



# 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	22.02	21.52	30.00	PASS
BAND4	1.4MHz	QPSK	19957	1RB#2	22.15	21.65	30.00	PASS
BAND4	1.4MHz	QPSK	19957	1RB#5	22.08	21.58	30.00	PASS
BAND4	1.4MHz	QPSK	19957	3RB#0	22.15	21.65	30.00	PASS
BAND4	1.4MHz	QPSK	19957	3RB#1	22.18	21.68	30.00	PASS
BAND4	1.4MHz	QPSK	19957	3RB#3	22.13	21.63	30.00	PASS
BAND4	1.4MHz	QPSK	19957	6RB#0	21.14	20.64	30.00	PASS
BAND4	1.4MHz	QPSK	20175	1RB#0	22.10	21.60	30.00	PASS
BAND4	1.4MHz	QPSK	20175	1RB#2	22.26	21.76	30.00	PASS
BAND4	1.4MHz	QPSK	20175	1RB#5	22.13	21.63	30.00	PASS
BAND4	1.4MHz	QPSK	20175	3RB#0	22.21	21.71	30.00	PASS
BAND4	1.4MHz	QPSK	20175	3RB#1	22.28	21.78	30.00	PASS
BAND4	1.4MHz	QPSK	20175	3RB#3	22.20	21.70	30.00	PASS
BAND4	1.4MHz	QPSK	20175	6RB#0	21.19	20.69	30.00	PASS
BAND4	1.4MHz	QPSK	20393	1RB#0	22.28	21.78	30.00	PASS
BAND4	1.4MHz	QPSK	20393	1RB#2	22.42	21.92	30.00	PASS
BAND4	1.4MHz	QPSK	20393	1RB#5	22.28	21.78	30.00	PASS
BAND4	1.4MHz	QPSK	20393	3RB#0	22.33	21.83	30.00	PASS
BAND4	1.4MHz	QPSK	20393	3RB#1	22.38	21.88	30.00	PASS
BAND4	1.4MHz	QPSK	20393	3RB#3	22.35	21.85	30.00	PASS
BAND4	1.4MHz	QPSK	20393	6RB#0	21.36	20.86	30.00	PASS
BAND4	1.4MHz	16QAM	19957	1RB#0	21.27	20.77	30.00	PASS
BAND4	1.4MHz	16QAM	19957	1RB#2	21.33	20.83	30.00	PASS
BAND4	1.4MHz	16QAM	19957	1RB#5	21.24	20.74	30.00	PASS
BAND4	1.4MHz	16QAM	19957	3RB#0	21.20	20.70	30.00	PASS
BAND4	1.4MHz	16QAM	19957	3RB#1	21.32	20.82	30.00	PASS
BAND4	1.4MHz	16QAM	19957	3RB#3	21.17	20.67	30.00	PASS
BAND4	1.4MHz	16QAM	19957	6RB#0	20.23	19.73	30.00	PASS
BAND4	1.4MHz	16QAM	20175	1RB#0	21.48	20.98	30.00	PASS
BAND4	1.4MHz	16QAM	20175	1RB#2	21.44	20.94	30.00	PASS
BAND4	1.4MHz	16QAM	20175	1RB#5	21.42	20.92	30.00	PASS
BAND4	1.4MHz	16QAM	20175	3RB#0	21.33	20.83	30.00	PASS
BAND4	1.4MHz	16QAM	20175	3RB#1	21.45	20.95	30.00	PASS
BAND4	1.4MHz	16QAM	20175	3RB#3	21.36	20.86	30.00	PASS



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BAND4	1.4MHz	16QAM	20175	6RB#0	20.32	19.82	30.00	PASS
BAND4	1.4MHz	16QAM	20393	1RB#0	21.53	21.03	30.00	PASS
BAND4	1.4MHz	16QAM	20393	1RB#2	21.60	21.10	30.00	PASS
BAND4	1.4MHz	16QAM	20393	1RB#5	21.50	21.00	30.00	PASS
BAND4	1.4MHz	16QAM	20393	3RB#0	21.48	20.98	30.00	PASS
BAND4	1.4MHz	16QAM	20393	3RB#1	21.44	20.94	30.00	PASS
BAND4	1.4MHz	16QAM	20393	3RB#3	21.40	20.90	30.00	PASS
BAND4	1.4MHz	16QAM	20393	6RB#0	20.47	19.97	30.00	PASS
BAND4	3MHz	QPSK	19965	1RB#0	22.17	21.67	30.00	PASS
BAND4	3MHz	QPSK	19965	1RB#8	22.20	21.70	30.00	PASS
BAND4	3MHz	QPSK	19965	1RB#14	22.21	21.71	30.00	PASS
BAND4	3MHz	QPSK	19965	8RB#0	21.20	20.70	30.00	PASS
BAND4	3MHz	QPSK	19965	8RB#4	21.25	20.75	30.00	PASS
BAND4	3MHz	QPSK	19965	8RB#7	21.22	20.72	30.00	PASS
BAND4	3MHz	QPSK	19965	15RB#0	21.21	20.71	30.00	PASS
BAND4	3MHz	QPSK	20175	1RB#0	22.21	21.71	30.00	PASS
BAND4	3MHz	QPSK	20175	1RB#8	22.24	21.74	30.00	PASS
BAND4	3MHz	QPSK	20175	1RB#14	22.22	21.72	30.00	PASS
BAND4	3MHz	QPSK	20175	8RB#0	21.24	20.74	30.00	PASS
BAND4	3MHz	QPSK	20175	8RB#4	21.27	20.77	30.00	PASS
BAND4	3MHz	QPSK	20175	8RB#7	21.23	20.73	30.00	PASS
BAND4	3MHz	QPSK	20175	15RB#0	21.19	20.69	30.00	PASS
BAND4	3MHz	QPSK	20385	1RB#0	22.32	21.82	30.00	PASS
BAND4	3MHz	QPSK	20385	1RB#8	22.37	21.87	30.00	PASS
BAND4	3MHz	QPSK	20385	1RB#14	22.35	21.85	30.00	PASS
BAND4	3MHz	QPSK	20385	8RB#0	21.37	20.87	30.00	PASS
BAND4	3MHz	QPSK	20385	8RB#4	21.41	20.91	30.00	PASS
BAND4	3MHz	QPSK	20385	8RB#7	21.38	20.88	30.00	PASS
BAND4	3MHz	QPSK	20385	15RB#0	21.36	20.86	30.00	PASS
BAND4	3MHz	16QAM	19965	1RB#0	21.37	20.87	30.00	PASS
BAND4	3MHz	16QAM	19965	1RB#8	21.40	20.90	30.00	PASS
BAND4	3MHz	16QAM	19965	1RB#14	21.44	20.94	30.00	PASS
BAND4	3MHz	16QAM	19965	8RB#0	20.29	19.79	30.00	PASS
BAND4	3MHz	16QAM	19965	8RB#4	20.32	19.82	30.00	PASS
BAND4	3MHz	16QAM	19965	8RB#7	20.27	19.77	30.00	PASS
BAND4	3MHz	16QAM	19965	15RB#0	20.23	19.73	30.00	PASS
BAND4	3MHz	16QAM	20175	1RB#0	21.46	20.96	30.00	PASS
BAND4	3MHz	16QAM	20175	1RB#8	21.52	21.02	30.00	PASS
BAND4	3MHz	16QAM	20175	1RB#14	21.41	20.91	30.00	PASS
BAND4	3MHz	16QAM	20175	8RB#0	20.34	19.84	30.00	PASS
BAND4	3MHz	16QAM	20175	8RB#4	20.35	19.85	30.00	PASS

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BAND4	3MHz	16QAM	20175	8RB#7	20.32	19.82	30.00	PASS
BAND4	3MHz	16QAM	20175	15RB#0	20.25	19.75	30.00	PASS
BAND4	3MHz	16QAM	20385	1RB#0	21.43	20.93	30.00	PASS
BAND4	3MHz	16QAM	20385	1RB#8	21.51	21.01	30.00	PASS
BAND4	3MHz	16QAM	20385	1RB#14	21.58	21.08	30.00	PASS
BAND4	3MHz	16QAM	20385	8RB#0	20.46	19.96	30.00	PASS
BAND4	3MHz	16QAM	20385	8RB#4	20.49	19.99	30.00	PASS
BAND4	3MHz	16QAM	20385	8RB#7	20.49	19.99	30.00	PASS
BAND4	3MHz	16QAM	20385	15RB#0	20.41	19.91	30.00	PASS
BAND4	5MHz	QPSK	19975	1RB#0	22.02	21.52	30.00	PASS
BAND4	5MHz	QPSK	19975	1RB#12	22.40	21.90	30.00	PASS
BAND4	5MHz	QPSK	19975	1RB#24	22.07	21.57	30.00	PASS
BAND4	5MHz	QPSK	19975	12RB#0	21.17	20.67	30.00	PASS
BAND4	5MHz	QPSK	19975	12RB#6	21.23	20.73	30.00	PASS
BAND4	5MHz	QPSK	19975	12RB#13	21.16	20.66	30.00	PASS
BAND4	5MHz	QPSK	19975	25RB#0	21.17	20.67	30.00	PASS
BAND4	5MHz	QPSK	20175	1RB#0	22.08	21.58	30.00	PASS
BAND4	5MHz	QPSK	20175	1RB#12	22.39	21.89	30.00	PASS
BAND4	5MHz	QPSK	20175	1RB#24	22.07	21.57	30.00	PASS
BAND4	5MHz	QPSK	20175	12RB#0	21.22	20.72	30.00	PASS
BAND4	5MHz	QPSK	20175	12RB#6	21.25	20.75	30.00	PASS
BAND4	5MHz	QPSK	20175	12RB#13	21.17	20.67	30.00	PASS
BAND4	5MHz	QPSK	20175	25RB#0	21.21	20.71	30.00	PASS
BAND4	5MHz	QPSK	20375	1RB#0	22.17	21.67	30.00	PASS
BAND4	5MHz	QPSK	20375	1RB#12	22.48	21.98	30.00	PASS
BAND4	5MHz	QPSK	20375	1RB#24	22.21	21.71	30.00	PASS
BAND4	5MHz	QPSK	20375	12RB#0	21.28	20.78	30.00	PASS
BAND4	5MHz	QPSK	20375	12RB#6	21.38	20.88	30.00	PASS
BAND4	5MHz	QPSK	20375	12RB#13	21.32	20.82	30.00	PASS
BAND4	5MHz	QPSK	20375	25RB#0	21.32	20.82	30.00	PASS
BAND4	5MHz	16QAM	19975	1RB#0	21.18	20.68	30.00	PASS
BAND4	5MHz	16QAM	19975	1RB#12	21.46	20.96	30.00	PASS
BAND4	5MHz	16QAM	19975	1RB#24	21.28	20.78	30.00	PASS
BAND4	5MHz	16QAM	19975	12RB#0	20.23	19.73	30.00	PASS
BAND4	5MHz	16QAM	19975	12RB#6	20.30	19.80	30.00	PASS
BAND4	5MHz	16QAM	19975	12RB#13	20.24	19.74	30.00	PASS
BAND4	5MHz	16QAM	19975	25RB#0	20.19	19.69	30.00	PASS
BAND4	5MHz	16QAM	20175	1RB#0	21.28	20.78	30.00	PASS
BAND4	5MHz	16QAM	20175	1RB#12	21.59	21.09	30.00	PASS
BAND4	5MHz	16QAM	20175	1RB#24	21.28	20.78	30.00	PASS
BAND4	5MHz	16QAM	20175	12RB#0	20.31	19.81	30.00	PASS

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BAND4	5MHz	16QAM	20175	12RB#6	20.36	19.86	30.00	PASS
BAND4	5MHz	16QAM	20175	12RB#13	20.25	19.75	30.00	PASS
BAND4	5MHz	16QAM	20175	25RB#0	20.26	19.76	30.00	PASS
BAND4	5MHz	16QAM	20375	1RB#0	22.42	21.92	30.00	PASS
BAND4	5MHz	16QAM	20375	1RB#12	21.73	21.23	30.00	PASS
BAND4	5MHz	16QAM	20375	1RB#24	21.39	20.89	30.00	PASS
BAND4	5MHz	16QAM	20375	12RB#0	20.34	19.84	30.00	PASS
BAND4	5MHz	16QAM	20375	12RB#6	20.46	19.96	30.00	PASS
BAND4	5MHz	16QAM	20375	12RB#13	20.42	19.92	30.00	PASS
BAND4	5MHz	16QAM	20375	25RB#0	20.39	19.89	30.00	PASS
BAND4	10MHz	QPSK	20000	1RB#0	22.16	21.66	30.00	PASS
BAND4	10MHz	QPSK	20000	1RB#24	22.31	21.81	30.00	PASS
BAND4	10MHz	QPSK	20000	1RB#49	22.22	21.72	30.00	PASS
BAND4	10MHz	QPSK	20000	25RB#0	21.22	20.72	30.00	PASS
BAND4	10MHz	QPSK	20000	25RB#12	21.28	20.78	30.00	PASS
BAND4	10MHz	QPSK	20000	25RB#25	21.26	20.76	30.00	PASS
BAND4	10MHz	QPSK	20000	50RB#0	21.26	20.76	30.00	PASS
BAND4	10MHz	QPSK	20175	1RB#0	22.17	21.67	30.00	PASS
BAND4	10MHz	QPSK	20175	1RB#24	22.30	21.80	30.00	PASS
BAND4	10MHz	QPSK	20175	1RB#49	22.19	21.69	30.00	PASS
BAND4	10MHz	QPSK	20175	25RB#0	21.27	20.77	30.00	PASS
BAND4	10MHz	QPSK	20175	25RB#12	21.27	20.77	30.00	PASS
BAND4	10MHz	QPSK	20175	25RB#25	21.20	20.70	30.00	PASS
BAND4	10MHz	QPSK	20175	50RB#0	21.24	20.74	30.00	PASS
BAND4	10MHz	QPSK	20350	1RB#0	22.21	21.71	30.00	PASS
BAND4	10MHz	QPSK	20350	1RB#24	22.37	21.87	30.00	PASS
BAND4	10MHz	QPSK	20350	1RB#49	22.32	21.82	30.00	PASS
BAND4	10MHz	QPSK	20350	25RB#0	21.23	20.73	30.00	PASS
BAND4	10MHz	QPSK	20350	25RB#12	21.35	20.85	30.00	PASS
BAND4	10MHz	QPSK	20350	25RB#25	21.41	20.91	30.00	PASS
BAND4	10MHz	QPSK	20350	50RB#0	21.32	20.82	30.00	PASS
BAND4	10MHz	16QAM	20000	1RB#0	21.33	20.83	30.00	PASS
BAND4	10MHz	16QAM	20000	1RB#24	21.46	20.96	30.00	PASS
BAND4	10MHz	16QAM	20000	1RB#49	22.33	21.83	30.00	PASS
BAND4	10MHz	16QAM	20000	25RB#0	20.26	19.76	30.00	PASS
BAND4	10MHz	16QAM	20000	25RB#12	20.32	19.82	30.00	PASS
BAND4	10MHz	16QAM	20000	25RB#25	20.28	19.78	30.00	PASS
BAND4	10MHz	16QAM	20000	50RB#0	20.27	19.77	30.00	PASS
BAND4	10MHz	16QAM	20175	1RB#0	21.36	20.86	30.00	PASS
BAND4	10MHz	16QAM	20175	1RB#24	21.57	21.07	30.00	PASS
BAND4	10MHz	16QAM	20175	1RB#49	21.49	20.99	30.00	PASS

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BAND4	10MHz	16QAM	20175	25RB#0	20.30	19.80	30.00	PASS
BAND4	10MHz	16QAM	20175	25RB#12	20.32	19.82	30.00	PASS
BAND4	10MHz	16QAM	20175	25RB#25	20.27	19.77	30.00	PASS
BAND4	10MHz	16QAM	20175	50RB#0	20.28	19.78	30.00	PASS
BAND4	10MHz	16QAM	20350	1RB#0	21.52	21.02	30.00	PASS
BAND4	10MHz	16QAM	20350	1RB#24	21.52	21.02	30.00	PASS
BAND4	10MHz	16QAM	20350	1RB#49	21.52	21.02	30.00	PASS
BAND4	10MHz	16QAM	20350	25RB#0	20.25	19.75	30.00	PASS
BAND4	10MHz	16QAM	20350	25RB#12	20.37	19.87	30.00	PASS
BAND4	10MHz	16QAM	20350	25RB#25	20.43	19.93	30.00	PASS
BAND4	10MHz	16QAM	20350	50RB#0	20.36	19.86	30.00	PASS
BAND4	15MHz	QPSK	20025	1RB#0	22.08	21.58	30.00	PASS
BAND4	15MHz	QPSK	20025	1RB#38	22.23	21.73	30.00	PASS
BAND4	15MHz	QPSK	20025	1RB#74	22.14	21.64	30.00	PASS
BAND4	15MHz	QPSK	20025	36RB#0	21.25	20.75	30.00	PASS
BAND4	15MHz	QPSK	20025	36RB#18	21.28	20.78	30.00	PASS
BAND4	15MHz	QPSK	20025	36RB#39	21.20	20.70	30.00	PASS
BAND4	15MHz	QPSK	20025	75RB#0	21.26	20.76	30.00	PASS
BAND4	15MHz	QPSK	20175	1RB#0	22.12	21.62	30.00	PASS
BAND4	15MHz	QPSK	20175	1RB#38	22.23	21.73	30.00	PASS
BAND4	15MHz	QPSK	20175	1RB#74	22.10	21.60	30.00	PASS
BAND4	15MHz	QPSK	20175	36RB#0	21.26	20.76	30.00	PASS
BAND4	15MHz	QPSK	20175	36RB#18	21.24	20.74	30.00	PASS
BAND4	15MHz	QPSK	20175	36RB#39	21.19	20.69	30.00	PASS
BAND4	15MHz	QPSK	20175	75RB#0	21.28	20.78	30.00	PASS
BAND4	15MHz	QPSK	20325	1RB#0	22.14	21.64	30.00	PASS
BAND4	15MHz	QPSK	20325	1RB#38	22.28	21.78	30.00	PASS
BAND4	15MHz	QPSK	20325	1RB#74	22.26	21.76	30.00	PASS
BAND4	15MHz	QPSK	20325	36RB#0	21.24	20.74	30.00	PASS
BAND4	15MHz	QPSK	20325	36RB#18	21.28	20.78	30.00	PASS
BAND4	15MHz	QPSK	20325	36RB#39	21.36	20.86	30.00	PASS
BAND4	15MHz	QPSK	20325	75RB#0	21.33	20.83	30.00	PASS
BAND4	15MHz	16QAM	20025	1RB#0	21.32	20.82	30.00	PASS
BAND4	15MHz	16QAM	20025	1RB#38	21.49	20.99	30.00	PASS
BAND4	15MHz	16QAM	20025	1RB#74	21.44	20.94	30.00	PASS
BAND4	15MHz	16QAM	20025	36RB#0	20.29	19.79	30.00	PASS
BAND4	15MHz	16QAM	20025	36RB#18	20.32	19.82	30.00	PASS
BAND4	15MHz	16QAM	20025	36RB#39	20.28	19.78	30.00	PASS
BAND4	15MHz	16QAM	20025	75RB#0	20.29	19.79	30.00	PASS
BAND4	15MHz	16QAM	20175	1RB#0	21.26	20.76	30.00	PASS
BAND4	15MHz	16QAM	20175	1RB#38	21.39	20.89	30.00	PASS

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BAND4	15MHz	16QAM	20175	1RB#74	21.33	20.83	30.00	PASS
BAND4	15MHz	16QAM	20175	36RB#0	20.34	19.84	30.00	PASS
BAND4	15MHz	16QAM	20175	36RB#18	20.32	19.82	30.00	PASS
BAND4	15MHz	16QAM	20175	36RB#39	20.31	19.81	30.00	PASS
BAND4	15MHz	16QAM	20175	75RB#0	20.31	19.81	30.00	PASS
BAND4	15MHz	16QAM	20325	1RB#0	21.41	20.91	30.00	PASS
BAND4	15MHz	16QAM	20325	1RB#38	21.49	20.99	30.00	PASS
BAND4	15MHz	16QAM	20325	1RB#74	21.46	20.96	30.00	PASS
BAND4	15MHz	16QAM	20325	36RB#0	20.30	19.80	30.00	PASS
BAND4	15MHz	16QAM	20325	36RB#18	20.37	19.87	30.00	PASS
BAND4	15MHz	16QAM	20325	36RB#39	20.43	19.93	30.00	PASS
BAND4	15MHz	16QAM	20325	75RB#0	20.38	19.88	30.00	PASS
BAND4	20MHz	QPSK	20050	1RB#0	21.94	21.44	30.00	PASS
BAND4	20MHz	QPSK	20050	1RB#49	22.37	21.87	30.00	PASS
BAND4	20MHz	QPSK	20050	1RB#99	21.95	21.45	30.00	PASS
BAND4	20MHz	QPSK	20050	50RB#0	21.33	20.83	30.00	PASS
BAND4	20MHz	QPSK	20050	50RB#25	21.28	20.78	30.00	PASS
BAND4	20MHz	QPSK	20050	50RB#50	21.15	20.65	30.00	PASS
BAND4	20MHz	QPSK	20050	100RB#0	21.25	20.75	30.00	PASS
BAND4	20MHz	QPSK	20175	1RB#0	21.96	21.46	30.00	PASS
BAND4	20MHz	QPSK	20175	1RB#49	22.33	21.83	30.00	PASS
BAND4	20MHz	QPSK	20175	1RB#99	21.99	21.49	30.00	PASS
BAND4	20MHz	QPSK	20175	50RB#0	21.36	20.86	30.00	PASS
BAND4	20MHz	QPSK	20175	50RB#25	21.27	20.77	30.00	PASS
BAND4	20MHz	QPSK	20175	50RB#50	21.25	20.75	30.00	PASS
BAND4	20MHz	QPSK	20175	100RB#0	21.32	20.82	30.00	PASS
BAND4	20MHz	QPSK	20300	1RB#0	21.95	21.45	30.00	PASS
BAND4	20MHz	QPSK	20300	1RB#49	22.34	21.84	30.00	PASS
BAND4	20MHz	QPSK	20300	1RB#99	22.09	21.59	30.00	PASS
BAND4	20MHz	QPSK	20300	50RB#0	21.25	20.75	30.00	PASS
BAND4	20MHz	QPSK	20300	50RB#25	21.32	20.82	30.00	PASS
BAND4	20MHz	QPSK	20300	50RB#50	21.47	20.97	30.00	PASS
BAND4	20MHz	QPSK	20300	100RB#0	21.34	20.84	30.00	PASS
BAND4	20MHz	16QAM	20050	1RB#0	21.15	20.65	30.00	PASS
BAND4	20MHz	16QAM	20050	1RB#49	21.62	21.12	30.00	PASS
BAND4	20MHz	16QAM	20050	1RB#99	21.15	20.65	30.00	PASS
BAND4	20MHz	16QAM	20050	50RB#0	20.36	19.86	30.00	PASS
BAND4	20MHz	16QAM	20050	50RB#25	20.32	19.82	30.00	PASS
BAND4	20MHz	16QAM	20050	50RB#50	20.19	19.69	30.00	PASS
BAND4	20MHz	16QAM	20050	100RB#0	20.28	19.78	30.00	PASS
BAND4	20MHz	16QAM	20175	1RB#0	21.17	20.67	30.00	PASS

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BAND4	20MHz	16QAM	20175	1RB#49	21.53	21.03	30.00	PASS
BAND4	20MHz	16QAM	20175	1RB#99	21.25	20.75	30.00	PASS
BAND4	20MHz	16QAM	20175	50RB#0	20.42	19.92	30.00	PASS
BAND4	20MHz	16QAM	20175	50RB#25	20.31	19.81	30.00	PASS
BAND4	20MHz	16QAM	20175	50RB#50	20.29	19.79	30.00	PASS
BAND4	20MHz	16QAM	20175	100RB#0	20.35	19.85	30.00	PASS
BAND4	20MHz	16QAM	20300	1RB#0	21.19	20.69	30.00	PASS
BAND4	20MHz	16QAM	20300	1RB#49	21.58	21.08	30.00	PASS
BAND4	20MHz	16QAM	20300	1RB#99	21.32	20.82	30.00	PASS
BAND4	20MHz	16QAM	20300	50RB#0	20.29	19.79	30.00	PASS
BAND4	20MHz	16QAM	20300	50RB#25	20.35	19.85	30.00	PASS
BAND4	20MHz	16QAM	20300	50RB#50	20.50	20.00	30.00	PASS
BAND4	20MHz	16QAM	20300	100RB#0	20.38	19.88	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

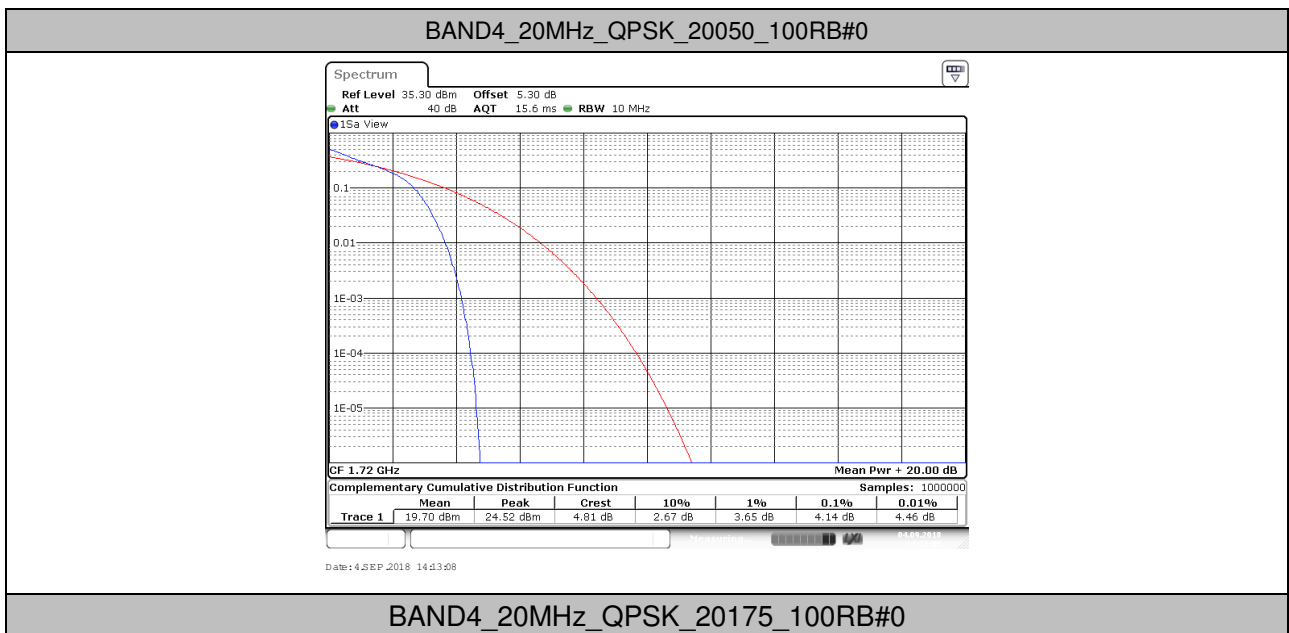


## 2. Peak-to-Average Ratio(CCDFF)

### 2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
BAND4	20MHz	QPSK	20050	100RB#0	4.14	13	PASS
BAND4	20MHz	QPSK	20175	100RB#0	4.41	13	PASS
BAND4	20MHz	QPSK	20300	100RB#0	4.41	13	PASS
BAND4	20MHz	16QAM	20050	100RB#0	5.74	13	PASS
BAND4	20MHz	16QAM	20175	100RB#0	5.91	13	PASS
BAND4	20MHz	16QAM	20300	100RB#0	5.91	13	PASS

### 2.2. Test Plots

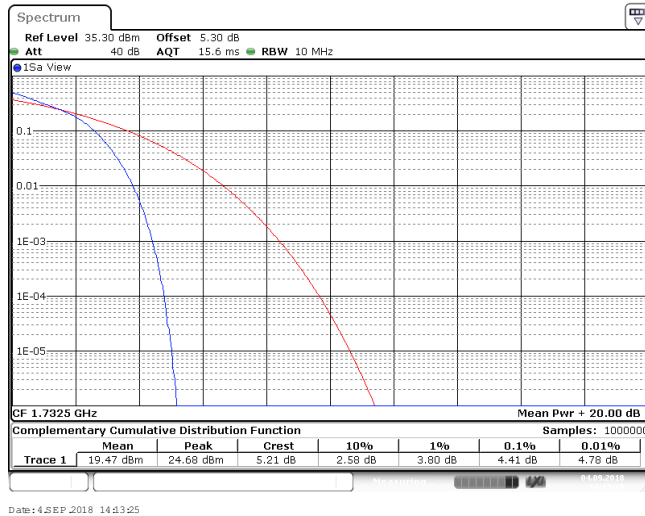




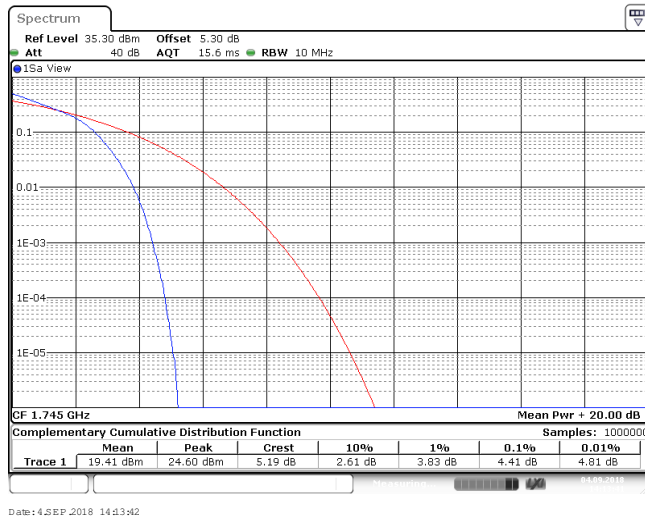
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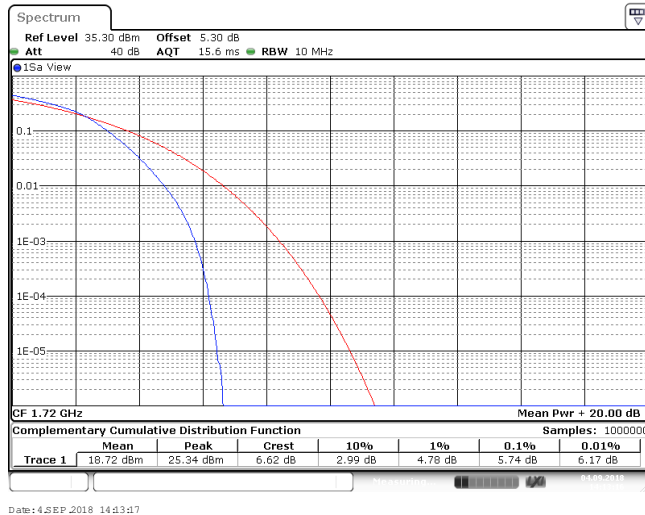
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## BAND4\_20MHz\_QPSK\_20300\_100RB#0



## BAND4\_20MHz\_16QAM\_20050\_100RB#0



## BAND4\_20MHz\_16QAM\_20175\_100RB#0

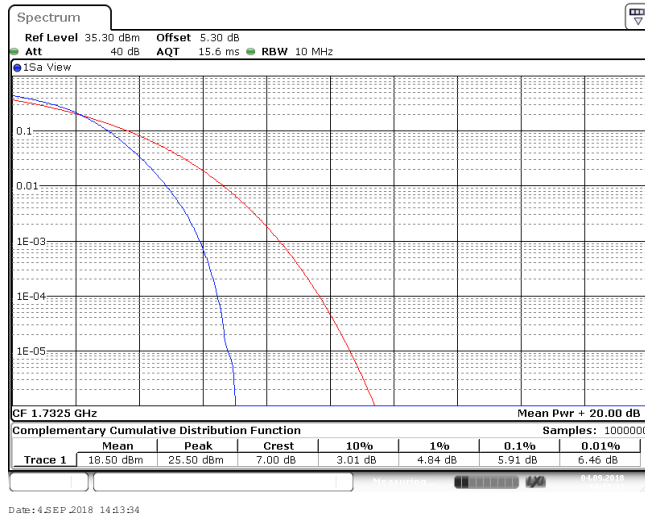
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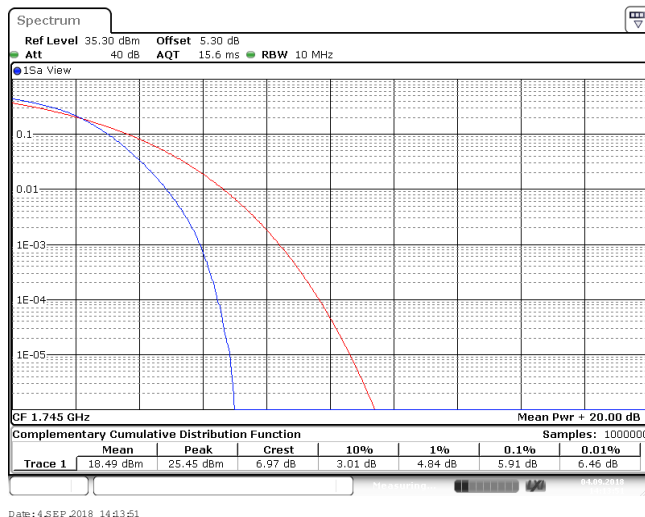
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**BAND4\_20MHz\_16QAM\_20300\_100RB#0**

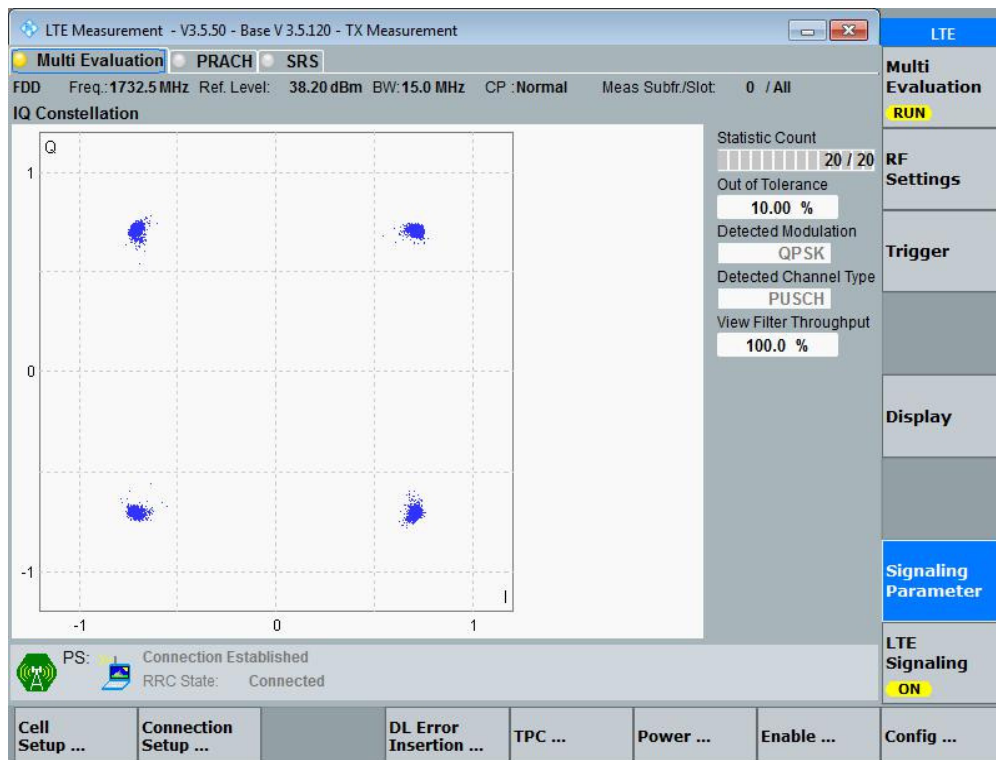


### 3. Modulation Characteristics

#### 3.1. Test BAND = LTE BAND4

##### 3.1.1. Test Mode = LTE /TM1 20MHz

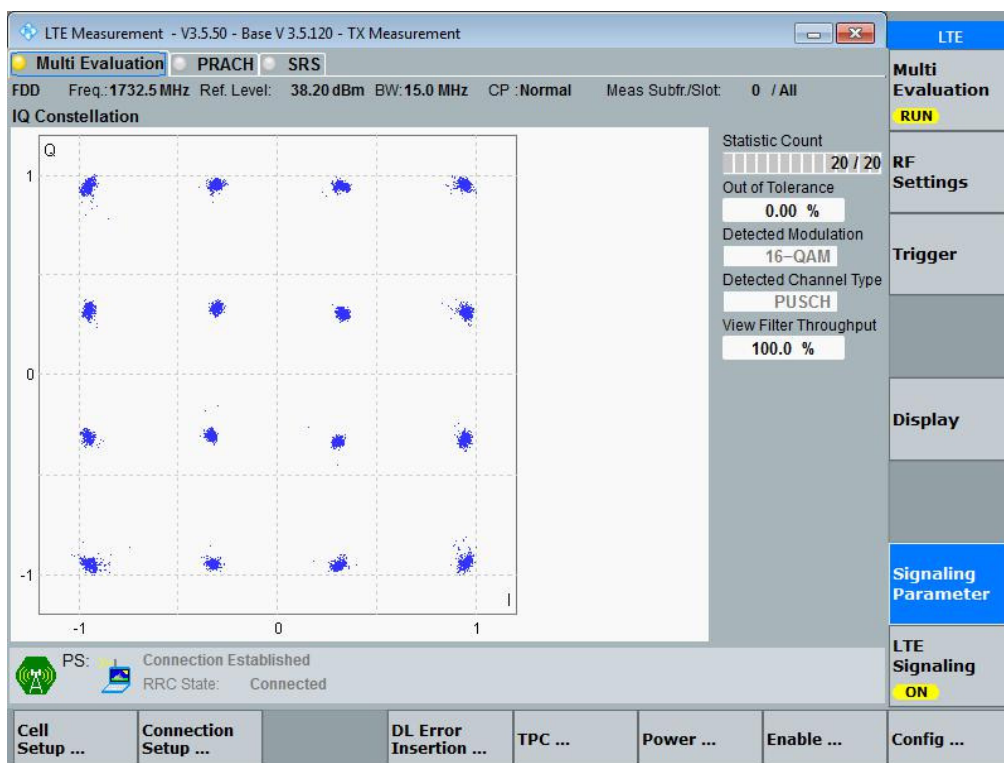
##### 3.1.1.1. Test Channel = MCH





### 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	1.091	1.287	PASS
BAND4	1.4MHz	QPSK	20175	6RB#0	1.094	1.275	PASS
BAND4	1.4MHz	QPSK	20393	6RB#0	1.091	1.287	PASS
BAND4	1.4MHz	16QAM	19957	6RB#0	1.088	1.287	PASS
BAND4	1.4MHz	16QAM	20175	6RB#0	1.088	1.272	PASS
BAND4	1.4MHz	16QAM	20393	6RB#0	1.088	1.293	PASS
BAND4	3MHz	QPSK	19965	15RB#0	2.691	2.922	PASS
BAND4	3MHz	QPSK	20175	15RB#0	2.691	2.904	PASS
BAND4	3MHz	QPSK	20385	15RB#0	2.685	2.922	PASS
BAND4	3MHz	16QAM	19965	15RB#0	2.679	2.904	PASS
BAND4	3MHz	16QAM	20175	15RB#0	2.673	2.904	PASS
BAND4	3MHz	16QAM	20385	15RB#0	2.673	2.904	PASS
BAND4	5MHz	QPSK	19975	25RB#0	4.476	5.070	PASS
BAND4	5MHz	QPSK	20175	25RB#0	4.476	5.070	PASS
BAND4	5MHz	QPSK	20375	25RB#0	4.476	5.050	PASS
BAND4	5MHz	16QAM	19975	25RB#0	4.496	5.100	PASS
BAND4	5MHz	16QAM	20175	25RB#0	4.496	5.080	PASS
BAND4	5MHz	16QAM	20375	25RB#0	4.486	5.090	PASS
BAND4	10MHz	QPSK	20000	50RB#0	8.931	9.880	PASS
BAND4	10MHz	QPSK	20175	50RB#0	8.951	9.880	PASS
BAND4	10MHz	QPSK	20350	50RB#0	8.931	9.920	PASS
BAND4	10MHz	16QAM	20000	50RB#0	8.951	9.860	PASS
BAND4	10MHz	16QAM	20175	50RB#0	8.931	9.880	PASS
BAND4	10MHz	16QAM	20350	50RB#0	8.951	9.880	PASS
BAND4	15MHz	QPSK	20025	75RB#0	13.487	14.970	PASS
BAND4	15MHz	QPSK	20175	75RB#0	13.487	14.940	PASS
BAND4	15MHz	QPSK	20325	75RB#0	13.487	15.120	PASS
BAND4	15MHz	16QAM	20025	75RB#0	13.487	14.970	PASS
BAND4	15MHz	16QAM	20175	75RB#0	13.516	15.090	PASS
BAND4	15MHz	16QAM	20325	75RB#0	13.487	15.060	PASS
BAND4	20MHz	QPSK	20050	100RB#0	17.902	19.680	PASS
BAND4	20MHz	QPSK	20175	100RB#0	17.942	19.720	PASS
BAND4	20MHz	QPSK	20300	100RB#0	17.942	19.720	PASS



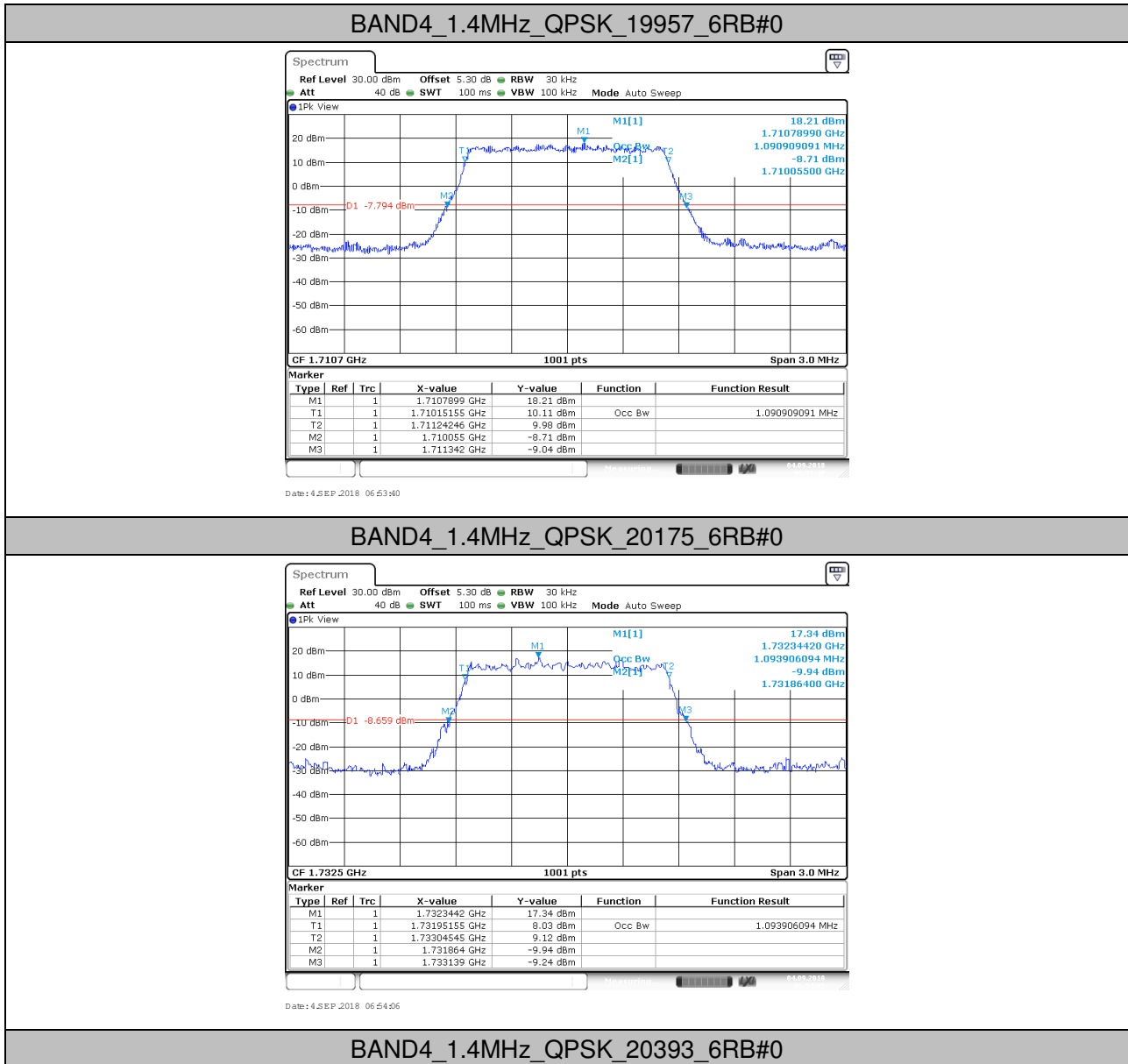
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BAND4	20MHz	16QAM	20050	100RB#0	17.862	20.040	PASS
BAND4	20MHz	16QAM	20175	100RB#0	17.902	19.760	PASS
BAND4	20MHz	16QAM	20300	100RB#0	17.902	19.720	PASS

## 4.2. Test Plots

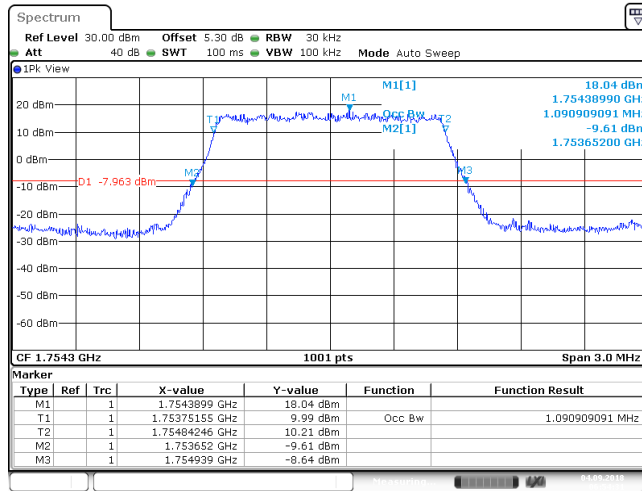




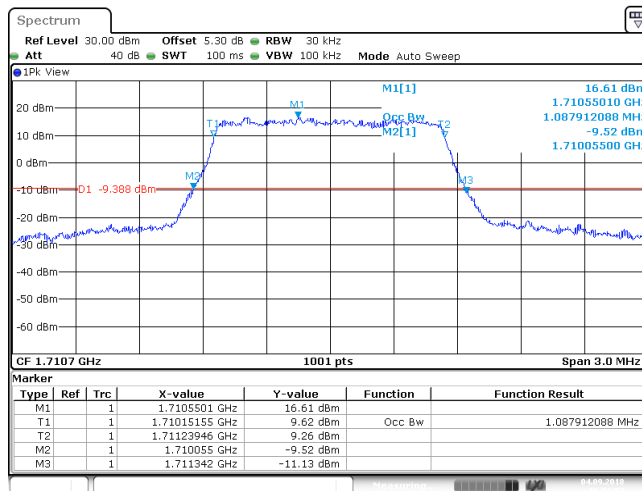
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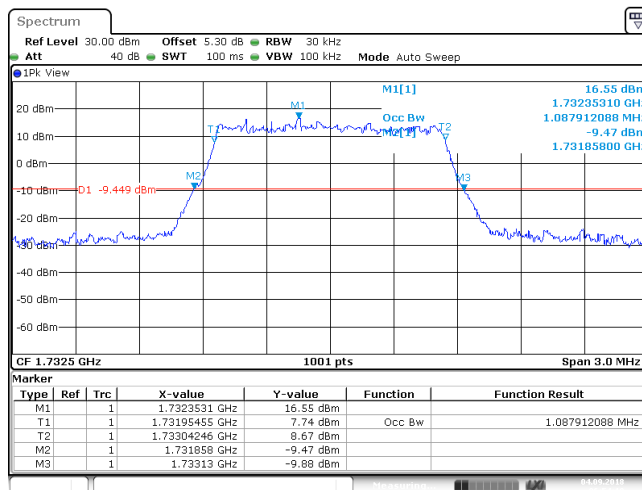
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## BAND4\_1.4MHz\_16QAM\_19957\_6RB#0



## BAND4\_1.4MHz\_16QAM\_20175\_6RB#0



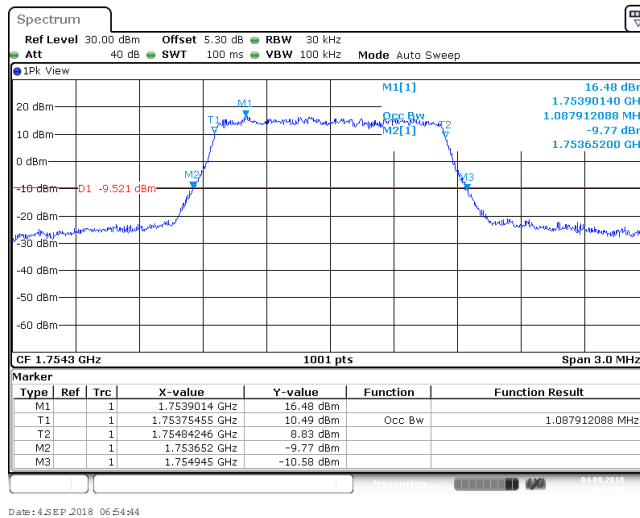
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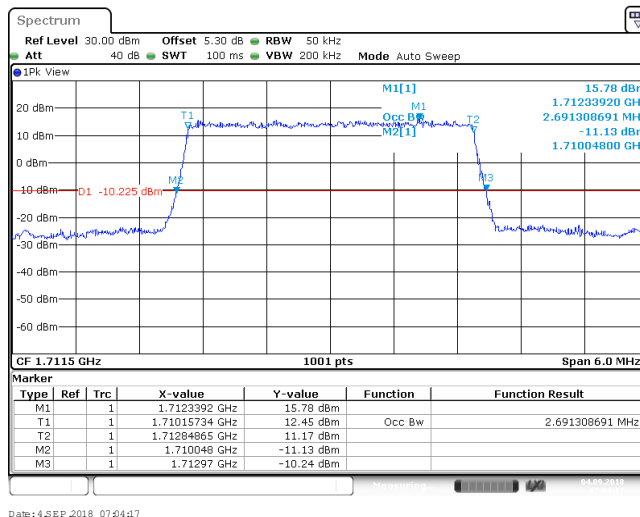
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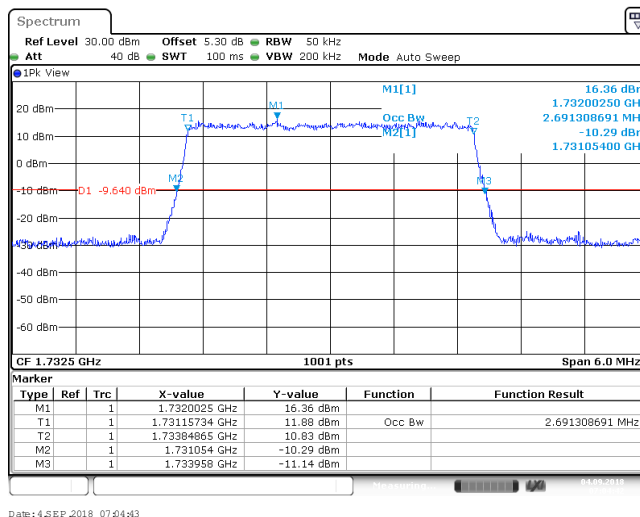
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## BAND4\_3MHz\_QPSK\_19965\_15RB#0



## BAND4\_3MHz\_QPSK\_20175\_15RB#0



## BAND4\_3MHz\_QPSK\_20385\_15RB#0

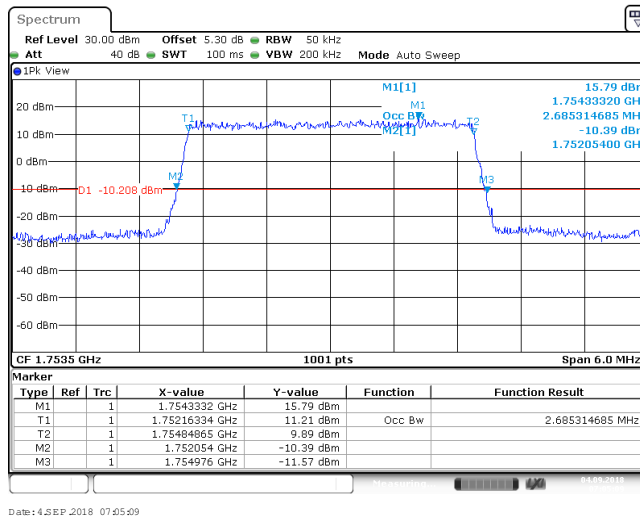
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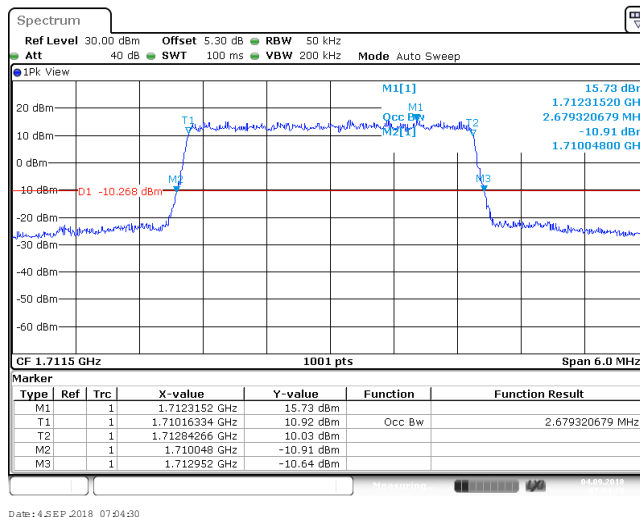
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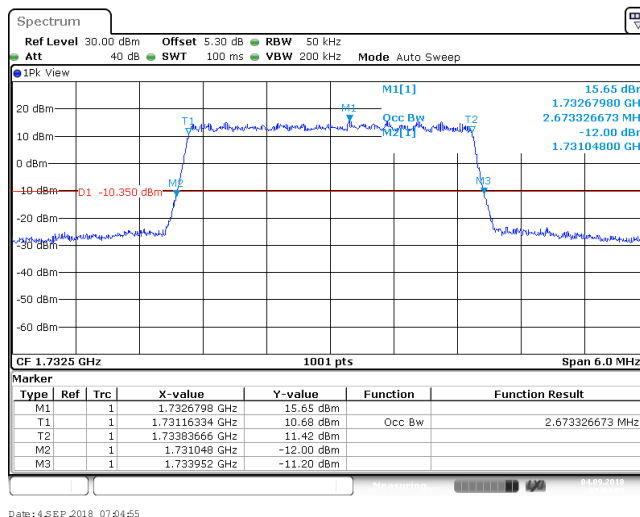
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## BAND4\_3MHz\_16QAM\_19965\_15RB#0



## BAND4\_3MHz\_16QAM\_20175\_15RB#0



## BAND4\_3MHz\_16QAM\_20385\_15RB#0

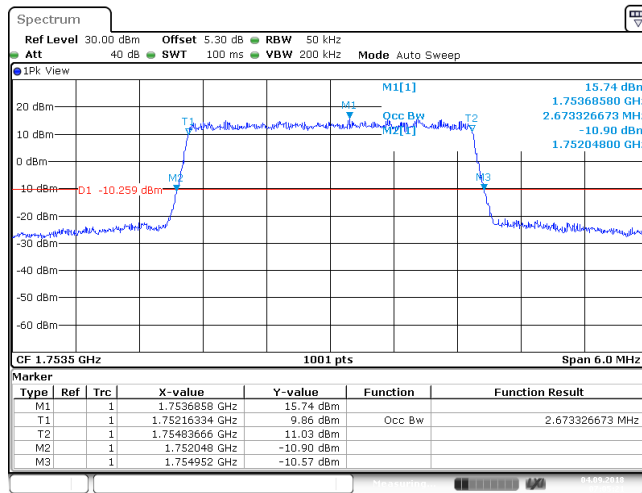
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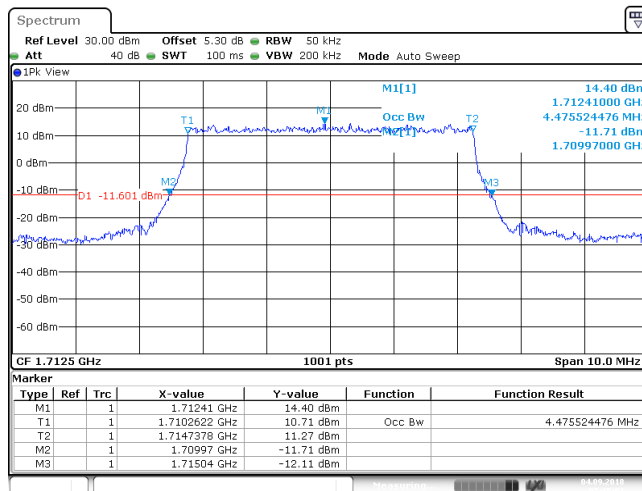
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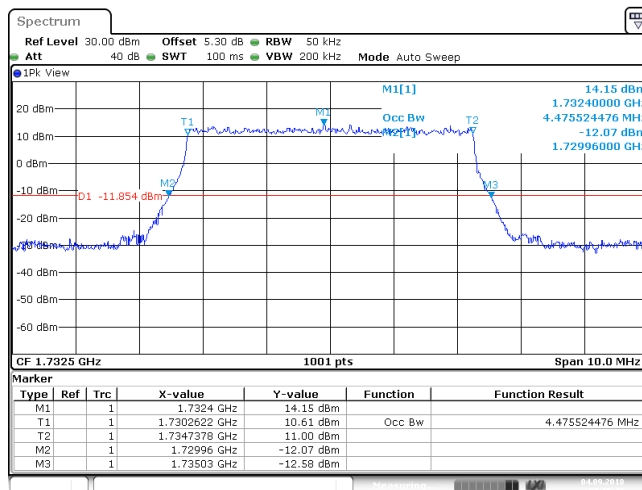
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## BAND4\_5MHz\_QPSK\_19975\_25RB#0



Date: 4 SEP 2018 07:15:01

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Date: 4 SEP 2018 07:15:41

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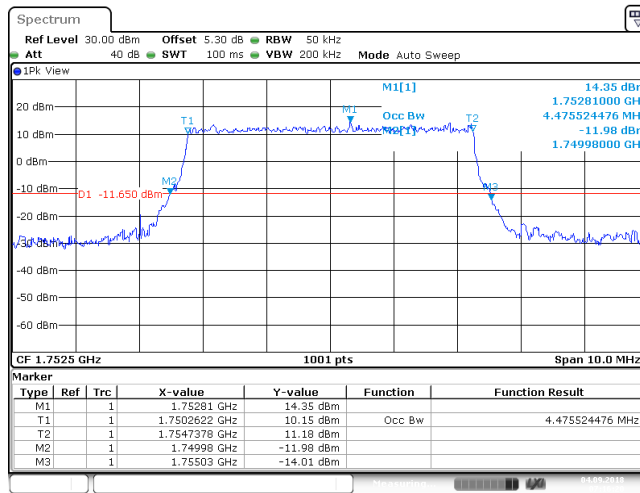
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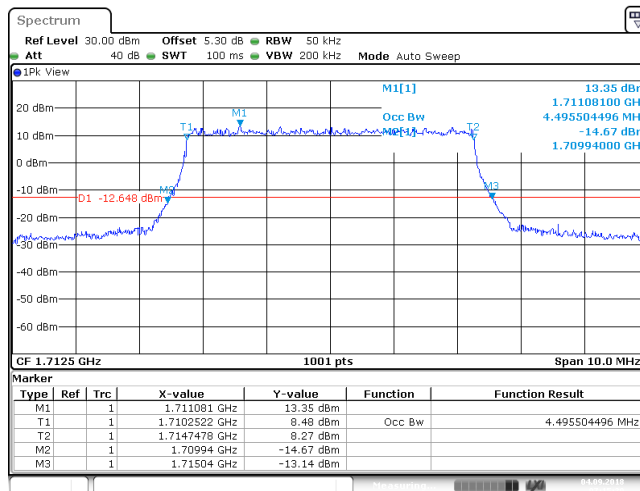
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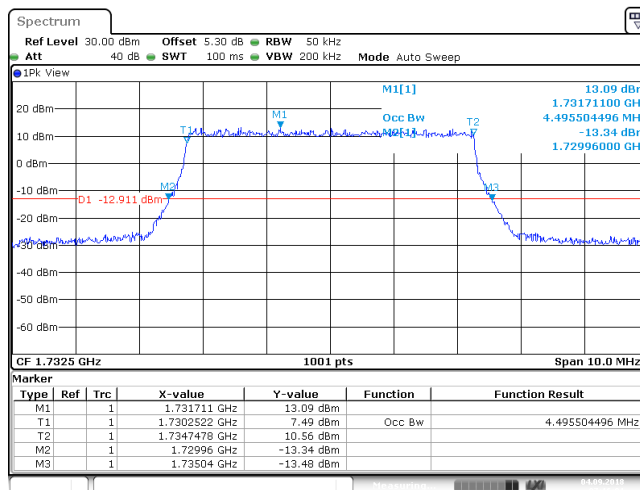
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Date: 4 SEP 2018 07:46:01

## BAND4\_5MHz\_16QAM\_20375\_25RB#0

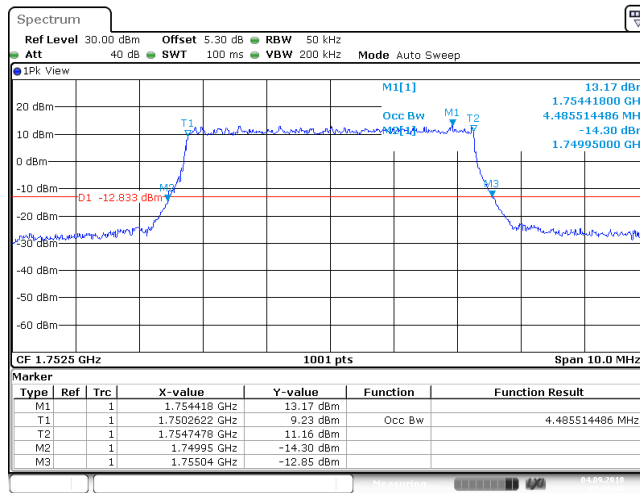
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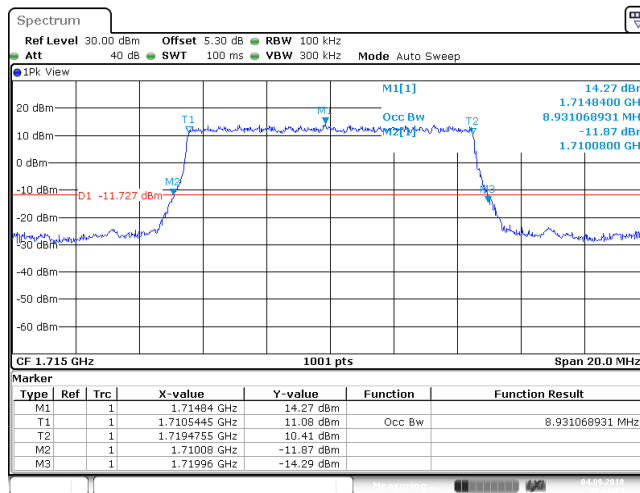
# SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM180500457101

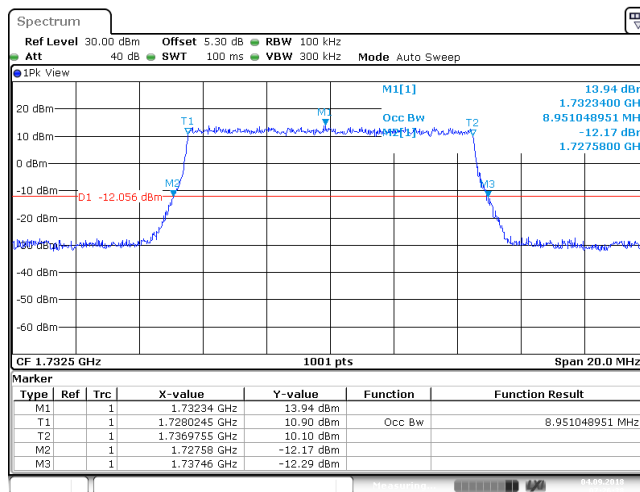
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## BAND4\_10MHz\_QPSK\_20000\_50RB#0



## BAND4\_10MHz\_QPSK\_20175\_50RB#0



## BAND4\_10MHz\_QPSK\_20350\_50RB#0

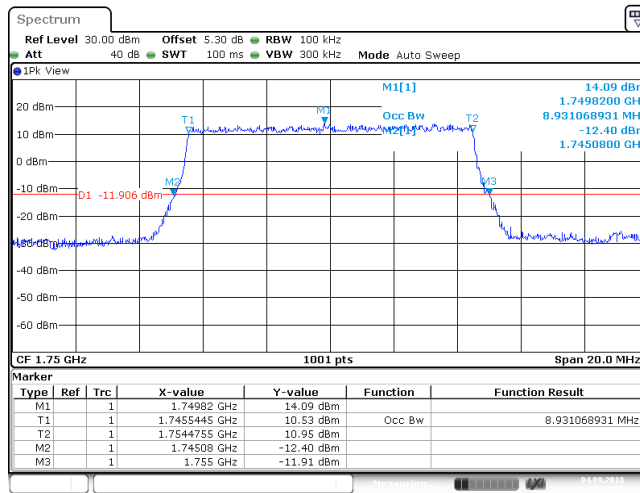
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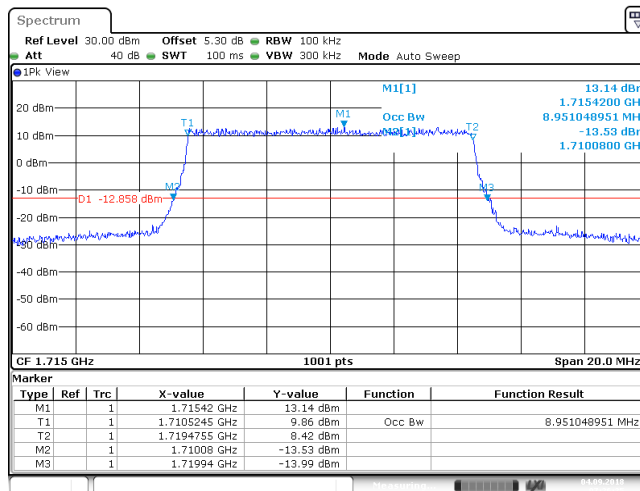
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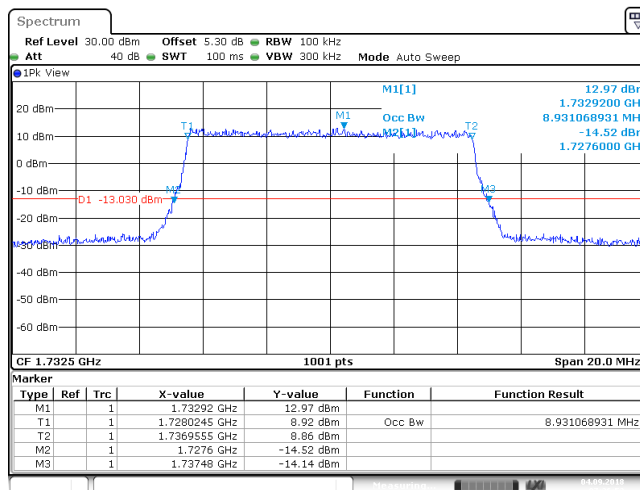
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Date: 4 SEP 2018 07:26:26

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Date: 4 SEP 2018 07:26:52

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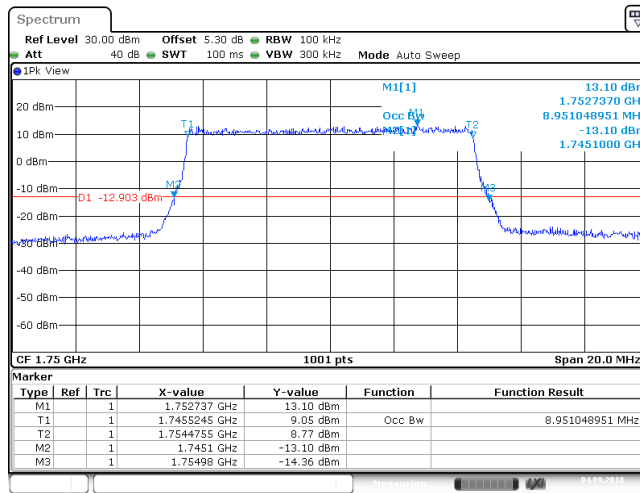
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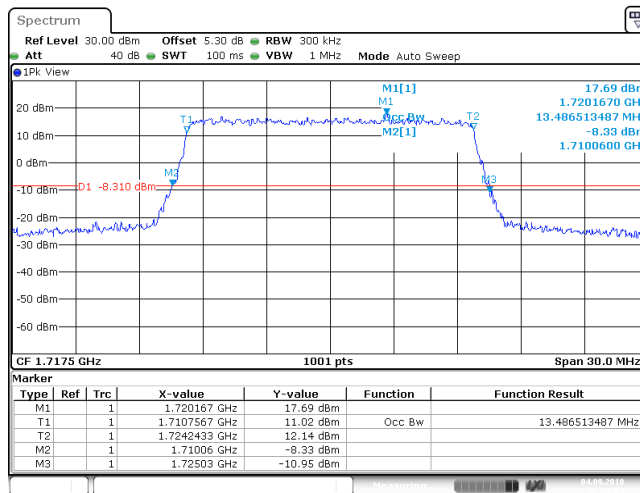
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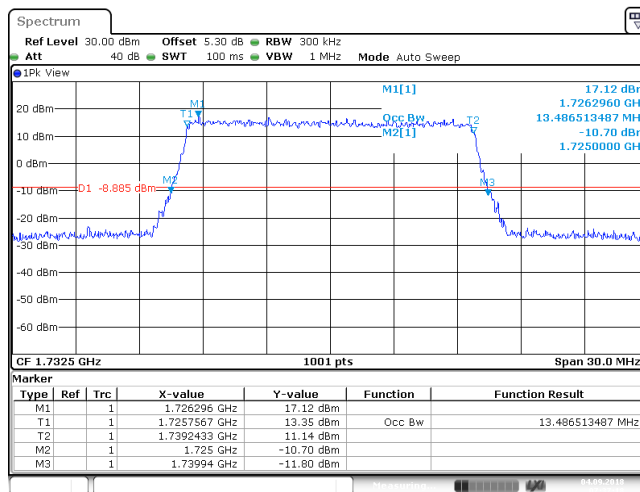
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## BAND4\_15MHz\_QPSK\_20025\_75RB#0



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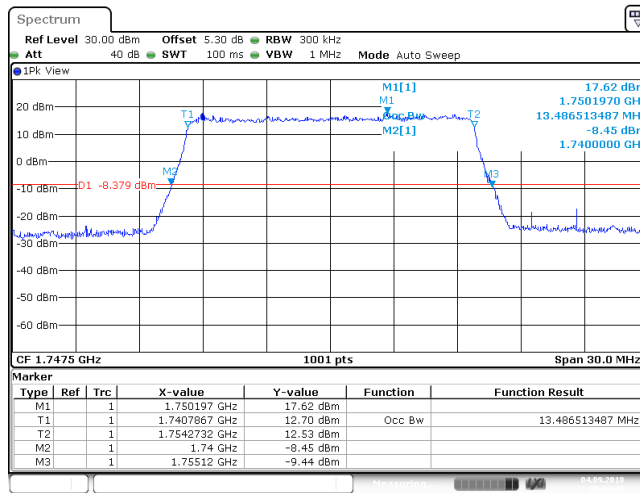
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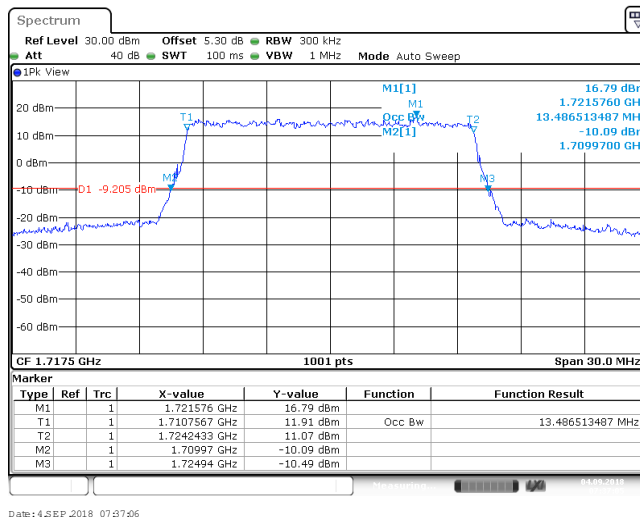
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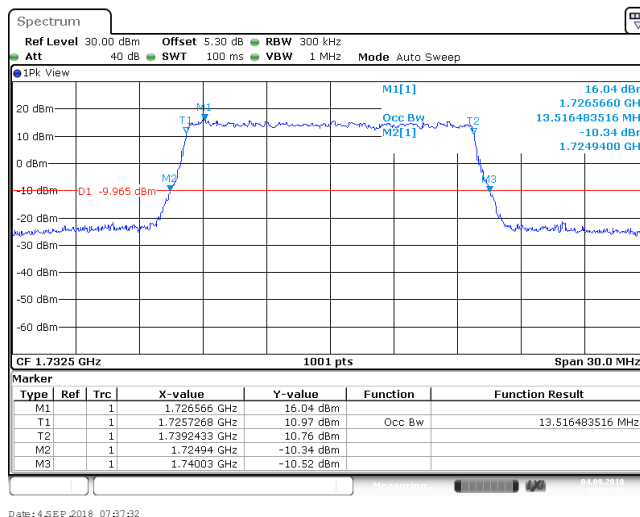
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## BAND4\_15MHz\_16QAM\_20025\_75RB#0



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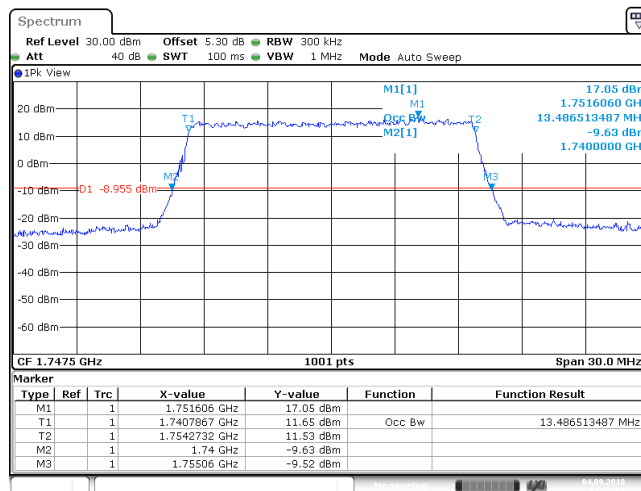
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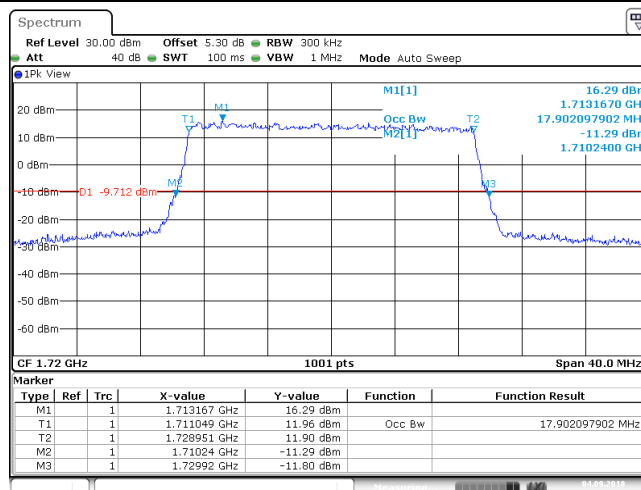
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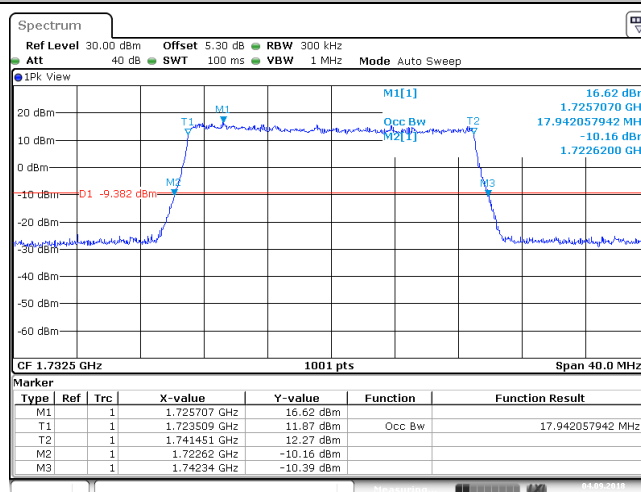
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## BAND4\_20MHz\_QPSK\_20050\_100RB#0



## BAND4\_20MHz\_QPSK\_20175\_100RB#0



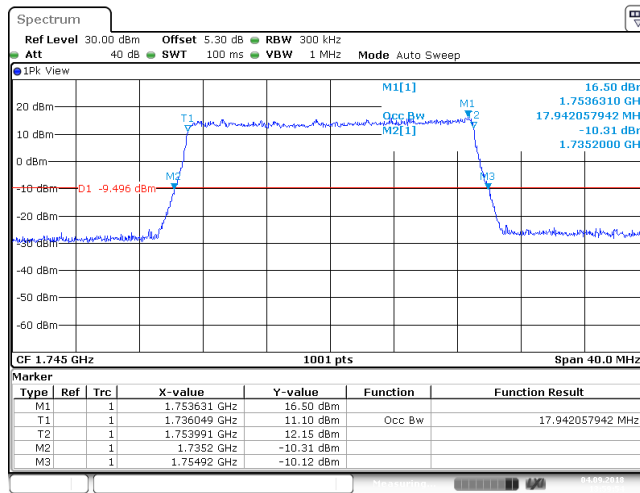
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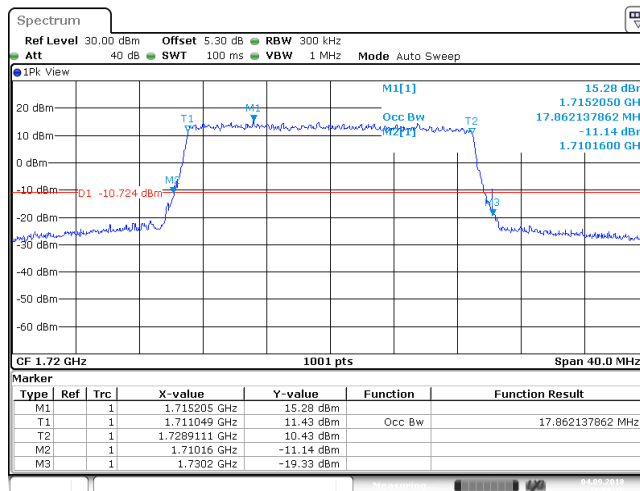
Report No.: SZEM180500457101

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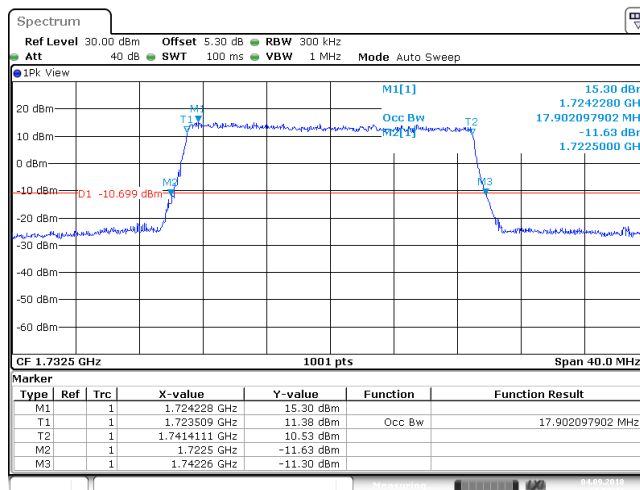
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Date: 4 SEP 2018 13:59:42

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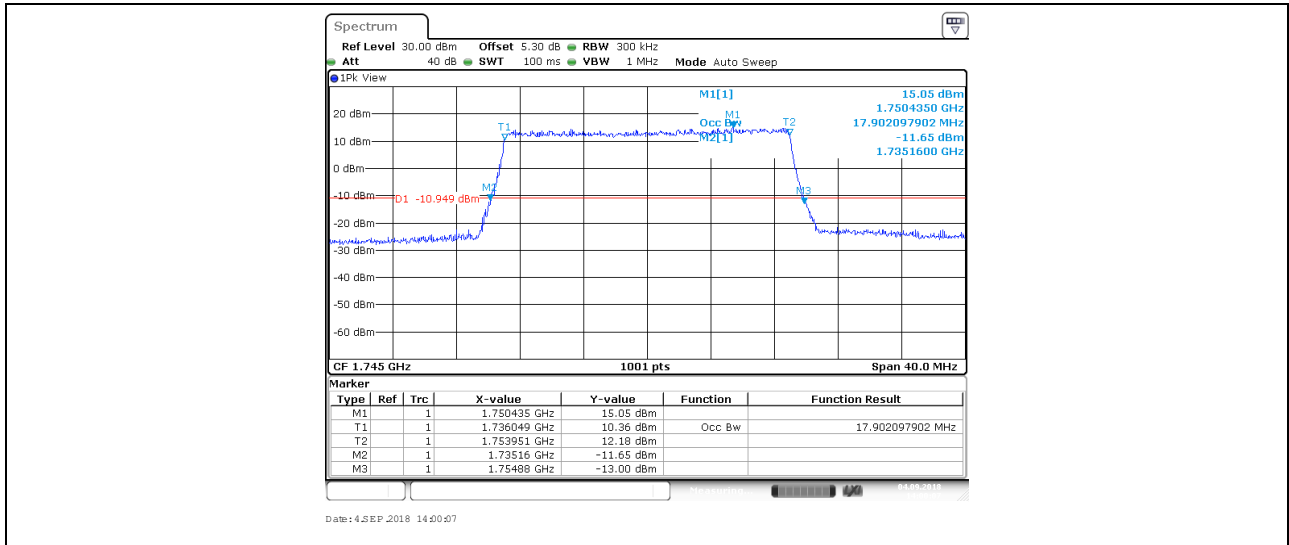
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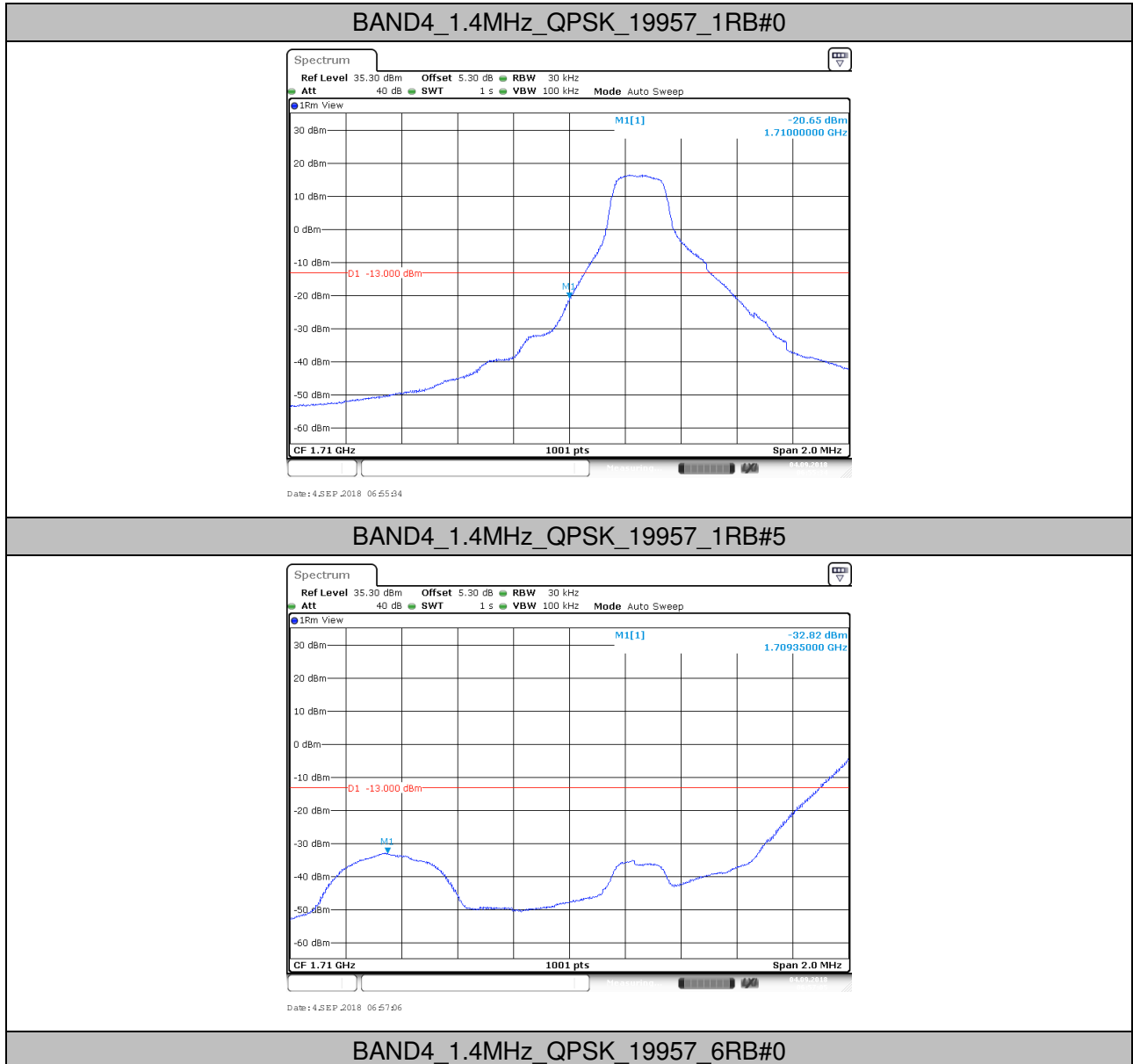
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## 5. Band Edge Compliance

### 5.1. Test Plots

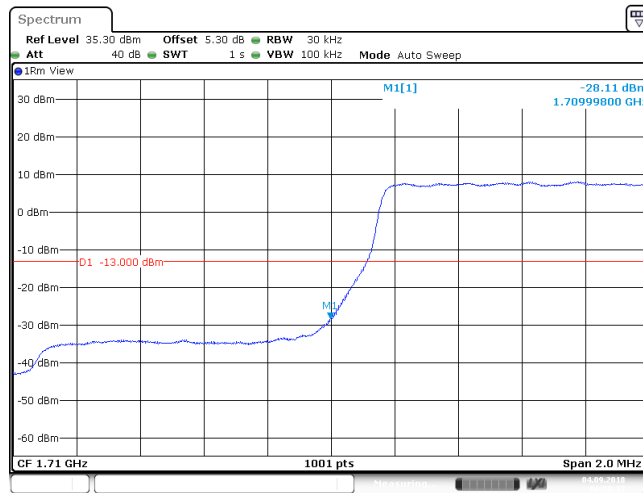




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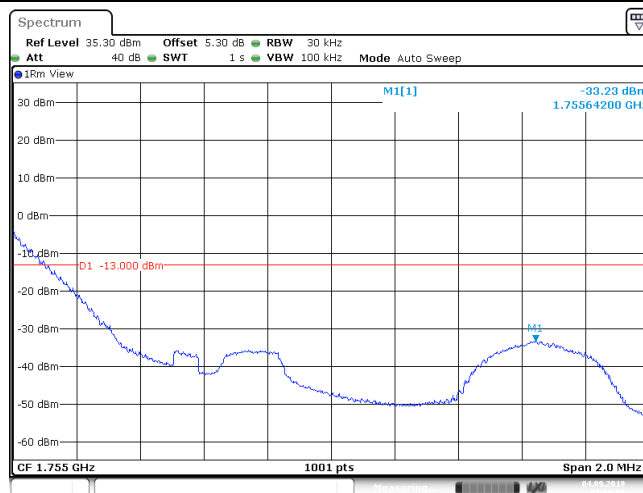
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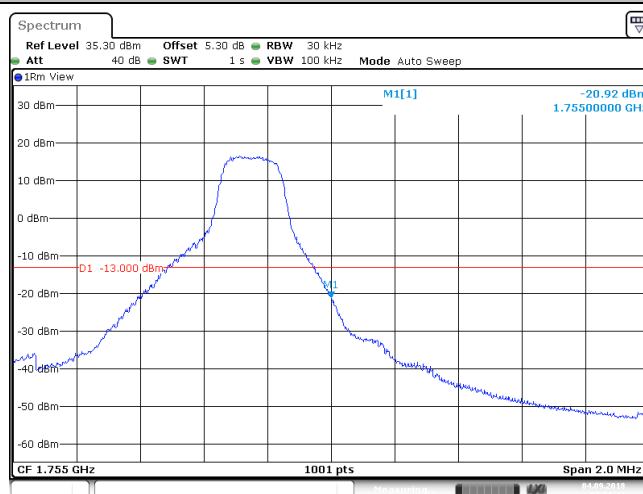
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Date: 4 SEP 2018 07:00:09

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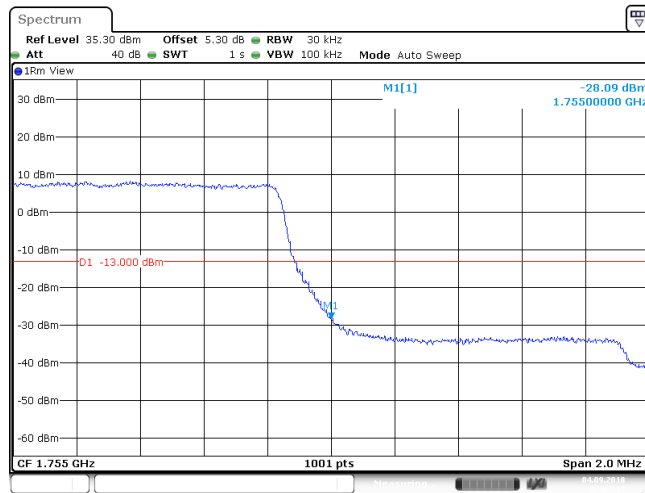
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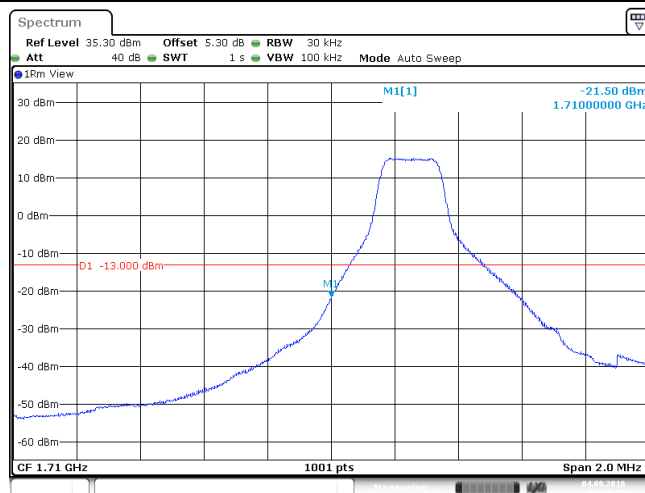
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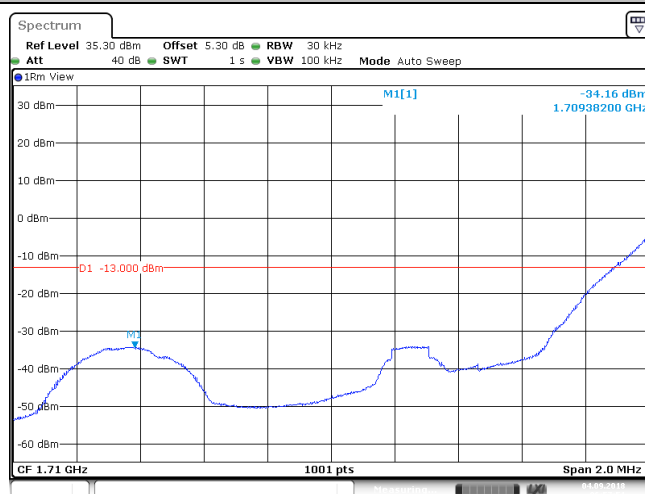
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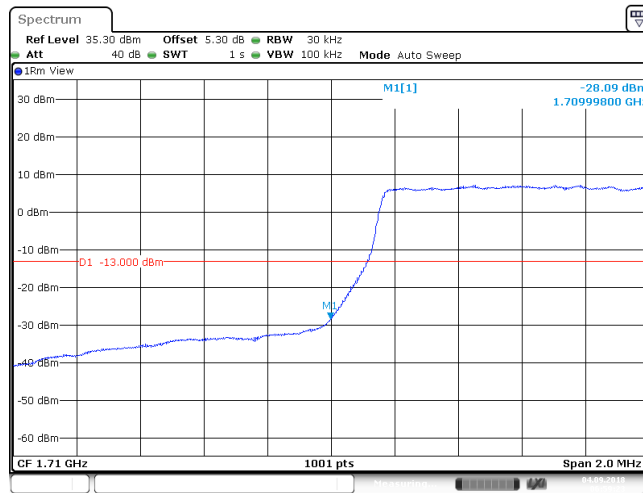
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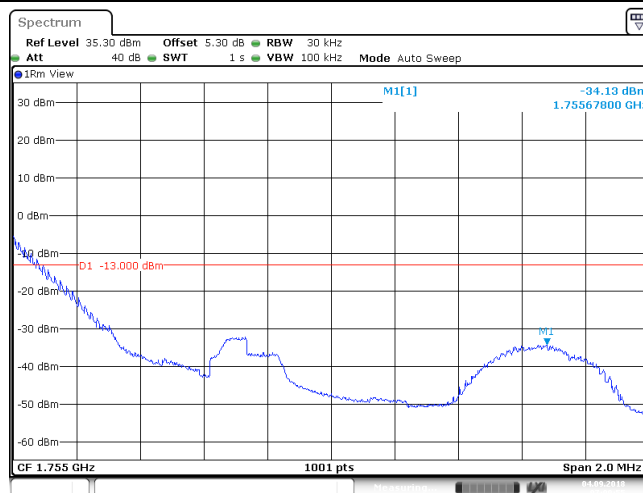
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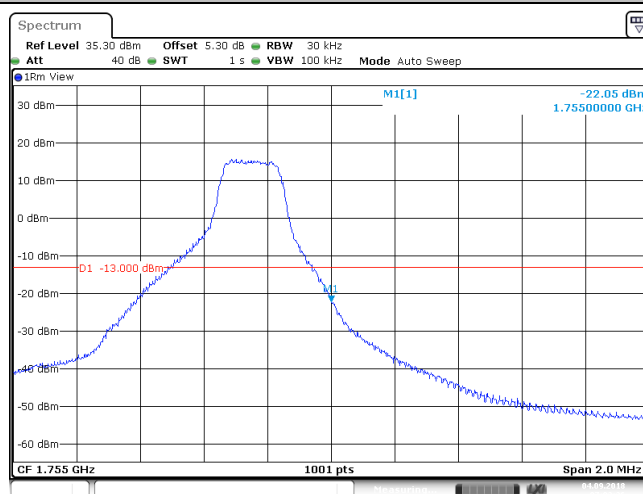
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Date: 4 SEP 2018 07:02:27

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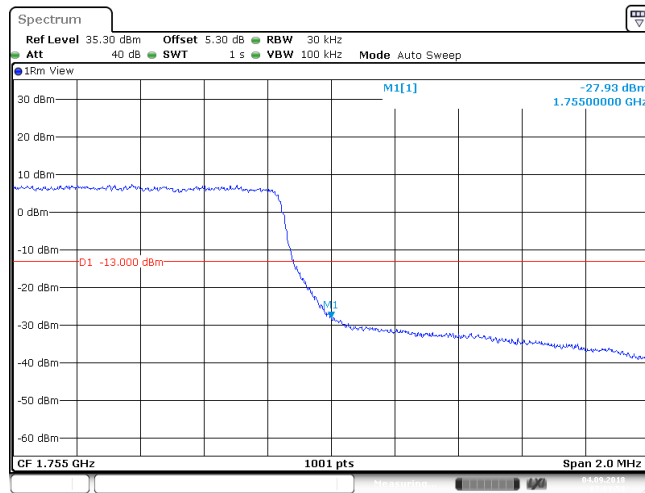
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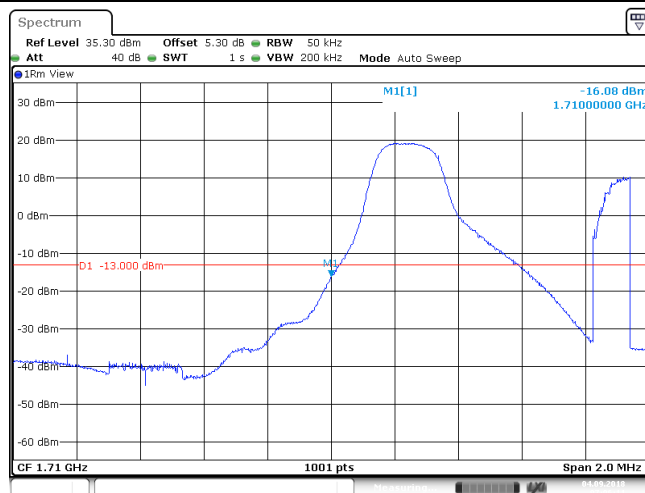
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Date: 4 SEP 2018 07:03:58

## BAND4\_3MHz\_QPSK\_19965\_1RB#0



Date: 4 SEP 2018 07:06:12

## BAND4\_3MHz\_QPSK\_19965\_1RB#14



Date: 4 SEP 2018 07:07:43

## BAND4\_3MHz\_QPSK\_19965\_15RB#0

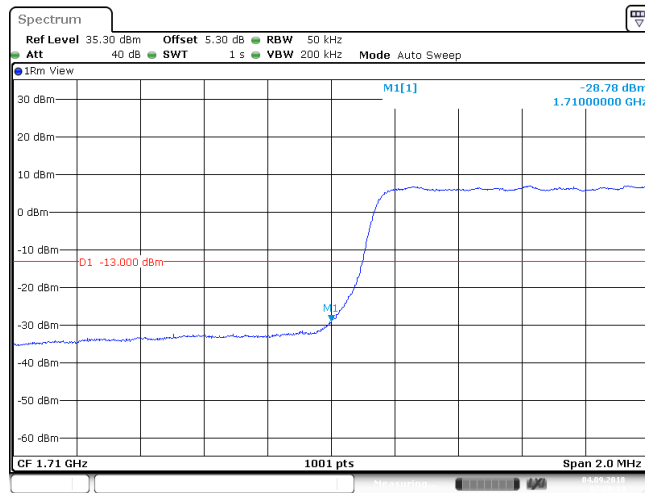
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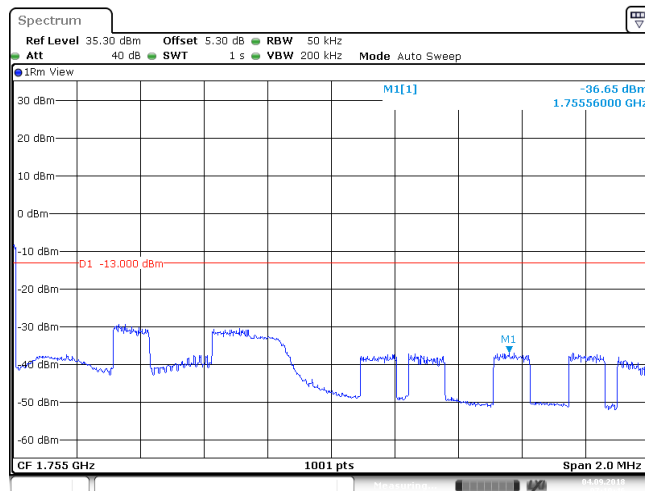
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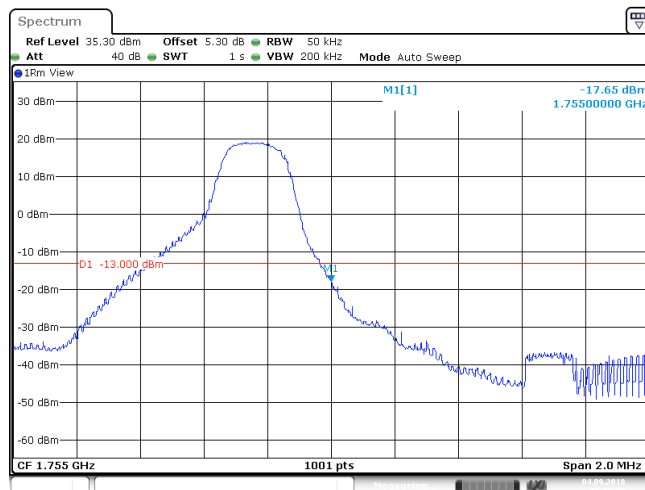
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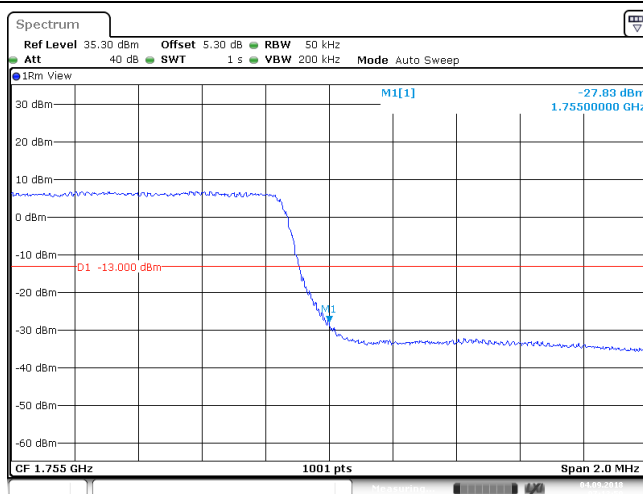
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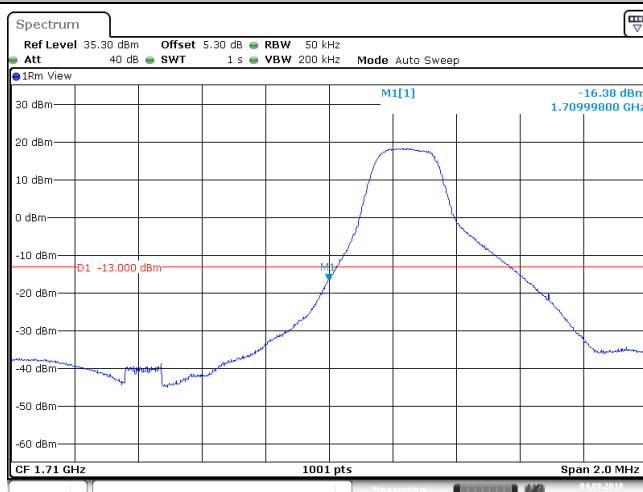
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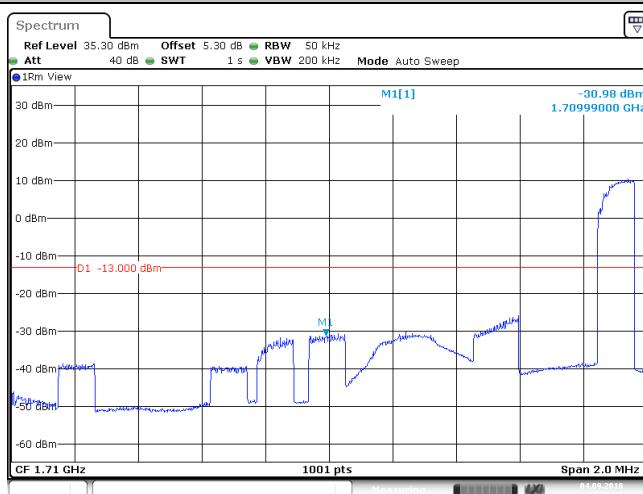
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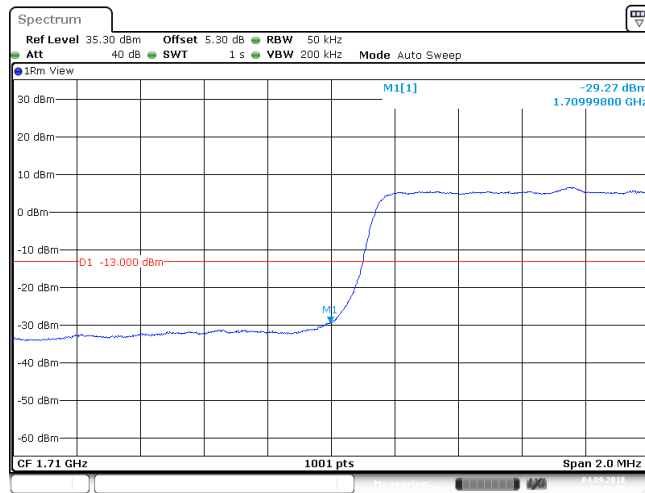
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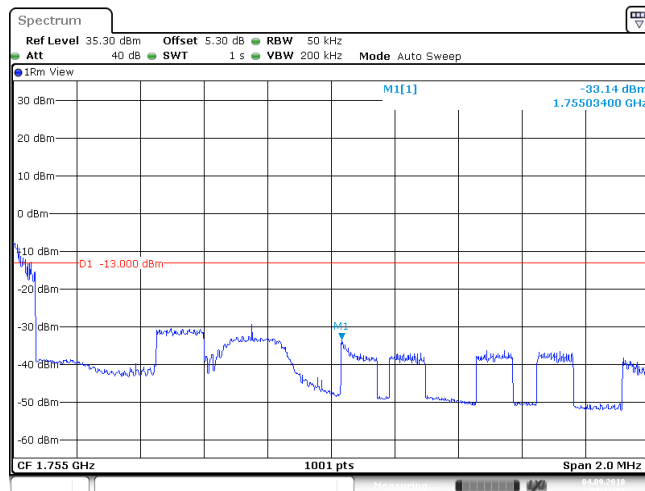
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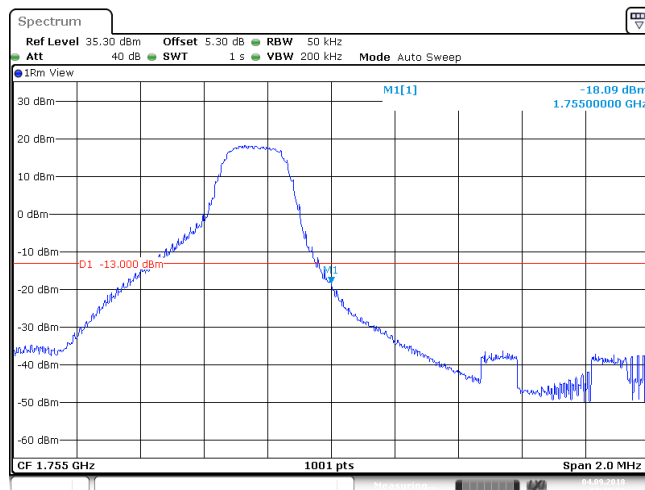
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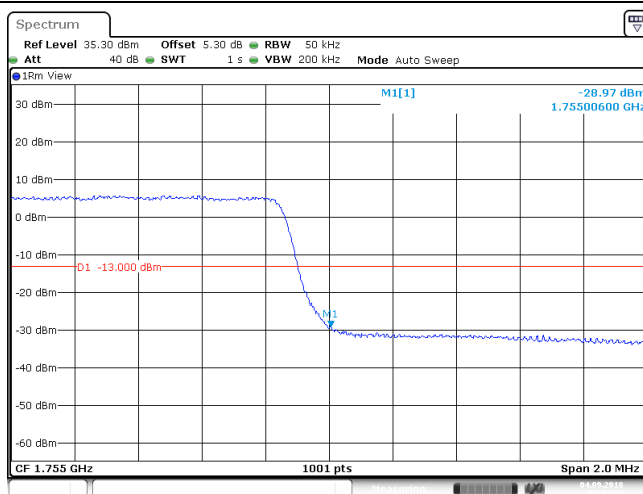
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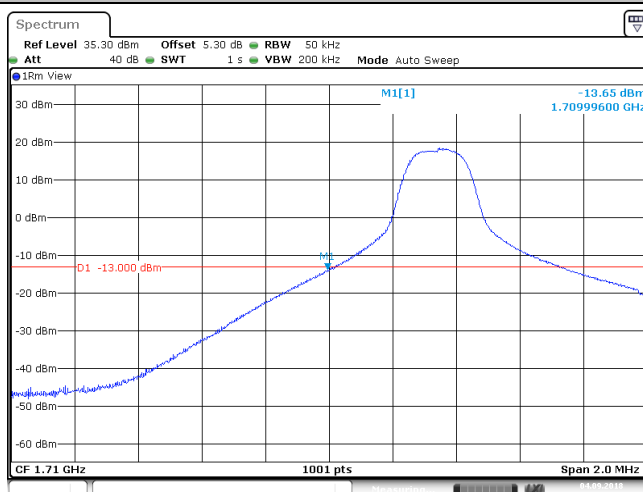
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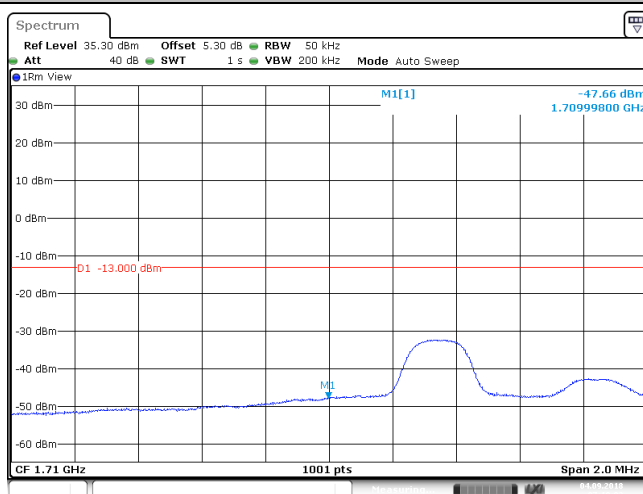
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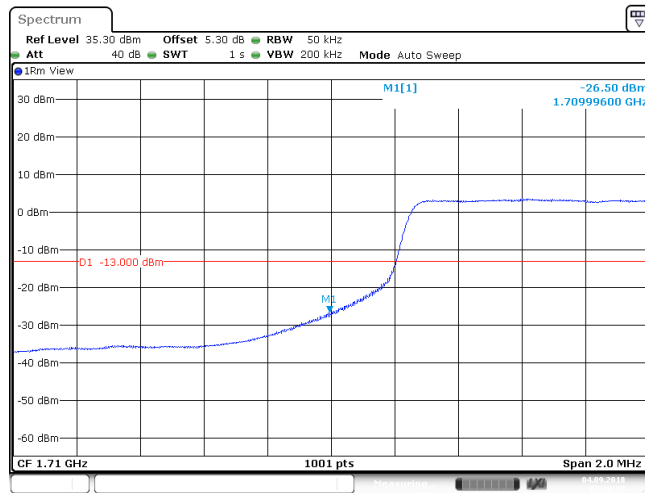
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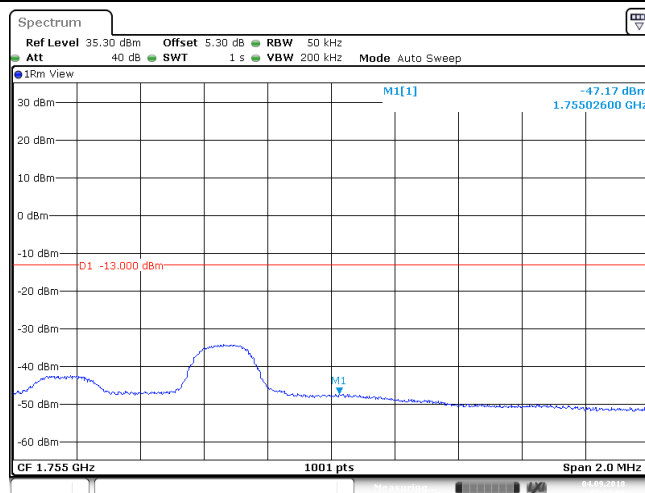
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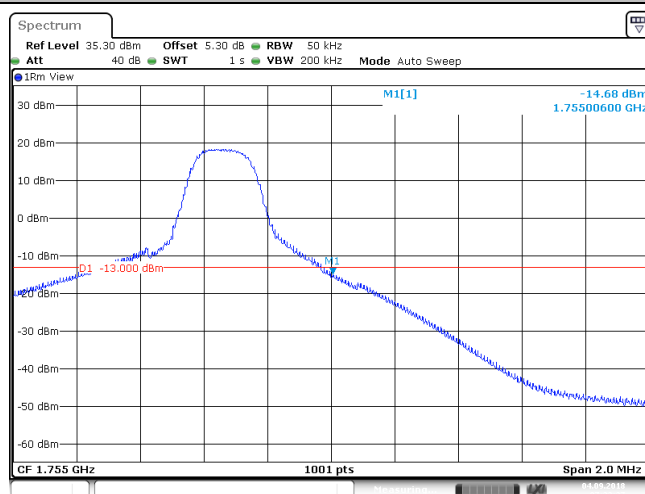
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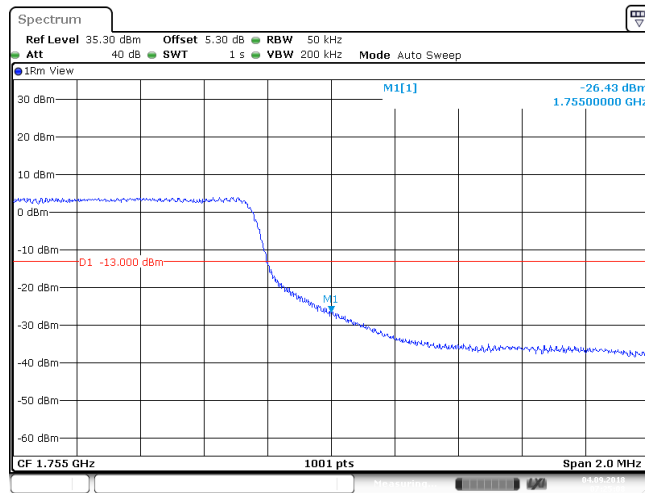
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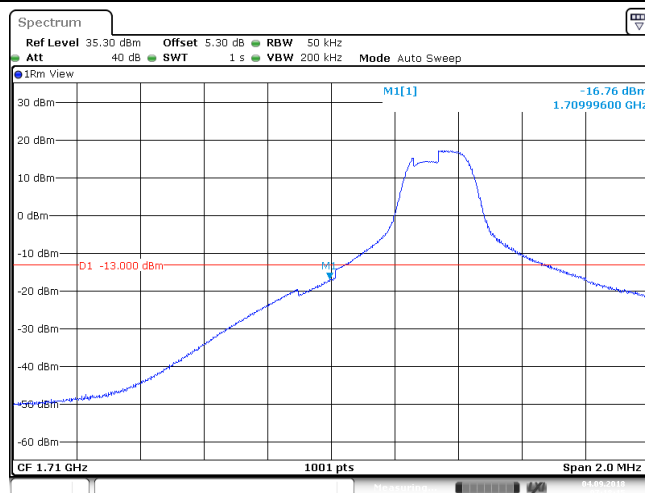
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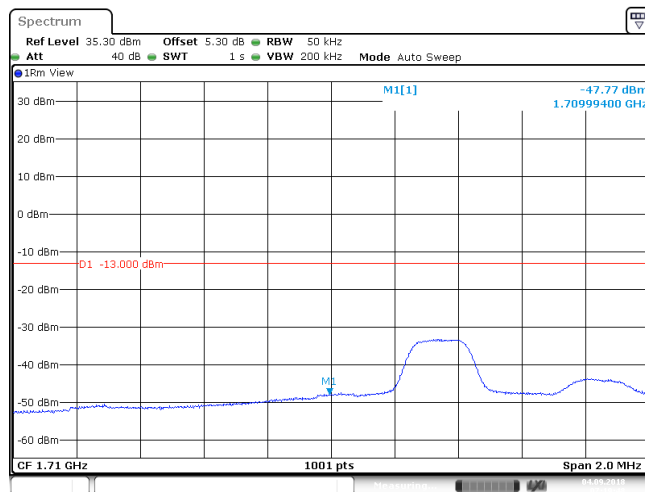
Date: 4 SEP 2018 07:25:09

## BAND4\_5MHz\_16QAM\_19975\_1RB#0



Date: 4 SEP 2018 07:18:16

## BAND4\_5MHz\_16QAM\_19975\_1RB#24



Date: 4 SEP 2018 07:19:48

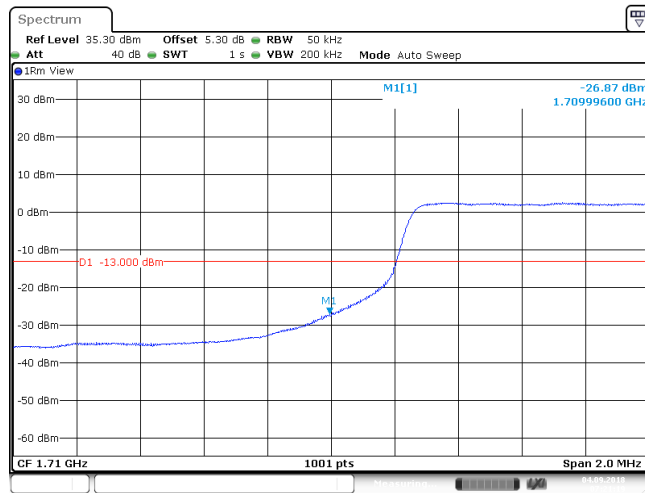
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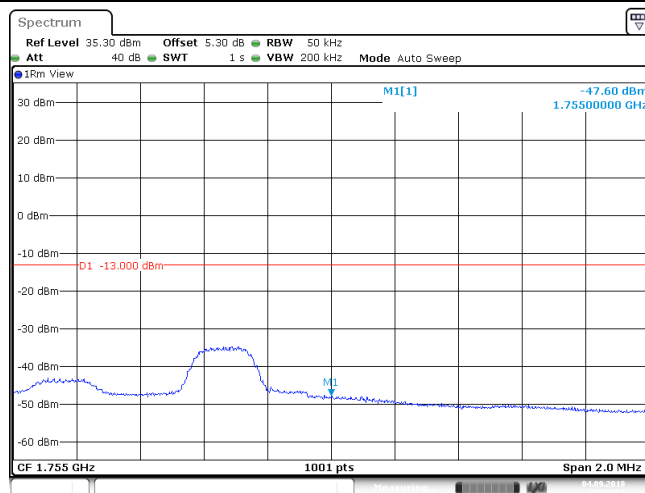
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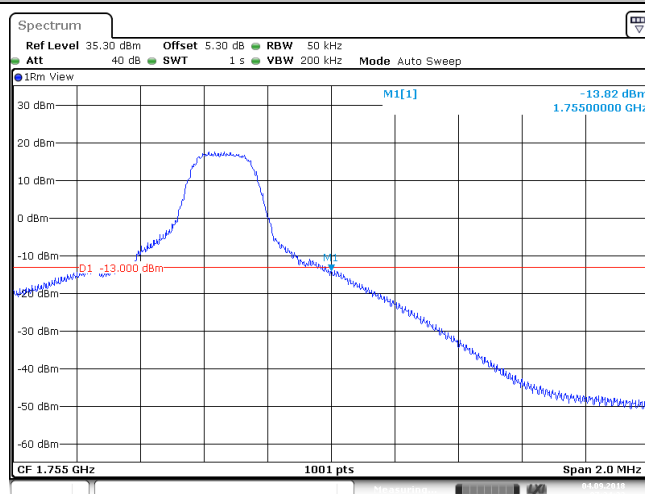
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Date: 4 SEP 2018 07:22:51

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Date: 4 SEP 2018 07:24:23

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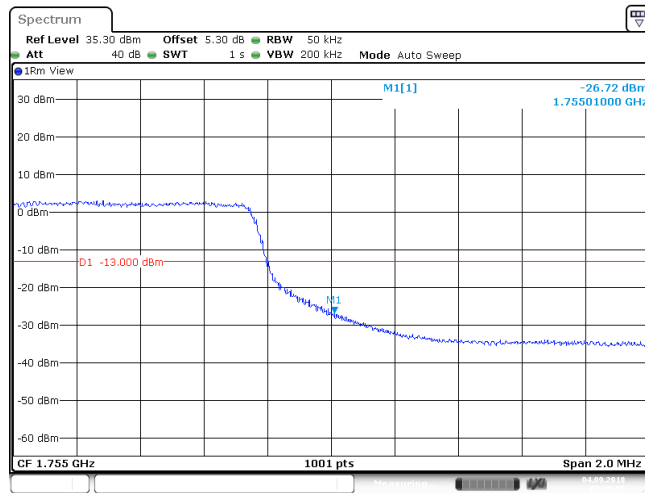
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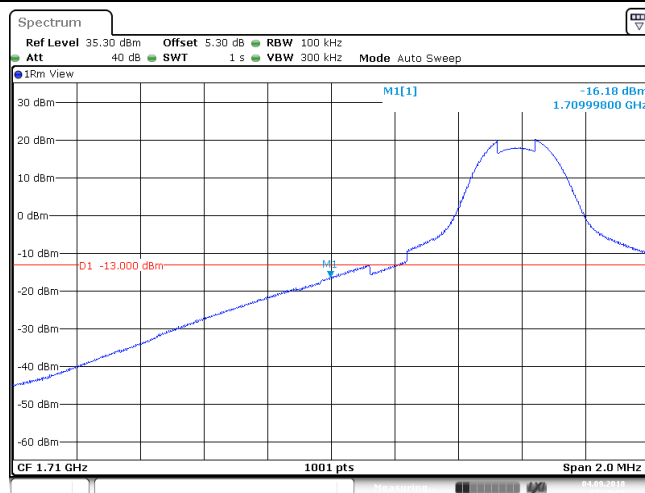
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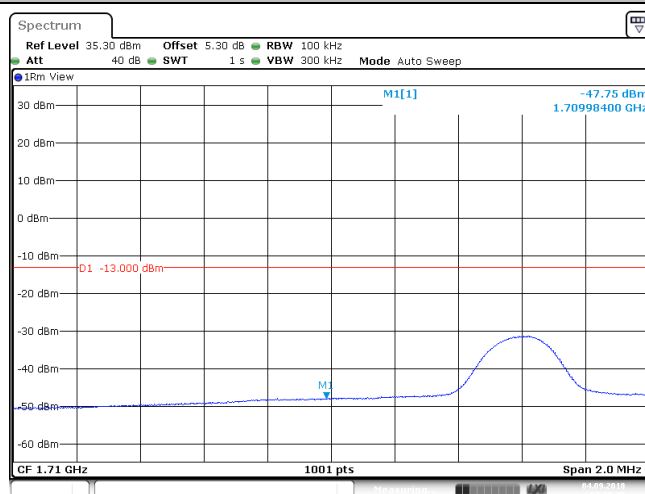
Date: 4 SEP 2018 07:25:55

## BAND4\_10MHz\_QPSK\_20000\_1RB#0



Date: 4 SEP 2018 07:28:08

## BAND4\_10MHz\_QPSK\_20000\_1RB#49



Date: 4 SEP 2018 07:29:40

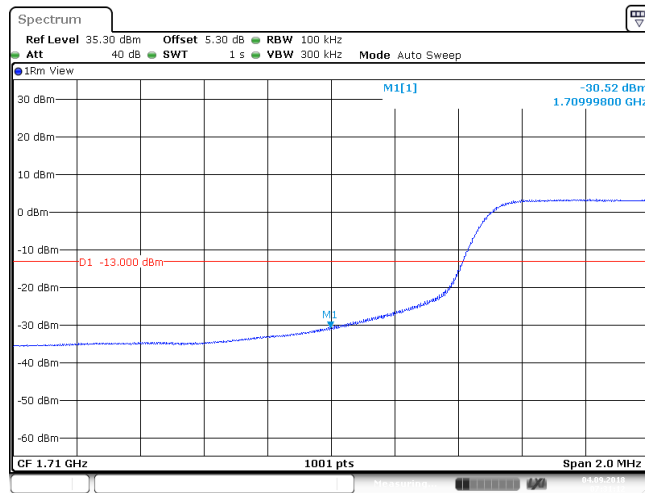
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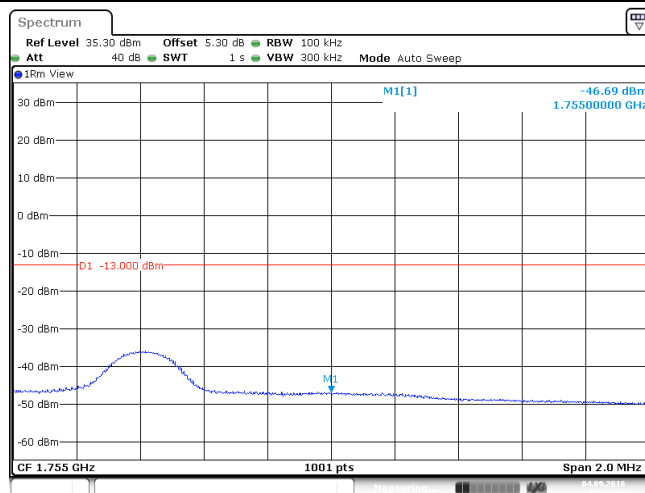
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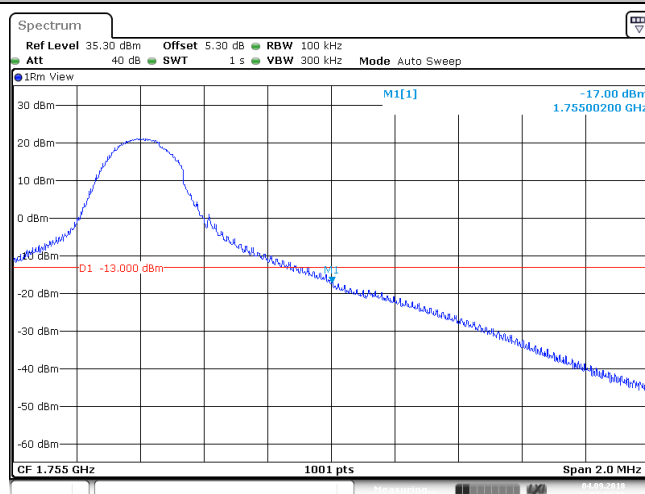
Date: 4 SEP 2018 07:31:12

## BAND4\_10MHz\_QPSK\_20350\_1RB#0



Date: 4 SEP 2018 07:32:44

## BAND4\_10MHz\_QPSK\_20350\_1RB#49



Date: 4 SEP 2018 07:34:16

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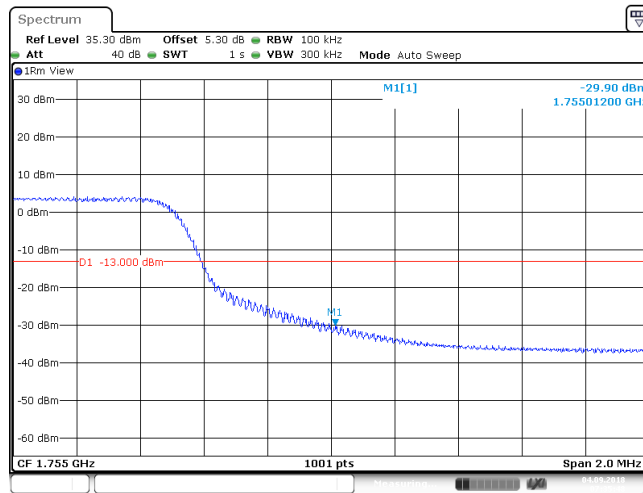
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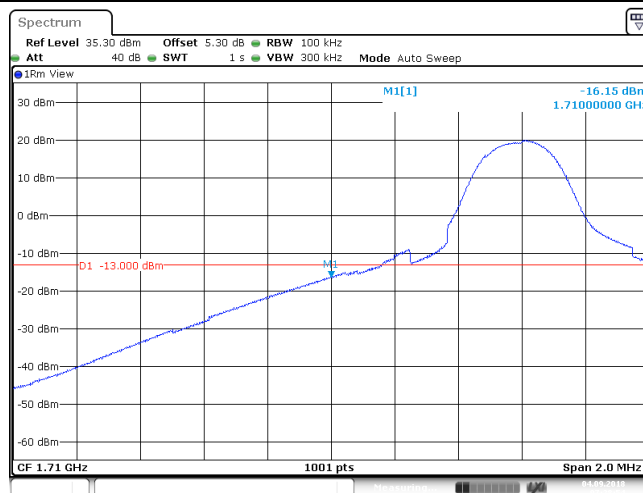
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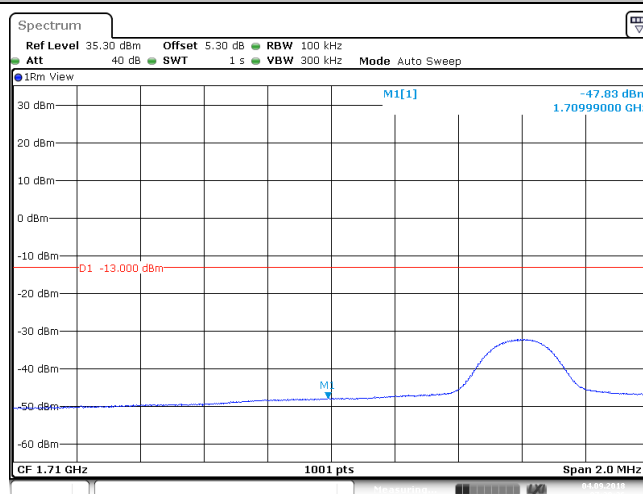
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## BAND4\_10MHz\_16QAM\_20000\_1RB#0



Date: 4 SEP 2018 07:28:54

## BAND4\_10MHz\_16QAM\_20000\_1RB#49



Date: 4 SEP 2018 07:30:26

## BAND4\_10MHz\_16QAM\_20000\_50RB#0

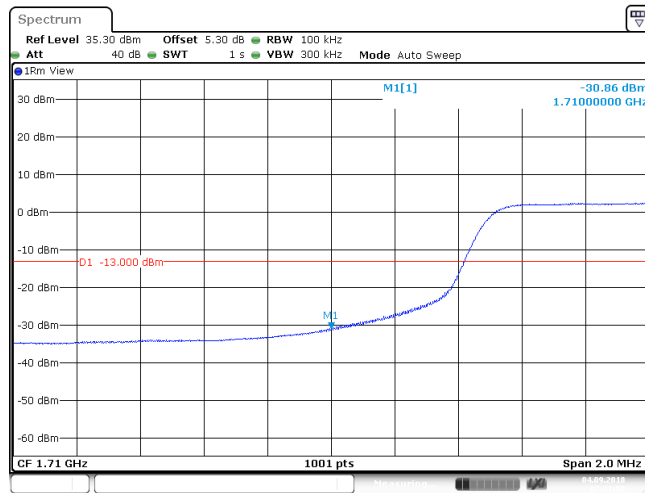
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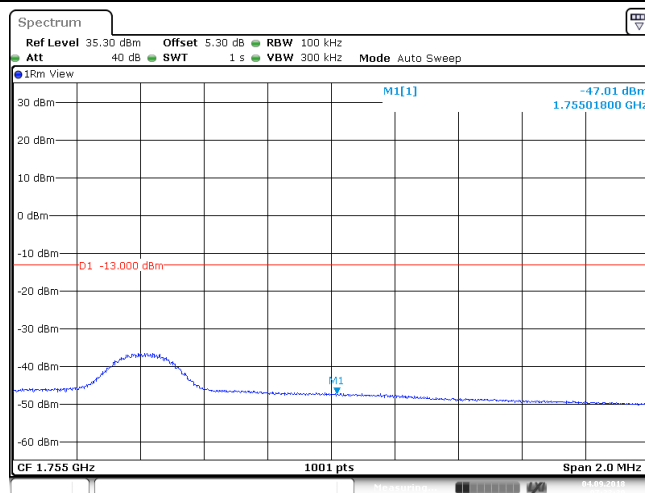
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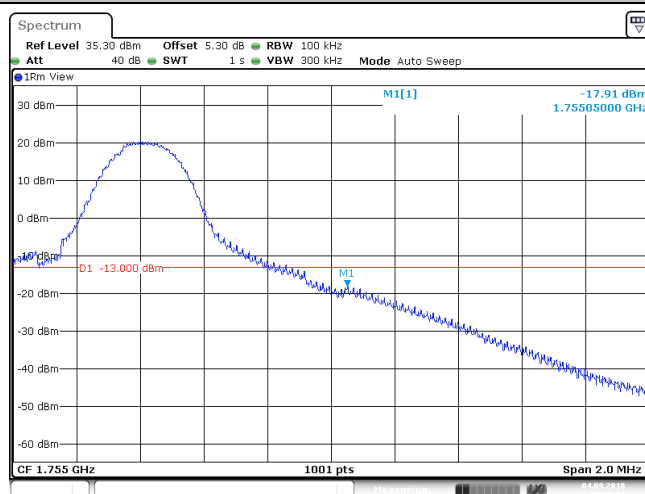
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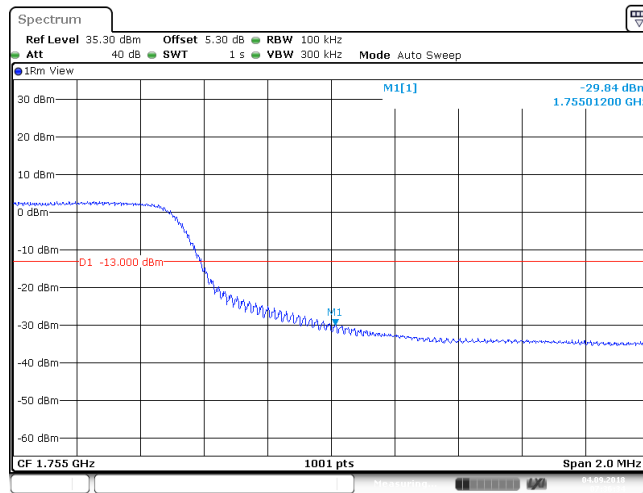
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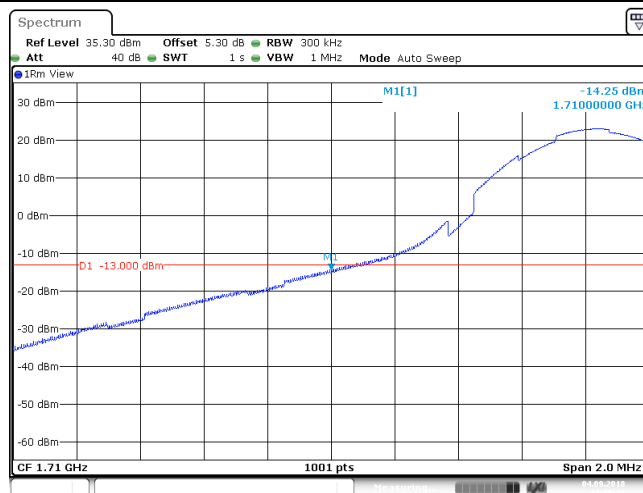
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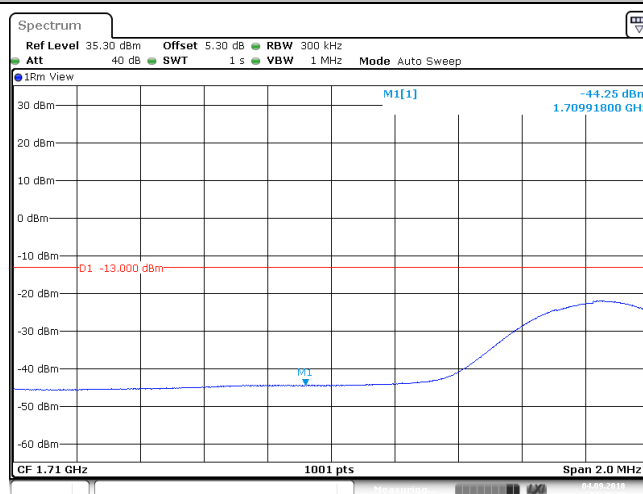
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Date: 4 SEP 2018 07:38:48

## BAND4\_15MHz\_QPSK\_20025\_1RB#74



Date: 4 SEP 2018 07:40:20

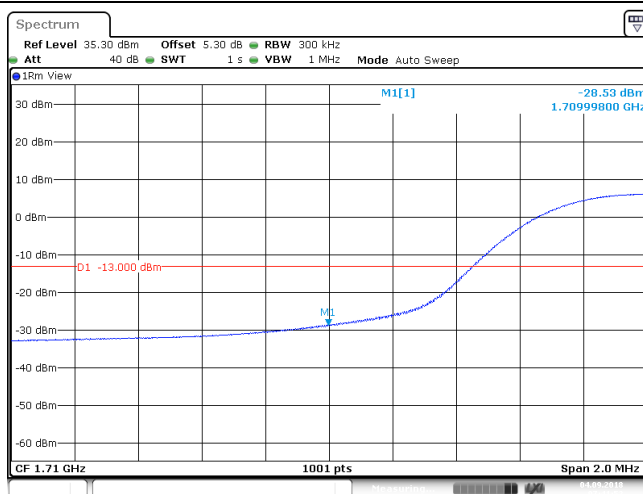
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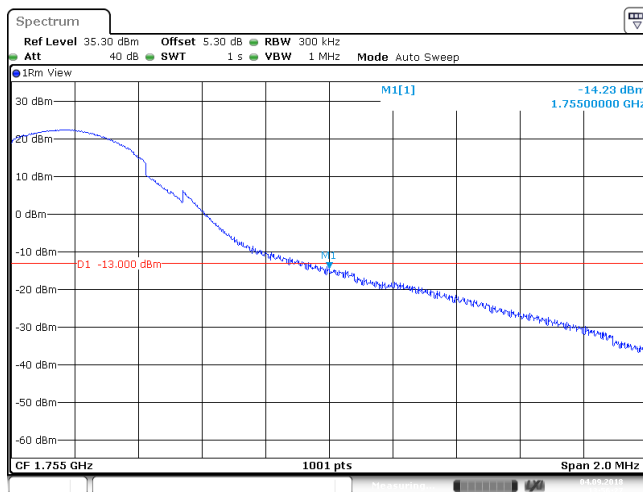
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Date: 4 SEP 2018 13:54:56

## BAND4\_15MHz\_QPSK\_20325\_1RB#74



Date: 4 SEP 2018 13:56:27

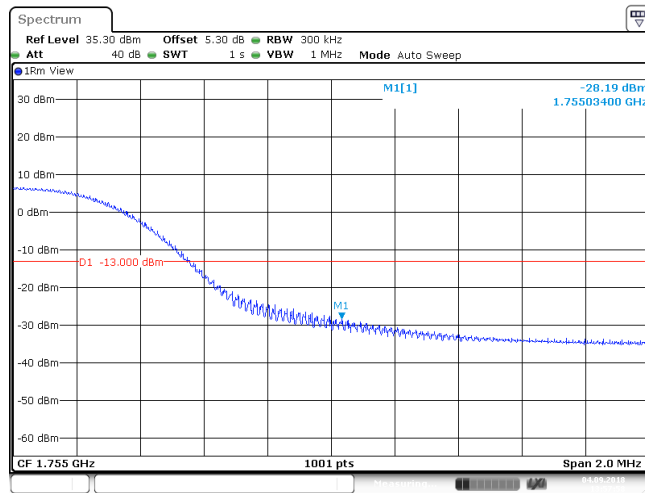
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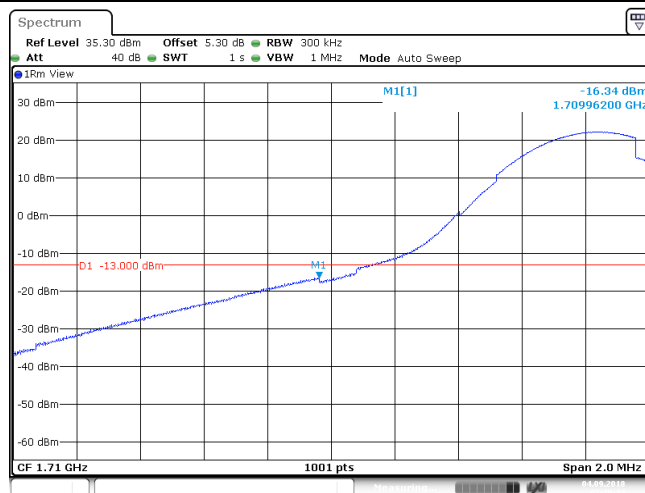
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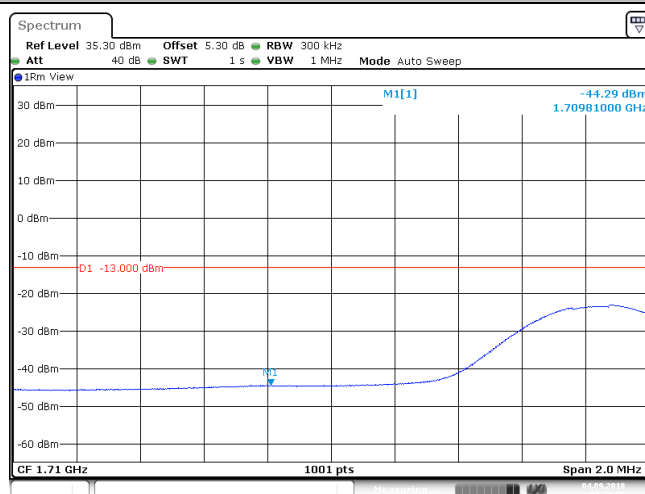
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**BAND4\_15MHz\_16QAM\_20025\_1RB#0**



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**BAND4\_15MHz\_16QAM\_20025\_1RB#74**



Date: 4 SEP 2018 07:41:06

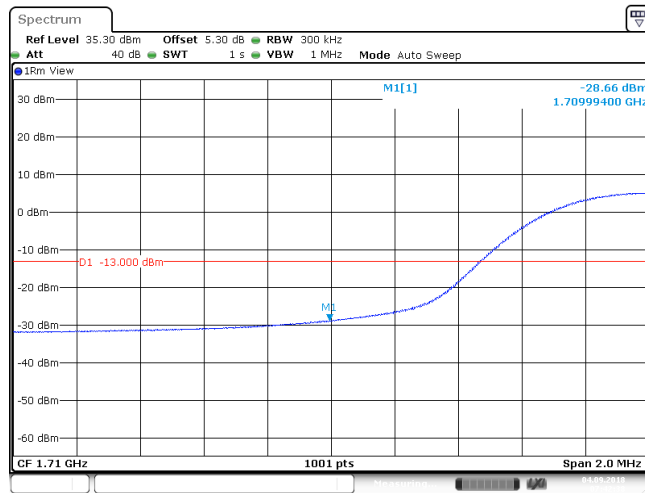
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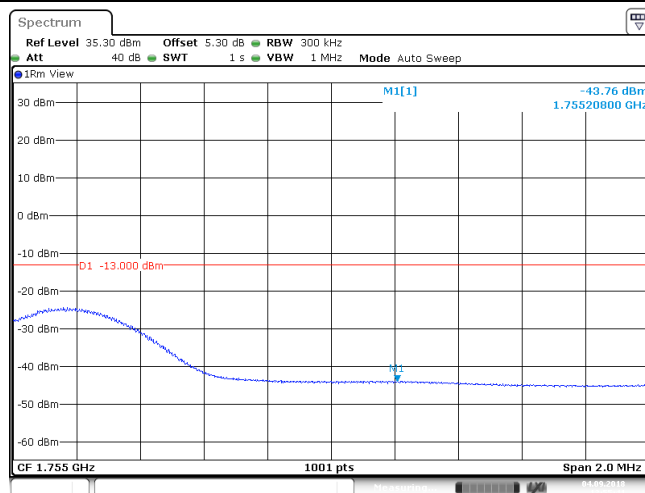
Report No.: SZEM180500457101

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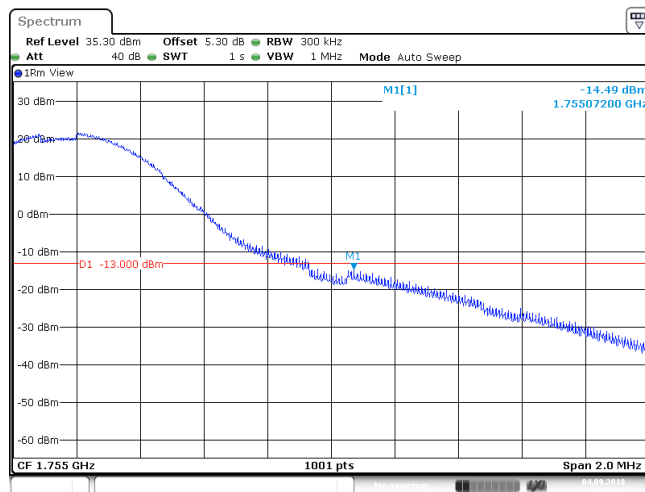
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Date: 4 SEP 2018 13:57:43

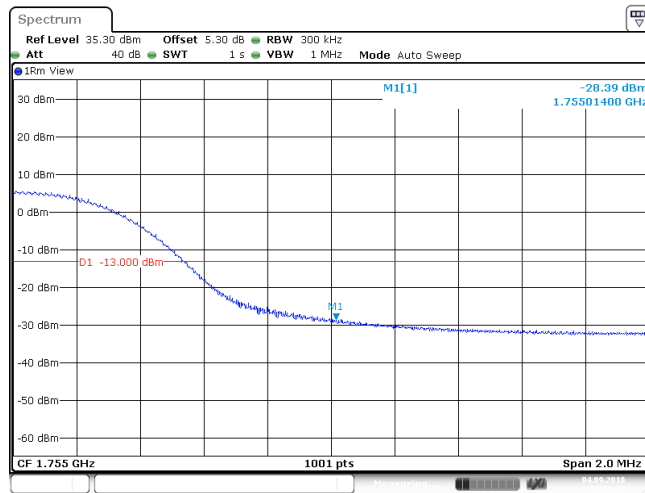
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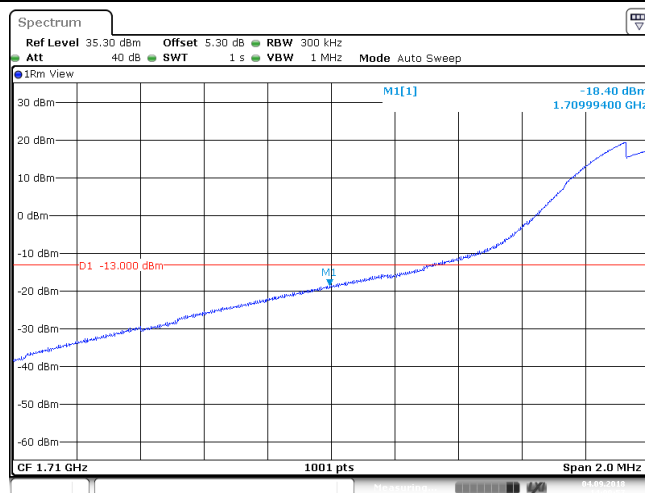
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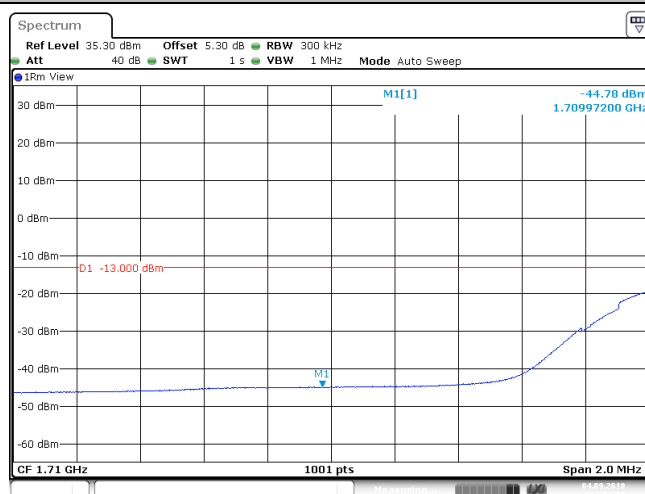
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Date: 4 SEP 2018 14:00:58

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Date: 4 SEP 2018 14:02:29

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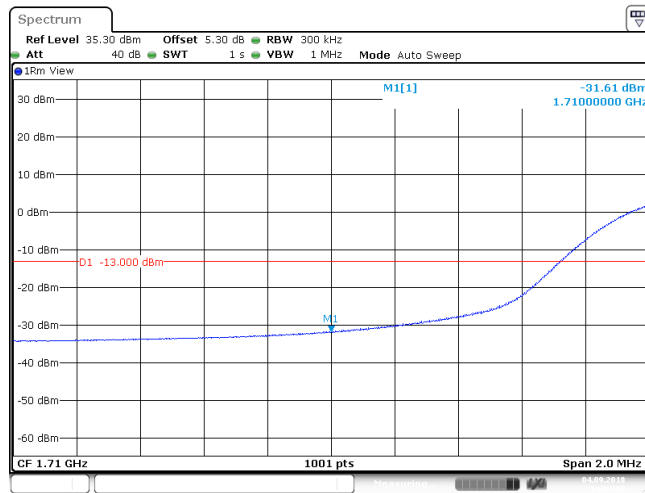
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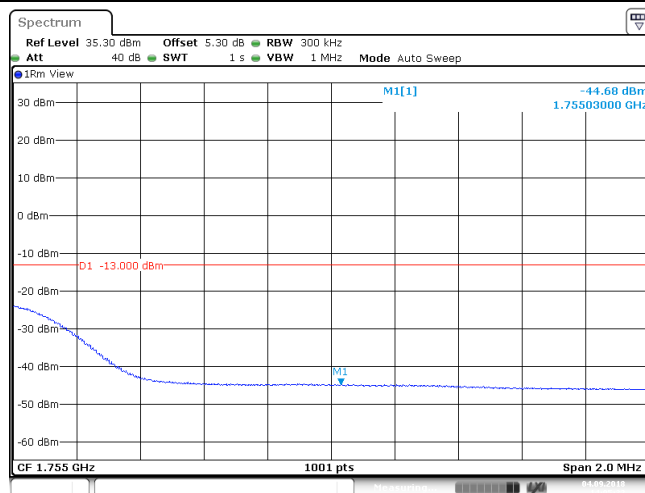
Report No.: SZEM180500457101

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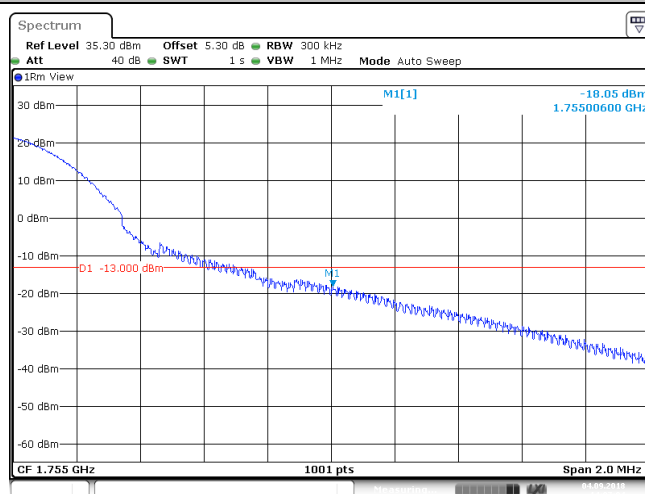
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Date: 4 SEP 2018 14:05:02

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Date: 4 SEP 2018 14:07:04

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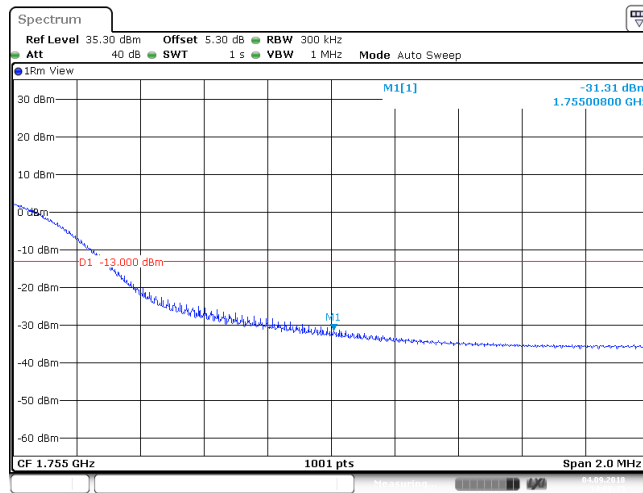
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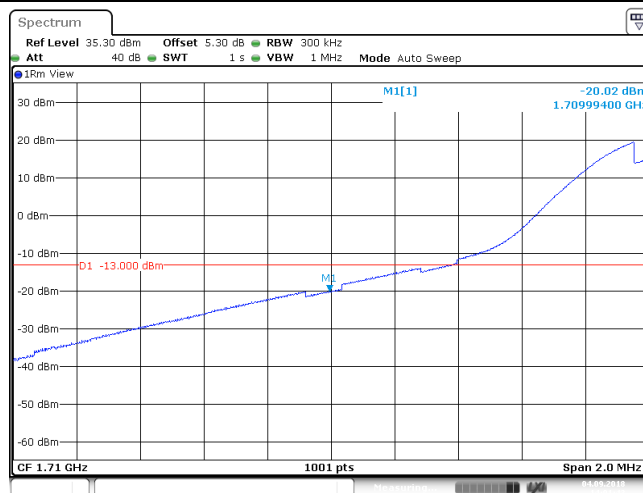
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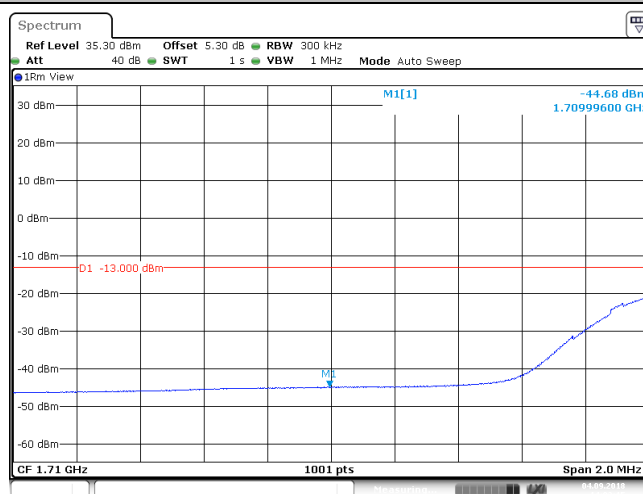
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Date: 4 SEP 2018 14:03:45

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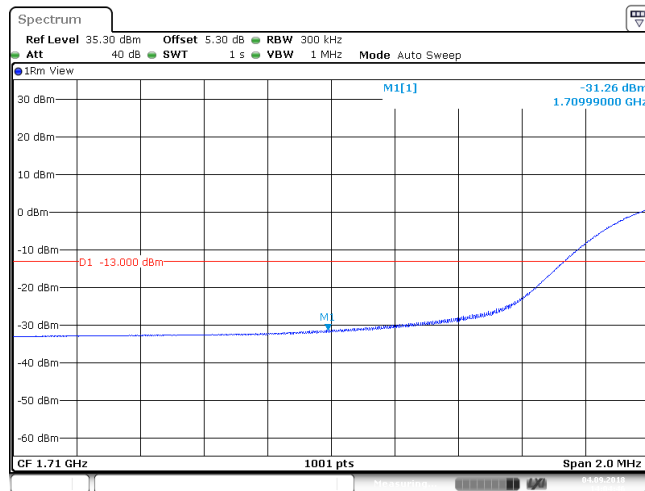
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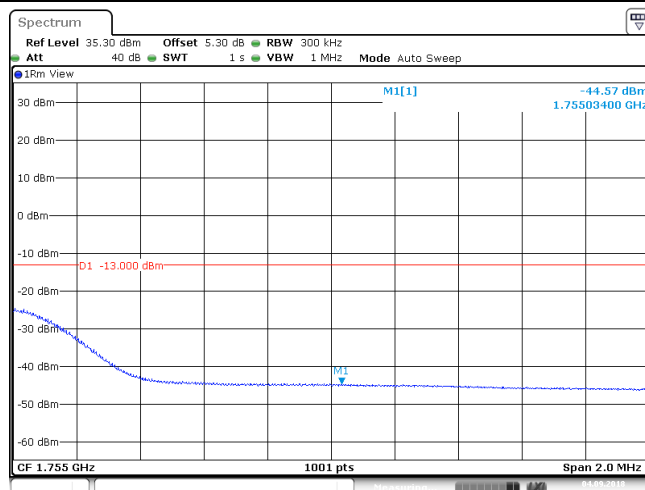
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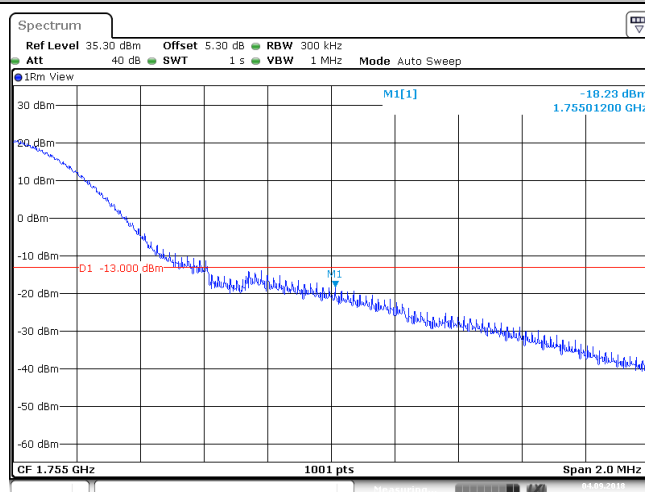
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Date: 4 SEP 2018 14:07:50

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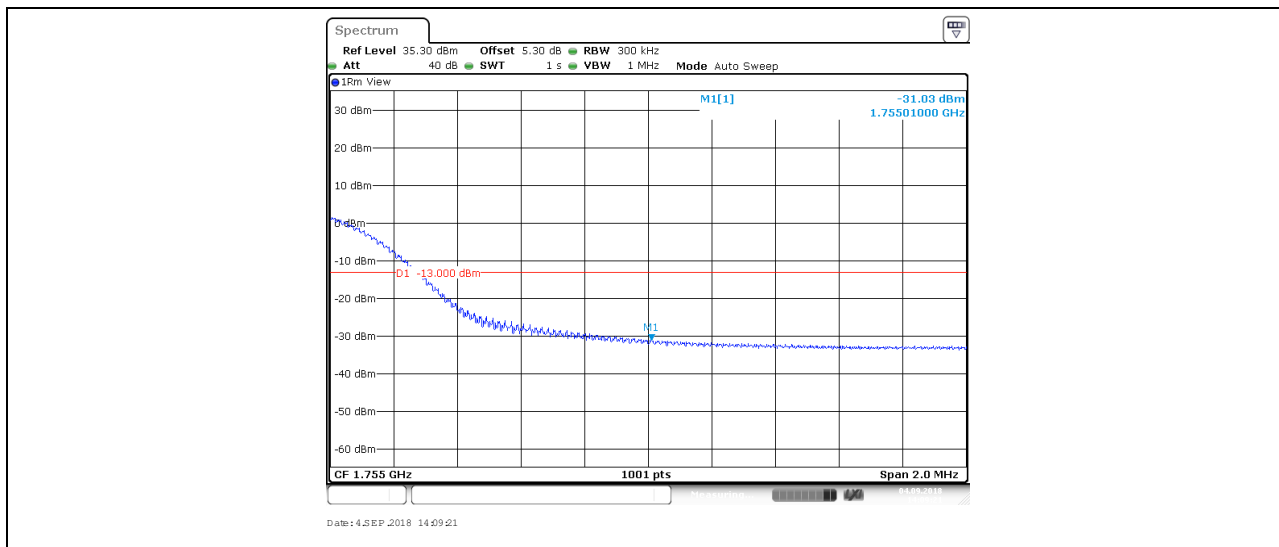
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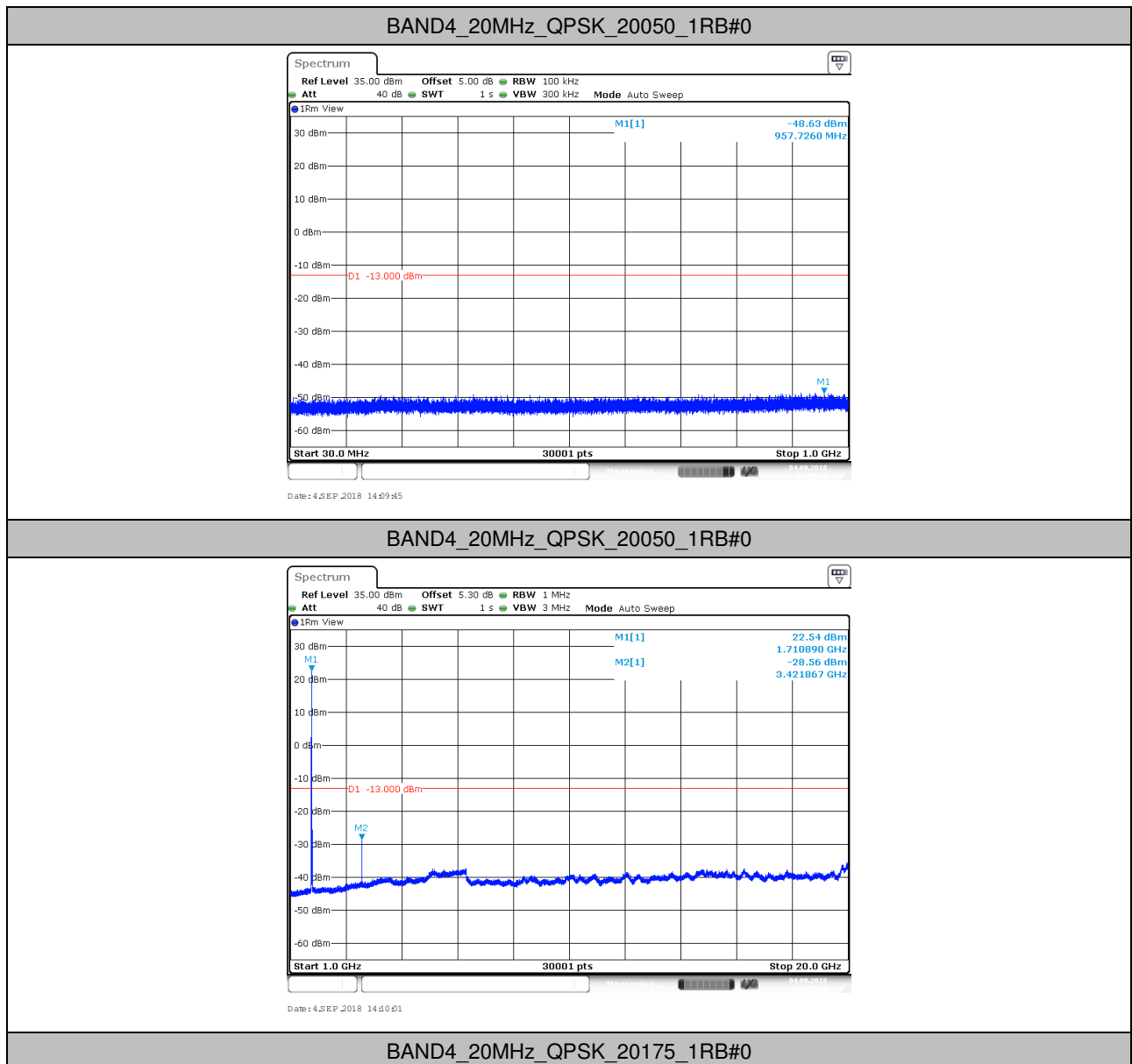


## 6. Spurious Emission at Antenna Terminal

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

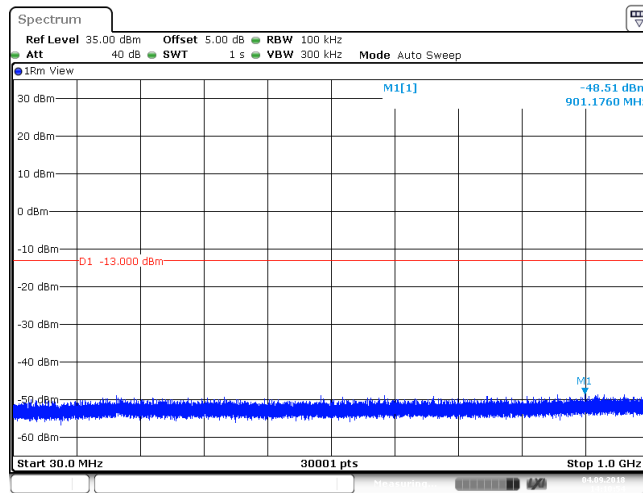




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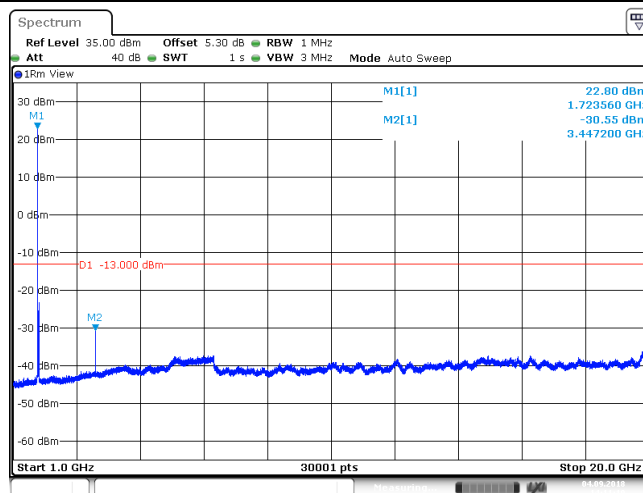
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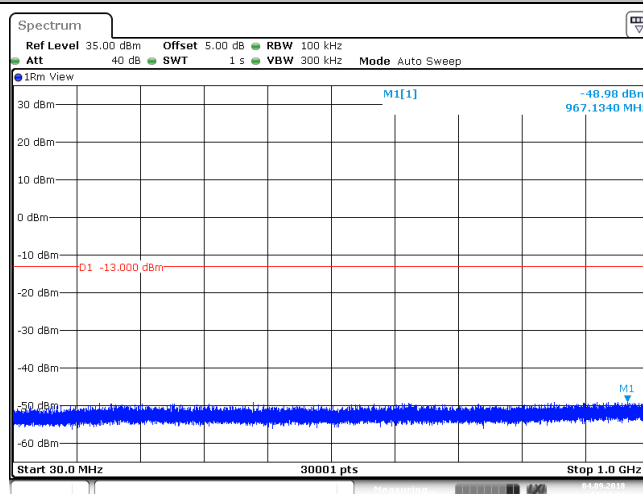
Date: 4 SEP 2018 14:00:55

## BAND4\_20MHz\_QPSK\_20175\_1RB#0



Date: 4 SEP 2018 14:11:10

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Date: 4 SEP 2018 14:22:05

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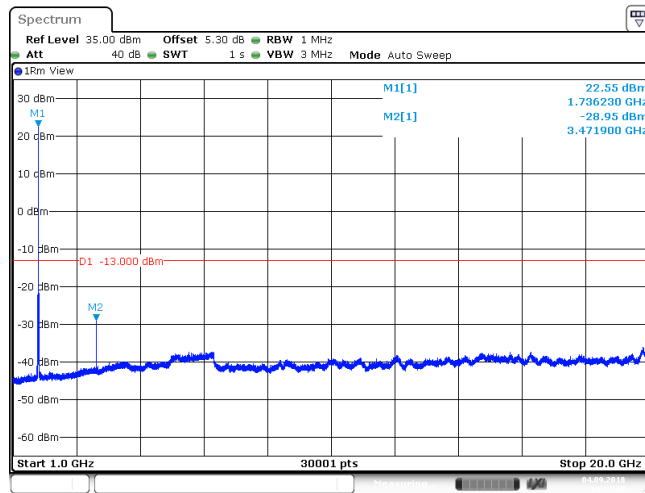
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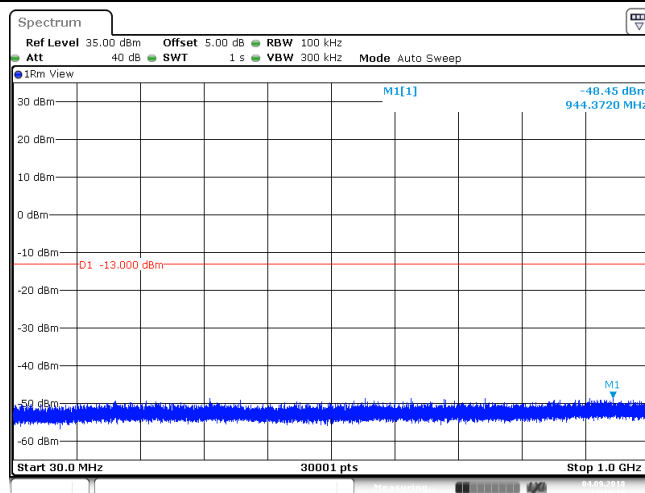
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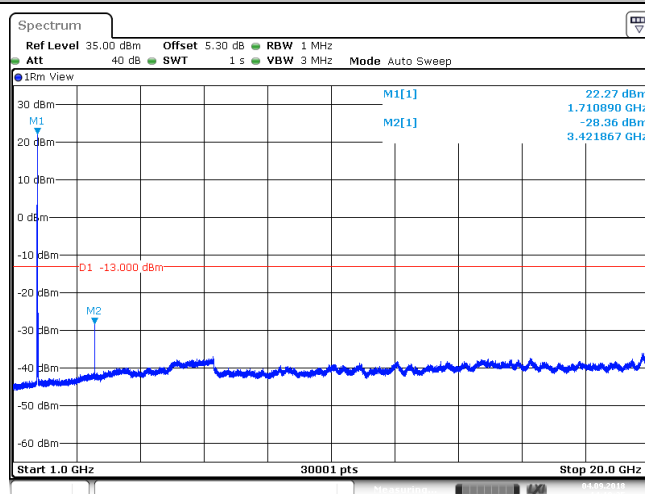
Date: 4 SEP 2018 14:22:20

**BAND4\_20MHz\_16QAM\_20050\_1RB#0**



Date: 4 SEP 2018 14:10:20

**BAND4\_20MHz\_16QAM\_20050\_1RB#0**



Date: 4 SEP 2018 14:10:35

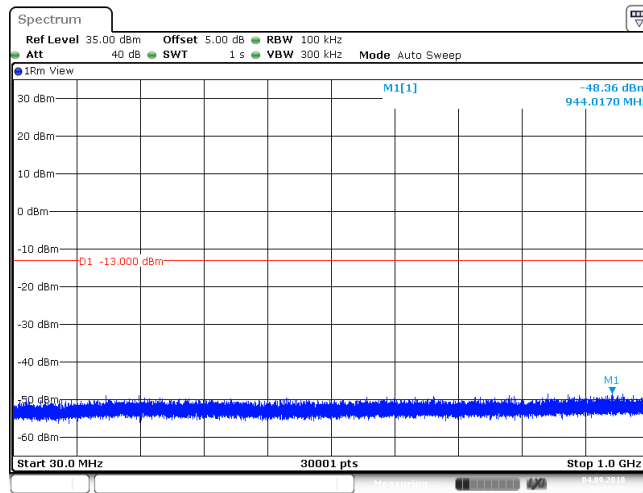
**BAND4\_20MHz\_16QAM\_20175\_1RB#0**



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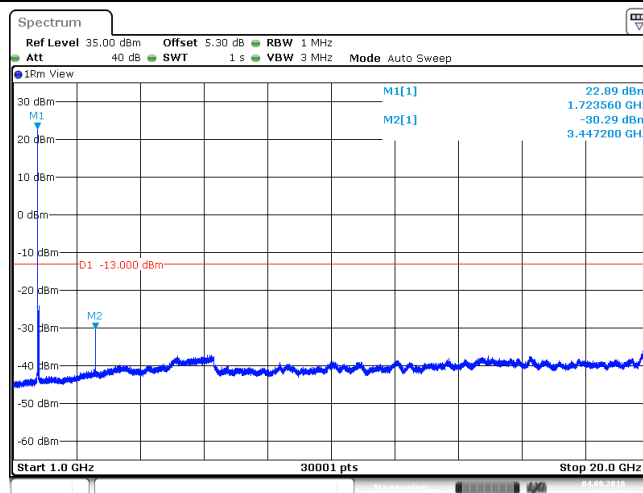
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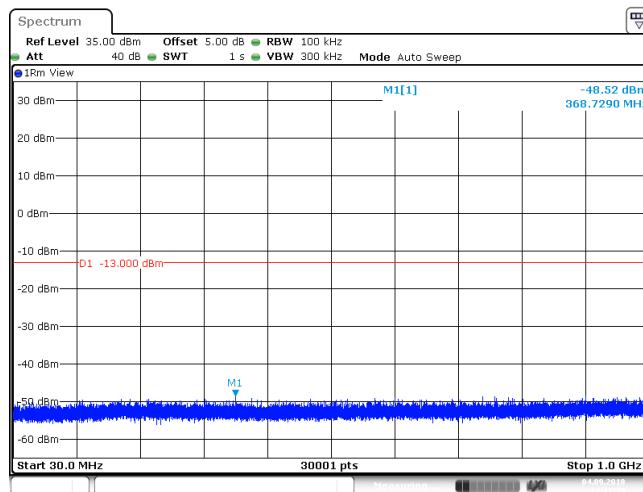
Date: 4 SEP 2018 14:11:29

**BAND4\_20MHz\_16QAM\_20175\_1RB#0**



Date: 4 SEP 2018 14:11:45

**BAND4\_20MHz\_16QAM\_20300\_1RB#0**



Date: 4 SEP 2018 14:12:09

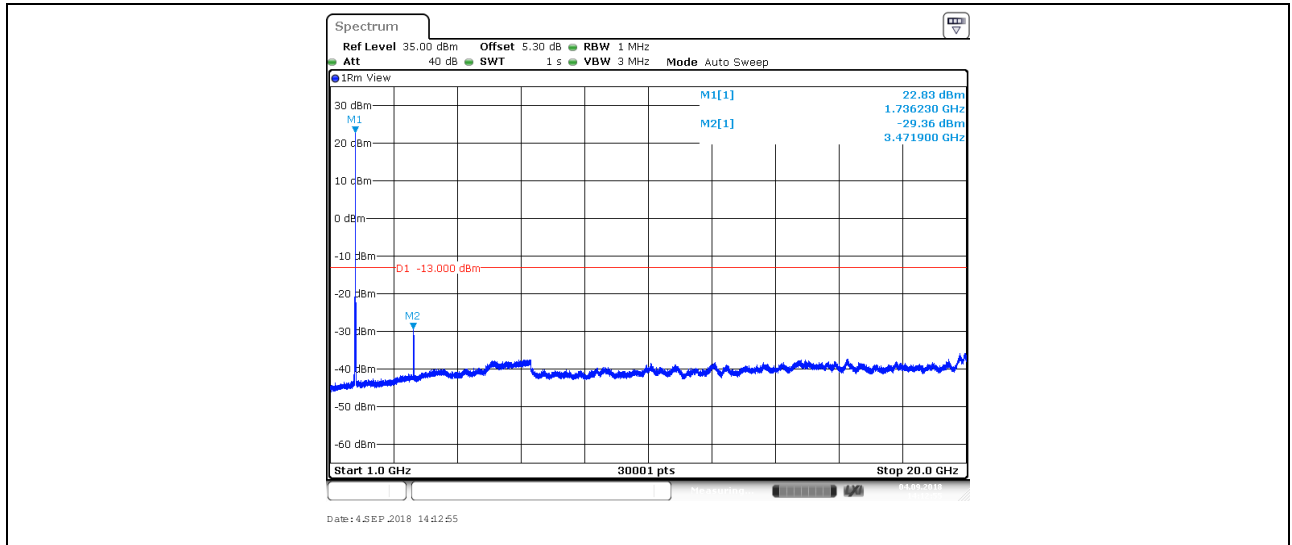
**BAND4\_20MHz\_16QAM\_20300\_1RB#0**



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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
73.900000	-82.00	-13.00	69.00	Vertical
315.100000	-83.86	-13.00	70.86	Vertical
808.050000	-80.12	-13.00	67.12	Vertical
3421.500000	-46.65	-13.00	33.65	Vertical
5133.000000	-63.25	-13.00	50.25	Vertical
10266.500000	-59.39	-13.00	46.39	Vertical
63.050000	-77.40	-13.00	64.40	Horizontal
161.300000	-85.13	-13.00	72.13	Horizontal
612.158333	-83.49	-13.00	70.49	Horizontal
3422.000000	-43.40	-13.00	30.40	Horizontal
5133.000000	-64.03	-13.00	51.03	Horizontal
11977.500000	-58.99	-13.00	45.99	Horizontal

##### 7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.450000	-82.04	-13.00	69.04	Vertical
792.420833	-80.00	-13.00	67.00	Vertical
3498.500000	-68.95	-13.00	55.95	Vertical
6941.000000	-64.85	-13.00	51.85	Vertical
9455.000000	-59.45	-13.00	46.45	Vertical
11346.500000	-52.48	-13.00	39.48	Vertical
64.450000	-82.04	-13.00	69.04	Horizontal
63.250000	-77.84	-13.00	64.84	Horizontal
268.300000	-87.07	-13.00	74.07	Horizontal
787.058333	-80.32	-13.00	67.32	Horizontal



3709.000000	-68.58	-13.00	55.58	Horizontal
7564.500000	-62.97	-13.00	49.97	Horizontal

#### 7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.050000	-81.68	-13.00	68.68	Vertical
315.450000	-84.30	-13.00	71.30	Vertical
800.075000	-80.27	-13.00	67.27	Vertical
3472.000000	-45.97	-13.00	32.97	Vertical
5208.000000	-63.99	-13.00	50.99	Vertical
10416.500000	-57.07	-13.00	44.07	Vertical
62.800000	-77.74	-13.00	64.74	Horizontal
157.700000	-89.43	-13.00	76.43	Horizontal
619.950000	-83.08	-13.00	70.08	Horizontal
3472.000000	-45.36	-13.00	32.36	Horizontal
5208.000000	-64.80	-13.00	51.80	Horizontal
10416.500000	-60.15	-13.00	47.15	Horizontal

#### Remark:

- 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	-10.90	-0.006337	±2.5	PASS
BAND4	20MHz	QPSK	20050	100RB#0	VN	NT	-11.20	-0.006512	±2.5	PASS
BAND4	20MHz	QPSK	20050	100RB#0	VH	NT	-14.80	-0.008605	±2.5	PASS
BAND4	20MHz	QPSK	20175	100RB#0	VL	NT	-7.80	-0.004502	±2.5	PASS
BAND4	20MHz	QPSK	20175	100RB#0	VN	NT	-3.20	-0.001847	±2.5	PASS
BAND4	20MHz	QPSK	20175	100RB#0	VH	NT	-7.90	-0.004560	±2.5	PASS
BAND4	20MHz	QPSK	20300	100RB#0	VL	NT	-12.10	-0.006934	±2.5	PASS
BAND4	20MHz	QPSK	20300	100RB#0	VN	NT	-3.50	-0.002006	±2.5	PASS
BAND4	20MHz	QPSK	20300	100RB#0	VH	NT	-4.30	-0.002464	±2.5	PASS
BAND4	20MHz	16QAM	20050	100RB#0	VL	NT	-11.50	-0.006686	±2.5	PASS
BAND4	20MHz	16QAM	20050	100RB#0	VN	NT	-4.00	-0.002326	±2.5	PASS
BAND4	20MHz	16QAM	20050	100RB#0	VH	NT	-3.30	-0.001919	±2.5	PASS
BAND4	20MHz	16QAM	20175	100RB#0	VL	NT	-3.30	-0.001905	±2.5	PASS
BAND4	20MHz	16QAM	20175	100RB#0	VN	NT	-8.20	-0.004733	±2.5	PASS
BAND4	20MHz	16QAM	20175	100RB#0	VH	NT	-1.50	-0.000866	±2.5	PASS
BAND4	20MHz	16QAM	20300	100RB#0	VL	NT	1.30	0.000745	±2.5	PASS
BAND4	20MHz	16QAM	20300	100RB#0	VN	NT	-1.70	-0.000974	±2.5	PASS
BAND4	20MHz	16QAM	20300	100RB#0	VH	NT	2.50	0.001433	±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	-5.40	-0.003140	±2.5	PASS
BAND4	20MHz	QPSK	20050	100RB#0	NV	-20	-4.20	-0.002442	±2.5	PASS
BAND4	20MHz	QPSK	20050	100RB#0	NV	0	-0.50	-0.000291	±2.5	PASS
BAND4	20MHz	QPSK	20050	100RB#0	NV	10	-10.10	-0.005872	±2.5	PASS
BAND4	20MHz	QPSK	20050	100RB#0	NV	20	-4.00	-0.002326	±2.5	PASS
BAND4	20MHz	QPSK	20175	100RB#0	NV	-30	0.90	0.000519	±2.5	PASS
BAND4	20MHz	QPSK	20175	100RB#0	NV	-20	-9.90	-0.005714	±2.5	PASS
BAND4	20MHz	QPSK	20175	100RB#0	NV	0	-8.40	-0.004848	±2.5	PASS
BAND4	20MHz	QPSK	20175	100RB#0	NV	10	-5.70	-0.003290	±2.5	PASS
BAND4	20MHz	QPSK	20175	100RB#0	NV	20	-3.40	-0.001962	±2.5	PASS
BAND4	20MHz	QPSK	20300	100RB#0	NV	-30	-5.20	-0.002980	±2.5	PASS
BAND4	20MHz	QPSK	20300	100RB#0	NV	-20	4.60	0.002636	±2.5	PASS
BAND4	20MHz	QPSK	20300	100RB#0	NV	0	-6.50	-0.003725	±2.5	PASS
BAND4	20MHz	QPSK	20300	100RB#0	NV	10	-9.30	-0.005330	±2.5	PASS
BAND4	20MHz	QPSK	20300	100RB#0	NV	20	-8.70	-0.004986	±2.5	PASS
BAND4	20MHz	16QAM	20050	100RB#0	NV	-30	-11.60	-0.006744	±2.5	PASS
BAND4	20MHz	16QAM	20050	100RB#0	NV	-20	4.70	0.002733	±2.5	PASS
BAND4	20MHz	16QAM	20050	100RB#0	NV	0	-4.00	-0.002326	±2.5	PASS



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BAND4	20MHz	16QAM	20050	100RB#0	NV	10	-11.80	-0.006860	±2.5	PASS
BAND4	20MHz	16QAM	20050	100RB#0	NV	20	-6.40	-0.003721	±2.5	PASS
BAND4	20MHz	16QAM	20175	100RB#0	NV	-30	-10.20	-0.005887	±2.5	PASS
BAND4	20MHz	16QAM	20175	100RB#0	NV	-20	-3.90	-0.002251	±2.5	PASS
BAND4	20MHz	16QAM	20175	100RB#0	NV	0	-8.90	-0.005137	±2.5	PASS
BAND4	20MHz	16QAM	20175	100RB#0	NV	10	-9.20	-0.005310	±2.5	PASS
BAND4	20MHz	16QAM	20175	100RB#0	NV	20	-2.90	-0.001674	±2.5	PASS
BAND4	20MHz	16QAM	20300	100RB#0	NV	-30	-1.10	-0.000630	±2.5	PASS
BAND4	20MHz	16QAM	20300	100RB#0	NV	-20	-1.60	-0.000917	±2.5	PASS
BAND4	20MHz	16QAM	20300	100RB#0	NV	0	-4.60	-0.002636	±2.5	PASS
BAND4	20MHz	16QAM	20300	100RB#0	NV	10	-0.70	-0.000401	±2.5	PASS
BAND4	20MHz	16QAM	20300	100RB#0	NV	20	-4.20	-0.002407	±2.5	PASS

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The End