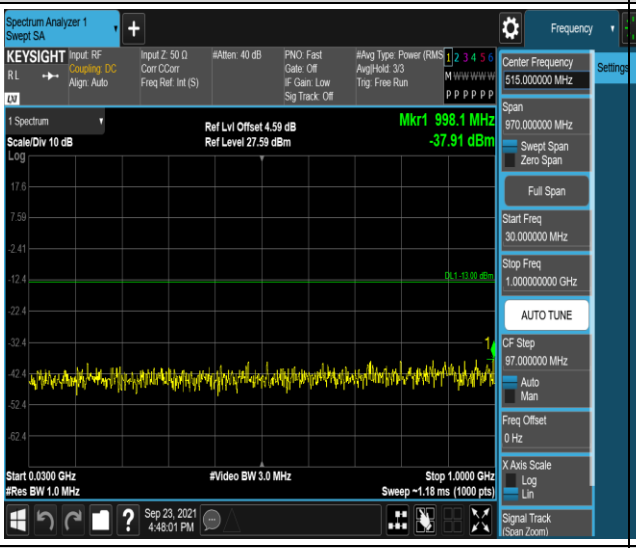
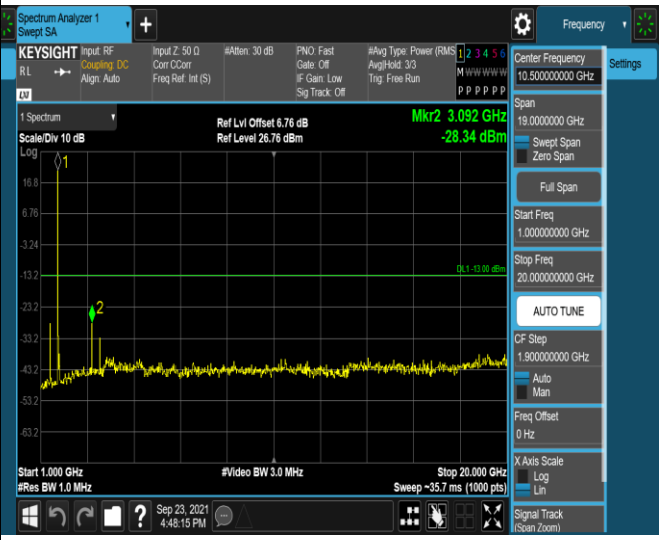
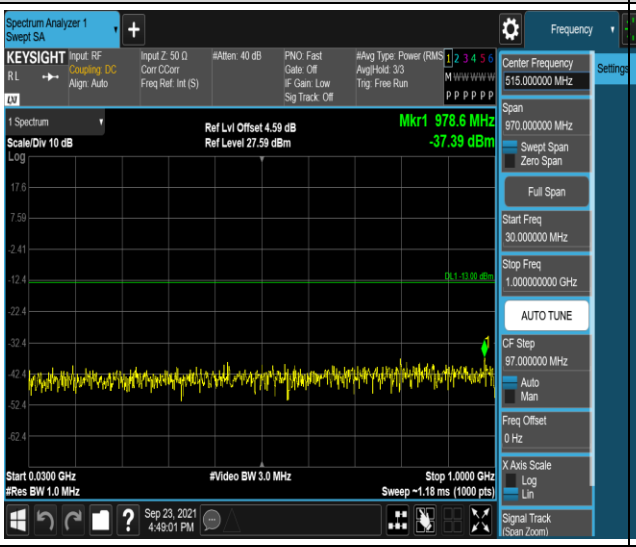
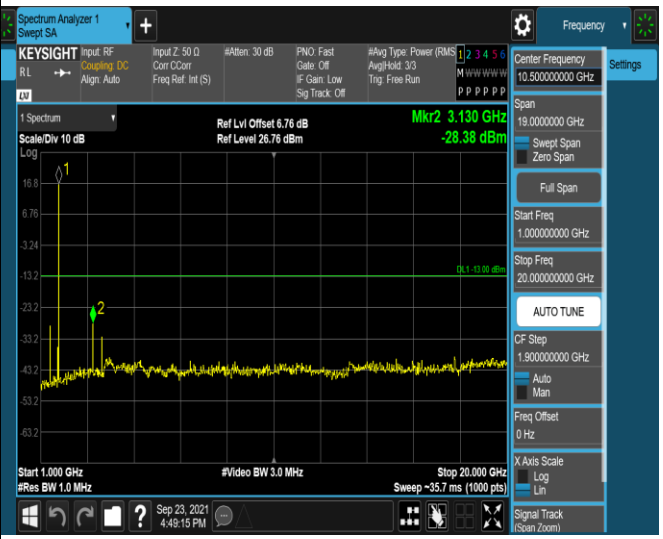
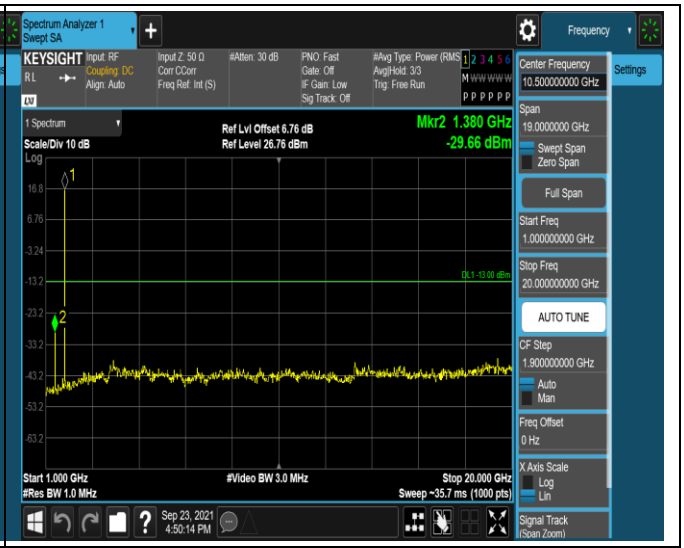
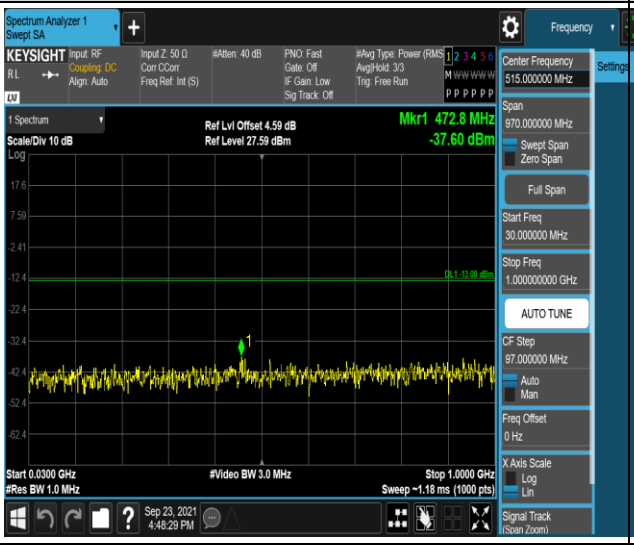
Band17-10MHz-16QAM-23800-1RB#0-Range1:30~1000MHz	Band17-10MHz-16QAM-23800-1RB#0-Range2:1000~10000MHz
	
Band66-1.4MHz-QPSK-131979-1RB#0-Range1:30~1000MHz	Band66-1.4MHz-QPSK-131979-1RB#0-Range2:1000~20000MHz
	
Band66-1.4MHz-QPSK-132322-1RB#0-Range1:30~1000MHz	Band66-1.4MHz-QPSK-132322-1RB#0-Range2:1000~20000MHz

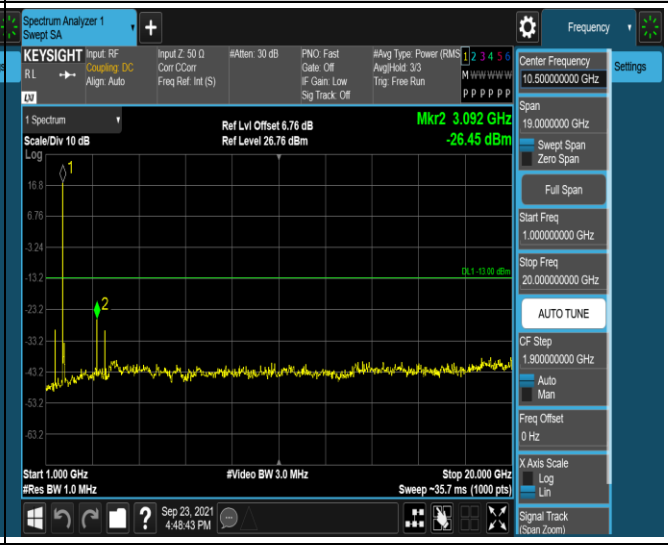
Band66-1.4MHz-QPSK-132665-1RB#0-Range1:30~1000MHz



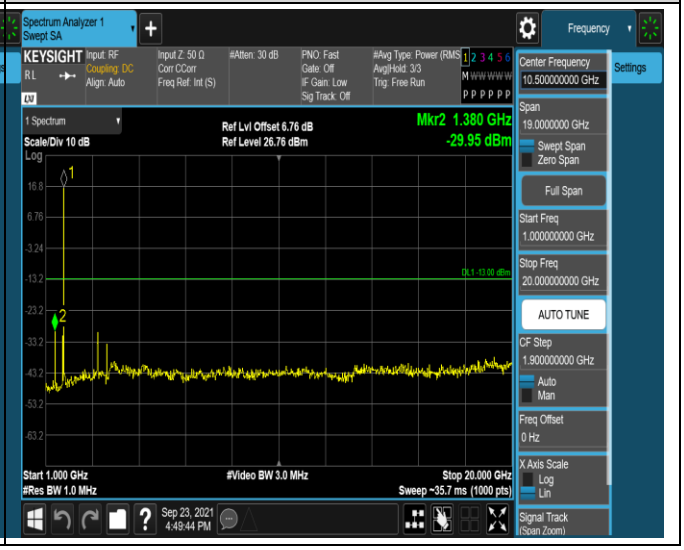
Band66-1.4MHz-QPSK-132665-1RB#0-Range2:1000~20000MHz

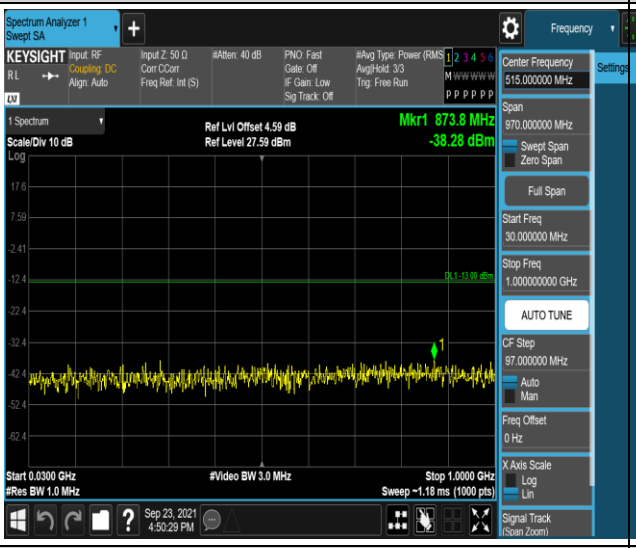
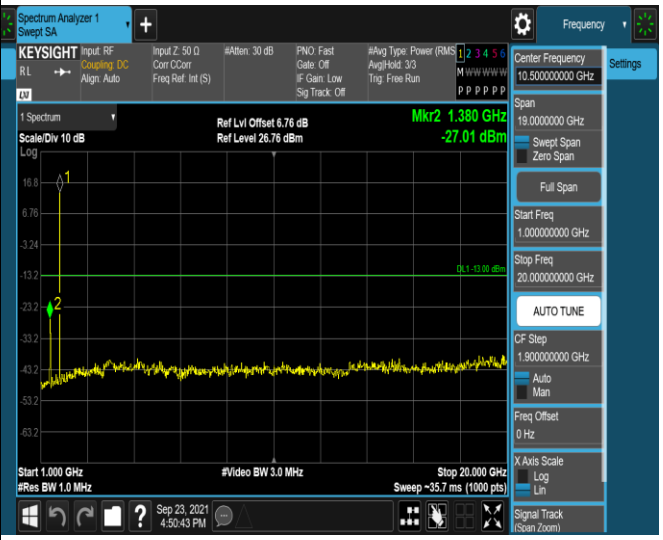
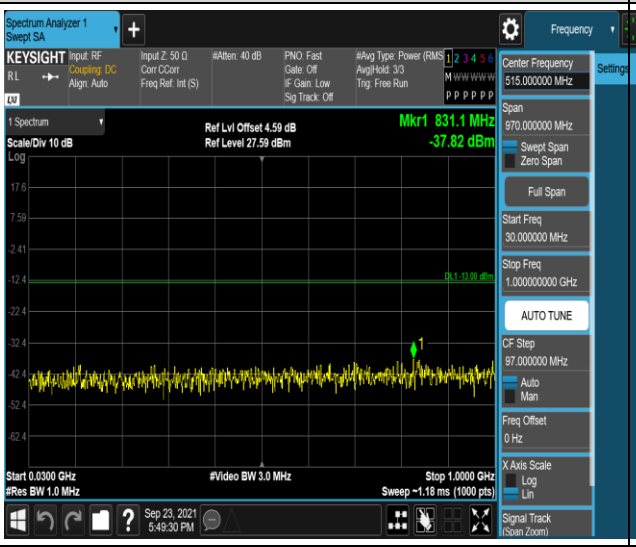
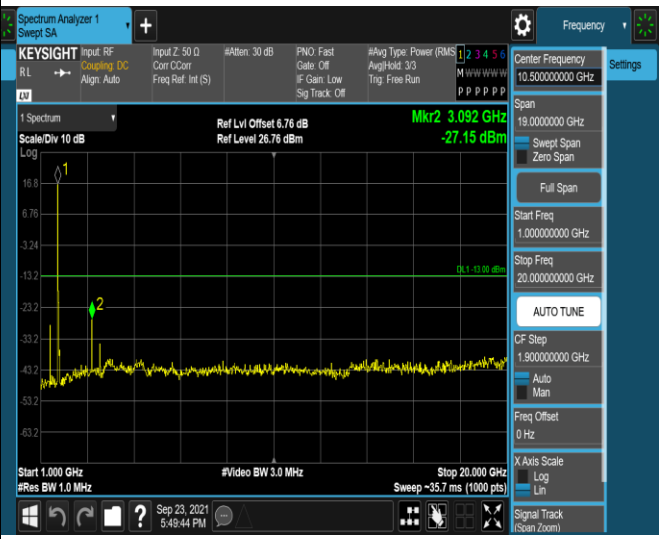


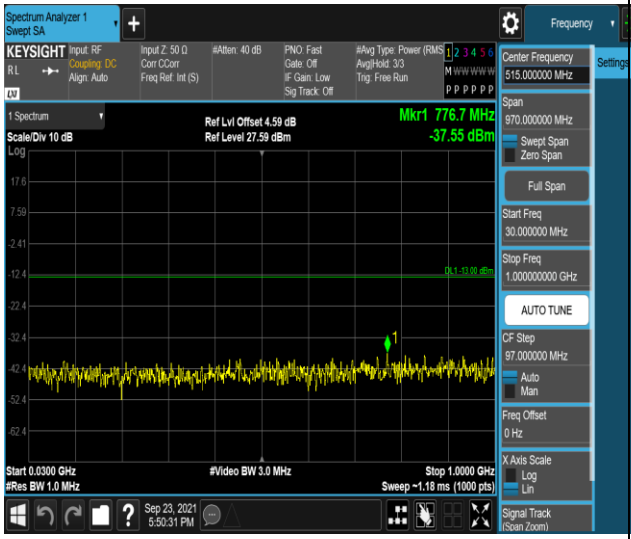
Band66-1.4MHz-16QAM-131979-1RB#0-Range1:30~1000MHz



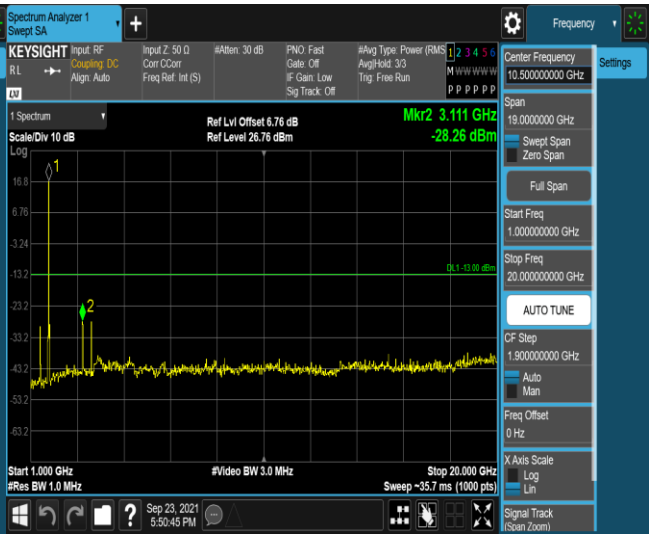
Band66-1.4MHz-16QAM-131979-1RB#0-Range2:1000~20000MHz



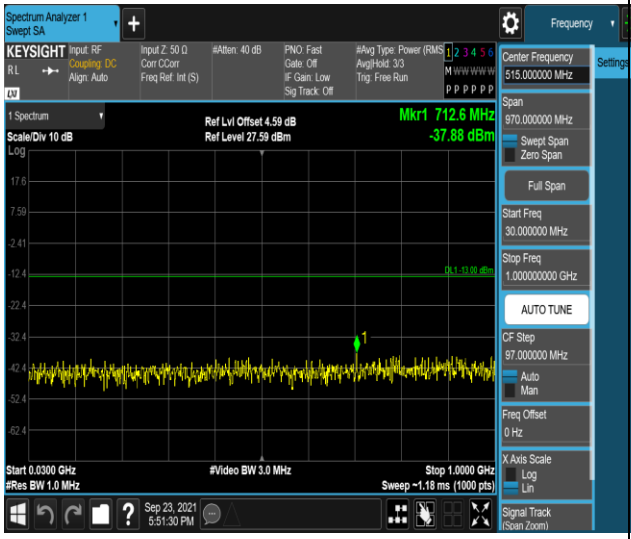
Band66-1.4MHz-16QAM-132322-1RB#0-Range1:30~1000MHz	Band66-1.4MHz-16QAM-132322-1RB#0-Range2:1000~20000MHz
	
Band66-1.4MHz-16QAM-132665-1RB#0-Range1:30~1000MHz	Band66-1.4MHz-16QAM-132665-1RB#0-Range2:1000~20000MHz
	
Band66-20MHz-QPSK-132072-1RB#0-Range1:30~1000MHz	Band66-20MHz-QPSK-132072-1RB#0-Range2:1000~20000MHz



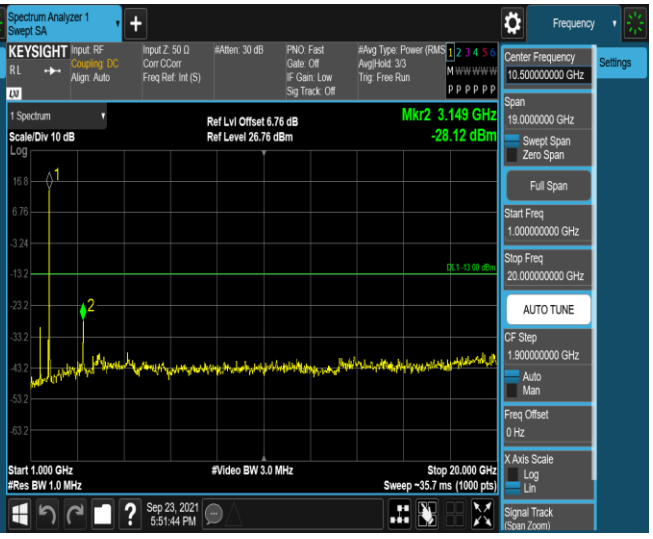
Band66-20MHz-QPSK-132322-1RB#0-Range1:30~1000MHz



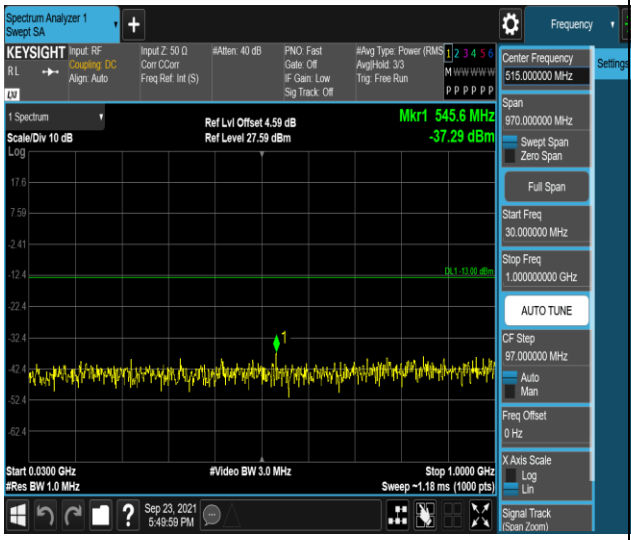
Band66-20MHz-QPSK-132322-1RB#0-Range2:1000~20000MHz

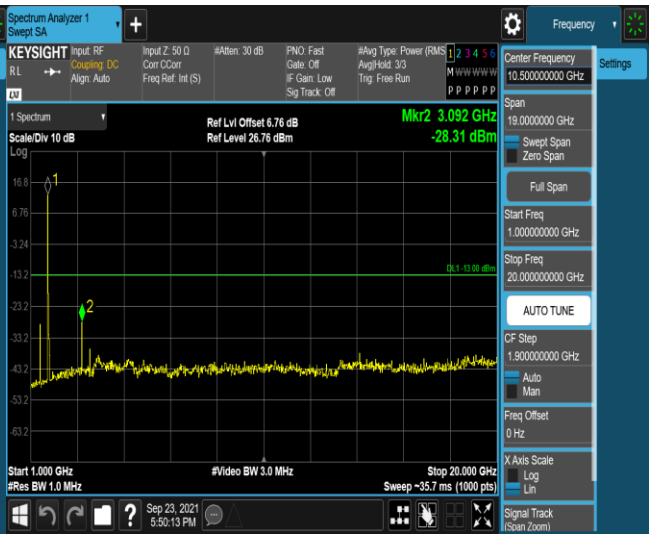


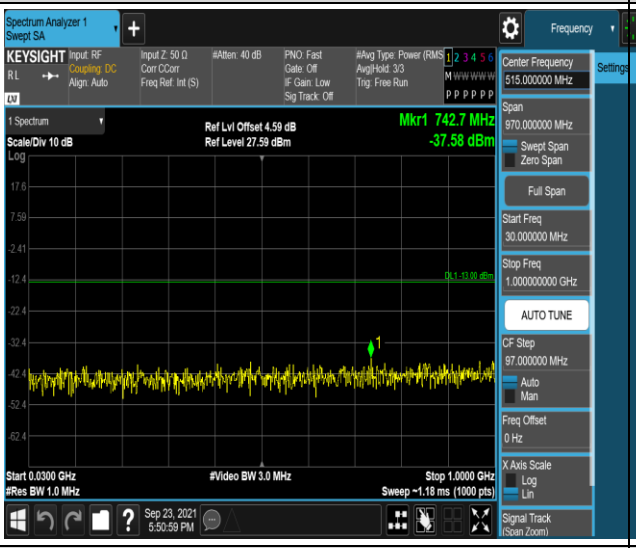
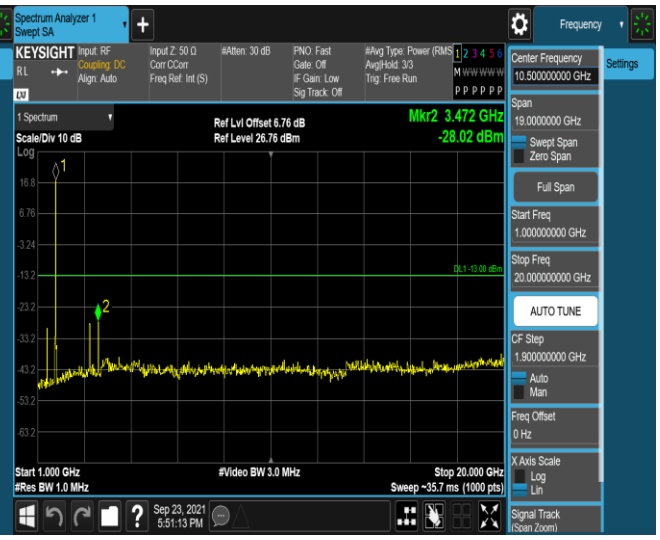
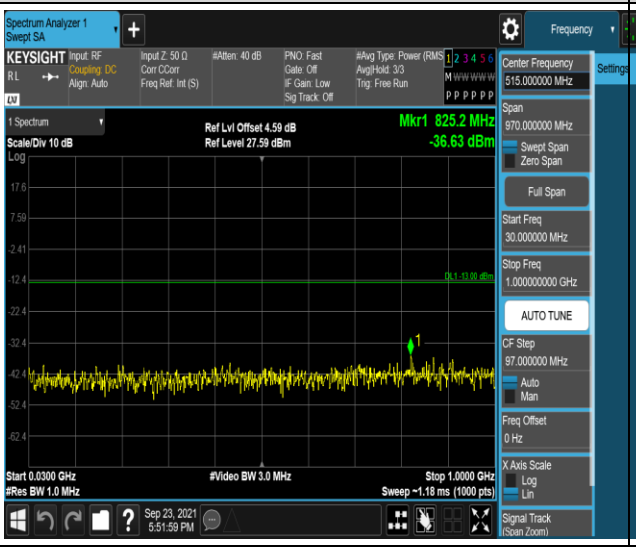
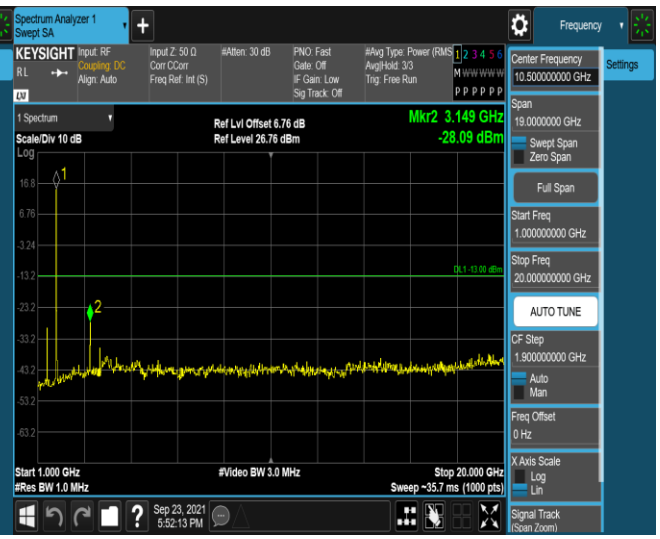
Band66-20MHz-QPSK-132572-1RB#0-Range1:30~1000MHz



Band66-20MHz-QPSK-132572-1RB#0-Range2:1000~20000MHz





Band66-20MHz-16QAM-132072-1RB#0-Range1:30~1000MHz	Band66-20MHz-16QAM-132072-1RB#0-Range2:1000~20000MHz
	
Band66-20MHz-16QAM-132322-1RB#0-Range1:30~1000MHz	Band66-20MHz-16QAM-132322-1RB#0-Range2:1000~20000MHz
	
Band66-20MHz-16QAM-132572-1RB#0-Range1:30~1000MHz	Band66-20MHz-16QAM-132572-1RB#0-Range2:1000~20000MHz

Appendix F: Frequency Stability

Test Result

LTE Band 2 part:

Reference Frequency: LTE Band 2 (10MHz) Middle channel=18900 Frequency=1880.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.7	-30	20.69	0.011005	Within authorized band for Band 2	Pass
	-20	21.46	0.011415		
	-10	-18.34	-0.009755		
	0	34.39	0.018293		
	10	-26.98	-0.014351		
	20	-27.41	-0.014580		
	30	-13.98	-0.007436		
	40	-11.89	-0.006324		
	50	-13.59	-0.007229		
16QAM					
3.7	-30	30.51	0.016229	Within authorized band for Band 2	Pass
	-20	-31.76	-0.016894		
	-10	-27.42	-0.014585		
	0	-37.65	-0.020027		
	10	-46.03	-0.024484		
	20	33.12	0.017617		
	30	-36.13	-0.019218		
	40	28.17	0.014984		
	50	-9.70	-0.005160		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	2.59	0.001378	Within authorized band for Band 2	Pass
	3.70	-33.14	-0.017628		
	4.20	-34.23	-0.018207		
16QAM					
25	3.50	9.14	0.004862	Within authorized band for Band 2	Pass
	3.70	28.94	0.015394		
	4.20	37.68	0.020043		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 4 part:

Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 Frequency=1732.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.7	-30	-27.34	-0.015781	Within authorized band for Band 4	Pass
	-20	-25.49	-0.014713		
	-10	21.30	0.012294		
	0	24.59	0.014193		
	10	-24.25	-0.013997		
	20	-25.63	-0.014794		
	30	-25.49	-0.014713		
	40	-25.92	-0.014961		
	50	23.13	0.013351		
16QAM					
3.7	-30	-33.04	-0.019071	Within authorized band for Band 4	Pass
	-20	18.32	0.010574		
	-10	-18.24	-0.010528		
	0	-31.04	-0.017916		
	10	-43.13	-0.024895		
	20	-34.10	-0.019683		
	30	-20.63	-0.011908		
	40	-38.17	-0.022032		
	50	10.21	0.005893		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-25.11	-0.014494	Within authorized band for Band 4	Pass
	3.70	24.53	0.014159		
	4.20	26.09	0.015059		
16QAM					
25	3.50	-22.29	-0.012866	Within authorized band for Band 4	Pass
	3.70	-23.16	-0.013368		
	4.20	-38.12	-0.022003		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 5 part:

Reference Frequency: LTE Band 5(10MHz) Middle channel=20525 Frequency=836.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.7	-30	-12.85	-0.015362	±2.5	Pass
	-20	-12.80	-0.015302		
	-10	-15.46	-0.018482		
	0	-8.25	-0.009863		
	10	-7.24	-0.008655		
	20	-12.80	-0.015302		
	30	6.37	0.007615		
	40	8.64	0.010329		
	50	-4.02	-0.004806		
16QAM					
3.7	-30	-18.17	-0.021721	±2.5	Pass
	-20	-9.58	-0.011452		
	-10	-25.56	-0.030556		
	0	-20.97	-0.025069		
	10	-16.15	-0.019307		
	20	-21.44	-0.025631		
	30	9.18	0.010974		
	40	11.56	0.013819		
	50	-23.02	-0.027519		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-22.02	-0.026324	±2.5	Pass
	3.70	6.31	0.007543		
	4.20	-15.11	-0.018063		
16QAM					
25	3.50	-12.50	-0.014943	±2.5	Pass
	3.70	-14.35	-0.017155		
	4.20	-12.92	-0.015445		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 12 part:

Reference Frequency: LTE Band 12(10MHz) Middle channel=23095 Frequency=707.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.7	-30	-3.46	-0.004890	Within authorized band for Band 12	Pass
	-20	-8.30	-0.011731		
	-10	-9.13	-0.012905		
	0	-17.35	-0.024523		
	10	-11.22	-0.015859		
	20	-15.86	-0.022417		
	30	-9.86	-0.013936		
	40	-12.06	-0.017046		
	50	-12.87	-0.018191		
16QAM					
3.7	-30	12.50	0.017668	Within authorized band for Band 12	Pass
	-20	-9.44	-0.013343		
	-10	-9.11	-0.012876		
	0	-13.19	-0.018643		
	10	-13.88	-0.019618		
	20	-14.88	-0.021032		
	30	-14.56	-0.020580		
	40	-15.55	-0.021979		
	50	-2.33	-0.003293		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-14.13	-0.019972	Within authorized band for Band 12	Pass
	3.70	-14.69	-0.020763		
	4.20	-21.03	-0.029724		
16QAM					
25	3.50	-14.73	-0.020820	Within authorized band for Band 12	Pass
	3.70	-11.62	-0.016424		
	4.20	-15.36	-0.021710		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 17 part:

Reference Frequency: LTE Band 17(10MHz) Middle channel=23790 Frequency=710.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.7	-30	-16.44	-0.023155	Within authorized band for Band 17	Pass
	-20	-4.82	-0.006789		
	-10	-19.61	-0.027620		
	0	14.59	0.020549		
	10	-13.35	-0.018803		
	20	-4.94	-0.006958		
	30	-15.85	-0.022324		
	40	-17.57	-0.024746		
	50	-11.36	-0.016000		
16QAM					
3.7	-30	-17.15	-0.024155	Within authorized band for Band 17	Pass
	-20	-11.52	-0.016225		
	-10	12.07	0.017000		
	0	-17.37	-0.024465		
	10	-8.57	-0.012070		
	20	-14.23	-0.020042		
	30	11.17	0.015732		
	40	-18.53	-0.026099		
	50	13.49	0.019000		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-16.12	-0.022704	Within authorized band for Band 17	Pass
	3.70	-14.85	-0.020915		
	4.20	-9.80	-0.013803		
16QAM					
25	3.50	-17.09	-0.024070	Within authorized band for Band 17	Pass
	3.70	-18.94	-0.026676		
	4.20	-9.06	-0.012761		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 66 part:

Reference Frequency: LTE Band 66 (10MHz) Middle channel=132322 Frequency=1745.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.7	-30	-25.42	-0.014567	Within authorized band for Band 66	Pass
	-20	23.32	0.013364		
	-10	25.22	0.014453		
	0	17.78	0.010189		
	10	-25.76	-0.014762		
	20	2.02	0.001158		
	30	-33.19	-0.019020		
	40	7.71	0.004418		
	50	5.35	0.003066		
16QAM					
3.7	-30	-39.14	-0.022430	Within authorized band for Band 66	Pass
	-20	-25.23	-0.014458		
	-10	-22.34	-0.012802		
	0	-39.27	-0.022504		
	10	20.38	0.011679		
	20	-32.63	-0.018699		
	30	17.17	0.009840		
	40	-34.62	-0.019840		
	50	-38.02	-0.021788		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	27.79	0.015926	Within authorized band for Band 66	Pass
	3.70	30.24	0.017330		
	4.20	-33.56	-0.019232		
16QAM					
25	3.50	-31.67	-0.018149	Within authorized band for Band 66	Pass
	3.70	-15.32	-0.008779		
	4.20	-23.25	-0.013324		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

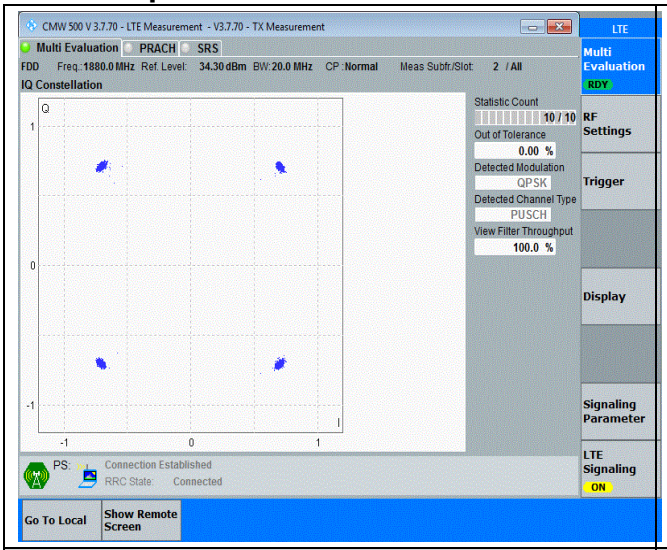
Appendix G: Modulation Characteristics

Test Result

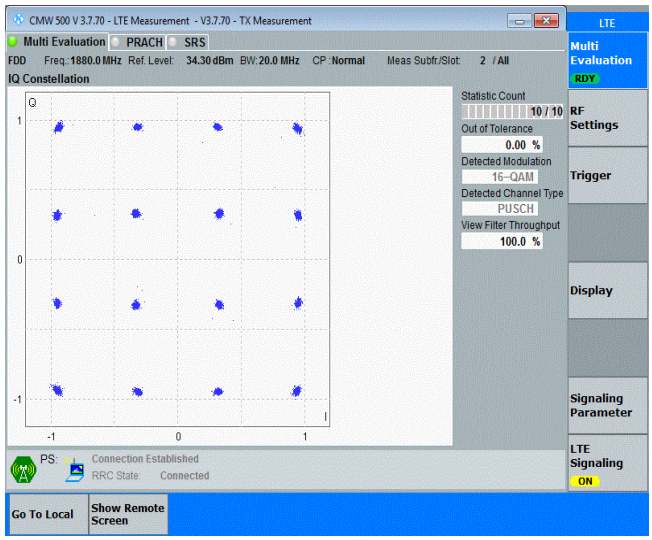
Band	Bandwidth	Modulation	Channel	RB Configuration	Result	Verdict
Band2	20MHz	QPSK	18900	100RB#0	PASS	PASS
Band2	20MHz	16QAM	18900	100RB#0	PASS	PASS
Band4	20MHz	QPSK	20175	100RB#0	PASS	PASS
Band4	20MHz	16QAM	20175	100RB#0	PASS	PASS
Band5	10MHz	QPSK	20525	50RB#0	PASS	PASS
Band5	10MHz	16QAM	20525	50RB#0	PASS	PASS
Band12	10MHz	QPSK	23095	50RB#0	PASS	PASS
Band12	10MHz	16QAM	23095	50RB#0	PASS	PASS
Band17	10MHz	QPSK	23790	50RB#0	PASS	PASS
Band17	10MHz	16QAM	23790	50RB#0	PASS	PASS
Band66	20MHz	QPSK	132322	100RB#0	PASS	PASS
Band66	20MHz	16QAM	132322	100RB#0	PASS	PASS

Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

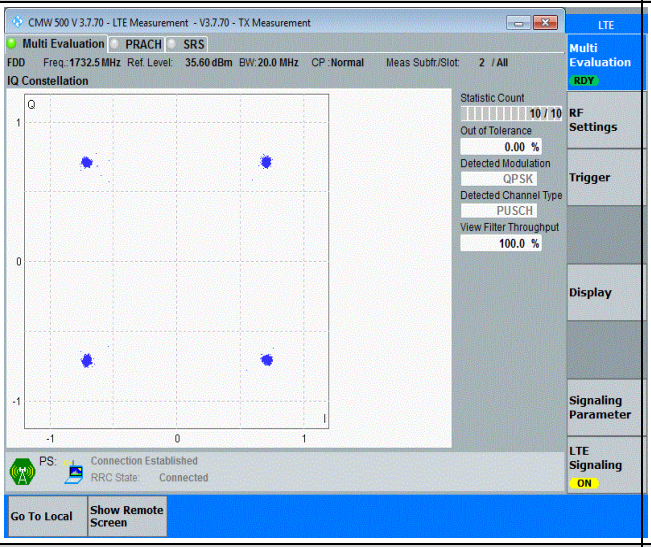
Test Graphs



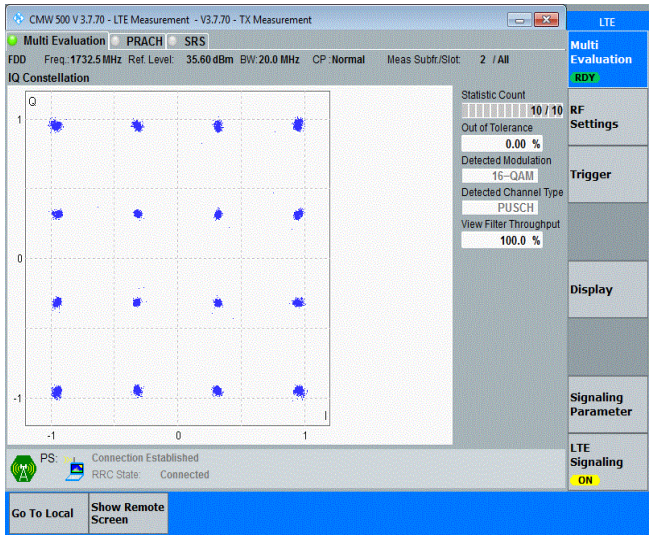
Band2-20MHz-QPSK-18900-100RB#0



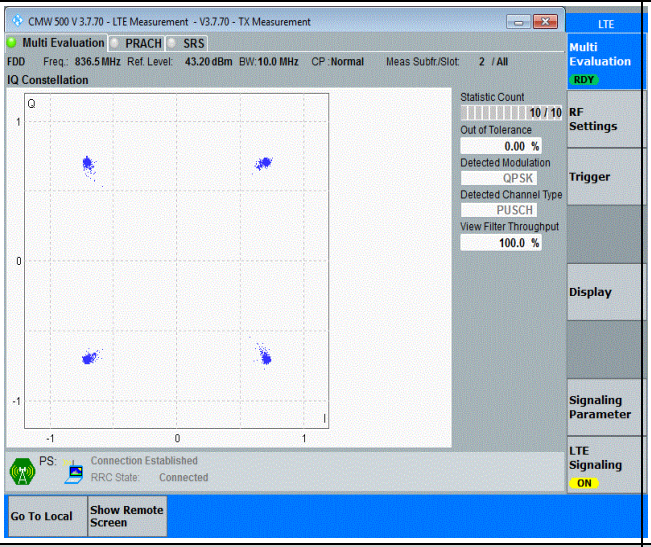
Band2-20MHz-16QAM-18900-100RB#0



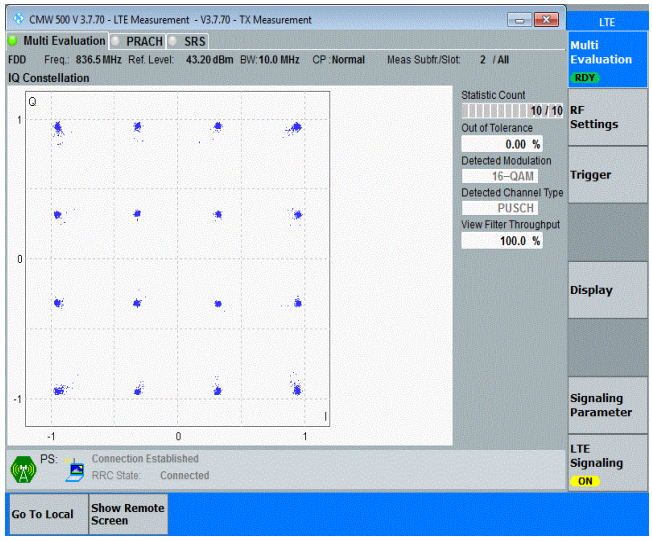
Band4-20MHz-QPSK-20175-100RB#0



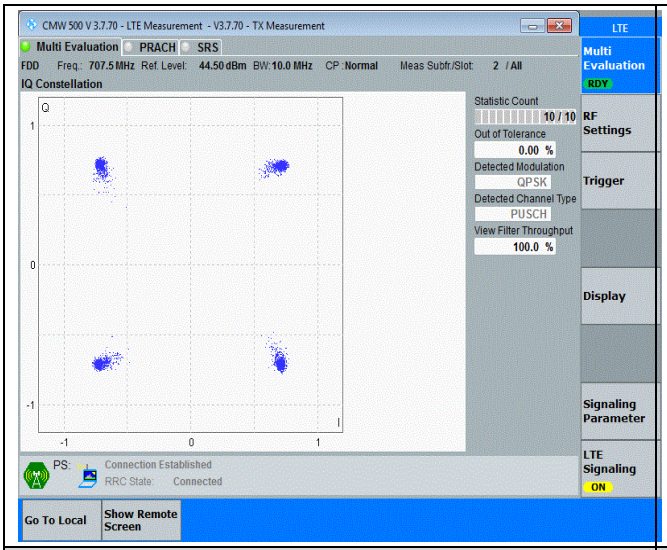
Band4-20MHz-16QAM-20175-100RB#0



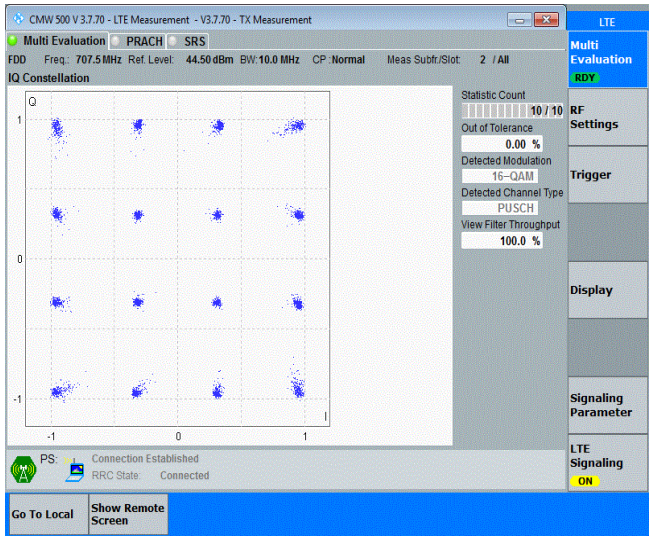
Band5-10MHz-QPSK-20525-50RB#0



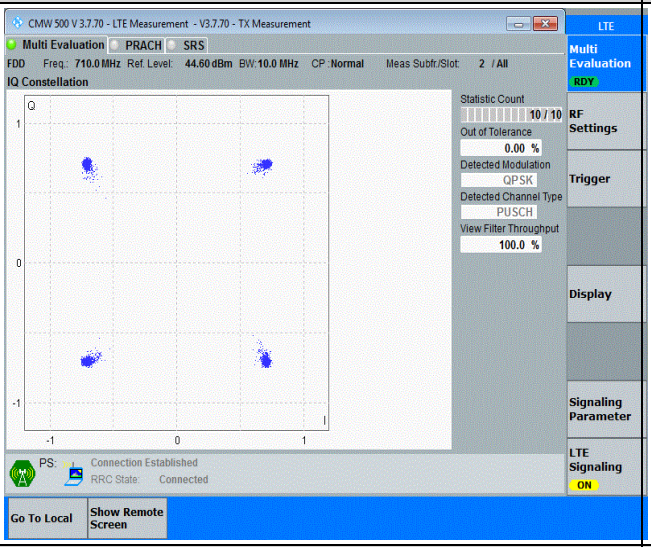
Band5-10MHz-16QAM-20525-50RB#0



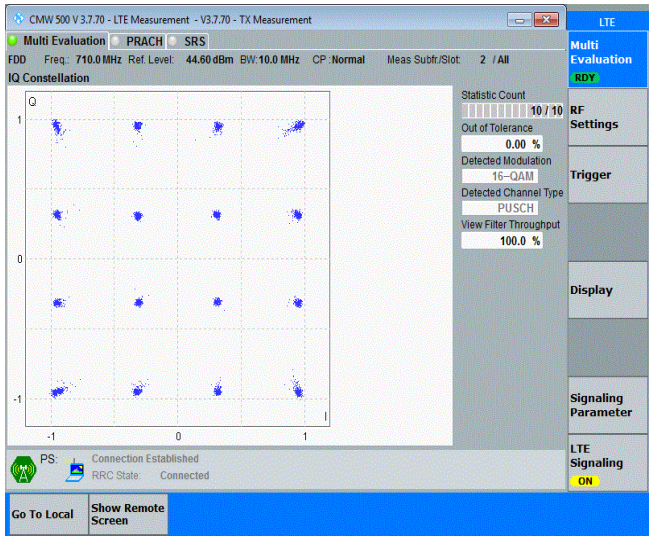
Band12-10MHz-QPSK-23095-50RB#0



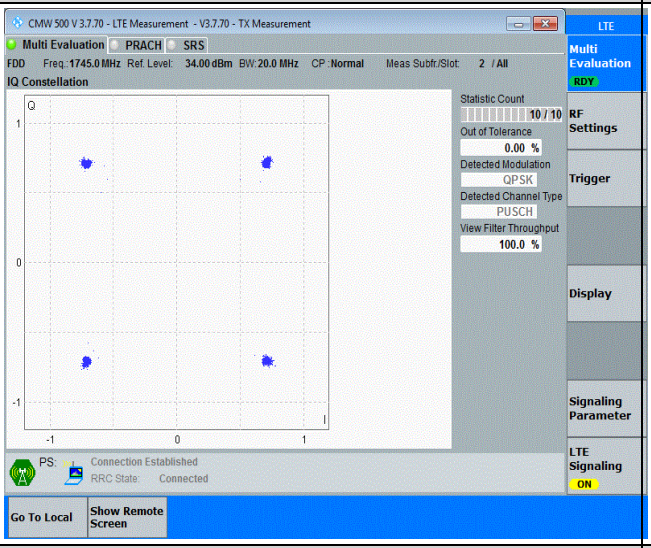
Band12-10MHz-16QAM-23095-50RB#0



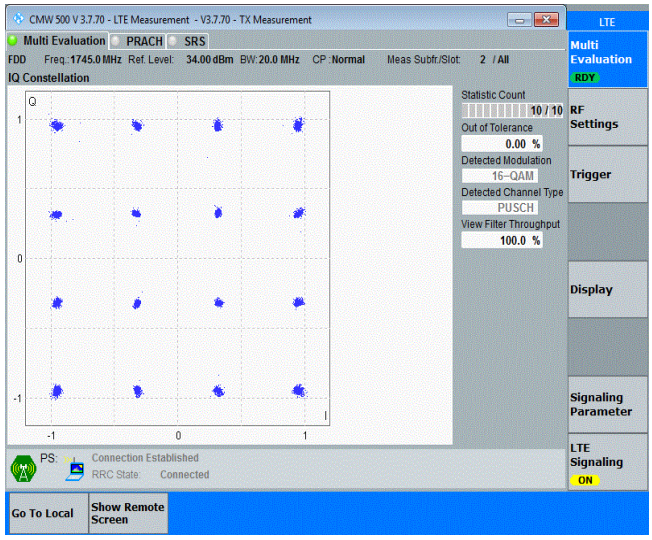
Band17-10MHz-QPSK-23790-50RB#0



Band17-10MHz-16QAM-23790-50RB#0



Band66-20MHz-QPSK-132322-100RB#0



Band66-20MHz-16QAM-132322-100RB#0