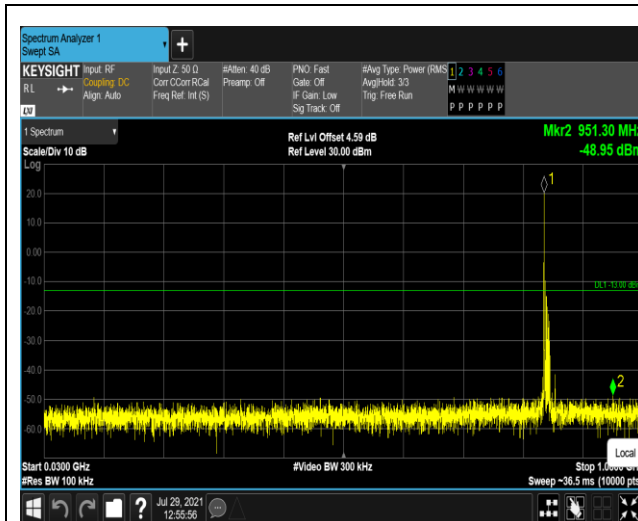
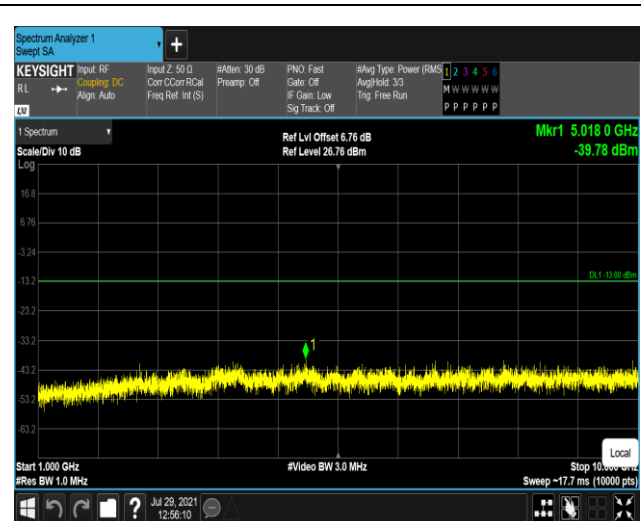
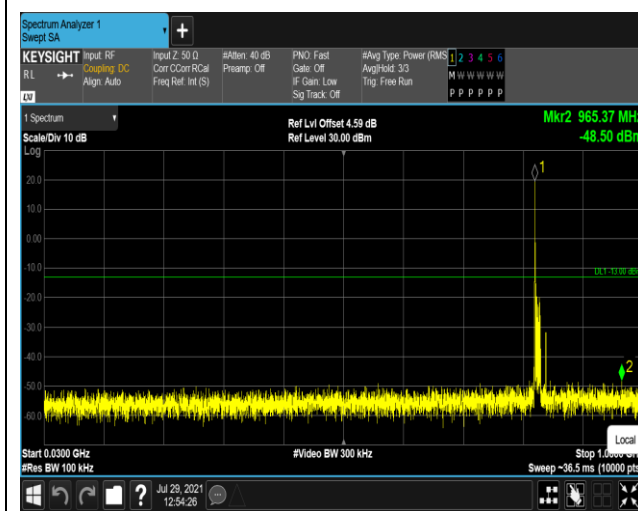




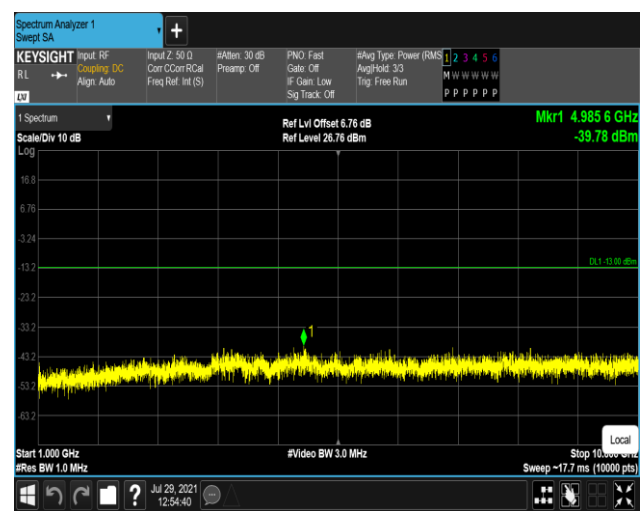
Band5-10MHz-QPSK-20600-1RB#0-Range1:30~1
000MHz



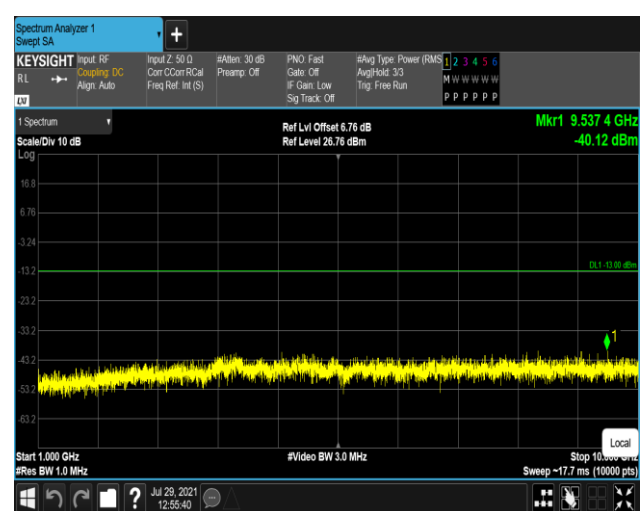
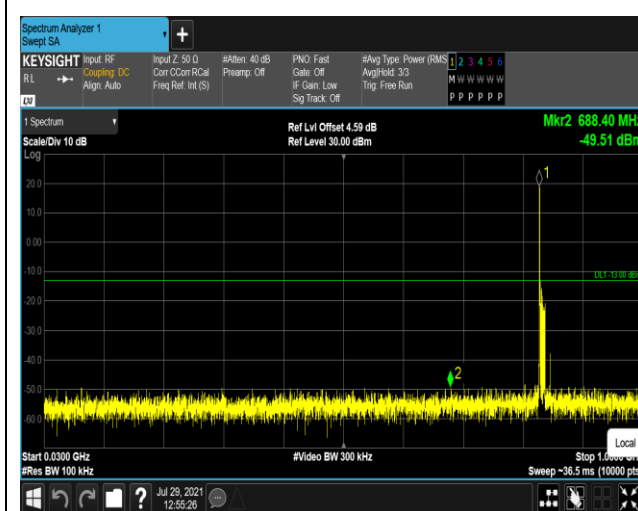
Band5-10MHz-QPSK-20600-1RB#0-Range2:1000~10
000MHz

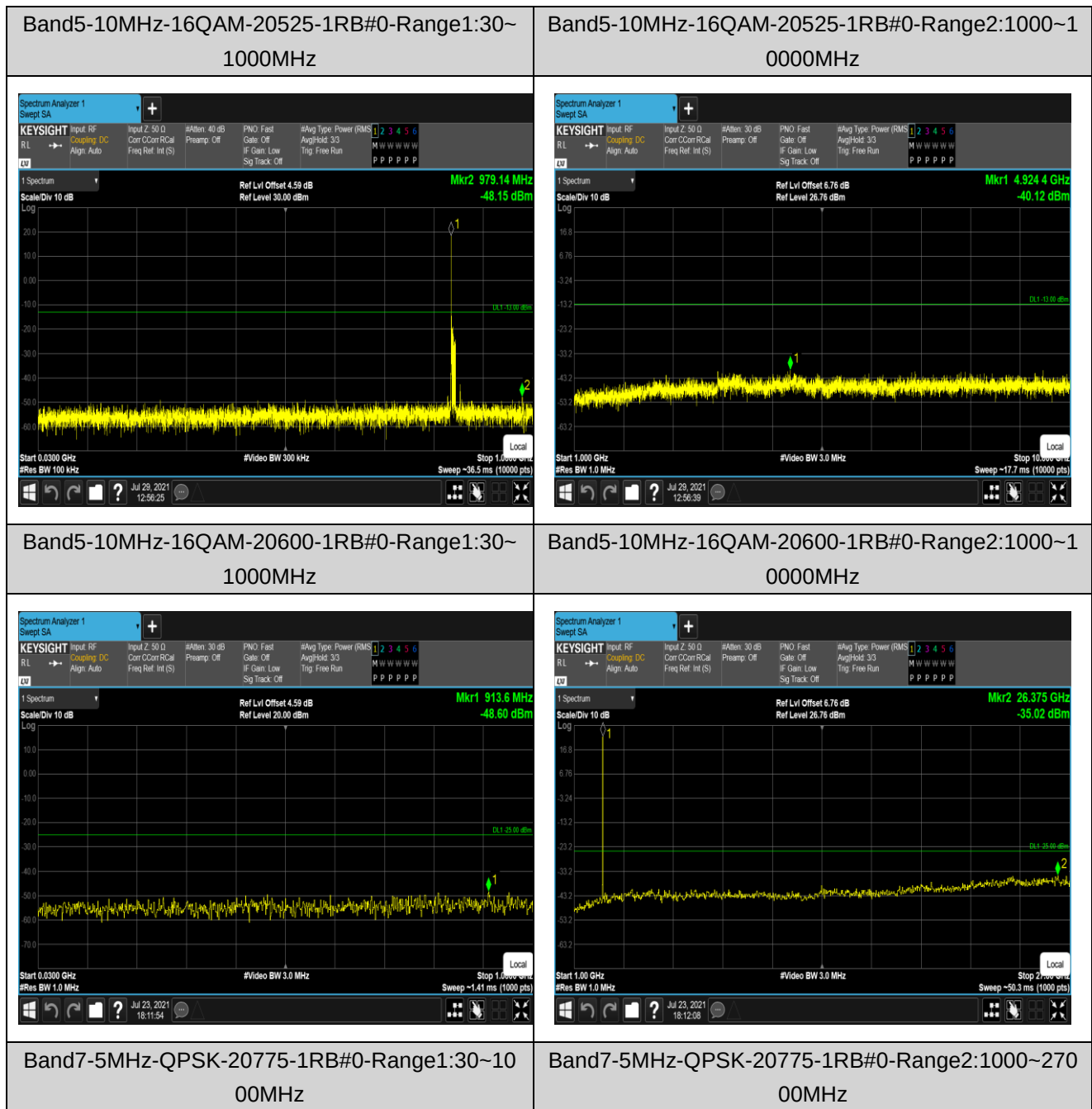


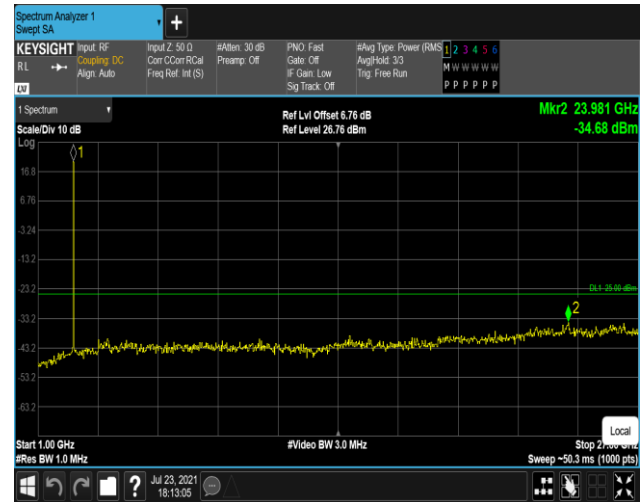
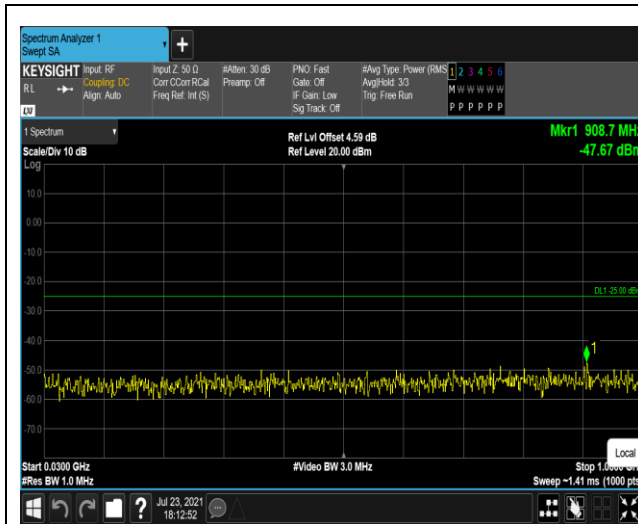
Band5-10MHz-16QAM-20450-1RB#0-Range1:30~1
000MHz



Band5-10MHz-16QAM-20450-1RB#0-Range2:1000~1
000MHz

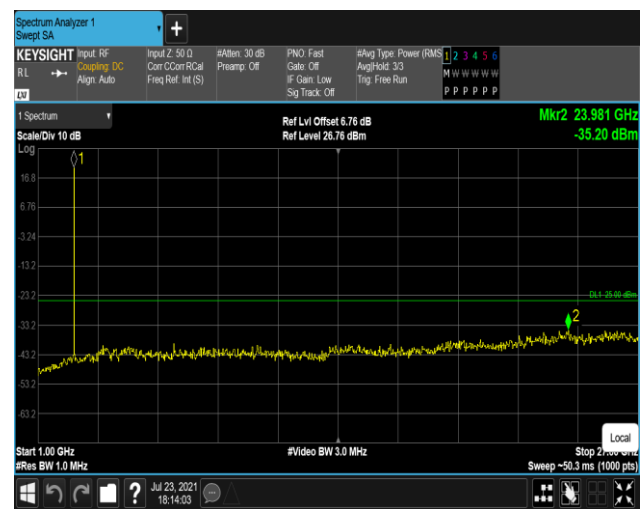






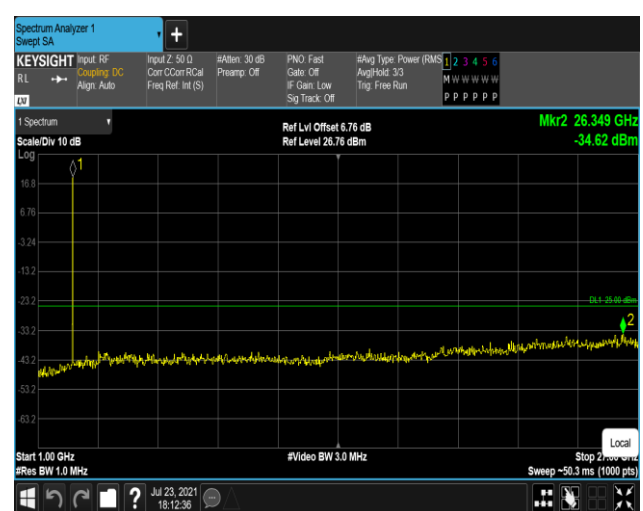
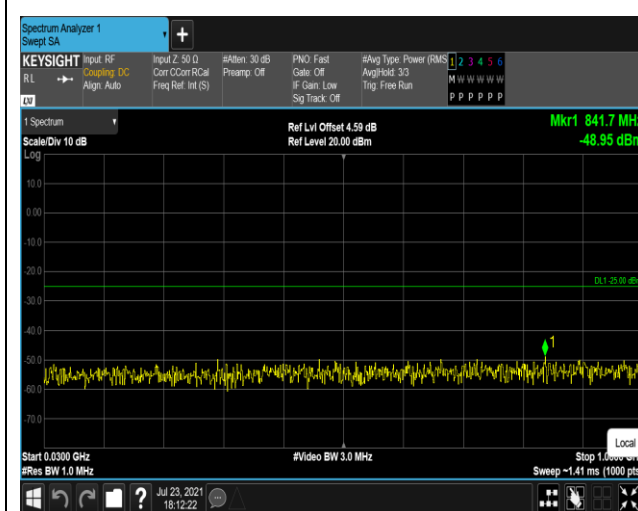
Band7-5MHz-QPSK-21100-1RB#0-Range1:30~1000MHz

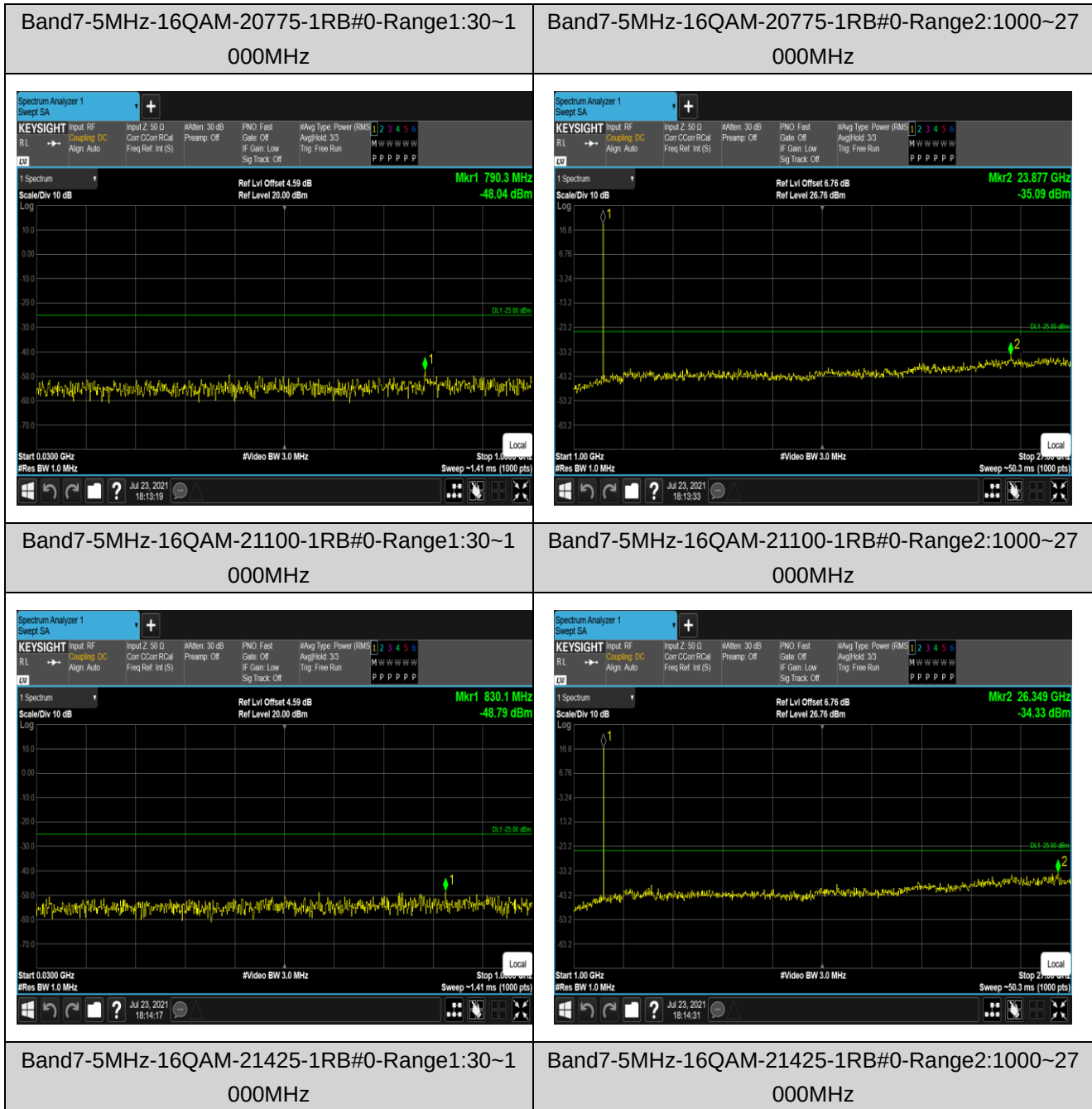
Band7-5MHz-QPSK-21100-1RB#0-Range2:1000~2700MHz

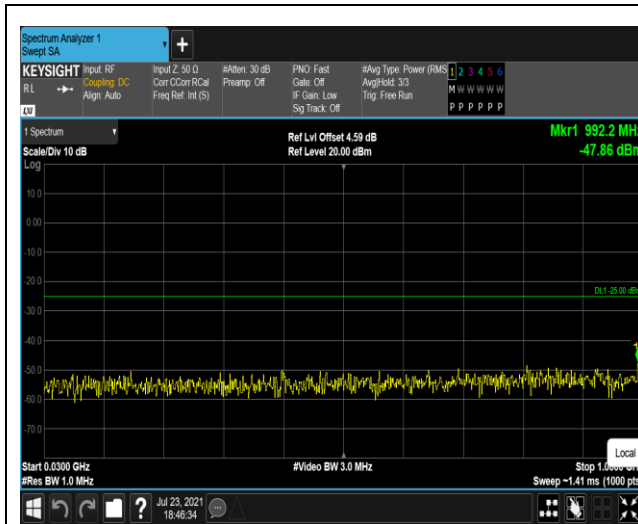


Band7-5MHz-QPSK-21425-1RB#0-Range1:30~1000MHz

Band7-5MHz-QPSK-21425-1RB#0-Range2:1000~2700MHz



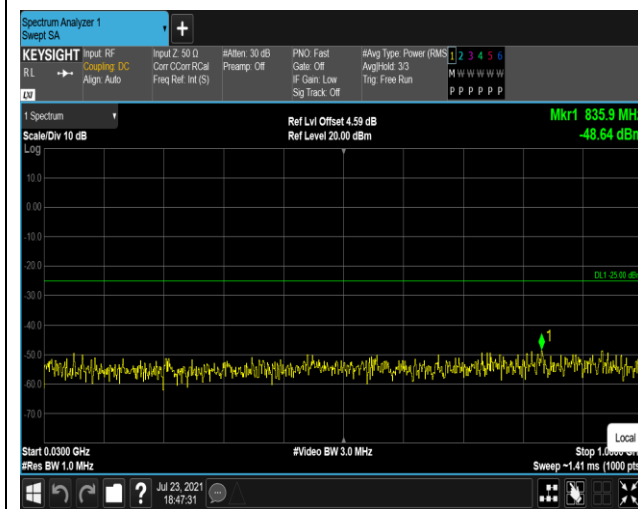




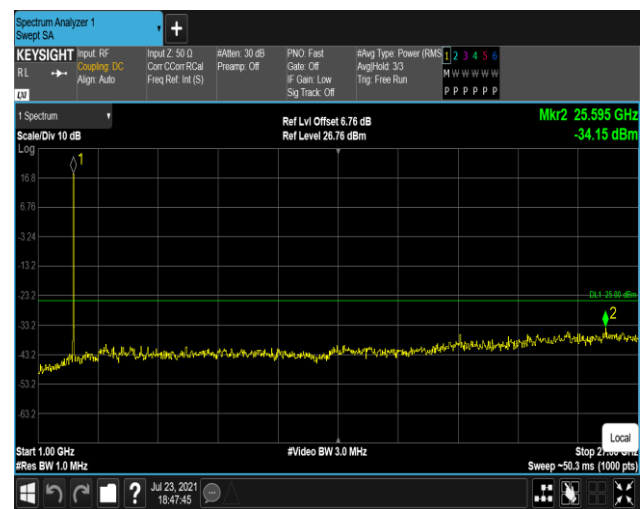
Band7-20MHz-QPSK-20850-1RB#0-Range1:30~1
000MHz



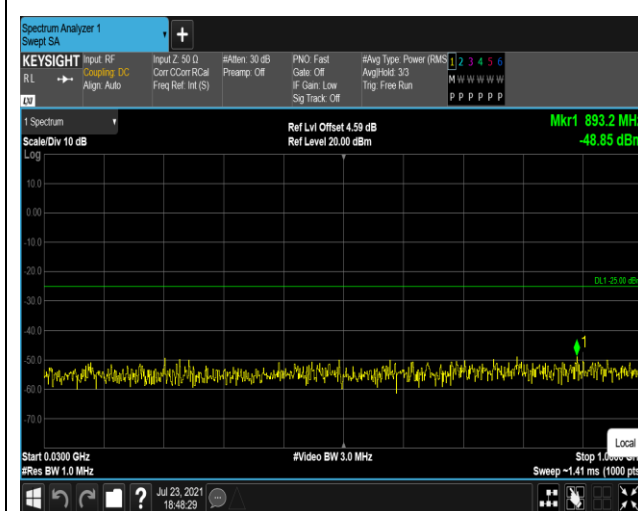
Band7-20MHz-QPSK-20850-1RB#0-Range2:1000~27
000MHz

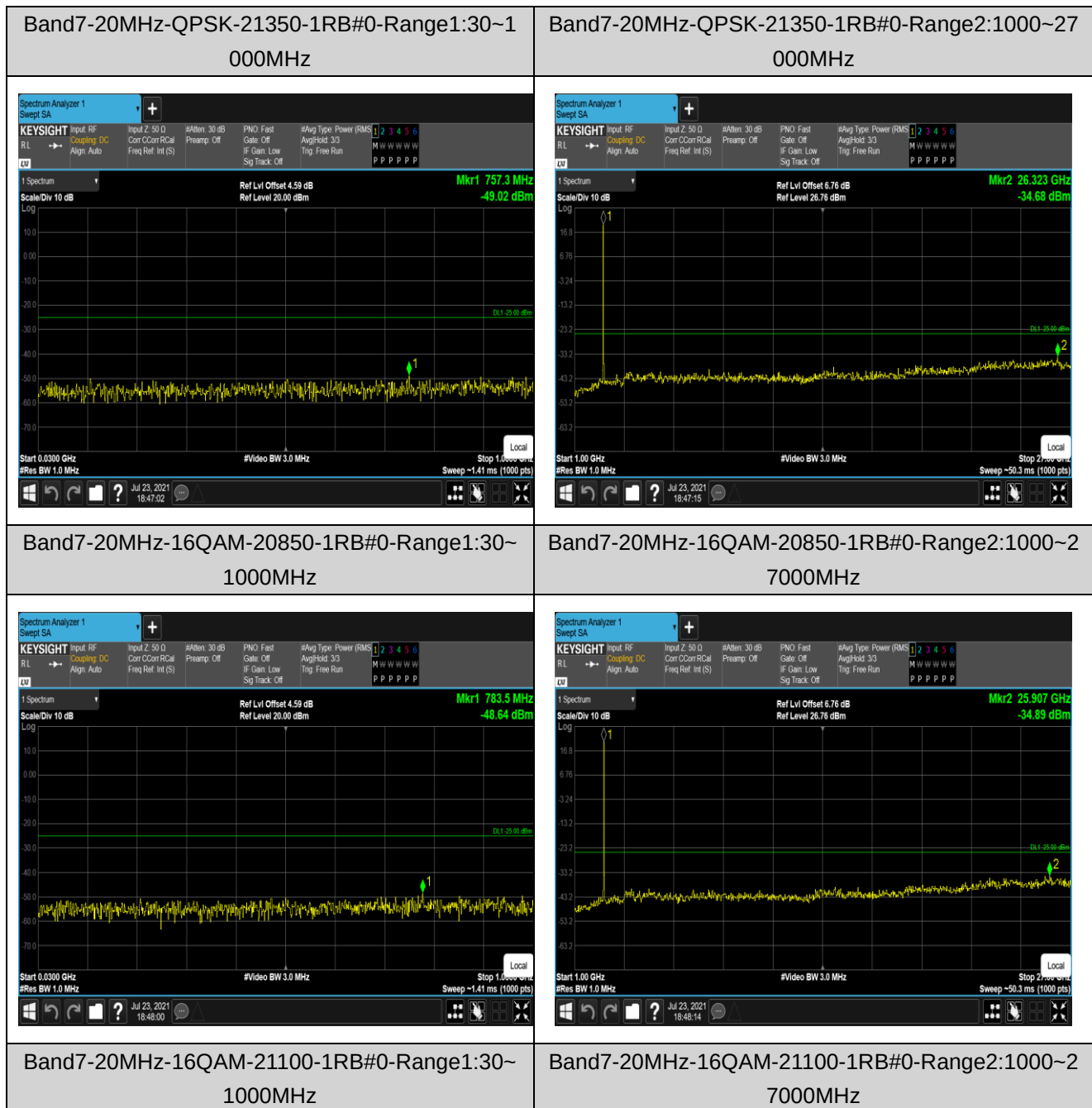


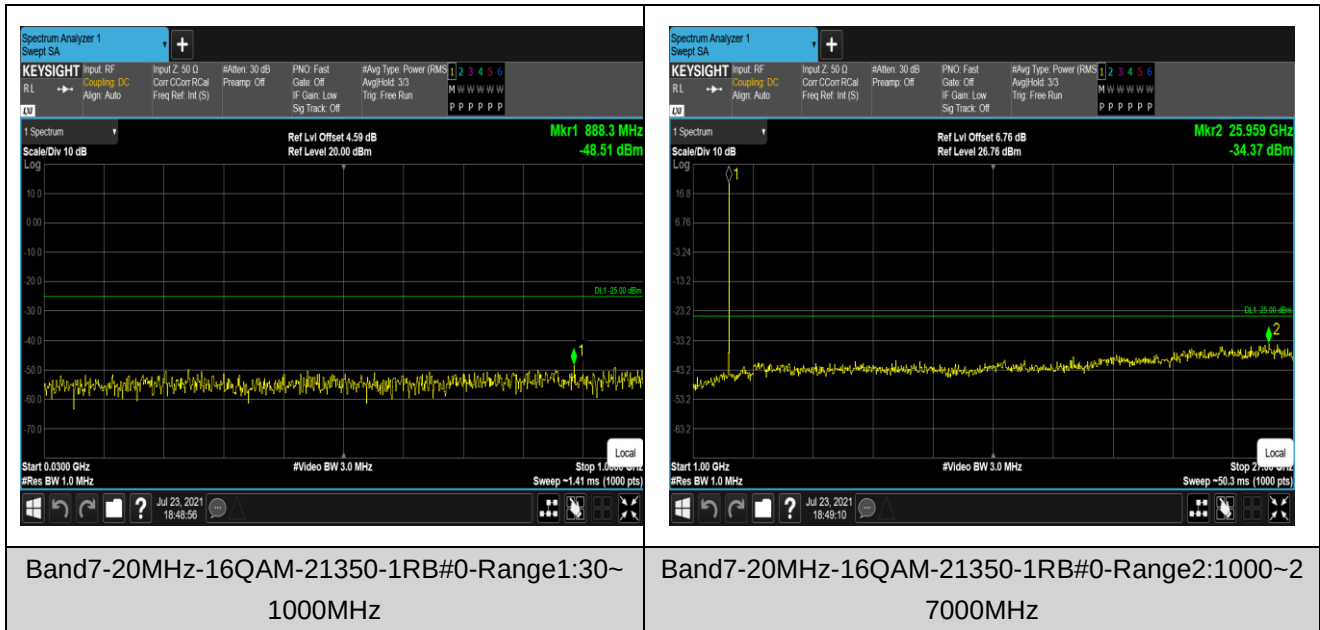
Band7-20MHz-QPSK-21100-1RB#0-Range1:30~1
000MHz



Band7-20MHz-QPSK-21100-1RB#0-Range2:1000~27
000MHz







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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-25.39	-0.013505	Within authorized band for Band 2	Pass
	-20	-31.03	-0.016505		
	-10	-31.49	-0.016750		
	0	-28.77	-0.015303		
	10	-25.23	-0.013420		
	20	-22.54	-0.011989		
	30	-21.47	-0.011420		
	40	-23.12	-0.012298		
	50	-19.67	-0.010463		
16QAM					
3.85	-30	36.41	0.019367	Within authorized band for Band 2	Pass
	-20	5.24	0.002787		
	-10	16.47	0.008761		
	0	24.32	0.012936		
	10	33.43	0.017782		
	20	43.44	0.023106		
	30	-5.15	-0.002739		
	40	7.20	0.003830		
	50	15.69	0.008346		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-17.09	-0.009090	Within authorized band for Band 2	Pass
	3.85	-5.08	-0.002702		
	4.42	-23.73	-0.012622		
16QAM					
25	3.50	8.50	0.004521	Within authorized band for Band 2	Pass
	3.85	-20.86	-0.011096		
	4.42	25.53	0.013580		
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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-20.47	-0.011815	Within authorized band for Band 4	Pass
	-20	-4.63	-0.002672		
	-10	-6.44	-0.003717		
	0	-24.73	-0.014274		
	10	11.06	0.006384		
	20	6.11	0.003527		
	30	-13.85	-0.007994		
	40	-12.93	-0.007463		
	50	-23.82	-0.013749		
16QAM					
3.85	-30	-9.77	-0.005639	Within authorized band for Band 4	Pass
	-20	3.88	0.002240		
	-10	-19.25	-0.011111		
	0	-22.83	-0.013177		
	10	-27.28	-0.015746		
	20	-22.14	-0.012779		
	30	-27.68	-0.015977		
	40	-29.35	-0.016941		
	50	-1.82	-0.001051		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-26.18	-0.015111	Within authorized band for Band 4	Pass
	3.85	-21.79	-0.012577		
	4.42	-38.54	-0.022245		
16QAM					
25	3.50	-22.30	-0.012872	Within authorized band for Band 4	Pass
	3.85	-30.33	-0.017506		
	4.42	-13.07	-0.007544		
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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-18.60	-0.022236	±2.5	Pass
	-20	-20.63	-0.024662		
	-10	-25.29	-0.030233		
	0	-25.84	-0.030891		
	10	-23.25	-0.027794		
	20	-24.00	-0.028691		
	30	-22.39	-0.026766		
	40	-24.43	-0.029205		
	50	-24.33	-0.029085		
16QAM					
3.85	-30	10.79	0.012899	±2.5	Pass
	-20	17.91	0.021411		
	-10	21.73	0.025977		
	0	27.87	0.033317		
	10	30.08	0.035959		
	20	32.74	0.039139		
	30	38.67	0.046228		
	40	41.13	0.049169		
	50	43.96	0.052552		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-1.47	-0.001757	±2.5	Pass
	3.85	23.53	0.028129		
	4.42	-12.82	-0.015326		
16QAM					
25	3.50	-10.06	-0.012026	±2.5	Pass
	3.85	-24.23	-0.028966		
	4.42	3.00	0.003586		
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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-17.98	-0.007093	Within authorized band for Band 7	Pass
	-20	-23.09	-0.009108		
	-10	-25.96	-0.010241		
	0	-24.92	-0.009830		
	10	-23.12	-0.009120		
	20	-25.73	-0.010150		
	30	-25.99	-0.010252		
	40	-30.13	-0.011886		
	50	-26.29	-0.010371		
16QAM					
3.85	-30	19.13	0.007546	Within authorized band for Band 7	Pass
	-20	40.61	0.016020		
	-10	20.18	0.007961		
	0	27.41	0.010813		
	10	43.27	0.017069		
	20	54.13	0.021353		
	30	-6.41	-0.002529		
	40	-4.15	-0.001637		
	50	11.29	0.004454		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	9.64	0.003803	Within authorized band for Band 7	Pass
	3.85	38.71	0.015270		
	4.42	-13.13	-0.005179		
16QAM					
25	3.50	17.01	0.006710	Within authorized band for Band 7	Pass
	3.85	-32.97	-0.013006		
	4.42	46.02	0.018154		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

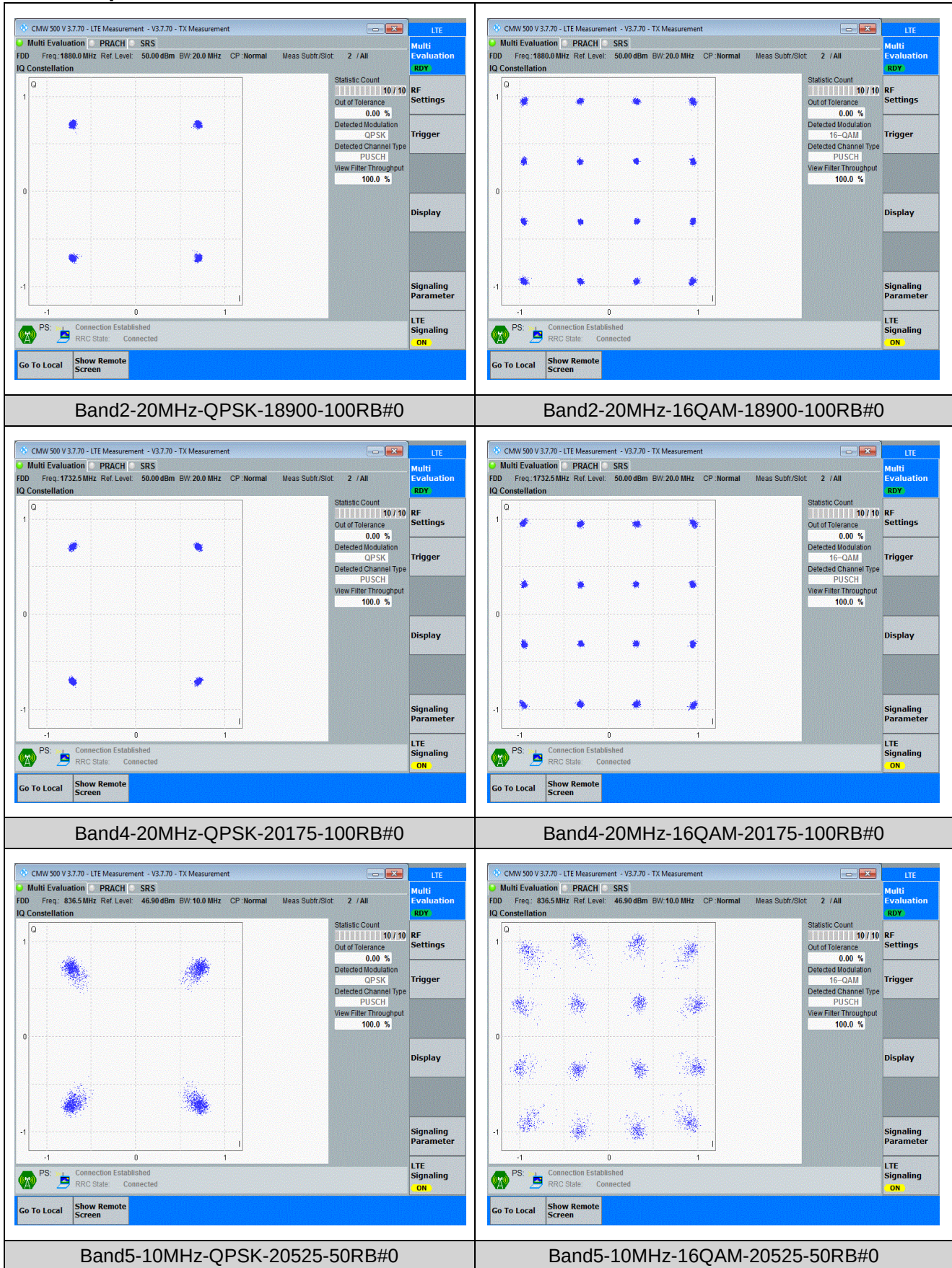
Appendix G: Modulation Characteristics

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

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

Test Graphs



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