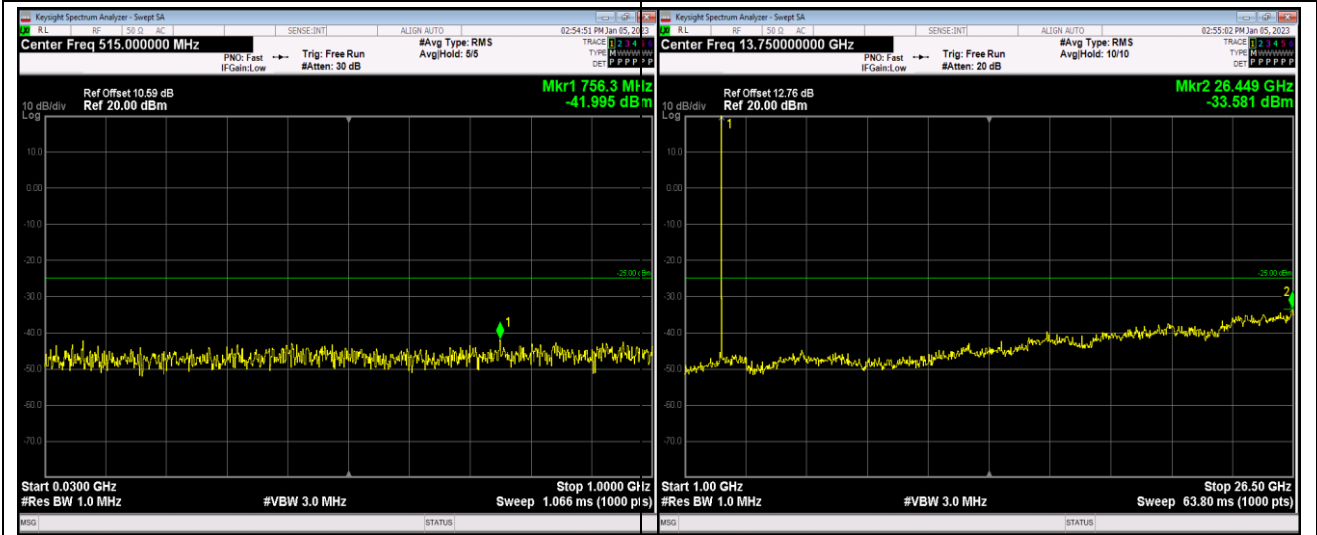


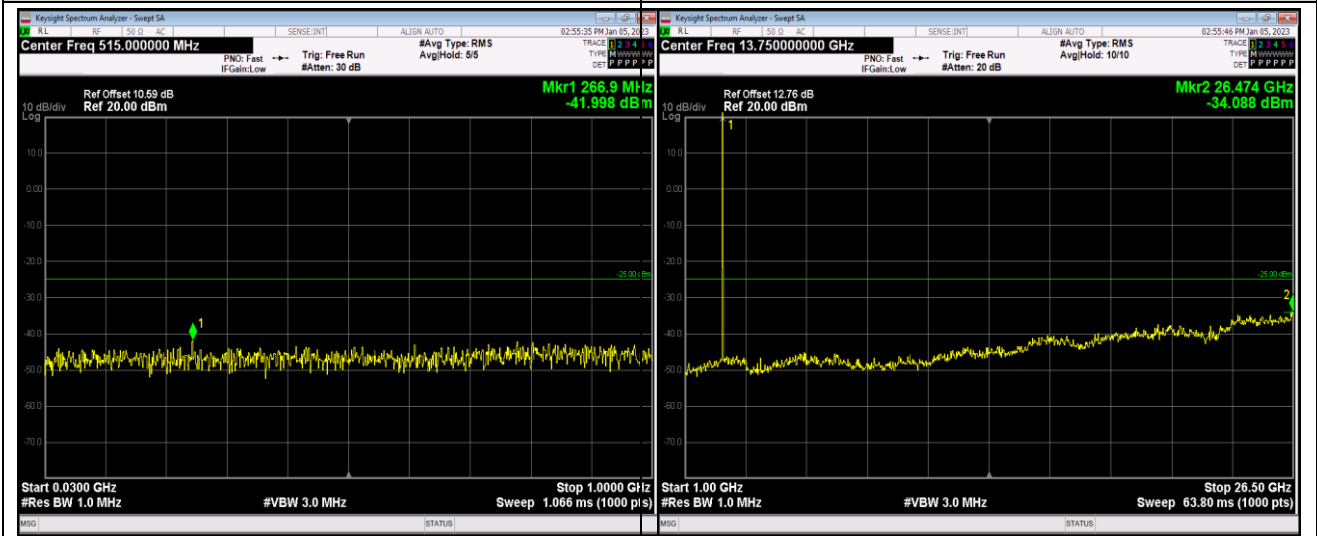
Band41-5MHz-QPSK-40065-1RB#0-Range1:30~1000MHz

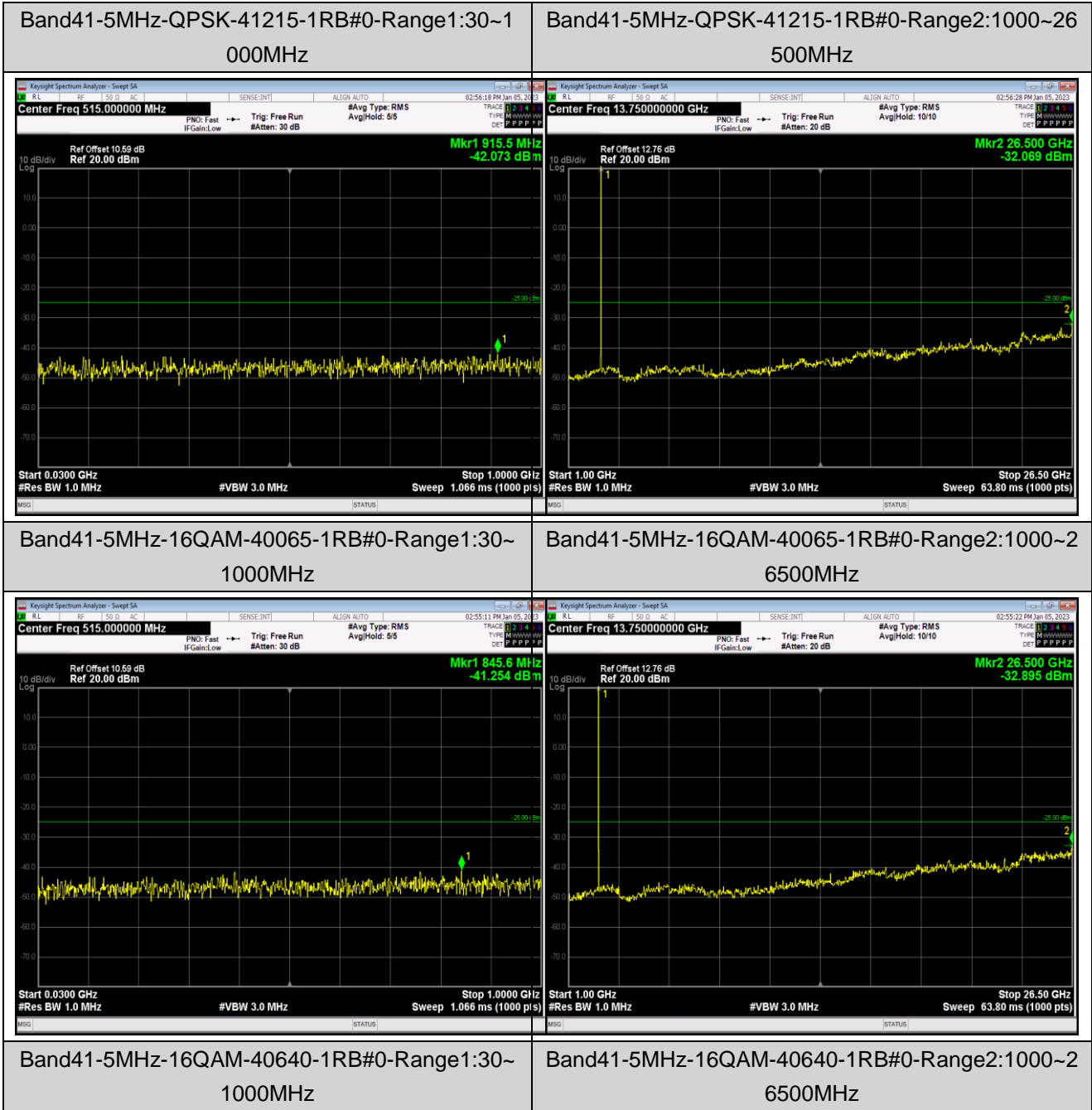
Band41-5MHz-QPSK-40065-1RB#0-Range2:1000~26500MHz

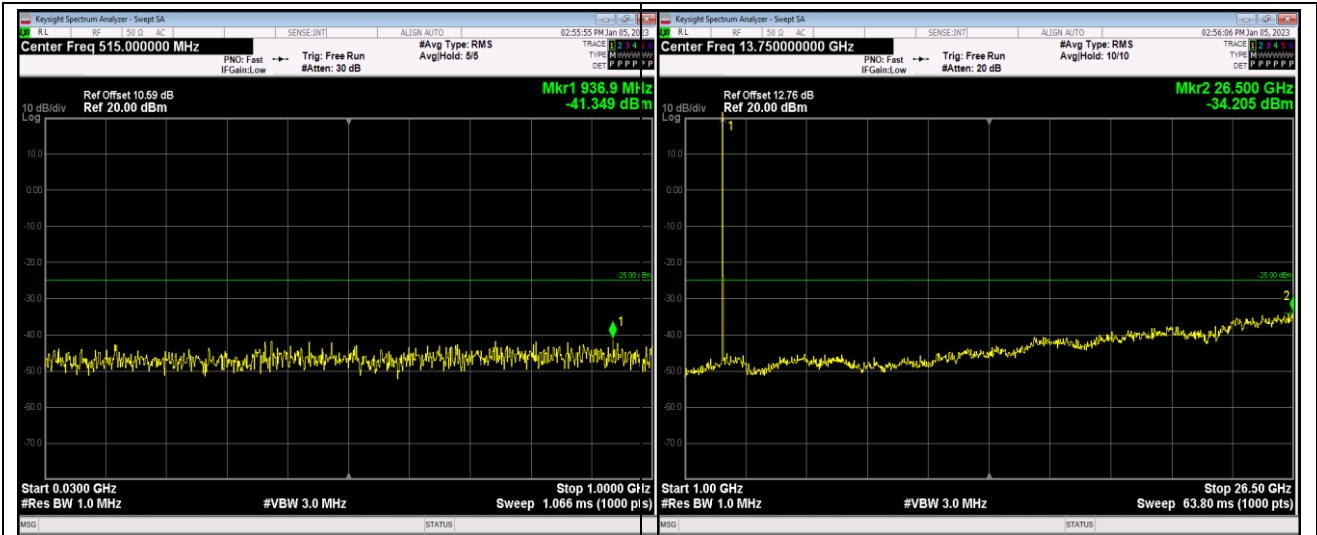


Band41-5MHz-QPSK-40640-1RB#0-Range1:30~1000MHz

Band41-5MHz-QPSK-40640-1RB#0-Range2:1000~26500MHz

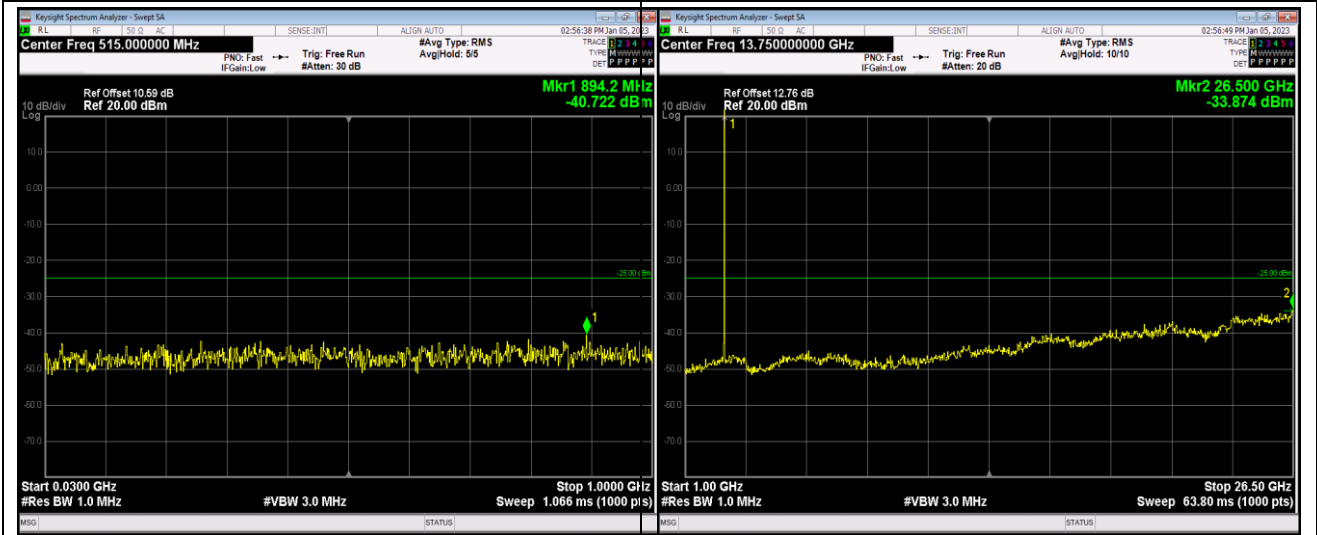






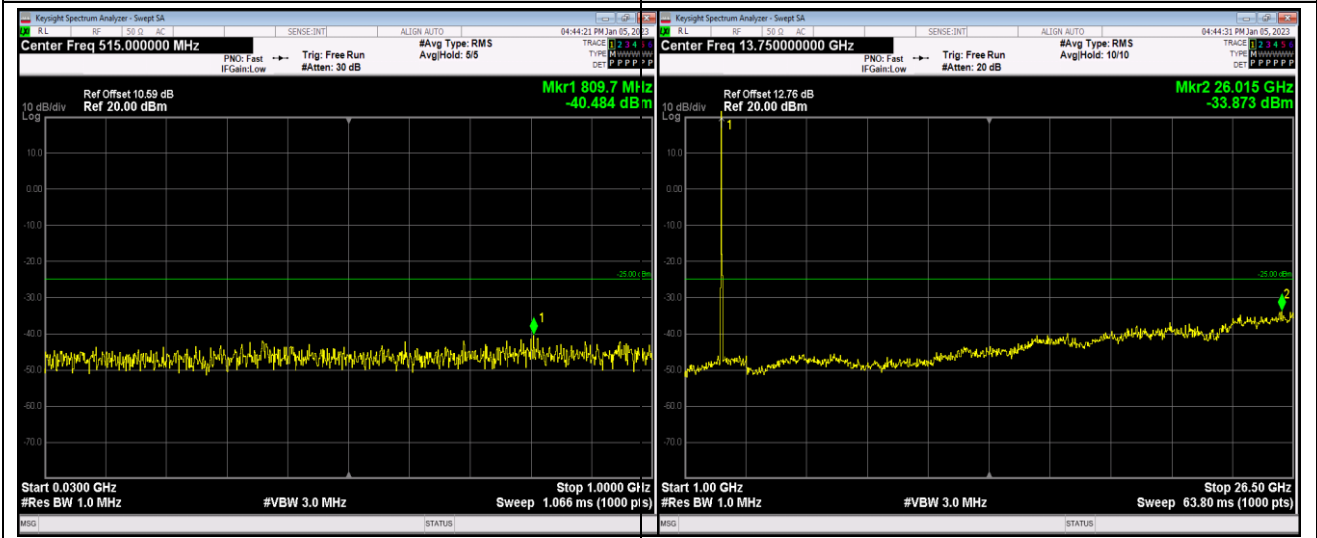
Band41-5MHz-16QAM-41215-1RB#0-Range1:30~1000MHz

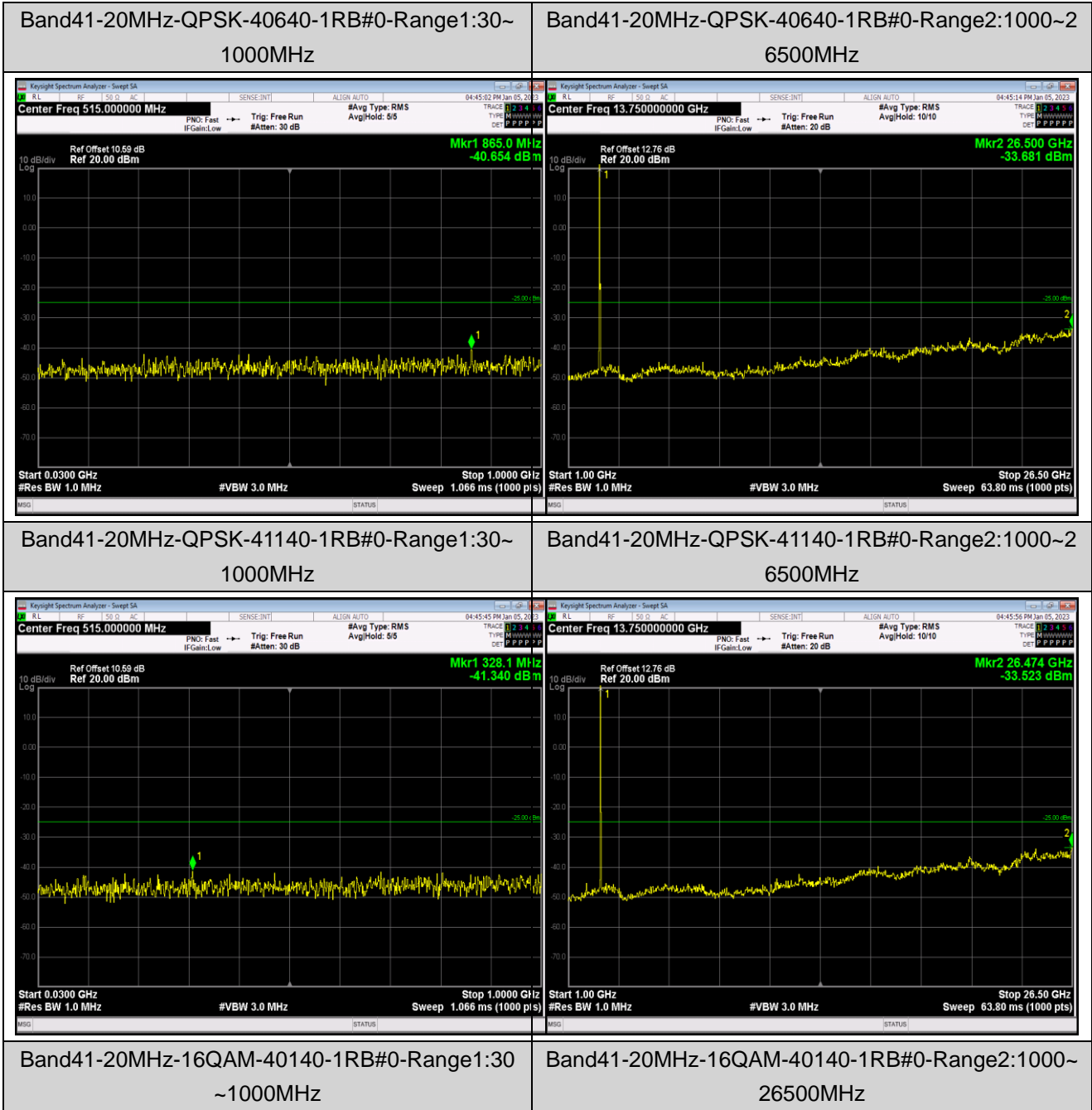
Band41-5MHz-16QAM-41215-1RB#0-Range2:1000~6500MHz

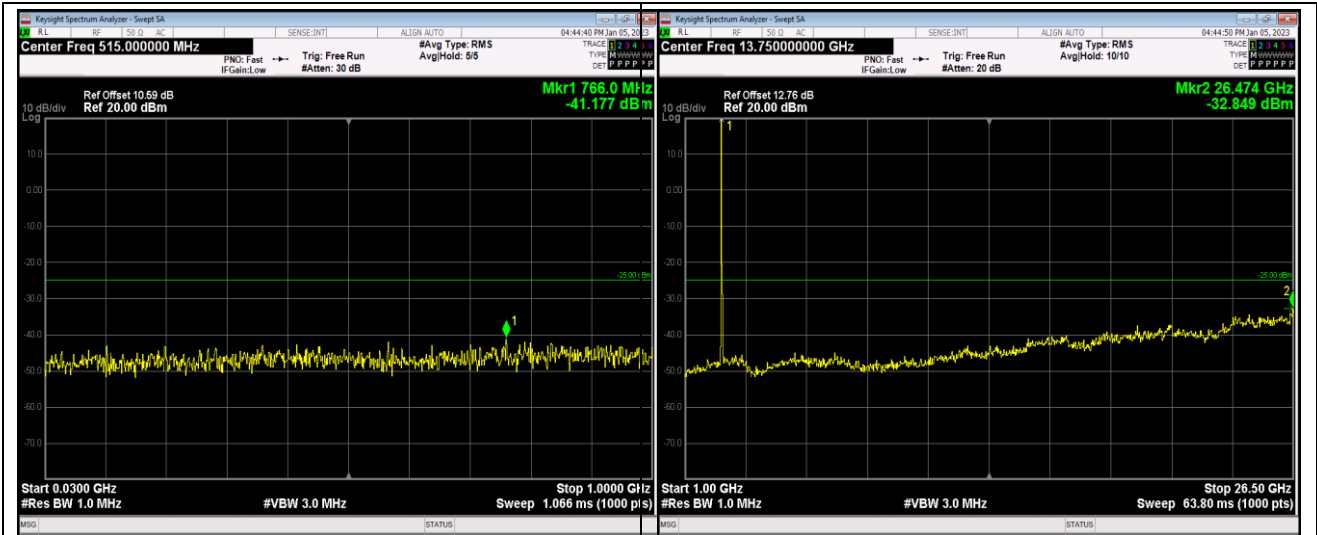


Band41-20MHz-QPSK-40140-1RB#0-Range1:30~1000MHz

Band41-20MHz-QPSK-40140-1RB#0-Range2:1000~6500MHz

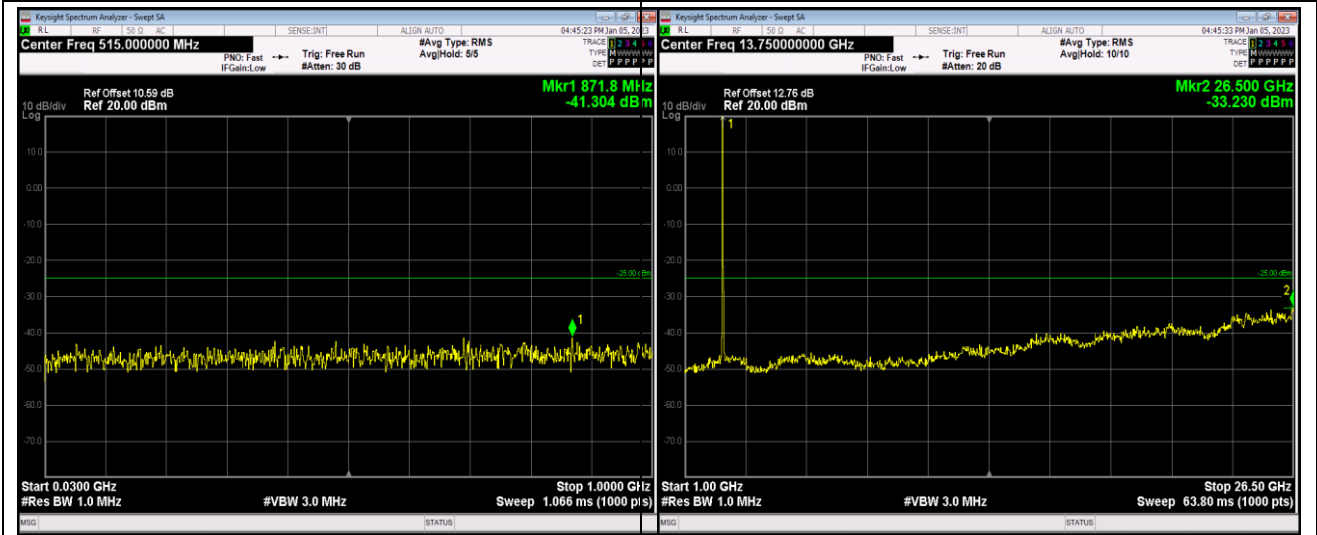






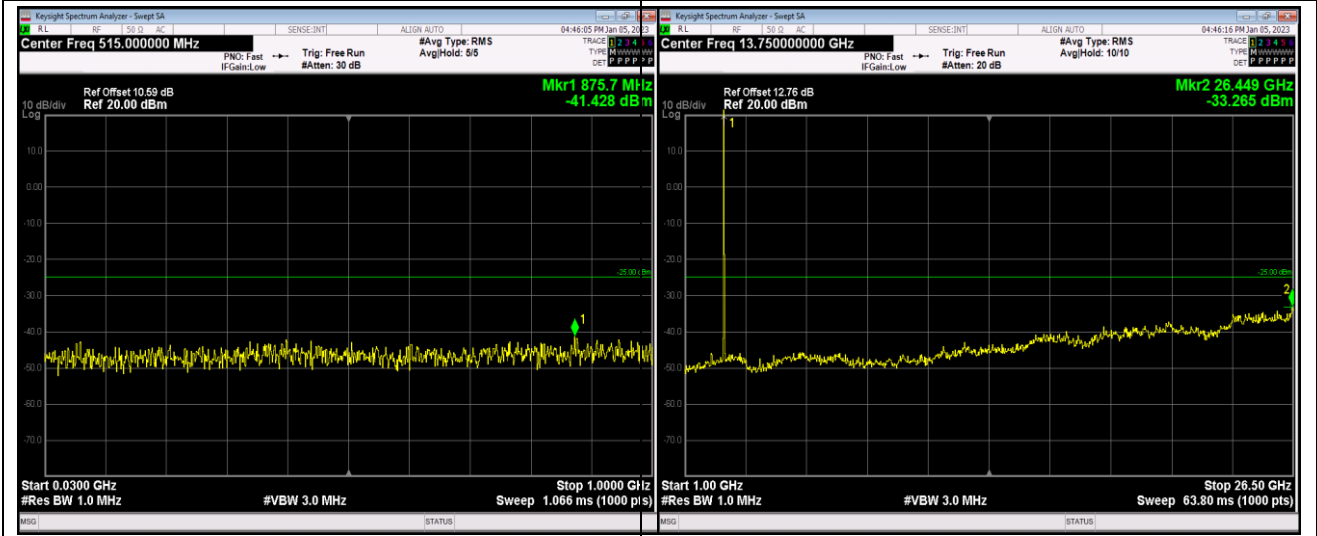
Band41-20MHz-16QAM-40640-1RB#0-Range1:30
~1000MHz

Band41-20MHz-16QAM-40640-1RB#0-Range2:1000~
26500MHz



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

Band41-20MHz-16QAM-41140-1RB#0-Range2:1000~
26500MHz



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					
3.87	-30	-14.26	-0.007585	Within authorized band for Band 2	Pass
	-20	-13.83	-0.007356		
	-10	-14.13	-0.007516		
	0	-11.89	-0.006324		
	10	-15.29	-0.008133		
	20	-13.19	-0.007016		
	30	-13.16	-0.007000		
	40	-11.47	-0.006101		
	50	-13.45	-0.007154		
16QAM					
3.87	-30	-14.33	-0.007622	Within authorized band for Band 2	Pass
	-20	-14.18	-0.007543		
	-10	-10.99	-0.005846		
	0	-11.19	-0.005952		
	10	-15.62	-0.008309		
	20	-13.63	-0.007250		
	30	-10.96	-0.005830		
	40	-14.00	-0.007447		
	50	-14.49	-0.007707		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.40	-18.45	-0.009814	Within authorized band for Band 2	Pass
	3.87	-13.65	-0.007261		
	4.45	-12.20	-0.006489		
16QAM					
25	3.40	-18.47	-0.009824	Within authorized band for Band 2	Pass
	3.87	-13.60	-0.007234		
	4.45	-15.79	-0.008399		

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					
3.87	-30	-10.80	-0.006234	Within authorized band for Band 4	Pass
	-20	-10.79	-0.006228		
	-10	-11.54	-0.006661		
	0	-13.98	-0.008069		
	10	-10.86	-0.006268		
	20	-18.42	-0.010632		
	30	-5.95	-0.003434		
	40	-5.71	-0.003296		
	50	-4.08	-0.002355		
16QAM					
3.87	-30	-11.09	-0.006401	Within authorized band for Band 4	Pass
	-20	-11.20	-0.006465		
	-10	-11.64	-0.006719		
	0	-8.80	-0.005079		
	10	-5.79	-0.003342		
	20	-11.52	-0.006649		
	30	-12.25	-0.007071		
	40	-8.90	-0.005137		
	50	-15.54	-0.008970		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.40	-8.94	-0.005160	Within authorized band for Band 4	Pass
	3.87	-11.94	-0.006892		
	4.45	-9.08	-0.005241		
16QAM					
25	3.40	-11.67	-0.006736	Within authorized band for Band 4	Pass
	3.87	-12.85	-0.007417		
	4.45	-10.61	-0.006124		

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					
3.87	-30	-6.11	-0.007304	±2.5	Pass
	-20	-10.49	-0.012540		
	-10	4.13	0.004937		
	0	-6.24	-0.007460		
	10	-3.48	-0.004160		
	20	-7.15	-0.008548		
	30	-7.45	-0.008906		
	40	-3.73	-0.004459		
	50	-7.72	-0.009229		
16QAM					
3.87	-30	-8.90	-0.010640	±2.5	Pass
	-20	-10.94	-0.013078		
	-10	-6.69	-0.007998		
	0	-7.93	-0.009480		
	10	-10.26	-0.012265		
	20	-7.40	-0.008846		
	30	4.08	0.004877		
	40	-6.19	-0.007400		
	50	-2.79	-0.003335		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.40	-7.42	-0.008870	±2.5	Pass
	3.87	-11.70	-0.013987		
	4.45	-7.77	-0.009289		
16QAM					
25	3.40	-8.53	-0.010197	±2.5	Pass
	3.87	-4.88	-0.005834		
	4.45	-9.11	-0.010891		

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					
3.87	-30	15.19	0.005992	Within authorized band for Band 7	Pass
	-20	-14.46	-0.005704		
	-10	8.91	0.003515		
	0	-9.43	-0.003720		
	10	12.80	0.005049		
	20	-16.98	-0.006698		
	30	-18.14	-0.007156		
	40	-12.04	-0.004750		
	50	15.75	0.006213		
16QAM					
3.87	-30	-20.53	-0.008099	Within authorized band for Band 7	Pass
	-20	-17.40	-0.006864		
	-10	-9.28	-0.003661		
	0	-20.11	-0.007933		
	10	-3.85	-0.001519		
	20	-5.51	-0.002174		
	30	-18.07	-0.007128		
	40	13.68	0.005396		
	50	-16.78	-0.006619		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.40	-15.82	-0.006241	Within authorized band for Band 7	Pass
	3.87	-19.17	-0.007562		
	4.45	-14.23	-0.005613		
16QAM					
25	3.40	-15.18	-0.005988	Within authorized band for Band 7	Pass
	3.87	-7.91	-0.003120		
	4.45	-12.83	-0.005061		

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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-15.25	-0.005877	Within authorized band for Band 41	Pass
	-20	-16.99	-0.006547		
	-10	-11.90	-0.004586		
	0	-15.46	-0.005958		
	10	-14.15	-0.005453		
	20	-3.60	-0.001387		
	30	-11.97	-0.004613		
	40	-15.44	-0.005950		
	50	-12.10	-0.004663		
16QAM					
3.87	-30	-16.34	-0.006297	Within authorized band for Band 41	Pass
	-20	-15.88	-0.006119		
	-10	-17.22	-0.006636		
	0	-15.81	-0.006092		
	10	-10.31	-0.003973		
	20	-5.52	-0.002127		
	30	-14.95	-0.005761		
	40	-10.89	-0.004197		
	50	-17.18	-0.006620		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.40	-16.85	-0.006493	Within authorized band for Band 41	Pass
	3.87	-15.79	-0.006085		
	4.45	-13.29	-0.005121		
16QAM					
25	3.40	-13.30	-0.005125	Within authorized band for Band41	Pass
	3.87	-9.40	-0.003622		
	4.45	-12.76	-0.004917		

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

