



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	Conducted Power(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	23.64	27.64	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	23.73	27.73	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	23.37	27.37	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#0	23.38	27.38	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#1	23.42	27.42	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#3	23.36	27.36	30.00	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	22.38	26.38	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	23.32	27.32	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	23.13	27.13	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	23.36	27.36	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#0	23.3	27.30	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#1	23.33	27.33	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#3	23.14	27.14	30.00	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	22.12	26.12	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	23.35	27.35	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	23.46	27.46	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	23.21	27.21	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#0	23.26	27.26	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#1	23.21	27.21	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#3	23.14	27.14	30.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	22.11	26.11	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	22.53	26.53	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	22.56	26.56	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	22.37	26.37	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#0	22.48	26.48	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#1	22.48	26.48	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#3	22.39	26.39	30.00	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	21.39	25.39	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	22.28	26.28	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	22.39	26.39	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	22.27	26.27	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#0	22.33	26.33	30.00	PASS



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Band4	1.4MHz	16QAM	20175	3RB#1	22.56	26.56	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#3	22.31	26.31	30.00	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	21.29	25.29	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	22.25	26.25	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	22.28	26.28	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	22.23	26.23	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#0	22.27	26.27	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#1	22.26	26.26	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#3	22.29	26.29	30.00	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	21.28	25.28	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#0	23.64	27.64	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#8	23.57	27.57	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#14	23.48	27.48	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#0	22.34	26.34	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#4	22.4	26.40	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#7	22.44	26.44	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	22.35	26.35	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#0	23.17	27.17	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#8	23.2	27.20	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#14	23.02	27.02	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#0	22.19	26.19	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#4	22.18	26.18	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#7	22.11	26.11	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	22.13	26.13	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#0	23.46	27.46	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#8	23.43	27.43	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#14	23.27	27.27	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#0	22.26	26.26	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#4	22.25	26.25	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#7	22.18	26.18	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	22.15	26.15	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#0	22.63	26.63	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#8	22.49	26.49	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#14	22.5	26.50	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#0	21.49	25.49	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#4	21.53	25.53	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#7	21.38	25.38	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	21.34	25.34	30.00	PASS



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Band4	3MHz	16QAM	20175	1RB#0	22.34	26.34	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#8	22.38	26.38	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#14	22.4	26.40	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#0	21.34	25.34	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#4	21.34	25.34	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#7	21.31	25.31	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	21.37	25.37	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#0	22.37	26.37	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#8	22.21	26.21	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#14	22.18	26.18	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#0	21.31	25.31	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#4	21.3	25.30	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#7	21.31	25.31	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	21.22	25.22	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#0	23.35	27.35	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#12	23.65	27.65	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#24	23.05	27.05	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#0	22.4	26.40	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#6	22.44	26.44	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#13	22.35	26.35	30.00	PASS
Band4	5MHz	QPSK	19975	25RB#0	22.46	26.46	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#0	23.47	27.47	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#12	23.43	27.43	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#24	23.12	27.12	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#0	22.43	26.43	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#6	22.24	26.24	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#13	22.27	26.27	30.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	22.33	26.33	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#0	23.33	27.33	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#12	23.26	27.26	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#24	23.11	27.11	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#0	22.25	26.25	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#6	22.21	26.21	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#13	22.13	26.13	30.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	22.25	26.25	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#0	22.69	26.69	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#12	22.58	26.58	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#24	22.49	26.49	30.00	PASS



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Band4	5MHz	16QAM	19975	12RB#0	21.51	25.51	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#6	21.38	25.38	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#13	21.37	25.37	30.00	PASS
Band4	5MHz	16QAM	19975	25RB#0	21.37	25.37	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#0	22.29	26.29	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#12	22.74	26.74	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#24	22.4	26.40	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#0	21.27	25.27	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#6	21.3	25.30	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#13	21.19	25.19	30.00	PASS
Band4	5MHz	16QAM	20175	25RB#0	21.2	25.20	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#0	22.59	26.59	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#12	22.51	26.51	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#24	22.54	26.54	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#0	21.35	25.35	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#6	21.35	25.35	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#13	21.34	25.34	30.00	PASS
Band4	5MHz	16QAM	20375	25RB#0	21.31	25.31	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#0	23.78	27.78	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#24	23.86	27.86	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#49	22.59	26.59	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#0	22.51	26.51	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#12	22.46	26.46	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#25	22.02	26.02	30.00	PASS
Band4	10MHz	QPSK	20000	50RB#0	22.36	26.36	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#0	23.44	27.44	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#24	23.59	27.59	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#49	22.71	26.71	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#0	22.7	26.70	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#12	22.32	26.32	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#25	22.31	26.31	30.00	PASS
Band4	10MHz	QPSK	20175	50RB#0	22.32	26.32	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#0	23.56	27.56	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#24	23.55	27.55	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#49	22.5	26.50	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#0	22.28	26.28	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#12	22.35	26.35	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#25	22.12	26.12	30.00	PASS



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Band4	10MHz	QPSK	20350	50RB#0	22.21	26.21	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#0	23.26	27.26	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#24	22.88	26.88	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#49	23.19	27.19	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#0	21.4	25.40	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#12	21.37	25.37	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#25	21.52	25.52	30.00	PASS
Band4	10MHz	16QAM	20000	50RB#0	21.44	25.44	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#0	22.71	26.71	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#24	22.35	26.35	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#49	23.19	27.19	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#0	21.19	25.19	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#12	21.44	25.44	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#25	21.31	25.31	30.00	PASS
Band4	10MHz	16QAM	20175	50RB#0	21.2	25.20	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#0	22.89	26.89	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#24	22.58	26.58	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#49	23.15	27.15	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#0	21.2	25.20	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#12	21.2	25.20	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#25	21.69	25.69	30.00	PASS
Band4	10MHz	16QAM	20350	50RB#0	21.2	25.20	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#0	23.2	27.20	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#38	23.3	27.30	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#74	23.19	27.19	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#0	22.33	26.33	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#18	22.21	26.21	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#39	22	26.00	30.00	PASS
Band4	15MHz	QPSK	20025	75RB#0	22.33	26.33	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#0	23.43	27.43	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#38	23.08	27.08	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#74	22.96	26.96	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#0	22.43	26.43	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#18	22.18	26.18	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#39	22.38	26.38	30.00	PASS
Band4	15MHz	QPSK	20175	75RB#0	22.33	26.33	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#0	23.08	27.08	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#38	23.17	27.17	30.00	PASS



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Band4	15MHz	QPSK	20325	1RB#74	22.77	26.77	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#0	22.12	26.12	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#18	22.16	26.16	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#39	22.1	26.10	30.00	PASS
Band4	15MHz	QPSK	20325	75RB#0	22.21	26.21	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#0	22.56	26.56	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#38	22.27	26.27	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#74	22.15	26.15	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#0	21.34	25.34	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#18	21.28	25.28	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#39	21.22	25.22	30.00	PASS
Band4	15MHz	16QAM	20025	75RB#0	21.41	25.41	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#0	22.46	26.46	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#38	22.29	26.29	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#74	22.39	26.39	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#0	21.27	25.27	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#18	21.17	25.17	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#39	21.3	25.30	30.00	PASS
Band4	15MHz	16QAM	20175	75RB#0	21.19	25.19	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#0	22.26	26.26	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#38	22.17	26.17	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#74	22.14	26.14	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#0	21.1	25.10	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#18	21.15	25.15	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#39	21.09	25.09	30.00	PASS
Band4	15MHz	16QAM	20325	75RB#0	21.2	25.20	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#0	23.12	27.12	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#49	23.29	27.29	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#99	22.95	26.95	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#0	22.32	26.32	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#25	22.26	26.26	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#50	22.36	26.36	30.00	PASS
Band4	20MHz	QPSK	20050	100RB#0	22.34	26.34	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#0	23	27.00	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#49	23.41	27.41	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#99	22.63	26.63	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#0	22.11	26.11	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#25	22.37	26.37	30.00	PASS



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Band4	20MHz	QPSK	20175	50RB#50	22.27	26.27	30.00	PASS
Band4	20MHz	QPSK	20175	100RB#0	22.33	26.33	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#0	23	27.00	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#49	23.16	27.16	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#99	23.12	27.12	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#0	22.2	26.20	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#25	22.2	26.20	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#50	22.21	26.21	30.00	PASS
Band4	20MHz	QPSK	20300	100RB#0	22.26	26.26	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#0	22.34	26.34	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#49	22.31	26.31	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#99	22.33	26.33	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#0	21.06	25.06	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#25	21.36	25.36	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#50	21.24	25.24	30.00	PASS
Band4	20MHz	16QAM	20050	100RB#0	21.26	25.26	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#0	22.13	26.13	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#49	22.32	26.32	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#99	22.37	26.37	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#0	21.21	25.21	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#25	21.25	25.25	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#50	21.29	25.29	30.00	PASS
Band4	20MHz	16QAM	20175	100RB#0	21.3	25.30	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#0	22.19	26.19	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#49	22.37	26.37	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#99	22.23	26.23	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#0	21.22	25.22	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#25	21.19	25.19	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#50	21.18	25.18	30.00	PASS
Band4	20MHz	16QAM	20300	100RB#0	21.32	25.32	30.00	PASS

Remark:

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

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]



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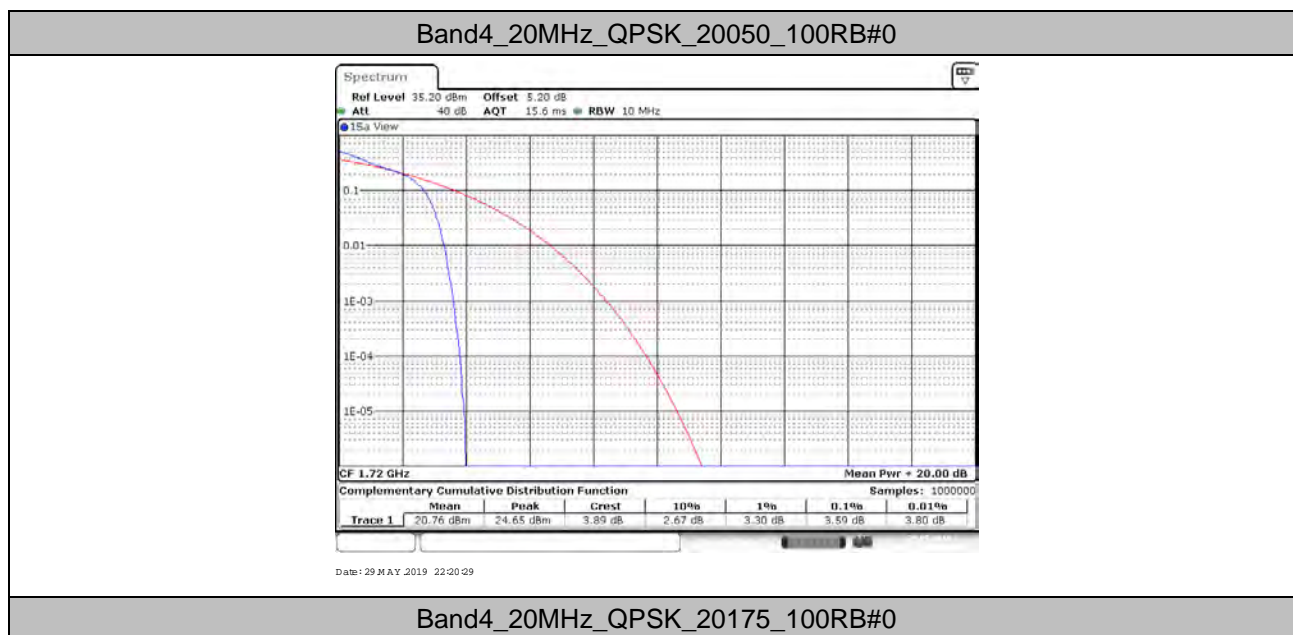


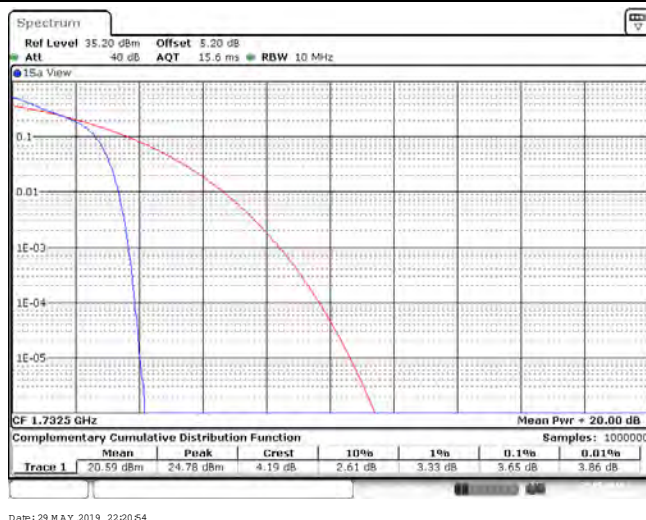
2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	3.59	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	3.65	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	3.59	13	PASS
Band4	20MHz	16QAM	20050	100RB#0	5.30	13	PASS
Band4	20MHz	16QAM	20175	100RB#0	5.36	13	PASS
Band4	20MHz	16QAM	20300	100RB#0	5.33	13	PASS

2.2. Test Plots



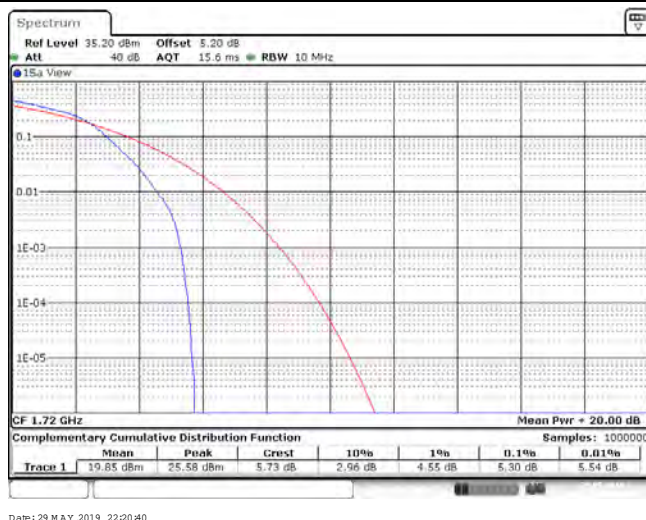


Band4_20MHz_QPSK_20300_100RB#0



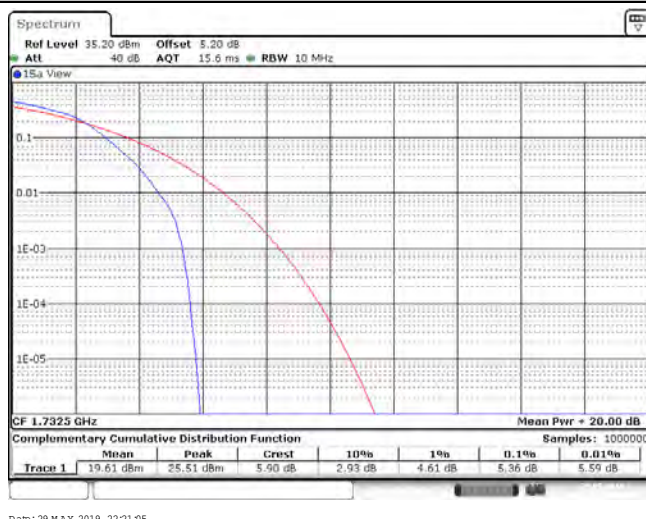
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Date: 29 MAY 2019 22:20:40

Band4_20MHz_16QAM_20175_100RB#0



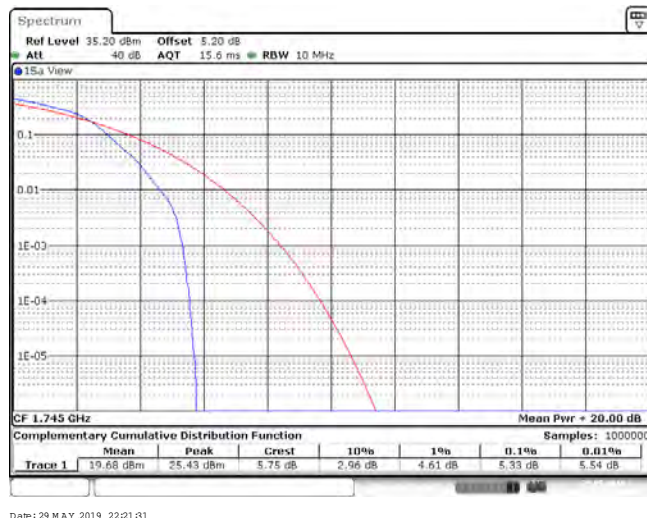
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Band4_20MHz_16QAM_20300_100RB#0



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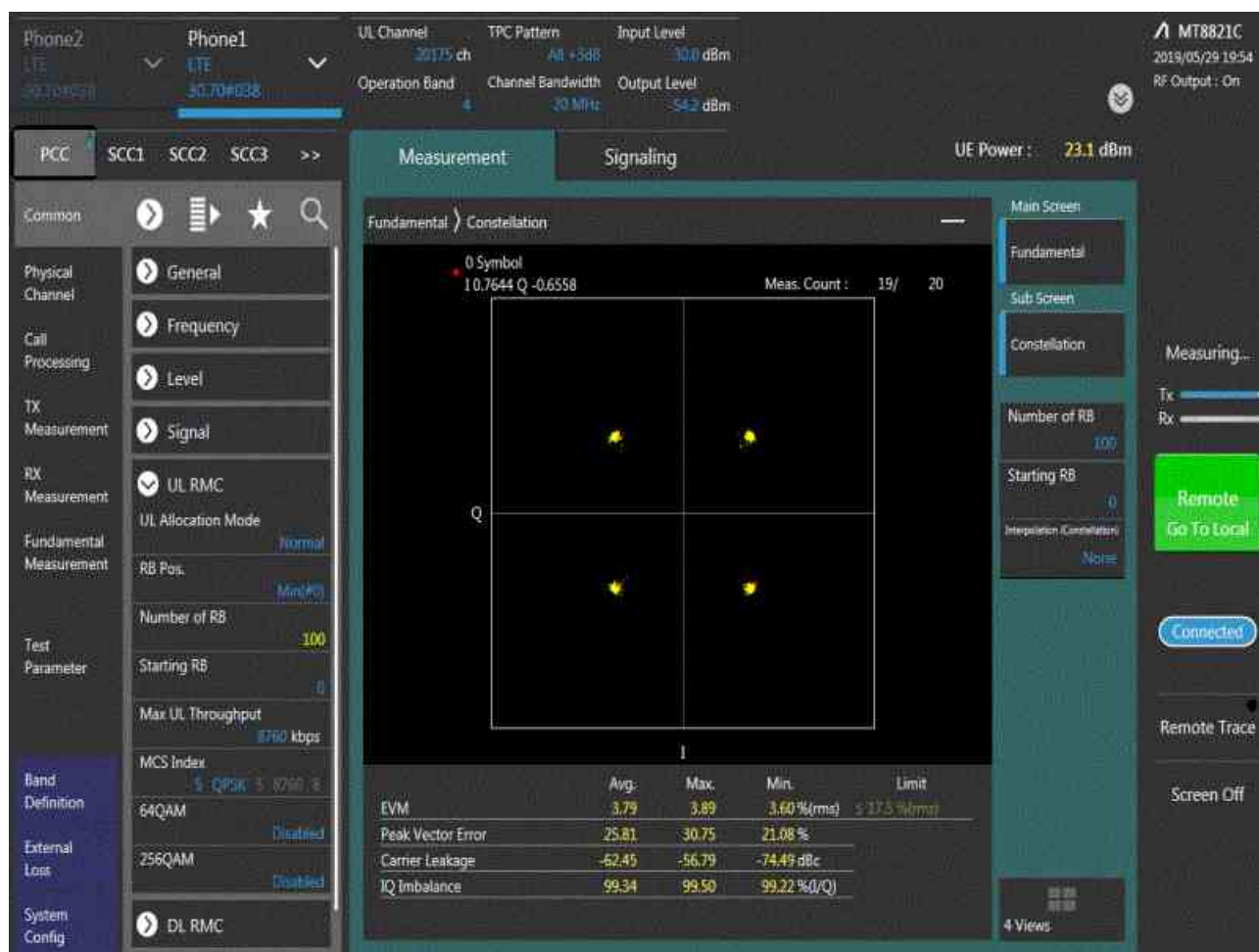
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3. Modulation Characteristics

3.1. Test BAND = LTE Band 4

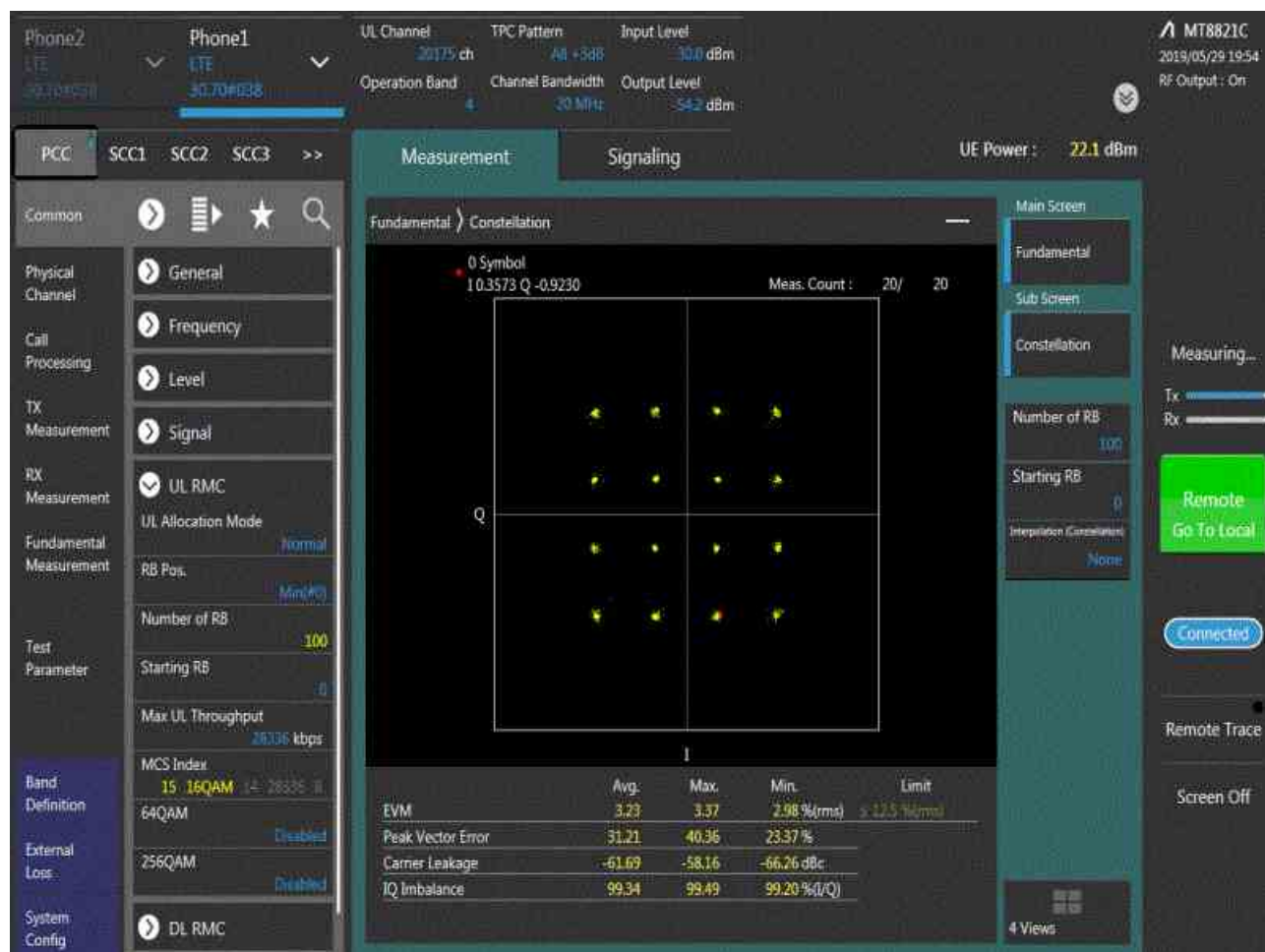
3.2. Test Mode = LTE /TM1 20MHz

3.2.1. Test Channel = MCH



3.3. Test Mode = LTE /TM2 20MHz

3.3.1. 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	1.106	1.329	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.097	1.389	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.103	1.371	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.100	1.380	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.094	1.359	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.106	1.374	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.697	3.024	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.703	3.006	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.703	3.006	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.697	3.000	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.697	2.988	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.697	3.036	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.466	4.950	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.486	4.960	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.476	4.980	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.486	4.970	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.486	5.010	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.466	4.900	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.931	9.760	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.931	9.740	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.931	9.880	PASS
Band4	10MHz	16QAM	20000	50RB#0	8.931	9.680	PASS
Band4	10MHz	16QAM	20175	50RB#0	8.931	9.740	PASS
Band4	10MHz	16QAM	20350	50RB#0	8.931	9.680	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.487	14.730	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.487	14.820	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.457	14.910	PASS
Band4	15MHz	16QAM	20025	75RB#0	13.457	14.790	PASS
Band4	15MHz	16QAM	20175	75RB#0	13.487	14.820	PASS
Band4	15MHz	16QAM	20325	75RB#0	13.457	14.760	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.902	19.520	PASS



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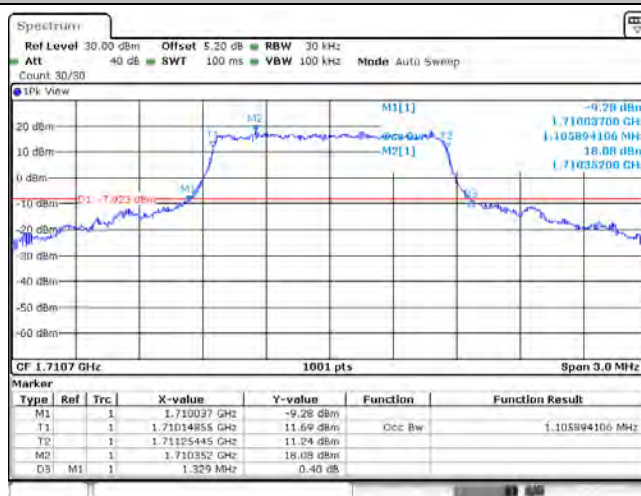
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Band4	20MHz	QPSK	20175	100RB#0	17.902	19.440	PASS
Band4	20MHz	QPSK	20300	100RB#0	17.862	19.280	PASS
Band4	20MHz	16QAM	20050	100RB#0	17.862	19.480	PASS
Band4	20MHz	16QAM	20175	100RB#0	17.902	19.600	PASS
Band4	20MHz	16QAM	20300	100RB#0	17.902	19.480	PASS

4.2. Test Plots

Band4_1.4MHz_QPSK_19957_6RB#0



Date: 29 MAY 2019 21:37:42

Band4_1.4MHz_QPSK_20175_6RB#0



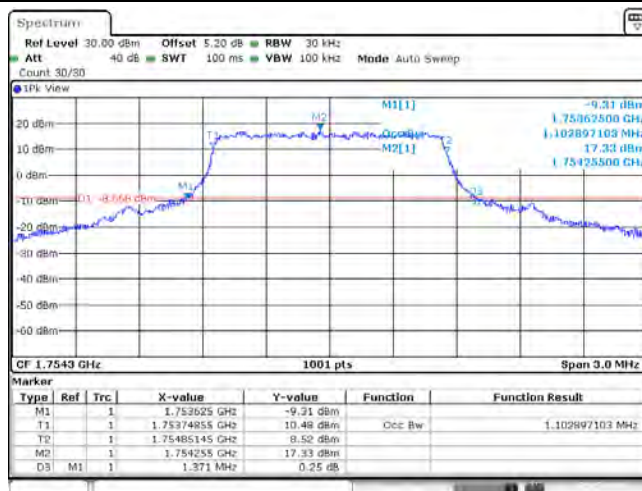
Date: 29 MAY 2019 21:38:10

Band4_1.4MHz_QPSK_20393_6RB#0



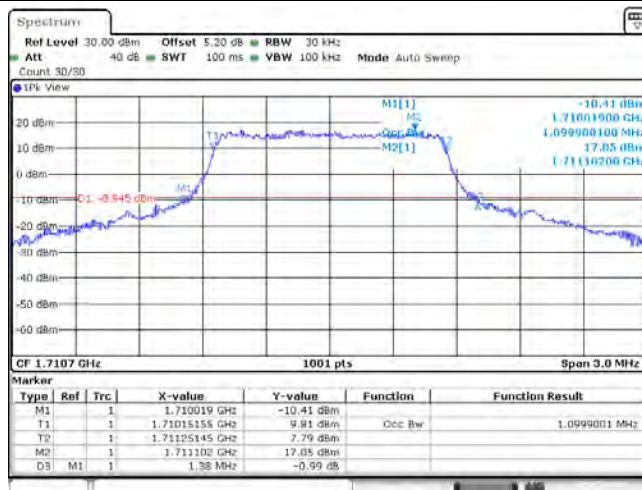
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Date: 29 MAY 2019 21:38:38

Band4_1.4MHz_16QAM_19957_6RB#0



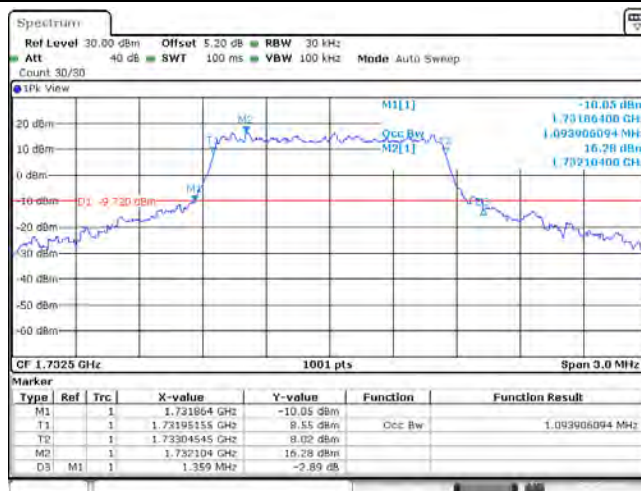
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Band4_1.4MHz_16QAM_20175_6RB#0



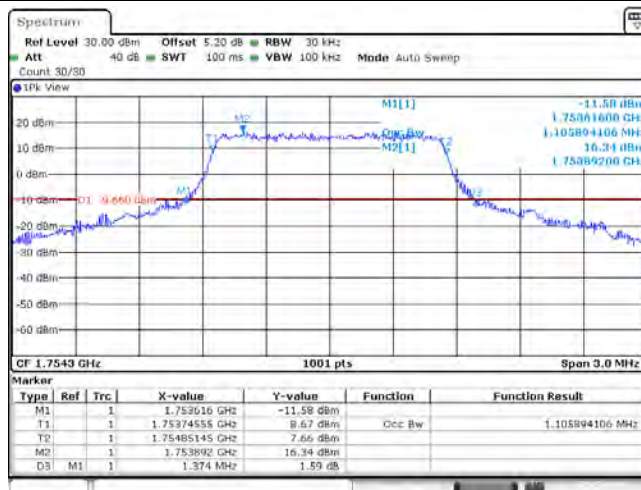
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Date: 29 MAY 2019 21:38:23

Band4_1.4MHz_16QAM_20393_6RB#0



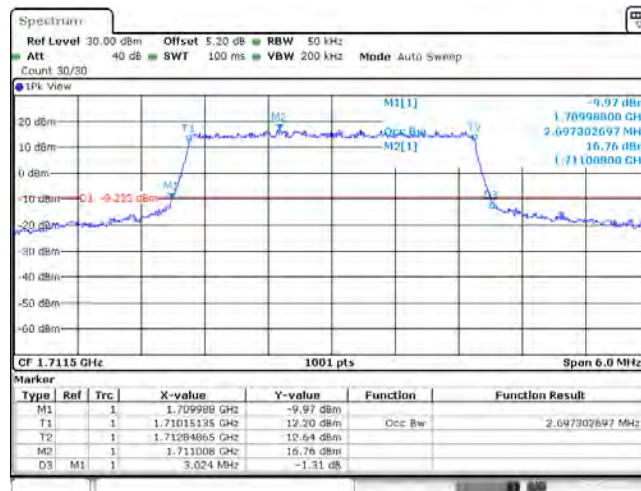
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Band4_3MHz_QPSK_19965_15RB#0



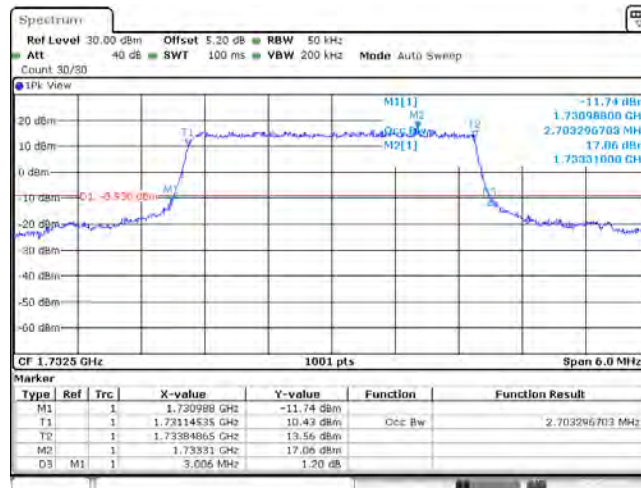
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Date: 29 MAY 2019 21:40:26

Band4_3MHz_QPSK_20175_15RB#0



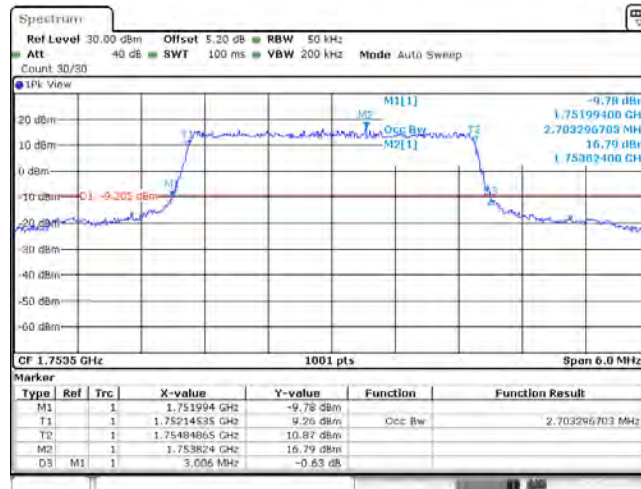
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Band4_3MHz_QPSK_20385_15RB#0



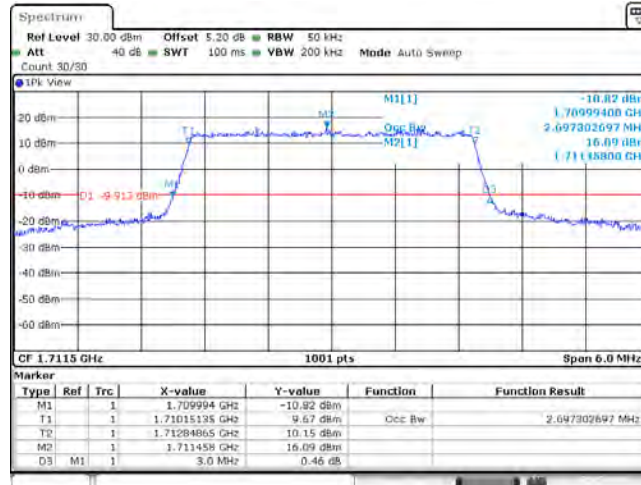
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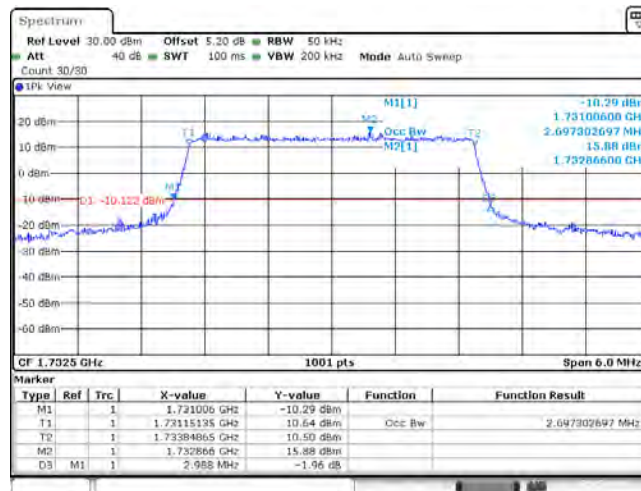
Band4_3MHz_16QAM_19965_15RB#0



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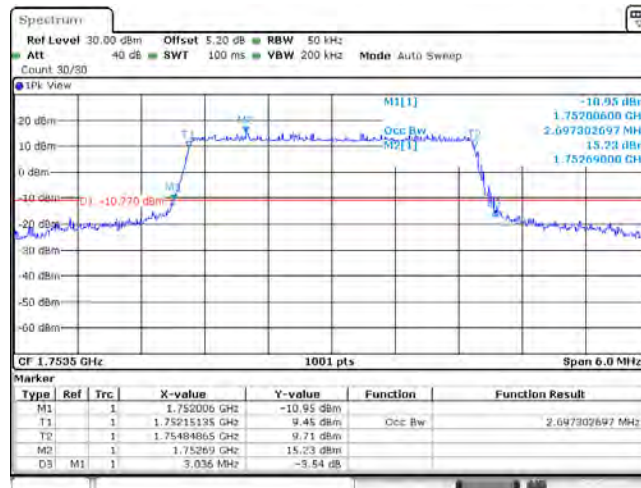
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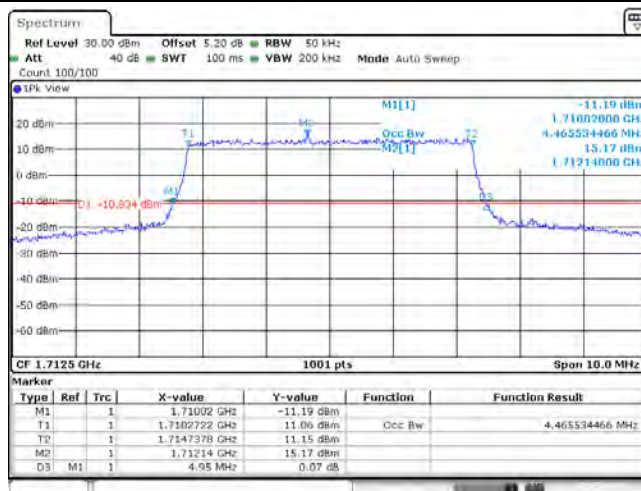
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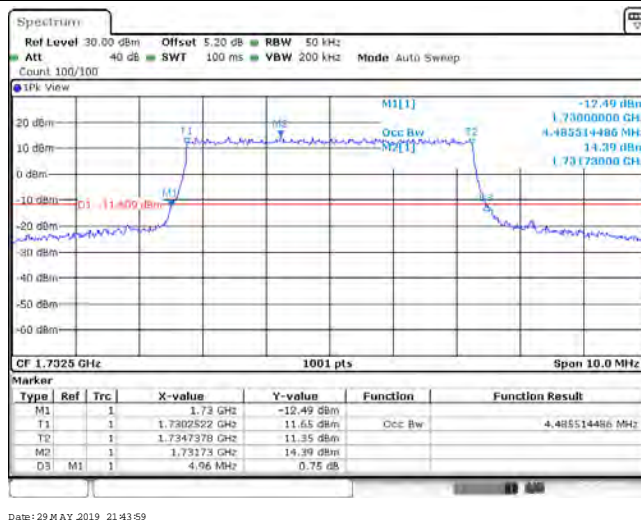
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Band4_5MHz_QPSK_19975_25RB#0



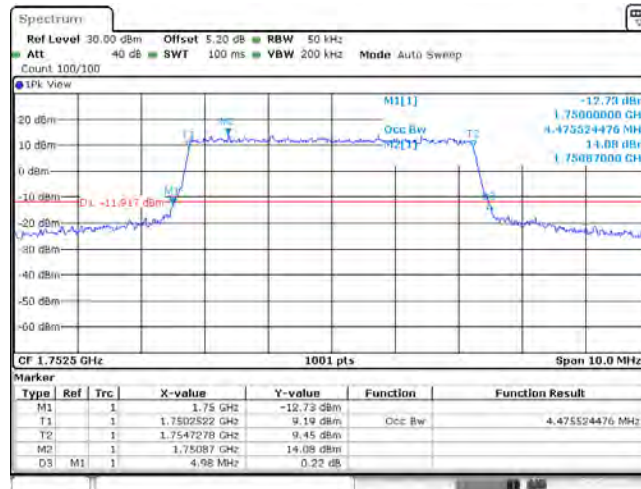


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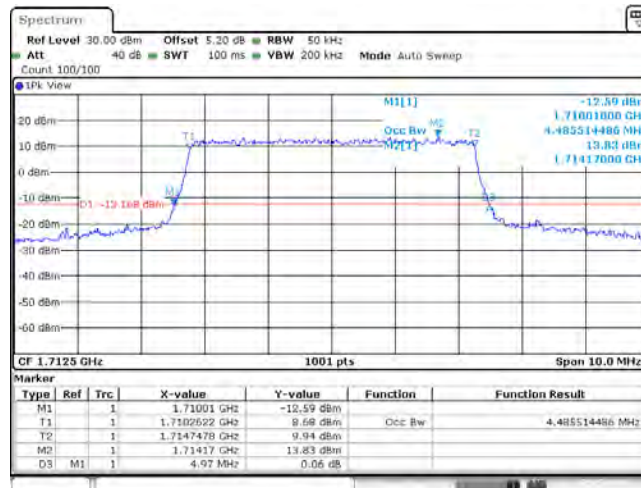
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Date: 29 MAY 2019 21:44:41

Band4_5MHz_16QAM_19975_25RB#0



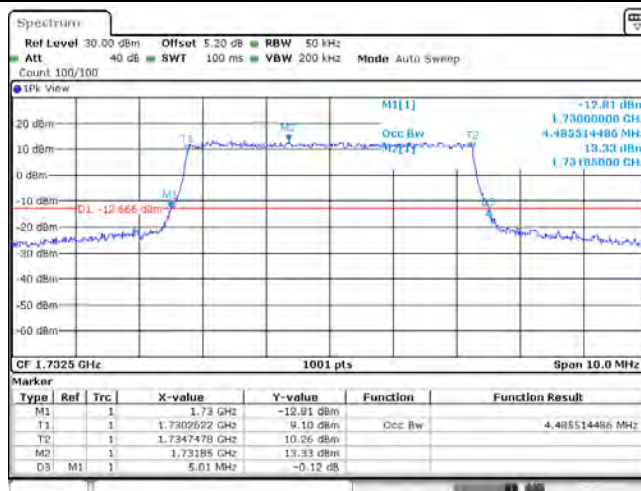
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Band4_5MHz_16QAM_20175_25RB#0



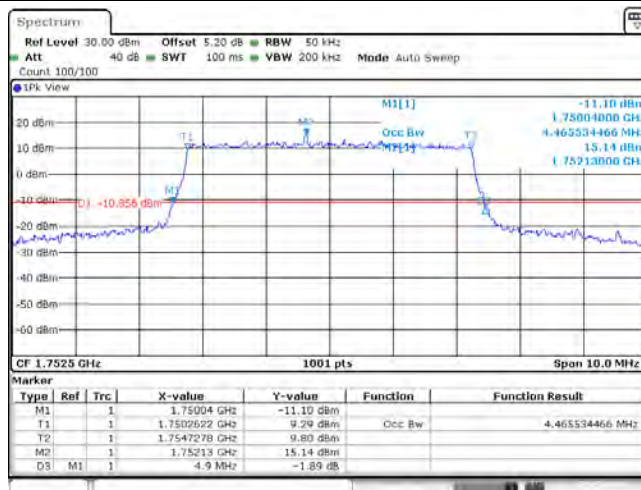
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Date: 29 MAY 2019 21:44:19

Band4_5MHz_16QAM_20375_25RB#0



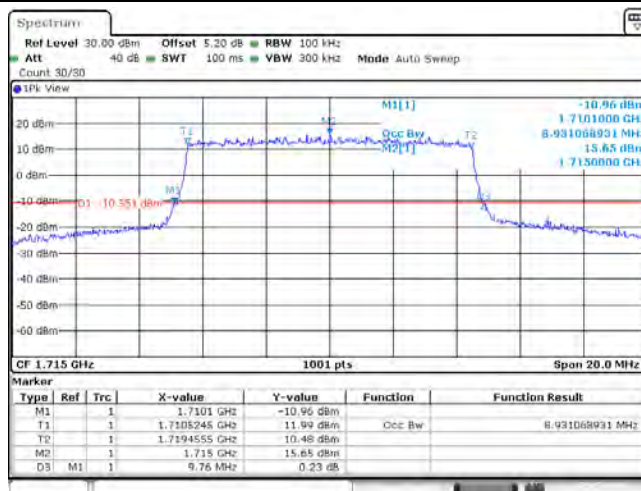
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Band4_10MHz_QPSK_20000_50RB#0



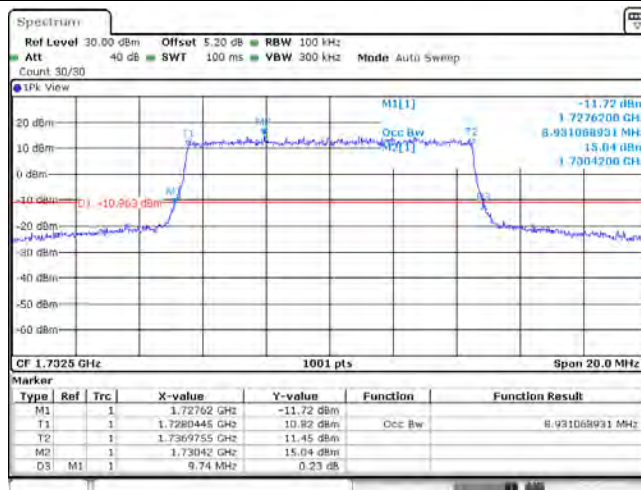
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Date: 29 MAY 2019 21:46:36

Band4_10MHz_QPSK_20175_50RB#0



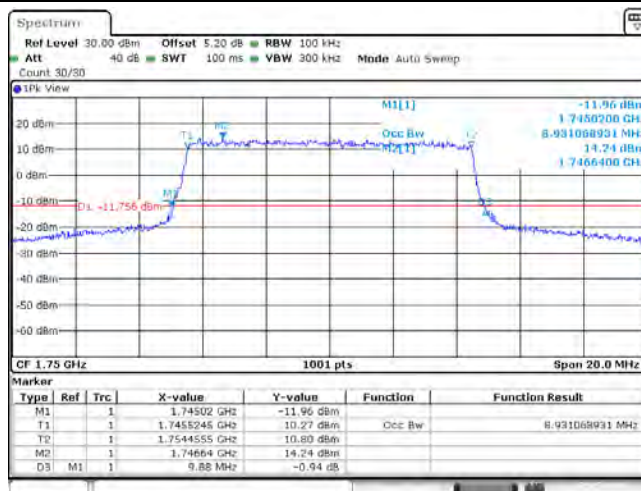
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Band4_10MHz_QPSK_20350_50RB#0



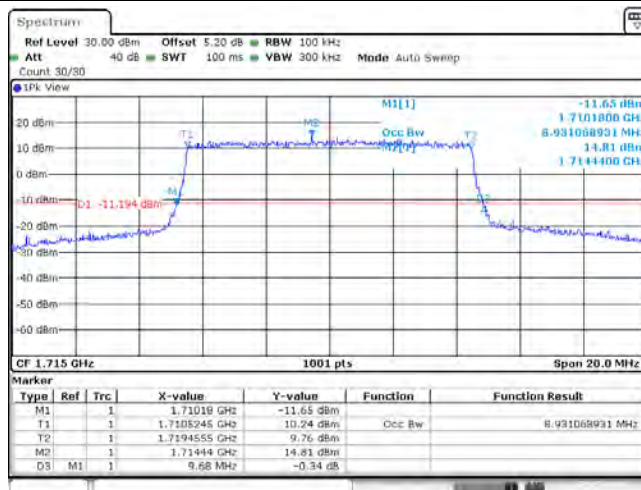
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Date: 29 MAY 2019 21:47:33

Band4_10MHz_16QAM_20000_50RB#0



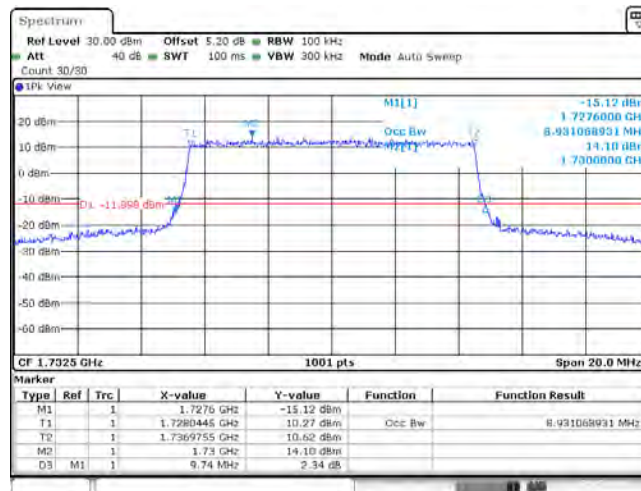
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Band4_10MHz_16QAM_20175_50RB#0



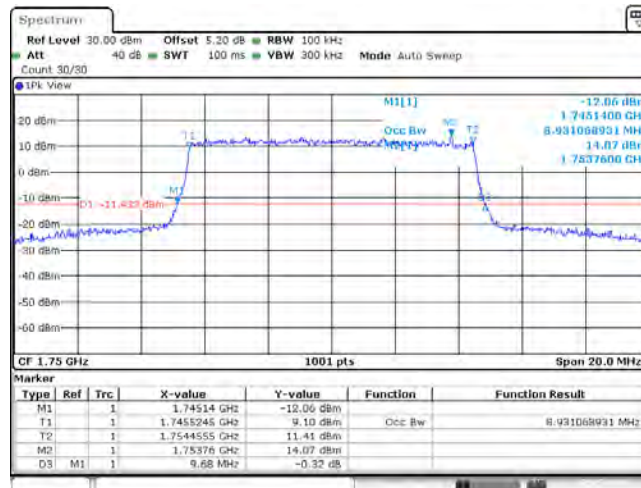
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Date: 29 MAY 2019 21:47:17

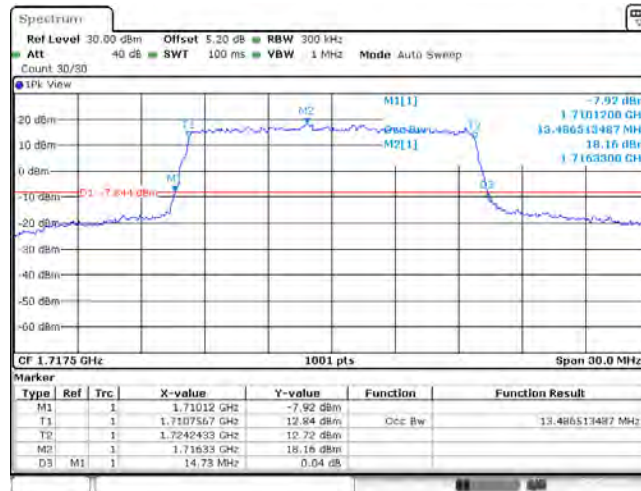
Band4_10MHz_16QAM_20350_50RB#0



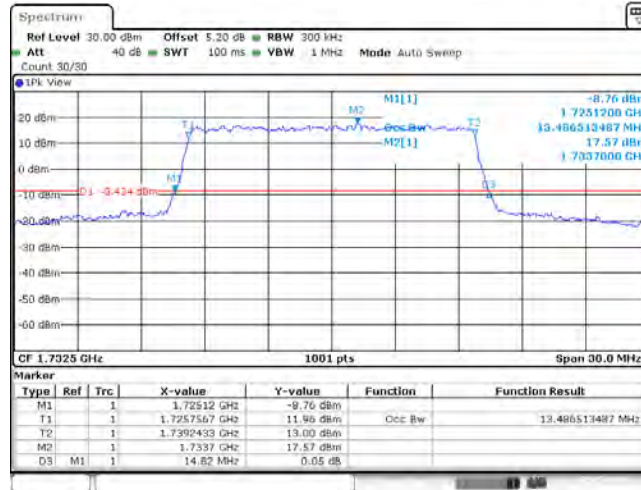
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Band4_15MHz_QPSK_20025_75RB#0





Band4_15MHz_QPSK_20175_75RB#0

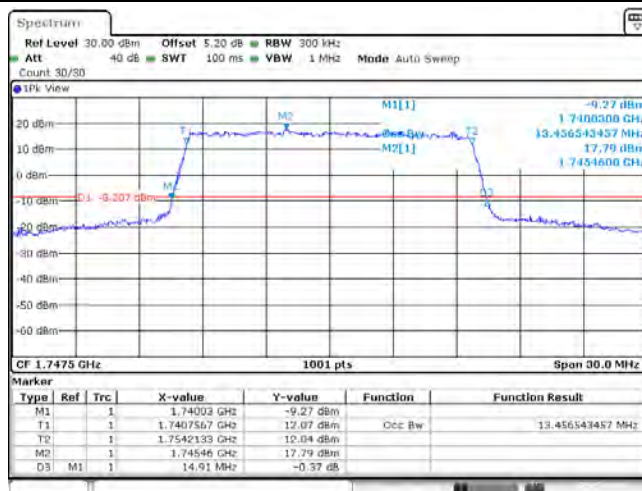


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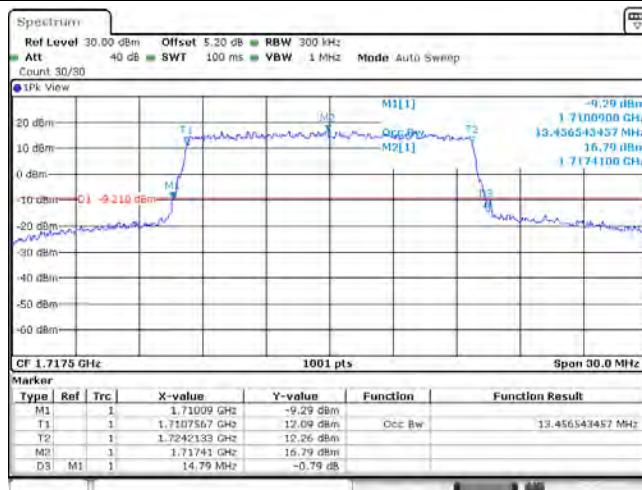
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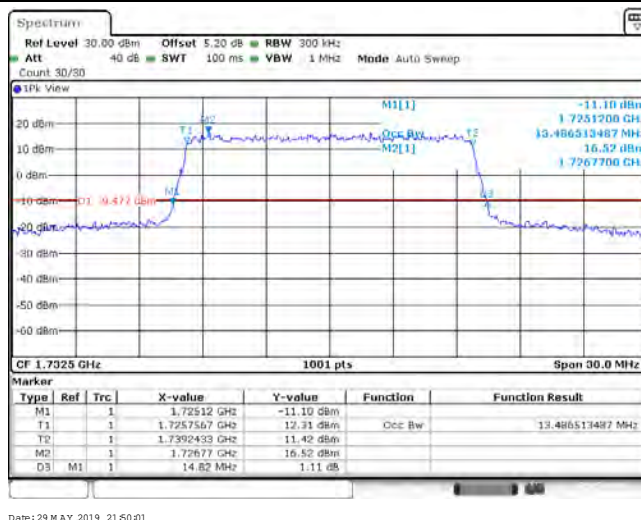
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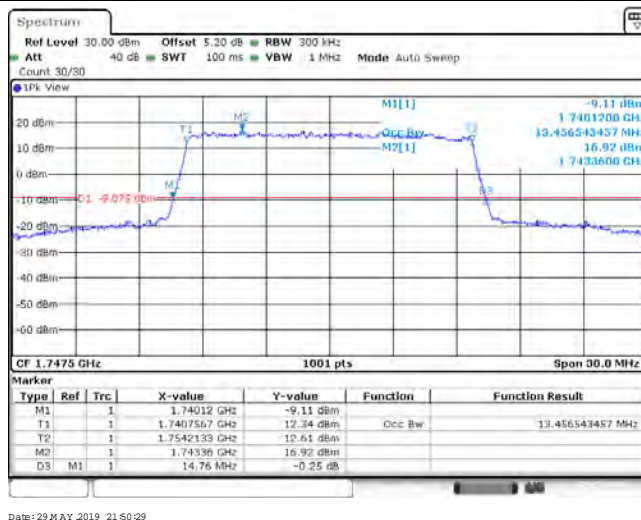
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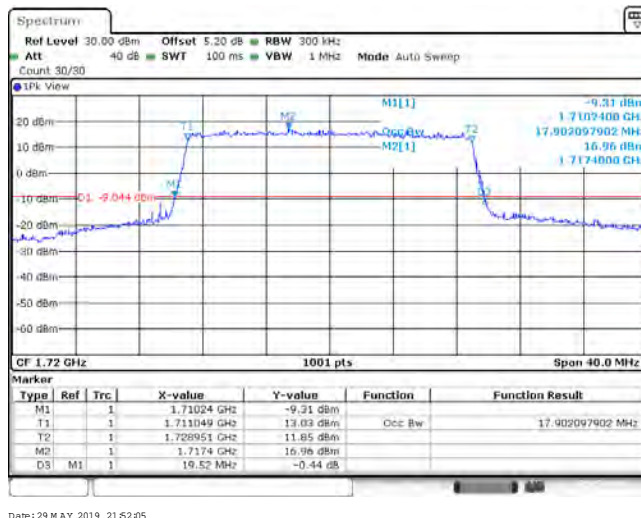


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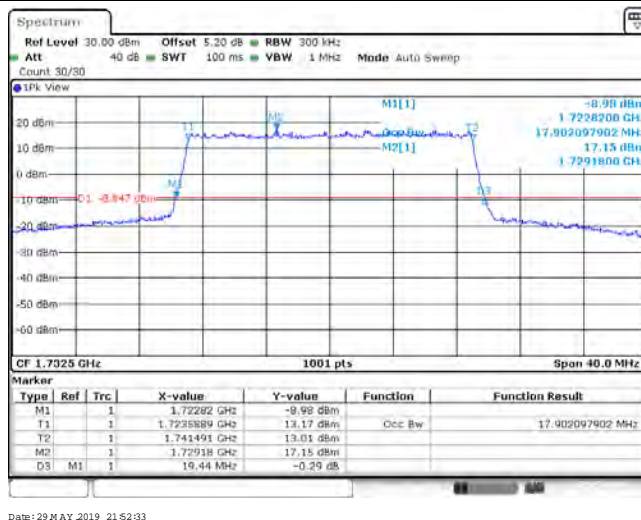


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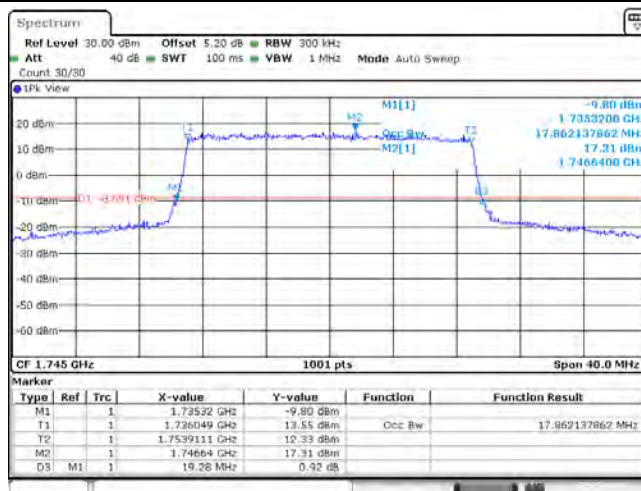


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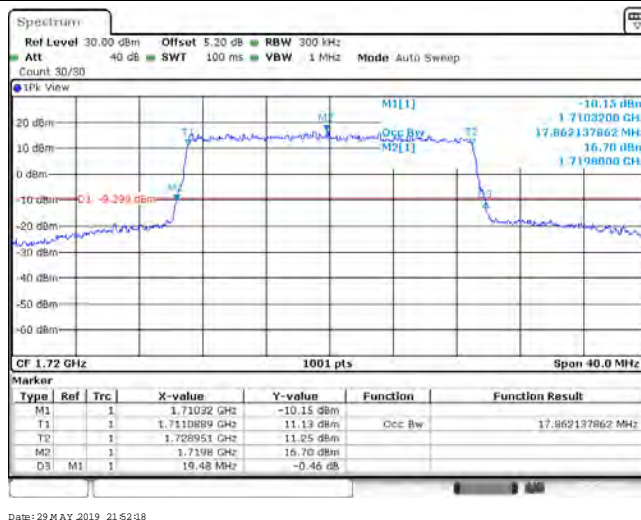


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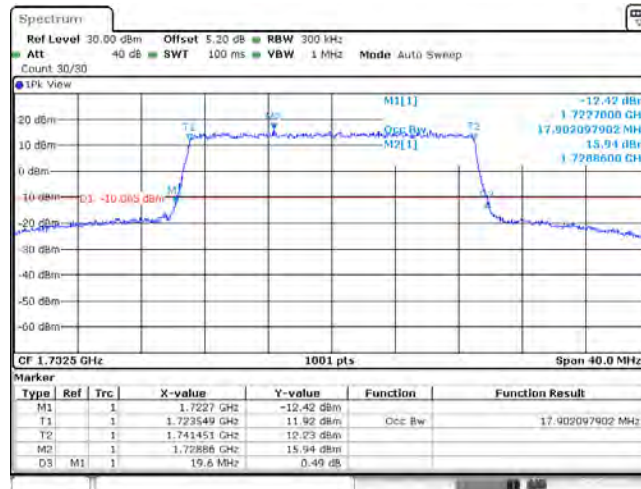


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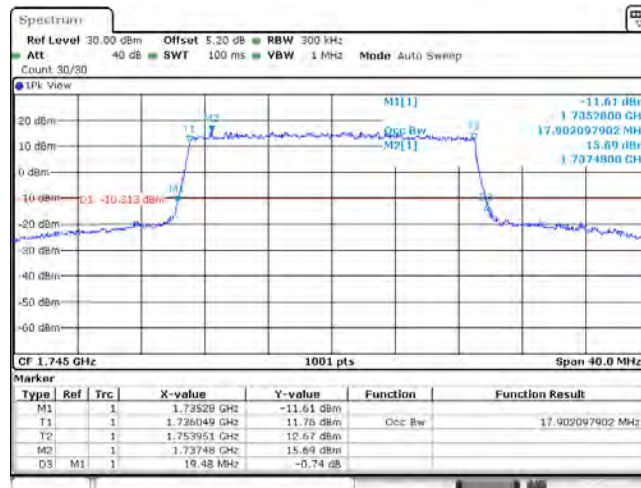
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Date: 29 MAY 2019 21:52:46

Band4_20MHz_16QAM_20300_100RB#0



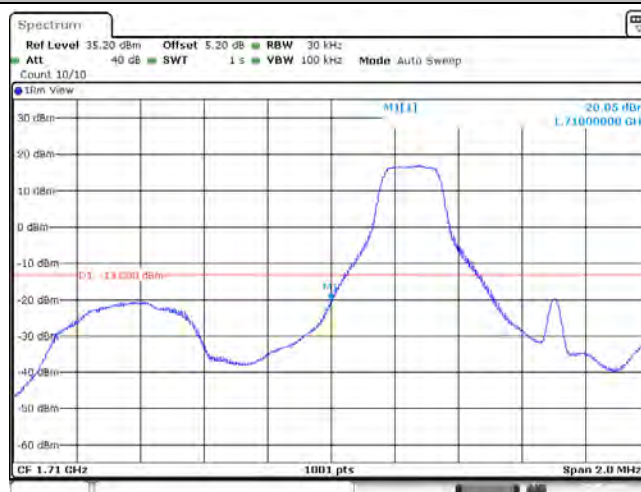
Date: 29 MAY 2019 21:53:15



5. Band Edge Compliance

5.1. Test Plots

Band4_1.4MHz_QPSK_19957_1RB#0



Date: 29 MAY 2019 21:53:41

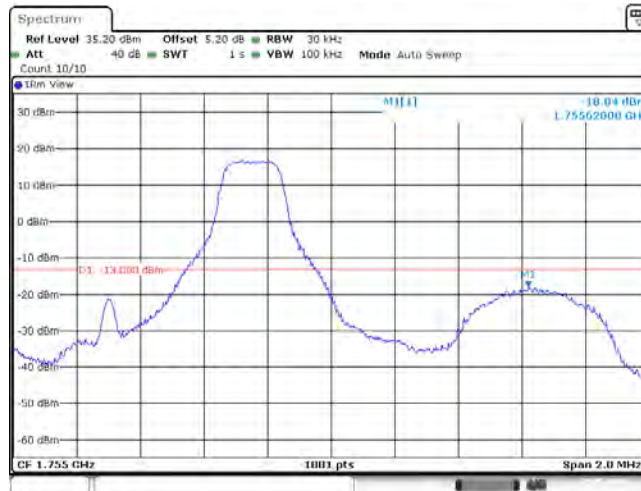
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Date: 29 MAY 2019 21:54:20

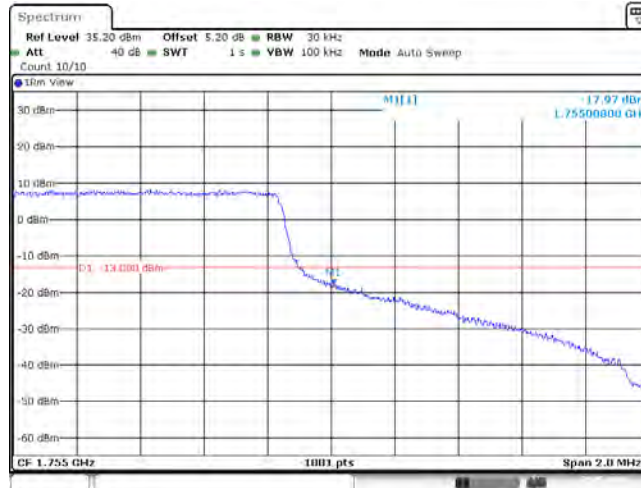
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Date: 29 MAY 2019 21:55:01

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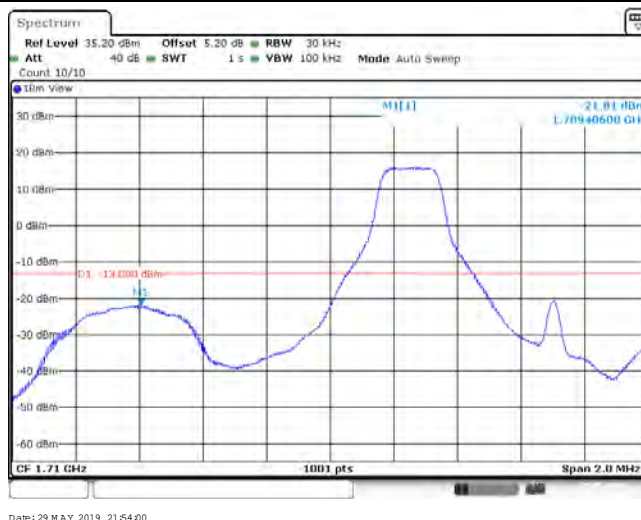
Date: 29 MAY 2019 21:55:40

Band4_1.4MHz_16QAM_19957_1RB#0



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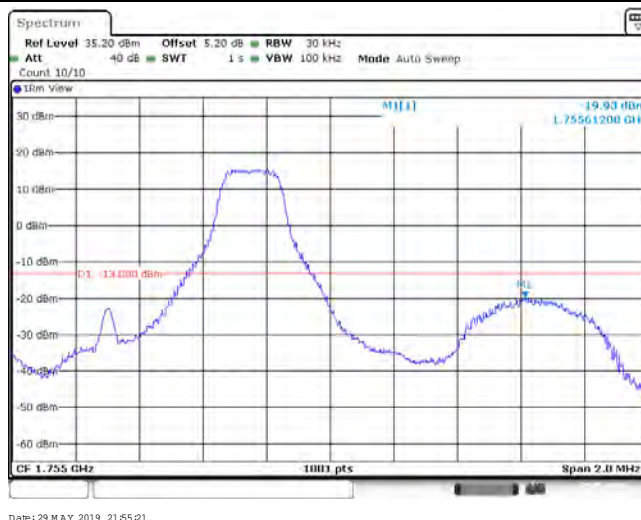


Band4_1.4MHz_16QAM_19957_6RB#0



Band4_1.4MHz_16QAM_20393_1RB#5



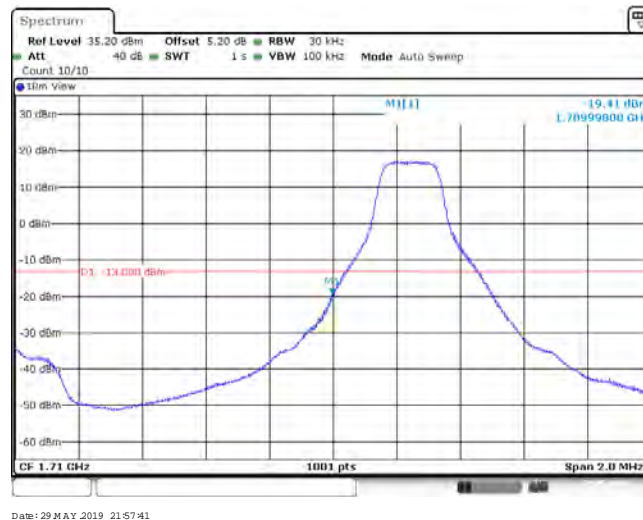


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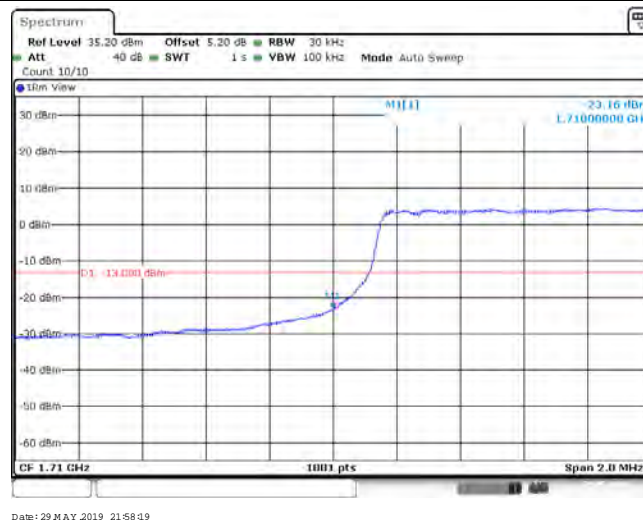


Band4_3MHz_QPSK_19965_1RB#0





Band4_3MHz_QPSK_19965_15RB#0

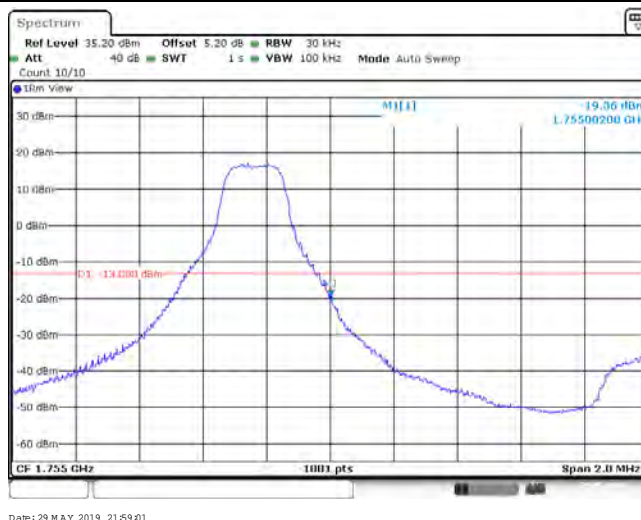


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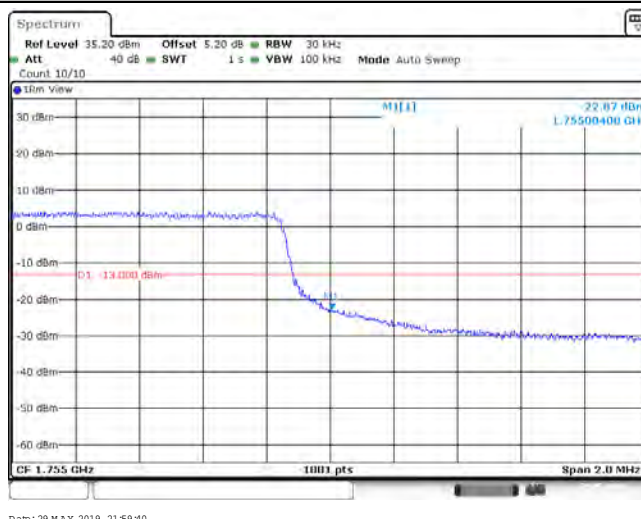


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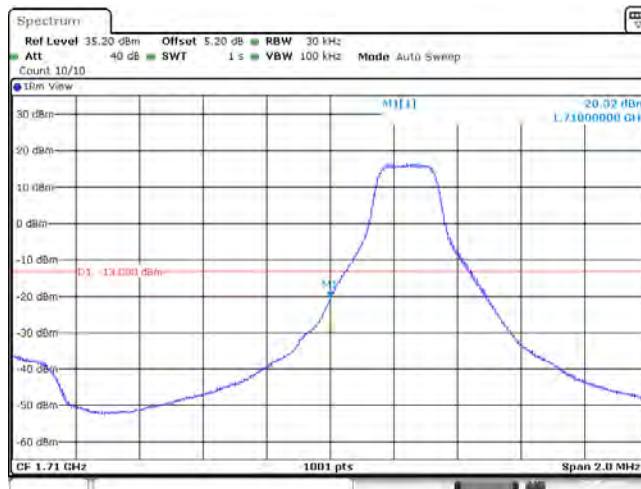


Band4_3MHz_QPSK_20385_15RB#0



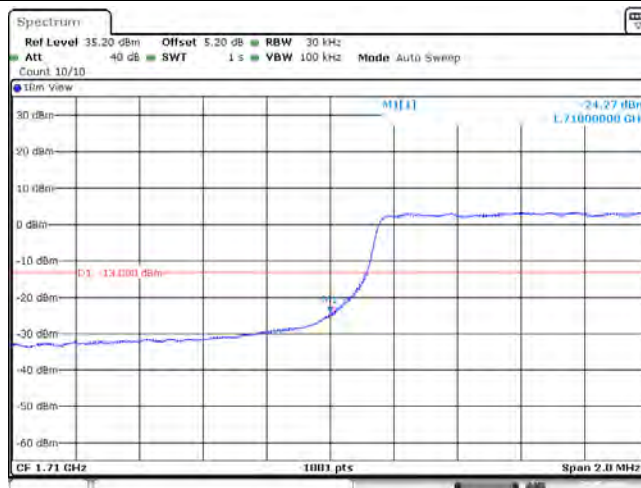
Band4_3MHz_16QAM_19965_1RB#0





Date: 29 MAY 2019 21:58:00

Band4_3MHz_16QAM_19965_15RB#0



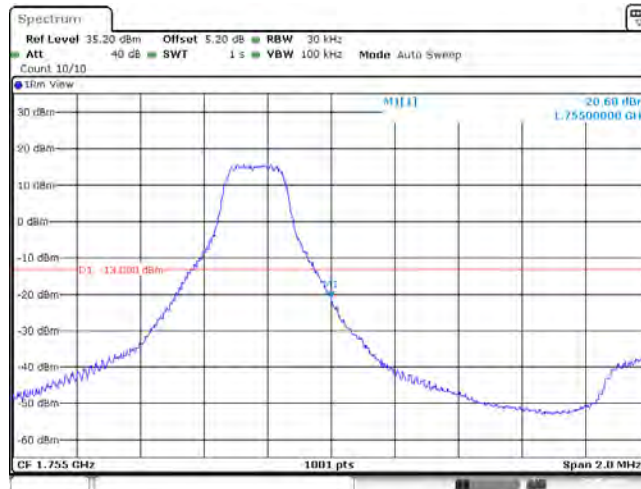
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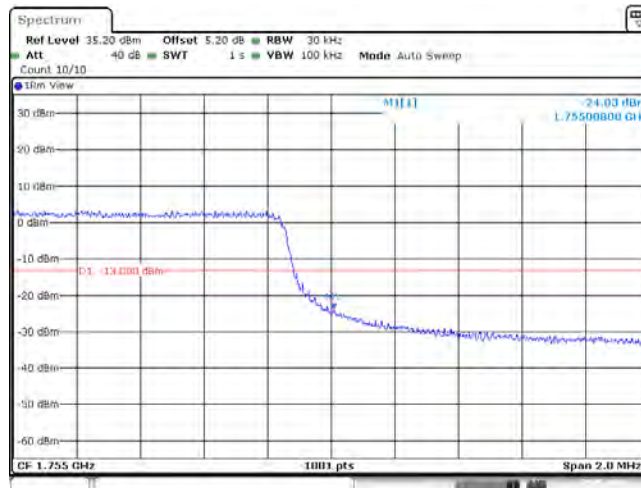


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Band4_3MHz_16QAM_20385_15RB#0

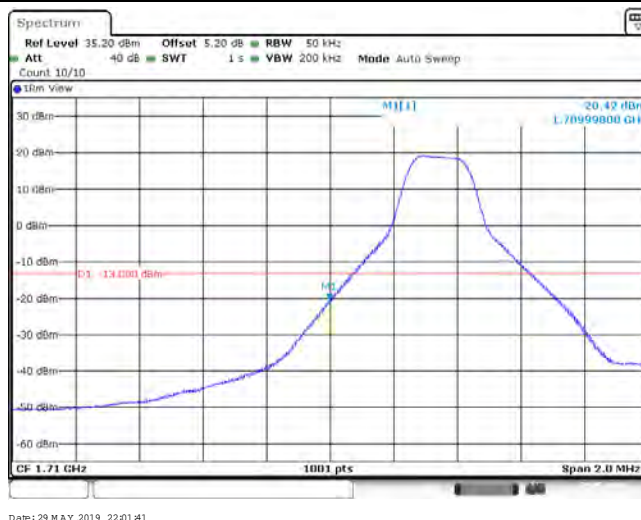


Band4_5MHz_QPSK_19975_1RB#0

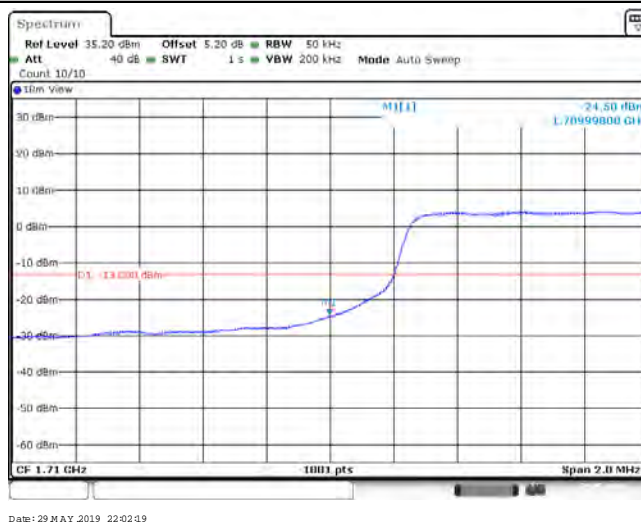


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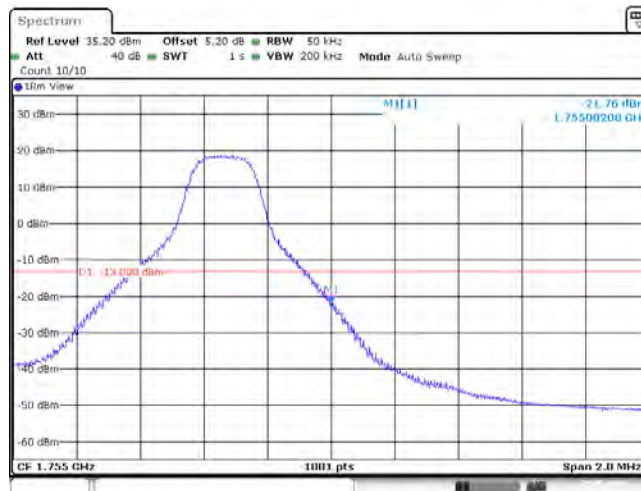


Band4_5MHz_QPSK_19975_25RB#0



Band4_5MHz_QPSK_20375_1RB#24





Date: 29 MAY 2019 22:03:02

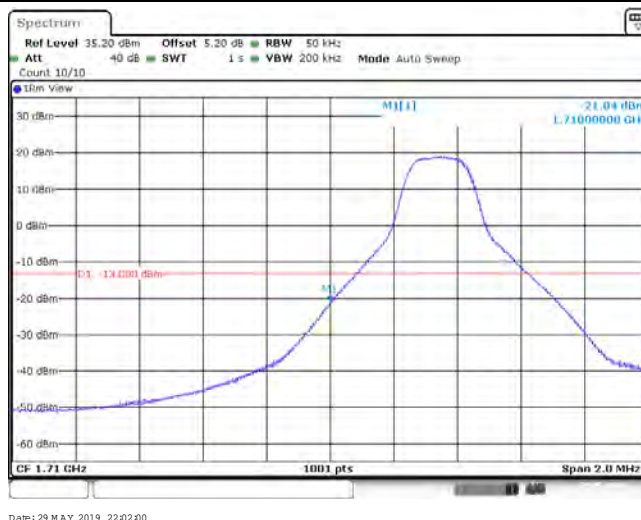
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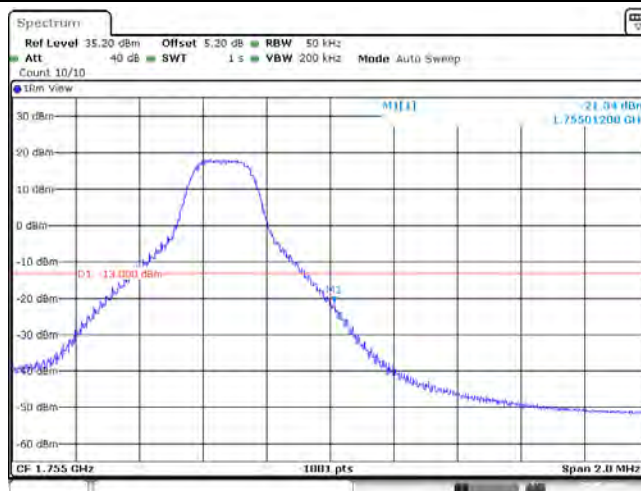


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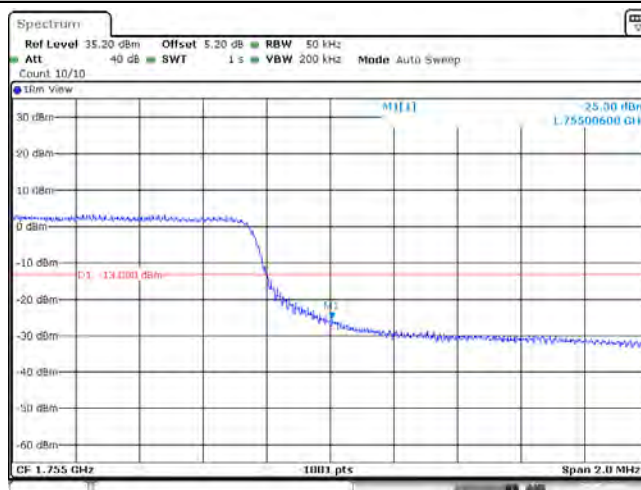
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Date: 29 MAY 2019 22:03:21

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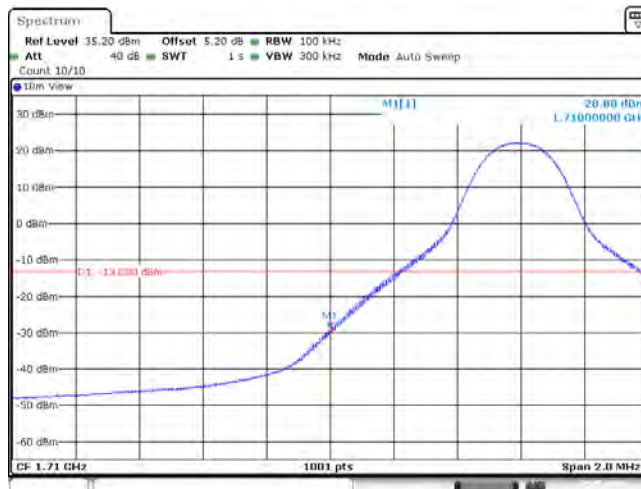
Date: 29 MAY 2019 22:04:00

Band4_10MHz_QPSK_20000_1RB#0



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Date: 29 MAY 2019 22:05:42

Band4_10MHz_QPSK_20000_50RB#0



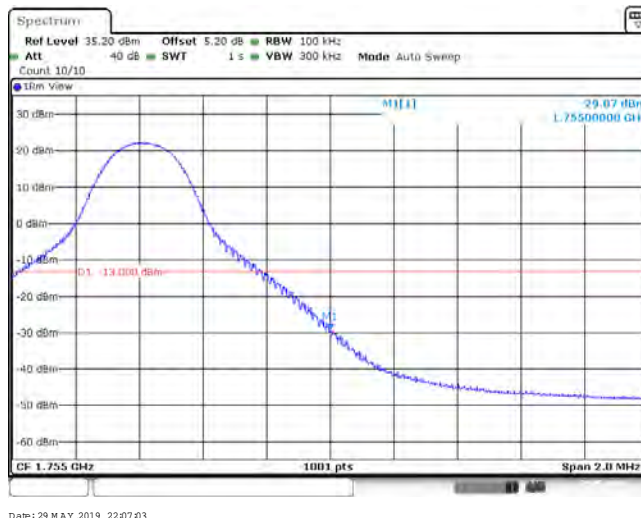
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Band4_10MHz_QPSK_20350_1RB#49



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Band4_10MHz_QPSK_20350_50RB#0

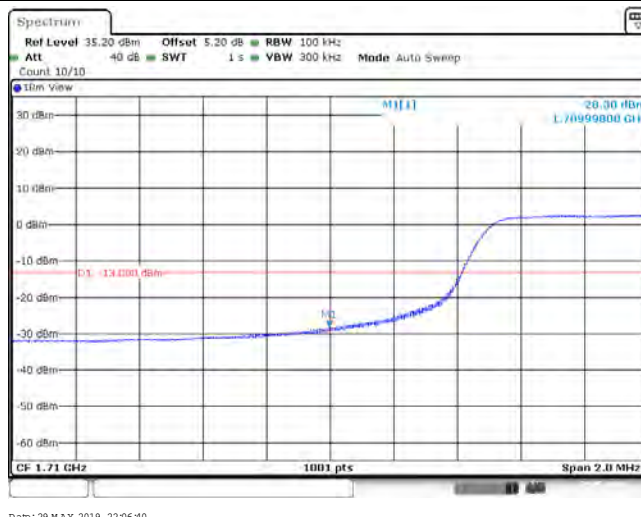


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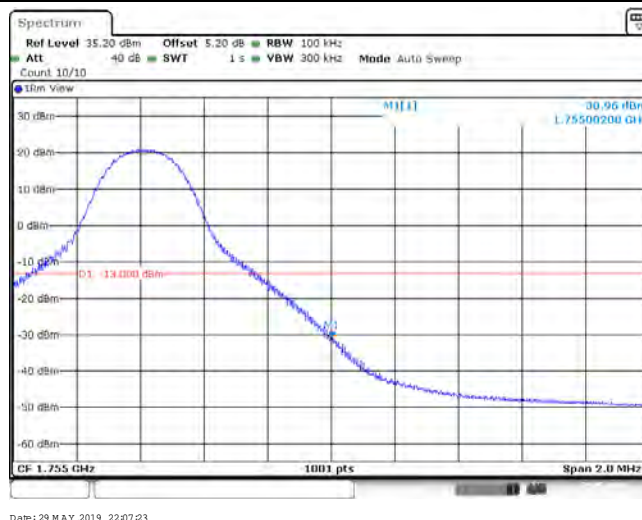


Band4_10MHz_16QAM_20350_1RB#49



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Band4_10MHz_16QAM_20350_50RB#0



Band4_15MHz_QPSK_20025_1RB#0





Date: 29 MAY 2019 22:09:44

Band4_15MHz_QPSK_20025_75RB#0



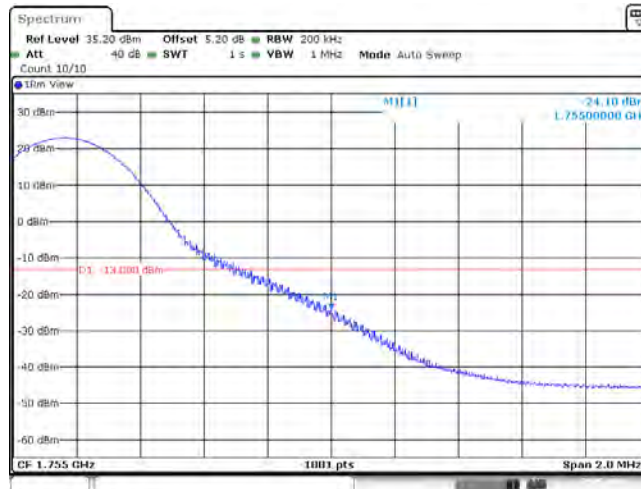
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Band4_15MHz_QPSK_20325_1RB#74



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Date: 29 MAY 2019 22:11:07

Band4_15MHz_QPSK_20325_75RB#0



Date: 29 MAY 2019 22:11:47

Band4_15MHz_16QAM_20025_1RB#0



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Date: 29 MAY 2019 22:10:44

Band4_15MHz_16QAM_20025_75RB#0



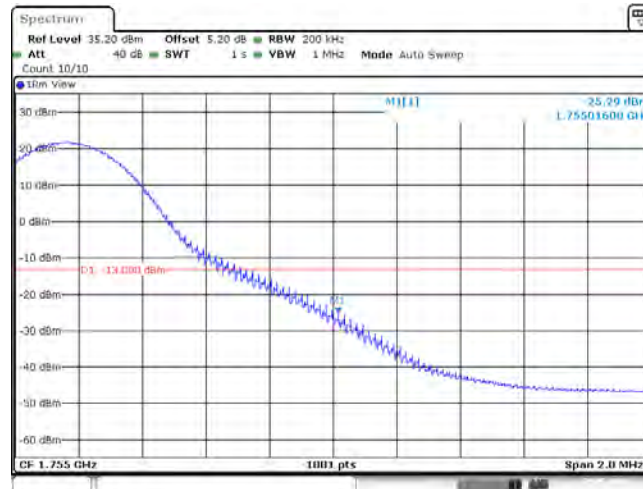
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Band4_15MHz_16QAM_20325_1RB#74



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Date: 29 MAY 2019 22:11:27

Band4_15MHz_16QAM_20325_75RB#0



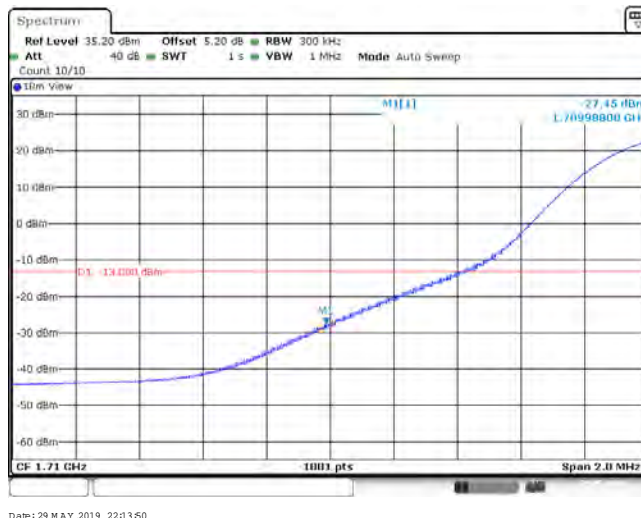
Date: 29 MAY 2019 22:12:07

Band4_20MHz_QPSK_20050_1RB#0



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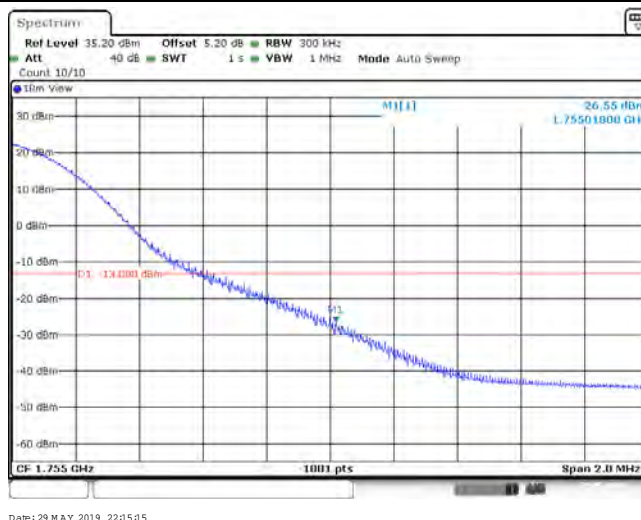


Band4_20MHz_QPSK_20050_100RB#0

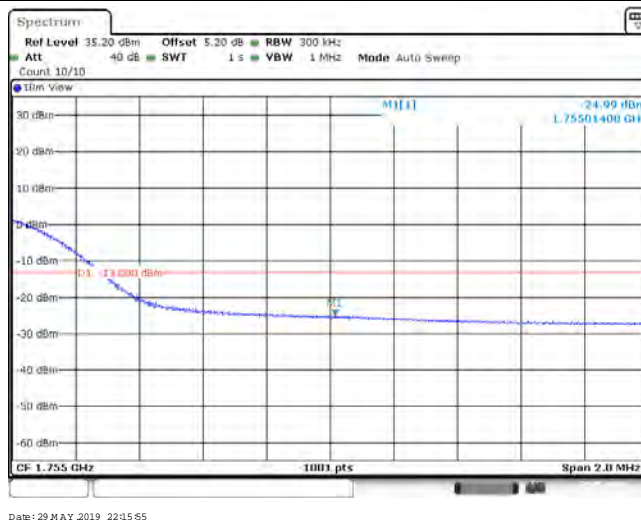


Band4_20MHz_QPSK_20300_1RB#99





Band4_20MHz_QPSK_20300_100RB#0

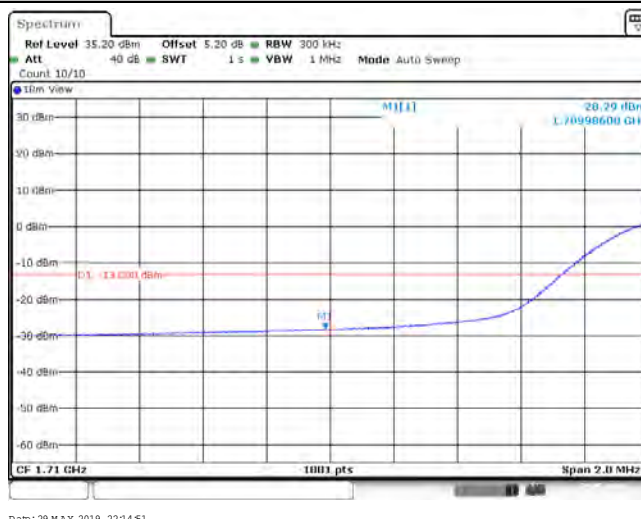


Band4_20MHz_16QAM_20050_1RB#0



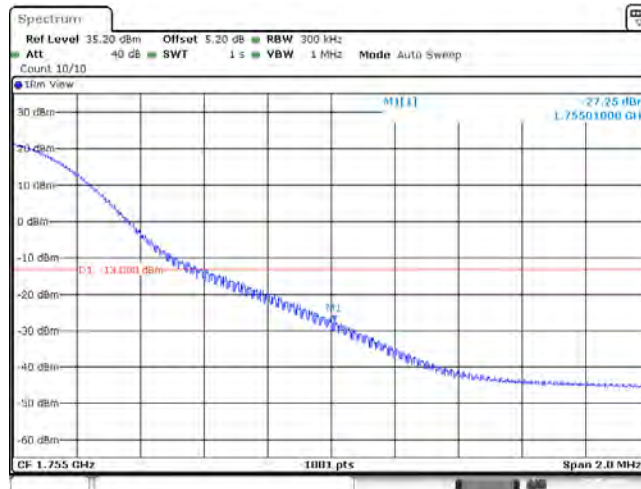


Band4_20MHz_16QAM_20050_100RB#0



Band4_20MHz_16QAM_20300_1RB#99





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Band4_20MHz_16QAM_20300_100RB#0



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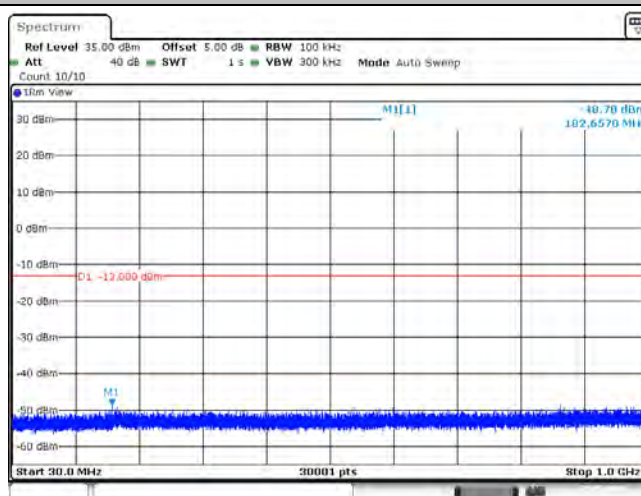
6. Spurious Emission at Antenna Terminal

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.

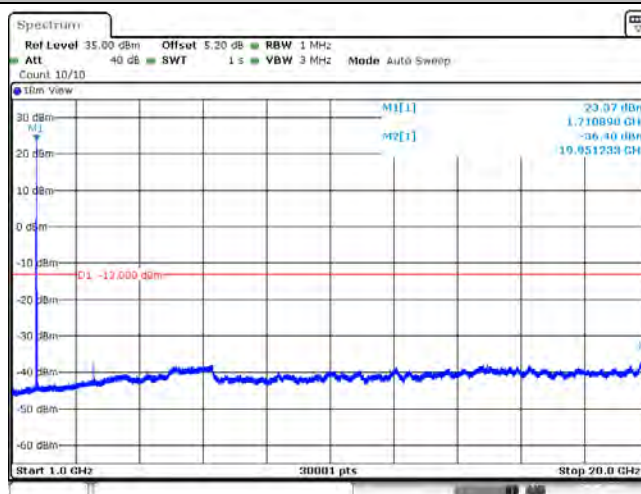
Remark2: only the worst case data displayed in this report.

6.1. Test Plots

Band4_20MHz_QPSK_20050_1RB#0



Band4_20MHz_QPSK_20050_1RB#0

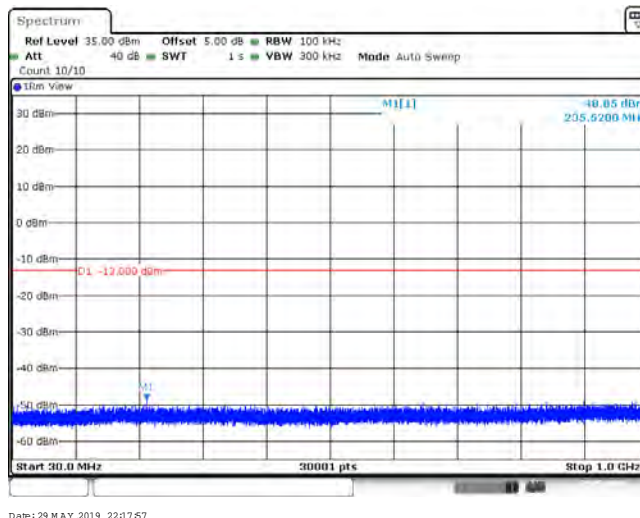


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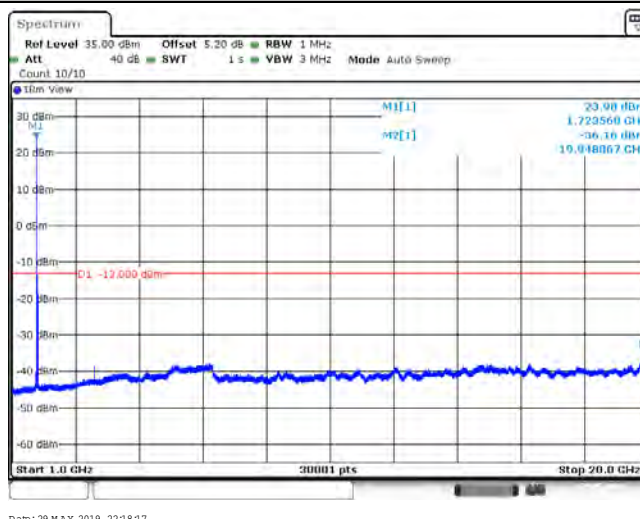


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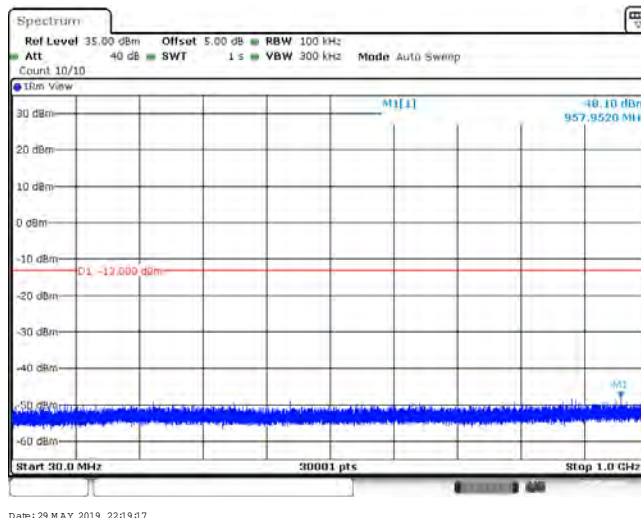


Band4_20MHz_QPSK_20175_1RB#0

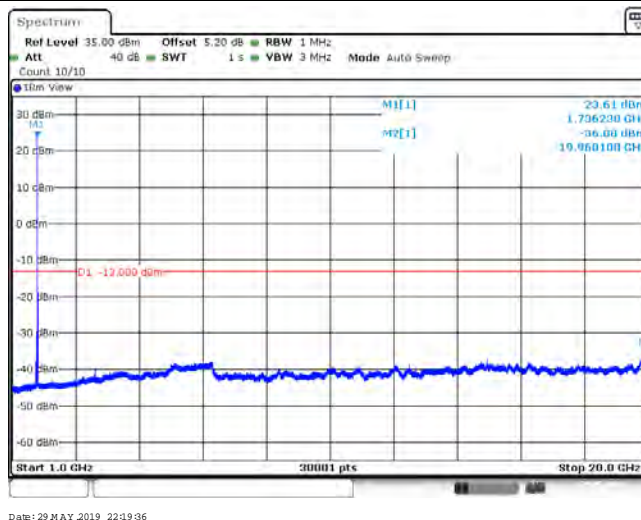


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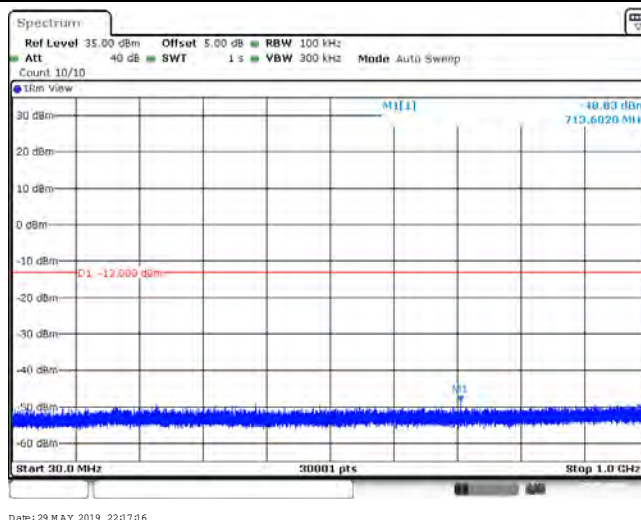


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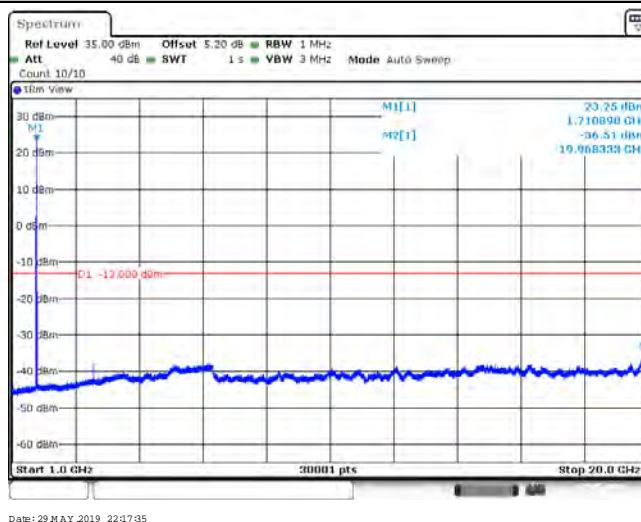


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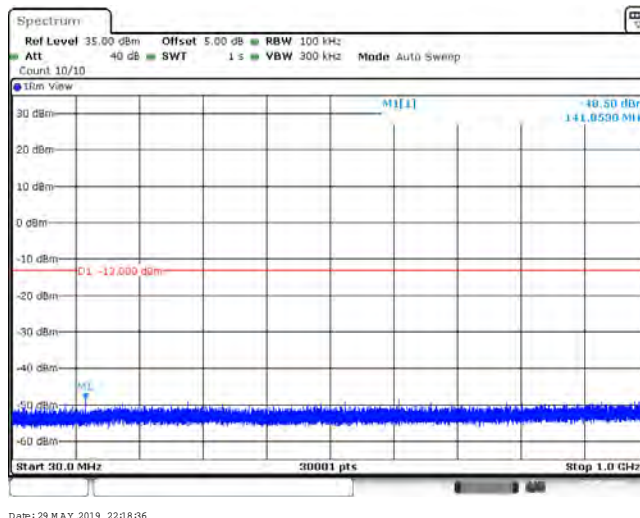


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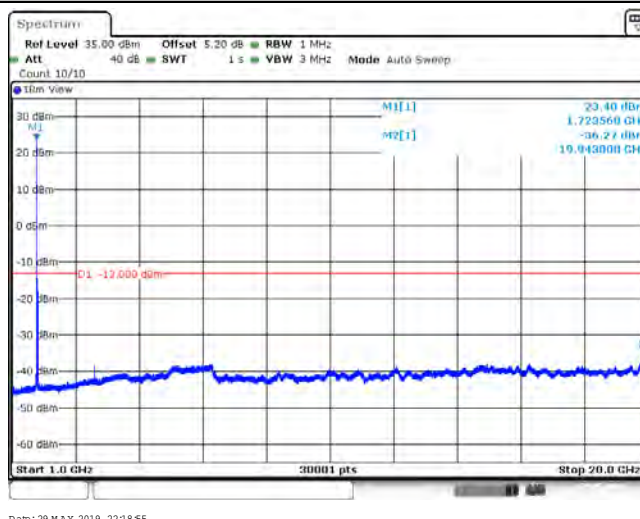


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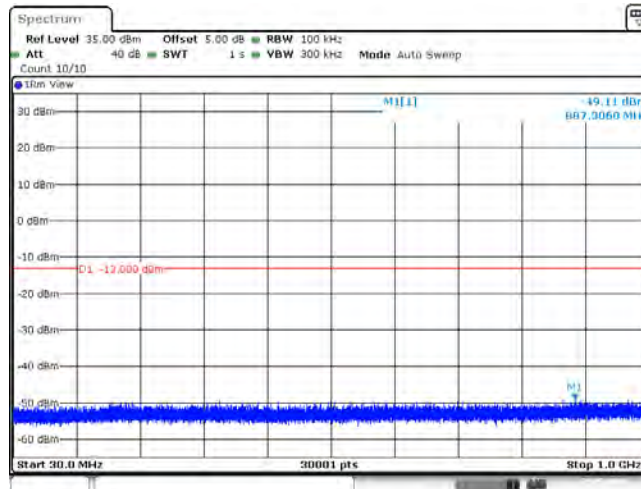


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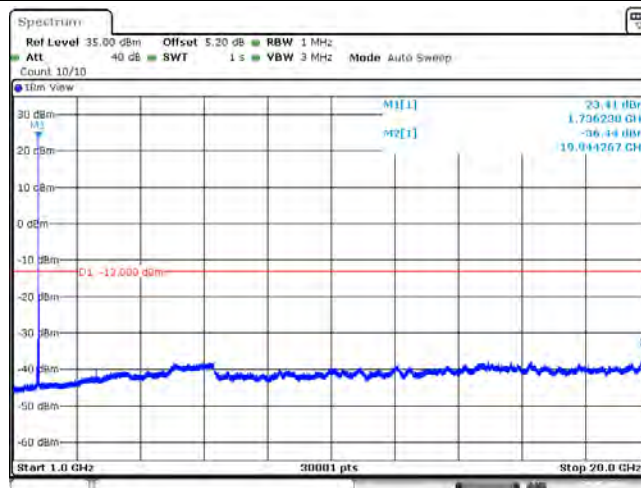
Band4_20MHz_16QAM_20300_1RB#0





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Band4_20MHz_16QAM_20300_1RB#0



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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
63.950000	-80.42	-13.00	67.42	Vertical
916.491667	-76.36	-13.00	63.36	Vertical
3421.850000	-48.07	-13.00	35.07	Vertical
5133.300000	-60.04	-13.00	47.04	Vertical
6844.425000	-54.76	-13.00	41.76	Vertical
8555.550000	-58.92	-13.00	45.92	Vertical
62.550000	-76.20	-13.00	63.20	Horizontal
104.350000	-82.35	-13.00	69.35	Horizontal
957.741667	-75.26	-13.00	62.26	Horizontal
3421.850000	-44.29	-13.00	31.29	Horizontal
6844.750000	-62.67	-13.00	49.67	Horizontal
8656.950000	-61.90	-13.00	48.90	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
63.800000	-80.55	-13.00	67.55	Vertical
958.062500	-75.16	-13.00	62.16	Vertical
3447.200000	-46.15	-13.00	33.15	Vertical
5170.675000	-61.14	-13.00	48.14	Vertical
6894.475000	-56.96	-13.00	43.96	Vertical
8617.950000	-58.92	-13.00	45.92	Vertical
62.000000	-76.99	-13.00	63.99	Horizontal
367.950000	-83.62	-13.00	70.62	Horizontal
958.658333	-74.45	-13.00	61.45	Horizontal
3471.900000	-43.96	-13.00	30.96	Horizontal
6944.200000	-62.52	-13.00	49.52	Horizontal
9225.050000	-61.39	-13.00	48.39	Horizontal





7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.150000	-80.68	-13.00	67.68	Vertical
104.300000	-80.19	-13.00	67.19	Vertical
3472.550000	-48.14	-13.00	35.14	Vertical
5208.050000	-62.34	-13.00	49.34	Vertical
6944.200000	-54.95	-13.00	41.95	Vertical
8680.350000	-58.05	-13.00	45.05	Vertical
62.050000	-76.46	-13.00	63.46	Horizontal
104.300000	-81.25	-13.00	68.25	Horizontal
947.887500	-75.52	-13.00	62.52	Horizontal
3471.900000	-43.03	-13.00	30.03	Horizontal
5046.200000	-64.59	-13.00	51.59	Horizontal
6944.525000	-62.22	-13.00	49.22	Horizontal

Remark:

The disturbance 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.

We have tested all modulation and all Bandwidth , but only the worst case data presented in this report.



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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	2.80	0.001628	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	0.60	0.000349	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	3.50	0.002035	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	1.80	0.001039	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	1.00	0.000577	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	2.70	0.001558	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	-3.00	-0.001719	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	-2.20	-0.001261	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	-4.20	-0.002407	±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	2.50	0.001453	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VH	NT	0.10	0.000058	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VL	NT	-0.10	-0.000058	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VN	NT	0.00	0.000000	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VH	NT	2.30	0.001328	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VL	NT	-3.50	-0.002006	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VN	NT	-2.70	-0.001547	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VH	NT	-3.70	-0.002120	±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	-0.90	-0.000523	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	0.70	0.000407	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	2.50	0.001453	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	0.70	0.000407	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	3.70	0.002151	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	2.70	0.001570	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	0.60	0.000349	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	1.30	0.000756	±2.5	PASS



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Band4	20MHz	QPSK	20175	100RB#0	NV	-30	1.60	0.000924	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	1.20	0.000693	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	1.90	0.001097	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	-1.20	-0.000693	±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	30	-0.20	-0.000115	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	1.40	0.000808	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	1.20	0.000693	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-30	-0.70	-0.000401	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	-0.70	-0.000401	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	-4.70	-0.002693	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-2.60	-0.001490	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	-4.20	-0.002407	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	-3.80	-0.002178	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	40	-1.70	-0.000974	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	50	-2.50	-0.001433	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-30	0.70	0.000407	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-20	0.60	0.000349	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	0	1.10	0.000640	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	10	2.80	0.001628	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	20	3.30	0.001919	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	30	0.50	0.000291	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	40	1.20	0.000698	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	50	-0.20	-0.000116	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-30	1.50	0.000866	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-20	-1.00	-0.000577	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	0	2.20	0.001270	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	10	-0.60	-0.000346	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	20	-0.70	-0.000404	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	30	1.40	0.000808	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	40	2.60	0.001501	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	50	0.40	0.000231	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-30	-3.90	-0.002235	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-20	-0.60	-0.000344	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	0	-4.40	-0.002521	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	10	-1.50	-0.000860	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	20	-4.20	-0.002407	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	30	-1.90	-0.001089	±2.5	PASS



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Band4	20MHz	16QAM	20300	100RB#0	NV	40	-2.60	-0.001490	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	50	-1.50	-0.000860	±2.5	PASS

The End



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