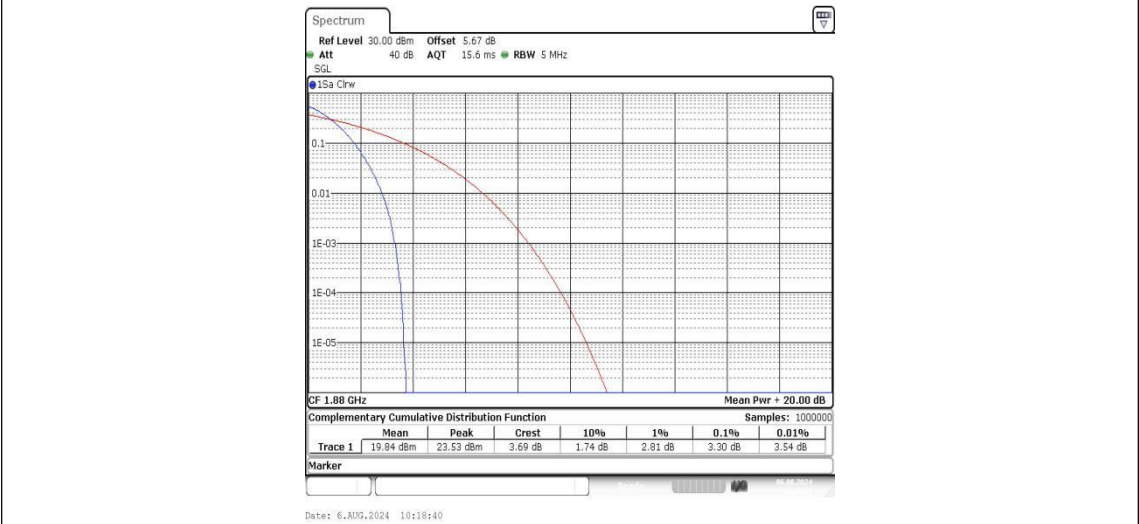
Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band2	9262	3.22	13	PASS
Band2	9400	3.3	13	PASS
Band2	9538	3.13	13	PASS
Band4	1312	3.48	13	PASS
Band4	1413	3.51	13	PASS
Band4	1513	3.45	13	PASS
Band5	4132	3.28	13	PASS
Band5	4182	3.19	13	PASS
Band5	4233	3.22	13	PASS

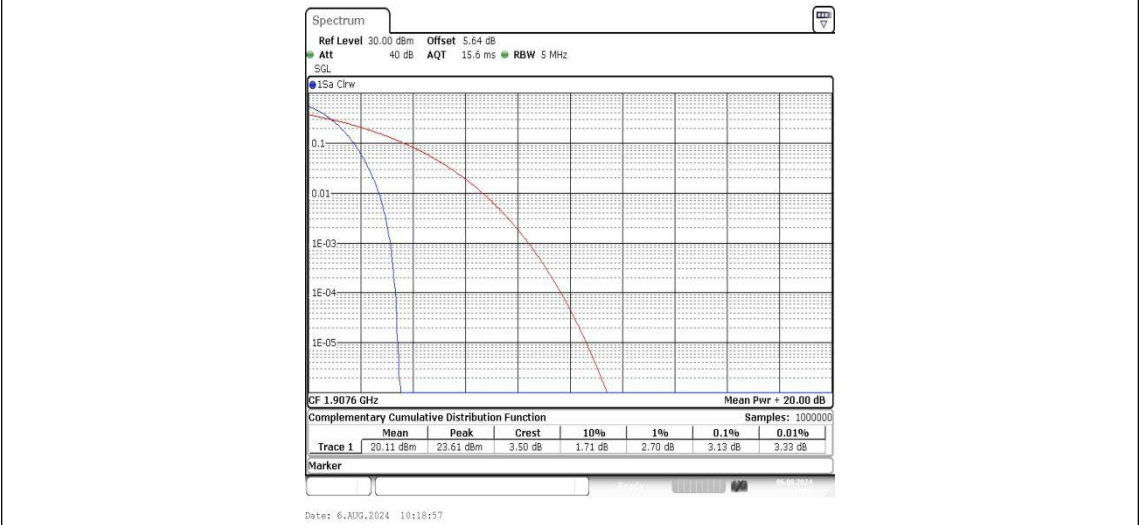
Test Graphs



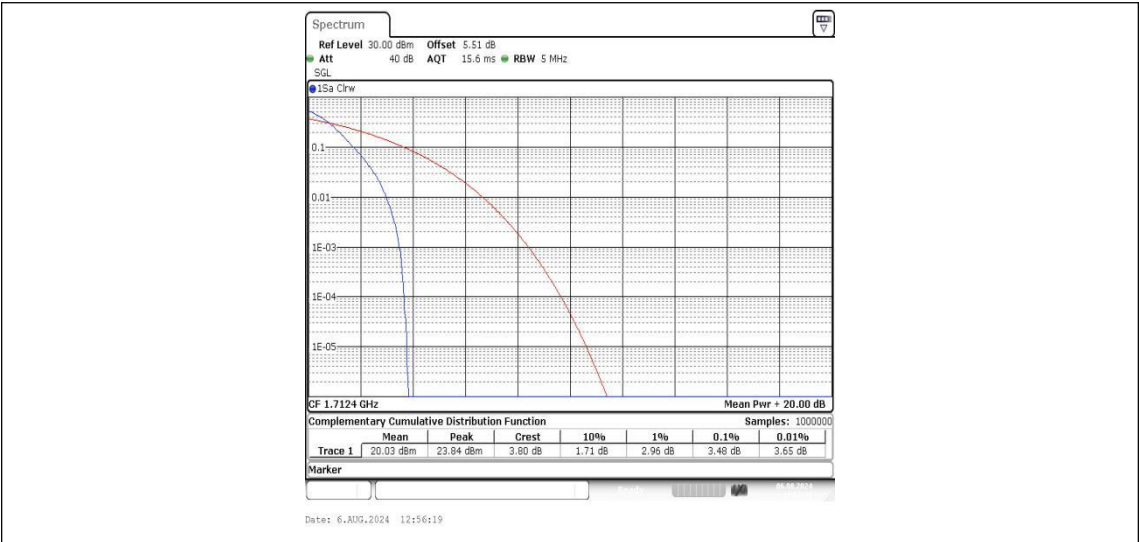
Band2-9262-PASS



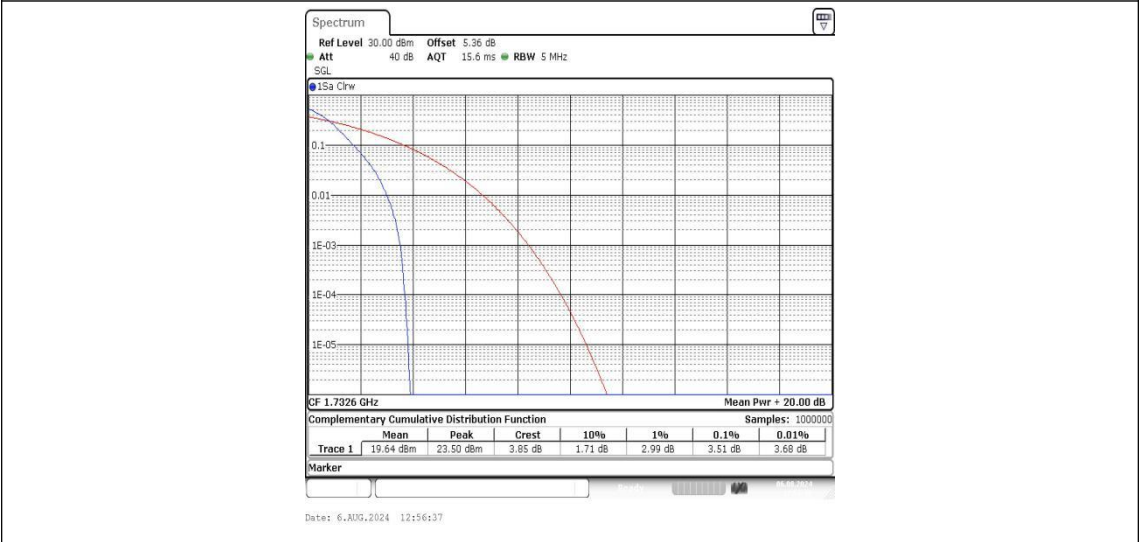
Band2-9400-PASS



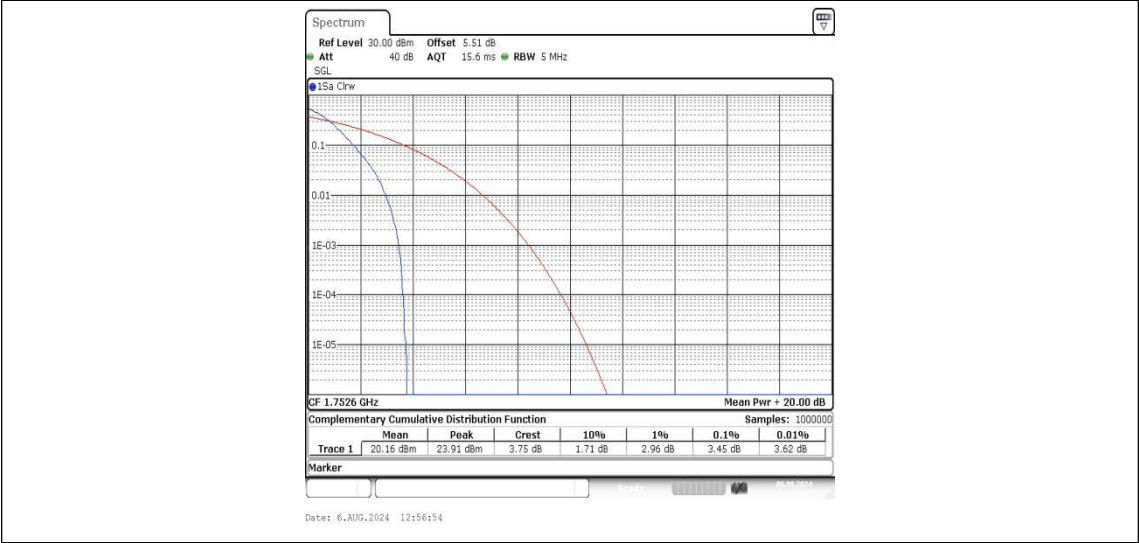
Band2-9538-PASS



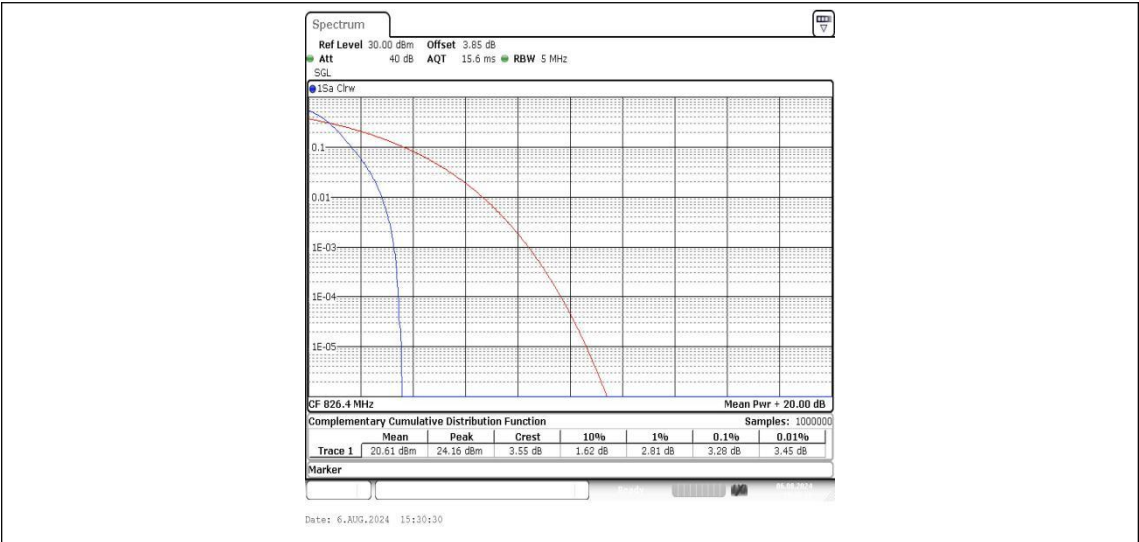
Band4-1312-PASS



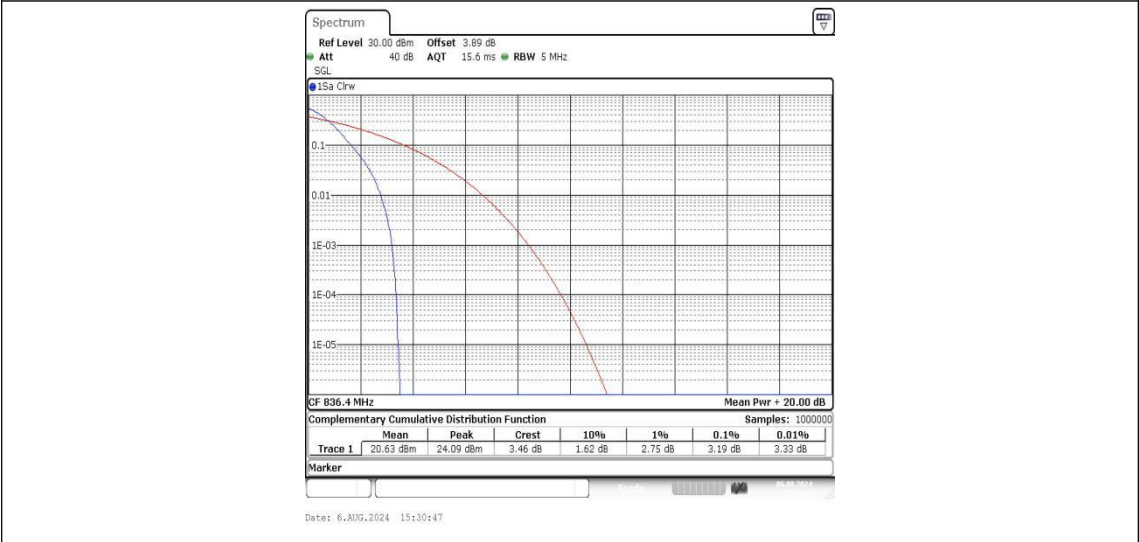
Band4-1413-PASS



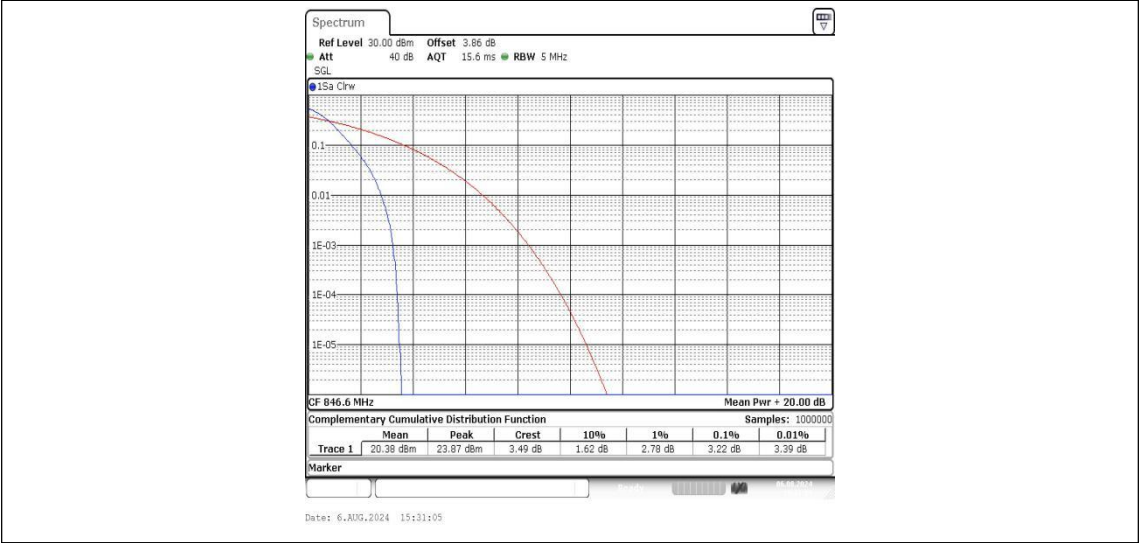
Band4-1513-PASS



Band5-4132-PASS



Band5-4182-PASS



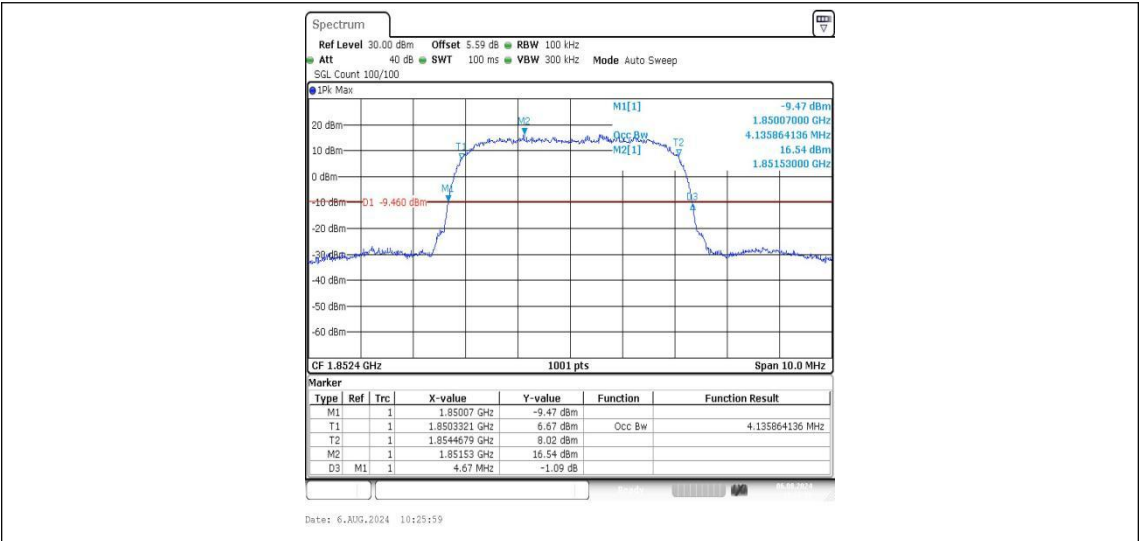
Band5-4233-PASS

Appendix C: 26dB Bandwidth and Occupied Bandwidth

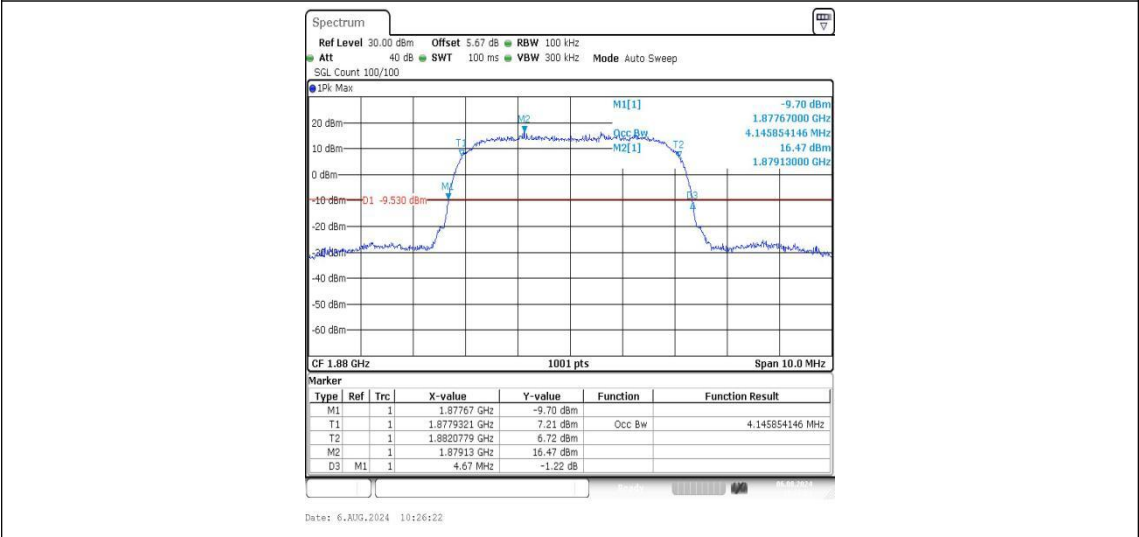
Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	4.136	4.67	---	PASS
Band2	9400	4.146	4.67	---	PASS
Band2	9538	4.146	4.67	---	PASS
Band4	1312	4.156	4.67	---	PASS
Band4	1413	4.156	4.67	---	PASS
Band4	1513	4.156	4.68	---	PASS
Band5	4132	4.146	4.68	---	PASS
Band5	4182	4.156	4.67	---	PASS
Band5	4233	4.156	4.67	---	PASS

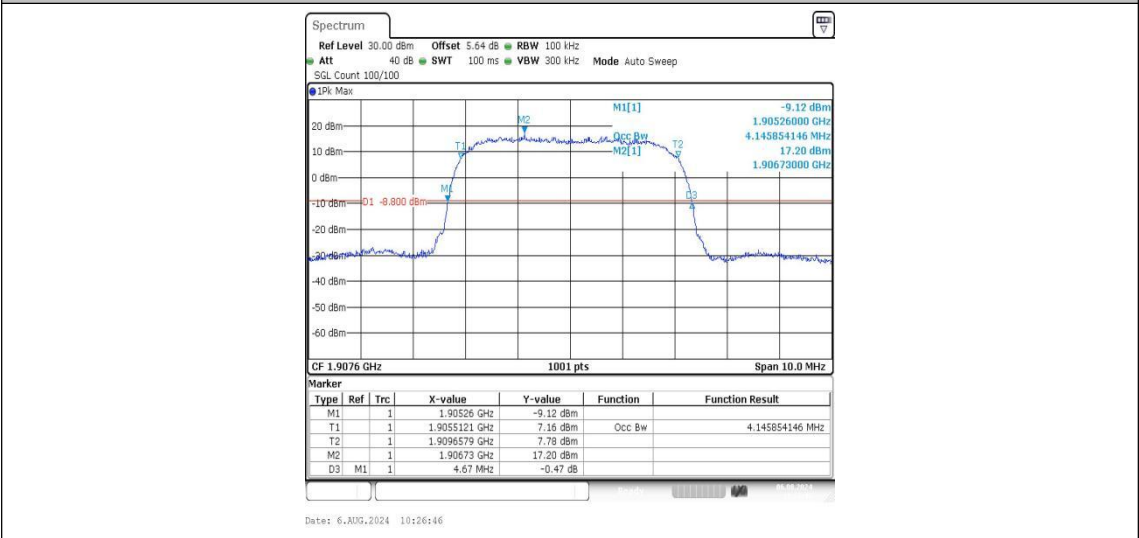
Test Graphs



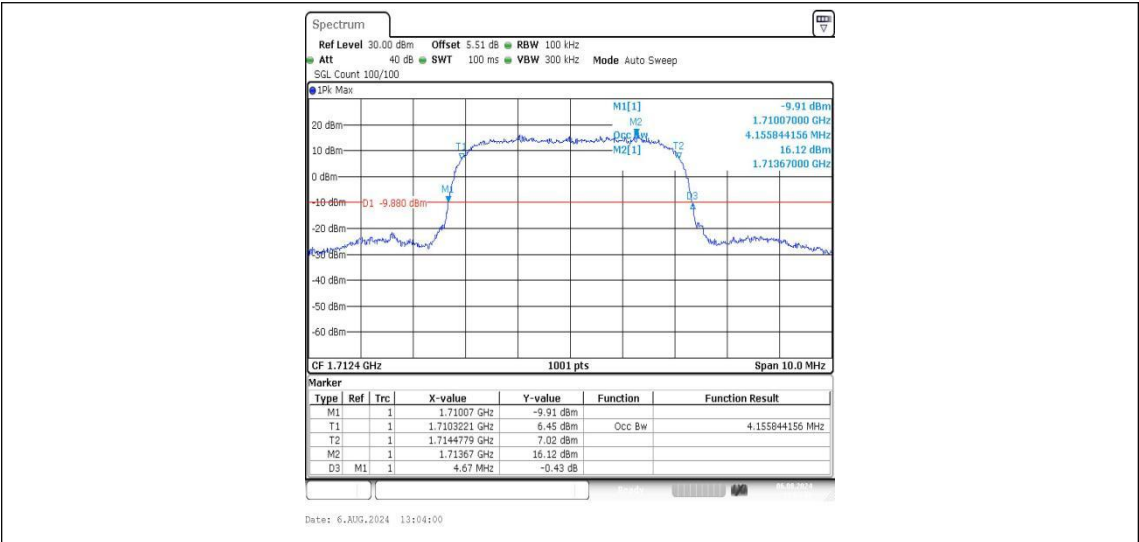
Band2-9262-PASS



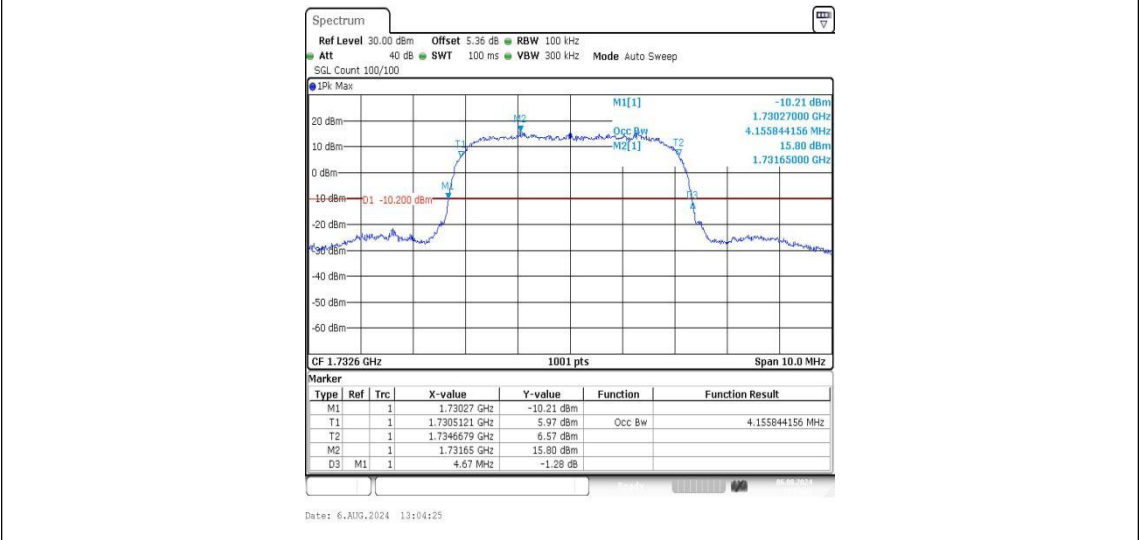
Band2-9400-PASS



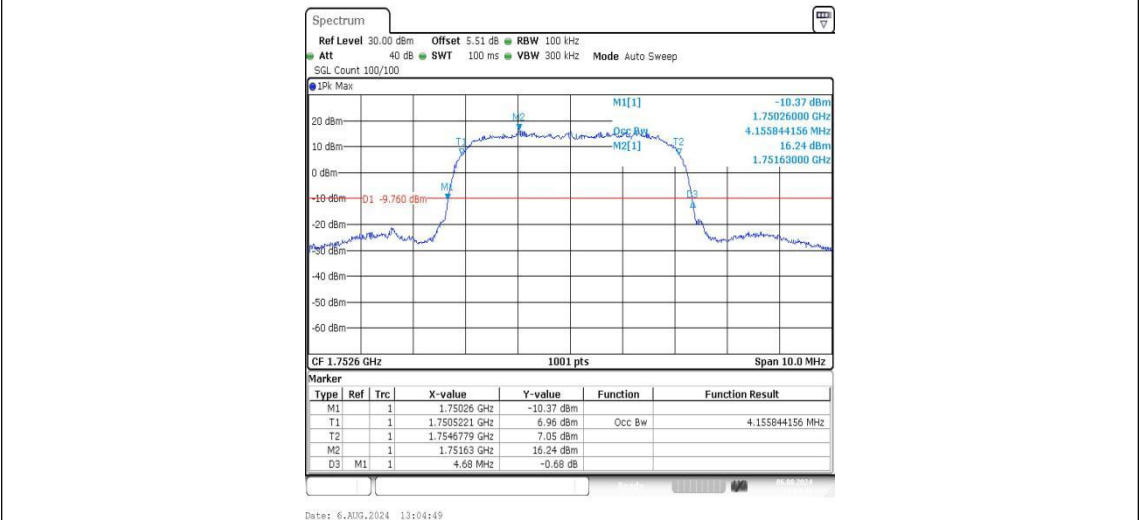
Band2-9538-PASS



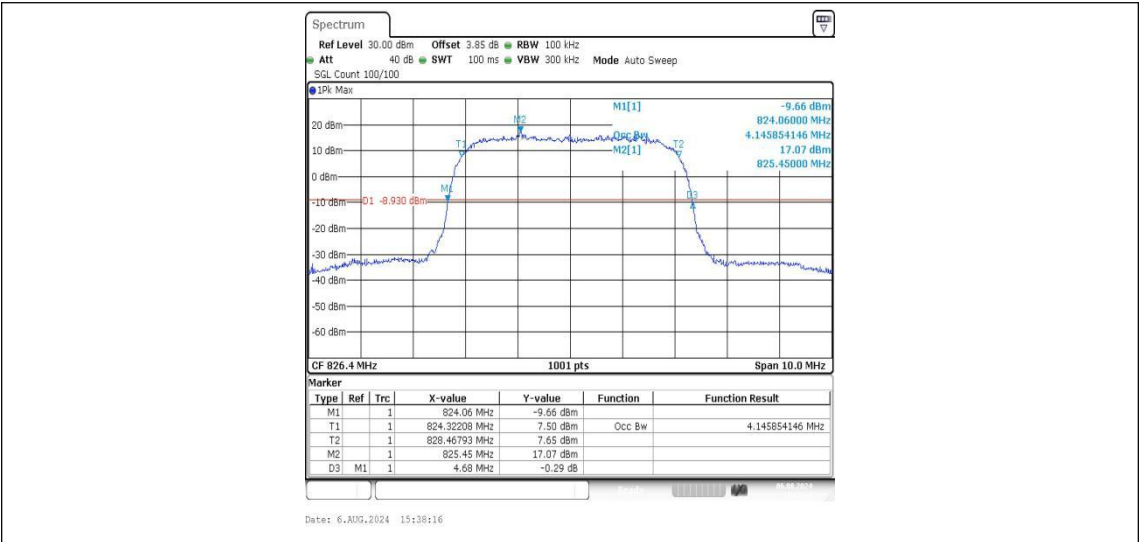
Band4-1312-PASS



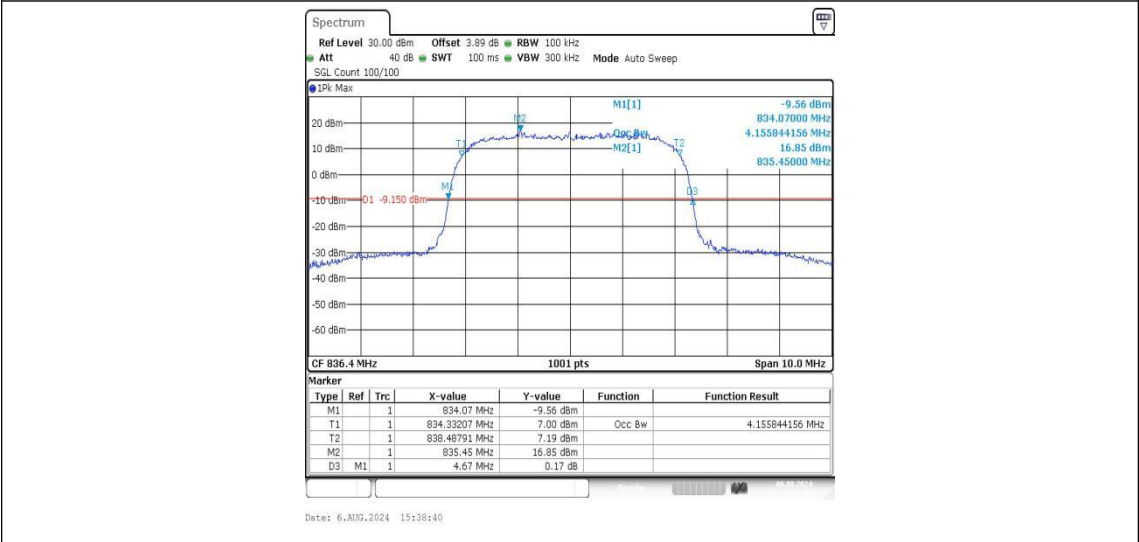
Band4-1413-PASS



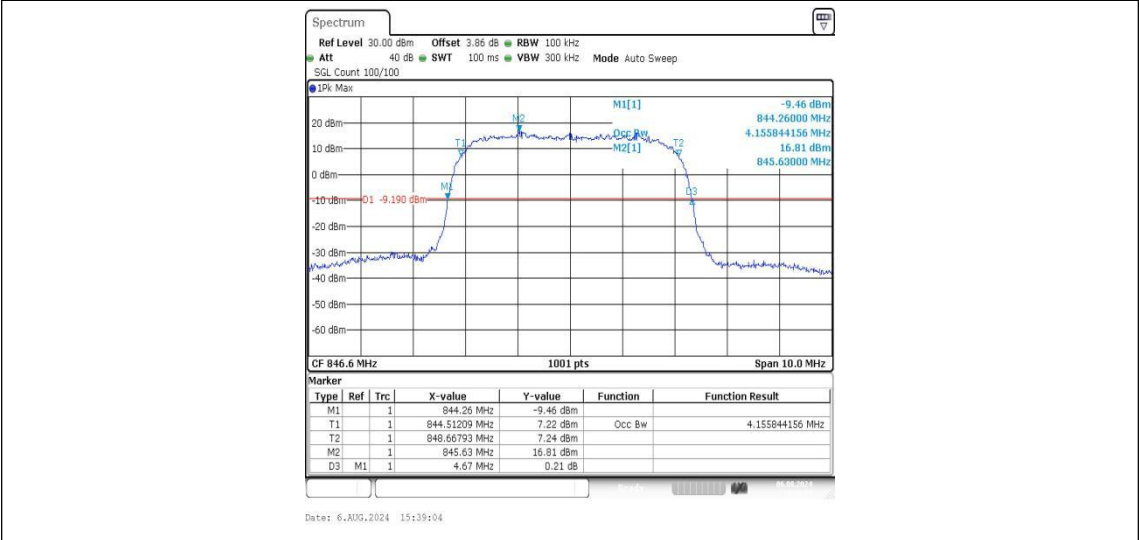
Band4-1513-PASS



Band5-4132-PASS



Band5-4182-PASS



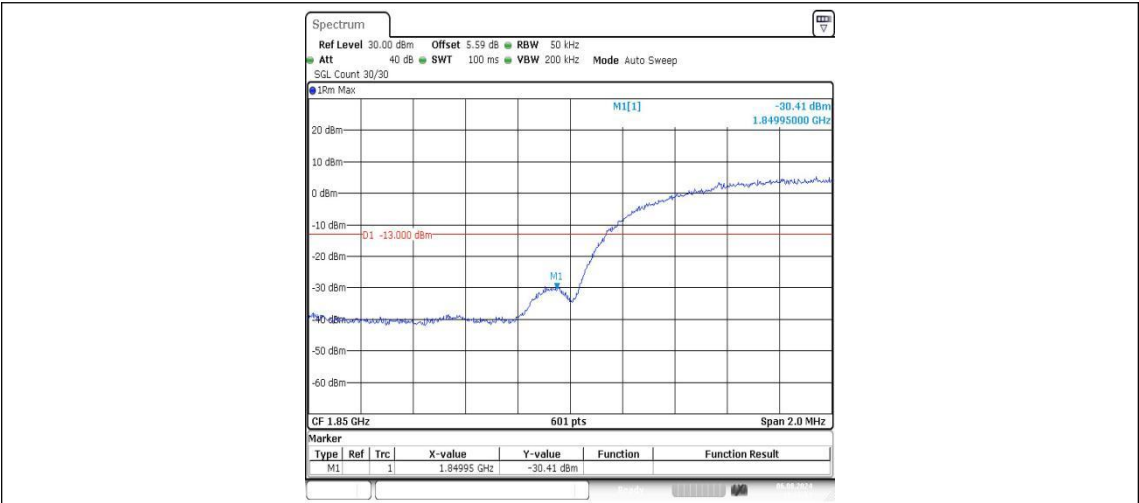
Band5-4233-PASS

Appendix D: Band Edge

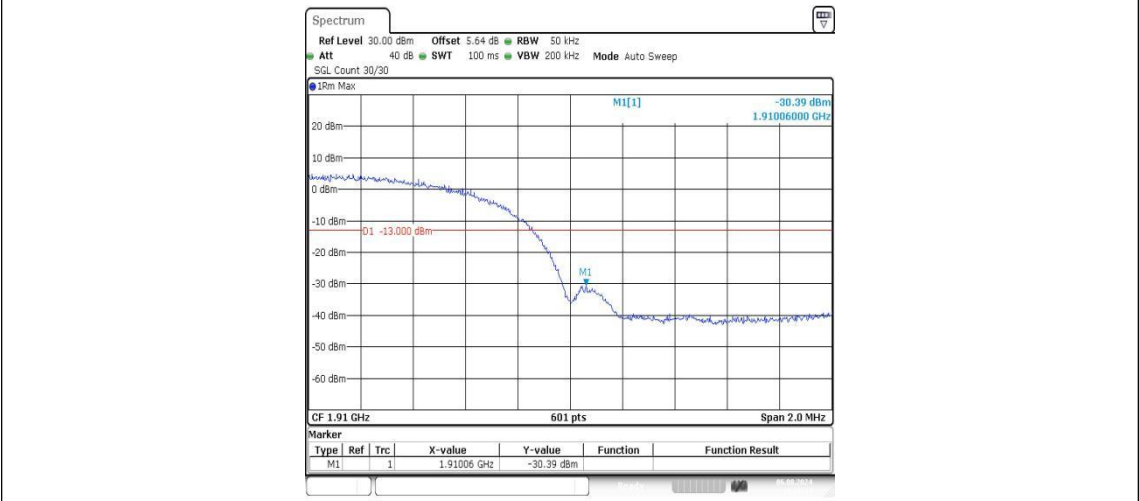
Test Result

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band2	9262	1849.95	-29.44	-13	PASS
Band2	9538	1910.06	-30.39	-13	PASS
Band4	1312	1709.95	-27.84	-13	PASS
Band4	1513	1755.06	-28.22	-13	PASS
Band5	4132	823.92	-31.67	-13	PASS
Band5	4233	849.07	-32.44	-13	PASS

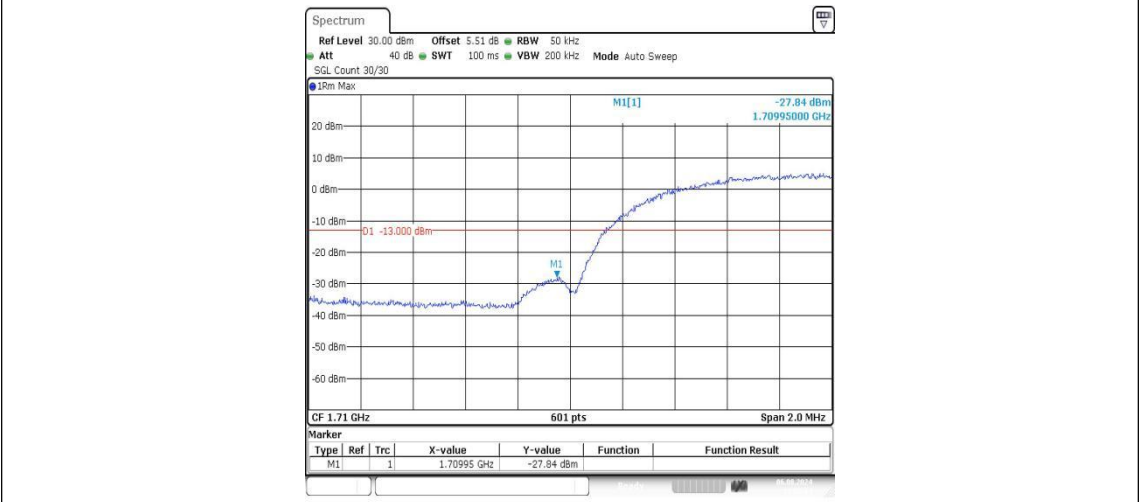
Test Graphs



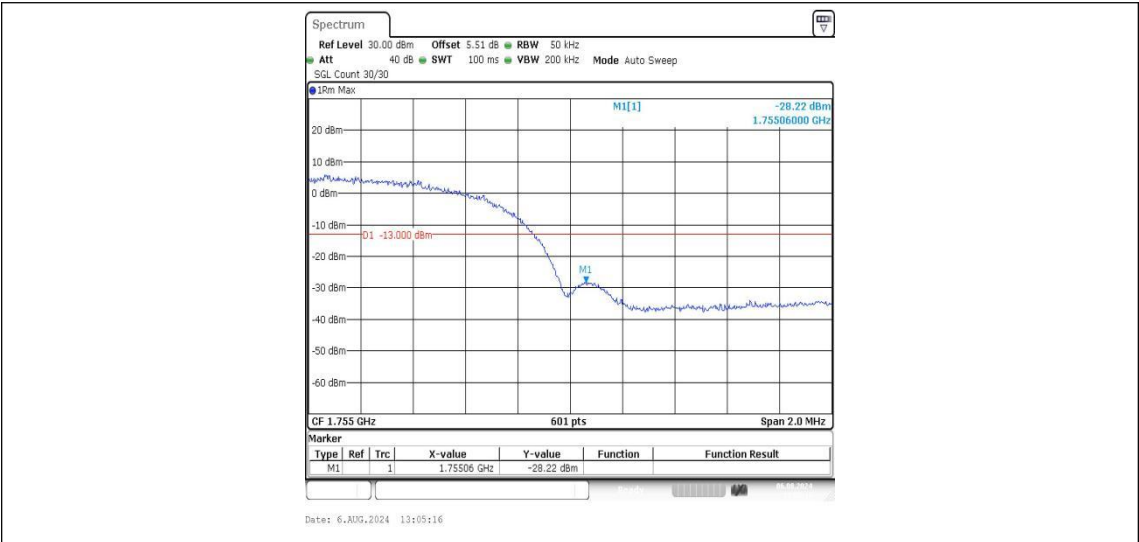
Band2-9262-PASS



Band2-9538-PASS



Band4-1312-PASS



Band4-1513-PASS



Band5-4132-PASS



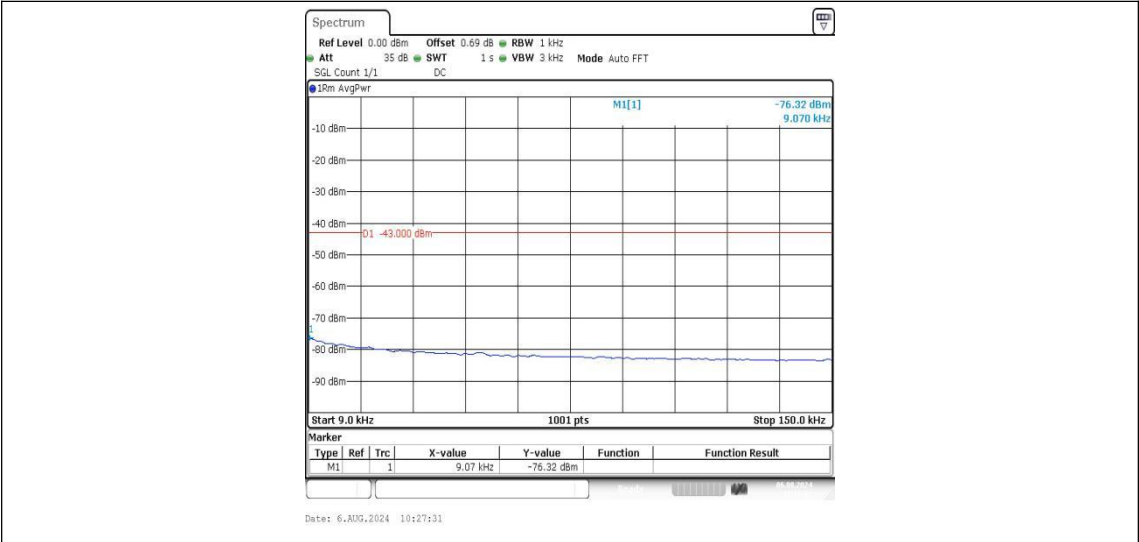
Band5-4233-PASS

Appendix E: Conducted Spurious Emission

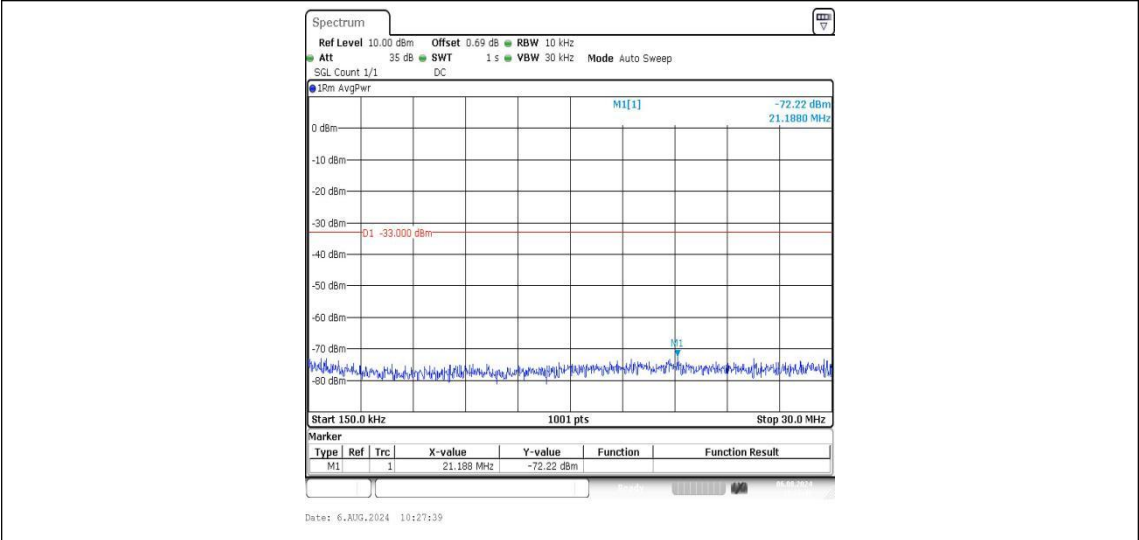
Test Result

Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	0.009~0.15MHz	0.01	-76.32	-43	PASS
Band2	9262	0.15~30MHz	21.19	-72.22	-33	PASS
Band2	9262	30~1000MHz	987.64	-53.6	-13	PASS
Band2	9262	1000~20000MHz	6871	-44.31	-13	PASS
Band2	9400	0.009~0.15MHz	0.01	-76.58	-43	PASS
Band2	9400	0.15~30MHz	0.25	-72.5	-33	PASS
Band2	9400	30~1000MHz	988.12	-53.62	-13	PASS
Band2	9400	1000~20000MHz	6842.5	-44.21	-13	PASS
Band2	9538	0.009~0.15MHz	0.01	-76.31	-43	PASS
Band2	9538	0.15~30MHz	0.37	-72.7	-33	PASS
Band2	9538	30~1000MHz	922.2	-53.65	-13	PASS
Band2	9538	1000~20000MHz	6557.5	-44.28	-13	PASS
Band4	1312	0.009~0.15MHz	0.01	-76.32	-43	PASS
Band4	1312	0.15~30MHz	0.23	-71.66	-33	PASS
Band4	1312	30~1000MHz	914.44	-53.74	-13	PASS
Band4	1312	1000~20000MHz	6491	-44.31	-13	PASS
Band4	1413	0.009~0.15MHz	0.01	-76.45	-43	PASS
Band4	1413	0.15~30MHz	0.17	-71.24	-33	PASS
Band4	1413	30~1000MHz	930.44	-53.7	-13	PASS
Band4	1413	1000~20000MHz	6871	-44.37	-13	PASS
Band4	1513	0.009~0.15MHz	0.01	-76.56	-43	PASS
Band4	1513	0.15~30MHz	0.17	-73.31	-33	PASS
Band4	1513	30~1000MHz	962.43	-53.74	-13	PASS
Band4	1513	1000~20000MHz	6491	-44.41	-13	PASS
Band5	4132	0.009~0.15MHz	0.01	-76.62	-33	PASS
Band5	4132	0.15~30MHz	0.17	-72.06	-23	PASS
Band5	4132	30~1000MHz	962.66	-63.1	-13	PASS
Band5	4132	1000~10000MHz	6835.08	-42.93	-13	PASS
Band5	4182	0.009~0.15MHz	0.01	-76.36	-33	PASS
Band5	4182	0.15~30MHz	20.56	-72.64	-23	PASS
Band5	4182	30~1000MHz	988.85	-63.09	-13	PASS
Band5	4182	1000~10000MHz	6546.2	-43.27	-13	PASS
Band5	4233	0.009~0.15MHz	0.01	-76.58	-33	PASS
Band5	4233	0.15~30MHz	0.23	-72.34	-23	PASS
Band5	4233	30~1000MHz	998.55	-63.29	-13	PASS
Band5	4233	1000~10000MHz	6852.18	-43.25	-13	PASS

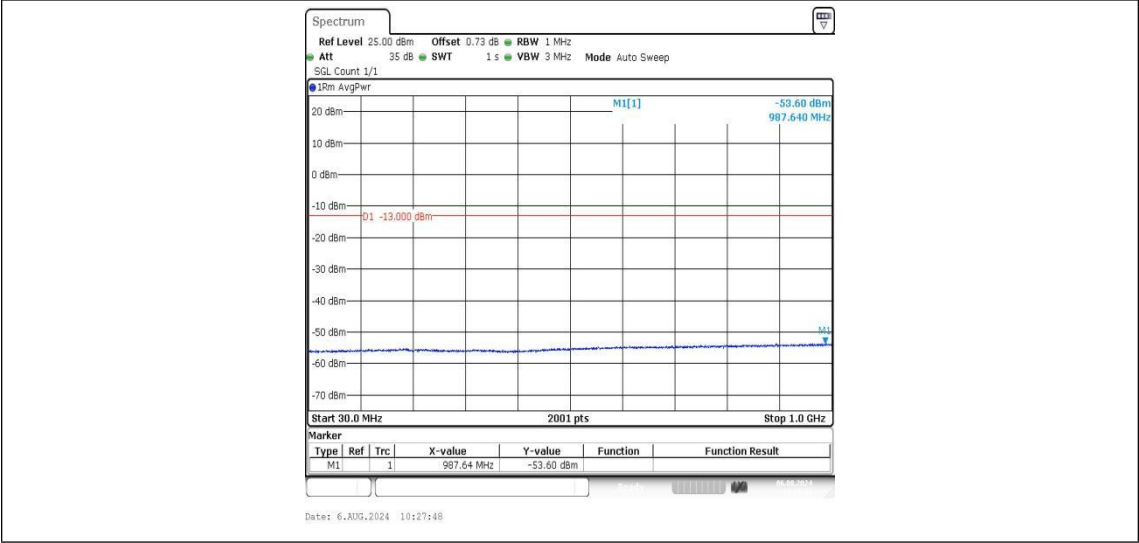
Test Graphs



Band2-9262-0.009~0.15MHz-PASS



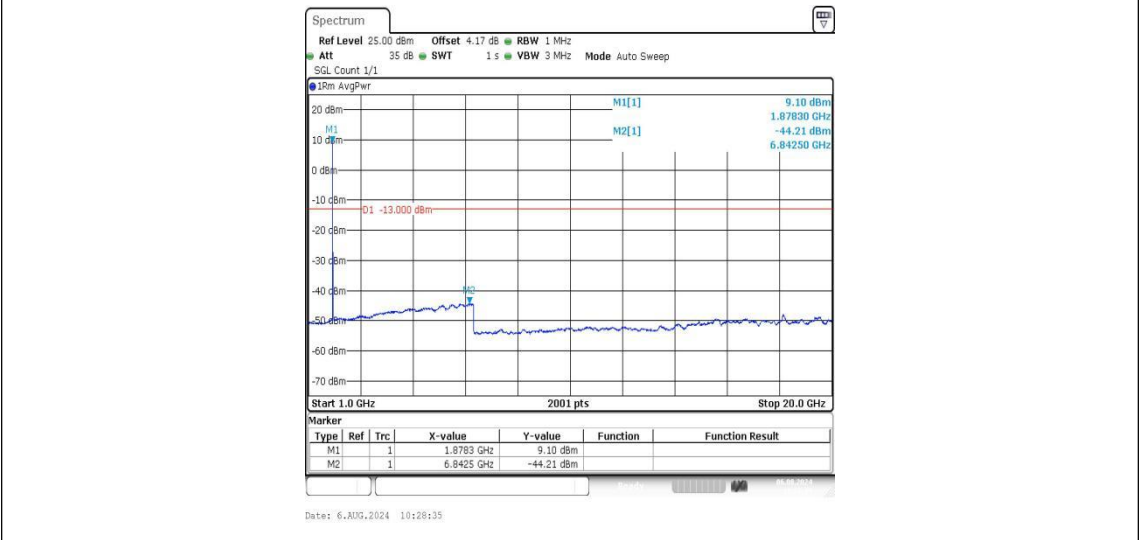
Band2-9262-0.15~30MHz-PASS



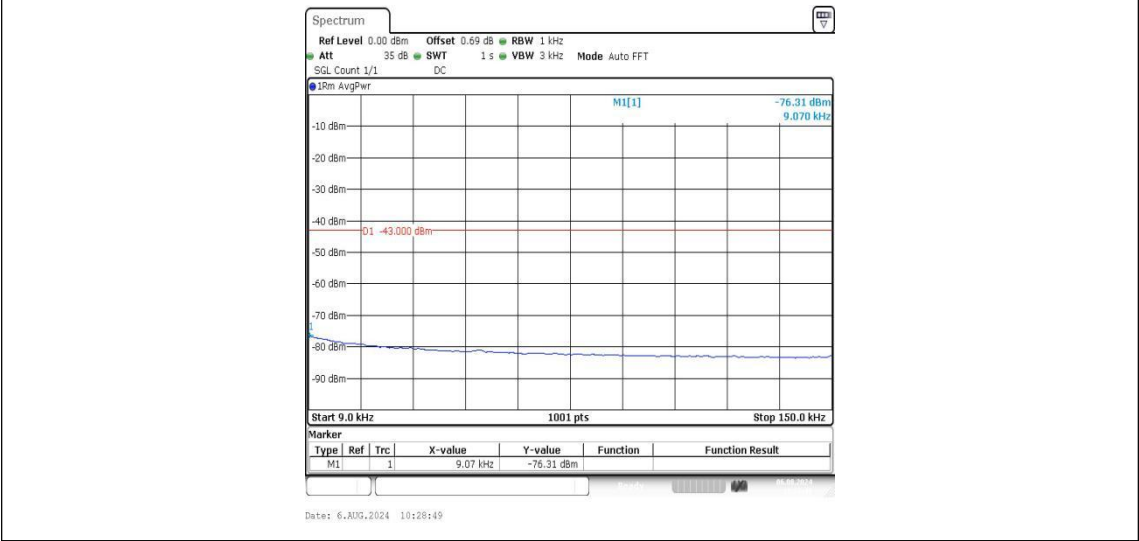




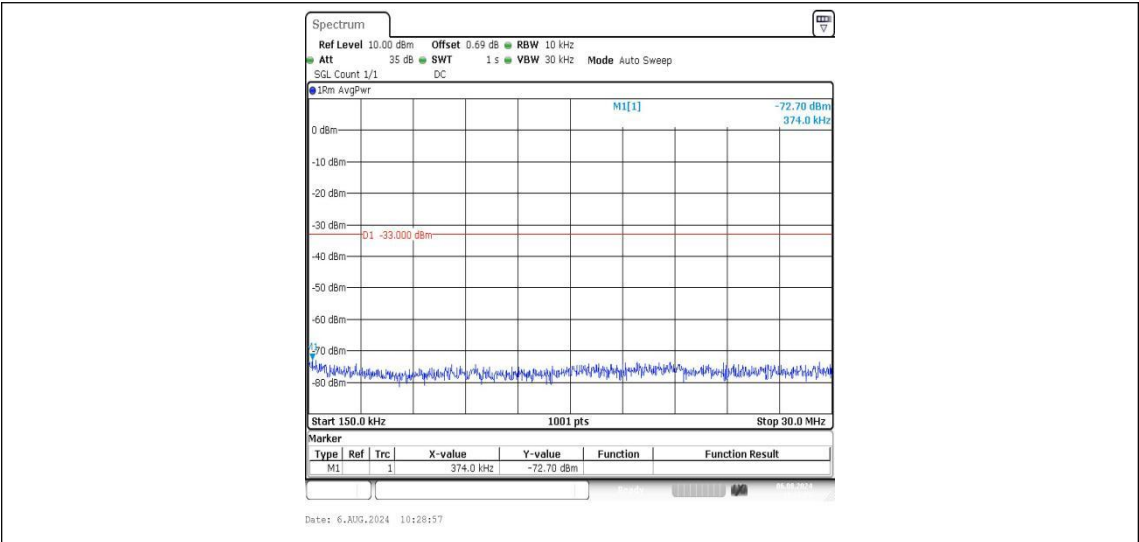
Band2-9400-30~1000MHz-PASS



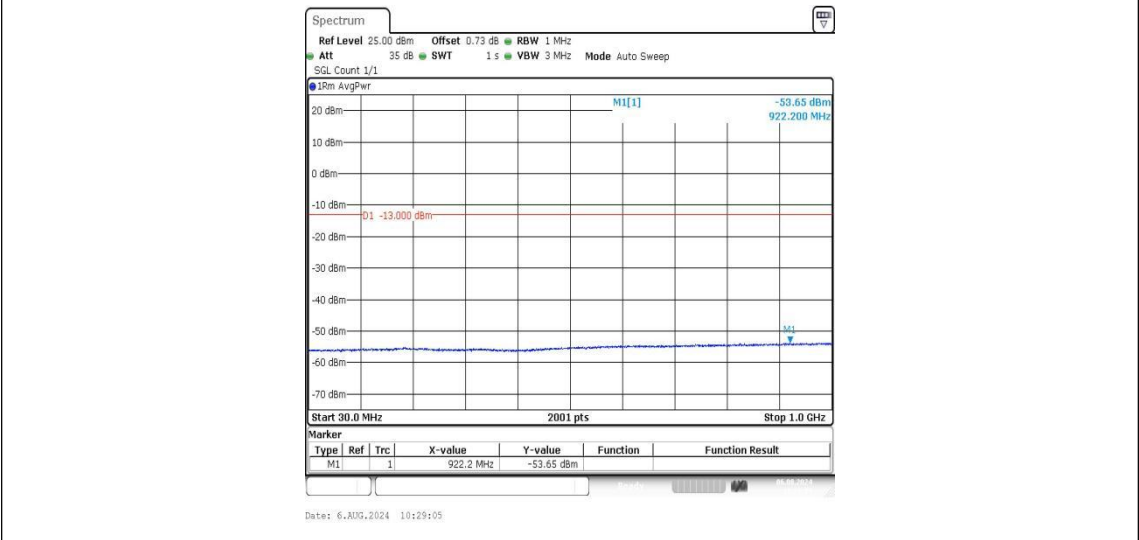
Band2-9400-1000~20000MHz-PASS



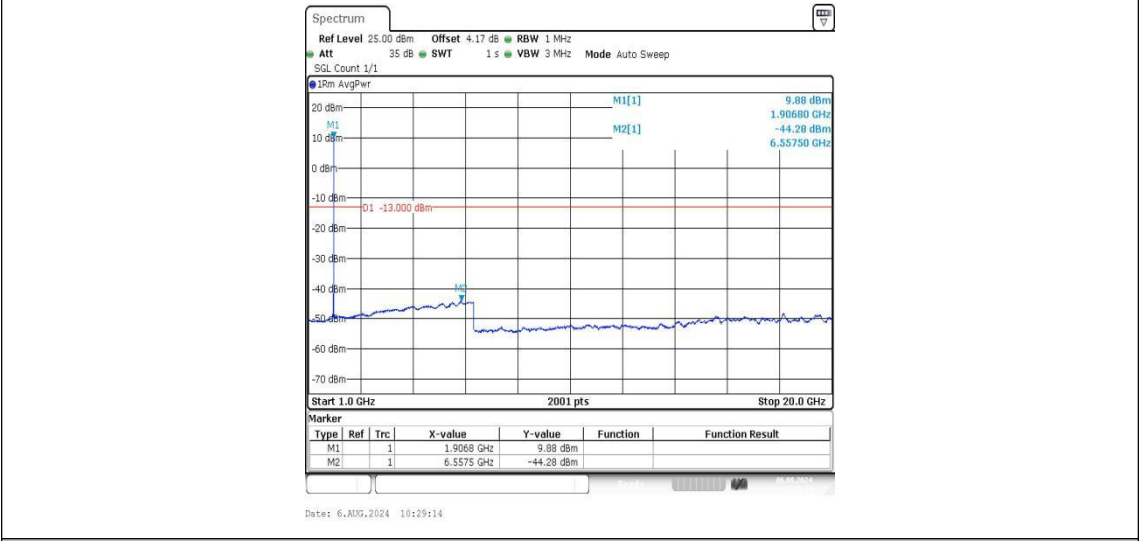
Band2-9538-0.009~0.15MHz-PASS



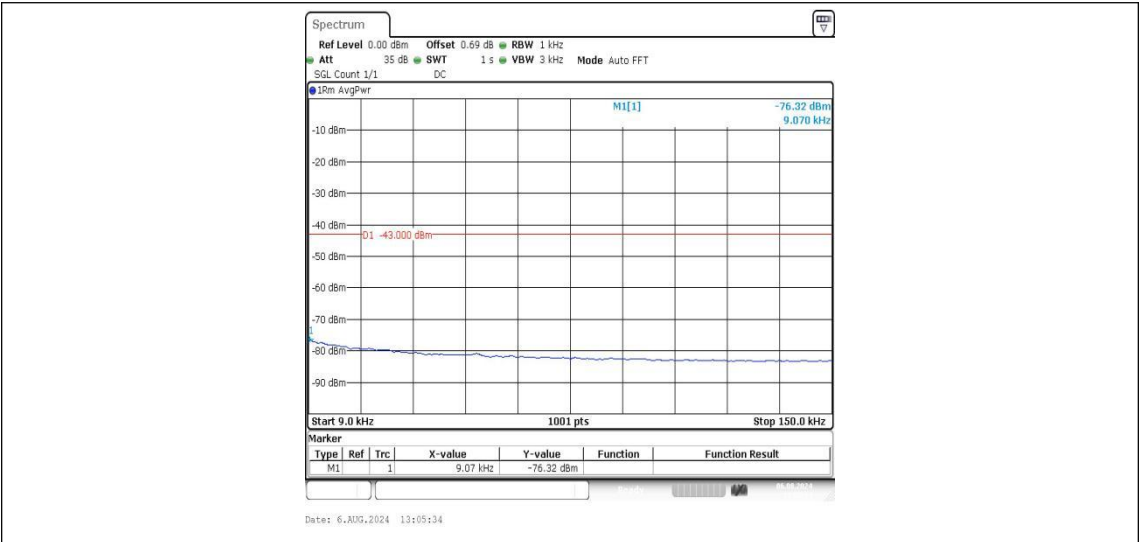
Band2-9538-0.15~30MHz-PASS



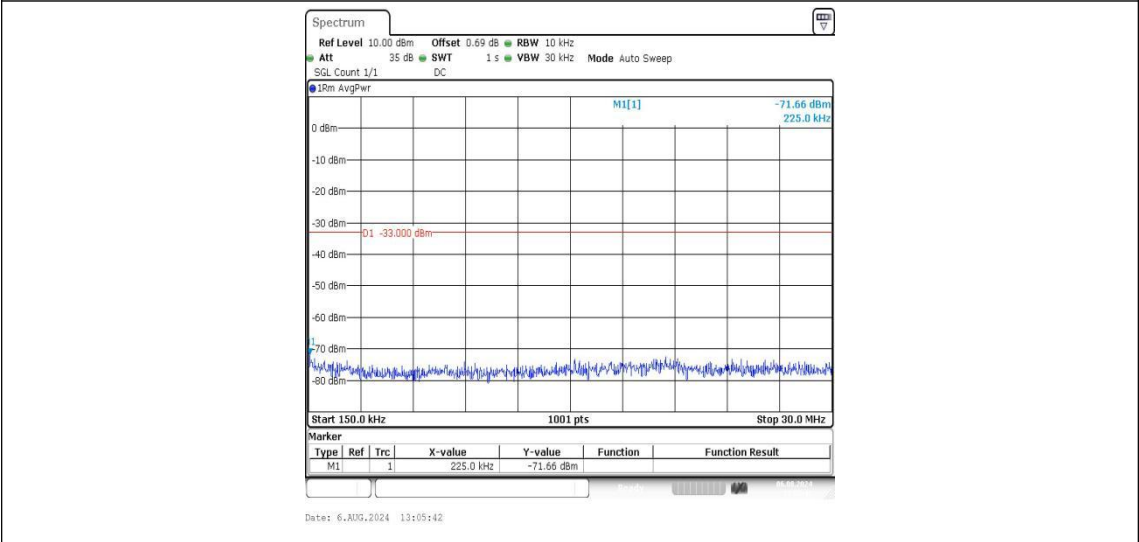
Band2-9538-30~1000MHz-PASS



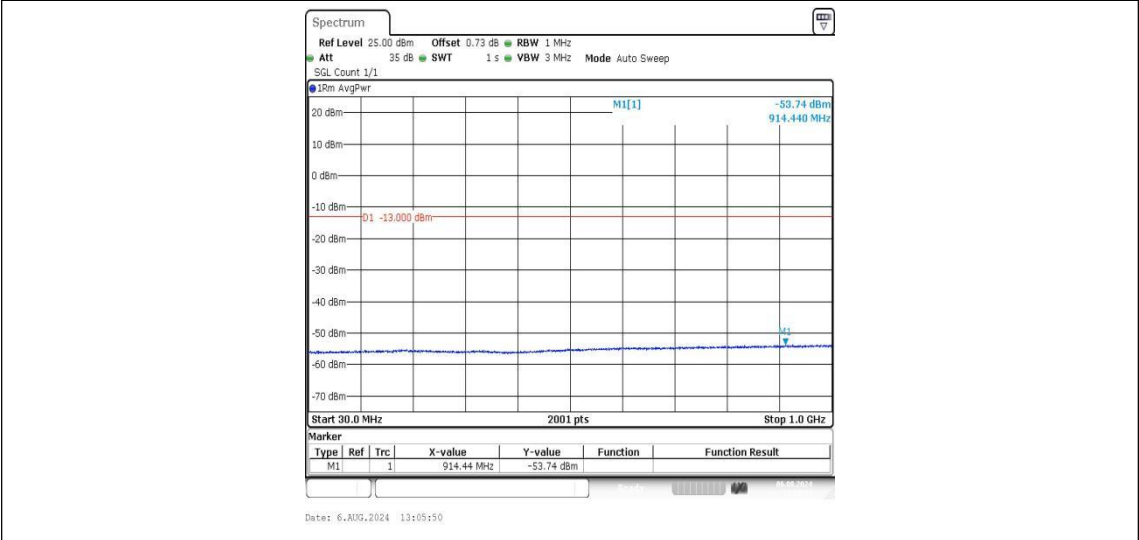
Band2-9538-1000~20000MHz-PASS



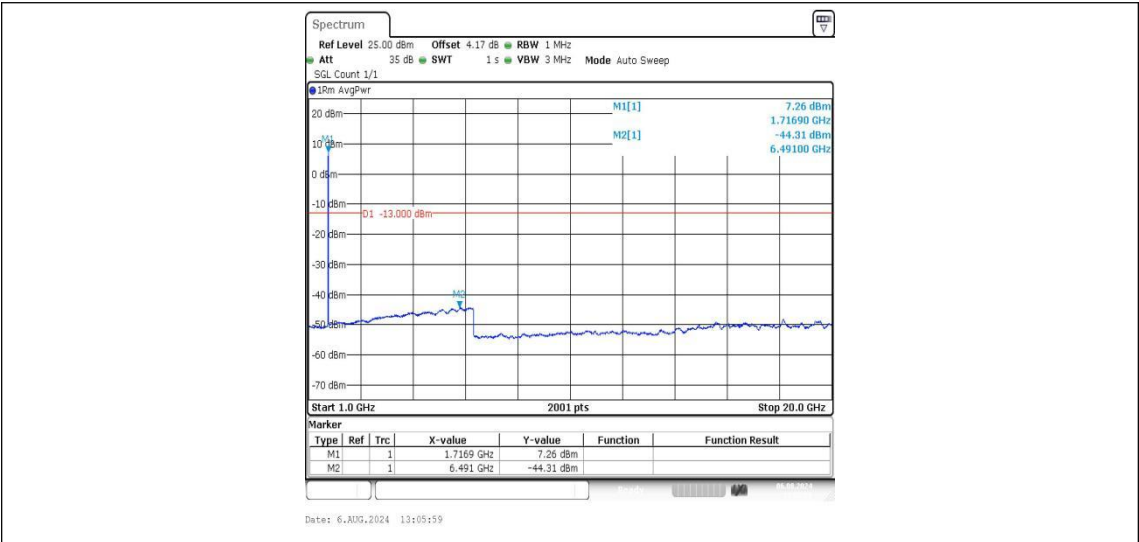
Band4-1312-0.009~0.15MHz-PASS



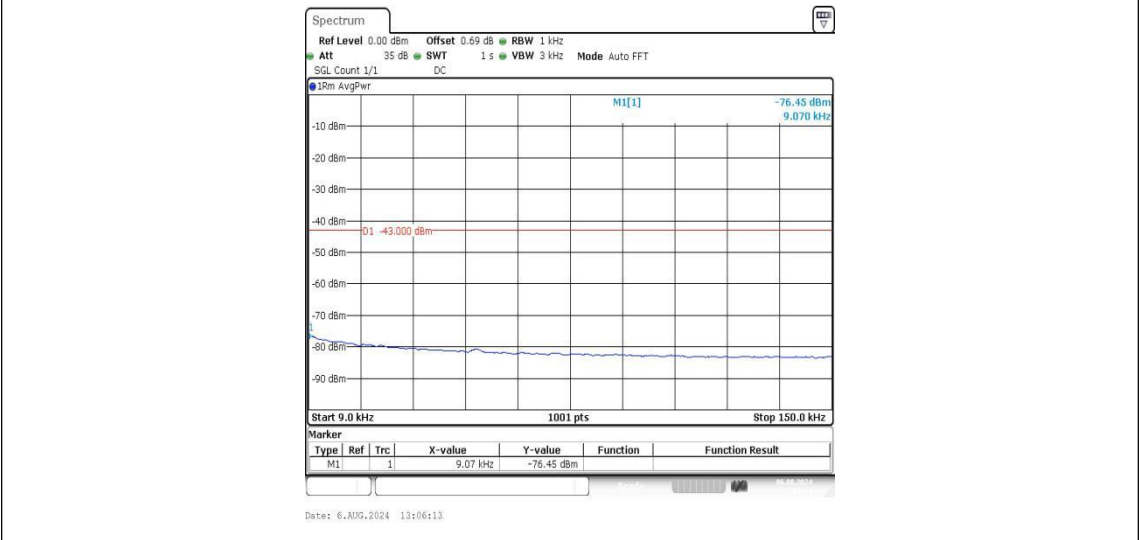
Band4-1312-0.15~30MHz-PASS



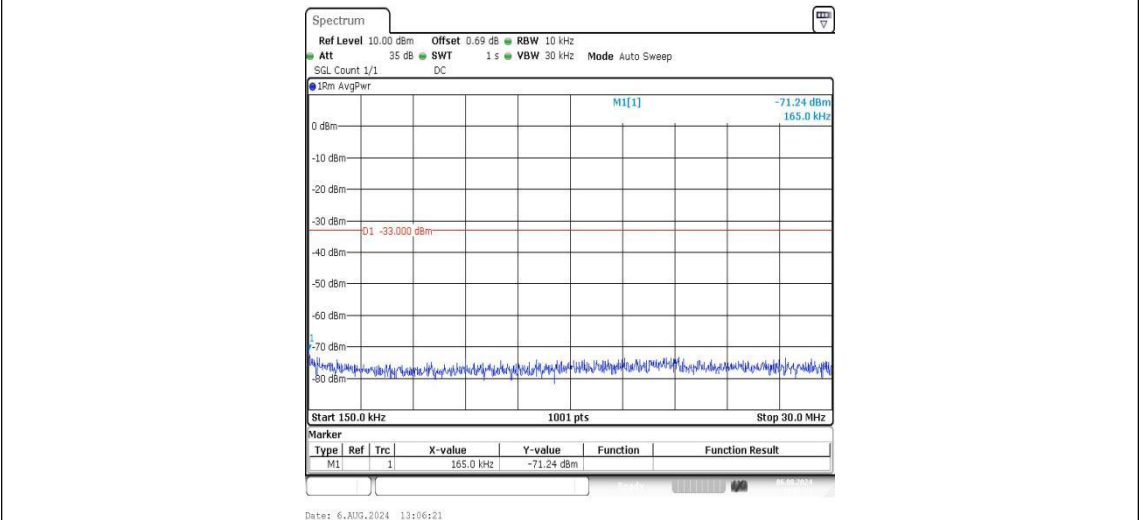
Band4-1312-30~1000MHz-PASS



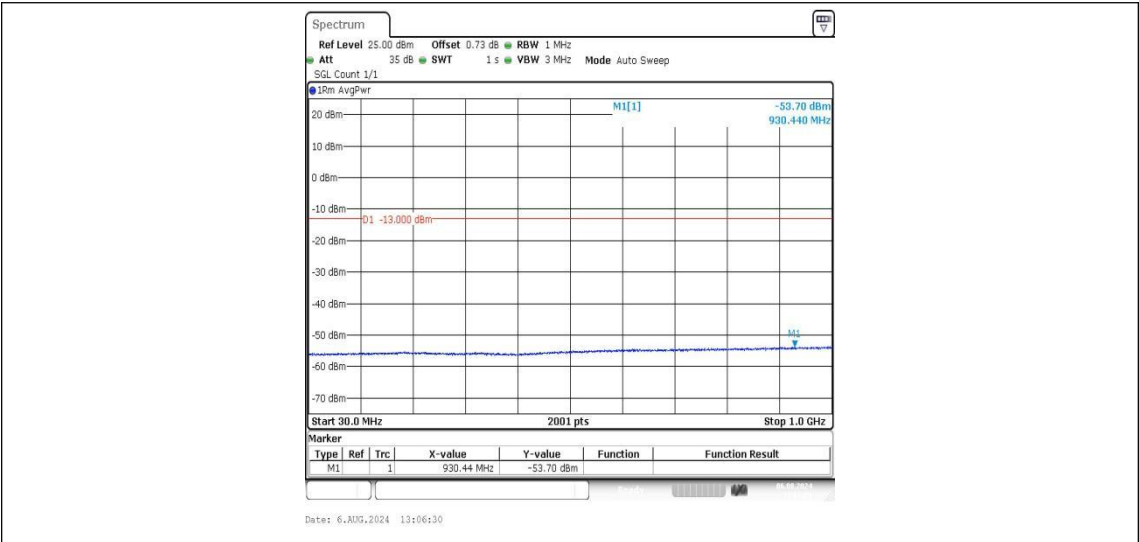
Band4-1312-1000~20000MHz-PASS



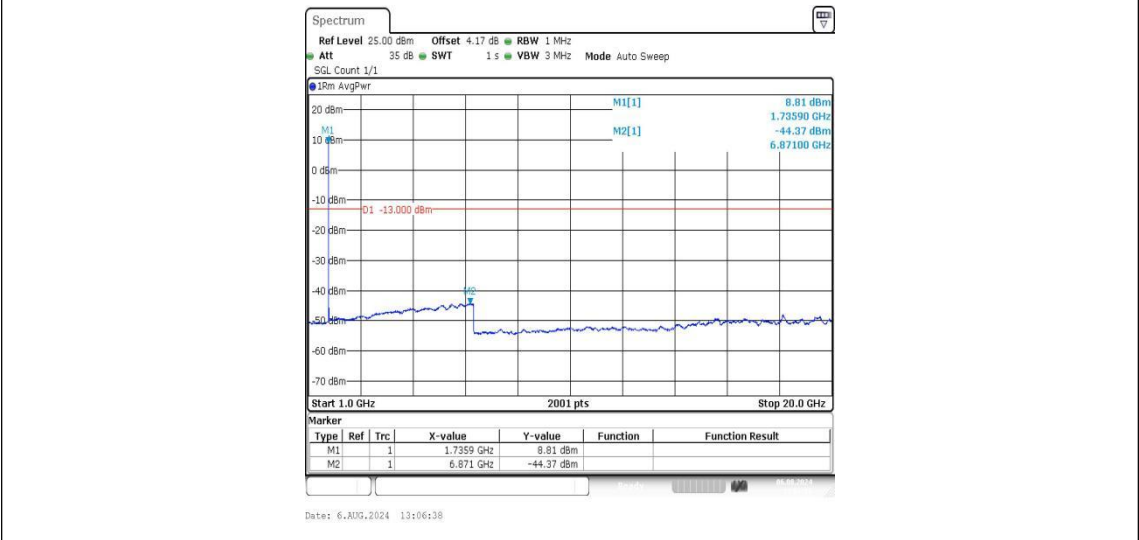
Band4-1413-0.009~0.15MHz-PASS



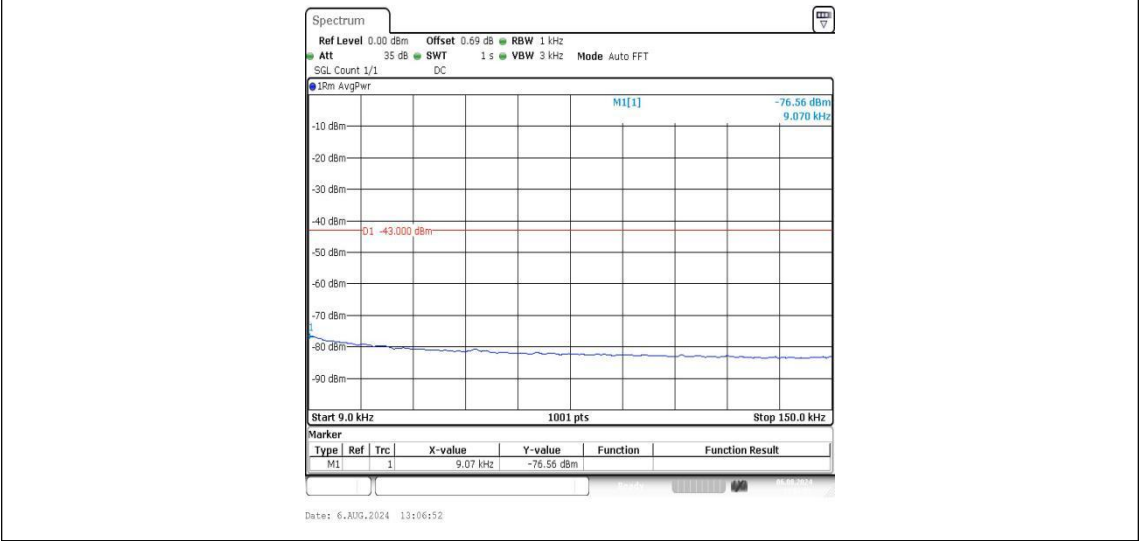
Band4-1413-0.15~30MHz-PASS



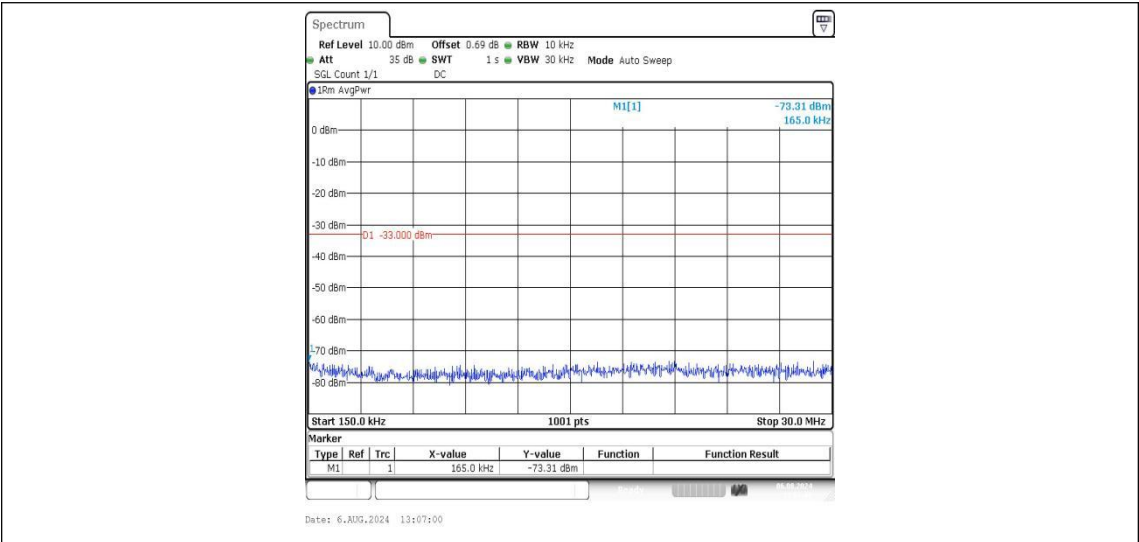
Band4-1413-30~1000MHz-PASS



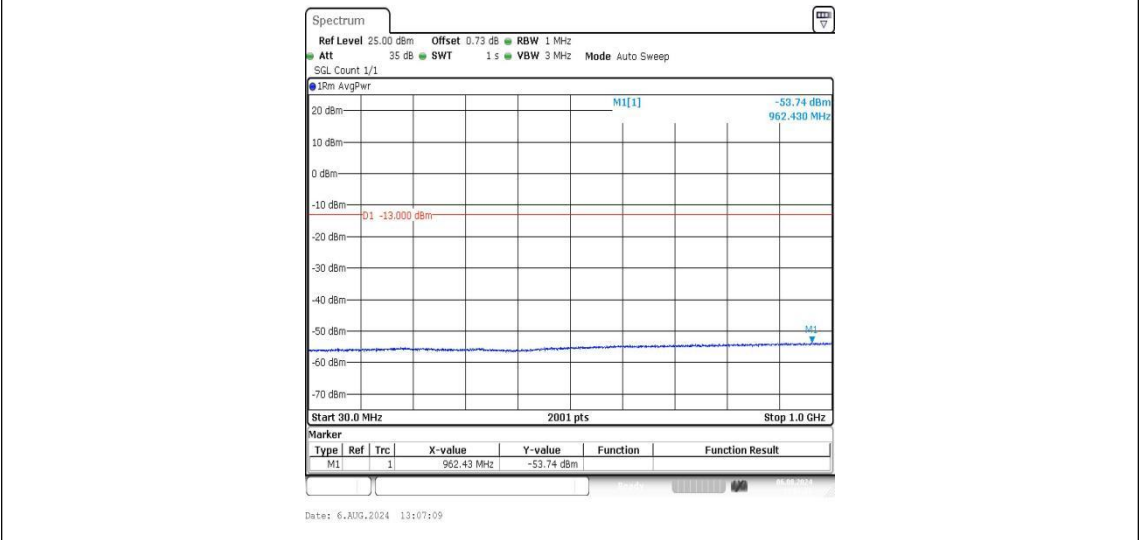
Band4-1413-1000~20000MHz-PASS



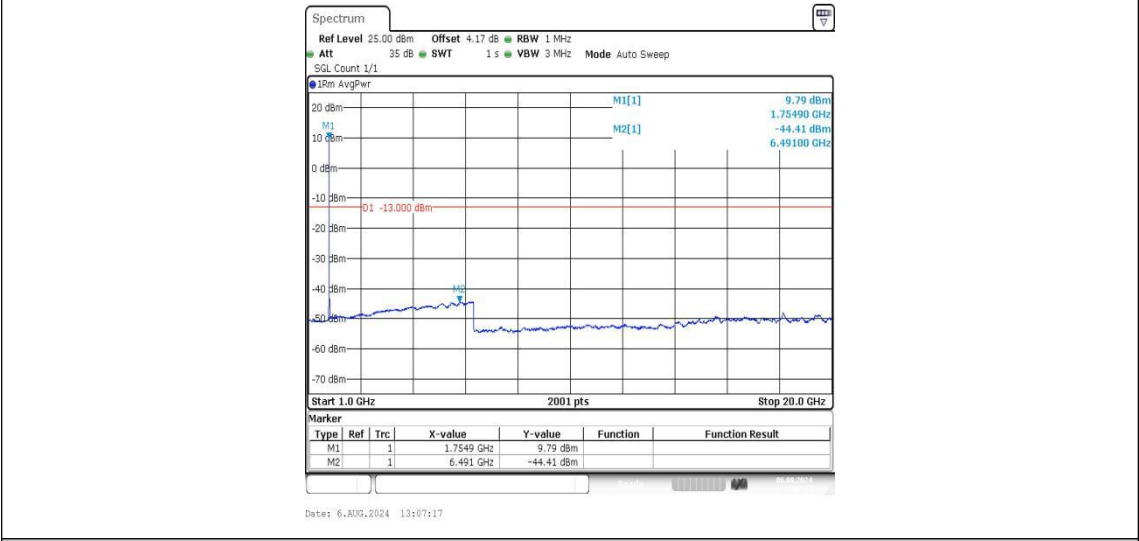
Band4-1513-0.009~0.15MHz-PASS



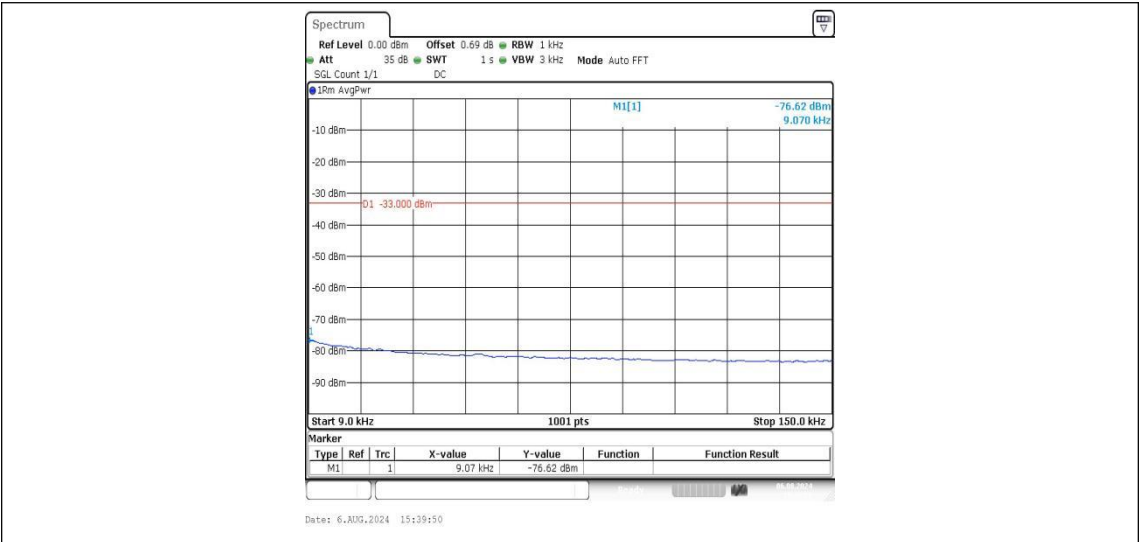
Band4-1513-0.15~30MHz-PASS



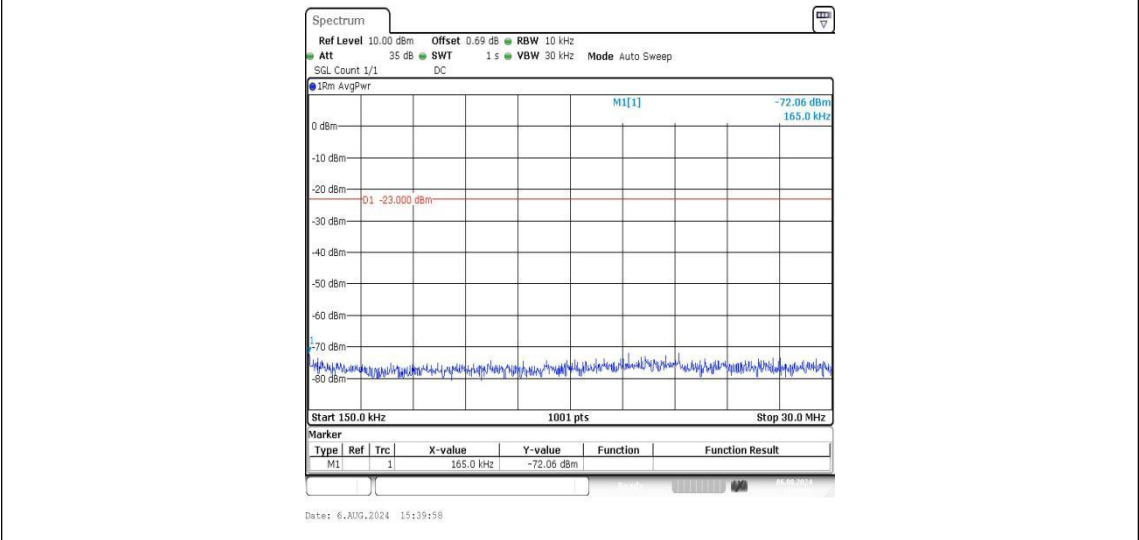
Band4-1513-30~1000MHz-PASS



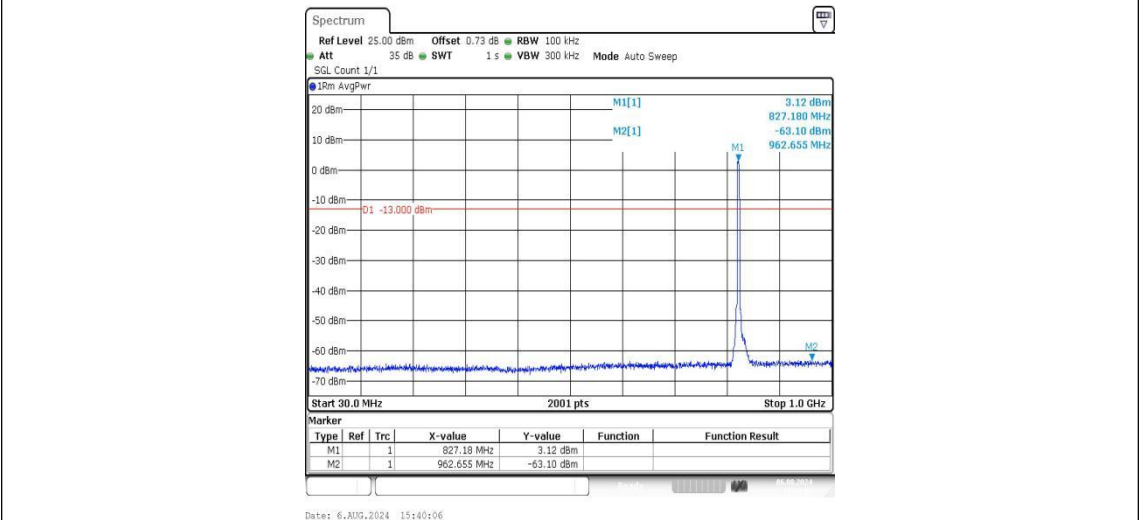
Band4-1513-1000~20000MHz-PASS



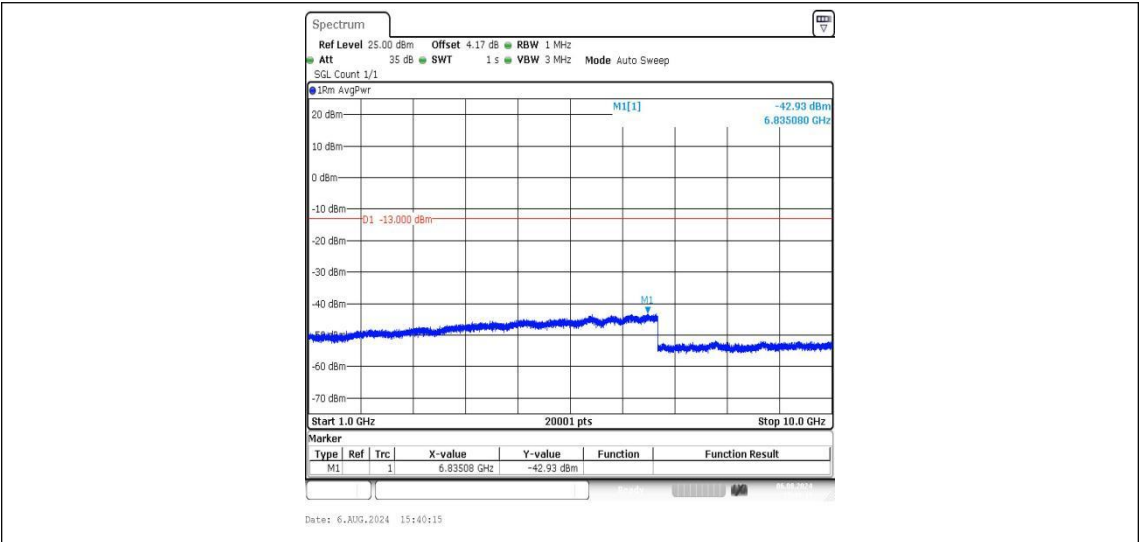
Band5-4132-0.009~0.15MHz-PASS



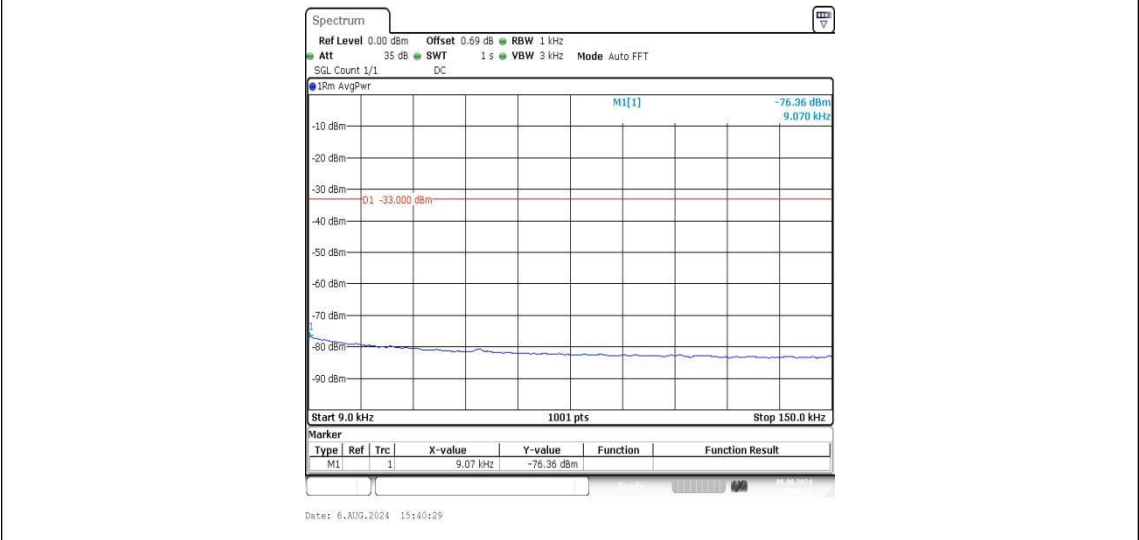
Band5-4132-0.15~30MHz-PASS



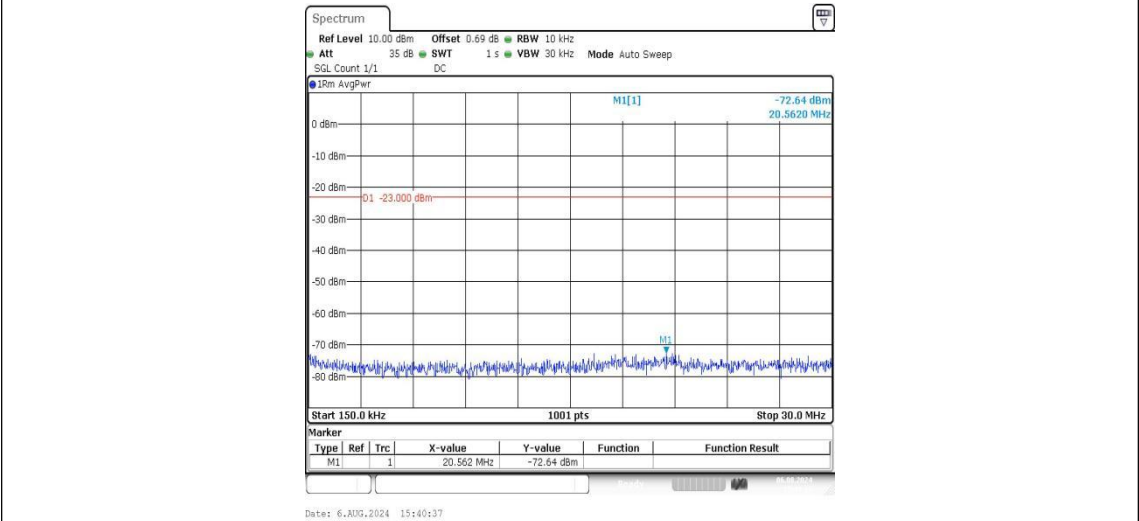
Band5-4132-30~1000MHz-PASS



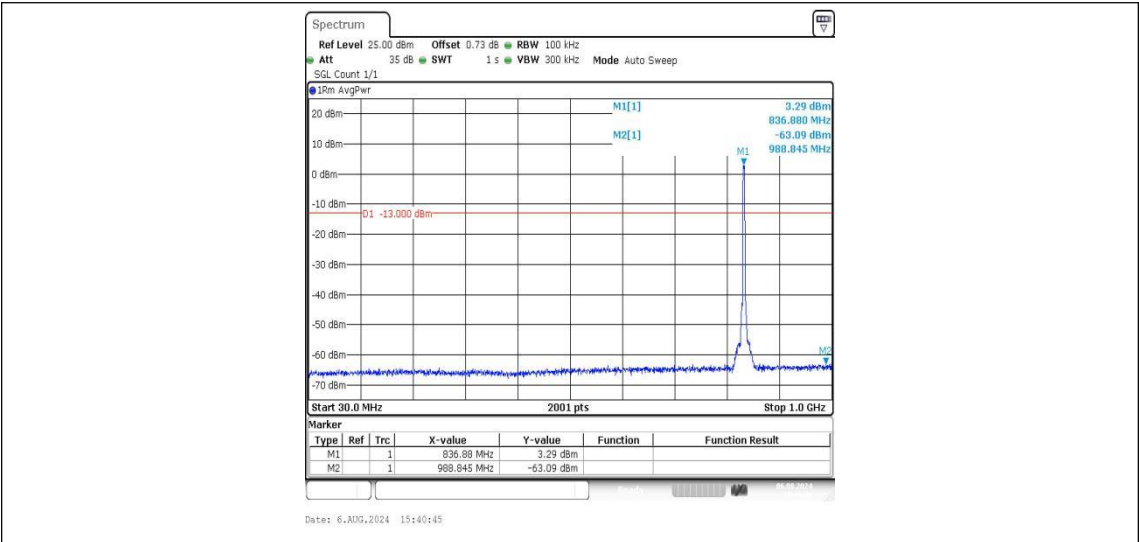
Band5-4132-1000~10000MHz-PASS



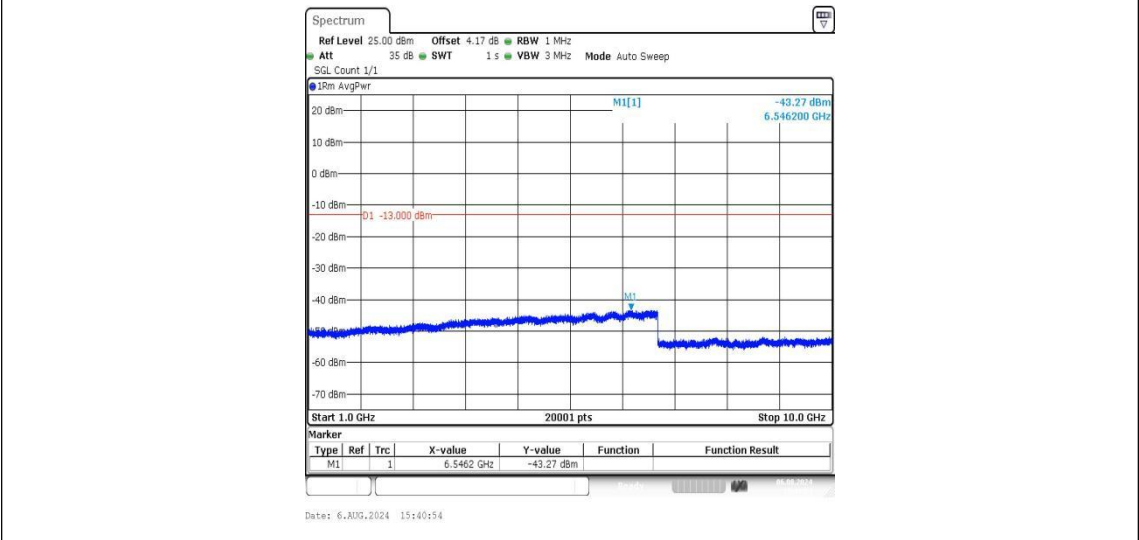
Band5-4182-0.009~0.15MHz-PASS



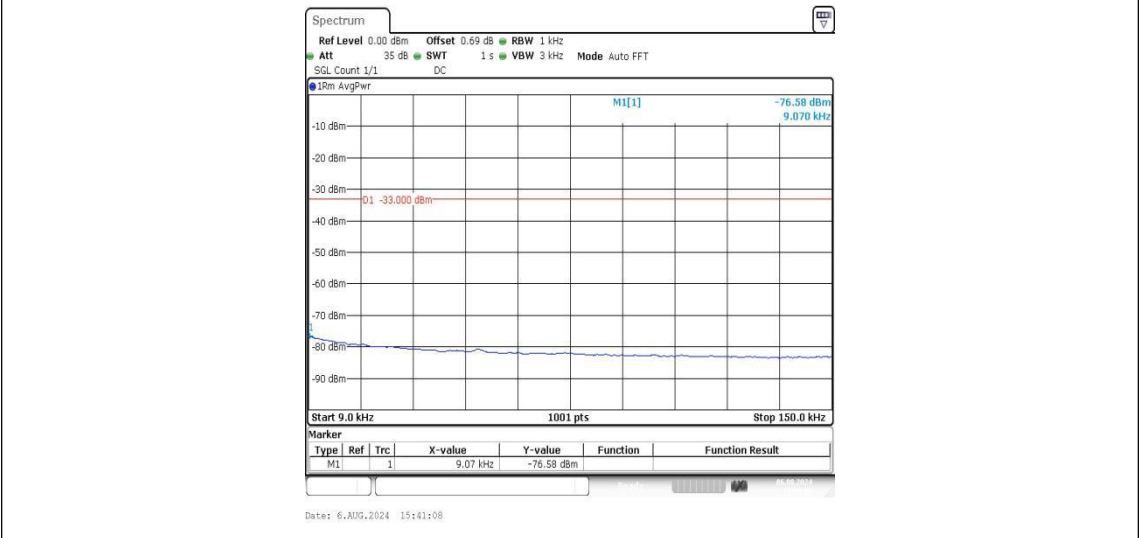
Band5-4182-0.15~30MHz-PASS



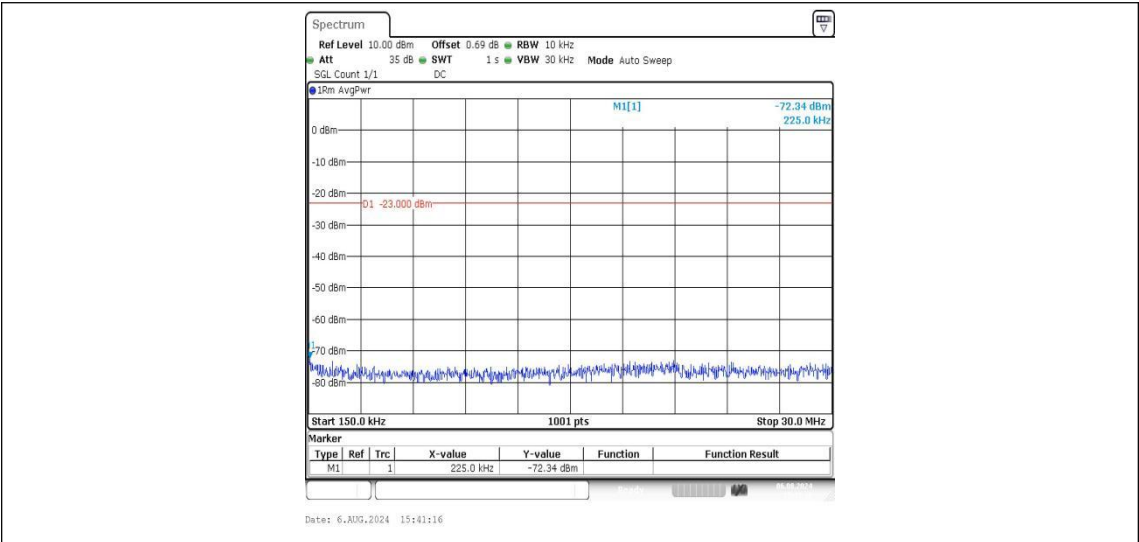
Band5-4182-30~1000MHz-PASS



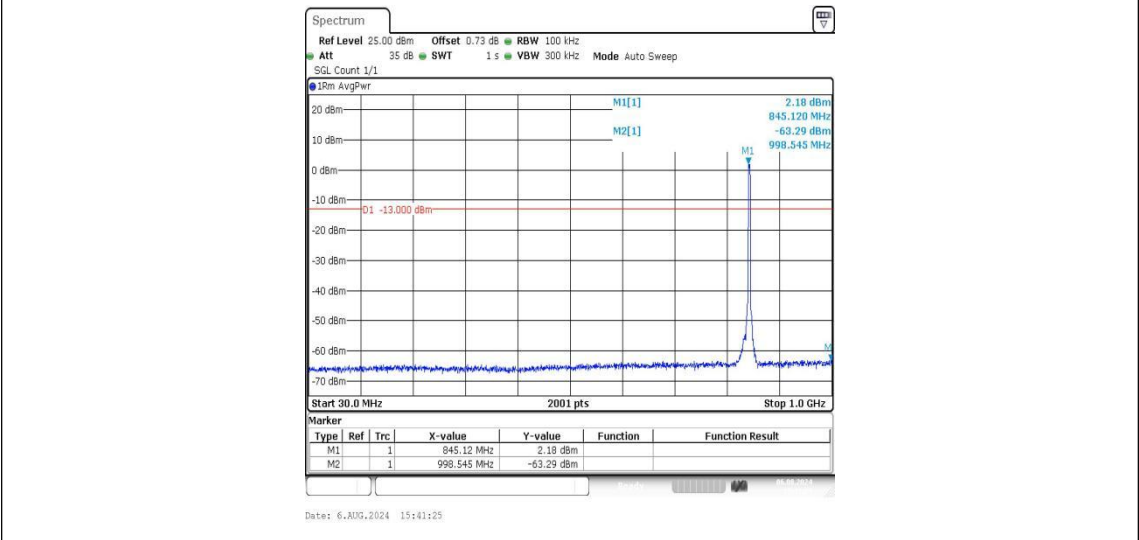
Band5-4182-1000~10000MHz-PASS



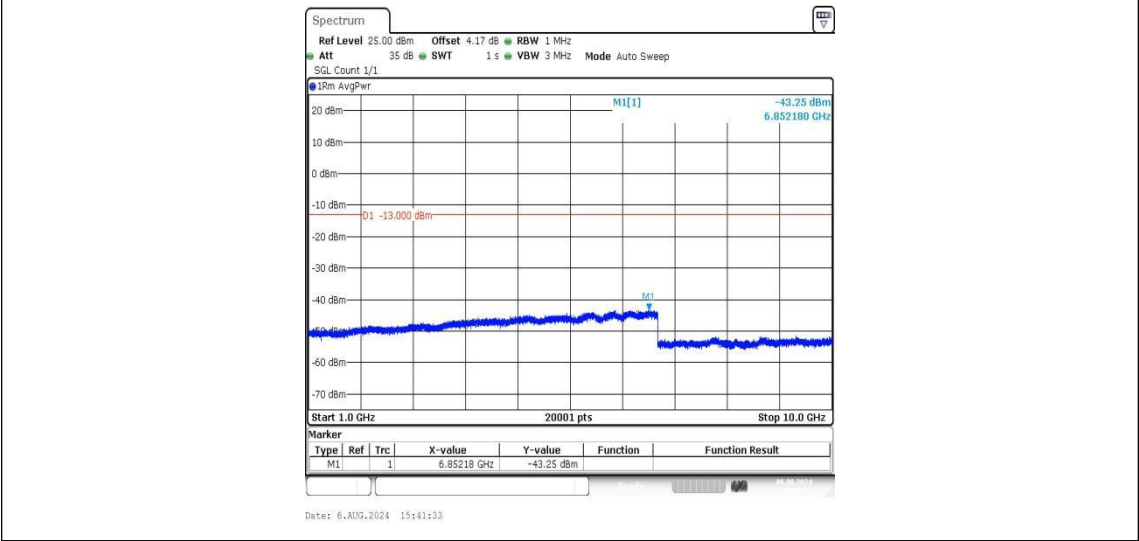
Band5-4233-0.009~0.15MHz-PASS



Band5-4233-0.15~30MHz-PASS



Band5-4233-30~1000MHz-PASS



Band5-4233-1000~10000MHz-PASS

Appendix F: Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	VN	NT	2.20	0.001188	±2.5	PASS
Band2	9262	VL	NT	3.30	0.001781	±2.5	PASS
Band2	9262	VH	NT	-0.16	-0.000086	±2.5	PASS
Band2	9400	VN	NT	-5.43	-0.002888	±2.5	PASS
Band2	9400	VL	NT	-3.95	-0.002101	±2.5	PASS
Band2	9400	VH	NT	7.34	0.003904	±2.5	PASS
Band2	9538	VN	NT	5.92	0.003103	±2.5	PASS
Band2	9538	VL	NT	-7.20	-0.003774	±2.5	PASS
Band2	9538	VH	NT	6.30	0.003303	±2.5	PASS
Band4	1312	VN	NT	-4.56	-0.002663	±2.5	PASS
Band4	1312	VL	NT	-8.81	-0.005145	±2.5	PASS
Band4	1312	VH	NT	-10.16	-0.005933	±2.5	PASS
Band4	1413	VN	NT	-3.51	-0.002026	±2.5	PASS
Band4	1413	VL	NT	-1.57	-0.000906	±2.5	PASS
Band4	1413	VH	NT	2.69	0.001553	±2.5	PASS
Band4	1513	VN	NT	3.73	0.002128	±2.5	PASS
Band4	1513	VL	NT	-3.80	-0.002168	±2.5	PASS
Band4	1513	VH	NT	10.28	0.005866	±2.5	PASS
Band5	4132	VN	NT	1.62	0.001960	±2.5	PASS
Band5	4132	VL	NT	0.72	0.000871	±2.5	PASS
Band5	4132	VH	NT	-1.22	-0.001476	±2.5	PASS
Band5	4182	VN	NT	-0.24	-0.000287	±2.5	PASS
Band5	4182	VL	NT	-0.26	-0.000311	±2.5	PASS
Band5	4182	VH	NT	1.21	0.001447	±2.5	PASS
Band5	4233	VN	NT	-0.33	-0.000390	±2.5	PASS
Band5	4233	VL	NT	-1.37	-0.001618	±2.5	PASS
Band5	4233	VH	NT	1.44	0.001701	±2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	NV	-30	-0.69	-0.000372	±2.5	PASS
Band2	9262	NV	-20	2.15	0.001161	±2.5	PASS
Band2	9262	NV	-10	12.57	0.006786	±2.5	PASS

Band2	9262	NV	0	9.76	0.005269	±2.5	PASS
Band2	9262	NV	10	11.09	0.005987	±2.5	PASS
Band2	9262	NV	20	11.57	0.006246	±2.5	PASS
Band2	9262	NV	30	9.37	0.005058	±2.5	PASS
Band2	9262	NV	40	10.47	0.005652	±2.5	PASS
Band2	9262	NV	50	10.22	0.005517	±2.5	PASS
Band2	9400	NV	-30	-1.61	-0.000856	±2.5	PASS
Band2	9400	NV	-20	0.72	0.000383	±2.5	PASS
Band2	9400	NV	-10	1.97	0.001048	±2.5	PASS
Band2	9400	NV	0	0.00	0.000000	±2.5	PASS
Band2	9400	NV	10	1.56	0.000830	±2.5	PASS
Band2	9400	NV	20	3.28	0.001745	±2.5	PASS
Band2	9400	NV	30	0.14	0.000074	±2.5	PASS
Band2	9400	NV	40	1.21	0.000644	±2.5	PASS
Band2	9400	NV	50	1.70	0.000904	±2.5	PASS
Band2	9538	NV	-30	11.69	0.006128	±2.5	PASS
Band2	9538	NV	-20	8.82	0.004624	±2.5	PASS
Band2	9538	NV	-10	8.54	0.004477	±2.5	PASS
Band2	9538	NV	0	6.07	0.003182	±2.5	PASS
Band2	9538	NV	10	9.56	0.005012	±2.5	PASS
Band2	9538	NV	20	4.18	0.002191	±2.5	PASS
Band2	9538	NV	30	5.74	0.003009	±2.5	PASS
Band2	9538	NV	40	10.84	0.005683	±2.5	PASS
Band2	9538	NV	50	6.45	0.003381	±2.5	PASS
Band4	1312	NV	-30	6.78	0.003959	±2.5	PASS
Band4	1312	NV	-20	10.79	0.006301	±2.5	PASS
Band4	1312	NV	-10	1.62	0.000946	±2.5	PASS
Band4	1312	NV	0	9.91	0.005787	±2.5	PASS
Band4	1312	NV	10	7.42	0.004333	±2.5	PASS
Band4	1312	NV	20	4.10	0.002394	±2.5	PASS
Band4	1312	NV	30	0.67	0.000391	±2.5	PASS
Band4	1312	NV	40	-0.24	-0.000140	±2.5	PASS
Band4	1312	NV	50	2.25	0.001314	±2.5	PASS
Band4	1413	NV	-30	0.58	0.000335	±2.5	PASS
Band4	1413	NV	-20	5.29	0.003053	±2.5	PASS
Band4	1413	NV	-10	4.57	0.002638	±2.5	PASS
Band4	1413	NV	0	5.71	0.003296	±2.5	PASS
Band4	1413	NV	10	8.61	0.004969	±2.5	PASS
Band4	1413	NV	20	7.15	0.004127	±2.5	PASS
Band4	1413	NV	30	6.42	0.003705	±2.5	PASS
Band4	1413	NV	40	3.28	0.001893	±2.5	PASS

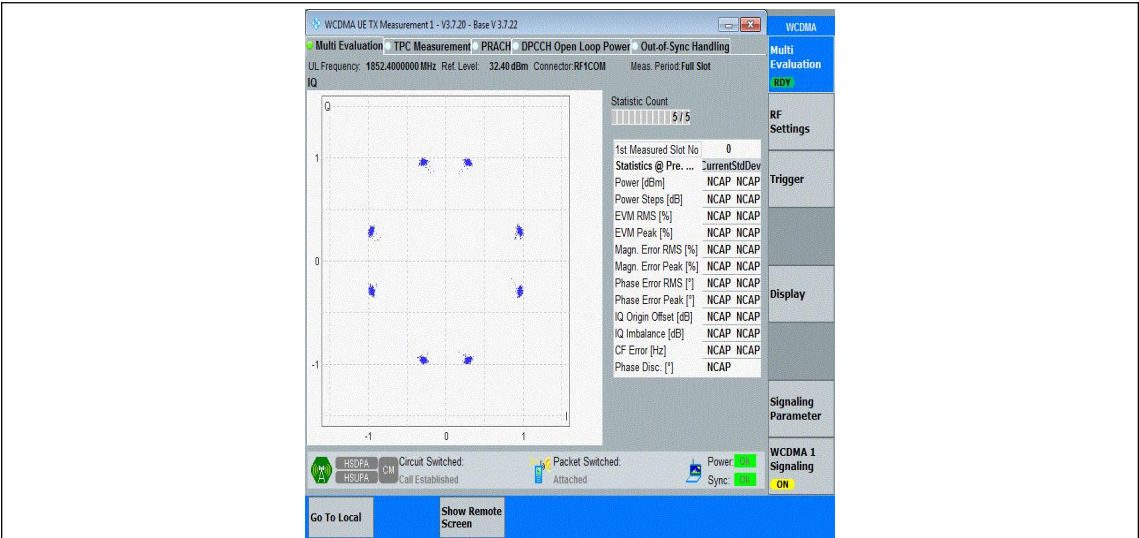
Band4	1413	NV	50	3.68	0.002124	±2.5	PASS
Band4	1513	NV	-30	1.32	0.000753	±2.5	PASS
Band4	1513	NV	-20	-0.95	-0.000542	±2.5	PASS
Band4	1513	NV	-10	0.07	0.000040	±2.5	PASS
Band4	1513	NV	0	11.92	0.006801	±2.5	PASS
Band4	1513	NV	10	8.04	0.004587	±2.5	PASS
Band4	1513	NV	20	-0.29	-0.000165	±2.5	PASS
Band4	1513	NV	30	4.18	0.002385	±2.5	PASS
Band4	1513	NV	40	-3.85	-0.002197	±2.5	PASS
Band4	1513	NV	50	-3.09	-0.001763	±2.5	PASS
Band5	4132	NV	-30	-0.68	-0.000823	±2.5	PASS
Band5	4132	NV	-20	0.96	0.001162	±2.5	PASS
Band5	4132	NV	-10	-2.45	-0.002965	±2.5	PASS
Band5	4132	NV	0	-5.42	-0.006559	±2.5	PASS
Band5	4132	NV	10	-0.33	-0.000399	±2.5	PASS
Band5	4132	NV	20	0.22	0.000266	±2.5	PASS
Band5	4132	NV	30	-3.38	-0.004090	±2.5	PASS
Band5	4132	NV	40	-1.33	-0.001609	±2.5	PASS
Band5	4132	NV	50	2.49	0.003013	±2.5	PASS
Band5	4182	NV	-30	0.94	0.001124	±2.5	PASS
Band5	4182	NV	-20	0.78	0.000933	±2.5	PASS
Band5	4182	NV	-10	1.07	0.001279	±2.5	PASS
Band5	4182	NV	0	0.79	0.000945	±2.5	PASS
Band5	4182	NV	10	0.47	0.000562	±2.5	PASS
Band5	4182	NV	20	1.12	0.001339	±2.5	PASS
Band5	4182	NV	30	2.60	0.003109	±2.5	PASS
Band5	4182	NV	40	-0.77	-0.000921	±2.5	PASS
Band5	4182	NV	50	0.36	0.000430	±2.5	PASS
Band5	4233	NV	-30	2.12	0.002504	±2.5	PASS
Band5	4233	NV	-20	-0.32	-0.000378	±2.5	PASS
Band5	4233	NV	-10	-1.22	-0.001441	±2.5	PASS
Band5	4233	NV	0	0.19	0.000224	±2.5	PASS
Band5	4233	NV	10	0.11	0.000130	±2.5	PASS
Band5	4233	NV	20	0.14	0.000165	±2.5	PASS
Band5	4233	NV	30	-0.43	-0.000508	±2.5	PASS
Band5	4233	NV	40	1.73	0.002043	±2.5	PASS
Band5	4233	NV	50	-0.13	-0.000154	±2.5	PASS

Appendix G: Modulation Characteristics

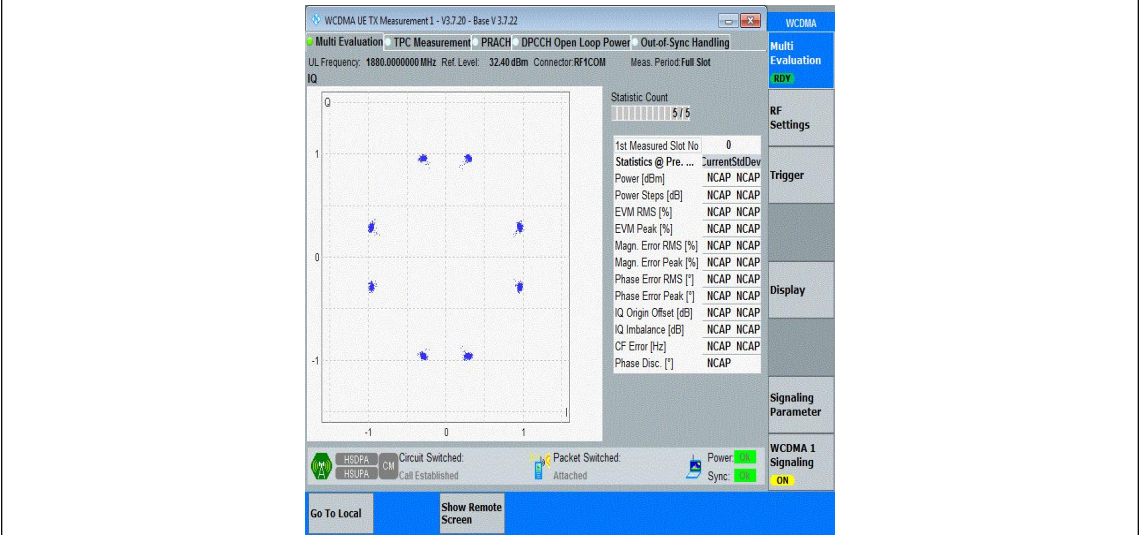
Test Result

Band	Channel	Result	Verdict
Band2	9262	PASS	PASS
Band2	9400	PASS	PASS
Band2	9538	PASS	PASS
Band4	1312	PASS	PASS
Band4	1413	PASS	PASS
Band4	1513	PASS	PASS
Band5	4132	PASS	PASS
Band5	4182	PASS	PASS
Band5	4233	PASS	PASS

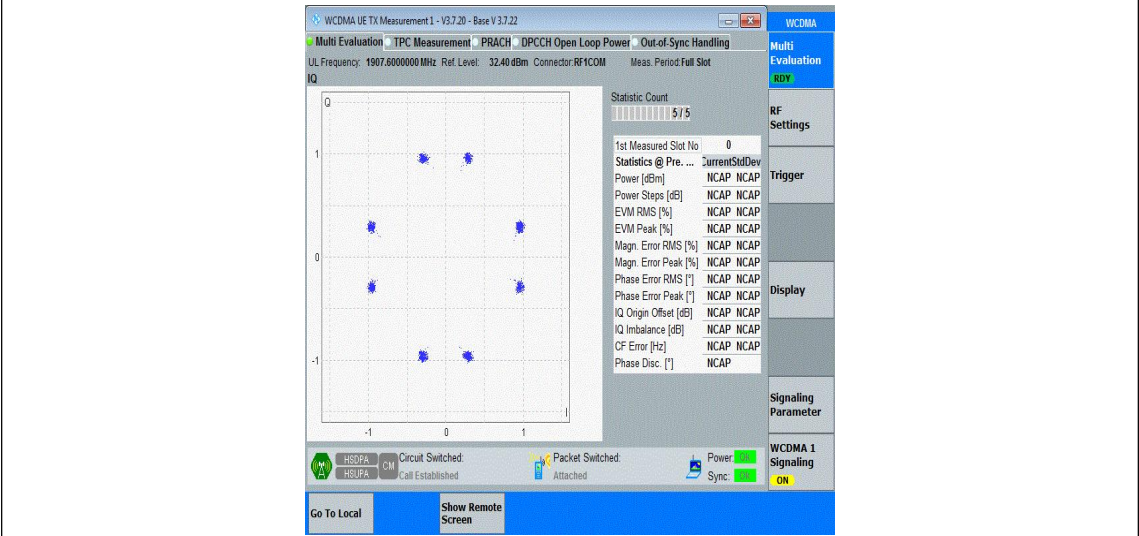
Test Graphs



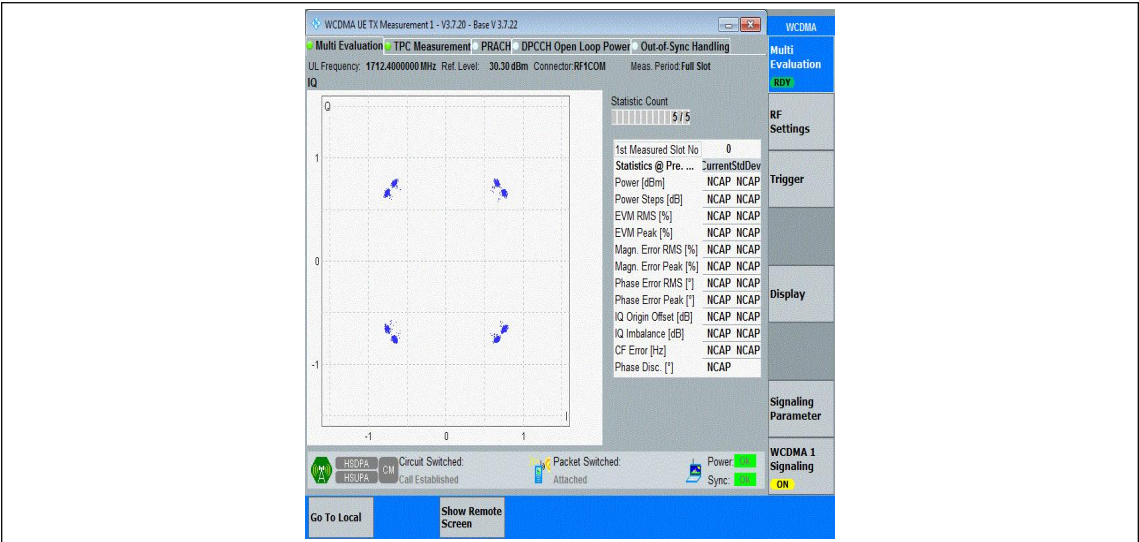
Band2-9262-PASS



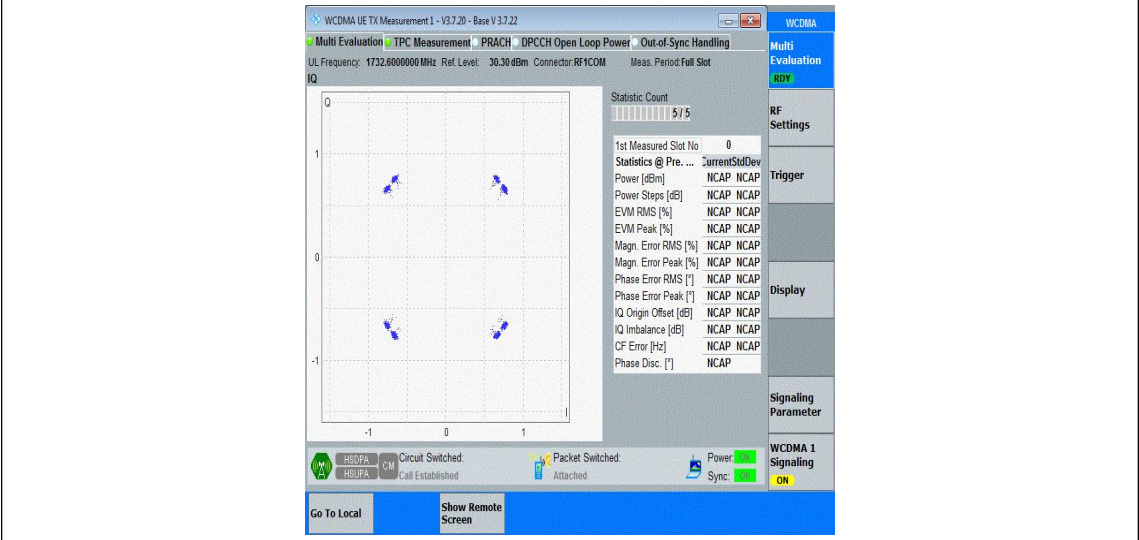
Band2-9400-PASS



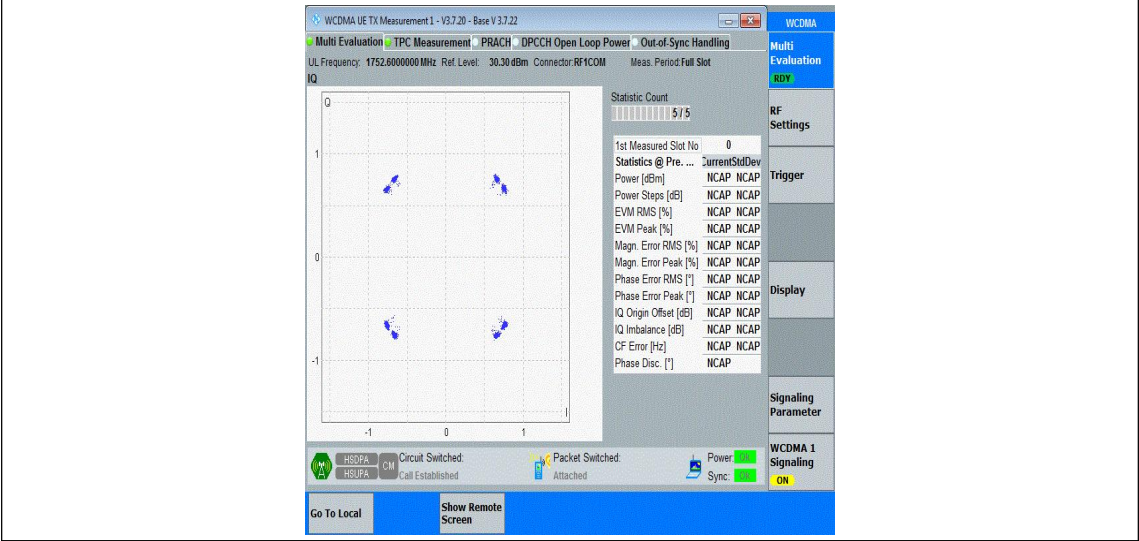
Band2-9538-PASS



Band4-1312-PASS



Band4-1413-PASS



Band4-1513-PASS

