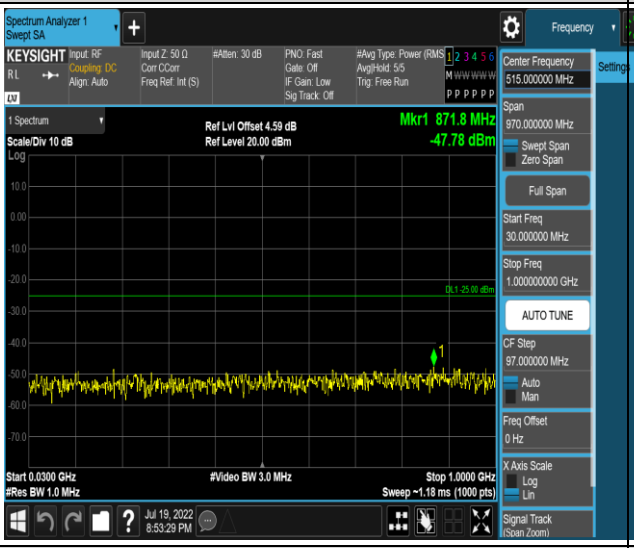
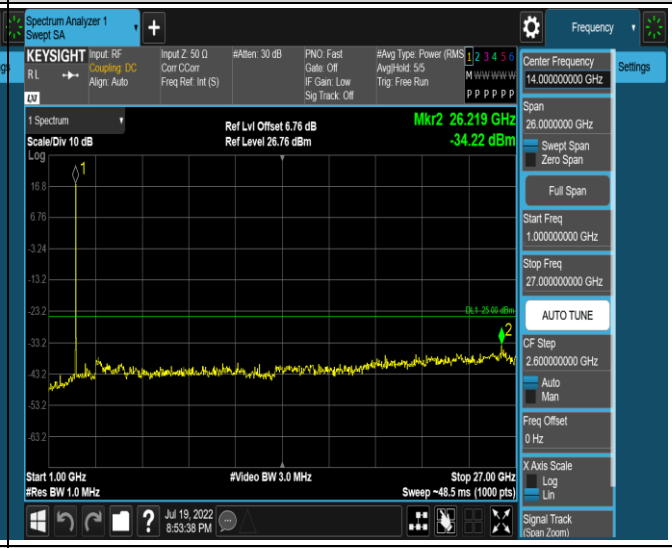
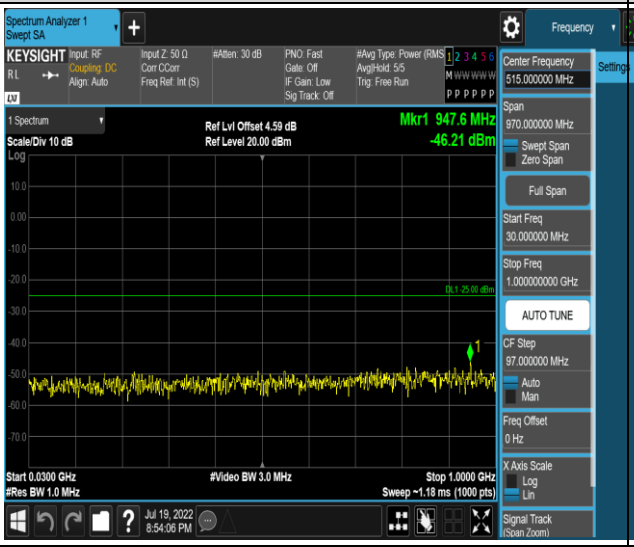
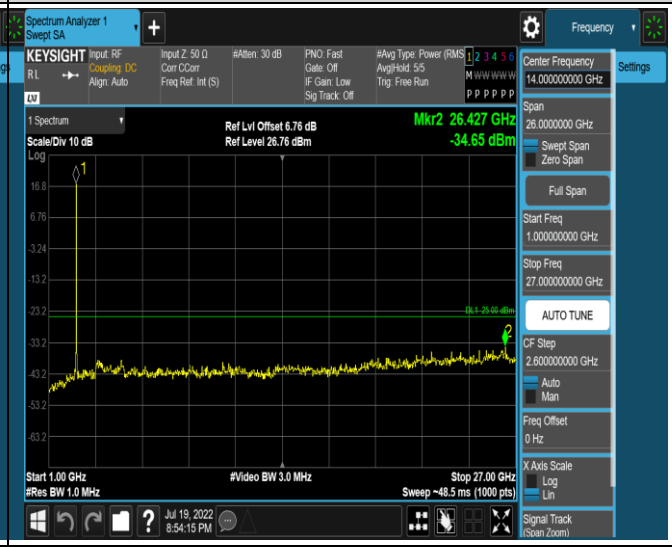
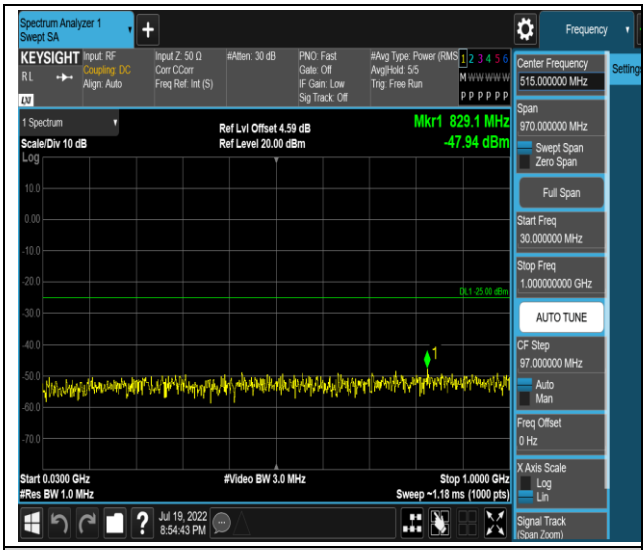
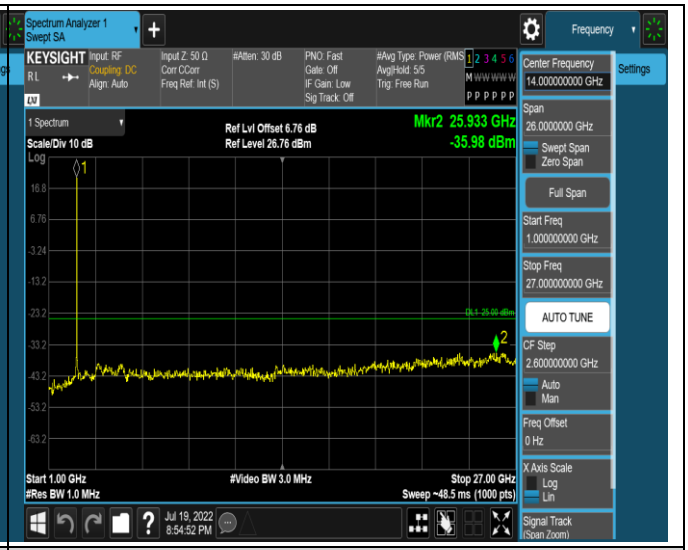
Band7-20MHz-16QAM-20850-1RB#0-Range1:30~1000MHz	Band7-20MHz-16QAM-20850-1RB#0-Range2:1000~27000MHz
	
Band7-20MHz-16QAM-21100-1RB#0-Range1:30~1000MHz	Band7-20MHz-16QAM-21100-1RB#0-Range2:1000~27000MHz
	
Band7-20MHz-16QAM-21350-1RB#0-Range1:30~1000MHz	Band7-20MHz-16QAM-21350-1RB#0-Range2:1000~27000MHz

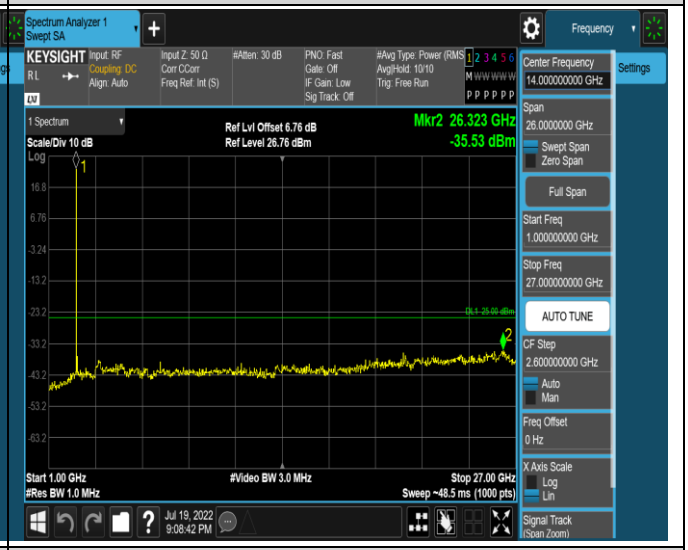


Band41-5MHz-QPSK-40065-1RB#0-Range1:30~1000MHz

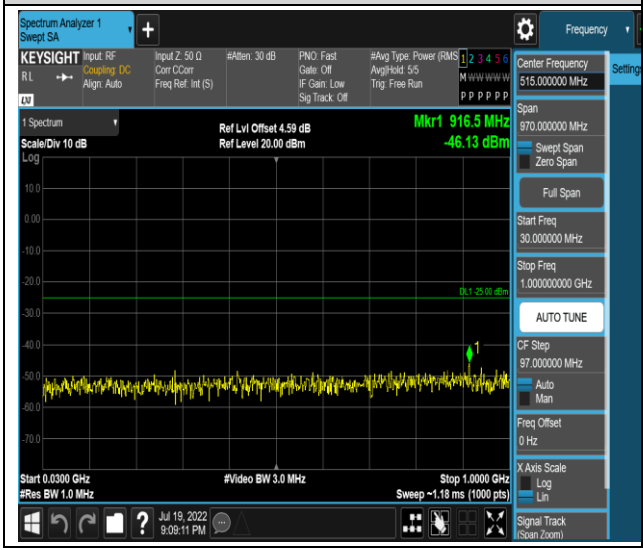


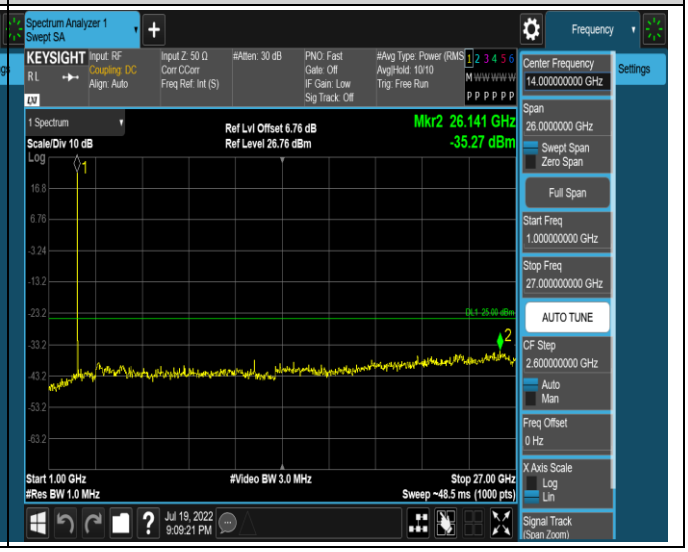
Band41-5MHz-QPSK-40065-1RB#0-Range2:1000~27000MHz

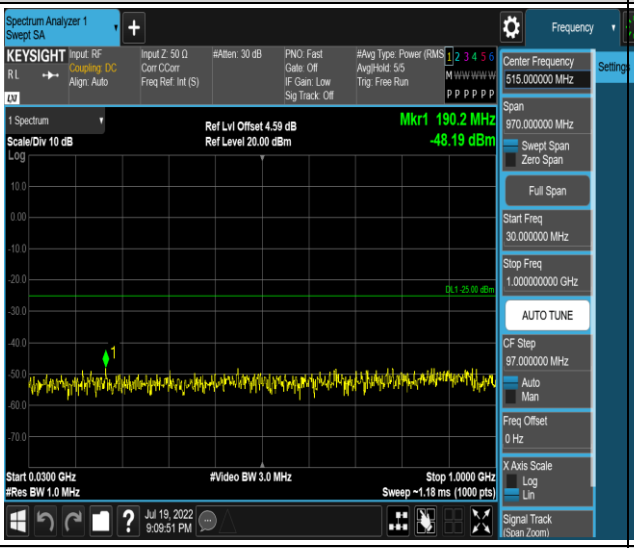
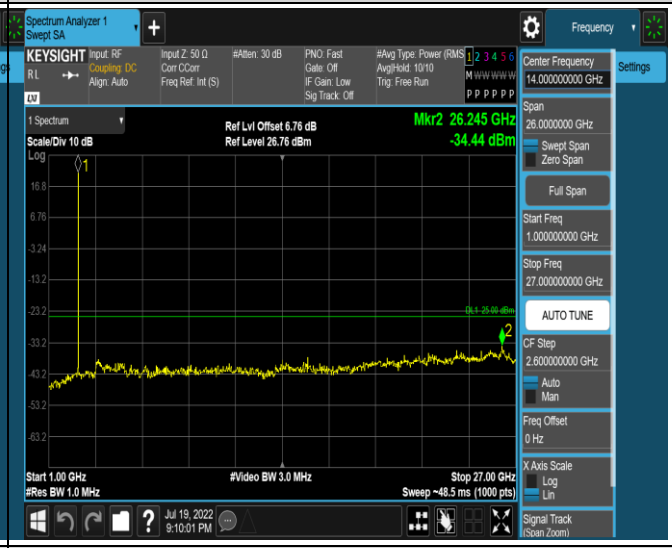
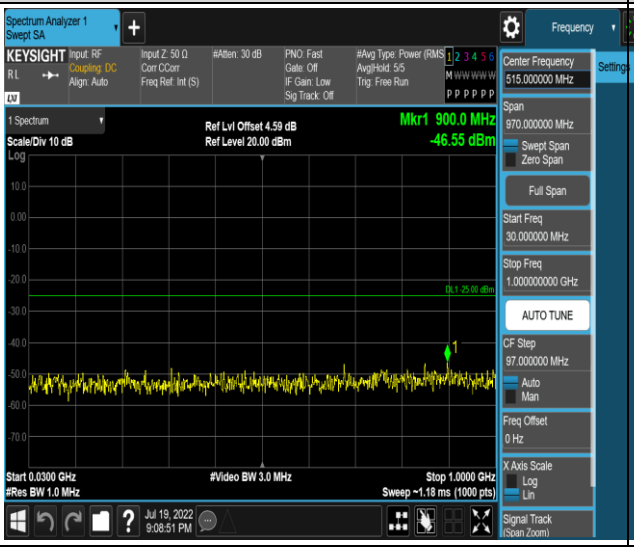
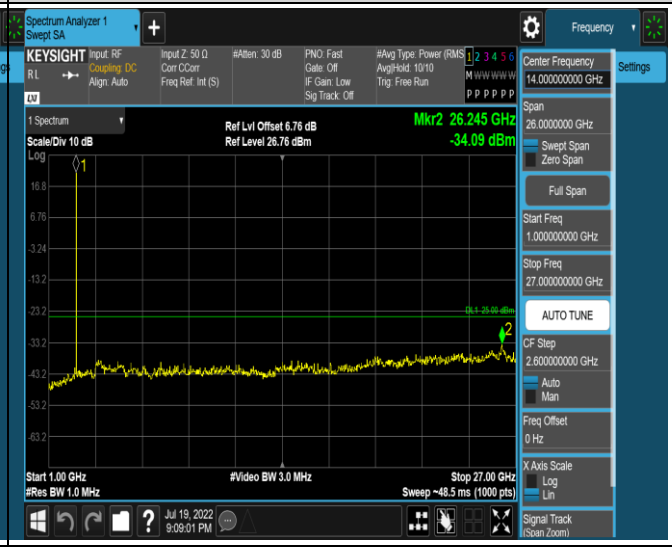
Band41-5MHz-QPSK-40640-1RB#0-Range1:30~1000MHz

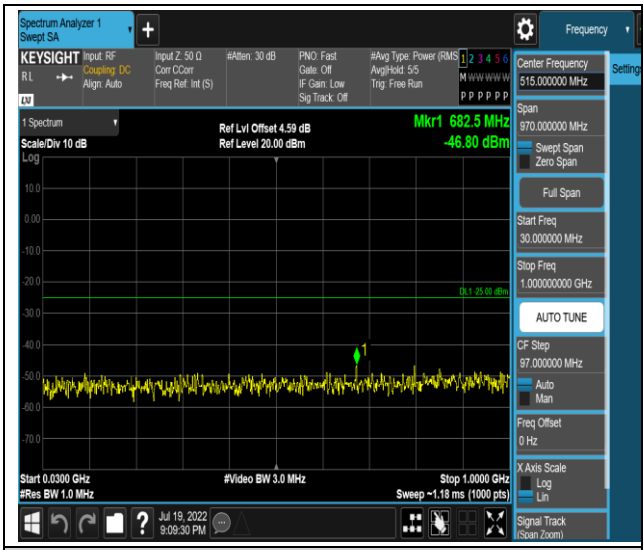


Band41-5MHz-QPSK-40640-1RB#0-Range2:1000~27000MHz

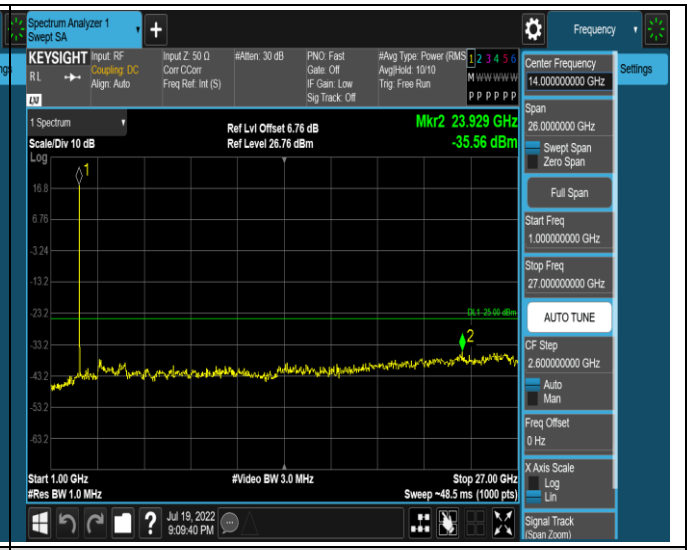




Band41-5MHz-QPSK-41215-1RB#0-Range1:30~1000MHz	Band41-5MHz-QPSK-41215-1RB#0-Range2:1000~27000MHz
	
Band41-5MHz-16QAM-40065-1RB#0-Range1:30~1000MHz	Band41-5MHz-16QAM-40065-1RB#0-Range2:1000~27000MHz
	
Band41-5MHz-16QAM-40640-1RB#0-Range1:30~1000MHz	Band41-5MHz-16QAM-40640-1RB#0-Range2:1000~27000MHz

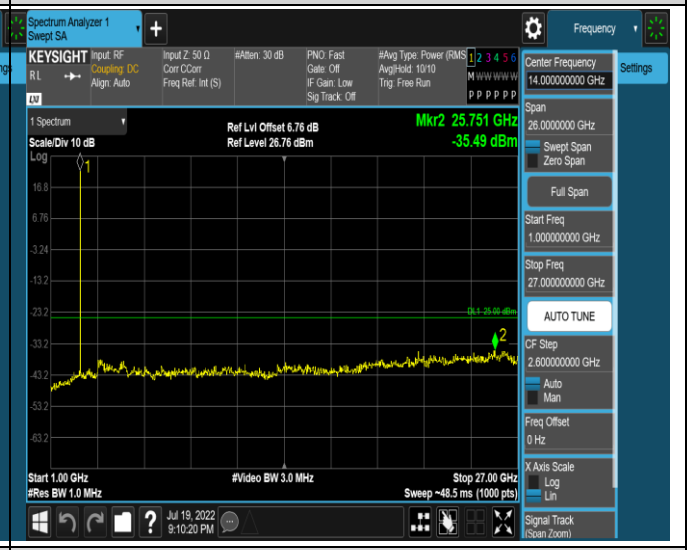


Band41-5MHz-16QAM-41215-1RB#0-Range1:30~1000MHz

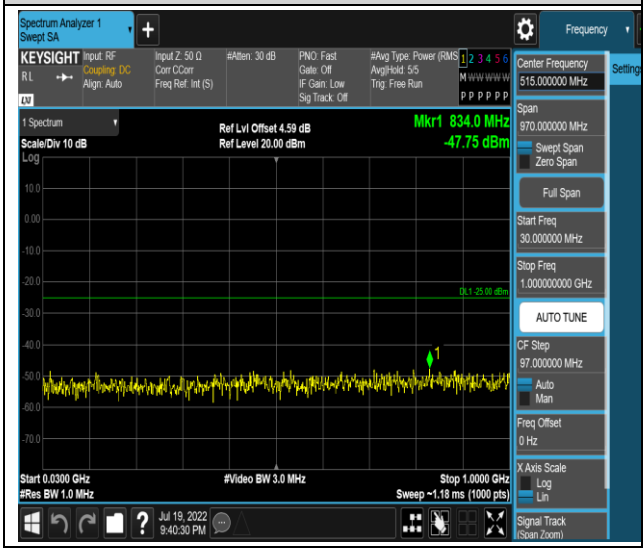


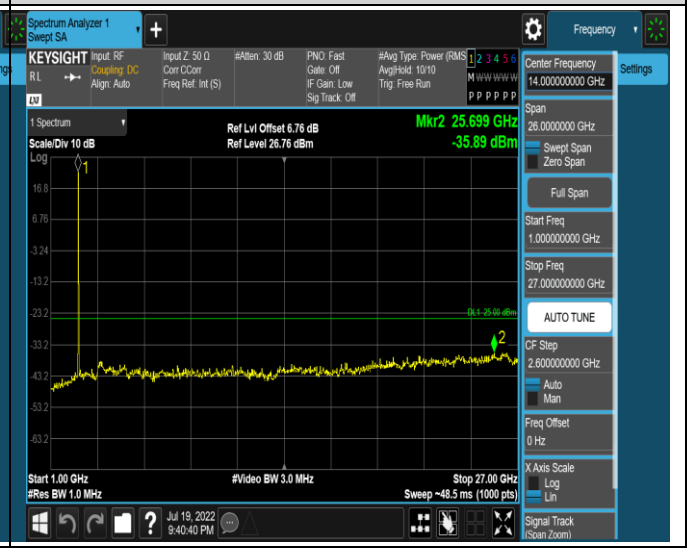
Band41-5MHz-16QAM-41215-1RB#0-Range2:1000~27000MHz

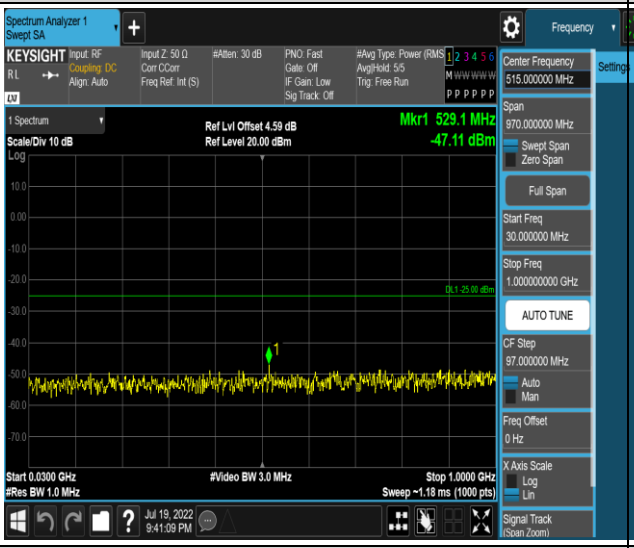
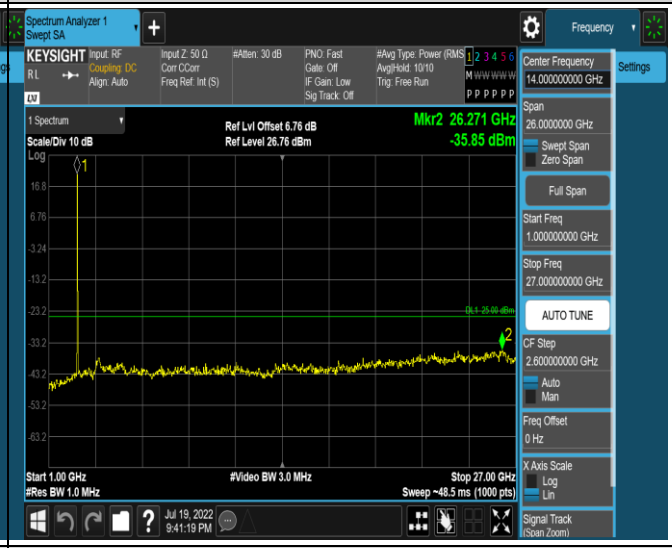
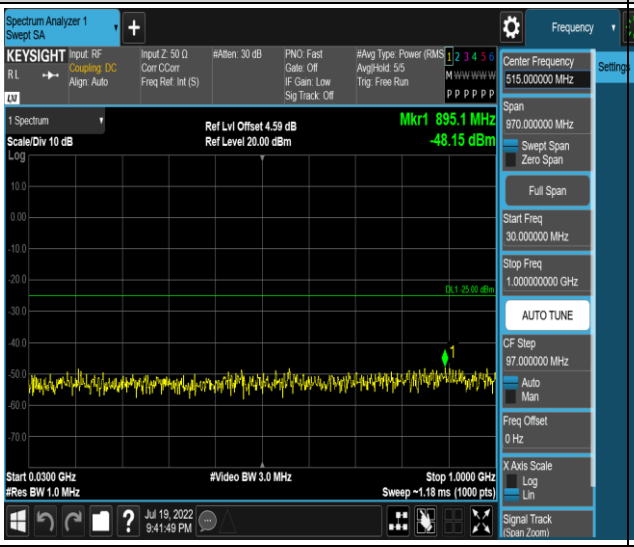
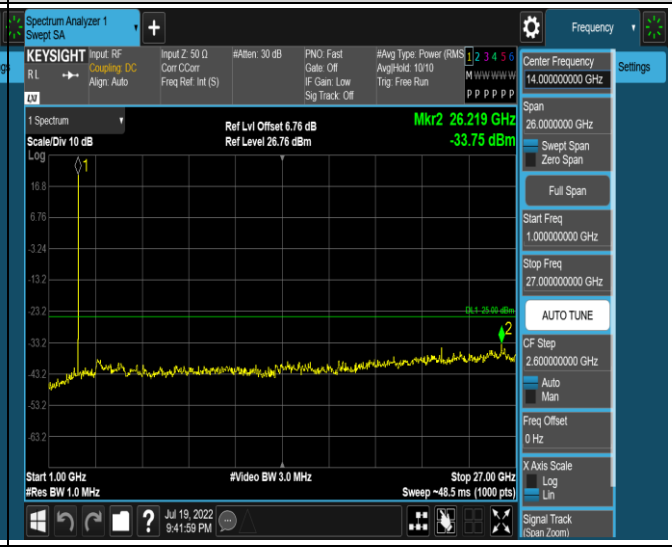
Band41-20MHz-QPSK-40140-1RB#0-Range1:30~1000MHz

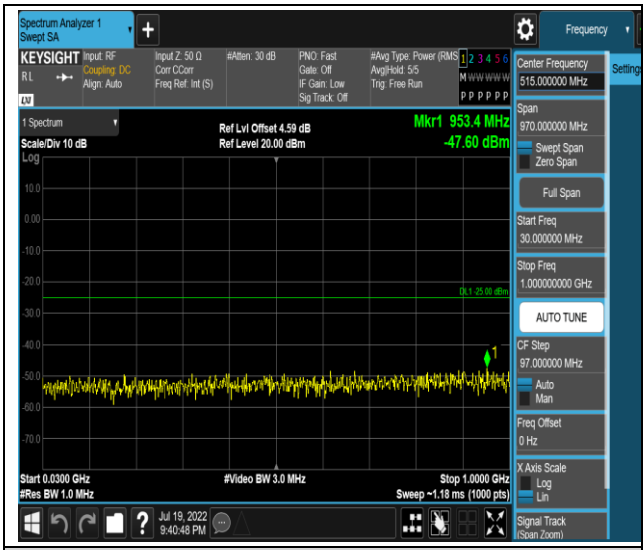


Band41-20MHz-QPSK-40140-1RB#0-Range2:1000~27000MHz

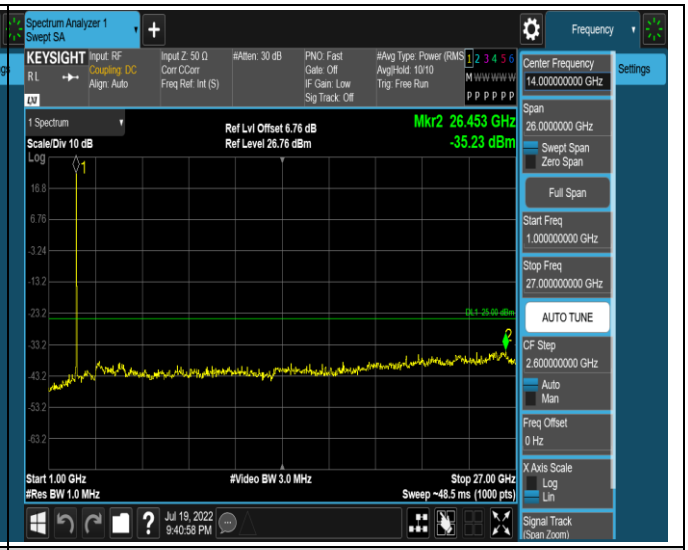




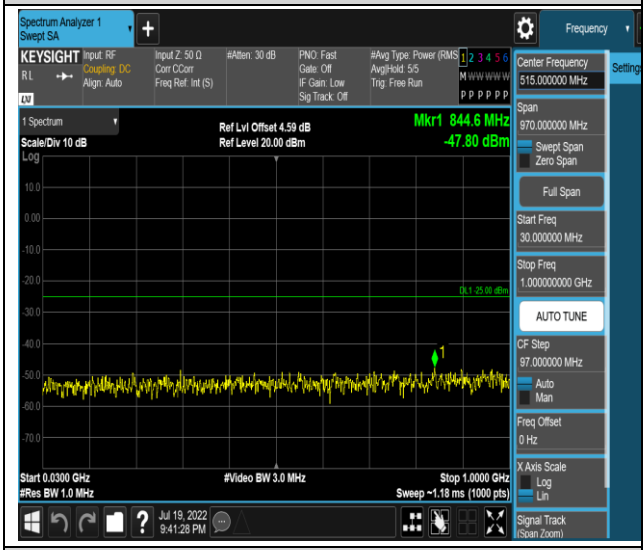
Band41-20MHz-QPSK-40640-1RB#0-Range1:30~1000MHz	Band41-20MHz-QPSK-40640-1RB#0-Range2:1000~27000MHz
	
Band41-20MHz-QPSK-41140-1RB#0-Range1:30~1000MHz	Band41-20MHz-QPSK-41140-1RB#0-Range2:1000~27000MHz
	
Band41-20MHz-16QAM-40140-1RB#0-Range1:30~1000MHz	Band41-20MHz-16QAM-40140-1RB#0-Range2:1000~27000MHz



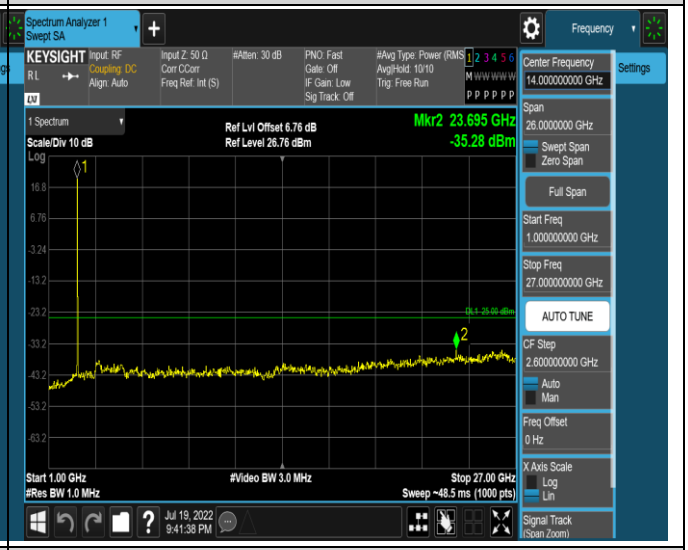
Band41-20MHz-16QAM-40640-1RB#0-Range1:30 ~1000MHz



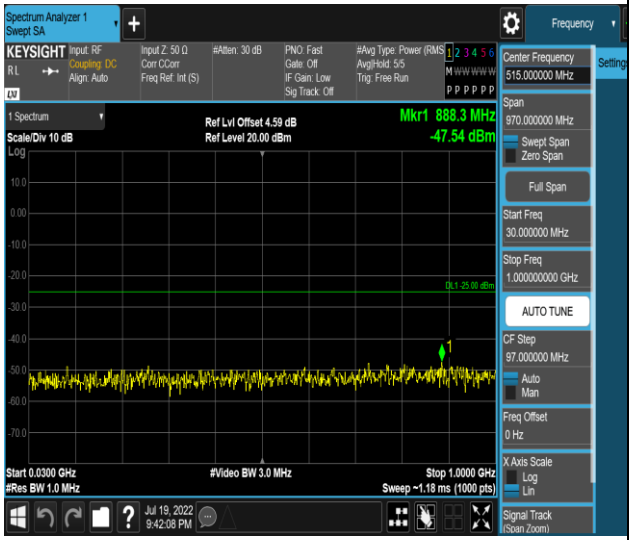
Band41-20MHz-16QAM-40640-1RB#0-Range2:1000~27000MHz

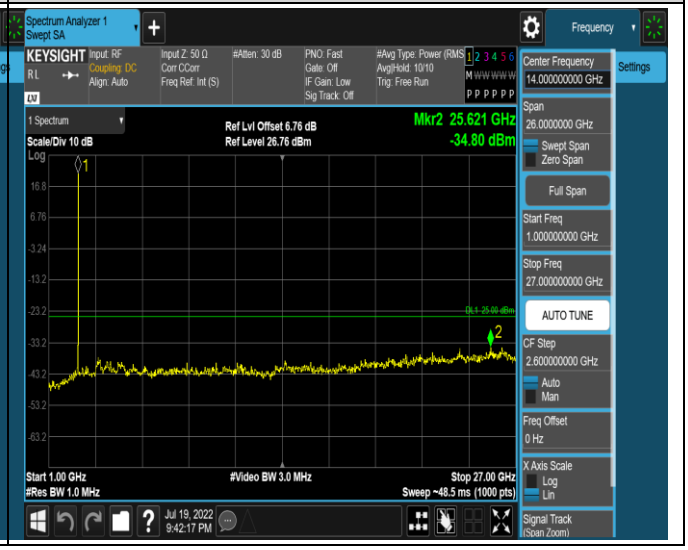


Band41-20MHz-16QAM-41140-1RB#0-Range1:30 ~1000MHz



Band41-20MHz-16QAM-41140-1RB#0-Range2:1000~27000MHz





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					
3.87	-30	12.19	0.006484	Within authorized band for Band 2	Pass
	-20	-12.65	-0.006729		
	-10	10.09	0.005367		
	0	8.87	0.004718		
	10	-13.79	-0.007335		
	20	-11.46	-0.006096		
	30	-10.16	-0.005404		
	40	-10.56	-0.005617		
	50	9.70	0.005160		
16QAM					
3.87	-30	-10.00	-0.005319	Within authorized band for Band 2	Pass
	-20	-7.00	-0.003723		
	-10	-9.78	-0.005202		
	0	10.23	0.005441		
	10	-11.99	-0.006378		
	20	8.44	0.004489		
	30	13.15	0.006995		
	40	-4.65	-0.002473		
	50	-7.30	-0.003883		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-13.29	-0.007069	Within authorized band for Band 2	Pass
	3.87	-10.44	-0.005553		
	4.45	12.04	0.006404		
16QAM					
25	3.50	-3.45	-0.001835	Within authorized band for Band 2	Pass
	3.87	8.55	0.004548		
	4.45	-8.70	-0.004628		
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					
3.87	-30	3.29	0.001899	Within authorized band for Band 4	Pass
	-20	-8.94	-0.005160		
	-10	-11.19	-0.006459		
	0	-12.03	-0.006944		
	10	-10.11	-0.005835		
	20	-8.07	-0.004658		
	30	6.12	0.003532		
	40	6.07	0.003504		
	50	-4.16	-0.002401		
16QAM					
3.87	-30	-3.73	-0.002153	Within authorized band for Band 4	Pass
	-20	8.04	0.004641		
	-10	-6.39	-0.003688		
	0	-6.94	-0.004006		
	10	8.54	0.004929		
	20	-8.90	-0.005137		
	30	-8.47	-0.004889		
	40	-7.82	-0.004514		
	50	-9.20	-0.005310		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-7.14	-0.004121	Within authorized band for Band 4	Pass
	3.87	6.39	0.003688		
	4.45	6.64	0.003833		
16QAM					
25	3.50	-2.45	-0.001414	Within authorized band for Band 4	Pass
	3.87	-10.59	-0.006113		
	4.45	8.55	0.004935		
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					
3.87	-30	-6.85	-0.008189	±2.5	Pass
	-20	-3.92	-0.004686		
	-10	-7.95	-0.009504		
	0	-9.43	-0.011273		
	10	-4.82	-0.005762		
	20	-4.61	-0.005511		
	30	-3.89	-0.004650		
	40	-7.81	-0.009337		
	50	-4.31	-0.005152		
16QAM					
3.87	-30	-5.01	-0.005989	±2.5	Pass
	-20	-4.16	-0.004973		
	-10	-6.31	-0.007543		
	0	-2.57	-0.003072		
	10	-7.51	-0.008978		
	20	-4.18	-0.004997		
	30	-6.98	-0.008344		
	40	5.64	0.006742		
	50	-3.60	-0.004304		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-5.42	-0.006479	±2.5	Pass
	3.87	-7.45	-0.008906		
	4.45	-6.78	-0.008105		
16QAM					
25	3.50	-5.98	-0.007149	±2.5	Pass
	3.87	-8.91	-0.010652		
	4.45	-6.37	-0.007615		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 7 part:

Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-12.16	-0.004797	Within authorized band for Band 7	Pass
	-20	-9.47	-0.003736		
	-10	-3.50	-0.001381		
	0	-12.49	-0.004927		
	10	-13.07	-0.005156		
	20	-13.98	-0.005515		
	30	-15.48	-0.006107		
	40	-4.61	-0.001819		
	50	-4.03	-0.001590		
16QAM					
3.87	-30	-16.42	-0.006477	Within authorized band for Band 7	Pass
	-20	-13.96	-0.005507		
	-10	-11.84	-0.004671		
	0	-11.67	-0.004604		
	10	-14.06	-0.005546		
	20	7.31	0.002884		
	30	-14.55	-0.005740		
	40	-8.88	-0.003503		
	50	-3.98	-0.001570		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-13.88	-0.005475	Within authorized band for Band 7	Pass
	3.87	13.45	0.005306		
	4.45	-11.92	-0.004702		
16QAM					
25	3.50	-10.49	-0.004138	Within authorized band for Band 7	Pass
	3.87	-10.23	-0.004036		
	4.45	-15.72	-0.006201		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 41 part:

Reference Frequency: LTE Band 41 (10MHz) Middle channel=40640 Frequency=2595.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-14.23	-0.005484	Within authorized band for Band 41	Pass
	-20	-12.80	-0.004933		
	-10	8.88	0.003422		
	0	4.31	0.001661		
	10	-3.10	-0.001195		
	20	-9.40	-0.003622		
	30	-7.98	-0.003075		
	40	-9.56	-0.003684		
	50	-9.68	-0.003730		
16QAM					
3.87	-30	6.87	0.002647	Within authorized band for Band 41	Pass
	-20	-9.56	-0.003684		
	-10	-9.50	-0.003661		
	0	5.92	0.002281		
	10	-9.17	-0.003534		
	20	-6.29	-0.002424		
	30	6.64	0.002559		
	40	-3.30	-0.001272		
	50	-6.42	-0.002474		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-9.57	-0.003688	Within authorized band for Band 41	Pass
	3.87	-11.32	-0.004362		
	4.45	-8.57	-0.003303		
16QAM					
25	3.50	-5.97	-0.002301	Within authorized band for Band41	Pass
	3.87	7.08	0.002728		
	4.45	-5.76	-0.002220		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

Appendix G: Modulation Characteristics

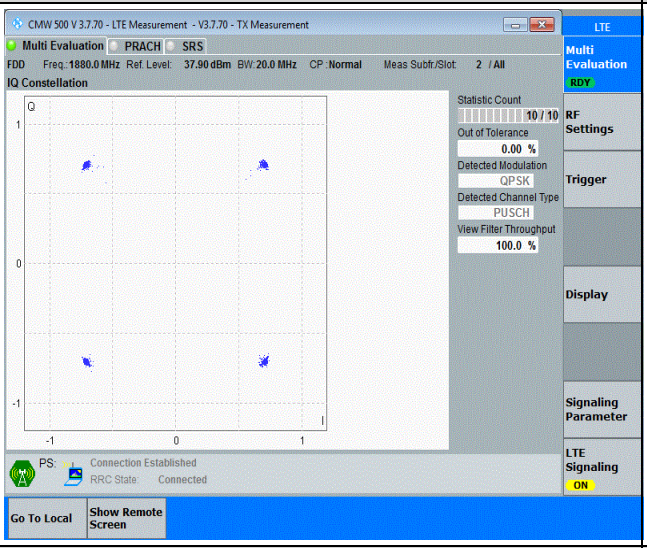
Test Result

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
Band7	20MHz	QPSK	21100	100RB#0	PASS	PASS
Band7	20MHz	16QAM	21100	100RB#0	PASS	PASS
Band41	20MHz	QPSK	40640	100RB#0	PASS	PASS
Band41	20MHz	16QAM	40640	100RB#0	PASS	PASS

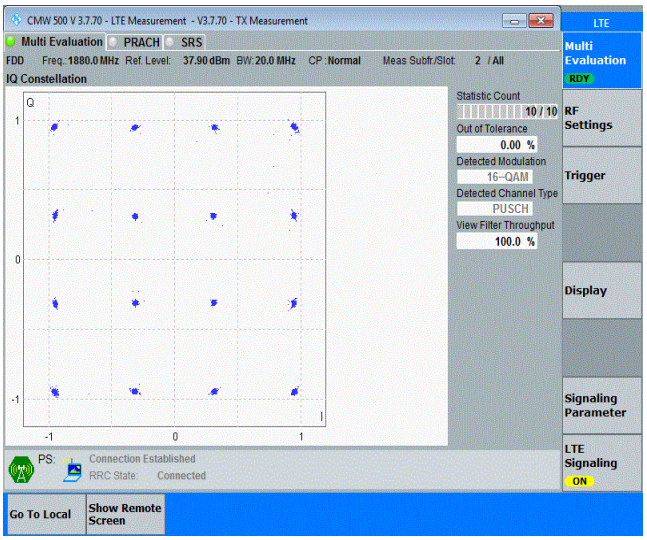
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

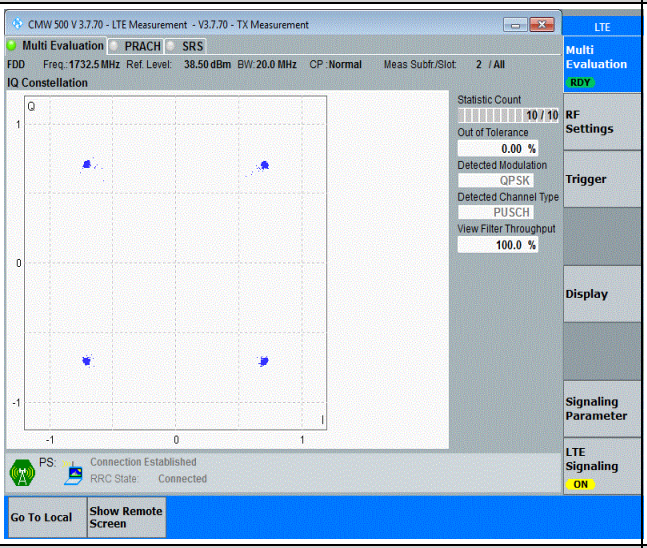
Band2-20MHz-QPSK-18900-100RB#0



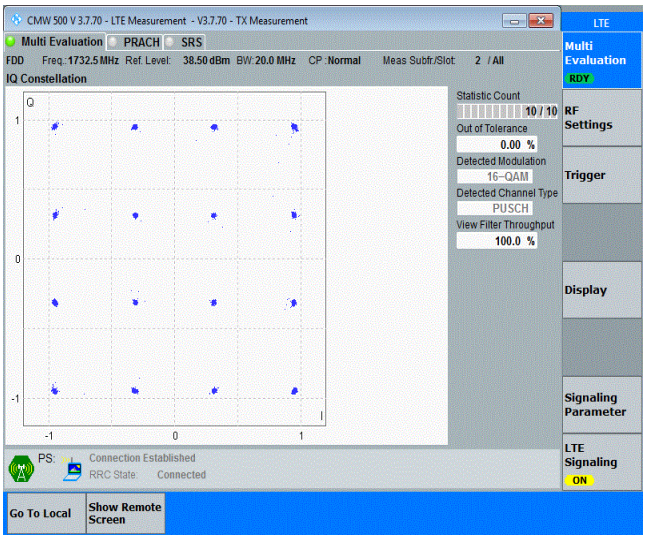
Band2-20MHz-16QAM-18900-100RB#0



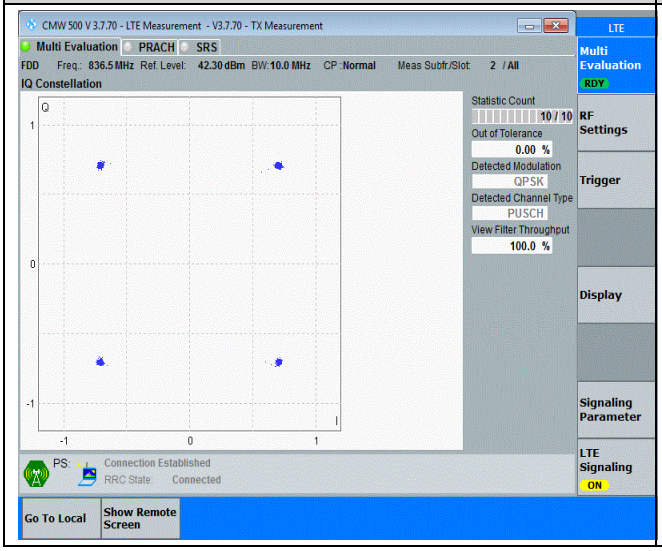
Band4-20MHz-QPSK-20175-100RB#0



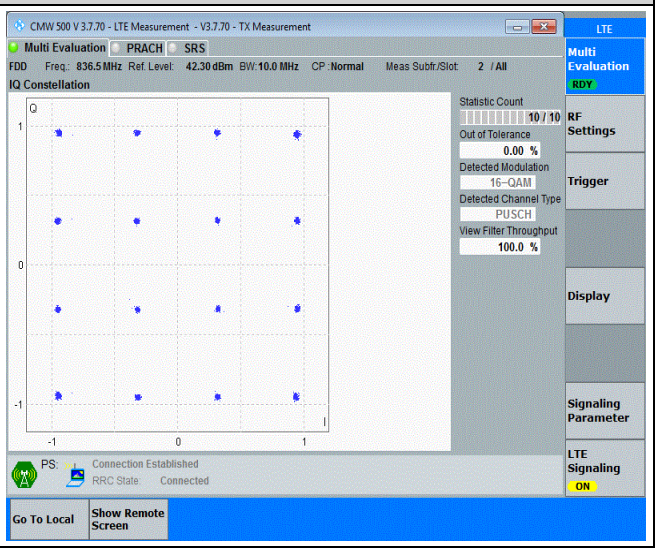
Band4-20MHz-16QAM-20175-100RB#0



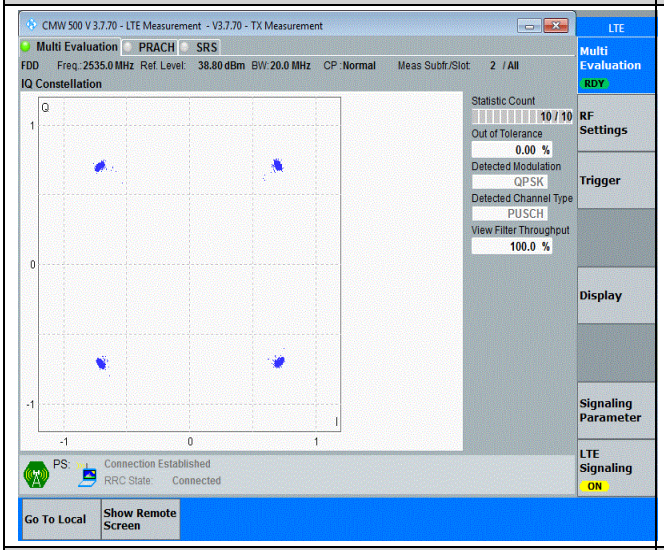
Band5-10MHz-QPSK-20525-50RB#0



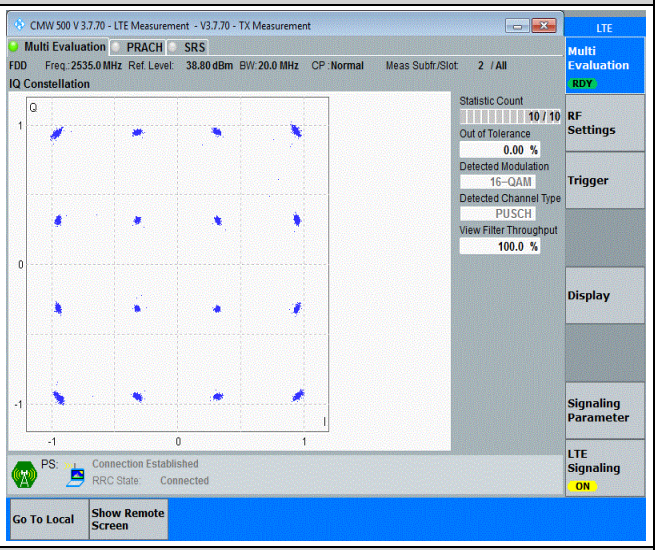
Band5-10MHz-16QAM-20525-50RB#0



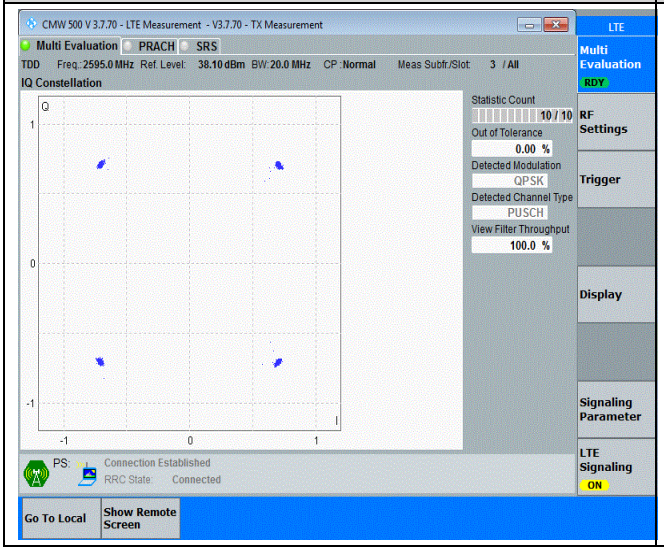
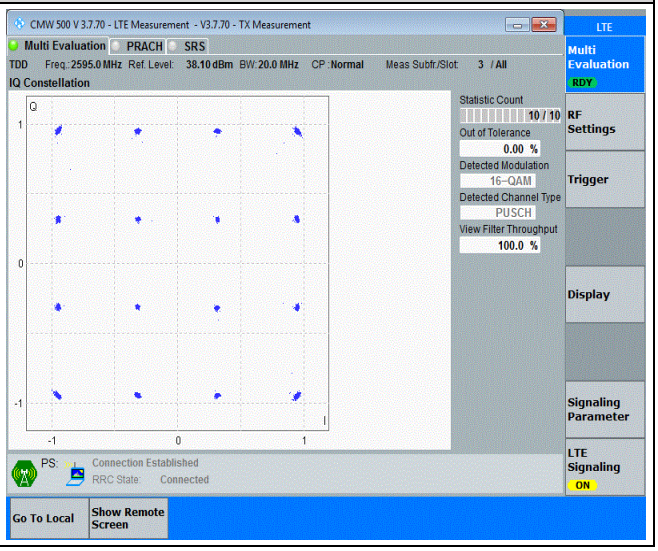
Band7-20MHz-QPSK-21100-100RB#0



Band7-20MHz-16QAM-21100-100RB#0



Band41-20MHz-QPSK-40640-100RB#0



Band41-20MHz-16QAM-40640-100RB#0