

## Appendix for LTE B4 test report

## Appendix A: Effective (Isotropic) Radiated Power Output Data

**Test Results:**

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power[dBm]	EIRP[dBm]	Limit[dBm]	Verdict
Band4	1.4MHz	QPSK	19957	1RB#2	22.45	21.85	33	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	22.47	21.87	33	PASS
Band4	1.4MHz	QPSK	19957	1RB#0	22.55	21.95	33	PASS
Band4	1.4MHz	QPSK	19957	3RB#0	22.52	21.92	33	PASS
Band4	1.4MHz	QPSK	19957	3RB#1	22.52	21.92	33	PASS
Band4	1.4MHz	QPSK	19957	3RB#3	22.40	21.8	33	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	21.43	20.83	33	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	22.78	22.18	33	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	22.80	22.2	33	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	22.72	22.12	33	PASS
Band4	1.4MHz	QPSK	20175	3RB#0	22.77	22.17	33	PASS
Band4	1.4MHz	QPSK	20175	3RB#3	22.78	22.18	33	PASS
Band4	1.4MHz	QPSK	20175	3RB#1	22.77	22.17	33	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	21.69	21.09	33	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	23.32	22.72	33	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	23.38	22.78	33	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	23.38	22.78	33	PASS
Band4	1.4MHz	QPSK	20393	3RB#3	23.14	22.54	33	PASS
Band4	1.4MHz	QPSK	20393	3RB#1	23.19	22.59	33	PASS
Band4	1.4MHz	QPSK	20393	3RB#0	23.17	22.57	33	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	22.10	21.5	33	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	21.28	20.68	33	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	21.17	20.57	33	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	21.19	20.59	33	PASS
Band4	1.4MHz	16QAM	19957	3RB#1	21.21	20.61	33	PASS
Band4	1.4MHz	16QAM	19957	3RB#3	21.21	20.61	33	PASS
Band4	1.4MHz	16QAM	19957	3RB#0	21.21	20.61	33	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	20.42	19.82	33	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	21.76	21.16	33	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	21.82	21.22	33	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	21.80	21.2	33	PASS
Band4	1.4MHz	16QAM	20175	3RB#0	21.65	21.05	33	PASS

Band4	1.4MHz	16QAM	20175	3RB#1	21.64	21.04	33	PASS
Band4	1.4MHz	16QAM	20175	3RB#3	21.63	21.03	33	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	20.90	20.3	33	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	22.39	21.79	33	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	22.37	21.77	33	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	22.29	21.69	33	PASS
Band4	1.4MHz	16QAM	20393	3RB#0	22.11	21.51	33	PASS
Band4	1.4MHz	16QAM	20393	3RB#1	22.15	21.55	33	PASS
Band4	1.4MHz	16QAM	20393	3RB#3	22.16	21.56	33	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	21.44	20.84	33	PASS
Band4	3MHz	QPSK	19965	1RB#14	22.29	21.69	33	PASS
Band4	3MHz	QPSK	19965	1RB#8	22.29	21.69	33	PASS
Band4	3MHz	QPSK	19965	1RB#0	22.39	21.79	33	PASS
Band4	3MHz	QPSK	19965	8RB#7	21.25	20.65	33	PASS
Band4	3MHz	QPSK	19965	8RB#0	21.31	20.71	33	PASS
Band4	3MHz	QPSK	19965	8RB#4	21.30	20.7	33	PASS
Band4	3MHz	QPSK	19965	15RB#0	21.22	20.62	33	PASS
Band4	3MHz	QPSK	20175	1RB#14	22.59	21.99	33	PASS
Band4	3MHz	QPSK	20175	1RB#8	22.54	21.94	33	PASS
Band4	3MHz	QPSK	20175	1RB#0	22.44	21.84	33	PASS
Band4	3MHz	QPSK	20175	8RB#0	21.54	20.94	33	PASS
Band4	3MHz	QPSK	20175	8RB#4	21.54	20.94	33	PASS
Band4	3MHz	QPSK	20175	8RB#7	21.56	20.96	33	PASS
Band4	3MHz	QPSK	20175	15RB#0	21.56	20.96	33	PASS
Band4	3MHz	QPSK	20385	1RB#8	22.93	22.33	33	PASS
Band4	3MHz	QPSK	20385	1RB#0	22.90	22.3	33	PASS
Band4	3MHz	QPSK	20385	1RB#14	22.86	22.26	33	PASS
Band4	3MHz	QPSK	20385	8RB#0	22.05	21.45	33	PASS
Band4	3MHz	QPSK	20385	8RB#7	22.10	21.5	33	PASS
Band4	3MHz	QPSK	20385	8RB#4	22.06	21.46	33	PASS
Band4	3MHz	QPSK	20385	15RB#0	22.02	21.42	33	PASS
Band4	3MHz	16QAM	19965	1RB#8	21.14	20.54	33	PASS
Band4	3MHz	16QAM	19965	1RB#0	21.20	20.6	33	PASS
Band4	3MHz	16QAM	19965	1RB#14	21.18	20.58	33	PASS
Band4	3MHz	16QAM	19965	8RB#7	20.64	20.04	33	PASS
Band4	3MHz	16QAM	19965	8RB#4	20.53	19.93	33	PASS
Band4	3MHz	16QAM	19965	8RB#0	20.50	19.9	33	PASS

Band4	3MHz	16QAM	19965	15RB#0	20.61	20.01	33	PASS
Band4	3MHz	16QAM	20175	1RB#14	22.22	21.62	33	PASS
Band4	3MHz	16QAM	20175	1RB#8	22.09	21.49	33	PASS
Band4	3MHz	16QAM	20175	1RB#0	22.12	21.52	33	PASS
Band4	3MHz	16QAM	20175	8RB#7	20.71	20.11	33	PASS
Band4	3MHz	16QAM	20175	8RB#4	20.67	20.07	33	PASS
Band4	3MHz	16QAM	20175	8RB#0	20.66	20.06	33	PASS
Band4	3MHz	16QAM	20175	15RB#0	20.65	20.05	33	PASS
Band4	3MHz	16QAM	20385	1RB#8	21.81	21.21	33	PASS
Band4	3MHz	16QAM	20385	1RB#0	21.81	21.21	33	PASS
Band4	3MHz	16QAM	20385	1RB#14	21.88	21.28	33	PASS
Band4	3MHz	16QAM	20385	8RB#0	21.15	20.55	33	PASS
Band4	3MHz	16QAM	20385	8RB#4	21.21	20.61	33	PASS
Band4	3MHz	16QAM	20385	8RB#7	21.36	20.76	33	PASS
Band4	3MHz	16QAM	20385	15RB#0	21.01	20.41	33	PASS
Band4	5MHz	QPSK	19975	1RB#24	22.32	21.72	33	PASS
Band4	5MHz	QPSK	19975	1RB#12	22.28	21.68	33	PASS
Band4	5MHz	QPSK	19975	1RB#0	22.39	21.79	33	PASS
Band4	5MHz	QPSK	19975	12RB#13	21.35	20.75	33	PASS
Band4	5MHz	QPSK	19975	12RB#0	21.28	20.68	33	PASS
Band4	5MHz	QPSK	19975	12RB#6	21.29	20.69	33	PASS
Band4	5MHz	QPSK	19975	25RB#0	21.34	20.74	33	PASS
Band4	5MHz	QPSK	20175	1RB#24	22.68	22.08	33	PASS
Band4	5MHz	QPSK	20175	1RB#0	22.58	21.98	33	PASS
Band4	5MHz	QPSK	20175	1RB#12	22.71	22.11	33	PASS
Band4	5MHz	QPSK	20175	12RB#0	21.57	20.97	33	PASS
Band4	5MHz	QPSK	20175	12RB#13	21.57	20.97	33	PASS
Band4	5MHz	QPSK	20175	12RB#6	21.51	20.91	33	PASS
Band4	5MHz	QPSK	20175	25RB#0	21.58	20.98	33	PASS
Band4	5MHz	QPSK	20375	1RB#0	23.04	22.44	33	PASS
Band4	5MHz	QPSK	20375	1RB#12	23.12	22.52	33	PASS
Band4	5MHz	QPSK	20375	1RB#24	23.20	22.6	33	PASS
Band4	5MHz	QPSK	20375	12RB#6	22.04	21.44	33	PASS
Band4	5MHz	QPSK	20375	12RB#13	22.09	21.49	33	PASS
Band4	5MHz	QPSK	20375	12RB#0	21.93	21.33	33	PASS
Band4	5MHz	QPSK	20375	25RB#0	22.03	21.43	33	PASS
Band4	5MHz	16QAM	19975	1RB#12	20.66	20.06	33	PASS

Band4	5MHz	16QAM	19975	1RB#0	20.70	20.1	33	PASS
Band4	5MHz	16QAM	19975	1RB#24	20.72	20.12	33	PASS
Band4	5MHz	16QAM	19975	12RB#13	20.40	19.8	33	PASS
Band4	5MHz	16QAM	19975	12RB#0	20.40	19.8	33	PASS
Band4	5MHz	16QAM	19975	12RB#6	20.37	19.77	33	PASS
Band4	5MHz	16QAM	19975	25RB#0	20.43	19.83	33	PASS
Band4	5MHz	16QAM	20175	1RB#12	21.29	20.69	33	PASS
Band4	5MHz	16QAM	20175	1RB#0	21.25	20.65	33	PASS
Band4	5MHz	16QAM	20175	1RB#24	21.37	20.77	33	PASS
Band4	5MHz	16QAM	20175	12RB#0	20.52	19.92	33	PASS
Band4	5MHz	16QAM	20175	12RB#13	20.55	19.95	33	PASS
Band4	5MHz	16QAM	20175	12RB#6	20.53	19.93	33	PASS
Band4	5MHz	16QAM	20175	25RB#0	20.46	19.86	33	PASS
Band4	5MHz	16QAM	20375	1RB#0	21.70	21.1	33	PASS
Band4	5MHz	16QAM	20375	1RB#12	21.74	21.14	33	PASS
Band4	5MHz	16QAM	20375	1RB#24	21.84	21.24	33	PASS
Band4	5MHz	16QAM	20375	12RB#0	21.04	20.44	33	PASS
Band4	5MHz	16QAM	20375	12RB#13	21.12	20.52	33	PASS
Band4	5MHz	16QAM	20375	12RB#6	21.05	20.45	33	PASS
Band4	5MHz	16QAM	20375	25RB#0	21.14	20.54	33	PASS
Band4	10MHz	QPSK	20000	1RB#0	22.30	21.7	33	PASS
Band4	10MHz	QPSK	20000	1RB#24	22.24	21.64	33	PASS
Band4	10MHz	QPSK	20000	1RB#49	22.26	21.66	33	PASS
Band4	10MHz	QPSK	20000	25RB#25	21.21	20.61	33	PASS
Band4	10MHz	QPSK	20000	25RB#0	21.28	20.68	33	PASS
Band4	10MHz	QPSK	20000	25RB#12	21.28	20.68	33	PASS
Band4	10MHz	QPSK	20000	50RB#0	21.23	20.63	33	PASS
Band4	10MHz	QPSK	20175	1RB#24	22.56	21.96	33	PASS
Band4	10MHz	QPSK	20175	1RB#0	22.39	21.79	33	PASS
Band4	10MHz	QPSK	20175	1RB#49	22.70	22.1	33	PASS
Band4	10MHz	QPSK	20175	25RB#25	21.54	20.94	33	PASS
Band4	10MHz	QPSK	20175	25RB#12	21.44	20.84	33	PASS
Band4	10MHz	QPSK	20175	25RB#0	21.37	20.77	33	PASS
Band4	10MHz	QPSK	20175	50RB#0	21.52	20.92	33	PASS
Band4	10MHz	QPSK	20350	1RB#0	22.77	22.17	33	PASS
Band4	10MHz	QPSK	20350	1RB#24	22.83	22.23	33	PASS
Band4	10MHz	QPSK	20350	1RB#49	22.89	22.29	33	PASS

Band4	10MHz	QPSK	20350	25RB#0	21.84	21.24	33	PASS
Band4	10MHz	QPSK	20350	25RB#12	21.84	21.24	33	PASS
Band4	10MHz	QPSK	20350	25RB#25	22.03	21.43	33	PASS
Band4	10MHz	QPSK	20350	50RB#0	21.99	21.39	33	PASS
Band4	10MHz	16QAM	20000	1RB#0	21.19	20.59	33	PASS
Band4	10MHz	16QAM	20000	1RB#24	21.08	20.48	33	PASS
Band4	10MHz	16QAM	20000	1RB#49	21.05	20.45	33	PASS
Band4	10MHz	16QAM	20000	25RB#0	20.45	19.85	33	PASS
Band4	10MHz	16QAM	20000	25RB#25	20.45	19.85	33	PASS
Band4	10MHz	16QAM	20000	25RB#12	20.46	19.86	33	PASS
Band4	10MHz	16QAM	20000	50RB#0	20.35	19.75	33	PASS
Band4	10MHz	16QAM	20175	1RB#0	21.29	20.69	33	PASS
Band4	10MHz	16QAM	20175	1RB#24	21.33	20.73	33	PASS
Band4	10MHz	16QAM	20175	1RB#49	21.42	20.82	33	PASS
Band4	10MHz	16QAM	20175	25RB#25	20.70	20.1	33	PASS
Band4	10MHz	16QAM	20175	25RB#0	20.63	20.03	33	PASS
Band4	10MHz	16QAM	20175	25RB#12	20.64	20.04	33	PASS
Band4	10MHz	16QAM	20175	50RB#0	20.59	19.99	33	PASS
Band4	10MHz	16QAM	20350	1RB#49	21.81	21.21	33	PASS
Band4	10MHz	16QAM	20350	1RB#0	21.48	20.88	33	PASS
Band4	10MHz	16QAM	20350	1RB#24	21.66	21.06	33	PASS
Band4	10MHz	16QAM	20350	25RB#12	20.95	20.35	33	PASS
Band4	10MHz	16QAM	20350	25RB#25	20.91	20.31	33	PASS
Band4	10MHz	16QAM	20350	25RB#0	20.86	20.26	33	PASS
Band4	10MHz	16QAM	20350	50RB#0	21.03	20.43	33	PASS
Band4	15MHz	QPSK	20025	1RB#0	21.94	21.34	33	PASS
Band4	15MHz	QPSK	20025	1RB#38	21.83	21.23	33	PASS
Band4	15MHz	QPSK	20025	1RB#74	21.84	21.24	33	PASS
Band4	15MHz	QPSK	20025	38RB#18	21.02	20.42	33	PASS
Band4	15MHz	QPSK	20025	38RB#37	21.00	20.4	33	PASS
Band4	15MHz	QPSK	20025	38RB#0	21.02	20.42	33	PASS
Band4	15MHz	QPSK	20025	75RB#0	21.32	20.72	33	PASS
Band4	15MHz	QPSK	20175	1RB#38	22.62	22.02	33	PASS
Band4	15MHz	QPSK	20175	1RB#74	22.71	22.11	33	PASS
Band4	15MHz	QPSK	20175	1RB#0	22.37	21.77	33	PASS
Band4	15MHz	QPSK	20175	38RB#37	21.54	20.94	33	PASS
Band4	15MHz	QPSK	20175	38RB#18	21.36	20.76	33	PASS

Band4	15MHz	QPSK	20175	38RB#0	21.23	20.63	33	PASS
Band4	15MHz	QPSK	20175	75RB#0	21.43	20.83	33	PASS
Band4	15MHz	QPSK	20325	1RB#38	22.87	22.27	33	PASS
Band4	15MHz	QPSK	20325	1RB#0	22.67	22.07	33	PASS
Band4	15MHz	QPSK	20325	1RB#74	22.90	22.3	33	PASS
Band4	15MHz	QPSK	20325	38RB#0	21.38	20.78	33	PASS
Band4	15MHz	QPSK	20325	38RB#18	21.59	20.99	33	PASS
Band4	15MHz	QPSK	20325	38RB#37	21.75	21.15	33	PASS
Band4	15MHz	QPSK	20325	75RB#0	21.86	21.26	33	PASS
Band4	15MHz	16QAM	20025	1RB#74	21.05	20.45	33	PASS
Band4	15MHz	16QAM	20025	1RB#0	21.02	20.42	33	PASS
Band4	15MHz	16QAM	20025	1RB#38	21.04	20.44	33	PASS
Band4	15MHz	16QAM	20025	38RB#37	21.04	20.44	33	PASS
Band4	15MHz	16QAM	20025	38RB#18	21.00	20.4	33	PASS
Band4	15MHz	16QAM	20025	38RB#0	21.07	20.47	33	PASS
Band4	15MHz	16QAM	20025	75RB#0	20.33	19.73	33	PASS
Band4	15MHz	16QAM	20175	1RB#74	21.52	20.92	33	PASS
Band4	15MHz	16QAM	20175	1RB#38	21.33	20.73	33	PASS
Band4	15MHz	16QAM	20175	1RB#0	21.18	20.58	33	PASS
Band4	15MHz	16QAM	20175	38RB#37	21.53	20.93	33	PASS
Band4	15MHz	16QAM	20175	38RB#18	21.38	20.78	33	PASS
Band4	15MHz	16QAM	20175	38RB#0	21.21	20.61	33	PASS
Band4	15MHz	16QAM	20175	75RB#0	20.53	19.93	33	PASS
Band4	15MHz	16QAM	20325	1RB#74	21.75	21.15	33	PASS
Band4	15MHz	16QAM	20325	1RB#38	21.60	21	33	PASS
Band4	15MHz	16QAM	20325	1RB#0	21.33	20.73	33	PASS
Band4	15MHz	16QAM	20325	38RB#18	21.61	21.01	33	PASS
Band4	15MHz	16QAM	20325	38RB#37	21.75	21.15	33	PASS
Band4	15MHz	16QAM	20325	38RB#0	21.36	20.76	33	PASS
Band4	15MHz	16QAM	20325	75RB#0	21.00	20.4	33	PASS
Band4	20MHz	QPSK	20050	1RB#0	22.42	21.82	33	PASS
Band4	20MHz	QPSK	20050	1RB#49	22.35	21.75	33	PASS
Band4	20MHz	QPSK	20050	1RB#99	22.47	21.87	33	PASS
Band4	20MHz	QPSK	20050	50RB#0	21.17	20.57	33	PASS
Band4	20MHz	QPSK	20050	50RB#50	21.26	20.66	33	PASS
Band4	20MHz	QPSK	20050	50RB#25	21.18	20.58	33	PASS
Band4	20MHz	QPSK	20050	100RB#0	21.14	20.54	33	PASS

Band4	20MHz	QPSK	20175	1RB#0	22.30	21.7	33	PASS
Band4	20MHz	QPSK	20175	1RB#49	22.50	21.9	33	PASS
Band4	20MHz	QPSK	20175	1RB#99	22.66	22.06	33	PASS
Band4	20MHz	QPSK	20175	50RB#0	21.39	20.79	33	PASS
Band4	20MHz	QPSK	20175	50RB#50	21.58	20.98	33	PASS
Band4	20MHz	QPSK	20175	50RB#25	21.41	20.81	33	PASS
Band4	20MHz	QPSK	20175	100RB#0	21.53	20.93	33	PASS
Band4	20MHz	QPSK	20300	1RB#99	23.14	22.54	33	PASS
Band4	20MHz	QPSK	20300	1RB#49	22.90	22.3	33	PASS
Band4	20MHz	QPSK	20300	1RB#0	22.66	22.06	33	PASS
Band4	20MHz	QPSK	20300	50RB#25	21.49	20.89	33	PASS
Band4	20MHz	QPSK	20300	50RB#50	21.88	21.28	33	PASS
Band4	20MHz	QPSK	20300	50RB#0	21.64	21.04	33	PASS
Band4	20MHz	QPSK	20300	100RB#0	21.86	21.26	33	PASS
Band4	20MHz	16QAM	20050	1RB#0	21.86	21.26	33	PASS
Band4	20MHz	16QAM	20050	1RB#49	21.78	21.18	33	PASS
Band4	20MHz	16QAM	20050	1RB#99	21.96	21.36	33	PASS
Band4	20MHz	16QAM	20050	50RB#0	20.30	19.7	33	PASS
Band4	20MHz	16QAM	20050	50RB#50	20.38	19.78	33	PASS
Band4	20MHz	16QAM	20050	50RB#25	20.31	19.71	33	PASS
Band4	20MHz	16QAM	20050	100RB#0	20.31	19.71	33	PASS
Band4	20MHz	16QAM	20175	1RB#99	21.56	20.96	33	PASS
Band4	20MHz	16QAM	20175	1RB#49	21.29	20.69	33	PASS
Band4	20MHz	16QAM	20175	1RB#0	21.19	20.59	33	PASS
Band4	20MHz	16QAM	20175	50RB#25	20.56	19.96	33	PASS
Band4	20MHz	16QAM	20175	50RB#50	20.73	20.13	33	PASS
Band4	20MHz	16QAM	20175	50RB#0	20.67	20.07	33	PASS
Band4	20MHz	16QAM	20175	100RB#0	20.59	19.99	33	PASS
Band4	20MHz	16QAM	20300	1RB#99	21.22	20.62	33	PASS
Band4	20MHz	16QAM	20300	1RB#49	20.89	20.29	33	PASS
Band4	20MHz	16QAM	20300	1RB#0	20.66	20.06	33	PASS
Band4	20MHz	16QAM	20300	50RB#25	20.86	20.26	33	PASS
Band4	20MHz	16QAM	20300	50RB#50	21.08	20.48	33	PASS
Band4	20MHz	16QAM	20300	50RB#0	20.86	20.26	33	PASS
Band4	20MHz	16QAM	20300	100RB#0	20.81	20.21	33	PASS



Note1:

a, For getting the ERP (Efficient Radiated Power) or 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

c, Antenna gain of LTE Band 4 is -0.6dBi.

Note2: SET Span=1.5\*OBW

SET RBW=1%of the OBW,not to exceed 1MHz

SET VBW>= 3\*RBW

SET Sweep time=auto-couple.

Detector:RMS

## Appendix B: Peak-to-Average Ratio

### Test Results

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	4.61	13	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	5.30	13	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	4.43	13	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	5.30	13	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	3.94	13	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	4.84	13	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	5.33	13	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	5.97	13	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	4.70	13	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	6.12	13	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	4.03	13	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	5.62	13	PASS
Band4	3MHz	QPSK	19965	1RB#0	4.61	13	PASS
Band4	3MHz	QPSK	19965	15RB#0	5.13	13	PASS
Band4	3MHz	QPSK	20175	1RB#0	4.35	13	PASS
Band4	3MHz	QPSK	20175	15RB#0	5.10	13	PASS
Band4	3MHz	QPSK	20385	1RB#0	4.41	13	PASS
Band4	3MHz	QPSK	20385	15RB#0	4.87	13	PASS
Band4	3MHz	16QAM	19965	1RB#0	5.48	13	PASS
Band4	3MHz	16QAM	19965	15RB#0	6.03	13	PASS
Band4	3MHz	16QAM	20175	1RB#0	5.36	13	PASS
Band4	3MHz	16QAM	20175	15RB#0	6.09	13	PASS
Band4	3MHz	16QAM	20385	1RB#0	5.42	13	PASS
Band4	3MHz	16QAM	20385	15RB#0	5.86	13	PASS
Band4	5MHz	QPSK	19975	1RB#0	4.70	13	PASS
Band4	5MHz	QPSK	19975	25RB#0	5.04	13	PASS
Band4	5MHz	QPSK	20175	1RB#0	4.17	13	PASS
Band4	5MHz	QPSK	20175	25RB#0	5.13	13	PASS
Band4	5MHz	QPSK	20375	1RB#0	4.64	13	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.96	13	PASS
Band4	5MHz	16QAM	19975	1RB#0	5.65	13	PASS
Band4	5MHz	16QAM	19975	25RB#0	6.00	13	PASS
Band4	5MHz	16QAM	20175	1RB#0	5.28	13	PASS
Band4	5MHz	16QAM	20175	25RB#0	6.09	13	PASS
Band4	5MHz	16QAM	20375	1RB#0	5.77	13	PASS
Band4	5MHz	16QAM	20375	25RB#0	5.83	13	PASS
Band4	10MHz	QPSK	20000	1RB#0	4.61	13	PASS
Band4	10MHz	QPSK	20000	50RB#0	4.99	13	PASS
Band4	10MHz	QPSK	20175	1RB#0	3.94	13	PASS
Band4	10MHz	QPSK	20175	50RB#0	5.22	13	PASS
Band4	10MHz	QPSK	20350	1RB#0	5.16	13	PASS
Band4	10MHz	QPSK	20350	50RB#0	5.19	13	PASS
Band4	10MHz	16QAM	20000	1RB#0	5.80	13	PASS
Band4	10MHz	16QAM	20000	50RB#0	5.91	13	PASS

## Total Quality. Assured.

Band4	10MHz	16QAM	20175	1RB#0	4.96	13	PASS
Band4	10MHz	16QAM	20175	50RB#0	6.12	13	PASS
Band4	10MHz	16QAM	20350	1RB#0	6.12	13	PASS
Band4	10MHz	16QAM	20350	50RB#0	6.06	13	PASS
Band4	15MHz	QPSK	20025	1RB#0	4.61	13	PASS
Band4	15MHz	QPSK	20025	75RB#0	4.64	13	PASS
Band4	15MHz	QPSK	20175	1RB#0	3.88	13	PASS
Band4	15MHz	QPSK	20175	75RB#0	5.01	13	PASS
Band4	15MHz	QPSK	20325	1RB#0	5.36	13	PASS
Band4	15MHz	QPSK	20325	75RB#0	5.01	13	PASS
Band4	15MHz	16QAM	20025	1RB#0	5.45	13	PASS
Band4	15MHz	16QAM	20025	75RB#0	5.71	13	PASS
Band4	15MHz	16QAM	20175	1RB#0	4.93	13	PASS
Band4	15MHz	16QAM	20175	75RB#0	5.97	13	PASS
Band4	15MHz	16QAM	20325	1RB#0	6.32	13	PASS
Band4	15MHz	16QAM	20325	75RB#0	6.03	13	PASS
Band4	20MHz	QPSK	20050	1RB#0	4.61	13	PASS
Band4	20MHz	QPSK	20050	100RB#0	3.97	13	PASS
Band4	20MHz	QPSK	20175	1RB#0	3.91	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	4.23	13	PASS
Band4	20MHz	QPSK	20300	1RB#0	4.87	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	4.26	13	PASS
Band4	20MHz	16QAM	20050	1RB#0	5.39	13	PASS
Band4	20MHz	16QAM	20050	100RB#0	5.62	13	PASS
Band4	20MHz	16QAM	20175	1RB#0	5.07	13	PASS
Band4	20MHz	16QAM	20175	100RB#0	5.86	13	PASS
Band4	20MHz	16QAM	20300	1RB#0	6.20	13	PASS
Band4	20MHz	16QAM	20300	100RB#0	5.94	13	PASS

## Appendix C: Modulation Characteristics

### Test Plots

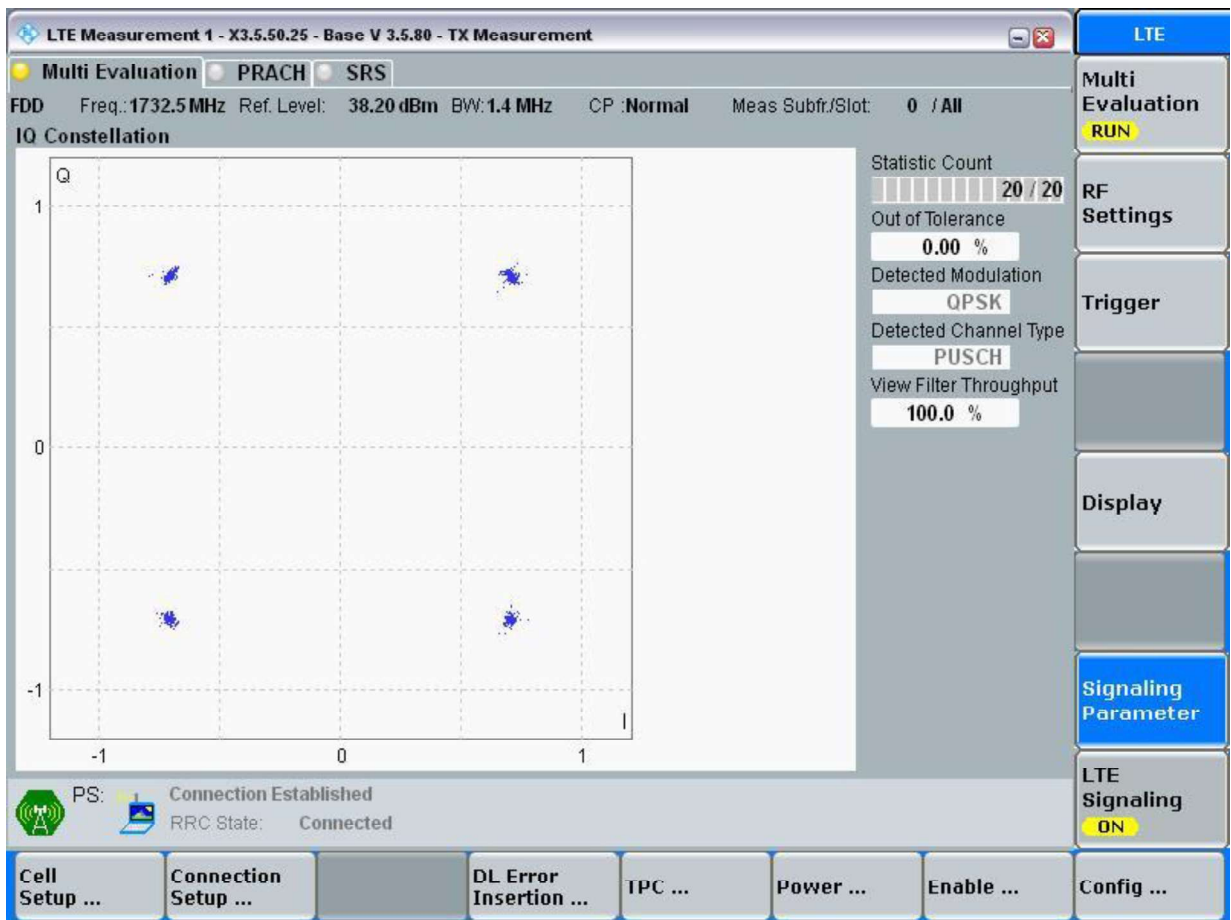
Test Band = BAND4

Test Mode = LTE/TM1

Test Bandwidth = 1.4MHz

Test Channel = MCH

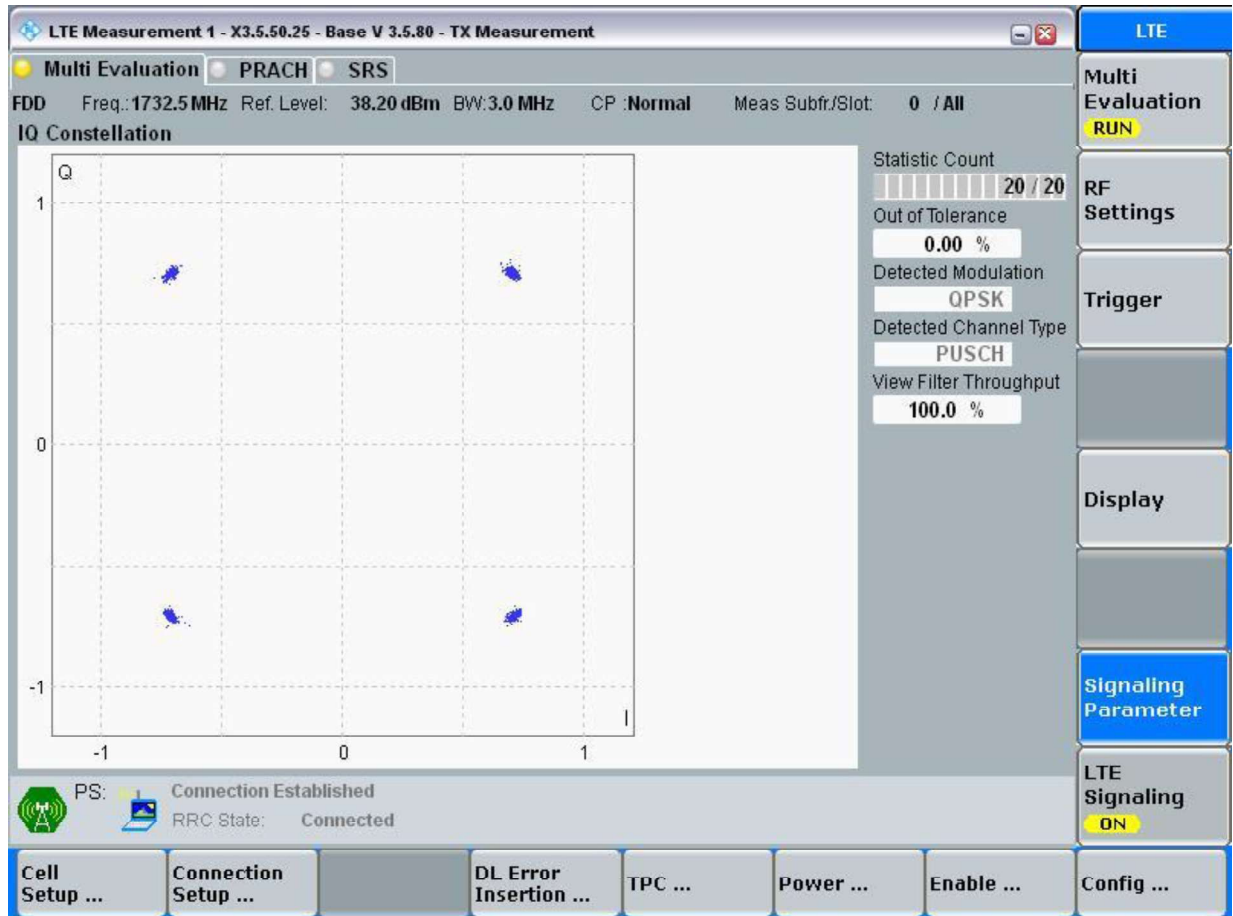
Test RB = RB6#0



Test Bandwidth = 3 MHz

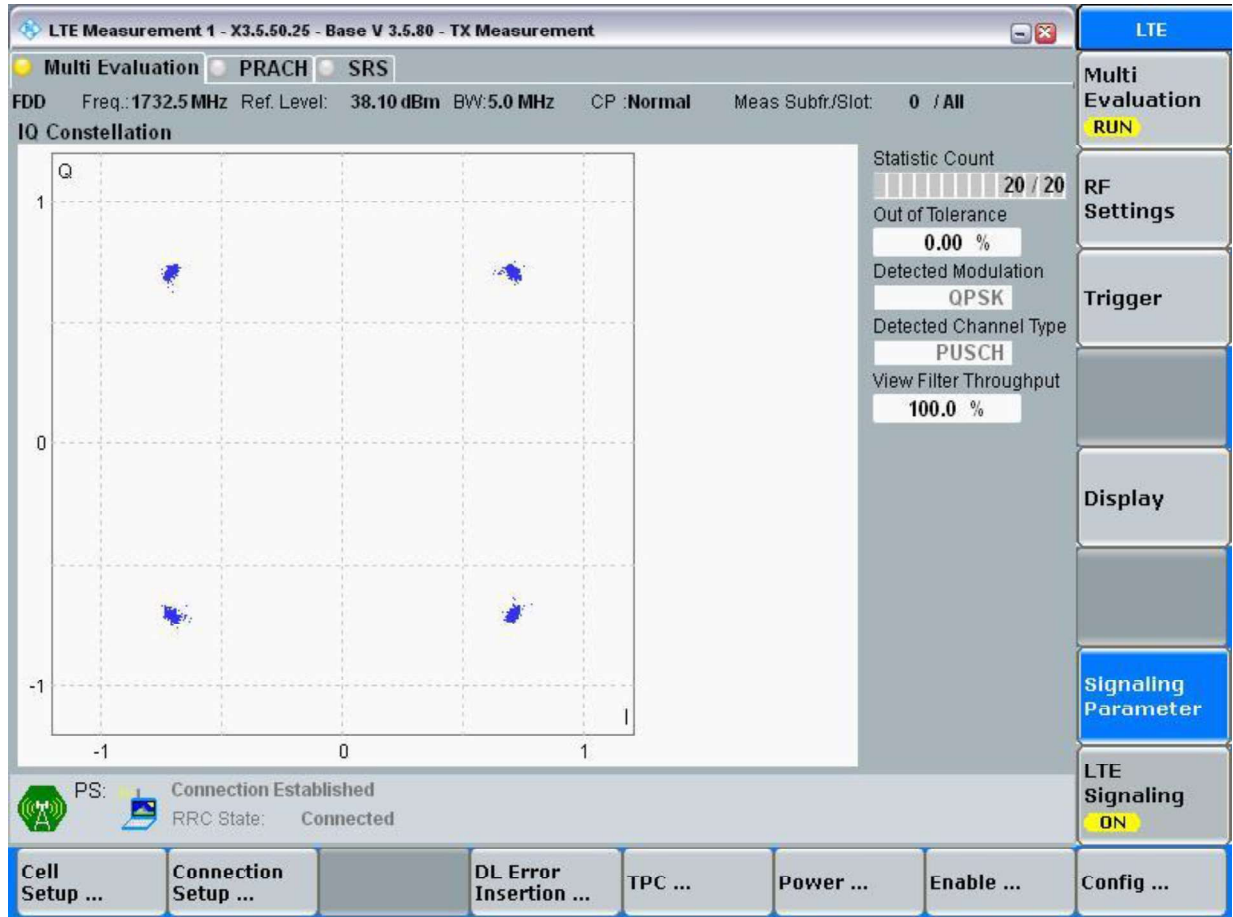
Test Channel = MCH

Test RB = RB15#0



Test Channel = MCH

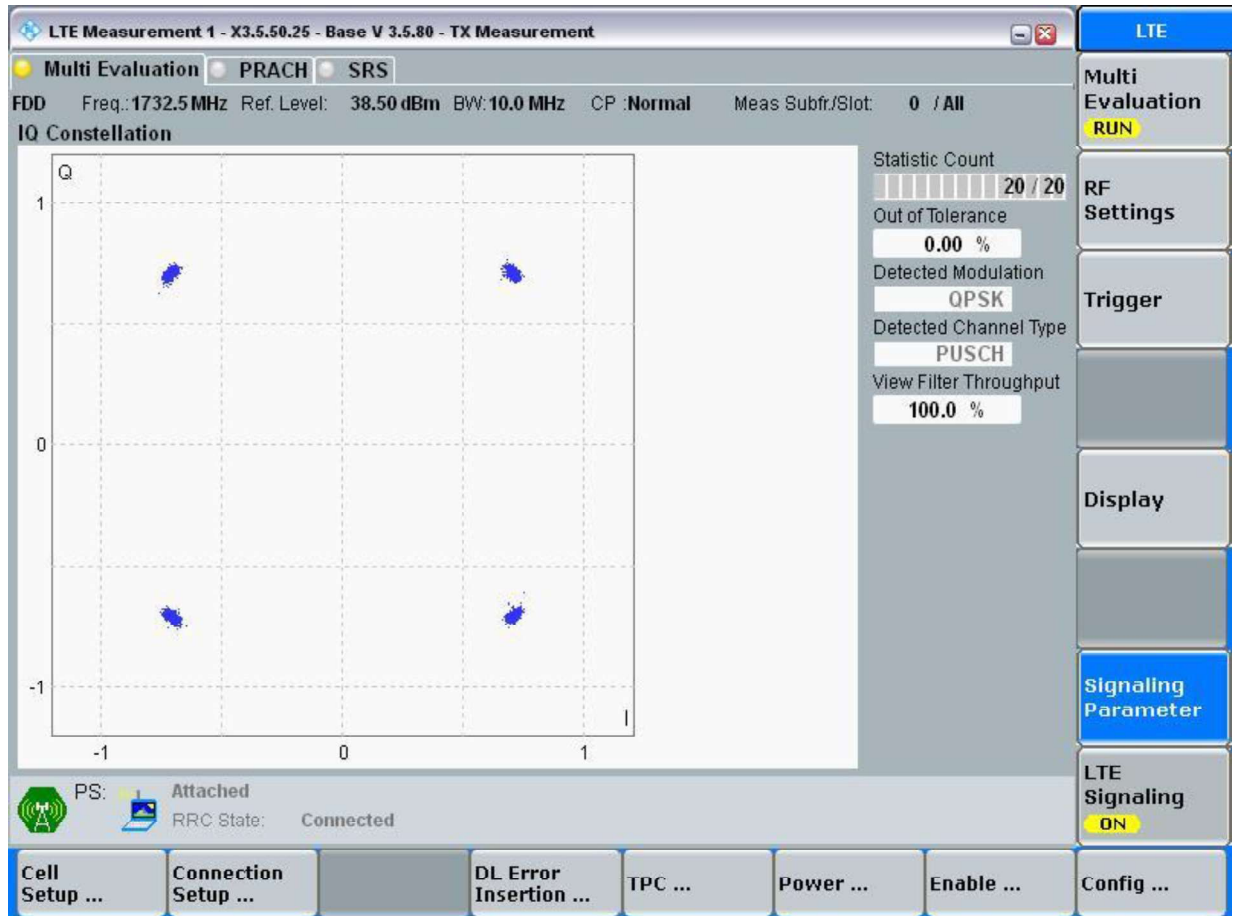
Test RB = RB25#0



Test Bandwidth = 10MHz

Test Channel = MCH

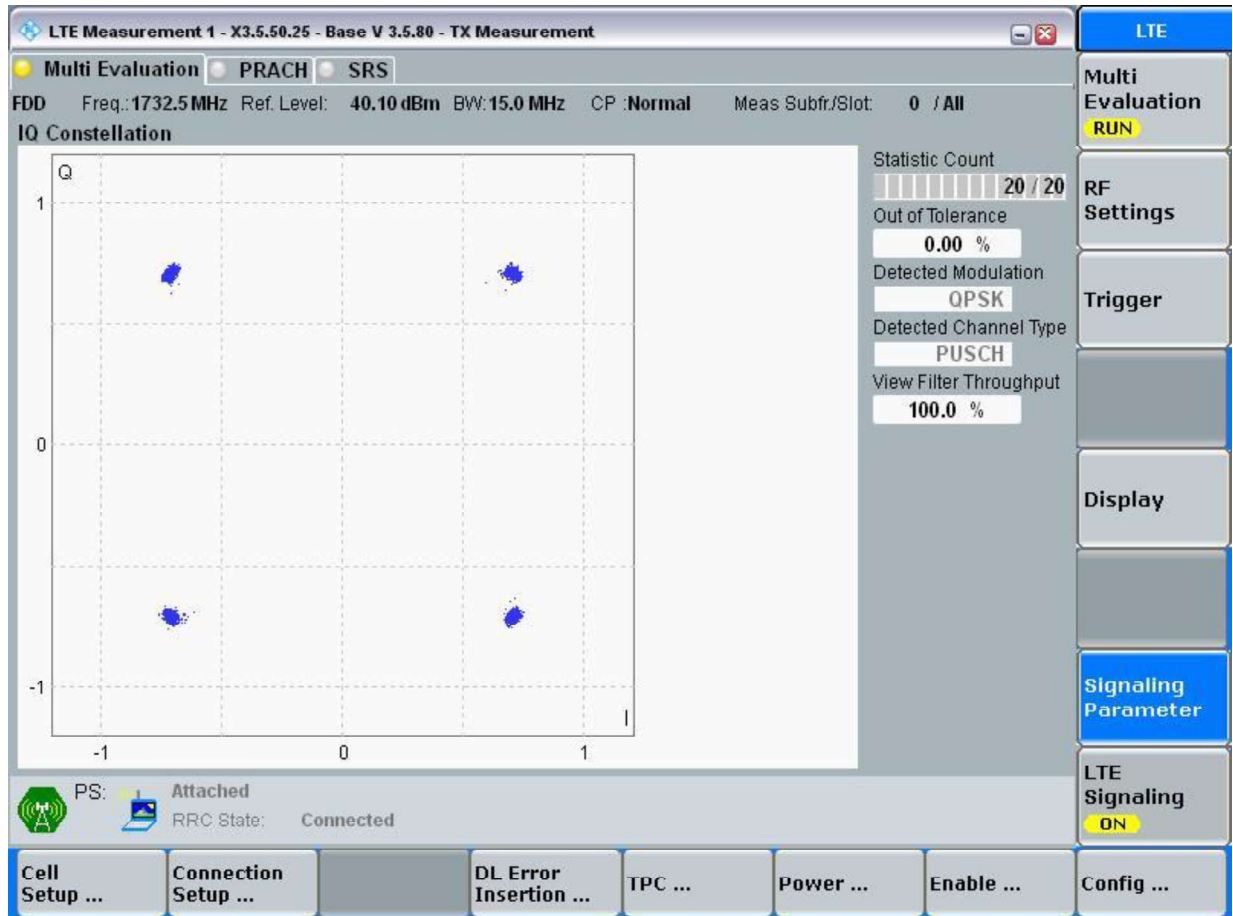
Test RB = RB50#0



Test Bandwidth = 15MHz

Test Channel = MCH

Test RB = RB75#0

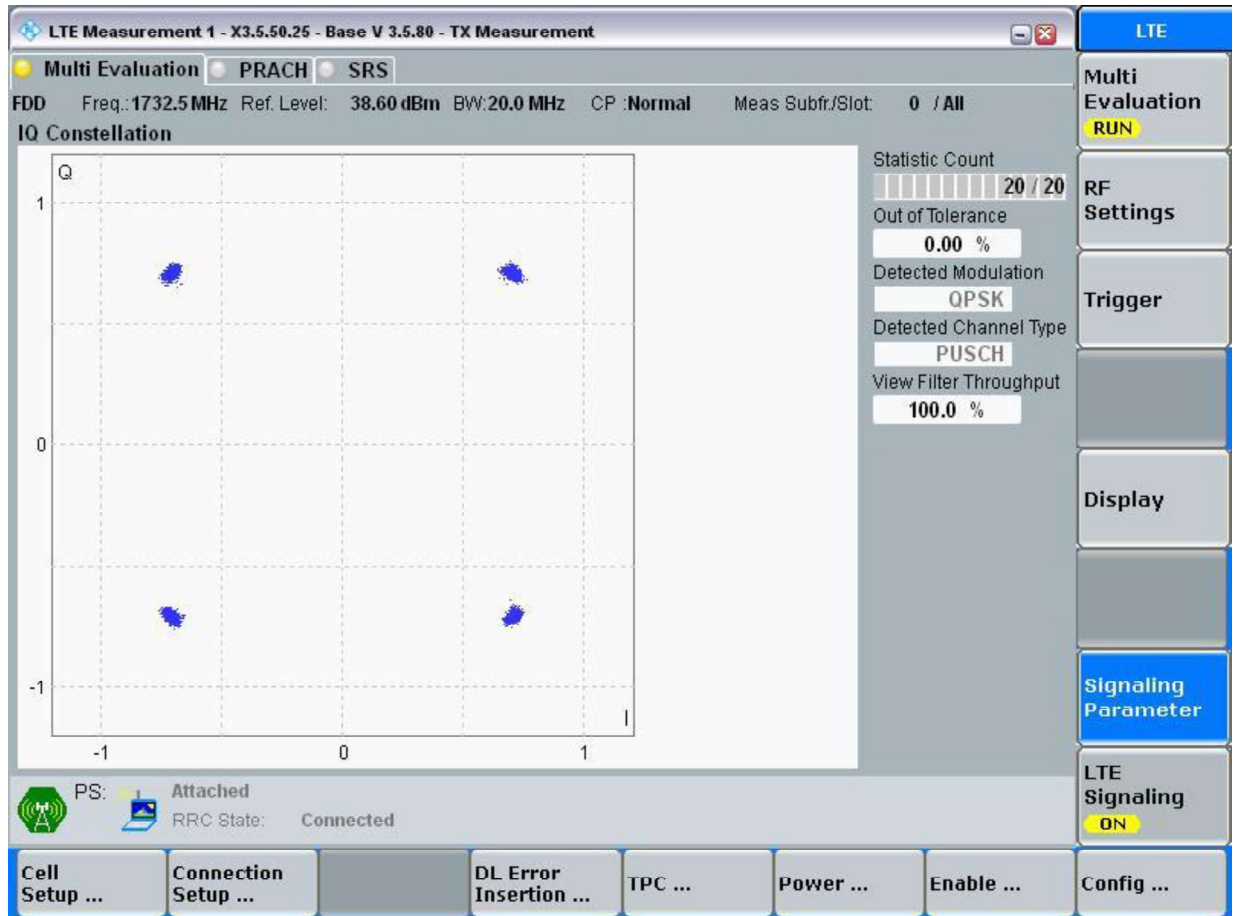




Test Bandwidth = 20MHz

Test Channel = MCH

Test RB = RB100#0

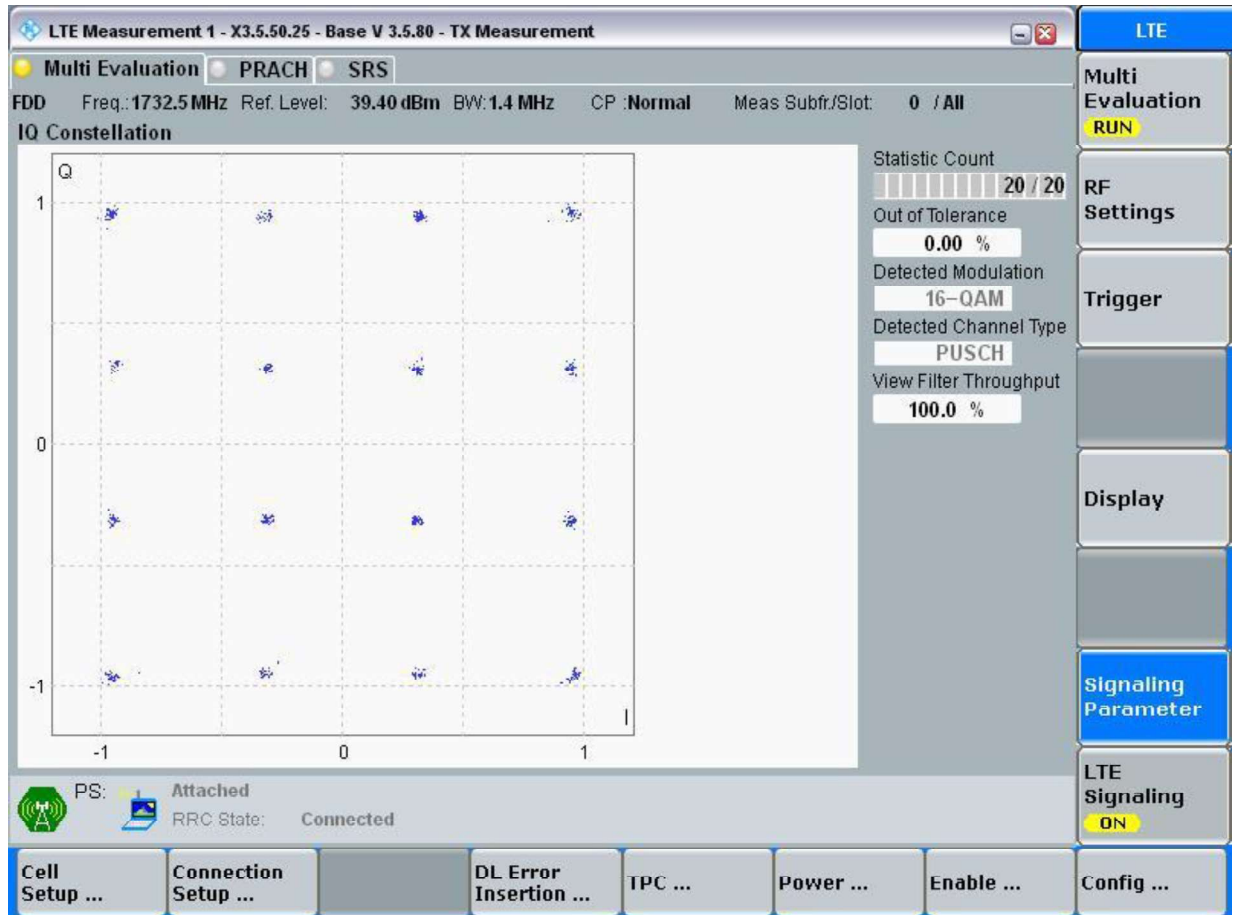


Test Mode = LTE/TM2

Bandwidth = 1.4MHz

Test Channel = MCH

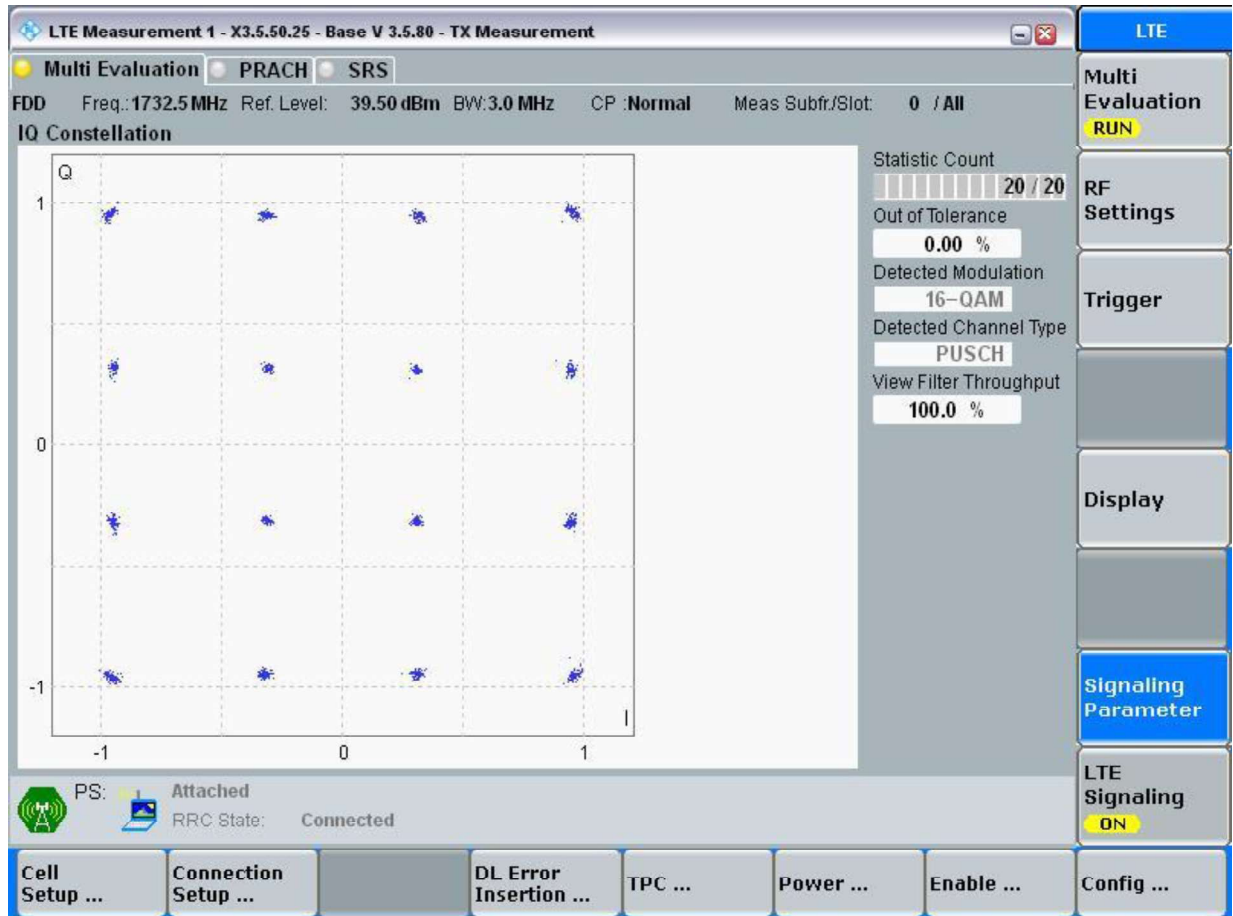
Test RB = RB6#0



Test Bandwidth = 3MHz

Test Channel = MCH

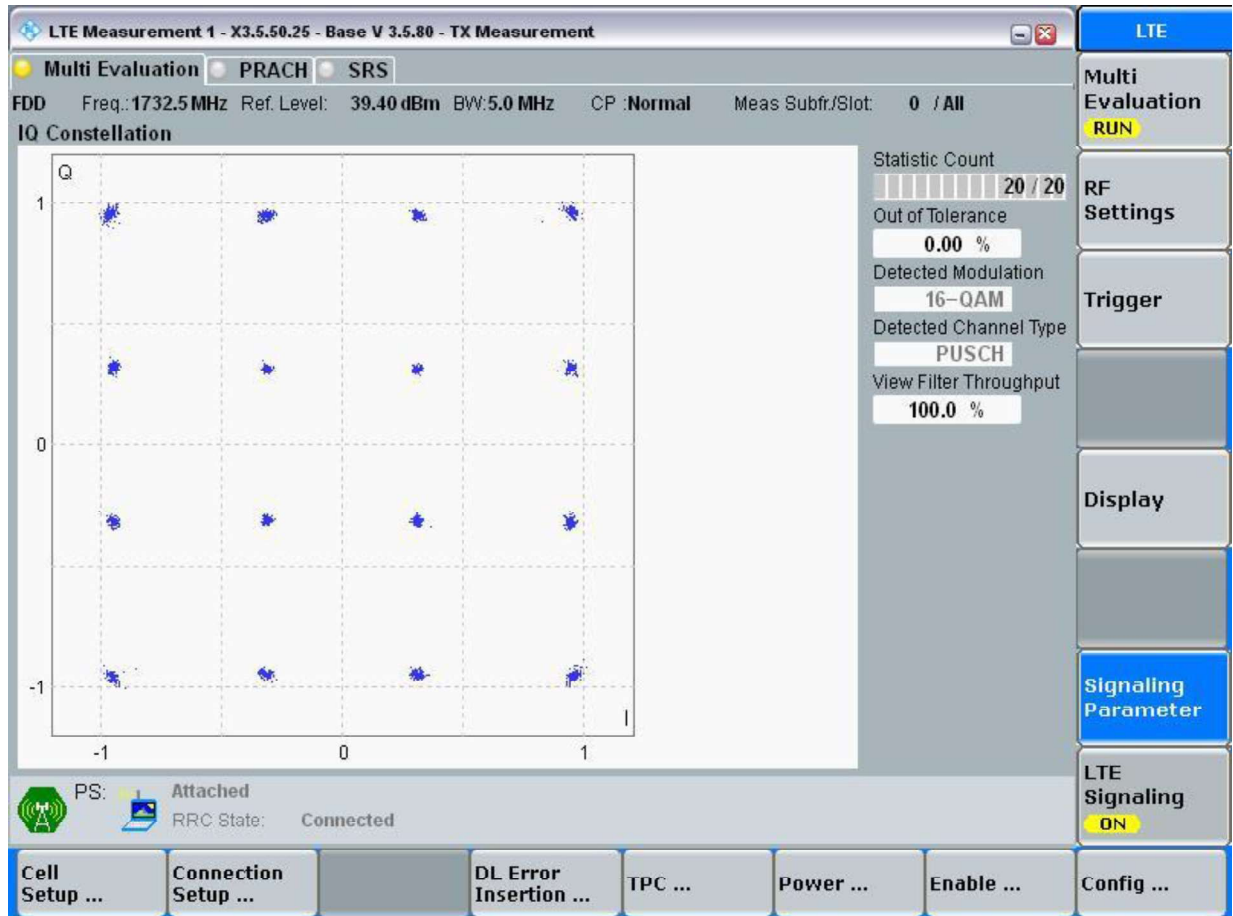
Test RB = RB15#0



Test Bandwidth = 5MHz

Test Channel = MCH

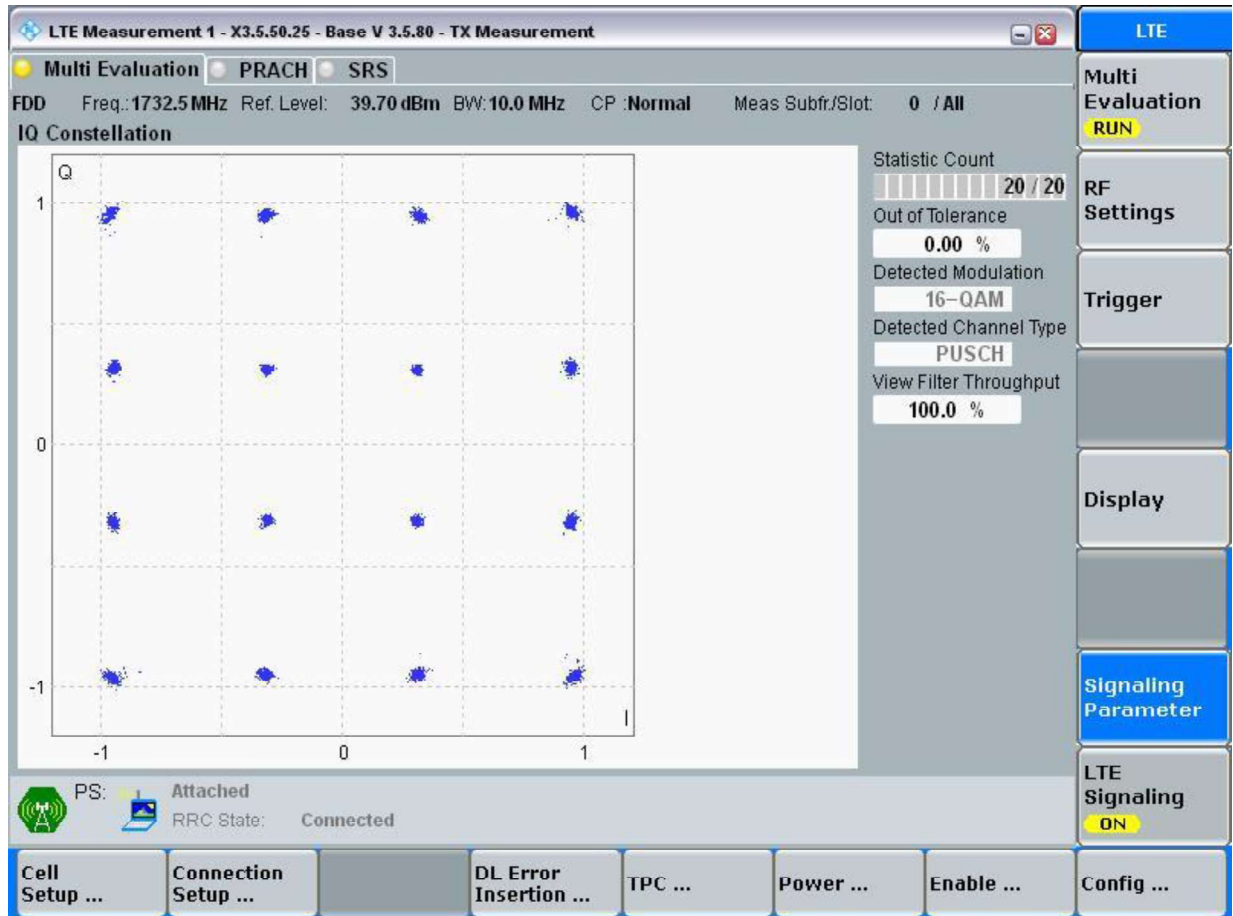
Test RB = RB25#0



Test Bandwidth = 10MHz

Test Channel = MCH

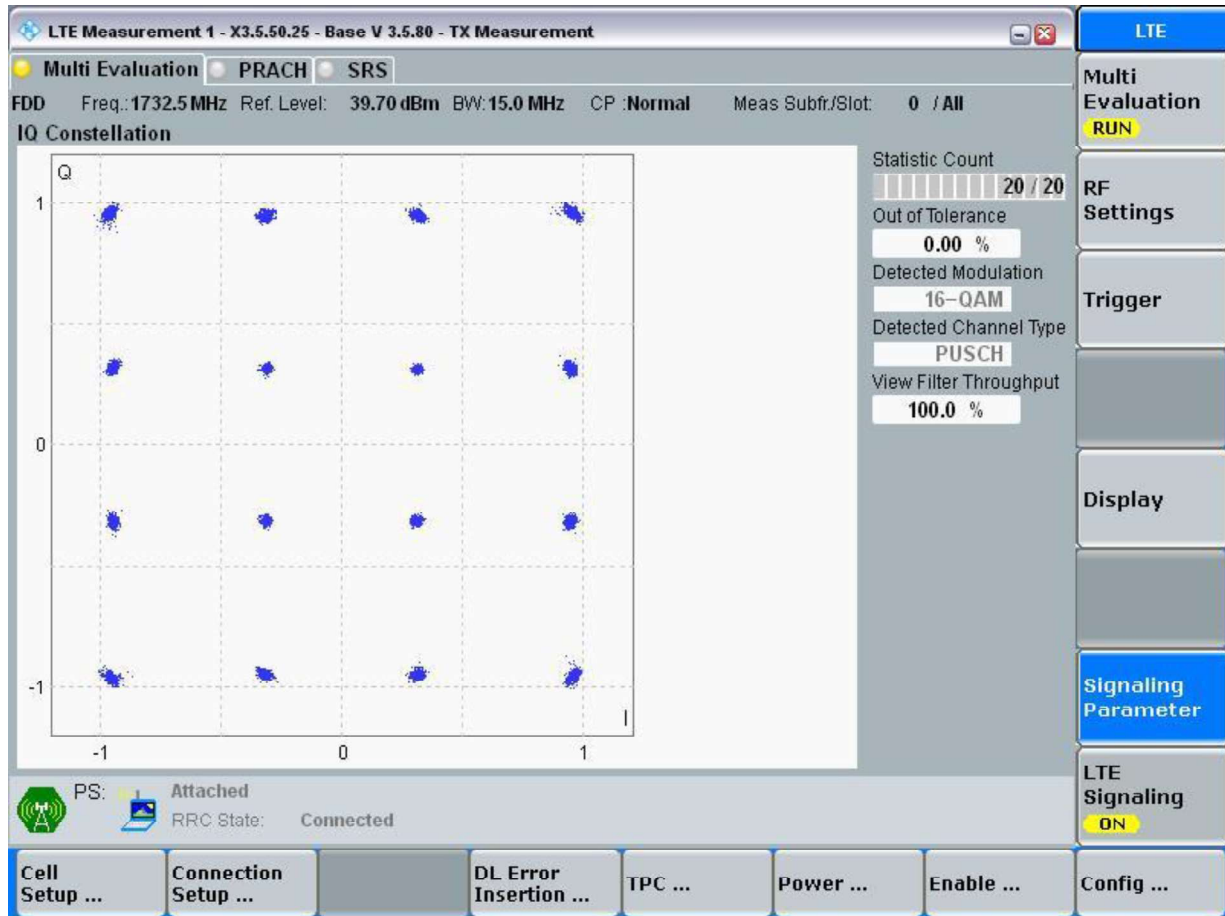
Test RB = RB50#0



Test Bandwidth = 15MHz

Test Channel = MCH

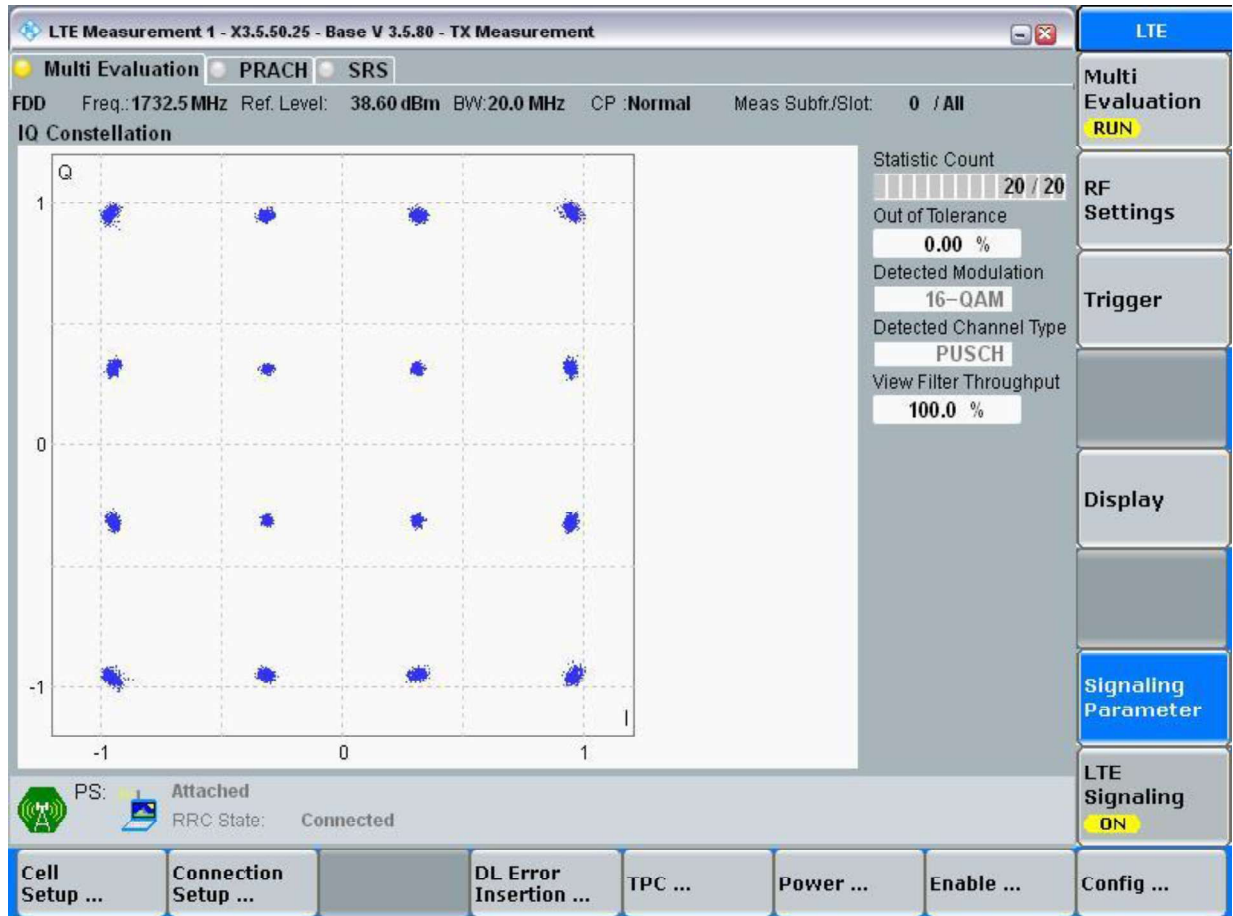
Test RB = RB75#0



Test Bandwidth = 20MHz

Test Channel = MCH

Test RB = RB100#0



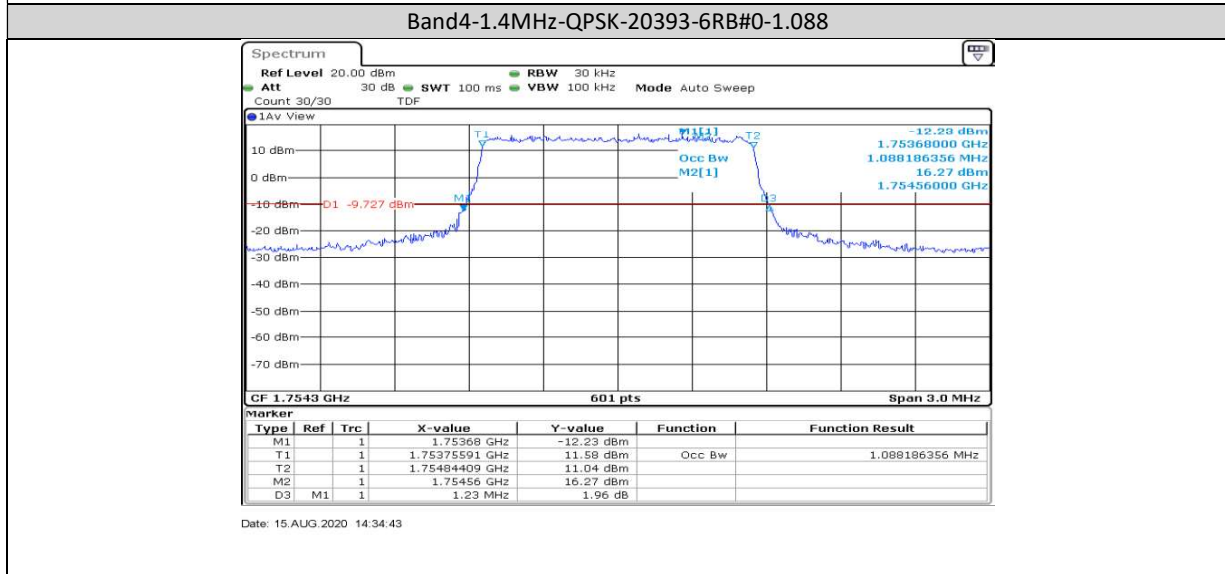
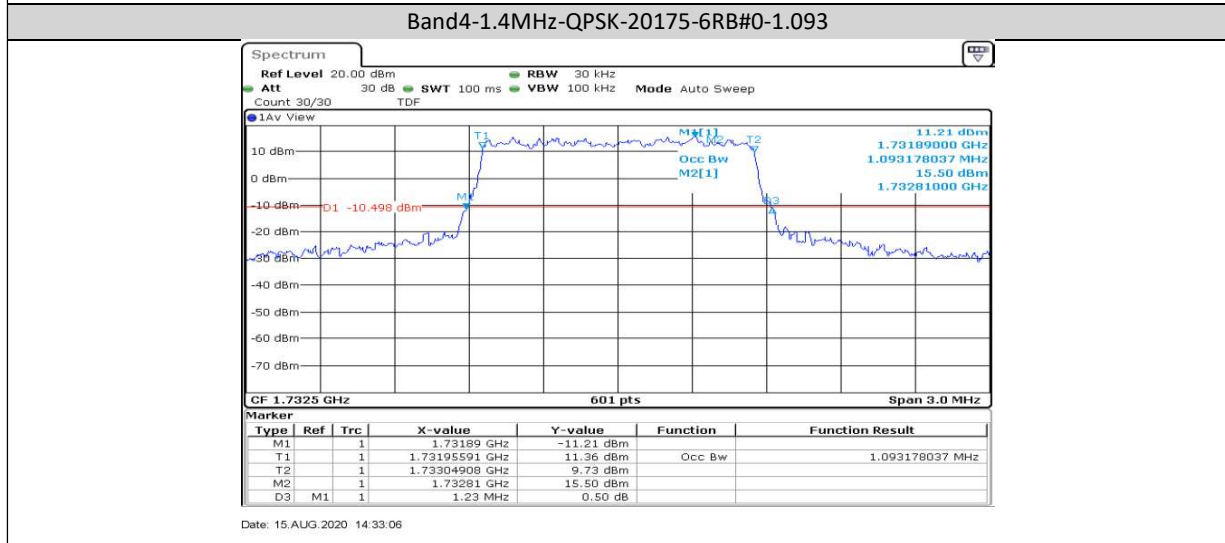
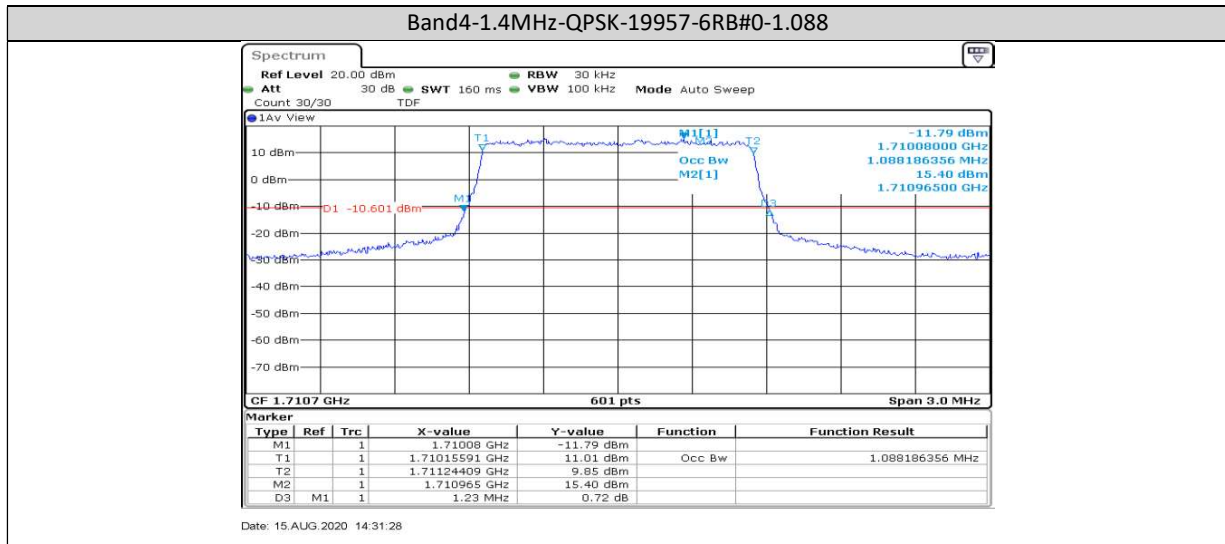
## Appendix D: Bandwidth

### Test Results

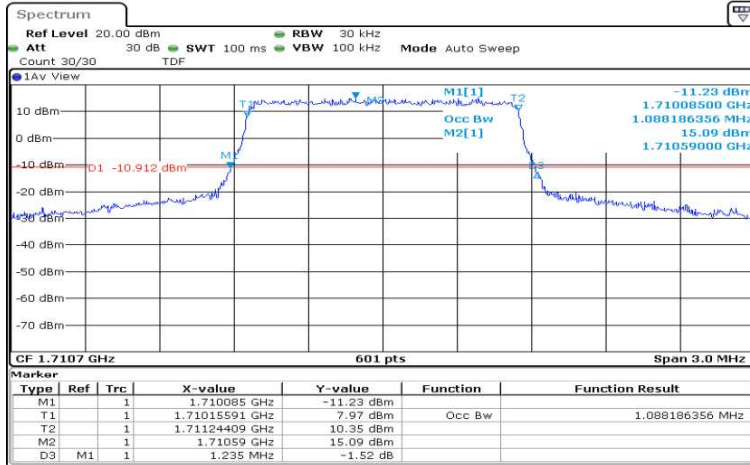
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.088	1.230	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.093	1.230	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.088	1.230	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.088	1.235	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.083	1.225	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.088	1.235	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.696	2.900	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.696	2.950	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.696	2.880	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.696	2.910	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.696	2.890	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.696	2.910	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.486	4.810	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.496	4.790	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.496	4.790	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.505	4.780	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.496	4.800	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.505	4.780	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.985	9.533	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.985	9.533	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.985	9.533	PASS
Band4	10MHz	16QAM	20000	50RB#0	8.985	9.533	PASS
Band4	10MHz	16QAM	20175	50RB#0	8.985	9.533	PASS
Band4	10MHz	16QAM	20350	50RB#0	8.985	9.533	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.478	14.300	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.478	14.300	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.478	14.300	PASS
Band4	15MHz	16QAM	20025	75RB#0	13.478	14.300	PASS
Band4	15MHz	16QAM	20175	75RB#0	13.478	14.300	PASS
Band4	15MHz	16QAM	20325	75RB#0	13.428	14.300	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.97	19.333	PASS
Band4	20MHz	QPSK	20175	100RB#0	18.103	19.333	PASS
Band4	20MHz	QPSK	20300	100RB#0	18.037	19.333	PASS
Band4	20MHz	16QAM	20050	100RB#0	17.97	19.333	PASS
Band4	20MHz	16QAM	20175	100RB#0	18.103	19.333	PASS
Band4	20MHz	16QAM	20300	100RB#0	18.037	19.333	PASS



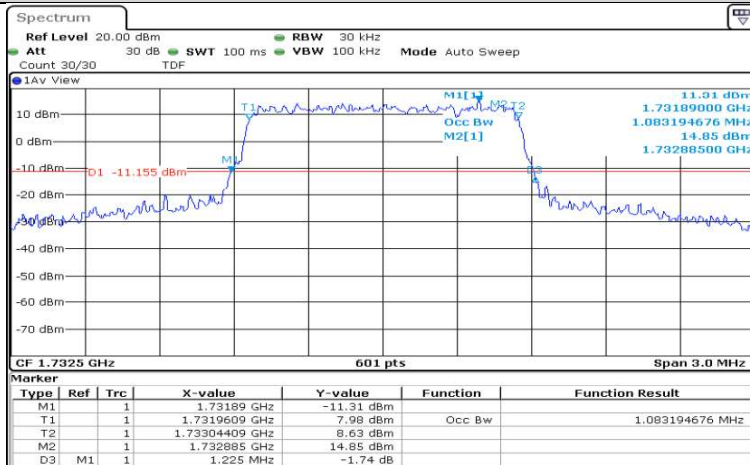
Test Plots



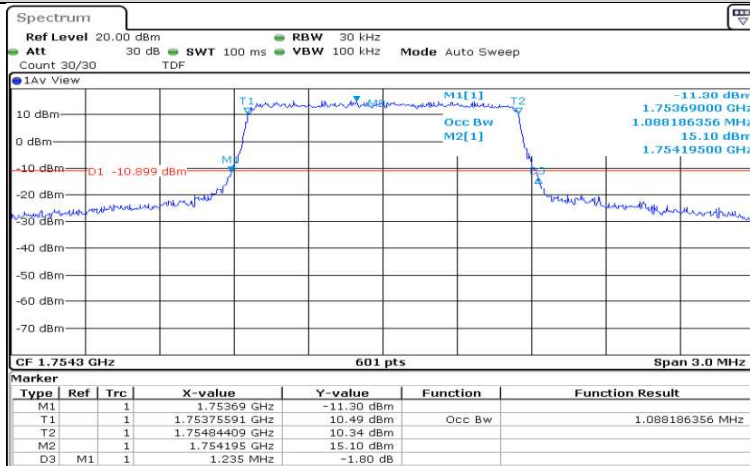
**Band4-1.4MHz-16QAM-19957-6RB#0-1.088**



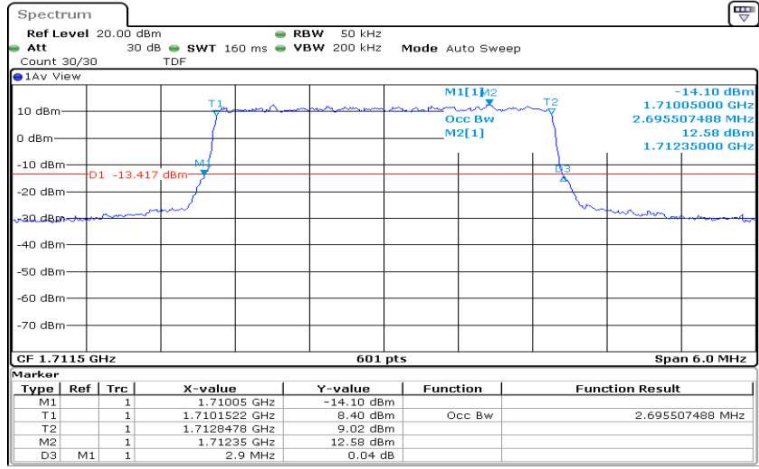
**Band4-1.4MHz-16QAM-20175-6RB#0-1.083**



**Band4-1.4MHz-16QAM-20393-6RB#0-1.088**

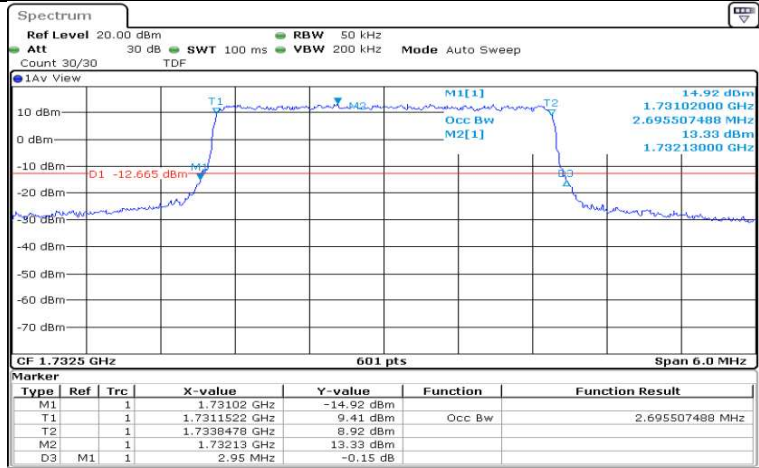


**Band4-3MHz-QPSK-19965-15RB#0-2.696**



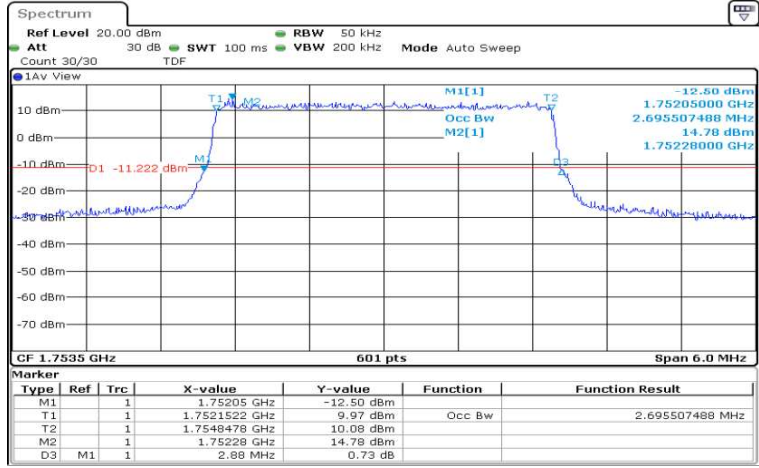
Date: 15.AUG.2020 15:08:36

**Band4-3MHz-QPSK-20175-15RB#0-2.696**



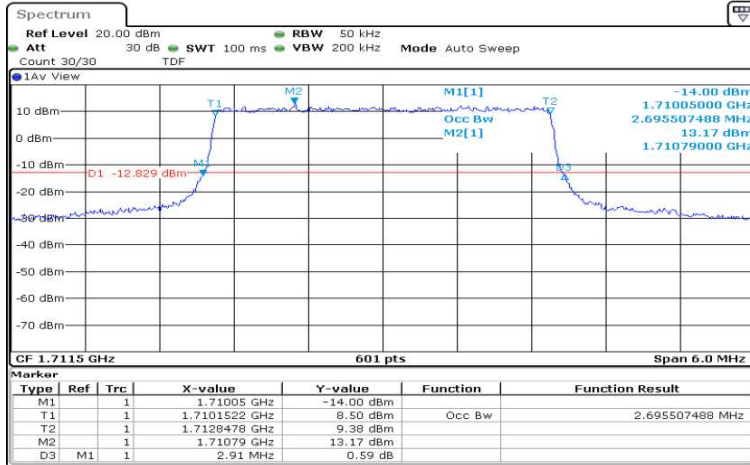
Date: 15.AUG.2020 15:08:58

**Band4-3MHz-QPSK-20385-15RB#0-2.696**



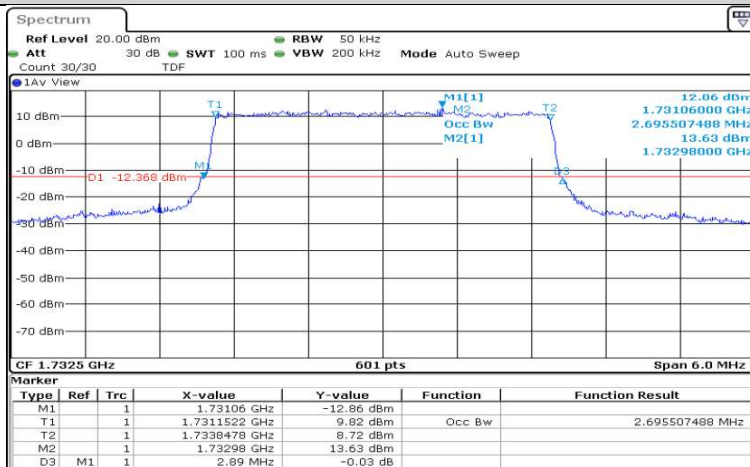
Date: 15.AUG.2020 15:09:19

Band4-3MHz-16QAM-19965-15RB#0-2.696



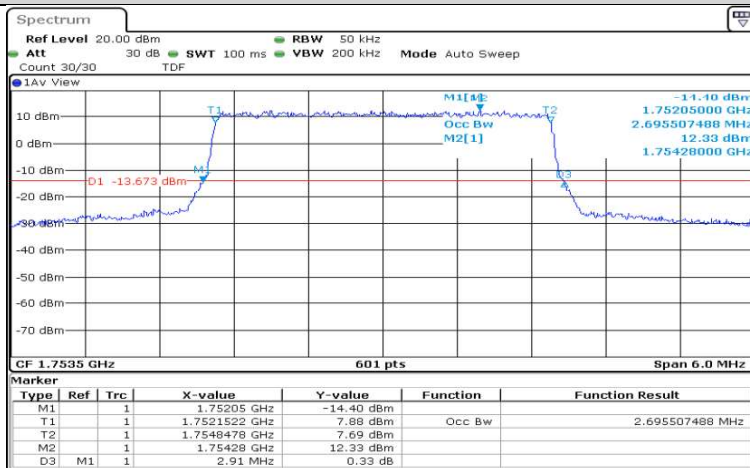
Date: 15.AUG.2020 15:08:46

Band4-3MHz-16QAM-20175-15RB#0-2.696



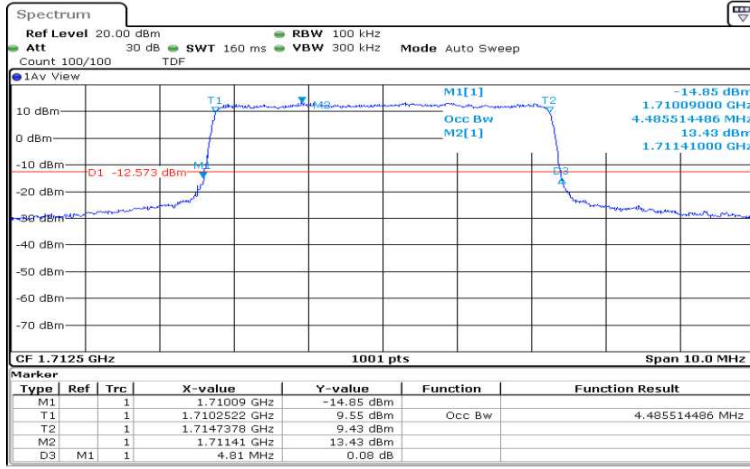
Date: 15.AUG.2020 15:09:08

Band4-3MHz-16QAM-20385-15RB#0-2.696

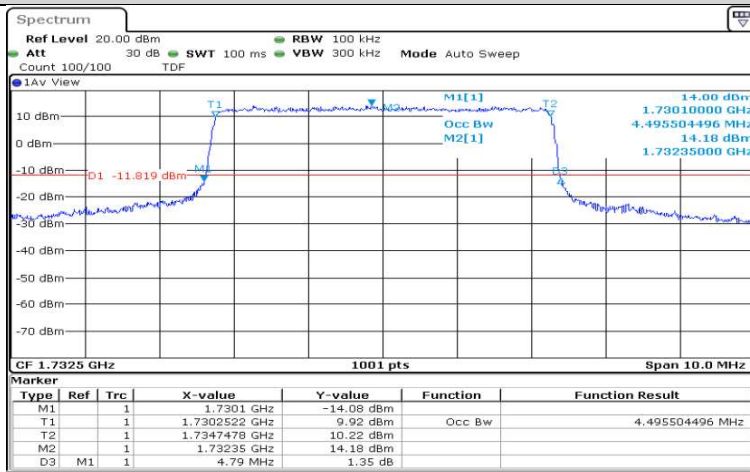


Date: 15.AUG.2020 15:09:29

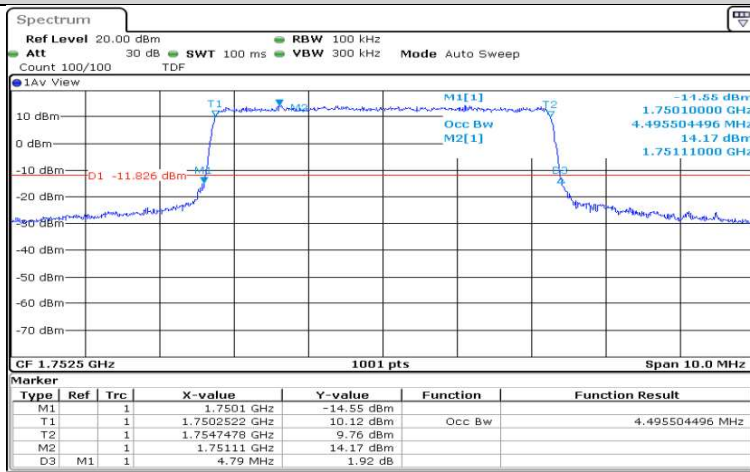
Band4-5MHz-QPSK-19975-25RB#0-4.486



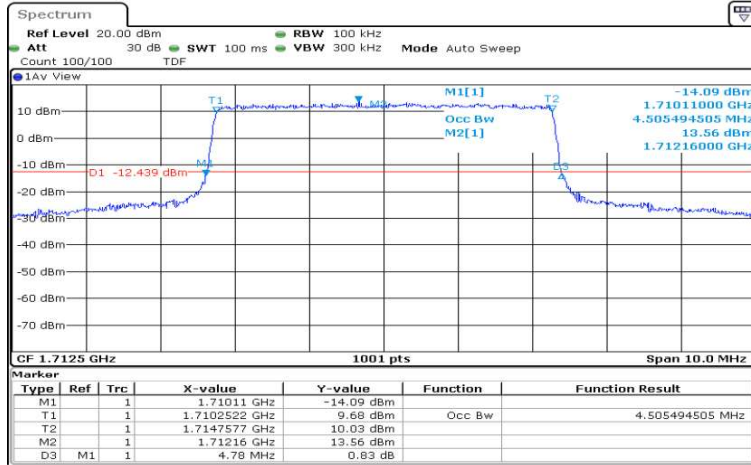
Band4-5MHz-QPSK-20175-25RB#0-4.496



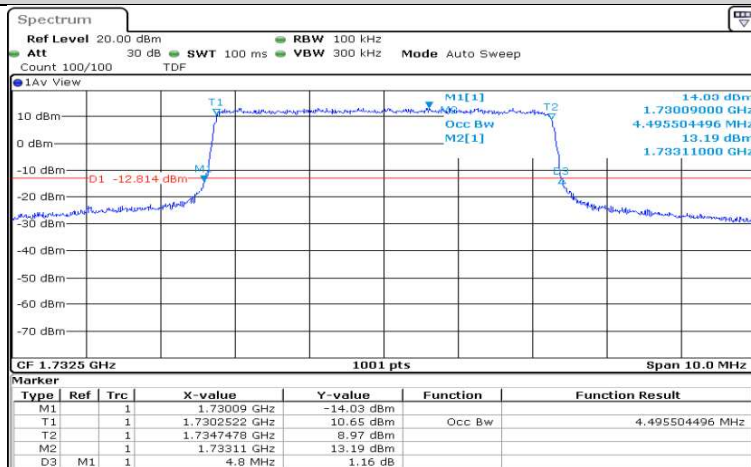
Band4-5MHz-QPSK-20375-25RB#0-4.496



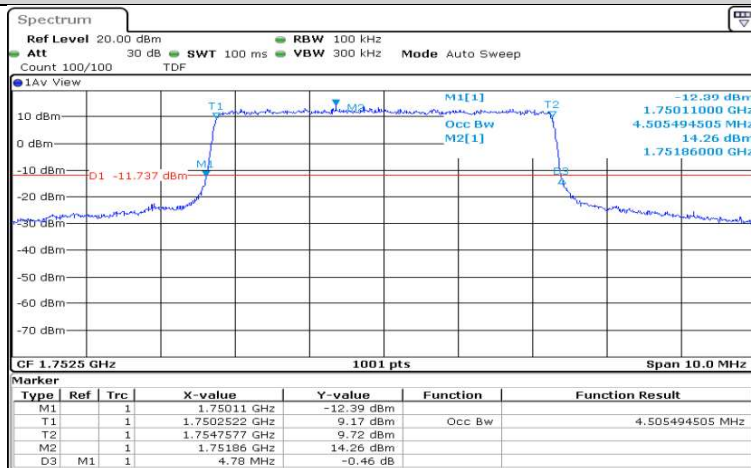
Band4-5MHz-16QAM-19975-25RB#0-4.505



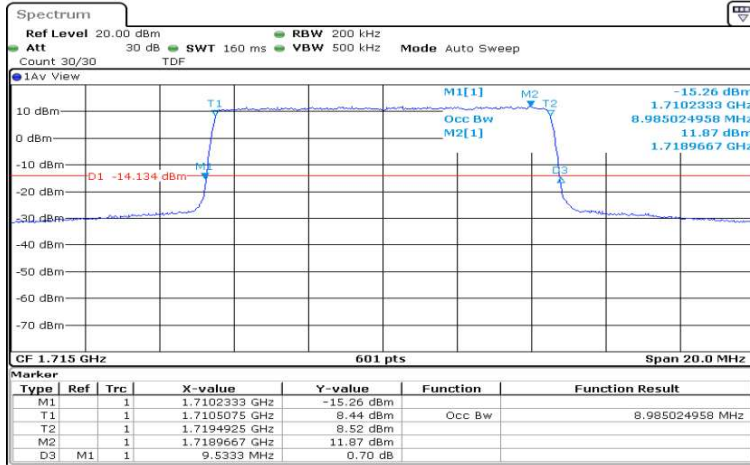
Band4-5MHz-16QAM-20175-25RB#0-4.496



Band4-5MHz-16QAM-20375-25RB#0-4.505

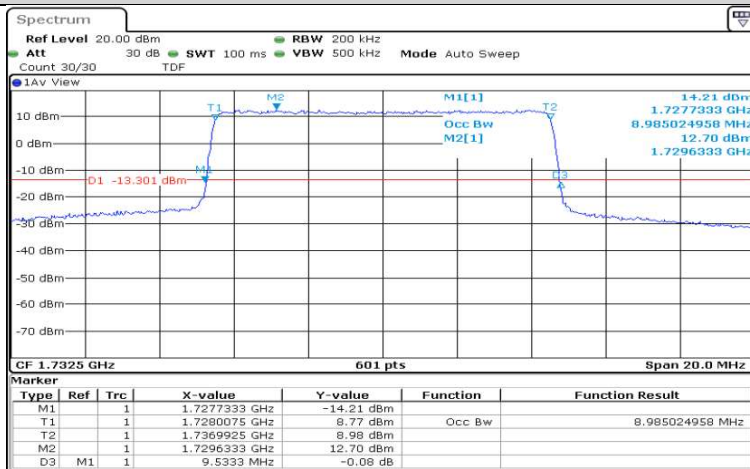


**Band4-10MHz-QPSK-20000-50RB#0-8.985**



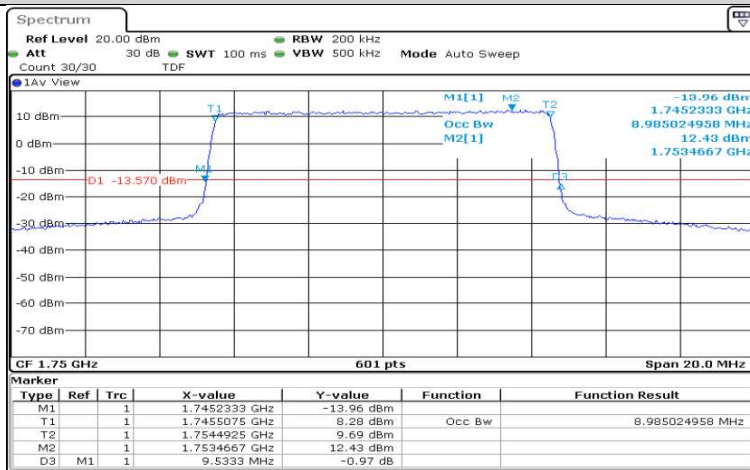
Date: 15.AUG.2020 17:49:23

**Band4-10MHz-QPSK-20175-50RB#0-8.985**



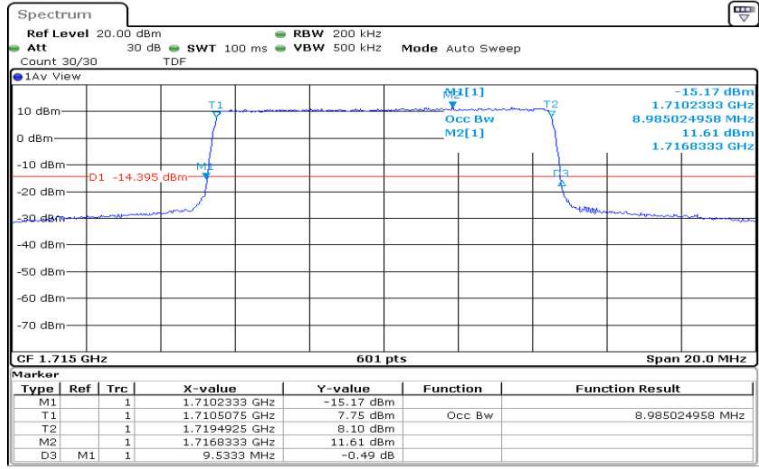
Date: 15.AUG.2020 17:49:45

**Band4-10MHz-QPSK-20350-50RB#0-8.985**



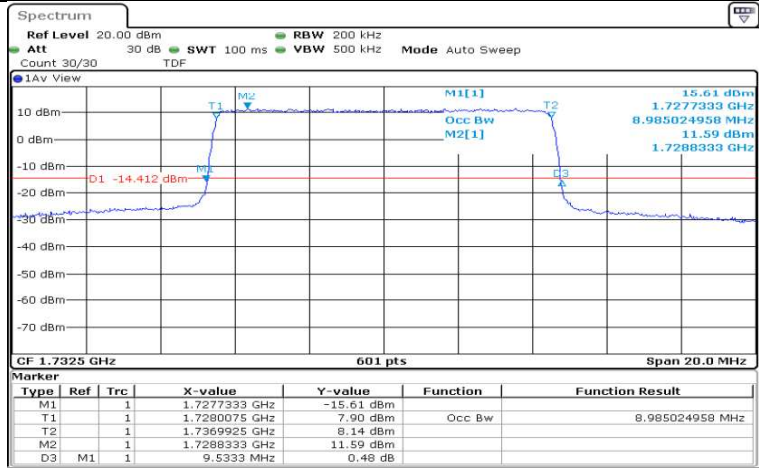
Date: 15.AUG.2020 17:50:07

## Band4-10MHz-16QAM-20000-50RB#0-8.985



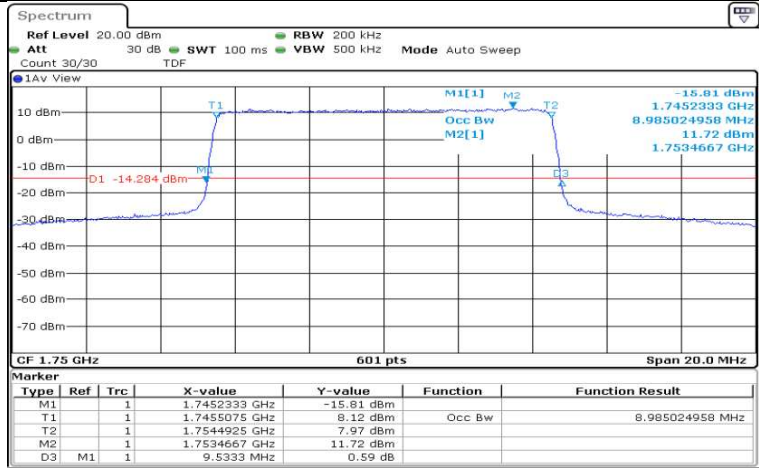
Date: 15.AUG.2020 17:49:33

## Band4-10MHz-16QAM-20175-50RB#0-8.985



Date: 15.AUG.2020 17:49:55

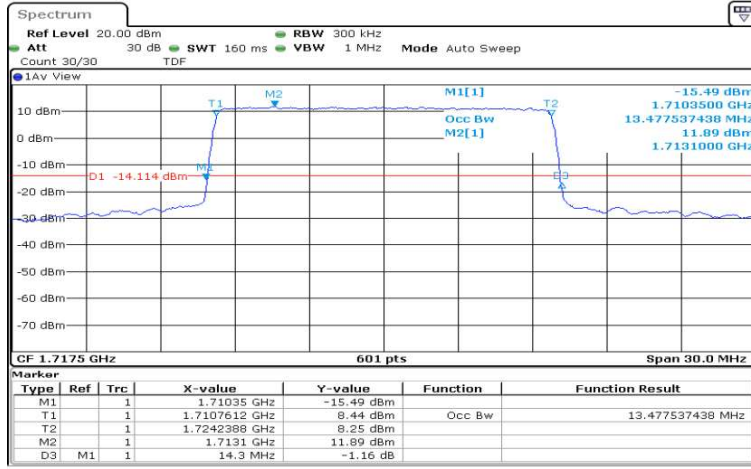
## Band4-10MHz-16QAM-20350-50RB#0-8.985



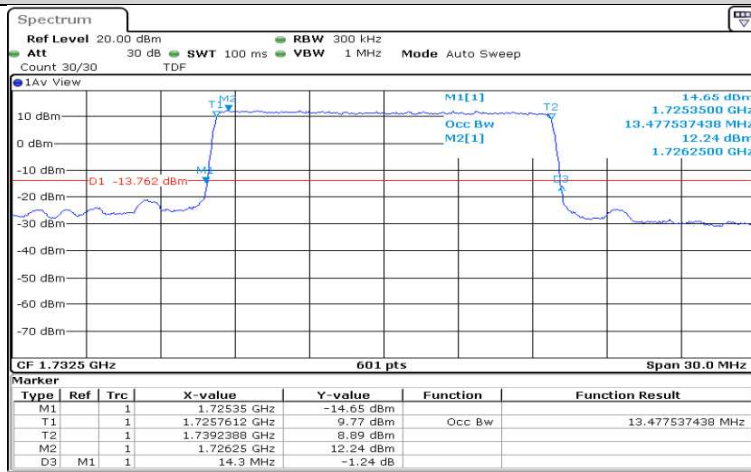
Date: 15.AUG.2020 17:50:17



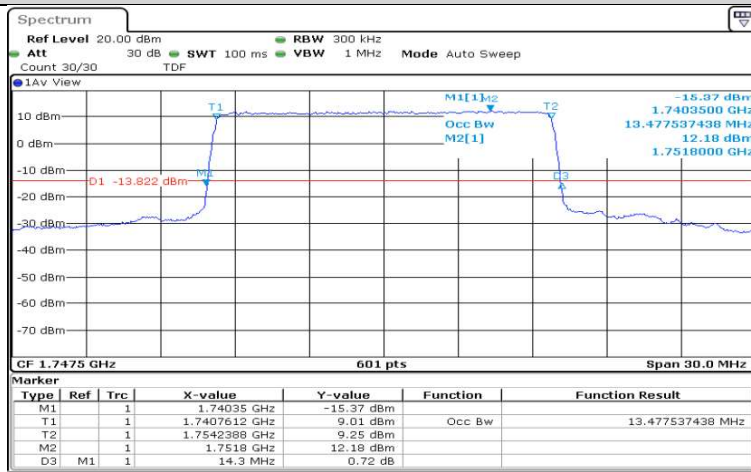
Band4-15MHz-QPSK-20025-75RB#0-13.478



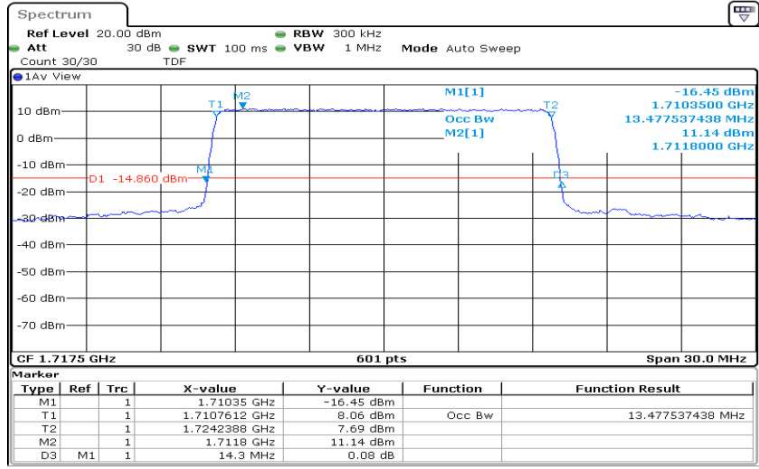
Band4-15MHz-QPSK-20175-75RB#0-13.478



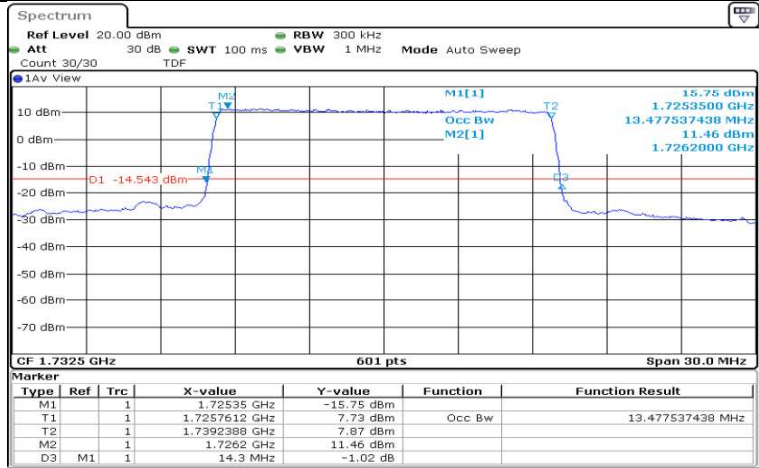
Band4-15MHz-QPSK-20325-75RB#0-13.478



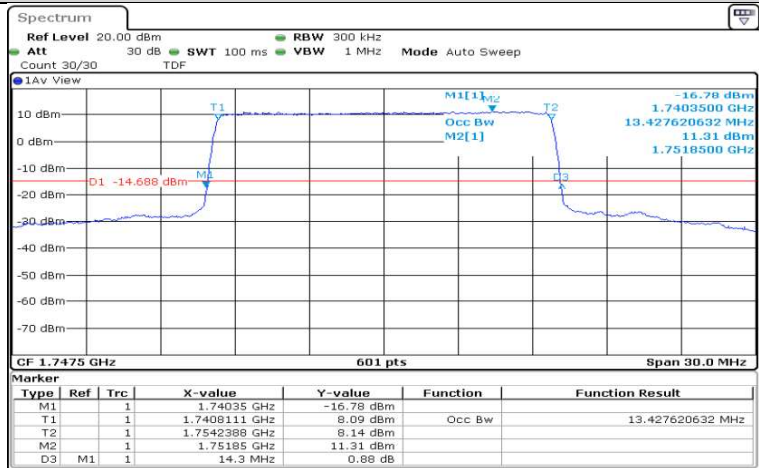
**Band4-15MHz-16QAM-20025-75RB#0-13.478**



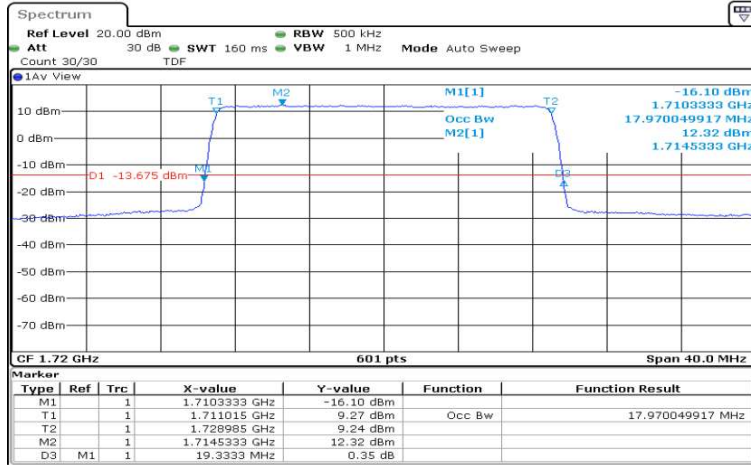
**Band4-15MHz-16QAM-20175-75RB#0-13.478**



**Band4-15MHz-16QAM-20325-75RB#0-13.428**

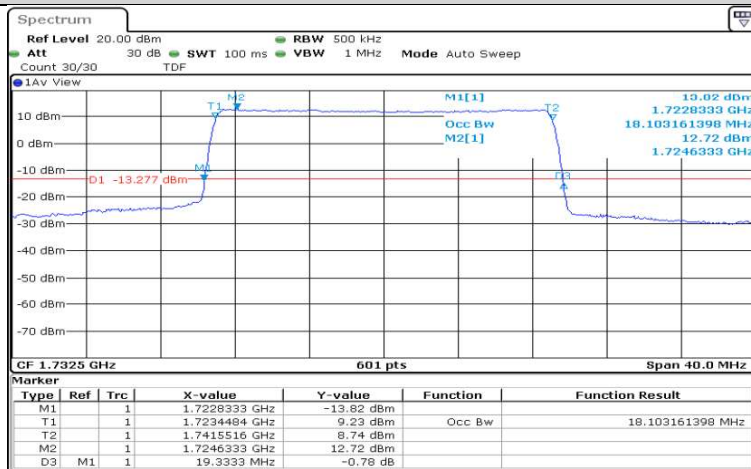


## Band4-20MHz-QPSK-20050-100RB#0-17.97



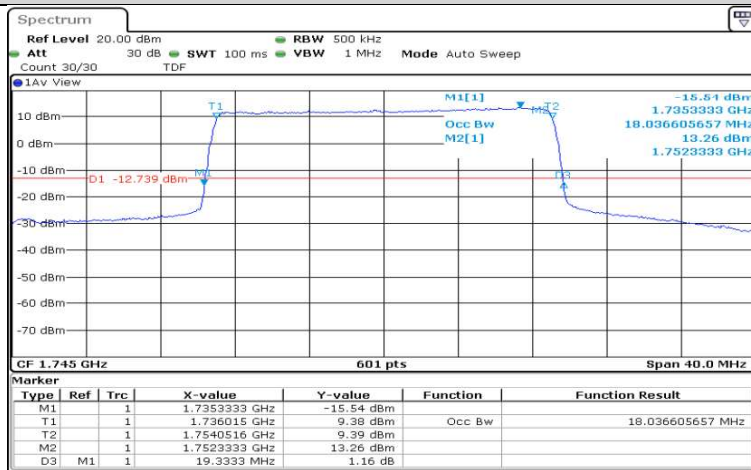
Date: 15.AUG.2020 18:31:36

## Band4-20MHz-QPSK-20175-100RB#0-18.103



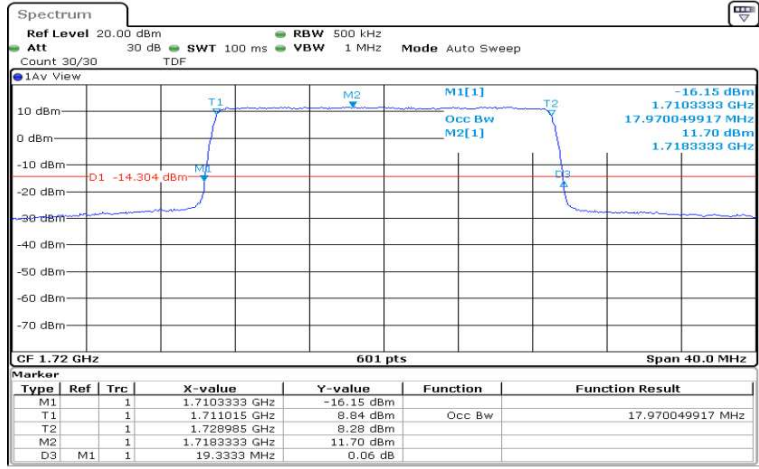
Date: 15.AUG.2020 18:31:58

## Band4-20MHz-QPSK-20300-100RB#0-18.037



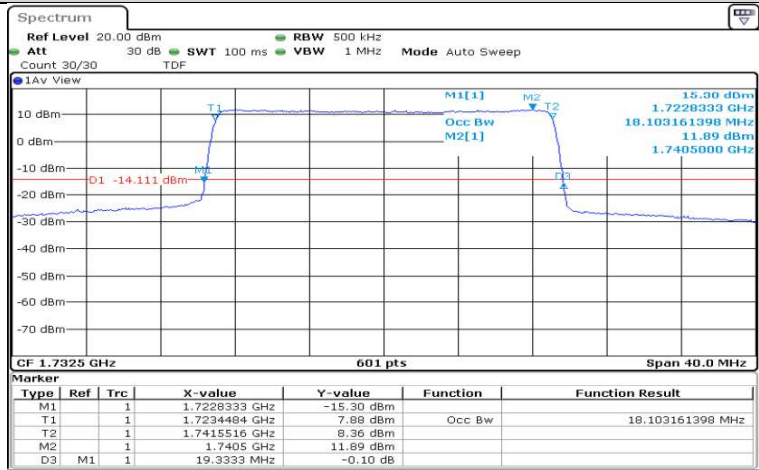
Date: 15.AUG.2020 18:32:19

**Band4-20MHz-16QAM-20050-100RB#0-17.97**



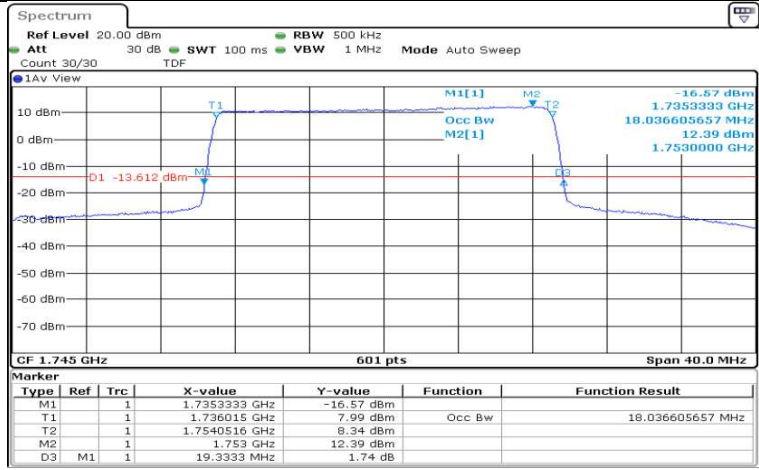
Date: 15.AUG.2020 18:31:46

**Band4-20MHz-16QAM-20175-100RB#0-18.103**



Date: 15.AUG.2020 18:32:08

**Band4-20MHz-16QAM-20300-100RB#0-18.037**



Date: 15.AUG.2020 18:32:29

## Appendix E: Band Edges Compliance

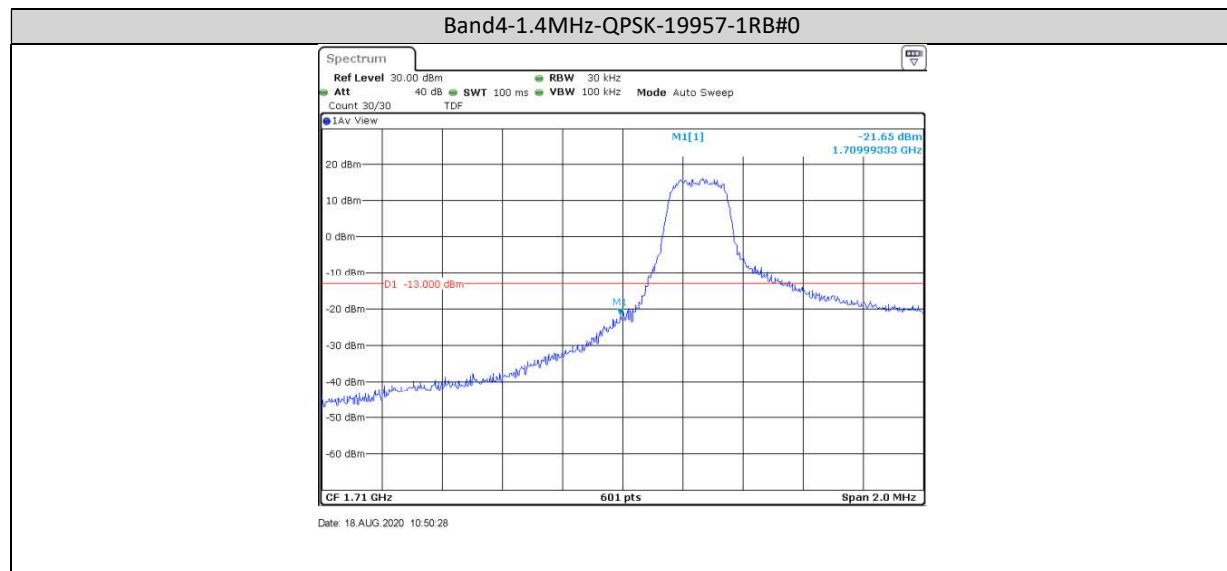
### Test Plots

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	-21.65	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	-33.88	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	-26.49	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	-19.39	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	-34.35	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	-27.42	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	-21.65	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	-34.96	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	-27.58	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	-34.13	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	-20.78	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	-27.09	PASS
Band4	3MHz	QPSK	19965	1RB#14	-29.60	PASS
Band4	3MHz	QPSK	19965	1RB#0	-15.51	PASS
Band4	3MHz	QPSK	19965	15RB#0	-25.25	PASS
Band4	3MHz	QPSK	20385	1RB#14	-14.27	PASS
Band4	3MHz	QPSK	20385	1RB#0	-29.14	PASS
Band4	3MHz	QPSK	20385	15RB#0	-22.48	PASS
Band4	3MHz	16QAM	19965	1RB#0	-15.73	PASS
Band4	3MHz	16QAM	19965	1RB#14	-30.37	PASS
Band4	3MHz	16QAM	19965	15RB#0	-23.75	PASS
Band4	3MHz	16QAM	20385	1RB#0	-29.60	PASS
Band4	3MHz	16QAM	20385	1RB#14	-14.50	PASS
Band4	3MHz	16QAM	20385	15RB#0	-24.57	PASS
Band4	5MHz	QPSK	19975	1RB#24	-35.86	PASS
Band4	5MHz	QPSK	19975	1RB#0	-18.56	PASS
Band4	5MHz	QPSK	19975	25RB#0	-27.81	PASS
Band4	5MHz	QPSK	20375	1RB#24	-18.74	PASS
Band4	5MHz	QPSK	20375	1RB#0	-35.35	PASS
Band4	5MHz	QPSK	20375	25RB#0	-28.15	PASS
Band4	5MHz	16QAM	19975	1RB#0	-21.11	PASS
Band4	5MHz	16QAM	19975	1RB#24	-36.25	PASS
Band4	5MHz	16QAM	19975	25RB#0	-28.68	PASS
Band4	5MHz	16QAM	20375	1RB#0	-35.95	PASS
Band4	5MHz	16QAM	20375	1RB#24	-19.13	PASS
Band4	5MHz	16QAM	20375	25RB#0	-27.98	PASS
Band4	10MHz	QPSK	20000	1RB#0	-24.42	PASS
Band4	10MHz	QPSK	20000	1RB#49	-39.19	PASS
Band4	10MHz	QPSK	20000	50RB#0	-31.54	PASS
Band4	10MHz	QPSK	20350	1RB#49	-25.10	PASS
Band4	10MHz	QPSK	20350	1RB#0	-38.61	PASS
Band4	10MHz	QPSK	20350	50RB#0	-30.42	PASS
Band4	10MHz	16QAM	20000	1RB#49	-40.77	PASS
Band4	10MHz	16QAM	20000	1RB#0	-26.07	PASS

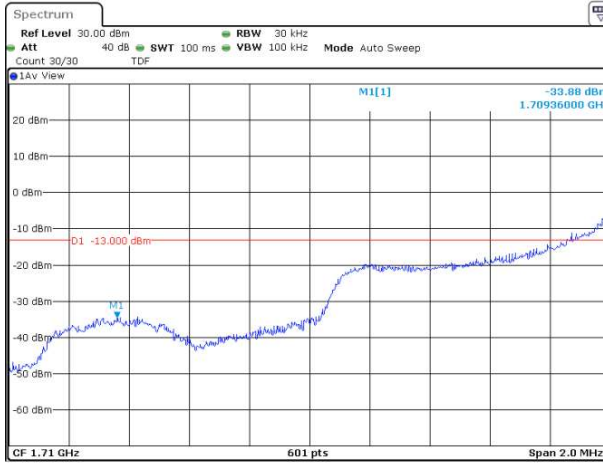
Total Quality. Assured.

Band4	10MHz	16QAM	20000	50RB#0	-31.61	PASS
Band4	10MHz	16QAM	20350	1RB#0	-38.93	PASS
Band4	10MHz	16QAM	20350	1RB#49	-25.78	PASS
Band4	10MHz	16QAM	20350	50RB#0	-31.14	PASS
Band4	15MHz	QPSK	20025	1RB#74	-39.87	PASS
Band4	15MHz	QPSK	20025	1RB#0	-27.14	PASS
Band4	15MHz	QPSK	20025	75RB#0	-29.24	PASS
Band4	15MHz	QPSK	20325	1RB#0	-39.13	PASS
Band4	15MHz	QPSK	20325	1RB#74	-26.45	PASS
Band4	15MHz	QPSK	20325	75RB#0	-30.66	PASS
Band4	15MHz	16QAM	20025	1RB#0	-27.91	PASS
Band4	15MHz	16QAM	20025	1RB#74	-39.68	PASS
Band4	15MHz	16QAM	20025	75RB#0	-31.71	PASS
Band4	15MHz	16QAM	20325	1RB#0	-39.43	PASS
Band4	15MHz	16QAM	20325	1RB#74	-26.72	PASS
Band4	15MHz	16QAM	20325	75RB#0	-30.94	PASS
Band4	20MHz	QPSK	20050	1RB#0	-26.35	PASS
Band4	20MHz	QPSK	20050	1RB#99	-38.75	PASS
Band4	20MHz	QPSK	20050	100RB#0	-30.65	PASS
Band4	20MHz	QPSK	20300	1RB#0	-27.00	PASS
Band4	20MHz	QPSK	20300	1RB#99	-25.98	PASS
Band4	20MHz	QPSK	20300	100RB#0	-29.72	PASS
Band4	20MHz	16QAM	20050	1RB#0	-26.53	PASS
Band4	20MHz	16QAM	20050	1RB#99	-38.58	PASS
Band4	20MHz	16QAM	20050	100RB#0	-31.31	PASS
Band4	20MHz	16QAM	20300	1RB#0	-28.02	PASS
Band4	20MHz	16QAM	20300	1RB#99	-27.30	PASS
Band4	20MHz	16QAM	20300	100RB#0	-30.12	PASS

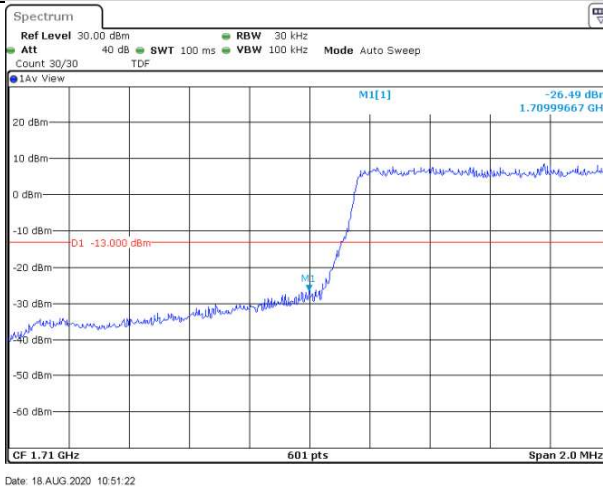
## Test Graphs



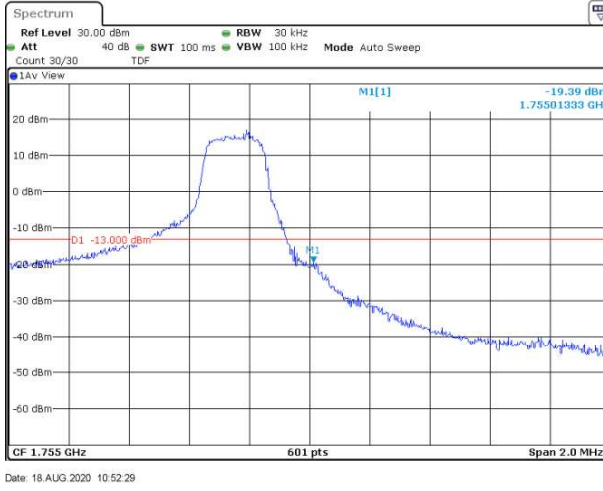
**Band4-1.4MHz-QPSK-19957-1RB#5**



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



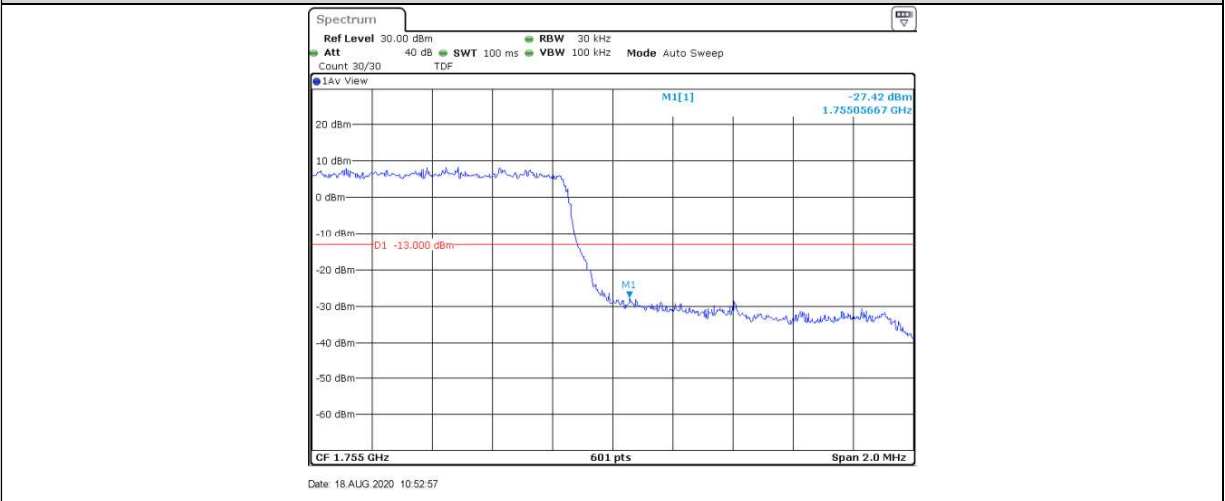
**Band4-1.4MHz-QPSK-20393-1RB#5**



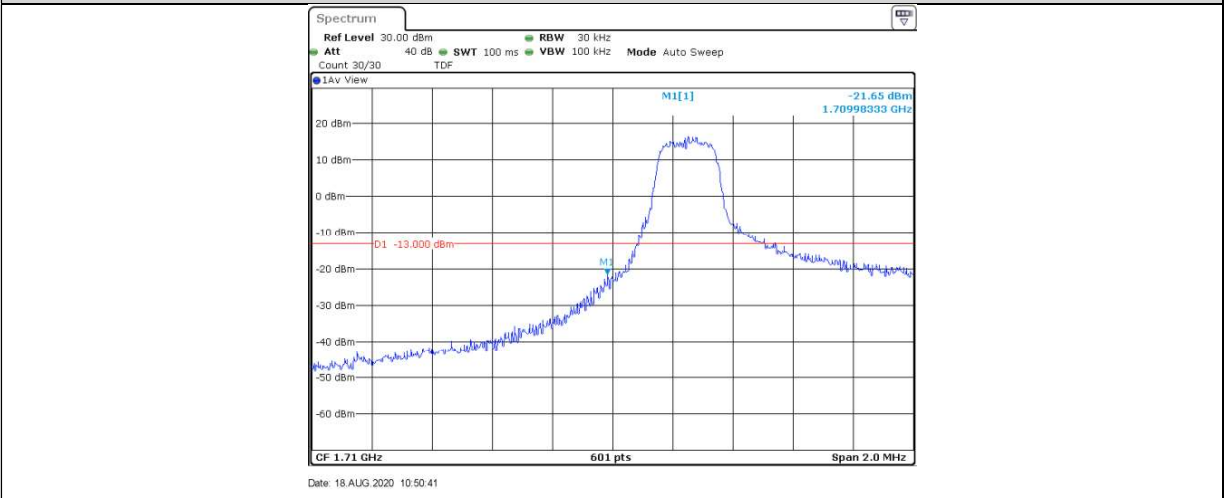
**Band4-1.4MHz-QPSK-20393-1RB#0**



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



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



Band4-1.4MHz-16QAM-19957-1RB#5