

APPENDIX H: TEST RESULTS FOR E-UTRA OPERATING BAND 12

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APPENDIX H.1: EFFECTIVE (ISOTROPIC) RADIATED POWER

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Result (dBm)	ERP Result (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.20	22.05	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.41	22.26	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.36	22.21	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.22	22.07	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.20	22.05	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	23.15	22.00	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.19	21.04	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	22.94	21.79	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.02	21.87	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.05	21.90	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	22.91	21.76	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	22.99	21.84	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	22.92	21.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.21	21.06	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.32	22.17	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.22	22.07	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.15	22.00	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.08	21.93	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.07	21.92	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.02	21.87	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.18	21.03	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.20	22.05	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.05	21.90	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.24	22.09	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.22	21.07	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.21	21.06	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.23	21.08	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.14	20.99	PASS
Band12	3MHz	QPSK	23095	1RB#0	22.91	21.76	PASS

Band12	3MHz	QPSK	23095	1RB#8	22.73	21.58	PASS
Band12	3MHz	QPSK	23095	1RB#14	22.97	21.82	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.08	20.93	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.13	20.98	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.07	20.92	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.14	20.99	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.06	21.91	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.04	21.89	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.01	21.86	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.13	20.98	PASS
Band12	3MHz	QPSK	23165	8RB#4	22.11	20.96	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.10	20.95	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.14	20.99	PASS
Band12	5MHz	QPSK	23035	1RB#0	22.97	21.82	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.08	21.93	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.00	21.85	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.01	20.86	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.07	20.92	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.20	21.05	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.14	20.99	PASS
Band12	5MHz	QPSK	23095	1RB#0	22.90	21.75	PASS
Band12	5MHz	QPSK	23095	1RB#12	22.86	21.71	PASS
Band12	5MHz	QPSK	23095	1RB#24	22.86	21.71	PASS
Band12	5MHz	QPSK	23095	12RB#0	21.96	20.81	PASS
Band12	5MHz	QPSK	23095	12RB#6	21.83	20.68	PASS
Band12	5MHz	QPSK	23095	12RB#13	21.81	20.66	PASS
Band12	5MHz	QPSK	23095	25RB#0	21.96	20.81	PASS
Band12	5MHz	QPSK	23155	1RB#0	22.63	21.48	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.05	21.90	PASS
Band12	5MHz	QPSK	23155	1RB#24	22.92	21.77	PASS
Band12	5MHz	QPSK	23155	12RB#0	21.89	20.74	PASS
Band12	5MHz	QPSK	23155	12RB#6	21.87	20.72	PASS
Band12	5MHz	QPSK	23155	12RB#13	21.88	20.73	PASS
Band12	5MHz	QPSK	23155	25RB#0	21.84	20.69	PASS

Band12	10MHz	QPSK	23060	1RB#0	23.11	21.96	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.18	22.03	PASS
Band12	10MHz	QPSK	23060	1RB#49	22.86	21.71	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.11	20.96	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.11	20.96	PASS
Band12	10MHz	QPSK	23060	25RB#25	21.93	20.78	PASS
Band12	10MHz	QPSK	23060	50RB#0	21.98	20.83	PASS
Band12	10MHz	QPSK	23095	1RB#0	22.87	21.72	PASS
Band12	10MHz	QPSK	23095	1RB#24	22.80	21.65	PASS
Band12	10MHz	QPSK	23095	1RB#49	22.62	21.47	PASS
Band12	10MHz	QPSK	23095	25RB#0	21.94	20.79	PASS
Band12	10MHz	QPSK	23095	25RB#12	21.99	20.84	PASS
Band12	10MHz	QPSK	23095	25RB#25	21.83	20.68	PASS
Band12	10MHz	QPSK	23095	50RB#0	21.92	20.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	22.72	21.57	PASS
Band12	10MHz	QPSK	23130	1RB#24	22.85	21.70	PASS
Band12	10MHz	QPSK	23130	1RB#49	22.65	21.50	PASS
Band12	10MHz	QPSK	23130	25RB#0	21.79	20.64	PASS
Band12	10MHz	QPSK	23130	25RB#12	21.87	20.72	PASS
Band12	10MHz	QPSK	23130	25RB#25	21.93	20.78	PASS
Band12	10MHz	QPSK	23130	50RB#0	21.73	20.58	PASS

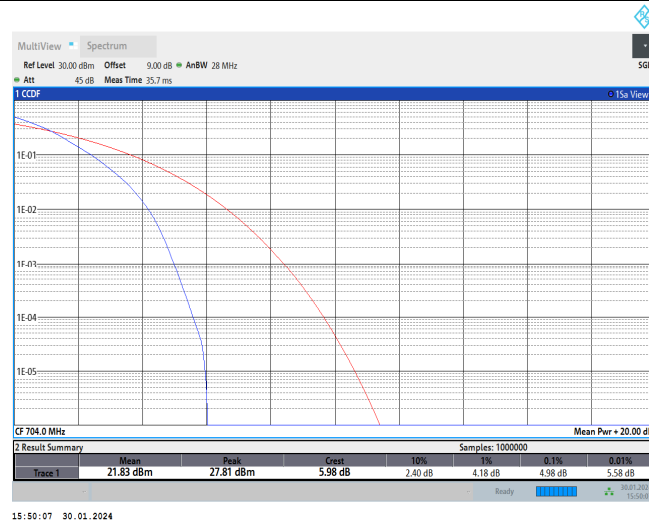
APPENDIX H.2: PEAK-TO AVERAGE RATIO

Test Result

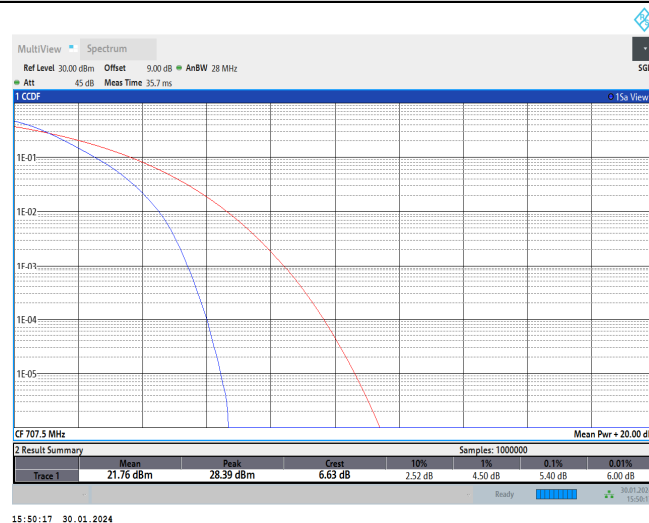
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	4.98	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.40	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.48	13	PASS

Test Graphs

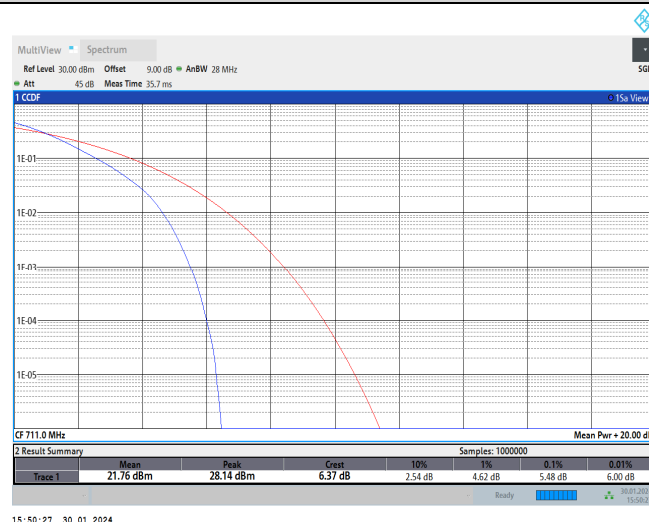
Band12-10MHz-QPSK-23060-50RB#0



Band12-10MHz-QPSK-23095-50RB#0



Band12-10MHz-QPSK-23130-50RB#0



APPENDIX H.3: 26dB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.101	1.31	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.105	1.30	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.098	1.31	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.698	2.97	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.704	3.00	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.7	2.98	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.481	4.93	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.471	4.91	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.47	4.92	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.853	9.57	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.928	9.70	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.948	9.87	PASS

Test Graphs

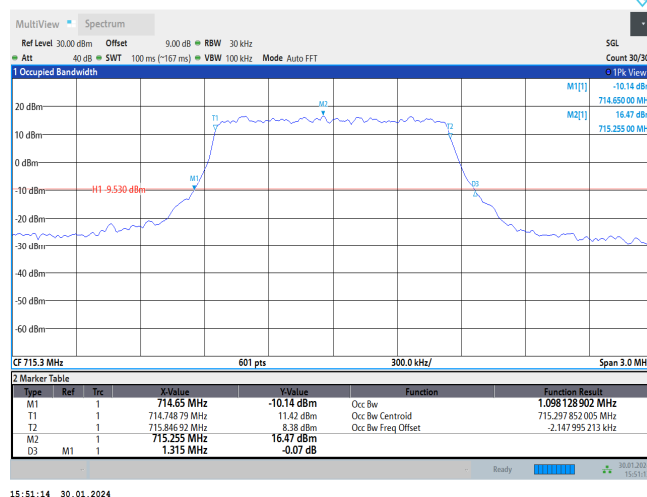
Band12-1.4MHz-QPSK-23017-6RB#0



Band12-1.4MHz-QPSK-23095-6RB#0



Band12-1.4MHz-QPSK-23173-6RB#0



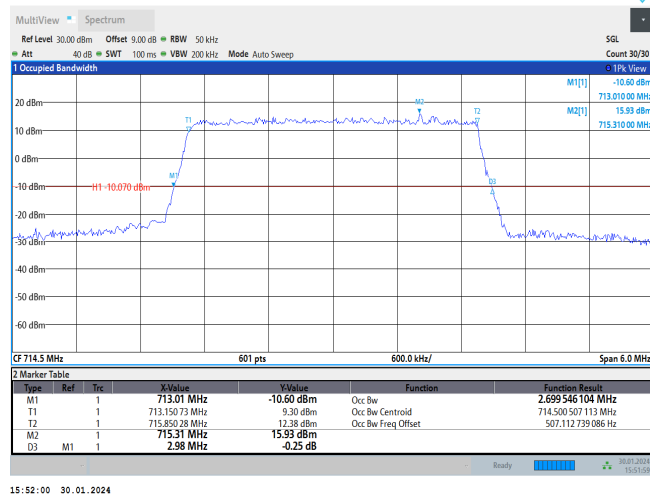
Band12-3MHz-QPSK-23025-15RB#0



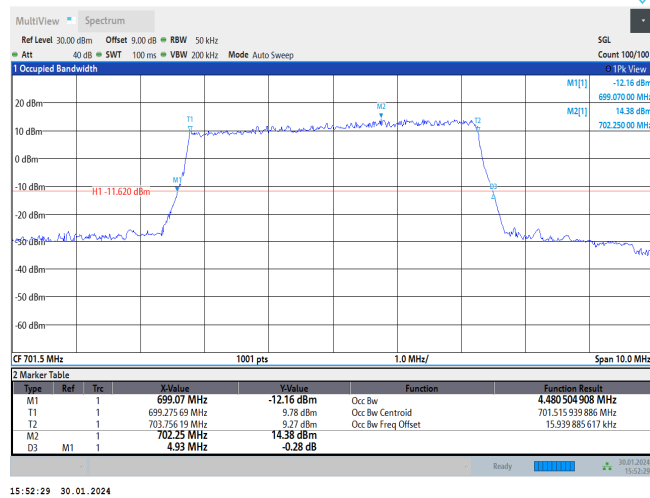
Band12-3MHz-QPSK-23095-15RB#0



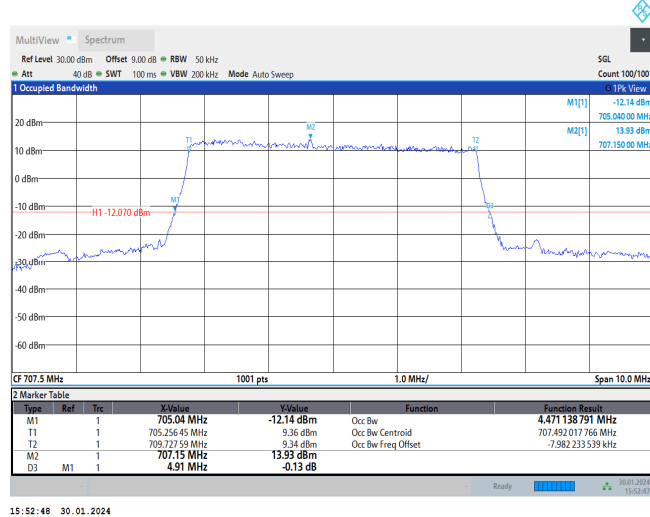
Band12-3MHz-QPSK-23165-15RB#0



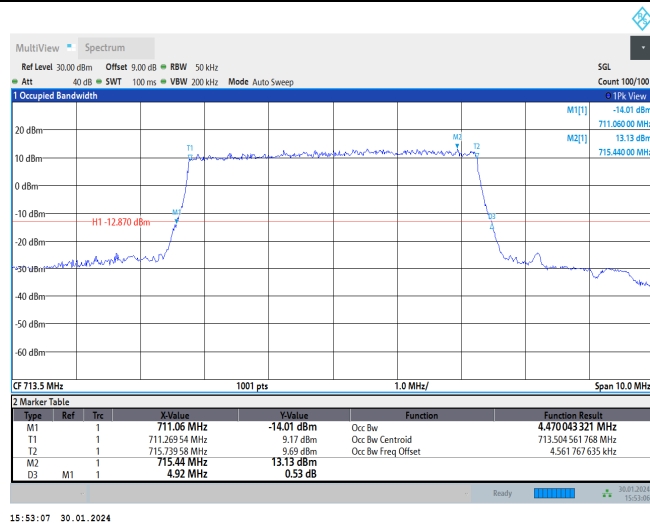
Band12-5MHz-QPSK-23035-25RB#0



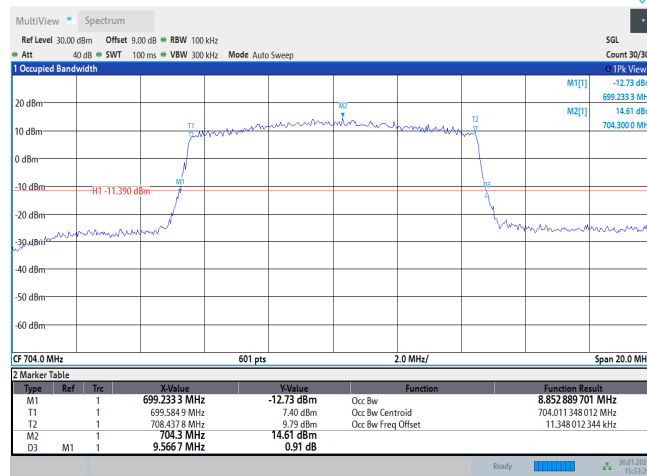
Band12-5MHz-QPSK-23095-25RB#0



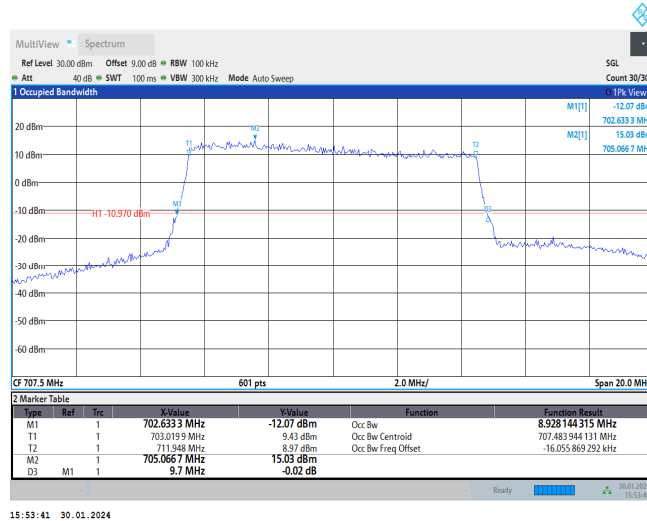
Band12-5MHz-QPSK-23155-25RB#0



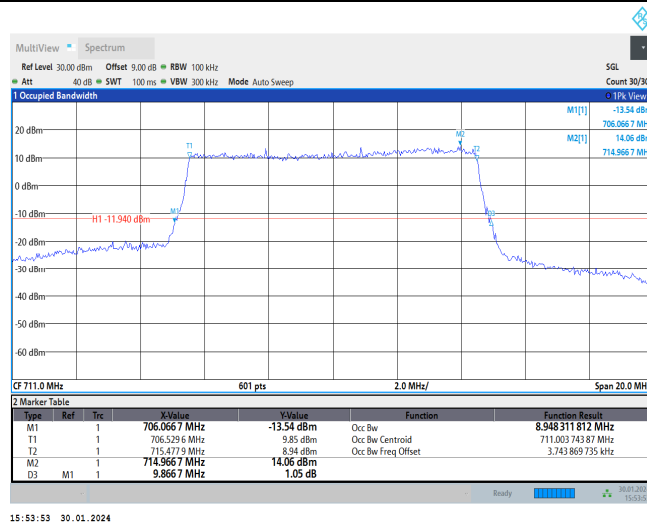
Band12-10MHz-QPSK-23060-50RB#0



Band12-10MHz-QPSK-23095-50RB#0



Band12-10MHz-QPSK-23130-50RB#0



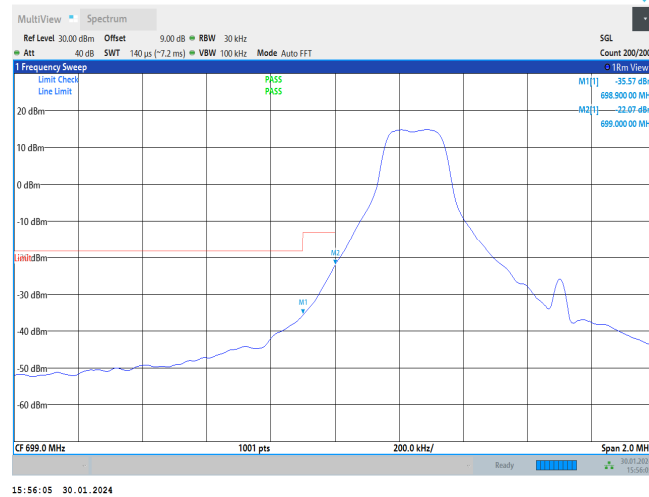
APPENDIX H.4: BAND EDGE

Test Result

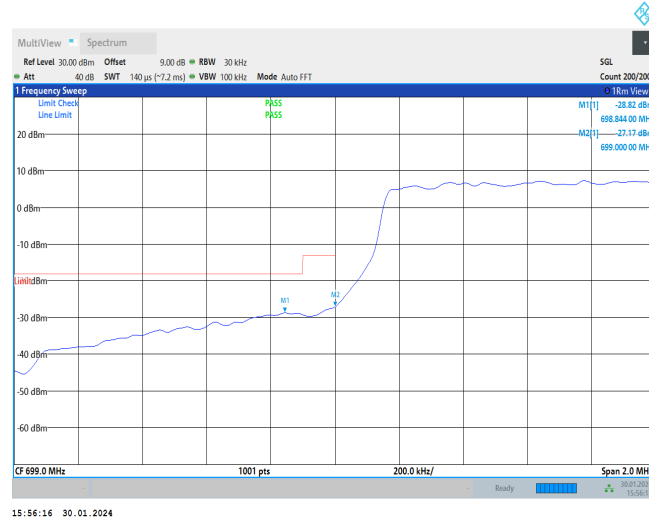
Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	-35.57,-22.07	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	-28.82,-27.17	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	-22.18,-31.70	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	-28.26,-34.29	PASS
Band12	3MHz	QPSK	23025	1RB#0	-32.53,-18.26	PASS
Band12	3MHz	QPSK	23025	15RB#0	-31.70,-27.70	PASS
Band12	3MHz	QPSK	23165	1RB#14	-17.00,-34.09	PASS
Band12	3MHz	QPSK	23165	15RB#0	-26.64,-35.33	PASS
Band12	5MHz	QPSK	23035	1RB#0	-35.46,-21.90	PASS
Band12	5MHz	QPSK	23035	25RB#0	-35.39,-32.16	PASS
Band12	5MHz	QPSK	23155	1RB#24	-23.41,-35.24	PASS
Band12	5MHz	QPSK	23155	25RB#0	-29.87,-34.71	PASS
Band12	10MHz	QPSK	23060	1RB#0	-32.10	PASS
Band12	10MHz	QPSK	23060	50RB#0	-34.93	PASS
Band12	10MHz	QPSK	23130	1RB#49	-33.32	PASS
Band12	10MHz	QPSK	23130	50RB#0	-30.98	PASS

Test Graphs

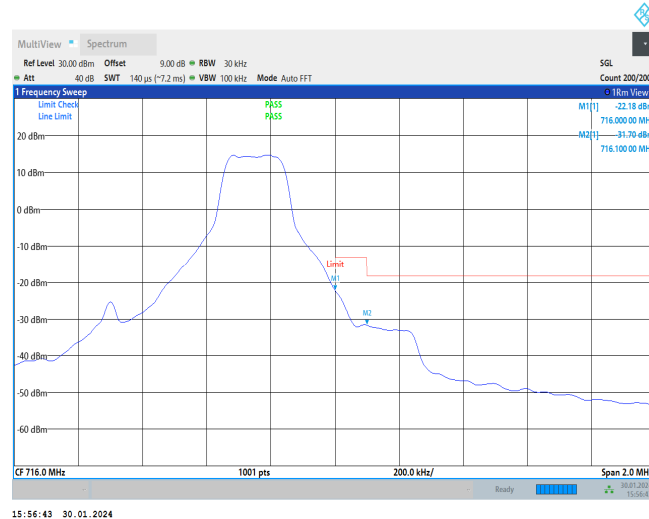
Band12-1.4MHz-QPSK-23017-1RB#0



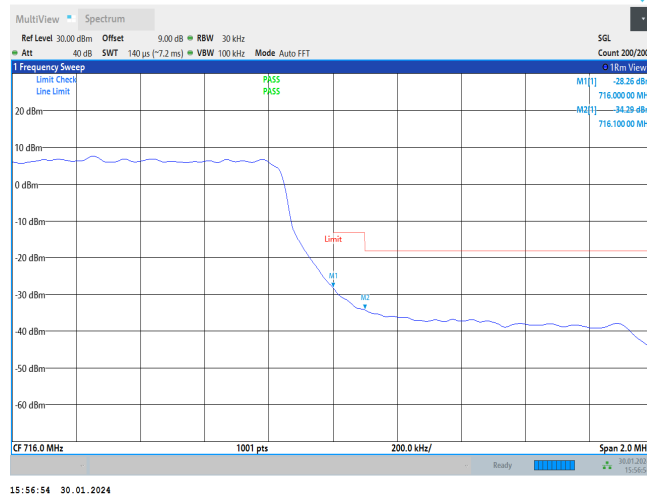
Band12-1.4MHz-QPSK-23017-6RB#0



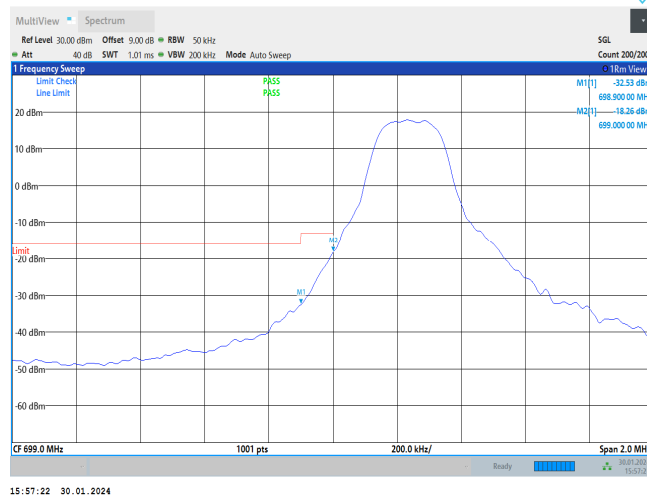
Band12-1.4MHz-QPSK-23173-1RB#5



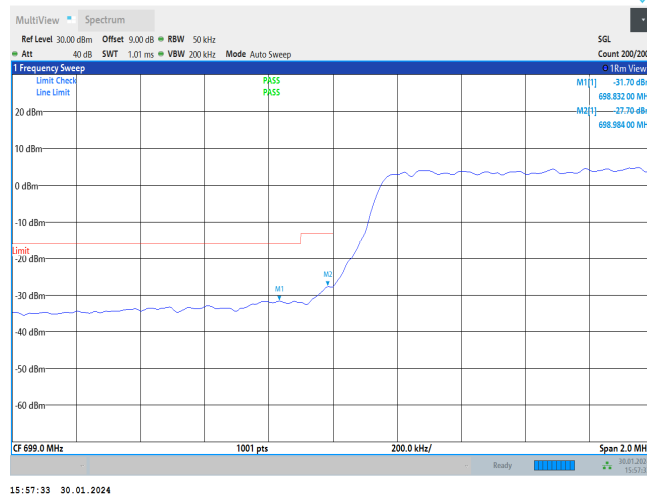
Band12-1.4MHz-QPSK-23173-6RB#0



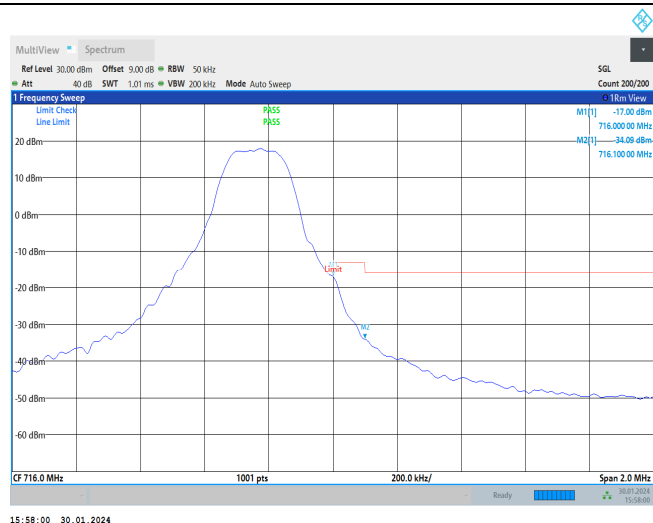
Band12-3MHz-QPSK-23025-1RB#0



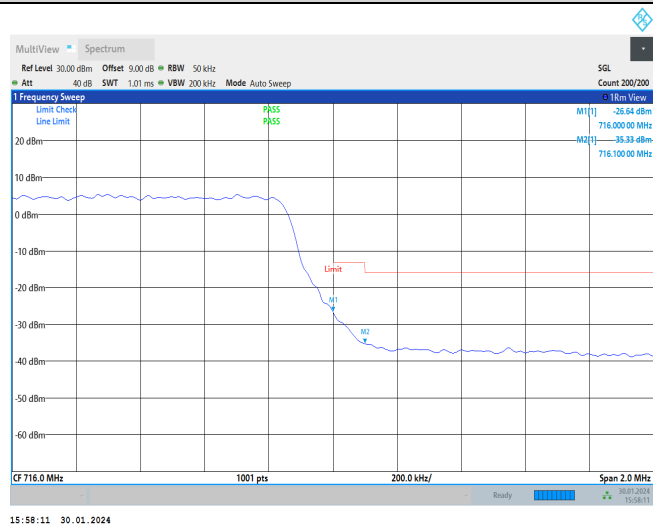
Band12-3MHz-QPSK-23025-15RB#0



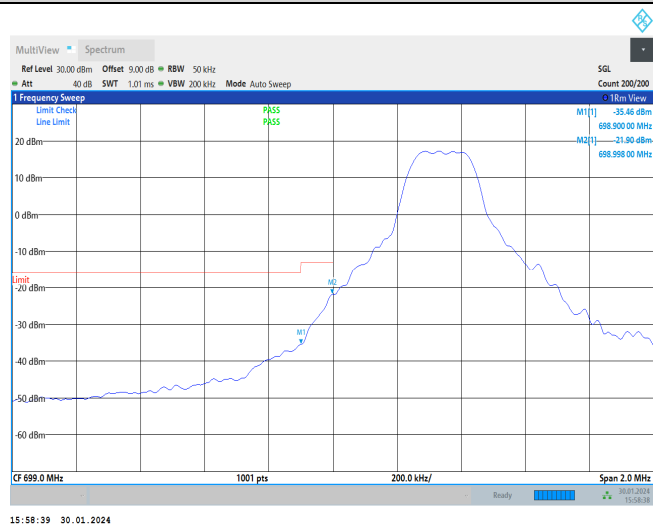
Band12-3MHz-QPSK-23165-1RB#14



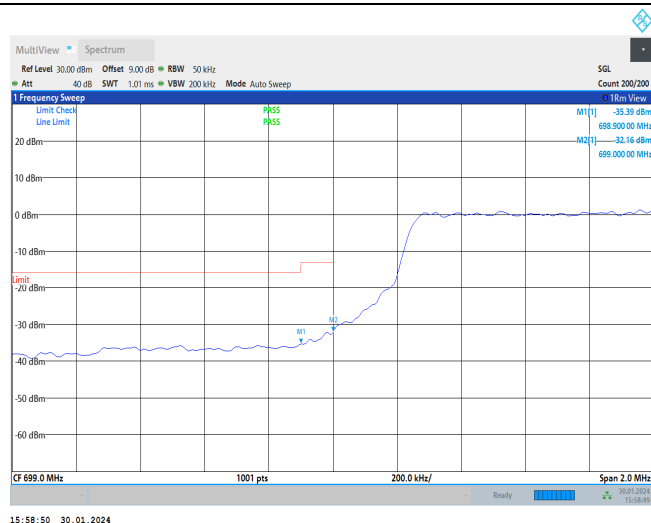
Band12-3MHz-QPSK-23165-15RB#0



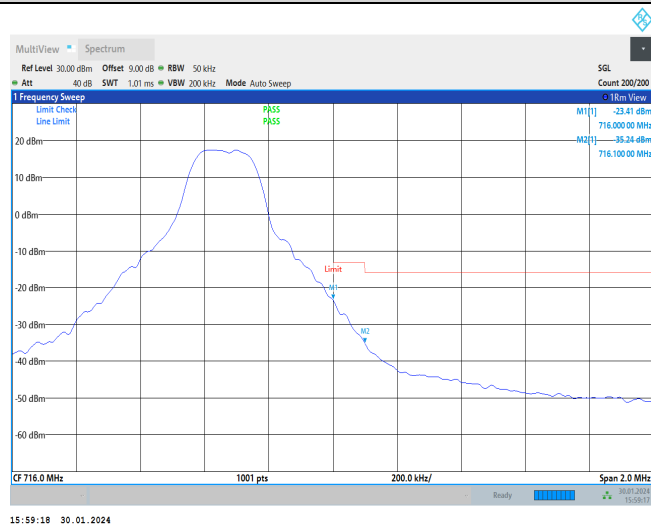
Band12-5MHz-QPSK-23035-1RB#0



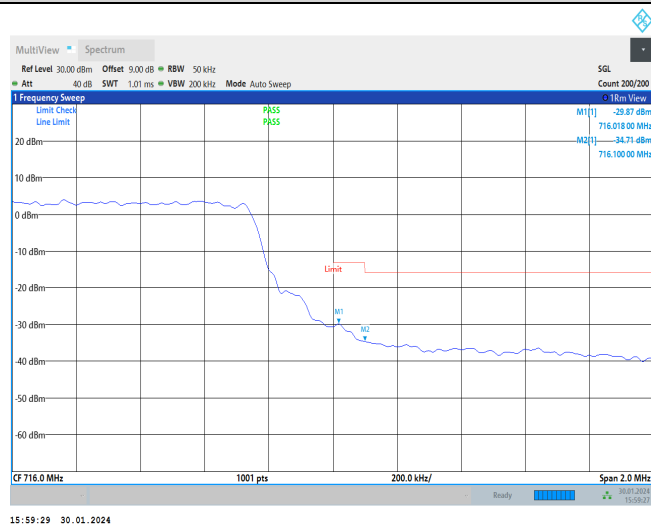
Band12-5MHz-QPSK-23035-25RB#0



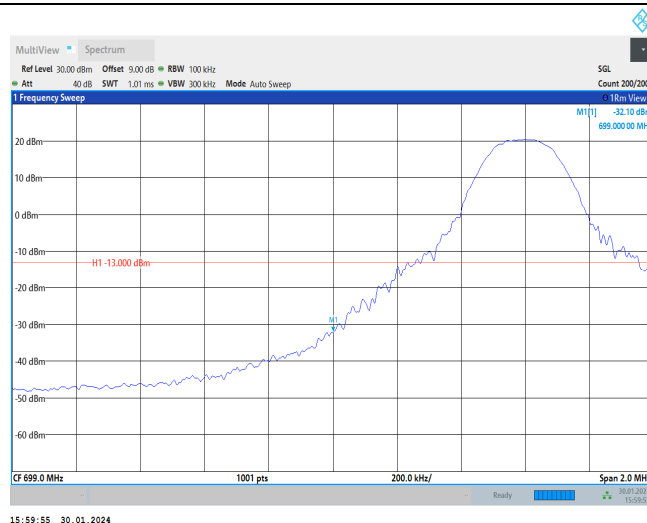
Band12-5MHz-QPSK-23155-1RB#24



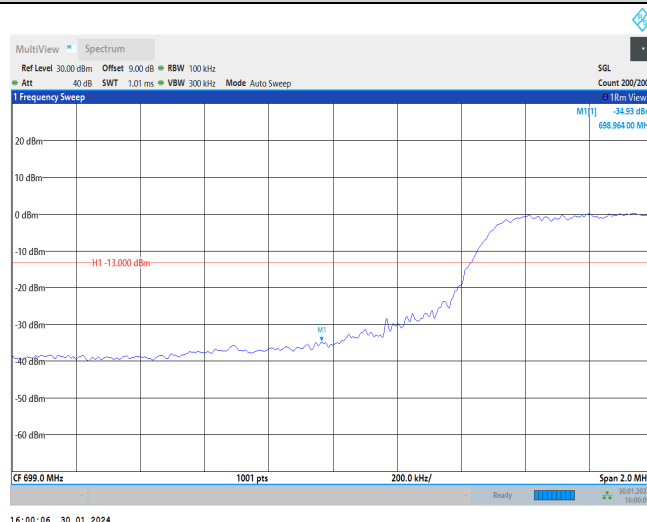
Band12-5MHz-QPSK-23155-25RB#0



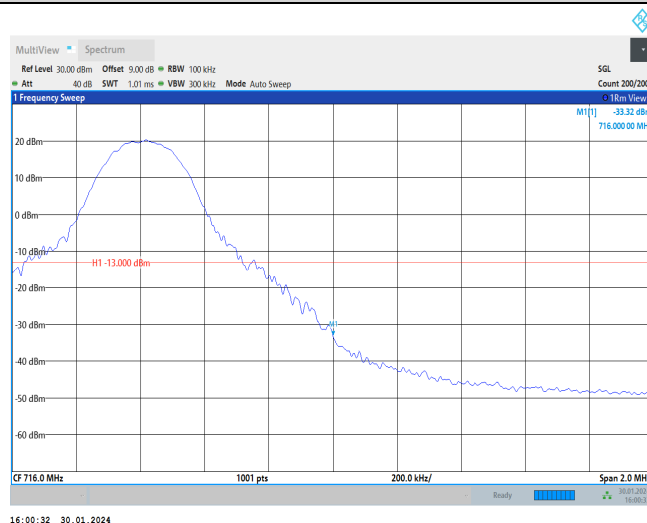
Band12-10MHz-QPSK-23060-1RB#0



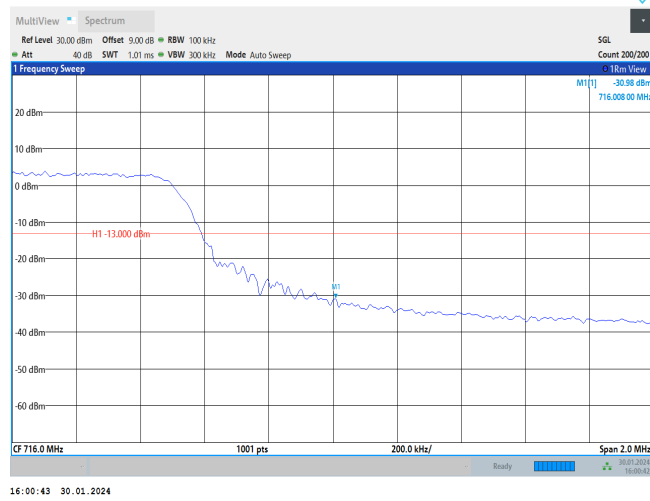
Band12-10MHz-QPSK-23060-50RB#0



Band12-10MHz-QPSK-23130-1RB#49



Band12-10MHz-QPSK-23130-50RB#0



APPENDIX H.5: CONDUCTED SPURIOUS EMISSIONS

Test Result

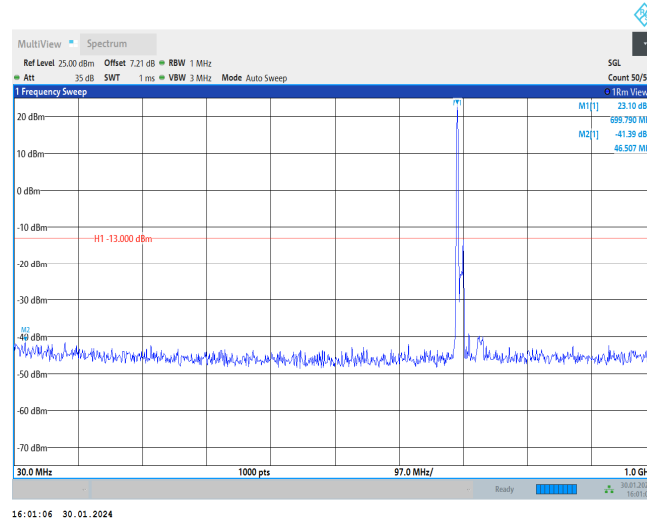
General:

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band12	10MHz	QPSK	23060	1RB#0	Range1:30~1000MHz	-41.39	PASS
Band12	10MHz	QPSK	23060	1RB#0	Range2:1000~10000MHz	-37.92	PASS
Band12	10MHz	QPSK	23095	1RB#0	Range1:30~1000MHz	-40.99	PASS
Band12	10MHz	QPSK	23095	1RB#0	Range2:1000~10000MHz	-35.31	PASS
Band12	10MHz	QPSK	23130	1RB#0	Range1:30~1000MHz	-41.66	PASS
Band12	10MHz	QPSK	23130	1RB#0	Range2:1000~10000MHz	-34.54	PASS

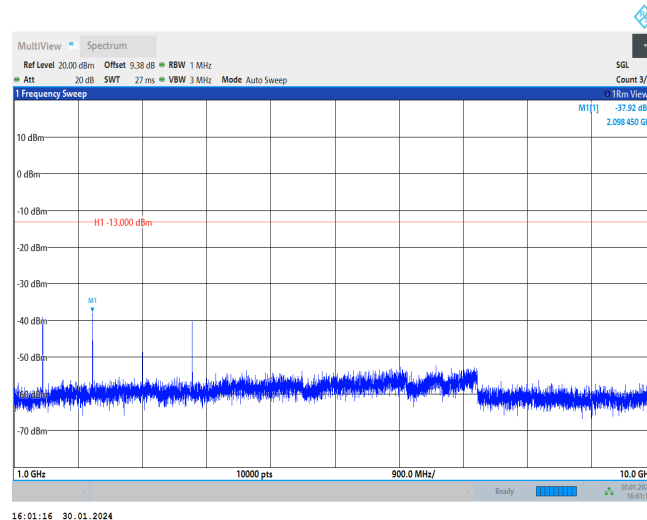
Test Graphs

General:

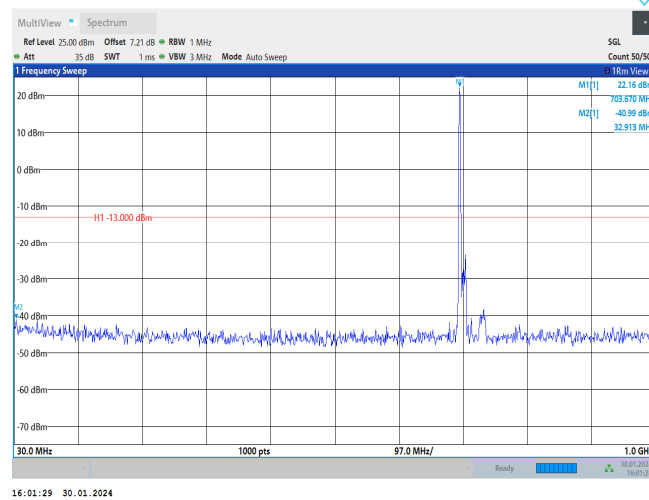
Band12-10MHz-QPSK-23060-1RB#0-Range1:30~1000MHz



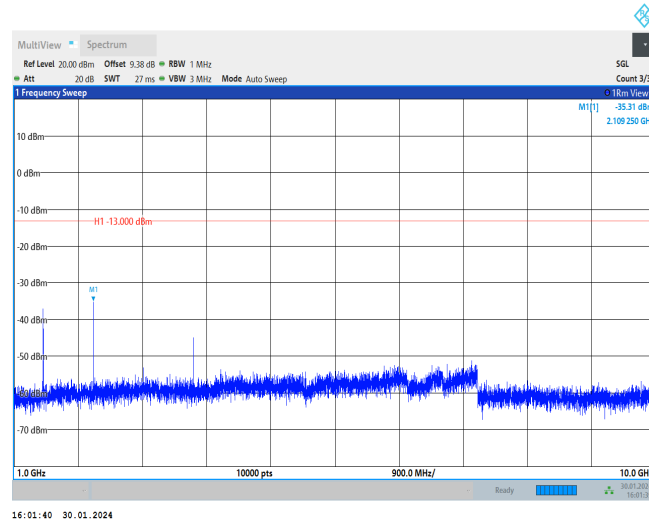
Band12-10MHz-QPSK-23060-1RB#0-Range2:1000~10000MHz



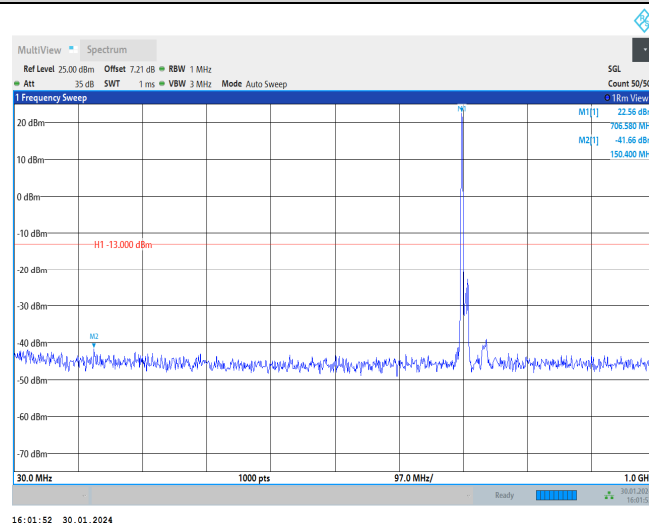
Band12-10MHz-QPSK-23095-1RB#0-Range1:30~1000MHz



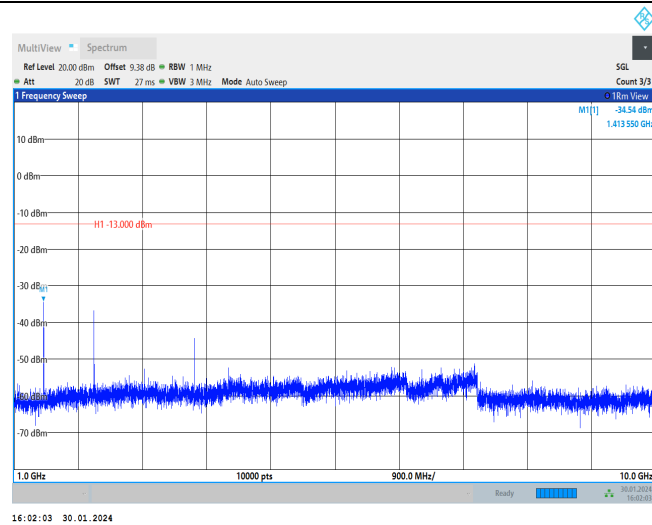
Band12-10MHz-QPSK-23095-1RB#0-Range2:1000~10000MHz



Band12-10MHz-QPSK-23130-1RB#0-Range1:30~1000MHz



Band12-10MHz-QPSK-23130-1RB#0-Range2:1000~10000MHz



APPENDIX H.6: FREQUENCY STABILITY

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	VL	NT	-2.89	-0.004105	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	2.23	0.003168	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VH	NT	-1.50	-0.002131	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	-3.18	-0.004495	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	-1.23	-0.001739	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-1.93	-0.002728	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VL	NT	-3.58	-0.005035	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	-3.30	-0.004641	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-3.79	-0.005331	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	NV	-30	-3.33	-0.004730	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-20	1.24	0.001761	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	0	1.50	0.002131	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	10	-2.83	-0.004020	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	20	1.30	0.001847	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	30	-3.23	-0.004588	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	40	2.22	0.003153	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	50	2.53	0.003594	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	60	-2.19	-0.003111	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	70	1.34	0.001903	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	1.95	0.002756	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-1.09	-0.001541	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	-1.44	-0.002035	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	1.69	0.002389	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-1.63	-0.002304	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	-1.72	-0.002431	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	-2.12	-0.002996	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	-2.65	-0.003746	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	60	-2.63	-0.003717	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	70	-3.82	-0.005399	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-30	-3.82	-0.005373	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	-5.06	-0.007117	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-3.49	-0.004909	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	-3.62	-0.005091	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-3.63	-0.005105	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	30	-4.55	-0.006399	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	40	-4.33	-0.006090	±2.5	PASS

Band12	10MHz	QPSK	23130	50RB#0	NV	50	-2.66	-0.003741	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	60	-3.92	-0.005513	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	70	-2.93	-0.004121	±2.5	PASS