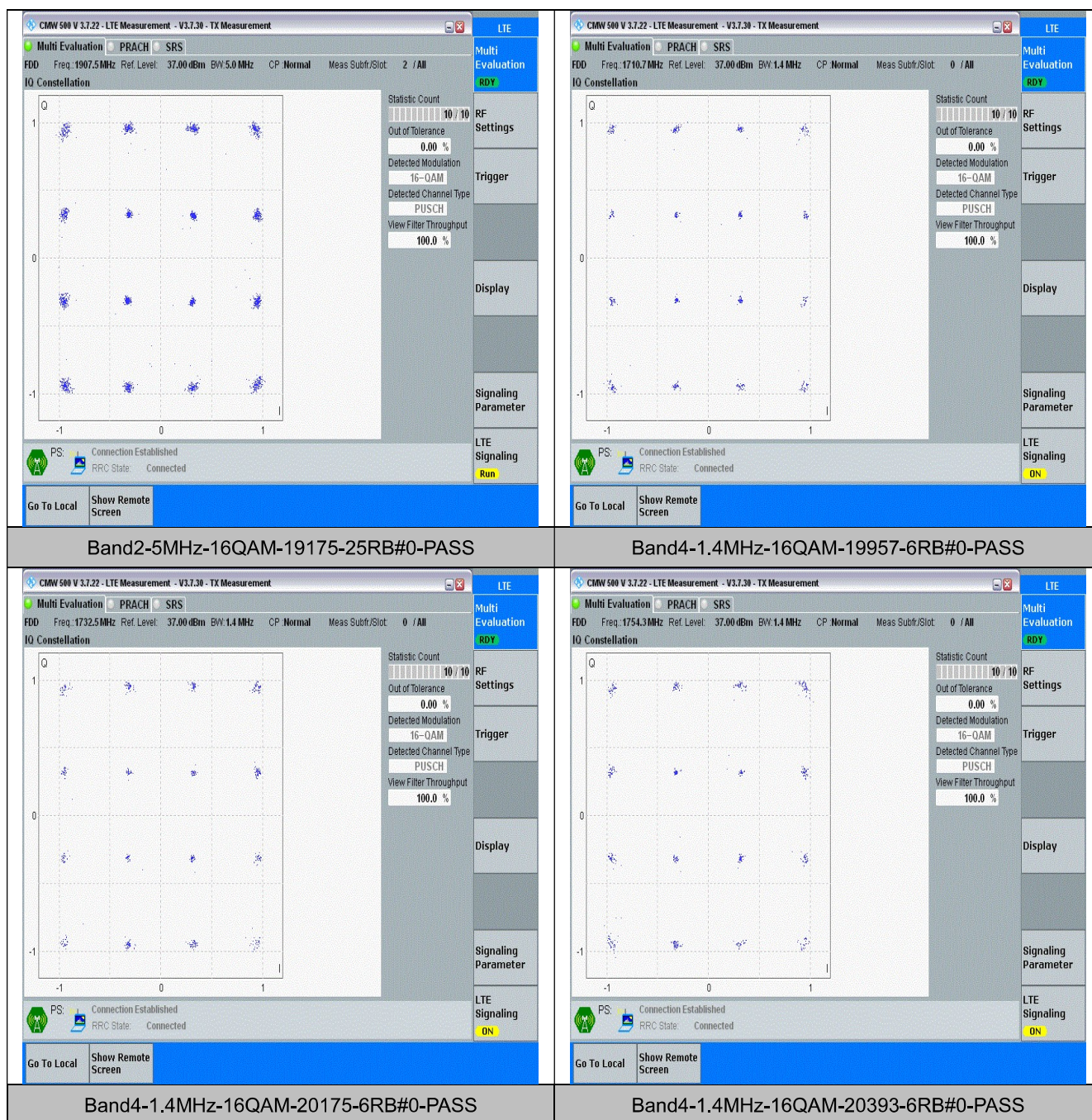
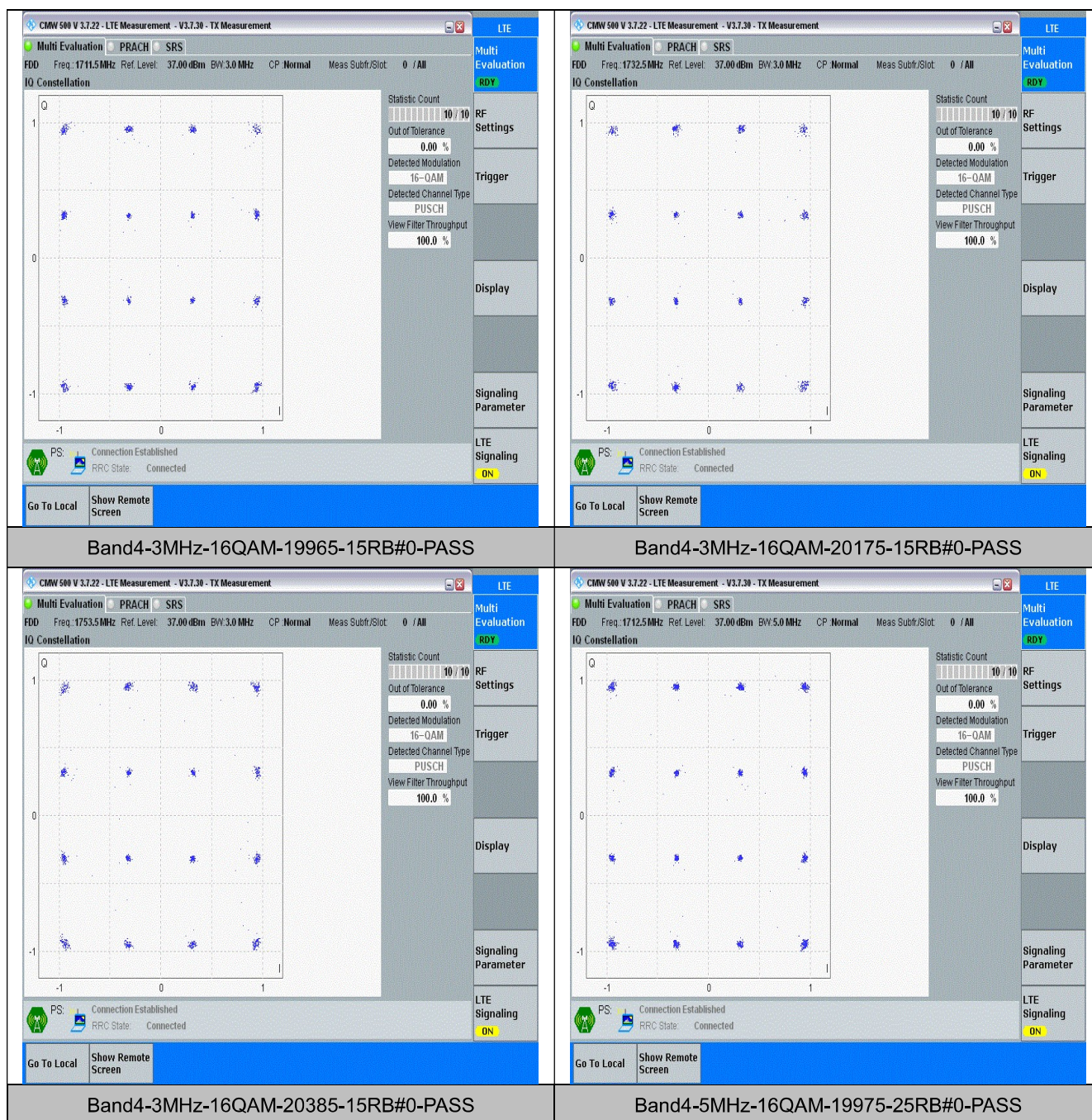
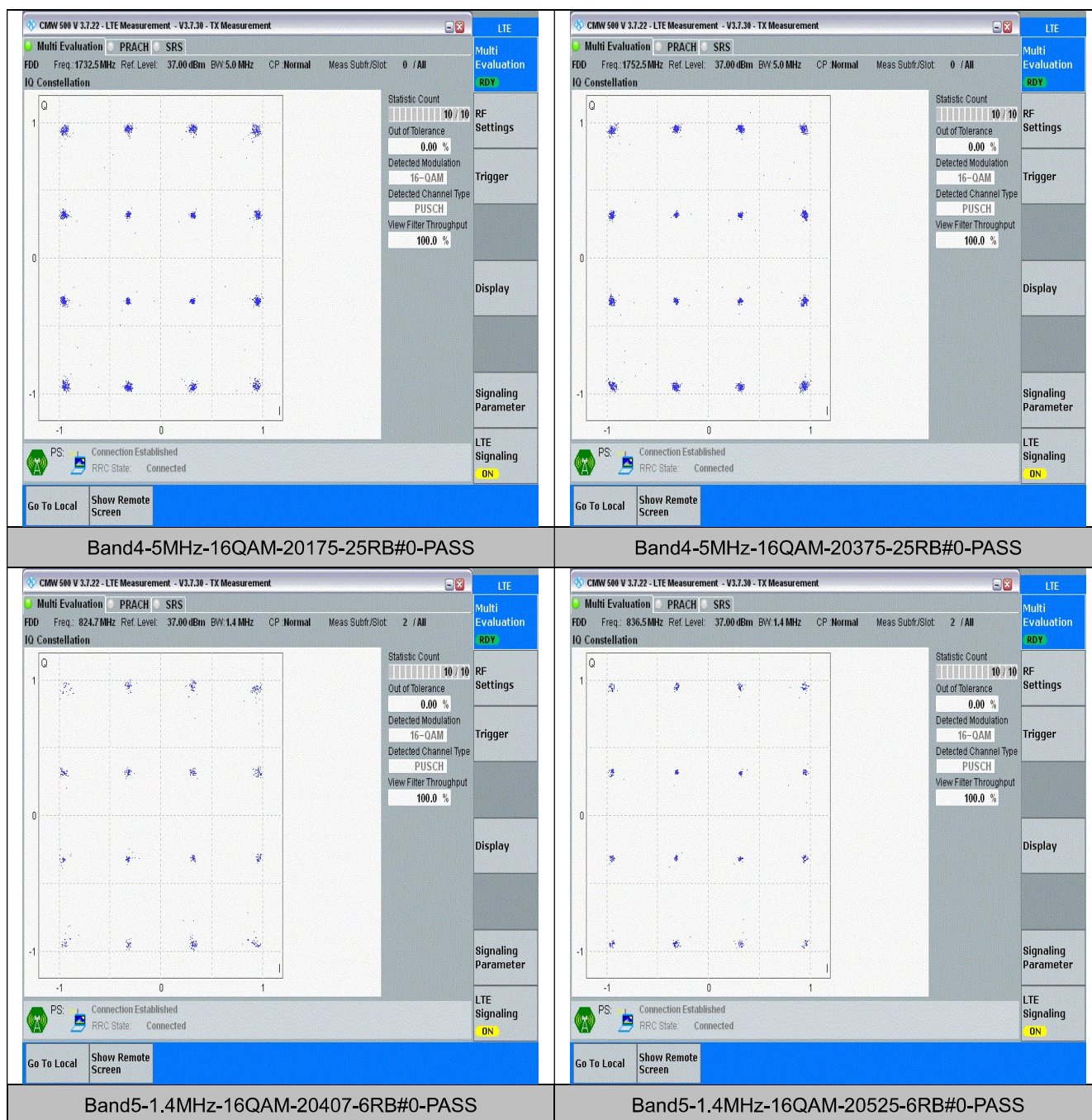
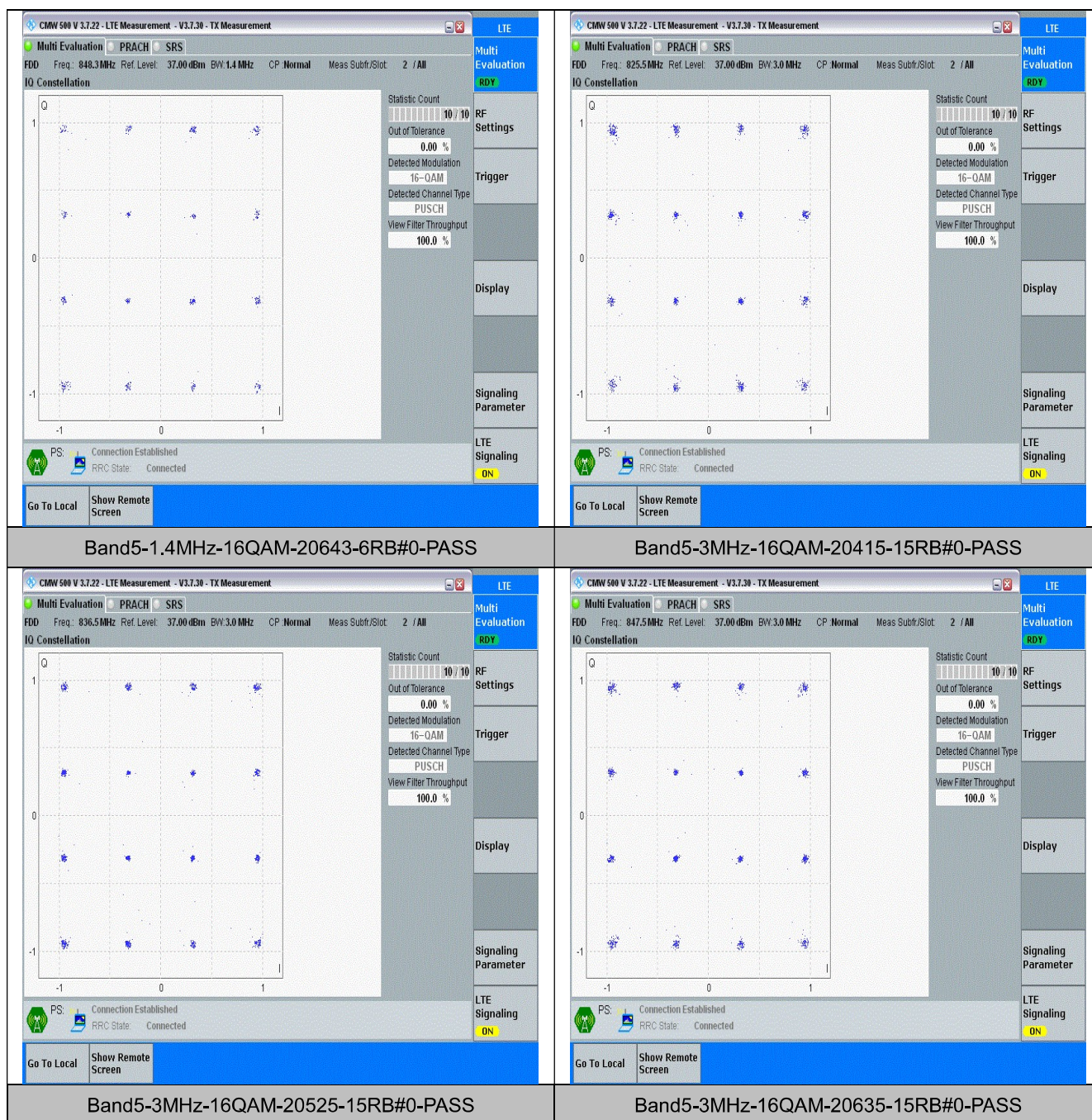
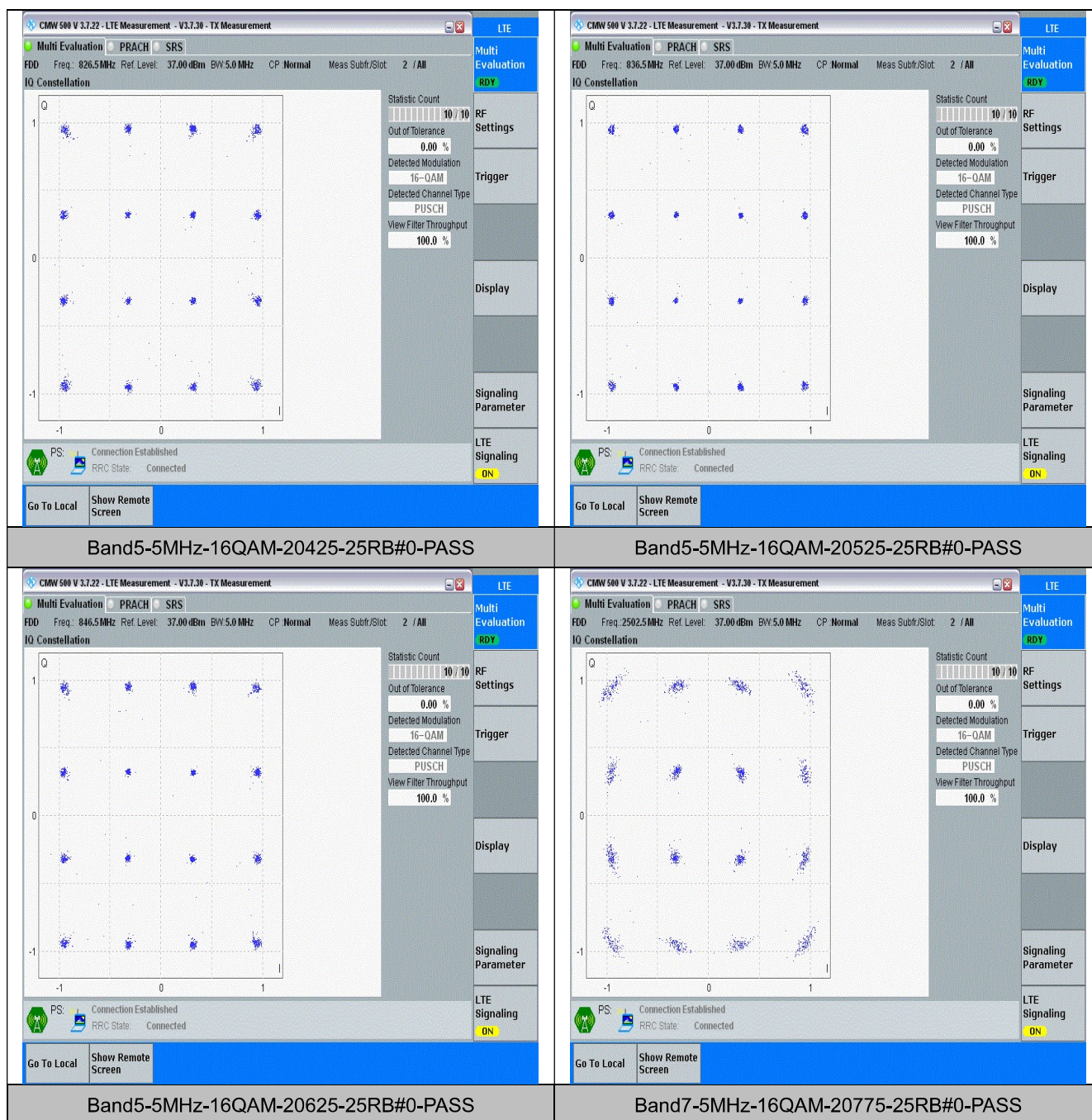


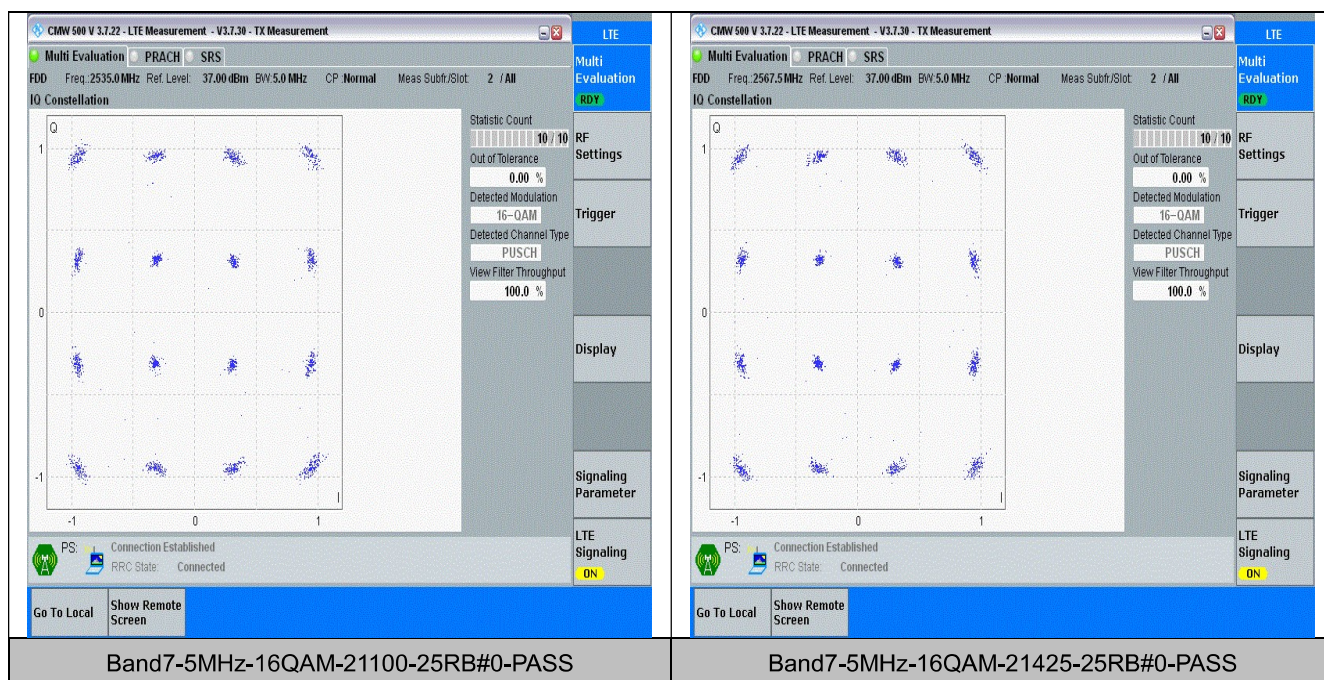












10. Bandwidth

10.1. Limit

According to FCC section 2.1049, OBW and EBW no limit.

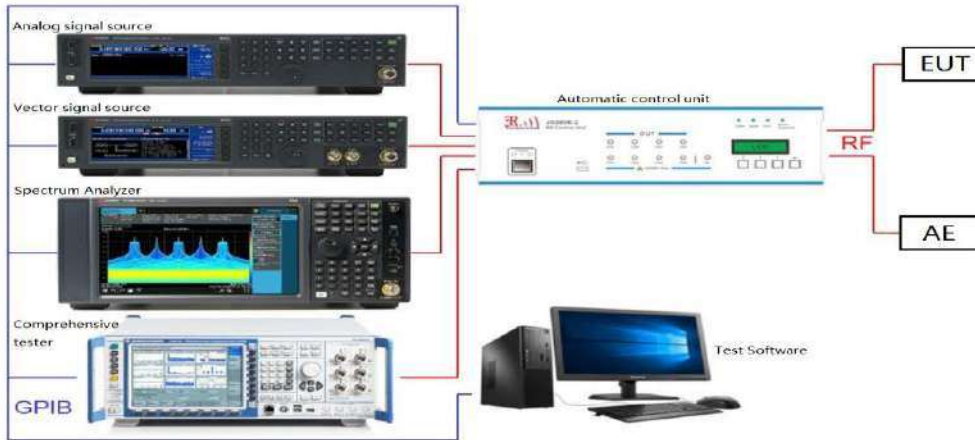
10.2. Test Procedures

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyser, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel, middle channel and high channel). The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1 percent of the selected span as is possible without being below 1 percent. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used since a peak or, peak hold, may produce a wider bandwidth than actual. The trace data points are recovered and are directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 percent of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded. The span between the two recorded frequencies is the occupied bandwidth.

Test Settings

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW=1-5% of the expected OBW
3. VBW $\geq$ 3 $\times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1- 5% of the 99% occupied bandwidth observed in Step 7

10.3. Test Setup



10.4. Test Results

EUT Name	GPS Tracker	Model	GL33CG
Test Date	2025.09.25 to 2025.11.17	Test Mode	GPRS/EGPRS 850/1900
Test Engineer	Stone Zhang	Environmental Conditions	Temp:23.0 ~ 31.8°C;Humi:25 ~ 63%RH

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
GPRS850	128	0.24535	0.3178	PASS
EGPRS850	128	0.24382	0.3054	PASS
GPRS850	190	0.24550	0.3073	PASS
EGPRS850	190	0.24737	0.3048	PASS
GPRS850	251	0.24334	0.3101	PASS
EGPRS850	251	0.24693	0.3041	PASS
GPRS1900	512	0.24610	0.3194	PASS
EGPRS1900	512	0.24760	0.3168	PASS
GPRS1900	661	0.24438	0.3150	PASS
EGPRS1900	661	0.24715	0.3198	PASS
GPRS1900	810	0.24786	0.3126	PASS
EGPRS1900	810	0.24966	0.3153	PASS

EUT Name	GPS Tracker	Model	GL33CG
Test Date	2025.09.25 to 2025.11.17	Test Mode	LTE
Test Engineer	Stone Zhang	Environmental Conditions	Temp:23.0 ~ 31.8°C;Humi:25 ~ 63%RH

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band2	1.4MHz	QPSK	18607	6RB#0	1.0966	1.327	PASS
Band2	1.4MHz	QPSK	18900	6RB#0	1.0968	1.288	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	1.1002	1.291	PASS
Band2	3MHz	QPSK	18615	15RB#0	2.6976	2.943	PASS
Band2	3MHz	QPSK	18900	15RB#0	2.7016	2.925	PASS
Band2	3MHz	QPSK	19185	15RB#0	2.6988	2.936	PASS
Band2	5MHz	QPSK	18625	25RB#0	4.5030	4.973	PASS
Band2	5MHz	QPSK	18900	25RB#0	4.4911	4.932	PASS
Band2	5MHz	QPSK	19175	25RB#0	4.5015	4.986	PASS
Band2	10MHz	QPSK	18650	50RB#0	8.9612	9.832	PASS
Band2	10MHz	QPSK	18900	50RB#0	8.9720	9.828	PASS
Band2	10MHz	QPSK	19150	50RB#0	8.9661	9.792	PASS
Band2	15MHz	QPSK	18675	75RB#0	13.451	14.58	PASS
Band2	15MHz	QPSK	18900	75RB#0	13.476	14.61	PASS
Band2	15MHz	QPSK	19125	75RB#0	13.443	14.61	PASS
Band2	20MHz	QPSK	18700	100RB#0	17.880	19.17	PASS
Band2	20MHz	QPSK	18900	100RB#0	17.956	19.14	PASS
Band2	20MHz	QPSK	19100	100RB#0	17.886	19.13	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	1.0972	1.269	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.0911	1.263	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.0955	1.288	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.6951	2.938	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.6957	2.923	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.6951	2.937	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.5131	4.953	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.5007	4.988	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.4896	4.925	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.9713	9.830	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.9711	9.804	PASS

Band4	10MHz	QPSK	20350	50RB#0	8.9656	9.719	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.479	14.59	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.435	14.55	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.444	14.62	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.932	19.14	PASS
Band4	20MHz	QPSK	20175	100RB#0	17.872	19.15	PASS
Band4	20MHz	QPSK	20300	100RB#0	17.904	19.21	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	1.0945	1.277	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0971	1.285	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0939	1.280	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6954	2.927	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6955	2.931	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.7033	2.937	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.5067	4.974	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4892	4.943	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.5115	4.992	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9947	9.808	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9715	9.711	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9447	9.739	PASS
Band7	5MHz	QPSK	20775	25RB#0	4.5039	5.000	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.4916	4.961	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.5040	4.980	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.9558	9.814	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.9621	9.720	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.9558	9.825	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.454	14.55	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.442	14.56	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.441	14.55	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.937	19.11	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.879	19.20	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.939	19.20	PASS

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band2	1.4MHz	16QAM	18607	6RB#0	1.1039	1.385	PASS
Band2	1.4MHz	16QAM	18900	6RB#0	1.0958	1.310	PASS