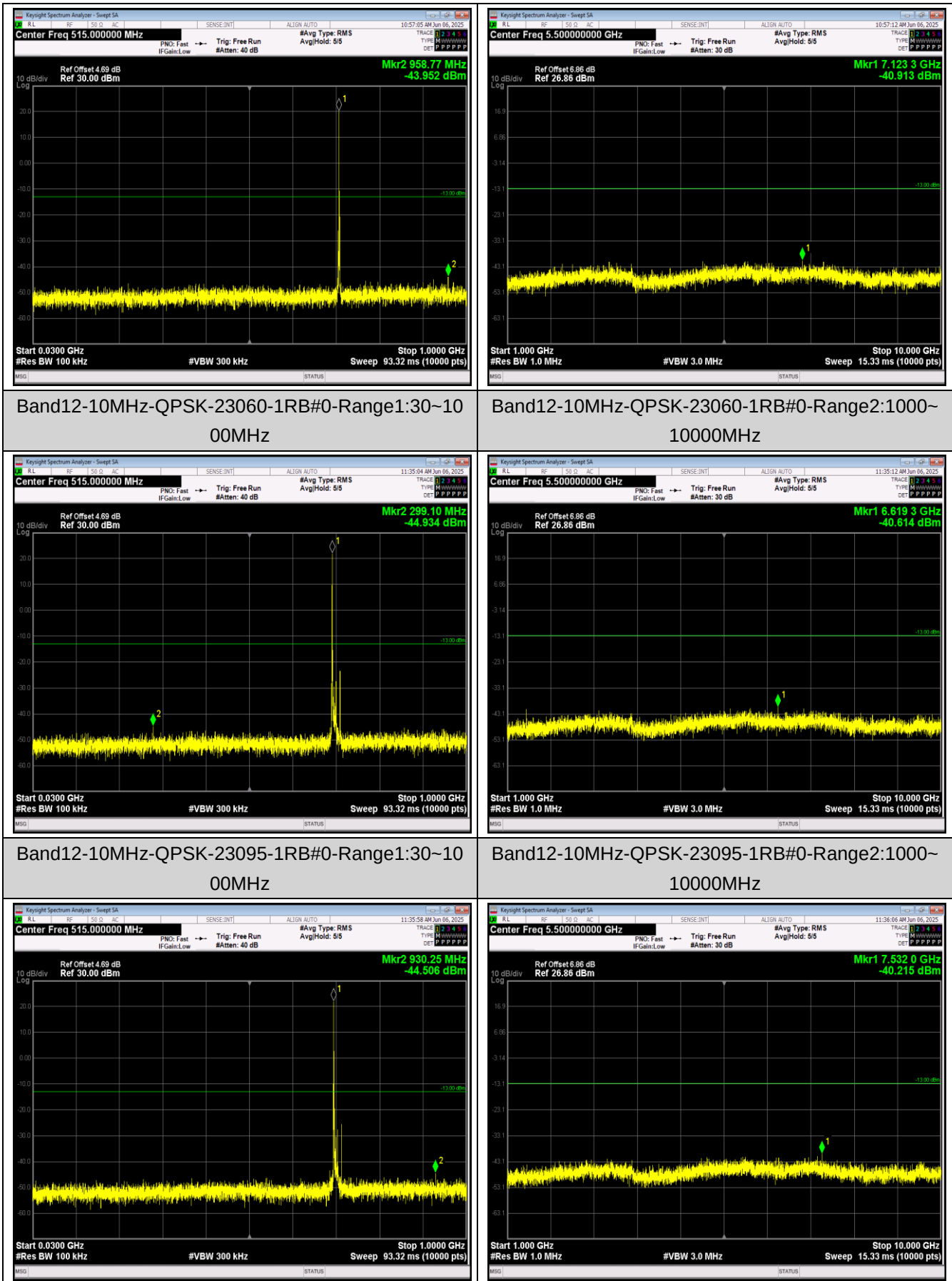
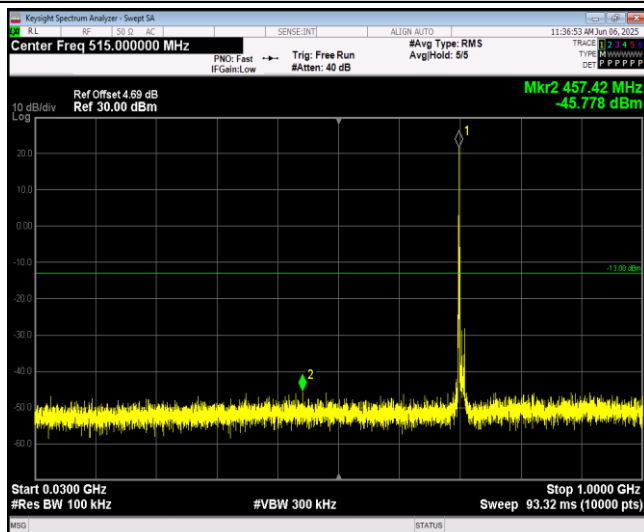
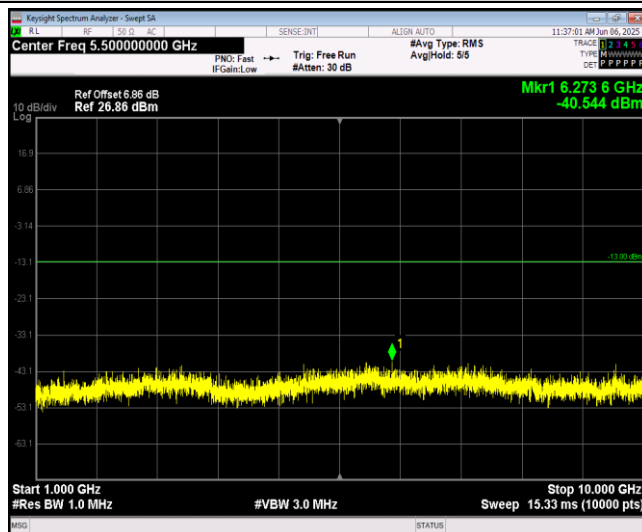




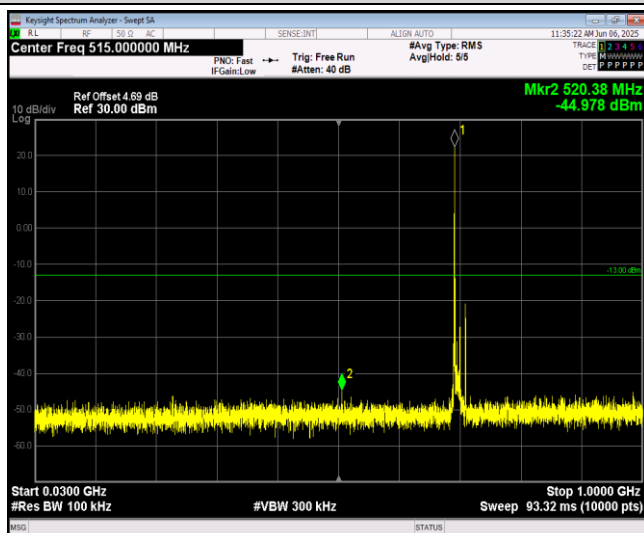
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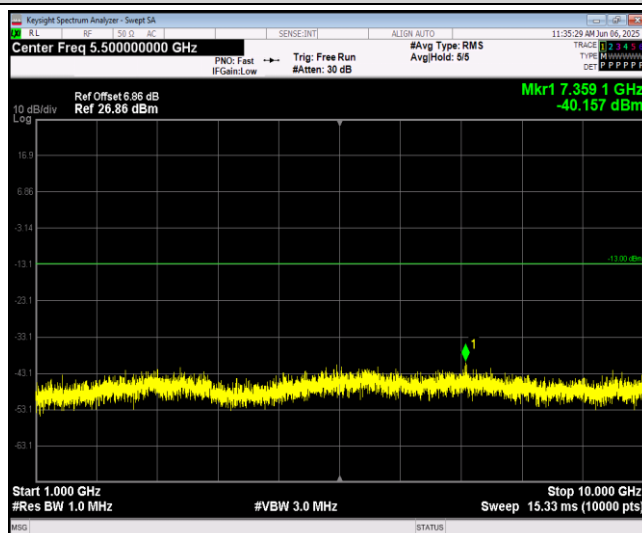
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Band12-10MHz-16QAM-23060-1RB#0-Range1:30~1000MHz



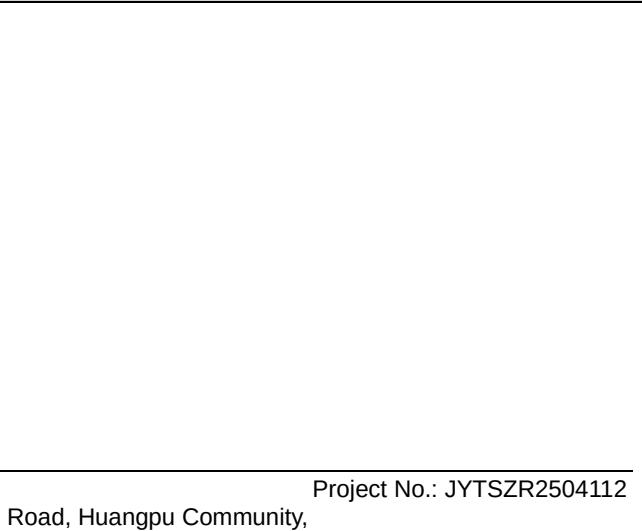
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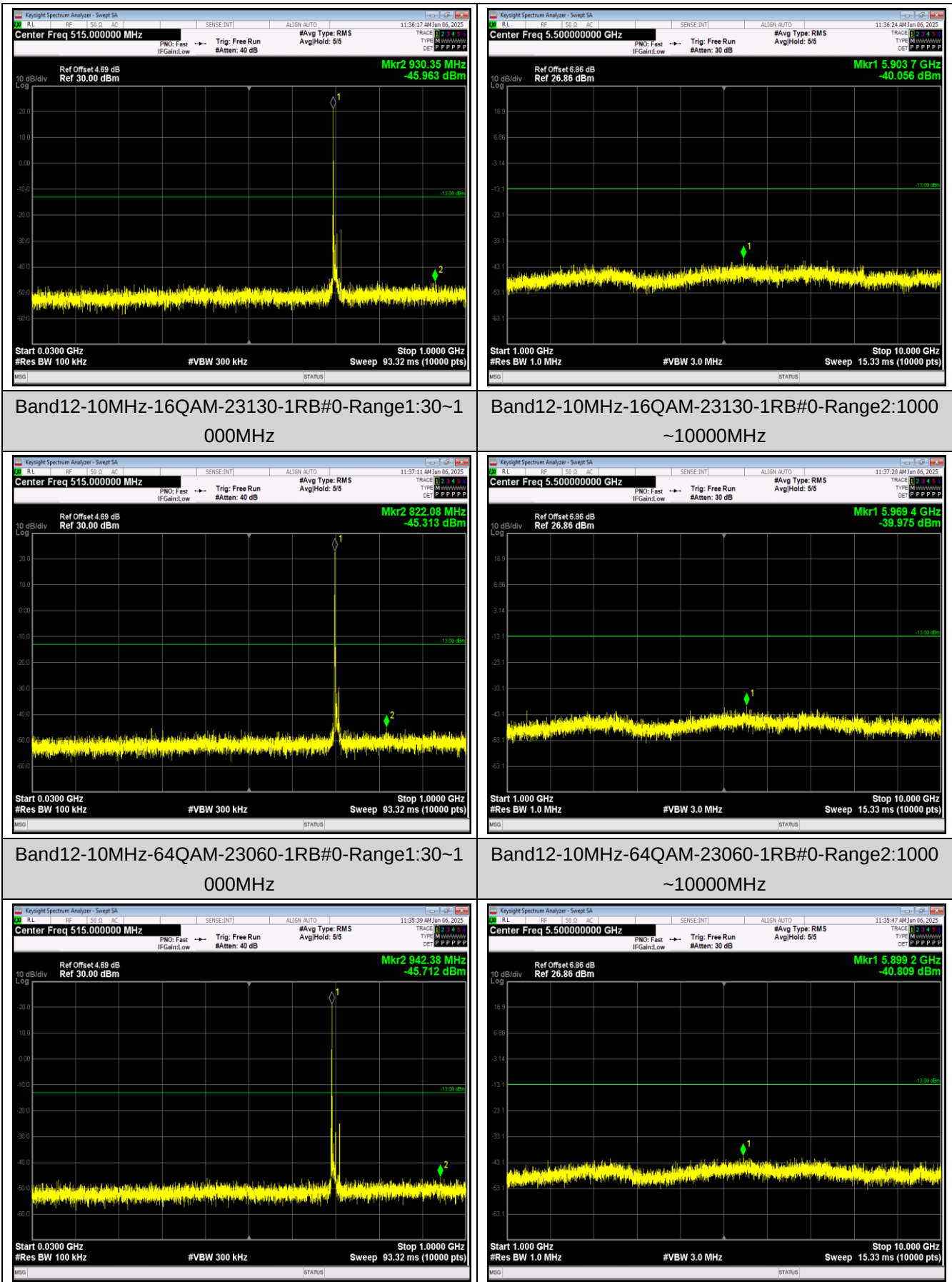


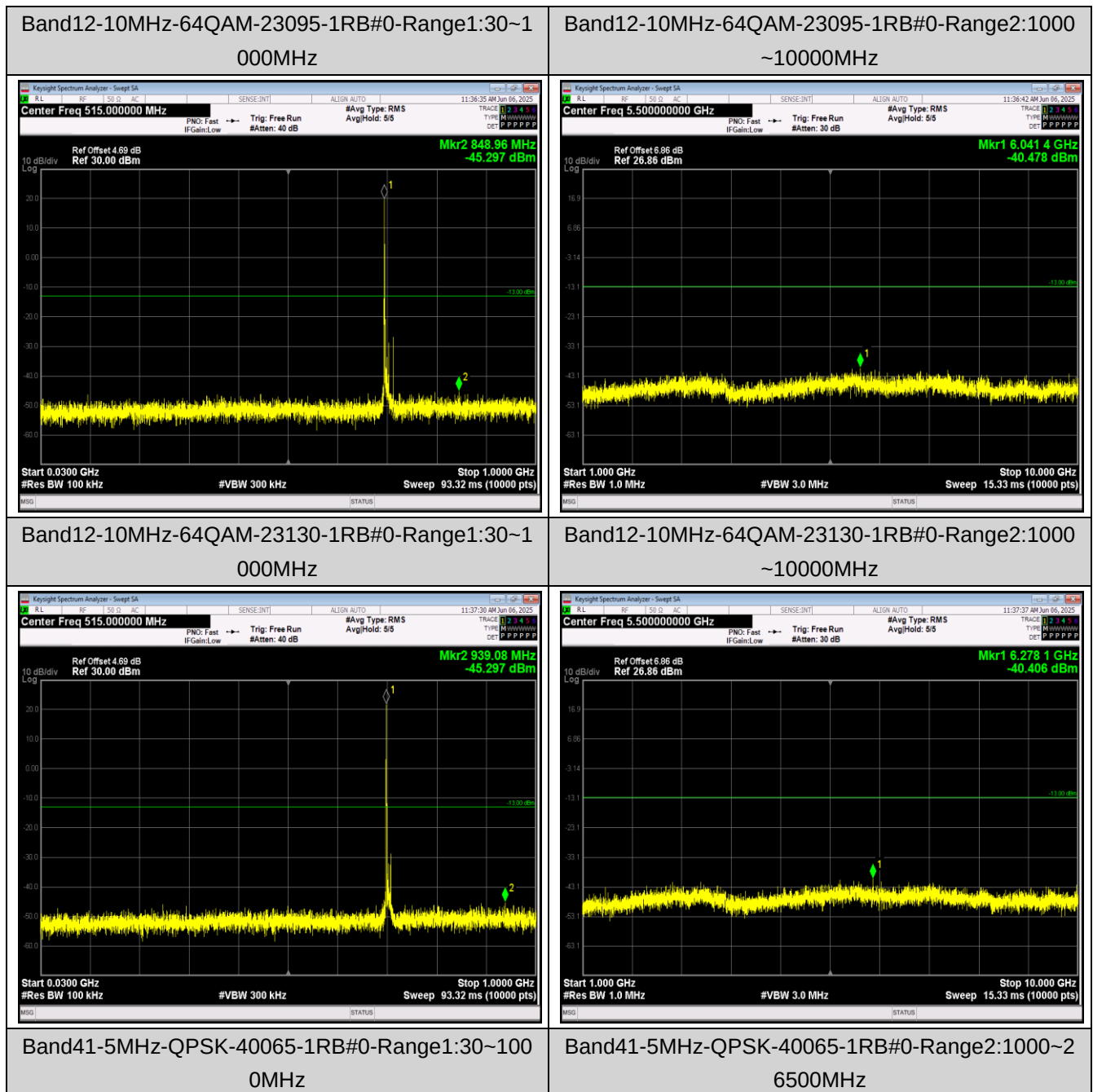
Band12-10MHz-16QAM-23095-1RB#0-Range1:30~1000MHz

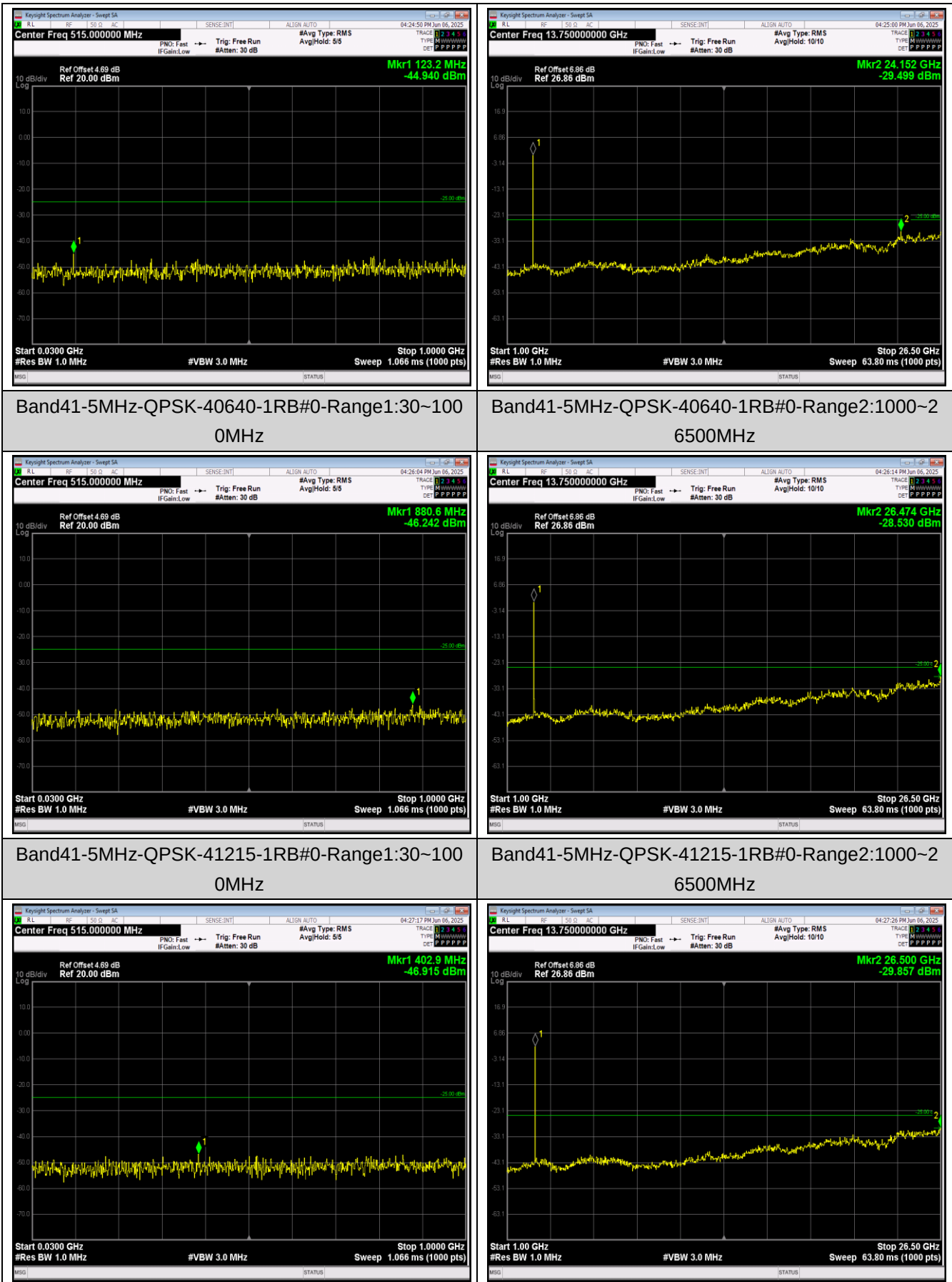


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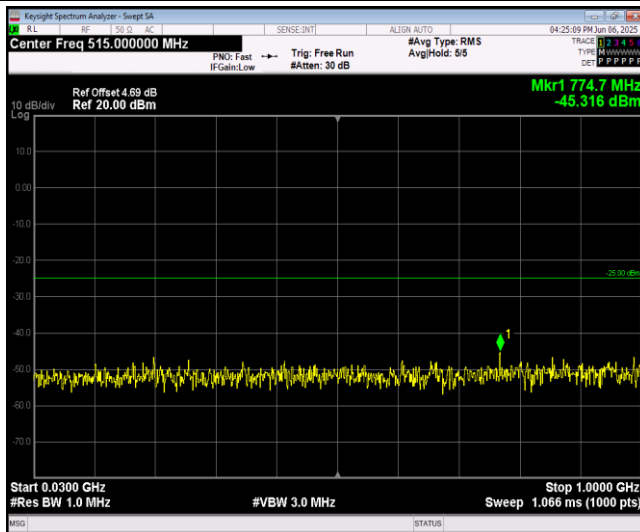




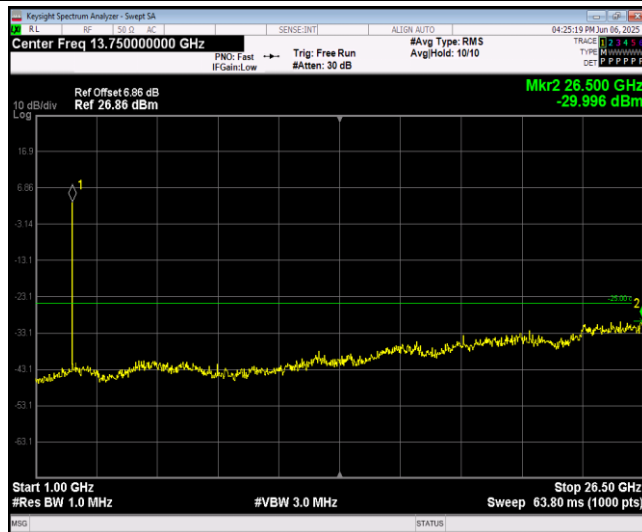




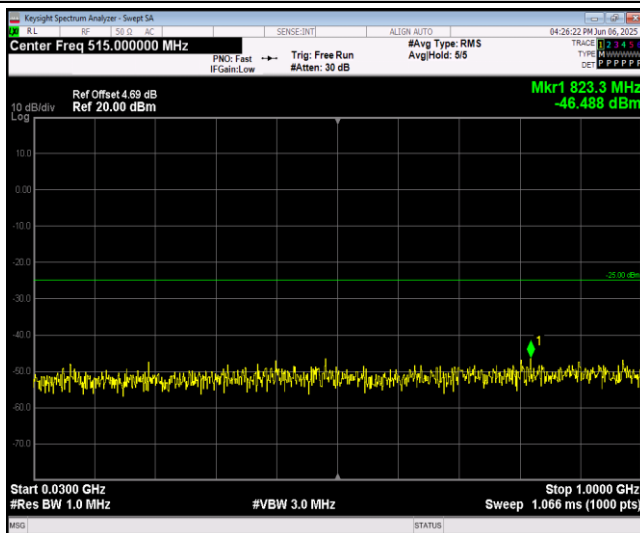
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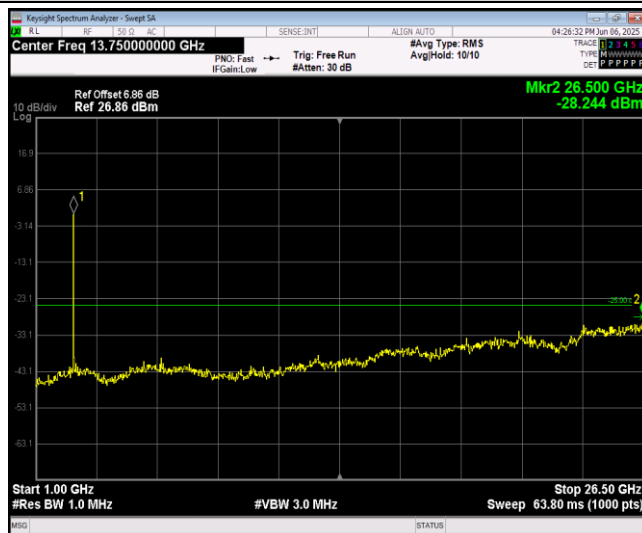
Band41-5MHz-16QAM-40065-1RB#0-Range2:1000~26500MHz



Band41-5MHz-16QAM-40640-1RB#0-Range1:30~1000MHz

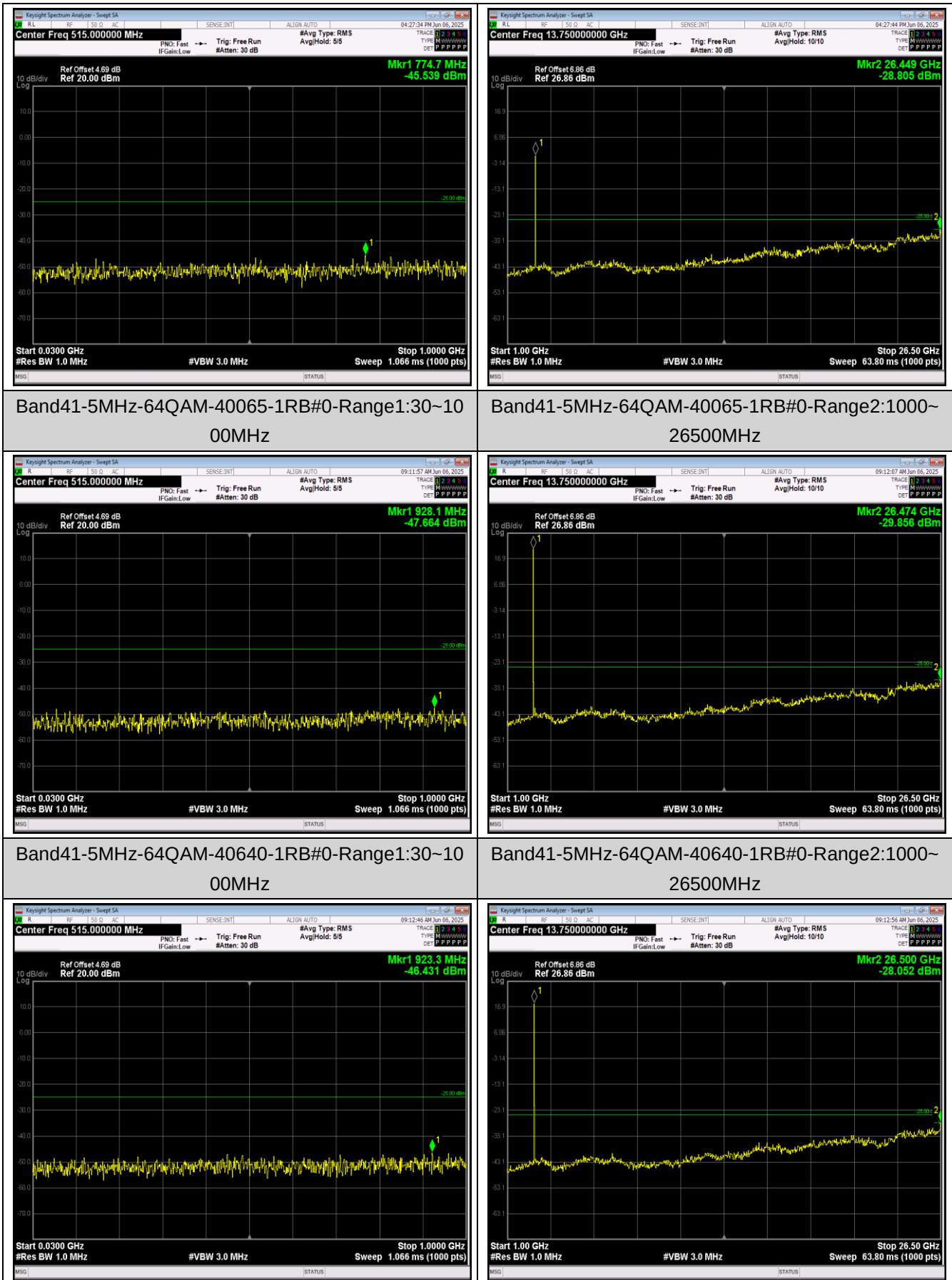


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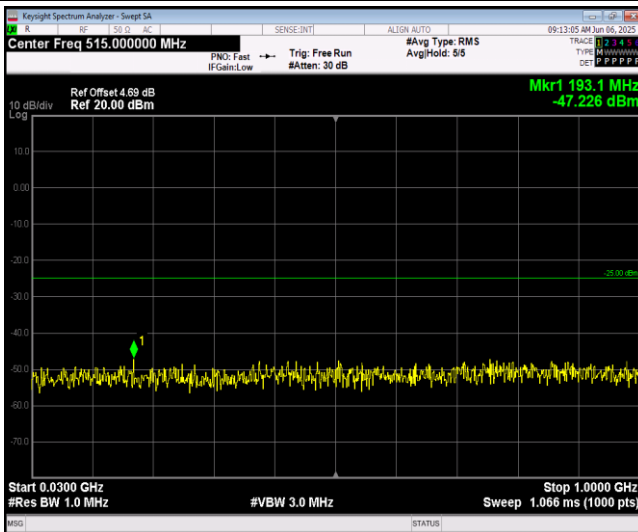


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Band41-5MHz-16QAM-41215-1RB#0-Range2:1000~26500MHz



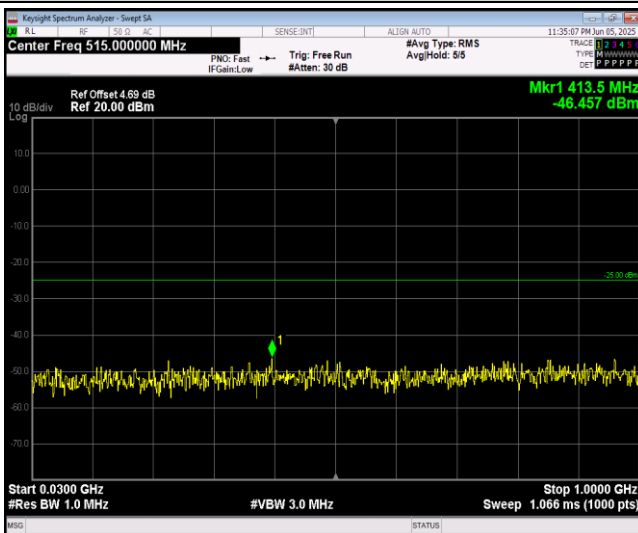
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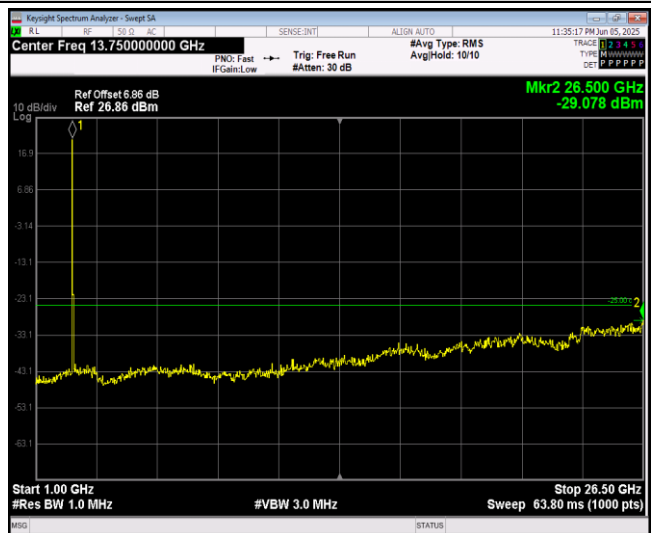
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Band41-20MHz-QPSK-40140-1RB#0-Range1:30~1000MHz



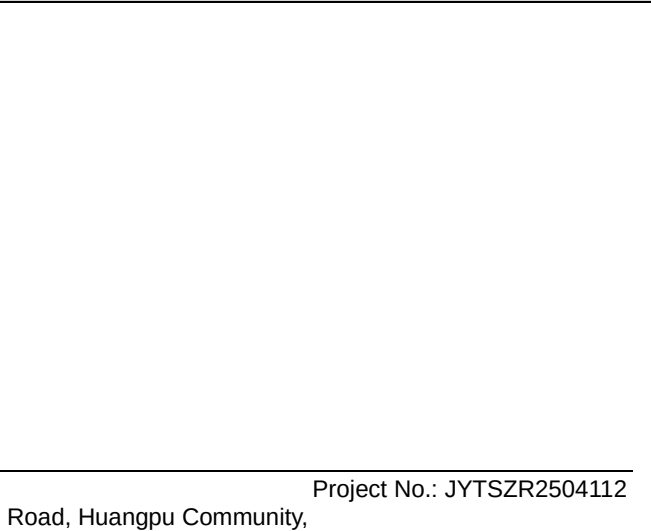
Band41-20MHz-QPSK-40140-1RB#0-Range2:1000~26500MHz

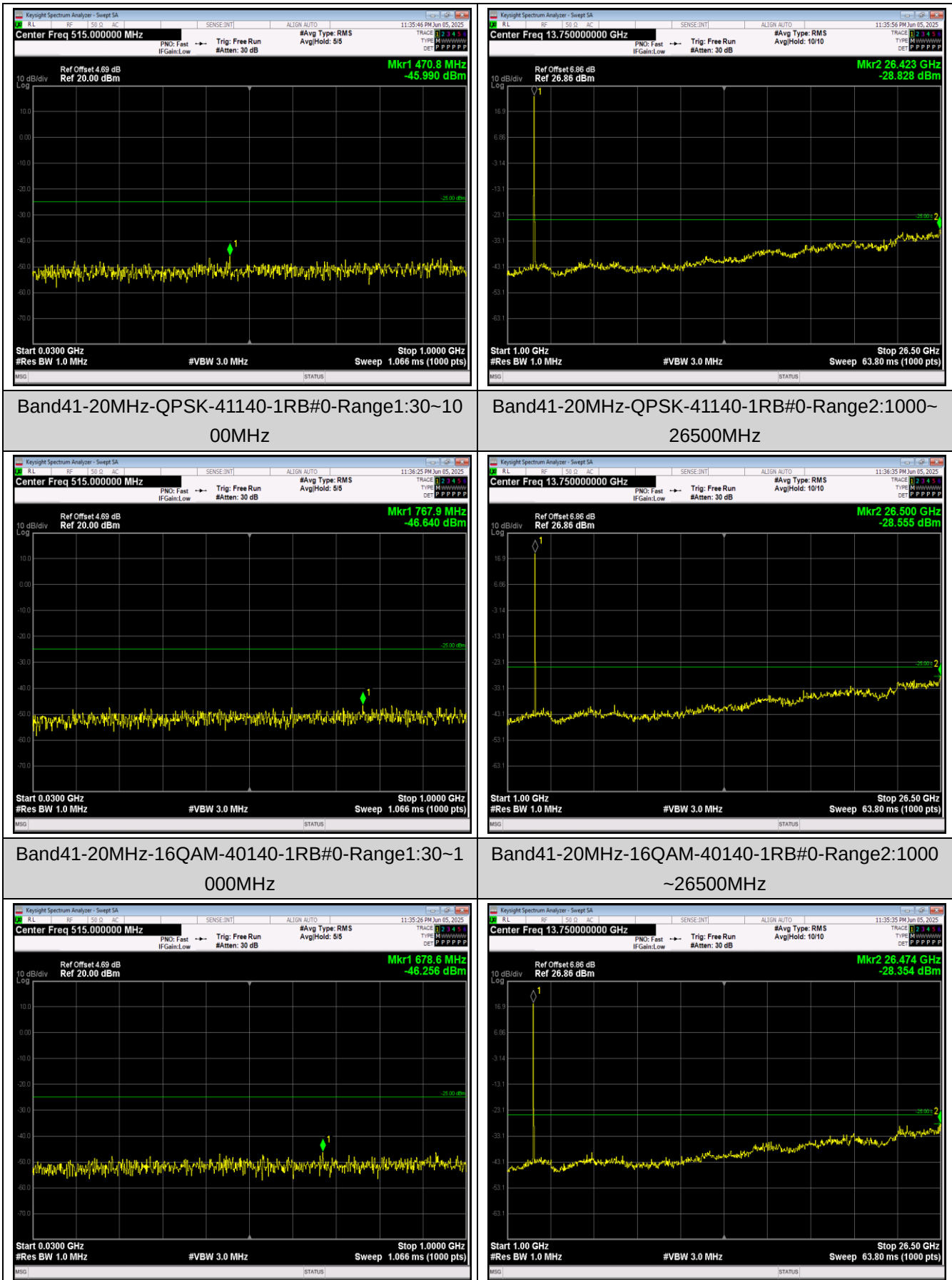


Band41-20MHz-QPSK-40640-1RB#0-Range1:30~1000MHz

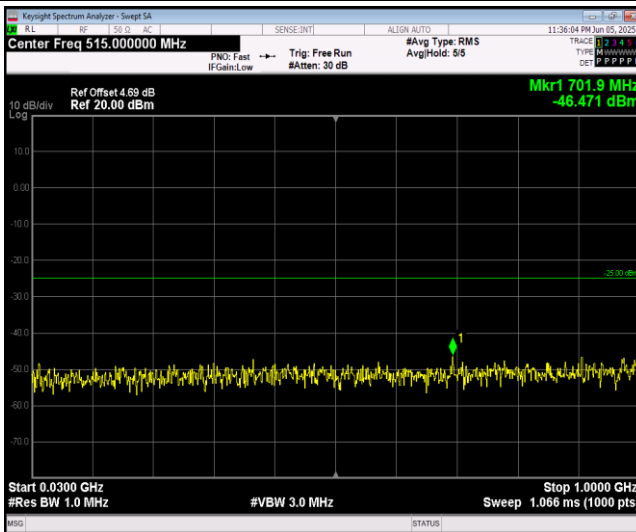


Band41-20MHz-QPSK-40640-1RB#0-Range2:1000~26500MHz

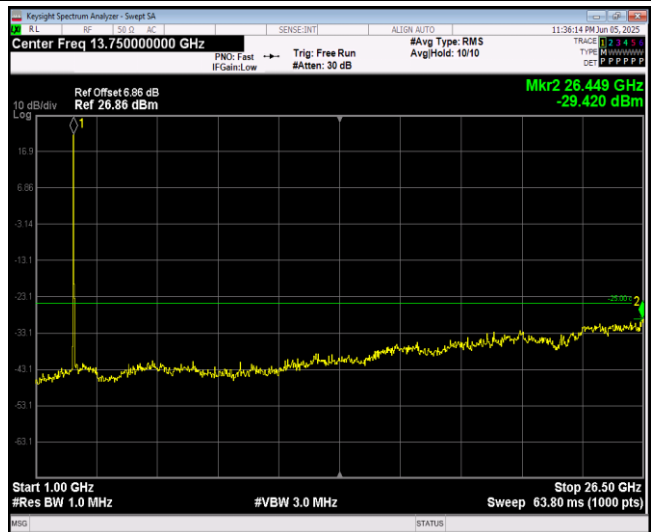




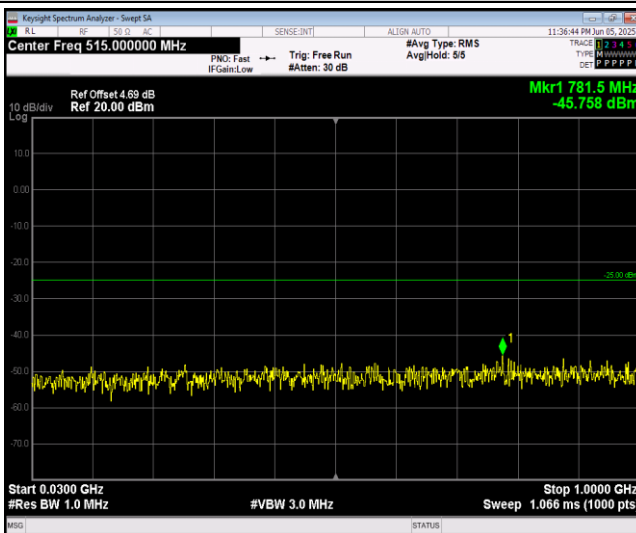
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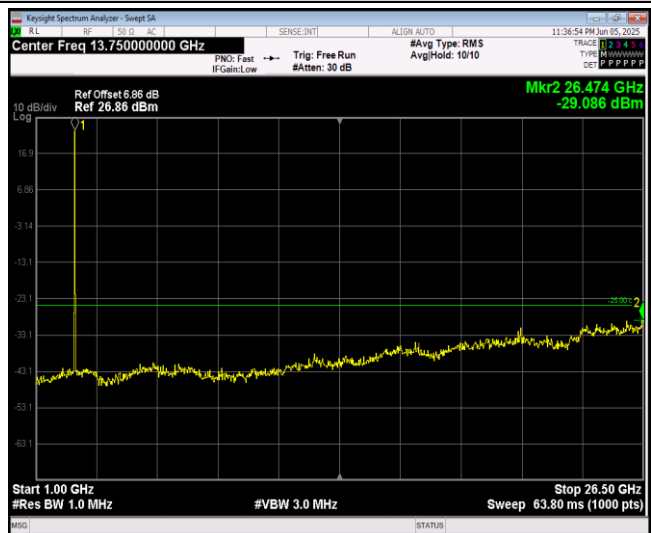
Band41-20MHz-16QAM-40640-1RB#0-Range2:1000
~26500MHz



Band41-20MHz-16QAM-41140-1RB#0-Range1:30~1
000MHz

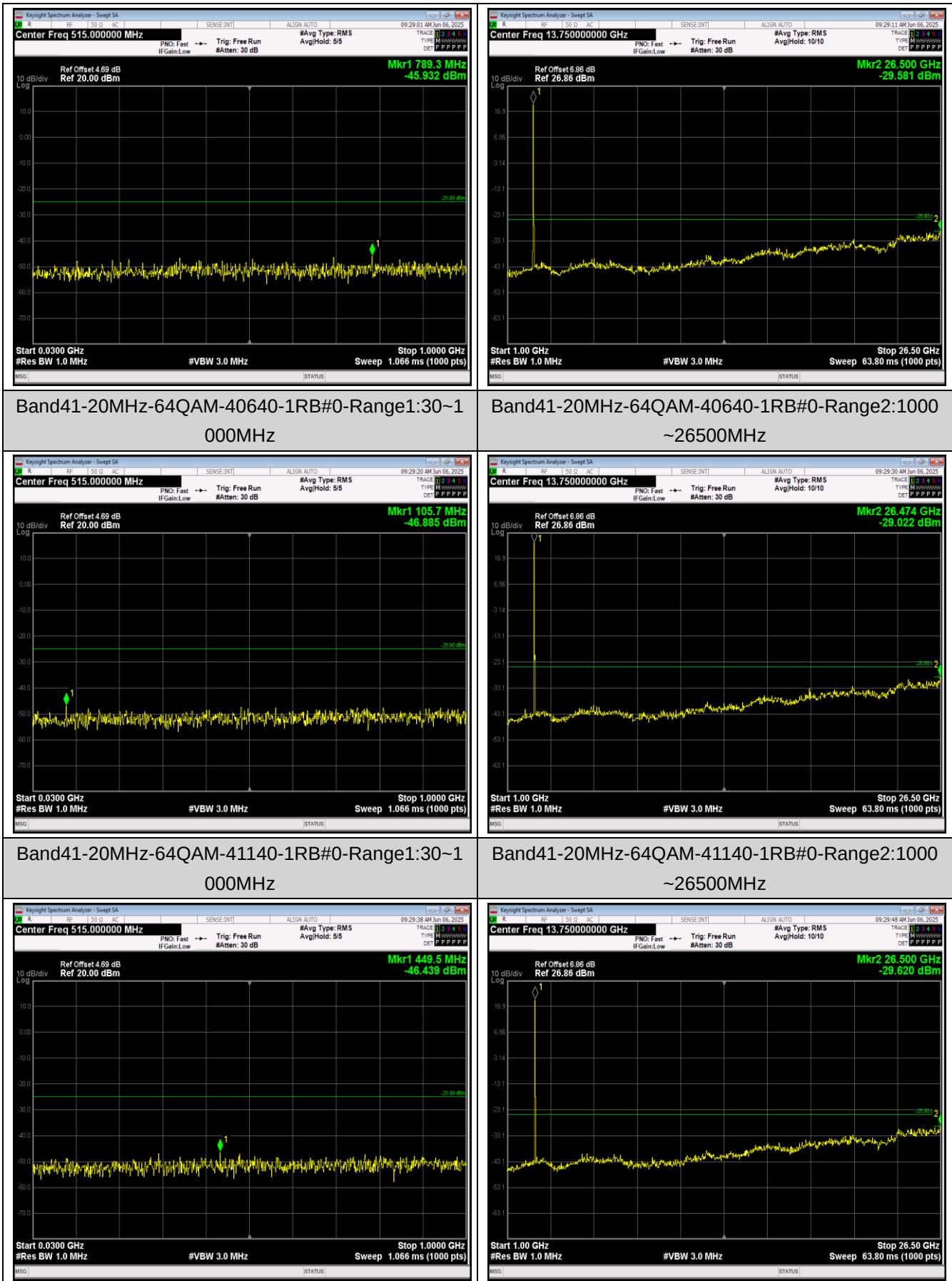


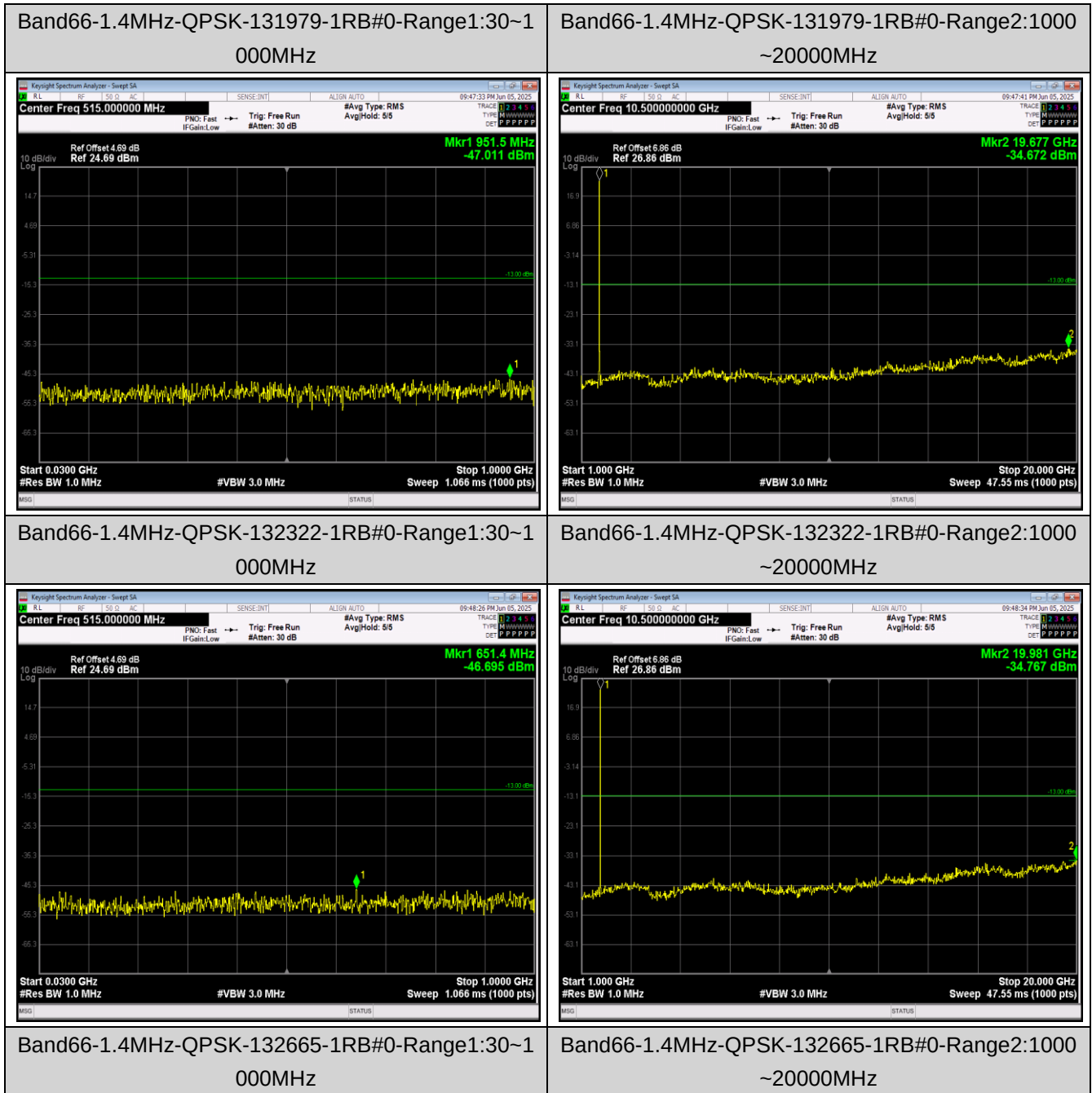
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~26500MHz

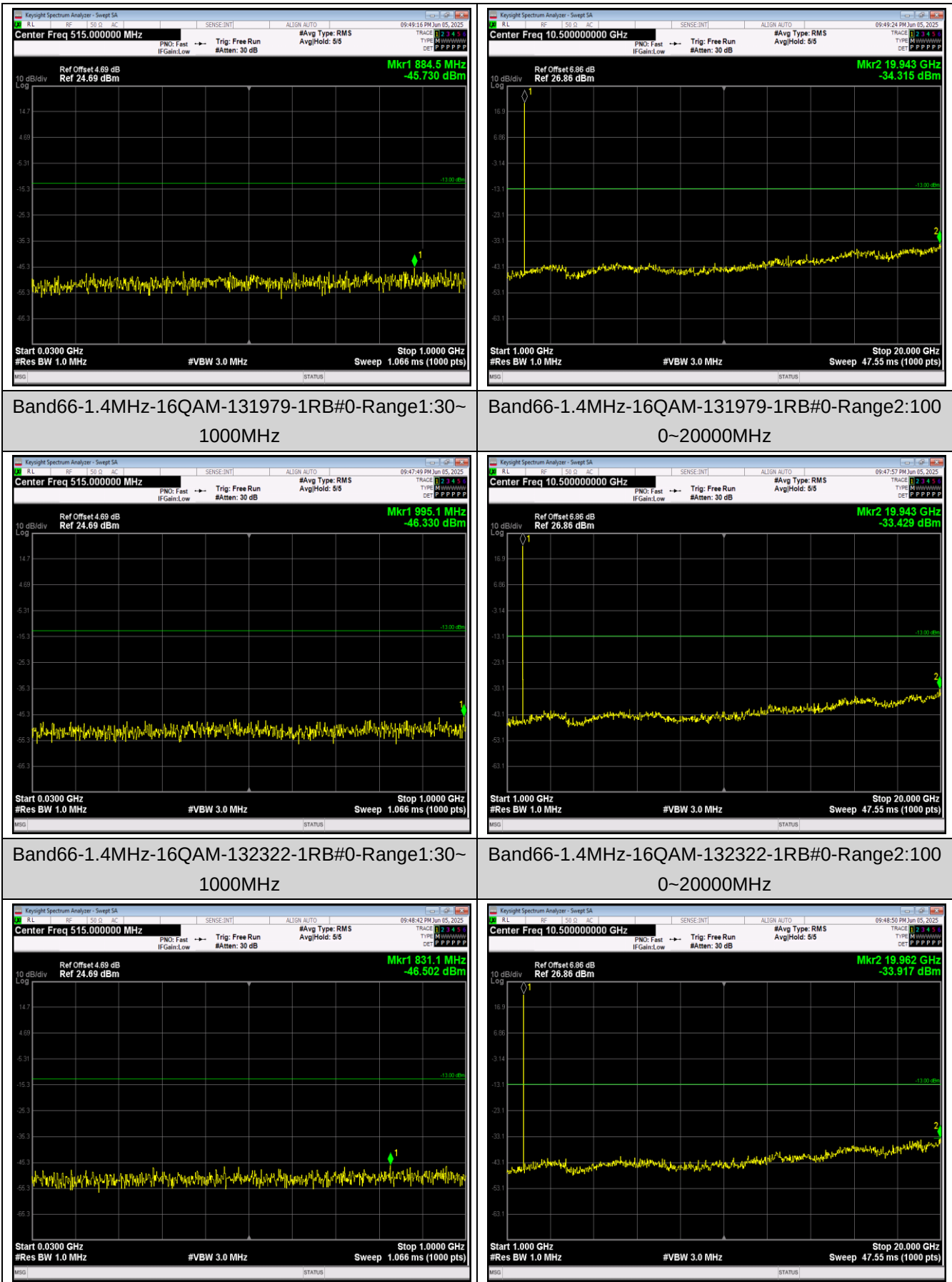


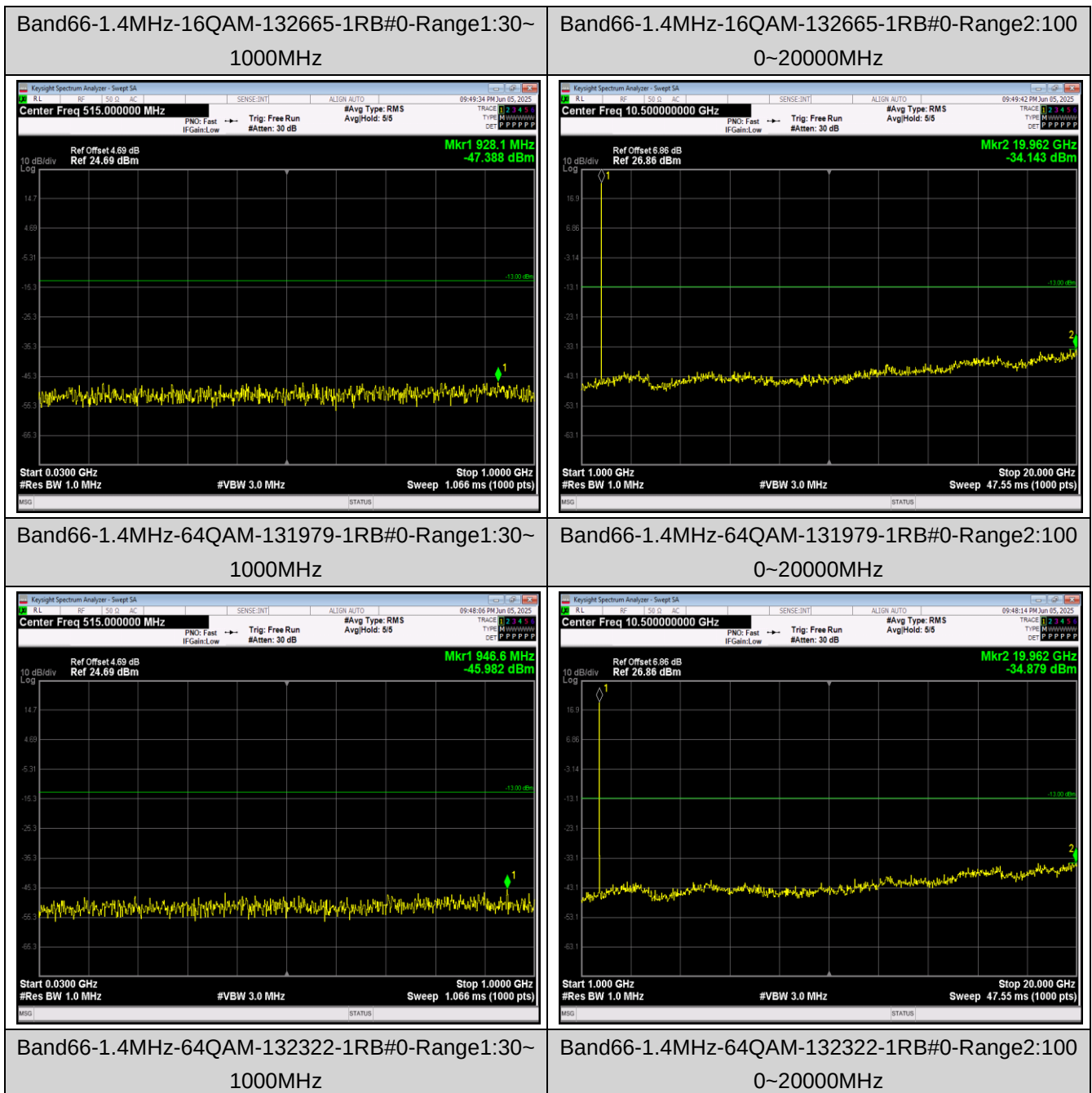
Band41-20MHz-64QAM-40140-1RB#0-Range1:30~1
000MHz

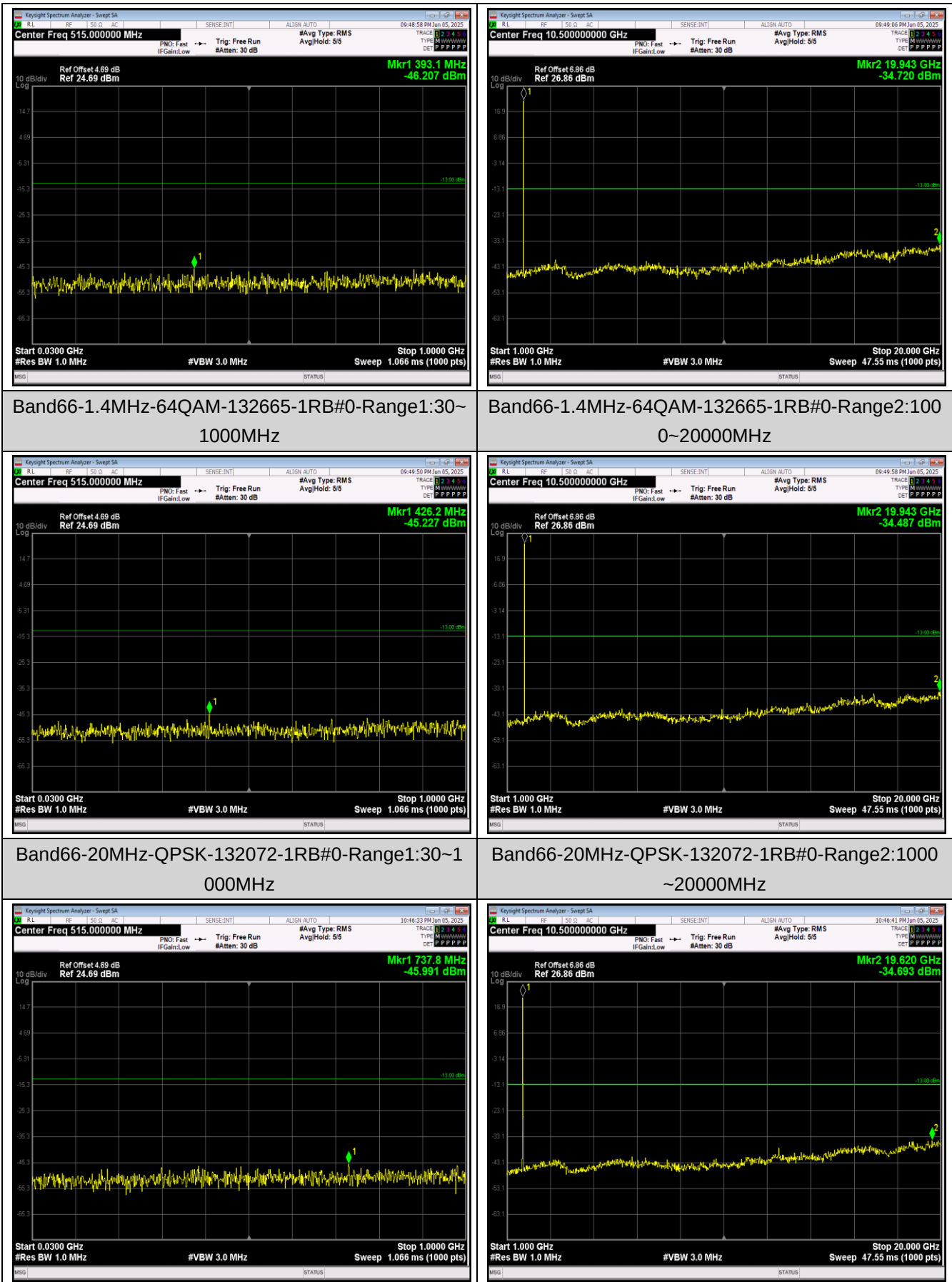
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~26500MHz



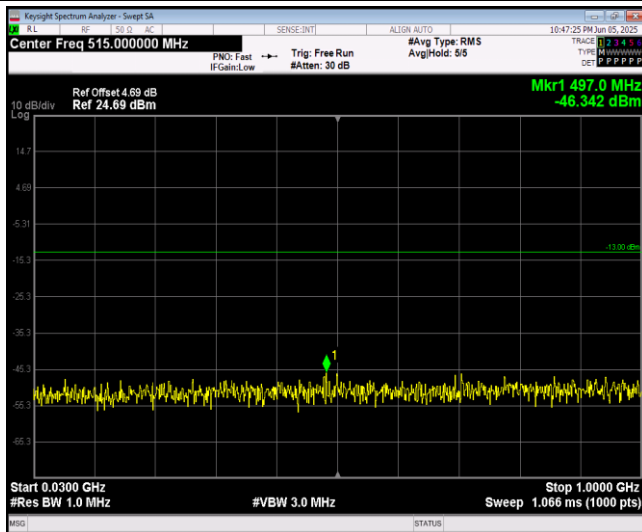








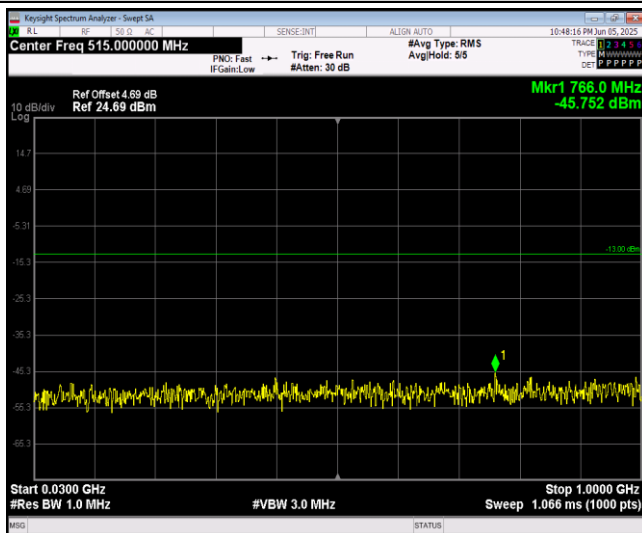
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000MHz



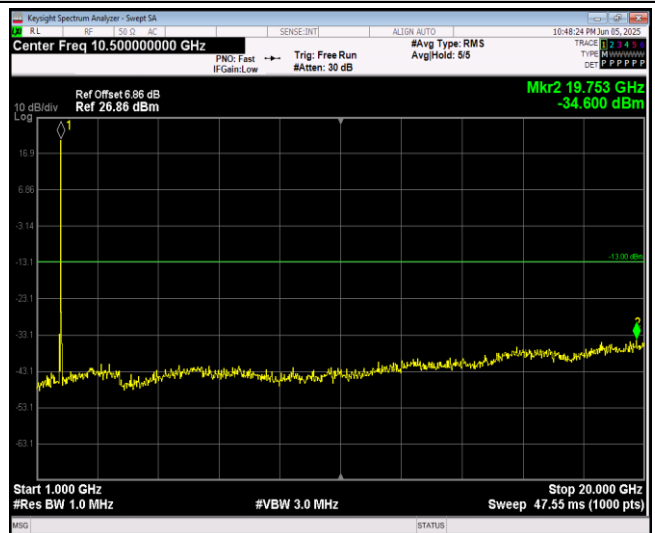
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Band66-20MHz-QPSK-132572-1RB#0-Range1:30~1
000MHz

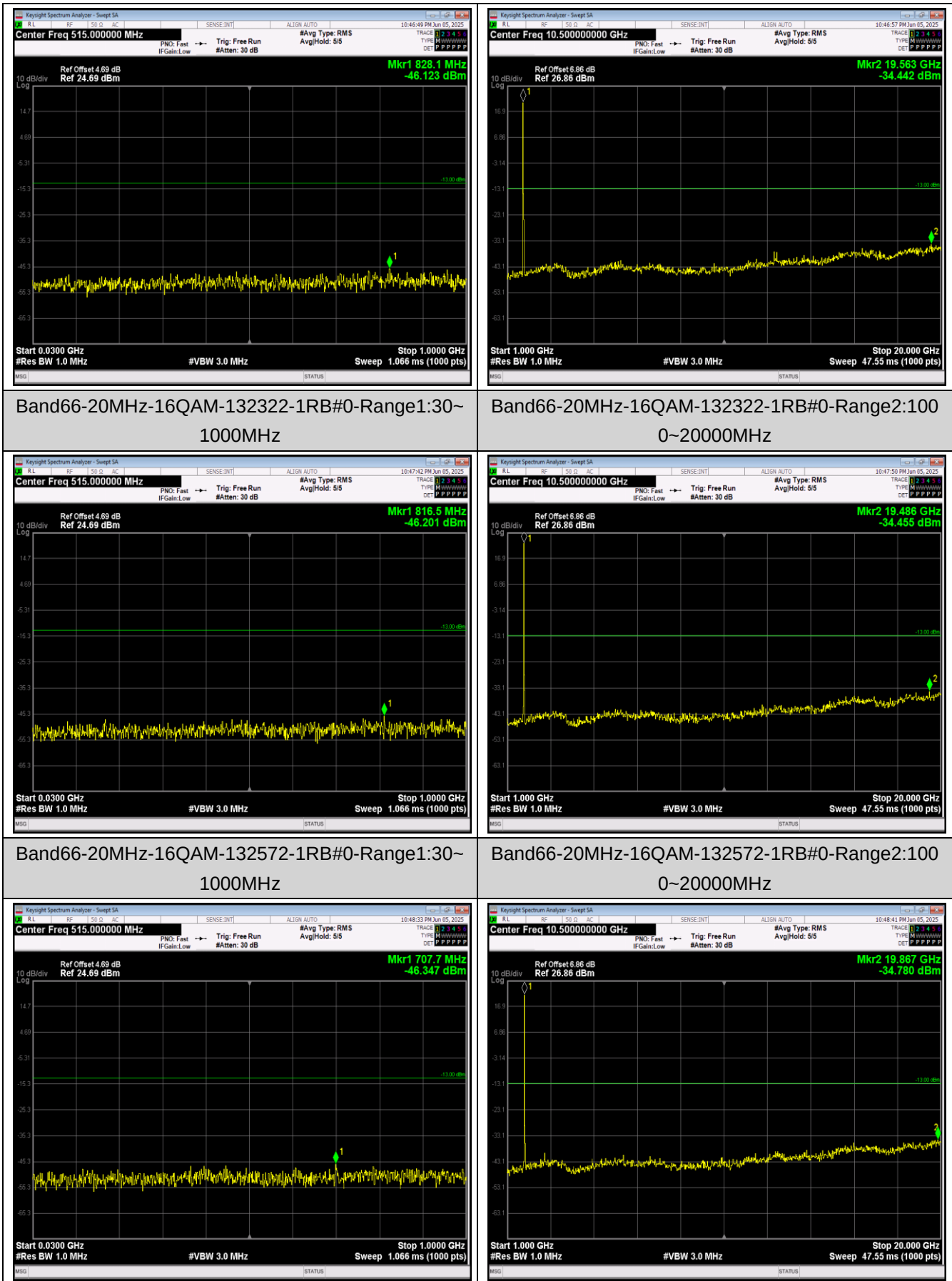


Band66-20MHz-QPSK-132572-1RB#0-Range2:1000
~20000MHz

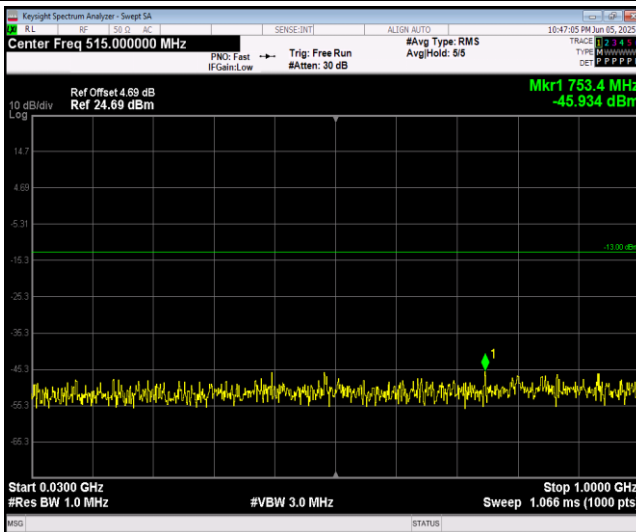


Band66-20MHz-16QAM-132072-1RB#0-Range1:30~
1000MHz

Band66-20MHz-16QAM-132072-1RB#0-Range2:100
0~20000MHz



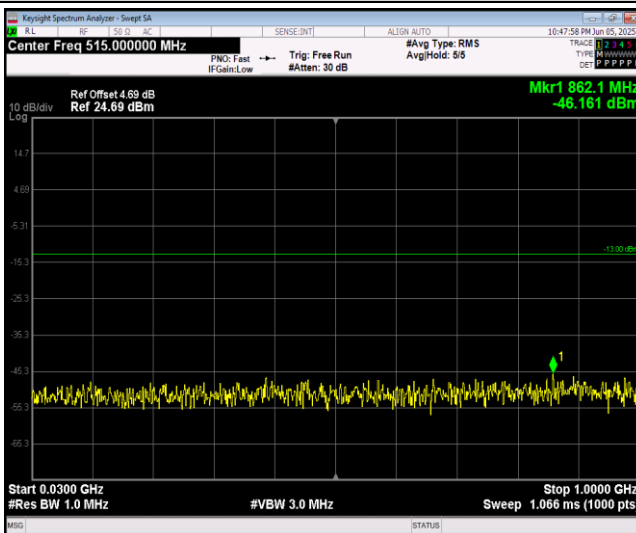
Band66-20MHz-64QAM-132072-1RB#0-Range1:30~1000MHz



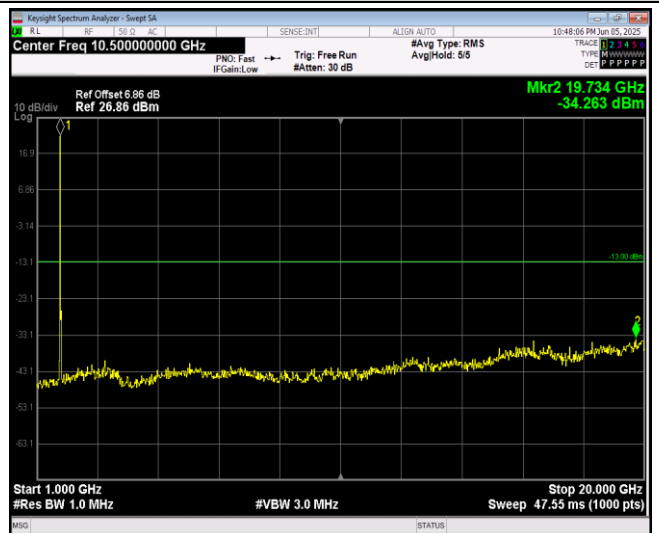
Band66-20MHz-64QAM-132072-1RB#0-Range2:1000~20000MHz



Band66-20MHz-64QAM-132322-1RB#0-Range1:30~1000MHz



Band66-20MHz-64QAM-132322-1RB#0-Range2:1000~20000MHz

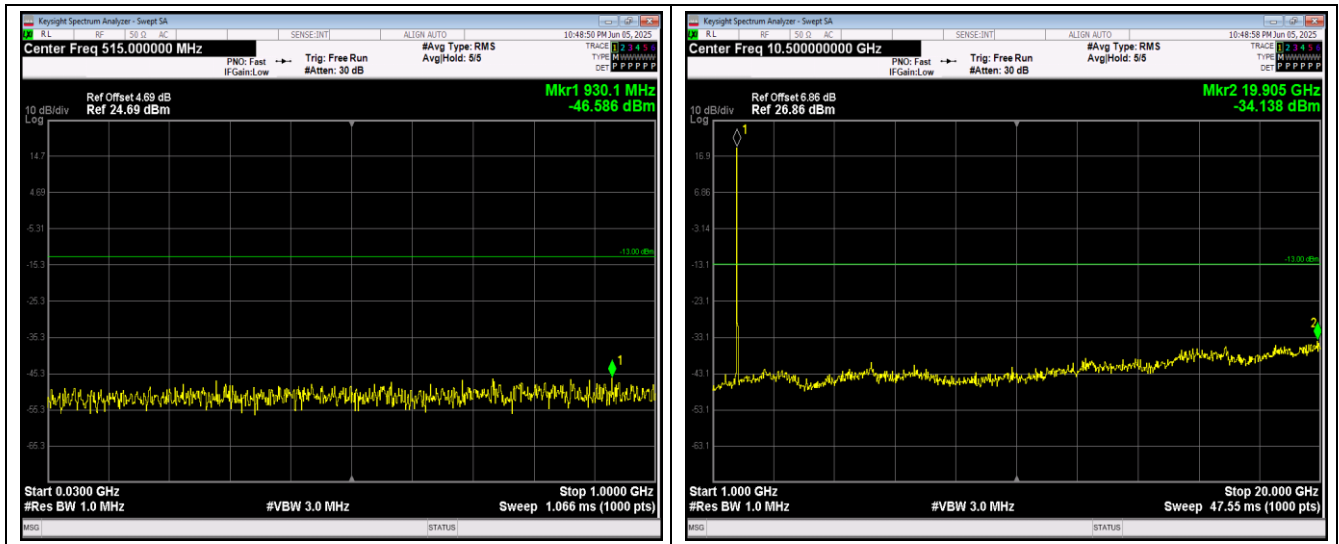


Band66-20MHz-64QAM-132572-1RB#0-Range1:30~1000MHz



Band66-20MHz-64QAM-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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-11.93	-0.006346	Within authorized band for Band 2	Pass
	-20	-15.12	-0.008043		
	-10	-2.70	-0.001436		
	0	-9.37	-0.004984		
	10	-13.83	-0.007356		
	20	-11.70	-0.006223		
	30	-13.13	-0.006984		
	40	-13.20	-0.007021		
	50	9.56	0.005085		
16QAM					
3.87	-30	-15.34	-0.008160	Within authorized band for Band 2	Pass
	-20	-11.04	-0.005872		
	-10	-10.89	-0.005793		
	0	-17.47	-0.009293		
	10	-12.46	-0.006628		
	20	-16.31	-0.008676		
	30	-14.52	-0.007723		
	40	-12.72	-0.006766		
	50	-19.04	-0.010128		
64QAM					
3.87	-30	-12.27	-0.006527	Within authorized band for Band 2	Pass
	-20	-12.45	-0.006622		
	-10	-17.18	-0.009138		
	0	-13.62	-0.007245		
	10	-20.64	-0.010979		
	20	-6.75	-0.003590		
	30	-14.62	-0.007777		
	40	-15.15	-0.008059		
	50	-2.65	-0.001410		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-2.65	-0.001410	Within authorized band for Band 2	Pass
	3.87	-8.45	-0.004495		
	4.45	-14.81	-0.007878		
16QAM					
25	3.50	-19.78	-0.010521	Within authorized band for Band 2	Pass
	3.87	-6.02	-0.003202		
	4.45	-2.09	-0.001112		
64QAM					
25	3.50	8.78	0.004670	Within authorized band for Band 2	Pass
	3.87	-9.11	-0.004846		
	4.45	6.35	0.003378		
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	-9.33	-0.011154	±2.5	Pass
	-20	-14.49	-0.017322		
	-10	-8.87	-0.010604		
	0	-11.54	-0.013796		
	10	-8.70	-0.010400		
	20	-12.60	-0.015063		
	30	-11.56	-0.013819		
	40	-12.09	-0.014453		
	50	-10.77	-0.012875		
16QAM					
3.87	-30	-7.88	-0.009420	±2.5	Pass
	-20	-9.61	-0.011488		
	-10	-12.35	-0.014764		
	0	-9.36	-0.011189		
	10	-4.94	-0.005906		
	20	2.36	0.002821		
	30	-9.17	-0.010962		
	40	-11.32	-0.013533		
	50	-15.52	-0.018553		
64QAM					
3.87	-30	-11.16	-0.013341	±2.5	Pass
	-20	-8.30	-0.009922		
	-10	-8.05	-0.009623		
	0	-9.20	-0.010998		
	10	-9.96	-0.011907		
	20	-8.15	-0.009743		
	30	-11.73	-0.014023		
	40	-3.23	-0.003861		
	50	-8.94	-0.010687		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-11.73	-0.014023	±2.5	Pass
	3.87	-13.13	-0.015696		
	4.45	-9.80	-0.011715		
16QAM					
25	3.50	-7.87	-0.009408	±2.5	Pass
	3.87	-9.34	-0.011166		
	4.45	-7.84	-0.009372		
64QAM					
25	3.50	-12.19	-0.014573	±2.5	Pass
	3.87	-15.55	-0.018589		
	4.45	-12.43	-0.014860		
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	-14.85	-0.005858	Within authorized band for Band 7	Pass
	-20	-17.97	-0.007089		
	-10	-8.90	-0.003511		
	0	-22.24	-0.008773		
	10	13.98	0.005515		
	20	-24.68	-0.009736		
	30	16.26	0.006414		
	40	-7.87	-0.003105		
	50	-18.60	-0.007337		
16QAM					
3.87	-30	-21.41	-0.008446	Within authorized band for Band 7	Pass
	-20	-22.85	-0.009014		
	-10	-20.63	-0.008138		
	0	-15.35	-0.006055		
	10	-5.39	-0.002126		
	20	-22.33	-0.008809		
	30	-20.00	-0.007890		
	40	-24.85	-0.009803		
	50	-14.96	-0.005901		
64QAM					
3.87	-30	-21.29	-0.008398	Within authorized band for Band 7	Pass
	-20	-9.93	-0.003917		
	-10	6.41	0.002529		
	0	-17.58	-0.006935		
	10	15.08	0.005949		
	20	-8.24	-0.003250		
	30	-14.96	-0.005901		
	40	14.69	0.005795		
	50	-8.31	-0.003278		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	20.57	0.008114	Within authorized band for Band 7	Pass
	3.87	-21.73	-0.008572		
	4.45	-16.38	-0.006462		
16QAM					
25	3.50	-21.34	-0.008418	Within authorized band for Band 7	Pass
	3.87	6.49	0.002560		
	4.45	13.99	0.005519		
64QAM					
25	3.50	-18.93	-0.007467	Within authorized band for Band 7	Pass
	3.87	-4.23	-0.001669		
	4.45	-17.81	-0.007026		
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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-5.28	-0.007463	Within authorized band for Band 12	Pass
	-20	-15.01	-0.021216		
	-10	-10.51	-0.014855		
	0	-8.61	-0.012170		
	10	-13.73	-0.019406		
	20	-4.91	-0.006940		
	30	-8.08	-0.011420		
	40	-11.62	-0.016424		
	50	-4.73	-0.006686		
16QAM					
3.87	-30	-6.34	-0.008961	Within authorized band for Band 12	Pass
	-20	-9.78	-0.013823		
	-10	-13.38	-0.018912		
	0	-11.00	-0.015548		
	10	-9.13	-0.012905		
	20	-7.71	-0.010898		
	30	-9.23	-0.013046		
	40	-10.71	-0.015138		
	50	-5.69	-0.008042		
64QAM					
3.87	-30	-11.43	-0.016155	Within authorized band for Band 12	Pass
	-20	-5.98	-0.008452		
	-10	-13.43	-0.018982		
	0	-15.76	-0.022276		
	10	-9.03	-0.012763		
	20	-10.61	-0.014996		
	30	-10.54	-0.014898		
	40	-10.57	-0.014940		
	50	-6.88	-0.009724		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-12.90	-0.018233	Within authorized band for Band 12	Pass
	3.87	-18.14	-0.025640		
	4.45	-3.93	-0.005555		
16QAM					
25	3.50	-8.81	-0.012452	Within authorized band for Band 12	Pass
	3.87	-12.10	-0.017102		
	4.45	-11.01	-0.015562		
64QAM					
25	3.50	-9.74	-0.013767	Within authorized band for Band 12	Pass
	3.87	-6.82	-0.009640		
	4.45	-8.94	-0.012636		
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	-21.10	-0.008131	Within authorized band for Band 41	Pass
	-20	-8.43	-0.003249		
	-10	-20.28	-0.007815		
	0	-25.94	-0.009996		
	10	5.65	0.002177		
	20	-14.78	-0.005696		
	30	-21.44	-0.008262		
	40	-10.57	-0.004073		
	50	-14.09	-0.005430		
16QAM					
3.87	-30	-15.02	-0.005788	Within authorized band for Band 41	Pass
	-20	-20.59	-0.007934		
	-10	-24.58	-0.009472		
	0	-13.15	-0.005067		
	10	-13.82	-0.005326		
	20	-18.22	-0.007021		
	30	-21.09	-0.008127		
	40	-25.02	-0.009642		
	50	-21.30	-0.008208		
64QAM					
3.87	-30	-23.23	-0.008952	Within authorized band for Band 41	Pass
	-20	-22.46	-0.008655		
	-10	-19.51	-0.007518		
	0	-24.39	-0.009399		
	10	4.78	0.001842		
	20	-18.40	-0.007091		
	30	-18.44	-0.007106		
	40	-4.09	-0.001576		
	50	-15.81	-0.006092		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-11.20	-0.004316	Within authorized band for Band 41	Pass
	3.87	-20.16	-0.007769		
	4.45	-23.57	-0.009083		
16QAM					
25	3.50	-16.57	-0.006385	Within authorized band for Band41	Pass
	3.87	-24.09	-0.009283		
	4.45	-26.92	-0.010374		
64QAM					
25	3.50	-21.57	-0.008312	Within authorized band for Band41	Pass
	3.87	-5.26	-0.002027		
	4.45	-19.38	-0.007468		
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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-15.31	-0.008774	Within authorized band for Band 66	Pass
	-20	-19.37	-0.011100		
	-10	-17.91	-0.010264		
	0	-16.39	-0.009393		
	10	-6.38	-0.003656		
	20	-12.37	-0.007089		
	30	-13.12	-0.007519		
	40	-12.67	-0.007261		
	50	-14.58	-0.008355		
16QAM					
3.87	-30	8.38	0.004802	Within authorized band for Band 66	Pass
	-20	5.45	0.003123		
	-10	-9.76	-0.005593		
	0	-7.42	-0.004252		
	10	2.36	0.001352		
	20	8.10	0.004642		
	30	-3.39	-0.001943		
	40	-14.20	-0.008138		
	50	-14.71	-0.008430		
64QAM					
3.87	-30	8.81	0.005049	Within authorized band for Band 66	Pass
	-20	3.52	0.002017		
	-10	2.60	0.001490		
	0	8.63	0.004946		
	10	-12.40	-0.007106		
	20	-12.20	-0.006991		
	30	-8.47	-0.004854		
	40	12.33	0.007066		
	50	-15.36	-0.008802		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-19.30	-0.011060	Within authorized band for Band 66	Pass
	3.87	-10.74	-0.006155		
	4.45	5.62	0.003221		
16QAM					
25	3.50	-6.42	-0.003679	Within authorized band for Band 66	Pass
	3.87	-14.02	-0.008034		
	4.45	-10.80	-0.006189		
64QAM					
25	3.50	-14.38	-0.008241	Within authorized band for Band 66	Pass
	3.87	-14.91	-0.008544		
	4.45	-14.81	-0.008487		
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
Band2	20MHz	64QAM	18900	100RB#0	PASS	PASS
Band5	10MHz	QPSK	20525	50RB#0	PASS	PASS
Band5	10MHz	16QAM	20525	50RB#0	PASS	PASS
Band5	10MHz	64QAM	20525	50RB#0	PASS	PASS
Band7	20MHz	QPSK	21100	100RB#0	PASS	PASS
Band7	20MHz	16QAM	21100	100RB#0	PASS	PASS
Band7	20MHz	64QAM	21100	100RB#0	PASS	PASS
Band12	10MHz	QPSK	23095	50RB#0	PASS	PASS
Band12	10MHz	16QAM	23095	50RB#0	PASS	PASS
Band12	10MHz	64QAM	23095	50RB#0	PASS	PASS
Band41	20MHz	QPSK	40640	100RB#0	PASS	PASS
Band41	20MHz	16QAM	40640	100RB#0	PASS	PASS
Band41	20MHz	64QAM	40640	100RB#0	PASS	PASS
Band66	20MHz	QPSK	132322	100RB#0	PASS	PASS
Band66	20MHz	16QAM	132322	100RB#0	PASS	PASS
Band66	20MHz	64QAM	132322	100RB#0	PASS	PASS

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