

Appendix B

E-UTRA BAND 4



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1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	23.04	25.04	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	23.12	25.12	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	23.21	25.21	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#0	23.18	25.18	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#1	23.37	25.37	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#3	23.41	25.41	30.00	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	22.41	24.41	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	23.03	25.03	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	23.11	25.11	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	23.14	25.14	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#0	23.06	25.06	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#1	23.31	25.31	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#3	23.25	25.25	30.00	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	22.17	24.17	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	22.97	24.97	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	23.11	25.11	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	23.02	25.02	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#0	23.04	25.04	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#1	23.27	25.27	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#3	23.24	25.24	30.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	22.23	24.23	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	21.94	23.94	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	22.07	24.07	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	21.96	23.96	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#0	22.47	24.47	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#1	22.59	24.59	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#3	22.43	24.43	30.00	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	21.45	23.45	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	21.76	23.76	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	22.03	24.03	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	21.77	23.77	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#0	22.44	24.44	30.00	PASS



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Band4	1.4MHz	16QAM	20175	3RB#1	22.41	24.41	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#3	22.44	24.44	30.00	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	21.26	23.26	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	21.72	23.72	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	21.84	23.84	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	21.70	23.70	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#0	22.29	24.29	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#1	22.53	24.53	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#3	22.48	24.48	30.00	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	21.42	23.42	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#0	23.14	25.14	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#8	23.26	25.26	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#14	23.07	25.07	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#0	22.36	24.36	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#4	22.35	24.35	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#7	22.23	24.23	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	22.41	24.41	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#0	23.10	25.10	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#8	23.09	25.09	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#14	23.16	25.16	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#0	22.24	24.24	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#4	22.26	24.26	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#7	22.14	24.14	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	22.16	24.16	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#0	23.06	25.06	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#8	22.77	24.77	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#14	22.97	24.97	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#0	22.12	24.12	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#4	22.07	24.07	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#7	22.12	24.12	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	22.13	24.13	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#0	21.95	23.95	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#8	21.88	23.88	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#14	21.98	23.98	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#0	21.21	23.21	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#4	21.29	23.29	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#7	21.26	23.26	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	21.37	23.37	30.00	PASS



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Band4	3MHz	16QAM	20175	1RB#0	21.80	23.80	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#8	21.76	23.76	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#14	21.77	23.77	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#0	21.14	23.14	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#4	21.10	23.10	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#7	21.16	23.16	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	21.30	23.30	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#0	21.61	23.61	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#8	21.73	23.73	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#14	21.82	23.82	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#0	21.10	23.10	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#4	21.00	23.00	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#7	21.04	23.04	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	21.30	23.30	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#0	23.07	25.07	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#12	22.84	24.84	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#24	22.91	24.91	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#0	22.43	24.43	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#6	22.25	24.25	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#13	22.23	24.23	30.00	PASS
Band4	5MHz	QPSK	19975	25RB#0	22.27	24.27	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#0	22.99	24.99	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#12	23.18	25.18	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#24	23.13	25.13	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#0	22.16	24.16	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#6	22.23	24.23	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#13	22.32	24.32	30.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	22.15	24.15	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#0	23.08	25.08	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#12	23.09	25.09	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#24	22.85	24.85	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#0	22.22	24.22	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#6	22.14	24.14	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#13	22.13	24.13	30.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	22.29	24.29	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#0	21.94	23.94	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#12	22.25	24.25	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#24	21.89	23.89	30.00	PASS



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Band4	5MHz	16QAM	19975	12RB#0	21.27	23.27	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#6	21.24	23.24	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#13	21.13	23.13	30.00	PASS
Band4	5MHz	16QAM	19975	25RB#0	21.35	23.35	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#0	21.82	23.82	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#12	22.26	24.26	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#24	21.80	23.80	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#0	21.13	23.13	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#6	21.16	23.16	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#13	21.11	23.11	30.00	PASS
Band4	5MHz	16QAM	20175	25RB#0	21.10	23.10	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#0	21.68	23.68	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#12	21.92	23.92	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#24	21.97	23.97	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#0	21.20	23.20	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#6	21.06	23.06	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#13	21.25	23.25	30.00	PASS
Band4	5MHz	16QAM	20375	25RB#0	21.27	23.27	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#0	23.23	25.23	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#24	23.69	25.69	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#49	22.79	24.79	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#0	23.86	25.86	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#12	22.55	24.55	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#25	22.20	24.20	30.00	PASS
Band4	10MHz	QPSK	20000	50RB#0	22.43	24.43	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#0	22.96	24.96	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#24	23.83	25.83	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#49	22.83	24.83	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#0	22.31	24.31	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#12	22.47	24.47	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#25	22.25	24.25	30.00	PASS
Band4	10MHz	QPSK	20175	50RB#0	22.14	24.14	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#0	22.86	24.86	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#24	23.43	25.43	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#49	22.65	24.65	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#0	22.41	24.41	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#12	22.31	24.31	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#25	22.13	24.13	30.00	PASS



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Band4	10MHz	QPSK	20350	50RB#0	22.24	24.24	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#0	22.09	24.09	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#24	22.20	24.20	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#49	22.09	24.09	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#0	21.51	23.51	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#12	21.40	23.40	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#25	21.32	23.32	30.00	PASS
Band4	10MHz	16QAM	20000	50RB#0	21.53	23.53	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#0	21.80	23.80	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#24	22.06	24.06	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#49	21.84	23.84	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#0	21.34	23.34	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#12	21.43	23.43	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#25	21.33	23.33	30.00	PASS
Band4	10MHz	16QAM	20175	50RB#0	21.20	23.20	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#0	21.94	23.94	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#24	21.85	23.85	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#49	22.10	24.10	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#0	21.27	23.27	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#12	21.25	23.25	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#25	21.30	23.30	30.00	PASS
Band4	10MHz	16QAM	20350	50RB#0	21.15	23.15	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#0	23.11	25.11	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#38	23.76	25.76	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#74	22.72	24.72	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#0	23.66	25.66	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#18	22.58	24.58	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#39	22.26	24.26	30.00	PASS
Band4	15MHz	QPSK	20025	75RB#0	22.59	24.59	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#0	22.97	24.97	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#38	24.91	26.91	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#74	22.88	24.88	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#0	22.33	24.33	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#18	22.46	24.46	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#39	22.39	24.39	30.00	PASS
Band4	15MHz	QPSK	20175	75RB#0	22.25	24.25	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#0	23.15	25.15	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#38	23.34	25.34	30.00	PASS



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Band4	15MHz	QPSK	20325	1RB#74	22.74	24.74	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#0	22.58	24.58	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#18	22.29	24.29	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#39	22.07	24.07	30.00	PASS
Band4	15MHz	QPSK	20325	75RB#0	22.27	24.27	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#0	21.99	23.99	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#38	21.95	23.95	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#74	21.95	23.95	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#0	21.43	23.43	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#18	21.42	23.42	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#39	21.45	23.45	30.00	PASS
Band4	15MHz	16QAM	20025	75RB#0	21.48	23.48	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#0	21.84	23.84	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#38	21.74	23.74	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#74	21.78	23.78	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#0	21.27	23.27	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#18	21.26	23.26	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#39	21.20	23.20	30.00	PASS
Band4	15MHz	16QAM	20175	75RB#0	21.30	23.30	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#0	22.06	24.06	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#38	21.97	23.97	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#74	22.05	24.05	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#0	21.35	23.35	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#18	21.26	23.26	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#39	21.33	23.33	30.00	PASS
Band4	15MHz	16QAM	20325	75RB#0	21.27	23.27	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#0	22.98	24.98	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#49	23.61	25.61	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#99	22.79	24.79	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#0	23.45	25.45	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#25	22.67	24.67	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#50	22.37	24.37	30.00	PASS
Band4	20MHz	QPSK	20050	100RB#0	22.51	24.51	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#0	22.46	24.46	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#49	24.89	26.89	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#99	23.18	25.18	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#0	22.42	24.42	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#25	22.53	24.53	30.00	PASS



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Band4	20MHz	QPSK	20175	50RB#50	22.36	24.36	30.00	PASS
Band4	20MHz	QPSK	20175	100RB#0	22.25	24.25	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#0	23.14	25.14	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#49	23.89	25.89	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#99	22.00	24.00	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#0	22.19	24.19	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#25	22.41	24.41	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#50	21.89	23.89	30.00	PASS
Band4	20MHz	QPSK	20300	100RB#0	22.42	24.42	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#0	22.11	24.11	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#49	22.17	24.17	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#99	22.07	24.07	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#0	21.57	23.57	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#25	21.52	23.52	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#50	21.55	23.55	30.00	PASS
Band4	20MHz	16QAM	20050	100RB#0	21.61	23.61	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#0	21.72	23.72	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#49	22.01	24.01	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#99	21.96	23.96	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#0	21.35	23.35	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#25	21.33	23.33	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#50	21.33	23.33	30.00	PASS
Band4	20MHz	16QAM	20175	100RB#0	21.18	23.18	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#0	22.05	24.05	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#49	21.71	23.71	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#99	21.87	23.87	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#0	21.49	23.49	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#25	21.38	23.38	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#50	21.36	23.36	30.00	PASS
Band4	20MHz	16QAM	20300	100RB#0	21.53	23.53	30.00	PASS

Remark:

a: For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b: SGP=Signal Generator Level



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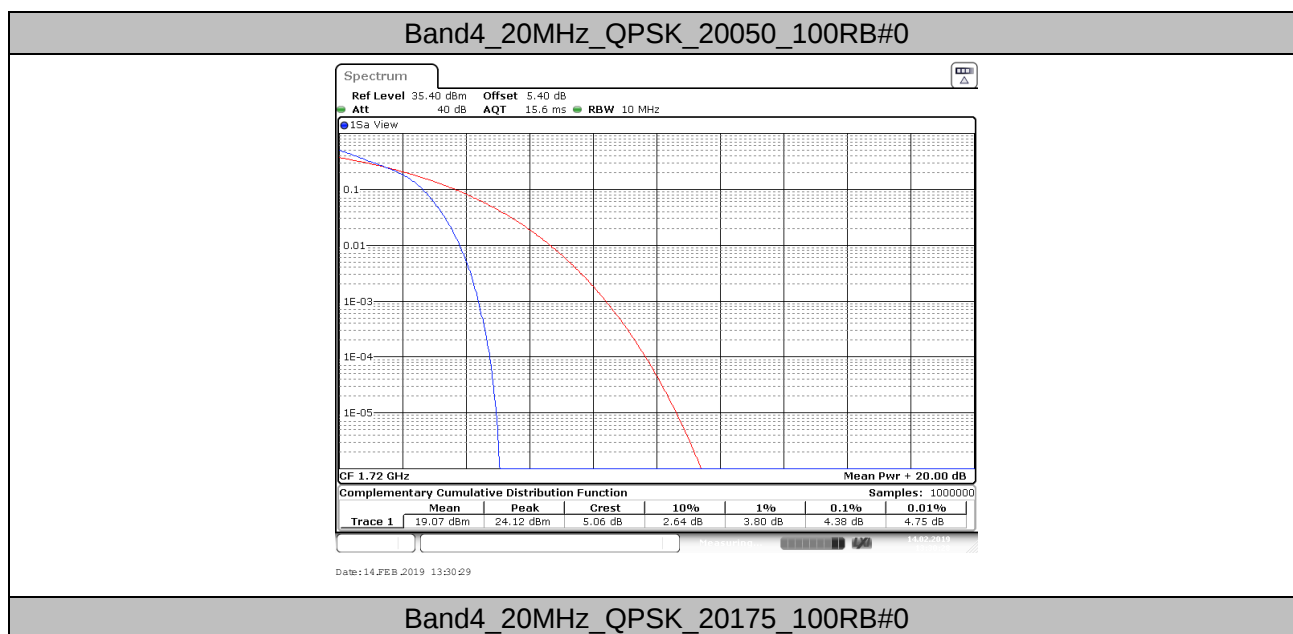
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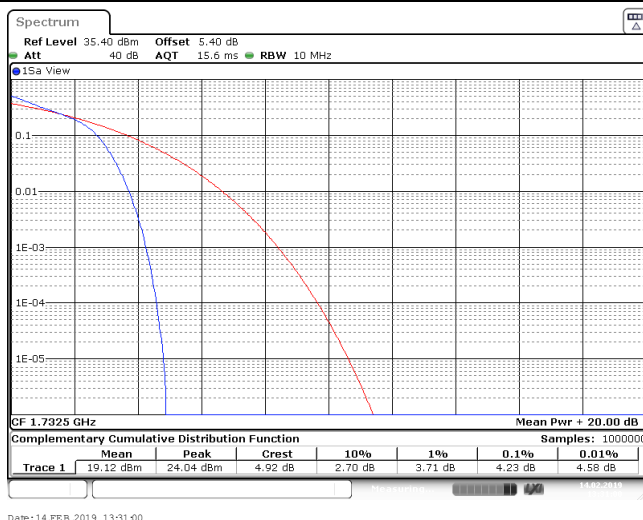
2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

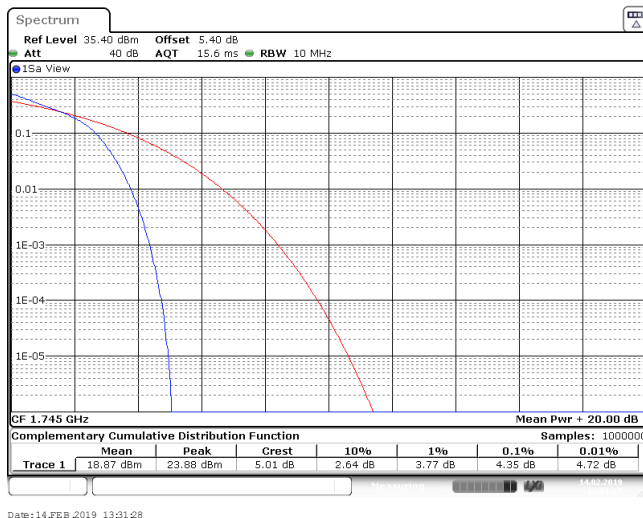
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	4.38	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	4.23	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	4.35	13	PASS
Band4	20MHz	16QAM	20050	100RB#0	5.91	13	PASS
Band4	20MHz	16QAM	20175	100RB#0	5.86	13	PASS
Band4	20MHz	16QAM	20300	100RB#0	5.88	13	PASS

2.2. Test Plots



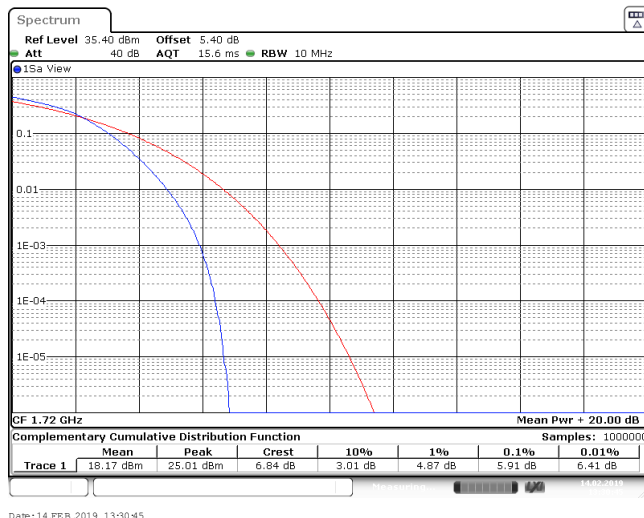


Band4_20MHz_QPSK_20300_100RB#0

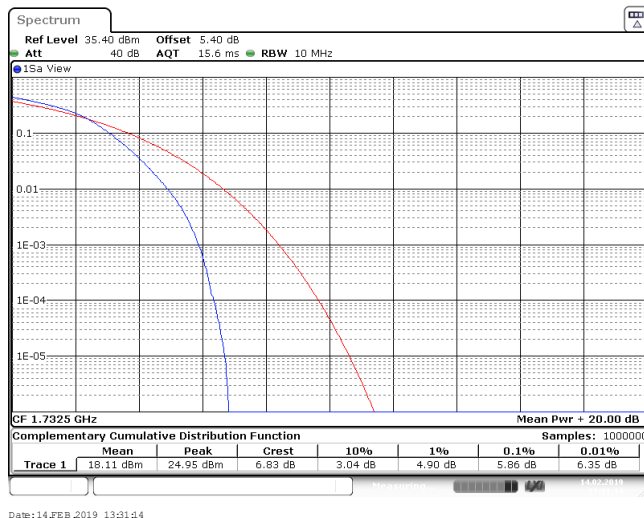


Band4_20MHz_16QAM_20050_100RB#0





Band4_20MHz_16QAM_20175_100RB#0

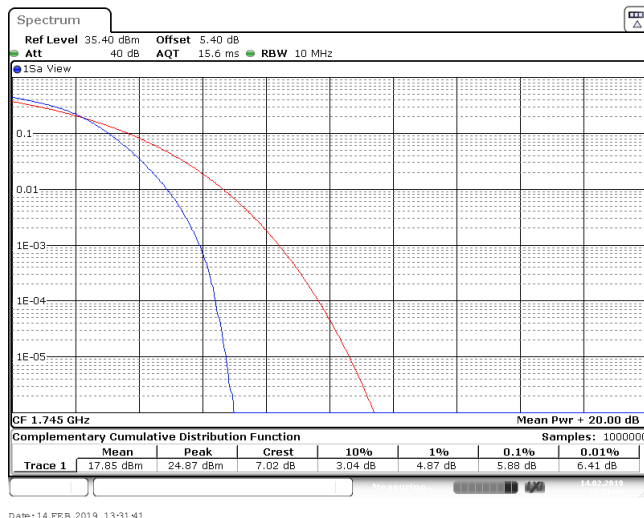


Band4_20MHz_16QAM_20300_100RB#0



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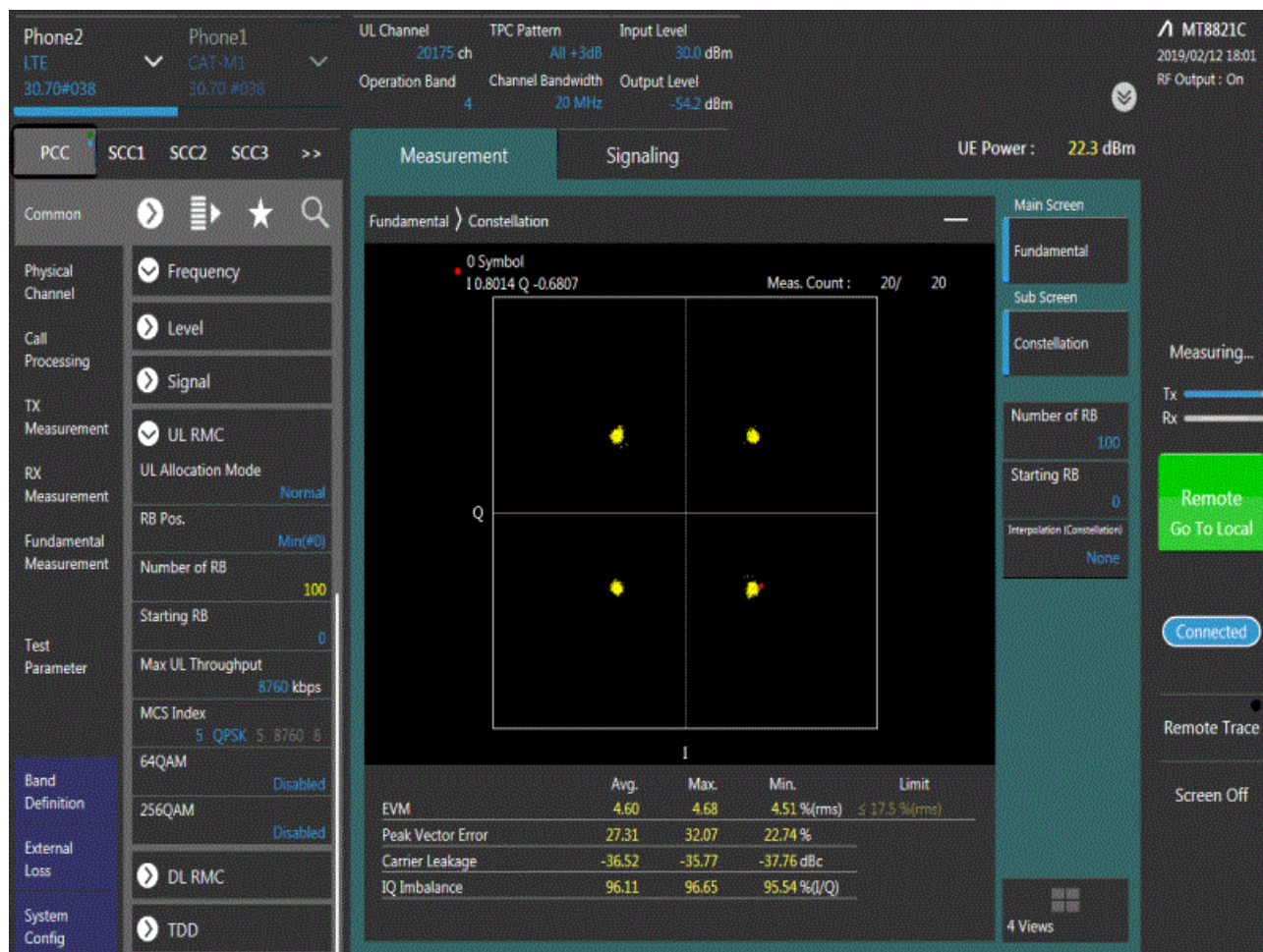
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3. Modulation Characteristics

3.1. Test BAND = LTE BAND4

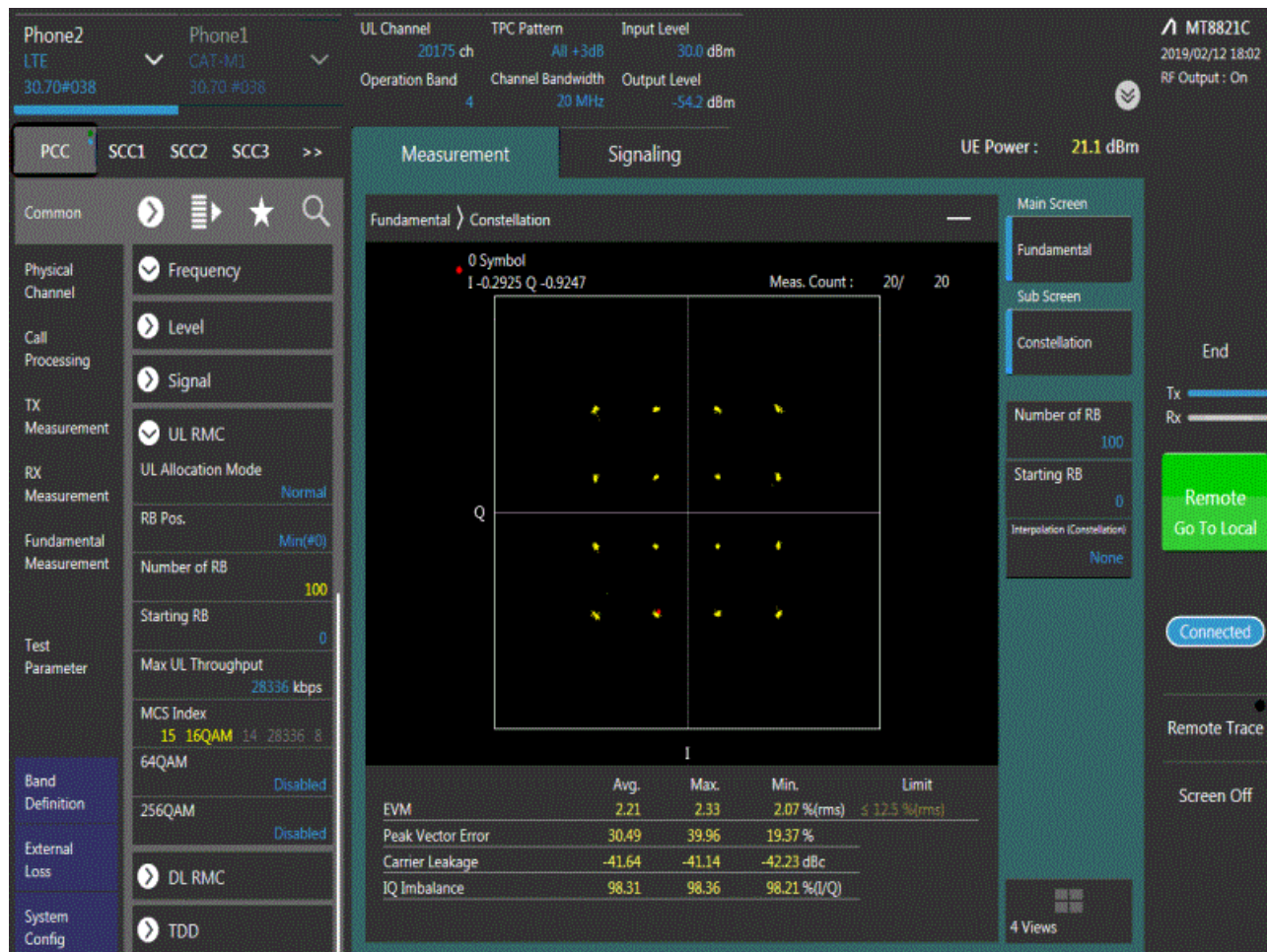
3.1.1. Test Mode = LTE /TM1 20MHz

3.1.1.1. Test Channel = MCH



3.1.2. Test Mode = LTE /TM2 20MHz

3.1.2.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.094	1.287	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.097	1.296	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.091	1.287	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.091	1.281	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.094	1.278	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.091	1.284	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.697	2.988	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.697	2.988	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.697	2.988	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.685	2.976	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.685	2.970	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.685	2.982	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.476	4.930	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.466	4.940	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.466	4.940	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.486	4.940	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.486	4.950	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.486	4.950	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.931	9.700	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.931	9.720	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.911	9.720	PASS
Band4	10MHz	16QAM	20000	50RB#0	8.911	9.740	PASS
Band4	10MHz	16QAM	20175	50RB#0	8.911	9.760	PASS
Band4	10MHz	16QAM	20350	50RB#0	8.911	9.760	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.427	14.730	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.427	14.700	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.427	14.790	PASS
Band4	15MHz	16QAM	20025	75RB#0	13.427	14.670	PASS
Band4	15MHz	16QAM	20175	75RB#0	13.397	14.610	PASS
Band4	15MHz	16QAM	20325	75RB#0	13.397	14.760	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.862	19.400	PASS



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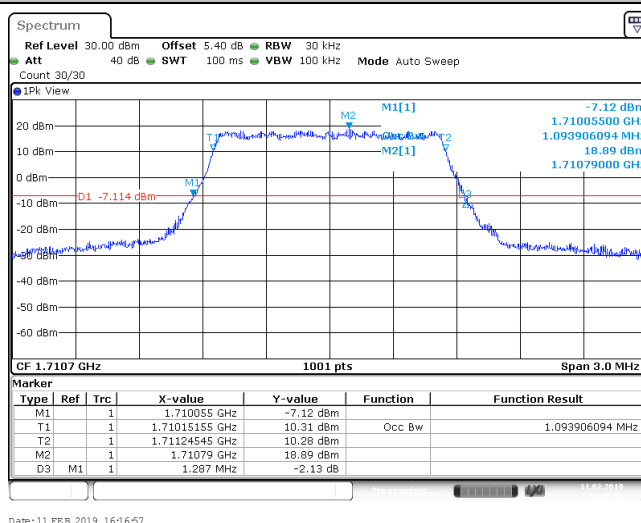
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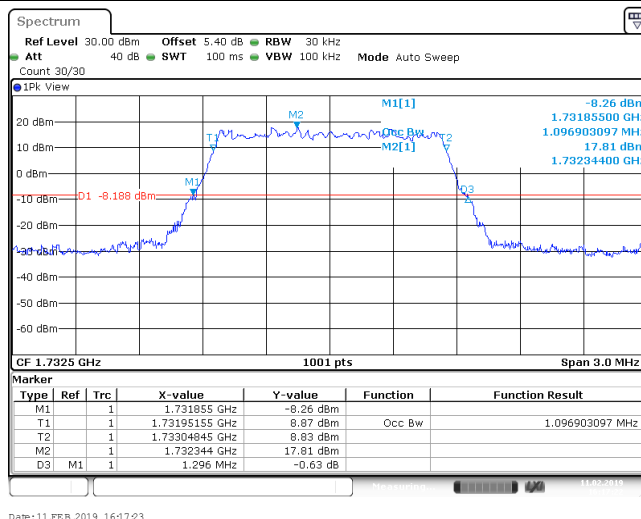
Band4	20MHz	QPSK	20175	100RB#0	17.822	19.360	PASS
Band4	20MHz	QPSK	20300	100RB#0	17.822	19.440	PASS
Band4	20MHz	16QAM	20050	100RB#0	17.862	19.320	PASS
Band4	20MHz	16QAM	20175	100RB#0	17.782	19.360	PASS
Band4	20MHz	16QAM	20300	100RB#0	17.862	19.320	PASS

4.2. Test Plots

Band4_1.4MHz_QPSK_19957_6RB#0

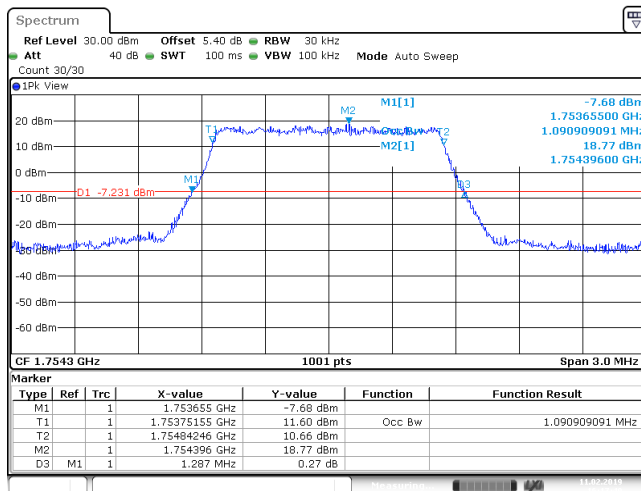


Band4_1.4MHz_QPSK_20175_6RB#0



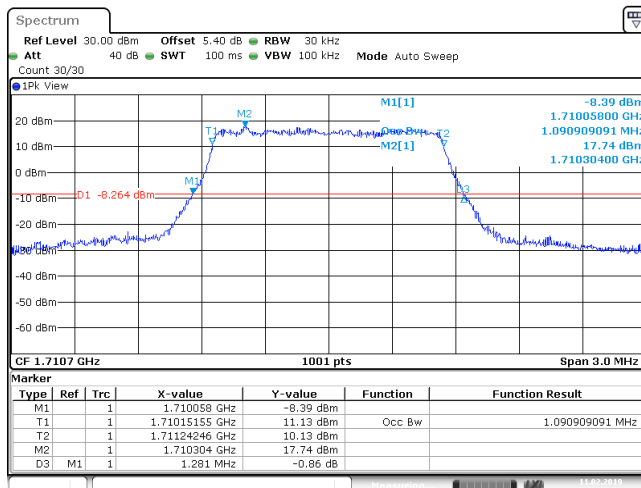
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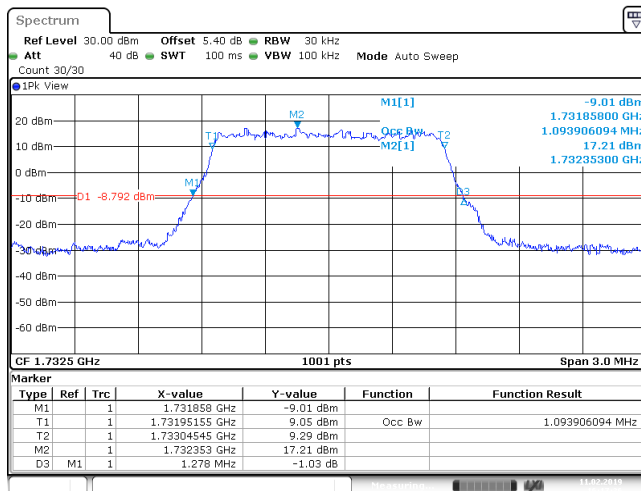
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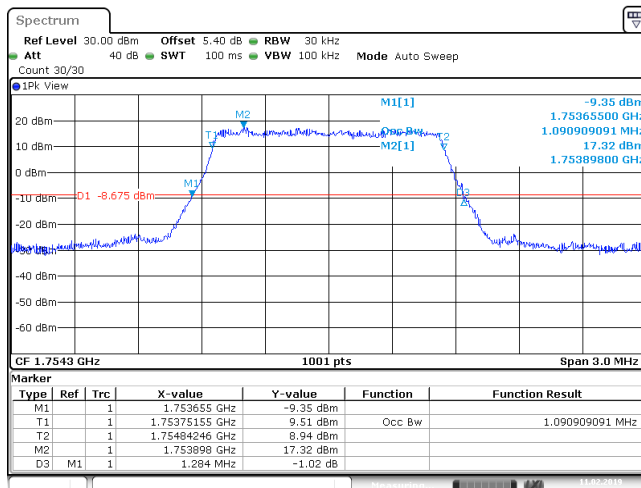
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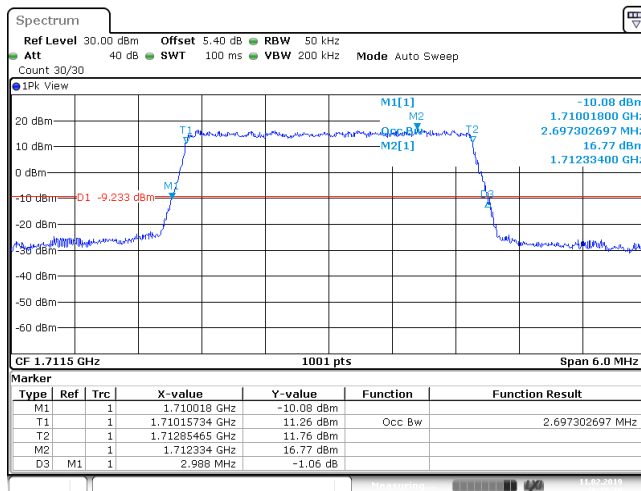
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Date: 11 FEB 2019 16:18:02

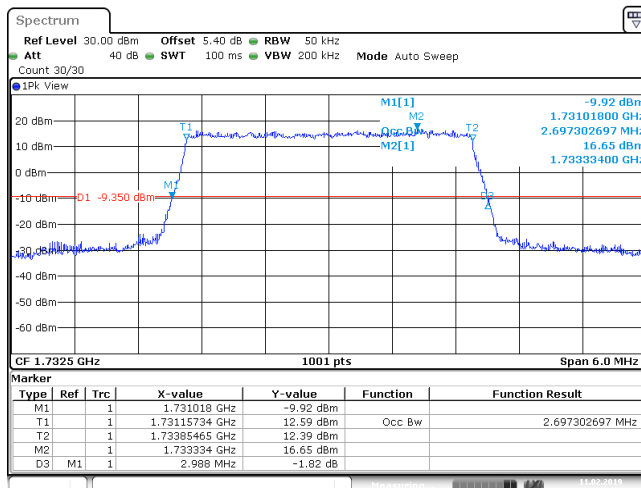
Band4_3MHz_QPSK_19965_15RB#0





Date: 11 FEB 2019 16:18:21

Band4_3MHz_QPSK_20175_15RB#0



Date: 11 FEB 2019 16:18:47

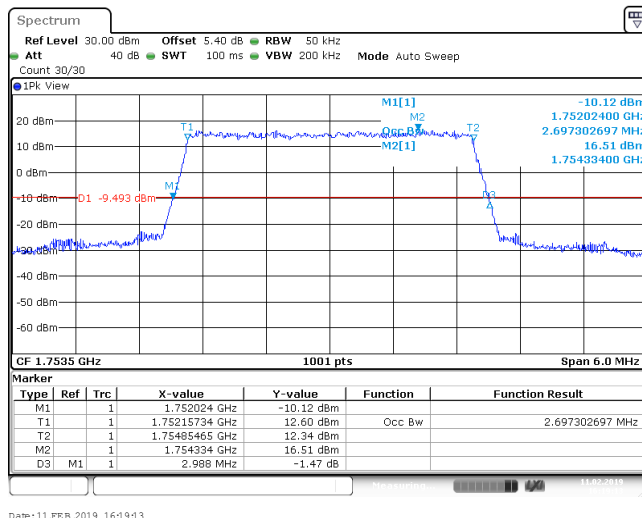
Band4_3MHz_QPSK_20385_15RB#0



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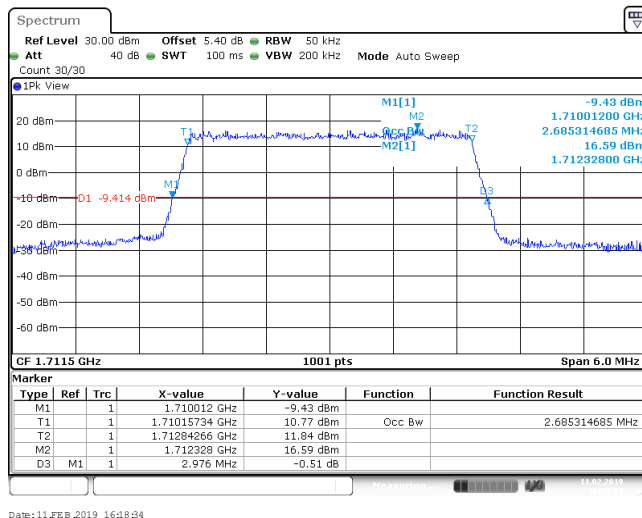
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Date: 11 FEB 2019 16:19:13

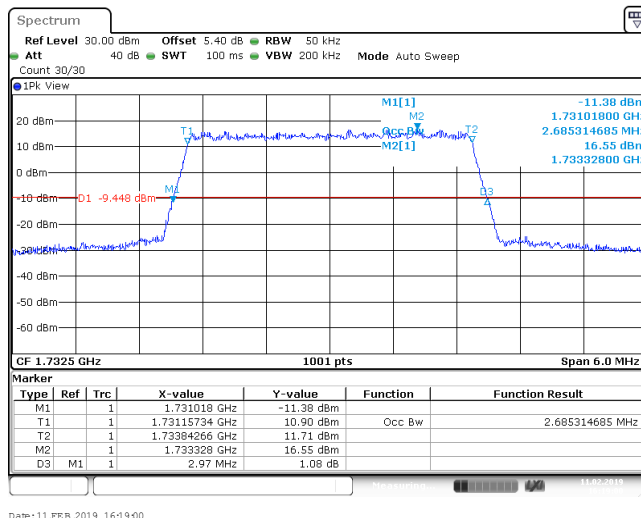
Band4_3MHz_16QAM_19965_15RB#0



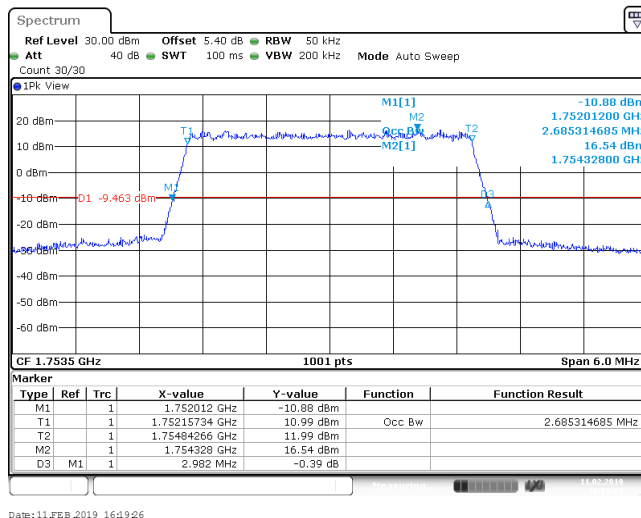
Date: 11 FEB 2019 16:18:34

Band4_3MHz_16QAM_20175_15RB#0



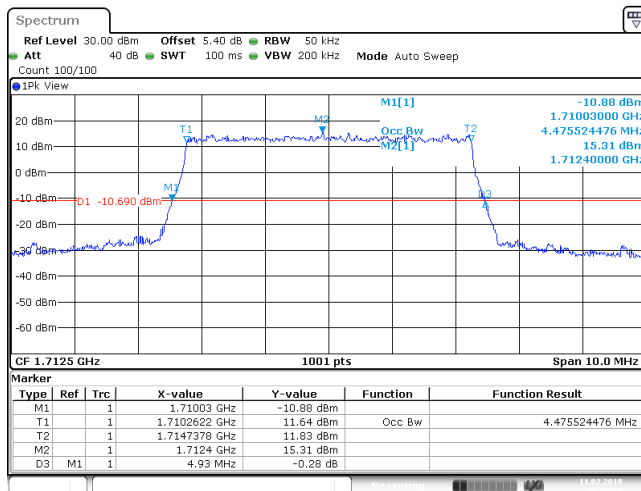


Band4_3MHz_16QAM_20385_15RB#0



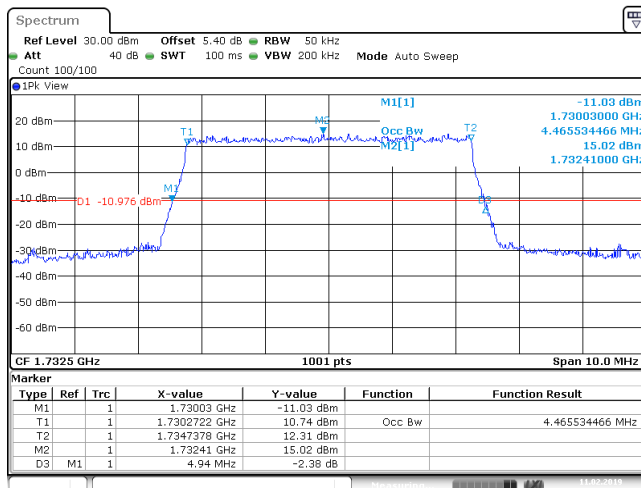
Band4_5MHz_QPSK_19975_25RB#0





Date: 11 FEB 2019 16:19:51

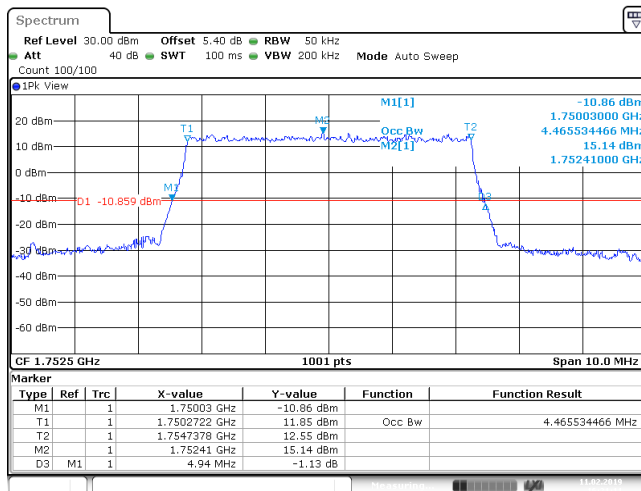
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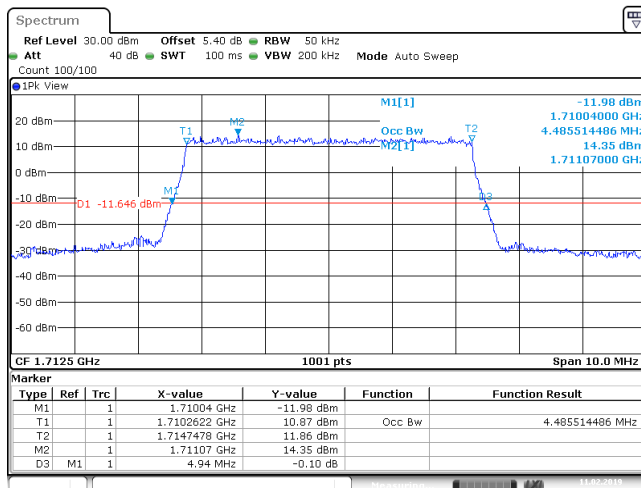
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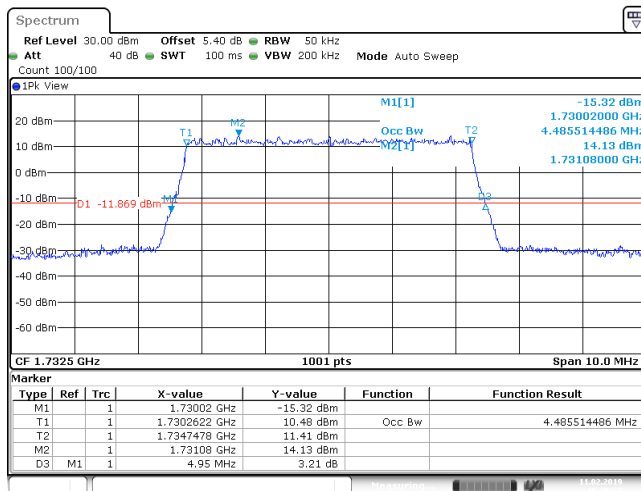
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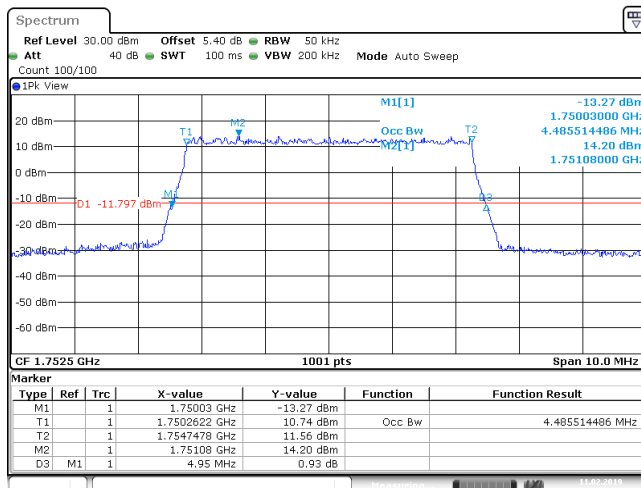
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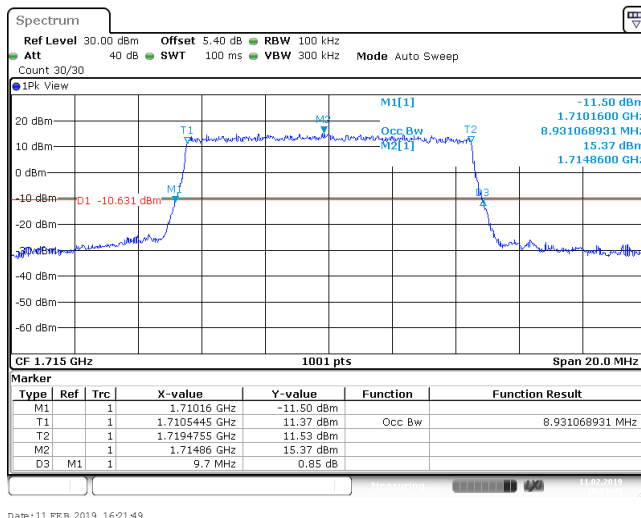
Band4_5MHz_16QAM_20375_25RB#0



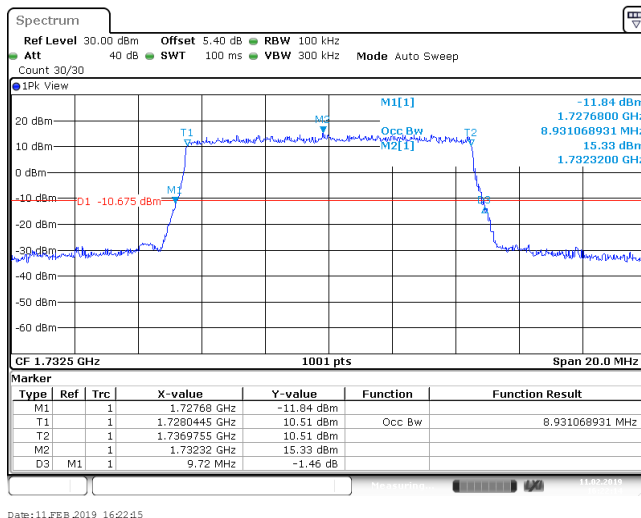
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Band4_10MHz_QPSK_20000_50RB#0



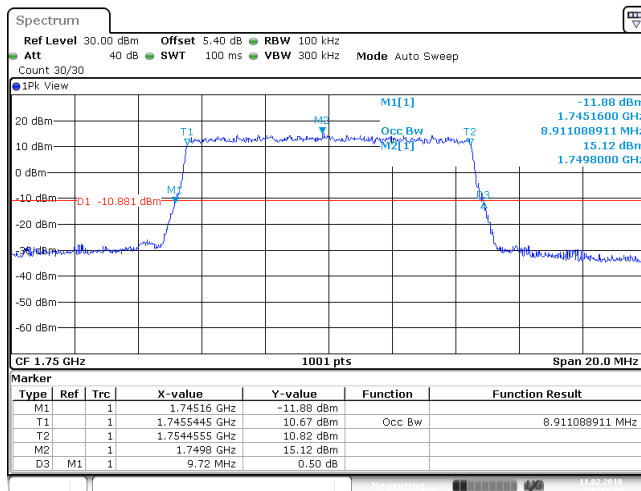


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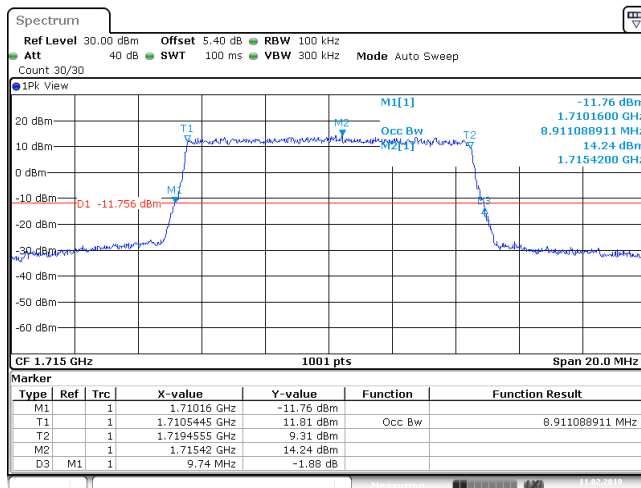
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Date: 11 FEB 2019 16:22:41

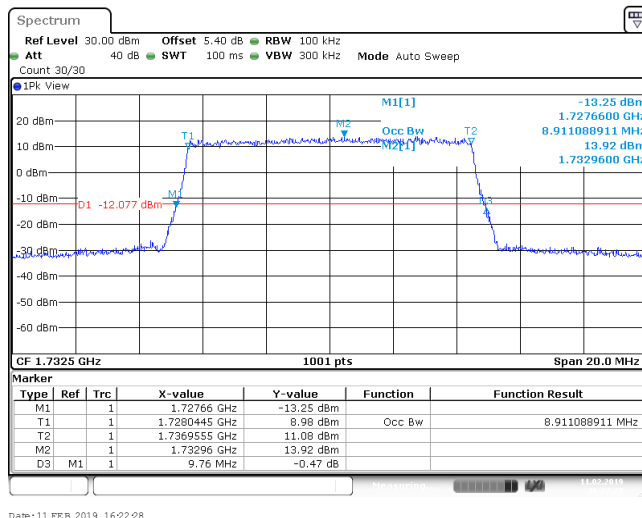
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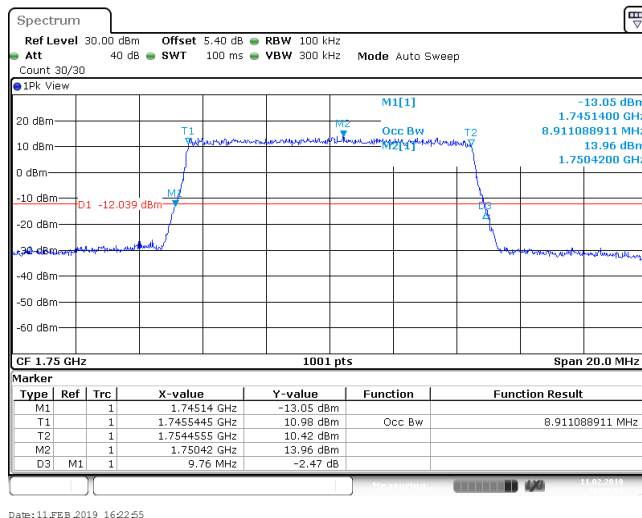
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Band4_10MHz_16QAM_20175_50RB#0



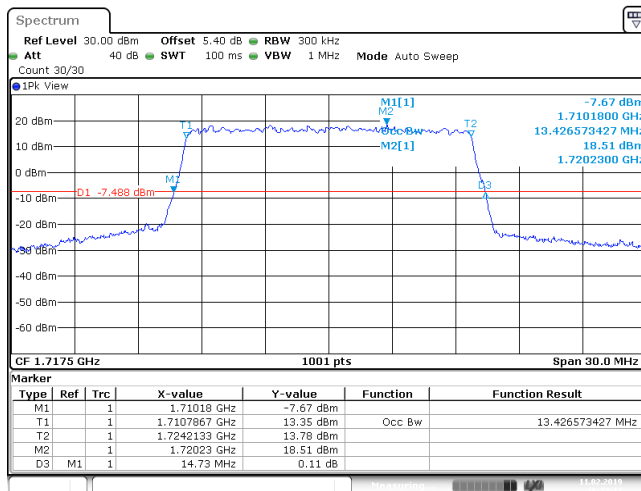


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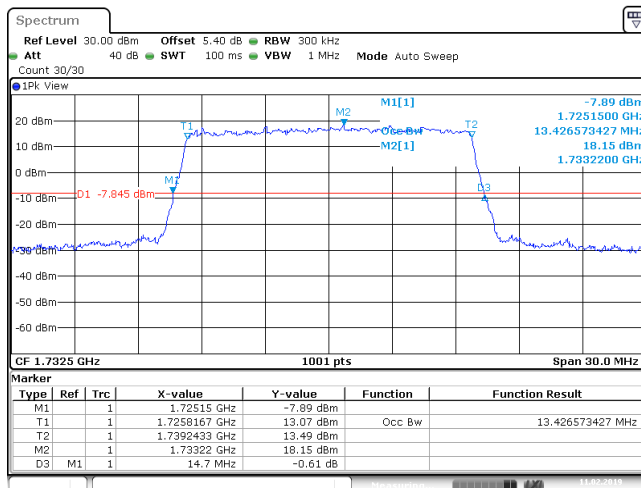
Band4_15MHz_QPSK_20025_75RB#0





Date: 11 FEB 2019 16:23:12

Band4_15MHz_QPSK_20175_75RB#0



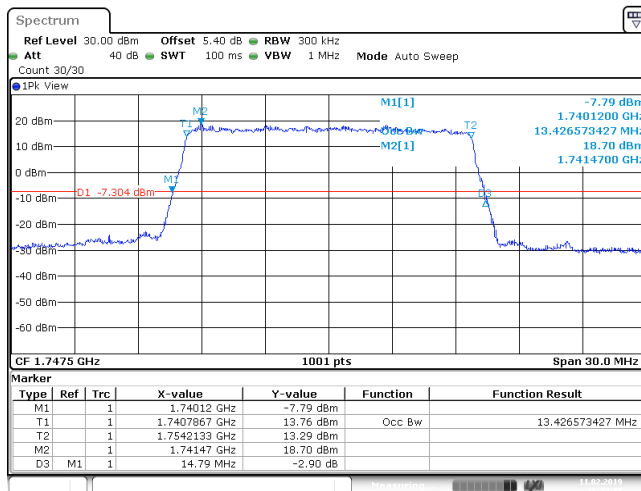
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Band4_15MHz_QPSK_20325_75RB#0



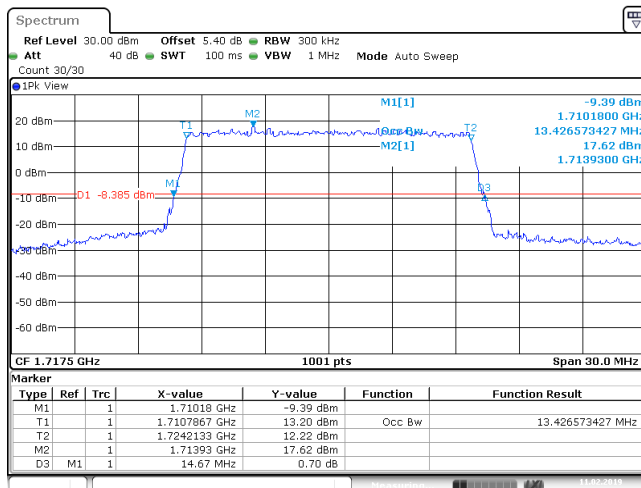
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Date: 11 FEB 2019 16:24:05

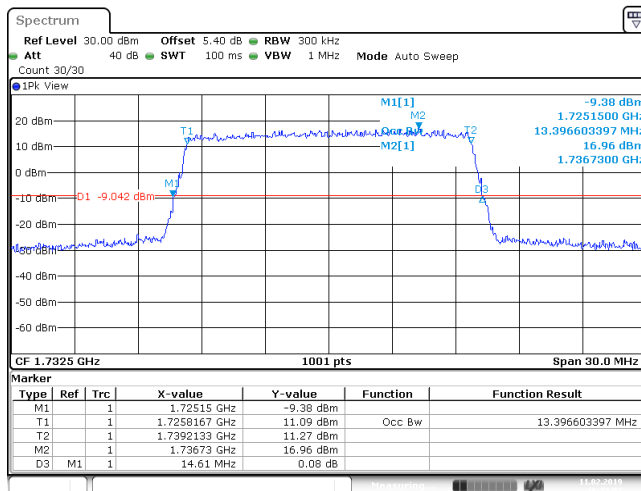
Band4_15MHz_16QAM_20025_75RB#0



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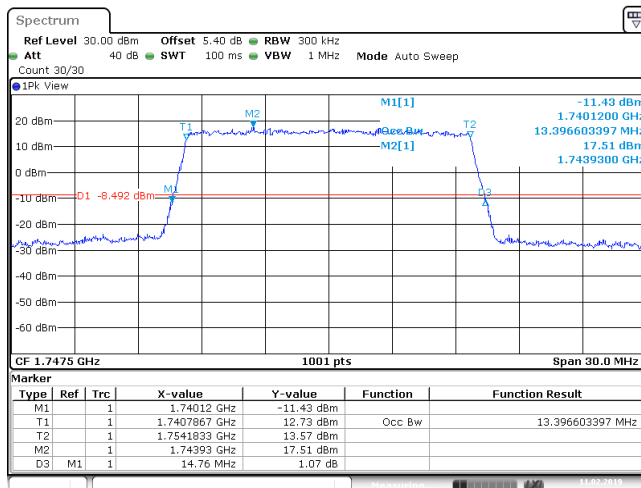
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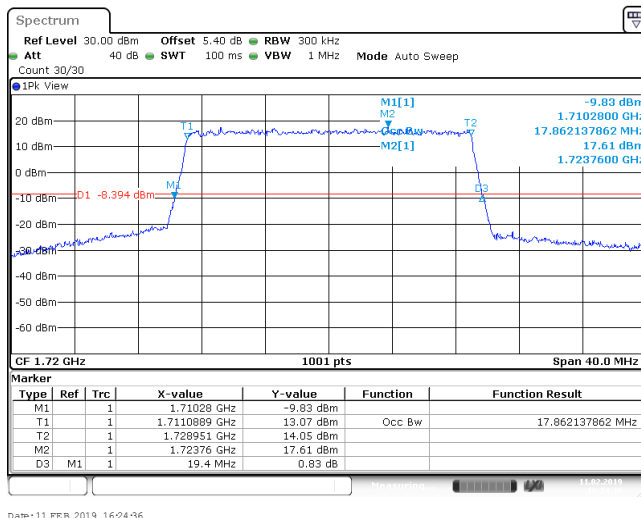
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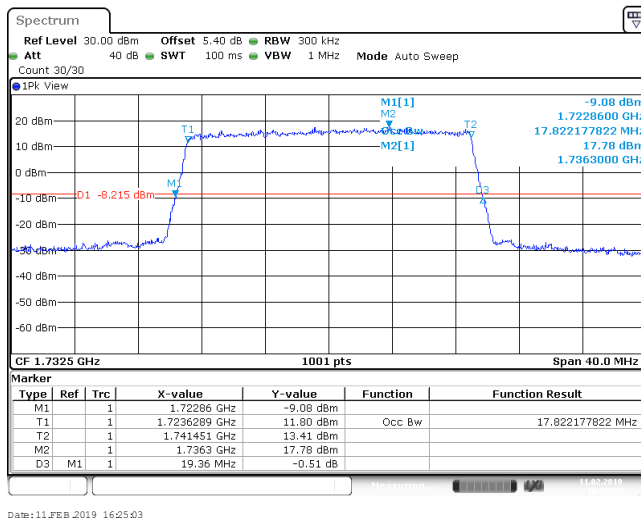
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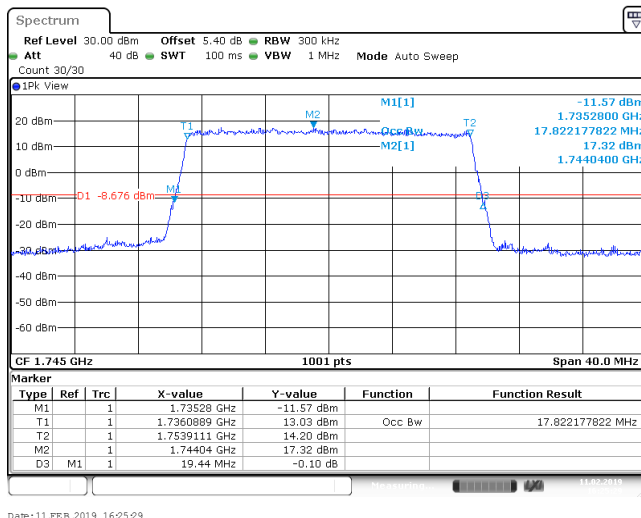


Band4_20MHz_QPSK_20175_100RB#0

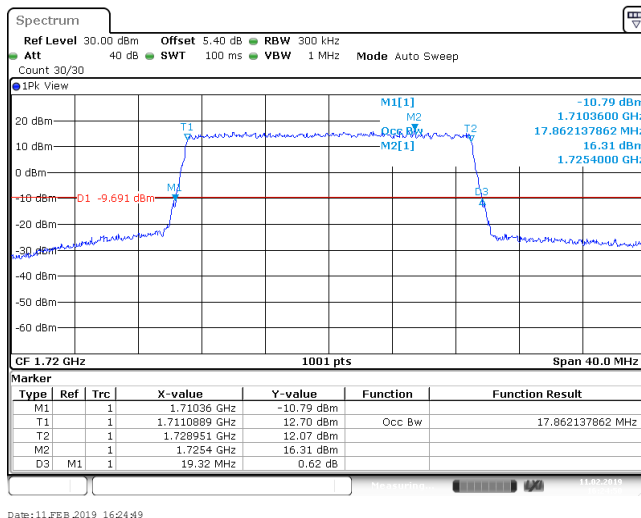


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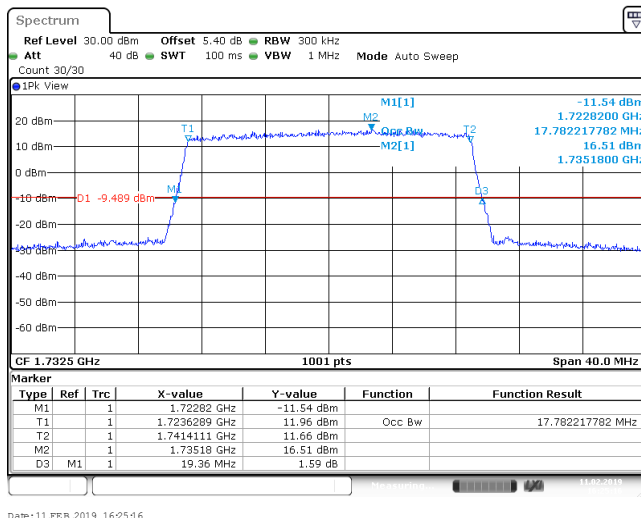


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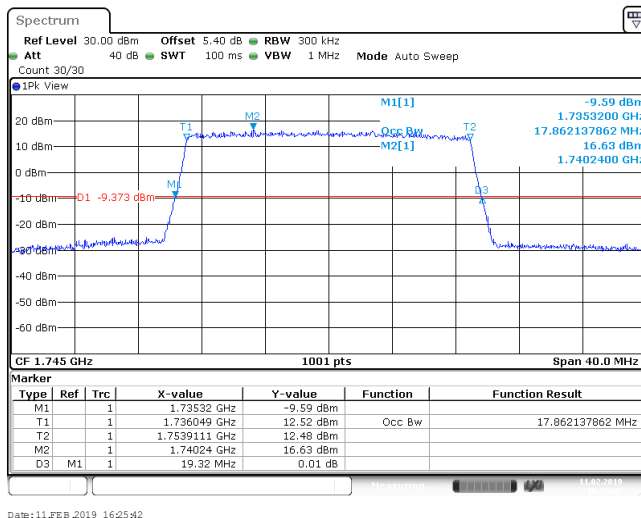


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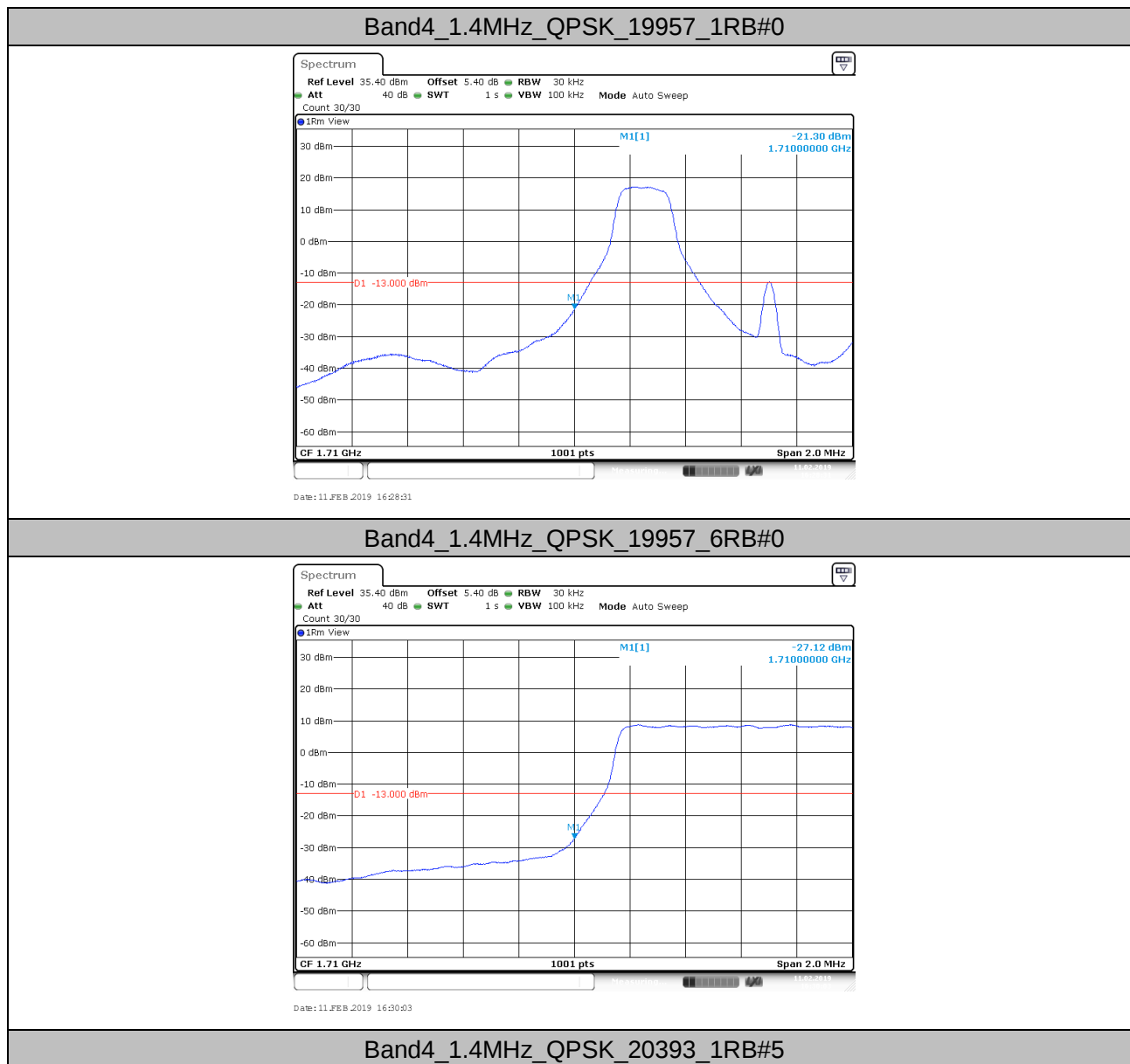
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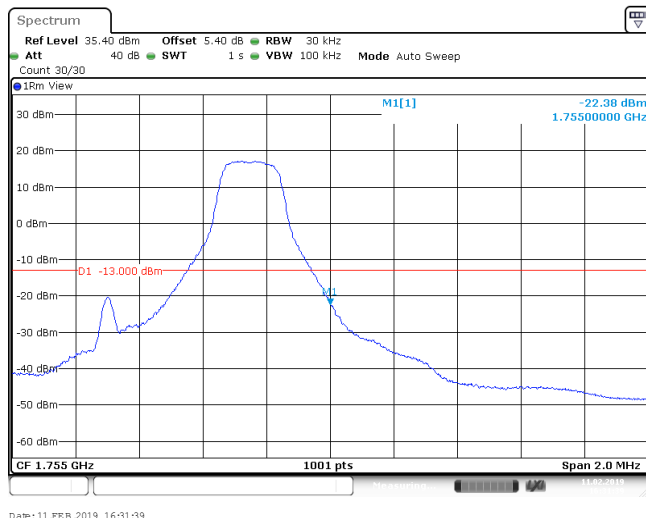




5. Band Edge Compliance

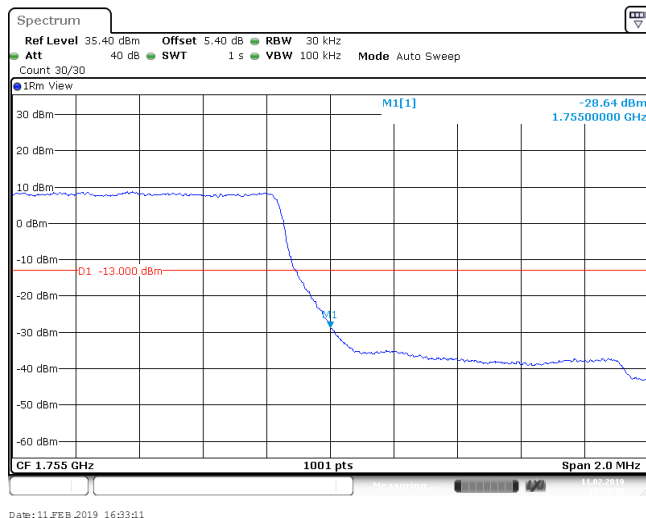
5.1. Test Plots





Date: 11 FEB 2019 16:31:39

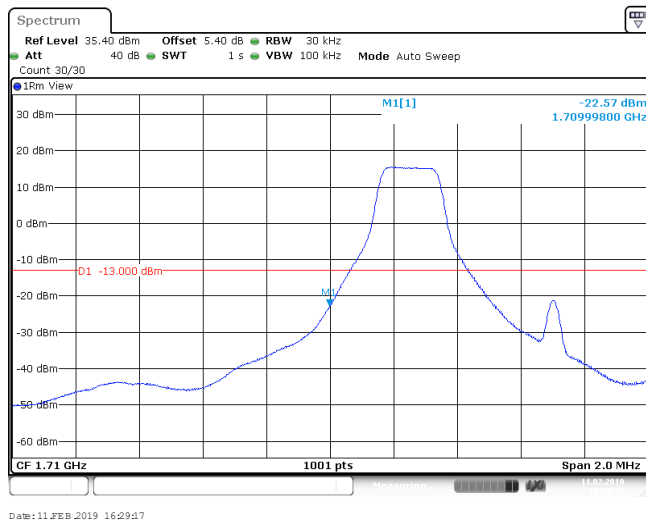
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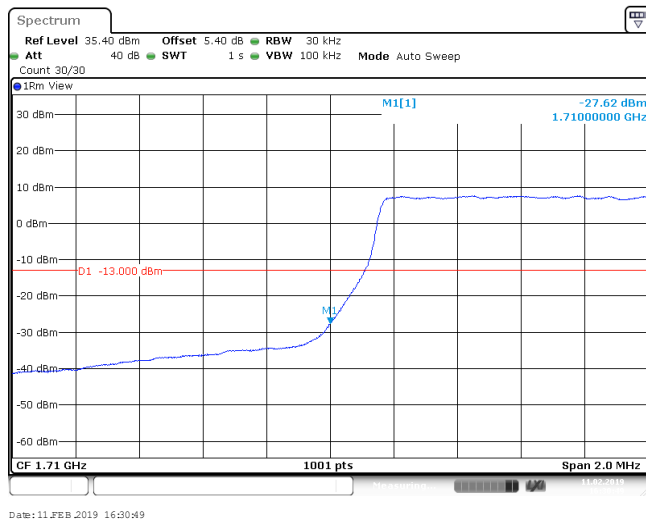
Date: 11 FEB 2019 16:33:11

Band4_1.4MHz_16QAM_19957_1RB#0



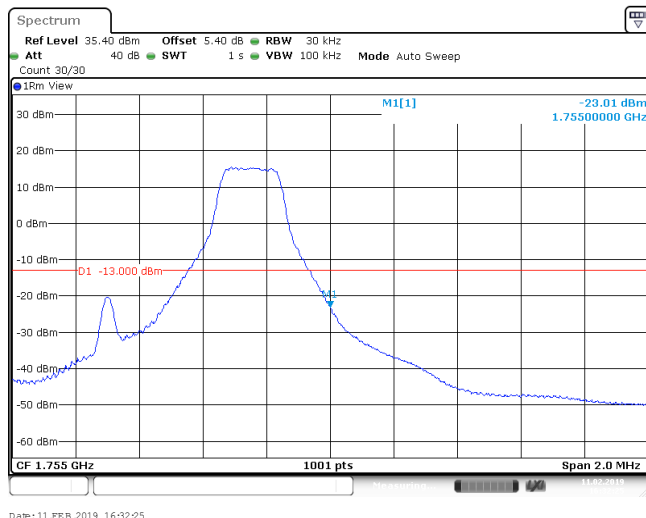


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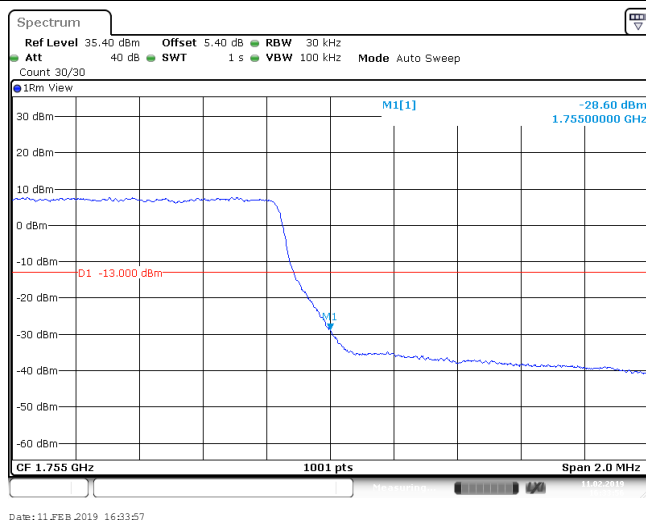


Band4_1.4MHz_16QAM_20393_1RB#5





Band4_1.4MHz_16QAM_20393_6RB#0



Band4_3MHz_QPSK_19965_1RB#0



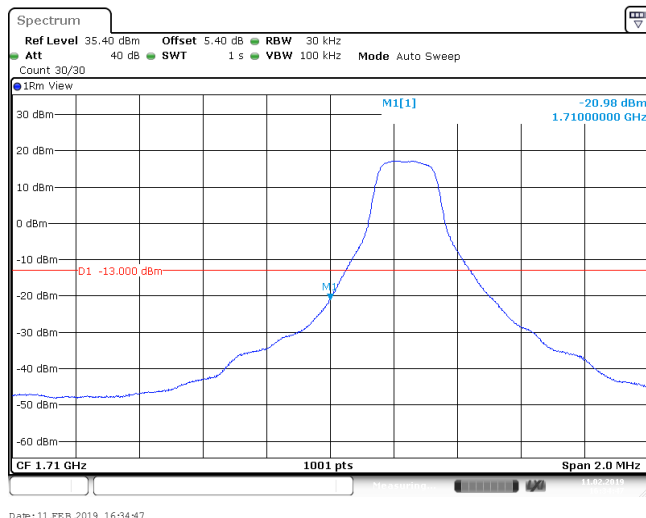
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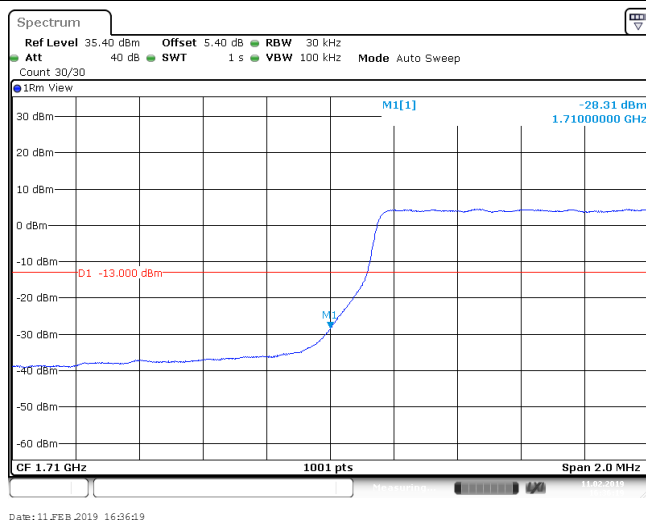
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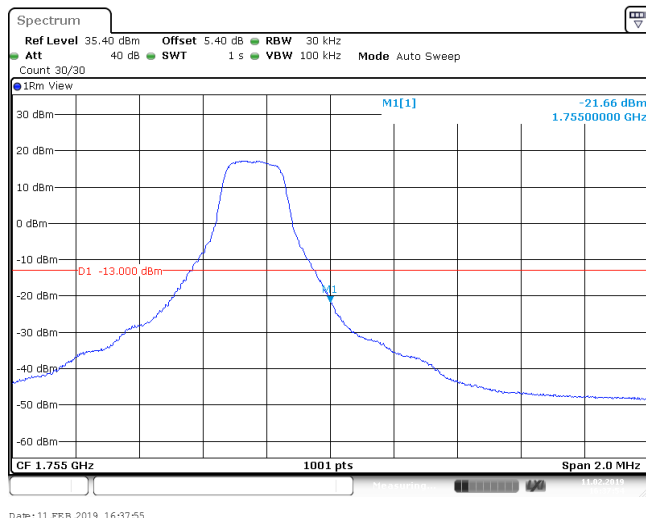


Band4_3MHz_QPSK_19965_15RB#0

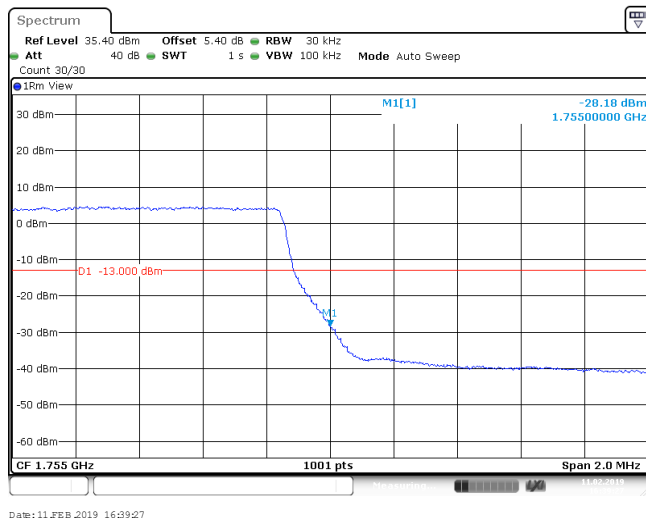


Band4_3MHz_QPSK_20385_1RB#14



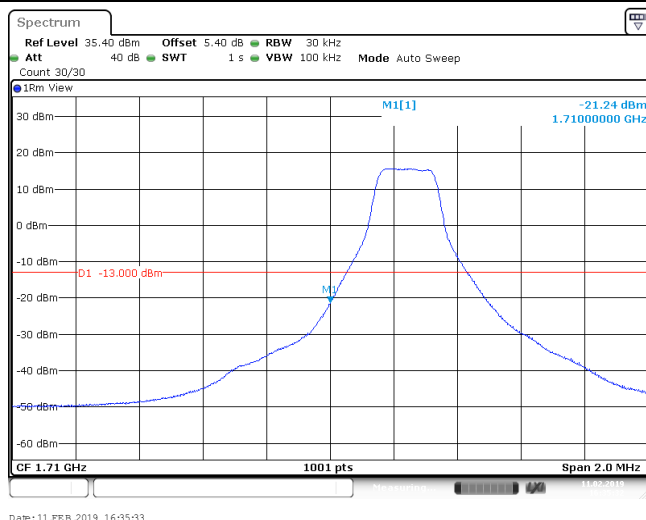


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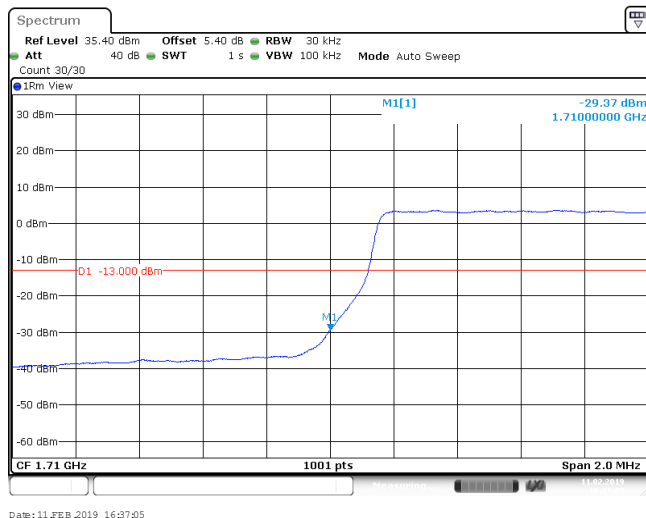


Band4_3MHz_16QAM_19965_1RB#0





Band4_3MHz_16QAM_19965_15RB#0



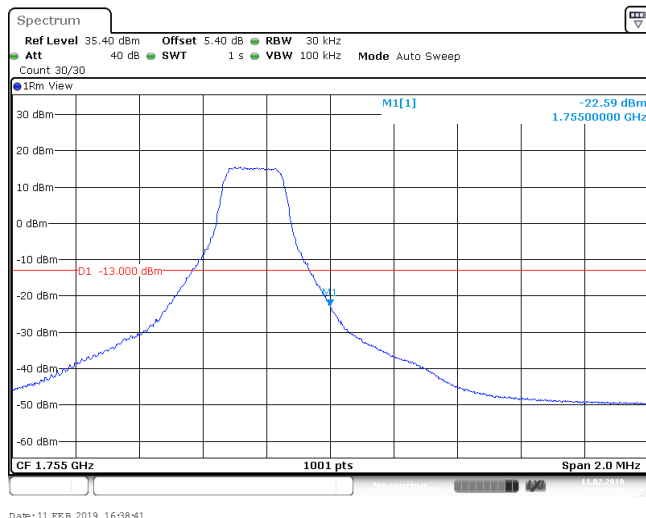
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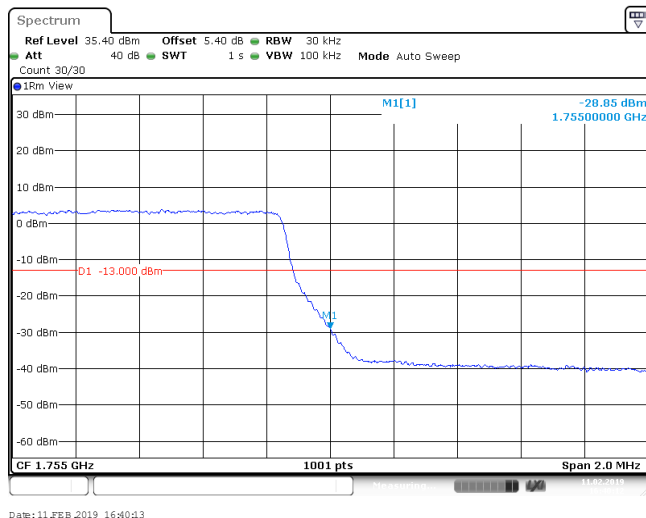
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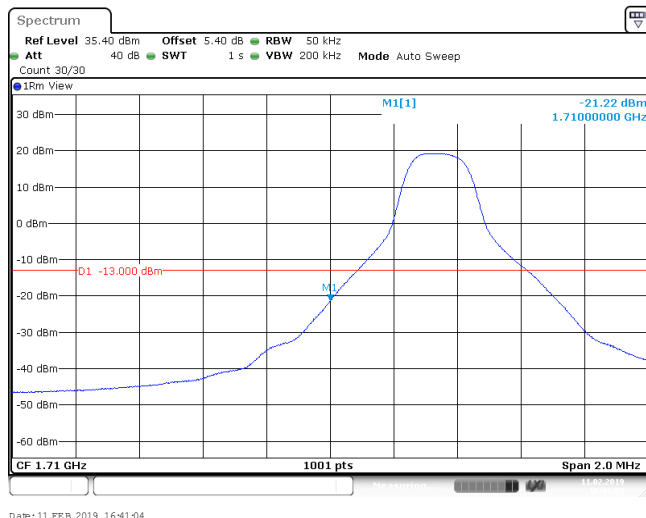


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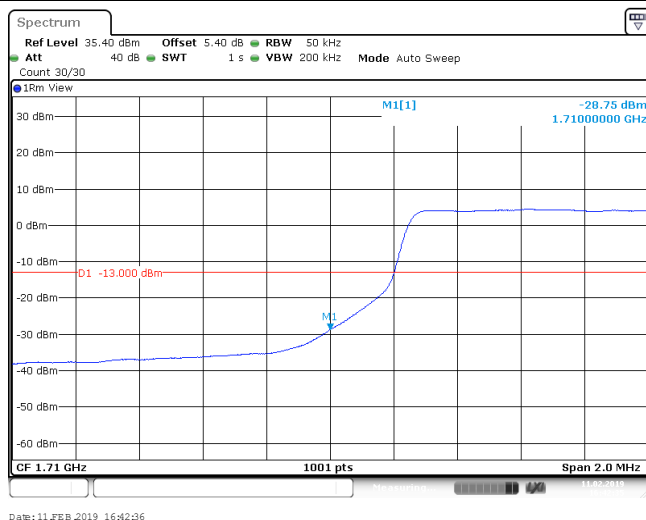


Band4_5MHz_QPSK_19975_1RB#0



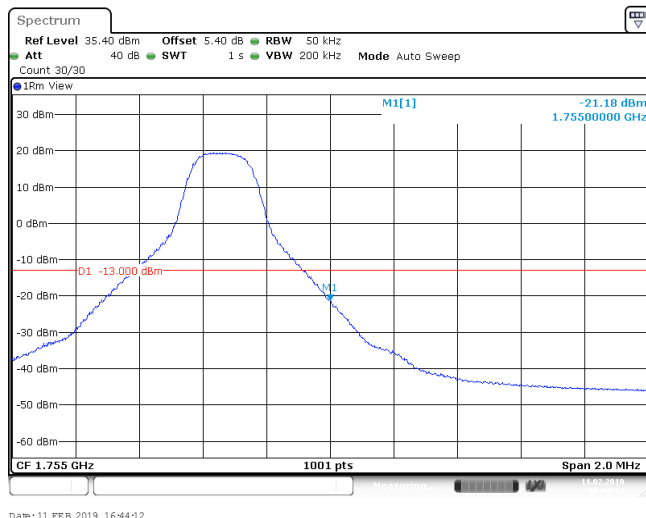


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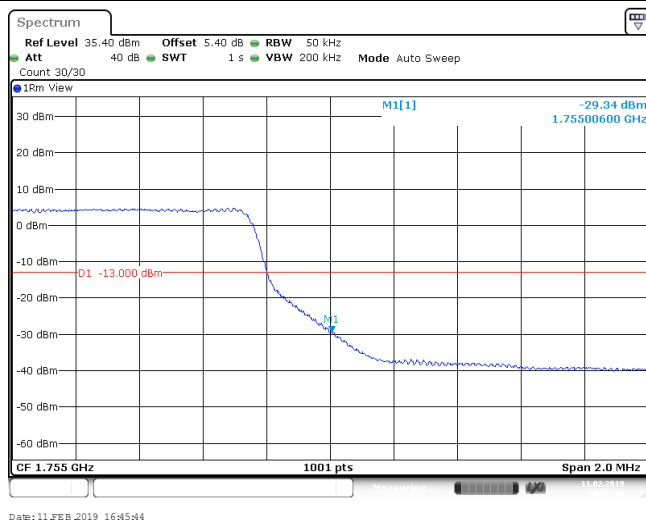


Band4_5MHz_QPSK_20375_1RB#24





Band4_5MHz_QPSK_20375_25RB#0

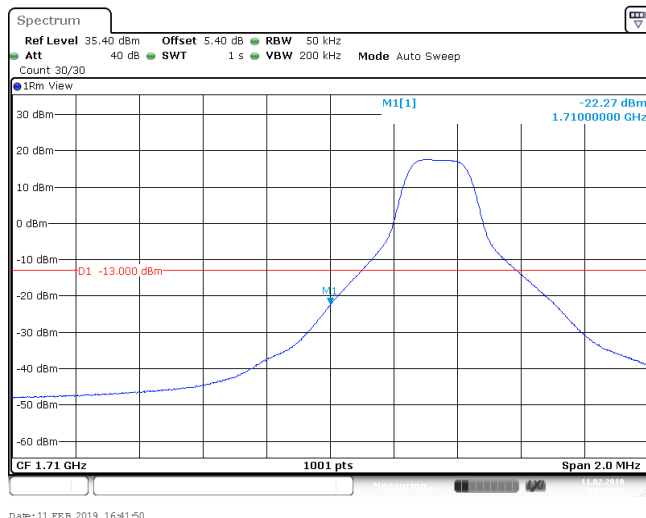


Band4_5MHz_16QAM_19975_1RB#0

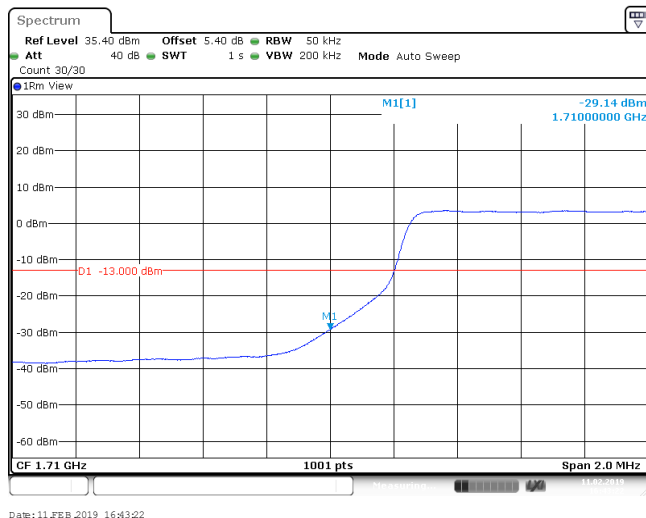


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Band4_5MHz_16QAM_19975_25RB#0



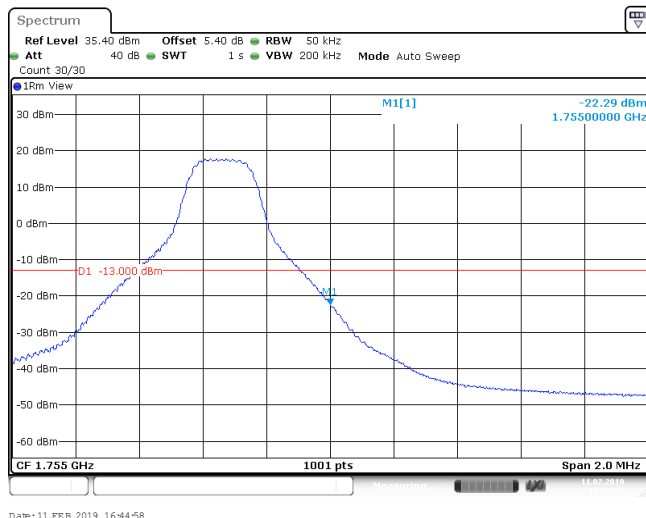
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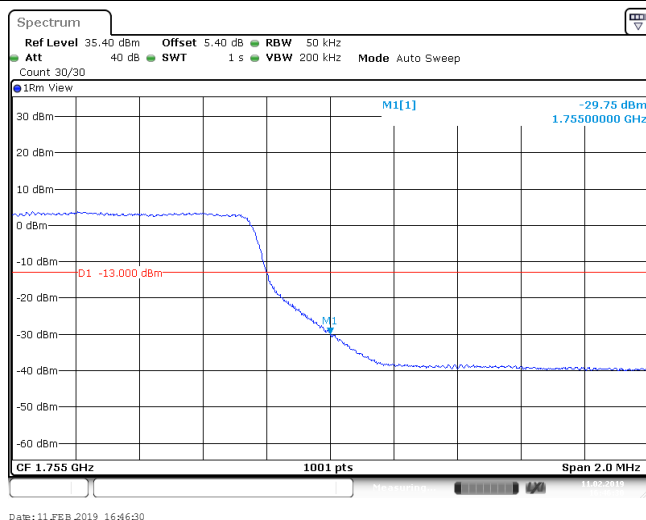
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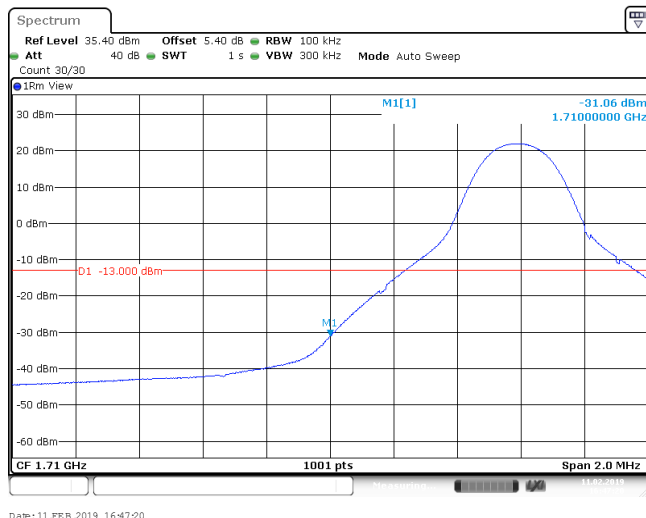


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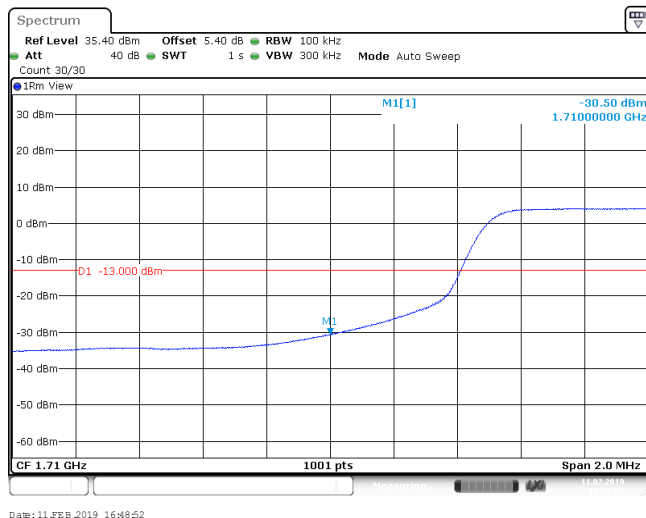


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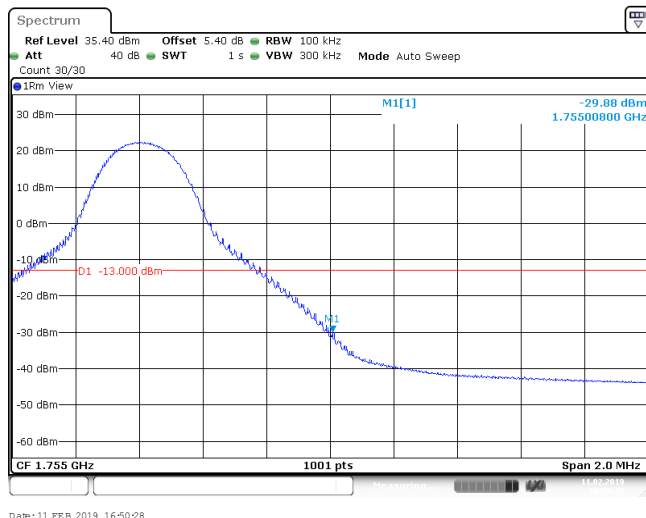


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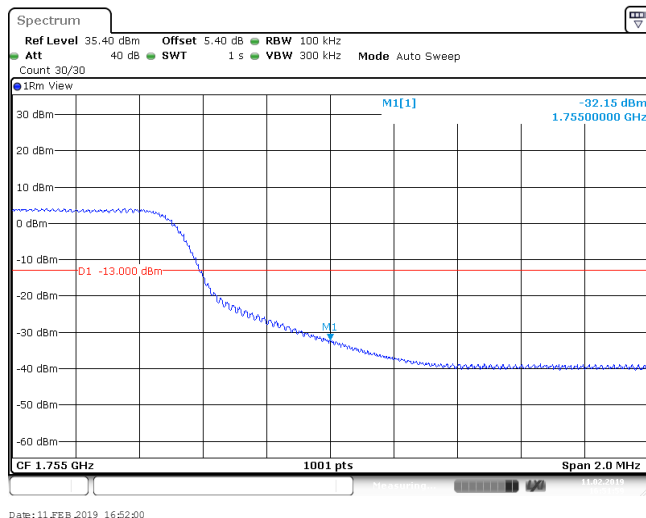


Band4_10MHz_QPSK_20350_1RB#49





Band4_10MHz_QPSK_20350_50RB#0



Band4_10MHz_16QAM_20000_1RB#0

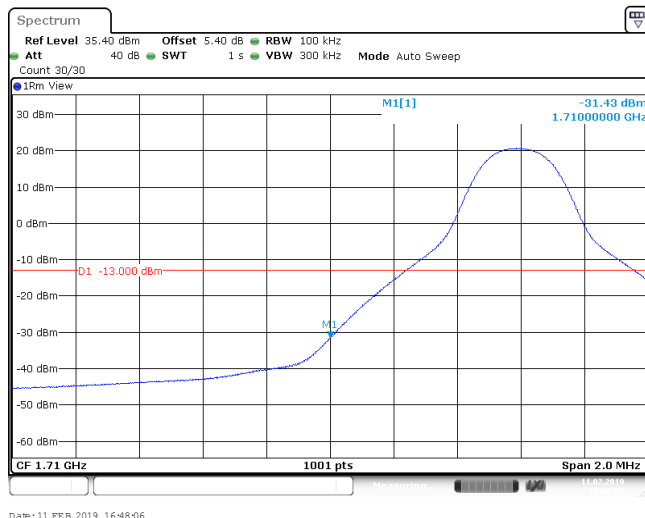


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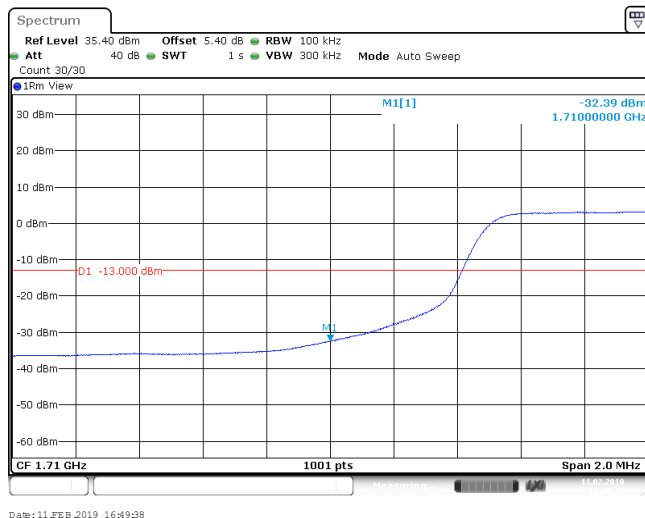
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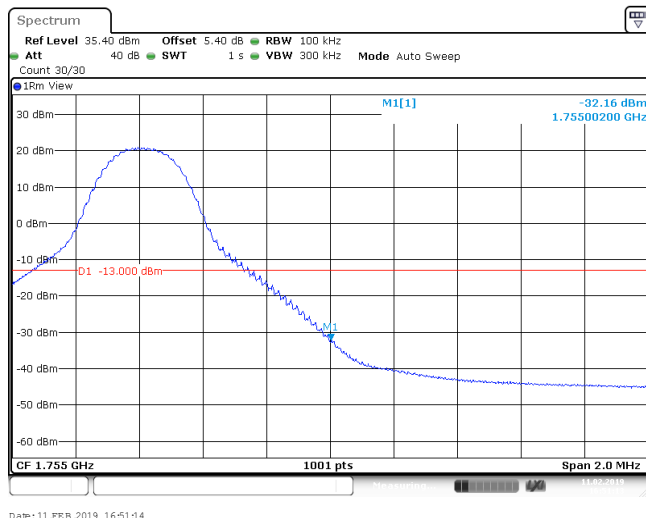


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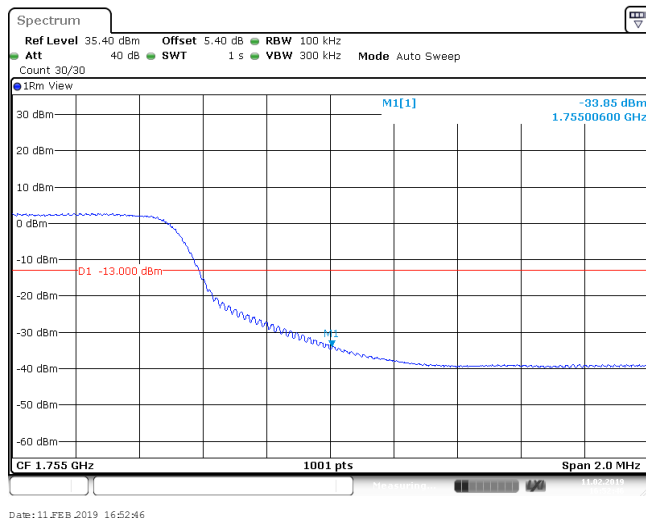


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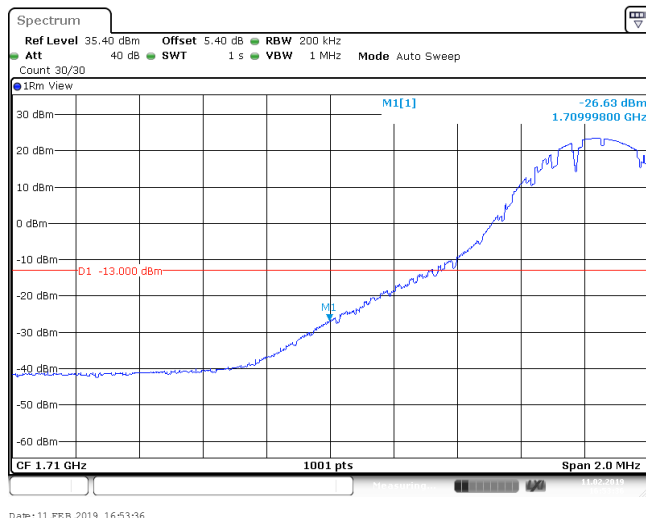


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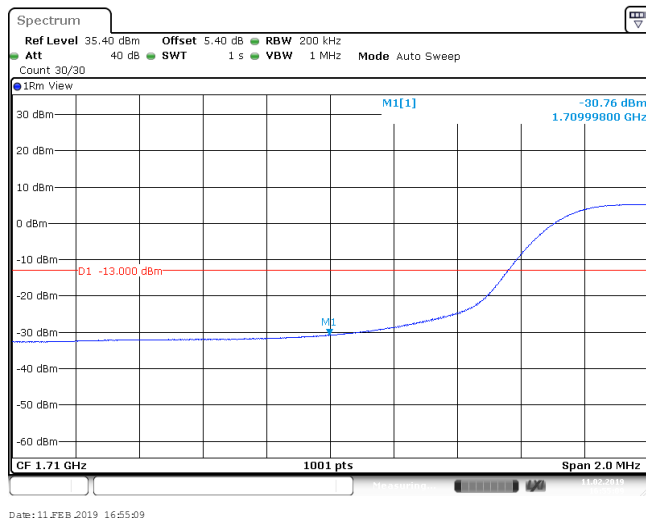


Band4_15MHz_QPSK_20025_1RB#0





Band4_15MHz_QPSK_20025_75RB#0



Band4_15MHz_QPSK_20325_1RB#74

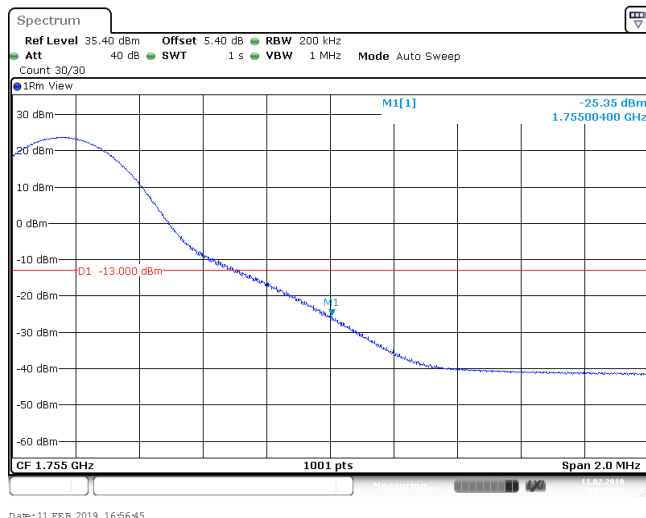


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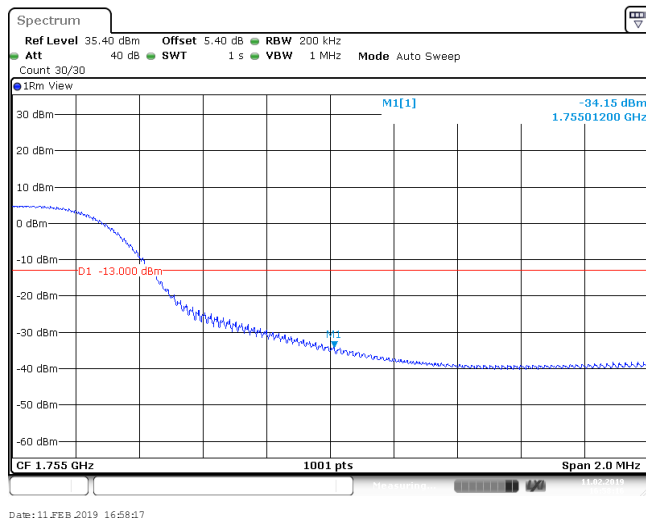
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Band4_15MHz_QPSK_20325_75RB#0



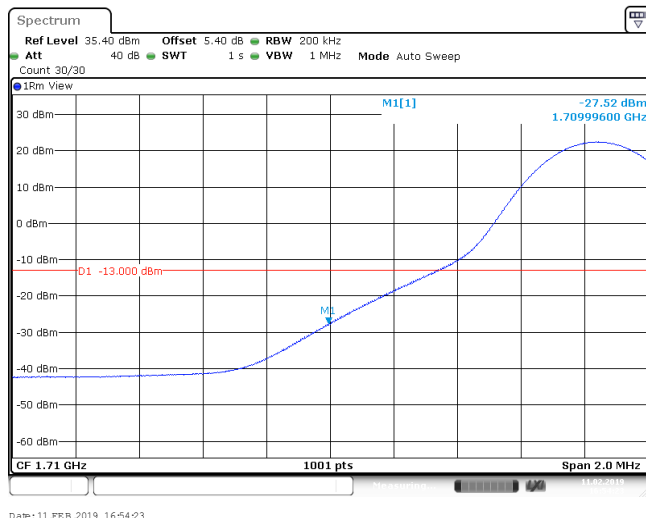
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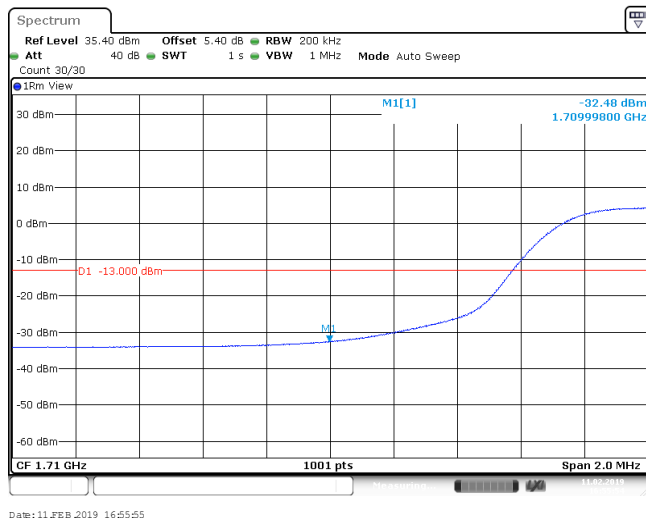
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Band4_15MHz_16QAM_20025_75RB#0



Band4_15MHz_16QAM_20325_1RB#74

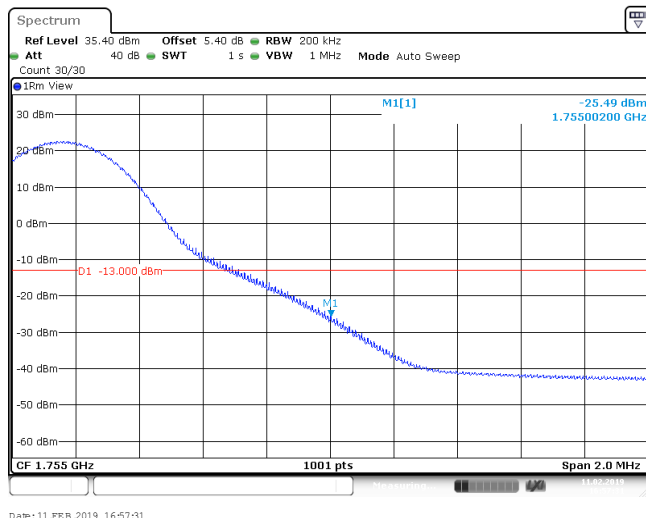


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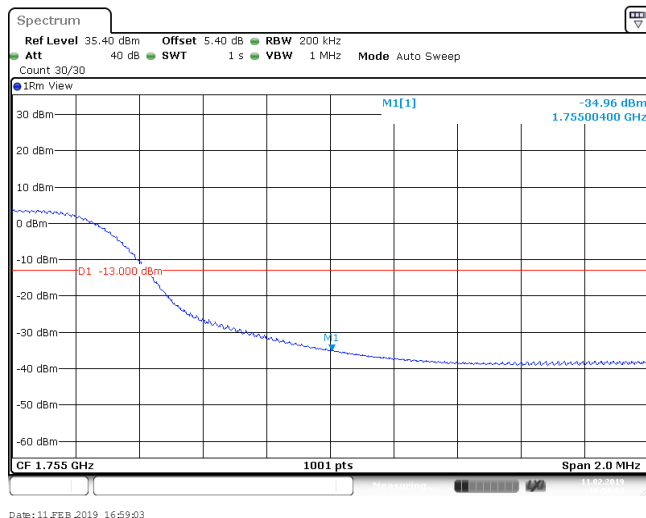
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Band4_15MHz_16QAM_20325_75RB#0

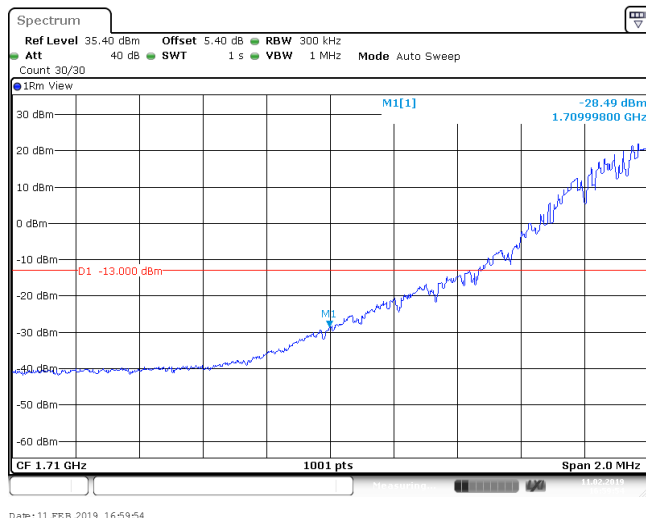


Band4_20MHz_QPSK_20050_1RB#0

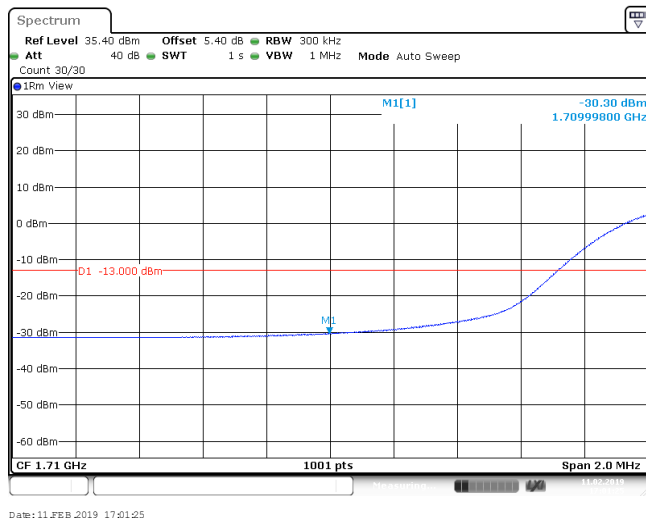


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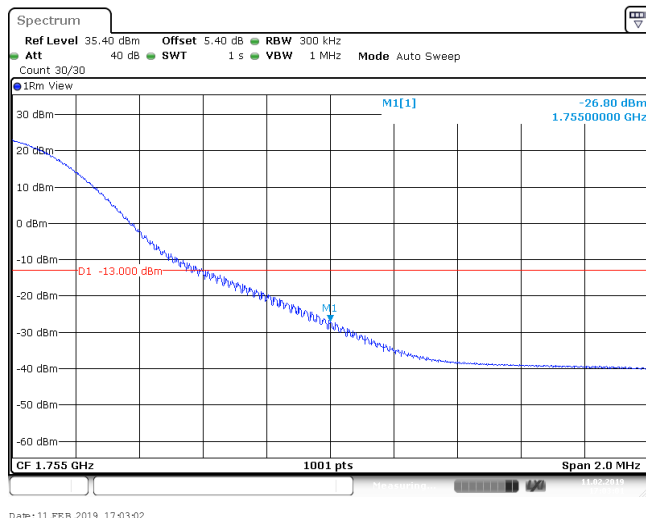


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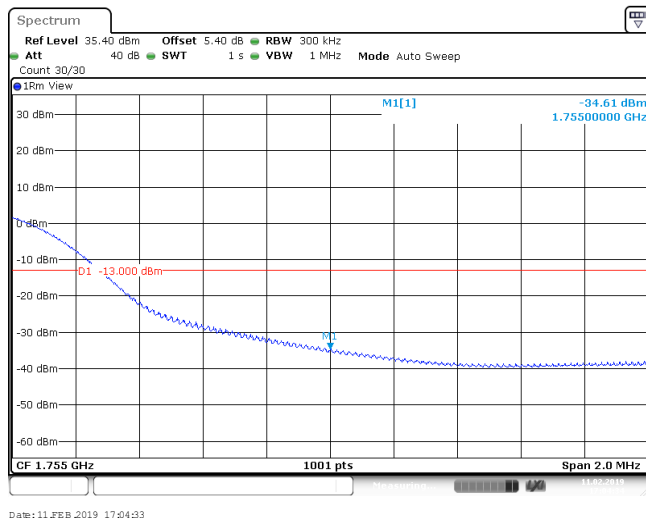


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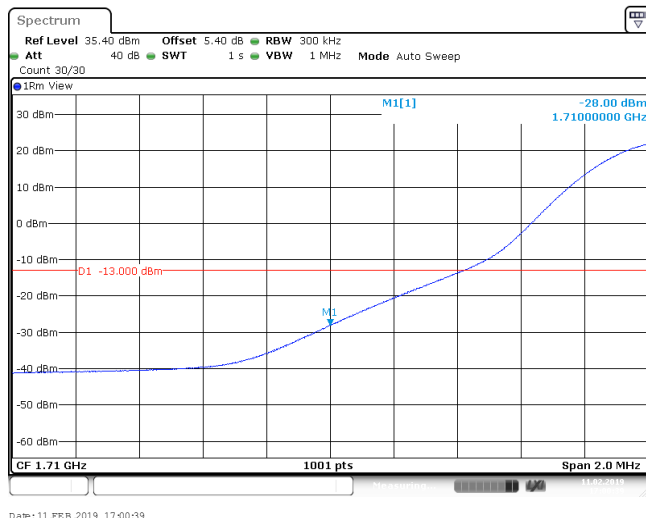


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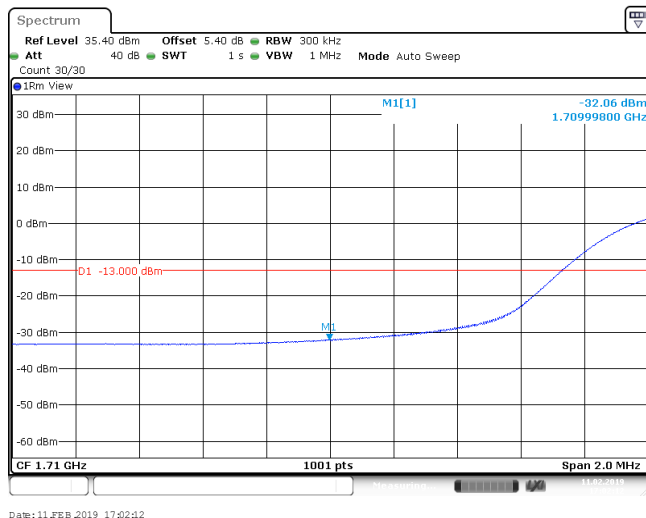


Band4_20MHz_16QAM_20050_1RB#0





Band4_20MHz_16QAM_20050_100RB#0



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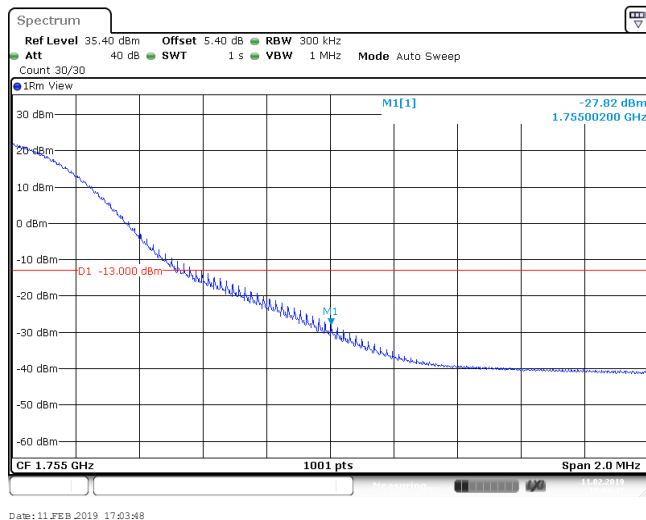


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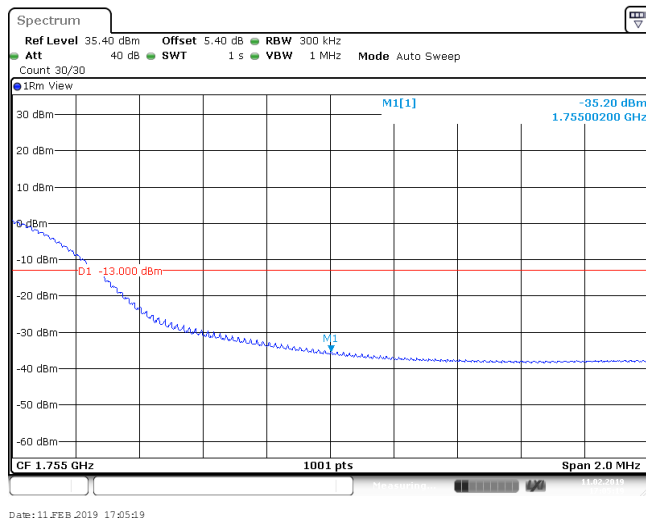
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Band4_20MHz_16QAM_20300_100RB#0



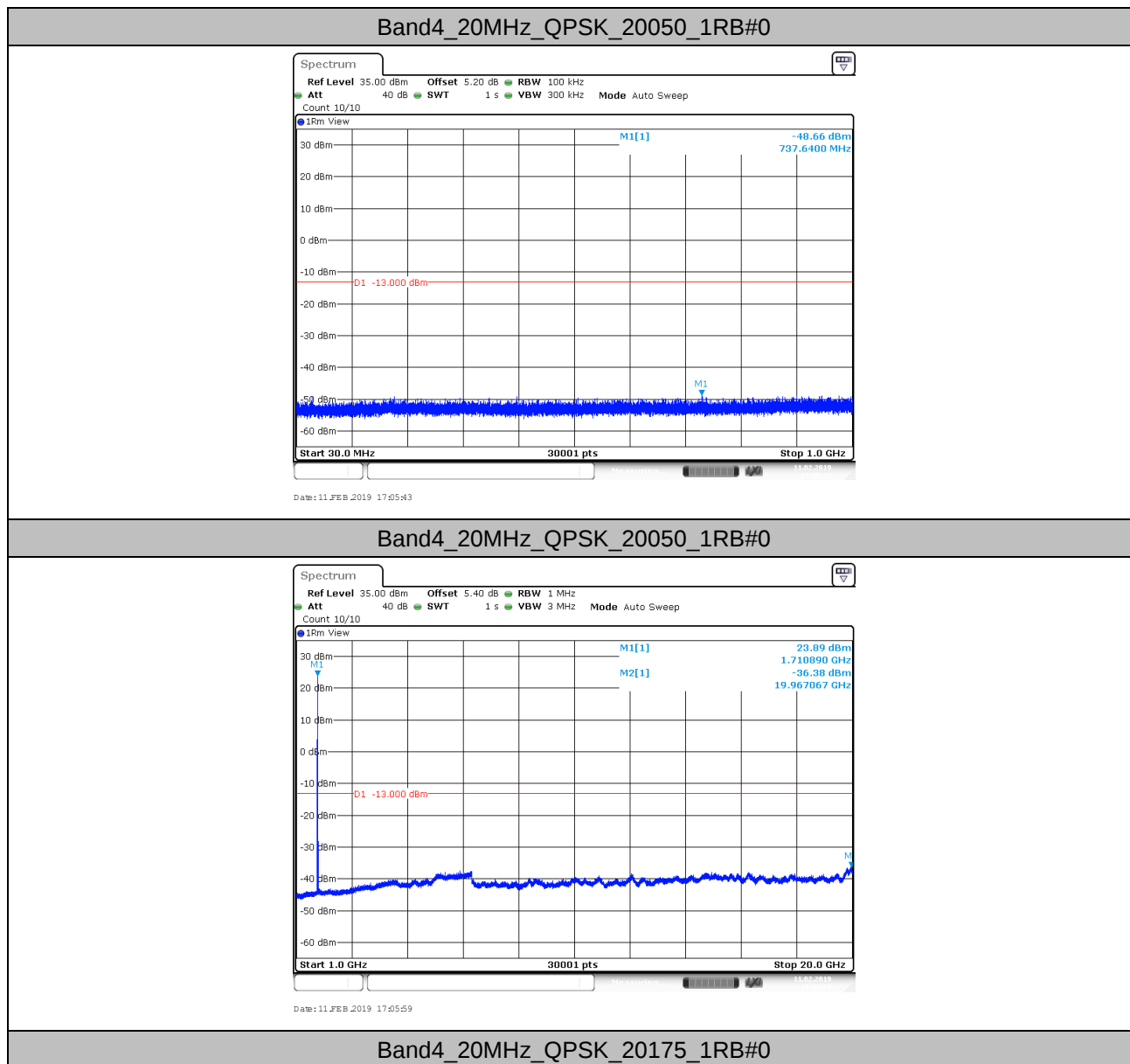


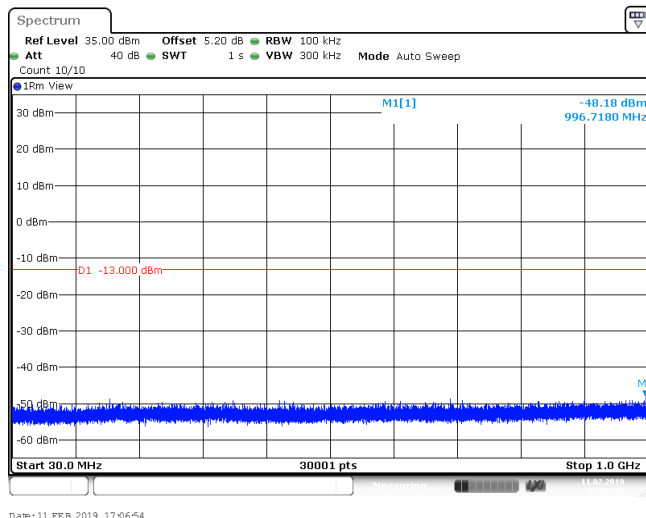
6. Spurious Emission at Antenna Terminal

Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (\text{Span} / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

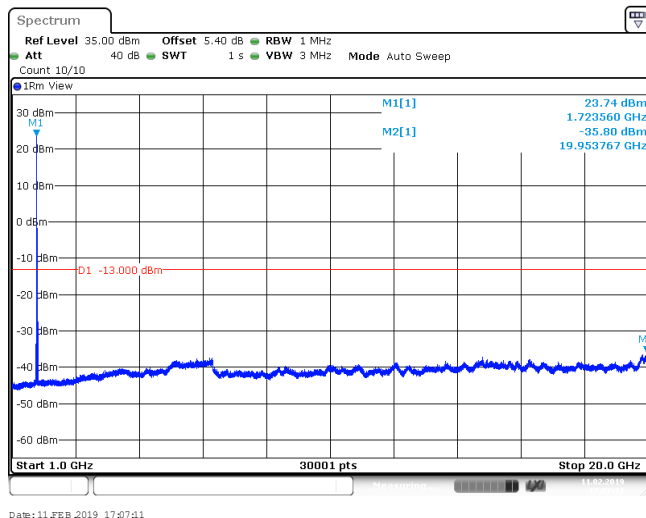
Remark2: only the worst case data displayed in this report.

6.1. Test Plots





Band4_20MHz_QPSK_20175_1RB#0



Band4_20MHz_QPSK_20300_1RB#0

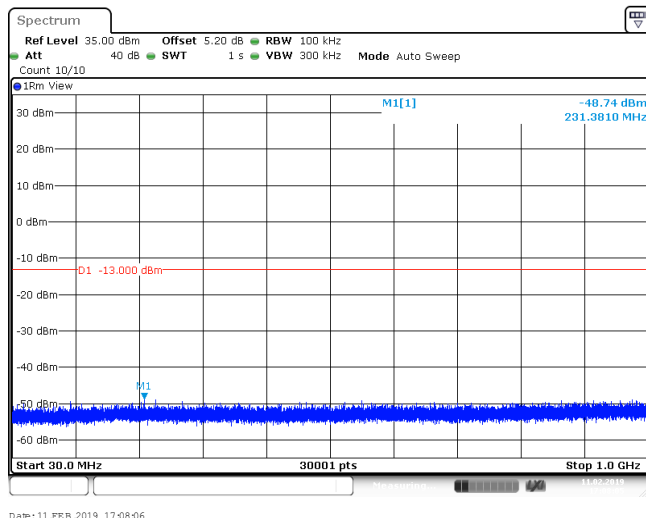


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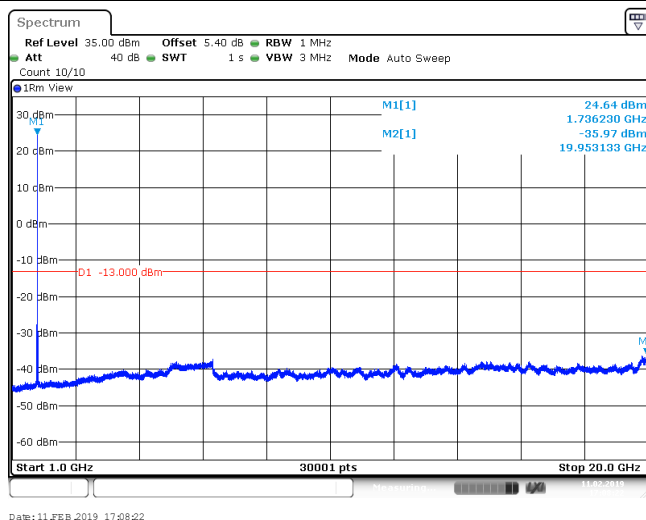
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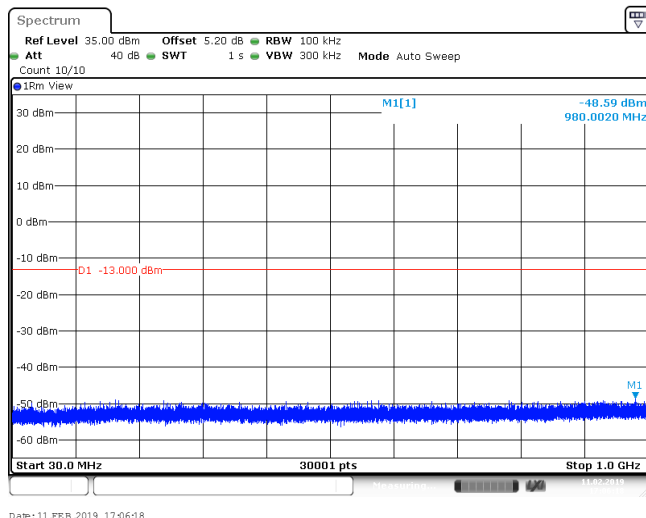


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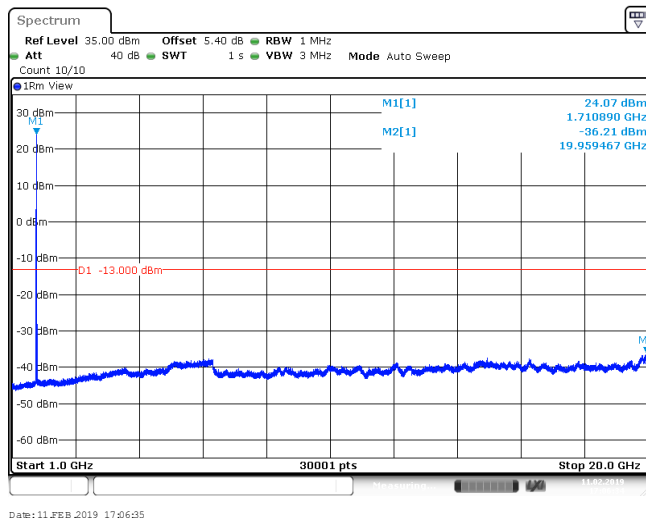


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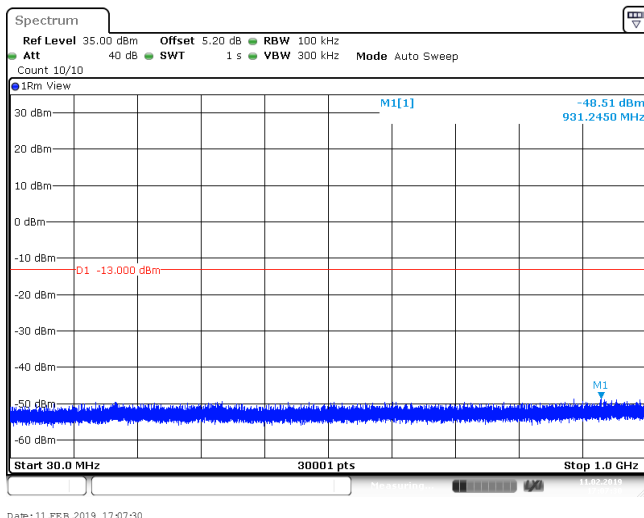


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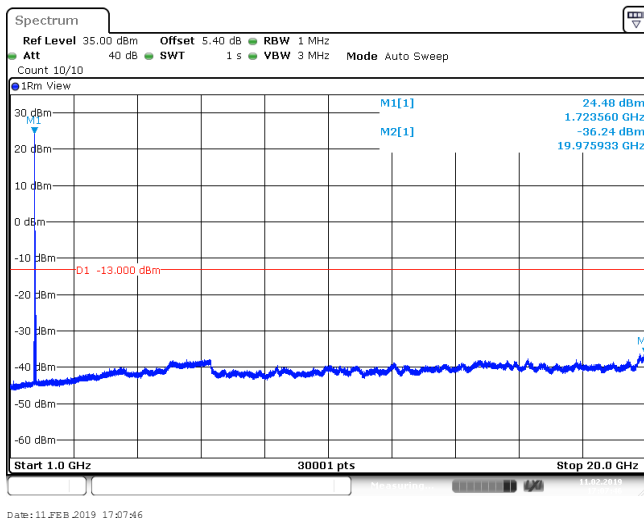


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Band4_20MHz_16QAM_20300_1RB#0

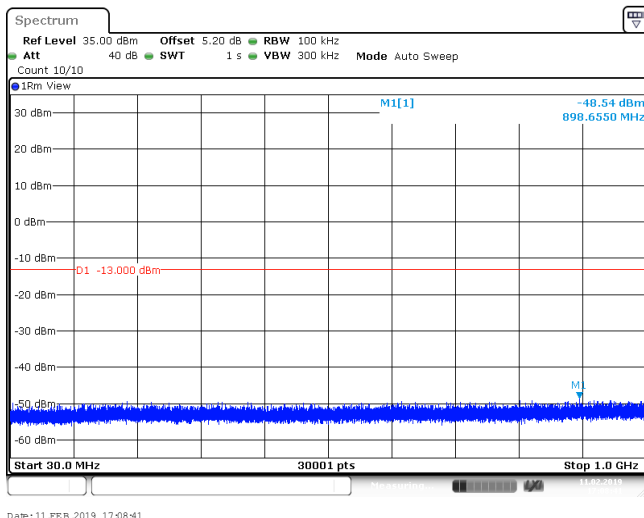


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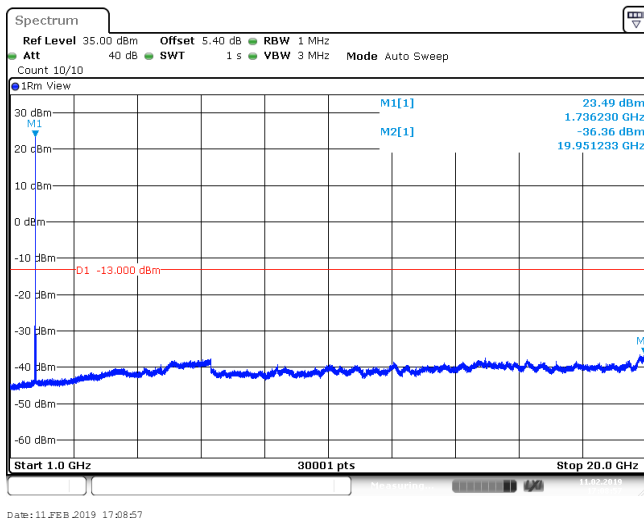
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Band4_20MHz_16QAM_20300_1RB#0





7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE BAND 4

7.1.1. Test Mode = LTE/TM1 20MHz

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
68.3654	-68.98	-13.00	55.98	Vertical
111.7266	-65.63	-13.00	52.63	Vertical
722.3236	-63.95	-13.00	50.95	Vertical
2699.5399	-37.87	-13.00	24.87	Vertical
5133.0711	-39.47	-13.00	26.47	Vertical
17847.9949	-36.74	-13.00	23.74	Vertical
44.0172	-64.89	-13.00	51.89	Horizontal
151.8381	-68.07	-13.00	55.07	Horizontal
659.3190	-63.72	-13.00	50.72	Horizontal
2699.5399	-36.46	-13.00	23.46	Horizontal
5133.5711	-46.82	-13.00	33.82	Horizontal
17988.4996	-37.58	-13.00	24.58	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
74.4767	-69.54	-13.00	56.54	Vertical
112.5511	-65.44	-13.00	52.44	Vertical
615.5213	-64.11	-13.00	51.11	Vertical
2700.7401	-37.81	-13.00	24.81	Vertical
5170.5724	-41.48	-13.00	28.48	Vertical
14709.8903	-42.65	-13.00	29.65	Vertical
38.9244	-65.22	-13.00	52.22	Horizontal
150.8680	-68.35	-13.00	55.35	Horizontal
484.2737	-67.68	-13.00	54.68	Horizontal
3447.0149	-50.43	-13.00	37.43	Horizontal
5170.5724	-47.41	-13.00	34.41	Horizontal



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17997.9999	-38.19	-13.00	25.19	Horizontal
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7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
78.2599	-68.97	-13.00	55.97	Vertical
110.3685	-64.78	-13.00	51.78	Vertical
928.4589	-60.93	-13.00	47.93	Vertical
3472.0157	-48.33	-13.00	35.33	Vertical
5208.5736	-42.99	-13.00	29.99	Vertical
17989.9997	-33.43	-13.00	20.43	Vertical
41.9316	-64.75	-13.00	51.75	Horizontal
165.7583	-68.80	-13.00	55.80	Horizontal
562.4111	-65.22	-13.00	52.22	Horizontal
2699.9400	-36.22	-13.00	23.22	Horizontal
5208.0736	-50.70	-13.00	37.70	Horizontal
17990.4997	-37.93	-13.00	24.93	Horizontal

7.1.1.4. Spot Check worse mode

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.8247	-68.20	-13.00	55.20	Vertical
110.8535	-64.79	-13.00	51.79	Vertical
598.8849	-63.51	-13.00	50.51	Vertical
3447.0149	-54.06	-13.00	41.06	Vertical
5170.5724	-43.89	-13.00	30.89	Vertical
17995.4999	-33.40	-13.00	20.40	Vertical
41.5921	-63.13	-13.00	50.13	Horizontal
163.1392	-60.07	-13.00	47.07	Horizontal
496.5448	-65.93	-13.00	52.93	Horizontal
5171.0724	-47.79	-13.00	34.79	Horizontal
12811.3270	-46.76	-13.00	33.76	Horizontal
17999.0000	-38.19	-13.00	25.19	Horizontal

Remark:



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- 1) The disturbance above 12.75GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.
- 2) We have tested all modulation and all Bandwidth , but only the worst case data presented in this report.





8. Frequency Stability

8.1. Frequency Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	VL	NT	0.60	0.000349	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	1.70	0.000988	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	1.10	0.000640	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	-0.60	-0.000346	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	0.60	0.000346	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	-0.40	-0.000231	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	-1.50	-0.000860	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	-3.90	-0.002235	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	-3.30	-0.001891	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VL	NT	-0.80	-0.000465	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VN	NT	0.70	0.000407	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VH	NT	0.60	0.000349	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VL	NT	-0.90	-0.000519	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VN	NT	-0.90	-0.000519	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VH	NT	1.20	0.000693	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VL	NT	-4.00	-0.002292	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VN	NT	-2.30	-0.001318	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VH	NT	-3.50	-0.002006	±2.5	PASS

8.2. Frequency Vs Temperature

Temperature										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	NV	-30	0.00	0.000000	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	1.70	0.000988	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	3.00	0.001744	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	1.50	0.000872	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	1.30	0.000756	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	2.50	0.001453	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	0.80	0.000465	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	2.00	0.001163	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-30	1.40	0.000808	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	-0.80	-0.000462	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	-0.10	-0.000058	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	-1.10	-0.000635	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	0.50	0.000289	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	1.70	0.000981	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	0.00	0.000000	±2.5	PASS



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Band4	20MHz	QPSK	20175	100RB#0	NV	50	0.10	0.000058	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-30	-1.20	-0.000688	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	-3.80	-0.002178	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	-3.50	-0.002006	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-1.70	-0.000974	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	-3.60	-0.002063	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	-2.80	-0.001605	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	40	-3.30	-0.001891	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	50	-2.00	-0.001146	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-30	0.80	0.000465	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-20	0.80	0.000465	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	0	1.00	0.000581	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	10	0.40	0.000233	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	20	1.40	0.000814	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	30	1.60	0.000930	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	40	1.60	0.000930	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	50	3.40	0.001977	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-30	0.70	0.000404	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-20	-1.20	-0.000693	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	0	0.30	0.000173	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	10	0.40	0.000231	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	20	0.30	0.000173	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	30	-0.90	-0.000519	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	40	0.30	0.000173	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	50	0.90	0.000519	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-30	-2.00	-0.001146	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-20	-3.50	-0.002006	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	0	-1.10	-0.000630	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	10	-2.80	-0.001605	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	20	-4.10	-0.002350	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	30	-3.40	-0.001948	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	40	-2.30	-0.001318	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	50	-2.70	-0.001547	±2.5	PASS

The End



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