

4G-Band 12 TEST DATA

Trade Mark: AIRBOLT

Test Model: ABGPS-23

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	987.0 kPa
Test Engineer:	Simba huang
Supervised by:	Seal Chen

TABLE OF CONTENTS

1.Effective (Isotropic) Radiated Power Output Data	3
Test Result.....	3
2.Peak-to-Average Ratio(CCDF).....	6
Test Result.....	6
Test Graphs	7
3.26dB Bandwidth and Occupied Bandwidth	10
Test Result.....	10
Test Graphs	11
4.Band Edge	24
Test Graphs	24
5.Conducted Spurious Emission.....	32
Test Graphs	32
6.Frequency Stability	38
Test Result.....	38

1.Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	ERP(dBm)	Limit(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	24.23	21.59	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	24.37	21.73	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	24.34	21.7	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	23.33	20.69	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	24.28	21.64	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	24.32	21.68	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	24.29	21.65	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	23.28	20.64	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	24.21	21.57	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	24.26	21.62	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	24.29	21.65	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	23.21	20.57	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	23.51	20.87	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	23.76	21.12	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	23.61	20.97	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	22.41	19.77	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	23.51	20.87	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	23.54	20.9	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	23.52	20.88	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	22.38	19.74	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	23.53	20.89	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	23.5	20.86	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	23.53	20.89	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	22.32	19.68	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	24.3	21.66	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	24.34	21.7	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	24.3	21.66	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	23.33	20.69	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	24.33	21.69	34.77	PASS

Band12	3MHz	QPSK	23095	1RB#8	24.3	21.66	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	24.26	21.62	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	23.26	20.62	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	24.32	21.68	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	24.26	21.62	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	24.31	21.67	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	23.25	20.61	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	23.55	20.91	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	23.57	20.93	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	23.53	20.89	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	22.34	19.7	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	23.47	20.83	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	23.6	20.96	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	23.57	20.93	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	22.29	19.65	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	23.47	20.83	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	23.54	20.9	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	23.41	20.77	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	22.26	19.62	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	24.34	21.7	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	24.4	21.76	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	24.38	21.74	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	23.31	20.67	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	24.38	21.74	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	24.44	21.8	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	24.34	21.7	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	23.34	20.7	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	24.34	21.7	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	24.34	21.7	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	24.33	21.69	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	23.22	20.58	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	23.63	20.99	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	23.66	21.02	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	23.63	20.99	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	22.31	19.67	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	23.5	20.86	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	23.6	20.96	34.77	PASS

Band12	5MHz	16QAM	23095	1RB#24	23.62	20.98	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	22.32	19.68	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	23.51	20.87	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	23.55	20.91	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	23.6	20.96	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	22.27	19.63	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	24.34	21.7	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	24.37	21.73	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	24.27	21.63	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	23.29	20.65	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	24.36	21.72	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.88	21.24	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.82	21.18	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	23.49	20.85	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.99	21.35	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.98	21.34	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.82	21.18	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	23.35	20.71	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	23.71	21.07	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	23.55	20.91	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	23.55	20.91	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	22.25	19.61	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	23.63	20.99	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	23.23	20.59	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	23.11	20.47	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	22.54	19.9	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	23.21	20.57	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	23.16	20.52	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.96	20.32	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	22.32	19.68	34.77	PASS

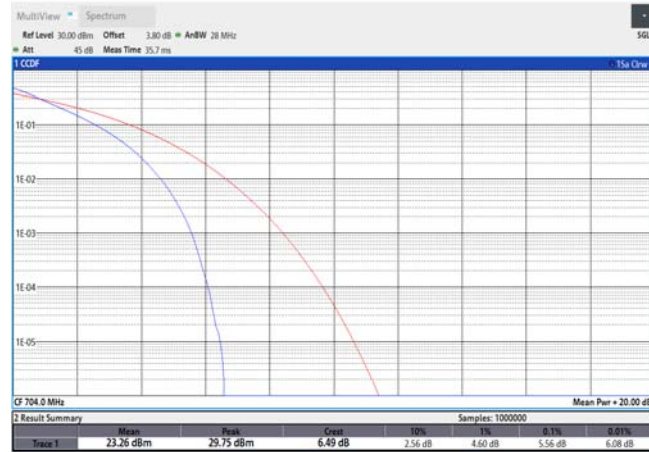
2. Peak-to-Average Ratio(CCDF)

Test Result

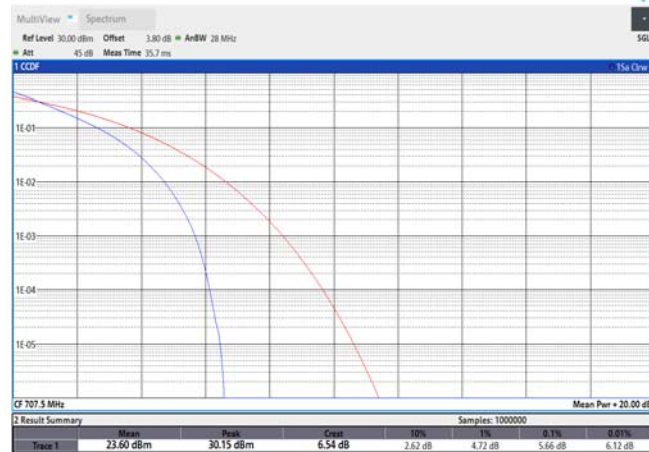
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	5.56	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.66	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.66	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	6.24	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.40	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.44	13	PASS

Test Graphs

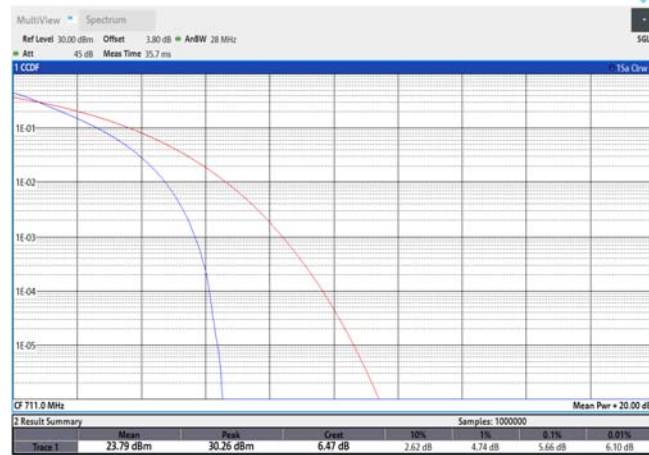
Band12-10MHz-QPSK-23060-50RB#0



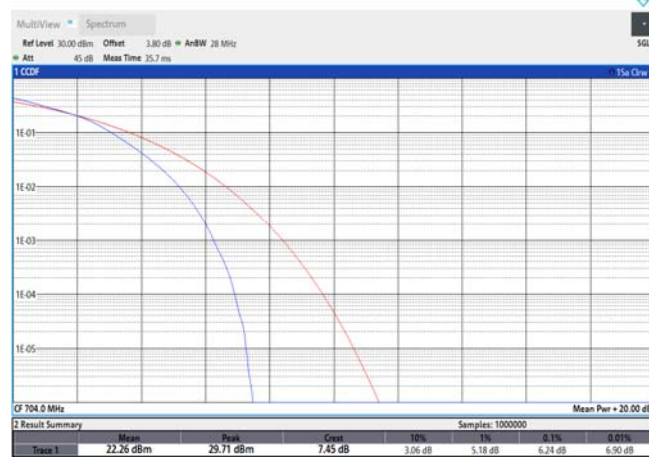
Band12-10MHz-QPSK-23095-50RB#0



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



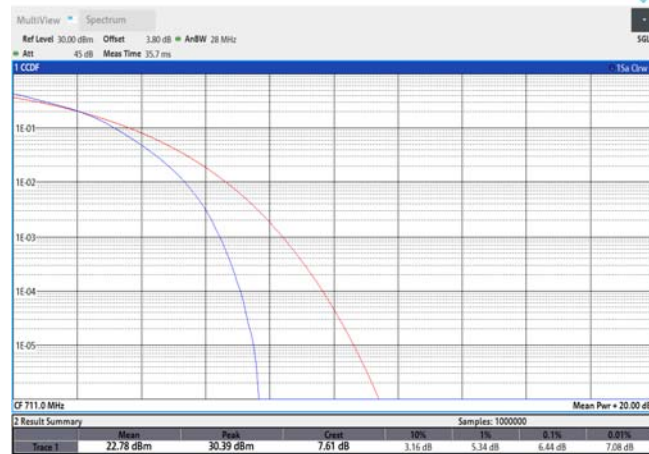
Band12-10MHz-16QAM-23060-50RB#0



Band12-10MHz-16QAM-23095-50RB#0



Band12-10MHz-16QAM-23130-50RB#0



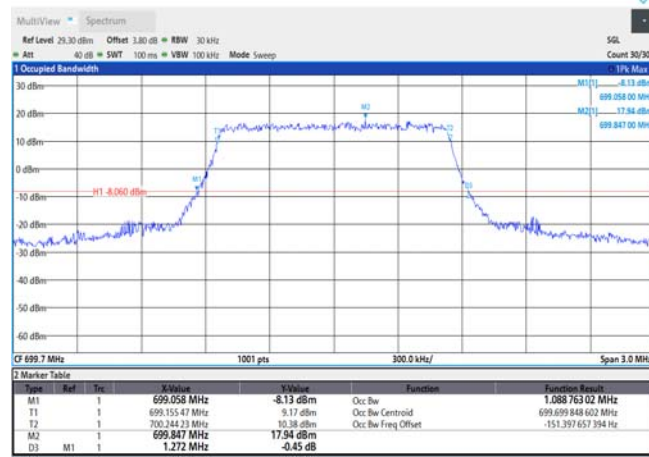
3.26dB Bandwidth and Occupied Bandwidth

Test Result

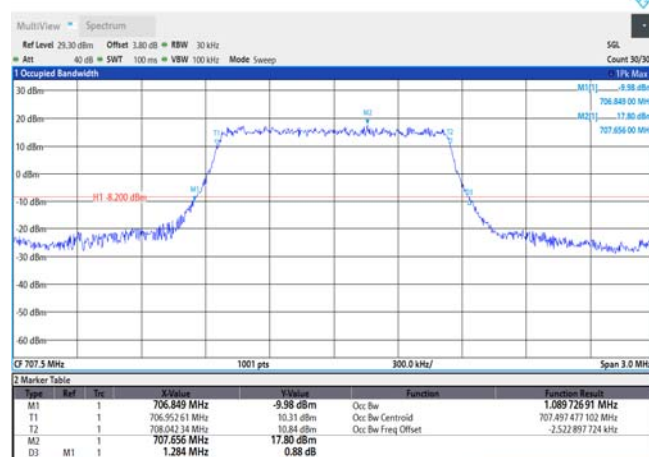
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.089	1.27	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.09	1.28	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.086	1.28	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.096	1.29	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.098	1.29	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.096	1.29	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.69	2.92	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.687	2.92	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.685	2.91	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.682	2.95	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.683	2.92	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.678	2.92	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.465	4.86	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.469	4.83	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.466	4.83	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.468	4.87	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.462	4.87	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.468	4.88	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.894	9.52	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.926	9.56	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.965	9.62	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.884	9.76	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.921	9.58	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.935	9.60	PASS

Test Graphs

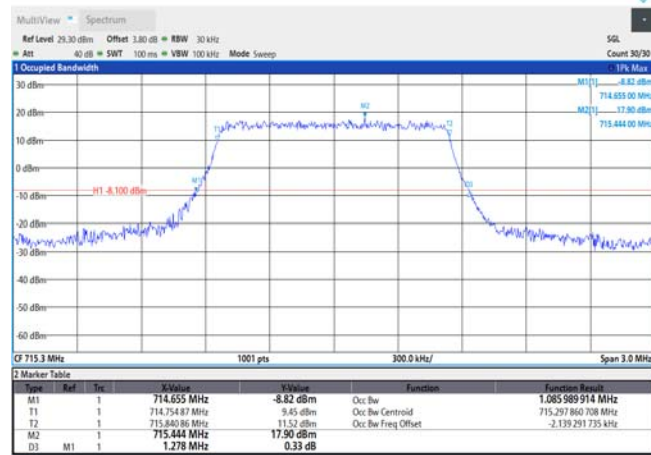
Band12-1.4MHz-QPSK-23017-6RB#0



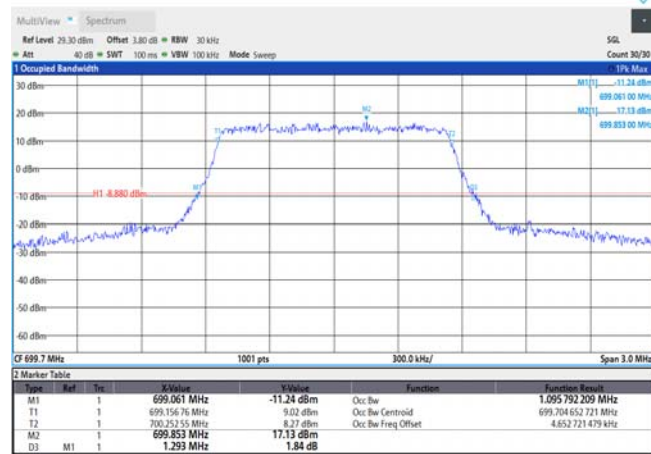
Band12-1.4MHz-QPSK-23095-6RB#0



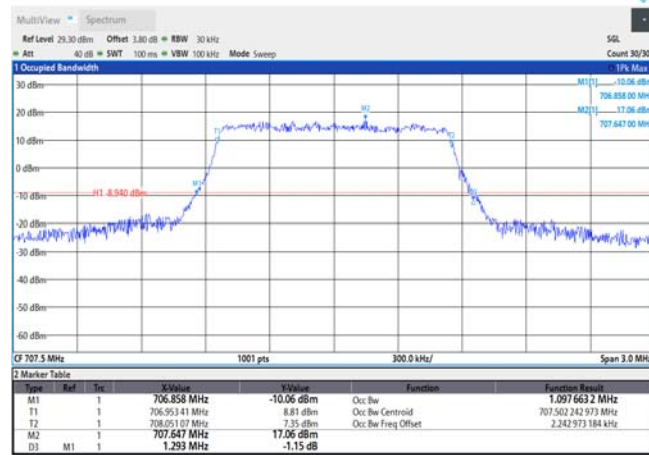
Band12-1.4MHz-QPSK-23173-6RB#0



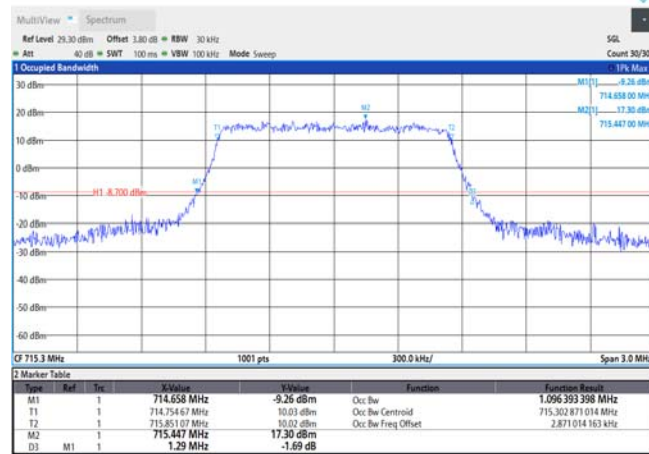
Band12-1.4MHz-16QAM-23017-6RB#0



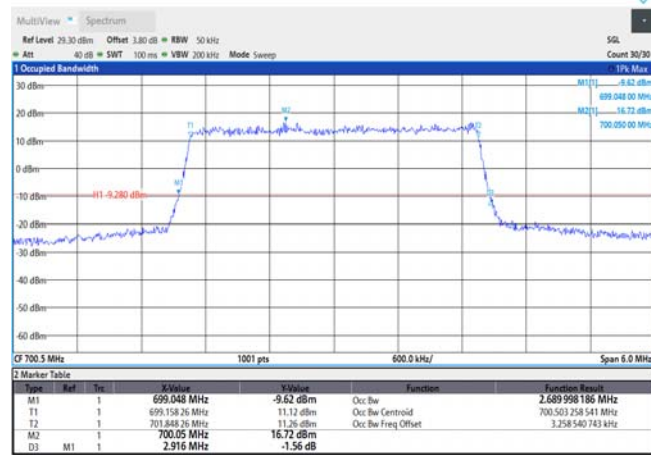
Band12-1.4MHz-16QAM-23095-6RB#0



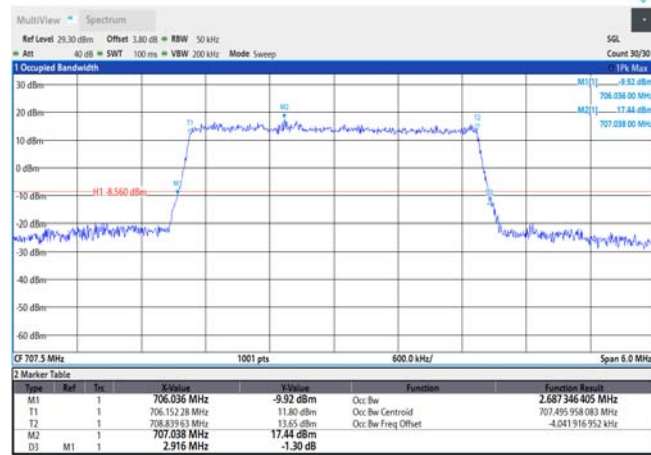
Band12-1.4MHz-16QAM-23173-6RB#0



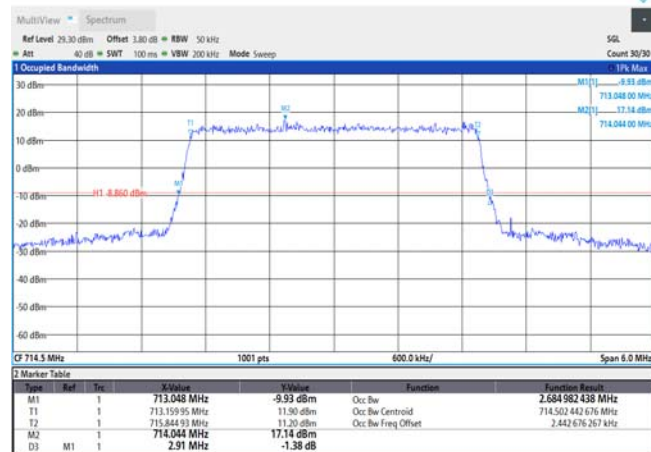
Band12-3MHz-QPSK-23025-15RB#0



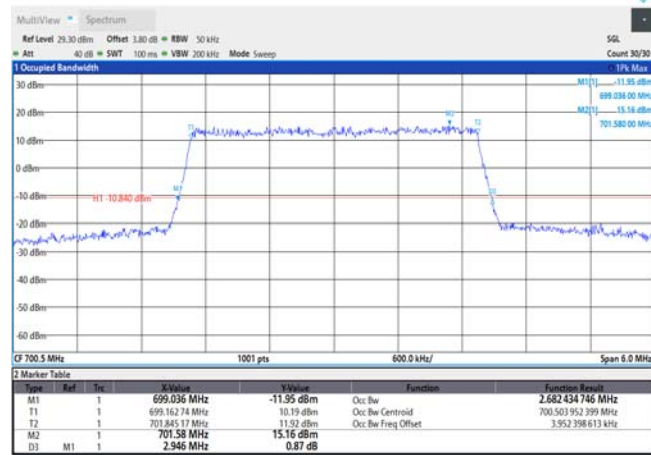
Band12-3MHz-QPSK-23095-15RB#0



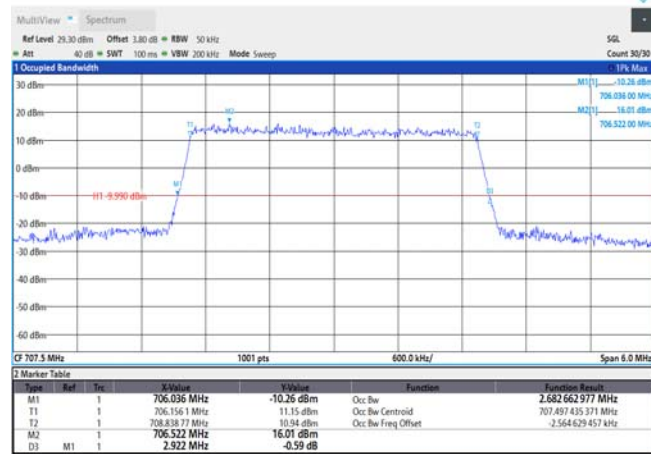
Band12-3MHz-QPSK-23165-15RB#0



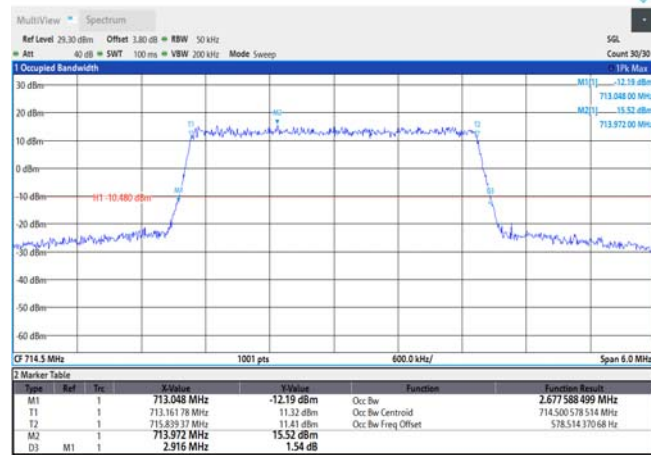
Band12-3MHz-16QAM-23025-15RB#0



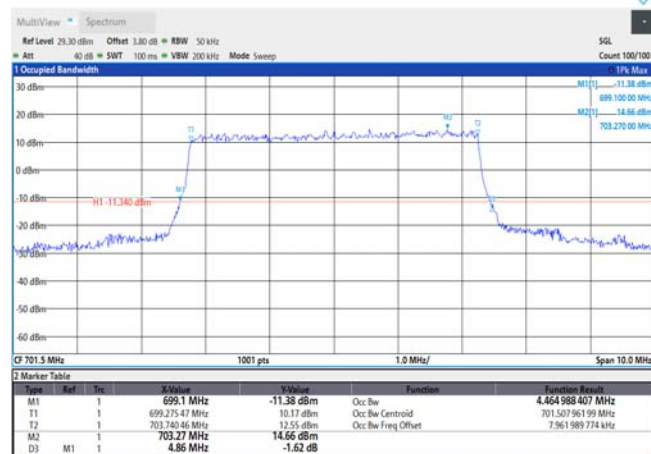
Band12-3MHz-16QAM-23095-15RB#0



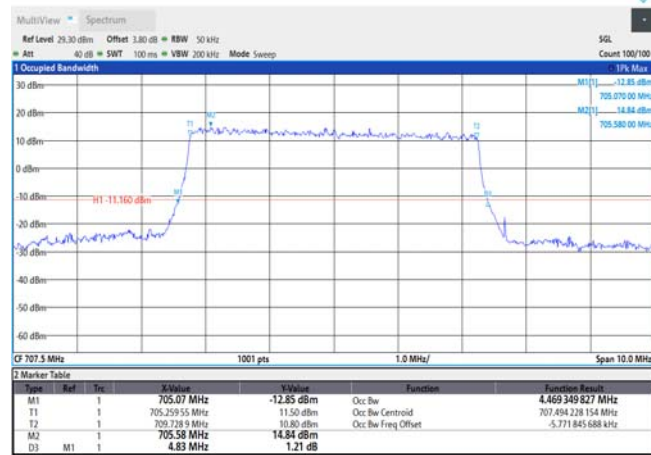
Band12-3MHz-16QAM-23165-15RB#0



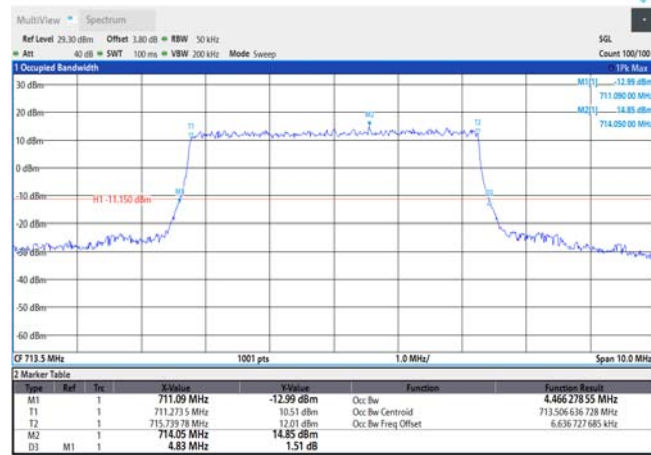
Band12-5MHz-QPSK-23035-25RB#0



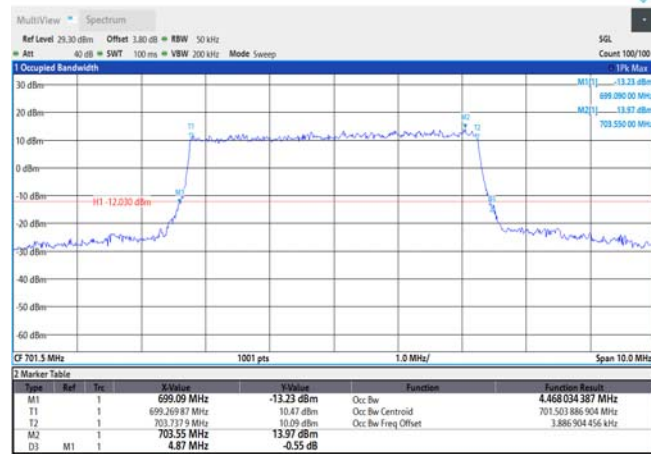
Band12-5MHz-QPSK-23095-25RB#0



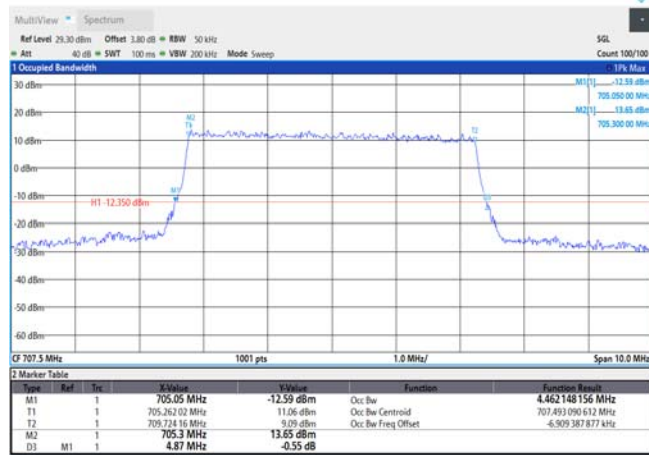
Band12-5MHz-QPSK-23155-25RB#0



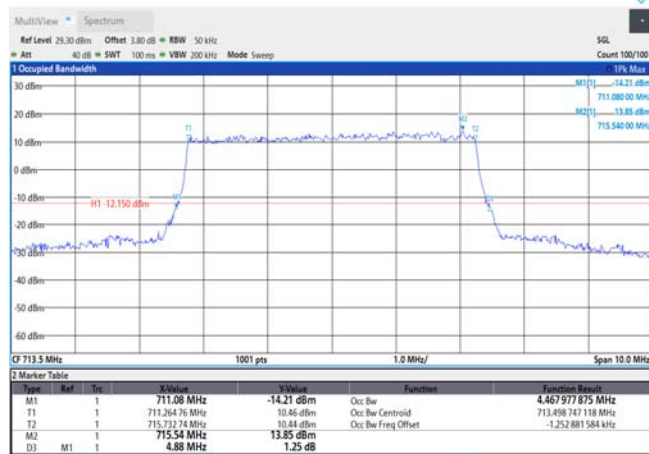
Band12-5MHz-16QAM-23035-25RB#0



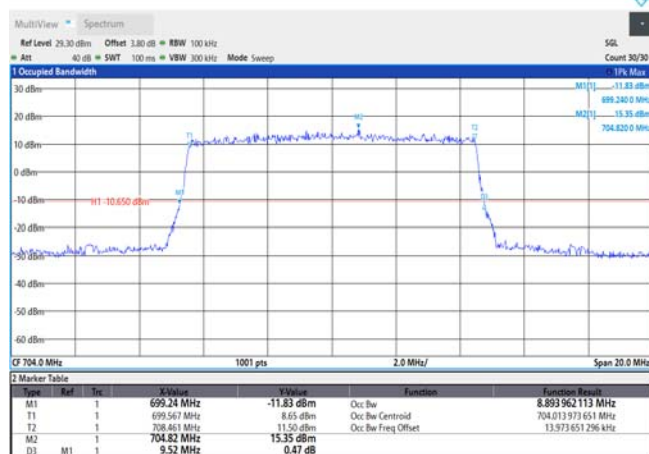
Band12-5MHz-16QAM-23095-25RB#0



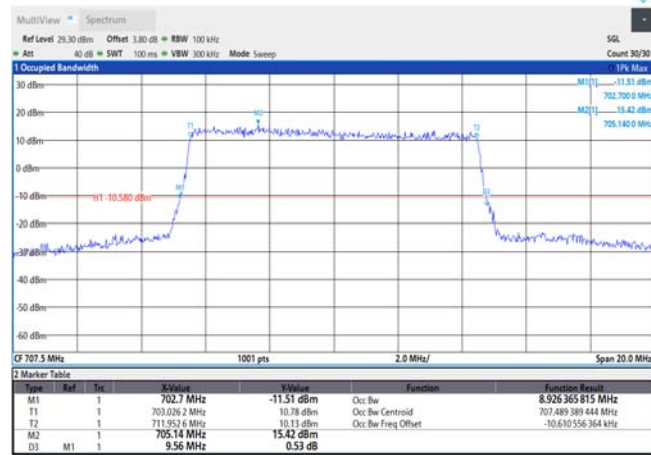
Band12-5MHz-16QAM-23155-25RB#0



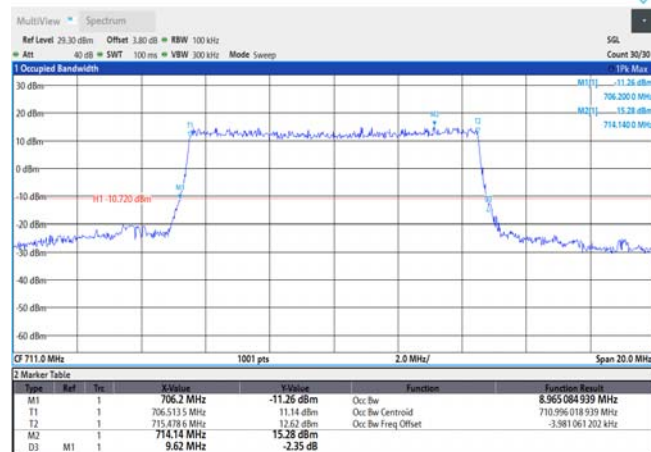
Band12-10MHz-QPSK-23060-50RB#0



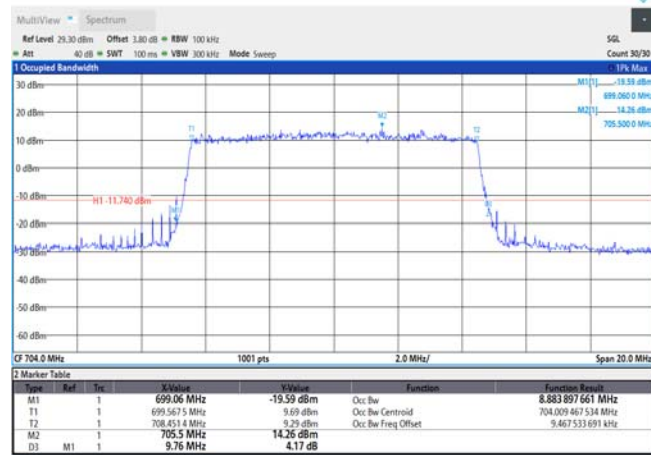
Band12-10MHz-QPSK-23095-50RB#0



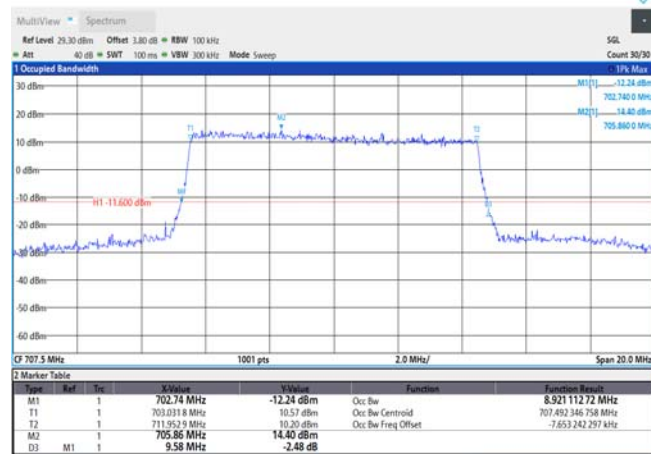
Band12-10MHz-QPSK-23130-50RB#0



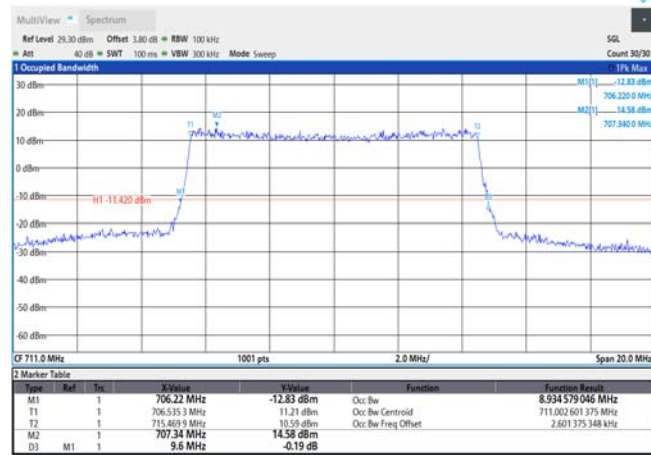
Band12-10MHz-16QAM-23060-50RB#0



Band12-10MHz-16QAM-23095-50RB#0



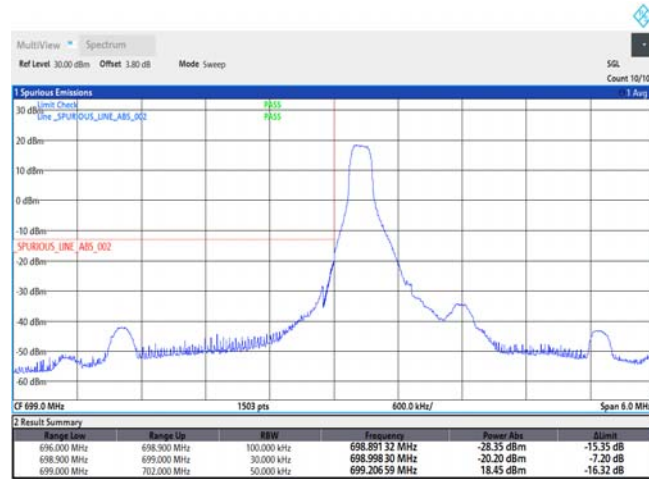
Band12-10MHz-16QAM-23130-50RB#0



4.Band Edge

Test Graphs

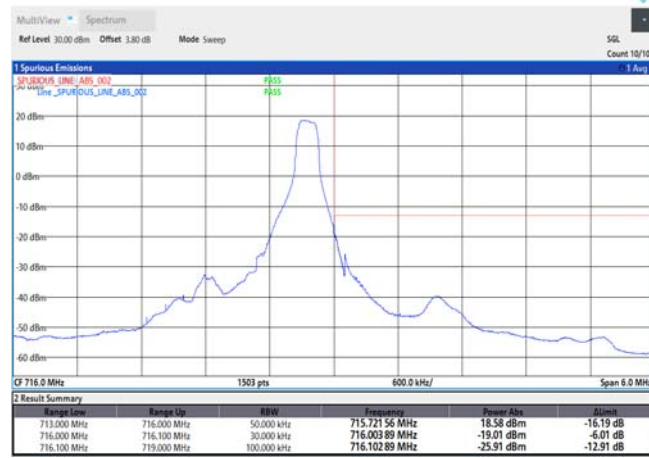
Band12-1.4MHz-QPSK-23017-1RB#0



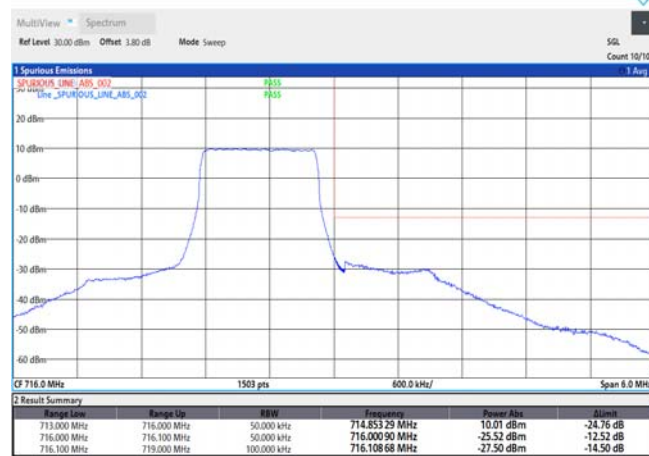
Band12-1.4MHz-QPSK-23017-6RB#0



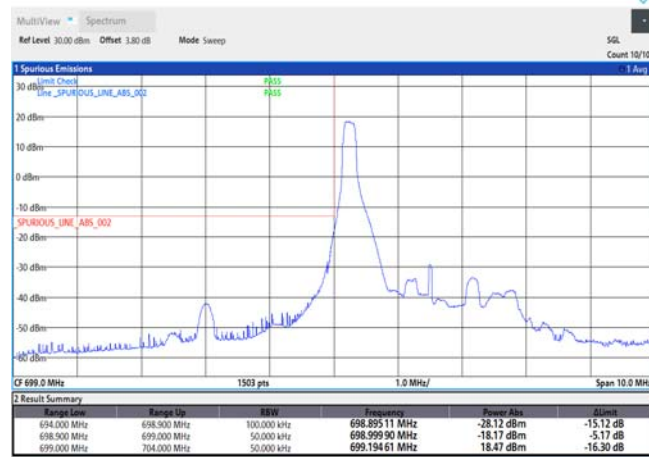
Band12-1.4MHz-QPSK-23173-1RB#5



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



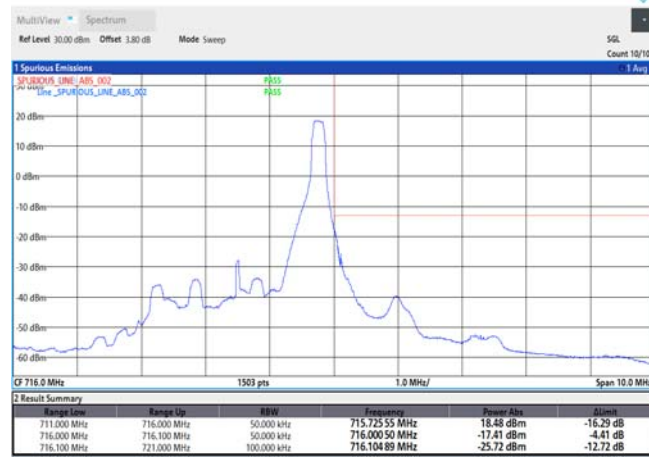
Band12-3MHz-QPSK-23025-1RB#0



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



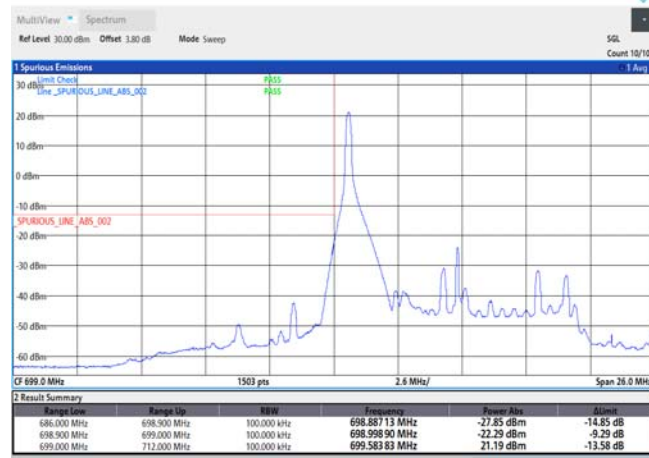
Band12-5MHz-QPSK-23155-1RB#24



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



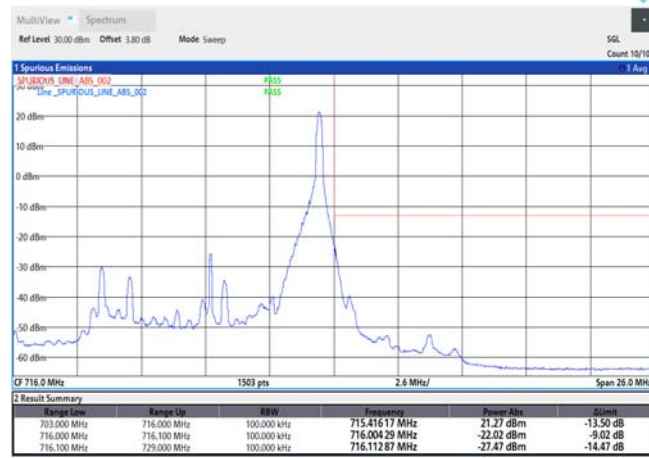
Band12-10MHz-QPSK-23060-1RB#0



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



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



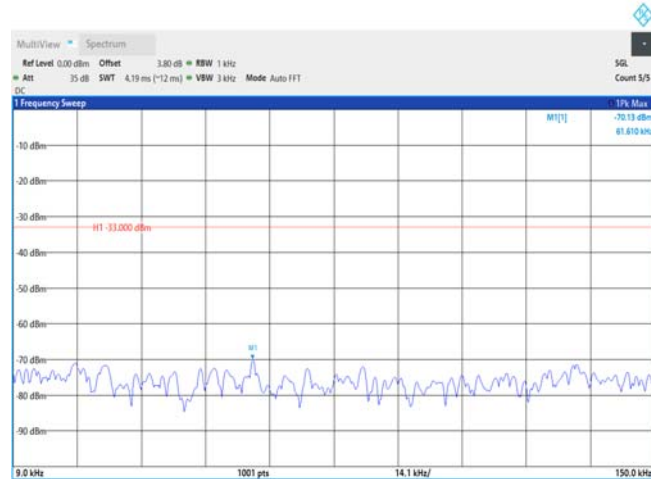
Band12-10MHz-QPSK-23130-50RB#0



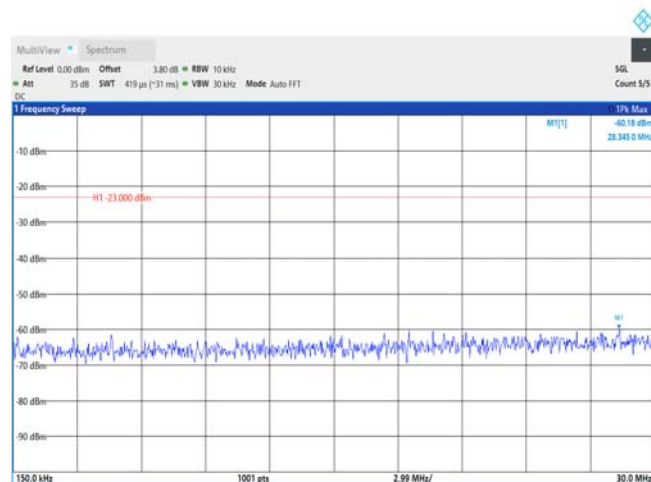
5. Conducted Spurious Emission

Test Graphs

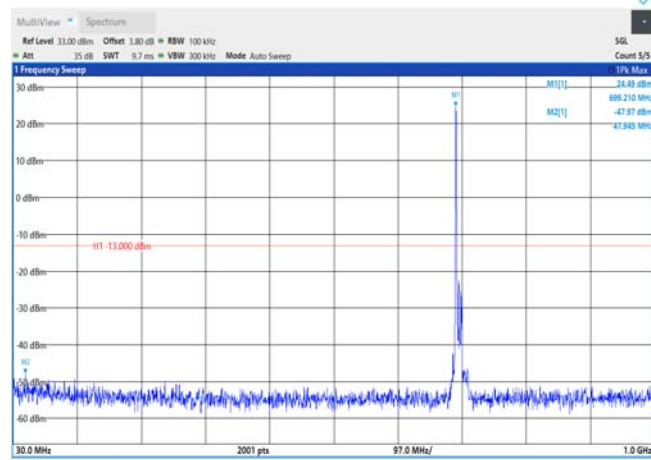
Band12-10MHz-QPSK-23060-1RB#0-Range1:0.009~0.15MHz



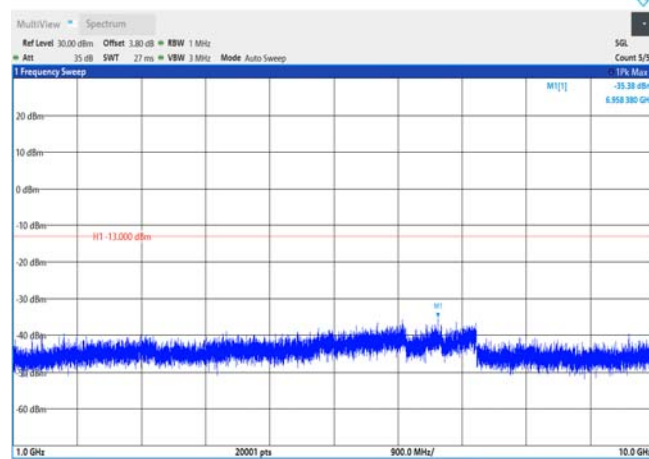
Band12-10MHz-QPSK-23060-1RB#0-Range2:0.15~30MHz



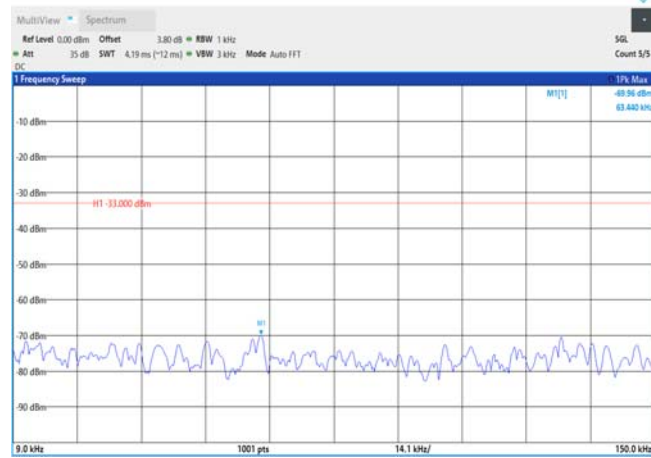
Band12-10MHz-QPSK-23060-1RB#0-Range3:30~1000MHz



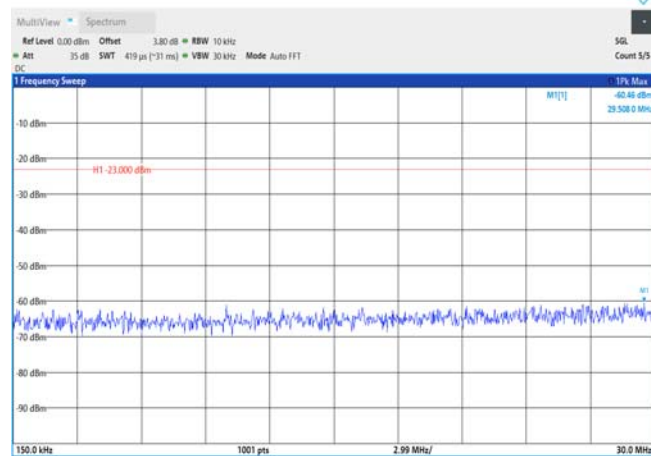
Band12-10MHz-QPSK-23060-1RB#0-Range4:1000~10000MHz



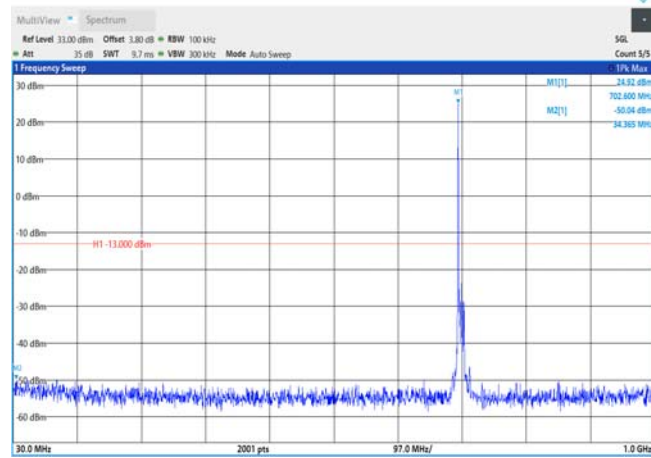
Band12-10MHz-QPSK-23095-1RB#0-Range1:0.009~0.15MHz



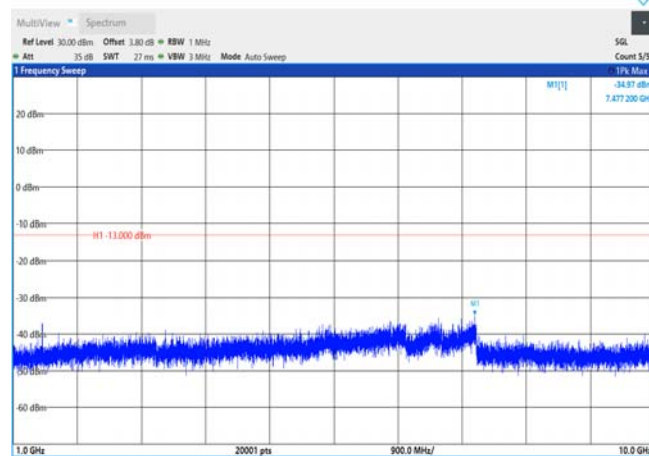
Band12-10MHz-QPSK-23095-1RB#0-Range2:0.15~30MHz



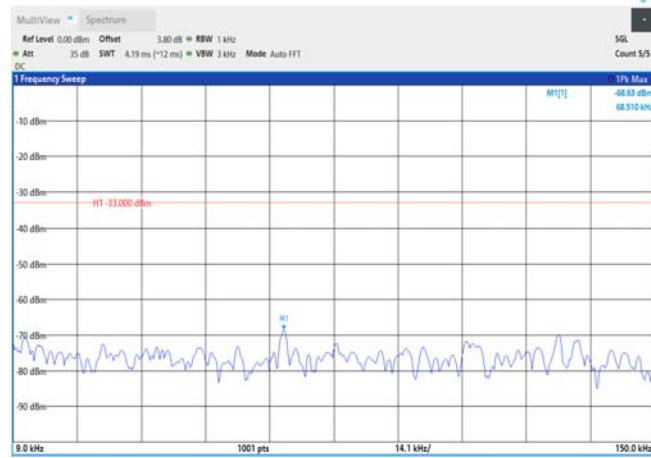
Band12-10MHz-QPSK-23095-1RB#0-Range3:30~1000MHz



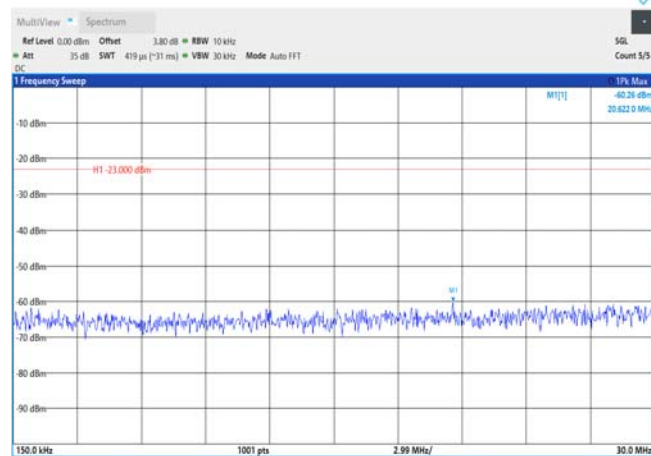
Band12-10MHz-QPSK-23095-1RB#0-Range4:1000~10000MHz



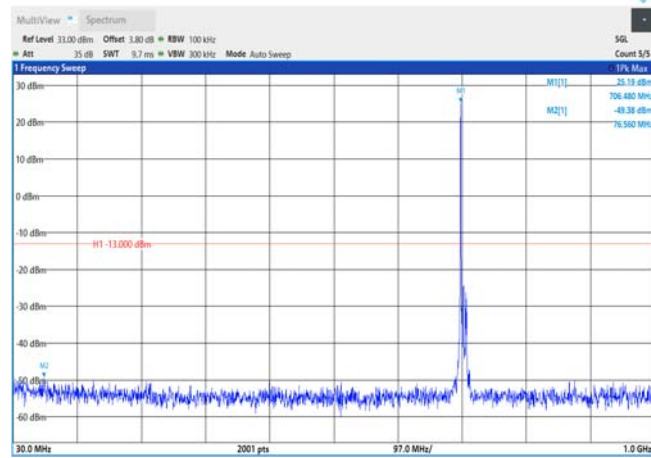
Band12-10MHz-QPSK-23130-1RB#0-Range1:0.009~0.15MHz



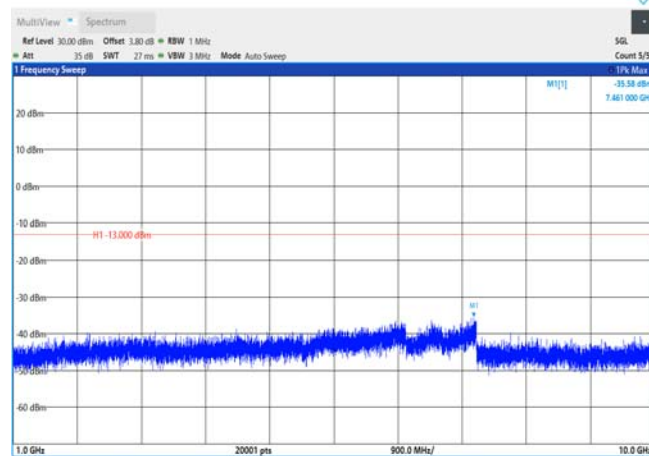
Band12-10MHz-QPSK-23130-1RB#0-Range2:0.15~30MHz



Band12-10MHz-QPSK-23130-1RB#0-Range3:30~1000MHz



Band12-10MHz-QPSK-23130-1RB#0-Range4:1000~10000MHz



6.Frequency Stability

Test Result

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	-4.10	-0.005795	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	-1.80	-0.002544	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-6.80	-0.009611	PASS

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-5.90	-0.008339	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-10	-3.30	-0.004664	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	-2.10	-0.002968	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	-4.80	-0.006784	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-4.00	-0.005654	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	-0.40	-0.000565	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	-6.00	-0.008481	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	0.00	0.000000	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	65	-2.30	-0.003251	PASS

(END OF REPORT)