Appendix for Band 4

Product Name: Battery Monitor System
Model No: BMS04

Appendix A: Average Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Conducted Power(dBm)	Verdict
Band4	5MHz	19975	QPSK	1	0	Low	17.34	PASS
Band4	5MHz	19975	QPSK	1	5	Low	17.28	PASS
Band4	5MHz	19975	QPSK	6	0	Low	17.39	PASS
Band4	5MHz	20175	QPSK	1	0	Low	17.25	PASS
Band4	5MHz	20175	QPSK	1	5	Low	17.24	PASS
Band4	5MHz	20175	QPSK	6	0	Low	17.40	PASS
Band4	5MHz	20375	QPSK	1	0	High	17.91	PASS
Band4	5MHz	20375	QPSK	1	5	High	17.85	PASS
Band4	5MHz	20375	QPSK	6	0	High	17.95	PASS
Band4	5MHz	19975	16QAM	1	0	Low	17.33	PASS
Band4	5MHz	19975	16QAM	1	5	Low	17.29	PASS
Band4	5MHz	19975	16QAM	6	0	Low	17.44	PASS
Band4	5MHz	20175	16QAM	1	0	Low	17.09	PASS
Band4	5MHz	20175	16QAM	1	5	Low	17.09	PASS
Band4	5MHz	20175	16QAM	6	0	Low	17.38	PASS
Band4	5MHz	20375	16QAM	1	0	High	17.95	PASS
Band4	5MHz	20375	16QAM	1	5	High	17.87	PASS
Band4	5MHz	20375	16QAM	6	0	High	17.95	PASS
Band4	10MHz	20000	QPSK	1	0	Low	17.42	PASS
Band4	10MHz	20000	QPSK	1	5	Low	17.07	PASS
Band4	10MHz	20000	QPSK	6	0	Low	17.86	PASS
Band4	10MHz	20175	QPSK	1	0	Low	17.11	PASS
Band4	10MHz	20175	QPSK	1	5	Low	17.08	PASS
Band4	10MHz	20175	QPSK	6	0	Low	17.18	PASS
Band4	10MHz	20350	QPSK	1	0	High	17.94	PASS
Band4	10MHz	20350	QPSK	1	5	High	17.84	PASS
Band4	10MHz	20350	QPSK	6	0	High	17.97	PASS
Band4	10MHz	20000	16QAM	1	0	Low	17.47	PASS
Band4	10MHz	20000	16QAM	1	5	Low	17.03	PASS
Band4	10MHz	20000	16QAM	6	0	Low	17.85	PASS
Band4	10MHz	20175	16QAM	1	0	Low	17.13	PASS
Band4	10MHz	20175	16QAM	1	5	Low	17.02	PASS
Band4	10MHz	20175	16QAM	6	0	Low	17.17	PASS
Band4	10MHz	20350	16QAM	1	0	High	17.88	PASS
Band4	10MHz	20350	16QAM	1	5	High	17.92	PASS
Band4	10MHz	20350	16QAM	6	0	High	16.97	PASS

Band4	15MHz	20025	QPSK	1	0	Low	18.72	PASS
Band4	15MHz	20025	QPSK	1	5	Low	18.68	PASS
Band4	15MHz	20025	QPSK	6	0	Low	18.60	PASS
Band4	15MHz	20175	QPSK	1	0	Low	18.61	PASS
Band4	15MHz	20175	QPSK	1	5	Low	18.59	PASS
Band4	15MHz	20175	QPSK	6	0	Low	18.53	PASS
Band4	15MHz	20325	QPSK	1	0	High	18.73	PASS
Band4	15MHz	20325	QPSK	1	5	High	18.74	PASS
Band4	15MHz	20325	QPSK	6	0	High	18.71	PASS
Band4	15MHz	20025	16QAM	1	0	Low	18.37	PASS
Band4	15MHz	20025	16QAM	1	5	Low	18.39	PASS
Band4	15MHz	20025	16QAM	6	0	Low	18.62	PASS
Band4	15MHz	20175	16QAM	1	0	Low	18.34	PASS
Band4	15MHz	20175	16QAM	1	5	Low	18.33	PASS
Band4	15MHz	20175	16QAM	6	0	Low	18.55	PASS
Band4	15MHz	20325	16QAM	1	0	High	18.49	PASS
Band4	15MHz	20325	16QAM	1	5	High	18.43	PASS
Band4	15MHz	20325	16QAM	6	0	High	18.71	PASS
Band4	20MHz	20050	QPSK	1	0	Low	18.72	PASS
Band4	20MHz	20050	QPSK	1	5	Low	18.75	PASS
Band4	20MHz	20050	QPSK	6	0	Low	18.70	PASS
Band4	20MHz	20175	QPSK	1	0	Low	18.67	PASS
Band4	20MHz	20175	QPSK	1	5	Low	18.64	PASS
Band4	20MHz	20175	QPSK	6	0	Low	18.63	PASS
Band4	20MHz	20300	QPSK	1	0	High	18.66	PASS
Band4	20MHz	20300	QPSK	1	5	High	18.69	PASS
Band4	20MHz	20300	QPSK	6	0	High	18.65	PASS
Band4	20MHz	20050	16QAM	1	0	Low	18.53	PASS
Band4	20MHz	20050	16QAM	1	5	Low	18.47	PASS
Band4	20MHz	20050	16QAM	6	0	Low	18.69	PASS
Band4	20MHz	20175	16QAM	1	0	Low	18.59	PASS
Band4	20MHz	20175	16QAM	1	5	Low	18.50	PASS
Band4	20MHz	20175	16QAM	6	0	Low	18.63	PASS
Band4	20MHz	20300	16QAM	1	0	High	18.54	PASS
Band4	20MHz	20300	16QAM	1	5	High	18.45	PASS
Band4	20MHz	20300	16QAM	6	0	High	18.64	PASS

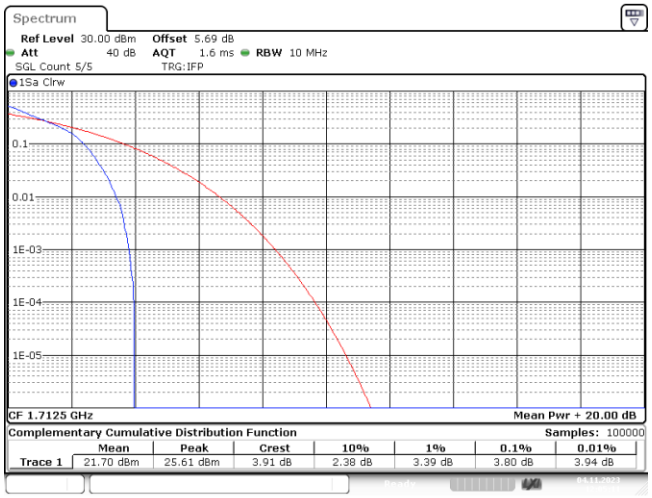
Appendix B: Peak-to-Average Ratio(CCDF) for M1

Test Result

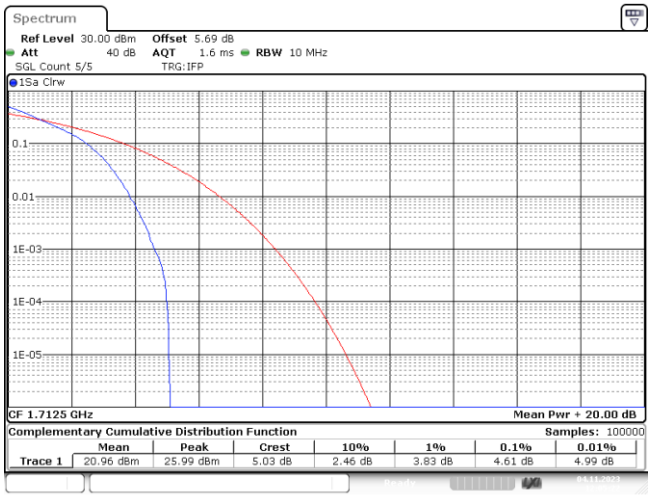
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band4	5MHz	19975	QPSK	1	0	Low	3.80	<=13	PASS
Band4	5MHz	19975	QPSK	6	0	Low	4.61	<=13	PASS
Band4	5MHz	20175	QPSK	1	0	Low	3.97	<=13	PASS
Band4	5MHz	20175	QPSK	6	0	Low	4.70	<=13	PASS
Band4	5MHz	20375	QPSK	1	0	High	4.14	<=13	PASS
Band4	5MHz	20375	QPSK	6	0	High	4.72	<=13	PASS
Band4	5MHz	19975	16QAM	1	0	Low	4.43	<=13	PASS
Band4	5MHz	19975	16QAM	6	0	Low	4.61	<=13	PASS
Band4	5MHz	20175	16QAM	1	0	Low	4.17	<=13	PASS
Band4	5MHz	20175	16QAM	6	0	Low	4.58	<=13	PASS
Band4	5MHz	20375	16QAM	1	0	High	4.46	<=13	PASS
Band4	5MHz	20375	16QAM	6	0	High	4.61	<=13	PASS
Band4	10MHz	20000	QPSK	1	0	Low	4.23	<=13	PASS
Band4	10MHz	20000	QPSK	6	0	Low	4.70	<=13	PASS
Band4	10MHz	20175	QPSK	1	0	Low	4.06	<=13	PASS
Band4	10MHz	20175	QPSK	6	0	Low	4.46	<=13	PASS
Band4	10MHz	20350	QPSK	1	0	High	3.91	<=13	PASS
Band4	10MHz	20350	QPSK	6	0	High	4.55	<=13	PASS
Band4	10MHz	20000	16QAM	1	0	Low	4.43	<=13	PASS
Band4	10MHz	20000	16QAM	6	0	Low	4.67	<=13	PASS
Band4	10MHz	20175	16QAM	1	0	Low	4.20	<=13	PASS
Band4	10MHz	20175	16QAM	6	0	Low	4.64	<=13	PASS
Band4	10MHz	20350	16QAM	1	0	High	4.64	<=13	PASS
Band4	10MHz	20350	16QAM	6	0	High	4.61	<=13	PASS
Band4	15MHz	20025	QPSK	1	0	Low	3.42	<=13	PASS
Band4	15MHz	20025	QPSK	6	0	Low	8.70	<=13	PASS
Band4	15MHz	20175	QPSK	1	0	Low	2.99	<=13	PASS
Band4	15MHz	20175	QPSK	6	0	Low	3.19	<=13	PASS
Band4	15MHz	20325	QPSK	1	0	High	2.93	<=13	PASS
Band4	15MHz	20325	QPSK	6	0	High	3.01	<=13	PASS
Band4	15MHz	20025	16QAM	1	0	Low	3.62	<=13	PASS
Band4	15MHz	20025	16QAM	6	0	Low	3.30	<=13	PASS
Band4	15MHz	20175	16QAM	1	0	Low	3.51	<=13	PASS
Band4	15MHz	20175	16QAM	6	0	Low	3.22	<=13	PASS
Band4	15MHz	20325	16QAM	1	0	High	3.07	<=13	PASS
Band4	15MHz	20325	16QAM	6	0	High	2.99	<=13	PASS
Band4	20MHz	20050	QPSK	1	0	Low	3.16	<=13	PASS
Band4	20MHz	20050	QPSK	6	0	Low	3.39	<=13	PASS
Band4	20MHz	20175	QPSK	1	0	Low	2.84	<=13	PASS
Band4	20MHz	20175	QPSK	6	0	Low	3.22	<=13	PASS

Band4	20MHz	20300	QPSK	1	0	High	2.64	<=13	PASS
Band4	20MHz	20300	QPSK	6	0	High	2.99	<=13	PASS
Band4	20MHz	20050	16QAM	1	0	Low	3.57	<=13	PASS
Band4	20MHz	20050	16QAM	6	0	Low	3.30	<=13	PASS
Band4	20MHz	20175	16QAM	1	0	Low	3.51	<=13	PASS
Band4	20MHz	20175	16QAM	6	0	Low	3.22	<=13	PASS
Band4	20MHz	20300	16QAM	1	0	High	3.19	<=13	PASS
Band4	20MHz	20300	16QAM	6	0	High	2.99	<=13	PASS

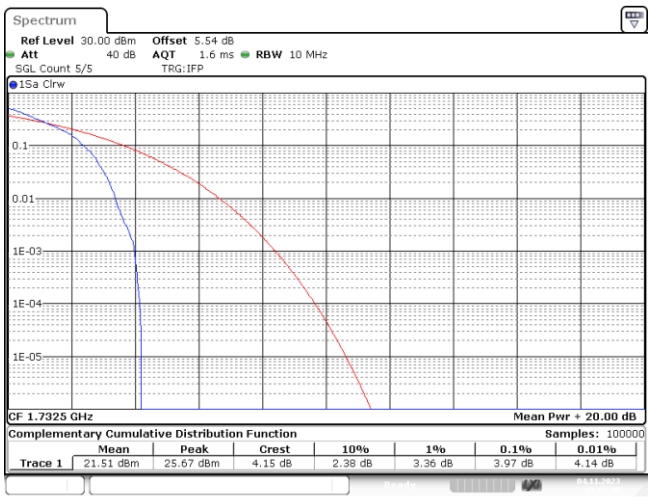
Test Graphs



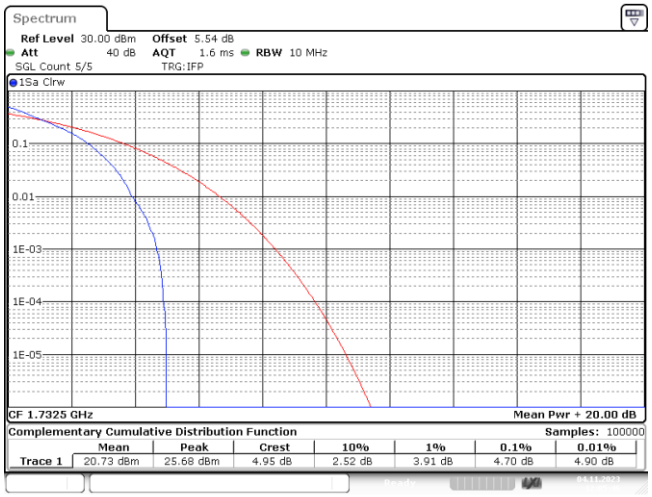
Band4-5MHz-QPSK-19975-1-0-Low-3.80-<=13-PASS



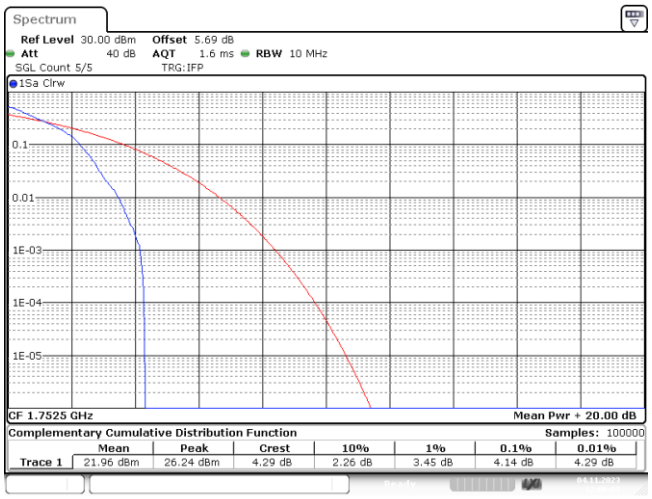
Band4-5MHz-QPSK-19975-6-0-Low-4.61-<=13-PASS



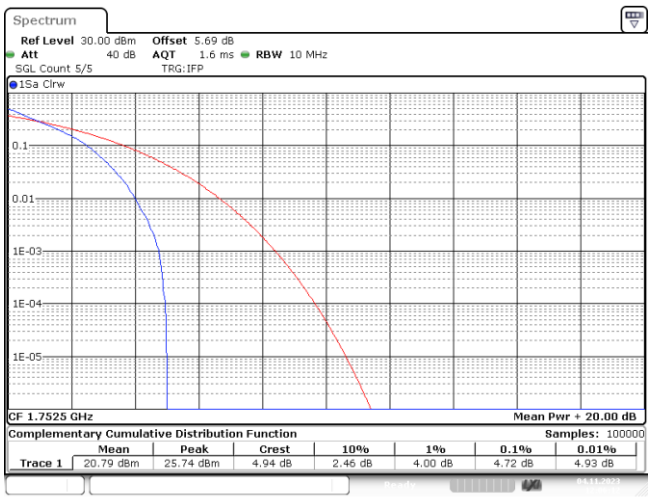
Band4-5MHz-QPSK-20175-1-0-Low-3.97-<=13-PASS



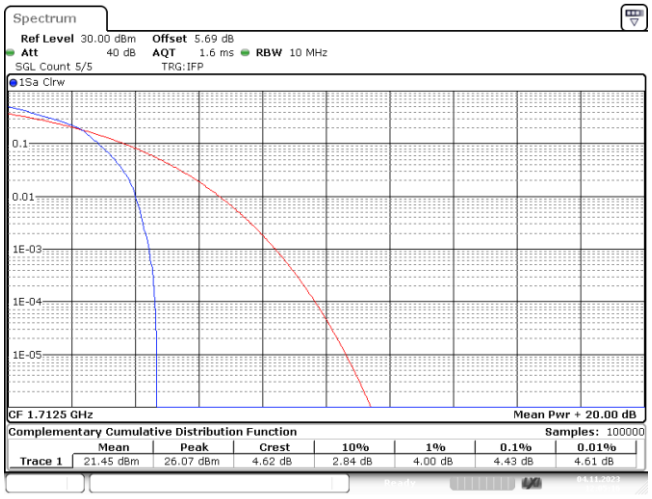
Band4-5MHz-QPSK-20175-6-0-Low-4.70-<=13-PASS



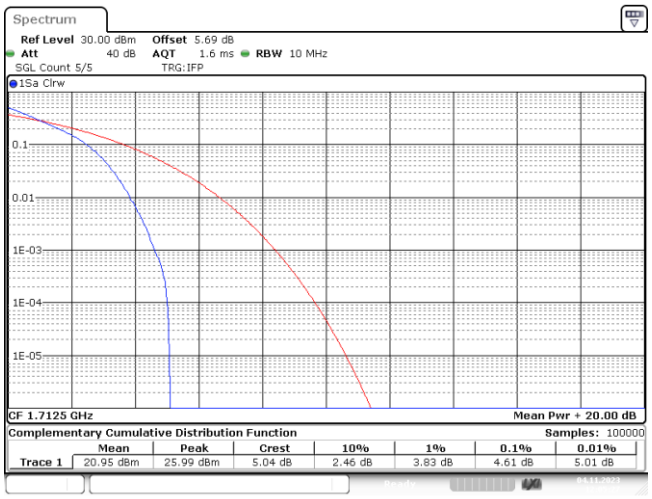
Band4-5MHz-QPSK-20375-1-0-High-4.14-<=13-PASS



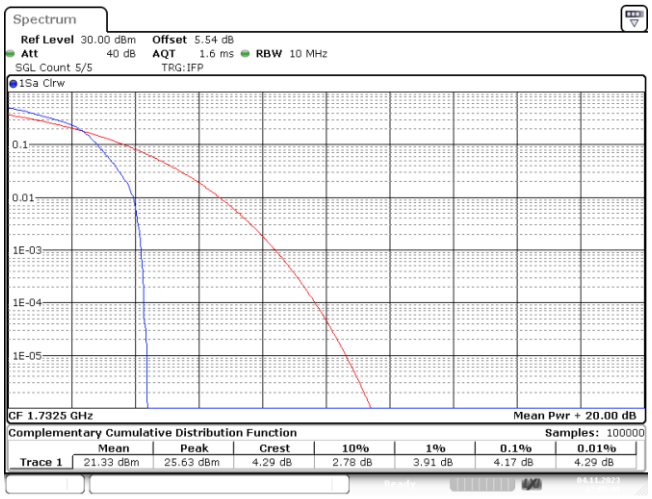
Band4-5MHz-QPSK-20375-6-0-High-4.72-<=13-PASS



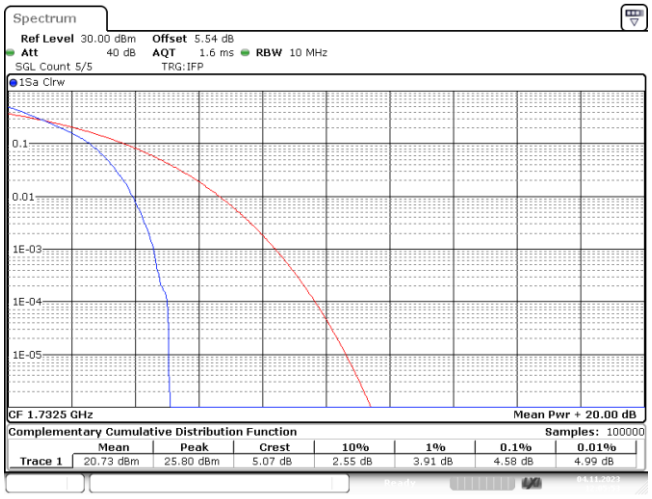
Band4-5MHz-16QAM-19975-1-0-Low-4.43-<=13-PASS



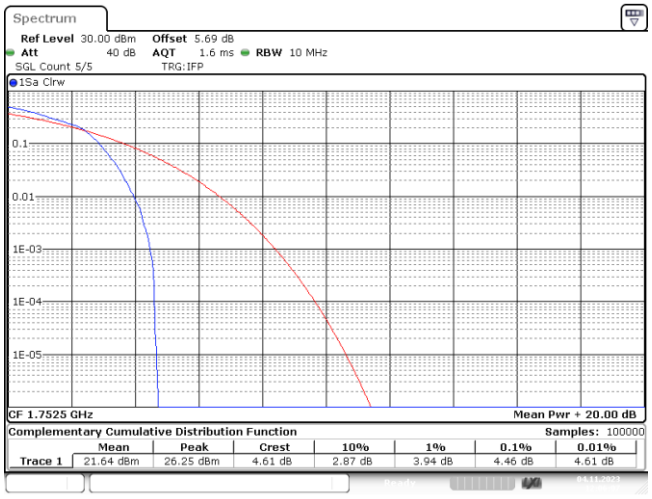
Band4-5MHz-16QAM-19975-6-0-Low-4.61-<=13-PASS



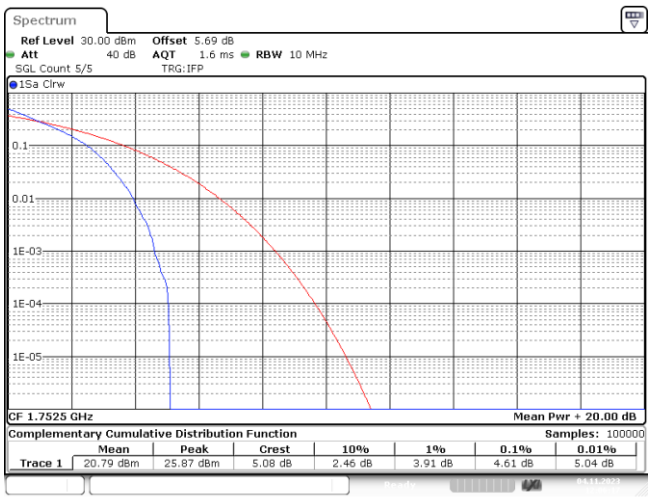
Band4-5MHz-16QAM-20175-1-0-Low-4.17-<=13-PASS



Band4-5MHz-16QAM-20175-6-0-Low-4.58-<=13-PASS



Band4-5MHz-16QAM-20375-1-0-High-4.46-<=13-PASS



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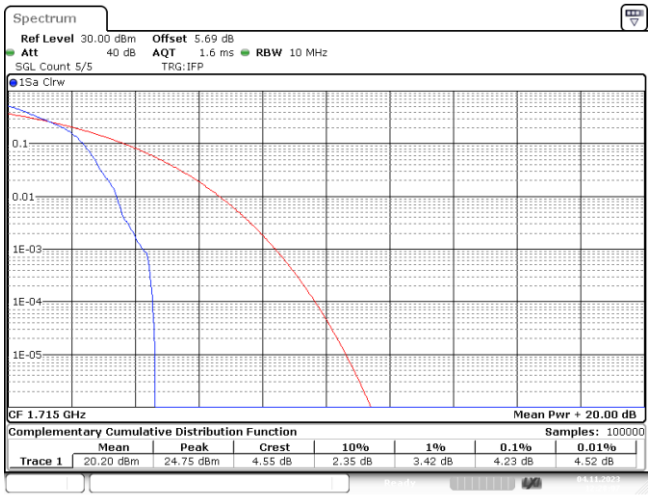
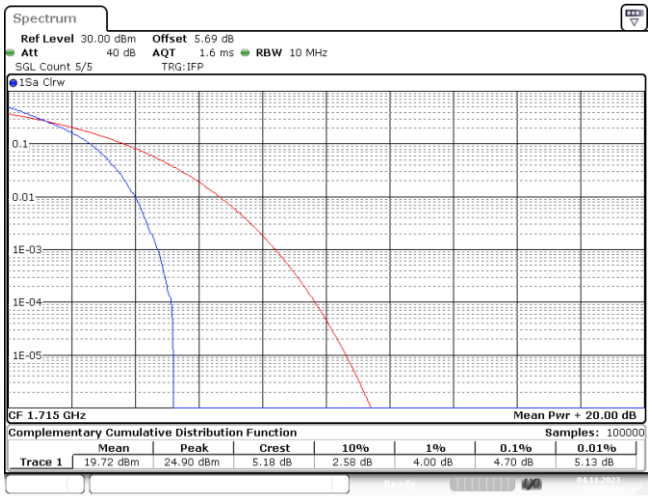
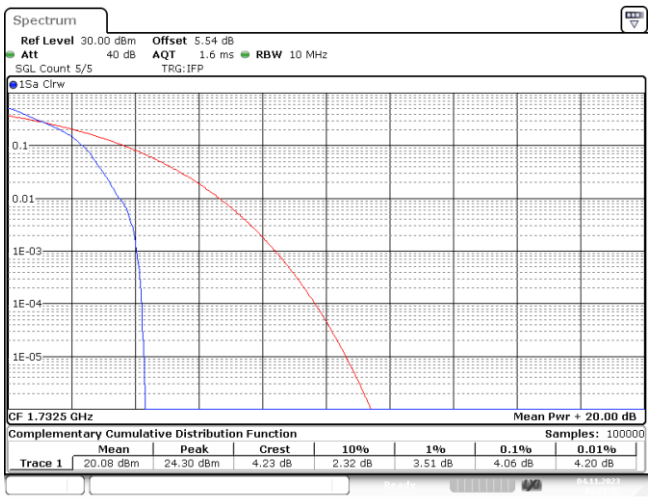


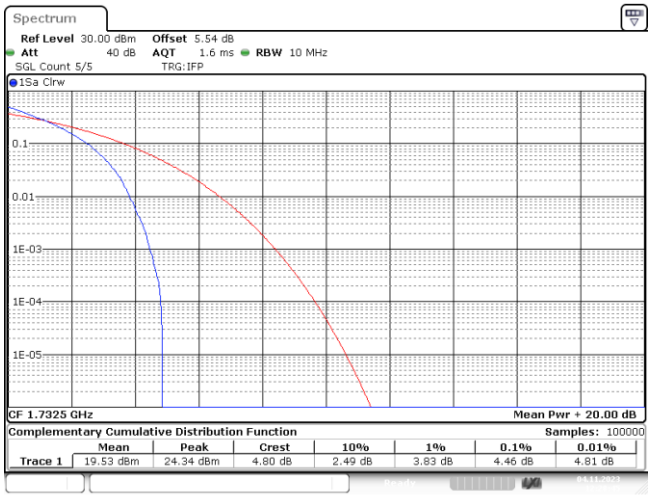
Band4-10MHz-QPSK-20000-1-0-Low-4.23-<=13-PASS



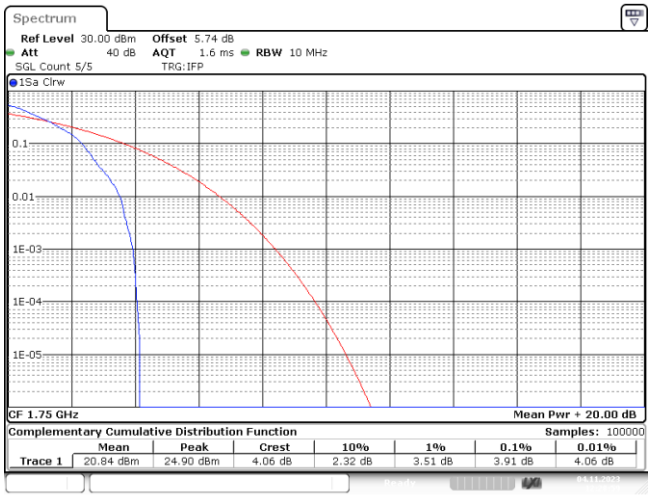
Band4-10MHz-QPSK-20000-6-0-Low-4.70-<=13-PASS



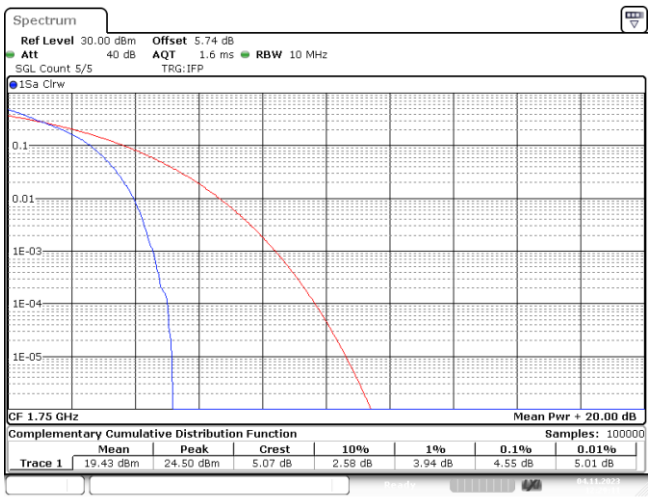
Band4-10MHz-QPSK-20175-1-0-Low-4.06-<=13-PASS



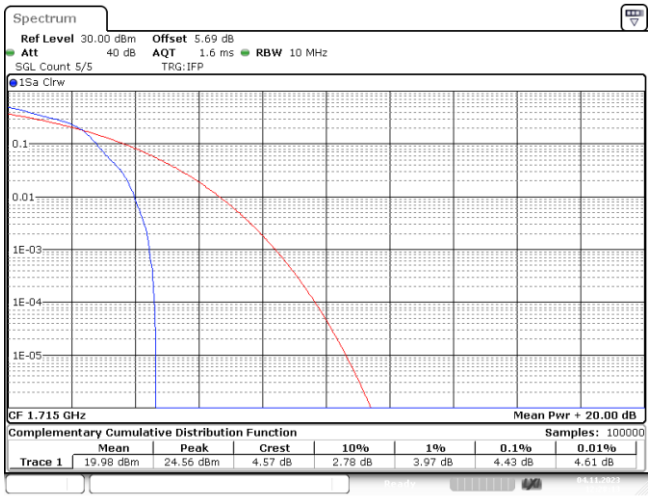
Band4-10MHz-QPSK-20175-6-0-Low-4.46-<=13-PASS



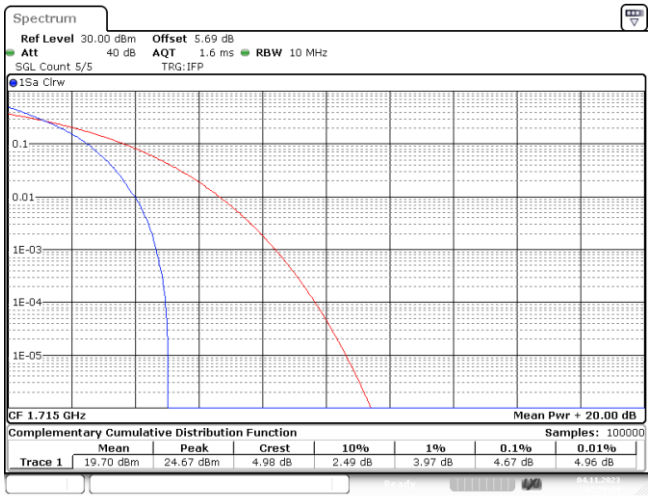
Band4-10MHz-QPSK-20350-1-0-High-3.91-<=13-PASS



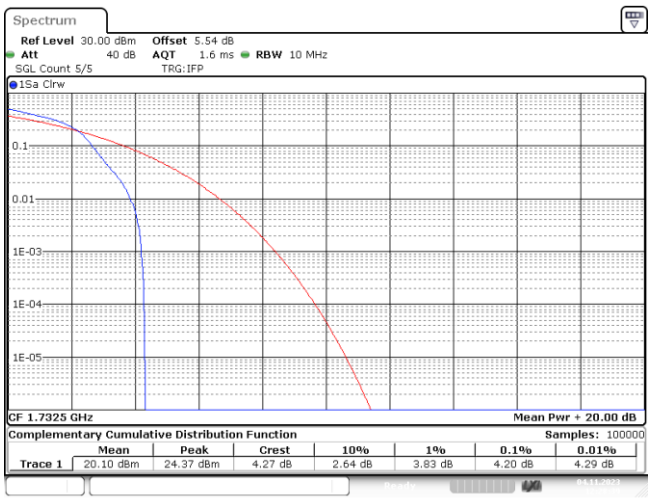
Band4-10MHz-QPSK-20350-6-0-High-4.55-<=13-PASS



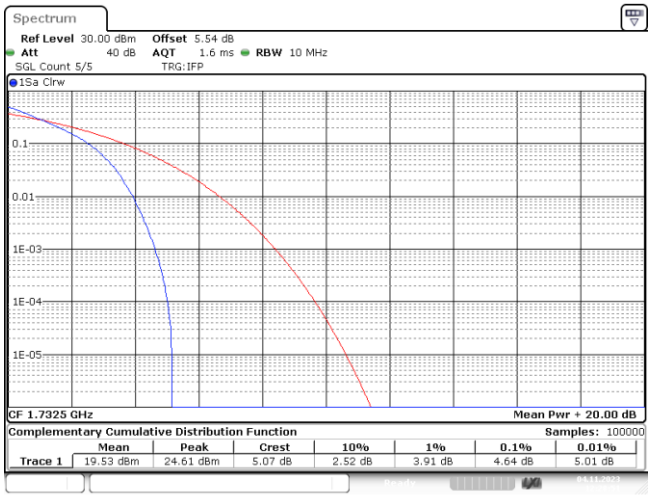
Band4-10MHz-16QAM-20000-1-0-Low-4.43-<=13-PASS



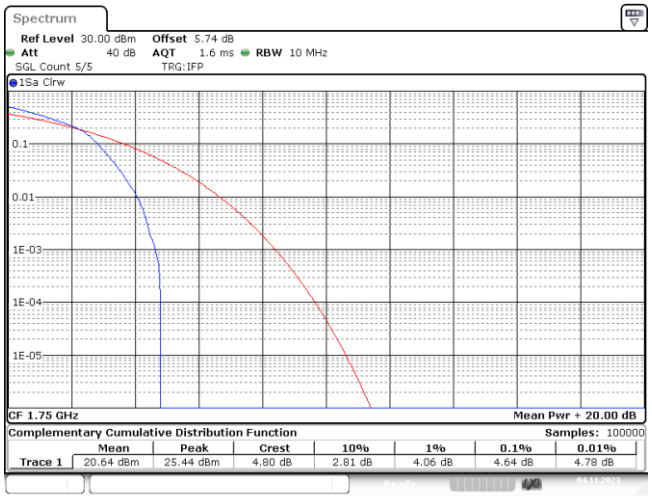
Band4-10MHz-16QAM-20000-6-0-Low-4.67-<=13-PASS



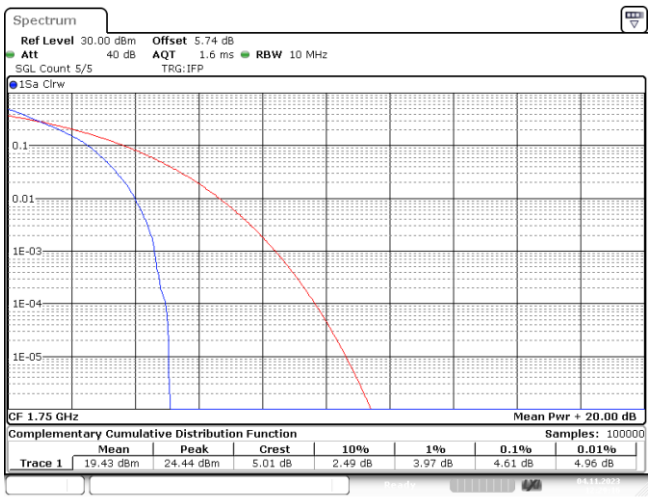
Band4-10MHz-16QAM-20175-1-0-Low-4.20-<=13-PASS



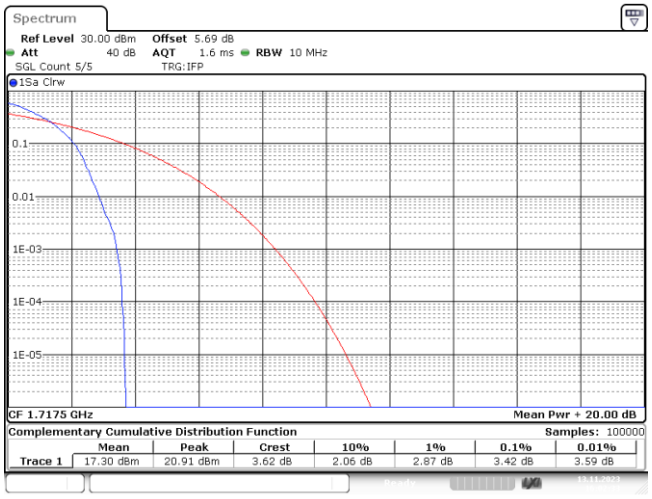
Band4-10MHz-16QAM-20175-6-0-Low-4.64-<=13-PASS



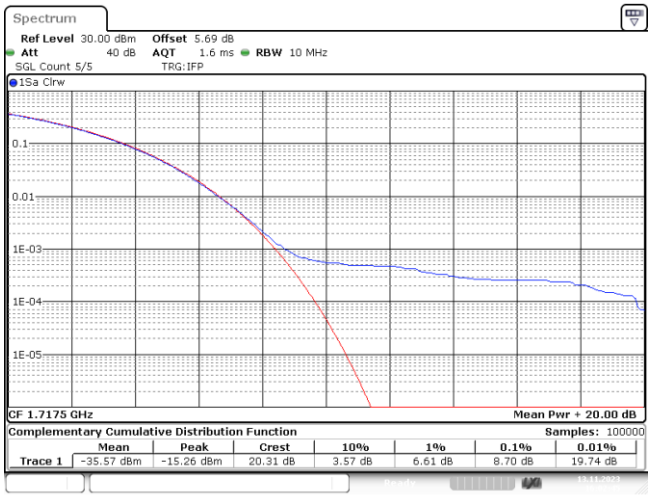
Band4-10MHz-16QAM-20350-1-0-High-4.64-<=13-PASS



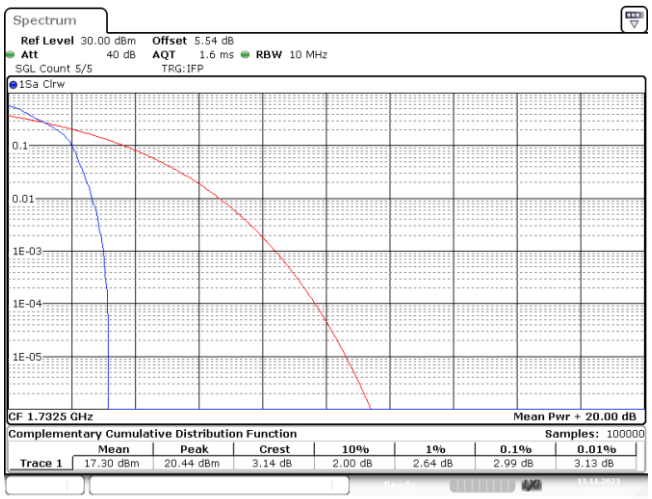
Band4-10MHz-16QAM-20350-6-0-High-4.61-<=13-PASS



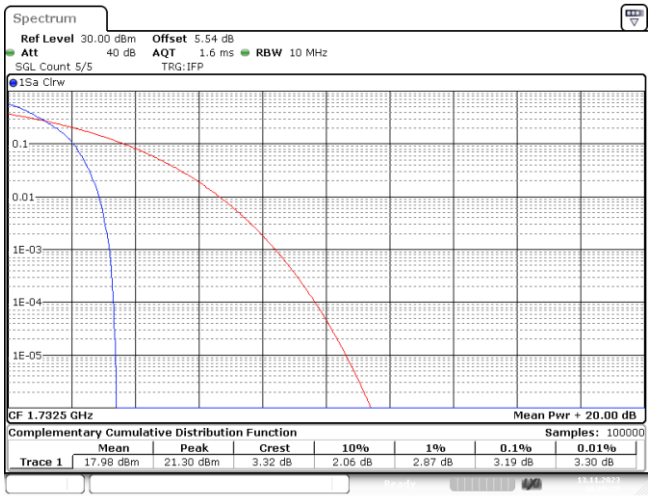
Band4-15MHz-QPSK-20025-1-0-Low-3.42-<=13-PASS



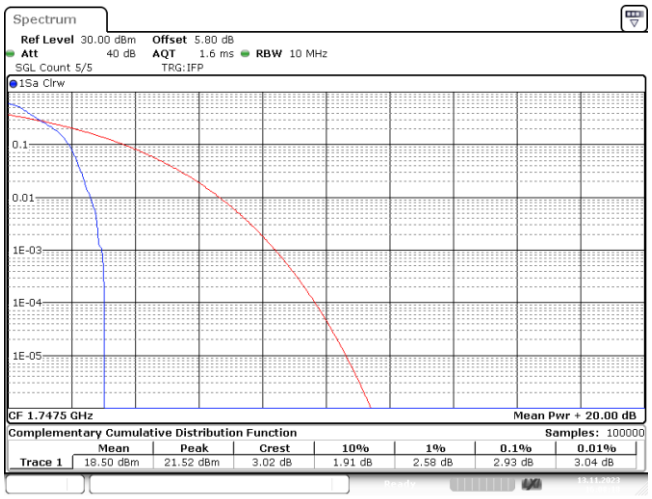
Band4-15MHz-QPSK-20025-6-0-Low-8.70-<=13-PASS



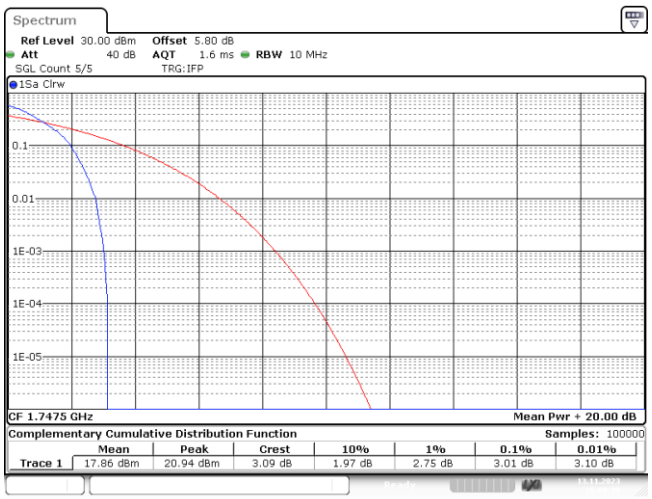
Band4-15MHz-QPSK-20175-1-0-Low-2.99-<=13-PASS



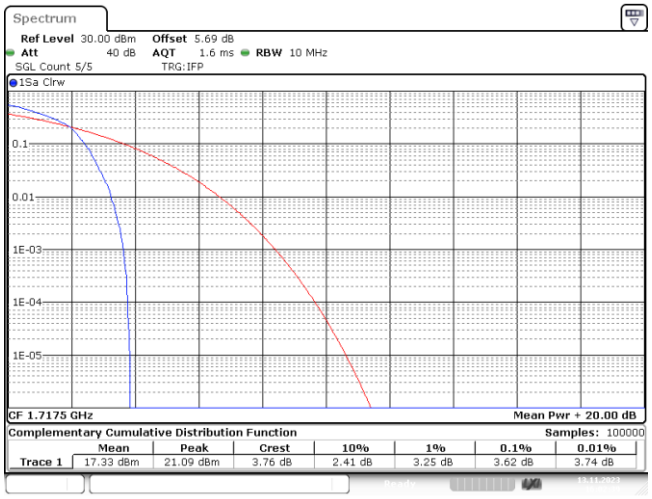
Band4-15MHz-QPSK-20175-6-0-Low-3.19-<=13-PASS



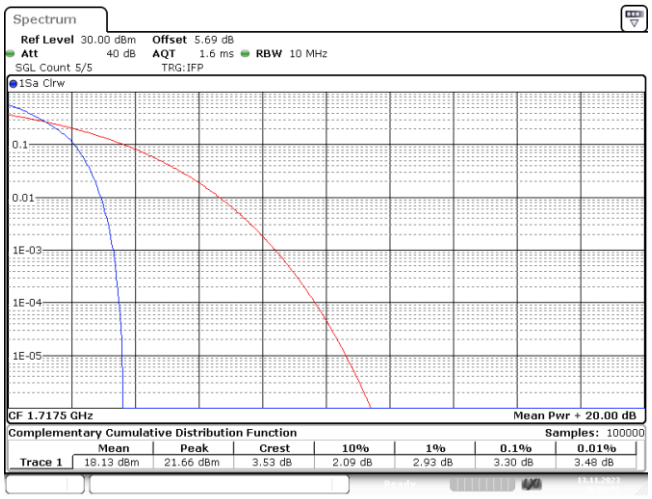
Band4-15MHz-QPSK-20325-1-0-High-2.93-<=13-PASS



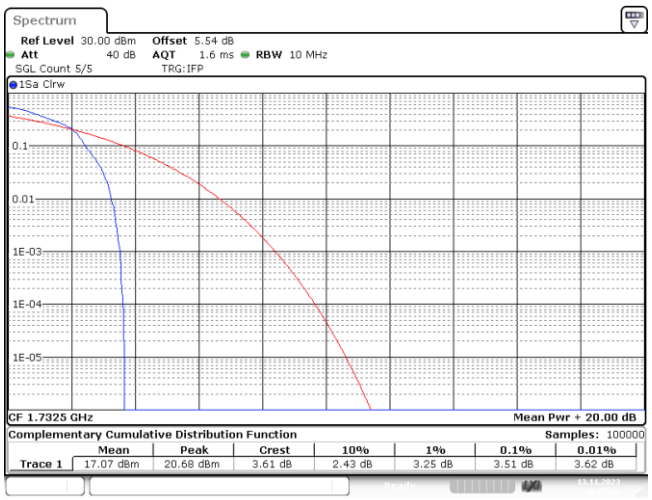
Band4-15MHz-QPSK-20325-6-0-High-3.01-<=13-PASS



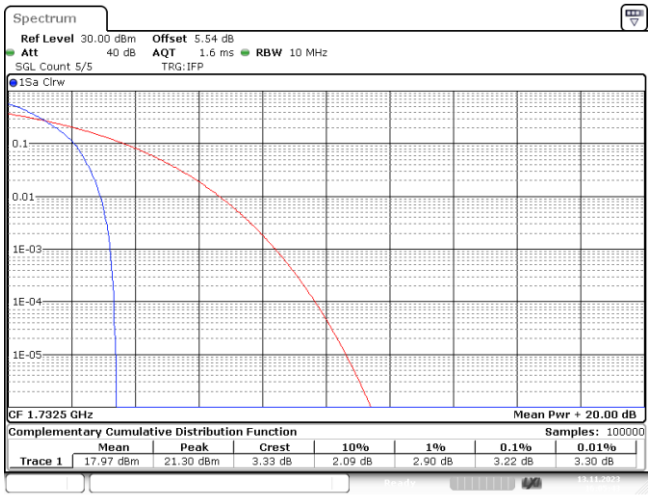
Band4-15MHz-16QAM-20025-1-0-Low-3.62-<=13-PASS



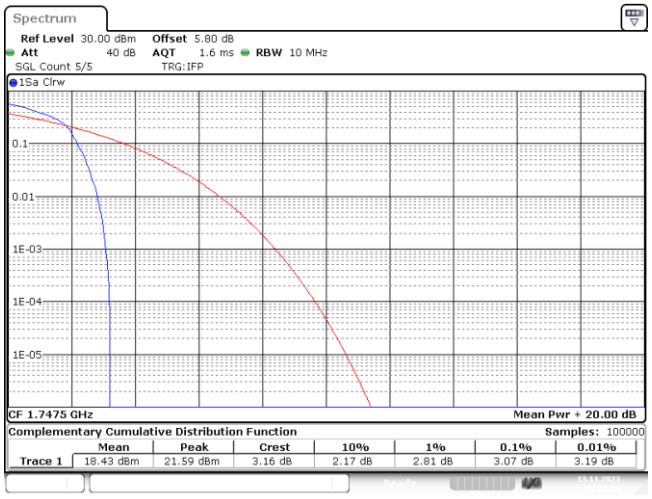
Band4-15MHz-16QAM-20025-6-0-Low-3.30-<=13-PASS



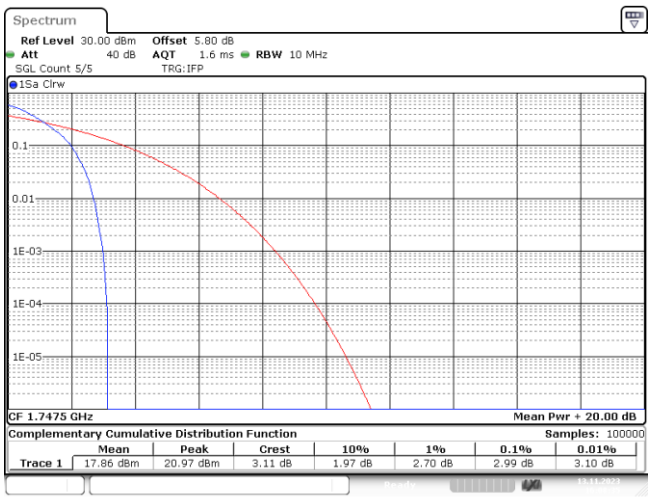
Band4-15MHz-16QAM-20175-1-0-Low-3.51-<=13-PASS



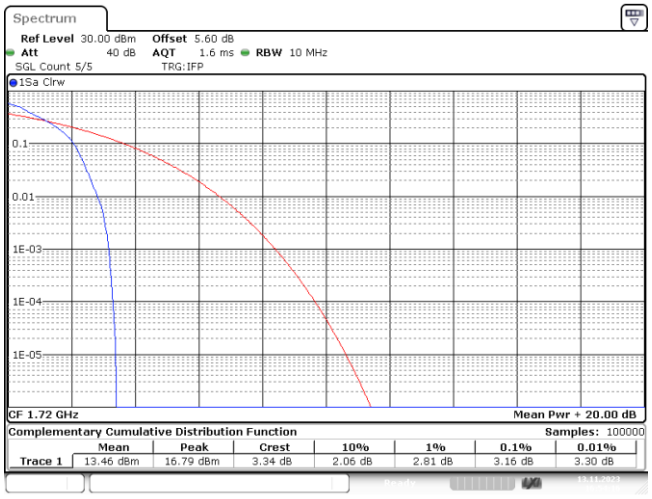
Band4-15MHz-16QAM-20175-6-0-Low-3.22-<=13-PASS



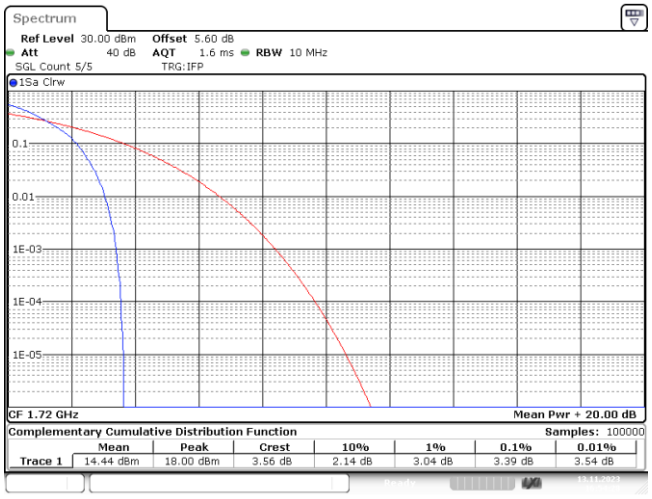
Band4-15MHz-16QAM-20325-1-0-High-3.07-<=13-PASS



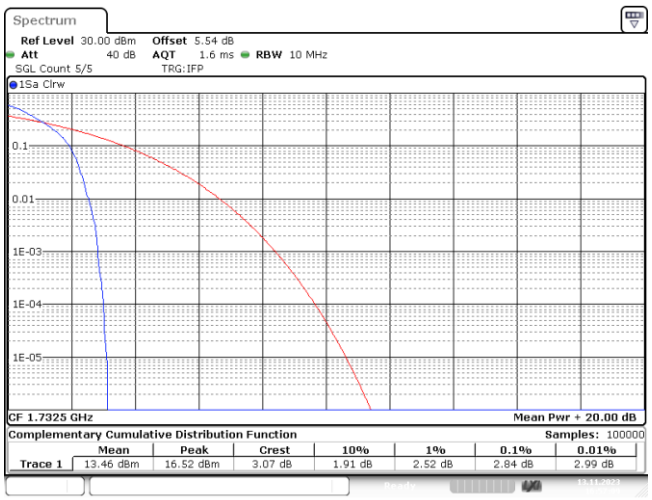
Band4-15MHz-16QAM-20325-6-0-High-2.99-<=13-PASS



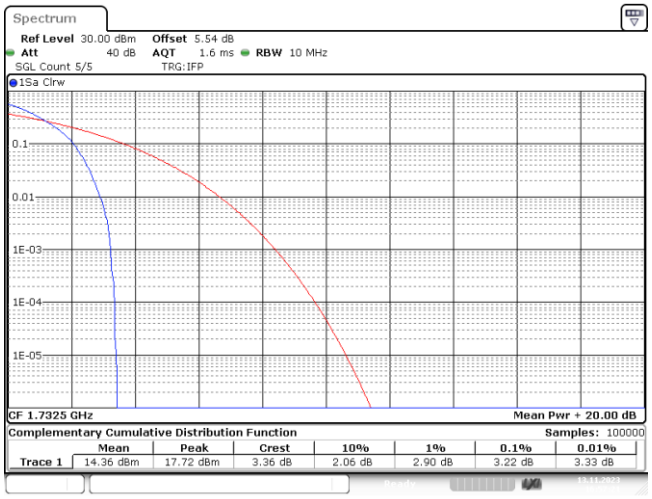
Band4-20MHz-QPSK-20050-1-0-Low-3.16-<=13-PASS



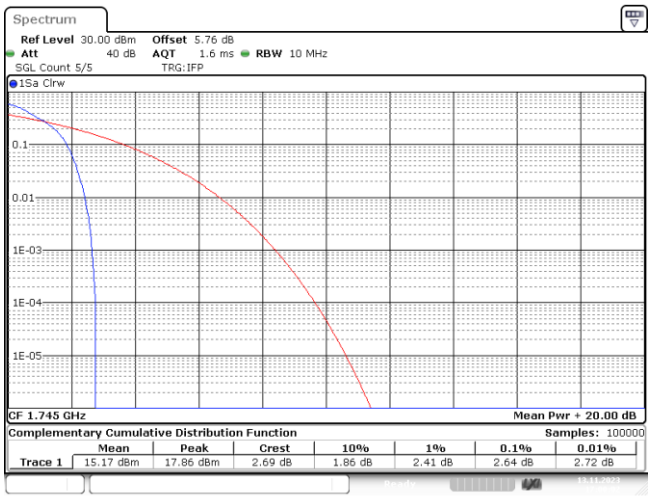
Band4-20MHz-QPSK-20050-6-0-Low-3.39-<=13-PASS



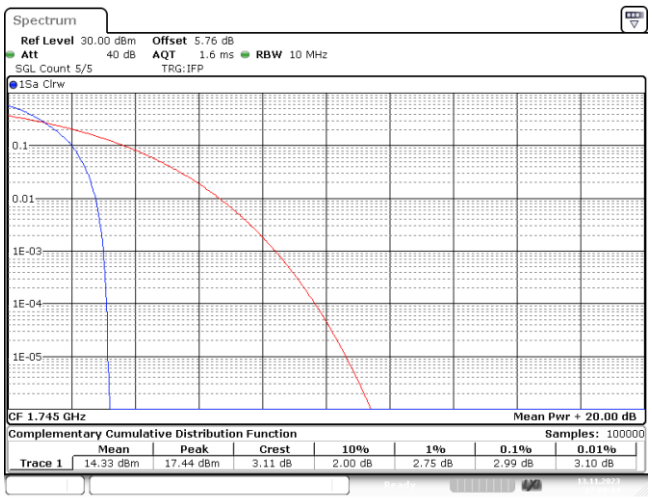
Band4-20MHz-QPSK-20175-1-0-Low-2.84-<=13-PASS



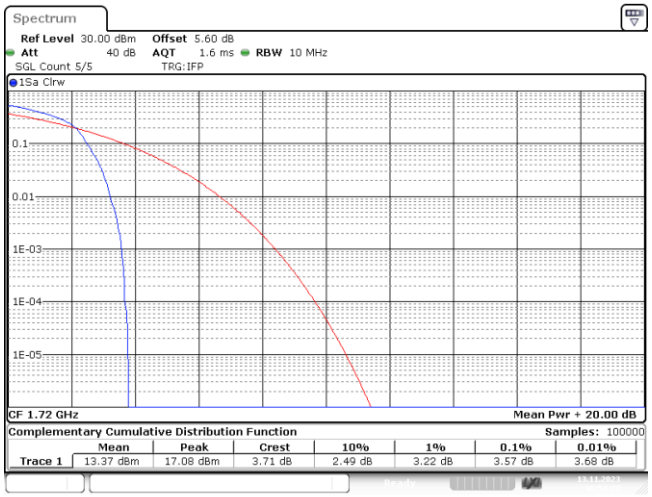
Band4-20MHz-QPSK-20175-6-0-Low-3.22-<=13-PASS



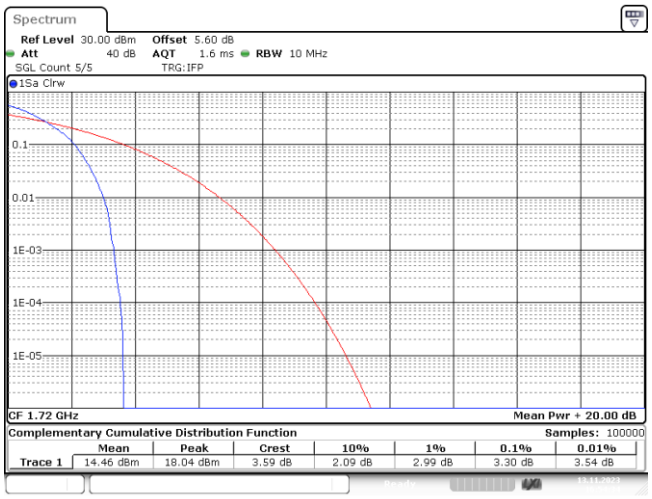
Band4-20MHz-QPSK-20300-1-0-High-2.64-<=13-PASS



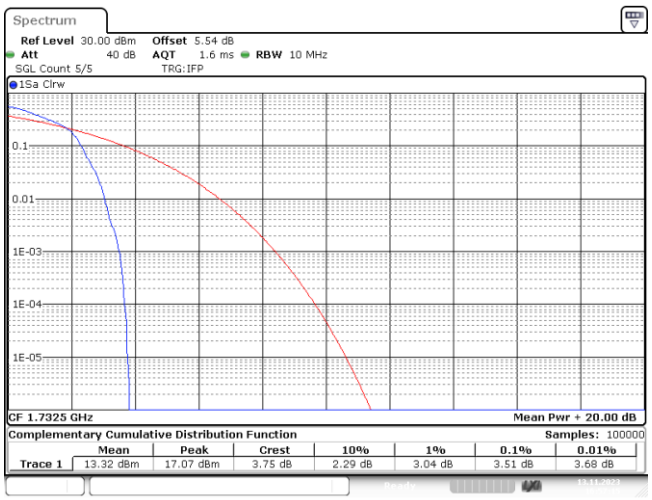
Band4-20MHz-QPSK-20300-6-0-High-2.99-<=13-PASS



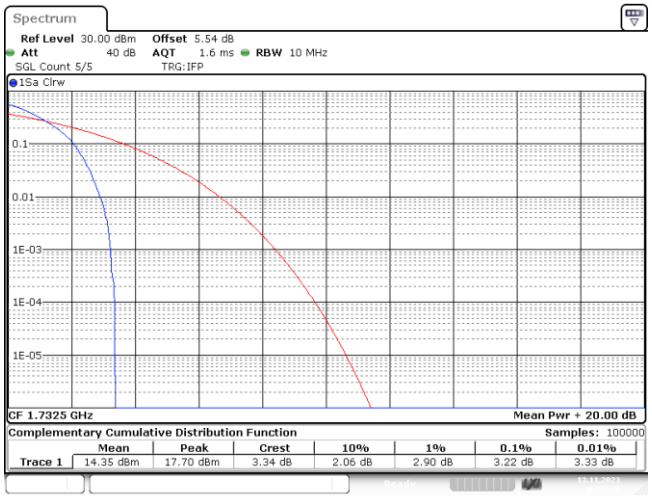
Band4-20MHz-16QAM-20050-1-0-Low-3.57-<=13-PASS



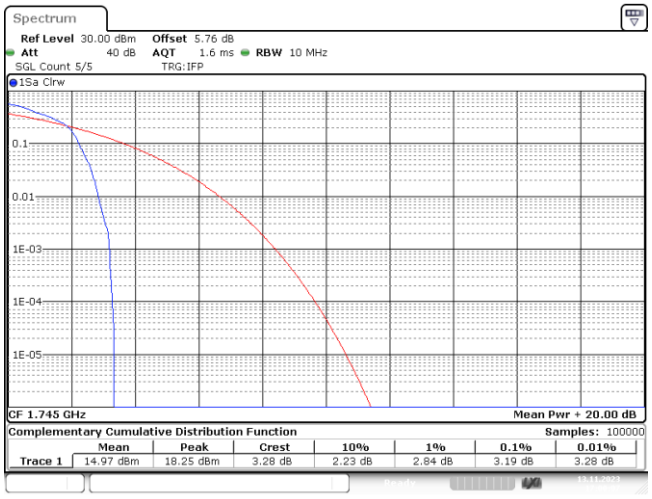
Band4-20MHz-16QAM-20050-6-0-Low-3.30-<=13-PASS



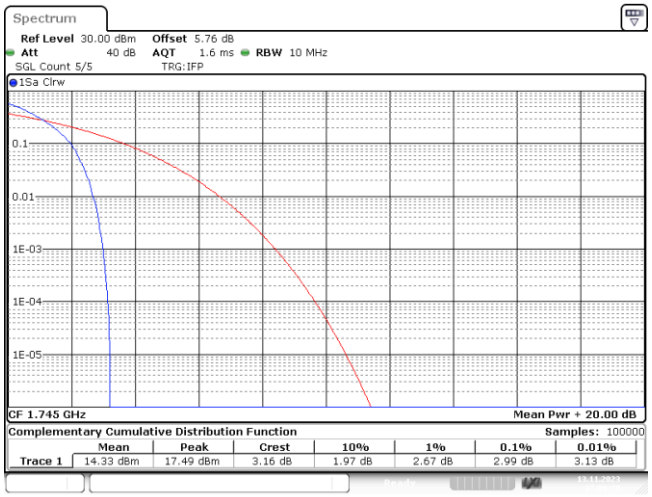
Band4-20MHz-16QAM-20175-1-0-Low-3.51-<=13-PASS



Band4-20MHz-16QAM-20175-6-0-Low-3.22-<=13-PASS



Band4-20MHz-16QAM-20300-1-0-High-3.19-<=13-PASS



Band4-20MHz-16QAM-20300-6-0-High-2.99-<=13-PASS

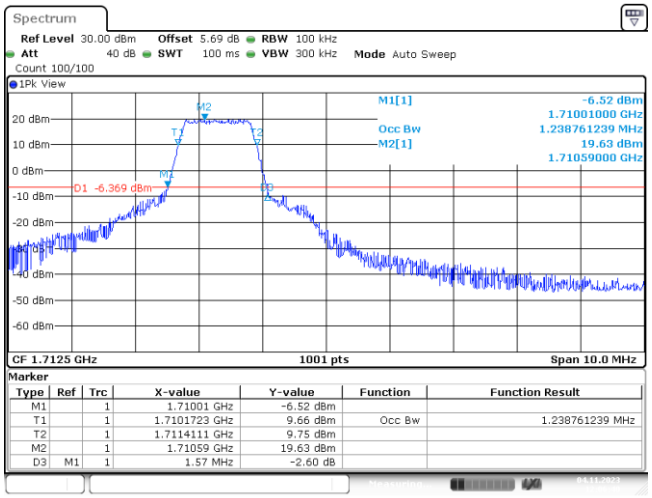
Appendix C: 26dB Bandwidth and Occupied Bandwidth for M1

Test Result

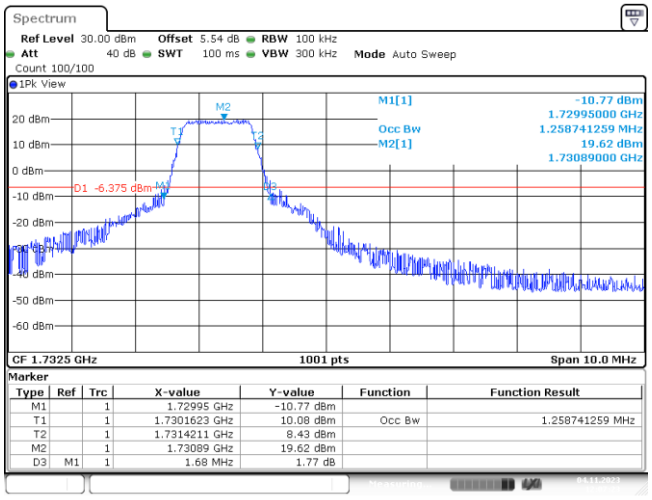
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band4	5MHz	19975	QPSK	6	0	Low	1.239	1.570	PASS
Band4	5MHz	20175	QPSK	6	0	Low	1.259	1.680	PASS
Band4	5MHz	20375	QPSK	6	0	High	1.239	1.580	PASS
Band4	5MHz	19975	16QAM	6	0	Low	1.229	1.560	PASS
Band4	5MHz	20175	16QAM	6	0	Low	1.259	1.650	PASS
Band4	5MHz	20375	16QAM	6	0	High	1.239	1.540	PASS
Band4	10MHz	20000	QPSK	6	0	Low	1.419	1.920	PASS
Band4	10MHz	20175	QPSK	6	0	Low	1.419	1.920	PASS
Band4	10MHz	20350	QPSK	6	0	High	1.399	1.920	PASS
Band4	10MHz	20000	16QAM	6	0	Low	1.399	1.880	PASS
Band4	10MHz	20175	16QAM	6	0	Low	1.399	1.920	PASS
Band4	10MHz	20350	16QAM	6	0	High	1.419	1.860	PASS
Band4	15MHz	20025	QPSK	6	0	Low	1.618	2.700	PASS
Band4	15MHz	20175	QPSK	6	0	Low	1.648	2.970	PASS
Band4	15MHz	20325	QPSK	6	0	High	1.648	2.880	PASS
Band4	15MHz	20025	16QAM	6	0	Low	1.648	3.000	PASS
Band4	15MHz	20175	16QAM	6	0	Low	1.648	3.000	PASS
Band4	15MHz	20325	16QAM	6	0	High	1.678	2.940	PASS
Band4	20MHz	20050	QPSK	6	0	Low	2.078	3.120	PASS
Band4	20MHz	20175	QPSK	6	0	Low	2.078	3.160	PASS
Band4	20MHz	20300	QPSK	6	0	High	2.038	3.000	PASS
Band4	20MHz	20050	16QAM	6	0	Low	2.078	3.200	PASS
Band4	20MHz	20175	16QA	6	0	Low	2.078	3.240	PASS

			M						
Band4	20MHz	20300	16QAM	6	0	High	2.118	3.320	PASS

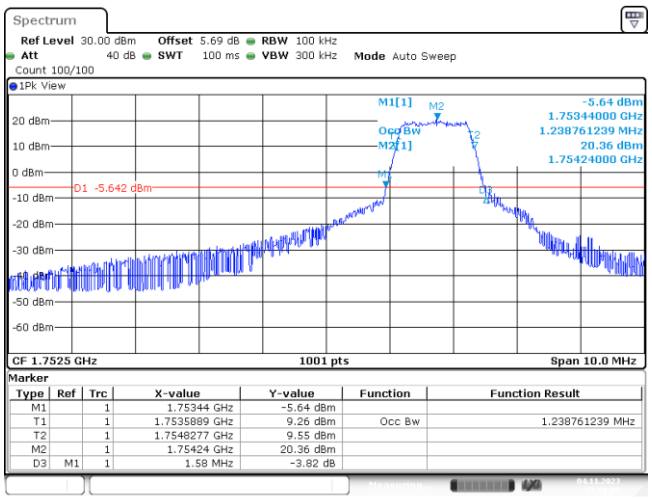
Test Graphs



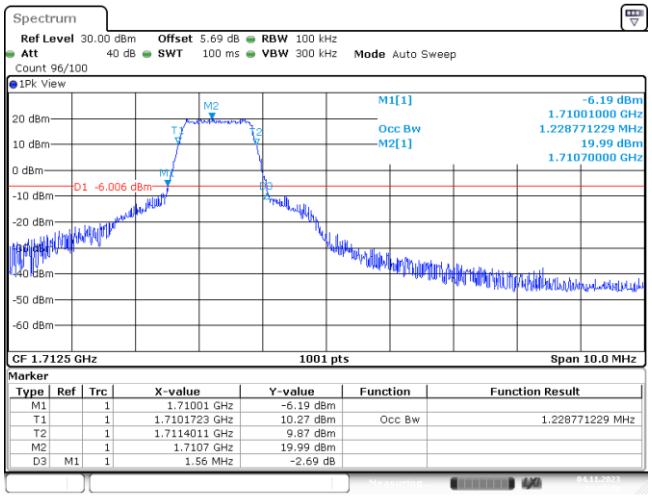
Band4-5MHz-QPSK-19975-6-0-Low-1.239-1.570-PASS



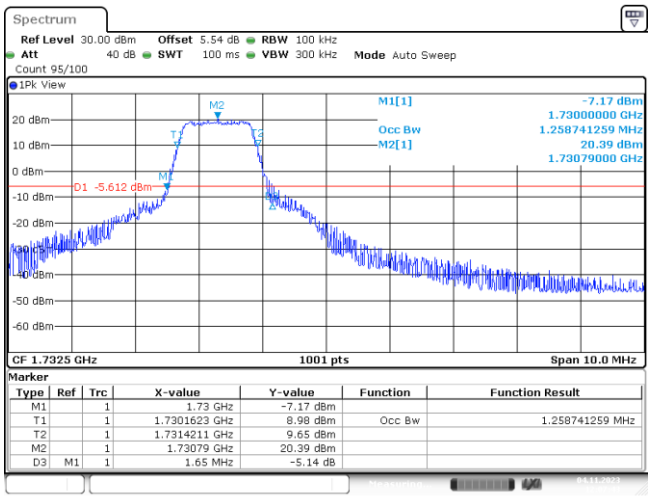
Band4-5MHz-QPSK-20175-6-0-Low-1.259-1.680-PASS



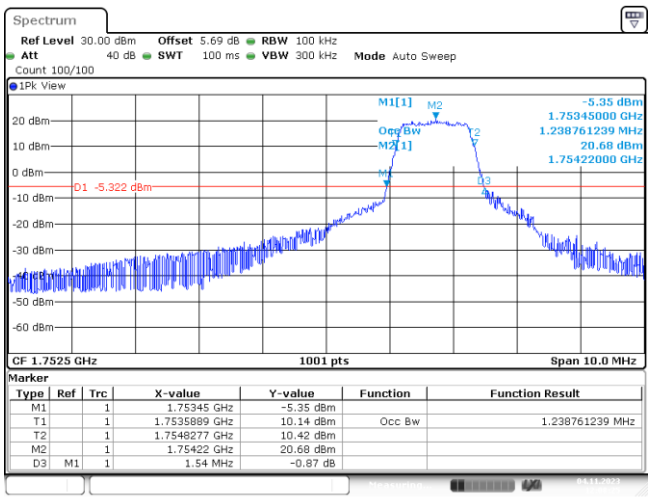
Band4-5MHz-QPSK-20375-6-0-High-1.239-1.580-PASS



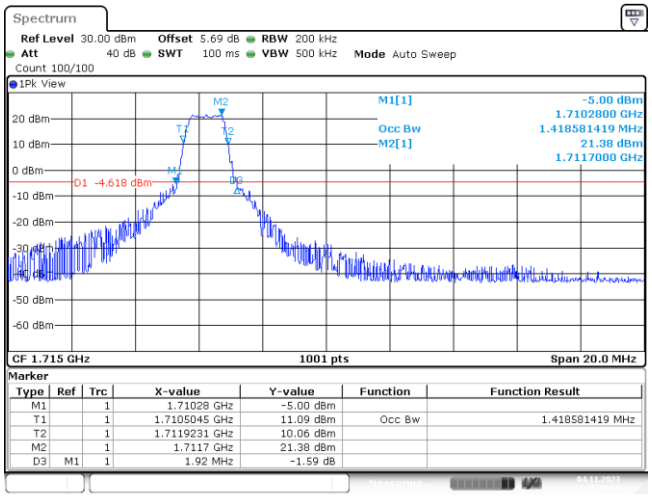
Band4-5MHz-16QAM-19975-6-0-Low-1.229-1.560-PASS



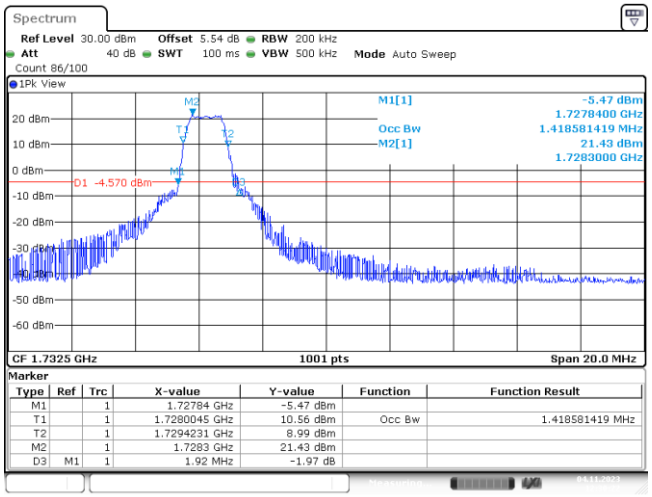
Band4-5MHz-16QAM-20175-6-0-Low-1.259-1.650-PASS



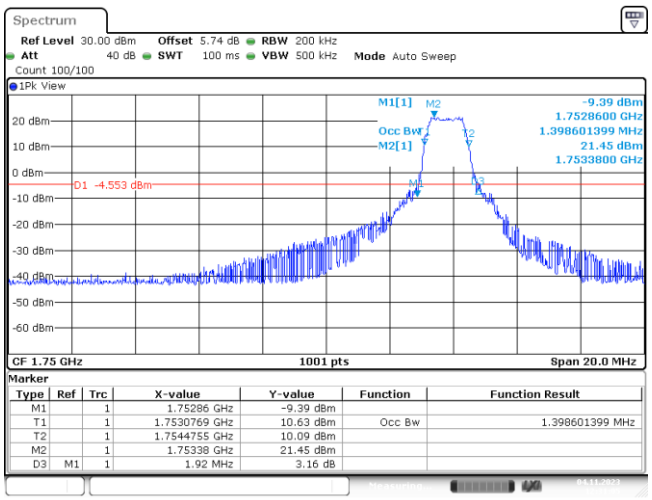
Band4-5MHz-16QAM-20375-6-0-High-1.239-1.540-PASS



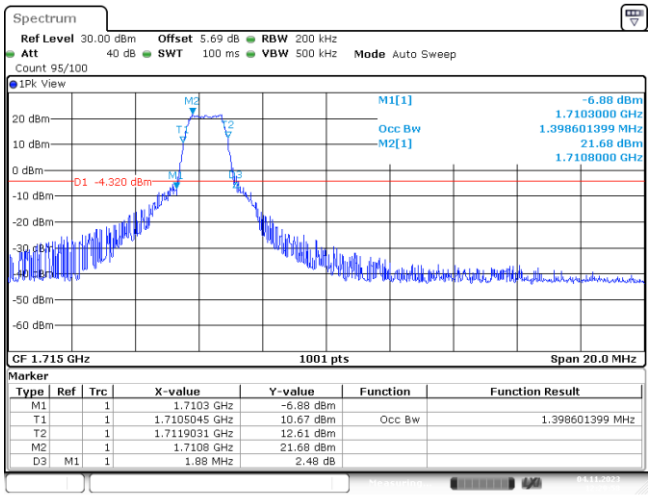
Band4-10MHz-QPSK-20000-6-0-Low-1.419-1.920-PASS



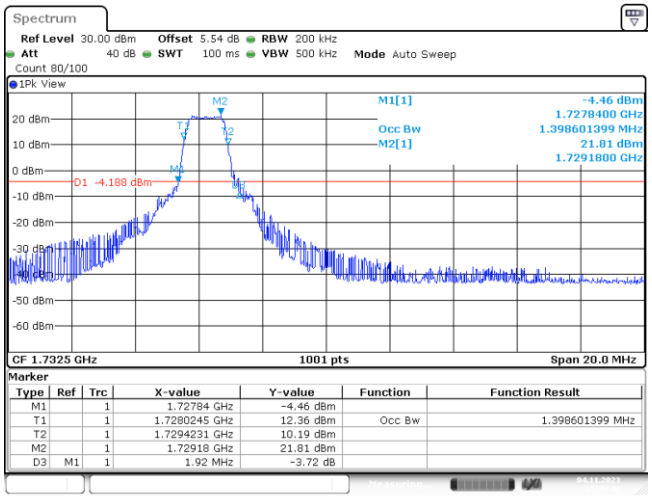
Band4-10MHz-QPSK-20175-6-0-Low-1.419-1.920-PASS



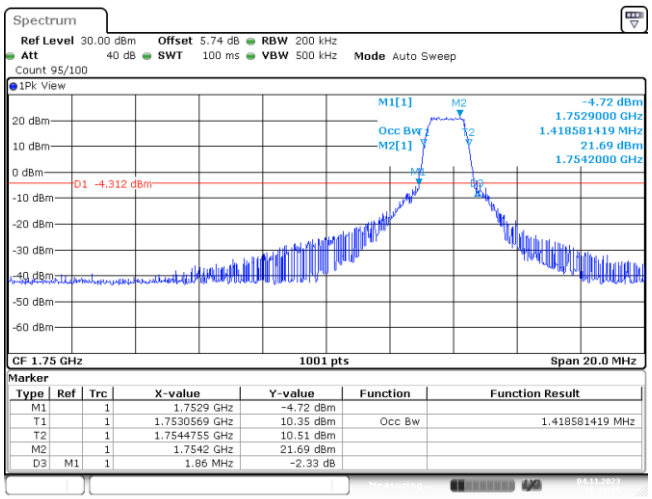
Band4-10MHz-QPSK-20350-6-0-High-1.399-1.920-PASS



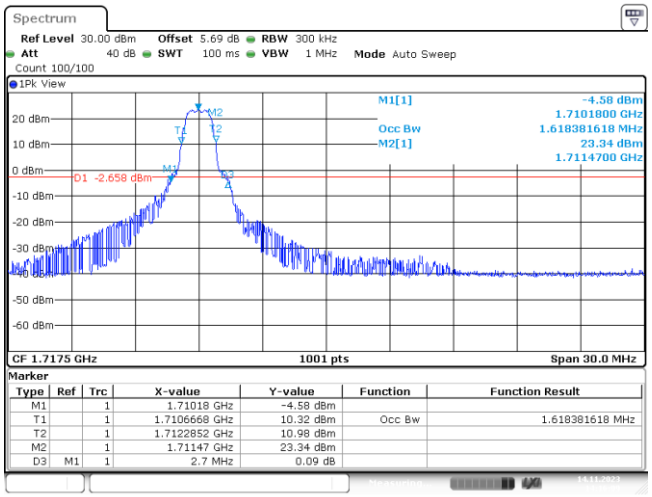
Band4-10MHz-16QAM-20000-6-0-Low-1.399-1.880-PASS



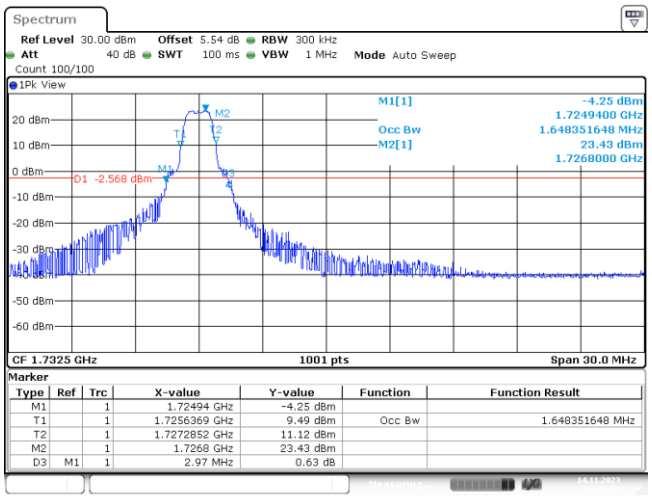
Band4-10MHz-16QAM-20175-6-0-Low-1.399-1.920-PASS



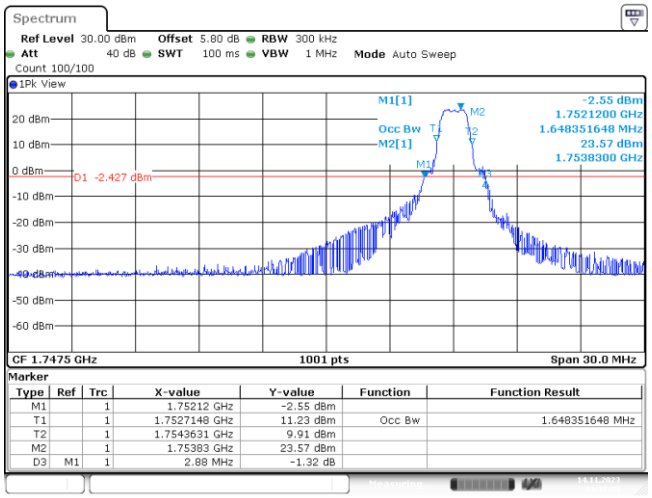
Band4-10MHz-16QAM-20350-6-0-High-1.419-1.860-PASS



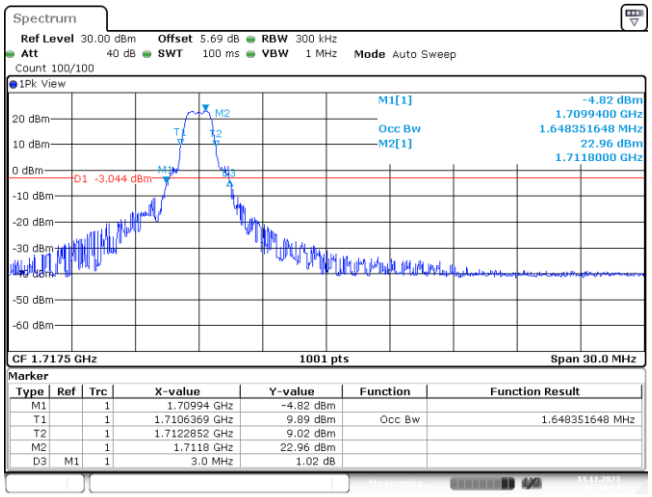
Band4-15MHz-QPSK-20025-6-0-Low-1.618-2.700-PASS



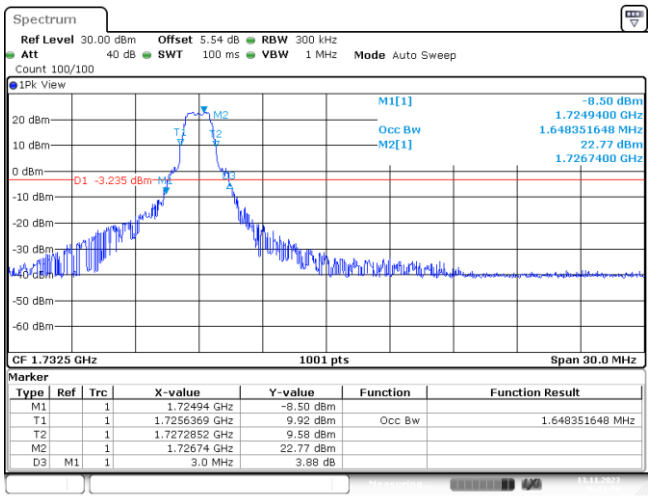
Band4-15MHz-QPSK-20175-6-0-Low-1.648-2.970-PASS



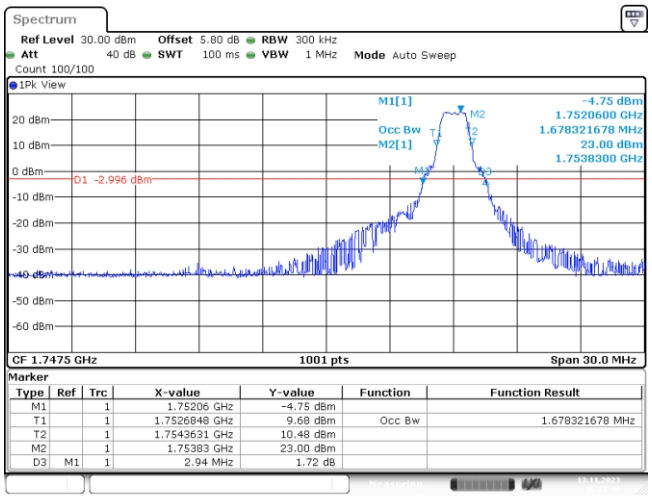
Band4-15MHz-QPSK-20325-6-0-High-1.648-2.880-PASS



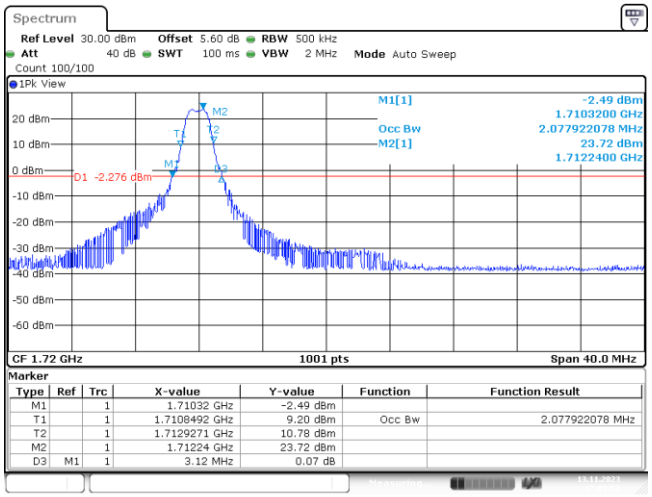
Band4-15MHz-16QAM-20025-6-0-Low-1.648-3.000-PASS



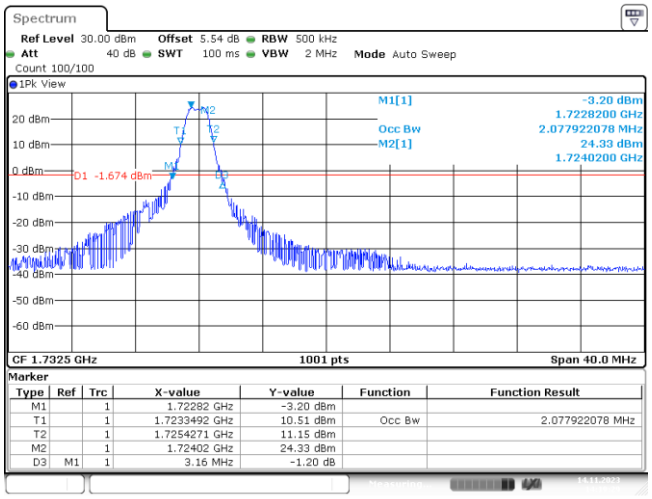
Band4-15MHz-16QAM-20175-6-0-Low-1.648-3.000-PASS



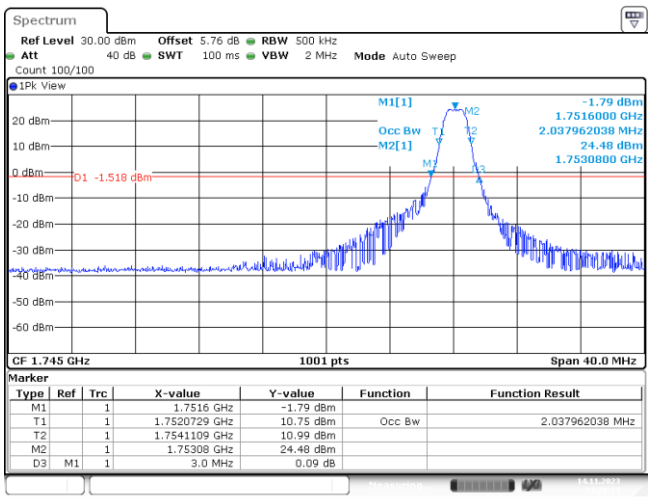
Band4-15MHz-16QAM-20325-6-0-High-1.678-2.940-PASS



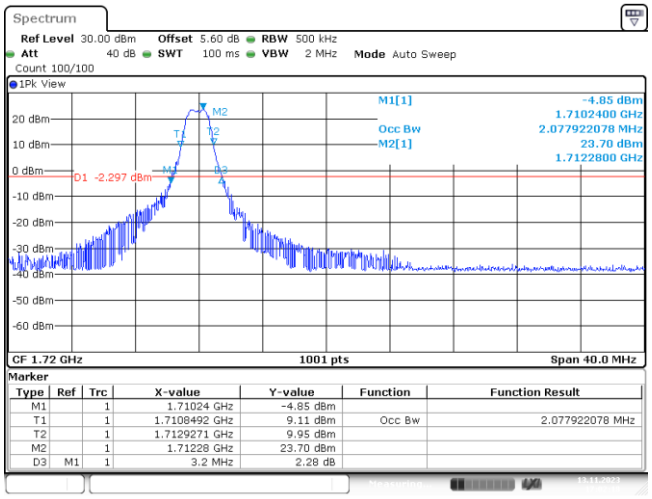
Band4-20MHz-QPSK-20050-6-0-Low-2.078-3.120-PASS



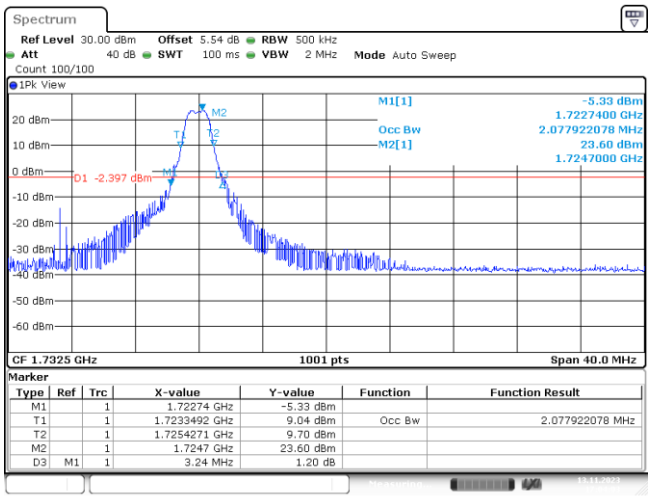
Band4-20MHz-QPSK-20175-6-0-Low-2.078-3.160-PASS



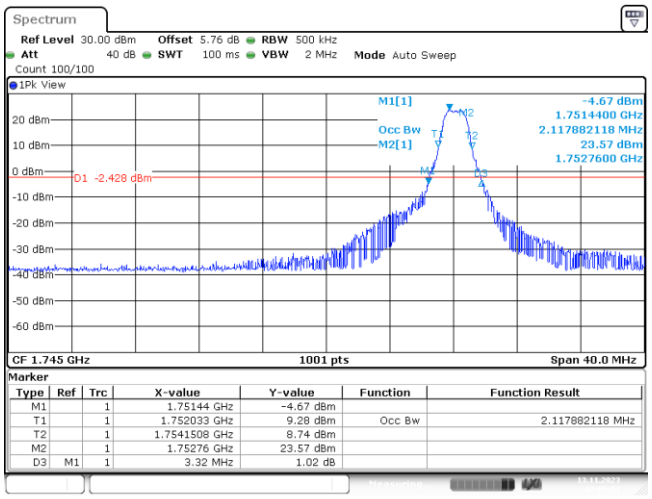
Band4-20MHz-QPSK-20300-6-0-High-2.038-3.000-PASS



Band4-20MHz-16QAM-20050-6-0-Low-2.078-3.200-PASS



Band4-20MHz-16QAM-20175-6-0-Low-2.078-3.240-PASS



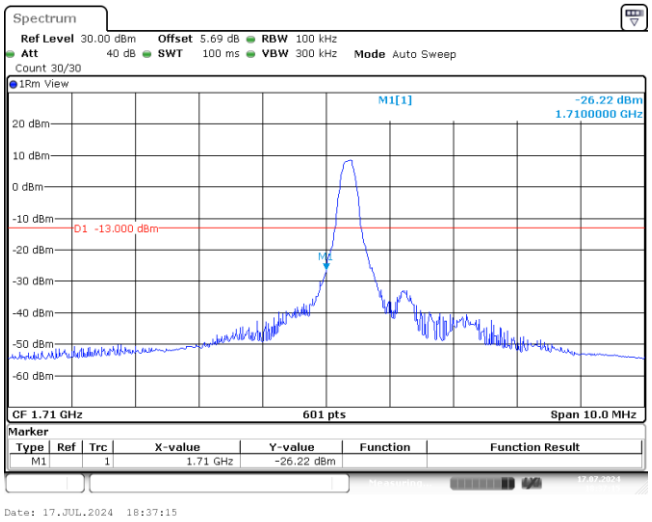
Band4-20MHz-16QAM-20300-6-0-High-2.118-3.320-PASS

Appendix D: Band Edge for M1

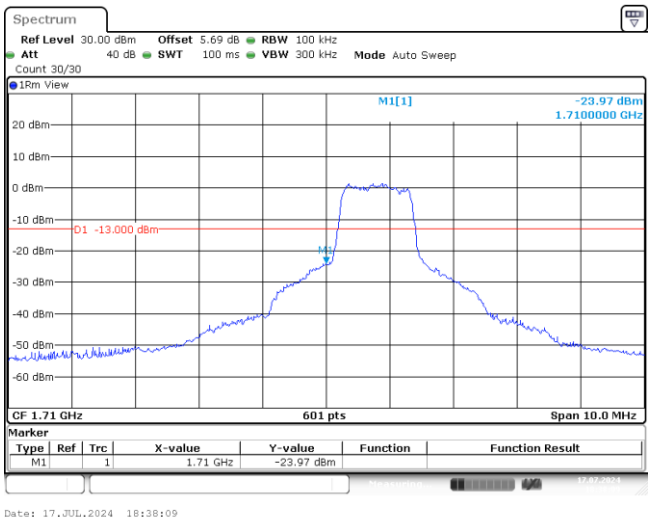
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Result(dBm)	Verdict
Band4	5MHz	19975	QPSK	1	0	Low	-26.22	PASS
Band4	5MHz	19975	QPSK	6	0	Low	-23.97	PASS
Band4	5MHz	20375	QPSK	1	0	High	-35.74	PASS
Band4	5MHz	20375	QPSK	6	0	High	-25.01	PASS
Band4	5MHz	19975	16QAM	1	0	Low	-25.72	PASS
Band4	5MHz	19975	16QAM	6	0	Low	-24.48	PASS
Band4	5MHz	20375	16QAM	1	0	High	-38.60	PASS
Band4	5MHz	20375	16QAM	6	0	High	-24.30	PASS
Band4	10MHz	20000	QPSK	1	0	Low	-33.21	PASS
Band4	10MHz	20000	QPSK	6	0	Low	-27.07	PASS
Band4	10MHz	20350	QPSK	1	0	High	-36.12	PASS
Band4	10MHz	20350	QPSK	6	0	High	-27.64	PASS
Band4	10MHz	20000	16QAM	1	0	Low	-35.89	PASS
Band4	10MHz	20000	16QAM	6	0	Low	-24.91	PASS
Band4	10MHz	20350	16QAM	1	0	High	-34.78	PASS
Band4	10MHz	20350	16QAM	6	0	High	-26.60	PASS
Band4	15MHz	20025	QPSK	1	0	Low	-28.89	PASS
Band4	15MHz	20025	QPSK	6	0	Low	-24.94	PASS
Band4	15MHz	20325	QPSK	1	0	High	-36.24	PASS
Band4	15MHz	20325	QPSK	6	0	High	-23.47	PASS
Band4	15MHz	20025	16QAM	1	0	Low	-27.42	PASS
Band4	15MHz	20025	16QAM	6	0	Low	-24.62	PASS
Band4	15MHz	20325	16QAM	1	0	High	-33.78	PASS
Band4	15MHz	20325	16QAM	6	0	High	-23.46	PASS
Band4	20MHz	20050	QPSK	1	0	Low	-31.23	PASS
Band4	20MHz	20050	QPSK	6	0	Low	-20.28	PASS
Band4	20MHz	20300	QPSK	1	0	High	-40.23	PASS
Band4	20MHz	20300	QPSK	6	0	High	-43.19	PASS
Band4	20MHz	20050	16QAM	1	0	Low	-19.75	PASS
Band4	20MHz	20050	16QAM	6	0	Low	-22.05	PASS
Band4	20MHz	20300	16QAM	1	0	High	-40.77	PASS
Band4	20MHz	20300	16QAM	6	0	High	-43.54	PASS

Test Graphs

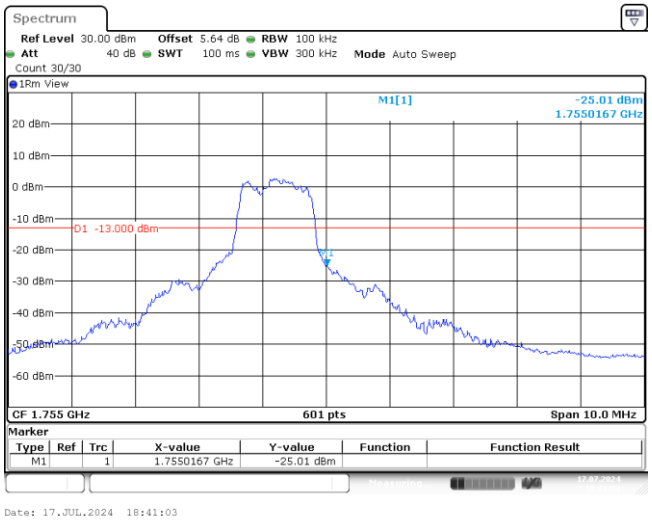


Band4-5MHz-QPSK-19975-1-0-Low--26.22-PASS

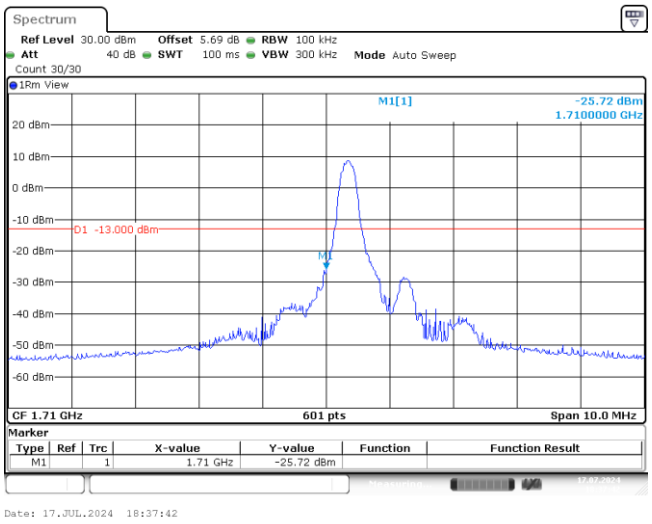


Band4-5MHz-QPSK-19975-6-0-Low--23.97-PASS

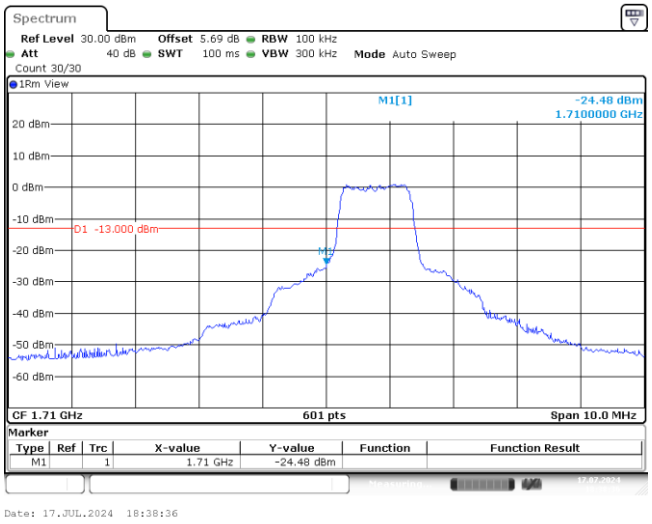
Band4-5MHz-QPSK-20375-1-0-High--35.74-PASS



Band4-5MHz-QPSK-20375-6-0-High--25.01-PASS



Band4-5MHz-16QAM-19975-1-0-Low--25.72-PASS



Band4-5MHz-16QAM-19975-6-0-Low--24.48-PASS