



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	22.00	21.70	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	22.11	21.81	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	22.04	21.74	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#0	22.20	21.90	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#2	22.22	21.92	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#3	22.24	21.94	30.00	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	21.06	20.76	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	22.13	21.83	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	22.20	21.90	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	22.04	21.74	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#0	22.20	21.90	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#2	22.29	21.99	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#3	22.33	22.03	30.00	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	21.19	20.89	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	22.18	21.88	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	22.29	21.99	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	22.18	21.88	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#0	22.30	22.00	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#2	22.33	22.03	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#3	22.31	22.01	30.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	21.21	20.91	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	21.27	20.97	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	21.28	20.98	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	21.48	21.18	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#0	21.16	20.86	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#2	21.15	20.85	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#3	21.24	20.94	30.00	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	20.18	19.88	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	21.19	20.89	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	21.34	21.04	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	21.32	21.02	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#0	21.18	20.88	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#2	21.17	20.87	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#3	21.26	20.96	30.00	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	20.29	19.99	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	21.28	20.98	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	21.42	21.12	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	21.33	21.03	30.00	PASS



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Band4	1.4MHz	16QAM	20393	3RB#0	21.34	21.04	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#2	21.40	21.10	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#3	21.33	21.03	30.00	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	20.26	19.96	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#0	22.17	21.87	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#7	22.19	21.89	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#14	22.17	21.87	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	21.11	20.81	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#0	21.17	20.87	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#7	21.20	20.90	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	21.19	20.89	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#0	22.25	21.95	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#7	22.41	22.11	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#14	22.13	21.83	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	21.14	20.84	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#0	21.17	20.87	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#7	21.21	20.91	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	21.25	20.95	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#0	22.38	22.08	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#7	22.37	22.07	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#14	22.22	21.92	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	21.23	20.93	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#0	21.34	21.04	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#7	21.21	20.91	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	21.22	20.92	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#0	21.21	20.91	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#7	21.35	21.05	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#14	21.07	20.77	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	20.34	20.04	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#0	20.28	19.98	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#7	20.18	19.88	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	20.36	20.06	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#0	21.27	20.97	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#7	21.50	21.20	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#14	21.31	21.01	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	20.24	19.94	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#0	20.22	19.92	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#7	20.31	20.01	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	20.26	19.96	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#0	21.34	21.04	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#7	21.23	20.93	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#14	21.45	21.15	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	20.31	20.01	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#0	20.43	20.13	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#7	20.32	20.02	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	20.43	20.13	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#0	22.17	21.87	30.00	PASS



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Band4	5MHz	QPSK	19975	1RB#13	22.20	21.90	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#24	22.10	21.80	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#0	21.14	20.84	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#6	21.14	20.84	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#13	21.18	20.88	30.00	PASS
Band4	5MHz	QPSK	19975	25RB#0	21.17	20.87	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#0	22.11	21.81	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#13	22.22	21.92	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#24	22.06	21.76	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#0	21.15	20.85	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#6	21.22	20.92	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#13	21.12	20.82	30.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	21.13	20.83	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#0	22.15	21.85	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#13	22.23	21.93	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#24	22.15	21.85	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#0	21.27	20.97	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#6	21.35	21.05	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#13	21.23	20.93	30.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	21.29	20.99	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#0	21.04	20.74	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#13	21.27	20.97	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#24	21.26	20.96	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#0	20.25	19.95	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#6	20.31	20.01	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#13	20.27	19.97	30.00	PASS
Band4	5MHz	16QAM	19975	25RB#0	20.28	19.98	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#0	20.99	20.69	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#13	21.29	20.99	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#24	21.20	20.90	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#0	20.15	19.85	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#6	20.20	19.90	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#13	20.13	19.83	30.00	PASS
Band4	5MHz	16QAM	20175	25RB#0	20.22	19.92	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#0	21.34	21.04	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#13	21.31	21.01	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#24	21.04	20.74	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#0	20.28	19.98	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#6	20.32	20.02	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#13	20.17	19.87	30.00	PASS
Band4	5MHz	16QAM	20375	25RB#0	20.26	19.96	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#0	22.27	21.97	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#25	22.24	21.94	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#49	22.17	21.87	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#0	21.25	20.95	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#13	21.24	20.94	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#25	21.27	20.97	30.00	PASS



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Band4	10MHz	QPSK	20000	50RB#0	21.33	21.03	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#0	22.23	21.93	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#25	22.38	22.08	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#49	22.14	21.84	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#0	21.18	20.88	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#13	21.19	20.89	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#25	21.21	20.91	30.00	PASS
Band4	10MHz	QPSK	20175	50RB#0	21.27	20.97	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#0	22.29	21.99	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#25	22.34	22.04	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#49	22.26	21.96	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#0	21.32	21.02	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#13	21.32	21.02	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#25	21.34	21.04	30.00	PASS
Band4	10MHz	QPSK	20350	50RB#0	21.39	21.09	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#0	21.09	20.79	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#25	21.14	20.84	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#49	21.31	21.01	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#0	20.23	19.93	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#13	20.12	19.82	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#25	20.15	19.85	30.00	PASS
Band4	10MHz	16QAM	20000	50RB#0	20.23	19.93	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#0	21.13	20.83	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#25	21.35	21.05	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#49	21.36	21.06	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#0	20.16	19.86	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#13	20.26	19.96	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#25	20.16	19.86	30.00	PASS
Band4	10MHz	16QAM	20175	50RB#0	20.14	19.84	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#0	21.37	21.07	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#25	21.33	21.03	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#49	21.30	21.00	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#0	20.27	19.97	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#13	20.33	20.03	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#25	20.30	20.00	30.00	PASS
Band4	10MHz	16QAM	20350	50RB#0	20.32	20.02	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#0	22.01	21.71	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#38	22.09	21.79	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#74	22.06	21.76	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#0	21.23	20.93	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#18	21.31	21.01	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#39	21.35	21.05	30.00	PASS
Band4	15MHz	QPSK	20025	75RB#0	21.31	21.01	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#0	22.17	21.87	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#38	22.18	21.88	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#74	22.00	21.70	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#0	21.22	20.92	30.00	PASS



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Band4	15MHz	QPSK	20175	36RB#18	21.27	20.97	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#39	21.27	20.97	30.00	PASS
Band4	15MHz	QPSK	20175	75RB#0	21.23	20.93	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#0	21.93	21.63	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#38	22.23	21.93	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#74	22.05	21.75	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#0	21.35	21.05	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#18	21.36	21.06	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#39	21.28	20.98	30.00	PASS
Band4	15MHz	QPSK	20325	75RB#0	21.30	21.00	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#0	21.07	20.77	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#38	21.16	20.86	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#74	21.18	20.88	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#0	20.30	20.00	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#18	20.21	19.91	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#39	20.31	20.01	30.00	PASS
Band4	15MHz	16QAM	20025	75RB#0	20.20	19.90	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#0	21.28	20.98	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#38	21.18	20.88	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#74	21.04	20.74	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#0	20.21	19.91	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#18	20.29	19.99	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#39	20.20	19.90	30.00	PASS
Band4	15MHz	16QAM	20175	75RB#0	20.16	19.86	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#0	21.16	20.86	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#38	21.19	20.89	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#74	21.32	21.02	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#0	20.18	19.88	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#18	20.24	19.94	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#39	20.22	19.92	30.00	PASS
Band4	15MHz	16QAM	20325	75RB#0	20.28	19.98	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#0	21.91	21.61	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#50	22.36	22.06	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#99	22.01	21.71	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#0	21.30	21.00	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#25	21.37	21.07	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#50	21.38	21.08	30.00	PASS
Band4	20MHz	QPSK	20050	100RB#0	21.23	20.93	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#0	22.02	21.72	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#50	22.22	21.92	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#99	21.95	21.65	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#0	21.19	20.89	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#25	21.30	21.00	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#50	21.21	20.91	30.00	PASS
Band4	20MHz	QPSK	20175	100RB#0	21.20	20.90	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#0	21.99	21.69	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#50	22.46	22.16	30.00	PASS



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Band4	20MHz	QPSK	20300	1RB#99	21.95	21.65	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#0	21.33	21.03	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#25	21.42	21.12	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#50	21.31	21.01	30.00	PASS
Band4	20MHz	QPSK	20300	100RB#0	21.28	20.98	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#0	20.90	20.60	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#50	21.39	21.09	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#99	21.02	20.72	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#0	20.28	19.98	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#25	20.32	20.02	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#50	20.39	20.09	30.00	PASS
Band4	20MHz	16QAM	20050	100RB#0	20.27	19.97	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#0	20.95	20.65	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#50	21.49	21.19	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#99	20.77	20.47	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#0	20.21	19.91	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#25	20.21	19.91	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#50	20.22	19.92	30.00	PASS
Band4	20MHz	16QAM	20175	100RB#0	20.19	19.89	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#0	21.08	20.78	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#50	21.18	20.88	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#99	21.04	20.74	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#0	20.21	19.91	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#25	20.29	19.99	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#50	20.20	19.90	30.00	PASS
Band4	20MHz	16QAM	20300	100RB#0	20.16	19.86	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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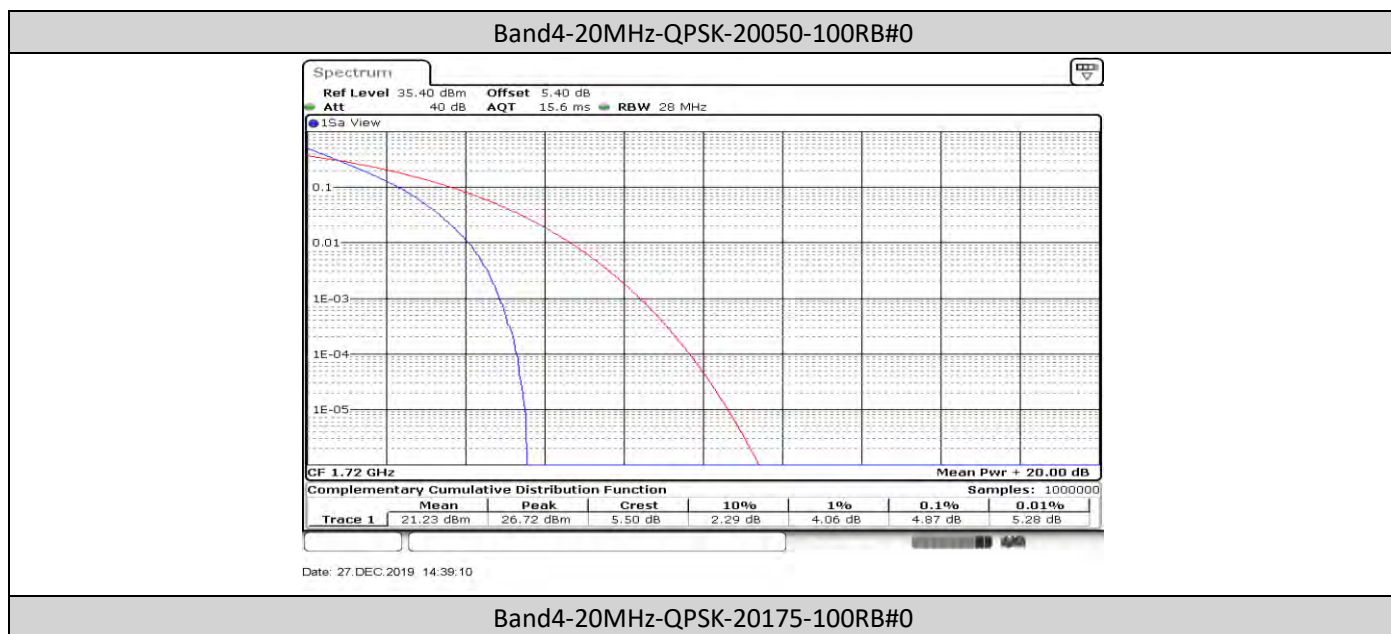


2. Peak-to-Average Ratio (CCDF)

2.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	4.87	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	4.72	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	4.61	13	PASS
Band4	20MHz	16QAM	20050	100RB#0	5.68	13	PASS
Band4	20MHz	16QAM	20175	100RB#0	5.57	13	PASS
Band4	20MHz	16QAM	20300	100RB#0	5.51	13	PASS

2.2. Test Plots





Band4-20MHz-QPSK-20300-100RB#0



Band4-20MHz-16QAM-20050-100RB#0



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Band4-20MHz-16QAM-20175-100RB#0



Band4-20MHz-16QAM-20300-100RB#0



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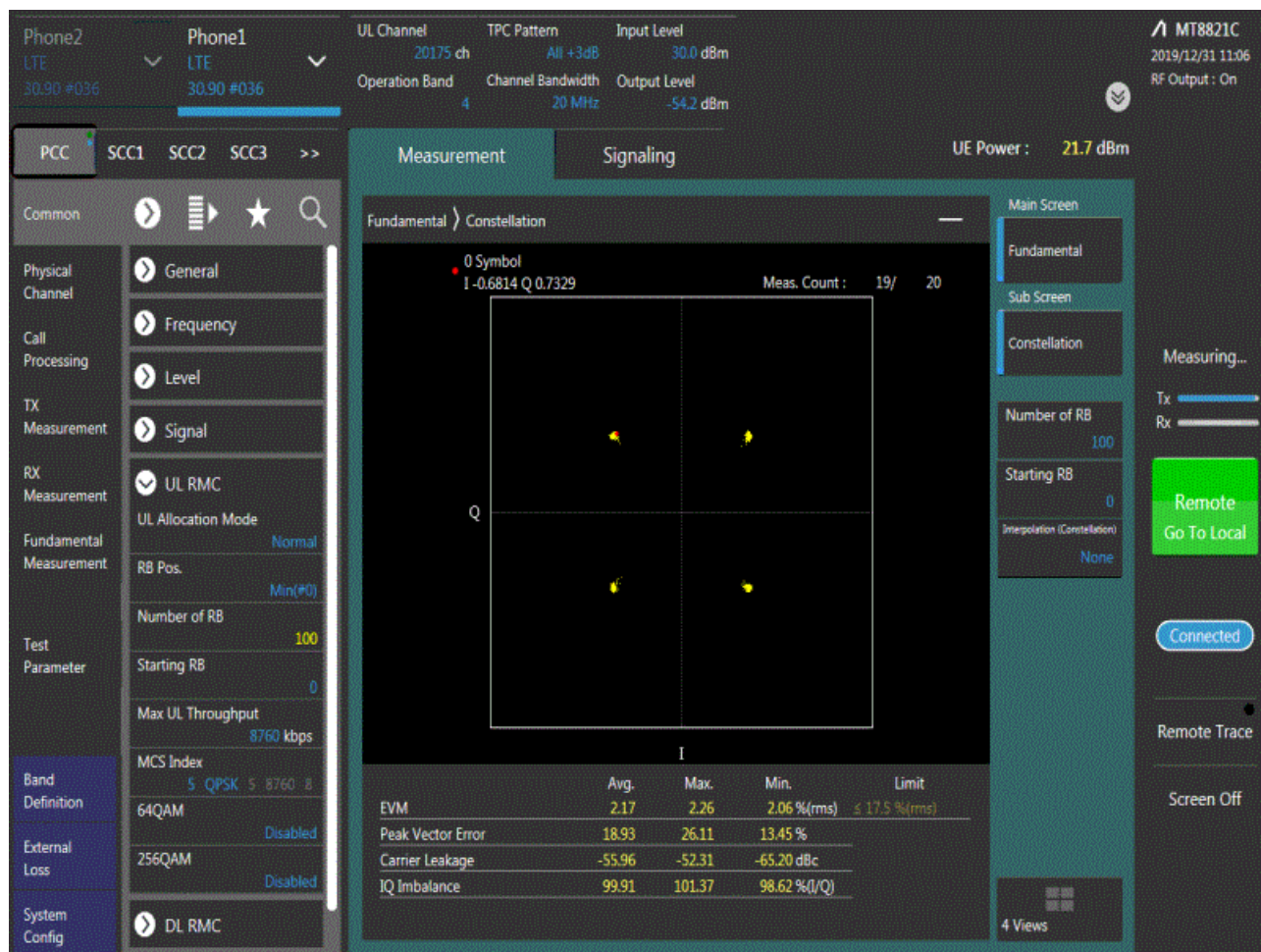




3. Modulation Characteristics

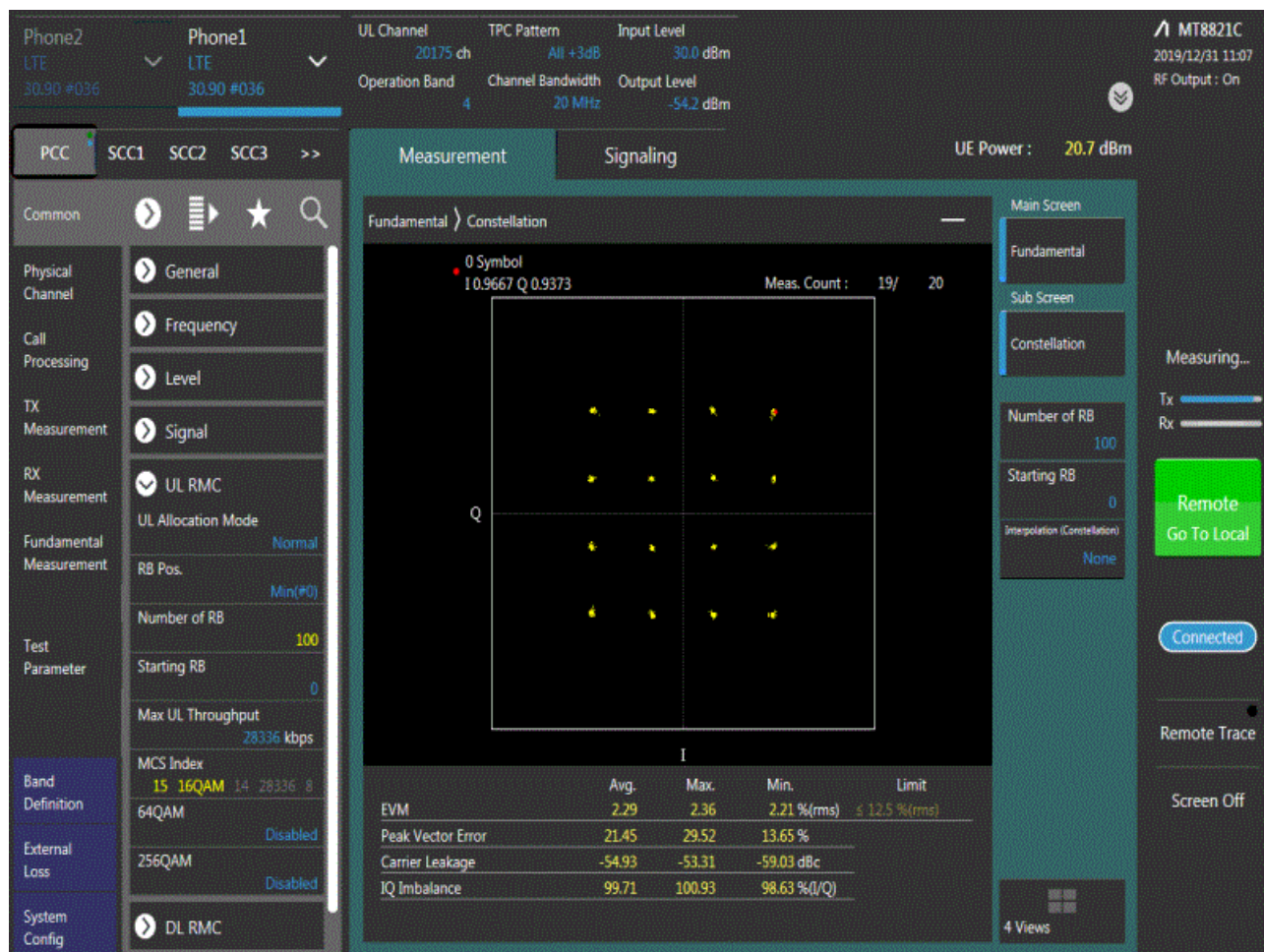
3.1. Test Mode = LTE /TM1 20MHz

3.1.1. Test Channel = MCH



3.2. Test Mode = LTE /TM2 20MHz

3.2.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.094	1.302	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.085	1.296	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.094	1.299	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.091	1.293	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.094	1.293	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.091	1.269	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.685	2.886	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.697	2.892	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.685	2.868	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.679	2.892	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.673	2.874	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.685	2.868	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.466	4.760	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.476	4.760	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.486	4.780	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.476	4.790	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.486	4.760	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.476	4.770	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.991	9.480	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.971	9.560	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.971	9.440	PASS
Band4	10MHz	16QAM	20000	50RB#0	8.971	9.400	PASS
Band4	10MHz	16QAM	20175	50RB#0	8.871	9.300	PASS
Band4	10MHz	16QAM	20350	50RB#0	8.971	9.420	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.636	14.700	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.636	14.610	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.636	14.610	PASS
Band4	15MHz	16QAM	20025	75RB#0	13.606	14.580	PASS
Band4	15MHz	16QAM	20175	75RB#0	13.576	14.490	PASS
Band4	15MHz	16QAM	20325	75RB#0	13.576	14.520	PASS
Band4	20MHz	QPSK	20050	100RB#0	18.062	19.240	PASS



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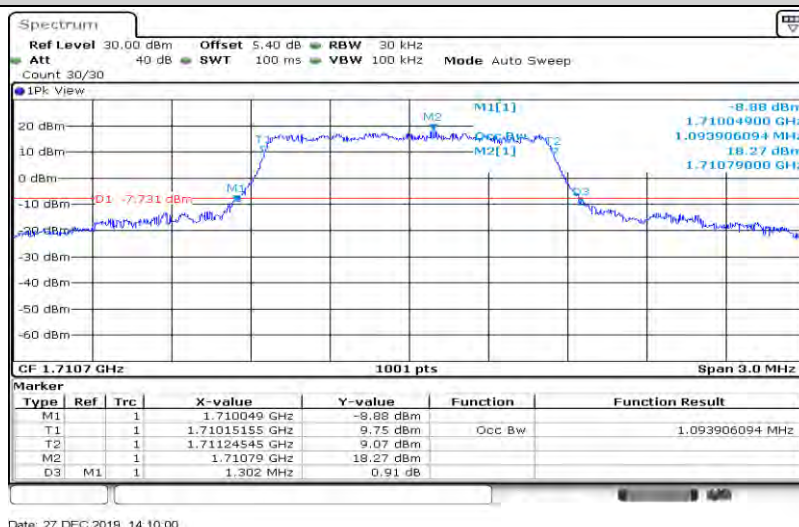
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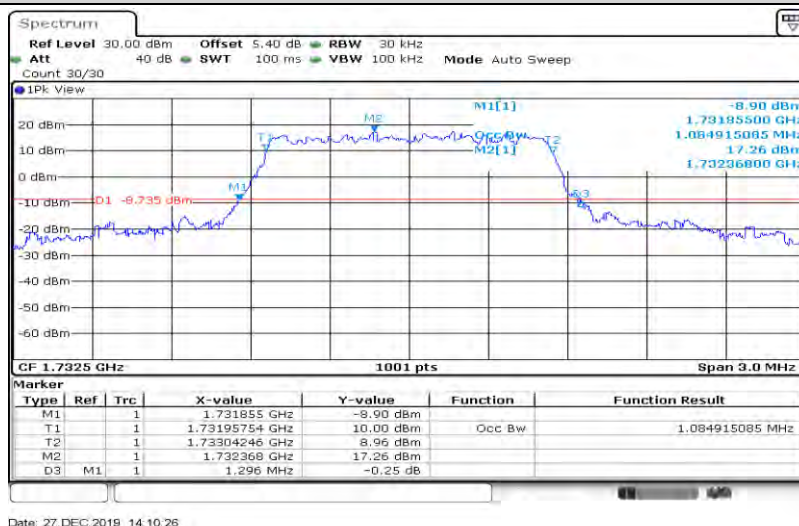
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Band4	20MHz	QPSK	20300	100RB#0	18.102	19.080	PASS
Band4	20MHz	16QAM	20050	100RB#0	18.022	19.080	PASS
Band4	20MHz	16QAM	20175	100RB#0	18.062	19.040	PASS
Band4	20MHz	16QAM	20300	100RB#0	18.022	19.040	PASS

4.2. Test Plots

Band4-1.4MHz-QPSK-19957-6RB#0-1.094

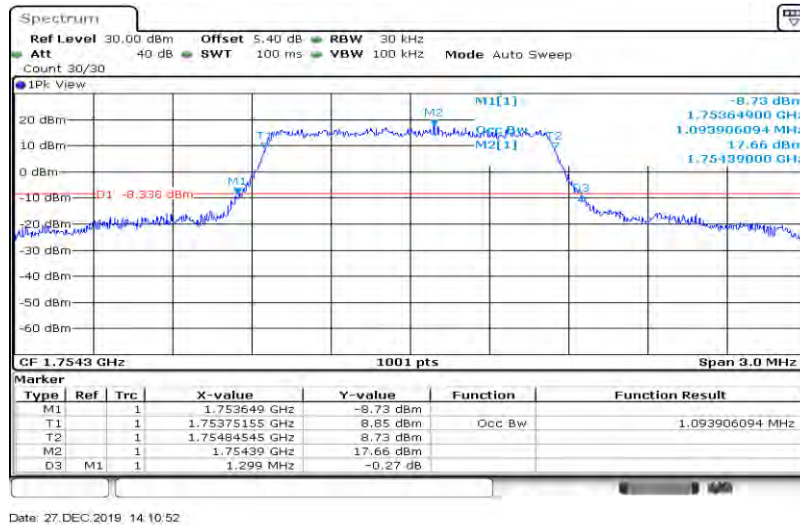


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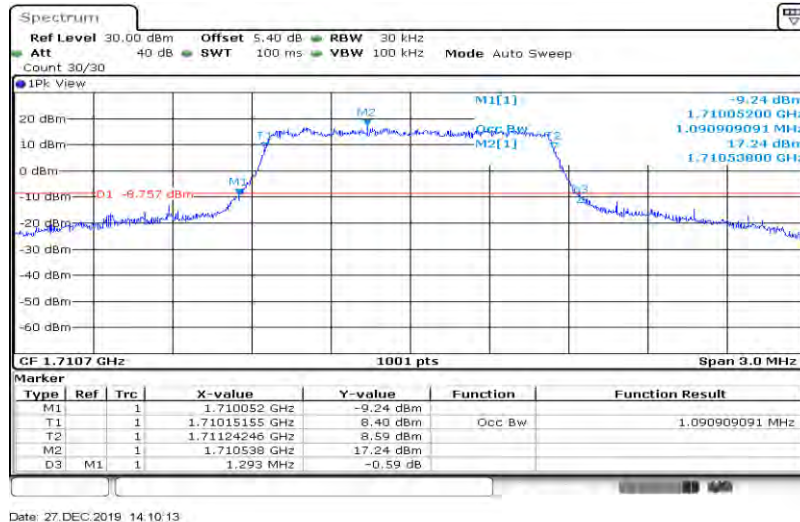
Band4-1.4MHz-QPSK-20393-6RB#0-1.094





Date: 27.DEC.2019 14:10:52

Band4-1.4MHz-16QAM-19957-6RB#0-1.091

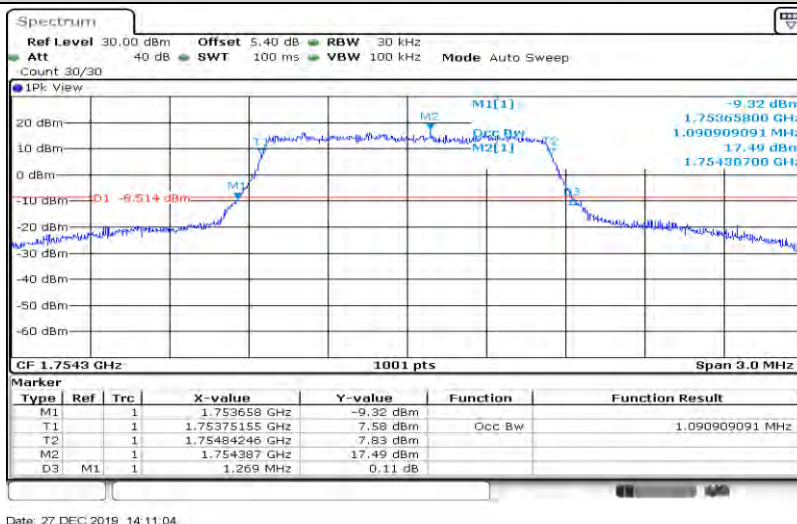


Date: 27.DEC.2019 14:10:13

Band4-1.4MHz-16QAM-20175-6RB#0-1.094



Band4-1.4MHz-16QAM-20393-6RB#0-1.091

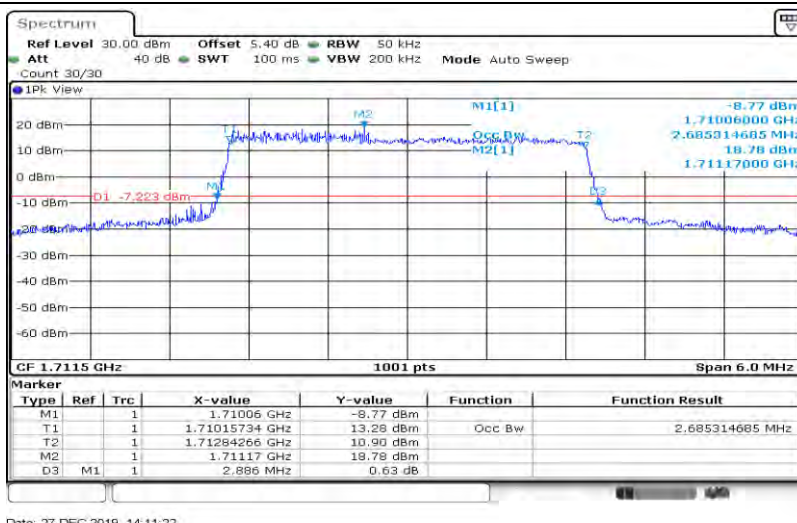


Band4-3MHz-QPSK-19965-15RB#0-2.685

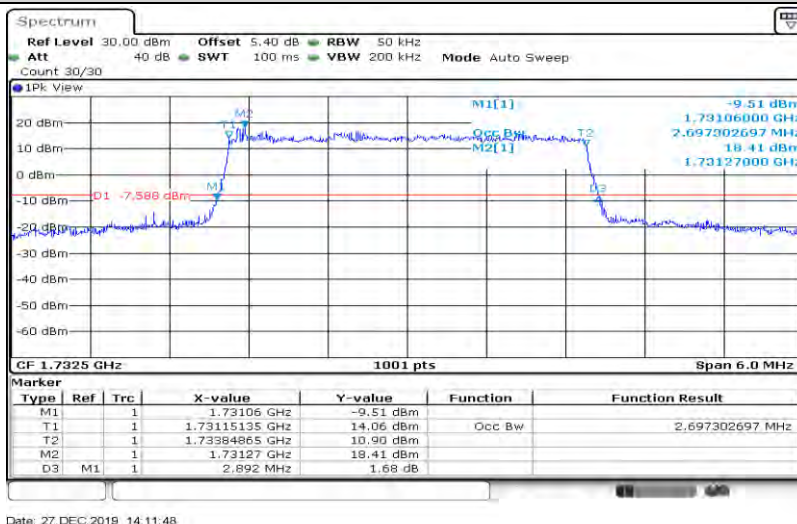


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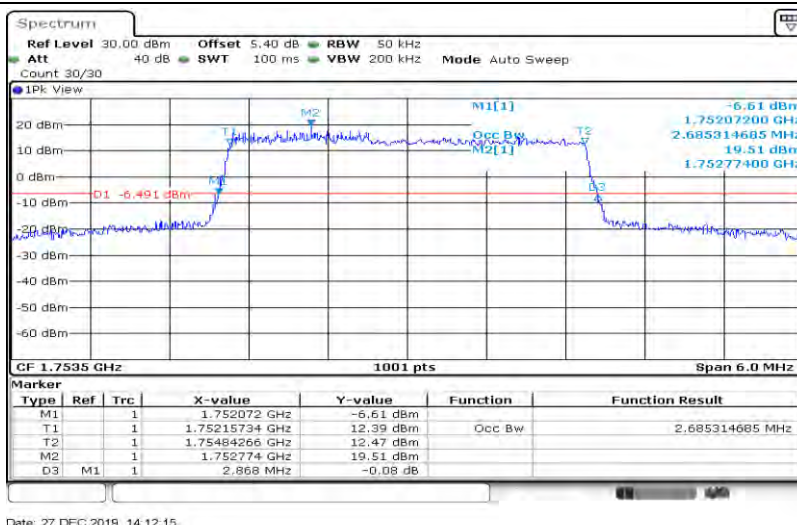


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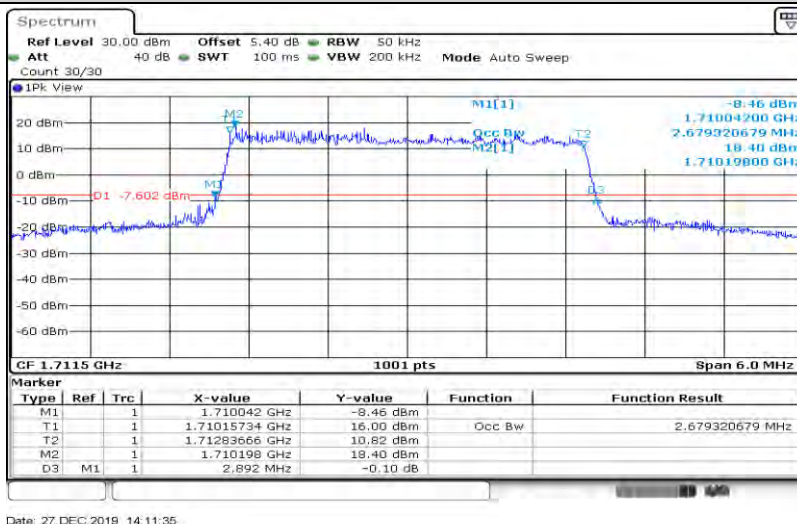


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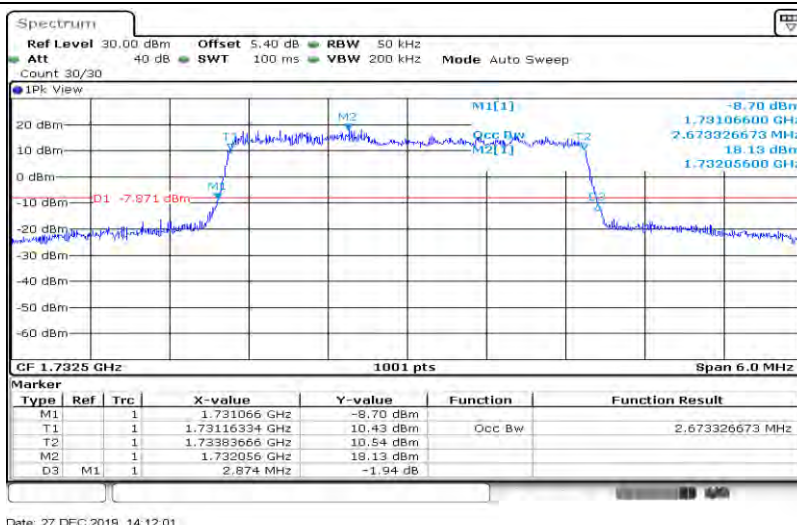


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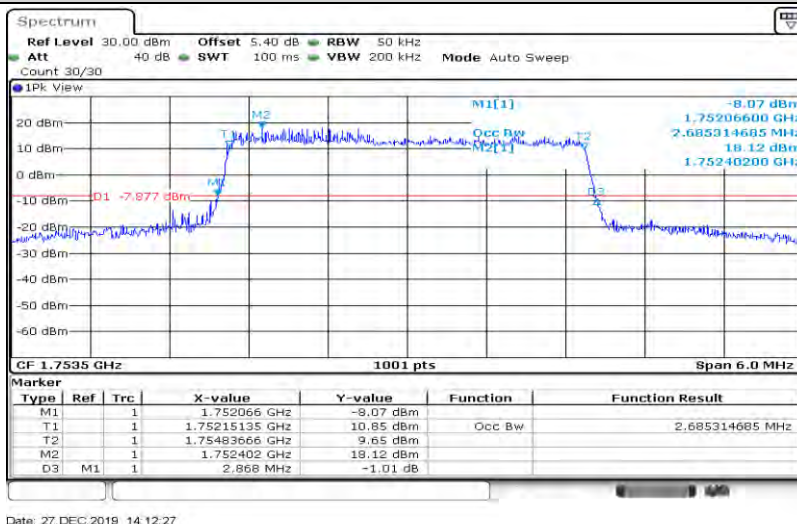


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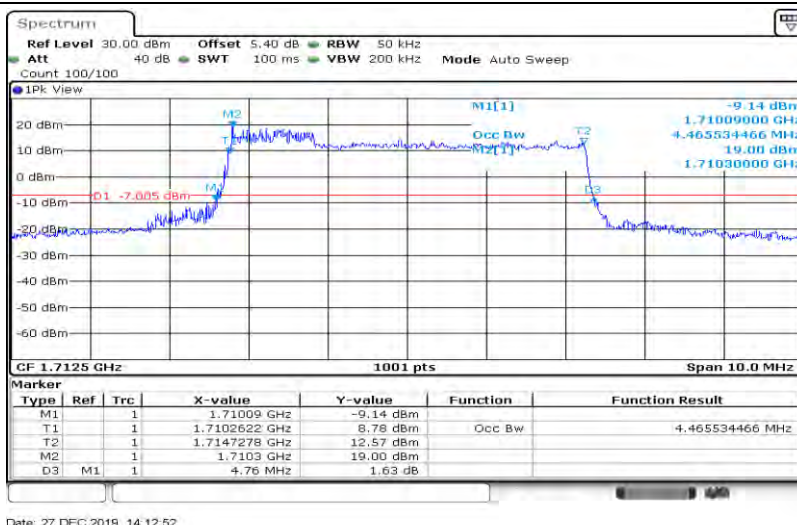


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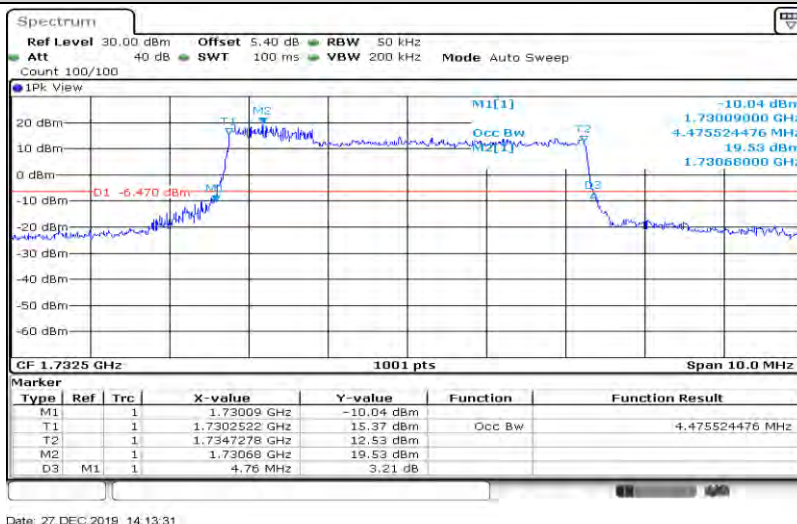


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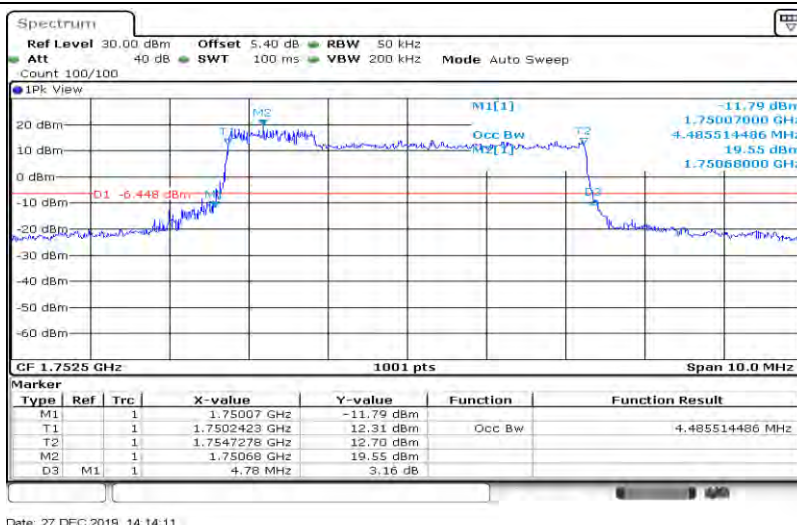
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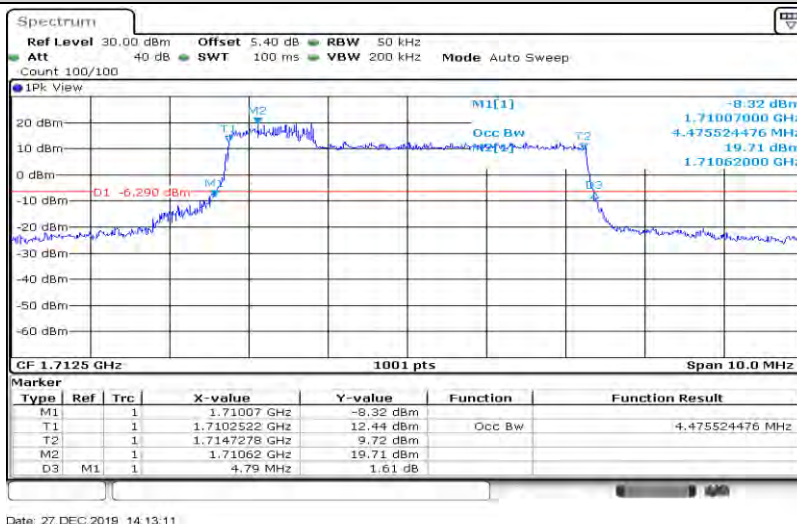
Band4-5MHz-QPSK-20175-25RB#0-4.476



Band4-5MHz-QPSK-20375-25RB#0-4.486



Band4-5MHz-16QAM-19975-25RB#0-4.476

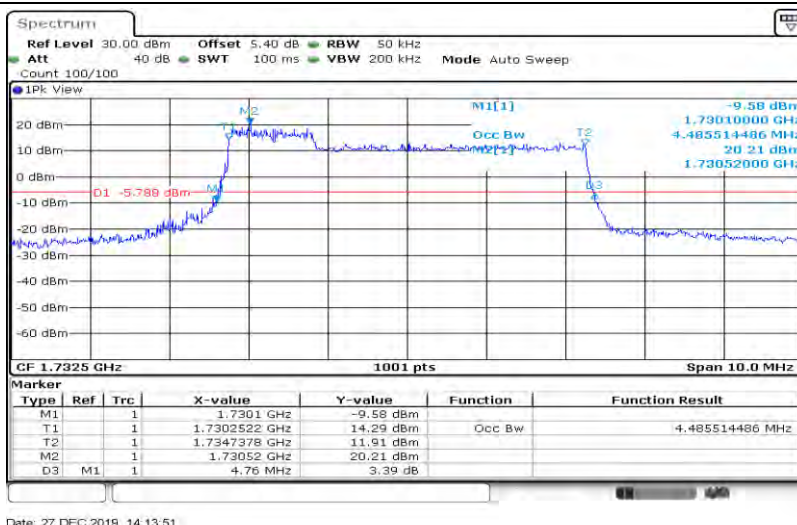


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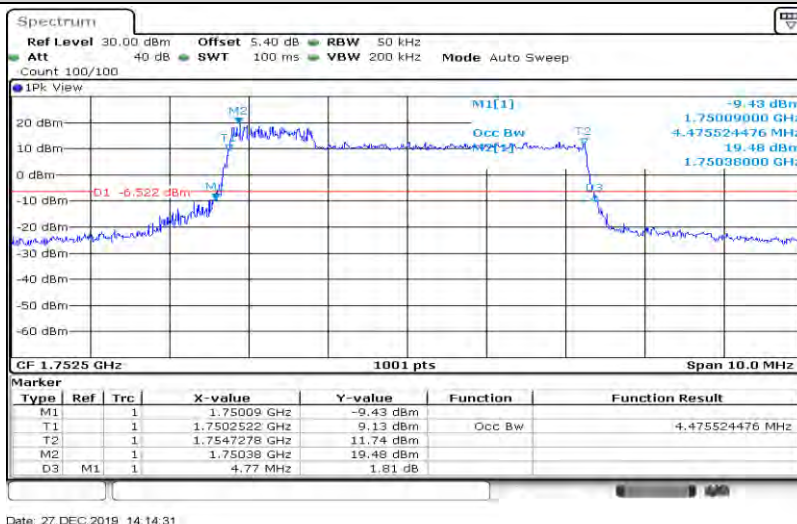


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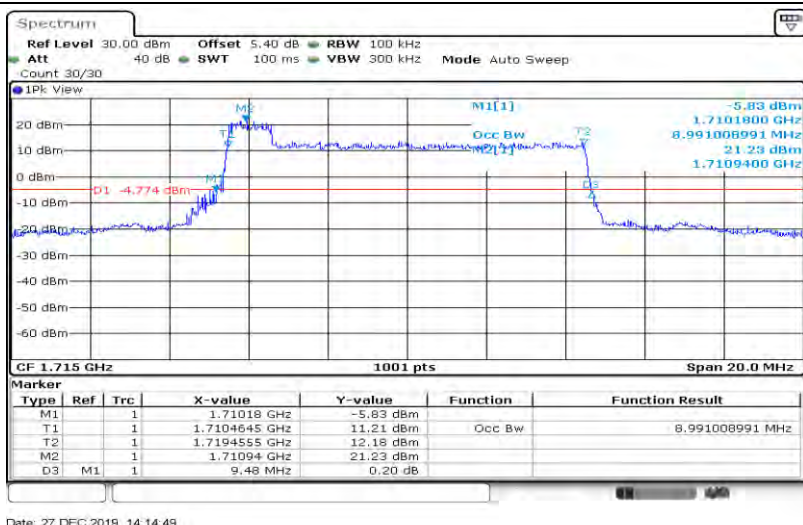
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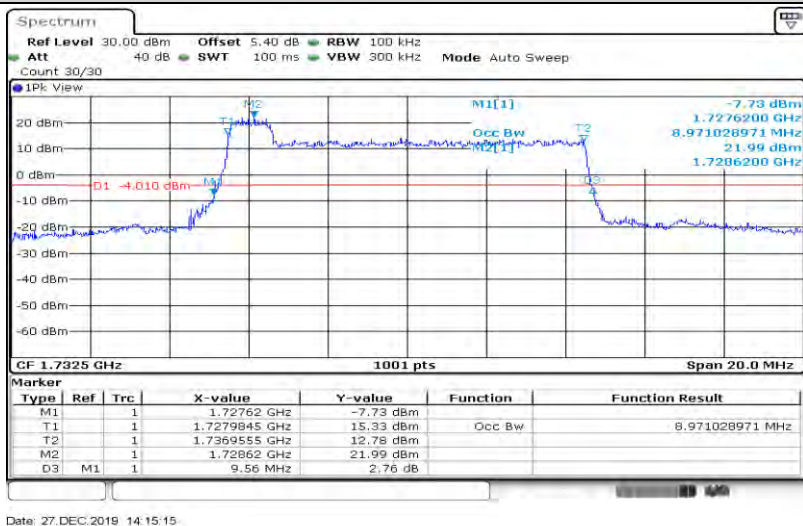
Band4-5MHz-16QAM-20375-25RB#0-4.476



Band4-10MHz-QPSK-20000-50RB#0-8.991



Band4-10MHz-QPSK-20175-50RB#0-8.971



Band4-10MHz-QPSK-20350-50RB#0-8.971



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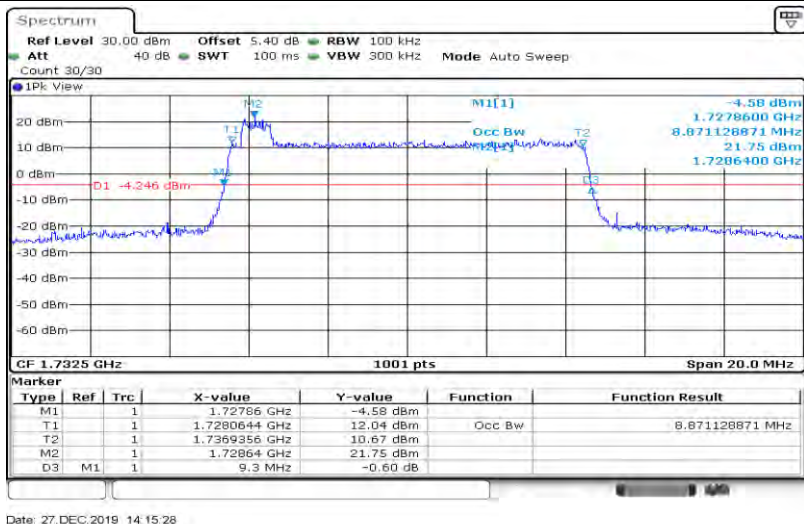


Band4-10MHz-16QAM-20000-50RB#0-8.971



Band4-10MHz-16QAM-20175-50RB#0-8.871





Band4-10MHz-16QAM-20350-50RB#0-8.971



Band4-15MHz-QPSK-20025-75RB#0-13.636





Band4-15MHz-QPSK-20175-75RB#0-13.636



Band4-15MHz-QPSK-20325-75RB#0-13.636



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Band4-15MHz-16QAM-20025-75RB#0-13.606

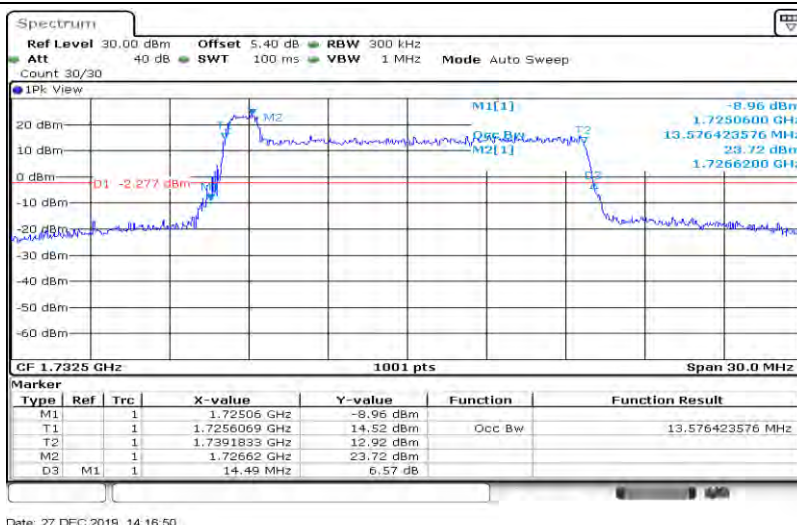


Band4-15MHz-16QAM-20175-75RB#0-13.576



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Band4-15MHz-16QAM-20325-75RB#0-13.576



Band4-20MHz-QPSK-20050-100RB#0-18.062

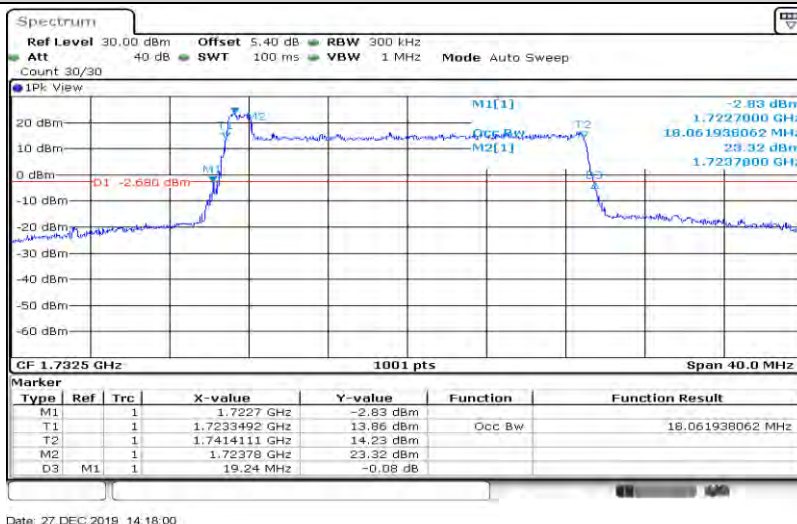


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Band4-20MHz-QPSK-20175-100RB#0-18.062



Band4-20MHz-QPSK-20300-100RB#0-18.102





Date: 27.DEC.2019 14:18:25

Band4-20MHz-16QAM-20050-100RB#0-18.022



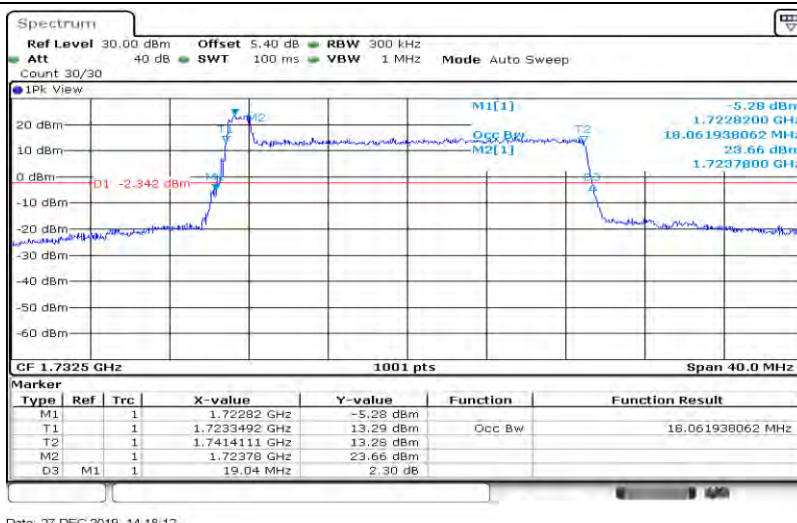
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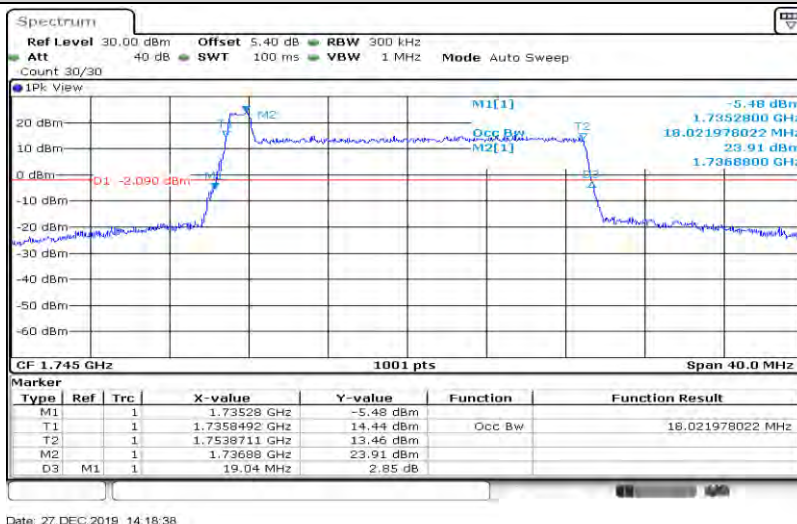


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Band4-20MHz-16QAM-20300-100RB#0-18.022



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5. Band Edge Compliance

5.1. Test Plots

Band4-1.4MHz-QPSK-19957-1RB#0



Band4-1.4MHz-QPSK-19957-6RB#0



Band4-1.4MHz-QPSK-20393-1RB#5





Band4-1.4MHz-QPSK-20393-6RB#0



Band4-1.4MHz-16QAM-19957-1RB#0



Band4-1.4MHz-16QAM-19957-6RB#0



Band4-1.4MHz-16QAM-20393-1RB#5



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Band4-1.4MHz-16QAM-20393-6RB#0



Band4-3MHz-QPSK-19965-1RB#0



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Band4-3MHz-QPSK-19965-15RB#0



Band4-3MHz-QPSK-20385-1RB#14



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Band4-3MHz-QPSK-20385-15RB#0



Band4-3MHz-16QAM-19965-1RB#0



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Band4-3MHz-16QAM-19965-15RB#0



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Band4-3MHz-16QAM-20385-15RB#0



Band4-5MHz-QPSK-19975-1RB#0



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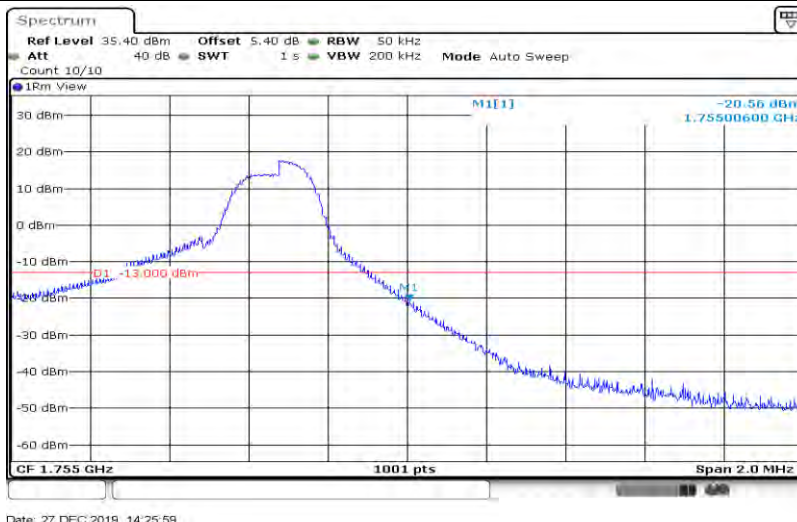
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Band4-5MHz-QPSK-19975-25RB#0



Band4-5MHz-QPSK-20375-1RB#24



Band4-5MHz-QPSK-20375-25RB#0



Band4-5MHz-16QAM-19975-1RB#0



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Band4-5MHz-16QAM-19975-25RB#0



Band4-5MHz-16QAM-20375-1RB#24



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Band4-5MHz-16QAM-20375-25RB#0



Band4-10MHz-QPSK-20000-1RB#0



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Band4-10MHz-QPSK-20000-50RB#0

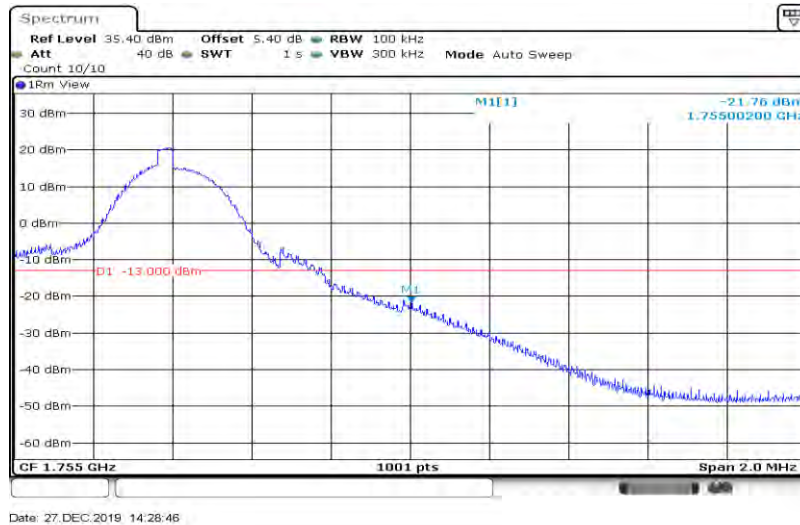


Band4-10MHz-QPSK-20350-1RB#49

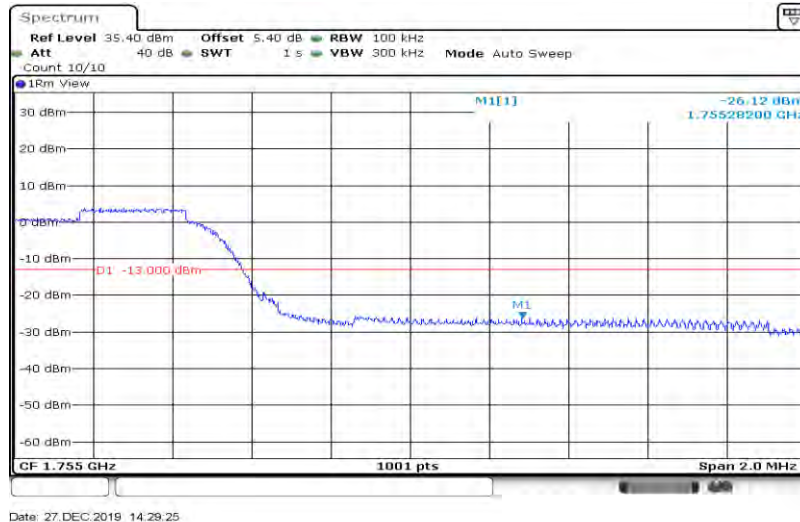


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Band4-10MHz-QPSK-20350-50RB#0



Band4-10MHz-16QAM-20000-1RB#0



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Band4-10MHz-16QAM-20000-50RB#0



Band4-10MHz-16QAM-20350-1RB#49





Band4-10MHz-16QAM-20350-50RB#0



Band4-15MHz-QPSK-20025-1RB#0



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Date: 27.DEC.2019 14:30:09

Band4-15MHz-QPSK-20025-75RB#0



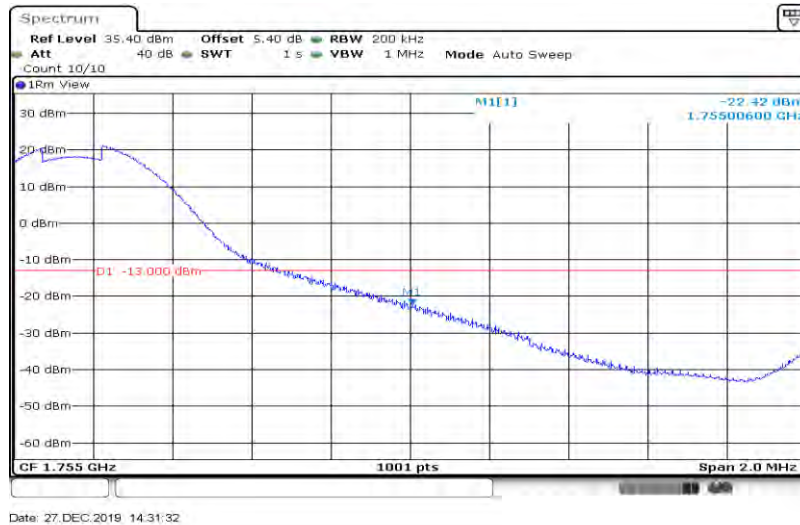
Date: 27.DEC.2019 14:30:49

Band4-15MHz-QPSK-20325-1RB#74

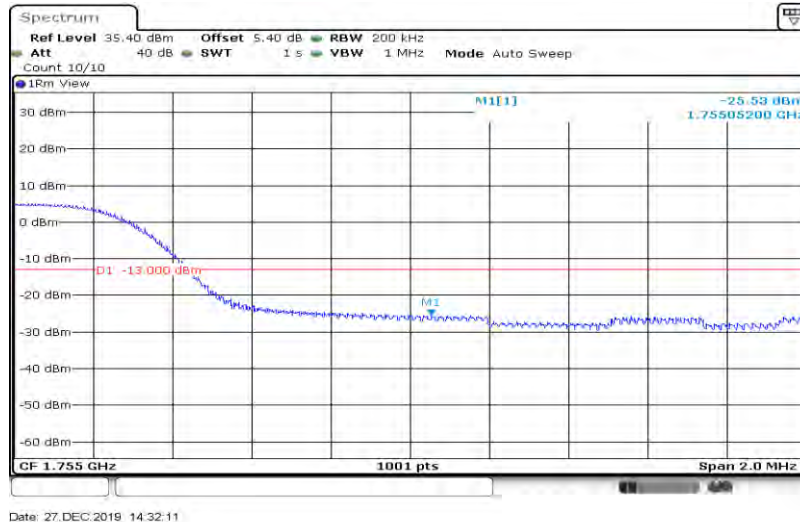


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Band4-15MHz-QPSK-20325-75RB#0



Band4-15MHz-16QAM-20025-1RB#0



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Band4-15MHz-16QAM-20025-75RB#0

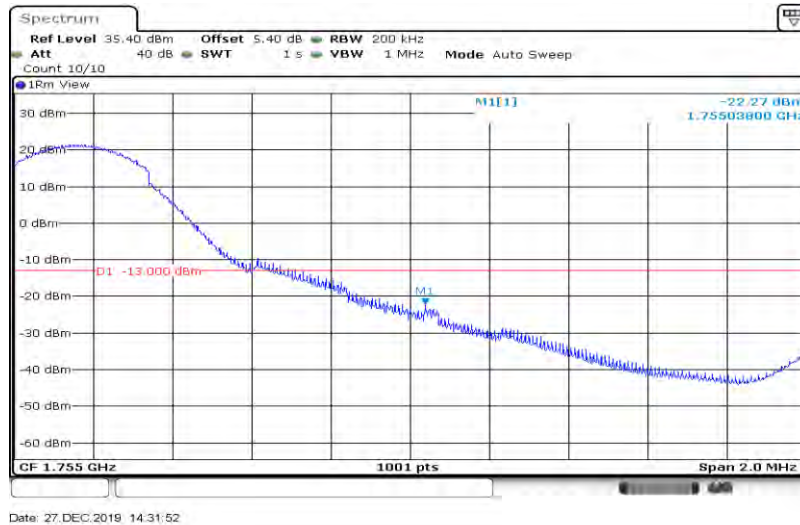


Band4-15MHz-16QAM-20325-1RB#74



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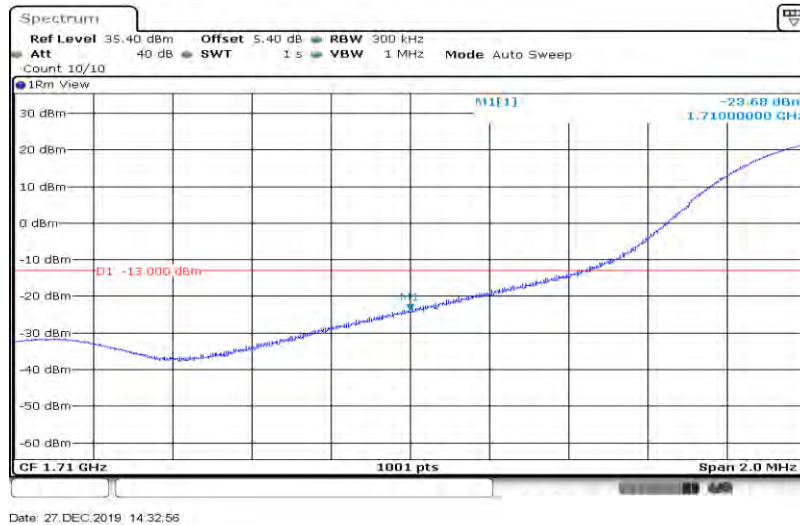


Band4-20MHz-QPSK-20050-1RB#0



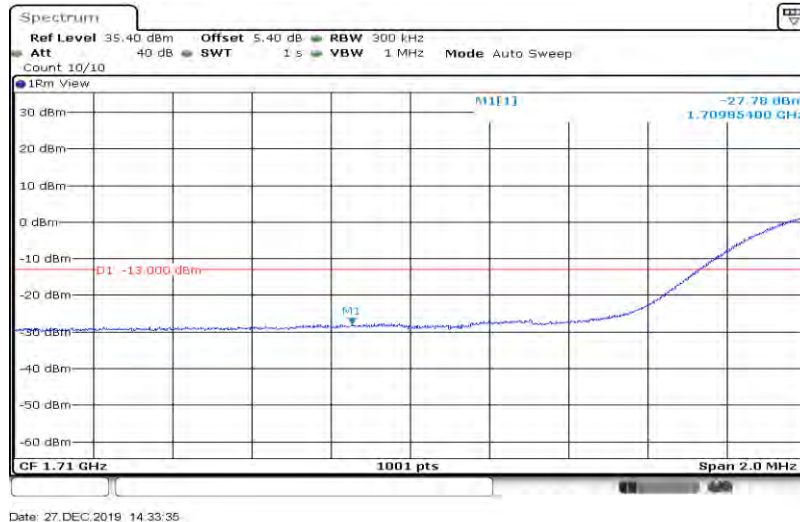
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Date: 27.DEC.2019 14:32:56

Band4-20MHz-QPSK-20050-100RB#0



Date: 27.DEC.2019 14:33:35

Band4-20MHz-QPSK-20300-1RB#99





Band4-20MHz-QPSK-20300-100RB#0



Band4-20MHz-16QAM-20050-1RB#0



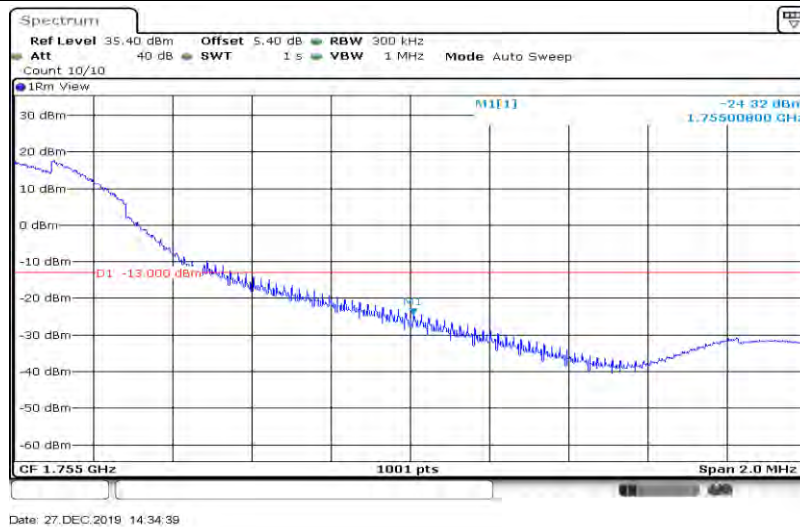


Band4-20MHz-16QAM-20050-100RB#0

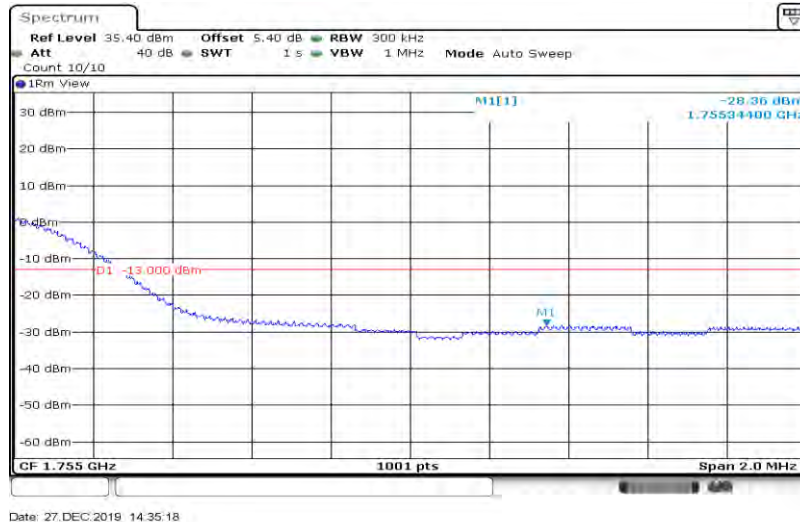


Band4-20MHz-16QAM-20300-1RB#99





Band4-20MHz-16QAM-20300-100RB#0



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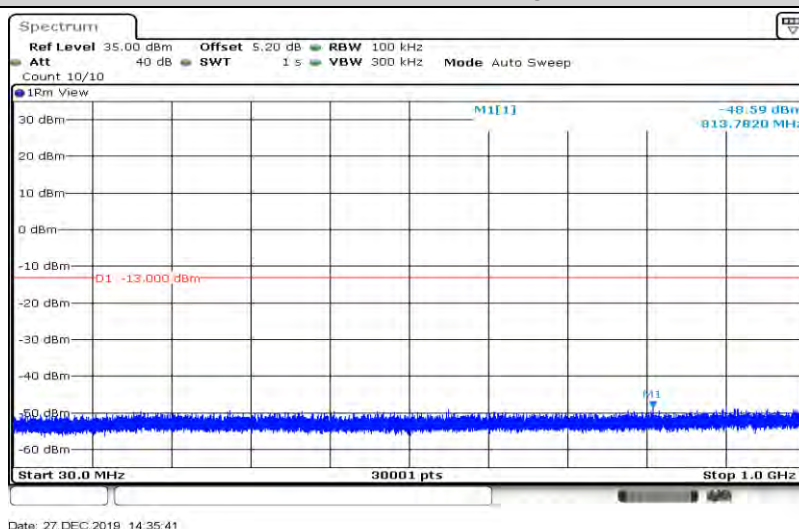
6. Spurious Emission at Antenna Terminal

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.

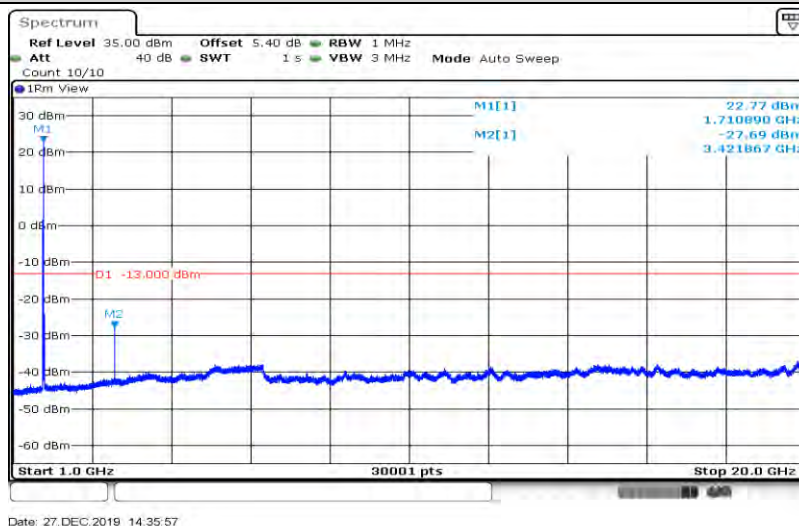
6.1. Test Plots

Band4-20MHz-QPSK-20050-1RB#0-Range1:30~1000MHz



Date: 27.DEC.2019 14:35:41

Band4-20MHz-QPSK-20050-1RB#0-Range2:1000~20000MHz



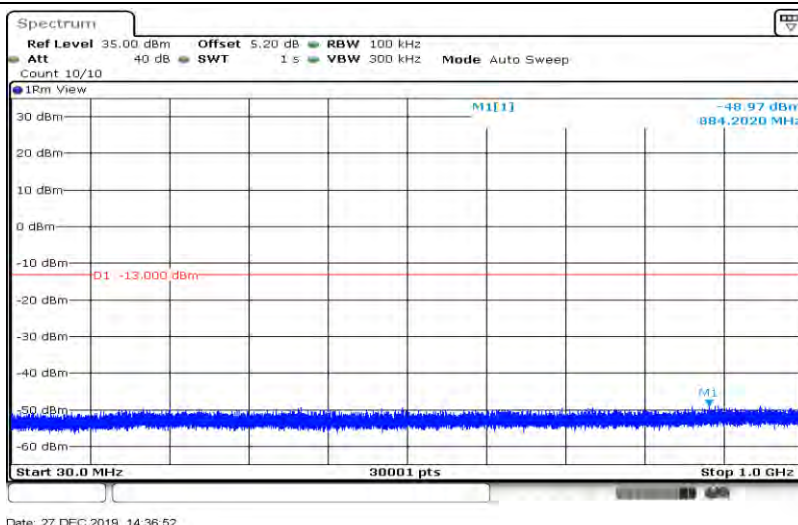
Date: 27.DEC.2019 14:35:57

Band4-20MHz-QPSK-20175-1RB#0-Range1:30~1000MHz

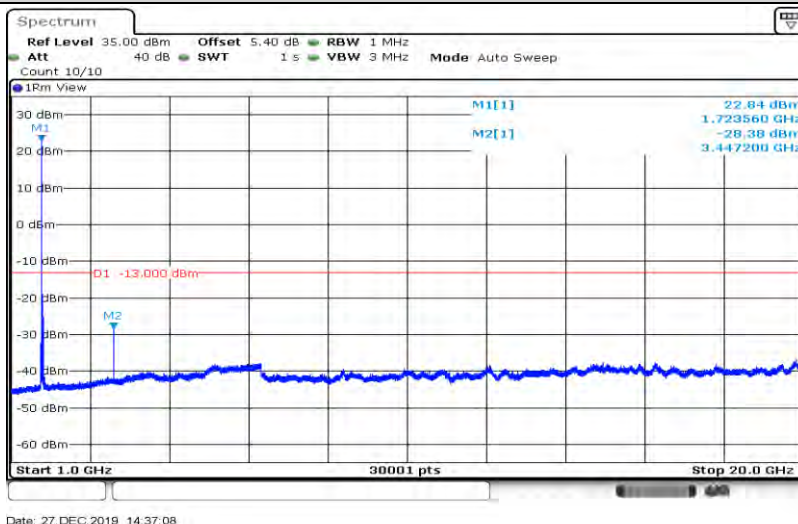


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Band4-20MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz

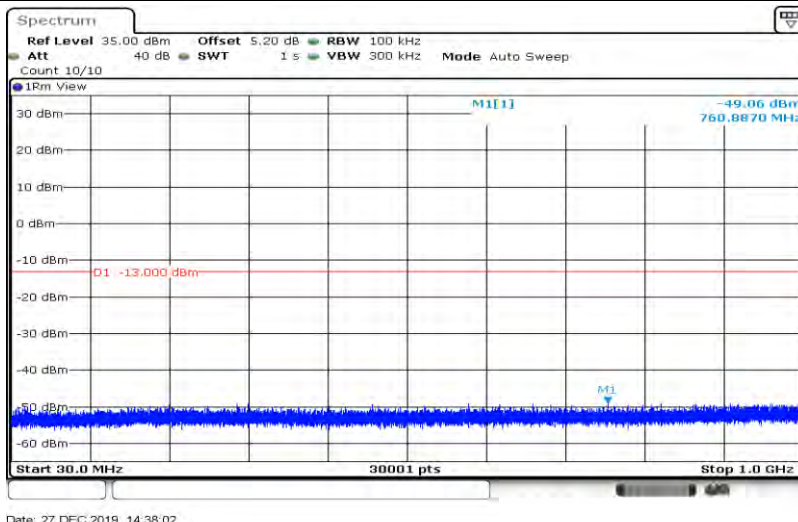


Band4-20MHz-QPSK-20300-1RB#0-Range1:30~1000MHz

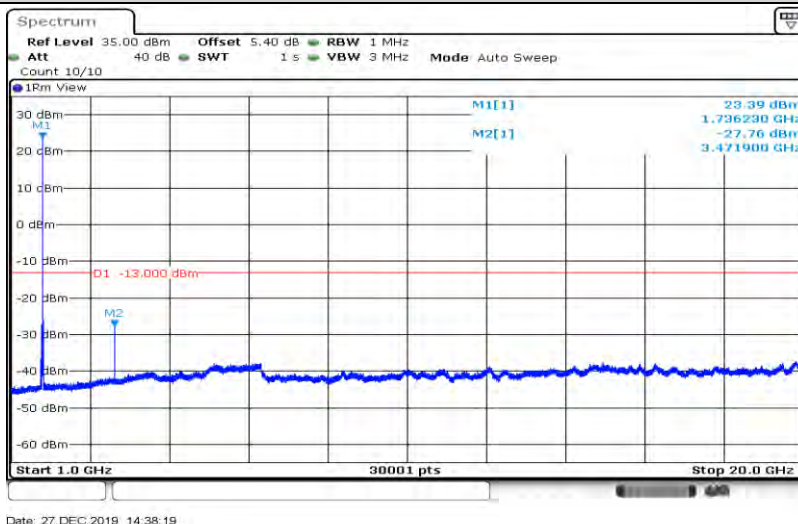


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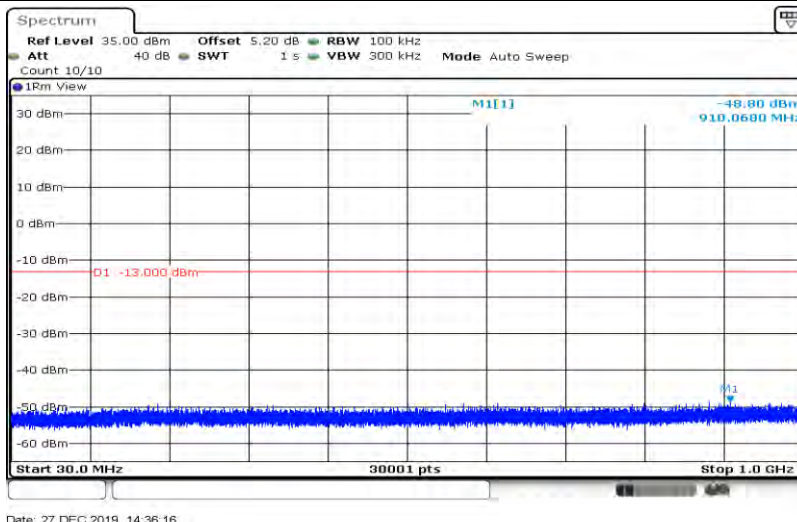
Band4-20MHz-QPSK-20300-1RB#0-Range2:1000~20000MHz



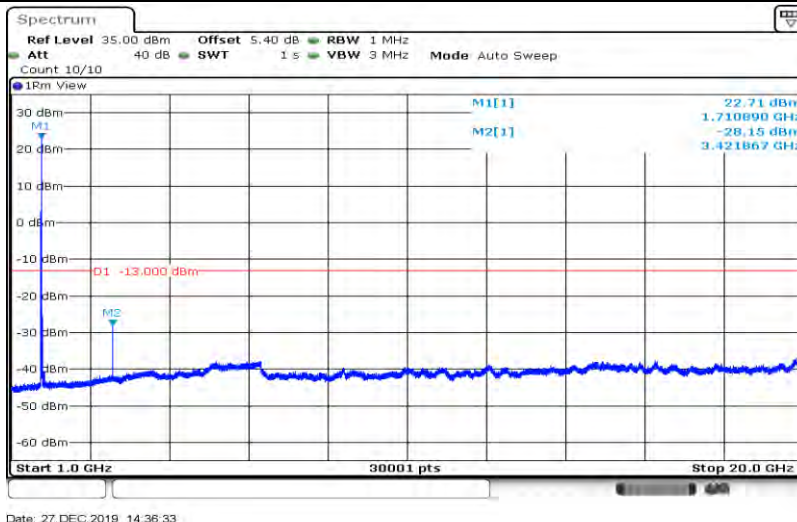
Band4-20MHz-16QAM-20050-1RB#0-Range1:30~1000MHz



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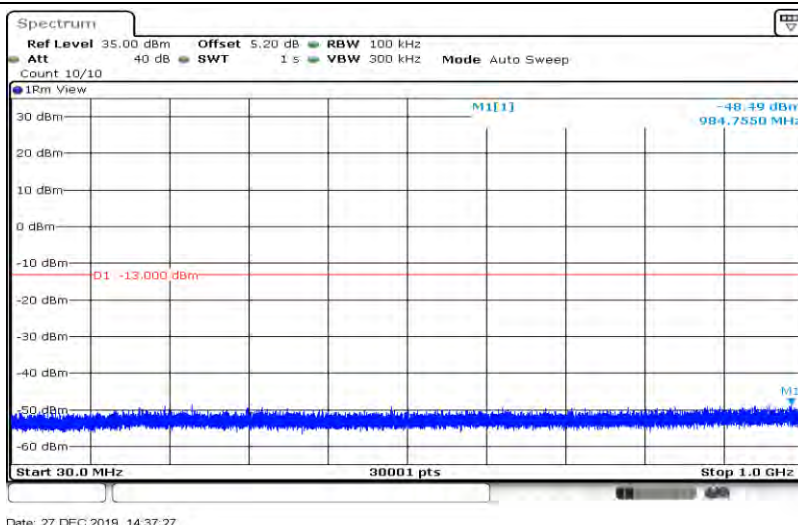


Band4-20MHz-16QAM-20050-1RB#0-Range2:1000~20000MHz

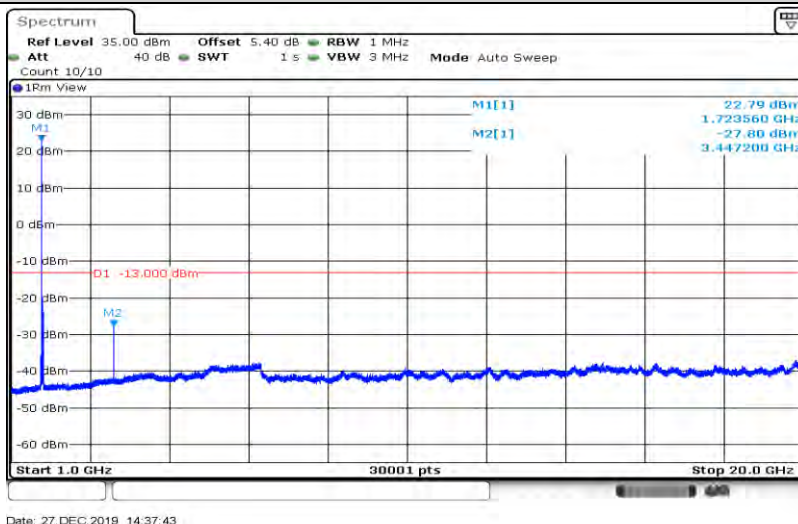


Band4-20MHz-16QAM-20175-1RB#0-Range1:30~1000MHz





Band4-20MHz-16QAM-20175-1RB#0-Range2:1000~20000MHz

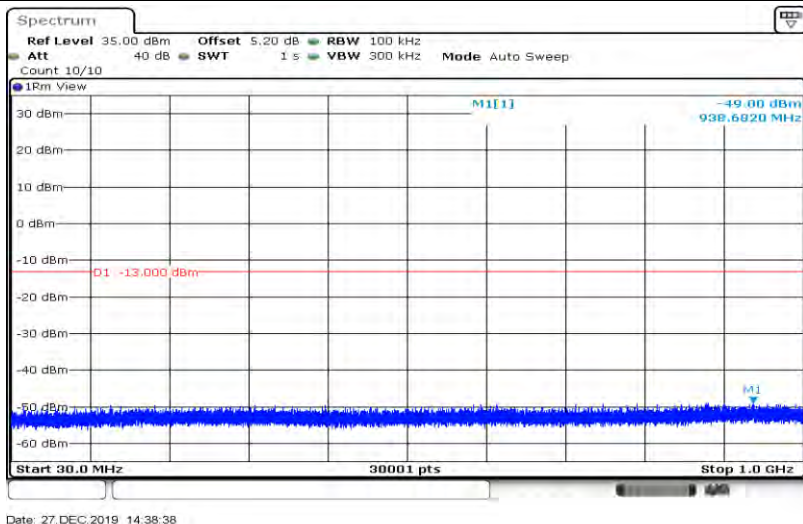


Band4-20MHz-16QAM-20300-1RB#0-Range1:30~1000MHz

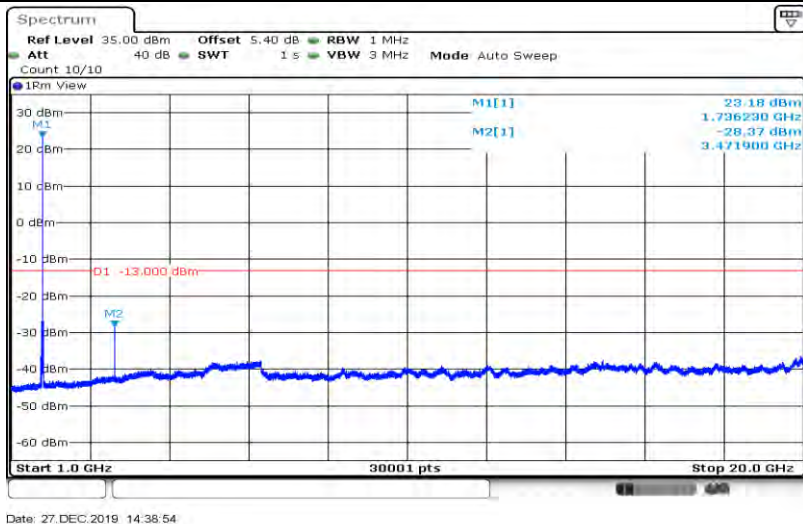


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Band4-20MHz-16QAM-20300-1RB#0-Range2:1000~20000MHz





7. Field Strength of Spurious Radiation

7.1. Test Mode =LTE/TM1

7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
111.0961	-64.67	-13.00	51.67	Vertical
3422.0141	-36.99	-13.00	23.99	Vertical
5133.0711	-51.48	-13.00	38.48	Vertical
6844.6282	-45.89	-13.00	32.89	Vertical
8555.6852	-34.01	-13.00	21.01	Vertical
10266.7422	-45.77	-13.00	32.77	Vertical
43.4352	-64.87	-13.00	51.87	Horizontal
3422.0141	-34.31	-13.00	21.31	Horizontal
5133.5711	-50.24	-13.00	37.24	Horizontal
6844.6282	-45.24	-13.00	32.24	Horizontal
8555.1852	-38.52	-13.00	25.52	Horizontal
10266.7422	-38.14	-13.00	25.14	Horizontal

7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
114.5397	-65.39	-13.00	52.39	Vertical
3447.0149	-34.90	-13.00	21.90	Vertical
5171.0724	-53.73	-13.00	40.73	Vertical
6894.6298	-43.24	-13.00	30.24	Vertical
8617.6873	-35.95	-13.00	22.95	Vertical
10341.2447	-46.56	-13.00	33.56	Vertical
43.7747	-64.25	-13.00	51.25	Horizontal
3447.0149	-32.49	-13.00	19.49	Horizontal
5170.5724	-52.06	-13.00	39.06	Horizontal
6894.1298	-44.80	-13.00	31.80	Horizontal
8617.6873	-40.82	-13.00	27.82	Horizontal
10341.2447	-38.71	-13.00	25.71	Horizontal



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7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
112.1146	-64.29	-13.00	51.29	Vertical
3472.0157	-34.94	-13.00	21.94	Vertical
5208.5736	-54.94	-13.00	41.94	Vertical
6944.6315	-42.67	-13.00	29.67	Vertical
8680.1893	-33.67	-13.00	20.67	Vertical
10416.7472	-45.86	-13.00	32.86	Vertical
42.0286	-65.39	-13.00	52.39	Horizontal
3472.0157	-33.50	-13.00	20.50	Horizontal
5208.0736	-53.50	-13.00	40.50	Horizontal
6944.6315	-44.63	-13.00	31.63	Horizontal
8680.6894	-40.07	-13.00	27.07	Horizontal
10416.2472	-38.18	-13.00	25.18	Horizontal

Remark:

- 1 According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2 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 displayed in this report.
- 3 all modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.





8. Frequency Stability

8.1. Frequency Vs 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	-10.80	-0.006279	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	-7.20	-0.004186	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	3.30	0.001919	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	-31.60	-0.018240	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	1.90	0.001097	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	6.50	0.003752	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	-7.00	-0.004011	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	-4.50	-0.002597	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	-3.60	-0.002063	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VL	NT	-7.10	-0.004128	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VN	NT	-1.80	-0.001047	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VH	NT	-23.60	-0.013721	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VL	NT	-22.80	-0.013160	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VN	NT	-4.50	-0.002597	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VH	NT	-1.70	-0.000981	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VL	NT	-16.00	-0.009169	±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	-7.00	-0.004011	±2.5	PASS

8.2. Frequency Vs 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	1.50	0.000872	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	0.80	0.000465	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	11.70	0.006802	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	-11.80	-0.006860	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	11.40	0.006628	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	-8.30	-0.004826	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	-2.50	-0.001453	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	-10.90	-0.006337	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-30	1.90	0.001097	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	3.80	0.002193	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	-11.80	-0.006811	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	2.20	0.001270	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	-17.40	-0.010043	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	2.80	0.001616	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	1.30	0.000750	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	-9.60	-0.005541	±2.5	PASS



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Band4	20MHz	QPSK	20300	100RB#0	NV	-30	0.80	0.000465	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	5.80	0.003324	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	5.40	0.003095	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-15.40	-0.008825	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	-14.70	-0.008424	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	12.10	0.006934	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	40	-10.10	-0.005788	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	50	3.20	0.001834	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-30	-0.90	-0.000523	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-20	-5.20	-0.003023	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	0	0.80	0.000465	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	10	-16.60	-0.009651	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	20	0.80	0.000465	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	30	5.20	0.003023	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	40	-10.80	-0.006279	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	50	-0.10	-0.000058	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-30	-9.00	-0.005195	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-20	-9.80	-0.005657	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	0	5.10	0.002944	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	10	-8.20	-0.004733	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	20	-20.10	-0.011602	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	30	7.10	0.004098	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	40	6.30	0.003636	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	50	3.60	0.002078	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-30	-8.90	-0.005100	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-20	3.70	0.002120	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	0	3.30	0.001891	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	10	-22.60	-0.012951	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	20	10.30	0.005903	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	30	-8.60	-0.004928	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	40	-7.70	-0.004413	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	50	14.50	0.008309	±2.5	PASS



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