

Frequency Stability-TL/VH

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
12	1.4	23017	699.7	QPSK	6@0	-8.55	-0.01223	±2.5	PASS	TL/VH
12	1.4	23017	699.7	16QAM	6@0	-2.68	-0.00382	±2.5	PASS	TL/VH
12	1.4	23017	699.7	64QAM	6@0	3.3	0.00472	±2.5	PASS	TL/VH
12	1.4	23095	707.5	QPSK	6@0	-7.0	-0.00989	±2.5	PASS	TL/VH
12	1.4	23095	707.5	16QAM	6@0	-2.25	-0.00317	±2.5	PASS	TL/VH
12	1.4	23095	707.5	64QAM	6@0	0.92	0.00129	±2.5	PASS	TL/VH
12	1.4	23173	715.3	QPSK	6@0	-8.74	-0.01222	±2.5	PASS	TL/VH
12	1.4	23173	715.3	16QAM	6@0	-0.3	-0.00042	±2.5	PASS	TL/VH
12	1.4	23173	715.3	64QAM	6@0	-0.29	-0.0004	±2.5	PASS	TL/VH
12	3.0	23025	700.5	QPSK	15@0	-8.17	-0.01166	±2.5	PASS	TL/VH
12	3.0	23025	700.5	16QAM	15@0	-3.16	-0.00451	±2.5	PASS	TL/VH
12	3.0	23025	700.5	64QAM	15@0	1.82	0.00259	±2.5	PASS	TL/VH
12	3.0	23095	707.5	QPSK	15@0	-3.05	-0.00431	±2.5	PASS	TL/VH
12	3.0	23095	707.5	16QAM	15@0	-3.81	-0.00538	±2.5	PASS	TL/VH
12	3.0	23095	707.5	64QAM	15@0	1.1	0.00156	±2.5	PASS	TL/VH
12	3.0	23165	714.5	QPSK	15@0	-5.49	-0.00769	±2.5	PASS	TL/VH
12	3.0	23165	714.5	16QAM	15@0	0.82	0.00114	±2.5	PASS	TL/VH
12	3.0	23165	714.5	64QAM	15@0	-2.72	-0.0038	±2.5	PASS	TL/VH
12	5.0	23035	701.5	QPSK	25@0	-1.2	-0.00171	±2.5	PASS	TL/VH
12	5.0	23035	701.5	16QAM	25@0	-0.94	-0.00135	±2.5	PASS	TL/VH
12	5.0	23035	701.5	64QAM	25@0	2.83	0.00404	±2.5	PASS	TL/VH
12	5.0	23095	707.5	QPSK	25@0	-8.21	-0.01161	±2.5	PASS	TL/VH
12	5.0	23095	707.5	16QAM	25@0	-3.79	-0.00536	±2.5	PASS	TL/VH
12	5.0	23095	707.5	64QAM	25@0	2.46	0.00348	±2.5	PASS	TL/VH
12	5.0	23155	713.5	QPSK	25@0	-3.45	-0.00483	±2.5	PASS	TL/VH
12	5.0	23155	713.5	16QAM	25@0	-4.32	-0.00605	±2.5	PASS	TL/VH
12	5.0	23155	713.5	64QAM	25@0	-1.73	-0.00243	±2.5	PASS	TL/VH
12	10.0	23060	704.0	QPSK	50@0	2.06	0.00293	±2.5	PASS	TL/VH
12	10.0	23060	704.0	16QAM	50@0	0.3	0.00043	±2.5	PASS	TL/VH
12	10.0	23060	704.0	64QAM	50@0	-7.25	-0.0103	±2.5	PASS	TL/VH
12	10.0	23095	707.5	QPSK	50@0	-0.96	-0.00135	±2.5	PASS	TL/VH
12	10.0	23095	707.5	16QAM	50@0	-5.69	-0.00805	±2.5	PASS	TL/VH
12	10.0	23095	707.5	64QAM	50@0	1.67	0.00237	±2.5	PASS	TL/VH
12	10.0	23130	711.0	QPSK	50@0	-4.32	-0.00608	±2.5	PASS	TL/VH
12	10.0	23130	711.0	16QAM	50@0	-2.26	-0.00318	±2.5	PASS	TL/VH
12	10.0	23130	711.0	64QAM	50@0	-8.8	-0.01237	±2.5	PASS	TL/VH

Frequency Stability-TL/VL

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
12	1.4	23017	699.7	QPSK	6@0	-9.11	-0.01302	±2.5	PASS	TL/VL
12	1.4	23017	699.7	16QAM	6@0	-2.0	-0.00286	±2.5	PASS	TL/VL
12	1.4	23017	699.7	64QAM	6@0	10.19	0.01456	±2.5	PASS	TL/VL
12	1.4	23095	707.5	QPSK	6@0	-5.35	-0.00756	±2.5	PASS	TL/VL
12	1.4	23095	707.5	16QAM	6@0	0.8	0.00113	±2.5	PASS	TL/VL
12	1.4	23095	707.5	64QAM	6@0	-12.57	-0.01777	±2.5	PASS	TL/VL
12	1.4	23173	715.3	QPSK	6@0	-4.92	-0.00688	±2.5	PASS	TL/VL
12	1.4	23173	715.3	16QAM	6@0	-0.57	-0.0008	±2.5	PASS	TL/VL
12	1.4	23173	715.3	64QAM	6@0	7.6	0.01062	±2.5	PASS	TL/VL
12	3.0	23025	700.5	QPSK	15@0	-6.72	-0.0096	±2.5	PASS	TL/VL
12	3.0	23025	700.5	16QAM	15@0	-3.86	-0.00551	±2.5	PASS	TL/VL
12	3.0	23025	700.5	64QAM	15@0	0.64	0.00092	±2.5	PASS	TL/VL
12	3.0	23095	707.5	QPSK	15@0	-3.56	-0.00503	±2.5	PASS	TL/VL
12	3.0	23095	707.5	16QAM	15@0	-0.7	-0.00099	±2.5	PASS	TL/VL
12	3.0	23095	707.5	64QAM	15@0	-5.12	-0.00724	±2.5	PASS	TL/VL
12	3.0	23165	714.5	QPSK	15@0	-7.01	-0.00981	±2.5	PASS	TL/VL
12	3.0	23165	714.5	16QAM	15@0	1.8	0.00252	±2.5	PASS	TL/VL
12	3.0	23165	714.5	64QAM	15@0	10.67	0.01494	±2.5	PASS	TL/VL
12	5.0	23035	701.5	QPSK	25@0	-1.62	-0.0023	±2.5	PASS	TL/VL
12	5.0	23035	701.5	16QAM	25@0	-4.25	-0.00606	±2.5	PASS	TL/VL
12	5.0	23035	701.5	64QAM	25@0	-1.43	-0.00204	±2.5	PASS	TL/VL
12	5.0	23095	707.5	QPSK	25@0	-2.16	-0.00305	±2.5	PASS	TL/VL
12	5.0	23095	707.5	16QAM	25@0	0.27	0.00038	±2.5	PASS	TL/VL
12	5.0	23095	707.5	64QAM	25@0	-9.08	-0.01284	±2.5	PASS	TL/VL
12	5.0	23155	713.5	QPSK	25@0	-3.52	-0.00493	±2.5	PASS	TL/VL
12	5.0	23155	713.5	16QAM	25@0	-3.83	-0.00537	±2.5	PASS	TL/VL
12	5.0	23155	713.5	64QAM	25@0	8.68	0.01217	±2.5	PASS	TL/VL
12	10.0	23060	704.0	QPSK	50@0	-0.21	-0.0003	±2.5	PASS	TL/VL
12	10.0	23060	704.0	16QAM	50@0	-1.06	-0.0015	±2.5	PASS	TL/VL
12	10.0	23060	704.0	64QAM	50@0	-12.66	-0.01798	±2.5	PASS	TL/VL
12	10.0	23095	707.5	QPSK	50@0	-2.47	-0.0035	±2.5	PASS	TL/VL
12	10.0	23095	707.5	16QAM	50@0	-3.2	-0.00453	±2.5	PASS	TL/VL
12	10.0	23095	707.5	64QAM	50@0	-4.63	-0.00655	±2.5	PASS	TL/VL
12	10.0	23130	711.0	QPSK	50@0	0.32	0.00045	±2.5	PASS	TL/VL
12	10.0	23130	711.0	16QAM	50@0	-3.48	-0.00489	±2.5	PASS	TL/VL
12	10.0	23130	711.0	64QAM	50@0	-1.8	-0.00254	±2.5	PASS	TL/VL

Frequency Stability-TL/VN

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
12	1.4	23017	699.7	QPSK	6@0	-5.69	-0.00814	±2.5	PASS	TL/VN
12	1.4	23017	699.7	16QAM	6@0	-3.25	-0.00464	±2.5	PASS	TL/VN
12	1.4	23017	699.7	64QAM	6@0	-3.82	-0.00546	±2.5	PASS	TL/VN
12	1.4	23095	707.5	QPSK	6@0	-2.02	-0.00285	±2.5	PASS	TL/VN
12	1.4	23095	707.5	16QAM	6@0	0.4	0.00057	±2.5	PASS	TL/VN
12	1.4	23095	707.5	64QAM	6@0	1.96	0.00277	±2.5	PASS	TL/VN
12	1.4	23173	715.3	QPSK	6@0	-4.01	-0.0056	±2.5	PASS	TL/VN
12	1.4	23173	715.3	16QAM	6@0	-1.2	-0.00168	±2.5	PASS	TL/VN
12	1.4	23173	715.3	64QAM	6@0	-3.96	-0.00554	±2.5	PASS	TL/VN
12	3.0	23025	700.5	QPSK	15@0	-4.12	-0.00588	±2.5	PASS	TL/VN
12	3.0	23025	700.5	16QAM	15@0	-0.39	-0.00055	±2.5	PASS	TL/VN
12	3.0	23025	700.5	64QAM	15@0	-4.72	-0.00674	±2.5	PASS	TL/VN
12	3.0	23095	707.5	QPSK	15@0	1.99	0.00281	±2.5	PASS	TL/VN
12	3.0	23095	707.5	16QAM	15@0	1.23	0.00174	±2.5	PASS	TL/VN
12	3.0	23095	707.5	64QAM	15@0	4.81	0.00679	±2.5	PASS	TL/VN
12	3.0	23165	714.5	QPSK	15@0	-8.4	-0.01175	±2.5	PASS	TL/VN
12	3.0	23165	714.5	16QAM	15@0	-3.12	-0.00436	±2.5	PASS	TL/VN
12	3.0	23165	714.5	64QAM	15@0	12.17	0.01704	±2.5	PASS	TL/VN
12	5.0	23035	701.5	QPSK	25@0	-4.94	-0.00704	±2.5	PASS	TL/VN
12	5.0	23035	701.5	16QAM	25@0	-3.86	-0.00551	±2.5	PASS	TL/VN
12	5.0	23035	701.5	64QAM	25@0	1.92	0.00273	±2.5	PASS	TL/VN
12	5.0	23095	707.5	QPSK	25@0	-3.23	-0.00457	±2.5	PASS	TL/VN
12	5.0	23095	707.5	16QAM	25@0	-4.84	-0.00683	±2.5	PASS	TL/VN
12	5.0	23095	707.5	64QAM	25@0	-5.48	-0.00774	±2.5	PASS	TL/VN
12	5.0	23155	713.5	QPSK	25@0	-0.64	-0.0009	±2.5	PASS	TL/VN
12	5.0	23155	713.5	16QAM	25@0	-3.02	-0.00423	±2.5	PASS	TL/VN
12	5.0	23155	713.5	64QAM	25@0	-3.35	-0.00469	±2.5	PASS	TL/VN
12	10.0	23060	704.0	QPSK	50@0	-3.86	-0.00549	±2.5	PASS	TL/VN
12	10.0	23060	704.0	16QAM	50@0	-4.05	-0.00575	±2.5	PASS	TL/VN
12	10.0	23060	704.0	64QAM	50@0	-7.94	-0.01128	±2.5	PASS	TL/VN
12	10.0	23095	707.5	QPSK	50@0	0.84	0.00119	±2.5	PASS	TL/VN
12	10.0	23095	707.5	16QAM	50@0	-3.06	-0.00433	±2.5	PASS	TL/VN
12	10.0	23095	707.5	64QAM	50@0	0.49	0.00069	±2.5	PASS	TL/VN
12	10.0	23130	711.0	QPSK	50@0	-3.66	-0.00515	±2.5	PASS	TL/VN
12	10.0	23130	711.0	16QAM	50@0	1.24	0.00175	±2.5	PASS	TL/VN
12	10.0	23130	711.0	64QAM	50@0	-2.59	-0.00364	±2.5	PASS	TL/VN

Frequency Stability-TN/VH

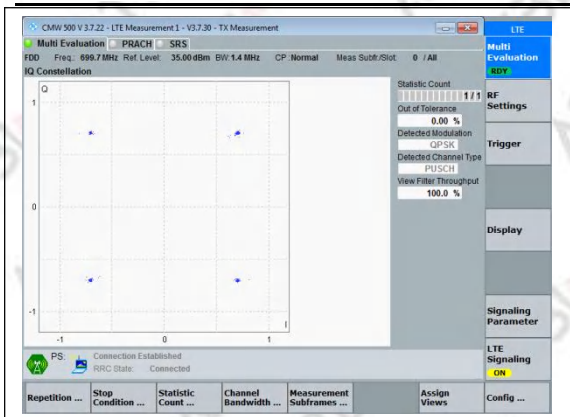
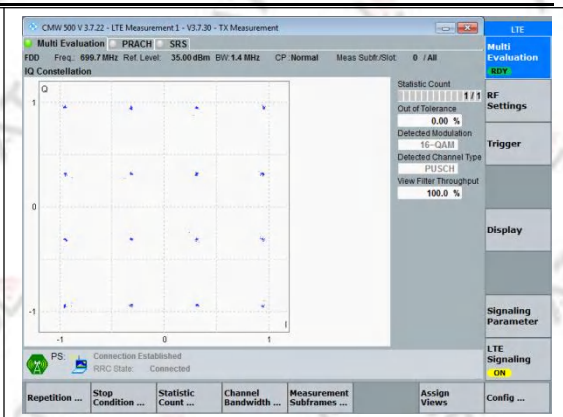
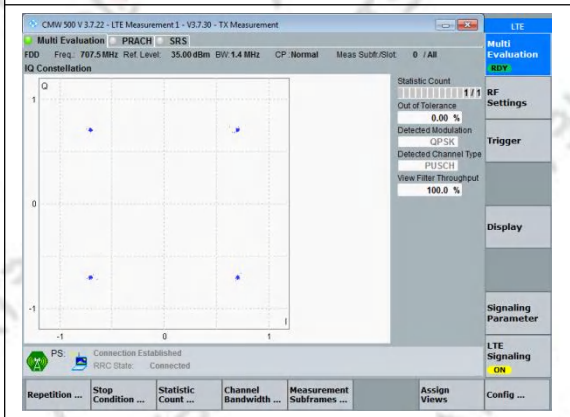
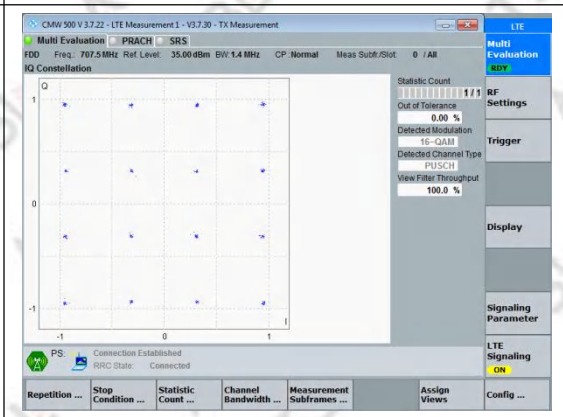
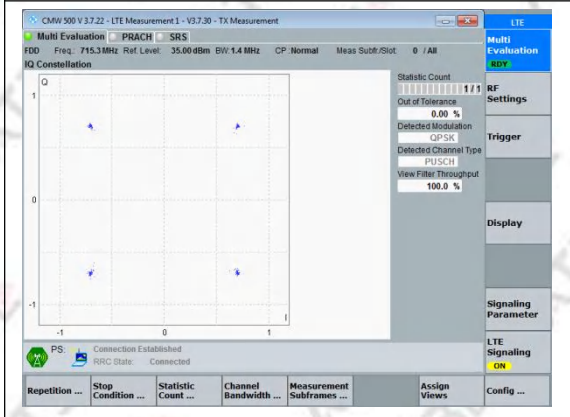
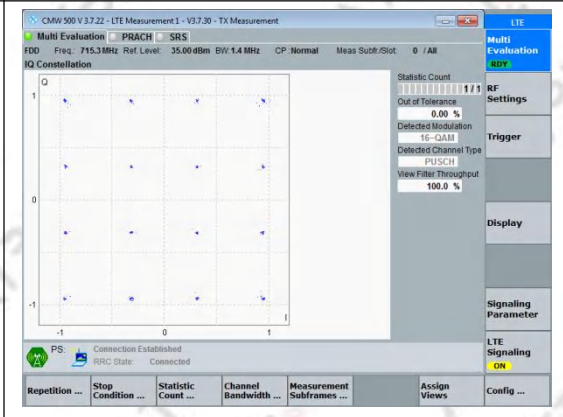
Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
12	1.4	23017	699.7	QPSK	6@0	-9.87	-0.01411	±2.5	PASS	TN/VH
12	1.4	23017	699.7	16QAM	6@0	-4.32	-0.00617	±2.5	PASS	TN/VH
12	1.4	23017	699.7	64QAM	6@0	-8.44	-0.01206	±2.5	PASS	TN/VH
12	1.4	23095	707.5	QPSK	6@0	-6.9	-0.00975	±2.5	PASS	TN/VH
12	1.4	23095	707.5	16QAM	6@0	-7.2	-0.01017	±2.5	PASS	TN/VH
12	1.4	23095	707.5	64QAM	6@0	4.43	0.00627	±2.5	PASS	TN/VH
12	1.4	23173	715.3	QPSK	6@0	-9.8	-0.0137	±2.5	PASS	TN/VH
12	1.4	23173	715.3	16QAM	6@0	-2.63	-0.00368	±2.5	PASS	TN/VH
12	1.4	23173	715.3	64QAM	6@0	-9.88	-0.01382	±2.5	PASS	TN/VH
12	3.0	23025	700.5	QPSK	15@0	-8.58	-0.01225	±2.5	PASS	TN/VH
12	3.0	23025	700.5	16QAM	15@0	-2.66	-0.0038	±2.5	PASS	TN/VH
12	3.0	23025	700.5	64QAM	15@0	3.69	0.00527	±2.5	PASS	TN/VH
12	3.0	23095	707.5	QPSK	15@0	-4.72	-0.00667	±2.5	PASS	TN/VH
12	3.0	23095	707.5	16QAM	15@0	-1.49	-0.0021	±2.5	PASS	TN/VH
12	3.0	23095	707.5	64QAM	15@0	-0.99	-0.0014	±2.5	PASS	TN/VH
12	3.0	23165	714.5	QPSK	15@0	-5.89	-0.00825	±2.5	PASS	TN/VH
12	3.0	23165	714.5	16QAM	15@0	0.32	0.00045	±2.5	PASS	TN/VH
12	3.0	23165	714.5	64QAM	15@0	-4.95	-0.00693	±2.5	PASS	TN/VH
12	5.0	23035	701.5	QPSK	25@0	-3.62	-0.00516	±2.5	PASS	TN/VH
12	5.0	23035	701.5	16QAM	25@0	-4.36	-0.00622	±2.5	PASS	TN/VH
12	5.0	23035	701.5	64QAM	25@0	-8.05	-0.01148	±2.5	PASS	TN/VH
12	5.0	23095	707.5	QPSK	25@0	-5.49	-0.00776	±2.5	PASS	TN/VH
12	5.0	23095	707.5	16QAM	25@0	-1.69	-0.00239	±2.5	PASS	TN/VH
12	5.0	23095	707.5	64QAM	25@0	-8.17	-0.01155	±2.5	PASS	TN/VH
12	5.0	23155	713.5	QPSK	25@0	-2.22	-0.00311	±2.5	PASS	TN/VH
12	5.0	23155	713.5	16QAM	25@0	-1.77	-0.00249	±2.5	PASS	TN/VH
12	5.0	23155	713.5	64QAM	25@0	0.32	0.00045	±2.5	PASS	TN/VH
12	10.0	23060	704.0	QPSK	50@0	-6.35	-0.00902	±2.5	PASS	TN/VH
12	10.0	23060	704.0	16QAM	50@0	-2.76	-0.00392	±2.5	PASS	TN/VH
12	10.0	23060	704.0	64QAM	50@0	-4.94	-0.00701	±2.5	PASS	TN/VH
12	10.0	23095	707.5	QPSK	50@0	-2.55	-0.0036	±2.5	PASS	TN/VH
12	10.0	23095	707.5	16QAM	50@0	-0.87	-0.00123	±2.5	PASS	TN/VH
12	10.0	23095	707.5	64QAM	50@0	-6.92	-0.00979	±2.5	PASS	TN/VH
12	10.0	23130	711.0	QPSK	50@0	-0.73	-0.00103	±2.5	PASS	TN/VH
12	10.0	23130	711.0	16QAM	50@0	-4.94	-0.00694	±2.5	PASS	TN/VH
12	10.0	23130	711.0	64QAM	50@0	-11.96	-0.01682	±2.5	PASS	TN/VH

Frequency Stability-TN/VL

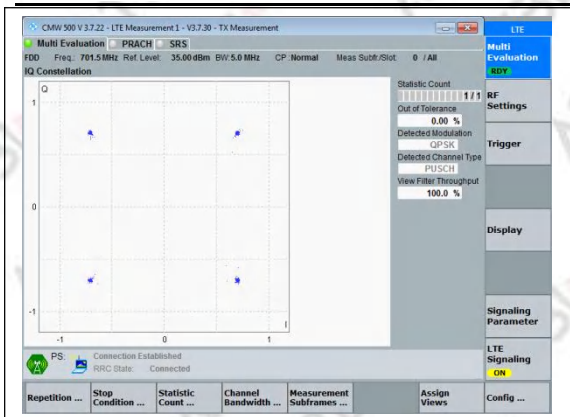
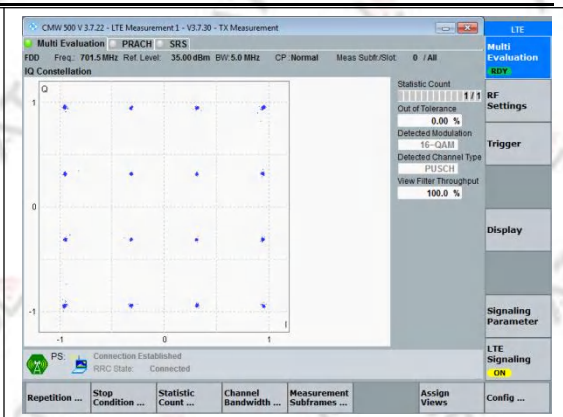
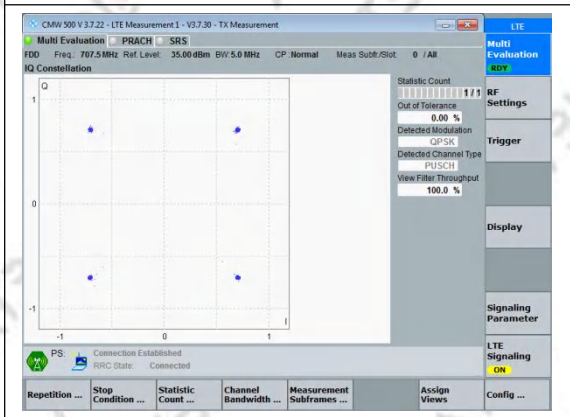
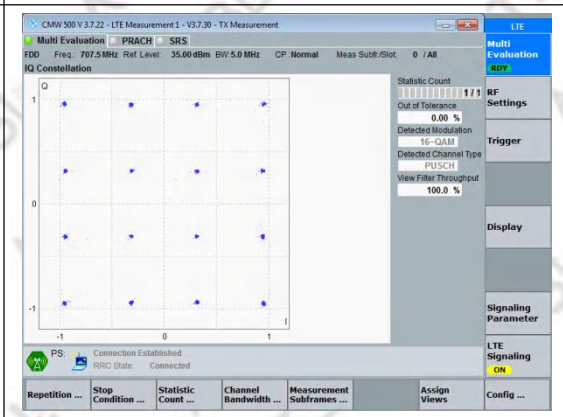
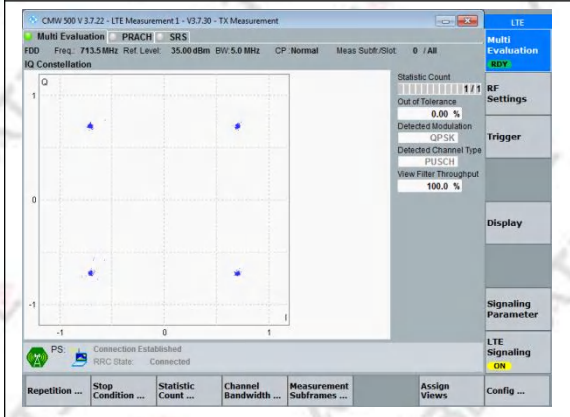
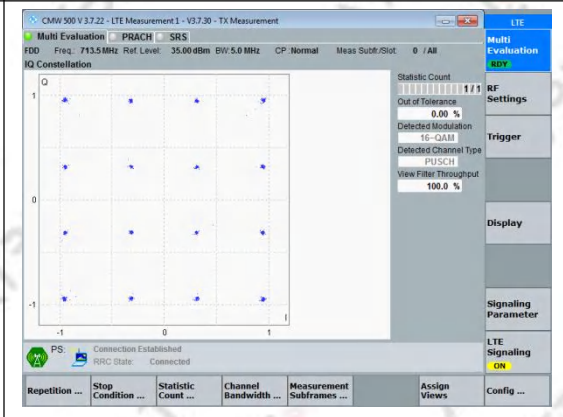
Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Deviation (Hz)	Deviation (ppm)	Limit(ppm)	Verdict	Environment
12	1.4	23017	699.7	QPSK	6@0	-8.88	-0.0127	±2.5	PASS	TN/VL
12	1.4	23017	699.7	16QAM	6@0	-4.08	-0.00583	±2.5	PASS	TN/VL
12	1.4	23017	699.7	64QAM	6@0	4.08	0.00583	±2.5	PASS	TN/VL
12	1.4	23095	707.5	QPSK	6@0	-1.54	-0.00218	±2.5	PASS	TN/VL
12	1.4	23095	707.5	16QAM	6@0	-2.3	-0.00326	±2.5	PASS	TN/VL
12	1.4	23095	707.5	64QAM	6@0	-7.0	-0.00989	±2.5	PASS	TN/VL
12	1.4	23173	715.3	QPSK	6@0	0.99	0.00138	±2.5	PASS	TN/VL
12	1.4	23173	715.3	16QAM	6@0	1.86	0.0026	±2.5	PASS	TN/VL
12	1.4	23173	715.3	64QAM	6@0	-4.31	-0.00602	±2.5	PASS	TN/VL
12	3.0	23025	700.5	QPSK	15@0	-2.2	-0.00314	±2.5	PASS	TN/VL
12	3.0	23025	700.5	16QAM	15@0	2.72	0.00388	±2.5	PASS	TN/VL
12	3.0	23025	700.5	64QAM	15@0	-4.95	-0.00707	±2.5	PASS	TN/VL
12	3.0	23095	707.5	QPSK	15@0	-4.76	-0.00673	±2.5	PASS	TN/VL
12	3.0	23095	707.5	16QAM	15@0	-4.31	-0.00609	±2.5	PASS	TN/VL
12	3.0	23095	707.5	64QAM	15@0	-10.14	-0.01434	±2.5	PASS	TN/VL
12	3.0	23165	714.5	QPSK	15@0	-5.11	-0.00715	±2.5	PASS	TN/VL
12	3.0	23165	714.5	16QAM	15@0	-3.35	-0.00468	±2.5	PASS	TN/VL
12	3.0	23165	714.5	64QAM	15@0	-1.44	-0.00202	±2.5	PASS	TN/VL
12	5.0	23035	701.5	QPSK	25@0	-0.76	-0.00108	±2.5	PASS	TN/VL
12	5.0	23035	701.5	16QAM	25@0	-2.42	-0.00345	±2.5	PASS	TN/VL
12	5.0	23035	701.5	64QAM	25@0	-5.35	-0.00763	±2.5	PASS	TN/VL
12	5.0	23095	707.5	QPSK	25@0	-4.76	-0.00673	±2.5	PASS	TN/VL
12	5.0	23095	707.5	16QAM	25@0	-2.79	-0.00394	±2.5	PASS	TN/VL
12	5.0	23095	707.5	64QAM	25@0	-11.0	-0.01555	±2.5	PASS	TN/VL
12	5.0	23155	713.5	QPSK	25@0	-2.65	-0.00371	±2.5	PASS	TN/VL
12	5.0	23155	713.5	16QAM	25@0	-7.01	-0.00982	±2.5	PASS	TN/VL
12	5.0	23155	713.5	64QAM	25@0	-14.92	-0.02091	±2.5	PASS	TN/VL
12	10.0	23060	704.0	QPSK	50@0	-2.96	-0.00421	±2.5	PASS	TN/VL
12	10.0	23060	704.0	16QAM	50@0	-1.52	-0.00215	±2.5	PASS	TN/VL
12	10.0	23060	704.0	64QAM	50@0	2.56	0.00364	±2.5	PASS	TN/VL
12	10.0	23095	707.5	QPSK	50@0	-2.6	-0.00368	±2.5	PASS	TN/VL
12	10.0	23095	707.5	16QAM	50@0	-1.12	-0.00158	±2.5	PASS	TN/VL
12	10.0	23095	707.5	64QAM	50@0	-2.8	-0.00396	±2.5	PASS	TN/VL
12	10.0	23130	711.0	QPSK	50@0	0.47	0.00066	±2.5	PASS	TN/VL
12	10.0	23130	711.0	16QAM	50@0	-2.78	-0.0039	±2.5	PASS	TN/VL
12	10.0	23130	711.0	64QAM	50@0	-18.25	-0.02567	±2.5	PASS	TN/VL

H7.Modulation Characteristics

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Verdict
12	1.4	23017	699.7	QPSK	6@0	PASS
12	1.4	23017	699.7	16QAM	6@0	PASS
12	1.4	23095	707.5	QPSK	6@0	PASS
12	1.4	23095	707.5	16QAM	6@0	PASS
12	1.4	23173	715.3	QPSK	6@0	PASS
12	1.4	23173	715.3	16QAM	6@0	PASS
12	3.0	23025	700.5	QPSK	15@0	PASS
12	3.0	23025	700.5	16QAM	15@0	PASS
12	3.0	23095	707.5	QPSK	15@0	PASS
12	3.0	23095	707.5	16QAM	15@0	PASS
12	3.0	23165	714.5	QPSK	15@0	PASS
12	3.0	23165	714.5	16QAM	15@0	PASS
12	5.0	23035	701.5	QPSK	25@0	PASS
12	5.0	23035	701.5	16QAM	25@0	PASS
12	5.0	23095	707.5	QPSK	25@0	PASS
12	5.0	23095	707.5	16QAM	25@0	PASS
12	5.0	23155	713.5	QPSK	25@0	PASS
12	5.0	23155	713.5	16QAM	25@0	PASS
12	10.0	23060	704.0	QPSK	50@0	PASS
12	10.0	23060	704.0	16QAM	50@0	PASS
12	10.0	23095	707.5	QPSK	50@0	PASS
12	10.0	23095	707.5	16QAM	50@0	PASS
12	10.0	23130	711.0	QPSK	50@0	PASS
12	10.0	23130	711.0	16QAM	50@0	PASS

	
Band 12 1.4MHz/699.7/Low QPSK 6@0	Band 12 1.4MHz/699.7/Low 16QAM 6@0
	
Band 12 1.4MHz/707.5/Mid QPSK 6@0	Band 12 1.4MHz/707.5/Mid 16QAM 6@0
	
Band 12 1.4MHz/715.3/High QPSK 6@0	Band 12 1.4MHz/715.3/High 16QAM 6@0



	
Band 12 5MHz/701.5/Low QPSK 25@0	Band 12 5MHz/701.5/Low 16QAM 25@0
	
Band 12 5MHz/707.5/Mid QPSK 25@0	Band 12 5MHz/707.5/Mid 16QAM 25@0
	
Band 12 5MHz/713.5/High QPSK 25@0	Band 12 5MHz/713.5/High 16QAM 25@0

