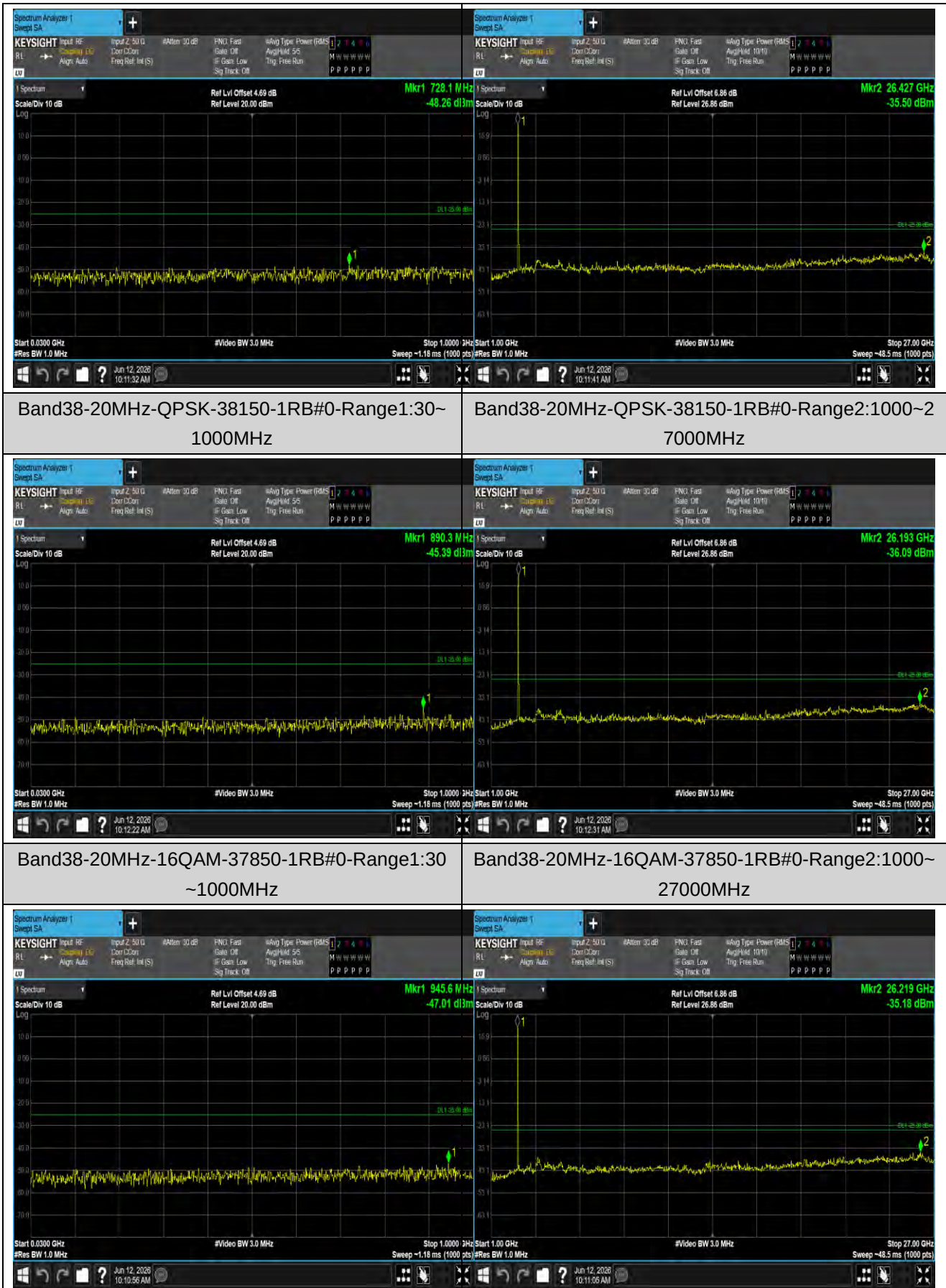
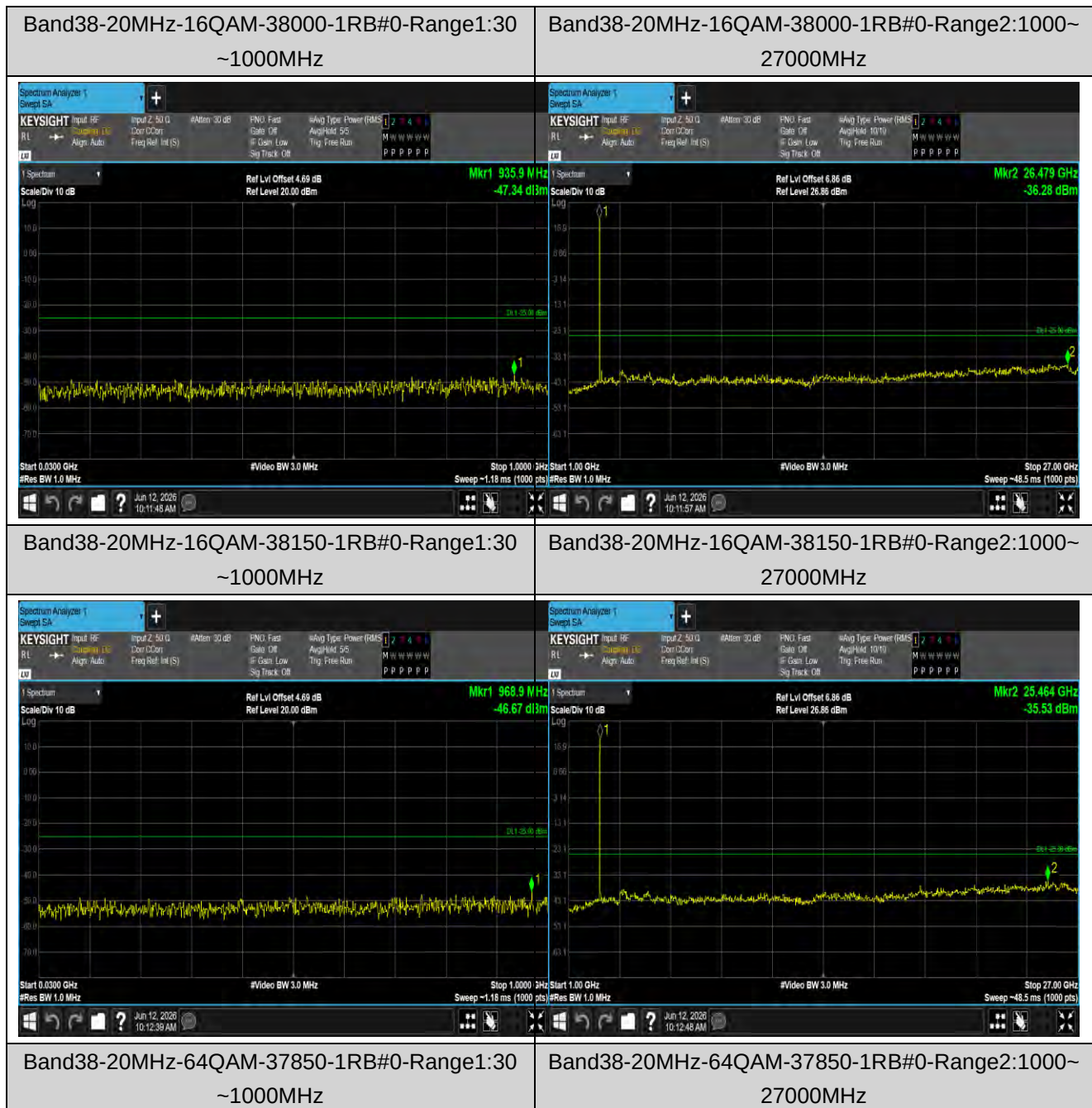






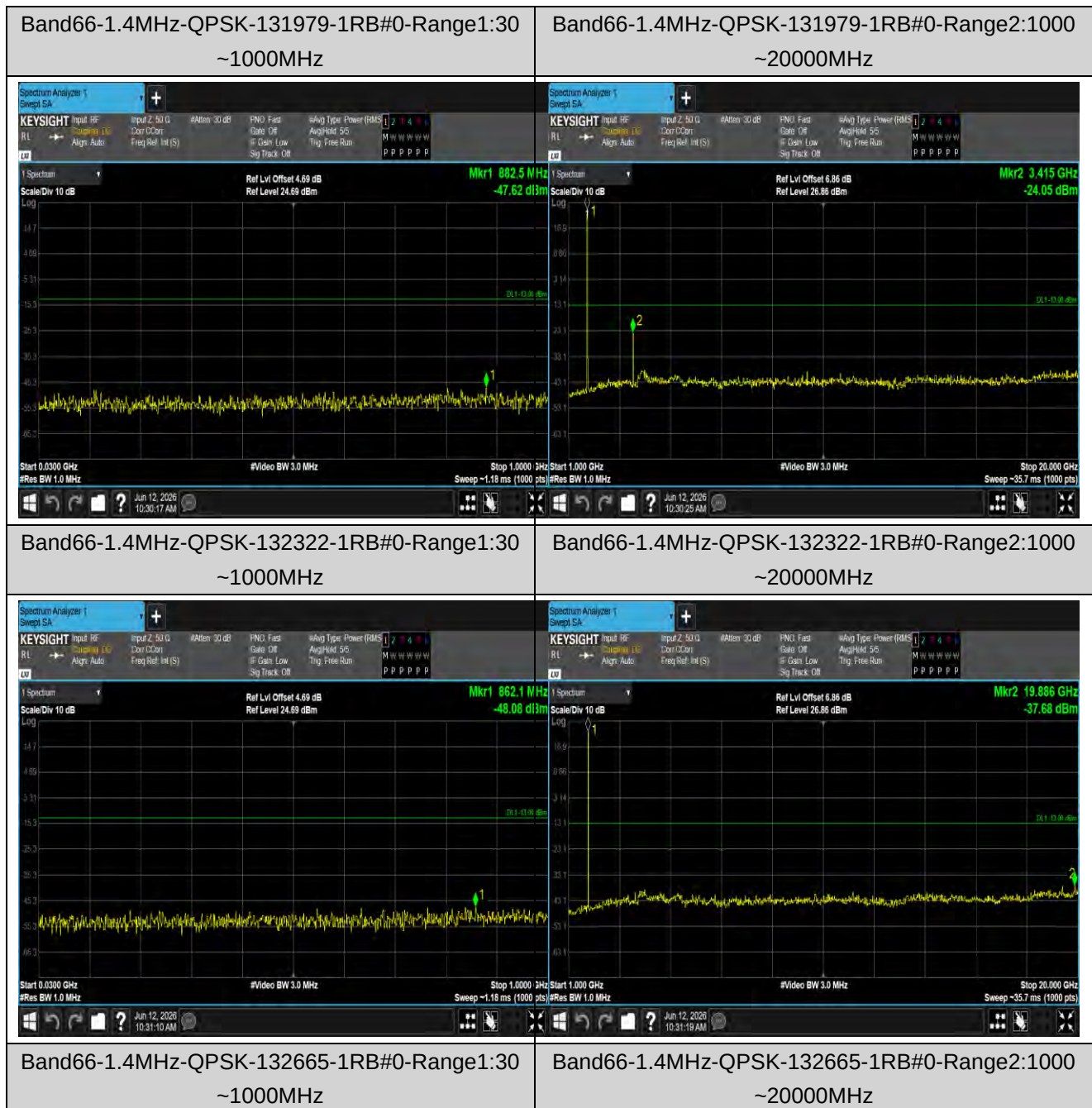


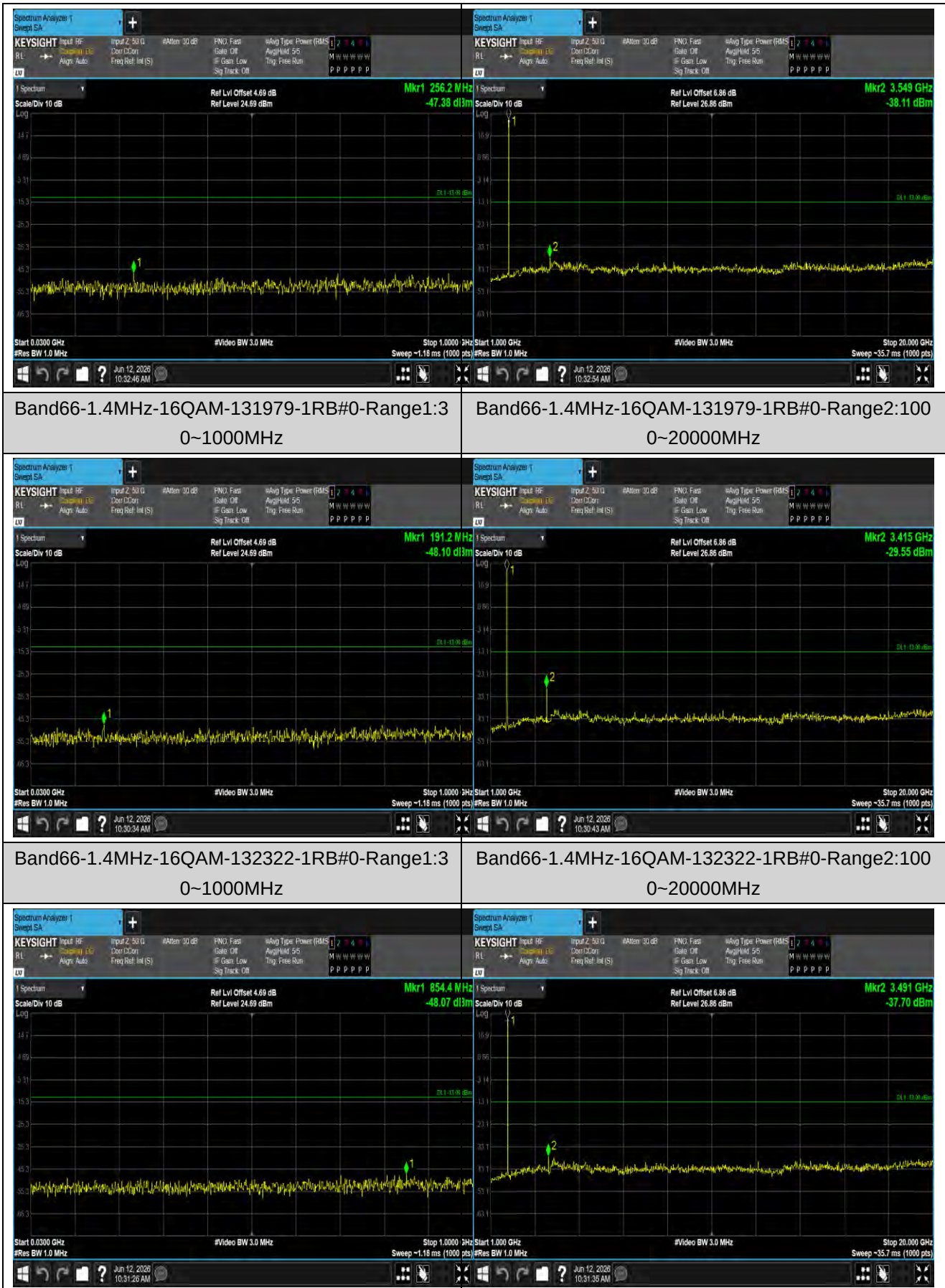
JianYan Testing Group Shenzhen Co., Ltd.

No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

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Project No.: JYTSZR2606015



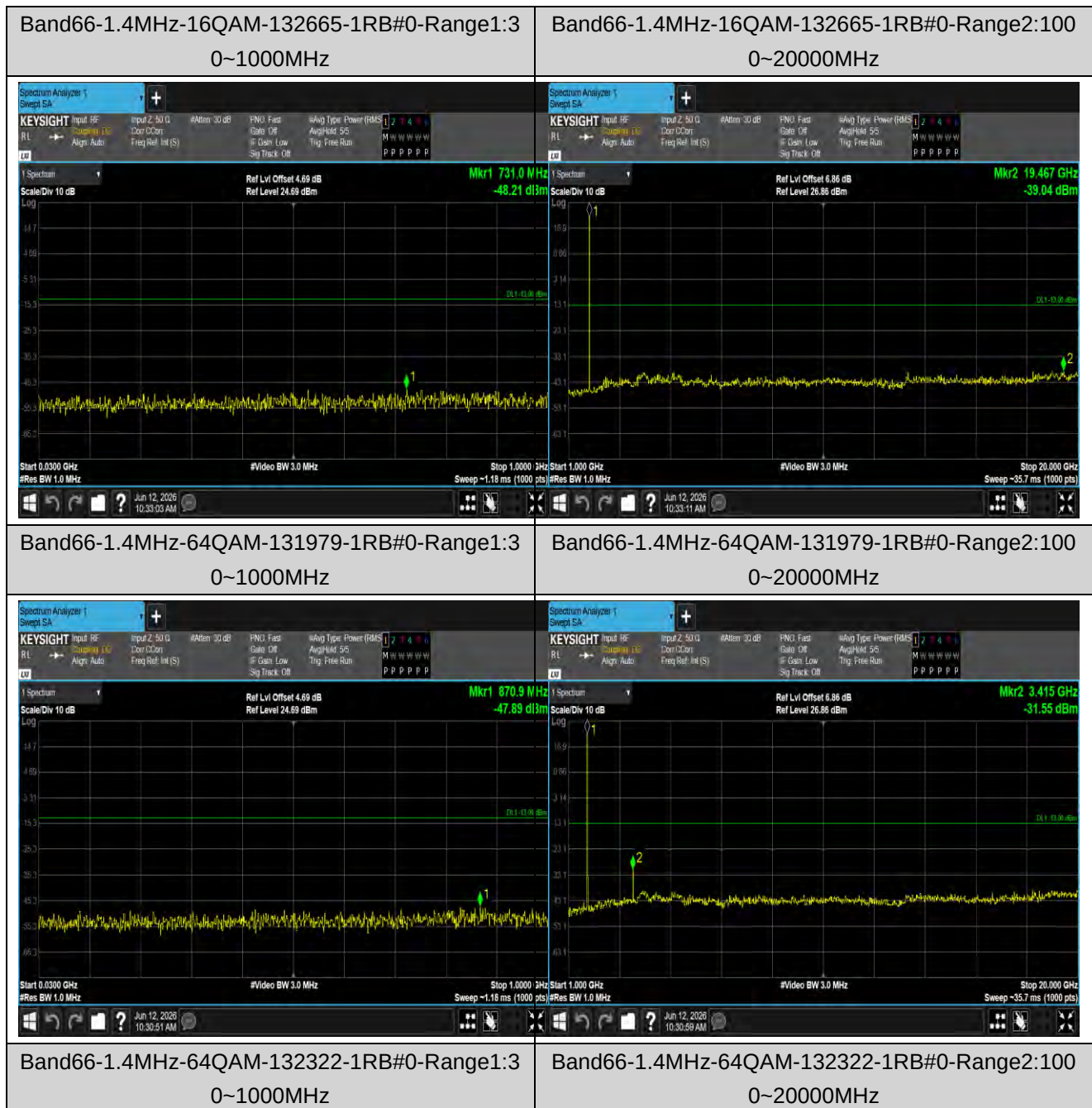


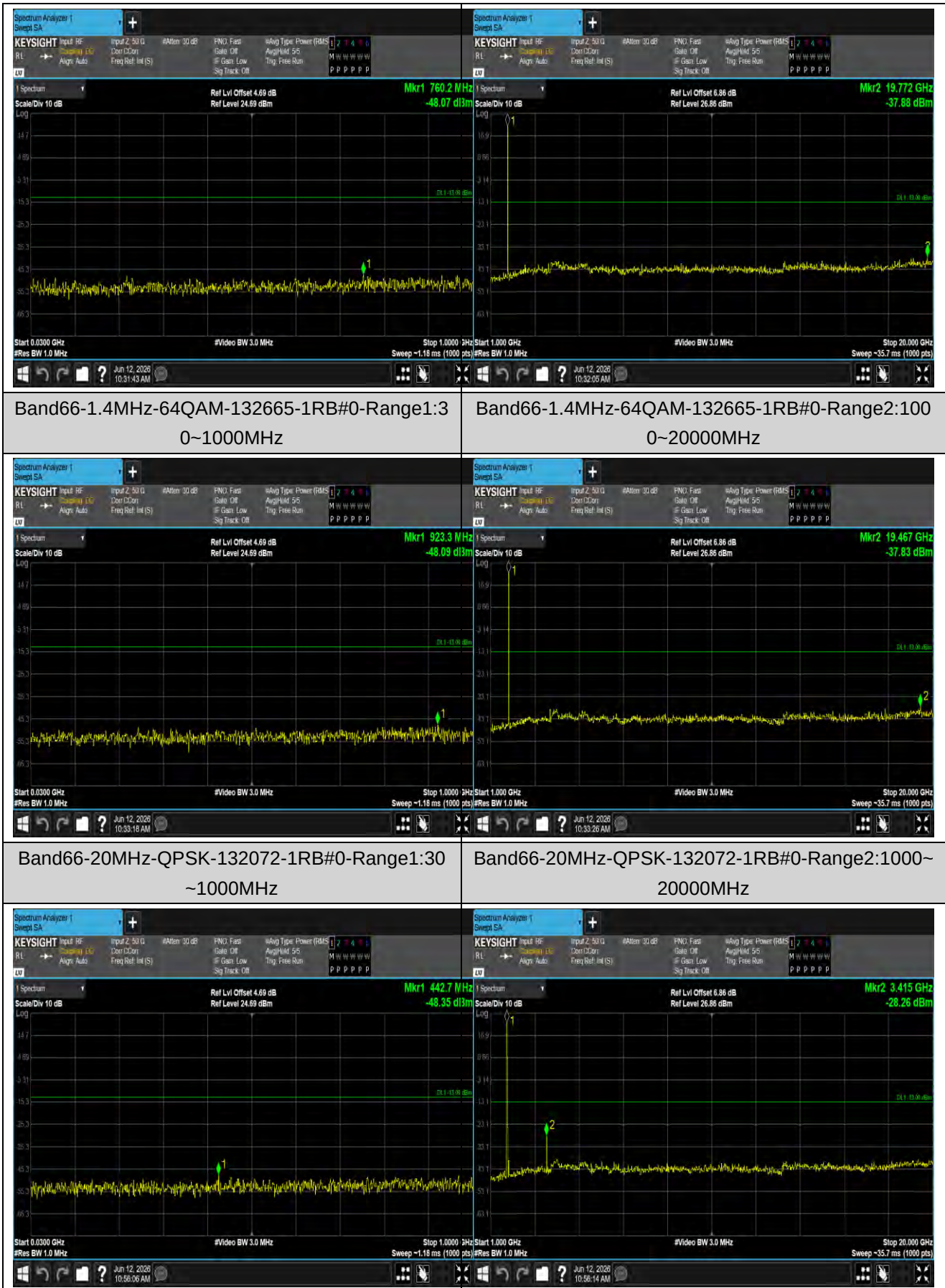
JianYan Testing Group Shenzhen Co., Ltd.

No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

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Project No.: JYTSZR2606015



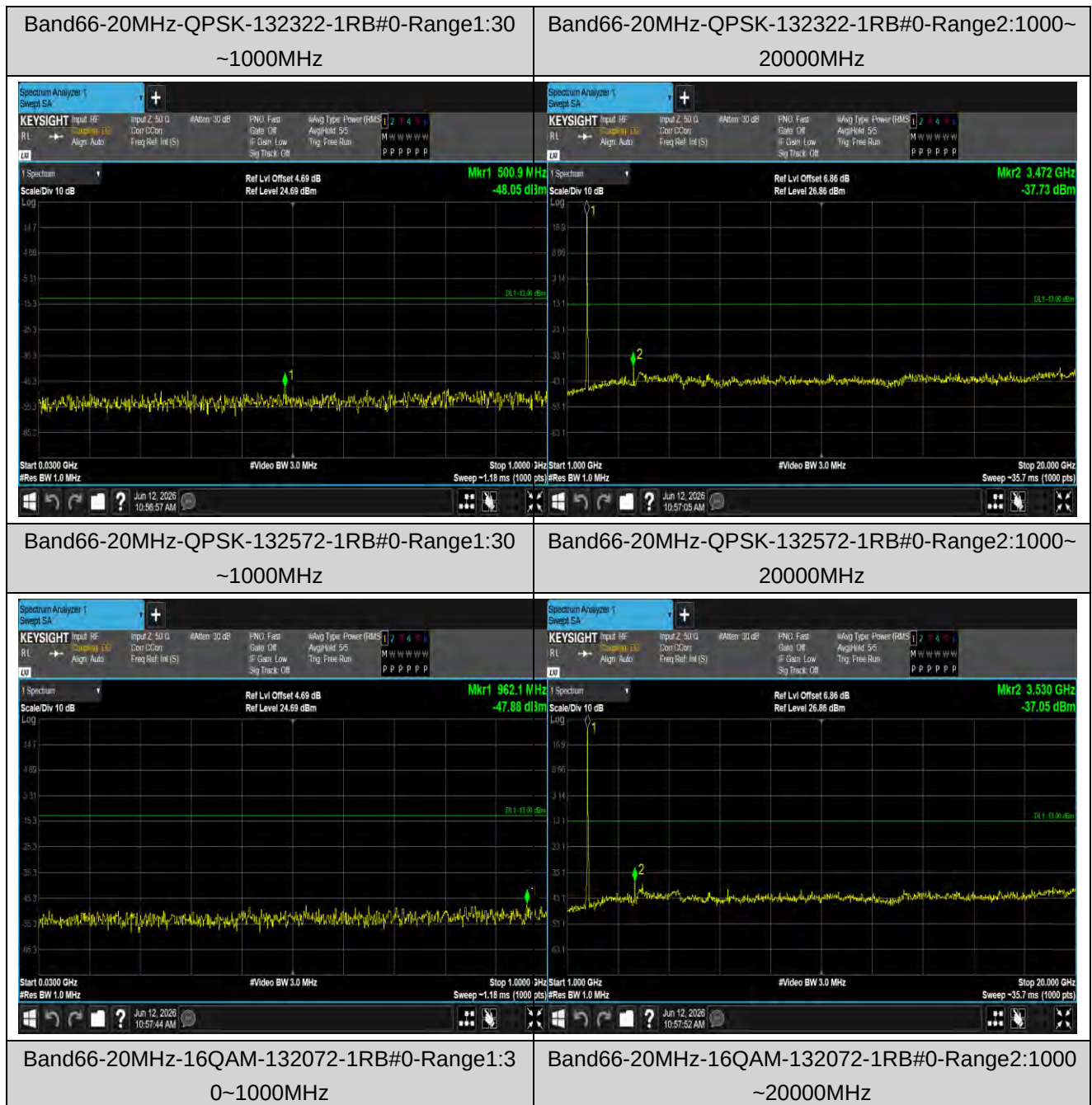


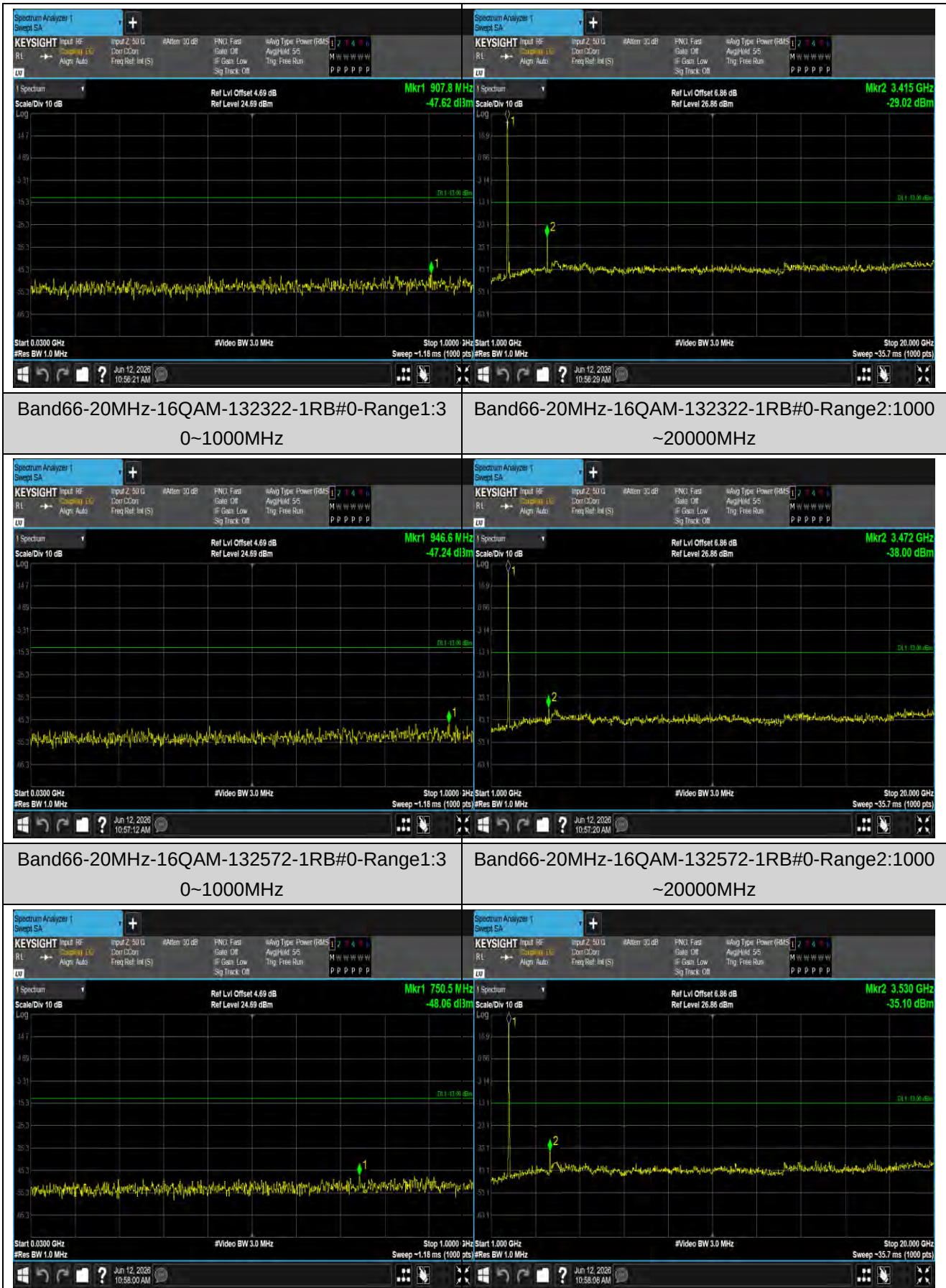
Band66-1.4MHz-64QAM-132665-1RB#0-Range1:3
0~1000MHz

Band66-1.4MHz-64QAM-132665-1RB#0-Range2:100
0~20000MHz

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

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





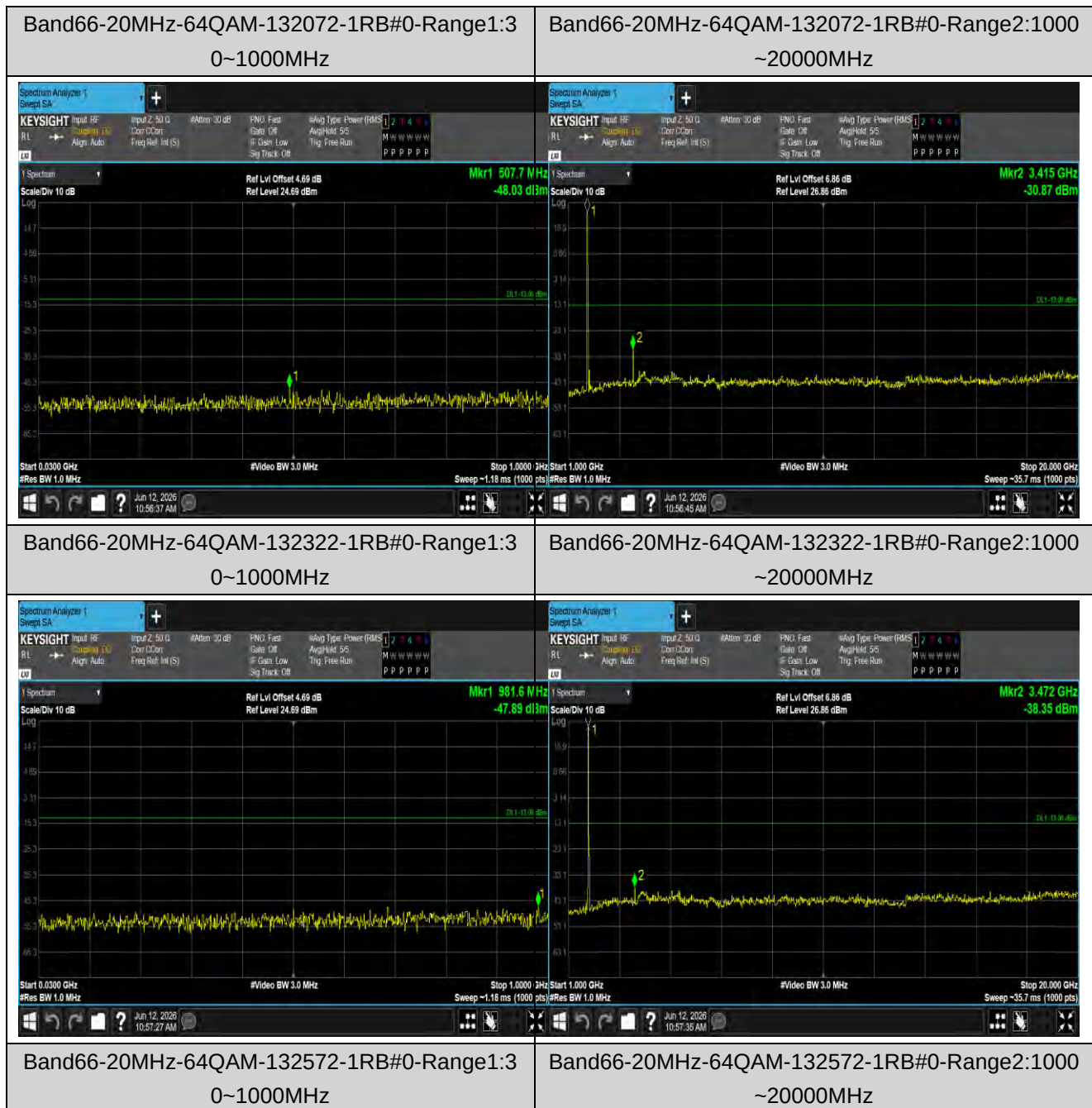
JianYan Testing Group Shenzhen Co., Ltd.

No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

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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	15.05	0.008005	Within authorized band for Band 2	Pass
	-20	-10.99	-0.005846		
	-10	-10.64	-0.005660		
	0	-12.16	-0.006468		
	10	-18.00	-0.009574		
	20	-19.31	-0.010271		
	30	8.28	0.004404		
	40	-7.30	-0.003883		
	50	-11.82	-0.006287		
16QAM					
3.87	-30	-18.63	-0.009910	Within authorized band for Band 2	Pass
	-20	13.26	0.007053		
	-10	-23.72	-0.012617		
	0	-31.39	-0.016697		
	10	17.85	0.009495		
	20	18.27	0.009718		
	30	20.80	0.011064		
	40	20.38	0.010840		
	50	24.29	0.012920		
64QAM					
3.87	-30	-16.39	-0.008718	Within authorized band for Band 2	Pass
	-20	11.43	0.006080		
	-10	6.78	0.003606		
	0	15.46	0.008223		
	10	16.39	0.008718		
	20	15.39	0.008186		
	30	15.92	0.008468		
	40	24.23	0.012888		
	50	19.34	0.010287		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-20.26	-0.010777	Within authorized band for Band 2	Pass
	3.87	-23.60	-0.012553		
	4.20	18.57	0.009878		
16QAM					
25	3.50	12.95	0.006888	Within authorized band for Band 2	Pass
	3.87	19.54	0.010394		
	4.20	17.91	0.009527		
64QAM					
25	3.50	-10.43	-0.005548	Within authorized band for Band 2	Pass
	3.87	22.44	0.011936		
	4.20	-12.45	-0.006622		
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	-32.93	-0.039366	±2.5	Pass
	-20	-27.35	-0.032696		
	-10	-11.33	-0.013545		
	0	-45.78	-0.054728		
	10	-12.19	-0.014573		
	20	-31.11	-0.037191		
	30	-32.42	-0.038757		
	40	-28.25	-0.033772		
	50	-21.80	-0.026061		
16QAM					
3.87	-30	-52.39	-0.062630	±2.5	Pass
	-20	-24.76	-0.029600		
	-10	-39.12	-0.046766		
	0	-9.38	-0.011213		
	10	-27.65	-0.033054		
	20	-45.10	-0.053915		
	30	-10.33	-0.012349		
	40	-22.02	-0.026324		
	50	-34.95	-0.041781		
64QAM					
3.87	-30	-23.29	-0.027842	±2.5	Pass
	-20	-26.84	-0.032086		
	-10	-29.48	-0.035242		
	0	-31.61	-0.037788		
	10	-40.58	-0.048512		
	20	-42.76	-0.051118		
	30	-48.97	-0.058542		
	40	-13.30	-0.015900		
	50	-18.63	-0.022271		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-51.10	-0.061088	±2.5	Pass
	3.87	-21.83	-0.026097		
	4.20	-23.49	-0.028081		
16QAM					
25	3.50	-46.83	-0.055983	±2.5	Pass
	3.87	-19.98	-0.023885		
	4.20	-30.33	-0.036258		
64QAM					
25	3.50	-8.03	-0.009600	±2.5	Pass
	3.87	-53.60	-0.064077		
	4.20	-12.83	-0.015338		
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	-63.99	-0.025243	Within authorized band for Band 7	Pass
	-20	-28.91	-0.011404		
	-10	-19.47	-0.007680		
	0	-53.56	-0.021128		
	10	-33.70	-0.013294		
	20	-37.29	-0.014710		
	30	-63.76	-0.025152		
	40	-18.87	-0.007444		
	50	-37.71	-0.014876		
16QAM					
3.87	-30	58.45	0.023057	Within authorized band for Band 7	Pass
	-20	27.21	0.010734		
	-10	21.13	0.008335		
	0	46.35	0.018284		
	10	58.72	0.023164		
	20	26.34	0.010391		
	30	39.51	0.015586		
	40	-27.21	-0.010734		
	50	-20.20	-0.007968		
64QAM					
3.87	-30	37.38	0.014746	Within authorized band for Band 7	Pass
	-20	38.27	0.015097		
	-10	10.64	0.004197		
	0	56.92	0.022454		
	10	61.84	0.024394		
	20	22.12	0.008726		
	30	22.16	0.008742		
	40	56.51	0.022292		
	50	52.61	0.020753		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-41.34	-0.016308	Within authorized band for Band 7	Pass
	3.87	28.52	0.011250		
	4.20	-22.66	-0.008939		
16QAM					
25	3.50	25.15	0.009921	Within authorized band for Band 7	Pass
	3.87	-12.10	-0.004773		
	4.20	27.45	0.010828		
64QAM					
25	3.50	57.59	0.022718	Within authorized band for Band 7	Pass
	3.87	18.75	0.007396		
	4.20	27.17	0.010718		
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	-18.93	-0.026756	Within authorized band for Band 12	Pass
	-20	-26.08	-0.036862		
	-10	-33.49	-0.047336		
	0	-40.51	-0.057258		
	10	-45.98	-0.064989		
	20	-49.11	-0.069413		
	30	7.98	0.011279		
	40	8.75	0.012367		
	50	6.75	0.009541		
16QAM					
3.87	-30	15.76	0.022276	Within authorized band for Band 12	Pass
	-20	17.18	0.024283		
	-10	24.78	0.035025		
	0	32.29	0.045640		
	10	29.43	0.041597		
	20	29.64	0.041894		
	30	31.31	0.044254		
	40	37.01	0.052311		
	50	41.04	0.058007		
64QAM					
3.87	-30	-6.87	-0.009710	Within authorized band for Band 12	Pass
	-20	-4.12	-0.005823		
	-10	7.02	0.009922		
	0	12.42	0.017555		
	10	13.78	0.019477		
	20	15.26	0.021569		
	30	21.06	0.029767		
	40	22.67	0.032042		
	50	25.99	0.036735		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	7.20	0.010177	Within authorized band for Band 12	Pass
	3.87	10.40	0.014700		
	4.20	-9.87	-0.013951		
16QAM					
25	3.50	4.88	0.006898	Within authorized band for Band 12	Pass
	3.87	4.45	0.006290		
	4.20	9.21	0.013018		
64QAM					
25	3.50	43.64	0.061682	Within authorized band for Band 12	Pass
	3.87	40.43	0.057145		
	4.20	48.04	0.067901		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 38 part:

Reference Frequency: LTE Band 38(10MHz) Middle channel=38000 Frequency=2595.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-22.19	-0.008551	Within authorized band for Band 38	Pass
	-20	-34.79	-0.013407		
	-10	-49.10	-0.018921		
	0	-44.98	-0.017333		
	10	-49.20	-0.018960		
	20	-66.05	-0.025453		
	30	-15.48	-0.005965		
	40	35.49	0.013676		
	50	10.36	0.003992		
16QAM					
3.87	-30	42.17	0.016250	Within authorized band for Band 38	Pass
	-20	32.17	0.012397		
	-10	39.78	0.015329		
	0	28.27	0.010894		
	10	50.14	0.019322		
	20	27.45	0.010578		
	30	52.47	0.020220		
	40	7.52	0.002898		
	50	39.90	0.015376		
64QAM					
3.87	-30	51.07	0.019680	Within authorized band for Band 38	Pass
	-20	22.20	0.008555		
	-10	25.12	0.009680		
	0	-11.66	-0.004493		
	10	34.42	0.013264		
	20	21.83	0.008412		
	30	47.19	0.018185		
	40	38.22	0.014728		
	50	-12.25	-0.004721		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-27.97	-0.010778	Within authorized band for Band 38	Pass
	3.87	-45.40	-0.017495		
	4.20	-59.42	-0.022898		
16QAM					
25	3.50	14.88	0.005734	Within authorized band for Band 38	Pass
	3.87	30.03	0.011572		
	4.20	30.07	0.011588		
64QAM					
25	3.50	50.67	0.019526	Within authorized band for Band 38	Pass
	3.87	21.56	0.008308		
	4.20	11.73	0.004520		
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	-46.33	-0.026550	Within authorized band for Band 66	Pass
	-20	-45.22	-0.025914		
	-10	18.54	0.010625		
	0	8.50	0.004871		
	10	-13.90	-0.007966		
	20	-13.63	-0.007811		
	30	-15.15	-0.008682		
	40	-17.05	-0.009771		
	50	-6.41	-0.003673		
16QAM					
3.87	-30	27.27	0.015628	Within authorized band for Band 66	Pass
	-20	26.58	0.015232		
	-10	35.22	0.020183		
	0	31.23	0.017897		
	10	-21.30	-0.012206		
	20	-8.50	-0.004871		
	30	17.18	0.009845		
	40	15.89	0.009106		
	50	22.33	0.012797		
64QAM					
3.87	-30	33.56	0.019232	Within authorized band for Band 66	Pass
	-20	14.06	0.008057		
	-10	24.20	0.013868		
	0	35.39	0.020281		
	10	36.19	0.020739		
	20	37.55	0.021519		
	30	42.72	0.024481		
	40	48.05	0.027536		
	50	13.20	0.007564		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-23.99	-0.013748	Within authorized band for Band 66	Pass
	3.87	-7.88	-0.004516		
	4.20	-26.69	-0.015295		
16QAM					
25	3.50	9.30	0.005330	Within authorized band for Band 66	Pass
	3.87	-12.62	-0.007232		
	4.20	21.34	0.012229		
64QAM					
25	3.50	42.99	0.024636	Within authorized band for Band 66	Pass
	3.87	27.54	0.015782		
	4.20	24.62	0.014109		
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
Band38	20MHz	QPSK	38000	100RB#0	PASS	PASS
Band38	20MHz	16QAM	38000	100RB#0	PASS	PASS
Band38	20MHz	64QAM	38000	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.

Test Graphs

